

TM 11-5840-339-35  
NAVAIR 16-30USQ42-2

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TECHNICAL MANUAL

*for Sandy?*

DS, GS, AND DEPOT MAINTENANCE MANUAL

**RADIO FREQUENCY  
MONITOR SETS AN/USQ-42,  
AN/USQ-42A, AND AN/USQ-42B**

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DEPARTMENTS OF THE ARMY AND THE NAVY

JUNE 1970

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No. 1 }

DEPARTMENTS OF THE ARMY  
AND THE NAVY  
WASHINGTON, D.C., 31 March 1971

**Direct Support, General Support, and Depot Maintenance Manual**  
**Including Repair Parts and Special Tool Lists**  
**RADIO FREQUENCY MONITOR SETS AN/USQ-42, AN/USQ-42A, AND AN/USQ-42B**

TM 11-5840-339-35/NAVAIR 16-30USQ42-2, 25 June 1970, is changed as follows:

1. The title of the manual is changed as shown above.
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A-1  
B-1—B-2.3

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NG: None.

USAR: None.

For explanation of abbreviations used, see AR 310-50

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DEPARTMENTS OF THE ARMY  
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CHAPTER 1  
**DS, GS, and Depot Maintenance Manual**  
**RADIO FREQUENCY MONITOR SETS AN/USQ-42,**  
**AN/USQ-42A, AND AN/USQ-42B**

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## CHAPTER 1

### INTRODUCTION

#### 1-1. Scope

a. This manual covers direct support, general support, and depot maintenance for Radio Frequency Monitor Sets AN/USQ-42, -42A, and -42B. It includes a functional description of the sets, troubleshooting, repair, replacement, adjustment, alignment, and testing instructions for all maintenance functions. It also lists tools, materials, and test equipment for direct support, general support and depot maintenance. Maintenance functions have been assigned to the various maintenance categories in the maintenance allocation chart for this equipment (*b* below).

b. Operation, installation, and organizational maintenance instructions are in TM 11-5840-339-12 which also contains the basic issue items list and the maintenance allocation chart.

c. Information in this manual applies to all models of the equipment unless otherwise stated.

#### 1-2. Indexes of Publications

a. *DA Pam 310-4*. Refer to the latest issue of *DA Pam 310-4* to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. *DA Pam 310-7*. Refer to *DA Pam 310-7* to determine whether there are modification work orders (MWO's) pertaining to the equipment.

#### NOTE

For applicable forms and records, refer to TM 11-5840-339-12.

#### 1-3. Reporting of Equipment Manual Improvements

Reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended changes

to Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-AD, Fort Monmouth, N.J. 07703.

#### 1-4. Reference Designations and Common Names

a. The radio frequency monitor set consists of the components listed in the chart below. Throughout this manual components are referred to by the common names and reference designations listed.

Common name	Reference designation
Amplifier-filter module.....	1A5
Amplifier-filter board.....	1A5A1
Discriminator board.....	1A5A1A1
Tone filter demodulator A.....	1A5A1A2
Tone filter demodulator B.....	1A5A1A3
Tone filter demodulator C.....	1A5A1A4
26.5-MHz local oscillator.....	1A5A1A5
Preselector-synthesizer module.....	1A6
Synthesizer board.....	1A6A1
Preselector board.....	1A6A2
Battery housing.....	1A7
Center housing.....	1A8
Headset.....	2
Auxiliary mounting adapter.....	

b. Parts located on or within each module have their reference designations prefixed by the assigned module reference designation. *For example*, the reference designation 1A6A1R1 denotes resistor number one on subassembly A1 (synthesizer board) in preselector-synthesizer module 1A6.

#### 1-5. Differences Among Models

a. The following chart lists the differences among models R-1561/USQ-42, R-1561A/USQ-42, and R-1561B/USQ-42. Other differences are listed in paragraph 1.7.1*b* of TM 11-5840-339-12.

Item	R-1561/USQ-42	R-1561A/USQ-42	R-1561B/USQ-42
Front housing 1A1	Switches on front panel wired for 31-channel capacity.	Switches on front panel wired for 31-channel capacity.	Switches on front panel wired for 40-channel capacity.
Voltage regulator	Consists of Q69, R29 and CR17.	Consists of Q69, Q70, CR17, CR18, etc.	Consists of Q69, Q70, CR17, CR18, etc.
Q69 location	Q69 on module mounting plate.	Q69 on front housing	Q69 on front housing.
F1	F1 wired thru center and battery housings.	F1 wired thru power switch S7.	F1 wired through power switch S7.
Line filters	No line filters.	FL1, FL2, and FL3 added	FL1, FL2, and FL3 added.
Q7	Q7 is 2N1613	Q7 is 2N1485	Q7 is 2N1485.
S6	No squelch switch on R3	Squelch switch S6 added to R3.	Squelch switch S6 added to R3.
R4	No squelch adjust potentiometer R4.	Squelch adjust potentiometer R4 added.	Squelch adjust potentiometer R4 added.
Voltage divider component board 1A1A1A1.	Wired for 31 channels.	Resistor R29 added	Wired for 40 channels. Components added and reference designations changed.
	Resistor 1A1A1A1R5 selected in test for optimum tuning voltages in all models. Value ranges from 1800 to 3300 ohms.		
Demodulator gates 1A4A2	Capacitor 1A4A2C12 usage determined in test. May or may not be required to decrease Z4 sensitivity.		
Tone filter demodulators (all)	Capacitors C4 through C8, C14, and C15 selected at test. Inductance of L1 through L3 between 30 and 33 mh.		
Synthesizer board 1A6A1	In all models, resistors R16, R17, and R18 are nominally 33 ohms, but are selected in test to obtain less than 4-db variation in output level over the frequency range of the receiver.		
Preselector board 1A6A2	No signal strength level adjustment. R3 (nominally 1,200 ohms) is a selected value resistor with ohmic value between 680 and 2,000 ohms. C8 is a .75 $\mu\text{mf}$ fixed capacitor (except serial numbers 154 and 157 through 161, which are same as later models).	R14 added as signal strength meter adjustment. R3 (nominally 1,200 ohms) is a selected value resistor with ohmic value between 680 and 2,000 ohms. C8 is a variable capacitor, .1 to 1.3 $\mu\text{mf}$ .	R14 added as signal strength meter adjustment. R3 (nominally 1,200 ohms) is a selected value resistor with ohmic value between 680 and 2,000 ohms. C8 is a variable capacitor, .1 to 1.3 $\mu\text{mf}$ .
Center housing 1A8	No feedthrough capacitors	Feedthrough capacitors C1, C2, C3, and C4 are used.	Feedthrough capacitors C1, C2, C3, and C4 are used.

b. Information in this manual applies to all models unless otherwise indicated.

## CHAPTER 2

### FUNCTIONING OF EQUIPMENT

#### Section I. BLOCK DIAGRAM DESCRIPTION

##### 2-1. Introduction

*a.* The Radio Frequency Monitor Set AN/USQ-42 (fig. 1, TM 11-5840-339-12) consists of the basic issue items listed in appendix B, TM 11-5840-339-12. This manual covers Monitor, Radio Frequency, R-1561/USQ-42, R-1561A/USQ-42, and R-1561B/USQ-42. Other basic issue items are considered nonrepairable and may be replaced at the operator or organizational maintenance levels. This section presents the general theory of operation of the radio frequency monitor on a block diagram level. Reference to models AN/USQ-42, AN/USQ-42A, and AN/USQ-42B shall be accepted as reference to R-1561/USQ-42, R-1561A/USQ-42, R-1561B/USQ-42, respectively.

*b.* The radio frequency monitor is divided into two major functional sections: the receiver section and the digital section. Paragraph 2-3 describes the block diagram of the receiver section, illustrated in figure 2-2; paragraph 2-4 describes the digital section shown in figure 2-3. The power input circuits are described in paragraph 2-5 and illustrated in figure 2-4. Power regulator circuits contained in the auxiliary mounting adapter are described in paragraph 2-22.

##### 2-2. General Description

*a.* The radio frequency monitor is a multichannel fm receiver capable of receiving audio on any one of 31 or 40 (B model) carrier frequencies, and decoding ultrasonic frequency tone bursts that are received at three different frequency deviations of the selected carrier frequency.

*b.* The receiver portion of the monitor set is turned to the desired carrier frequency by setting the CHANNEL switches on the front panel. The channel select logic in front housing 1A1 applies tuning voltages to the preselector-synthesizer which tunes the receiver by changing the first local oscillator (LO) frequency.

*c.* If an RF signal at the selected carrier frequency is received it is applied to an audio amplifier and to three tone filter demodulators in amplifier-filter module 1A5. Any fm audio intelligence received is amplified by the audio amplifier and applied to the headset. The tone filter demodulators filter out all frequencies except the three-tone pattern frequencies transmitted by the remote sensors. If the correct tone pattern frequencies are received they are passed through the tone filter demodulators and applied to command signal decoder module 1A4 for decoding.

*d.* A sensor identity number message format, consisting of the carrier frequency being interrupted by three, 2-millisecond tone code bursts, with a 2-millisecond space between each burst, is received after the carrier frequency, the command signal decoder applies digital inputs to a diode matrix in data converter power supply module 1A3. The diode matrix converts the digital input to identity signals that are applied to the digital display unit which indicates the identity number of the remote unit being received.

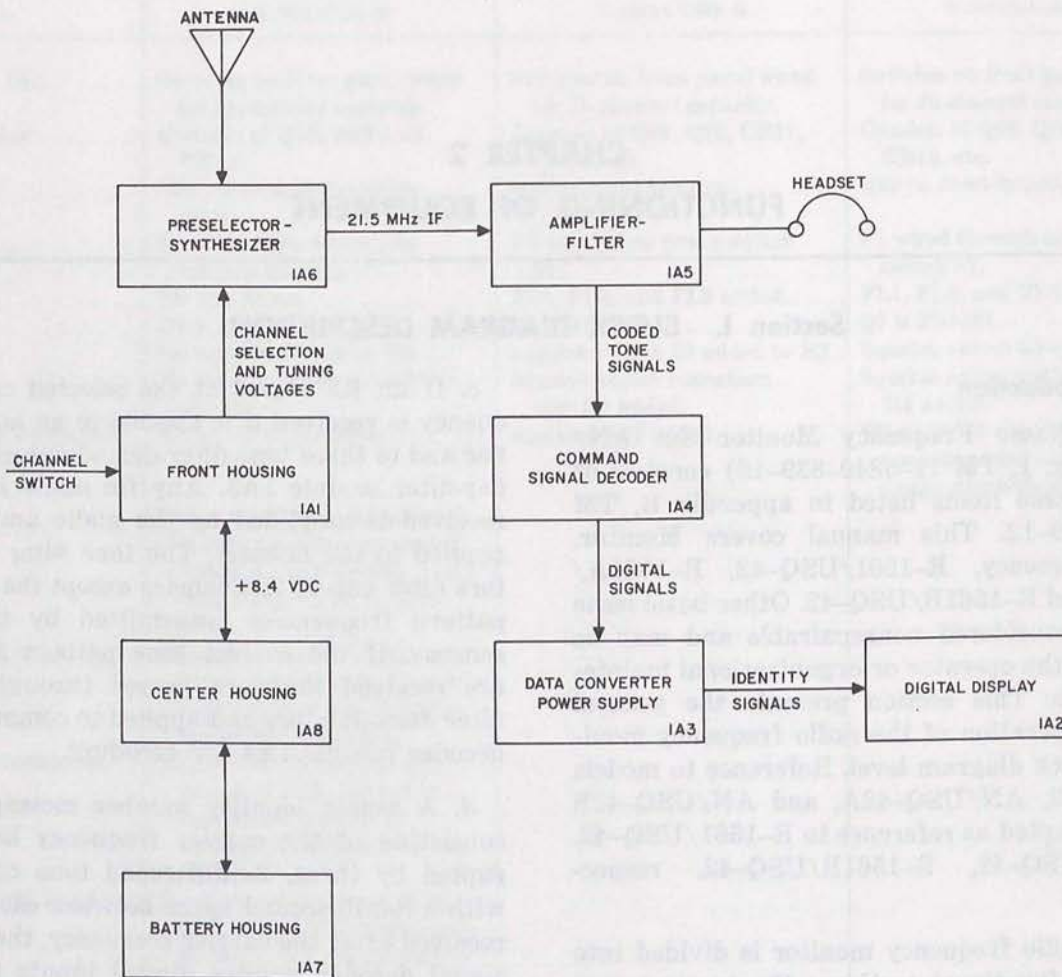
##### 2-3. Description of Receiver Section (fig. 2-2)

*a.* The receiver section consists of the preselector-synthesizer 1A6, amplifier-filter 1A5, and front panel housing 1A1. The receiver section receives signals from the antenna, tunes to the channel selected by the channel selection logic, amplifies and detects the signals on the selected frequency channel, and provides two outputs—

(1) A tone pattern output to the digital section. This tone pattern is transmitted from the signal source.

(2) An audio output of the transmitted voice information to the headset.

*b.* The preselector is an electrically tuned, radio frequency (RF) amplifier, which amplifies the signals in the frequency band of the selected chan-



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Figure 2-1. Radio frequency monitor set, block diagram.

nel. The frequency synthesizer generates the three frequencies enabled by the channel selection logic, and mixes them to provide a selectable local oscillator output frequency for each channel.

c. The channel selection logic converts the setting of the front panel CHANNEL switches to control signals to the preselector and the frequency synthesizer. For each setting of the CHANNEL switches, the following output signals are provided from the channel selection logic:

- (1) Three direct current (dc) enabling signals, each of which selects one oscillator in the frequency-synthesizer.
- (2) A dc voltage level used for fine tuning in the preselector and the frequency synthesizer.

d. The first mixer circuit combines the RF signal and the frequency synthesizer output, and provides an output signal at the first intermediate frequency (IF) (21.5 MHz). The first mixer out-

put is amplified in the first IF amplifier. This amplifier is sharply tuned to a narrow band about the first IF, and rejects all other input signals. The second local oscillator generates a fixed crystal-controlled 26.5-MHz frequency which is used by the second mixer. The second mixer combines the incoming signals from the first IF amplifier and the 26.5-MHz signal from the second local oscillator. The output frequency is the second IF, which is the difference between the two inputs (5 MHz). The second IF amplifier amplifies those signals which lie in a narrow band about the mixer output frequency, and rejects all other frequencies.

e. The discriminator separates the IF carrier frequency from the audio (if present) and ultrasonic intelligence information and ultrasonic tone signals. The output is an audio frequency band between 100 and 3000 Hz. The audio amplifier amplifies the discriminator output signals below



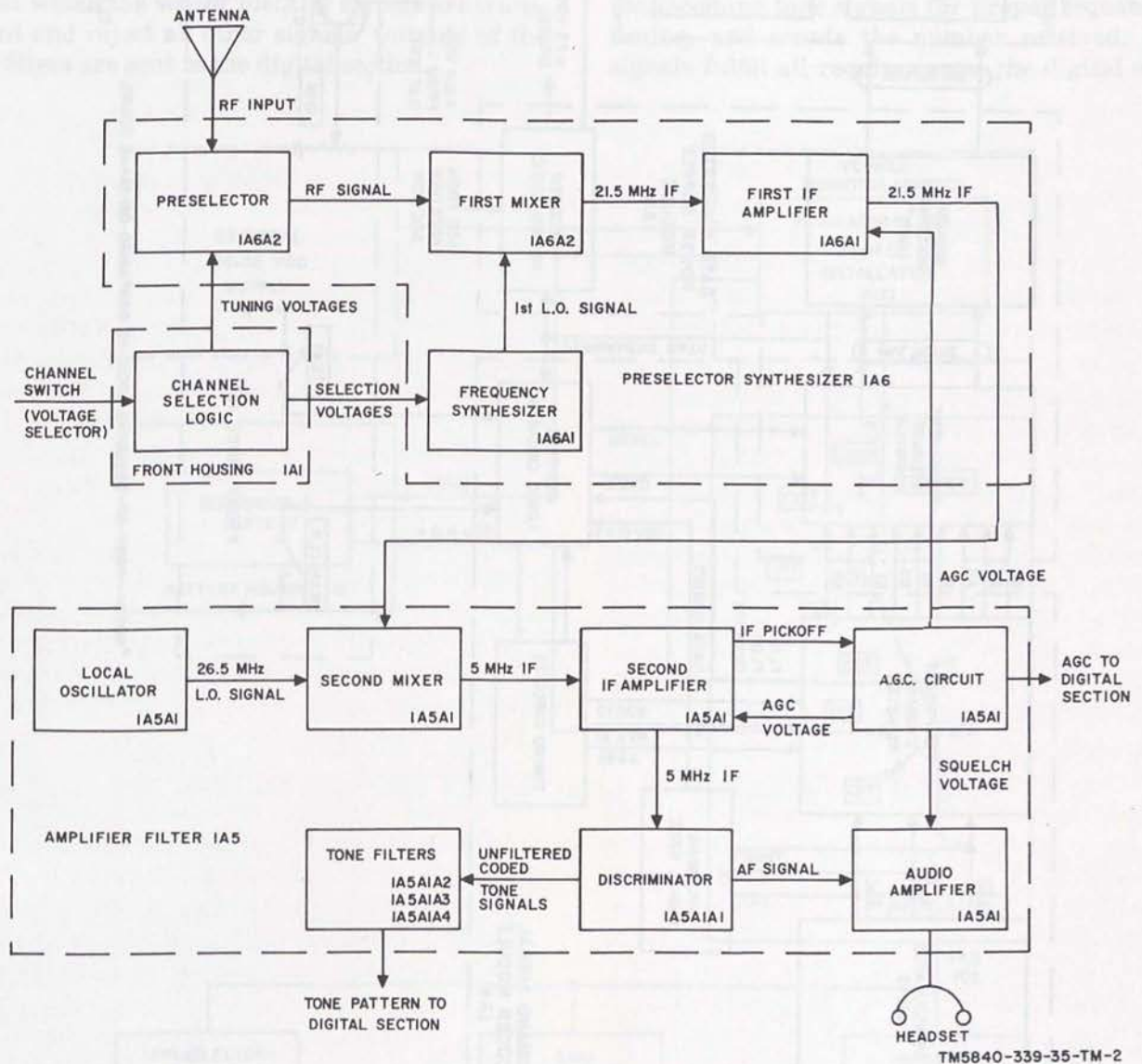
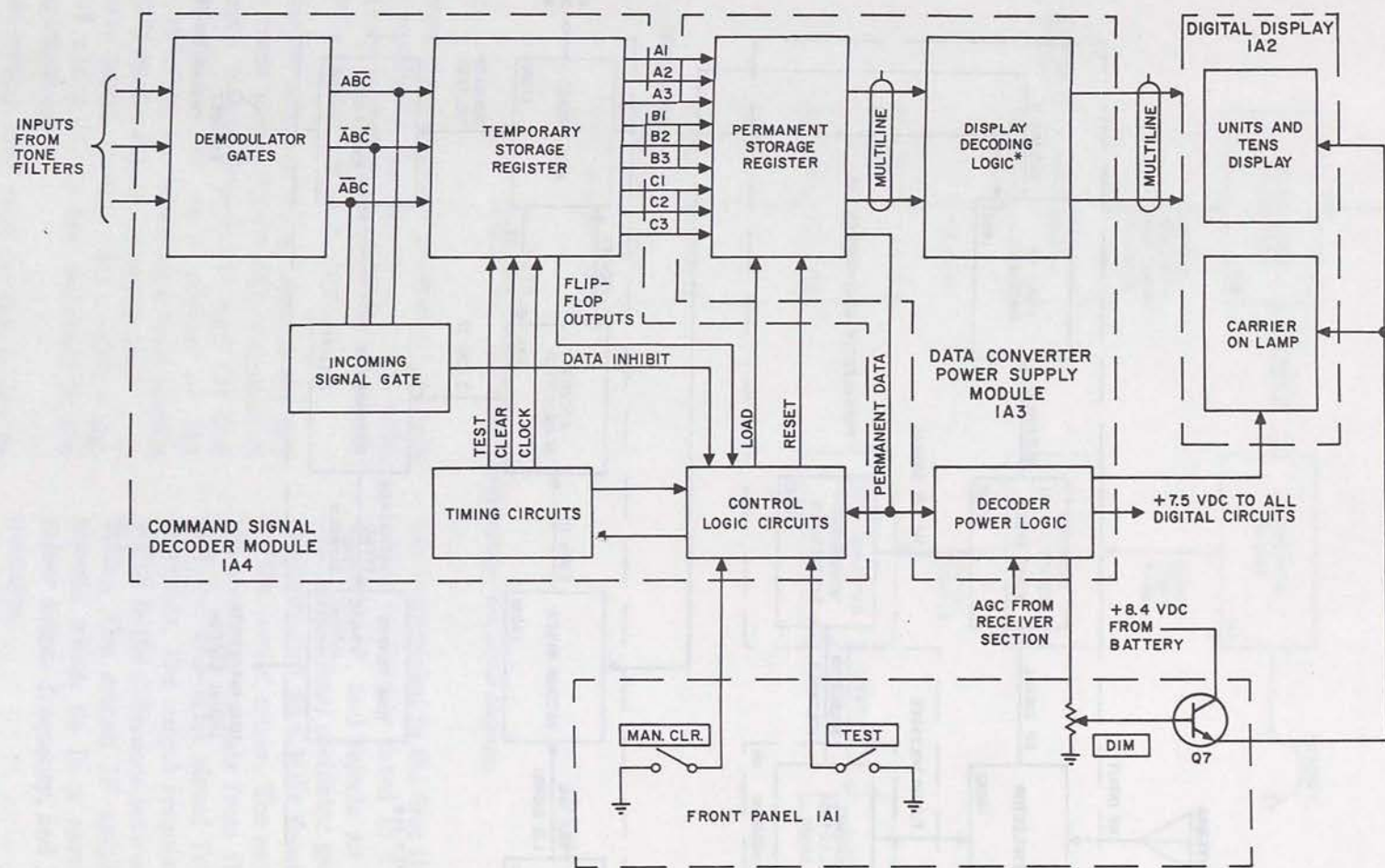


Figure 2-2. Receiver section, block diagram.

Figure 2-8. Digital section, block diagram.



\*NOTE: PART OF DECODING LOGIC IS CONTAINED ON IA4A2 BOARD.

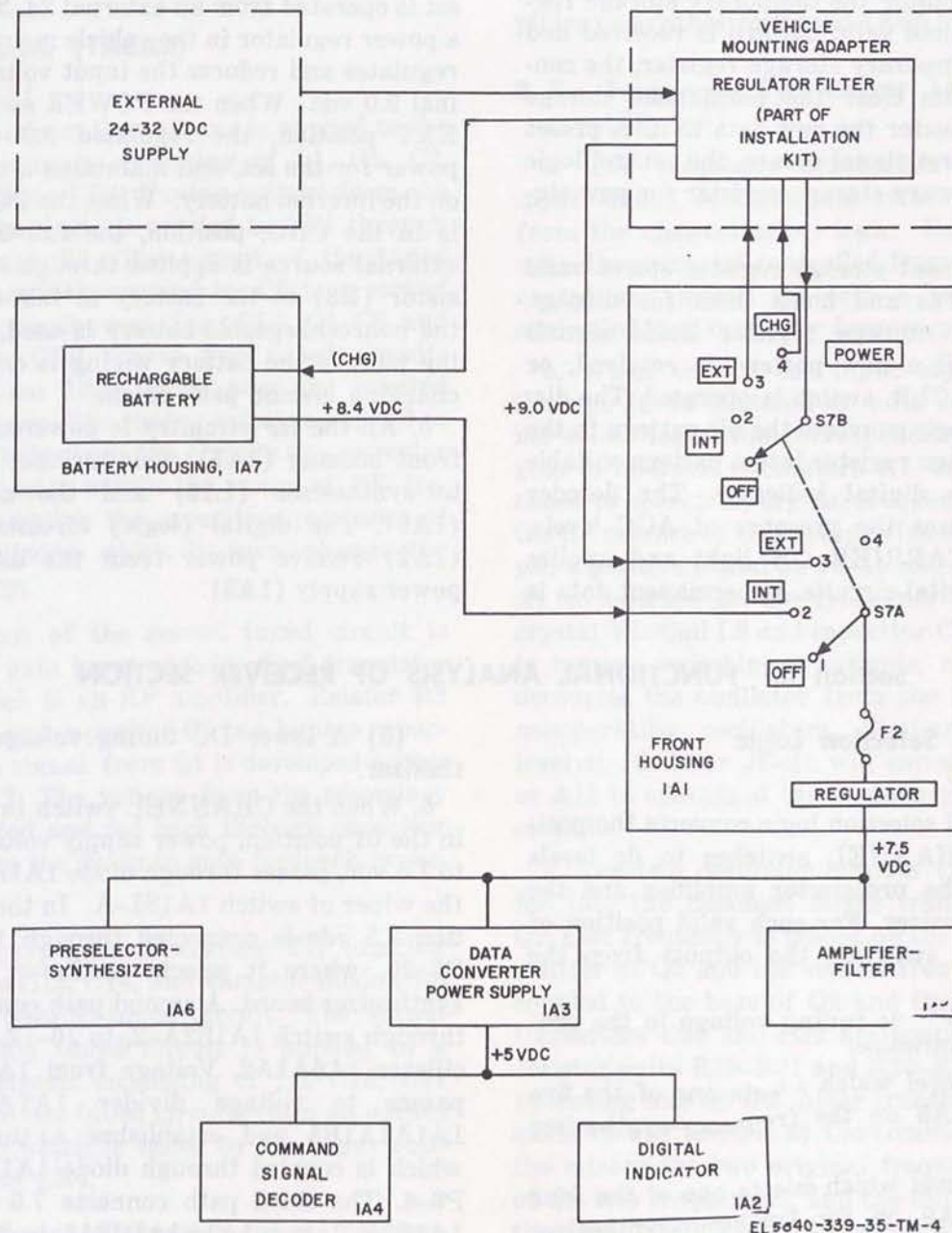
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3000 Hz and these audio signals are applied to the operator's headset. The automatic gain control (AGC) circuit detects the voltage level of the output of the second IF amplifier, rectifies this signal, and uses it to control the gain of both IF amplifiers. This circuit maintains an approximately even audio output level as the IF signal strength varies. The tone filters pass three ultrasonic tone signals corresponding to the frequencies at which the sensor identity signals are transmitted and reject all other signals. Outputs of the tone filters are sent to the digital section.

## 2-4. Description of Digital Section

(fig. 2-3)

a. The digital section is made up of the circuits in command signal decoder 1A4, data converter-power supply 1A3, and digital indicator 1A2. From the receiver section, the digital section receives tone signals corresponding to transmitted identity numbers. The digital section examines the incoming tone signals for proper sequence and timing, and counts the number received. If the signals fulfill all requirements, the digital section



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Figure 2-4. Power distribution, block diagram.

turns on digital indicator 1A2, and displays the transmitted identity number.

b. The demodulator gates convert the tone signals received from the receiver section to dc levels. The demodulator gates also insure that only one tone signal at a time is present. The temporary storage register holds the input signals temporarily, while the control logic and timing circuits determine if the incoming message is valid. The timing circuits check the timing of the incoming data. If the received tone bursts do not have the proper width and spacing, the timing circuits clear the temporary storage register. The control logic circuits monitor the temporary storage register. If a complete valid pattern is received and placed in the temporary storage register, the control logic circuits clear the permanent storage register and transfer the new data to it. A preset time after the first signal occurs, the control logic resets the temporary storage register for new signals.

c. The permanent storage register stores valid incoming patterns and holds them for display. The permanent storage register holds signals indefinitely until a new pattern is received, or until the MAN. CLR. switch is operated. The display decoding logic converts the bit pattern in the permanent storage register into a pattern suitable for driving the digital indicator. The decoder power logic senses the presence of AGC levels, turns on the CARRIER ON light and applies power to the digital circuits. If permanent data is

stored within 10 milliseconds of the initial signal, it applies power to the digital indicator. The digital indicator receives power from the battery through transistor 1A1Q7. Transistor 1A1Q7 is turned on by the decoder power logic through the DIM control. The digital indicator displays the transmitted identity number to the operator.

## 2-5. Description of Power Input Circuits (fig. 2-4)

a. When the AN/USQ-42 is operated from the rechargeable battery, the 8.4-volt nominal battery voltage is applied directly to the circuits through the INT position of the POWER switch. When the set is operated from an external 24-32 vdc supply, a power regulator in the vehicle mounting adapter regulates and reduces the input voltage to a nominal 9.0 vdc. When the POWER switch is in the EXT position, the regulated 9.0 vdc provides power for the set, and maintains a trickle charge on the internal battery. When the POWER switch is in the CHG. position, the full 24- to 32-volt external source is applied through a limiting resistor (R3) to the battery to fast-charge it. If the nonrechargeable battery is used, the recharging path in the battery wiring is omitted and no charging circuit path exists.

b. All the RF circuitry is powered through the front housing (1A1). This includes the preselector-synthesizer (1A6) and the amplifier-filter (1A5). The digital (logic) circuits (1A4) and (1A2) receive power from the data converter power supply (1A3).

## Section II. FUNCTIONAL ANALYSIS OF RECEIVER SECTION

### 2-6. Channel Selection Logic

(fig. 6-1)

a. The channel selection logic converts the positions of the CHANNEL switches to dc levels which control the preselector amplifier and the frequency-synthesizer. For each valid position of the CHANNEL switches, the outputs from the logic are—

(1) An upper dc tuning voltage to the pre-selector and synthesizer.

(2) A dc level which selects one of the five oscillators, A1-A5 on the frequency-synthesizer (1A6A1).

(3) A dc level which selects one of the four oscillators A6-A9 on the frequency-synthesizer (1A6A1).

(4) A dc level which selects oscillator A10 or A11 on the frequency-synthesizer (1A6A1).

(5) A lower DC tuning voltage to the synthesizer.

b. When the CHANNEL switch in a B model is in the 01 position, power supply voltage regulated to 7.5 vdc, passes through diode 1A1A1A1CR10 to the wiper of switch 1A1S1-A. In the 0-tens position 7.5 vdc is connected through 1A1S1A-1 to P6-20, where it selects oscillator A10 on the synthesizer board. A second path connects 7.5 vdc through switch 1A1S2A-2, to J6-12, selecting oscillator 1A6A1A2. Voltage from 1A1S2A-2 also passes to voltage divider 1A1A1A1R4 and 1A1A1A1R5 and establishes a tuning voltage which is coupled through diode 1A1A1A1CR1 to P6-4. The third path connects 7.5 vdc through 1A1S2B-2 and 1A1A1A1CR15 to the wiper of 1A1S1-F. In the 0-tens position 1A1S1F-1 connects 7.5 vdc to P6-16, selecting oscillator 1A6A1A6. Voltage from 1A1S1F-1 also passes to

voltage divider 1A1A1A1R14 and 1A1A1A1R15 and establishes a second tuning voltage which is coupled through 1A1A1A1CR9 to P6-5. This second tuning voltage is used in tuning both the preselector and the frequency-synthesizer. Resistors 1A1A1AR1 and 1A1A1A1R-8 establish ground references for diodes CR1 and CR9.

c. For each of the available channels, three oscillators and two tuning voltages are similarly selected by the channel selection logic. The selected oscillators and the tuning voltage outputs for each channel are tabulated in table 4-1 for the plain and A models, and in table 4-2 for the B model.

## 2-7. Preselector (1A6A2)

(fig. 6-2)

a. The signal from the antenna is applied to the parallel-tuned circuit consisting of L1, C1, C2, and varactor diode CR1. Tuning voltage from the channel selection logic is applied to CR1 through isolation resistor R1. The output of the tuned circuit is capacitively-coupled by C3 to a second voltage-tuned circuit consisting of L2, C4, C5, and varactor diode CR2. These two tuned circuits form a bandpass filter which pass the selected channel frequency. The tuning voltages applied to the varactor diodes tune the circuits to particular channel frequencies within the range of RF frequencies by changing the capacitive reactance of the varactor diodes, which in turn, change the tuned frequency.

b. The output of the second tuned circuit is applied to the gate input of field effect transistor (FET) Q1 which is an RF amplifier. Resistor R3 is for biasing, and capacitor C9 is a bypass capacitor. The drain signal from Q1 is developed across transformer T1. The voltage from the secondary of T1 is inverted and fed back through capacitor C8 to neutralize the drain to gate feedback capacity of the FET.

c. The primary of transformer T1, together with capacitors C13, C14, and varactor diode CR3 form a third parallel-tuned circuit. The output signal from this tuned circuit is applied to a fourth tuned circuit consisting of L3, C16, C17 and CR4. These two tuned circuits form an output bandpass filter which is tuned by the input voltage to CR3 and CR4.

d. The preselector-synthesizer accepts frequency-modulated signals from the antenna on any of 31 (plain and A models) or 40 (B model) channels in the 161- to 176-MHz frequency range. Indi-

vidual channel frequency assignments are detailed in table 5-1. These input signals are amplified in the preselector-amplifier which is tuned to a narrow (3 MHz) band about the selected channel frequency. The frequency synthesizer generates the first local oscillator frequency 21.5 MHz below the selected channel frequency by mixing three crystal-controlled oscillator outputs. The three synthesizer oscillators are selected from a total of eleven oscillators by circuits controlled by the front panel CHANNEL switches. The amplified RF input signal and the synthesized local oscillator output are mixed in the first mixer, and the resultant first IF is amplified by the first IF amplifier on synthesizer board 1A6A1.

## 2-8. Frequency Synthesizer 1A6A1

(fig. 6-3)

a. The frequency synthesizer accepts three input signal voltages and two tuning voltages from the channel select logic. Using these voltages, three crystal-controlled frequencies are generated and mixed to form a variable crystal-controlled local oscillator frequency.

b. When one of the input signals on J6-11 through J6-15 is placed at +7.5 vdc by the channel select logic, the corresponding oscillator begins to operate. Oscillators A1 through A11 are tuned to operate at crystal frequencies by varying the inductance of their respective coils. *For example*, a positive signal on J6-11 will cause oscillator A1 to operate at the frequency determined by crystal Y1. Coil L6 and capacitor C17 form a filter to remove switching transients, and resistor R5 decouples the oscillator from the remaining four nonoperating oscillators. Similarly, a positive level at J6-20 or J6-21 will cause oscillator A10 or A11 to operate at the frequency of crystal Y10 or Y11.

c. The two oscillator outputs (f1 and f2) are fed into the balanced mixer transistors Q1 and Q2. One frequency is placed on the base of Q1 and emitter of Q2 and the second frequency output is coupled to the base of Q2 and the emitter of Q1. Capacitors C28 and C32 are coupling capacitors, resistor pairs R19-R21 and R20-R22 establish the operating bias on the mixer transistors. Four frequencies are present at the common collectors of the mixer: the two original frequencies, the sum of the two frequencies, and the difference between the two frequencies. The mixer outputs are applied to a voltage-tuned four-pole filter consisting of tunable coils L18, L19, L20, and L21, and their associated tuning capacitors which provide

sharper tuning. The filter is tuned to pass only the sum frequency by a tuning voltage from the channel selection logic. This tuning voltage is applied to varactor diodes CR1, CR2, CR3 and CR4 through isolation resistors R26, R27, R28 and R29. The sum frequency is coupled through C39 to the base of second synthesizer mixer Q3.

d. A third crystal-controlled frequency (f3) is selected by the channel selection logic from oscillators A6, A7, A8 or A9. The selected oscillator output is coupled through capacitor C42 to the base of transistor Q4. Resistors R32 and R31 establish the bias level for the base of transistor Q4. Resistor R33 and bypass capacitor C45 set the emitter level. The collector output of transistor Q4 drives the tuned circuit consisting of transformer T3 and capacitor C44. The tapped output of transformer T3 is coupled through capacitor C46 to the emitter of second synthesizer mixer, Q3.

e. Second synthesizer mixer Q3 receives the sum frequency (f1 + f2) from the first mixer on its base, and f3 on its emitter. Resistors R34 and R30 establish bias for the base of transistor Q3, and the combination of inductor L22 and capacitor C47 form a power supply decoupling filter. The output of Q3 drives a voltage tuned filter made up of L24, C48, C49, and varactor diode CR5. The output of this filter is coupled through coil L25 to a second filter composed of L26, C51, and varactor diode CR6. The two varactor diodes tune the filter to the sum of the two frequencies by a voltage from the channel selection logic applied through isolation resistors R36 and R37 and the decoupling circuit R42 and C58.

f. The output of this first filter pair is coupled through capacitor C52 to the base of buffer amplifier Q5. Resistors R34 and R38 establish base bias, and the filter composed of inductor L23 and capacitor C55 provides power supply decoupling. Emitter resistor R39 provides bias, capacitor C54 provides bypass for resistor R39 and resistor R40 provides degeneration. The output of buffer amplifier Q5 drives the voltage-tuned circuit made up of L27, C56, C57, and CR7. The tuned circuit output is coupled through inductor L28 to a second voltage-tuned circuit consisting of L29, C60, and CR8. Both of these circuits are tuned by the same control voltage used above, filtered by capacitor C59, and isolated by resistors R43 and R44. The output across the L29 tuned circuit is coupled out by C61, and forms the first local oscillator frequency. Capacitors C61 and C62 form a capacitive voltage divider to minimize loading on inductor L29.

g. The crystal frequencies, and each of the individual sum frequencies are listed in table 5-5.

## 2-9. First Mixer (1A6A2)

(fig. 6-2)

a. The input RF signal, amplified and tuned by the preselector, is coupled by capacitor C18 to the base of the first mixer Q2. Resistors R8 and R7 set the base bias level. Inductor L6 and capacitor C23 perform power supply decoupling. Inductor L4 tunes with the input capacitance Q2. Capacitor C19 provides dc blocking. Variable resistor R14 is used to set the calibration of the signal strength meter in the high signal strength position.

b. The first local oscillator frequency from the synthesizer is coupled through capacitor C21 to resistor R9, the mixer emitter resistor. Resistor R6 terminates the output of 1A6A1C61 (1st LO output signal) to ground. The synthesizer output frequency is always a fixed difference from the incoming RF signal, corresponding to the first intermediate frequency (21.5 MHz).

c. The output of first mixer Q2 is applied to the resonant circuit composed of L5 and C22. This circuit is tuned to the difference between the two incoming frequencies, corresponding to the first intermediate frequency. The output is coupled through capacitor C24, attenuated by the tee attenuator formed by resistors R10, R11, and R12, and coupled through capacitor C25 to the first IF amplifier.

## 2-10. First Intermediate Frequency (IF) Amplifier (1A6A1)

(fig. 6-3)

a. The first intermediate frequency is applied to amplifier AR1, the first stage of the IF amplifier. Inductor L30 terminates the coaxial cable, and capacitor C1 bypasses the cable shield to the amplifier ground. Capacitors C2, C3, and C4 decouple the amplifier. A gain-adjusting signal from the AGC circuit is fed in pin 5 through filter elements L1 and C5. Amplifier AR1 provides a nominal 20 db of signal gain, and drives the circuit L2-C6, which is tuned to the first intermediate frequency. Resistor R2 broadens the band and flattens the response of this tuned circuit.

b. The output signal is coupled through capacitor C7 to a crystal filter FL-1, tuned to the intermediary frequency. This crystal filter is tuned very sharply to the IF, and provides a highly selective output, with a minimum of interchannel

crosstalk. The filter output, terminated in R4 and C16, drives the interstage transformer T2. The transformer provides an impedance match to the output amplifier AR2. Amplifier AR2, controlled by the agc signal through L5, provides a nominal 20 db of gain, and drives the circuit consisting of T2, C14, and R3. This circuit is also tuned to the intermediate frequency. Filter elements L4, C8, and L3 provide power supply decoupling. The secondary of transformer T1 drives the second mixer circuit.

### 2-11. Local Oscillator, Second Mixer, and Second IF Amplifier (1A5A1) (fig. 6-4)

a. The second local oscillator (A5) is an encapsulated circuit which oscillates at 26.500 MHz, as determined by crystal Y1. L1 decouples the power supply. The 26.500-MHz signal is coupled by C1 to the emitter of the second mixer stage, Q1.

b. The first IF output signal is attenuated by the pin network R2, R32, and R33, and is coupled through capacitor C29 to the base of the second mixer transistor Q1. Thermistor R32 provides temperature stabilization for the amplifier. Resistors R1 and R18 set the base bias point of transistor Q1. The local oscillator signal is coupled to emitter resistor, R4. Resistor 5 is a power supply decoupling resistor.

c. The two frequencies are mixed in transistor Q1 and the difference frequency (5.0 MHz second IF) passes through the circuit consisting of T1, C2, and R3, which is tuned to the second IF frequency. The secondary of transformer T1 couples the signal to the second IF amplifier.

d. The second IF amplifier consists of four integrated-circuit amplifiers U1, U2, U3, and U4. Successive amplifiers are coupled by transformers T2, T3, T4, and T5, which are tuned to the second IF by capacitors C7, C13, C18, and C23. The gain of each amplifier is controlled by an agc signal applied through decoupling coils L2, L4 and L6 +7.5 vdc power is applied through decoupling coils L3, L5, L7, and L8. The second IF amplifier provides a nominal voltage gain of 55 db.

### 2-12. Discriminator and AGC Circuits (fig. 6-4)

a. The discriminator (1A5A1A1) removes the second IF carrier frequency (5 MHz), and provides audio and tone outputs proportional to the frequency deviation of the received RF carrier. The second IF amplifier output is applied to am-

plifier U1 in the discriminator, which amplifies the input signal to saturation. The signal is coupled through transformer T1, which is tuned to 5 MHz (the intermediate frequency). Capacitors C1 and C3 decouple transformer T1 from ground. Resistor R1 broadens the bandpass of T1, and resistors R2 and R3 set a base bias of +4 VDC on the base of driver transistor Q1. The output of Q1 drives the primaries of the discriminator transformers T2 and T3. Capacitor C5, and inductor L1 filter the input power voltage. Transformer T2, with tuning capacitors C6 and C8, form a parallel resonant circuit whose resonant frequency is slightly below 5 MHz, the IF carrier input. Transformer T3 and capacitors C7 and C9 are tuned to resonate slightly above 5 MHz, the intermediate frequency. The output of the T2 circuit is rectified to a negative voltage by diode CR1. The T3 circuit output is rectified to a positive voltage by CR2.

b. When the input signal is at the intermediate frequency (5 MHz), the dc outputs of CR1 and CR2 cancel to zero. When the frequency is lower than the intermediate frequency, the greater response of the T2 circuits results in a negative output voltage. When the incoming frequency is higher than the intermediate frequency, the greater response of the T3 circuit results in a positive output signal.

c. The output of amplifier U4 in the second IF amplifier is coupled through capacitor C24 to the AGC circuit. The IF signal is applied to the input base of transistor Q2, which is biased to a slightly-on condition by the voltage drop across diode CR1 from B+ through resistor R10. This diode drop is applied to the base of transistor Q2 through resistor R11, which prevents attenuation of the incoming IF signal. The IF signal is rectified by the half-wave action of Q2, and is filtered by the time constant of R12 and C25. This filtered signal is amplified by transistor Q3, whose collector resistor R17 drives the emitter follower Q4. The output of 1A5A1Q4 is filtered by R16 and C27, and applied to the reference base of Q2. The signal on the reference base of Q2 varies the level of the common emitter of Q2, which varies the level of the common emitter of Q2, which varies the point at which the left side begins to conduct. The AGC output level at the emitter of Q4 is further filtered by R31 and C28. The filtered output is then used to adjust the gains of the first IF amplifier, and the second IF amplifier, to maintain a constant output with a varying input signal level. The AGC output also drives the front panel signal-strength meter.

*d.* The AGC output drives the voltage divider R21 and R22. Resistor R22 is a potentiometer which adjusts the sensitivity of the front panel CARRIER ON lamp. The AGC output is also applied to the SQUELCH potentiometer, 1A1R3, through a series resistor 1A1AR27. The arm of the SQUELCH control is connected to the Schmidt trigger circuit Q5 and Q6. When the AGC level at the Schmidt trigger input exceeds approximately 1 volt, the circuit switches and transistor Q6 turns off. If the Schmidt trigger output is connected to the audio amplifier through the SQUELCH switch, this removes the shunt across the audio amplifier, enabling an audio output. When the AGC level is below the Schmidt firing point, the audio amplifier is disabled; and no audio output occurs.

**2-13. Audio Amplifiers and Tone Filters (1A5A1)**  
(fig. 6-4)

*a.* The audio output of the discriminator is applied to the top of the front panel VOLUME potentiometer, 1A1R1. The signal from the arm of the potentiometer, coupled through C30 is applied to the input of the audio amplifier, Z5. Resistors R27 and R28, and capacitors C31 and C32 stabilize the amplifier, and attenuate the high input

frequencies above 3 KHz. Resistor R29 adjusts the zero output current balance. The squelch signal input on pin 11 shunts the amplifier with the low on-resistance of Q6 and R24, with a low input, but enables the amplifier when a high input occurs. The audio amplifier provides 20 db of power gain. Its output drives output transformer T6 which provides an impedance match to the headset ear-phone.

*b.* The three tone filters, FL1, FL2, and FL3, are driven from the discriminator output through isolating resistor R30. These filters are highly selective, and provide outputs only when tone bursts of the correct frequencies occur. The three tone filter outputs are connected to the inputs of the digital section.

*c.* Input signals to each tone filter demodulator are applied to the gate of the field-effect transistor Q1. The output of Q1 drives a three-stage tuned circuit, consisting of L1 in parallel with C1 and C4, L2 in parallel with C2 and C5, and L3 in parallel with C3 and C6. Capacitors C7, C14, C8, and C15 couple the signal between filter stages. This three-stage filter passes only the selected tone frequency and rejects all others.

*d.* The filter output drives emitter follower Q2, whose emitter output is coupled through capacitor C13 to the digital section.

**Section III. FUNCTIONAL OPERATION OF DIGITAL SECTION**

**2-14. Overall Operation and Timing**  
(figs. 2-5 and 2-6)

*a.* Incoming tone bursts from the receiver section, one at a time, are demodulated and applied to the temporary storage register. The first incoming signal sets the data inhibit line low. This starts the timing circuits which removes the clear signal from the temporary storage register. One and one-half millisecond later the timing circuit generates a clock pulse, which stores the first bit in the temporary register. When the two subsequent signals are received and demodulated, two additional clock pulses are generated 1.5 millisecond after the leading edges of the incoming signals. The clock pulses cause the data to be shifted down the temporary storage shift register, and store the new data.

*b.* As soon as a bit is present in each of the three temporary storage time slots, the control logic circuits detect this state and issue a reset command, which clears the permanent data regis-

ter. When this register is reset, it returns a permanent data signal, which enables a load command. The load command transfers the contents of the temporary storage register to the permanent storage register.

*c.* Twelve milliseconds after the leading edge of the first input pulse, the timing circuits clear the contents of the temporary register, and the circuits become quiescent again.

*d.* When a message is received, the rise of the receiver agc level triggers the decoder power logic, which lights the CARRIER ON lamp and applies power to the digital display. If a true message is received, the permanent data signal from the control logic holds the decoder power on; but if the incoming signal is noise, the decoder power goes off shortly after the carrier signal disappears, as determined by a time constant in the decoder power logic circuit.

*e.* The three-bit pattern stored in the permanent register is decoded by logic gates corresponding to



segments of the two-digit IDENTITY display. The decoding diode matrices and associated drivers, which are connected to the permanent register, are located on boards 1A3A1, 1A3A2, and 1A4A2.

f. The major portion of the circuits of the digital section is made up of integrated circuits. These circuits are of the diode-transistor logic (DTL) type, in which assertion (true state, logic 1) is a +3- to +5-volt level; negation (false state, logic 0) is a 0- to +0.5-volt level.

## 2-15. Input Gating and Timing Circuits (1A4A2) (figs. 2-5 and 6-5)

a. When an input tone burst signal appears in the A channel, it is applied through resistor R20 to the base of demodulator transistor Q12. Transistor Q12 is held near cutoff by the divider from +5 volts through resistor R19 and the low output impedance of the 1A5A1A2 tone filter demodulator A in amplifier-filter module 1A5. In this near-cutoff condition, capacitor C4 is charged toward +5 volts through the input pull-up resistor of the Z7 inverter stage. The positive half-wave of the input signal drives transistor Q12 into saturation, discharging capacitor C4, and providing a low input at gate Z7-1. During the input negative half-cycle, capacitor C4 cannot charge fast enough to change the low (0-0.5 volt) level before the next positive half-cycle arrives. The tone signal is thus demodulated to a low dc level signal. The circuits of Q13 and Q14 similarly demodulate the tone burst signals appearing in channels B and C.

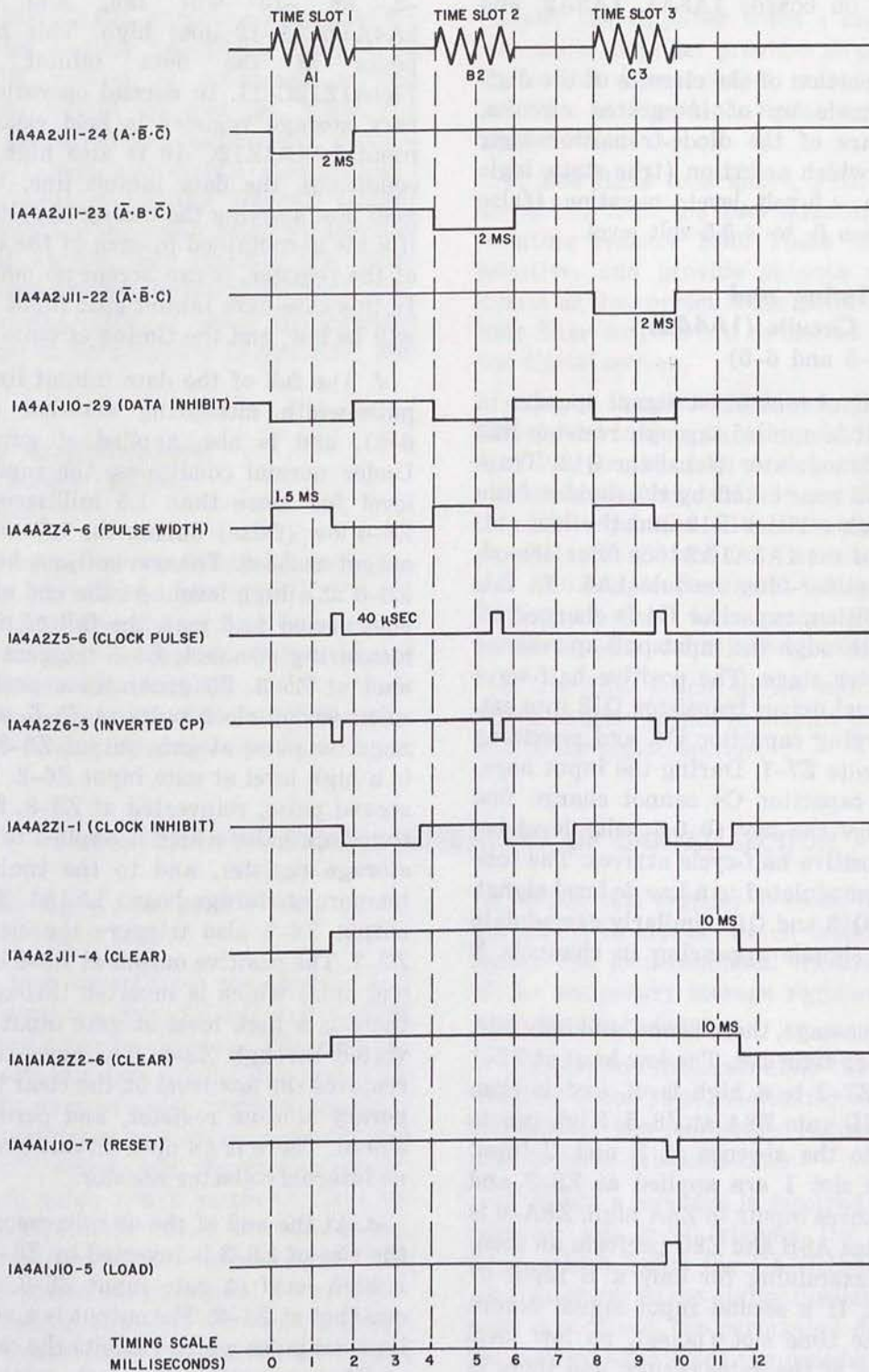
b. In a valid message, there is one, and only one, tone burst in each time slot. The low level at Z7-1 is inverted at Z7-2 to a high level, and is then applied to NAND gate Z8A at Z8-5. High inputs corresponding to the absence of B and C input signals in time slot 1 are applied at Z8-3 and Z8-4. With all three inputs to Z8A high, Z8A-6 is low. NAND gates A8B and Z8C perform an identical function, examining for only a B input or only a C input. If a second input signal occurs during the same time slot (noise), no low level output from any of the gates occurs, and there is no digital readout.

c. The outputs from gates Z8A, Z8B, and Z8C are connected respectively to the ABC, ABC, and ABC inputs of the temporary storage register (fig. 6-6). With no single input, the levels at incoming data gate inputs 1A4A1Z12A-1, and -13, and -2

are all high, and the gate output at 1A4A1Z12A-12 is low. When any single input occurs, one of the input levels at 1A4A1Z12A-1, -2, or -13 will fall, and gate output 1A4A1Z12A-12 goes high. This high level appears at the data inhibit gate input, 1A4A1Z12C-11. In normal operation, the temporary storage register is held cleared, and gate input 1A4A1Z12C-10 is also high. Under these conditions, the data inhibit line, 1A4A1Z12C-8, goes low, starting the timing circuits. Alternately, if a bit is contained in each of the three positions of the register, it can accept no new information. In this case data inhibit gate input 1A4A1Z12-10 will be low, and the timing circuits will not start.

d. The fall of the data inhibit line triggers the pulse-width measuring one-shot at Z4-3 (fig. 6-5), and is also applied at gate input Z6-4. Under normal conditions, the input is at a low level for more than 1.5 millisecond, and holds Z6-4 low (false) during the 1.5-millisecond pulse output at Z4-6. These conditions hold gate output Z6-6 at a high level. At the end of the first one-shot period (1.5 ms), the fall of the pulse width measuring one-shot, Z4-6 triggers the clock one-shot at Z5-3. Z5 generates a positive-going 40-microsecond clock pulse at Z5-6, and a resulting negative pulse at gate output Z6-3 because there is a high level at gate input Z6-2. This 40-microsecond pulse, reinverted at Z3-8, forms the positive clock pulse which is applied to the temporary storage register, and to the timing circuits on temporary storage board 1A4A1. The fall of gate output Z6-3 also triggers the clear one-shot at Z2-3. The positive output at Z2-6 is a 12-millisecond pulse which is inverted through Z6-11 since there is a high level at gate input Z6-12 and inverted through Z3-6. The open circuit at J11-4 removes the low level on the clear line of the temporary storage register, and permits data to be stored. There is an open circuit since the gate has no internal collector resistor.

e. At the end of the 40-microsecond clock pulse, the rise of Z6-3 is inverted by Z6-8 since there is a high level at gate input Z6-9, and triggers a one-shot at Z1-3. The output is a negative 1.5-millisecond pulse which inhibits the clock output gate at Z6-1, rejecting any clock pulses which do not have a 1.5-millisecond time separation. The cycle described above repeats for each of the three input pulses which constitute an identity input, except that the fall of gate output Z6-3, which triggers the clear one-shot at Z2-3 has no effect on the positive at Z2-6.

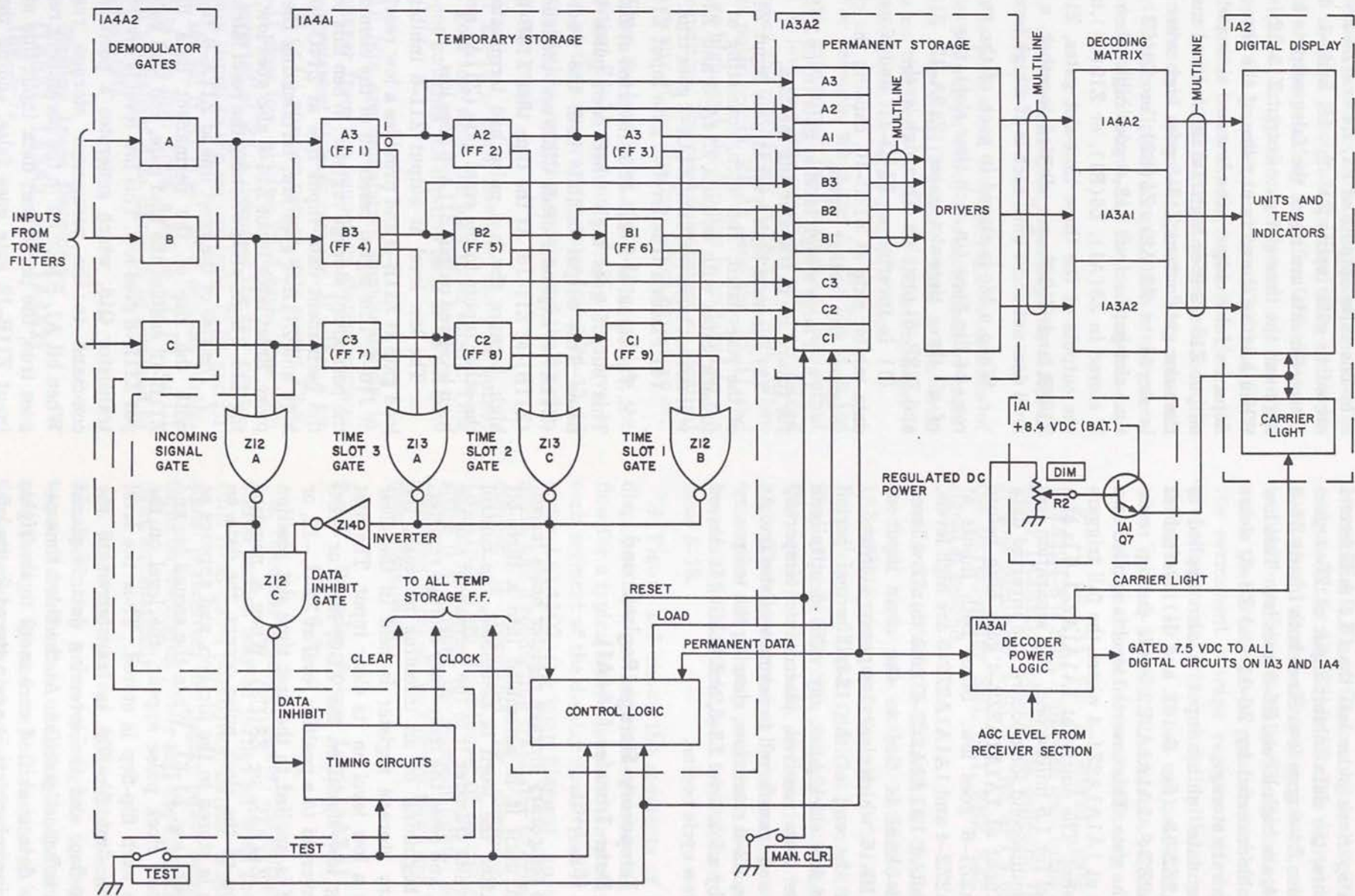


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Figure 2-5. Digital section, timing diagram.

Figure 2-6. Digital section, functional diagram.



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f. If a spurious pulse less than 1.5 millisecond long occurs, the data inhibit input at Z6-4 goes high before Z4-6 goes low. Since both inputs Z6-5 and Z6-4, are high levels, Z6-6 goes low. This low level double-inverted by Z6-11 and Z3-6, clears the temporary storage.

g. The data inhibit input is also applied to 1A1A1A2Z2-13 (fig. 6-10) and is inverted at 1A1A1A2Z2-8. 1A1A1A2R2 is the pull-up resistor for the gate. This inverted level is applied to a one-shot at 1A1A1A2Z1-4 where the fall triggers the one-shot. The output at 1A1A1A2Z1-6 is at a high level for 1.5 millisecond. If a separation less than 1.5 millisecond long occurs, the inverted data inhibit input at 1A1A1A2Z2-4 goes high before 1A1A1A2Z1-6 goes low. Since both inputs at 1A1A1A2Z2-4 and 1A1A1A2Z2-5 are high levels, the output at 1A1A1A2Z2-6 goes to a low level. This low level is tied to the clear input of 1A4A1J10-16, which clears temporary storage.

h. At the end of the 12-millisecond period after the first clock pulse, any valid identity code will have been received, placed into temporary storage, and transferred to permanent storage. At this time, Z2-6 resets low, clearing the temporary storage by a low level Z3-6, and holding it cleared until a new cycle begins.

## 2-16. Temporary Storage Register and Data Transfer (1A4A1) (fig. 6-6)

a. The temporary storage register holds incoming data until it is assembled into a three-bit word. After the word is assembled, the control logic circuits transfer it to the permanent storage register, and reset the temporary storage register. At the beginning of an incoming message, the temporary storage register is held in the clear state by a low level on its clear input. The first incoming low signal on the ABC, ABC or ABC line is inverted to a positive level at Z7-2, -12, or -10, and is applied to the first time slot position Z1(A3), Z4(B3), or Z8(C3). When a negative transition of the clock pulse occurs, the data on this line is stored in the flip-flop, and appears at the output (e.g. Z1-6). When the second bit and the second clock pulse appear, the level on the input to each flip-flop is stored. Thus the level from the first flip-flop is transferred to the next flip-flop, and the incoming data is placed into the left-most position. At the third time period, the data is shifted once more to the right, and the incoming data is again stored in the left-most position.

b. The false outputs of Z1, Z4 and Z8 are connected to gate inputs Z13-2, -13, and -1. When these elements are reset, the false outputs are all high and the time slot gate output Z13-12 is low. When a bit is stored in any one of the three flip-flops, its false output goes low and time-slot gate output Z13-12 goes high. In an identical manner time-slot gate output Z13-8 goes high when a bit is stored in Z2(A2), Z5(B2), or Z9(C3), and time-slot gate output Z12-6 goes high when a bit is stored in Z3(A1), Z6(B1), or Z10(C1). Since the outputs of the three time-slot gates, Z13-12, Z13-8, and Z12-6, are all tied together, a high level does not occur until each is at a high level.

c. When a bit is stored in each of the vertical rows of flip-flops (in each time slot), the outputs of all three time-slot gates (Z13A-12, Z13C-8, and Z12B-6) are high. This high level—

(1) Is inverted at Z14D-11, and closes the data inhibit gate at Z12C-10, causing the circuit to ignore any further inputs.

(2) Places a high level at gate input Z11B-13 for future use in transferring the data.

(3) Places a high level at gate input Z14A-1 of the reset latch. The latch, consisting of back-to-back gates with outputs, Z14A-3 and Z14B-6, will not set however, until Z14A-2 goes true.

(4) Places a true level at gate input Z11A-1.

d. The signal at Z12A-12 is inverted at Z13B-6. This output goes high when each pulse terminates. This output inhibits both the reset gate (Z11A) at expander diode CR35 and the load gate (Z11B) at Z11-10. At the time that Z13B-6 goes high, because the last pulse had terminated, all the other inputs to the reset gate (Z11A) are at a high level and output Z11A-6 goes low.

e. The low level at output Z11-6 inhibits the load gate at Z11B-9 and provides a low reset level at J10-7. This signal resets all of the elements of the permanent storage register. When this occurs, the permanent data input line at Z14C-10 goes high and Z11A-4 goes low, terminating the reset pulse. Reset latch input Z14-5 also goes low, making Z14-2 high, and switching the reset latch.

f. The rise of the reset line at Z11A-6, together with the rise of the permanent data line at Z11B-12 enables the load gate, and load gate output Z11B-8 goes low. This low level is inverted by transistor Q15, which generates a positive load command to the permanent storage register. When bit A1, B1, or C1 in the permanent register goes true, the permanent data input line at load input Z11B-12 gate goes false, ending the load pulse.

*g.* When power is initially applied, the rise of vdc is coupled through capacitor C20, and is inverted and steepened by amplifier Q28. This negative pulse is further steepened by inverter Z7-4, and the parallel inverters Z7-6 and Z7-8. This negative pulse on the reset line clears the permanent storage register of the random bits which occurred when the power first came on. Under these conditions, a reset pulse is not generated as described above, but the load pulse is generated.

## 2-17. Permanent Storage Register 1A3A2 (fig. 6-7)

*a.* The permanent storage register consists of nine R-S flip-flops which are each made by cross-coupling two NAND gates. When a low level occurs on the input to any of these flip-flops, it sets and retains the value until it is reset.

*b.* For example, when the A1 flip-flop is in the set state, gate output Z4-8 is high and gate output Z5-11 is low, and this condition will be retained as long as the reset input at Z5-13 is high. When a reset pulse occurs, Z5-13 goes low, Z5-11 and Z4-9 go high, and the flip-flop is switched to the reset condition. The reset pulse causes an identical action in any of the flip-flops which have been set.

*c.* When the load input at Z4-12 goes high, the gate output Z4-11 goes low only if a high level is present at the temporary register input Z4-13. If this input is low, no action occurs, and the flip-flop will remain reset.

*d.* If Z4-13 is high, however, the gate output Z4-11 goes low when the load pulse occurs. This low input switches the flip-flop back to its set condition.

*e.* All bits are transferred simultaneously in this manner from the temporary storage register to the permanent storage register. If either a bit in the B1 or C1 position occurs, gate output Z2-3, or Z2-11 goes low, placing Z2-6 high. This high level, inverted at Z3-4, becomes the low permanent data signal to the control logic. If B1 and C1 are not set but if A1 is set, Z3-2 sets the permanent data line low. Thus, a bit in A1, B1, or C1 causes a permanent data signal to be returned to the control logic.

## 2-18. Display Logic Decoding (1A3A1, 1A3A2, and 1A4A2) (fig. 6-7)

*a.* The system operation permits one bit to be

stored in A1, B1, or C1; one bit in A2, B2, or C2; and one bit in A3, B3, or C3. The digital indicator consists of two sets of seven segments, which may be illuminated individually. The decoding logic decodes the twenty-seven possible combinations in the permanent storage register and drives the proper segments which make up the numerals 01 through 29 (10 and 20 are not used) on the display. Table 5-17 lists the contents of the permanent storage register for each tone code.

*b.* If an A1 bit is stored, gate output 1A3A2Z4-8 is high. This high level turns on transistor 1A3A2Q16, placing its collector (SA1) at ground. Similarly, a B1, C1, B2, or C3 bit places the corresponding SB1, SC1, SB2, SA3 or SC3 signal at ground.

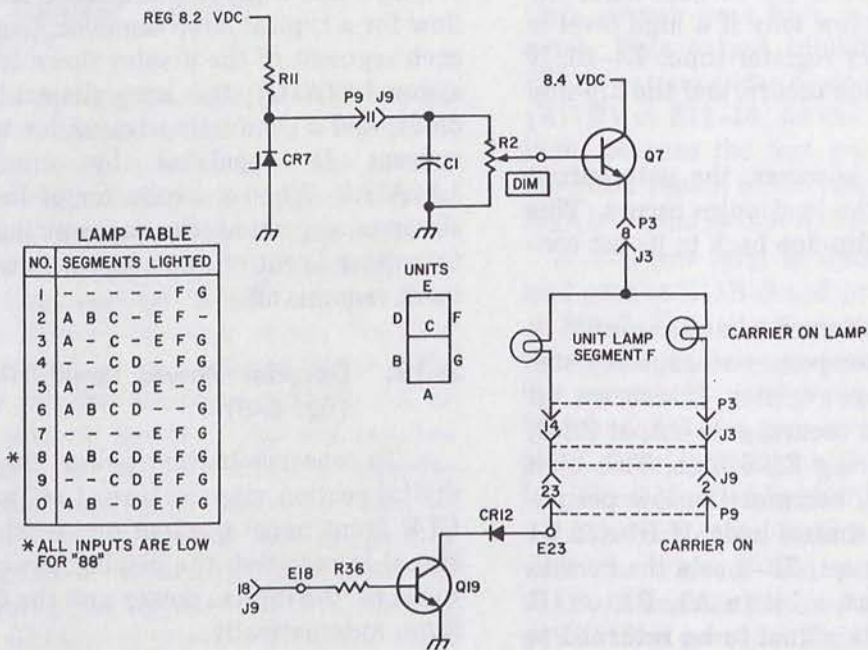
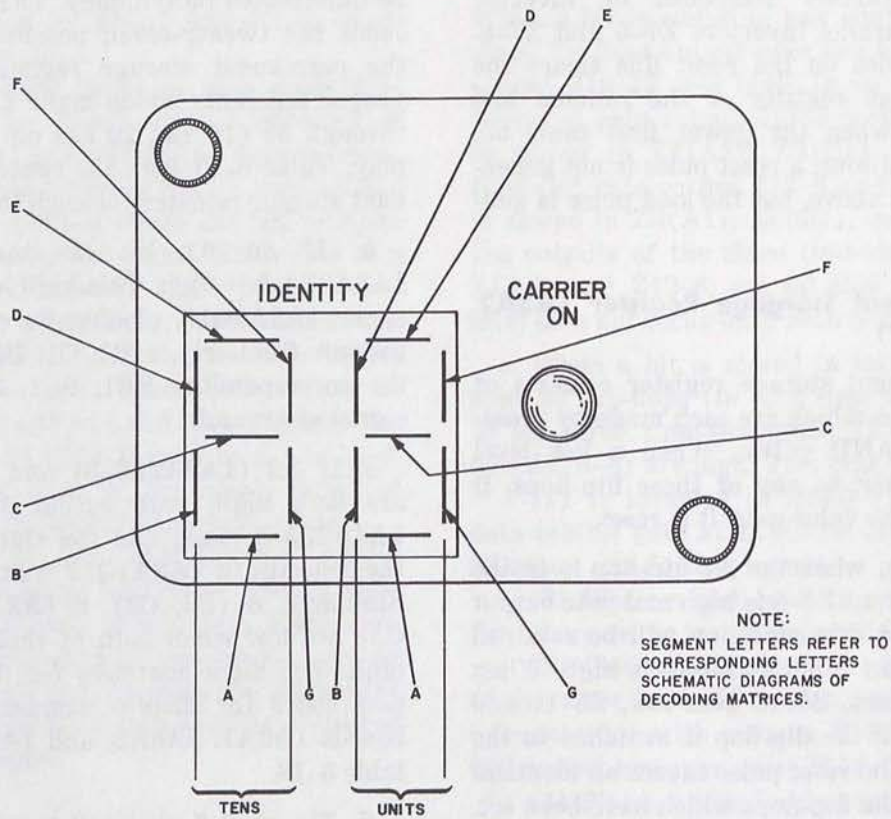
*c.* If A2 (1A3A2Z6-3) and C3 (1A3A2Z9-3) are both high, gate output 1A3A2Z6-11 falls, 1A3A2Z3-8 rises, and the signal S (A2, C3) at the collector of 1A3A1Q19 is at ground (fig. 6-8). Similarly, S (B3, C2), S (A2, B3), and S (B2, C3) are low when both of their input terms are high. The diode matrices for decoding units and tens codes for display segments are located on boards 1A3A1, 1A3A2, and 1A4A2, and listed in table 5-18.

*d.* Figure 2-7 shows the segments of the two displays and a partial schematic showing current flow for a typical lamp segment. Lamp current for each segment of the display flows from B+, transistor 1A1A1Q7, the lamp filament, an isolating diode, and a conducting transistor to ground. The current is regulated by dimming control 1A1A1R2. When the collector of its control transistor is at ground, the segment lights; when the transistor is cut off, no current flows and the segment remains off.

## 2-19. Decoder Power Logic 1A3A1 (fig. 6-8)

*a.* To conserve battery power, the voltage to the digital section may be turned off with the MAN. CLR front panel pushbutton switch. When a new signal is received, the display power supply logic turns on the digital power and the CARRIER ON light, automatically.

*b.* When the receiver AGC voltage exceeds 2.5 vdc, indicating a received signal, transistor Q9 turns on and the base of Q10 falls. Quiescent current through Q8 and emitter resistor R14 establishes the bias point at which Q9 conducts. Resistors R12 and R13 set the quiescent point of tran-



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Figure 2-7. Digital 1A2, display segments and typical circuit.

sistor Q8. When the voltage of the base of PNP transistor Q10 drops Q10 conducts, and its collector current rises. This rise supplied through voltage divider R16 and R17, causes transistor Q11 to turn on and places the collector of Q11 at ground. Current flowing through the front panel CARRIER ON lamp, isolating diode CR1, and through Q11, causes the CARRIER ON light to illuminate. Feedback resistor R44 is now effectively between the base of transistor Q8 and ground, shunting resistor R13. This reduces the current flow through transistor Q8 and R14, lowers the emitter voltage of Q9, and eliminates fluctuations caused by a marginal AGC input level.

c. When transistor Q11 conducts, current also flows through R2 and CR4, dropping the junction of diodes CR4 and CR5 close to ground. Capacitor C22, which had charged to 0.6 volts through R2, discharges through R3. This time constant lessens the response of the circuit to transient noise spikes. When C22 has discharged, transistor Q1 cuts off, Q2 conducts, and Q3 cuts off. The voltage rise at the base of emitter follower transistor Q5 causes its emitter to rise, turning on the pass transistor 1A1A1Q6 on the front panel. The output voltage from the emitter of 1A1A1Q6 is applied through voltage divider R9 and R10 to regulator amplifier Q4, which controls Q5 in a conventional power supply regulator.

d. The power supply will be held on if the permanent data signal at J9-6 is at a low level. This holds the base of Q1 at a low level when data has been stored.

e. Battery voltage is applied through R11 to Zener diode CR7, which provides a constant output voltage to the front panel DIM potentiometer 1A1R2. The arm of this potentiometer controls the current through dimming transistor 1A1A1Q7 to the digital display filaments.

## 2-20. Test Circuit Operation

a. When the TEST switch on the front panel is depressed a ground signal is simultaneously applied to four locations within the digital section which causes the following sequence to occur.

b. Ground applied to the base of transistor 1A3A1Q1 (fig. 6-8) through diodes CR2 and CR5

in the decoder power logic. This will cut off transistor Q1 causing the power supply to turn on as described in paragraph 2-19c.

c. Ground applied to the clear gate (Z3-5, fig. 6-5) will cause the gate output Z3-6 to go high and remove the clear signal from the temporary storage register.

d. With gated DC voltage present and the clear signal removed, ground applied to pin 10 of all temporary storage flip-flops (1A4A1, fig. 6-6), will cause all nine flip-flops to set. With the flip-flops set all true outputs (pin 6) become high, and are applied to the inputs of the permanent storage register.

e. Ground is also applied to the base of transistor 1A4A1Q15 through resistor 1A4A1R29 (fig. 6-6) causing Q15 to cut off. With Q15 cut off, a high signal appears at the load input to the permanent storage register. With the load line high and all inputs from the temporary storage register high, all permanent storage register flip-flops are set. With all flip-flops set, all outputs of the permanent storage register are high and all the driver transistors are turned on. With all driver transistors turned on, ground is supplied at all inputs to the digital display causing all segments to illuminate. With all segments illuminated the number 88 appears.

## 2-21. Clear Switch Operation

a. When the CLEAR switch on the front panel is depressed, ground is applied through the switch to the reset line to the permanent storage register flip-flops. A low on the reset line will cause all the permanent storage register flip-flops to reset as described in paragraph 2-17b.

b. With all the permanent storage register flip-flops reset, the permanent data output will become high (para 2-17d) and the permanent data signal to the data converter power supply will be lost. The loss of the permanent data signal (e.g. a high at J9-6, fig. 6-8) increases the base bias voltage of transistor 1A3A1Q1 causing it to saturate. Saturation of 1A3A1Q1 will cut off the gated dc power after the delay caused by the time constant of 1A3A1R5 and 1A3A1C1.

## Section IV. FUNCTIONAL OPERATION OF POWER CIRCUITS

**2-22. Power Distribution**

(fig. 6-9)

a. The AN/USQ-42 may be operated from three sources of power; a nonrechargeable mercury cell battery, a rechargeable Nicad battery, or an external +28-volt source (vehicle, helicopter, and maintenance applications). The Nicad battery may be recharged by connecting the set to an external source and placing the POWER switch to CHG. When the set is operated from external power, a regulator in the mounting adapter drops the source voltage to 10 volts, which powers the set, and trickle-charges the Nicad battery.

b. When the POWER switch (1A1S7) is in the INT position, power is provided from the battery anode through switch 1A1S7-A and fuse 1A1F2 to the set. It returns through chassis ground to the battery cathode.

c. When POWER switch 1A1S7 is in the CHG position, power is provided from the external source through fuse F1 in the mounting adapter. Inductor L1 and capacitor C1 and C2 form a smoothing filter to remove spikes and noise on the incoming line. VR1 and VR2 help maintain 26 VDC difference between P1A and P1B. Resistor R1 and Zener diode CR1 form a protective circuit to eliminate the effects of high voltage surges which may occur on the powerline. If the input voltage exceeds 33 volts, CR1 conducts and maintains a 33-volt output. Protective diode CR1 blocks current if the polarity of the 24-32-volt source is reversed. Current then passes through 1A1S7-B and limiting resistor R3 to 1A7P15-1 to charge the battery. If the nonrechargeable mercury cell is installed, it is not connected to 1A7J15-1 and no current flows.

d. When the POWER switch is in the EXT position, power is provided from the external source through the filter and protective circuits to 1A1S7-B. From the switch it is applied through the power regulator transistor Q1 to 1A1S7-A and the set. Zener diode VR2, which draws current through R4, keeps the base of Q1 at 11 volts,

which sets the emitter output voltage of Q1 at 10.0 to 10.4 volts. C3 and C4 are filter capacitors. Unregulated power is also applied through 1A1S7-B to limiting resistor R2 and blocking diode CR2 to place a trickle-charge on the rechargeable battery.

e. As shown in figure 6-9, there are slight wiring differences between the AN/USQ-42 model and the AN/USQ-42A and -B models to accommodate use of BA-386 or BA-4386 battery in A and B models.

**2-23. Front Panel Regulator Circuit**

(fig. 6-10)

a. In the AN/USQ-42, the regulator circuit consists of transistor 1A1A1Q69, Zener diode 1A1A1CR17 and resistor 1A1A1R29 mounted on the module mounting plate 1A1A1. Battery voltage (8.4 vdc) is applied from F2 to the collector of Q69 and across the voltage divider R29 and CR17 to the base of Q69. Zener diode CR17 will maintain a constant voltage at the base of Q69, thus maintaining a constant emitter voltage.

b. In the AN/USQ-42A and AN/USQ-42B the regulator circuit consists of transistor 1A1Q69 mounted on the front panel and transistor 1A1A1Q70, resistors 1A1A1R30 and 1A1A1R31, and Zener diodes 1A1A1CR17 and 1A1A1CR18 mounted on the module mounting plate. For this circuit, battery voltage is applied from F2 to the collector of series regulator transistor 1A1Q69 and to the shunt regulator circuit. The regulator circuit controls the current to the base of transistor 1A1Q69 to maintain the emitter voltage of 1A1Q69 at a relatively constant level regardless of the battery voltage. A high battery voltage causes high current flow through Zener diode 1A1A1CR18 to the base of transistor 1A1A1Q70 and decreases its collector current. A low battery voltage causes a low current flow through Zener diode 1A1A1CR18 to the base of transistor 1A1A1Q70 and increases its collector current. The collector current of transistor 1A1A1Q70 is applied to the base of transistor 1A1Q69 to conduct more as the battery voltage decreases.



## CHAPTER 3 DIRECT SUPPORT MAINTENANCE

### Section I. GENERAL

#### 3-1. Scope of Direct Support Maintenance

Direct support maintenance of the AN/USQ-42 Radio Frequency Monitor Set includes troubleshooting an inoperative set to the replaceable assembly level, replacing defective modules, and verifying that the set has been restored to satisfactory operation. This chapter includes procedures for localizing faults, repairing, and testing to verify proper operation of the set after repair.

#### 3-2. Test Equipment Required

The following chart lists the test equipment required for troubleshooting Monitor Set AN/USQ-42 at the direct support maintenance level:

Item	Type/model	Description
1	Test set, Radio	AN/USM-314
2	Multimeter	TS-352B/U or equivalent

#### NOTE

The main difference between the AN/USQ-42 and -42A models, and the AN/USQ-42B model, is in the number of channels. Check out the radio frequency monitors with the applicable test sets as in *a* and *b* below.

- a.* For AN/USQ-42 or AN/USQ-42A, use AN/USM-314, AN/USM-314A, or AN/USM-314B.
- b.* For AN/USA-42B, use AN/USM-314B only.

### Section II. DIRECT SUPPORT TROUBLESHOOTING

#### 3-3. Scope of Direct Support Troubleshooting

The direct support troubleshooting instructions begin with the organizational maintenance instructions in TM 11-5840-339-12. The procedures in this chapter enable the maintenance technician to isolate the trouble to a specific module or to the circuits wired in the front housing 1A1.

#### 3-4. Equipment Power

*a.* Normal operation of the AN/USQ-42 is with either an internal battery, or with external power supplied through the vehicle mounting adapter. Test and troubleshooting procedures in this chapter are based on normal operation with internal battery power.

*b.* If operation with external power through the vehicle mounting adapter is desired, connect 24-32 vdc, 1-amp, power supply, vehicle mounting adapter, and AN/USQ-42 as shown in figure 3-1.

#### 3-5. Troubleshooting Receiver

*a.* Follow the functional test procedures listed in paragraph 3-11. These procedures are operational checks which are performed under bench test conditions using the AN/USM-314 test set. Proceed with the operational checks until the trouble symptoms are found. Refer *b* below to the *Symptom* column of the troubleshooting chart. When the symptom is as described in the troubleshooting chart, proceed in sequence through the probable causes and take the corrective action outlined.

#### CAUTION

Never adjust any control in a circuit board or module. These control settings require specialized test equipment, and are aligned only at the depot level.

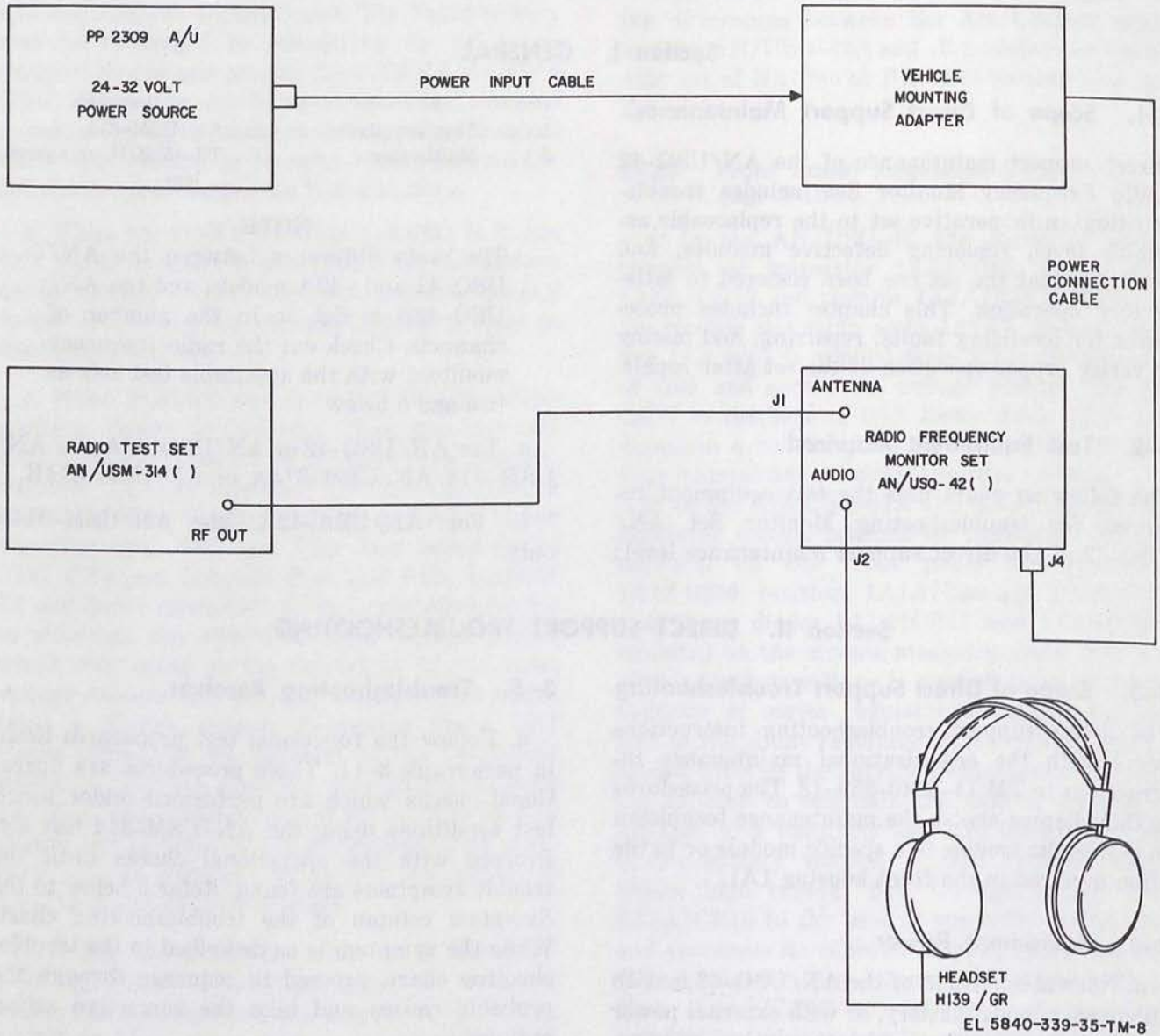


Figure 3-1. Direct support maintenance setup.

b. Direct Support Troubleshooting Chart.

Item No.	Symptom	Probable trouble	Corrective action
1	SIG STR meter indicates in red zone with POWER switch to INT and SIG STR switch to BAT VOLTAGE.	a. Fuse F2 blown b. Discharged or faulty battery	a. Check Fuse F2. b. Recharge battery. If battery cannot be charged replace battery. (Refer to TM 3840-339-12).
2	IDENTITY display remains blank when test switch is operated.	a. DIM control turned down b. Faulty Digital display 1A2 c. Faulty data converter power supply module 1A3. d. Faulty command signal decoder module 1A4.	a. Turn DIM control maximum clockwise. b. Check digital display 1A2 by substitution. c. Check data converter power supply module 1A3 by substitution. d. Check command signal decoder module 1A4 by substitution.
3	Missing segments on IDENTITY display when TEST switch is operated.	a. Faulty digital display 1A2 b. Faulty data converter power supply module 1A3. c. Faulty command signal decoder module 1A4.	a. Check digital display 1A2 by substitution. b. Check data converter power supply 1A3 by substitution. c. Command signal decoder 1A4 by substitution.
4	Missing segments in units column of IDENTITY display.	a. Faulty digital display 1A2 b. Faulty data converter power supply module 1A3.	a. Check digital display 1A2 by substitution. b1. Check data converter power supply module 1A3 by substitution. b2. Return unit for general support maintenance.
5	Missing segments in tens column of IDENTITY Display.	a. Faulty digital display 1A2 b. Faulty command signal decoder module 1A4.	a. Check digital display 1A2 by substitution. b1. Check command signal decoder module 1A4 by substitution. b2. Return unit for general support maintenance.
6	IDENTITY display brightness does not vary when DIM control is varied.	Faulty circuitry in front housing 1A1.	Return unit for general support maintenance.
7	IDENTITY indicator does not extinguish when MAN CLR switch is depressed.	a. Defective data converter power supply module 1A3. b. Defective switch on front housing 1A1.	a. Check data converter power supply module 1A3 by substitution. b. Return unit for general support maintenance.
8	No audio output in headset	a. Defective headset b. Defective amplifier-filter module 1A5. c. Defective VOLUME control on front housing 1A1.	a. Check headset by substitution. b. Check amplifier-filter module 1A5 by substitution. c. Return unit for general support maintenance.
9	Low audio output when operated in conjunction with the AN/USM-314 test set. (Output level -105 dbm; 1-KHz modulated tone; 50-KHz deviation. Same channel on test set and radio frequency monitor.	a. Defective headset b. Defective audio circuit on amplifier-filter module 1A5. c. Defective VOLUME control on front housing 1A1.	a. Check headset by substitution. b. Check amplifier-filter module 1A5 by substitution. c. Return unit for general support maintenance.
10	SQUELCH control does not vary squelch level when operating in conjunction with the AN/USM-314 test set. (Output level -105 dbm. 1-KHz modulated tone. 0- to 50-KHz deviation. Same channel on test set and radio frequency monitor.	a. Defective squelch circuit on amplifier-filter module 1A5. b. Defective squelch control on front housing 1A1.	a. Check amplifier-filter module 1A5 by substitution. b. Return unit for general support maintenance.

Item Item	Symptom	Probable trouble	Corrective action
11	Monitor set receives no channels (as indicated by the CARRIER lamp) when operated in conjunction with AN/USM-314 test set.	<ul style="list-style-type: none"> <li>a. Defective preselector-synthesizer module 1A6.</li> <li>b. Defective power regulator in front housing 1A1.</li> </ul>	<ul style="list-style-type: none"> <li>a. Check preselector-synthesizer module 1A6 by substitution.</li> <li>b. Return unit for general support maintenance.</li> </ul>
12	Monitor Set receives some channels (as indicated by the carrier lamp), but not all when operated in conjunction with the AN/USM-314 test set. (Test set output level -105 dbm, CW signal. Test set RF channel must agree with monitor set channel.)	<ul style="list-style-type: none"> <li>a. Defective oscillator in preselector-synthesizer module 1A6.</li> <li>b. Defective component in channel selection logic within front housing 1A1.</li> </ul>	<ul style="list-style-type: none"> <li>a. Check preselector-synthesizer module 1A6 by substitution.</li> <li>b. Return unit for general support maintenance.</li> </ul>
13	Signal strength meter and audio signal fluctuate during transmission when operated in conjunction with the AN/USM-314 Test Set. (Test Set output level -105 dbm; tone modulated 1 KHz; with 50-KHz deviation. RF Channel must agree with monitor set channel.)	Defective AGC circuit on amplifier-filter module 1A5.	Check amplifier-filter module 1A5 by substitution.
14	Some or all code IDENTITY numbers missing on display when operated in conjunction with the AN/USM-314 test set. Output level -105 dbm Tone Code operation (on any IDENTITY number) with 50-KHz deviation. RF Channel must agree with monitor set channel.	<ul style="list-style-type: none"> <li>a. Defective data converter power supply module 1A3.</li> <li>b. Defective command signal decoder module 1A4.</li> <li>c. Defective tone filter demodulator in amplifier-filter module 1A5.</li> </ul>	<ul style="list-style-type: none"> <li>a. Check data converter power supply module 1A3 by substitution.</li> <li>b. Check command signal decoder module 1A4 by substitution.</li> <li>c1. Check amplifier filter module 1A5 by substitution.</li> <li>c2. Return unit for general support maintenance.</li> </ul>
15	AN/USQ-42 does not operate in conjunction with vehicle mounting adapter with POWER switch set to EXT.	<ul style="list-style-type: none"> <li>a. Fuse F1 blown.</li> <li>b. Defective circuitry in 1A1, 1A8, or 1A7 housings.</li> </ul>	<ul style="list-style-type: none"> <li>a. Check fuse F1.</li> <li>b. Return unit for general support maintenance.</li> </ul>

### Section III. REMOVAL AND REPLACEMENT OF COVERS AND MODULES

#### 3-6. Removal and Replacement of Receiver Covers

a. Release the four lower latches and pull off battery cover slowly to disengage battery and power supply connectors.

b. Release the four upper latches and pull off center housing slowly to disengage connector.

c. Replace center housing by aligning connector guide pins and pushing assemblies together. Secure latches.

d. Replace battery pack cover by aligning connector guide pins and pushing assemblies together. Secure latches.

#### 3-7. Removal and Replacement of Modules (fig. 3-2)

a. To remove a module, remove receiver covers (para 3-6), loosen the module holddown screws (3 or 2) until the screws are completely disengaged from the mounting plate.

b. Remove the module from the mounting plate by pulling up at the sides.

c. To replace a module, align the connectors of the new module with the connectors on the mounting plate.

d. Push the module down gently until the connectors are fully engaged. Do not use excessive force.

e. Tighten the three (or two) holddown screws.

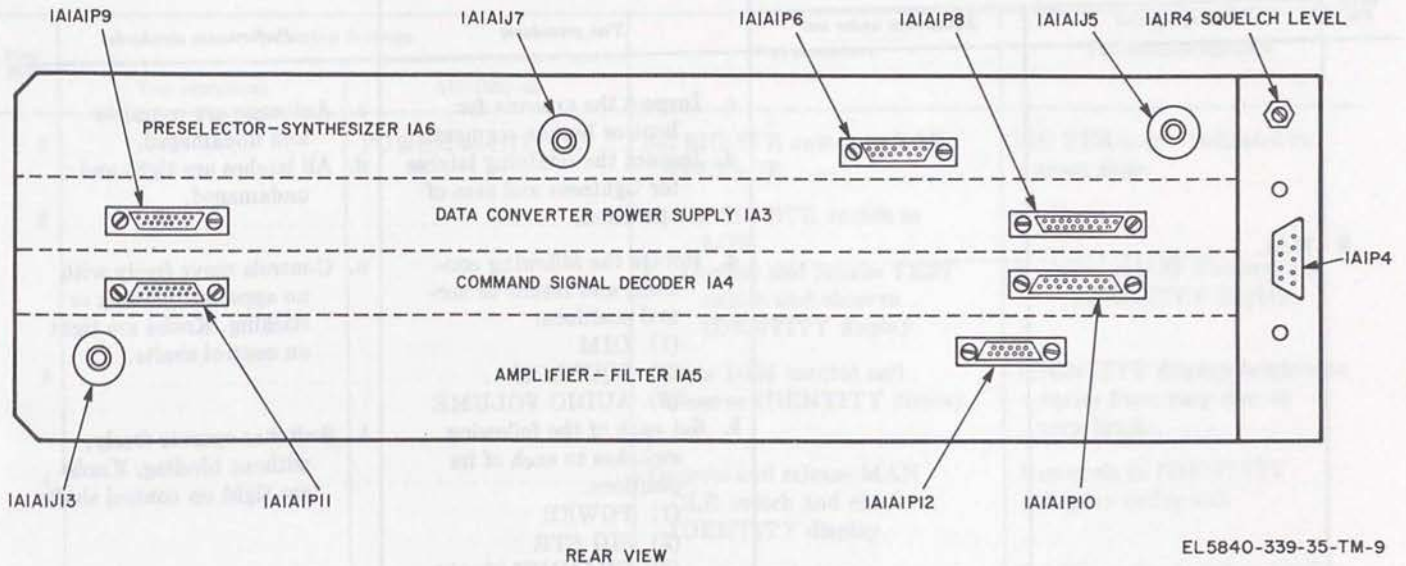


Figure 3-2. Receiver, module and plug locations.

**3-8. Removal and Replacement of Digital Display Module IA2**  
(fig. 2-7)

a. To remove module IA2, loosen the two thumbscrews at the same time until they are disengaged from the set.

**NOTE**

Loosening of screws one at a time tends to exert too much pressure on one side of the connector.

b. Lift the digital display module out of the connector well.

c. To replace module, insert the new digital display module into the well and push down gently.

d. Turn and tighten the two thumbscrews at the same time to maintain alignment of the pins in the connector.

**Section IV. DIRECT SUPPORT TESTING PROCEDURE**

**3-9. Scope of Direct Support Testing**

This section provides test procedures for use by the direct support technician to determine whether repaired equipment is performing satisfactorily before it is returned to the using organization.

**3-10. Receiver Physical Tests and Inspections**

a. *Test Equipment and Materials.* No test equipment or materials are required.

b. *Test Connections and Conditions.* No test connections are required.

*c. Receiver Physical Test Procedure.*

Step No.	Control settings		Test procedures	Performance standards
	Test equipment	Equipment under test		
1	N/A	Controls may be in any position.	<p>a. Inspect all controls and external parts for loose or missing screws, bolts, or nuts.</p> <p>b. Inspect all connectors, sockets, and receptacles, including the fuse holders, for looseness, dirt or damage.</p>	<p>a. Screws, bolts, and nuts must be tight; none missing.</p> <p>b. No looseness, dirt, or damage evident.</p>

Step No.	Control settings		Test procedures	Performance standards
	Test equipment	Equipment under test		
2	N/A		<p>c. Inspect the antenna for bent or broken segments.</p> <p>d. Inspect the retaining latches for tightness and ease of operation.</p> <p>a. Rotate the following controls, and return to normal positions.</p> <p>(1) DIM</p> <p>(2) SQUELCH</p> <p>(3) AUDIO VOLUME</p> <p>b. Set each of the following switches to each of its positions.</p> <p>(1) POWER</p> <p>(2) SIG STR</p> <p>(3) CHANNEL (both)</p> <p>c. Press each of the push-button switches.</p> <p>(1) TEST</p> <p>(2) MAN. CLR</p>	<p>c. Antennas are complete and undamaged.</p> <p>d. All latches are tight and undamaged.</p> <p>a. Controls move freely with no apparent binding or sticking. Knobs are tight on control shafts.</p> <p>b. Switches operate freely, without binding. Knobs are tight on control shafts.</p> <p>c. Switches operate freely, without binding. Boots are tightly secured to panel.</p>

**3-11. Receiver Functional Tests**

a. *Test Equipment and Materials.* Test set AN/USM-314 and its coaxial cable.

b. *Test Connections and Conditions.* Connect the radio frequency monitor, test set, and headphones as shown in figure 3-1. Test the equipment using the internal battery of the radio frequency monitor before returning the radio frequency monitor to the user.

c. *Initial AN/USM-314 Control Settings.*

(1) Set RF CHANNEL selectors to 0.

(2) Set TONE CHANNEL selectors to 0 and AUTO SEQ.

(3) Set RF OUTPUT ATTENUATION switches to obtain 93-db attenuation (four 20-db switches, one 10-db switch, and one 3-db switch up, all others down).

(4) Set 1 KC/OFF/EXT switch to 1 KC.

(5) Set FREE RUN/OFF/SINGLE CODE switch to FREE RUN.

(6) Set DEV CW/XTAL/CODE switch to DEV CW.

(7) Set TONE LEVEL to full clockwise position.

(8) Set OFF/INT/EXT/CHG switch to INT or EXT as applicable.

(9) Adjust AUDIO LEVEL control to obtain an indication of 50 KC deviation on MOD/BAT meter.

(10) Adjust RF LEVEL control to obtain indication at RF SET LEVEL line of RF LEVEL meter.

(11) Set DEV CW/XTAL/CODE switch to CODE.

(12) Set OFF/INT/EXT/CHG switch to OFF.

d. *Initial AN/USQ-42 Control Settings*

(1) Set POWER switch to OFF.

(2) Set SQUELCH switch to OFF.

(3) Set SIG STR switch to LOW.

(4) Set DIM control to slightly above mid-range.

(5) Set VOLUME control to midrange.

(6) Set both CHANNEL selector switches to 0.

e. Receiver Functional Procedure.

Step No.	Control Settings		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1		POWER to INT	Set SIG STR switch to BAT VOLTAGE.	SIG STR meter indicates in green zone.
2			a. Set SIG STR switch to LOW. b. Depress and release TEST switch and observe IDENTITY display.	a. None. b. Numerals 88 illuminate in IDENTITY display.
3			Rotate DIM control and observe IDENTITY display.	IDENTITY display brightness varies from very dim to very bright.
4			Depress and release MAN CLR switch and check IDENTITY display.	Numerals in IDENTITY display extinguish.
5			Listen to headset and vary AUDIO VOLUME control.	Rushing noise heard in headset. Volume varies with position of VOLUME control.
6		SQUELCH to ON	Rotate SQUELCH control clockwise while listening to headset.	Rushing noise heard in headset is reduced.
7	OFF/INT/EXT/CHG to INT.  RF CHANNEL to 01 or 00 as applicable, TONE CHANNEL to 06, FREE RUN/OFF/SINGLE CODE to OFF.	SQUELCH to OFF CHANNEL to 01 or 00 as applicable.	a. Set FREE RUN/OFF/SINGLE CODE switch on test set to SINGLE CODE and release.  b. Depress and release MAN CLR switch on AN/USQ-42.	a1. CARRIER lamp illuminates during transmission, then extinguishes. a2. SIG STR meter deflects to right during transmission. a3. Numerals 06 illuminate in IDENTITY display. a4. Beep is heard in headset at each transmission by SIGNAL CODE switch. b. Numerals on IDENTITY display extinguish.
8	RF CHANNEL to 02 through 31 or 01 through 39 as applicable.	CHANNEL to 02 through 31 or 01 through 39 as applicable.	Manually sequence test set RF CHANNEL switches to positions 02 through 31 or 01 through 39 as applicable. Set AN/USQ-42 CHANNEL switches to corresponding positions and repeat procedure of step 7 at each position.	Same as step 7.
9	RF CHANNEL to 04, TONE CHANNEL to AUTO SEQ, FREE RUN/OFF/SINGLE CODE switch to FREE RUN.	CHANNEL to 04	Depress and release START SEQ switch on test set.	a. IDENTITY display sequences from 01 to 09, 11 to 19, and 21 to 29 at approximately 1-second intervals, then stops with numerals 29 illuminated. b. CARRIER ON lamp illuminates during each transmission then extinguishes. c. SIG STR meter deflects to right during each transmission. d. Beep is heard in headset at each transmission.

Step No.	Control Settings		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
10			Manually sequence test set RF CHANNEL switches to positions 9, 14, 20, 25, 30, 35, and 39 (for AN/USQ-42B) or positions 01, 9, 14, 20, 25, 30, and 31 (for AN/USQ-42 and -42A). Set AN/USQ-42 CHANNEL switches to corresponding positions and repeat procedure of step 9 at each position.	Same as step 9.
11	RF CHANNEL to 01, RF OUTPUT ATTENUATION to 0 db (all switches down).	CHANNEL to 01	Depress and release START SEQ switch on test set.	Same as step 9.
12	RF OUTPUT ATTENUATION to 93 db (c.(3) above). FREE RUN/OFF/SINGLE CODE to OFF.		<p>a. Set SQUELCH control to ON and adjust clockwise to obtain audible drop in background noise in headset.</p> <p>b. Set FREE RUN/OFF/SINGLE CODE switch on test set to FREE RUN.</p>	<p>a. Audio level in headset drops at point of squelch action.</p> <p>b1. CARRIER ON lamp illuminates.</p> <p>b2. SIG STR meter deflects to right.</p> <p>b3. 1-KHz audio signal is heard in headset.</p>



## CHAPTER 4 GENERAL SUPPORT MAINTENANCE

### Section I. GENERAL

#### 4-1. Scope of General Support Maintenance

General support maintenance of the radio frequency monitor includes troubleshooting the defective set to the replaceable piece part in assemblies 1A1, 1A7, and 1A8. Modules 1A2, 1A3, 1A4, 1A5, and 1A6 are replaced as modules, but not repaired, by general support maintenance. Repair of the power regulator circuits in the vehicle mounting adapter is also a general support maintenance responsibility.

#### 4-2. Test Equipment and Fixtures Required

a. In addition to the direct support maintenance test equipment specified in paragraph 3-2, the following items are required for general support maintenance:

Item	Type/model	Description
1	TK-100/G	Radio repairman toolkit
2	See <i>b</i> below	Power connection cable
3	See <i>c</i> below	Power extension cable
4	PP-2309A/U or PP-3939/G	Power supply; 28 volts, 1 ampere

b. The power connection cable consists of a vehicle mounting adapter J2, a battery housing 1A7P2, 3 feet of 7-conductor cable, insulated number 24 stranded conductors. Connect six of the 7-conductors between terminals A, B, D, E, F, and H of the plug and jack.

c. The power extension cable consists of a 1A8J4, a 1A1A1P4, 3 feet of 7-conductor cable, insulated number 24 stranded conductors. Connect the 7 conductors between terminals 2, 4, 5, 6, 7, 8, and 9 of the plug and jack.

### Section II. GENERAL SUPPORT TROUBLESHOOTING

#### 4-3. Scope of General Support Troubleshooting

a. The general support maintenance level troubleshooting procedures contained in this section pertain to the isolation of piece part failures in the nonmodular areas of the AN/USQ-42 and in the vehicle mounting adapter in the following areas:

- (1) Channel selection logic circuits
- (2) Front panel components and circuits
- (3) Power supply circuits

b. The troubleshooting procedures which follow form a sequential pattern to isolate problems in each of the areas. Proceed with the operational checks until the defective component is isolated.

#### CAUTION

Never adjust any control on the electronic modules. All of these control settings require specialized test equipment, and are aligned only at the depot level.

#### 4-4. Reference Data

a. The following reference data will be helpful to the repairman using the troubleshooting charts in this section:

Reference	Data
Figure 4-2	Front housing 1A1, component locations.
Figure 4-3	Voltage divider component, board 1A1A1A1TB1, component locations.
Figure 4-4	Vehicle mounting adapter, component locations.
Figure 4-5	Blank detector component board 1A1A1A2TB2, component locations.
Tables 4-1 and 4-2	Channel selection logic outputs.
Table 4-3	Front housing 1A1 current regulator voltage and resistance measurements.
Table 4-4	Voltage divider component board 1A1A1A1, voltage and resistance measurements.
Table 4-5	Vehicle mounting adapter, voltage and resistance measurements.
Table 4-6	Blank detector component board 1A1A1A2, voltage and resistance measurements.

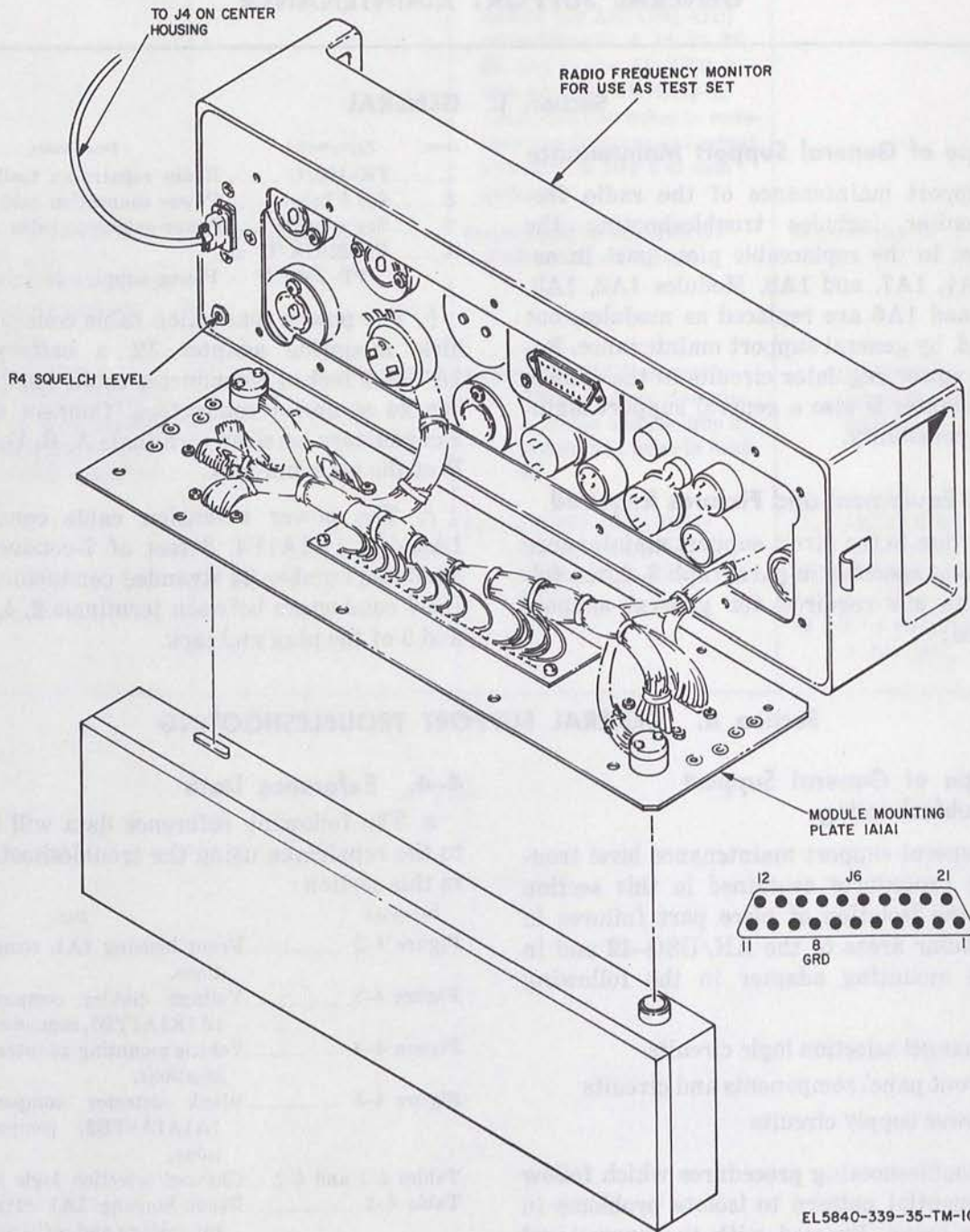


Figure 4-1. General support troubleshooting setup.

Reference

Data

Figure 6-1 ..... Channel switches and selection logic, schematic diagram.

Figure 6-9 ..... Power distribution schematic diagram.

b. Voltage and resistance measurements are provided as an aid to determining circuit conditions and evaluating clues in the course of troubleshooting. When using voltage and resistance tables, carefully read notes and exactly duplicate conditions under which normal readings were obtained.

**CAUTION**

When making voltage measurements on transistors, use a well insulated test probe. Even a momentary short may damage a transistor. When making resistance measurements, do not use meter scales that might cause excessive currents through the transistor junctions.

**4-5. Channel Selection Logic Troubleshooting**

**NOTE**

If direct support troubleshooting has been accomplished prior to troubleshooting at this stage, the trouble is not in the

plug-in replaceable modules, but within the 1A1, 1A7, or 1A8 assemblies.

*a. Disassembly for Troubleshooting*

- (1) Remove center and rear housing assemblies as described in paragraph 3-6.
- (2) Remove all electronic modules as described in paragraph 3-7.
- (3) Remove ten screws and fold the module mounting plate outward.
- (4) Reinstall all electronic modules as described in paragraph 3-7.
- (5) Connect power connection cable between 1A8J4 on the center housing and A1P4 on the front housing (fig. 4-1).

**NOTE**

If one is not available, the power connection cable must be fabricated as described in paragraph 4-2.

*b. Troubleshooting Procedures.* In troubleshooting the channel selection logic, an analysis of operative and inoperative channels will point the way to the fault. Check each channel for operation using the test set, and following the functional test procedure in paragraph 3-11. List the inoperative channels, and refer to troubleshooting chart (e below).

*c. Channel Selection Logic Troubleshooting Procedure.*

Item No.	Symptom	Probable trouble	Corrective action
1	Some but not all RF channels are inoperative.	Defective front panel switch 1A1S1 or 1A1S2 or defective component on 1A1A1A1.	Examine table 4-1 or 4-2 as applicable to determine if one oscillator control circuit is common to inoperative channels. Using multimeter, measure the oscillator control voltage levels and tuning voltages, shown in table 4-1 or 4-2, along the signal path shown in figure 6-1 until faulty component is located. Remove and replace faulty component. (Refer to figures 4-2 and 4-3 for component locations.)
2	All RF channels inoperative but IDENTITY indicator illuminates numerals 88 when TEST switch is depressed.	Defective component in power regulator circuit consisting of Transistors 1A1Q69 and 1A1Q70, diodes 1A1CR17 and 1A1CR18.	Refer to table 4-3 and measure voltages and resistances in suspected circuitry under load conditions (all modules installed). Remove and replace faulty component. (Refer to figure 4-2 for component locations).

Table 4-1. Channel Selection Logic Outputs, R-1561/USQ-42 and R-1561A/USQ-42

Channel	Selected oscillators in frequency-synthesizer 1A6A1			Tuning voltage inputs ( $\pm 3\%$ ) to—	
				J6-4	J6-5
01	A2	A6	A10	2.2	1.3
02	A3	A6	A10	3.0	1.3
03	A4	A6	A10	3.9	1.3
04	A5	A6	A10	4.8	1.3
05	A1	A7	A10	1.2	2.3
06	A2	A7	A10	2.2	2.3
07	A3	A7	A10	3.0	2.3
08	A4	A7	A10	3.9	2.3
09	A5	A7	A10	4.8	2.3
10	A1	A8	A10	1.2	4.2
11	A2	A8	A10	2.2	4.2
12	A3	A8	A10	3.0	4.2
13	A4	A8	A10	3.9	4.2
14	A5	A8	A10	4.8	5.2
15	A1	A9	A11	1.2	4.4
16	A2	A9	A11	2.2	5.4
17	A3	A6	A11	3.0	1.3
18	A4	A6	A11	3.9	1.3
19	A5	A6	A11	4.8	1.3
20	A1	A7	A11	1.2	2.3
21	A2	A7	A11	2.2	2.3
22	A3	A7	A11	3.0	2.3
23	A4	A7	A11	3.9	2.3
24	A5	A7	A11	4.8	2.3
25	A1	A8	A11	1.2	4.2
26	A2	A8	A11	2.2	4.2
27	A3	A8	A11	3.0	4.2
28	A4	A8	A11	3.9	4.2
29	A5	A8	A11	4.8	4.2
30	A1	A9	A11	1.2	5.4
31	A2	A9	A11	2.2	5.4

Table 4-2. Channel Selection Logic Outputs, R-1561B/USQ-42

Channel	Selected oscillators in frequency-synthesizer 1A6A1			Tuning voltage inputs ( $\pm 3\%$ ) to—	
				J6-4	J6-5
00	A1	A6	A10	1.2	0.7
01	A2	A6	A10	2.2	0.7
02	A3	A6	A10	3.0	0.7
03	A4	A6	A10	3.9	0.7
04	A5	A6	A10	4.8	0.7
05	A1	A7	A10	1.2	2.2
06	A2	A7	A10	2.2	2.2
07	A3	A7	A10	3.0	2.2
08	A4	A7	A10	3.9	2.2
09	A5	A7	A10	4.8	2.2
10	A1	A8	A10	1.2	4.3
11	A2	A8	A10	2.2	4.3
12	A3	A8	A10	3.0	4.3
13	A4	A8	A10	3.9	4.3
14	A5	A8	A10	4.8	4.3
15	A1	A9	A11	1.2	6.5
16	A2	A9	A11	2.2	6.5
17	A3	A6	A11	3.0	0.7
18	A4	A6	A11	3.9	0.7
19	A5	A6	A11	4.8	0.7

Table 4-2. Channel Selection Logic Outputs, R-1561B/USQ-42—Continued

Channel	Selected oscillators in frequency-synthesizer 1A6A1			Tuning voltage inputs ( $\pm 3\%$ ) to—	
				J6-4	J6-5
20	A1	A7	A11	1.2	2.2
21	A2	A7	A11	2.2	2.2
22	A3	A7	A11	3.0	2.2
23	A4	A7	A11	3.9	2.2
24	A5	A7	A11	4.8	2.2
25	A1	A8	A11	1.2	4.3
26	A2	A8	A11	2.2	4.3
27	A3	A8	A11	3.0	4.3
28	A4	A8	A11	3.9	4.3
29	A5	A8	A11	4.8	4.3
30	A1	A9	A11	1.2	6.5
31	A2	A9	A11	2.2	6.5
32	A3	A9	A11	3.0	6.5
33	A4	A9	A11	3.9	6.5
34	A5	A9	A11	4.8	6.5
35	A1	A6	A11	1.2	0.7
36	A2	A6	A11	2.2	0.7
37	A3	A9	A10	3.0	6.5
38	A4	A9	A10	3.9	6.5
39	A5	A9	A10	4.8	6.5

**4-6. Front Housing (1A1) Troubleshooting**  
(fig. 4-2)

a. Disassemble the receiver as described in paragraph 4-5a, then follow applicable troubleshooting procedures in the troubleshooting chart (c below).

**NOTE**

If direct support troubleshooting has been accomplished prior to troubleshooting at this stage, the trouble is not in the plug-in replaceable modules, but within front housing 1A1.

b. Resistance measurements of circuits and components are listed in the following tables:

Table	Circuit/board
4-3	Module mounting plate 1A1A1
4-4	Voltage divider component board 1A1A1A1

**NOTE**

Troubleshooting blank detector component 1A1A1A2, which is part of the control logic circuitry in command signal decoder 1A4, is accomplished at depot level maintenance (para 5-20.)

c. Front housing 1A1 troubleshooting procedure.

Item No.	Symptom	Probable trouble	Corrective action
1	IDENTITY display remains blank when TEST switch is operated.	Defective switch 1A1S3	a. Check switch 1A1S3 (TEST) for continuity to ground when depressed. b. Check for +7.5 v at emitter of Q69. c. Remove power and modules. Measure continuity between connector pins in 1A1J3 (for access remove module 1A2), 1A1A1P11, 1A1A1P10 and 1A1A1P9 as shown in schematic, figure 6-10.
2	Missing segments on IDENTITY display when TEST switch is operated.	Defective connectors: J3, P9, P10, and P11.	Same as a3 in item 1.

Item No.	Symptom	Probable trouble	Corrective action
3	Signal strength meter and audio signal fluctuate intermittently.	Defective AGC circuit.....	a. Check for AGC voltage (+1.6 to +4.0 v) at arm of 1A1R3 and at E27 of 1A1A1A1. b. Check continuity between connectors 1A1A1P12 and 1A1A1P6 after removing modules 1A5 and 1A6 from mounting plate.
4	Monitor set does not receive all channels.	Defective component in channel selection logic.	Check voltages at 1A1A1P6 using table 4-1 or table 4-2 as applicable for the various channels selected. Voltages in error can be traced to defective component on 1A1A1A1 or channel select switches.
5	SQUELCH control does not vary squelch level.	Defective squelch control circuit on front panel.	Continuity check of control 1A1R3 and connector 1A1A1P12 and 1A1A1P6, with modules 1A6 and 1A5 removed.
6	Low AUDIO output.....	Defective volume control on front panel.	Continuity check control 1A1R1 and connector 1A1A1P12.
7	DIM control does not function.....	Defective DIM potentiometer 1A1R2.	a. Check 1A1R2. b. Check voltages at 1A1Q7 and 1A1C1.
8	MAN CLR switch does not function.....	Defective switch 1A1S4.....	Check contacts 1A1S4.
9	TEST switch does not cause 88 to be displayed.	Defective switch 1A1S3.....	Check contacts 1A1S3.
10	INTERMITTENT meter operation.....	Defective meter or circuit.....	Check 1A1M1, 1A1CR1 and 1A1CR2 on M1; check operation of SIG STR switch 1A1S5.

Table 4-3. Front Housing 1A1 Current Regulator Voltage and Resistance Measurements

- a. Voltage measurement made under load condition (all modules installed), and CHANNEL switches in 00 position, with a +12-volt input.
- b. Transistor resistance measurement made with respect to ground.
- c. Resistor and diode measurements made across component.

Component	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R30.....		X 100	100	X 100	100
R31.....		X 100	1,500	X 100	1,500
CR17.....		X 100	840	X 100	2,000
CR18.....		X 100	900	X 100	1,000
Q70-E.....	+8.0	X 100	2,000	X 100	1,500
Q70-B.....	+8.8	X 100	1,500	X 100	1,500
Q70-C.....	+8.8	X 100	4,800	X 100	850
Q6-E.....	+5.0	X 100	2,300	X 100	1,750
Q6-B.....	+5.6	X 100	2,000	X 100	820
Q6-C.....	+12.0	X 100	2,200	X 100	1,400
Q7-E.....	+4.8	X 10,000	INF	X 100	1,400
Q7-B.....		X 100	840	X 100	830
Q7-C.....	+12.0	X 100	2,200	X 100	1,400
Q69-E.....	+7.8	X 10,000	INF	X 10,000	INF
Q69-B.....	+8.4	X 100	4,800	X 100	850
Q69-C.....	+12.0	X 100	2,200	X 100	1,400

Table 4-4. Terminal Board 1A1A1A1 Voltage and Resistance Measurements, R1561B/USQ-42

Measurement Note:

Resistance measurements made across components.

Component	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R1		X 100	2,500	X 10,000	100,000
R2		X 100	4,600	X 100	4,600
R3		X 100	3,300	X 100	3,300
R4		X 100	11,000	X 100	11,000
R5		X 100	6,100	X 100	6,500
R6		X 100	9,500	X 100	9,500
R7		X 100	8,000	X 100	8,500
R8		X 100	7,000	X 100	7,000
R9		X 100	10,000	X 100	11,000
R10		X 100	5,000	X 100	5,000
R11		X 100	13,000	X 100	14,000
R12		X 100	11,000	X 100	11,000
R13		X 100	7,500	X 100	8,000
R14		X 100	5,500	X 100	14,000
R15		X 100	2,600	X 100	2,800
R16		X 100	4,500	X 100	4,500
R17		X 100	10,000	X 100	11,000
R18		X 100	3,100	X 10,000	100,000
R19		X 10,000	20,000	X 10,000	20,000
R20		X 10,000	18,000	X 10,000	18,000
R21		X 100	1,900	X 100	2,200
R22		X 100	100	X 100	100
R23		X 100	100	X 100	100
R24		X 100	9,500	X 100	9,500
R25		X 100	6,000	X 100	6,000
R26		X 100	3,400	X 10,000	34,000
R27		X 10,000	29,000	X 10,000	30,000
CR1		X 100	700	10,000	105,000
CR2		X 100	700	10,000	100,000
CR3		X 100	700	10,000	110,000
CR4		X 100	750	10,000	108,000
CR5		X 100	680	10,000	110,000
CR6		X 100	680	10,000	106,000
CR7		X 100	740	10,000	1,500,000
CR8		X 100	680	10,000	110,000
CR9		X 100	700	10,000	100,000
CR10		X 100	680	10,000	INF
CR11		X 100	660	10,000	INF
CR12		X 100	700	10,000	INF
CR13		X 100	690	10,000	INF
CR14		X 100	670	10,000	INF
CR15		X 100	700	10,000	20,000
CR16		X 100	680	10,000	INF

4-7. Power Circuits Troubleshooting

a. Disassembly for Troubleshooting.

(1) Disassemble receiver as described in paragraph 4-5a.

(2) Disassemble mounting adapter to obtain access to power circuits.

b. Troubleshooting procedures. Connect +28-volt power supply, vehicle mounting adapter, and input to 1A1P4 of receiver as shown in figure 3-1. Perform functional tests of paragraph 3-11 as required to establish symptoms. Refer to troubleshooting chart (c below) and follow applicable troubleshooting procedures.

c. Power Circuits Troubleshooting Chart.

Item No.	Symptom	Probable trouble	Corrective action
1	No power to set with POWER switch at INT.	a. Blown fuse 1A1F2..... b. Battery connections not tight..... c. Discharged battery..... d. Defective POWER switch 1A1S7..... e. Damaged connector.....	a. Check and replace 1A1F2. b. Check battery connections. c. Replace battery, or recharge battery. See TM11-5840-339-12. d. Disconnect battery. Measure continuity between battery clip and 1A1F2, with POWER switch in INT position. e. Continuity check of wiring through connectors. Repair or replace, as necessary.
2	No power to set with POWER switch at EXT and external power applied.	a. Blown fuse 1A1F1..... b. Defective component protective circuit. c. Defective component in mounting adapter regulator circuit. d. Defective power switch 1A1S7..... e. Damaged connector.....	a. Check and replace 1A1F1. b. Check voltage (24-32 vdc) at 1A1S7-B wiper. If not present, check vehicle mounting adapter components L1, C1, R1, VR1, VR3, CR1 and C2. c. Measure voltage (+10.0v) at 1A1S7-A wiper. Check vehicle mounting adapter components Q1, VR2, C3, C4 and R4. d. Measure continuity through switch in EXT position. e. Continuity check of wiring through power connectors. Repair or replace, as necessary.
3	Battery does not charge with POWER switch in CHG position.	a. Nonrechargeable battery installed..... b. Defective limiting resistor R3 in vehicle mounting adapter. c. Damaged connector or defective power switch.	a. Check battery. b. Measure value of R3. c. Measure continuity through connectors and switch in the CHG position.
4	Battery does not trickle-charge with POWER switch in EXT position.	Defective component in vehicle mounting adapter charging path.	Check R2 and CR2.

Table 4-5. Vehicle Mounting, Adapter, Regulator Filter Assembly, Voltage and Resistance Measurements

Measurement Notes:

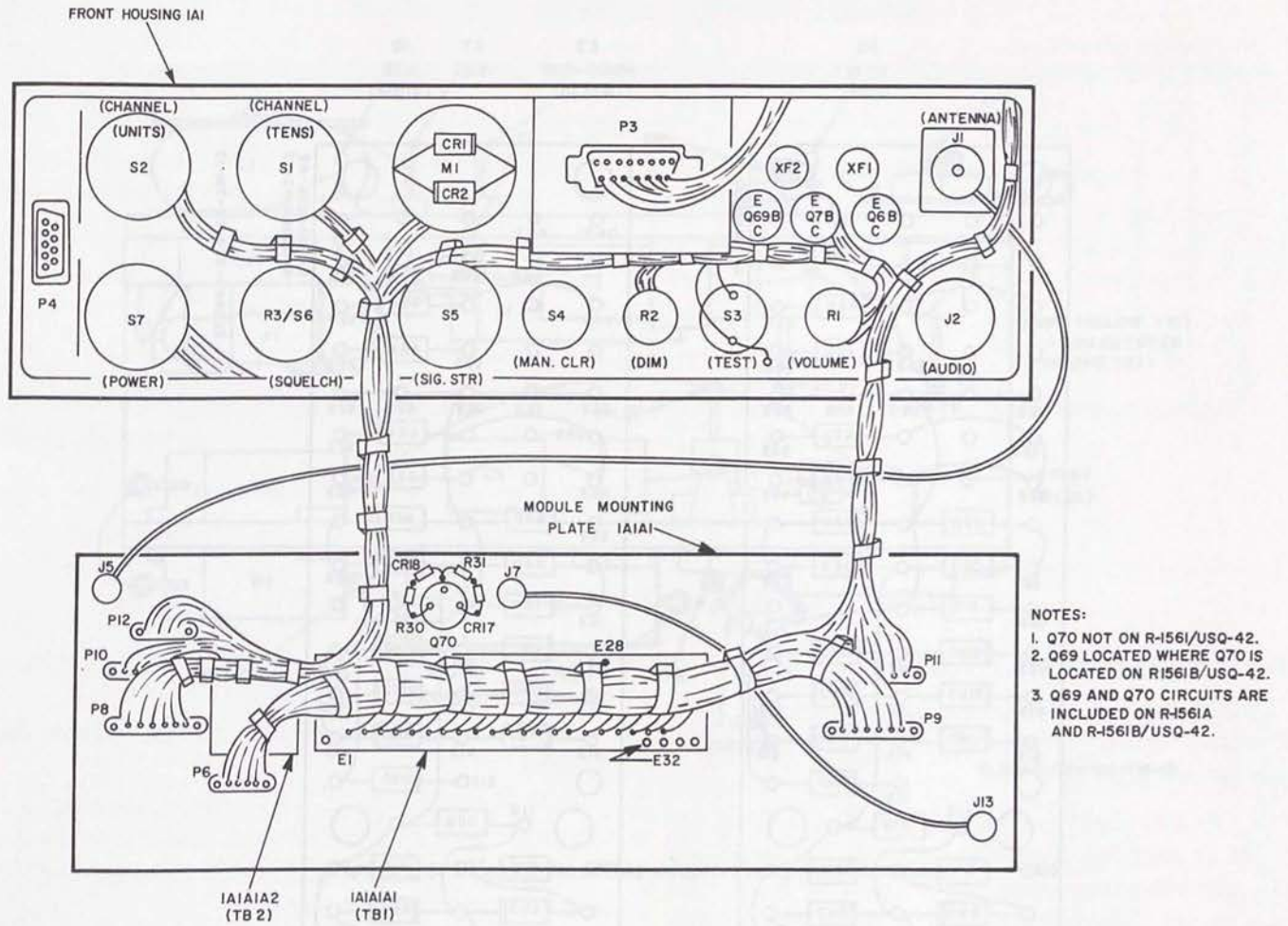
Resistance measurements made across components.

a. Transistor resistance measurements made with respect to ground.

b. Resistor and diode measurements made across component.

Component	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R1.....		X 1	10	X 1	10
R2.....		X 1	150	X 1	150
R3.....		X 1	15	X 1	15
R4.....		X 1	9	X 1	150
CR1.....		X 1	10	X 10,000	INF
CR2.....		X 1	14	X 10,000	INF
VR1.....		X 1	10	X 10,000	500,000
VR2.....	11.3	X 100	700	X 10,000	500,000
VR3.....		X 1	10	X 10,000	500,000
Q1E.....	10.6	X 100	2,400	X 10,000	INF
Q1B.....	11.3	X 100	700	X 10,000	500,000
Q1C.....	19.5	X 100	900	X 10,000	500,000



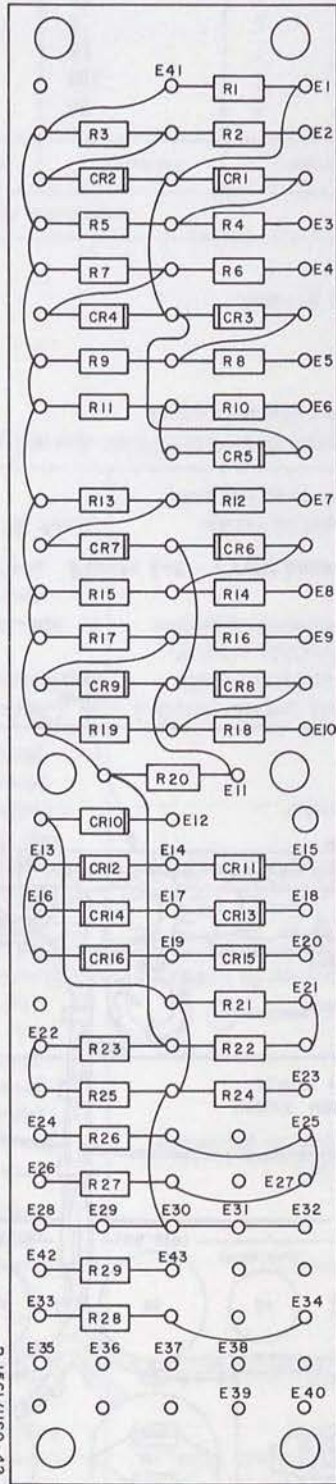


EL5840-339-35-TM-11

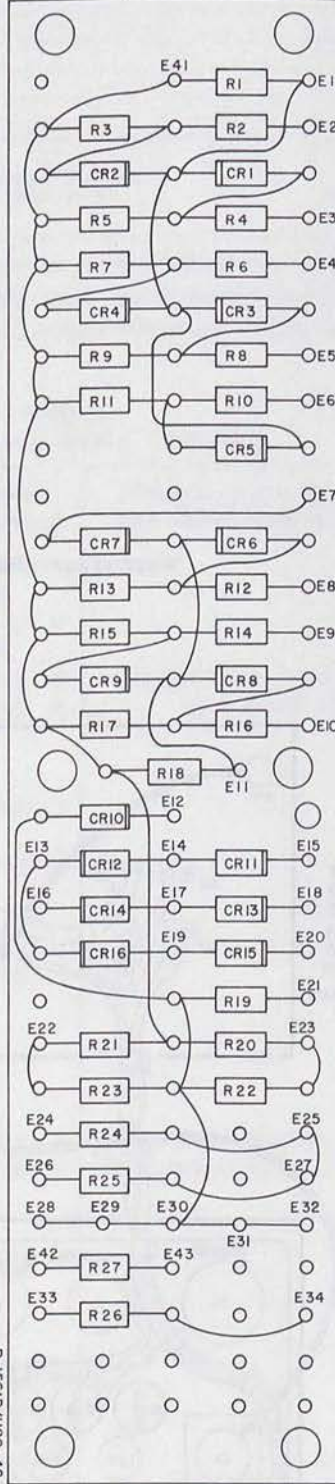
Figure 4-2. Front housing 1A1, component location.

Figure 4-8. Voltage divider component board 1A1A1A1(TBI), component location.

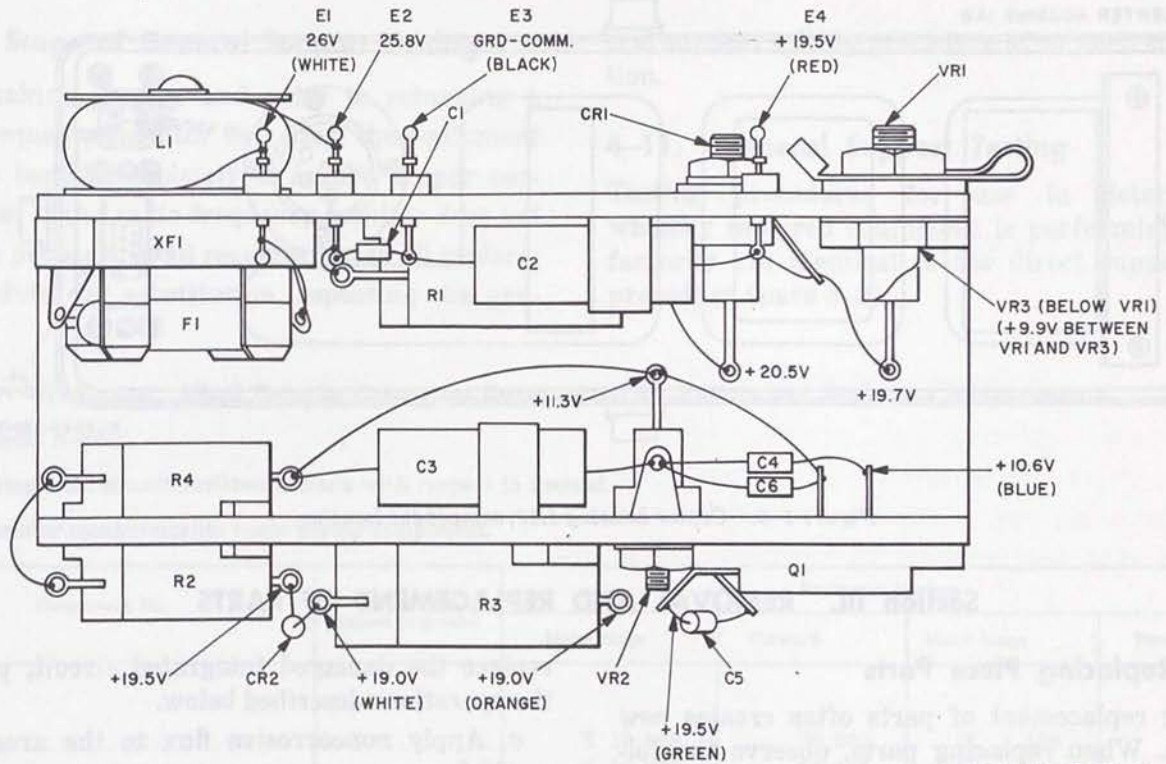
- NOTES
1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED
  2. PARTS, PIGTAILS, AND WIRING ON FRONT OF BOARD



EL5840-339-35-TM-12  
 R-1561/USQ-42  
 R-1561A/USQ-42

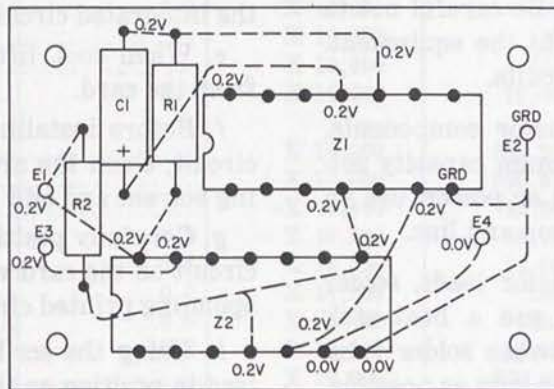


R-1561B/USQ-42



EL5840-339-35-TM-13

Figure 4-4. Vehicle mounting adapter, component location.



NOTES

1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
3. - - - WIRING ON BACK OF BOARD.

EL5840-339-35-TM-14

Figure 4-5. Blank detector component board 1A1A1A2(TB2), component location.

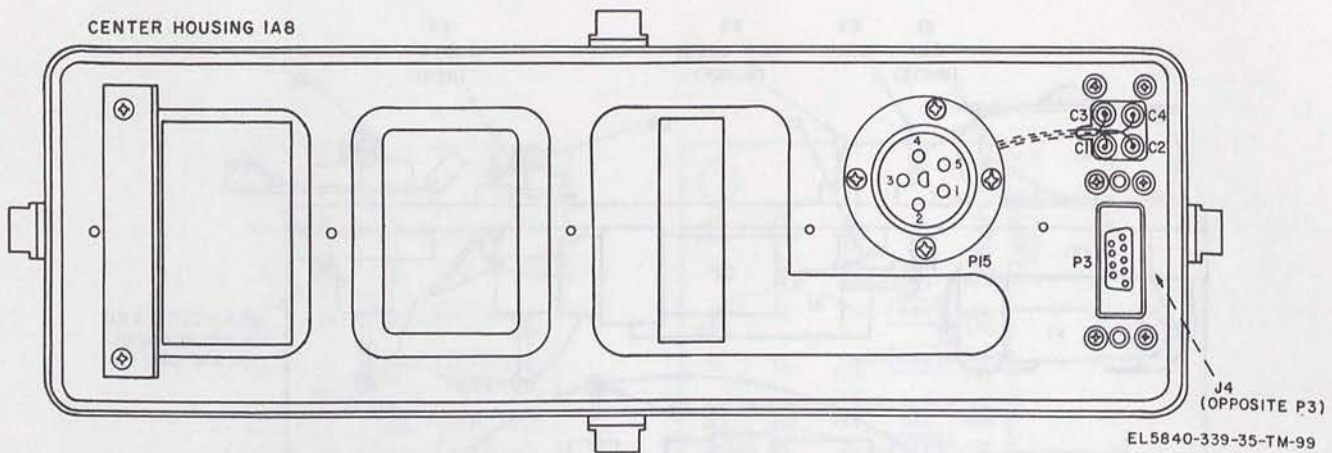


Figure 4-6. Center housing 1A8, component location.

### Section III. REMOVAL AND REPLACEMENT OF PARTS

#### 4-8. Replacing Piece Parts

Careless replacement of parts often creates new troubles. When replacing parts, observe the following precautions:

a. Before unsoldering part, note position of leads. If part has a number of leads, tag each lead for identification when replacing the part. Use care to avoid damage to other leads by rough pulling or pushing to obtain access.

b. Make good soldered joints. Be careful not to allow drops of solder to fall into the equipment. Solder drops may cause short circuits.

c. When soldering semiconductor components, use a pencil-type, 25-watt maximum capacity soldering iron. If iron is used with ac power, use an isolating transformer between iron and line.

d. When soldering semiconductor leads, solder quickly. When wiring permits use a heat sink (such as needle-nose pliers) between solder joint and semiconductor. Keep leads as long as possible.

#### 4-9. Replacing Integrated Circuits

When replacing integrated circuits, use extreme care. Excessive heat can ruin the internal circuit as well as the printed wiring pattern, excessive pulling or bending can break off the terminal leads, and bad connections can result in the shorting or opening of leads. The tools and materials required for this operation include a low power (37.5 watts maximum) soldering iron, a scribe (made of an untinnable metal), noncorrosive flux, and fine (1/32 inch) wire solder. To remove and

replace the damaged integrated circuit, perform the operations described below.

a. Apply noncorrosive flux to the area to be worked.

b. Hold the hot tip of the soldering iron against the integrated circuit lead until the solder melts.

c. Using the scribe, gently lift the lead until it is free from the solder point.

d. Proceed to the next integrated circuit lead and repeat steps a and b above until all leads of the integrated circuit have been removed.

e. When cool, lift the whole integrated circuit from the card.

f. Before installing the replacement integrated circuit, clean the areas to be soldered with cleaning solvent and add noncorrosive flux.

g. Carefully position the replacement integrated circuit on the card with leads aligned to the corresponding printed circuit solder points.

h. Using the scribe, hold the integrated circuit lead in position on the solder joint.

i. Apply the tip of the hot soldering iron to the integrated circuit lead at the solder joint until the solder on the lead melts onto the solder joint.

j. When solder joint has cooled, remove the scribe.

k. Repeat steps h through j above for each integrated circuit lead. Care must be taken to prevent solder from short circuiting any of the integrated circuit leads to the case or to each other.

l. Clean board to remove flux and replace conformal coating.

Section IV. GENERAL SUPPORT TESTING

4-10. Scope of General Support Testing

After making repairs and prior to returning a radio frequency monitor to a user, the equipment must be tested completely to insure proper performance. If the radio frequency monitor does not perform properly in all respects, check all replaceable modules by substitution, repeating the gen-

eral support testing procedure after each substitution.

4-11. General Support Testing

Testing procedures for use in determining whether repaired equipment is performing satisfactorily are identical to the direct support test procedure (para 3-9).

Table 4-6. Blank Detector Component Board 1A1A1A2, Voltage and Resistance Measurements

Measurement Notes:

- a. Integrated circuit resistance made with respect to ground.
- b. Resistor measurements made across component.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
<b>Z1</b>					
Pin 1		X 10,000	26,000	X 100	700
2	0.2	X 10,000	26,000	X 100	700
3		X 10,000	INF	X 100	1,250
4	0.2	X 10,000	26,000	X 100	700
5		X 10,000	10,000	X 100	900
6	0.2	X 10,000	14,000	X 100	1,000
7	0.0	X 100	GRD	X 100	GRD
8		X 10,000	INF	X 100	INF
9		X 10,000	28,000	X 10,000	28,000
10	0.2	X 10,000	20,000	X 10,000	20,000
11	0.2	X 10,000	12,000	X 100	850
12		X 10,000	INF	X 100	INF
13		X 10,000	INF	X 100	INF
14	0.2	X 10,000	10,000	X 100	600
<b>Z2</b>					
Pin 1		X 10,000	800,000	X 100	1,000
2		X 10,000	800,000	X 100	1,100
3		X 10,000	12,000	X 100	1,250
4	0.2	X 10,000	26,000	X 100	700
5	0.2	X 10,000	14,000	X 100	900
6	0.0	X 10,000	INF	X 100	1,000
7	0.0	X 100	GRD	X 100	GRD
8	0.2	X 10,000	26,000	X 100	700
9		X 10,000	800,000	X 100	1,000
10		X 10,000	800,000	X 100	1,000
11		X 10,000	12,000	X 100	850
12		X 10,000	800,000	X 100	1,100
13	0.2	X 10,000	27,000	X 100	800
14	0.2	X 10,000	10,000	X 100	600
R1		X 100	4,500	X 100	15,000
R2		X 100	2,400	X 100	15,000

### Section IV. GENERAL SUPPLY TESTING

4-10. Scope of General Supply Testing:  
This testing is to be conducted on all general supply items which are used in the laboratory. It is to be conducted on a regular basis, and the results are to be reported to the Laboratory Director.

4-11. General Supply Testing:  
The testing procedure is to be as follows:  
1. The item to be tested is to be identified by the Laboratory Director.  
2. The item is to be tested in accordance with the procedure specified in the Laboratory Director's report.

After testing has been completed, a report is to be prepared. This report is to contain the following information:  
1. Name of item tested.  
2. Lot number.  
3. Date tested.  
4. Name of tester.  
5. Results of test.

4-12. Reporting of Results:  
The results of the testing are to be reported to the Laboratory Director on a regular basis. The report is to be in the form of a summary report.

Item No.	Description	Quantity	Unit Price	Total Price	Remarks
1001	...	...	...	...	...
1002	...	...	...	...	...
1003	...	...	...	...	...
1004	...	...	...	...	...
1005	...	...	...	...	...
1006	...	...	...	...	...
1007	...	...	...	...	...
1008	...	...	...	...	...
1009	...	...	...	...	...
1010	...	...	...	...	...
1011	...	...	...	...	...
1012	...	...	...	...	...
1013	...	...	...	...	...
1014	...	...	...	...	...
1015	...	...	...	...	...
1016	...	...	...	...	...
1017	...	...	...	...	...
1018	...	...	...	...	...
1019	...	...	...	...	...
1020	...	...	...	...	...
1021	...	...	...	...	...
1022	...	...	...	...	...
1023	...	...	...	...	...
1024	...	...	...	...	...
1025	...	...	...	...	...
1026	...	...	...	...	...
1027	...	...	...	...	...
1028	...	...	...	...	...
1029	...	...	...	...	...
1030	...	...	...	...	...
1031	...	...	...	...	...
1032	...	...	...	...	...
1033	...	...	...	...	...
1034	...	...	...	...	...
1035	...	...	...	...	...
1036	...	...	...	...	...
1037	...	...	...	...	...
1038	...	...	...	...	...
1039	...	...	...	...	...
1040	...	...	...	...	...

4-13. Approval and Signature:  
The results of the testing are to be approved by the Laboratory Director. The report is to be signed by the Laboratory Director.

## CHAPTER 5 DEPOT MAINTENANCE

### Section I. GENERAL

#### 5-1. Scope of Depot Maintenance

Depot maintenance of the radio frequency monitor includes troubleshooting, repair, adjustment, and alignment of modules. All repaired modules must be tested, and aligned if the test indicates a need for alignment, before being returned to service.

#### 5-2. Test Equipment Required

a. The following chart lists the items of test equipment that are required for depot maintenance of the radio frequency monitor. It also lists the technical manuals covering the use of the test instruments.

Common name	Type/model	Technical manual
Attenuator.....	CN-796/U.....	TB 9-5985-306-50
Audio oscillator.....	TS-421A/U.....	TM 11-6625-355-12
Distortion analyzer.....	Hewlett-Packard 334A.....	TM 11-6625-1576-15
Fm signal generator.....	TS-452D/U.....	TM 11-6625-575-15
	or	
	Marconi Instruments TF 2006	
Frequency counter.....	AN/USM-207.....	TM 11-6625-700-10
Multimeter.....	TS-352B/U.....	TM 11-6625-366-15
Oscilloscope.....	AN/USM-140B.....	TM 11-6625-535-15-1
Power supply (28v).....	PP-2309A/U.....	TM 11-6130-245-15
Power supply (7.5v).....	PP-3514/U.....	TM 11-6625-617-12
Precision RF sweep generator.....	Jerrold 707-D.....	TM 11-6625-1558-15
	or	
	Kruse-Storke Sweeper model 5000, with plug-in oscillator 5008A.	
RF detector.....	Telonic XD-3A or XD-8A	
RF voltmeter.....	AN/URM-145.....	TM 11-6625-524-15-1
Rms voltmeter.....	Hewlett-Packard 3400A.....	TM 11-6625-1541-15
Signal generator.....	AN/URM-70.....	TM 11-1258
Sweep generator.....	AN/USM-203.....	TM 11-6625-1559-12
Test set.....	AN/USM-314.....	TM 11-6625-1843-15
Toolkit.....	TK-100/G.....	SC 5180-91-CL-S21

b. Extender cables are necessary to make it possible to use a properly operating radio frequency monitor as a hot mockup for troubleshooting a module. If the necessary extender cables are not available, they may be constructed by interconnecting all corresponding terminals of spare plugs and jacks (fig. 6-10). Refer to the repair parts and special tools list for stock numbers.

#### 5-3. Troubleshooting and Repair Instructions

a. The troubleshooting setup (fig. 4-1) shows

the radio frequency monitor partially disassembled for use as a test fixture for troubleshooting the electronic modules. Disassemble the monitor for troubleshooting and repair as described in paragraph 4-5a. Replace all modules, extending the module under test with extender cables for easy access.

#### CAUTION

Never adjust any control on the modules except when following the alignment instructions contained in paragraphs 5-4 and 5-5, or when following procedures

requiring adjustments. Some controls are interacting and it may be necessary to perform the full alignment procedure when making an adjustment.

b. All troubleshooting, repair, and replacement procedures should be followed by alignment procedures for the applicable module to insure that the circuits are operating normally and meet performance standards. Whenever components or wiring are removed or replaced, observe the following:

(1) Use a low wattage soldering iron and apply only enough heat to melt the solder. Excessive heat may cause the metal on the printed circuit board to separate from the base material or damage elements in resistors, inductors, capacitors, and semiconductors.

(2) Remove all solder from holes before inserting any component.

(3) Before removing an integrated circuit, first cut the leads of the IC with diagonal pliers; next, remove the remaining leads of the circuit with soldering iron and long-nose pliers; then, clean the holes.

(4) To replace an integrated circuit, first insert the leads in the holes; next, trim for length and clearance; then resolder with a low wattage iron.

(5) Since routing of the wires may be critical for proper operation, do not reroute the interconnecting jumper wires within an assembly.

c. The procedures in this chapter are for replaceable modules (1A3, 1A4, 1A5, and 1A6). In the procedures it is assumed that trouble has been sectionalized to the module (para 3-5), and that trouble is in the module covered by the procedure.

d. Tables 5-1, 5-2, and 5-3 are provided for a fast check of frequencies at various test points. Table 5-1 lists the received and local oscillator frequencies by channel number. Tables 5-2 (plain and A models) and 5-3 (B model) list the test point frequencies by oscillator and channel number for the receiver.

e. To help locate and identify defective components, each troubleshooting procedure for the receiver includes component locations, printed wiring diagrams, and resistance tables. Voltage measurements have been included on the component location diagrams for convenience. When using voltage and resistance measurements, carefully read notes and duplicate conditions under which normal readings were obtained. The following chart is provided to give the repairman a quick reference to troubleshooting reference data.

Module/board	Circuit	Alignment procedure (para)	Troubleshooting procedure (para)	Schematic (figure)	Component location (figure)	Voltage & resistance (table)
1A6A1	Oscillators.....	5-4b	5-7	6-3	5-14	5-4
	Low freq. band pass filter.....	5-4c	5-8	6-3	5-14	5-4
	High freq. band pass filter.....	5-4d	5-9	6-3	5-14	5-4
	Output level and balance.....	5-4e	5-9	6-3	5-14	5-4
	First IF amp.....	5-4g	5-11	6-3	5-14	5-6
1A6A2	Preselector.....	5-4f	5-10	6-2	5-15	5-5
1A5A1	Second L. O. ....	5-5b	5-13	6-4	6-12	5-7
	Second mixer & IF amp.....	5-5c	5-14	6-4	6-12	5-8
	Audio amplifier.....	5-5e	5-16	6-4	6-12	5-10
	AGC.....	5-5f	5-17	6-4	6-12	5-11
	Squelch.....		5-18	6-4	6-12	5-10
1A5A1A1	Discriminator.....	5-5d	5-15	6-4	5-17	5-9
1A5A1A2	Tone filter demodulator A.....	5-5g	5-19	6-4	5-18	5-12
1A5A1A3	Tone filter demodulator B.....	5-5g	5-19	6-4	5-18	5-12
1A5A1A4	Tone filter demodulator C.....	5-5g	5-19	6-4	5-18	5-12
1A4A1	Temporary storage.....		5-20	6-6	5-21	5-14
1A4A2	Demodulator gates.....		5-20	6-5	5-20	5-13
1A3A1	Decoder power logic.....		5-21	6-8	5-24	5-16
1A3A2	Permanent storage.....		5-21	6-7	5-23	5-15



Table 5-1. Frequency Assignments

Channel No.	Received frequency (MHz)	Synthesized L.O. freq. (MHz)	Channel No.	Received frequency (MHz)	Synthesized L.O. freq. (MHz)
00	161.500	140.000	20	164.875	143.375
01	162.250	140.750	21	165.625	144.125
02	163.000	141.500	22	166.375	144.875
03	163.750	142.250	23	167.125	145.625
04	164.500	143.000	24	167.875	146.375
05	165.250	143.750	25	168.625	147.125
06	166.000	144.500	26	169.375	147.875
07	166.750	145.250	27	170.125	148.625
08	167.500	146.000	28	170.875	149.375
09	168.250	146.750	29	171.625	150.125
10	169.000	147.500	30	172.375	150.875
11	169.750	148.250	31	173.125	151.625
12	170.500	149.000	32	173.875	152.375
13	171.250	149.750	33	174.625	153.125
14	172.000	150.500	34	175.375	153.875
15	172.750	151.250	35	161.125	139.625
16	173.500	152.000	36	161.875	140.375
17	162.625	141.125	37	174.250	152.750
18	163.375	141.875	38	175.000	153.500
19	164.125	142.625	39	175.750	154.200

Frequency deviation = 50 kHz ± 20 kHz.

Table 5-2. Test Point Frequencies, R1561 and R1561A/USQ-42

Channel	f <sub>1</sub> (TP1)		f <sub>2</sub> (TP3)		(f <sub>1</sub> +f <sub>2</sub> )(TP4) MHz	f <sub>3</sub> (TP2)		(f <sub>1</sub> +f <sub>2</sub> +f <sub>3</sub> )(TP5) MHz	Tuning voltages	
	Osc.	MHz	Osc.	MHz		Osc.	MHz		A1E14	A1E15
01	A2	28.75	A10	12.900	41.65	A6	99.10	140.750	2.2	1.3
02	A3	29.50	A10	12.900	42.40	A6	99.10	141.500	3.0	1.3
03	A4	30.25	A10	12.900	43.15	A6	99.10	142.250	3.9	1.3
04	A5	31.00	A10	12.900	43.90	A6	99.10	143.000	4.8	1.3
05	A1	28.00	A10	12.900	40.90	A7	102.35	143.750	1.2	2.3
06	A2	29.75	A10	12.900	41.65	A7	102.35	144.500	2.2	2.3
07	A3	29.50	A10	12.900	42.40	A7	102.35	145.250	3.0	2.3
08	A4	30.25	A10	12.900	43.15	A7	102.35	146.000	3.9	2.3
09	A5	31.00	A10	12.900	43.90	A7	102.35	146.750	4.8	2.3
10	A1	28.00	A10	12.900	40.90	A8	106.60	147.500	1.2	4.2
11	A2	28.75	A10	12.900	41.65	A8	106.60	148.250	2.2	4.2
12	A3	29.50	A10	12.900	42.40	A8	106.60	149.000	3.0	4.2
13	A4	30.25	A10	12.900	43.15	A8	106.60	149.750	3.9	4.2
14	A5	31.00	A10	12.900	43.90	A8	106.60	150.500	4.8	4.2
15	A1	28.00	A10	12.900	40.90	A9	110.35	151.250	1.2	5.4
16	A2	28.75	A10	12.900	41.65	A9	110.35	152.000	2.2	5.4
17	A3	29.50	A11	12.525	42.025	A6	99.10	141.125	3.0	1.3
18	A4	30.25	A11	12.525	42.775	A6	99.10	141.875	3.9	1.3
19	A5	31.00	A11	12.525	43.525	A6	99.10	142.625	4.8	1.3
20	A1	28.00	A11	12.525	40.525	A7	102.35	143.375	1.2	2.3
21	A2	28.75	A11	12.525	41.275	A7	102.35	144.125	2.2	2.3
22	A3	29.50	A11	12.525	42.025	A7	102.35	144.875	3.0	2.3
23	A4	30.25	A11	12.525	42.775	A7	102.35	145.625	3.9	2.3
24	A5	31.00	A11	12.525	43.525	A7	102.35	146.375	4.8	2.3
25	A1	28.00	A11	12.525	40.525	A8	106.60	147.125	1.2	4.2
26	A2	28.75	A11	12.525	41.275	A8	106.60	147.875	2.2	4.2
27	A3	29.50	A11	12.525	42.025	A8	106.60	148.625	3.0	4.2
28	A4	30.25	A11	12.525	42.775	A8	106.60	149.375	3.9	4.2
29	A5	31.00	A11	12.525	43.525	A8	106.60	150.125	4.8	4.2
30	A1	28.00	A11	12.525	40.525	A9	110.35	150.875	1.2	5.4
31	A2	28.75	A11	12.525	41.275	A9	110.35	151.625	2.2	5.4

Table 5-3. Test Point Frequencies, R-1561B/USQ-42

Channel	f <sub>1</sub> (TP1)		f <sub>2</sub> (TP3)		(f <sub>1</sub> +f <sub>2</sub> )(TP4) MHz	f <sub>3</sub> (TP2)		(f <sub>1</sub> +f <sub>2</sub> +f <sub>3</sub> )(TP5) MHz	Tuning voltages	
	Osc.	MHz	Osc.	MHz		Osc.	MHz		A1E14	A1E15
00	A1	28.00	A10	12.900	40.90	A6	99.10	140.000	1.2	0.7
01	A2	28.75	A10	12.900	41.65	A6	99.10	140.750	2.2	0.7
02	A3	29.50	A10	12.900	42.40	A6	99.10	141.500	3.0	0.7
03	A4	30.25	A10	12.900	43.15	A6	99.10	142.250	3.9	0.7
04	A5	31.00	A10	12.900	43.90	A6	99.10	143.000	4.8	0.7
05	A1	28.00	A10	12.900	40.90	A7	102.35	143.750	1.2	2.2
06	A2	28.75	A10	12.900	41.65	A7	102.35	144.500	2.2	2.2
07	A3	29.50	A10	12.900	42.40	A7	102.35	145.250	3.0	2.2
08	A4	30.25	A10	12.900	43.15	A7	102.35	146.000	3.9	2.2
09	A5	31.00	A10	12.900	43.90	A7	102.35	146.750	4.8	2.2
10	A1	28.00	A10	12.900	40.90	A8	106.60	147.500	1.2	4.3
11	A2	28.75	A10	12.900	41.65	A8	106.60	148.250	2.2	4.3
12	A3	29.50	A10	12.900	42.40	A8	106.60	149.000	3.0	4.3
13	A4	30.25	A10	12.900	43.15	A8	106.60	149.750	3.9	4.3
14	A5	31.00	A10	12.900	43.90	A8	106.60	150.500	4.8	4.3
15	A1	28.00	A10	12.900	40.90	A9	110.35	151.250	1.2	6.5
16	A2	28.75	A10	12.900	41.65	A9	110.35	152.000	2.2	6.5
17	A3	29.50	A11	12.525	42.025	A6	99.10	141.125	3.0	0.7
18	A4	30.25	A11	12.525	42.775	A6	99.10	141.875	3.9	0.7
19	A5	31.00	A11	12.525	43.525	A6	99.10	142.625	4.8	0.7
20	A1	28.00	A11	12.525	40.525	A7	102.35	143.375	1.2	2.2
21	A2	28.75	A11	12.525	41.275	A7	102.35	144.125	2.2	2.2
22	A3	29.50	A11	12.525	42.025	A7	102.35	144.875	3.0	2.2
23	A4	30.25	A11	12.525	42.775	A7	102.35	145.625	3.9	2.2
24	A5	31.00	A11	12.525	43.525	A7	102.35	146.375	4.8	2.2
25	A1	28.00	A11	12.525	40.525	A8	106.60	147.125	1.2	4.3
26	A2	28.75	A11	12.525	41.275	A8	106.60	147.875	2.2	4.3
27	A3	29.50	A11	12.525	42.025	A8	106.60	148.625	3.0	4.3
28	A4	30.25	A11	12.525	42.775	A8	106.60	149.375	3.9	4.3
29	A5	31.00	A11	12.525	43.525	A8	106.60	150.125	4.8	4.3
30	A1	28.00	A11	12.525	40.525	A9	110.35	150.875	1.2	6.5
31	A2	28.75	A11	12.525	41.275	A9	110.35	151.625	2.2	6.5
32	A3	29.50	A11	12.525	42.025	A9	110.35	152.375	3.0	6.5
33	A4	30.25	A11	12.525	42.775	A9	110.35	153.125	3.9	6.5
34	A5	31.00	A11	12.525	43.525	A9	110.35	153.875	4.8	6.5
35	A1	28.00	A11	12.525	40.525	A6	99.10	139.625	1.2	0.7
36	A2	28.75	A11	12.525	41.275	A6	99.10	140.375	2.2	0.7
37	A3	29.50	A10	12.900	42.400	A9	110.35	152.750	3.0	6.5
38	A4	30.25	A10	12.900	43.150	A9	110.35	153.500	3.9	6.5
39	A5	31.00	A10	12.900	43.900	A9	110.35	154.250	4.8	6.5

Section II. ALIGNMENT PROCEDURES

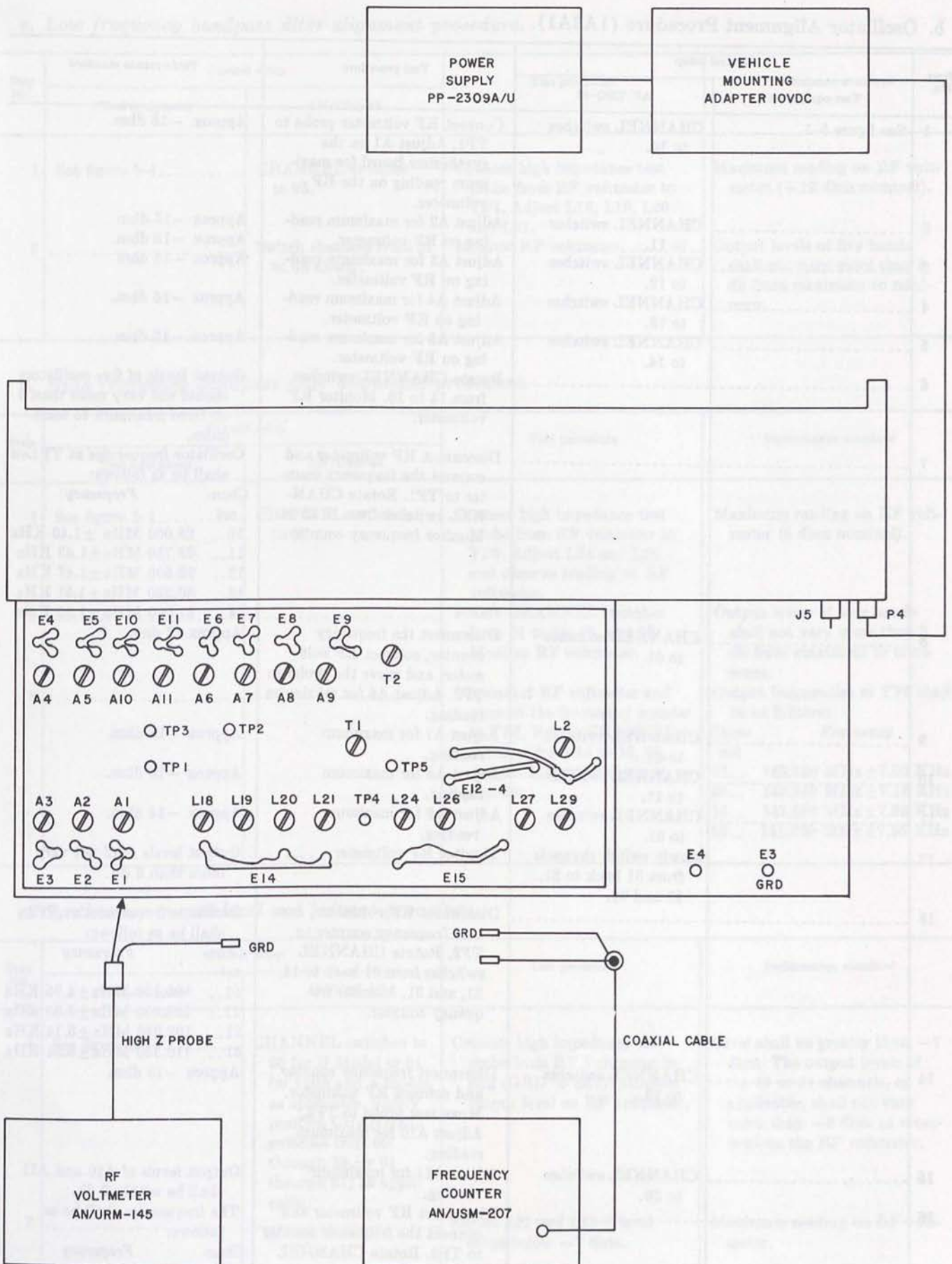
5-4. Alignment of Preselector-Synthesizer 1A6

a. General. The preselector-synthesizer may be aligned using the front panel housing of the receiver as a test fixture. Set up the equipment as shown in figure 5-1, and remove the cover plate from module 1A6. Alignment of the preselector-synthesizer consists of RF level and frequency adjustments described in the following procedures:

- (1) Alignment of the oscillators (b below).
- (2) Alignment of the low frequency bandpass filter (c below).
- (3) Alignment of the high frequency bandpass filter (d below).
- (4) Synthesizer output Level and Balance (e below).
- (5) Preselector (f below).
- (6) First IF amplifier (g below).

CAUTION:

Before adjusting the ferrite slug of any oscillator or tunable coil, soften or dissolve the sealant on the slug with trichlorethylene or equivalent solvent. Adjust slugs with a non-conductive, non-magnetic tool (plastic or ceramic).



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Figure 5-1. Synthesizer alignment setup.

b. Oscillator Alignment Procedure (1A6A1).

Step No.	Control setup		Test procedure	Performance standard												
	Test equipment	AN/USQ-42														
1	See figure 5-1	CHANNEL switches to 10.	Connect RF voltmeter probe to TP1. Adjust A1 on the synthesizer board for maximum reading on the RF voltmeter.	Approx. -15 dbm												
2		CHANNEL switches to 11.	Adjust A2 for maximum reading on RF voltmeter.	Approx -15 dbm												
3		CHANNEL switches to 12.	Adjust A3 for maximum reading on RF voltmeter.	Approx -16 dbm												
4		CHANNEL switches to 13.	Adjust A4 for maximum reading on RF voltmeter.	Approx -16 dbm.												
5		CHANNEL switches to 14.	Adjust A5 for maximum reading on RF voltmeter.	Approx -17 dbm.												
6			Rotate CHANNEL switches from 14 to 10. Monitor RF voltmeter.	Output levels of five oscillators should not vary more than 3 db from minimum to maximum.												
7			Disconnect RF voltmeter and connect the frequency counter to TP1. Rotate CHANNEL switches from 10 to 14. Monitor frequency counter.	Oscillator frequencies at TP1 shall be as follows: <table border="1"> <thead> <tr> <th>Channel</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>10--</td> <td>28.000 MHz ±1.40 KHz</td> </tr> <tr> <td>11--</td> <td>28.750 MHz ±1.43 KHz</td> </tr> <tr> <td>12--</td> <td>29.500 MHz ±1.47 KHz</td> </tr> <tr> <td>13--</td> <td>30.250 MHz ±1.51 KHz</td> </tr> <tr> <td>14--</td> <td>31.000 MHz ±1.55 KHz</td> </tr> </tbody> </table>	Channel	Frequency	10--	28.000 MHz ±1.40 KHz	11--	28.750 MHz ±1.43 KHz	12--	29.500 MHz ±1.47 KHz	13--	30.250 MHz ±1.51 KHz	14--	31.000 MHz ±1.55 KHz
Channel	Frequency															
10--	28.000 MHz ±1.40 KHz															
11--	28.750 MHz ±1.43 KHz															
12--	29.500 MHz ±1.47 KHz															
13--	30.250 MHz ±1.51 KHz															
14--	31.000 MHz ±1.55 KHz															
8		CHANNEL switches to 01.	Disconnect the frequency counter, connect RF voltmeter, and move the probe to TP2. Adjust A6 for maximum reading.	Approx 12 dbm.												
9		CHANNEL switches to 21.	Adjust A7 for maximum reading.	Approx -13 dbm.												
10		CHANNEL switches to 11.	Adjust A8 for maximum reading.	Approx -15 dbm.												
11		CHANNEL switches to 31.	Adjust A9 for maximum reading.	Approx -14 dbm.												
12		slowly switch channels from 31 back to 21, 11 and 01.	Monitor RF voltmeter	Output levels shall not vary more than 3 db.												
13			Disconnect RF voltmeter, connect frequency counter to TP2. Rotate CHANNEL switches from 01 back to 11, 21, and 31. Monitor frequency counter.	Oscillator frequencies at TP2 shall be as follows: <table border="1"> <thead> <tr> <th>Channel</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>01--</td> <td>99.100 MHz ±4.95 KHz</td> </tr> <tr> <td>11--</td> <td>106.600 MHz ±5.33 KHz</td> </tr> <tr> <td>21--</td> <td>102.350 MHz ±5.14 KHz</td> </tr> <tr> <td>31--</td> <td>110.350 MHz ±5.51 KHz</td> </tr> </tbody> </table>	Channel	Frequency	01--	99.100 MHz ±4.95 KHz	11--	106.600 MHz ±5.33 KHz	21--	102.350 MHz ±5.14 KHz	31--	110.350 MHz ±5.51 KHz		
Channel	Frequency															
01--	99.100 MHz ±4.95 KHz															
11--	106.600 MHz ±5.33 KHz															
21--	102.350 MHz ±5.14 KHz															
31--	110.350 MHz ±5.51 KHz															
14		CHANNEL switches to 10.	Disconnect frequency counter and connect RF voltmeter. Move test probe to TP3. Adjust A10 for maximum reading.	Approx -13 dbm												
15		CHANNEL switches to 20.	Adjust A11 for maximum reading.	Output levels of A10 and A11 shall be within 2 db.												
16			Disconnect RF voltmeter and connect the frequency counter to TP3. Rotate CHANNEL switch from 20 to 10. Monitor frequency counter.	The frequencies shall be as follows: <table border="1"> <thead> <tr> <th>Channel</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>10--</td> <td>12.900 MHz ±645 KHz</td> </tr> <tr> <td>20--</td> <td>12.525 MHz ±626 KHz</td> </tr> </tbody> </table>	Channel	Frequency	10--	12.900 MHz ±645 KHz	20--	12.525 MHz ±626 KHz						
Channel	Frequency															
10--	12.900 MHz ±645 KHz															
20--	12.525 MHz ±626 KHz															

c. Low frequency bandpass filter alignment procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-1.....	CHANNEL switches to 05.	Connect high impedance test probe from RF voltmeter to TP4. Adjust L18, L19, L20 and L21. Monitor RF voltmeter.....	Maximum reading on RF voltmeter (-12 dbm nominal).  Output levels of five bands shall not vary more than 3 db from maximum to minimum.
2	.....	Switch channels from 01 to 05 slowly.		

d. High frequency bandpass filter alignment procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-1.....	CHANNEL switches to 01.	Connect high impedance test probe from RF voltmeter to TP5. Adjust L24 and L26 and observe reading on RF voltmeter.  Rotate CHANNEL switches from 01 to 05, 10, and 15. Monitor RF voltmeter.  Disconnect RF voltmeter and connect the frequency counter to TP5. Rotate CHANNEL switches from 15 to 10, 05, and 01. Monitor frequency counter.	Maximum reading on RF voltmeter (0 dbm nominal).  Output levels of four bands shall not vary more than 3 db from maximum to minimum.  Output frequencies at TP5 shall be as follows: Chan-                      Frequency nel 01.. 140.750 MHz ± 7.00 KHz 05.. 143.750 MHz ± 7.18 KHz 10.. 147.500 MHz ± 7.38 KHz 15.. 151.250 MHz ± 7.56 KHz
2	.....	.....		
3	.....	.....		

e. Synthesizer output level and balance procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-1.....	CHANNEL switches to 00 for B Model or 01 for plain and A model, as applicable. Slowly position CHANNEL switches from 00 through 39 (or 01 through 31) as applicable.	Connect high impedance test probe from RF Voltmeter to E22 (GRD to E21). Monitor output level on RF voltmeter.  Adjust L27 and L29 if level drops below -7 dbm.	Level shall be greater than -7 dbm. The output levels of the 40 or 31 channels, as applicable, shall not vary more than -6 dbm as measured on the RF voltmeter.  Maximum reading on RF voltmeter.
2	.....	.....		

f. Preselector alignment procedure.

Step No.	Control setup		Test procedure	Performance standard	
	Test equipment	AN/USQ-42			
1	See figure 5-2. FM signal generator FREQ RANGE: D OUTPUT ATTEN: -25 MODULATION: CW RF OUTPUT: +7 AMP TRIMMER: peaked up Sweep generator FREQ: 200 MHz BAND: Low RF ATTEN: 10 SW WIDTH: Mid-range MARKER SHAPER: CCW FIXED: CCW EXT/VAR: Appearance of marker.	CHANNEL selector switches to 30. (This sets the tuning voltages to 5.4v on the plain and A models; 6.5 VDC on the B model, as applicable.	Adjust the signal generator to a frequency of 172.375 MHz. Hold detector input lead to C13 and adjust C1 and C5 on preselector for presentation on the oscilloscope.	See waveform, figure 5-3a.	
2		Switch CHANNEL positions to 04.	Adjust C1 and C5 for proper waveshape.	The bandpass waveshape displayed on the oscilloscope will move down in frequency (to the left). The marker shall be less than 1.5 db down on the lower (left) skirt on the wave shape of the bandpass.	
3			Adjust the signal generator (used as a marker generator) to 161.125 MHz.		
4		Switch through all channels.	If amplitude variation exceeds 1.0 db (1 cm) readjust C1 and C5. Then repeat steps 1 through 4.	Amplitude variation shall not be greater than 1 cm. (Check calibration of scope for 1 db = cm).	
5		Remove probe with RF detector attached from C13 and connect it to E4.	Adjust C13 and C17 on preselector for a presentation.		
6		CHANNEL switch to 13.	Repeat steps 2 and 3.	See figure 5-3b.	
7			Select RF channels shown in the table below and check the upper and lower -1.5 db points, as listed for the 31 and 40 channel receivers.		
	RF CHANNEL	TUNING VOLTAGE at J6-5, VDC.	LOWER -1.5-db point, MHZ	UPPER -1.5-db point, MHZ.	
	31- Channel	01 and 04 20 and 09	1.3 2.3	162.250 164.875	164.500 168.250
	RF Alignment	25 and 14 30 and 31	4.2 5.4	168.625 172.375	172.000 173.125
	40- Channel	35 and 4 20 and 9	0.7 2.2	161.125 164.875	164.500 168.250
	RF Alignment	25 and 14 30 and 39	4.3 6.5	168.625 172.375	172.000 175.750
8	Change Sweep Generator marker input to J1 and the marker adder IN probe (RF Detector) to E4.		This reverses the sweep generator inputs to the preselector for regeneration check.	If any regeneration shows on the oscilloscope, neutralize these spikes or peaks by tuning C8 for minimum amplitude.	

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
9	Change marker Adder IN probe to E5. Adjust signal generator to 162.250 MHz. Adjust sweep generator and sweep width to obtain waveform on oscilloscope.	Select CHANNEL 01	Adjust L5 to center marker at top of waveform.	See figure 5-3c.
10	Remove connections to J1 and E5.	Cover J1 with 50-ohm termination.	Adjust R14 (with no signal source in a screened area) at 0 reading on HIGH position of signal strength meter.	Between 0 and 5 (on front panel of receiver.)

*g. First IF amplifier adjustment procedure.*

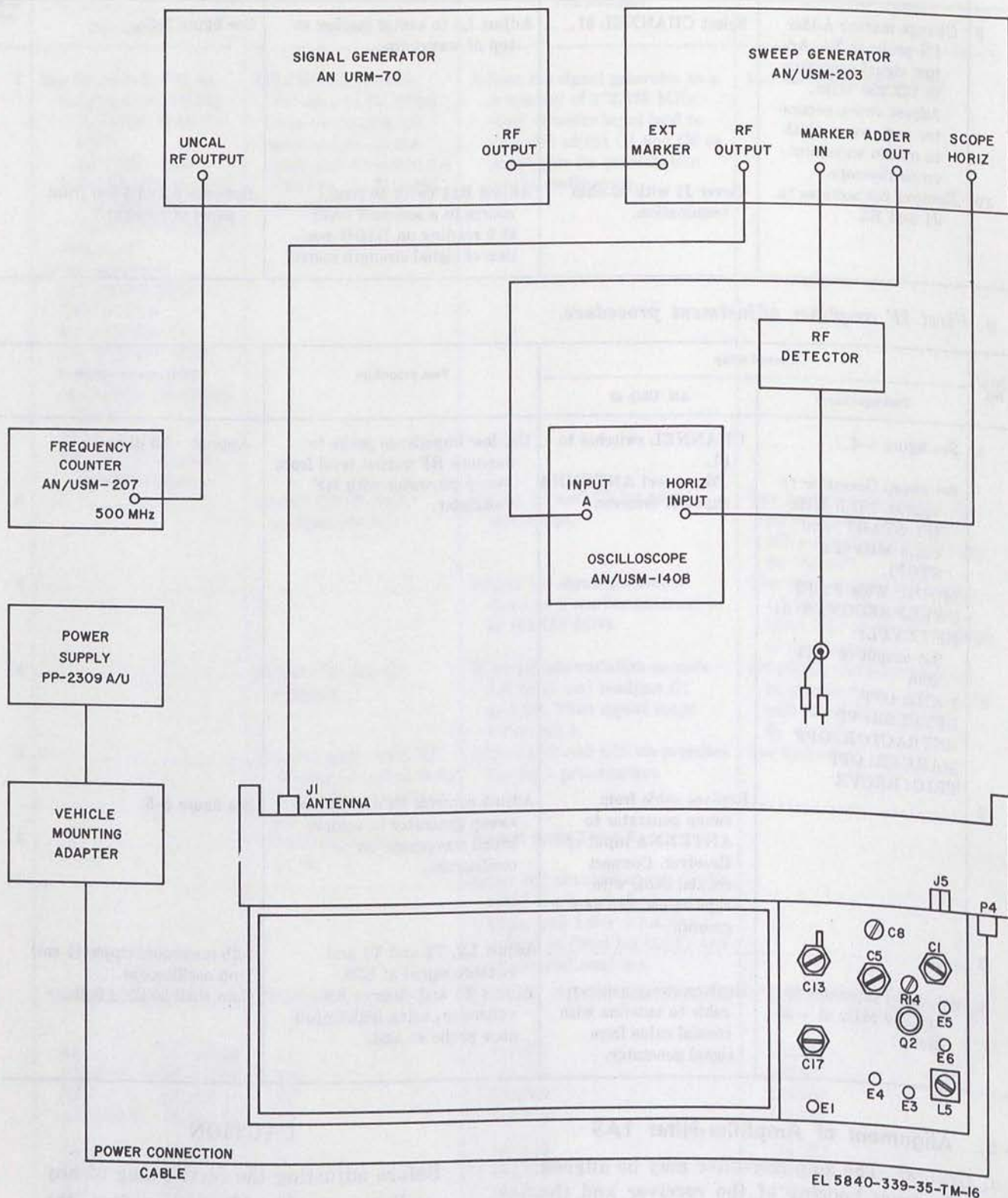
Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-4. Set sweep Generator to approx. 161.5 MHz (F1-START) and 162.5 MHz (F2-STOP). MODE: Wide F1-F2 SWEEP SECONDS: 01 RF LEVEL: Set output to -45 dbm 1 KHz: OFF LEVELER: VP RETRACTOR: OFF MARKER: OFF TRIG: RECVR	CHANNEL switches to 01. Disconnect ANTENNA input to receiver.	Use low impedance probe to measure RF output level from sweep generator with RF voltmeter.	Approx -45 dbm.
2		Replace cable from sweep generator to ANTENNA input of Receiver. Connect coaxial cable with clips across E23 and ground.	Adjust controls F1 and F2 on sweep generator to achieve broad waveshape on oscilloscope.	See figure 5-5.
3			Adjust L2, T2 and T1 and measure signal at E23.	1-db maximum ripple (1 cm) on oscilloscope.
4	Set signal generator to 162.250 MHz at -35 dbm.	Replace sweep generator cable to antenna with coaxial cable from signal generator.	Adjust T1 and observe RF voltmeter, using high impedance probe at E23.	Gain shall be 20 ± 3 db.

**5-5. Alignment of Amplifier-Filter 1A5**

**CAUTION**

*a. General.* The amplifier-filter may be aligned using the front housing of the receiver and the 1A6 module as a test fixture. Set up equipment as shown in figure 5-6. This is accomplished by removing amplifier-filter module from receiver as described in paragraph 3-7. Remove cover of module by removing 12 cross-recessed screws.

Before adjusting the ferrite slug of any oscillator, or tunable coil, soften the sealant on the slug with trichlorethylene or equivalent solvent. Adjust slugs with a nonconductive, nonmagnetic tool (plastic or ceramic).

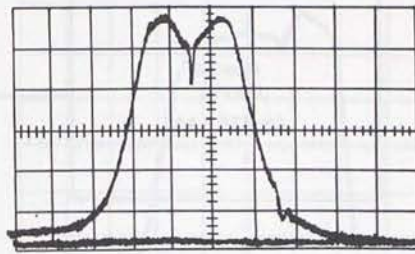


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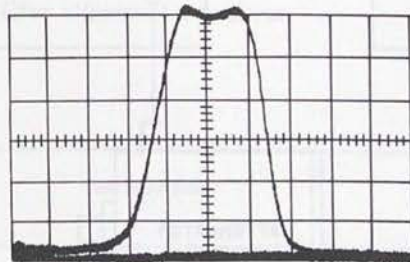
Figure 5-2. Preselector alignment setup.



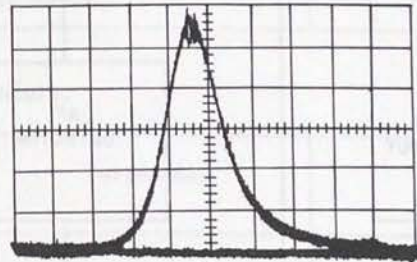
JSCILLOSCOPE CONTROL SETTINGS:  
 MILLIVOLTS/CM: 1  
 VARIABLE MV/CM MULTIPLIER: 1  
 INPUT SELECTOR: DC-A  
  
 HORIZONTAL DISPLAY: EXTERNAL  
 INPUT SIGNAL: -20 DBM  
  
 OTHER CONDITIONS: SEE  
 PRESELECTOR ALIGNMENT  
 PROCEDURE



A  
 RF INPUT  
 AT CAPACITOR 1A6A2 C13



B  
 FIRST LO OUTPUT  
 AT TERMINAL 1A6A2 E4



C  
 FIRST IF OUTPUT  
 AT TERMINAL 1A6A2 E5  
 EL5840-339-35-TM-17

Figure 5-3. Preselector alignment waveforms.

Alignment of the amplifier-filter consists of voltage, frequency, and wave shape adjustments described in the following procedures:

(1) Second local oscillator alignment (*b* below).

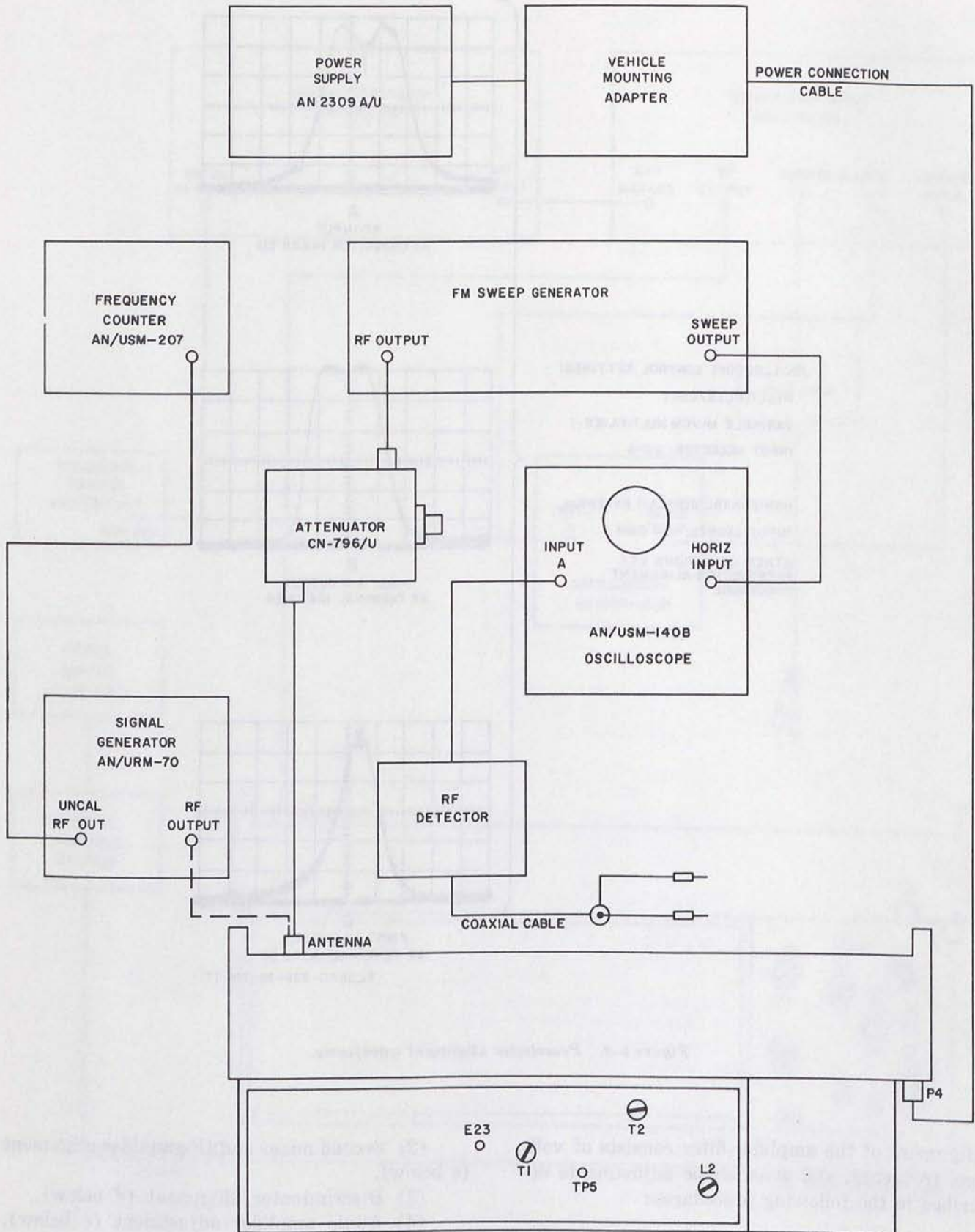
(2) Second mixer and IF amplifier alignment (*c* below).

(3) Discriminator alignment (*d* below).

(4) Audio amplifier adjustment (*e* below).

(5) AGC adjustment (*f* below).

(6) Tone filter demodulator test (*g* below).



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Figure 5-4. First IF amplifier alignment setup.

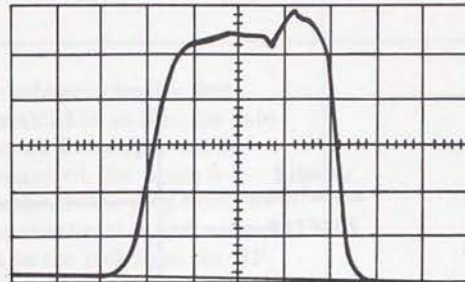
OSCILLOSCOPE CONTROL SETTINGS:

MILLIVOLTS/CM: 1

VARIABLE MV/CM: 1

HORIZONTAL DISPLAY: EXTERNAL

OTHER CONDITIONS: SEE FIRST  
IF AMPLIFIER ADJUSTMENT  
PROCEDURE



FIRST IF AMPLIFIER OUTPUT  
AT TERMINAL IA6AI E23

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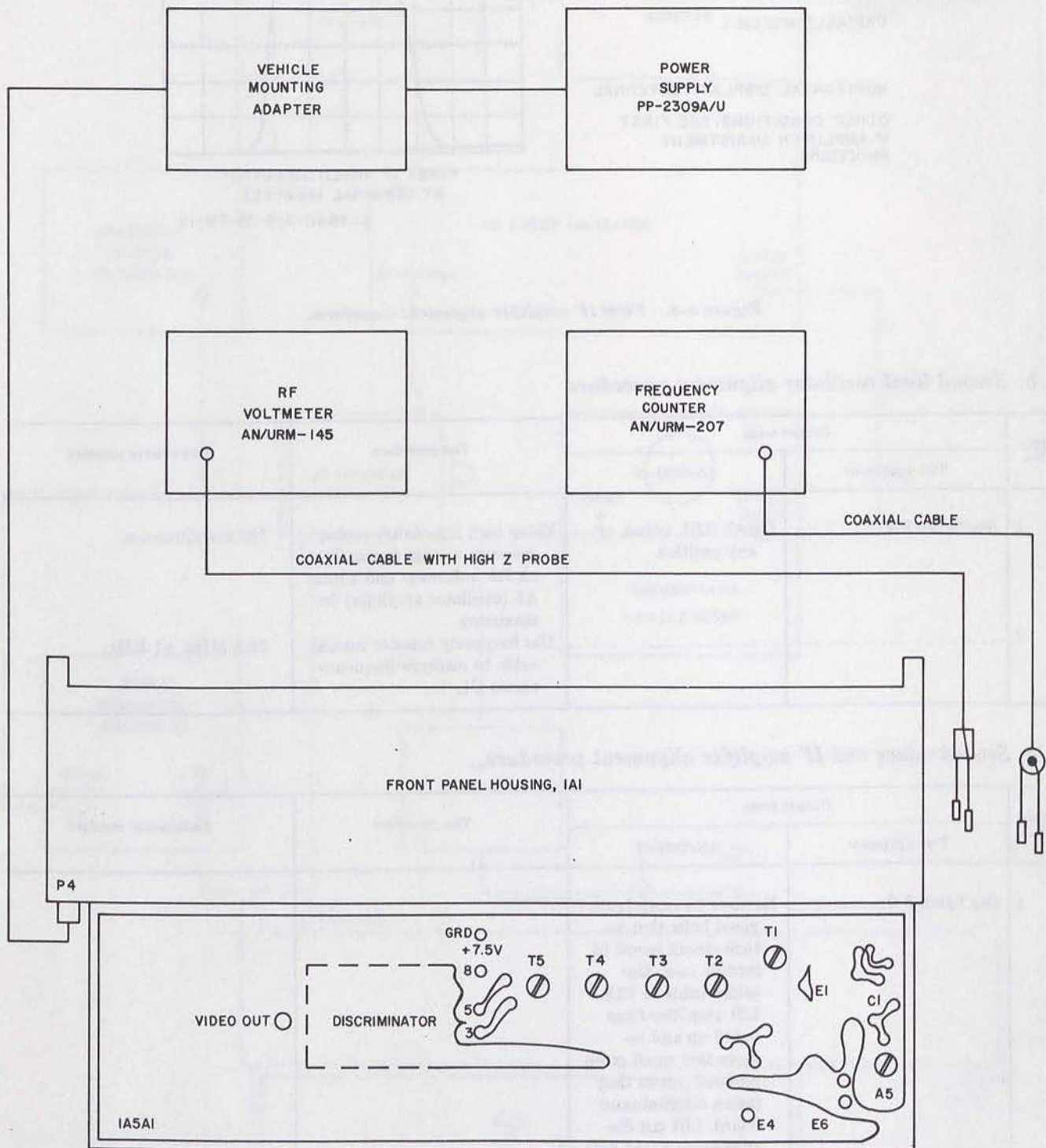
Figure 5-5. First IF amplifier alignment waveform.

b. Second local oscillator alignment procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-6-----	CHANNEL switch at any position.	Using high impedance probe, measure voltage across C1 on RF voltmeter and adjust A5 (oscillator amplifier) for maximum.  Use frequency counter coaxial cable to measure frequency across C1.	150 mv minimum.
2	-----	-----		26.5 MHz $\pm$ 1 KHz.

c. Second mixer and IF amplifier alignment procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-7-----	Remove 13 small hexagonal bolts that attach circuit board to module case. Unsolder cable to P13. Lift amplifier-filter board up and remove two small cross-recessed screws that fasten discriminator board. Lift out discriminator board held by pins to amplifier-filter board.		
2	Tune sweep generator to 21.5 MHz. Tune signal generator to 21.5 MHz.	To prevent AGC interaction during alignment, connect a jumper across terminals E4 and E6.		



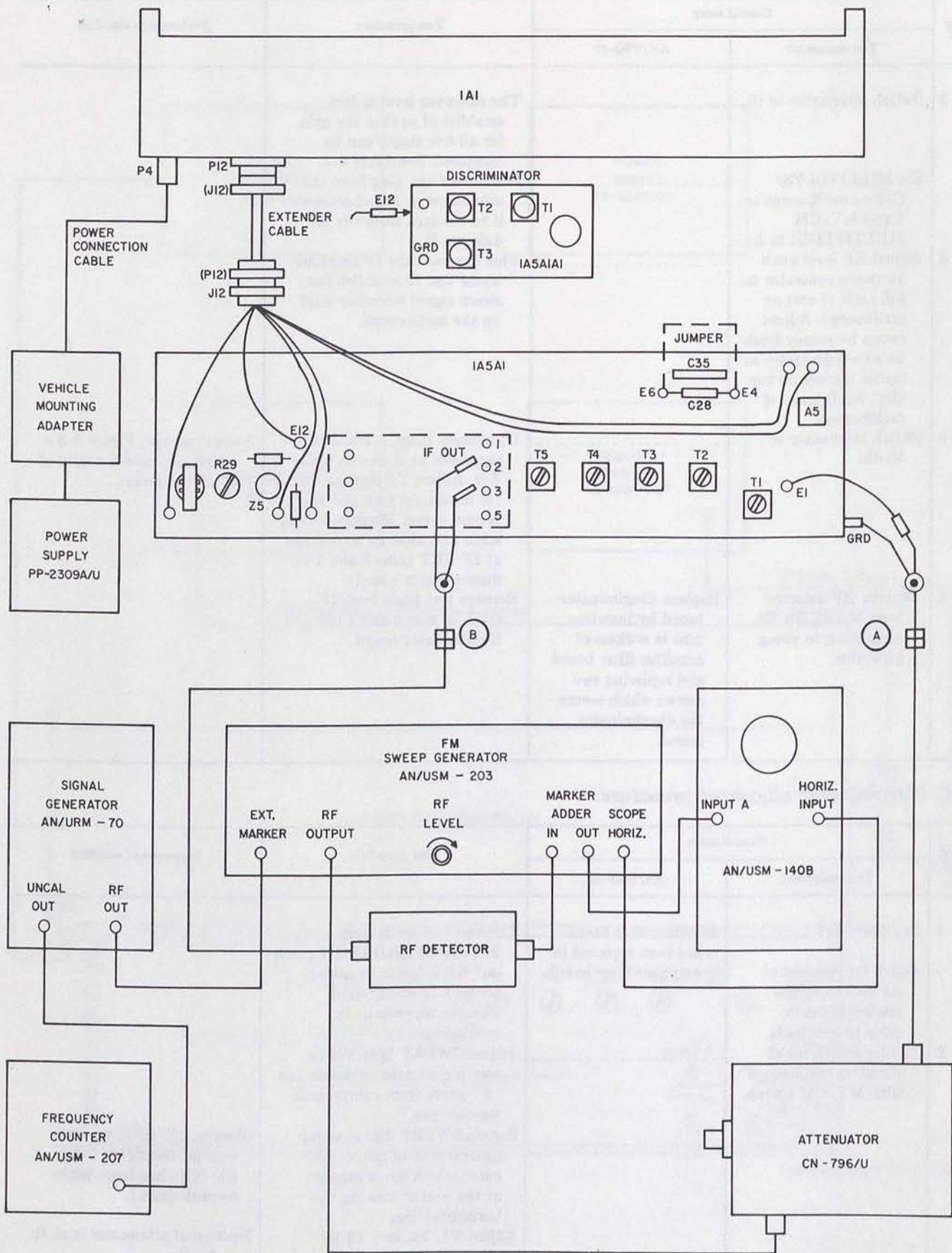
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Figure 5-6. Second local oscillator alignment setup.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
3	Switch attenuator to 10.		The reference level is first established so that the gain for all five stages can be measured. See figure 5-7.	
4	Set MILLIVOLTS/CM on oscilloscope to 1 and MV/CM MULTIPLIER to 5. Adjust RF level knob on sweep generator to full scale (6 cm) on oscilloscope. Adjust sweep frequency knob on sweep generator to center marker on top (DC level) trace of oscilloscope.		Disconnect the plug from the attenuator at A and connect it to the jack from the RF detector B. This bypasses the IF amplifier under test to establish the sweep signal reference level on the oscilloscope.	
5	Switch attenuator to 50 db.		Disconnect plugs A and B and reconnect as shown in figure 5-7. Adjust T1 through T5 for maximum gain and response curve. Measure attenuation and observe waveshape at IF OUT (pins 2 and 1 of discriminator board).	See waveshape, Figure 5-8 a which represents a gain of 50 db minimum.
6	Remove RF detector from MARKER IN connection to sweep generator.	Replace discriminator board by inserting pins in sockets of amplifier-filter board and replacing two screws which secure the discriminator board.	Remove test leads from IF OUT at pins 2 and 1 of discriminator board.	

*d. Discriminator alignment procedure.*

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-7. Check for removal of RF detector from marker adder in cable to test leads.	Discriminator board has been replaced in amplifier-filter board.	Connect test leads from MARKER ADDER IN (without RF detector in cable) across E12 and ground. Observe waveshape on oscilloscope.	
2	Reduce amplitude of signal on oscilloscope with MV/CM switch.		Adjust SWEEP WIDTH on sweep generator to obtain one "S" curve from compressed waveshapes. Rotate SWEEP dial of sweep generator to obtain an "S" curve which has a marker at the center crossing the horizontal line. Adjust T1, T2, and T3 for symmetry of "S" curve and positioning of 21.5-MHz marker at center.	Observe "S" curve on oscilloscope. See figure 5-8 b. 360-KHz bandpass peak-to-peak (min.).  Position of attenuator is at 49 or 50 db.



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Figure 5-7. Second mixer, second IF amplifier, and discriminator alignment setup.

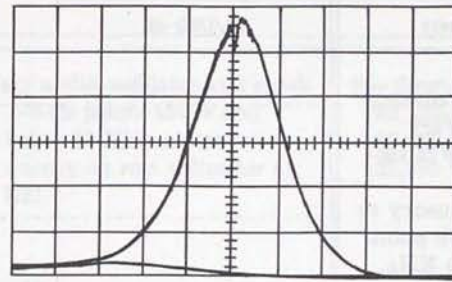
OSCILLOSCOPE CONTROL SETTINGS:

MILLIVOLTS/CM: 1

VARIABLE MV/CM: 5

HORIZONTAL DISPLAY: EXTERNAL

OTHER CONDITIONS SEE SECOND MIXER AND IF AMPLIFIER ALIGNMENT PROCEDURE



A  
IF OUTPUT  
AT IA5A1 PIN 2 TO PIN 1

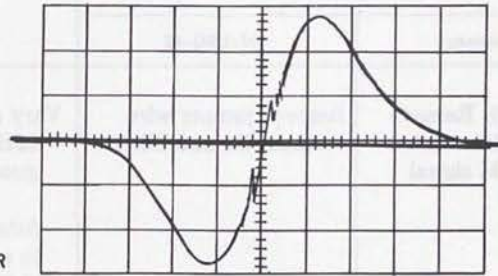
OSCILLOSCOPE CONTROL SETTINGS:

MILLIVOLTS/CM: 1

VARIABLE MV/CM MULTIPLIER: 50

HORIZONTAL DISPLAY: EXTERNAL

OTHER CONDITIONS SEE DISCRIMINATOR ALIGNMENT PROCEDURE



B  
WAVEFORM AT IA5A1E12  
EL5840-339-35-TM-22

Figure 5-8. Second mixer, second IF amplifier and discriminator alignment waveform.

e. Audio amplifier adjustment procedure.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-9  Set FM signal generator output at 1.0 mv and 21.5 MHz, as measured on RF voltmeter and observed on frequency counter.	Amplifier-filter board has been removed from module case by removing hexagonal bolts and unsoldering cable from P13.  Clip jumper wire across E4 and E6.		
2	Set Audio oscillator to 100 Hz. Adjust output.		Measure output with a 1K resistor across E20 and ground.	7.07 vac on rms voltmeter.
3			Switch output connector at A from RMS voltmeter to oscilloscope.	100 Hz sine wave on oscilloscope.
4	Switch output connector at A from oscilloscope to distortion analyzer.		Adjust R29 for minimum distortion.	Distortion shall not be more than 3.6%.

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
5	Change audio frequency to 1.0 KHz. Vary deviation on FM signal generator.			Rms voltmeter indicates 7.07. Frequency deviation, as read on FM signal generator shall be less than 75 KHz. Down 2-db point shall be below 100 Hz and above 3.0 KHz. Distortion shall be less than 3.6%.
6	Vary audio frequency to find down 2-db point relative to 1.0 KHz.			
7	Return audio frequency to 1.0 KHz.		Measure total harmonic distortion.	

*f. AGC adjustment procedure.*

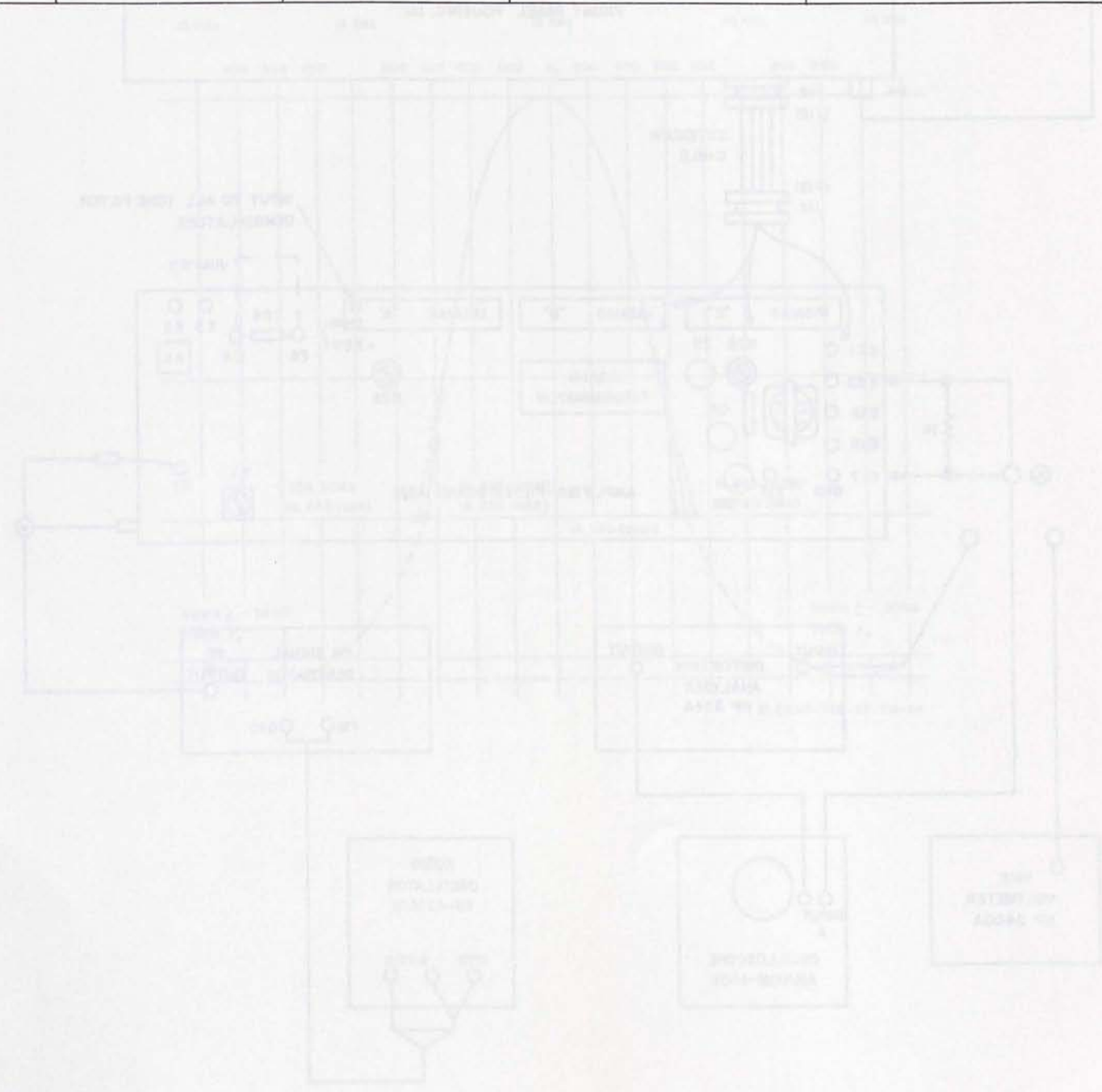
Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-9. Remove audio oscillator from input to FM signal generator.	Remove jumper wire across E4 and E6.	Vary an unmodulated 21.5-MHz signal from FM signal generator from 0.5 to 1.0 mv.  Attenuate FM signal input to a point where adjustment of R22 establishes threshold for carrier light sensitivity.	Output, as measured on multimeter, across E6 and E4 varies approximately from 1.6 to more than 4.0 vdc. R22 adjustment controls on-off condition of carrier light on front panel.

*g. Tone filter demodulator test procedures.*

Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
1	See figure 5-9	Insert FM input at E1 and ground.		
2	Modulate FM signal generator (30 KHz deviation) with tone filter A frequency: 19 KHz.		Using RMS voltmeter, measure output at E3 (tone A).	0.6 v at 0.05 v input.
3	Modulate FM signal generator (30 KHz deviation) with tone filter B frequency: 25 KHz.		Using RMS voltmeter, measure output at E2 (tone B).	0.6 v at .05 v input.
4	Modulate FM signal generator (30 KHz deviation) with tone filter C frequency: 32 KHz.		Using RMS voltmeter, measure output at E21 (tone C).	0.6 v at .05 v input.
5			Vary audio oscillator and check -3-db points above and below 19-KHz center frequency on rms voltmeter at E3.	See figure 5-10. 18,335 and 19,665 nominal, 18,240 and 19,510 min., 18,430 and 19,760 max.
6			Vary audio oscillator and check -3-db points above and below 25-KHz center frequency on rms voltmeter at E2.	See figure 5-11. 24,125 and 25,870 nominal, 24,000 and 25,750 min., 24,250 and 26,000 max.



Step No.	Control setup		Test procedure	Performance standard
	Test equipment	AN/USQ-42		
7			Vary audio oscillator and check -3-db points above and below 32-KHz center frequency on rms voltmeter at E21.	See figure 5-12. 30,880 and 33,120 nominal, 30,720 and 32,960 min., 31,040 and 33,280 max.
8		Before inserting amplifier-filter board back into module case, resolder wire from E1 to P13.		



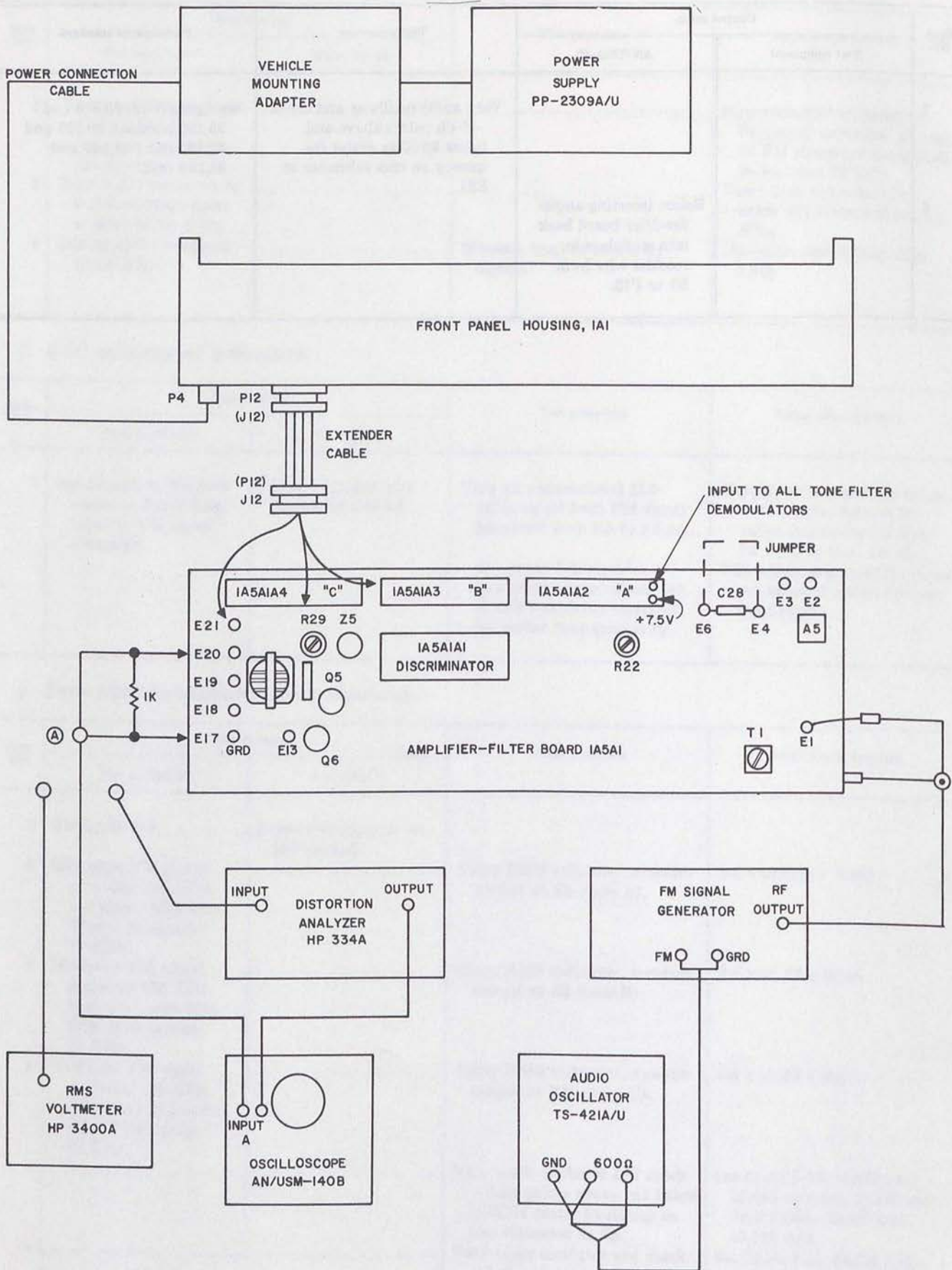


Figure 5-9. Audio amplifier, AGC, and tone filter demodulator adjustment setup.

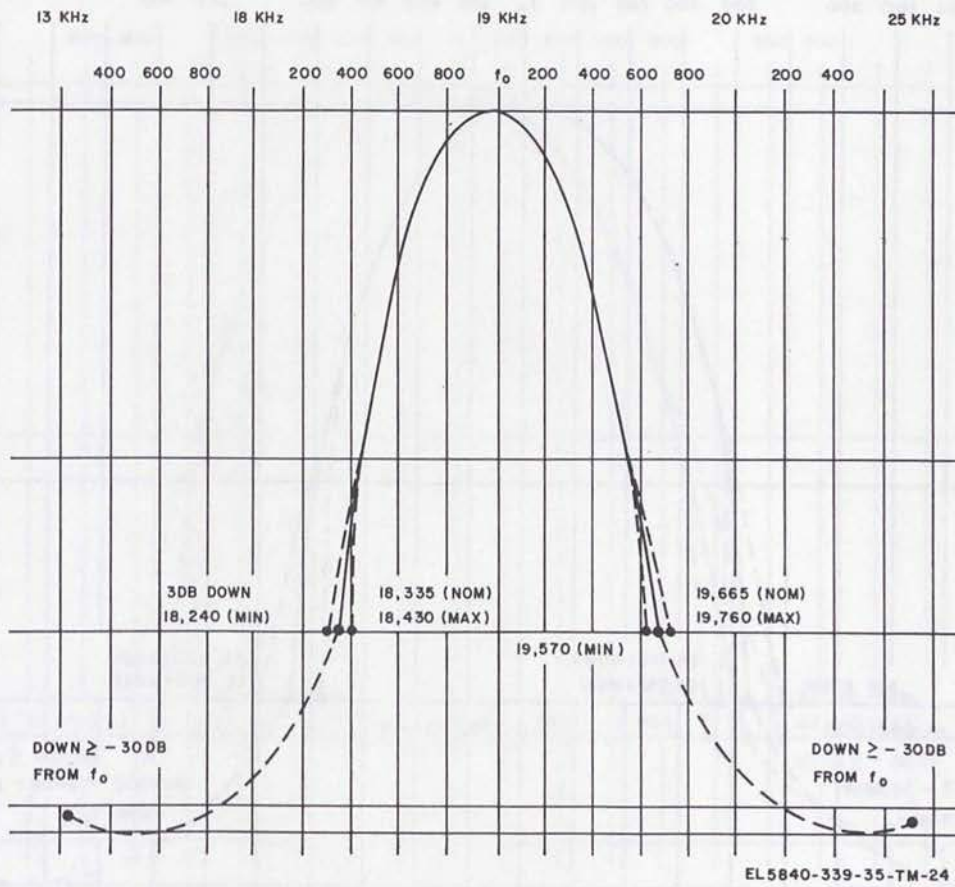


Figure 5-10. Tone filter demodulator A waveform.

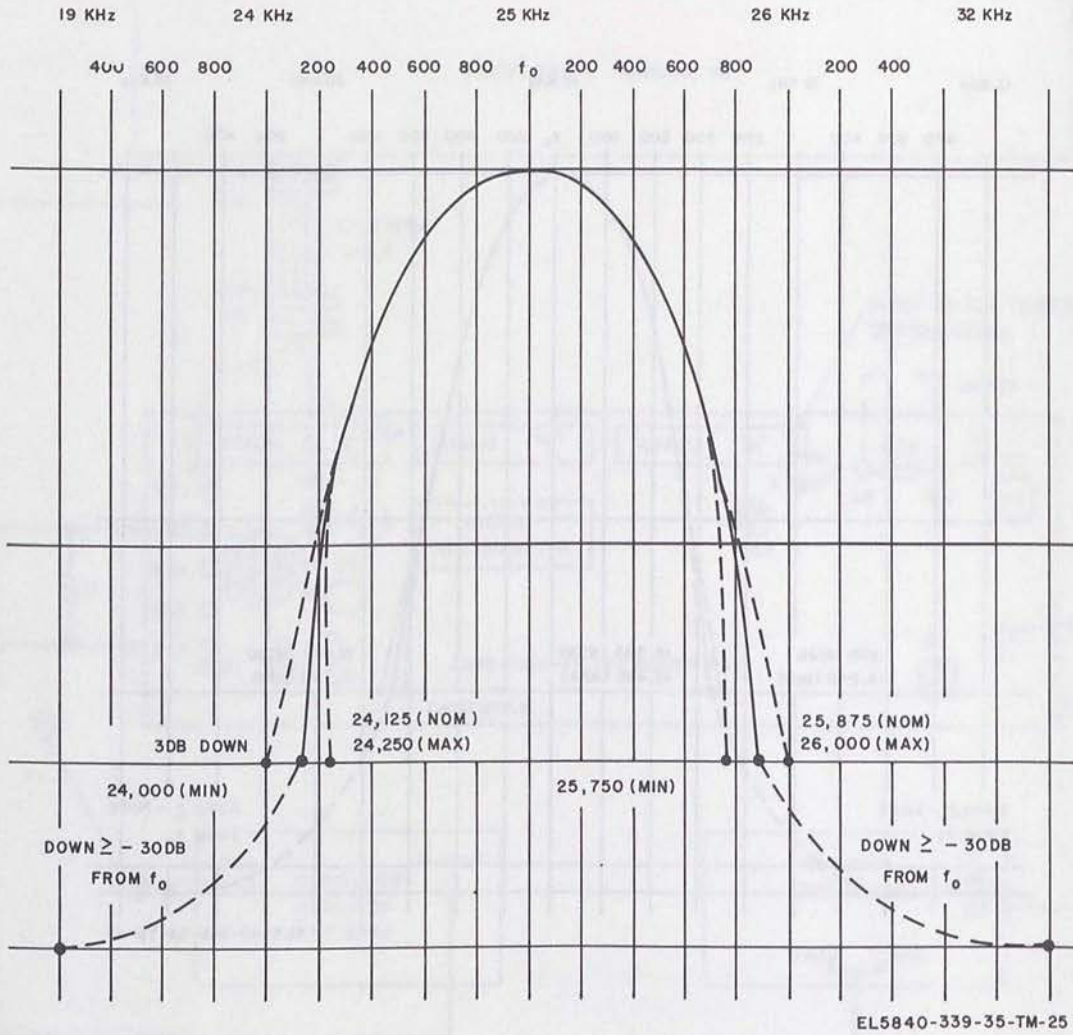


Figure 5-11. Tone filter demodulator B waveform.

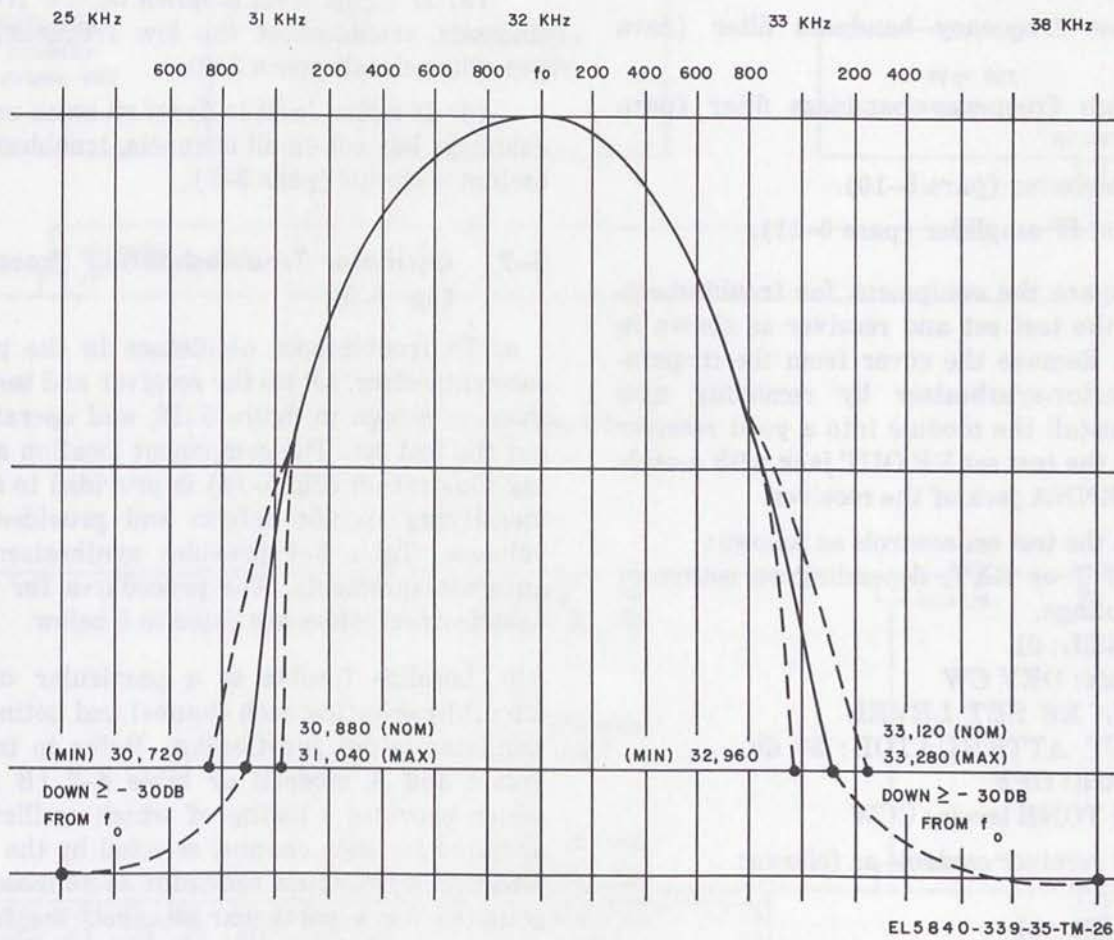


Figure 5-12. Tone filter demodulator C waveform.

## Section III. TROUBLESHOOTING PROCEDURES

**5-6. Troubleshooting the Preselector-Synthesizer 1A6**

(figs. 6-2 and 6-3)

*a.* Troubleshooting the preselector synthesizer by isolating the problem to the circuit or board and then by identifying the defective component. Troubleshooting procedures have been provided for five functional areas.

- (1) Oscillators (para 5-7).
- (2) Low frequency bandpass filter (para 5-8).
- (3) High frequency bandpass filter (para 5-9).
- (4) Preselector (para 5-10).
- (5) First IF amplifier (para 5-11).

*b.* To prepare the equipment for troubleshooting, set up the test set and receiver as shown in figure 5-13. Remove the cover from the inoperative preselector-synthesizer by removing nine screws. Reinstall the module into a good receiver and connect the test set RF OUT jack with a cable to the ANTENNA jack of the receiver.

(1) Set the test set controls as follows:  
POWER: INT or EXT, depending on source of supply voltage.

RF CHANNEL: 01  
XTAL Switch: DEV CW  
FR LEVEL: RF SET LEVEL  
RF OUTPUT ATTENUATOR: 30 db  
AUDIO switch: OFF  
AUDIO and TONE levels: CCW

(2) Set receiver controls as follows:  
POWER: EXT  
RF CHANNEL: 01

*e.* Using a high impedance probe from the RF voltmeter, measure the output level at 1A6A1E23 on the receiver. The output level should be between -30 and -40 dbm. Rotate the test set RF CHANNEL controls and the corresponding receiver CHANNEL controls, measuring the output level at 1A6A1E23 for each channel. The maximum spread between any two channels should be no greater than 4 db. When the output level at 1A6A1E23 is greater than 4 db between any two channels, proceed as follows.

(1) If signal level is down on all channels, trouble is probably in the preselector or 1st IF amplifier. Measure the 1st local oscillator signal

level at 1A6A1E22 (-4 dbm) and the 1st IF signal at 1A6A1E5. If the signal level at 1A6A1E5 is normal, trouble is in the 1st IF amplifier (para 5-11). If it is abnormal, and the signal at 1A6A1E22 is normal, trouble is in the preselector (para 5-10).

(2) If signal level is down on high frequency channels, troubleshoot the high frequency bandpass filter circuit (para 5-9).

(3) If signal level is down on low frequency channels, troubleshoot the low frequency bandpass filter circuit (para 5-8).

(4) If signal level is down on some unrelated channels, but not on all channels, troubleshoot the oscillator circuit (para 5-7).

**5-7. Oscillator Troubleshooting Procedure**

(fig. 6-3)

*a.* To troubleshoot oscillators in the preselector-synthesizer, set up the receiver and test equipment as shown in figure 5-13, and operate without the test set. The component location and wiring illustration (fig. 5-14) is provided to assist in identifying specific defects and provides circuit voltages. Table 5-4 provides synthesizer resistance measurements. The procedures for troubleshooting oscillators are listed in *b* below.

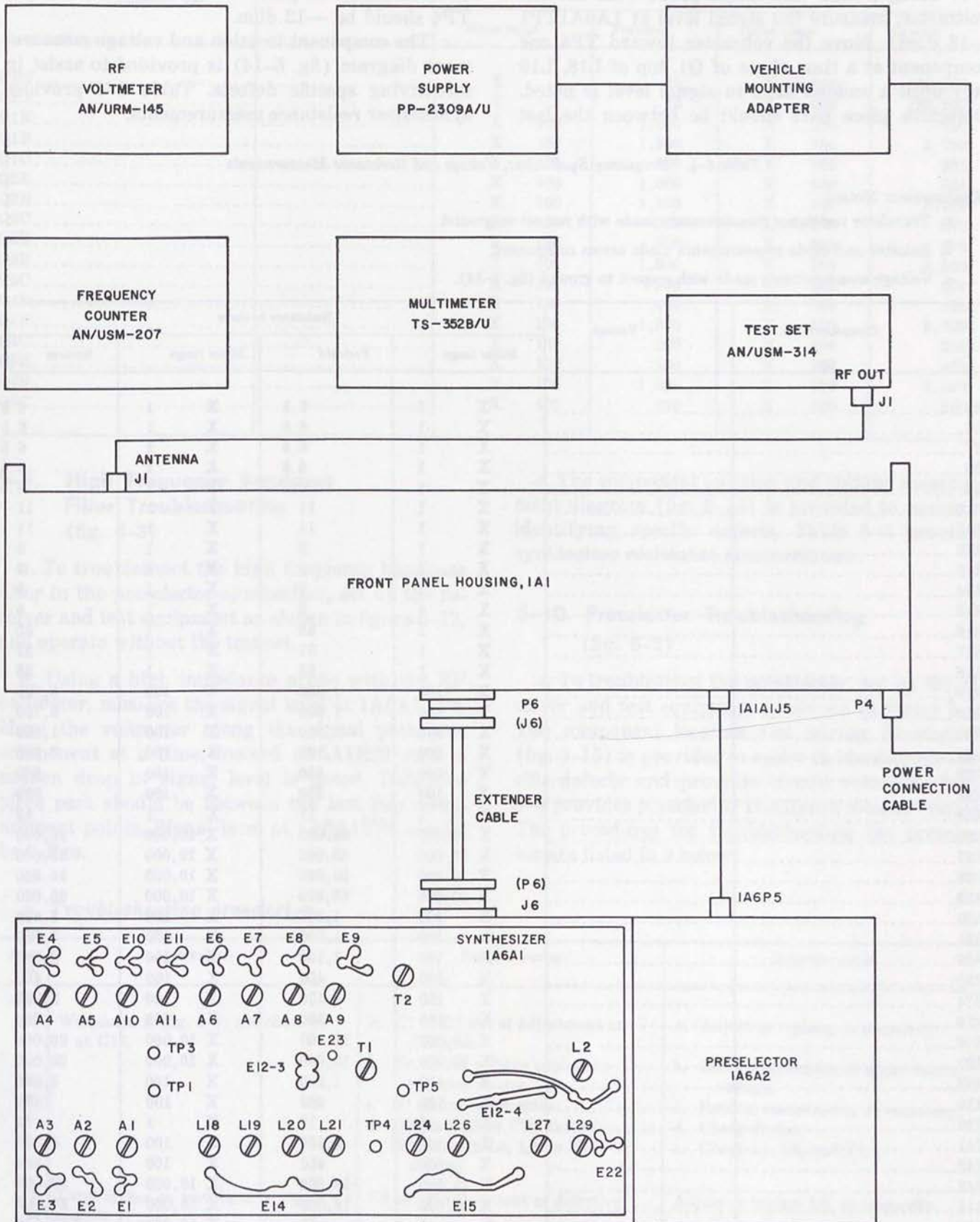
*b.* Localize trouble to a particular oscillator circuit by selecting each channel and noting which oscillator is not functioning. Refer to table 4-1 (plain and A models) or table 4-2 (B models) which provides a listing of which oscillators are actuated for each channel selected by the channel selection logic. If an oscillator is supposed to be actuated for a particular channel, the following outputs should be measured with the RF voltmeter at the test points shown.

- (1) TP1 (A1, A2, A3, A4, or A5): -15 dbm.
- (2) TP2 (A6, A7, A8, or 89): -13 dbm.
- (3) TP3 (A10 or A11): -13 dbm.

**5-8. Low Frequency Bandpass Filter Troubleshooting**

(fig. 6-3)

*a.* To troubleshoot the low frequency bandpass filter in the preselector-synthesizer, set up the receiver and test equipment as shown in figure 5-13, and operate without the test set.



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Figure 5-13. Frequency synthesizer 1A6, troubleshooting setup.

b. Using a high impedance probe with the RF voltmeter, measure the signal level at 1A6A1TP1 (-13 dbm). Move the voltmeter toward TP4 one component at a time (base of Q1, top of L18, L19 etc) until a sudden drop in signal level is noted. Defective piece part should be between the last

two measurement points. Signal level at 1A6A1-TP4 should be -12 dbm.

c. The component location and voltage measurement diagram (fig. 5-14) is provided to assist in identifying specific defects. Table 5-4 provides synthesizer resistance measurements.

Table 5-4. Frequency Synthesizer, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground (fig. 5-14).

Component No.	Voltage	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R5		X 1	6.5	X 1	6.5
R6		X 1	6.5	X 1	6.5
R7		X 1	6.5	X 1	6.5
R8		X 1	6.5	X 1	6.5
R9		X 1	6.5	X 1	6.5
R10		X 1	11	X 1	11
R11		X 1	11	X 1	11
R12		X 1	9	X 1	9
R13		X 1	9	X 1	9
R14		X 1	9	X 1	9
R15		X 1	9	X 1	9
R16		X 1	33	X 1	33
R17		X 1	31	X 1	31
R18		X 1	35	X 1	35
R19		X 100	1,300	X 100	3,700
R20		X 100	1,300	X 100	3,700
R21		X 100	3,800	X 100	1,100
R22		X 100	1,100	X 100	3,700
R23		X 100	950	X 100	850
R24		X 100	950	X 100	900
R25		X 1	11	X 1	12
R26		X 10,000	55,000	X 10,000	95,000
R27		X 10,000	55,000	X 10,000	95,000
R28		X 10,000	55,000	X 10,000	95,000
R29		X 10,000	55,000	X 10,000	95,000
R30		X 100	1,300	X 100	3,800
R31		X 100	1,300	X 100	3,800
R32		X 100	1,100	X 100	3,800
R33		X 100	450	X 100	450
R34		X 100	1,100	X 100	3,900
R35		X 100	950	X 100	800
R36		X 10,000	18,000	X 10,000	20,000
R37		X 10,000	10,000	X 10,000	20,000
R38		X 100	1,300	X 100	3,800
R39		X 100	450	X 100	450
R40		X 1	15	X 1	15
R41		X 100	1,100	X 100	3,800
R42		X 100	450	X 100	450
R43		X 10,000	18,000	X 10,000	20,000
R44		X 10,000	18,000	X 10,000	20,000
CR1		X 1	13	X 10,000	200,000
CR2		X 1	13	X 10,000	200,000
CR3		X 1	13	X 10,000	200,000
CR4		X 1	13	X 10,000	200,000
CR5		X 1	13	X 10,000	120,000
CR6		X 1	13	X 10,000	120,000



Component No.	Voltage	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
CR7		X 1	13	X 10,000	120,000
CR8		X 1	13	X 10,000	120,000
Q1E		X 100	1,000	X 100	850
Q1B		X 100	1,300	X 100	3,700
Q1C		X 100	200	X 100	200
Q2E		X 100	1,000	X 100	850
Q2B		X 100	1,300	X 100	3,700
Q2C		X 100	200	X 100	200
Q3E		X 100	950	X 100	800
Q3B		X 100	1,300	X 100	3,800
Q3C		X 100	200	X 100	200
Q4E		X 100	450	X 100	450
Q4B		X 100	1,300	X 100	3,800
Q4C		X 100	200	X 100	200
Q5E		X 100	450	X 100	450
Q5B		X 100	1,300	X 100	3,000
Q5C		X 100	200	X 100	200

**5-9. High Frequency Bandpass Filter Troubleshooting**  
(fig. 6-3)

a. To troubleshoot the high frequency bandpass filter in the preselector-synthesizer, set up the receiver and test equipment as shown in figure 5-13, and operate without the test set.

b. Using a high impedance probe with the RF voltmeter, measure the signal level at 1A6A1TP4. Move the voltmeter along the signal path, one component at a time, toward 1A6A1E22 until a sudden drop in signal level is noted. Defective piece part should be between the last two measurement points. Signal level at 1A6A1TP5 should be 0 dbm.

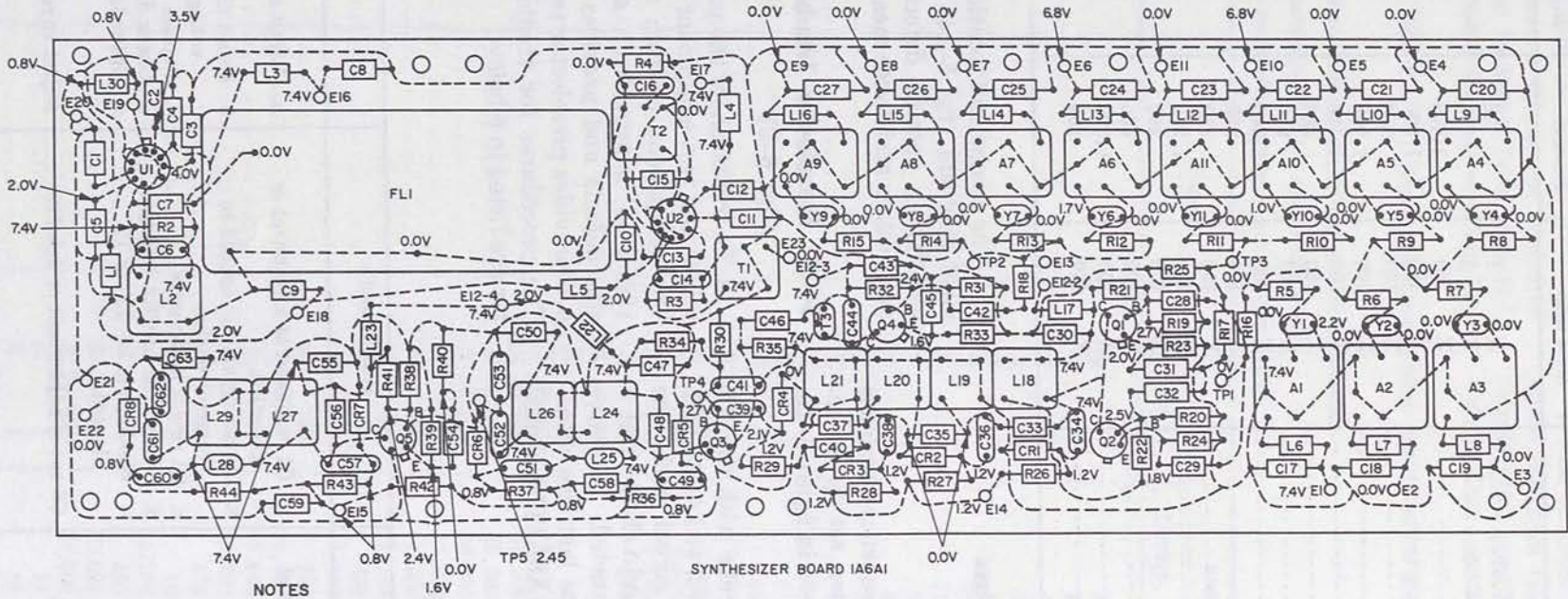
c. The component location and voltage measurement diagram (fig. 5-14) is provided to assist in identifying specific defects. Table 5-4 provides synthesizer resistance measurements.

**5-10. Preselector Troubleshooting**  
(fig. 6-2)

a. To troubleshoot the preselector, set up the receiver and test equipment as shown in figure 5-2. The component location and wiring illustration (fig. 5-15) is provided to assist in identifying specific defects and provides circuit voltages. Table 5-5 provides preselector resistance measurements. The procedures for troubleshooting the preselector are listed in b below.

*b. Troubleshooting preselector.*

Item No.	Symptom	Probable trouble	Corrective action
1	Waveform A (fig. 5-3) not obtained at C13.	a. C1 or C5 out of adjustment or defective. b. No tuning voltage applied to varactor diodes. c. Q1 circuit inoperative..... d. Diodes CR1 or CR2 defective..... e. Windings in L1, L2, or T1 shorted.	a. Adjust or replace, as necessary. b. Check distribution of upper tuning voltage. c. Replace components, as necessary. d. Check diodes. e. Check L1, L2, and T1.
2	Large spikes on waveform A (fig. 5-3).	C8 out of adjustment or defective	Adjust or replace C8, as necessary.
3	Waveform B (fig. 5-3) not obtained at E4.	a. C13 or C17 out of adjustment or shorted. b. CR3 or CR4 defective..... c. Q2 (1st mixer) inoperative.....	a. Adjust C13 and C17 or replace, as necessary. b. Replace components, as necessary. c. Replace components, as necessary.



NOTES

1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
3. - - - WIRING ON BACK OF BOARD.
4. VOLTAGES AT E1 THRU E11 REFLECT CHANNEL 00.  
VOLTAGES PRESENT DEPEND ON THE CHANNEL SELECTED.

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Figure 5-14. Frequency synthesizer, component location and voltage measurements.

Item No.	Symptom	Probable trouble	Corrective action
4	Waveform C (fig. 5-3) not obtained at E5.	a. Q2 (1st mixer) inoperative.....	a. Replace Q2, as necessary.
		b. L5 out of adjustment or defective..	b. Adjust L5 or replace, as necessary.
		c. 1st mixer circuit components defective.	c. Replace components, as necessary.
5	SIG STR Meter does not read 0 on HIGH position.	R14 out of adjustment or defective....	Adjust or replace R14, as necessary.

Table 5-5. Preselector, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across components.
- c. Voltage measurements made under load.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R1.....		X 10,000	46,000	X 10,000	36,000
R2.....		X 10,000	46,000	X 10,000	36,000
R3.....		X 100	360	X 100	320
R4.....		X 10,000	46,000	X 10,000	34,000
R5.....		X 10,000	44,000	X 10,000	34,000
R6.....		X 1	100	X 1	100
R7.....		X 100	1,350	X 100	3,100
R8.....		X 100	3,300	X 100	1,100
R9.....		X 100	3,200	X 100	1,100
R10.....		X 1	15	X 1	15
R11.....		X 1	74	X 1	74
R12.....		X 1	15	X 1	15
R13.....		X 100	240	X 100	240
CR1.....		X 1	13	X 10,000	150,000
CR2.....		X 1	13	X 10,000	145,000
CR3.....		X 1	13	X 10,000	150,000
CR4.....		X 1	13	X 10,000	145,000
Q1-S.....	+7.1	X 100	360	X 100	320
Q1-G.....		X 1	0	X 1	0
Q1-D.....	+1.1	X 100	240	X 100	240
Q2-E.....	+1.5	X 100	3,200	X 100	1,100
Q2-B.....	+2.2	X 100	1,350	X 100	3,100
Q1-C.....	+7.1	X 100	250	X 100	240

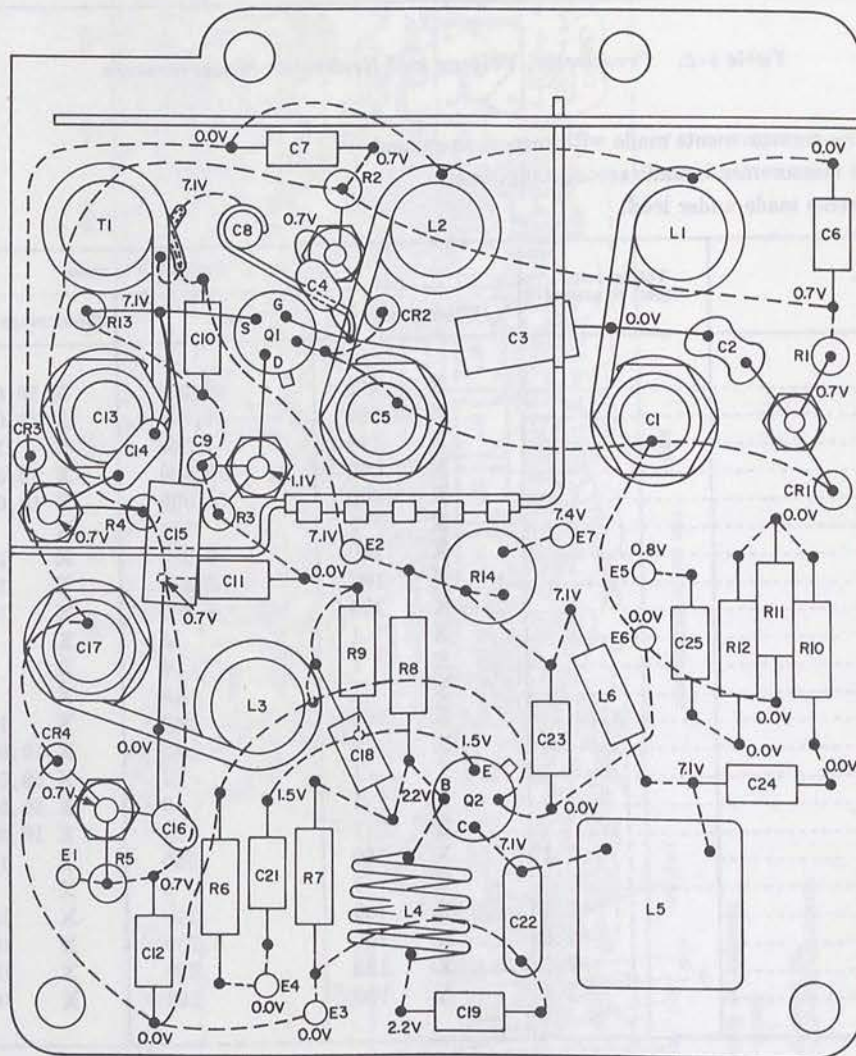
5-11. First IF Amplifier Troubleshooting (fig. 6-3)

a. To troubleshoot the first IF amplifier, set up the receiver and test equipment as shown in figure 5-13. To prepare the equipment for troubleshooting, refer to the procedure in paragraph 5-6b.

b. Using a high impedance probe with the RF voltmeter, measure the signal level at 1A6A1E19.

Move the voltmeter toward E23 one component at a time (U1-6, L2-4, input to F1-1, etc.) until a sudden drop in a signal level is noted. Defective piece part should be between the last two measurement points.

c. The component location and voltage measurement diagram (fig. 5-14) is provided to assist in identifying specific defects. Table 5-6 provide 1st IF amplifier resistance measurements.



PRESELECTOR BOARD, IA6A2

NOTES:

1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
3. --- WIRING ON BACK OF BOARD.

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Figure 5-15. Preselector board, component location and voltage measurements.

Table 5-6. Amplifier, Voltage and Resistance Measurements

Measurement Notes:

- a. Integrated circuit measurements made with respect to ground.
- b. Resistor measurements made across component.
- c. FL circuit measurements made with respect to ground.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R2		X 1	0	X 1	0
R3		X 1	0	X 1	0
R4		X 1	0	X 1	0
U1					
Pin 1		X 100	950	X 100	850
Pin 4		X 100	950	X 100	850
Pin 5		X 100	950	X 100	1,600
Pin 6		X 100	200	X 100	180
Pin 8		X 100	1,000	X 100	1,800
Pin 9		X 100	200	X 100	180
Pin 10		X 100	1,000	X 100	3,700
U2					
Pin 1		X 100	950	X 100	850
Pin 4		X 100	950	X 100	850
Pin 5		X 100	950	X 100	1,600
Pin 6		X 100	200	X 100	180
Pin 8		X 100	1,000	X 100	1,800
Pin 9		X 100	200	X 100	180
Pin 10		X 100	1,000	X 100	3,700
FL					
Pin 1		X 10,000	INF	X 10,000	INF
Pin 2		X 1	0	X 1	0

5-12. Troubleshooting Amplifier-Filter 1A5 (fig. 6-4)

a. Troubleshoot the amplifier-filter by isolating the problem to the circuit or board and then by identifying the defective component. Troubleshooting procedures have been provided for the seven functional areas—

- (1) Second local oscillator (para 5-13).
- (2) Second mixer and IF amplifier (para 5-14).
- (3) Discriminator (para 5-15).
- (4) Audio amplifier (para 5-61).
- (5) AGC circuit (para 5-17).
- (6) Squelch circuit (para 5-18).
- (7) Tone filter demodulator (para 5-19).

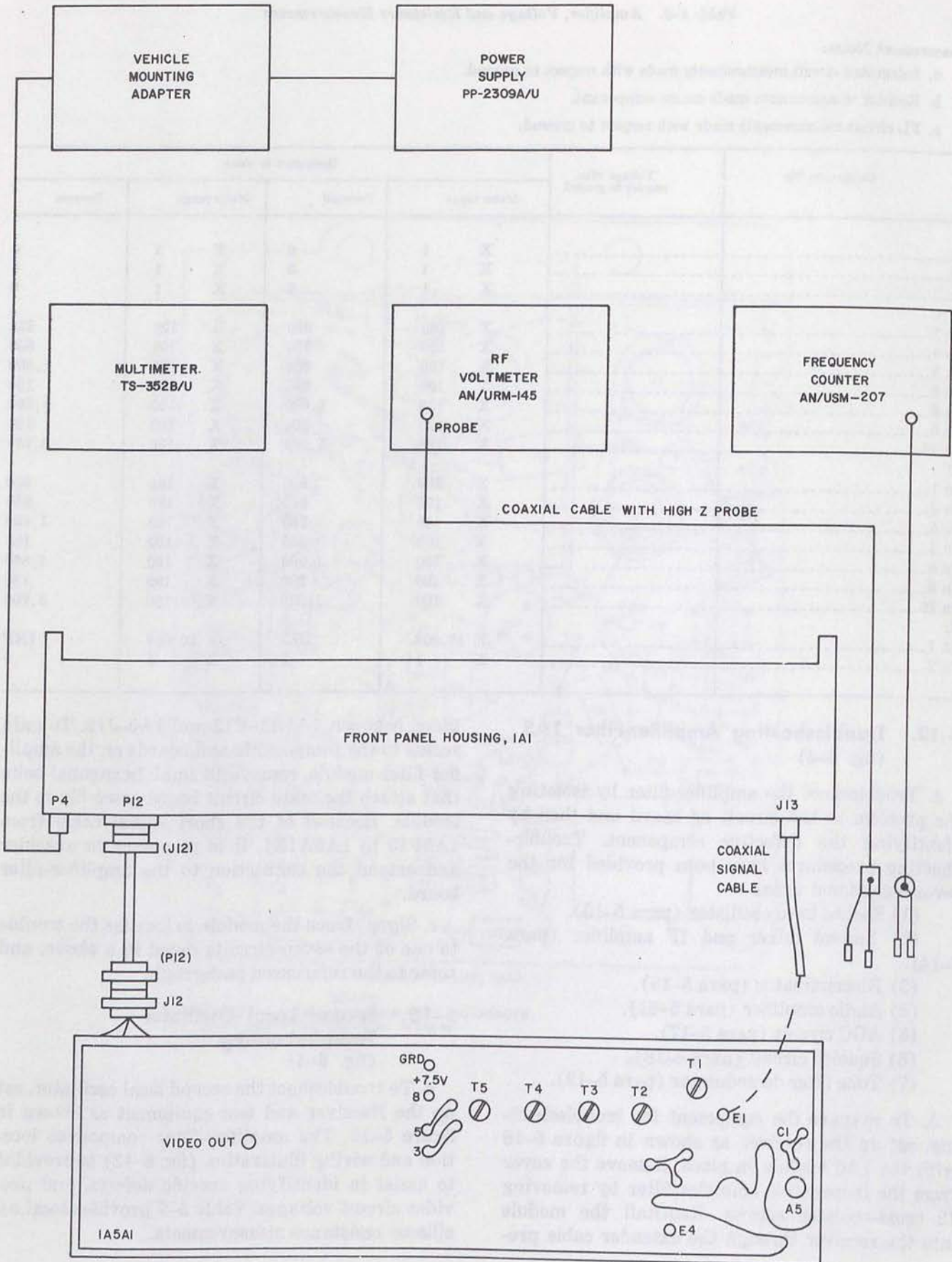
b. To prepare the equipment for troubleshooting, set up the receiver as shown in figure 5-16 with the 1A6 module in place. Remove the cover from the inoperative amplifier-filter by removing 12 cross-recessed screws. Reinstall the module into the receiver through the extender cable pro-

vided between 1A1A1-P12 and 1A5-J12. To gain access to the components and boards on the amplifier-filter module, remove 13 small hexagonal bolts that attach the main circuit board assembly to the module. Because of the short signal cable from 1A5P13 to 1A5A1E1, it is necessary to unsolder and extend the connection to the amplifier-filter board.

c. Signal trace the module to localize the trouble to one of the seven circuits listed in a above, and refer to the referenced paragraph.

5-13. Second Local Oscillator Troubleshooting (fig. 6-4)

a. To troubleshoot the second local oscillator, set up the Receiver and test equipment as shown in figure 5-16. The amplifier-filter component location and wiring illustration (fig. 6-12) is provided to assist in identifying specific defects, and provides circuit voltages. Table 5-7 provides local oscillator resistance measurements.



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Figure 5-16. Amplifier-filter 1A6 troubleshooting setup.

b. Troubleshooting second local oscillator.

Item No.	Symptom	Probable trouble	Corrective action
1	Low or no voltage across C1	a. Local oscillator A5 out of adjustment or defective. b. No +7.5v to A5 through L1 c. Crystal Y1 (26.5 MHz) defective	a. Adjust or replace A5, as necessary. b. Check +7.5v. distribution. c. Check crystal, Y1.
2	Frequency across C1 above or below 26.5 MHz ±1 KHz.	a. Local Oscillator A5 defective b. Crystal Y1 defective or at incorrect frequency.	a. Adjust or replace A5, as necessary. b. Check and replace crystal, as necessary.

Table 5-7. Local Oscillator, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor resistance measurements made with respect to ground.
- b. Resistor measurements made across component.
- c. Voltage measurements made under load.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R1		X 100	3,000	X 100	250
R2		X 1	50	X 1	50
R3		X 1	0	X 1	0
R4		X 100	1,600	X 100	600
R5		X 1	10	X 1	10
R32		X 100	80	X 100	80
R33		X 1	50	X 1	50
R18		X 100	3,000	X 100	500
Q1E	+3.8	X 100	550	X 100	1,700
Q1B	+3.7	X 100	3,000	X 100	250
Q1C	0	X 100	0	X 100	0

5-14. Second Mixer and IF Amplifier Troubleshooting (fig 6-4)

a. To troubleshoot the second mixer and IF amplifier, set up the receiver and test equipment as

shown in figure 5-7. The amplifier-filter component location and wiring illustration (fig. 6-12) is provided to assist in identifying defects, and provides circuit voltages. Table 5-8 provides second IF amplifier voltages and resistance measurements.

b. Troubleshooting second mixer and IF amplifier.

Item No.	Symptom	Probable trouble	Corrective action
1	Waveform A (fig. 5-8) not obtained at IF, OUT (pins 2 and 1 of discriminator board) (fig. 5-7).	a. No +7.5v at pin 9 of U1 through U4. b. No +4v at emitter of Q1 (2nd mixer). c. T1, T2, T3, T4, or T5 out of adjustment or defective. d. Q1 circuit inoperative e. Integrated circuit amplifiers U1, U2, U3, or U4 inoperative.	a. Check continuity and B+ voltage between J12-1 and components. b. Defective component in B+ line. c. Check and replace, as necessary. d. Check and replace, as necessary. e. Check and replace integrated circuit or component, as necessary.

Table 5-8. Second IF Amplifier Voltage and Resistance Measurement

Measurement Notes:

- a. Integrated circuit resistance measurements made with respect to ground.
- b. Resistor measurements made across component.
- c. Voltage measurements made with respect to ground, under load.

Component No.	Voltage with respect to ground	Resistance in ohms					
		Meter range		Forward	Reverse		
R6		X	1	0	X	1	0
R7		X	1	0	X	1	0
R8		X	1	0	X	1	0
R9		X	1	0	X	1	0
U1							
Pin 1	0.8	X	100	1,000	X	100	850
4	0.8	X	100	1,000	X	100	850
5	2.0	X	100	950	X	100	1,600
6	7.3	X	100	200	X	100	200
8	3.9	X	100	1,100	X	100	1,700
9	7.3	X	100	200	X	100	200
10	3.7	X	100	1,050	X	100	3,800
U2							
Pin 1	0.8	X	100	1,000	X	100	850
4	0.8	X	100	1,000	X	100	850
5	2.0	X	100	950	X	100	1,600
6	7.3	X	100	200	X	100	200
8	3.9	X	100	1,000	X	100	1,700
9	7.3	X	100	200	X	100	200
10	3.7	X	100	1,000	X	100	3,700
U3							
Pin 1	0.8	X	100	1,000	X	100	850
4	0.8	X	100	1,000	X	100	850
5	2.0	X	100	950	X	100	1,600
6	7.3	X	100	200	X	100	200
U3							
Pin 8	3.9	X	100	1,100	X	100	1,700
9	7.3	X	100	200	X	100	200
10	3.7	X	100	1,100	X	100	3,800
U4							
Pin 1	0.8	X	100	1,000	X	100	850
4	0.8	X	100	1,000	X	100	850
5	2.0	X	100	1,000	X	100	1,600
6	7.3	X	100	200	X	100	200
8	3.9	X	100	1,000	X	100	1,700
9	7.3	X	100	200	X	100	200
10	3.7	X	100	1,100	X	100	3,700

5-15. Discriminator Troubleshooting

(fig. 6-4)

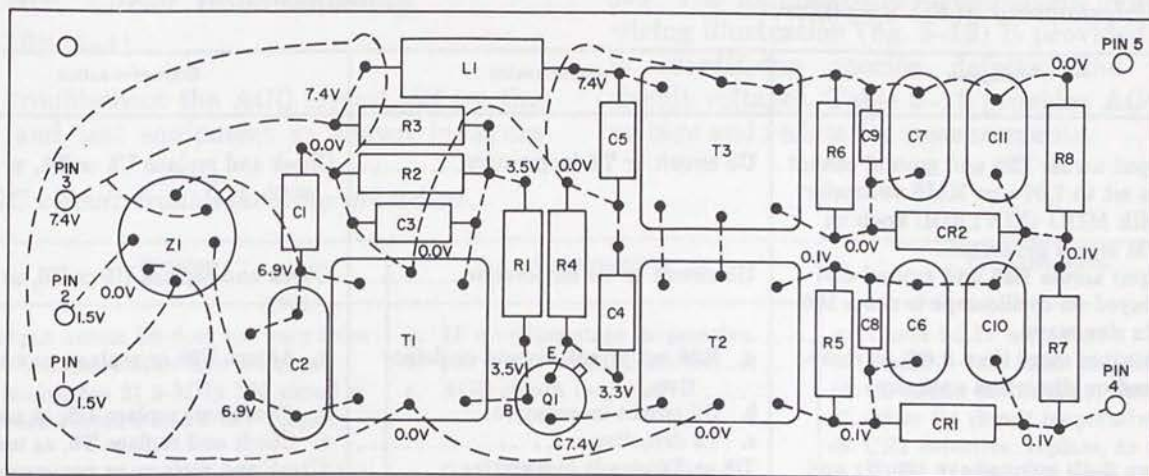
a. To troubleshoot the discriminator, set up the receiver and test equipment as shown in figure

b. Troubleshooting discriminator.

5-7. The discriminator component location and wiring illustration (fig. 5-17) is provided to assist in identifying specific defects, and provides circuit voltages. Table 5-9 provides discriminator voltage and resistance measurements.

Item No.	Symptom	Probable trouble	Corrective action
1	Waveform, B (fig. 5-8) not obtained between E12 and ground.	<ul style="list-style-type: none"> <li>a. No +7.5v at input</li> <li>b. T1, T2, or T3 in discriminator out of adjustment or defective.</li> <li>c. U1 circuit inoperative</li> <li>d. Q1 circuit inoperative</li> <li>e. CR1 or CR2 defective</li> </ul>	<ul style="list-style-type: none"> <li>a. Check +7.5v supply to discriminator.</li> <li>b. Check, and then adjust or replace T1, T2, or T3, as necessary.</li> <li>c. Check integrated circuit U1.</li> <li>d. Check Q1 stage.</li> <li>e. Check CR1, CR2, and associated circuitry.</li> </ul>





NOTES:  
 1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.  
 2. — PARTS AND PIGTAILS ON FRONT OF BOARD.  
 3. ---- WIRING ON BACK OF BOARD.

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Figure 5-17. Discriminator, component locations and voltage measurements.

Table 5-9. Discriminator Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor and integrated circuit resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground, under load.

Component No.	Voltage with respect to ground	Resistance in ohms					
		Meter range		Forward	Reverse		
R1		X	1	0	X	1	0
R2		X	100	1,200	X	100	5,000
R3		X	100	650	X	100	5,000
R4		X	100	1,500	X	100	1,350
R5		X	1	0	X	1	0
R6		X	1	0	X	1	0
R7		X	100	650	X	100	8,000
R8		X	100	650	X	100	8,000
U 1-1	6.9	X	100	7,500	X	100	1,000
-3	1.5	X	100	15,000	X	100	INF
-4	GND	X	1	0	X	1	0
-5	1.5	X	100	7,500	X	100	850
-7	6.9	X	100	7,500	X	100	1,000
-8	7.4	X	100	7,500	X	100	850
Q1E	3.3	X	100	1,500	X	100	1,350
B	3.5	X	100	2,600	X	100	6,200
C	7.4	X	100	7,500	X	100	850
CR1		X	100	650	X	100	8,000
CR2		X	100	650	X	100	8,000

5-16. Audio Amplifier Troubleshooting (fig. 6-4)

- a. To troubleshoot the audio amplifier, set up the receiver and test equipment as shown in fig-

ure 5-9. The amplifier-filter component location and wiring illustration (fig. 6-12) is provided to assist in identifying specific defects, and provides circuit voltages. Table 5-10 provides audio omplifier voltage and resistance measurements.

b. Troubleshooting audio amplifier.

Item No.	Symptom	Probable trouble	Corrective action
1	Output across E20 and ground cannot be set to 7.07v on RMS voltmeter with MOD CONTROL knob on FM signal generator.	U5 circuit or T6 inoperative.....	Check and replace U5 or T6, as necessary.
2	Output across E20 and ground displayed on oscilloscope is not a 100-Hz sine wave.	U5 circuit or T6 inoperative.....	Check and replace U5 or T6, as necessary.
3	Distortion more than 3.6% as measured on distortion analyzer.	a. R29 out of adjustment or defective. b. U5 circuit inoperative..... c. T6 defective.....	a. Adjust E29 or replace, as necessary. b. Check and replace U5, as necessary. c. Check and replace T6, as necessary.
4	Down 2-db point above 100 Hz and below 3.0 KHz.	U5 or T6 circuit inoperative.....	Check and replace, as necessary.
5	Harmonic distortion greater than 3.6% at 1 KHz.	a. R29 out of adjustment or defective. b. U5 or T6 circuit inoperative.....	a. Adjust R29 or replace, as necessary. b. Check and replace, as necessary.

Table 5-10. Audio Amplifier and Squelch Circuit, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor and integrated circuit resistance measurements made with respect to ground.
- b. Resistor measurements made across component.
- c. Voltage measurements made with respect to ground, under load.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R23.....		X 100	1,400	X 100	6,000
R24.....		X 1	17	X 1	17
R25.....		X 100	3,200	X 100	2,500
R26.....		X 100	1,100	X 10,000	500,000
R27.....		X 100	1,400	X 100	1,500
R28.....		X 100	6,500	X 100	10,000
R29.....			Pot.		Pot.
R30.....		X 10,000	20,000	X 10,000	20,000
Q5E.....	0.0	X 1	17	X 1	17
Q5B.....	0.7	X 100	100	X 10,000	380,000
Q5C.....	0.2	X 100	950	X 100	6,500
Q6E.....	0.0	X 1	17	X 1	17
Q6B.....	0.2	X 100	950	X 100	6,500
Q6C.....	7.4	X 100	3,700	X 100	3,000
U5					
Pin 1.....	4.4	X 100	11,000	X 100	6,500
Pin 2.....	1.1	X 100	1,100	X 100	6,200
Pin 3.....	1.1	X 100	1,100	X 100	5,200
Pin 4.....	7.2	X 100	650	X 100	440
Pin 5.....	0.0	X 1	5.5	X 1	5.5
Pin 6.....	0.0	X 1	5	X 1	5
Pin 7.....	7.4	X 100	650	X 100	440
Pin 8.....	7.4	X 100	600	X 100	400
Pin 9.....	7.4	X 100	600	X 100	400
Pin 10.....	4.9	X 100	1,300	X 100	500,000
Pin 11.....	2.3	X 100	1,150	X 100	750
Pin 12.....	0.0	X 1	0	X 1	0

**5-17. AGC Circuit Troubleshooting**

(fig. 6-4)

a. To troubleshoot the AGC circuit, set up the receiver and test equipment as shown in figure

b. *AGC circuit troubleshooting procedure.*

5-9. The amplifier-filter component location and wiring illustration (fig. 6-12) is provided to assist in identifying specific defects, and provides circuit voltages. Table 5-11 provides AGC circuit voltage and resistance measurements.

Item No.	Symptom	Probable trouble	Corrective action
1	Output across E6 does not vary from 1.6 to more than 4.0v when unmodulated 21.5-MHz FM signal is varied from 0 to 1.0 mV output.	a. IF amplifier stage inoperative..... b. No +7.5v to AGC circuit..... c. AGC circuit inoperative.....	a. Check 2d IF amplifier. b. Check +7.5v input to AGC circuit. c1. Q2 circuit inoperative; check. c2. Q3 or Q4 circuit inoperative; check. c3. CR1 defective: replace, as necessary.
2	CARRIER light does not go on when IDENTITY is displayed.	a. CARRIER lamp defective..... b. R22 out of adjustment.....	a. Check CARRIER lamp. b. Adjust R22 to threshold of light sensitivity.

Table 5-11. AGC Circuit, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground, under load.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R10.....		X 100	1,200	X 100	9,500
R11.....		X 100	4,500	X 100	5,200
R12.....		X 100	1,300	X 100	9,500
R13.....		X 100	3,200	X 100	1,350
R14.....		X 100	1,900	X 100	10,000
R15.....		X 100	900	X 100	900
R16.....		X 100	2,400	X 100	3,000
R17.....		X 100	300	X 100	300
R18.....					
R19.....		X 100	1,200	X 100	6,000
R20.....		X 100	1,800	X 100	950
R21.....		X 100	850	X 100	850
R22.....			variable		variable
R31.....		X 100	850	X 100	850
CR1.....		X 100	650	X 100	10,000
Q2.....					
E1.....	+0.1	X 100	3,200	X 100	1,350
B1.....	0.6	X 100	3,800	X 100	15,000
C1.....	7.0	X 100	10,000	X 100	1,850
E2.....	+0.1	X 100	3,200	X 100	1,350
B2.....	0.0	X 100	900	X 100	900
C2.....	+7.4	X 100	10,000	X 100	1,500
Q3E.....	+7.1	X 100	850	X 100	700
Q3B.....	7.0	X 100	10,000	X 100	1,850
Q3C.....	5.1	X 100	1,200	X 100	6,000
Q4E.....	1.6	X 100	1,000	X 100	950
Q4B.....	5.1	X 100	1,200	X 100	6,000
Q4C.....	+7.4	X 100	600	X 100	400

### 5-18. Squelch Circuit Troubleshooting (fig. 6-4)

a. To troubleshoot the squelch circuit, set up the receiver and test equipment as shown in figure

b. *Squelch circuit troubleshooting procedure.*

Item No.	Symptom	Probable trouble	Corrective action
1	No squelch control at front panel.....	a. 1A1R4 out of adjustment or defective. b. SQUELCH control (R3) defective... c. Q5, Q6, Squelch circuit defective...	a. Check 1A1R4 (on mounting plate). b. Check 1A1R3 (on front panel). c. Check transistors and components; replace, as necessary.

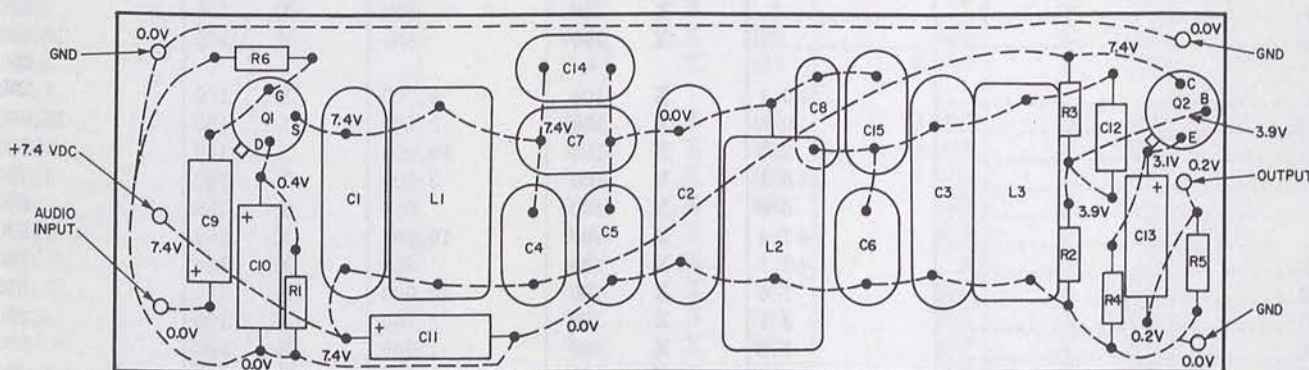
### 5-19. Tone Filter Demodulator Troubleshooting (fig. 6-5)

a. To troubleshoot the tone filter demodulators, set up the receiver and test equipment as shown in figure 5-9. The tone filter demodulator compo-

nent location and wiring illustration (fig. 5-18) is provided to assist in identifying specific defects, and provides circuit voltages. Table 5-12 provides tone filter demodulator resistance measurements. The waveforms for tone filters A, B, and C, figures 5-10, 5-11, and 5-12, respectively, are also provided for use during troubleshooting.

b. *Tone filter demodulator troubleshooting procedure.*

Item No.	Symptom	Probable trouble	Corrective action
1	Output of tone filter A at E3 below 0.6v rms with 0.05v rms input at E1.	a. No +7.5v supply..... b. Q1 or Q2 inoperative..... c. Defective piece part.....	a. Check +7.5v input to tone filter. b. Check Q1 and Q2; replace, as necessary. c. Check components; replace, as necessary.
2	Output of tone filter B at E2 below 0.6v rms with 0.05v rms input at E1.	Same as item 1 for tone filter B.....	Same as item 1 for tone filter B.



- NOTES:  
 1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.  
 2. — PARTS AND PIGTAILS ON FRONT OF BOARD.  
 3. --- WIRING ON BACK OF BOARD.

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Figure 5-18. Typical tone filter demodulator, component location and voltage measurements.

Item No.	Symptom	Probable trouble	Corrective action
3	Output of tone filter C at E21 below 0.6v rms with 0.05v rms input at E1.	Same as item 1 for tone filter C	Same as item 1 for tone filter C.
4	Tone filter A—3 db points do not agree with curve, (fig. 5-10).	Same as item 1, or alignment	Same as item 1, or alignment.
5	Tone filter B —3 db points do not agree with curve (fig. 5-11).	Same as item 1 for tone filter B, or alignment.	Same as item 1 for tone filter B, or alignment.
6	Tone filter C —3 db points do not agree with curve (fig. 5-12).	Same as item 1 for tone filter C, or alignment.	Same as item 1 for tone filter C, or alignment.

Table 5-12. Tone Filter Demodulator, Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor resistance measurements made with request to ground.
- b. Resistor measurements made across components.
- c. Voltage measurements made with respect to ground, under load.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range		Forward	Reverse
R1		X 100	950	X 100	950
R2		X 100	2,800	X 10,000	55,000
R3		X 100	900	X 10,000	55,000
R4		X 100	2,300	X 100	1,500
R5		X 100	4,500	X 100	4,500
R6		X 100	2,800	X 10,000	100,000
Q1(D)	0.4	X 100	950	X 100	950
Q1(G)	0.0	X 100	2,800	X 10,000	100,000
Q1(S)	7.4	X 100	4,000	X 100	1,300
Q2E	3.1	X 100	2,200	X 100	1,500
Q2B	3.9	X 100	2,800	X 10,000	55,000
Q2C	7.4	X 100	3,900	X 100	1,300

5-20. Troubleshooting Command Signal Decoder Module 1A4

a. The command signal decoder module contains two boards: 1A4A1, the temporary storage register and control logic; and 1A4A2, the demodulator gates and timing logic.

**CAUTION**

Whenever board assemblies are removed from module, make certain that teflon insulator is seated between board and module before replacement.

(1) Remove the command signal decoder module from the receiver module mounting plate leaving other modules in places. See figure 5-20 for troubleshooting setups.

(2) Remove module cover and extend module away from module mounting plate 1A1A1 with extender cables.

(3) Set the AN/USM-314 test set controls as follows:

POWER: INT

RF CHANNEL: 01

DEV/CW-XTAL-CODE: CODE MOD

RF LEVEL: RF SET LEVEL (with DEV/CW-EXTAL-CODE at DEV/CW)

RF OUTPUT ATTENUATION: -95 db

TONE CHANNEL: 06

FREE-RUN-OFF-SINGLE CODE: FREE RUN

TONE LEVEL: 50 KC DEVIATION on MOD/BAT meter

(4) Set the AN/USQ-42 controls as follows:

POWER: ON

CHANNEL: 01

(5) IDENTITY display should indicate 06. If not, proceed to b below.

b. To troubleshoot command signal decoder module, depress TEST switch. If IDENTITY display remains blank, one of the boards in the module under test is inoperative.

(1) Remove P11 from module under test and insert it into a good 1A4 module.

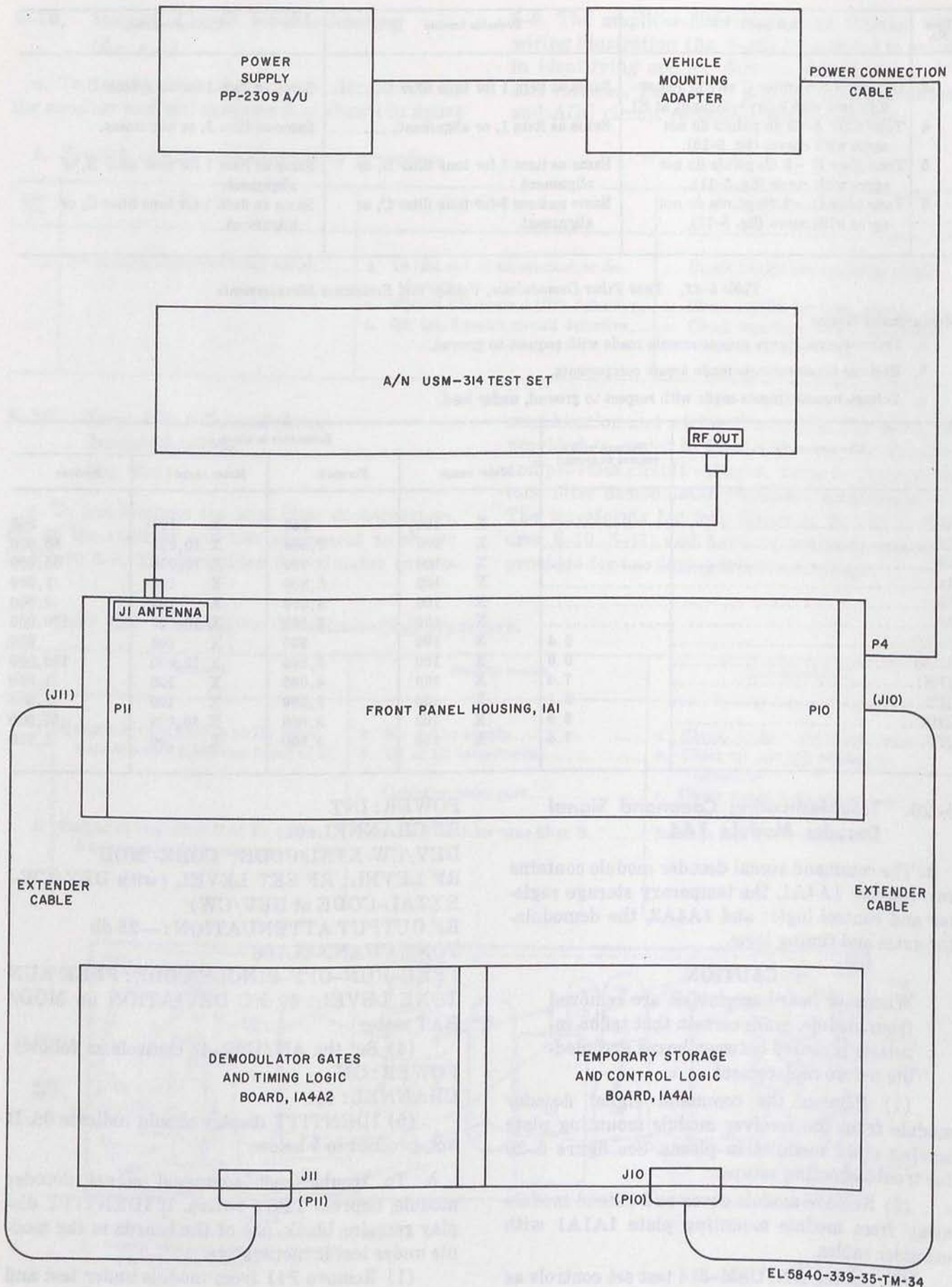
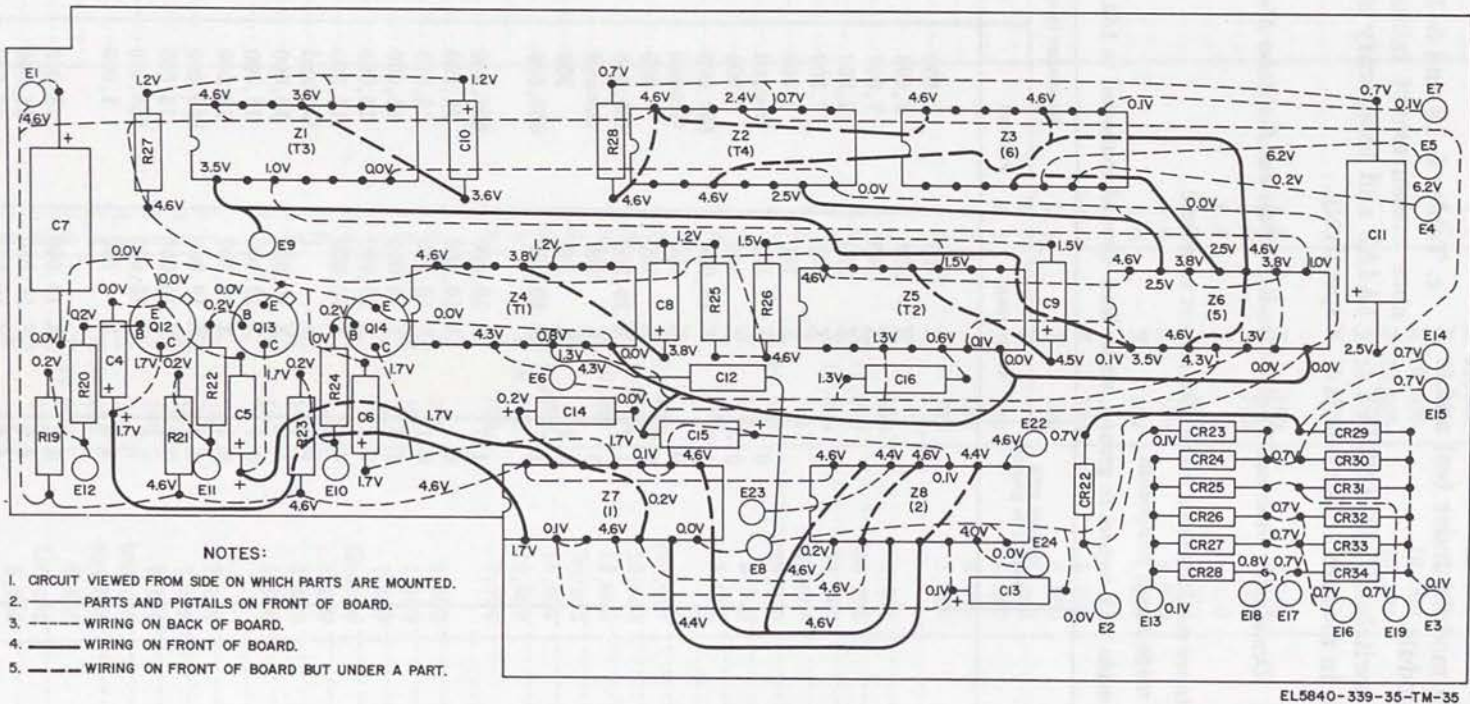


Figure 5-19. Command signal decoder troubleshooting setup.

Figure 5-20. Demodulator gates board, component location and voltage measurements.



(2) Depress TEST switch. If IDENTITY display indicates 88, board in module under test is inoperative and should be repaired (fig. 5-20). If IDENTITY display remains blank, replace P11 from new board back to J11 in module under test.

(3) Remove P10 from module under test and insert it into a good 1A4 module.

(4) Depress TEST switch. If IDENTITY display indicates 88, board in module under test is

inoperative and should be repaired (fig. 5-21). If IDENTITY display remains blank, replace P10 from new board back to J10 in module under test. Check for presence of +5v at 1A4A1E1) blank detector component board 1A1A1A2 (fig. 4-5).

c. Tables 5-13 and 5-14 are voltage and resistance measurement tables for demodulator gates 1A4A2 and temporary storage board 1A4A1, respectively.

Table 5-13. Demodulator Gates and Timing Circuits, Voltage and Resistance Measurements

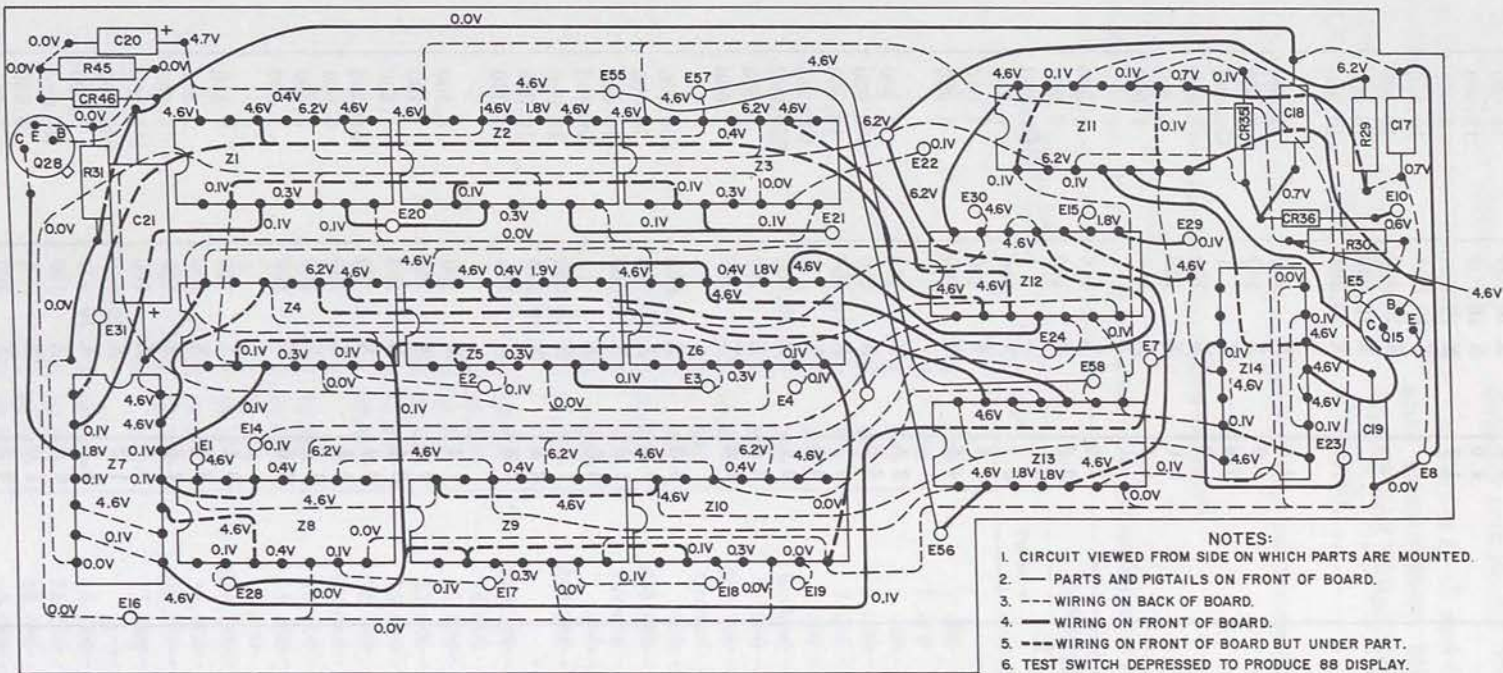
Measurement Notes:

- a. Integrated Circuit resistance measurements made with respect to ground.
- b. Resistor measurements made across component.
- c. Voltage measurements made with respect to ground, under load. Ground connected to 1A4A2E8.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R19		X 100	7,500	X 10,000	100,000
R20		X 100	2,200	X 100	2,200
R21		X 100	7,500	X 10,000	100,000
R22		X 100	2,200	X 100	2,200
R23		X 100	7,500	X 10,000	100,000
R24		X 100	2,200	X 100	2,200
Q12E	0	X 100	Ground	X 100	Ground
Q12B	0.2	X 100	900	X 10,000	100,000
Q12C	1.7	X 10,000	630,000	X 100	4,800
Q13E	0	X 100	Ground	X 100	Ground
Q13B	0.2	X 100	900	X 10,000	100,000
Q13C	1.7	X 10,000	650,000	X 100	4,800
Q14E	0	X 100	Ground	X 100	Ground
Q14B	0.2	X 100	900	X 10,000	100,000
Q14C	1.7	X 10,000	650,000	X 100	4,800
Z7					
Pin 1	1.7	X 10,000	650,000	X 100	4,800
Pin 2	0.1	X 10,000	15,000	X 100	1,000
Pin 3	0.1	X 10,000	15,000	X 100	1,000
Pin 4	4.6	X 10,000	15,000	X 100	900
Pin 5	0.2	X 10,000	15,000	X 100	1,000
Pin 6	4.4	X 10,000	15,000	X 100	850
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	4.6	X 10,000	15,000	X 100	850
Pin 9	0.1	X 10,000	15,000	X 100	900
Pin 10	0.1	X 10,000	15,000	X 100	900
Pin 11	1.7	X 10,000	650,000	X 100	4,700
Pin 12	0.2	X 10,000	15,000	X 100	1,000
Pin 13	1.7	X 10,000	650,000	X 100	4,800
Pin 14	4.6	X 100	1,000	X 100	450
Z8					
Pin 1	0.2	X 10,000	15,000	X 100	1,000
Pin 2	4.6	X 10,000	15,000	X 100	900
Pin 3	4.6	X 10,000	15,000	X 100	850
Pin 4	4.4	X 10,000	15,000	X 100	850
Pin 5	0.1	X 10,000	15,000	X 100	1,000
Pin 6	4.0	X 10,000	15,000	X 100	850
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	4.6	X 10,000	15,000	X 100	850
Pin 9	4.4	X 10,000	15,000	X 100	850
Pin 10	0.1	X 10,000	15,000	X 100	900
Pin 11	4.6	X 10,000	15,000	X 100	900



Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Pin 12.....	4.4	X 10,000	15,000	X 100	850
Pin 13.....	4.6	X 10,000	15,000	X 100	850
Pin 14.....	4.7	X 10,000	8,000	X 100	450
R25.....		X 10,000	10,000	X 10,000	14,000
R26.....		X 10,000	10,000	X 10,000	14,000
R27.....		X 10,000	10,000	X 10,000	14,000
R28.....		X 10,000	10,000	X 10,000	14,000
Z1					
Pin 1.....	3.5	X 100	8,000	X 100	800
Pin 3.....	1.0	X 100	5,500	X 100	800
Pin 7.....	0.0	X 1	Ground	X 1	Ground
Pin 10.....	1.2	X 100	6,500	X 100	20,000
Pin 11.....	3.6	X 100	4,800	X 100	650
Pin 14.....	4.6	X 100	1,000	X 100	450
Z2					
Pin 3.....	4.6	X 100	5,500	X 100	850
Pin 6.....	2.5	X 100	8,000	X 100	1,000
Pin 7.....	0.0	X 1	Ground	X 1	Ground
Pin 10.....	0.7	X 100	6,500	X 100	20,000
Pin 11.....	2.4	X 100	4,000	X 100	800
Pin 14.....	4.6	X 100	1,000	X 100	450
Z3					
Pin 4.....	2.5	X 100	5,500	X 100	1,000
Pin 5.....	6.2	X 10,000	600,000	X 100	5,300
Pin 6.....	0.2	X 10,000	13,000	X 100	750
Pin 7.....	0.0	X 1	Ground	X 1	Ground
Pin 8.....	0.1	X 10,000	220,000	X 100	750
Pin 10.....	4.6	X 100	5,500	X 100	850
Pin 14.....	4.6	X 100	1,000	X 100	450
Z4					
Pin 3.....	4.3	X 10,000	800,000	X 100	1,200
Pin 5.....	0.8	X 10,000	10,000	X 100	850
Pin 6.....	1.3	X 10,000	13,000	X 100	850
Pin 7.....	0.0	X 1	Ground	X 1	Ground
Pin 10.....	1.2	X 10,000	18,000	X 100	20,000
Pin 11.....	3.8	X 10,000	10,000	X 100	800
Pin 14.....	4.6	X 100	1,000	X 100	450
Z5					
Pin 3.....	1.3	X 100	8,500	X 100	850
Pin 5.....	0.6	X 100	1,100	X 100	750
Pin 6.....	0.1	X 100	7,500	X 100	950
Pin 7.....	0.0	X 100	Ground	X 100	Ground
Pin 10.....	1.5	X 100	6,500	X 100	20,000
Pin 11.....	4.5	X 100	3,600	X 100	700
Pin 14.....	4.6	X 100	1,000	X 100	450
Z6					
Pin 1.....	0.1	X 100	7,500	X 100	950
Pin 2.....	3.5	X 100	7,500	X 100	800
Pin 3.....	4.6	X 100	5,500	X 100	850
Pin 4.....	4.3	X 100	800,000	X 100	1,200
Pin 5.....	1.3	X 10,000	800,000	X 100	850
Pin 6.....	3.8	X 10,000	5,500	X 100	1,000
Pin 7.....	0.0	X 100	Ground	X 1	Ground
Pin 8.....	1.0	X 1	5,500	X 100	800
Pin 9.....	3.8	X 100	5,500	X 100	1,000
Pin 10.....	4.6	X 100	5,500	X 100	800
Pin 11.....	2.5	X 100	5,500	X 100	1,0050
Pin 12.....	3.8	X 100	5,500	X 100	1,0000
Pin 13.....	2.5	X 100	8,000	X 100	1,0000
Pin 14.....	4.6	X 100	1,000	X 100	450



- NOTES:
1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
  2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
  3. --- WIRING ON BACK OF BOARD.
  4. — WIRING ON FRONT OF BOARD.
  5. --- WIRING ON FRONT OF BOARD BUT UNDER PART.
  6. TEST SWITCH DEPRESSED TO PRODUCE 88 DISPLAY.

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Figure 5-21. Temporary storage board, component location, and voltage measurements.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
CR					
22		X 100	700	X 10,000	INF
23		X 100	700	X 10,000	INF
24		X 100	700	X 10,000	INF
25		X 100	700	X 10,000	INF
26		X 100	700	X 10,000	INF
27		X 100	700	X 10,000	INF
28		X 100	700	X 10,000	INF
29		X 100	700	X 10,000	INF
30		X 100	700	X 10,000	INF
31		X 100	700	X 10,000	INF
32		X 100	700	X 10,000	INF
33		X 100	700	X 10,000	INF
34		X 100	700	X 10,000	INF

Table 5-14. Temporary Storage Board, Voltage and Resistance Measurements

Measurement Notes:

- a. Integrated circuit and transistor resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground under load. Ground connected to 1A4A2E8.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Z1					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	10,000	X 100	900
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	10,000	X 100	1,300
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	10,000	X 100	1,300
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	4.6	X 10,000	420,000	X 100	3,700
Pin 14	4.6	X 100	1,200	X 100	380
Z2					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	10,000	X 100	1,300
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	8,000	X 100	1,200
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	8,000	X 100	1,200
Pin 12	4.6	X 10,000	10,000	X 100	1,300
Pin 14	4.6	X 100	1,200	X 100	380
Z3					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	8,000	X 100	1,200
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	8,000	X 100	1,200
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	8,000	X 100	1,200
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	4.6	X 10,000	8,000	X 100	1,200
Pin 14	4.6	X 100	1,200	X 100	380
Z4					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	10,000	X 100	900
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	9,000	X 100	1,100

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	9,000	X 100	1,100
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	4.6	X 10,000	450,000	X 100	3,500
Pin 14	4.6	X 100	1,200	X 100	380
Z5					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	9,000	X 100	1,100
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	8,000	X 100	1,200
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	9,000	X 100	1,250
Pin 12	4.6	X 10,000	9,000	X 100	1,100
Pin 14	4.6	X 100	1,200	X 100	380
Z6					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	8,000	X 100	1,200
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	8,000	X 100	1,100
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	8,000	X 100	1,100
Pin 12	4.6	X 10,000	9,000	X 100	1,250
Pin 14	4.6	X 100	1,200	X 100	380
Z7					
Pin 1	4.6	X 10,000	420,000	X 100	3,700
Pin 2	0.1	X 10,000	10,000	X 100	900
Pin 3	1.8	X 10,000	450,000	X 100	2,400
Pin 4	4.6	X 10,000	10,000	X 100	850
Pin 5	4.6	X 10,000	10,000	X 100	850
Pin 6	0.1	X 10,000	7,000	X 100	650
Pin 7	0.1	X 1	Ground	X 1	Ground
Pin 8	0.1	X 10,000	7,000	X 100	650
Pin 9	4.6	X 10,000	10,000	X 100	850
Pin 10	4.6	X 10,000	10,000	X 100	850
Pin 11	4.6	X 10,000	440,000	X 100	3,600
Pin 12	0.1	X 10,000	10,000	X 100	900
Pin 13	4.6	X 10,000	450,000	X 100	3,500
Pin 14	4.6	X 100	1,200	X 100	380
Z8					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	4.6	X 10,000	10,000	X 100	850
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	8,000	X 100	1,450
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	8,000	X 100	1,450
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	0.1	X 10,000	440,000	X 100	3,600
Pin 14	4.6	X 100	1,200	X 100	380
Z9					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	8,000	X 100	1,450
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.1	X 10,000	9,000	X 100	850
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	9,000	X 100	900
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	4.6	X 10,000	8,000	X 100	1,450
Pin 14	4.6	X 100	1,200	X 100	380
Z10					
Pin 2	0.1	X 10,000	330,000	X 100	1,800
Pin 3	0.1	X 10,000	9,000	X 100	850

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Pin 5	0.0	X 10,000	400,000	X 100	750
Pin 6	0.0	X 10,000	8,000	X 100	1,250
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 9	4.6	X 10,000	8,000	X 100	1,250
Pin 10	6.2	X 10,000	14,000	X 100	800
Pin 12	4.6	X 10,000	9,000	X 100	900
Pin 14	4.6	X 100	1,200	X 100	380
R29		X 100	3,000	X 100	4,500
R30		X 100	4,700	X 100	15,000
R31		X 100	800	X 100	900
R45		X 100	100	X 100	100
CR35		X 100	700	X 100	5,500
CR36		X 100	650	X 10,000	INF
CR46		X 100	700	X 100	1,000
Q15E	0.0	X 1	Ground	X 1	Ground
Q15B	0.7	X 100	20,000	X 100	2,300
Q15C	0.0	X 100	900	X 100	700
Q28E	0.0	X 1	Ground	X 1	Ground
Q28B	0.0	X 100	900	X 100	800
Q28C	1.8	X 10,000	450,000	X 100	2,400
Z11					
Pin 1	0.1	X 100	3,500	X 100	750
Pin 2	6.2	X 10,000	14,000	X 100	800
Pin 3	0.1	X 100	3,200	X 100	700
Pin 4	4.6	X 100	5,000	X 100	1,400
Pin 5	4.6	X 100	5,000	X 100	1,000
Pin 6	0.1	X 100	7,000	X 100	650
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.7	X 10,000	20,000	X 100	2,300
Pin 9	0.1	X 100	7,000	X 100	650
Pin 10	0.1	X 100	4,800	X 100	1,300
Pin 12	0.1	X 10,000	480,000	X 100	3,600
Pin 13	0.1	X 10,000	3,500	X 100	750
Pin 14	4.6	X 100	1,150	X 100	380
Z12					
Pin 1	0.1	X 10,000	440,000	X 100	3,600
Pin 2	4.6	X 10,000	420,000	X 100	3,700
Pin 3	4.6	X 100	8,000	X 100	1,200
Pin 4	4.6	X 100	8,000	X 100	1,100
Pin 5	4.6	X 100	8,000	X 100	1,200
Pin 6	0.1	X 100	3,500	X 100	750
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.1	X 100	4,700	X 100	1,100
Pin 9	1.8	X 10,000	500,000	X 100	5,000
Pin 10	4.6	X 100	4,900	X 100	1,000
Pin 11	4.6	X 100	4,900	X 100	850
Pin 12	4.6	X 100	4,900	X 100	850
Pin 13	4.6	X 10,000	450,000	X 100	3,500
Pin 14	4.6	X 100	1,200	X 100	380
Z13					
Pin 1	4.6	X 100	8,000	X 100	1,450
Pin 2	4.6	X 100	10,000	X 100	1,300
Pin 5	4.6	X 100	4,900	X 100	850
Pin 6	0.1	X 100	4,800	X 100	1,300
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.1	X 100	3,500	X 100	750
Pin 9	4.6	X 100	8,000	X 100	1,200
Pin 10	4.6	X 100	9,000	X 100	1,250
Pin 11	4.6	X 100	9,000	X 100	900
Pin 12	0.1	X 100	3,500	X 100	750
Pin 13	4.6	X 100	9,000	X 100	1,100
Pin 14	4.6	X 100	1,200	X 100	380

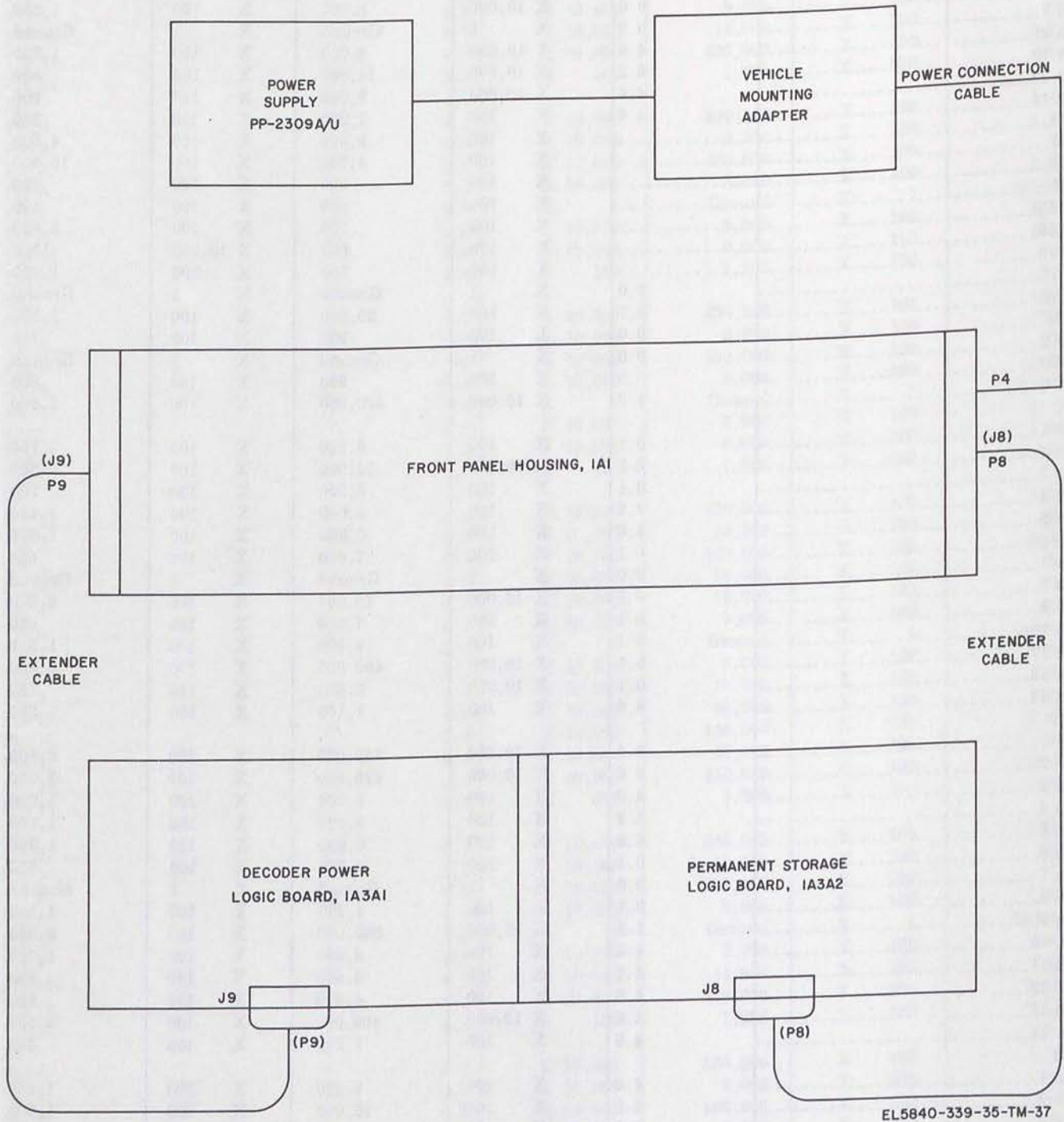


Figure 5-22. Data converter power supply troubleshooting setup.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Z14					
Pin 1.....	0.1	X 100	3,500	X 100	750
Pin 2.....	0.1	X 100	5,000	X 100	1,400
Pin 3.....	4.6	X 100	5,000	X 100	1,000
Pin 4.....	4.6	X 100	5,000	X 100	1,000
Pin 5.....	4.6	X 100	5,000	X 100	1,400
Pin 6.....	0.1	X 100	5,000	X 100	1,400
Pin 7.....	0.0	X 100	Ground	X 1	Ground
Pin 8.....	4.6	X 100	5,000	X 100	1,400
Pin 10.....	0.1	X 1	480,000	X 100	3,600
Pin 11.....	4.6	X 100	4,900	X 100	1,000
Pin 13.....	0.1	X 100	3,500	X 100	750
Pin 14.....	4.6	X 100	1,200	X 100	380

**5-21. Troubleshooting Data Converter Power Supply Module 1A3**

a. The data converter power supply module contains two boards: 1A3A2, the permanent storage logic; and 1A3A1, the decoder power logic. See Figure 5-22 for troubleshooting setup.

(1) Depress TEST switch on Receiver. If 88 does not appear on the digital display, trouble is in 1A3 module.

**CAUTION**

Whenever board assemblies are removed from module, make certain that teflon insulator is seated between board and module before replacement.

(2) Remove data converter power supply module from receiver module mounting plate, leaving the other modules in place.

(3) Remove module cover and extend the module away from module mounting plate 1A1A1 with the extender cables.

b. To test the permanent storage logic board, remove P8 from the module under test and insert it into a good 1A3 module.

*e. Troubleshooting Decoder Power Logic Board 1A3A1.*

Item No.	Symptom	Probable trouble	Corrective action
1	No voltage at Q3 when TEST switch is operated.	Fault in Q1, Q2, or Q3 stages.....	Check voltage and resistance measurements in Q1, Q2, and Q3 circuits.
2	No voltage at E1.....	Fault in Q4 or Q5 stages.....	Check voltage and resistance measurements in Q4 and Q5 circuits.
3	TEST switch turns on IDENTITY display, but signal from test set does not.	Fault in input amplifier.....	Check voltage and resistance measurements in Q8, Q9, Q10, and Q11 circuits.
4	No voltage at collector of Q11 with incoming signal from test set.	Fault in Q11 circuit or B+ supply through 1A3A1R18.	Check voltage and resistance measurements in Q11 circuit.
5	No voltage at P9-11.....	Defective CR7.....	Check forward and back resistance of CR7.

(1) Depress TEST switch. IF IDENTITY display indicates 88, the 1A3A2 board in the module under test is inoperative and should be repaired (fig. 5-23). If IDENTITY display does not indicate 88, trouble is in 1A3A1, the decoder power logic board.

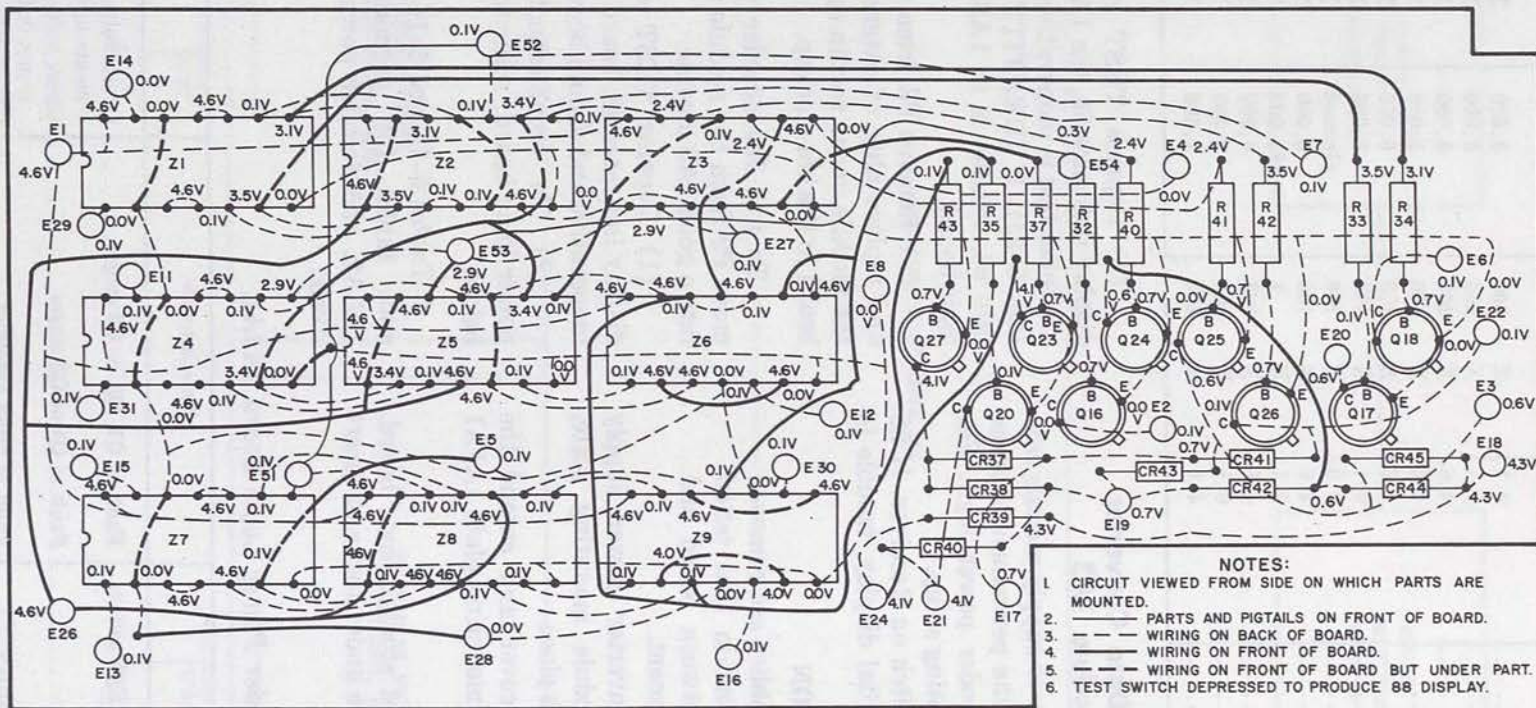
(2) Remove P8 from the good 1A3A2 board and replace plug of extender cable back to J8 in the module under test in order to troubleshoot the board in the hot mockup.

c. To test the decoder power logic board, remove P9 from the module under test and insert it into a good 1A3 module.

(1) Depress TEST switch. If IDENTITY display indicates 88, board in module under test is inoperative and should be repaired (fig. 5-24).

(2) To troubleshoot inoperative decoder power logic board, refer to procedures listed in e below.

d. Tables 5-15 and 5-16 are voltage and resistance tables for permanent storage register 1A3A2, and decoder power logic 1A3A1, respectively.



- NOTES:**
1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
  2. ——— PARTS AND PIGTAILS ON FRONT OF BOARD.
  3. - - - - WIRING ON BACK OF BOARD.
  4. ——— WIRING ON FRONT OF BOARD.
  5. - - - - WIRING ON FRONT OF BOARD BUT UNDER PART.
  6. TEST SWITCH DEPRESSED TO PRODUCE 88 DISPLAY.

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Figure 5-23. Permanent storage register, component location, and voltage.



Table 5-15. Permanent Storage Register Voltage and Resistance Measurements

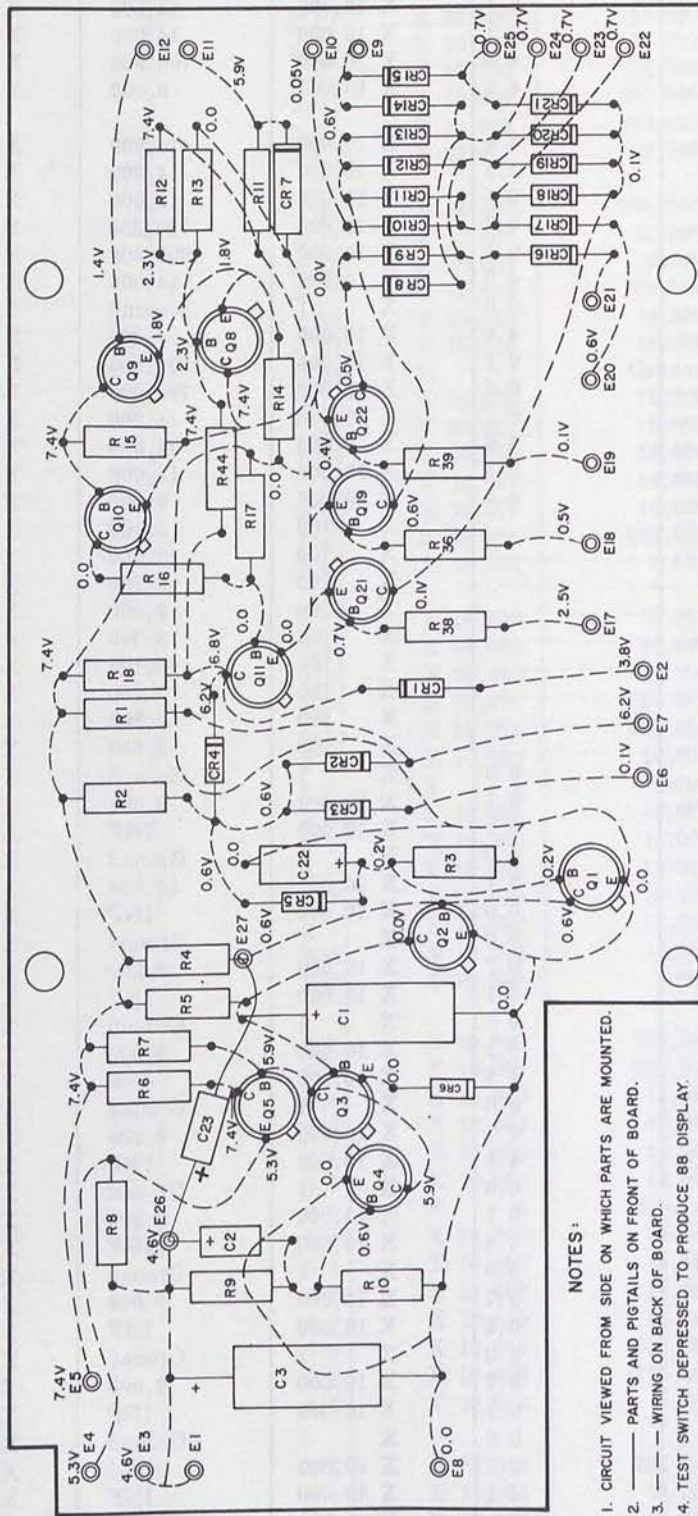
Measurement Notes:

- a. Transistor and integrated circuit resistance measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground. Ground connected at 1A3A2E8.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
<b>Z1</b>					
Pin 1	0.1	X 10,000	700,000	X 100	2,700
Pin 2	0.0	X 10,000	700,000	X 100	2,600
Pin 3	4.6	X 10,000	11,000	X 100	1,050
Pin 4	4.6	X 10,000	11,000	X 100	1,050
Pin 5	0.1	X 10,000	15,000	X 100	950
Pin 6	3.5	X 10,000	10,000	X 100	1,200
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	3.1	X 10,000	10,000	X 100	1,200
Pin 9	0.1	X 10,000	15,000	X 100	950
Pin 10	4.6	X 10,000	12,000	X 100	1,050
Pin 11	4.6	X 10,000	12,000	X 100	1,050
Pin 12	0.0	X 10,000	700,000	X 100	2,700
Pin 13	0.0	X 10,000	750,000	X 100	5,500
Pin 14	4.6	X 10,000	9,000	X 100	380
<b>Z2</b>					
Pin 1	4.6	X 10,000	700,000	X 100	2,700
Pin 2	3.5	X 10,000	10,000	X 100	1,200
Pin 3	0.1	X 10,000	15,000	X 100	950
Pin 4	0.1	X 10,000	15,000	X 100	950
Pin 5	0.1	X 10,000	14,000	X 100	950
Pin 6	4.6	X 10,000	14,000	X 100	1,150
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.1	X 10,000	14,000	X 100	1,150
Pin 9	3.4	X 10,000	10,000	X 100	900
Pin 10	0.1	X 10,000	14,000	X 100	1,000
Pin 11	0.1	X 10,000	15,000	X 100	950
Pin 12	3.1	X 10,000	10,000	X 100	1,200
Pin 13	4.6	X 10,000	700,000	X 100	2,700
Pin 14	4.6	X 10,000	9,000	X 100	380
<b>Z3</b>					
Pin 1	2.9	X 10,000	10,000	X 100	900
Pin 2	0.1	X 10,000	12,000	X 100	800
Pin 3	4.6	X 10,000	14,000	X 100	1,150
Pin 4	0.1	X 10,000	12,000	X 100	800
Pin 5	4.6	X 10,000	14,000	X 100	1,200
Pin 6	0.0	X 10,000	10,000	X 100	900
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.0	X 10,000	14,000	X 100	900
Pin 9	4.6	X 10,000	14,000	X 100	1,000
Pin 10	2.4	X 10,000	10,000	X 100	950
Pin 11	0.1	X 10,000	15,000	X 100	920
Pin 12	2.4	X 10,000	10,000	X 100	1,000
Pin 13	0.1	X 10,000	14,000	X 100	1,150
Pin 14	4.6	X 10,000	9,000	X 100	380
<b>Z4</b>					
Pin 1	0.1	X 10,000	750,000	X 100	5,300
Pin 2	0.0	X 10,000	700,000	X 100	2,700
Pin 3	4.6	X 10,000	12,000	X 100	850
Pin 4	4.6	X 10,000	12,000	X 100	850
Pin 5	0.1	X 10,000	16,000	X 100	900
Pin 6	3.4	X 10,000	10,000	X 100	900
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	2.9	X 10,000	10,000	X 100	900

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Pin 9	0.1	X 10,000	16,000	X 100	900
Pin 10	4.6	X 10,000	12,000	X 100	850
Pin 11	4.6	X 10,000	12,000	X 100	850
Pin 12	0.0	X 10,000	700,000	X 100	2,700
Pin 13	0.1	X 10,000	700,000	X 100	5,400
Pin 14	4.6	X 10,000	9,000	X 100	380
Z5					
Pin 1	4.6	X 10,000	700,000	X 100	2,700
Pin 2	3.4	X 10,000	10,000	X 100	900
Pin 3	0.1	X 10,000	16,000	X 100	900
Pin 4	4.6	X 10,000	700,000	X 100	2,700
Pin 5	4.6	X 10,000	14,000	X 100	1,000
Pin 6	4.6	X 10,000	16,000	X 100	920
Pin 7	0.1	X 10,000	Ground	X 1	Ground
Pin 8	0.0	X 1	Ground	X 1	Ground
Pin 9	0.1	X 10,000	15,000	X 100	920
Pin 10	0.1	X 10,000	10,000	X 100	900
Pin 11	3.4	X 10,000	10,000	X 100	900
Pin 12	4.6	X 10,000	14,000	X 100	1,000
Pin 13	0.1	X 10,000	16,000	X 100	900
Pin 14	2.9	X 10,000	10,000	X 100	900
Pin 1	4.6	X 10,000	700,000	X 100	2,700
Pin 2	4.6	X 10,000	9,000	X 100	380
Pin 3	4.6	X 10,000	9,000	X 100	380
Pin 4	0.1	X 10,000	16,000	X 100	920
Pin 5	4.6	X 10,000	14,000	X 100	1,000
Pin 6	4.6	X 10,000	14,000	X 100	1,000
Pin 7	0.1	X 10,000	11,000	X 100	1,100
Pin 8	0.1	X 10,000	11,000	X 100	1,100
Pin 9	0.1	X 10,000	14,000	X 100	1,000
Pin 10	4.6	X 10,000	14,000	X 100	1,000
Pin 11	4.6	X 10,000	11,000	X 100	1,100
Pin 12	0.1	X 10,000	15,000	X 100	1,000
Pin 13	4.6	X 10,000	9,000	X 100	380
Pin 14	4.6	X 10,000	9,000	X 100	380
Z6					
Pin 1	0.1	X 10,000	16,000	X 100	920
Pin 2	4.6	X 10,000	14,000	X 100	1,250
Pin 3	4.6	X 10,000	14,000	X 100	1,000
Pin 4	0.0	X 10,000	700,000	X 100	2,700
Pin 5	0.1	X 10,000	800,000	X 100	5,500
Pin 6	4.6	X 10,000	14,000	X 100	1,250
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	4.6	X 10,000	14,000	X 100	1,200
Pin 9	0.1	X 10,000	11,000	X 100	1,100
Pin 10	0.1	X 10,000	11,000	X 100	1,100
Pin 11	0.1	X 10,000	14,000	X 100	1,000
Pin 12	4.6	X 10,000	14,000	X 100	1,000
Pin 13	0.1	X 10,000	11,000	X 100	1,100
Pin 14	4.6	X 10,000	15,000	X 100	1,000
Pin 1	4.6	X 10,000	9,000	X 100	380
Z7					
Pin 1	0.1	X 10,000	750,000	X 100	5,000
Pin 2	0.0	X 10,000	700,000	X 100	2,700
Pin 3	4.6	X 10,000	15,000	X 100	950
Pin 4	4.6	X 10,000	15,000	X 100	950
Pin 5	4.6	X 10,000	14,000	X 100	1,000
Pin 6	4.6	X 10,000	14,000	X 100	1,000
Pin 7	0.1	X 10,000	14,000	X 100	1,000
Pin 8	0.1	X 10,000	14,000	X 100	1,000
Pin 9	0.1	X 10,000	14,000	X 100	1,000
Pin 10	4.6	X 10,000	15,000	X 100	950
Pin 11	4.6	X 10,000	15,000	X 100	950
Pin 12	0.0	X 10,000	700,000	X 100	2,700
Pin 13	0.1	X 10,000	750,900	X 100	5,000
Pin 14	4.6	X 10,000	9,000	X 100	380
Z8					
Pin 1	4.6	X 10,000	700,000	X 100	2,800
Pin 2	0.1	X 10,000	14,000	X 100	1,000
Pin 3	4.6	X 10,000	14,000	X 100	1,000
Pin 4	4.6	X 10,000	700,000	X 100	2,700
Pin 5	0.1	X 10,000	11,000	X 100	1,100
Pin 6	0.1	X 10,000	14,000	X 100	1,200
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	0.1	X 10,000	14,000	X 100	1,200
Pin 9	0.1	X 10,000	11,000	X 100	1,000
Pin 10	4.6	X 10,000	700,000	X 100	2,700

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Pin 11	0.1	X 10,000	14,000	X 100	1,000
Pin 12	0.1	X 10,000	14,000	X 100	1,000
Pin 13	4.6	X 10,000	700,000	X 100	2,700
Pin 14	4.6	X 10,000	9,000	X 100	380
Z9					
Pin 1	0.1	X 10,000	14,000	X 100	1,200
Pin 2	4.0	X 10,000	14,000	X 100	1,300
Pin 3	0.1	X 10,000	11,000	X 100	1,100
Pin 4	0.0	X 10,000	700,000	X 100	2,700
Pin 5	0.1	X 10,000	900,000	X 100	5,700
Pin 6	4.0	X 10,000	14,000	X 100	1,300
Pin 7	0.0	X 1	Ground	X 1	Ground
Pin 8	4.6	X 10,000	14,000	X 100	1,250
Pin 9	0.1	X 10,000	900,000	X 100	5,500
Pin 10	0.0	X 10,000	700,000	X 100	2,700
Pin 11	0.1	X 10,000	11,000	X 100	1,000
Pin 12	4.6	X 10,000	14,000	X 100	1,250
Pin 13	0.1	X 10,000	14,000	X 100	1,200
Pin 14	4.6	X 10,000	9,000	X 100	380
R32		X 100	2,100	X 100	2,600
R33		X 100	2,800	X 100	4,500
R34		X 100	2,200	X 100	2,800
R35		X 100	3,000	X 100	4,500
R37		X 100	3,000	X 100	4,500
R40		X 100	3,100	X 100	4,500
R41		X 100	3,000	X 100	4,500
R42		X 100	2,800	X 100	4,500
R43		X 100	3,000	X 100	4,500
Q16E	0.0	X 1	Ground	X 1	Ground
Q16B	0.7	X 10,000	9,000	X 100	4,500
Q16C	0.1	X 10,000	INF	X 100	2,400
Q17E	0.0	X 1	Ground	X 1	Ground
Q17B	0.1	X 10,000	10,000	X 100	7,000
Q17C	0.6	X 10,000	INF	X 100	3,000
Q18E	0.0	X 1	Ground	X 1	Ground
Q18B	0.7	X 10,000	9,000	X 100	4,800
Q18C	0.1	X 10,000	INF	X 100	2,800
Q20E	0.0	X 1	Ground	X 1	Ground
Q20B	0.1	X 10,000	9,000	X 100	7,500
Q20C	4.1	X 10,000	INF	X 100	4,000
Q23E	0.0	X 1	Ground	X 1	Ground
Q23B	0.7	X 10,000	9,000	X 100	7,500
Q23C	4.1	X 10,000	INF	X 100	4,100
Q24E	0.0	X 1	Ground	X 1	Ground
Q24B	0.7	X 10,000	9,000	X 100	7,500
Q24C	0.6	X 10,000	INF	X 100	2,300
Q25E	0.0	X 1	Ground	X 1	Ground
Q25B	0.7	X 10,000	9,000	X 100	7,500
Q25C	0.6	X 10,000	INF	X 100	4,000
Q26E	0.0	X 1	Ground	X 1	Ground
Q26B	0.7	X 10,000	9,000	X 100	7,000
Q26C	0.1	X 10,000	INF	X 100	4,000
Q27E	0.0	X 1	Ground	X 1	Ground
Q27B	0.7	X 10,000	9,000	X 100	7,500
Q27C	4.1	X 10,000	INF	X 100	3,500
CR37		X 100	700	X 10,000	INF
CR38		X 100	650	X 10,000	INF
CR39		X 100	670	X 10,000	INF
CR40		X 100	670	X 10,000	INF
CR41		X 100	650	X 10,000	INF
CR42		X 100	700	X 10,000	INF
CR43		X 100	670	X 10,000	INF
CR44		X 100	670	X 10,000	INF
CR45		X 100	670	X 10,000	INF



EL 5840-339-35-TM-39

- NOTES:**
1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
  2. PARTS AND PIGTAILS ON FRONT OF BOARD.
  3. --- WIRING ON BACK OF BOARD.
  4. TEST SWITCH DEPRESSED TO PRODUCE 88 DISPLAY.

Figure 5-24. Decoder Power Logic, component location, and voltage measurements.

Table 5-16. Decoder Power Logic Voltage and Resistance Measurements

Measurement Notes:

- a. Transistor and integrated circuit measurements made with respect to ground.
- b. Resistor and diode measurements made across component.
- c. Voltage measurements made with respect to ground. Ground connected at 1A3A1E8.

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
R1		X 100	970	X 100	1,000
R2		X 100	1,750	X 100	15,000
R3		X 100	850	X 100	9,000
R4		X 100	8,000	X 100	15,000
R5		X 100	2,200	X 100	4,000
R6		X 1	10	X 10	10
R7		X 100	750	X 100	900
R8		X 100	950	X 100	1,000
R9		X 100	950	X 100	1,000
R10		X 100	150	X 100	150
R11		X 100	160	X 100	160
R12		X 100	850	X 100	2,300
R13		X 100	1,400	X 100	1,400
R14		X 100	1,300	X 100	11,000
R15		X 10,000	9,000	X 10,000	45,000
R16		X 100	4,400	X 100	4,400
R17		X 10,000	9,000	X 10,000	46,000
R18		X 10,000	9,000	X 10,000	12,000
R36		X 100	4,600	X 100	4,600
R38		X 100	4,400	X 100	4,400
R39		X 100	4,500	X 100	4,500
R44		X 100	11,000	X 100	15,000
Q1E	0.0	X 1	Ground	X 1	Ground
B	0.2	X 100	900	X 100	9,500
C	0.6	X 100	850	X 100	3,200
Q2E	0.0	X 1	Ground	X 1	Ground
B	0.6	X 100	850	X 100	3,200
C	0.0	X 100	350	X 100	3,600
Q3E		X 100	700	X 100	3,100
B	0.0	X 100	350	X 100	3,600
C	5.9	X 100	2,600	X 100	750
Q4E	0.0	X 1	Ground	X 1	Ground
B	0.6	X 100	150	X 100	150
C	5.9	X 100	2,600	X 100	750
Q5E	5.3	X 100	2,200	X 100	1,800
B	5.9	X 100	2,600	X 100	750
C	7.4	X 100	2,000	X 100	1,050
Q8E	1.8	X 100	1,400	X 100	1,300
B	2.3	X 100	2,000	X 100	1,450
C	7.4	X 10,000	20,000	X 100	1,050
Q9E	1.8	X 10,000	11,000	X 10,000	8,000
B	1.4	X 10,000	19,000	X 10,000	950,000
C	7.4	X 10,000	50,000	X 10,000	14,000
Q10E	7.4	X 100	2,000	X 100	1,050
B	7.4	X 10,000	50,000	X 10,000	14,000
C	0.0	X 10,000	20,000	X 100	1,050
Q11E	0.0	X 1	Ground	X 1	Ground
B	0.0	X 10,000	8,000	X 10,000	45,000
C	6.8	X 10,000	16,000	X 10,000	11,000
Q19E	0.0	X 1	Ground	X 1	Ground
Q19B	0.0	X 10,000	9,000	X 10,000	2,000,000
Q19C	0.1	X 10,000	INF	X 10,000	10,000,000
Q21E	0.0	X 1	Ground	X 1	Ground

Component No.	Voltage with respect to ground	Resistance in ohms			
		Meter range	Forward	Meter range	Reverse
Q21B	0.7	X 10,000	9,000	X 10,000	INF
Q21C	0.1	X 10,000	INF	X 10,000	INF
Q22E	0.0	X 1	Ground	X 1	Ground
Q22B	0.1	X 10,000	9,000	X 10,000	600,000
Q22C	0.5	X 10,000	INF	X 10,000	900,000
CR1		X 100	700	X 10,000	INF
CR2		X 100	600	X 10,000	14,000
CR3		X 100	700	X 10,000	INF
CR4		X 100	690	X 10,000	26,000
CR5		X 100	690	X 10,000	27,000
CR6		X 100	680	X 10,000	14,000
CR7		X 100	900	X 100	2,200
CR8		X 100	700	X 10,000	INF
CR9		X 100	700	X 10,000	INF
CR10		X 100	700	X 10,000	INF
CR11		X 100	680	X 10,000	INF
CR12		X 100	700	X 10,000	INF
CR13		X 100	700	X 10,000	INF
CR14		X 100	700	X 10,000	INF
CR15		X 100	680	X 10,000	INF
CR16		X 100	700	X 10,000	INF
CR17		X 100	700	X 10,000	INF
CR18		X 100	700	X 10,000	INF
CR19		X 100	700	X 10,000	INF
CR20		X 100	700	X 10,000	INF
CR21		X 100	700	X 10,000	INF

Table 5-17. Contents of Permanent Storage Register

Tone No.	Logic 1 inputs at 1A3A2J8		
	A	B	C
01	A1	A2	A3
02	A1	A2	B3
03	A1	A2	C3
04	A1	B2	A3
05	A1	B2	B3
06	A1	B2	C3
07	A1	C2	A3
08	A1	C2	B3
09	A1	C2	C3
11	B1	A2	A3
12	B1	A2	B3
13	B1	A2	C3
14	B1	B2	A3
15	B1	B2	B3
16	B1	B2	C3
17	B1	C2	A3
18	B1	C2	B3
19	B1	C2	C3
21	C1	A2	A3
22	C1	A2	B3
23	C1	A2	C3
24	C1	B2	A3
25	C1	B2	B3
26	C1	B2	C3
27	C1	C2	A3
28	C1	C2	B3
29	C1	C2	C3

NOTE

All other flip-flops are reset to .0

Table 5-18. Diode Matrix Decoder Codes and Pins by Segments

Tens segments	Output pins	Matrix diodes	Input odes	Input/sources
A & E	1A4A2J11-16	CR32, CR33 CR26, CR27	A1 C1	1A4A2J11-3
B	-19	CR31 CR25	A1 C1	-3 -18
C	-18	CR28	C1	-18
D	-17	CR34	A1	-3
F	-15	CR30 CR23 CR24	A1 B1 C1	-3 -2 -18
G	-14	CR22 CR29	C1 A1	-18 -3
Units segments				
A	1A3A2J8-17	CR41 CR37	SB3 B2, C3	1A3A2J8-22 Q27-C
B	-18	CR44 CR45 CR39	B3, C2 S(A2, B3) S(B2, C3)	Q24-C 1A3A2J8-3 -24
C	-19	CR42 CR43 CR40	B3, C2 S(A2, B3) SB2	Q24-C 1A3A2J8-3 -21
D	1A3A1J9-25	CR38 CR15 CR21	B2, C3 SB2 SC2	Q27-C 1A3A1J9-9 Q21-C
E	-22	CR11 CR17 CR18	S(A2, C3) S(B2, C3) SC2	Q19-C A13A1J9-20 Q21-C
F	1A3A1J9-23	CR10 CR19 CR12 CR9	SB3 SC2 S(A2, C3) SA3	1A3A1J9-10 Q21-C Q19-C Q22-C
G	-24	CR16 CR14 CR13 CR20 CR8	S(A2, B3) SB2 S(A2, C3) SC2 SA3	1A3A1J9-21 1A3A1J9-9 Q19-C Q21-C Q22-C





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By Order of the Secretary of the Army:

W. C. WESTMORELAND,  
*General, United States Army,*  
*Chief of Staff.*

Official:

KENNETH G. WICKHAM,  
*Major General, United States Army,*  
*The Adjutant General.*

Distribution:

*Active Army:*

USASA (1)  
CofSptS (1)  
ACSC-E (2)  
USAMC (1)  
USAMB (10)  
USACDC (10)  
USATECOM (5)  
USAMERDC (5)  
USARPAC (5)  
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SAAD (10)  
TOAD (10)

Eighth USA (10)  
USACDCCEA (1)  
USACDCCEA  
Ft Huachuca (1)  
USAERDAA (2)  
USAERDAW (2)  
Sig FLDMS (Pac) (3)  
USARV (5)  
Gen Dep (Pac) (5)  
Sig Dep (Pac) (12)  
Sig Sec Gen Dep (Pac) (8)

*NG:* None.

*USAR:* None.

For explanation of abbreviations used, see AR 310-50.

Published by Direction of the Commander of the Naval Air Systems Command.

Dr. Oscar of the University of the Army

W. C. WESTFORD

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Major General of the Army

Colonel of the Army

Major of the Army

Captain of the Army

First Lieutenant of the Army

Second Lieutenant of the Army

Private First Class of the Army

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## CHAPTER 5 FINAL ILLUSTRATIONS

4-10-2002

The student contains various schematic diagrams of the radio frequency receiver. It also contains a comparison of a receiver schematic diagram (Fig. 4-1) a power distribution diagram (Fig. 4-2) and a schematic diagram (Fig. 4-3) and a schematic diagram (Fig. 4-4) for the overall radio frequency receiver. A comparison of the receiver schematic diagram for the overall radio frequency receiver is compared with the receiver schematic diagram for the overall radio frequency receiver. The receiver schematic diagram for the overall radio frequency receiver is compared with the receiver schematic diagram for the overall radio frequency receiver. The receiver schematic diagram for the overall radio frequency receiver is compared with the receiver schematic diagram for the overall radio frequency receiver.

## APPENDIX A

## REFERENCES

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- |                     |   |
|---------------------|---|
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| DA Pam 310-7        | U. S. Army Index of Modification Work Orders.   |
| SC 5180-91-CL-S21   | Tool Kit, Electronic Equipment TK-100/G (FSN 5180-605-0079).  |
| TB 9-5985-306-50    | Calibration Procedure For: Attenuator, Variable CN-796/U (5985-831-5991).   |
| TM 11-1258          | Signal Generator AN/URM-70.   |
| TM 11-5840-339-12   | Operator and Organizational Maintenance Manual: Radio Frequency Monitor Sets AN/USQ-42, AN/USQ-42A, and AN/USQ-42B.   |
| TM 11-6130-245-15   | Organizational, DS, GS, and Depot Maintenance Manual Including Repair Parts and Special Tool Lists: Power Supply PP-2309A/U.                                      |
| TM 11-6625-355-12   | Organizational Maintenance Manual: Audio Oscillators TS-421/U and TS-421A/U.  |
| TM 11-6625-366-15   | Organizational, DS, GS, and Depot Maintenance Manual: Multimeter TS-352B/U.   |
| TM 11-6625-524-15-1 | Operator, Organizational, DS, GS, and Depot Maintenance Manual: Electronic Voltmeter AN/URM-145.  |
| TM 11-6625-535-15-1 | Organizational, DS, GS, and Depot Maintenance Manual: Oscilloscopes AN/USM-140B, AN/USM-140C, AN/USM-141A, and AN/USM-141B.                                       |
| TM 11-6625-575-15   | Operator, Organizational, DS, GS, and Depot Maintenance Manual: Signal Generator TS-452D/U.   |
| TM 11-6625-617-12   | Organizational Maintenance Manual Including Repair Parts List: Power Supply PP-3514/U.  |
| TM 11-6625-700-10   | Operator's Manual: Digital Readout, Electronic Counter AN/USM-207.  |
| TM 11-6625-1541-15  | Operator, Organizational, DS, GS, and Depot Maintenance Manual: Hewlett-Packard RMS Voltmeter Model 3400A.  |
| TM 11-6625-1558-15  | Operator, Organizational, DS, GS, and Depot Maintenance Manual: Variable-Rate, Precision RF Sweep Frequency Generator, Jerrold Model 707-D.                       |
| TM 11-6625-1559-12  | Operator and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Generator Signal Sweep AN/USM-203.                                  |
| TM 11-6625-1576-15  | Organizational, DS, GS, and Depot Maintenance Manual: Distortion Analyzer, Hewlett-Packard Models 233A and 334A.  |
| TM 11-6625-1843-15  | Operator, Organizational, DS, GS, and Depot Maintenance Manual: Test Sets AN/USM-314, AN/USM-314A, and AN/USM-314B Including Repair Parts and Special Tools List. |
| TM 38-750           | The Army Maintenance Management-System (TAMMS).   |

APPENDIX A

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Index of Technical Manuals, Technical Publishing Agency, Manhattan (Type T, S, and G), Supply Publishing and Distribution Order.

U. S. Army Index of Publications Work Order.

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Organizational, DS, GS, and Depot Maintenance Manual, Including Parts and Special Tools Lists, Form 77-1000A, U.

Organizational Maintenance Manual; Auto Operators TS-121U and TS-121AU.

Organizational, DS, GS, and Depot Maintenance Manual, Including Parts Lists, Model 304, AN/USM-12, AN/USM-12A, and AN/USM-12B.

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Operator and Organizational Maintenance Manual, Including Parts Lists and Special Tools Lists, Operator Manual, Form 77-1000A, U.

Organizational, DS, GS, and Depot Maintenance Manual, Including Parts Lists, Model 304, AN/USM-12, AN/USM-12A, and AN/USM-12B.

Operator, Organizational, DS, GS, and Depot Maintenance Manual, Including Parts Lists, Model 304, AN/USM-12, AN/USM-12A, and AN/USM-12B.

Organizational, DS, GS, and Depot Maintenance Manual, Including Parts Lists, Model 304, AN/USM-12, AN/USM-12A, and AN/USM-12B.

The Army Maintenance Administration System (TAMMS).



## APPENDIX B

DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE REPAIR PARTS  
AND SPECIAL TOOLS LIST

## Section I. INTRODUCTION

**B-1. Scope**

This appendix lists repair parts and special tools required for the performance of direct support, general support, and depot maintenance of the AN/USQ-42, AN/USQ-42A, and AN/USQ-42B.

**NOTE**

This appendix is current as of 16 June 1970.

**B-2. General**

This repair parts and special tools list is divided into the following sections:

a. *Repair Parts—Section II.* A list of repair parts authorized for the performance of maintenance at the direct support, general support, and depot level.

b. *Special Tools, Test and Support Equipment—Section III.* Not applicable.

c. *Index—Federal Stock Number Cross-Reference to Figure and Item Number or Reference Designation—Section IV.* A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alphanumeric sequence, cross-referenced to figure number and reference designation.

d. *Index—Reference Designation Cross-Reference to Page Numbers—Section V.* A list of reference designations cross-referenced to page numbers.

**B-3. Explanation of Columns**

The following provides an explanation of columns in the tabular lists:

a. *Source, Maintenance, and Recoverability Codes (SMR), Column 1.*

(1) Source codes indicate the selection status and source for the listed item. Source codes used are—

*Code**Explanation*

- P—Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system and authorized for use at indicated maintenance categories.
- P2—Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system.
- P9—Assigned to items which are NSA design controlled: unique repair parts, special tools, test, measuring and diagnostic equipment, which are stocked and supplied by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41.
- P10—Assigned to items which are NSA design controlled: special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and which are stocked and supplied by the Army COMSEC logistic system.
- M—Repair parts which are not procured or stocked, but are to be manufactured at indicated maintenance levels.
- A—Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately, and can be assembled to form the required assembly at indicated maintenance categories.
- X—Parts and assemblies which are not procured or stocked and the mortality of which normally is below that of the applicable end item or component. The failure of such part or assembly should

<i>Code</i>	<i>Explanation</i>
	result in retirement of the end item from the supply system.
X1	—Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component.
X2	—Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibalization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels.
G	—Major assemblies that are procured with PEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

(2) Maintenance codes indicate the lowest category of maintenance authorized to install the listed item. The maintenance level codes are—

<i>Code</i>	<i>Explanation</i>
C	—Operator/crew
O	—Organizational maintenance
F	—Direct support maintenance
H	—General support maintenance
D	—Depot maintenance

(3) Recoverability codes indicate whether undervicable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are—

<i>Code</i>	<i>Explanation</i>
R	—Repair parts and assemblies that are economically repairable at DSU and GSU activities and are normally furnished by supply on an exchange basis.
S	—Repair parts and assemblies which are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically repairable, they will be avacuated to a depot for evaluation and analysis before final disposition.
T	—High-dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired

<i>Code</i>	<i>Explanation</i>
	or overhauled at depot maintenance activities.
U	—Repair parts specifically selected for salvage by reclamation units, because of precious metal content, critical materials, or high-dollar value reusable casings or castings.

*b. Federal Stock Number, Column 2.* This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

*c. Description, Column 3.* This column indicates the Federal item name and any additional description of the item required. The index number has been included as part of the description to aid in the location of "same as" items. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses.

*d. Unit of Measure (U/M), Column 4.* A 2-character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr, etc.

*e. Quantity Incorporated in Unit, Column 5.* This column indicates the quantity of the item used in the AN/USQ-42, AN/USQ-42A, and AN/USQ-42B. Subsequent appearances of the same item in the same assembly are indicated by the letters "REF".

*f. 30-Day DS/GS Maintenance Allowances, Columns 6 and 7.*

**NOTE**

Allowances in GS column are for GS maintenance only.

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn, opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required, but not for initial stockage, are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS/GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100

of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. *Example*, authorized allowance for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

*g. One-Year Allowances per 100 Equipments/Contingency Planning Purposes, Column 8.* This column indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for 1 year.

*h. Depot Maintenance Allowance per 100 Equipments, Column 9.* This column indicates opposite the first appearance of each item, the total quantity authorized for depot maintenance of 100 equipments. Subsequent appearances of the same item will have the letters "REF" in the allowance column. Items authorized for use as required, but not for initial stockage, are identified with an asterisk in the allowance column.

*i. Illustration, Column 10.* This column is divided as follows:

(1) *Figure number, column 10a.* Indicates the figure number in which the item is shown.

(2) *Item number or reference designation, column 10b.* Indicates the reference designation used to identify the item in the illustration.

#### B-4. Special Information

*a.* Identification of the usable on codes included in column 3 of this publication are—

Code	Explanation
1.....	AN/USQ-42
2.....	AN/USQ-42A
3.....	AN/USQ-42B

*b.* Repair parts mortality is computed from failure rates derived from experience factors with the individual parts in a variety of equipments. Variations in the specific application and periods of use of electronics equipment, the fragility of electronic piece parts, plus intangible material and quality factors intrinsic to the manufacture of electronic parts, do not permit mortality to be based on hours of end item use. However, long periods of continuous use under

adverse conditions are likely to increase repair parts mortality.

*c.* Parts which require manufacture or assembly at a category higher than that authorized for installation will indicate in the source column the higher category (i.e., PD).

*d.* Dry batteries shown are used with the equipment but are not considered part of the equipment. They will not be preshipped automatically but are to be requisitioned in quantities necessary for the particular organization, in accordance with SB 11-6.

#### B-5. Location of Repair Parts

*a.* This appendix contains two cross-reference indexes (secs. IV and V) to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number), or reference designation is known. The first column in each index is prepared in numerical and/or alphanumeric sequence in ascending order. Where a Federal stock number is not listed, refer to the reference number (manufacturer's part numbers) immediately following the Federal stock number.

*b.* When the Federal stock number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec. IV) and locate the Federal stock number. The FSN is cross-referenced to the applicable figure and reference designation.

(2) When the reference designation is determined, refer to the reference designation index (sec. V). The reference designations are listed in numerical ascending order and are cross-referenced to the page number on which they appear in the repair parts list (sec. II). Refer to the page number noted in the index and locate the reference designation (col. 10b). If the letters "REF" appear in the allowance column for the repair part, note the Federal stock number (col. 2) or manufacturer's part number (col. 3). Refer to the FSN index and note the reference designation for that FSN or part number. Refer to the reference designation index and note the page number given for the reference designation. Refer to the page noted in the RPSTL (sec. II) and locate the reference designation in column 10b of the repair parts list.

*c.* When the reference designation is known, follow the procedures given in *b*(2) above.

*d.* When neither the FSN nor reference designation is known, identify the part in the il-

illustration and follow directions given in *c* above or scrutinize column 3 of the repair parts list (sec. II).

**B-6. Federal Supply Code for Manufacturers**

<i>Code</i>	<i>Manufacturer</i>	<i>Code</i>	<i>Manufacturer</i>
01121	Allen-Bradley Co.	28564	Pinlites, Inc.
01139	General Electric Co.	46384	Penn Engineering and Mfg. Corp.
	Silicone Products Dept.	70903	Belden Corp.
01281	TRW Semiconductors, Inc.	71279	Cambridge Thermionic Corp.
02859	International Telephone and Telegraph Corp—	71468	ITT Cannon Electric, Inc.
	Aerospace Operations.	71602	Chalfant Sewing Fabricators, Inc.
	ITT Aerospace/Optical Division	71785	Cinch Mfg. Co. and Howard B. Jones Division
04633	Minnesota Mining and Mfg. Co.	72136	The Electro Motive Mfg. Co., Inc.
	Adhesives Coatings and Sealers Division	72259	Nytronics, Inc.
04713	Motorola Semiconductor Products, Inc.	72962	Elastic Stop Nut Division of Amerace Esna Corp.
04865	Nyltite Corp. of America	73138	Beckman Instruments, Inc. Helipot Division
05571	Sprague Electric Co.	74868	The Bunker & Ramo Corp. Amphenal RF Division
	Pacific Division	75237	Kaynar Co. Division of Reiner Industries, Inc.
06011	Tucker Concrete Form Co., Inc.	75345	Kirkhill Rubber Co.
06540	Amatom Electronic Hardware Co., Inc.	77820	The Bendix Corp. Electrical Components Division
06860	Gould-National Batteries, Inc. Automotive Division	78488	Stackpole Carbon Co.
07263	Fairchild Camera and Instrument Corp. Semiconductor Division	79963	Zierick Mfg. Co.
09647	Aqua-Chem, Inc.	80058	Joint Electronic Type Designation System
10412	Resdel Engineering Corp.	80063	Army Electronics Command
11911	Solid State Electronics Corp.	80205	National Aerospace Standards Committee
12405	Hysol Corp. of California	80740	Beckman Instruments, Inc.
12856	Micrometals	81349	Military Specifications
12881	Metex Corp.	83259	Parker Seal Co. Division of Parker-Hannifin Corp.
13224	Stake Fastener Co.	83330	Herman H. Smith, Inc.
13257	Esna, Ltd.	83553	Seaboard Pacific Division of Associated Spring Corp.
13483	Precision Electronics, Inc.	84171	Arco Electronics, Inc.
14433	ITT Semiconductors A Division of International Telephone and Telegraph Corp.	86928	Seastrom Mfg. Co., Inc.
15536	Hy & Gain Electronic Mfg. Co.	87034	Marco & Oak Industries A Division of Oak Electro/Netics Corp.
15653	Kaynor Mfg. Co., Inc. Kaylock Division	88044	Aeronautical Standards Group Dept. of Navy and Air Force
15801	Fenwal Electronics, Inc.	88245	Litton Precision Products, Inc. USECO Div. Litton Industries
15849	USECO, INC.	88254	Mead Corp.
16546	U.S. Capacitor Corp.	90797	Magnetics, Inc.
17357	Elco Webster Corp.	91293	Johanson Mfg. Co.
18565	Chromerics, Inc.	92174	Transport Products Co.
18722	RCA Corp. Solid State Division	93958	Republic Electronics Corp.
21752	DCC—Canadian Properties, Ltd	94124	Union Carbide Corp. Linde Division
22729	Union Carbide Corp. Electronics Division	94222	Southco, Inc.
27264	Molex Products Co.	96906	Military Standards
27697	Western Indicator Co., Inc.	97539	APM & Hexseal Corp.



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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						1-20	21-50	51-100	1-20	21-50	51-100					
	5820-791-5234	A001 MONITOR SET, RADIO FREQUENCY AN/USQ-42: (This item is nonexpendable)	1												1-1	
	5820-134-0572	A002 MONITOR SET, RADIO FREQUENCY AN/USQ-42A: (This item is nonexpendable)	2												1-1	
	5820-241-5198	A003 MONITOR SET, RADIO FREQUENCY AN/USQ-42B: (This item is nonexpendable)	3												1-1	
X2-D	5820-810-0171	A004 RECEIVER, R-1561/USQ-42: 91605-1 (10412)	1	EA	1										4-1	
X2-D	5820-134-0571	A005 RECEIVER, R-1561A/USQ- 42: 91605-3 (10412)	2	EA	1										4-1	
X2-D	5820-241-5199	A006 RECEIVER, R-1561B/ USQ-42: 91673-1 (10412)	3	EA	1										4-1	
X2-D		A007 HOUSING ASSEMBLY, FRONT: 79091-1 (10412)	1	EA	1											1A1
X2-D		A008 HOUSING ASSEMBLY: 79672-1 (10412)	2	EA	1											1A1
X2-D		A009 HOUSING ASSEMBLY: 79672-2 (10412)	3	EA	1											1A1
X2-D		A010 HOUSING, FRONT PANEL: 78996-1 (10412)	1	EA	1											
X2-D		A011 HOUSING, FRONT PANEL: 79680-1 (10412)	2,3	EA	1											
X2-D		A013 NUT, ANCHOR FLOATING: 79393 (10412)	1	EA	10											
X2-D	5310-828-4707	A014 NUT, ANCHOR FLOATING: MF1301-06 (75237)	2,3	EA	10											
X2-D		A016 SCREW, MACHINE: MS35240-10 (96906)	1	EA	20											
X2-D	5320-117-6929	A017 RIVET, FLAT HEAD: MS20426AD2-4 (96906)	2,3	EA	20											
M-D		A019 STRIKE: 78968-3 (10412)	1,2,3	EA	4											
X2-D	5340-682-1520	A022 INSERT, SCREW THREAD: MS21208C0615 (96906)	1,2,3	EA	5											
X2-D	5320-243-8377	A025 RIVET, SOLID: MS20470DD4-6 (96906)	1	EA	7											
X2-D		A026 RIVET: SCRU-BDLAL-MLG (97539)	2,3	EA	7											
X2-D	5305-059-8458	A028 SCREW, MACHINE: MS35216-23 (96906)	1	EA	1											
X2-D		A029 SCREW, MACHINE: MS51917-23 (96906)	2,3	EA	1											
X2-D		A031 PIN, STRAIGHT HEADLESS: 79089-1 (10412)	1,2,3	EA	2											
X1-F		A034 HOUSING: 78933-1 (10412)	2,3	EA	1											

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X2-D	5340-843-0003	A036 INSERT, SCREW THREAD: MS21208C0610 (96906)	2,3	EA	1											
A-D		A038 PLATE ASSEMBLY, MODULE MOUNTING: 79086-1 (10412)	1	EA	1								4-2	1A1A1		
A-D		A039 PLATE ASSEMBLY, MODULE MOUNTING: 79684-1 (10412)	2	EA	1								4-2	1A1A1		
A-D		A040 PLATE ASSEMBLY, MODULE MOUNTING: 79684-2 (10412)	3	EA	1								4-2	1A1A1		
X2-D	5305-066-7328	A041 SCREW, MACHINE: MS24693C27 (96906)	1,2,3	EA	10											
X1-D		A044 PLATE, MODULE MOUNTING: 78982-1 (10412)	1	EA	1											
X1-D		A045 PLATE, MODULE MOUNTING: 79659-1 (10412)	2,3	EA	1											
X2-D	5340-934-9953	A047 STANDOFF: SOS632-8 (46384)	1,2,3	EA	11											
X2-D	5340-886-3728	A050 STANDOFF: SOS440-10 (46384)	1,2,3	EA	6											
X2-D		A053 GUIDE PIN: 79487-1 (10412)	1,2,3	EA	2											
X1-D		A056 PLATE: 78982-3 (10412)	1	EA	1											
X1-D		A057 PLATE: 79659-3 (10412)	2,3	EA	1											
X2-D	5340-068-9282	A059 STANDOFF: SOS440-6 (46384)	1,2,3	EA	4											
A-D-R		A062 ELECTRONIC COMPO- NENTS ASSEMBLY: 79212-1 (10412)	1	EA	1								4-2	1A1A1A1TBI		
A-D-R		A063 ELECTRONIC COMPO- NENTS ASSEMBLY: 79212-3 (10412)	2	EA	1								4-2	1A1A1A1TBI		
A-D-R		A064 ELECTRONIC COMPO- NENTS ASSEMBLY: 80766-1 (10412)	3	EA	1								4-2	1A1A1A1TBI		
X2-D	5305-054-5646	A065 SCREW, MACHINE: MS51957-12 (96906)	1,2,3	EA	6											
X2-D	5310-124-3064	A068 WASHER, FLAT: 5610-53 (86928)	1,2,3	EA	6											
X2-D		A071 TERMINAL BOARD: 79122-1 (10412)	1,2,3	EA	1											
X2-D		A074 BOARD: 79122-3 (10412)	1,2,3	EA	1											
X2-D	5940-655-3927	A077 TERMINAL, STUD: 2000B (88245)	1,2,3	EA	99											
P-D	5961-938-1135	A080 SEMICONDUCTOR DEVICE, DIODE: 1N4148 (81349)	1,2,3	EA	16							130	198	4-3	1A1A1A1TBI	CR1



SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5961-938-1135	A083 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR2
P-D	5961-938-1135	A086 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR3
P-D	5961-938-1135	A089 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR4
P-D	5961-938-1135	A092 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR5
P-D	5961-938-1135	A095 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR6
P-D	5961-938-1135	A098 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR7
P-D	5961-938-1135	A101 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR8
P-D	5961-938-1135	A104 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR9
P-D	5961-938-1135	A107 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR10
P-D	5961-938-1135	A110 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR11
P-D	5961-938-1135	A113 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR12
P-D	5961-938-1135	A116 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR13
P-D	5961-938-1135	A119 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR14
P-D	5961-938-1135	A122 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR15
P-D	5961-938-1135	A125 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1CR16
P-D	5905-922-7176	A128 RESISTOR, FIXED, COMPO- SITION: RC05GF104J (81349)	1, 2, 3	EA	3							40	36	4-3	1A1A1A1TB1R1
P-D	5905-922-7176	A131 RESISTOR, FIXED, COMPO- SITION: SAME AS A128	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1R20
P-D	5905-922-7176	A134 RESISTOR, FIXED, COMPO- SITION: SAME AS A128	1, 2, 3	EA	REF							REF	REF	4-3	1A1A1A1TB1R28
P-D	5905-948-2393	A137 RESISTOR, FIXED, COMPO- SITION: RC05GF432J (81349)	1, 2, 3	EA	1							5	3	4-3	1A1A1A1TB1R3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5905-782-4109	A140 RESISTOR, FIXED, COMPO- SITION: RC05GF682J (81349)	1,2,3	EA	1						5	3	4-3	1A1A1A1TB1R5
P-D	5905-914-2088	A143 RESISTOR, FIXED, COMPO- SITION: RC05GF512J (81349)	1,2,3	EA	2						16	12	4-3	1A1A1A1TB1R10
P-D	5905-914-2088	A146 RESISTOR, FIXED, COMPO- SITION: SAME AS A143	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R17
P-D	5905-946-6352	A149 RESISTOR, FIXED, COMPO- SITION: RC05GF752J (81349)	1,2,3	EA	1						5	3	4-3	1A1A1A1TB1R8
P-D	5905-922-7215	A152 RESISTOR, FIXED, COMPO- SITION: RC05GF103J (81349)	1,2,3	EA	2						53	54	4-3	1A1A1A1TB1R6
P-D	5905-922-7215	A155 RESISTOR, FIXED, COMPO- SITION: SAME AS A152	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R26
P-D	5905-782-4103	A158 RESISTOR, FIXED, COMPO- SITION: RC05GF123J (81349)	1,2,3	EA	4						16	12	4-3	1A1A1A1TB1R14
P-D	5905-782-4103	A161 RESISTOR, FIXED, COMPO- SITION: SAME AS A158	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R19
P-D	5905-782-4103	A164 RESISTOR, FIXED, COMPO- SITION: SAME AS A158	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R4
P-D	5905-782-4103	A167 RESISTOR, FIXED, COMPO- SITION: SAME AS A158	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R9
P-D	5905-912-2815	A170 RESISTOR, FIXED, COMPO- SITION: RC05GF153J (81349)	1,2,3	EA	4						16	12	4-3	1A1A1A1TB1R11
P-D	5905-912-2815	A173 RESISTOR, FIXED, COMPO- SITION: SAME AS A170	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R13
P-D	5905-912-2815	A176 RESISTOR, FIXED, COMPO- SITION: SAME AS A170	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R16
P-D	5905-912-2815	A179 RESISTOR, FIXED, COMPO- SITION: SAME AS A170	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R2
P-D	5905-917-5526	A182 RESISTOR, FIXED, COMPO- SITION: RC05GF912J (81349)	1,2,3	EA	1						10	6	4-3	1A1A1A1TB1R7
P-D	5905-945-6957	A185 RESISTOR, FIXED, COMPO- SITION: RC05GF222J (81349)	1,2,3	EA	1						5	6	4-3	1A1A1A1TB1R12
P-D	5905-957-2007	A188 RESISTOR, FIXED, COMPO- SITION: RC05GF111J (81349)	1,2,3	EA	2						10	6	4-3	1A1A1A1TB1R24
P-D	5905-957-2007	A191 RESISTOR, FIXED, COMPO- SITION: SAME AS A188	1,2,3	EA	REF						REF	REF	4-3	1A1A1A1TB1R25
P-D	5905-948-2391	A194 RESISTOR, FIXED, COMPO- SITION: RC05GF302J (81349)	1,2,3	EA	1						5	3	4-3	1A1A1A1TB1R23

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5905-915-0984	A197 RESISTOR, FIXED, COMPO- SITION: RC05GF683J (81349)	1,2,3	EA	1						5	6	4-3	1A1A1A1TB1R21
P-D	5905-952-5156	A200 RESISTOR, FIXED, COMPO- SITION: RC05GF273J (81349)	1,2,3	EA	1						5	3		1A1A1A1TB1R22
P-D	5905-942-3744	A203 RESISTOR, FIXED, COMPO- SITION: RC05GF822J (81349)	1,2,3	EA	1						5	3	4-3	1A1A1A1TB1R15
P-D	5905-914-2089	A206 RESISTOR, FIXED, COMPO- SITION: RC05GF562J (81349)	1,2	EA	1						10	6	4-3	1A1A1A1TB1R18
P-D	5905-948-2391	A208 RESISTOR, FIXED, COMPO- SITION: SAME AS A194	3	EA	1						REF	REF	4-3	1A1A1A1TB1R15
P-D	5905-957-2009	A209 RESISTOR, FIXED, COMPO- SITION: RC05GF622J (81349)	1,2,3	EA	1						45	42	4-3	1A1A1A1TB1R27
P-D	5905-915-0981	A212 RESISTOR, FIXED, COMPO- SITION: RC05GF393J (81349)	1,2	EA	1						5	3	4-3	1A1A1A1TB1R29
A-D-R		A223 ELECTRONIC COMPONENTS ASSEMBLY: 79231-1 (10412)	1,2,3	EA	1								4-4	1A1A1A2TB2
X2-D	5305-054-5646	A226 SCREW, MACHINE: SAME AS A065	1,2,3	EA	4									
X2-D	5310-124-3064	A229 WASHER, FLAT: SAME AS A068	1,2,3	EA	4									
X2-D		A232 PRINTED WIRING BOARD: 79230-1 (10412)	1,2,3	EA	1									
P-D	5910-936-4820	A235 CAPACITOR, FIXED ELECTROLYTIC: CSR13H104KL (81349)	1,2,3	EA	1						40	36	4-4	1A1A1A2TB2C1
P-D	5905-060-3796	A238 RESISTOR, FIXED, FILM: RN55D1502F (81349)	1,2,3	EA	1						19	15	4-4	1A1A1A2TB2R1
P-D	5905-681-8818	A241 RESISTOR, FIXED, COMPO- SITION: RC07GF153J (81349)	1,2,3	EA	1						27	21	4-4	1A1A1A2TB2R2
P-D	5962-878-0876	A244 INTEGRATED CIRCUIT: MIC951-1D (14433)	1,2,3	EA	1						5	3	4-5	1A1A1A2TB2Z1
P-D	5962-010-6535	A247 INTEGRATED CIRCUIT: MIC944-1D (14433)	1,2,3	EA	1						5	3	4-5	1A1A1A2TB2Z2
X2-D		A250 COATING COMPOUND: PC12-007M (12405)	1,2,3	EA	1									
X2-D		A253 PLATE, CONNECTOR: 79085-1 (10412)	1,2,3	EA	3									
X2-D	5305-054-5636	A256 SCREW, MACHINE: MS51957-2 (96906)	1,2,3	EA	6									
X2-D	5310-043-4708	A259 WASHER, FLAT: NA8620C2 (80205)	1	EA	6									
X2-D	5310-722-5652	A260 WASHER, LOCK: MS36338-77 (96906)	2,3	EA	6									
P-D	5935-935-2228	A262 CONNECTOR, CABLE: 52-011-0000 (98291)	1,2,3	EA	2						13	6	4-2	1A1A1J7

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG. NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5935-935-2228	A265 CONNECTOR, CABLE: SAME AS A262	1,2,3	EA	REF							REF	REF	4-2	1A1A1J13
P-D	5935-105-5523	A268 CONNECTOR, PLUG, ELECTRICAL: MDB1-31PH001 (71468)	1,2,3	EA	2							10	6	4-2	1A1A1P8
P-D	5935-105-5523	A271 CONNECTOR, PLUG, ELECTRICAL: SAME AS A268	1,2,3	EA	REF							REF	REF	4-2	1A1A1P10
X2-D	5305-054-5638	A274 SCREW, MACHINE: MS51957-4 (96906)	1,2,3	EA	2										
X2-D		A277 NUT, PLAIN, HEXAGON: HW42-02N02-56 (15653)	1,2,3	EA	2										
P-D	5935-791-2493	A280 CONNECTOR, PLUG, ELECTRICAL: MDB1-21PH001 (71468)	1,2,3	EA	2							10	6	4-2	1A1A1P6
P-D	5935-791-2493	A283 CONNECTOR, PLUG, ELECTRICAL: SAME AS A280	1,2,3	EA	REF							REF	REF	4-2	1A1A1P12
X2-D	5305-054-5638	A286 SCREW, MACHINE: SAME AS A274	1,2,3	EA	2										
X2-D		A289 NUT, PLAIN, HEXAGON: SAME AS A277	1,2,3	EA	2										
P-D	5935-791-2494	A292 CONNECTOR, PLUG, ELECTRICAL: MDB1-25PH001 (71468)	1,2,3	EA	2							10	6	4-2	1A1A1P11
P-D	5935-791-2494	A295 CONNECTOR, PLUG, ELECTRICAL: SAME AS A292	1,2,3	EA	REF							REF	REF	4-2	1A1A1P9
M-D		A298 PLATE, DESIGNATION: 79734-1 (10412)	2	EA	1										
M-D		A299 PLATE, DESIGNATION: 80767-1 (10412)	3	EA	1										
M-D		A300 PLATE, DESIGNATION: 79238-1 (10412)	2,3	EA	1										
X2-D		A302 PIN, GUIDE: 79072-2 (10412)	2,3	EA	2										
X2-D	5305-282-2832	A304 SCREW, MACHINE: AN505C4R3 (88044)	2,3	EA	2										
P-D	5961-904-3486	A306 HEAT SINK, ELECTRIC COMPONENT: TXB2P032-037 (98978)	1,2,3	EA	1							5	3		
X2-D	5305-770-2533	A309 SCREW, MACHINE: MS51959-13 (96906)	1	EA	1										
X2-D	5305-766-2422	A310 SCREW, MACHINE: MS51959-1 (96906)	2,3	EA	1										
X2-D		A312 WASHER, LOCK: AN936C2 (88044)	2,3	EA	1										
X2-D	5940-331-2860	A314 INSULATOR, STANDOFF: 1428 (88245)	1,2,3	EA	4										
X2-D	5305-770-2529	A317 SCREW, MACHINE: MS51959-11 (96906)	1	EA	4										
X2-D	5305-764-2966	A318 SCREW, MACHINE: MS51959-2 (96906)	2,3	EA	5										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X2-D	5310-722-5652	A320 WASHER, LOCK: SAME AS A260	2, 3	EA	5											
P-D	5961-813-9360	A322 TRANSISTOR: 2N1613 (81349)	1	EA	1						10	6	4-2	1A1A1Q69		
P-D	5961-925-3777	A323 TRANSISTOR: 2N2907A (81349)	2, 3	EA	1						5	3	4-2	1A1A1Q70		
P-D	5905-683-7721	A327 RESISTOR, FIXED COMPOSITION: RC07GF101J (81349)	1 2, 3	EA EA	1 1						13	9	4-2 4-2	1A1A1R29 1A1A1R30		
P-D	5961-845-6458	A330 SEMICONDUCTOR DEVICE, DIODE: 1N756A (81349)	1, 2, 3	EA	1						5	3	4-2	1A1A1CR17		
P-D	5961-939-4263	A333 SEMICONDUCTOR DEVICE, DIODE: 1N4370A (81349)	2, 3	EA	1						5	3	4-2	1A1A1CR18		
M-D		A347 CABLE ASSEMBLY: 79121-1 (10412)	1, 2, 3	EA	1											
X2-D	5935-283-1207	A350 COVER, PANEL JACK: UG177U (80058)	1, 2, 3	EA	1											
X2-D	5940-204-6840	A353 FERRULE, ELECTRICAL CONDUIT: MS21981-101 (96906)	1, 2, 3	EA	1											
X2-D	6145-080-4383	A356 CABLE, ELECTRICAL: RG188AU (80058)	1, 2, 3	EA	1											
P-D	5935-935-2228	A359 CONNECTOR, CABLE: SAME AS A262	1, 2, 3	EA	1						REF	REF				
P-D	5935-193-3080	A362 CONNECTOR, RECEPTACLE, ELEC: 80239 (74868)	1, 2, 3	EA	1						5	3				
X2-D	5305-054-5652	A365 SCREW, MACHINE: MS51957-18 (96906)	1, 2, 3	EA	4											
X2-D	5310-057-0573	A368 WASHER, FLAT: NAS620C4 (80205)	1, 2, 3	EA	4											
X2-D	5310-042-9609	A371 WASHER, LOCK: MS35338-78 (96906)	1, 2, 3	EA	4											
X2-D	5310-271-4642	A374 NUT, HEX: MS35649-44 (96906)	1, 2, 3	EA	4											
X2-D	5999-937-1380	A377 GASKET: 73-010 (12881)	1, 2, 3	EA	1											
X2-D	8040-225-4548	A386 SEALANT: RTV102 (01139)	1, 2, 3	EA	1											
X2-D	5330-180-9178	A389 GASKET, PANEL: 78997-1 (10412)	1, 2, 3	EA	1											
P-D	6625-779-3404	A392 METER, ELECTRICAL: 78967-1 (10412)	1, 2, 3	EA	1						5	3	4-2	1A1M1		
X2-D	5305-054-5651	A395 SCREW, MACHINE: MS51957-17 (96906)	1	EA	4											
X2-D	5305-054-5650	A396 SCREW, MACHINE: MS51957-16 (96906)	2, 3	EA	4											
X2-D	5310-057-0573	A398 WASHER, FLAT: SAME AS A368	1	EA	4											
X2-D	5330-966-8883	A399 WASHER, FLAT: NAS1598C04Y (80205)	2, 3	EA	4											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO., OR REFERENCE DESIGNATION	
						1-20	21-50	51-100	1-20	21-50	51-100					
X2-D	5310-271-4642	A401 NUT, HEX: SAME AS A374	1	EA	4											
X2-D	5310-208-4271	A402 NUT, HEX: F22NKM40 (72962)	2,3	EA	4											
X2-D		A404 PREFORMED PACKING: 2-29E515-8 (83259)	1,2,3	EA	1											
X2-D	5330-292-0580	A407 PREFORMED PACKING: MS28775-006 (96906)	1	EA	4											
X2-D	5330-251-3817	A408 PREFORMED PACKING: 2-110E515-8 (83259)	2,3	EA	4											
X2-D		A410 LUG, GROUND: 79547-1 (10412)	1	EA	1											1A1E1
X2-D	5940-271-6761	A411 LUG, GROUND: 342 (79963)	2,3	EA	1											1A1E1
X2-D		A413 SCREW, MACHINE: 2-56UNC2AX125 (10412)	1	EA	1											
X2-D	5305-763-7822	A414 SCREW, MACHINE: MS51959-14 (96906)	2,3	EA	1											
X2-D	5310-928-2690	A416 WASHER, LOCK: MS35338-134 (96906)	1	EA	1											
X2-D	5310-042-9609	A417 WASHER, LOCK: SAME AS A371	2,3	EA	1											
X2-D	5310-271-4642	A419 NUT, HEX SAME AS A374	2,3	EA	1											
P-F	5915-177-2598	A421 FILTER: SFM0-2 (01121)	1,2,3	EA	2	*	*	*	*	2	2	27	24			
P-O	5330-814-0640	A424 GASKET, CONNECTOR: 78988-1 (10412)	1	EA	1	*	*	*	*	*	*	5	3			
P-O	5330-814-0640	A425 GASKET, CONNECTOR: 1950-11 (18565)	2,3	EA	1	*	*	*	*	*	*	5	3			
P-O		A427 GASKET, CONNECTOR: 79136-1 (10412)	1,2,3	EA	1	*	*	*	*	*	*	5	3			
P-O	5930-064-2455	A430 BOOT, MULTI-FLEX: 40201 (97539)	1,2,3	EA	2	*	*	*	*	*	*	10	6			
P-F	5930-615-6816	A433 SWITCH, PUSHBUTTON: MS25089-4F (96906)	1,2,3	EA	2	*	*	*	*	*	*	10	6	4-2	1A1S3	
P-F	5930-615-6816	A436 SWITCH, PUSHBUTTON: SAME AS A433	1,2,3	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	4-2	1A1S4	
P-F	5920-785-5471	A439 FUSEHOLDER: FHN42W (81349)	1,2,3	EA	2	*	*	2	*	*	2	10	6	4-2	1A1XF1	
P-F	5920-785-5471	A442 FUSEHOLDER: SAME AS A439	1,2,3	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	4-2	1A1XF2	
P-O	5920-901-9938	A445 FUSE: M23419-1-015 (81349)	1,2,3	EA	1	8	20	38	2	5	10	460	400		1A1F2	
P-O	5920-054-0173	A448 FUSE: M23419-1-017 (81349)	1,2,3	EA	1	4	11	20	2	2	5	242	200		1A1F1	
X2-D	5961-923-3912	A451 RETAINER, HEAT SINK: TXBP050-037B (98291)	1	EA	1											
X2-D	5961-053-3889	A452 RETAINER, HEAT SINK: TXB050-037 (98291)	2,3	EA	3											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNJT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						1-20	21-50	51-100	1-20	21-50	51-100					
X2-D	5961-925-6511	A454 RETAINER, HEAT SINK: TBX2P032-037B (98291)	1	EA	1											
P-D	5961-081-4816	A455 TRANSISTOR: 2N1485 (81349)	1, 2, 3	EA	1							13	5	4-2	1A1Q6	
P-D	5961-813-9360	A458 TRANSISTOR: SAME AS A322	1, 2, 3	EA	1							REF	REF	4-2	1A1Q7	
P-D	5961-081-4816	A461 TRANSISTOR: SAME AS A455	2, 3	EA	REF							REF	REF		1A1Q69	
P-O	5935-284-3378	A463 CAP, DUST: 9760-10 (74868)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2			
X2-F		A466 COVER, SWITCH: 79467-1 (10412)	1, 2, 3	EA	4											
P-F	5930-791-1779	A469 SWITCH, ROTARY: 267217A2 (87034)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1S2	
P-F	5930-791-1778	A472 SWITCH, ROTARY: 267216A2 (87034)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1S1	
P-F	5930-105-5547	A475 SWITCH, ROTARY: 267219AA1 (87034)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1S7	
P-F	5930-105-5548	A478 SWITCH, ROTARY: 267230AA1 (87034)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1S5	
X2-D	5310-558-4187	A481 WASHER, LOCK: 1145 (83330)	1	EA	4											
X2-D		A482 WASHER, LOCK: 1145C (83330)	2, 3	EA	4											
P-F	5935-823-0667	A484 CONNECTOR, RECEPTACLE, ELEC: U183U (81349)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1J2	
P-F	5935-061-1821	A487 CONNECTOR, PLUG, ELECTRICAL: DEM9P (71468)	1, 2, 3	EA	1	*	*	*	*	*	*	5	2	4-2	1A1P4	
X2-D	5305-763-7822	A490 SCREW, MACHINE: SAME AS A414	1, 2, 3	EA	2											
X2-D	5310-057-0573	A493 WASHER, FLAT: SAME AS A368	1	EA	2											
X2-D	5310-042-9609	A494 WASHER, LOCK: SAME AS A371	1, 2, 3	EA	2											
X2-D	5310-271-4642	A497 NUT, HEX: SAME AS A374	1, 2, 3	EA	2											
P-F	5935-942-3900	A500 CONNECTOR, RECEPTACLE, ELEC: DAD15SA (71468)	1, 2, 3	EA	1	*	*	*	*	*	*	2	8	3	1A1J3	
X2-D	5305-763-7822	A503 SCREW, MACHINE: SAME AS A414	1	EA	2											
X2-D		A504 SCREW, MACHINE: 80129-1 (10412)	2, 3	EA	2											
X2-D	5310-057-0573	A506 WASHER, FLAT: SAME AS A368	1	EA	2											
X2-D	5330-966-8883	A507 WASHER, FLAT: SAME AS A399	2, 3	EA	2											
X2-D	5310-271-4642	A509 NUT, HEX: SAME AS A374	1	EA	2											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) S&P CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						X2-D	5310-208-4271	A510 NUT, HEX: SAME AS A402	2,3	EA	2					
P-D	5910-936-0530	A512 CAPACITOR, FIXED ELECTROLYTIC: C10A103K (16546)	1,2,3	EA	1							153	118			1A1C1
P-D	5905-686-9998	A515 RESISTOR, FIXED COMPO- SITION: RC07GF472J (81349)	1									40	26			1A1R4
P-D	5961-938-1135	A516 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1,2,3	EA	2							REF	REF	4-2		1A1CR1
P-D	5961-938-1135	A519 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1,2,3	EA	REF							REF	REF	4-2		1A1CR2
P-D	5905-978-7455	A522 RESISTOR, VARIABLE: RWV1021SP (13483)	1,2,3	EA	1							5	2	4-2		1A1R2
P-D	5905-106-1391	A525 RESISTOR, VARIABLE: RWV5031SP (13483)	1,2,3	EA	1							5	2	4-2		1A1R1
P-D	5905-890-2725	A528 RESISTOR, VARIABLE: MSWV1031SP (13483)	1	EA	1							5	2	4-2		1A1R3
P-D		A529 RESISTOR, VARIABLE: 79962-1 (10412)	2,3	EA	1							5	2			1A1R3
P-D	5905-577-0436	A531 RESISTOR, VARIABLE: RV6LAYS103A (81349)	2,3	EA	1							5	2			1A1R4
X2-D		A533 BRACKET, FILTER: 79747-1 (10412)	2,3	EA	1											
X2-D		A535 BRACKET, FILTER: 79748-1 (10412)	2,3	EA	1											
X2-D	5305-054-5649	A537 SCREW, MACHINE: MS51957-15 (96906)	2,3	EA	2											
X2-D	5310-782-1349	A539 WASHER, FLAT: MS15795-804 (96906)	2,3	EA	2											
X2-D	5310-042-9609	A541 WASHER, LOCK: SAME AS A371	2,3	EA	2											
P-O	5355-552-0451	A543 KNOB: MS91524-1 (96906)	1,2,3	EA	5	*	*	2	*	2	2	19	10			
X2-D		A545 SCREW, PANEL: SFS6C4CPS010D (12324)	2,3	EA	5											
P-O	5355-889-3424	A547 KNOB: SMC447052 (80063)	1,2,3	EA	2	*	*	*	*	*	2	10	4			
X2-D		A549 SCREW, PANEL: SAME AS A545	2,3	EA	2											
X2-D		A551 SEELSKREW: R4-40-5-8 (97539)	2,3	EA	4											
X2-D	5305-770-2580	A553 SCREW, MACHINE: MS51959-16 (96906)	2,3	EA	2											
M-D		A555 PLATE, IDENTIFICATION: 79749 (10412)	2	EA	1											
M-D		A556 PLATE, IDENTIFICATION: 80765-1 (10412)	3	EA	1											
X2-D	5305-054-5637	A557 SCREW, MACHINE: MS51957-3 (96906)	2,3	EA	2											



SECTION REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						PD-F-R	5820-779-3258	A576 PRESELECTOR SYNTHESIZER ASSY: 78928-1 (10412)	1	EA	1			6	16
PD-F-R		A577 PRESELECTOR SYNTHESIZER ASSY: 78928-3 (10412)	2	EA	1	6	16	29	*	*	2	8	3	3-2	1A6
PD-F-R	5820-177-3009	A578 PRESELECTOR SYNTHESIZER ASSY: 78928-5 (10412)	3	EA	1	6	16	29	*	*	2	8	3	3-2	1A6
X2-F		A579 HOUSING: 78977-1 (10412)	1	EA	1										
X2-F		A580 HOUSING: 79674-1 (10412)	2	EA	1										
X2-F		A581 HOUSING: 79674-3 (10412)	3	EA	1										
X2-F	5340-826-4023	A582 INSERT, SCREW THREAD: MS21208C0410 (96906)	1,2,3	EA	15										
X2-F	5340-842-5920	A585 INSERT, SCREW THREAD: MS21208C0415 (96906)	1,2,3	EA	4										
X2-F		A588 COVER: 78981-1 (10412)	1	EA	1										
X2-F		A589 COVER: 78981-3 (10412)	2,3	EA	1										
X2-F	5305-054-5648	A591 SCREW, MACHINE: MS51957-14 (96906)	1,2,3	EA	1										
X2-F	5305-054-5651	A594 SCREW, MACHINE: SAME AS A395	1,2,3	EA	6										
X2-F	5310-723-9676	A597 WASHER, FLAT: NAS620C4L (80205)	1,2,3	EA	7										
A-D-R		A600 SYNTHESIZER ASSEMBLY: 78930-1 (10412)	1,2	EA	1									5-14	1A6A1
A-D-R		A602 SYNTHESIZER ASSEMBLY: 78930-3 (10412)	3	EA	1									5-14	1A6A1
X2-D	5305-054-5646	A603 SCREW, MACHINE: SAME AS A065	1	EA	8										
X2-D		A604 SCREW, MACHINE: 79915-1 (10412)	2,3	EA	8										
P-D	5915-789-7158	A606 FILTER, BANDPASS: 60060 (10412)	1,2,3	EA	1							5		5-14	1A6A1FL1
X2-D	5310-208-3786	A609 NUT: NAS671C4 (80205)	1,2,3	EA	2										
P-D	5950-789-9375	A612 TRANSFORMER, OSCIL-LATOR: 78995-1 (10412)	1,2,3	EA	5							19	10	5-14	1A6A1A1
P-D	5950-789-9375	A615 TRANSFORMER, OSCIL-LATOR: SAME AS A612	1,2,3	EA	REF							REF	REF	5-14	1A6A1A2
P-D	5950-789-9375	A618 TRANSFORMER, OSCIL-LATOR: SAME AS A612	1,2,3	EA	REF							REF	REF	5-14	1A6A1A3
P-D	5950-789-9375	A621 TRANSFORMER, OSCIL-LATOR: SAME AS A612	1,2,3	EA	REF							REF	REF	5-14	1A6A1A4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS  USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					P-D	5950-789-9375	A624 TRANSFORMER, OSCIL- LATOR: SAME AS A612	1,2,3	EA	REF				
X1-D		A627 COIL FORM: L564-6CTB6 (12856)	1,2,3	EA	1									1A6A1
X2-D	5961-905-4815	A633 TRANSISTOR: 2N918 (81349)	1,2,3	EA	1									
X2-D	5910-954-5496	A636 CAPACITOR: CM05ED200J03 (81349)	1,2,3	EA	1									
X2-D	5910-936-0530	A639 CAPACITOR, FIXED ELEC- TROLYTIC: SAME AS A512	1,2,3	EA	2									
X2-D	5905-922-7215	A642 RESISTOR, FIXED, COM- POSITION: SAME AS A152	1,2,3	EA	1									
X2-D	5905-957-2009	A645 RESISTOR, FIXED, COM- POSITION: SAME AS A209	1,2,3	EA	1									
X2-D	5905-917-5523	A648 RESISTOR, FIXED, COM- POSITION: RC05GF182J (81349)	1,2,3	EA	1									
X2-D	5905-923-3534	A651 RESISTOR, FIXED, COM- POSITION: RC05GF102J (81349)	1,2,3	EA	1									
X2-D	5970-975-4654	A666 INSULATION SLEEVING, ELECTRICAL: MIL122129-20 (81349)	1,2,3	EA	1									
P-D	5950-789-9376	A669 TRANSFORMER, OSCIL- LATOR: 78995-5 (10412)	1,2,3	EA	2						10	4	5-14	1A6A1A10
P-D	5950-789-9376	A672 TRANSFORMER, OSCIL- LATOR: SAME AS A669	1,2,3	EA	REF						REF	REF	5-14	1A6A1A11
X1-D		A675 COIL FORM: SAME AS A627	1,2,3	EA	1									
X2-D	5961-905-4815	A681 TRANSISTOR: SAME AS A633	1,2,3	EA	1									
X2-D	5910-936-0530	A684 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1,2,3	EA	2									
X2-D	5905-922-7215	A687 RESISTOR, FIXED, COM- POSITION: SAME AS A152	1,2,3	EA	1									
X2-D	5905-957-2009	A690 RESISTOR, FIXED, COM- POSITION: SAME AS A209	1,2,3	EA	1									
X2-D	5905-917-5523	A693 RESISTOR, FIXED, COM- POSITION: SAME AS A648	1,2,3	EA	1									
X2-D	5905-923-3534	A696 RESISTOR, FIXED, COM- POSITION: SAME AS A651	1,2,3	EA	1									
X1-D		A711 CAPACITOR: DM5-121J (09647)	1,2,3	EA	1									

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5950-789-9377	A717 TRANSFORMER, OSCIL- LATOR: 78995-7 (10412)	1, 2, 3	EA	2							10	4	5-14	1A6A1A6
P-D	5950-789-9377	A720 TRANSFORMER, OSCIL- LATOR: SAME AS A717	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1A7
X1-D		A723 COIL FORM: L564-12CTB6 (12856)	1, 2, 3	EA	1										
X2-D	5961-905-4815	A729 TRANSISTOR: SAME AS A633	1, 2, 3	EA	1										
X2-D	5910-057-0920	A732 CAPACITOR: CM05C100J03 (81349)	1, 2, 3	EA	1										
X2-D	5905-922-7215	A735 RESISTOR, FIXED, COM- POSITION: SAME AS A152	1, 2, 3	EA	1										
X2-D	5905-957-2009	A738 RESISTOR, FIXED, COM- POSITION: SAME AS A209	1, 2, 3	EA	1										
X2-D	5905-917-5523	A741 RESISTOR, FIXED, COM- POSITION: SAME AS A648	1, 2, 3	EA	1										
X2-D	5905-923-3534	A744 RESISTOR, FIXED, COM- POSITION: SAME AS A651	1, 2, 3	EA	1										
X2-D	5910-835-6797	A759 CAPACITOR, FIXED, ELECTROLYTIC: C10A102K (16546)	1, 2, 3	EA	2										
P-D	5950-789-9834	A765 INDUCTOR, VARIABLE: 78993-3 (10412)	1, 2, 3	EA	1							5	2	5-14	1A6A1L2
X1-D		A768 COIL FORM: L45-6CTB4 (12856)	1, 2, 3	EA	1										
P-D	5950-789-9380	A780 INDUCTOR, VARIABLE: 78993-5 (10412)	1, 2, 3	EA	4							16	8	5-14	1A6A1L18
P-D	5950-789-9380	A783 INDUCTOR, VARIABLE: SAME AS A780	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L19
P-D	5950-789-9380	A786 INDUCTOR, VARIABLE: SAME AS A780	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L20
P-D	5950-789-9380	A789 INDUCTOR, VARIABLE: SAME AS A780	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L21
X1-D		A792 COIL FORM: SAME AS A768	1, 2, 3	EA	1										
P-D	5950-789-9381	A807 INDUCTOR, VARIABLE: 78993-7 (10412)	1, 2, 3	EA	4							16	8	5-14	1A6A1L24
P-D	5950-789-9381	A810 INDUCTOR, VARIABLE: SAME AS A807	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L26
P-D	5950-789-9381	A813 INDUCTOR, VARIABLE: SAME AS A807	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L27
P-D	5950-789-9381	A816 INDUCTOR, VARIABLE: SAME AS A807	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1L29
X1-D		A828 COIL FORM: L45-12CTF4 (12856)	1, 2, 3	EA	1										
P-D	5950-789-9382	A831 INDUCTOR: 78993-9 (10412)	1, 2, 3	EA	2							10	4	5-14	1A6A1L25

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS				
						USABLE ON CODE	EA	REF	(a) 1-20	(b) 21-50	(c) 51-100			(a) 1-20	(b) 21-50	(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5950-789-9382	A834	INDUCTOR: SAME AS A831	1,2,3	EA	REF						REF	REF	5-14	1A6A1L28			
X2-D		A840	COIL FORM: T20-10 (12856)	1,2,3	EA	1												
P-D	5950-789-9378	A846	TRANSFORMER, VARIABLE: 78994-11 (10412)	1,2,3	EA	1						10	4	5-14	1A6A1T3			
X1-D		A849	CORE: T12-6 (12856)	1,2,3	EA	1												
P-D	5950-789-9830	A861	TRANSFORMER, VARIABLE: 78994-1 (10412)	1,2,3	EA	1						5	2	5-14	1A6A1T2			
X1-D		A864	COIL FORM: SAME AS A768	1,2,3	EA	1												
P-D	5950-789-9833	A876	TRANSFORMER, VARIABLE: 78994-3 (10412)	1,2,3	EA	1						5	2	5-14	1A6A1T1			
X1-D		A879	COIL FORM: SAME AS A768	1,2,3	EA	1												
P-D		A891	CRYSTAL: CR60AU (81349) (Incomplete part number, value required)	1,2,3	EA	2						10	4	5-14	1A6A1Y11			
P-D		A894	CRYSTAL: SAME AS A891	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y10			
P-D		A897	CRYSTAL: CR56AU (81349) (Incomplete part number, value required)	1,2,3	EA	4						16	8	5-14	1A6A1Y6			
P-D		A900	CRYSTAL: SAME AS A897	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y7			
P-D		A903	CRYSTAL: SAME AS A897	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y8			
P-D		A906	CRYSTAL: SAME AS A897	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y9			
P-D		A909	CRYSTAL: CR55U (81349) (Incomplete part number, value required)	1,2,3	EA	5						20	12	5-14	1A6A1Y1			
P-D		A912	CRYSTAL: SAME AS A909	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y2			
P-D		A915	CRYSTAL: SAME AS A909	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y3			
P-D		A918	CRYSTAL: SAME AS A909	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y4			
P-D		A921	CRYSTAL: SAME AS A909	1,2,3	EA	REF						REF	REF	5-14	1A6A1Y5			
P-D	5961-905-4815	A924	TRANSISTOR: 2N918 (81349)	1,2,3	EA	5						19	10	5-14	1A6A1Q1			
P-D	5961-905-4815	A927	TRANSISTOR: SAME AS A924	1,2,3	EA	REF						REF	REF	5-14	1A6A1Q2			
P-D	5961-905-4815	A930	TRANSISTOR: SAME AS A924	1,2,3	EA	REF						REF	REF	5-14	1A6A1Q3			
P-D	5961-905-4815	A933	TRANSISTOR: SAME AS A924	1,2,3	EA	REF						REF	REF	5-14	1A6A1Q4			

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS					
						USABLE ON CODE	1,2,3	EA	REF	(a) 1-20	(b) 21-50			(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5961-905-4815	A936	TRANSISTOR: SAME AS A924	1,2,3	EA	REF						REF	REF	5-14	1A6A1Q5				
P-D	5961-690-1613	A939	SEMICONDUCTOR DEVICE, DIODE: 1N5139A (04713)	1,2,3	EA	1						5	2	5-14	1A6A1CR1				
P-D	5961-935-8001	A942	SEMICONDUCTOR DEVICE, DIODE: 1N5142A (04713)	1,2,3	EA	4						16	8	5-14	1A6A1CR5				
P-D	5961-935-8001	A945	SEMICONDUCTOR DEVICE, DIODE: SAME AS A942	1,2,3	EA	REF						REF	REF	5-14	1A6A1CR6				
P-D	5961-935-8001	A948	SEMICONDUCTOR DEVICE, DIODE: SAME AS A942	1,2,3	EA	REF						REF	REF	5-14	1A6A1CR7				
P-D	5961-935-8001	A951	SEMICONDUCTOR DEVICE, DIODE: SAME AS A942	1,2,3	EA	REF						REF	REF	5-14	1A6A1CR8				
P-D	5961-935-6476	A954	SEMICONDUCTOR DEVICE, DIODE: 1N5144A (04713)	1,2,3	EA	3						13	6	5-14	1A6A1CR2				
P-D	5961-935-6476	A957	SEMICONDUCTOR DEVICE, DIODE: SAME AS A954	1,2,3	EA	REF						REF	REF	5-14	1A6A1CR3				
P-D	5961-935-6476	A960	SEMICONDUCTOR DEVICE, DIODE: SAME AS A954	1,2,3	EA	REF						REF	REF	5-14	1A6A1CR4				
P-D	5962-079-3539	A963	INTEGRATED CIRCUIT: MC1550G (04713)	1,2,3	EA	2						22	12	5-14	1A6A1Z1				
P-D	5962-079-3539	A966	INTEGRATED CIRCUIT: SAME AS A963	1,2,3	EA	REF						REF	REF	5-14	1A6A1Z2				
P-D	5950-929-2718	A969	INDUCTANCE, STANDARD, FIXED: DD1-20 (98141)	1,2,3	EA	5						19	10	5-14	1A6A1L13				
P-D	5950-929-2718	A972	INDUCTANCE, STANDARD, FIXED: SAME AS A969	1,2,3	EA	REF						REF	REF	5-14	1A6A1L14				
P-D	5950-929-2718	A975	INDUCTANCE, STANDARD, FIXED: SAME AS A969	1,2,3	EA	REF						REF	REF	5-14	1A6A1L15				
P-D	5950-929-2718	A978	INDUCTANCE, STANDARD, FIXED: SAME AS A969	1,2,3	EA	REF						REF	REF	5-14	1A6A1L16				
P-D	5950-929-2718	A981	INDUCTANCE, STANDARD, FIXED: SAME AS A969	1,2,3	EA	REF						REF	REF	5-14	1A6A1L23				
P-D	5950-950-3390	A984	INDUCTANCE, STANDARD, FIXED: DD15-0 (98141)	1,2,3	EA	7						26	14	5-14	1A6A1L6				
P-D	5950-950-3390	A987	INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF						REF	REF	5-14	1A6A1L7				
P-D	5950-950-3390	A990	INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF						REF	REF	5-14	1A6A1L8				

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5950-950-3390	A993 INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF							REF	REF	5-14	1A6A1L9
P-D	5950-950-3390	A996 INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF							REF	REF	5-14	1A6A1L10
P-D	5950-950-3390	A999 INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF							REF	REF	5-14	1A6A1L22
P-D	5950-950-3390	B003 INDUCTANCE, STANDARD, FIXED: SAME AS A984	1,2,3	EA	REF							REF	REF	5-14	1A6A1L30
P-D	5950-929-2722	B006 INDUCTANCE, STANDARD, FIXED: DD27-0 (98141)	1,2,3	EA	2							10	4	5-14	1A6A1L3
P-D	5950-929-2722	B009 INDUCTANCE, STANDARD, FIXED: SAME AS B006	1,2,3	EA	REF							REF	REF	5-14	1A6A1L4
P-D	5950-078-8437	B012 INDUCTANCE, STANDARD, FIXED: DD100 (98141)	1,2,3	EA	5							20	12	5-14	1A6A1L1
P-D	5950-078-8437	B015 INDUCTANCE, STANDARD, FIXED: SAME AS B012	1,2,3	EA	REF							REF	REF	5-14	1A6A1L5
P-D	5950-078-8437	B018 INDUCTANCE, STANDARD, FIXED: SAME AS B012	1,2,3	EA	REF							REF	REF	5-14	1A6A1L11
P-D	5950-078-8437	B021 INDUCTANCE, STANDARD, FIXED: SAME AS B012	1,2,3	EA	REF							REF	REF	5-14	1A6A1L12
P-D	5950-078-8437	B024 INDUCTANCE, STANDARD, FIXED: SAME AS B012	1,2,3	EA	REF							REF	REF	5-14	1A6A1L17
P-D	5910-795-2127	B027 CAPACITOR: GAO-33UUF5PCT (78488)	1,2,3	EA	1							5	2	5-14	1A6A1C35
P-D	5910-834-9437	B030 CAPACITOR: C80-51-47-29LG (78488)	1,2,3	EA	2							10	4	5-14	1A6A1C33
P-D	5910-834-9437	B033 CAPACITOR: SAME AS B030	1,2,3	EA	REF							REF	REF	5-14	1A6A1C37
P-D		B036 CAPACITOR: DM5-15J (78488)	1,2,3	EA	2							10	4	5-14	1A6A1C52
P-D		B039 CAPACITOR: SAME AS B036	1,2,3	EA	REF							REF	REF	5-14	1A6A1C61
P-D	5910-067-4408	B042 CAPACITOR: DM10-360J (81349)	1,2,3	EA	1							5	2	5-14	1A6A1C6
P-D	5910-891-7265	B045 CAPACITOR: DM10-390J (84171)	1,2,3	EA	1							5	2	5-14	1A6A1C16
P-D		B048 CAPACITOR: DM10-330J (84171)	1,2,3	EA	1							5	2	5-14	1A6A1C14
P-D	5910-964-6506	B051 CAPACITOR: CM05E510J03 (81349)	1,2,3	EA	1							5	2	5-14	1A6A1C62
P-D	5910-051-4610	B054 CAPACITOR: CM05E680J03 (81349)	1,2,3	EA	1							5	2	5-14	1A6A1C41

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						USABLE ON CODE	(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50			(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5910-057-0920	B057	CAPACITOR: CM05C100J03 (81349)	1,2,3	EA	3						40	24	5-14	1A6A1C44	
P-D	5910-057-0920	B060	CAPACITOR: SAME AS B057	1,2,3	EA	REF						REF	REF	5-14	1A6A1C48	
P-D	5910-057-0920	B063	CAPACITOR: SAME AS B057	1,2,3	EA	REF						REF	REF	5-14	1A6A1C56	
P-D	5910-954-5496	B066	CAPACITOR: CM05ED200J03 (81349)	1,2,3	EA	9						18	9	5-14	1A6A1C34	
P-D	5910-954-5496	B069	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C36	
P-D	5910-954-5496	B072	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C38	
P-D	5910-954-5496	B075	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C39	
P-D	5910-954-5496	B078	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C49	
P-D	5910-954-5496	B081	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C51	
P-D	5910-954-5496	B084	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C53	
P-D	5910-954-5496	B087	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C57	
P-D	5910-954-5496	B090	CAPACITOR: SAME AS B066	1,2,3	EA	REF						REF	REF	5-14	1A6A1C60	
P-D	5910-835-6797	B093	CAPACITOR, FIXED, ELECTROLYTIC: C10A102K (16546)	1,2,3	EA	14						26	14	5-14	1A6A1C24	
P-D	5910-835-6797	B096	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C25	
P-D	5910-835-6797	B099	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C26	
P-D	5910-835-6797	B102	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C27	
P-D	5910-835-6797	B105	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C42	
P-D	5910-835-6797	B108	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C45	
P-D	5910-835-6797	B111	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C46	
P-D	5910-835-6797	B114	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C47	
P-D	5910-835-6797	B117	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C50	
P-D	5910-835-6797	B120	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF						REF	REF	5-14	1A6A1C54	

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						USABLE ON CODE	(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50			(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5910-835-6797	B123	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C55
P-D	5910-835-6797	B126	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C58
P-D	5910-835-6797	B129	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C59
P-D	5910-835-6797	B132	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C63
P-D	5910-936-0530	B135	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	11							REF	REF	5-14	1A6A1C1
P-D	5910-936-0530	B138	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C5
P-D	5910-936-0530	B141	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C7
P-D	5910-936-0530	B144	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C13
P-D	5910-936-0530	B147	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C15
P-D	5910-936-0530	B150	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C17
P-D	5910-936-0530	B153	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C23
P-D	5910-936-0530	B156	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C28
P-D	5910-936-0530	B159	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C32
P-D	5910-936-0530	B162	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C40
P-D	5910-936-0530	B165	CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1C43
P-D	5905-897-2159	B168	RESISTOR, FIXED, COMPOSITION: RC05GF300J (81349)	1, 2, 3	EA	3							13	6	5-14	1A6A1R10
P-D	5905-897-2159	B171	RESISTOR, FIXED, COMPOSITION: SAME AS B168	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1R11
P-D	5905-897-2159	B174	RESISTOR, FIXED, COMPOSITION: SAME AS B168	1, 2, 3	EA	REF							REF	REF	5-14	1A6A1R17
P-D	5905-926-8466	B177	RESISTOR, FIXED, COMPOSITION: RC05GF330J (81349)	1, 2, 3	EA	6							20	10	5-14	1A6A1R5



SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5905-926-8466	B180 RESISTOR, FIXED, COMPOSITION: SAME AS B177	EA	REF							REF	REF	5-14	1A6A1R6
P-D	5905-926-8466	B183 RESISTOR, FIXED, COMPOSITION: SAME AS B177	EA	REF							REF	REF	5-14	1A6A1R7
P-D	5905-926-8466	B186 RESISTOR, FIXED, COMPOSITION: SAME AS B177	EA	REF							REF	REF	5-14	1A6A1R8
P-D	5905-926-8466	B189 RESISTOR, FIXED, COMPOSITION: SAME AS B177	EA	REF							REF	REF	5-14	1A6A1R9
P-D	5905-926-8466	B192 RESISTOR, FIXED, COMPOSITION: SAME AS B177	EA	REF							REF	REF	5-14	1A6A1R16
P-D	5905-897-2160	B195 RESISTOR, FIXED, COMPOSITION: RC05GF360J (81349)	EA	5							19	10	5-14	1A6A1R12
P-D	5905-897-2160	B198 RESISTOR, FIXED, COMPOSITION: SAME AS B195	EA	REF							REF	REF	5-14	1A6A1R13
P-D	5905-897-2160	B201 RESISTOR, FIXED, COMPOSITION: SAME AS B195	EA	REF							REF	REF	5-14	1A6A1R14
P-D	5905-897-2160	B204 RESISTOR, FIXED, COMPOSITION: SAME AS B195	EA	REF							REF	REF	5-14	1A6A1R15
P-D	5905-897-2160	B207 RESISTOR, FIXED, COMPOSITION: SAME AS B195	EA	REF							REF	REF	5-14	1A6A1R18
P-D	5905-939-3902	B210 RESISTOR, FIXED, COMPOSITION: RC05GF390J (81349)	EA	1							5	2	5-14	1A6A1R25
P-D	5905-931-0744	B213 RESISTOR, FIXED, COMPOSITION: RC05GF150J (81349)	EA	1							5	2	5-14	1A6A1R40
P-D	5905-782-4107	B216 RESISTOR, FIXED, COMPOSITION: RC05GF471J (81349)	EA	3							16	8	5-14	1A6A1R33
P-D	5905-782-4107	B219 RESISTOR, FIXED, COMPOSITION: SAME AS B216	EA	REF							REF	REF	5-14	1A6A1R42
P-D	5905-782-4107	B222 RESISTOR, FIXED, COMPOSITION: SAME AS B216	EA	REF							REF	REF	5-14	1A6A1R39
P-D	5905-923-3534	B225 RESISTOR, FIXED, COMPOSITION: RC05GF102J (81349)	EA	3							13	6	5-14	1A6A1R23
P-D	5905-923-3534	B228 RESISTOR, FIXED, COMPOSITION: SAME AS B225	EA	REF							REF	REF	5-14	1A6A1R24
P-D	5905-923-3534	B231 RESISTOR, FIXED, COMPOSITION: SAME AS B225	EA	REF							REF	REF	5-14	1A6A1R35
P-D	5905-914-2088	B234 RESISTOR, FIXED, COMPOSITION: SAME AS A143	EA	2							REF	REF	5-14	1A6A1R2
P-D	5905-914-2088	B237 RESISTOR, FIXED, COMPOSITION: SAME AS A143	EA	REF							REF	REF	5-14	1A6A1R3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5905-957-2009	B240 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	5				
P-D	5905-957-2009	B243 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	REF							REF	REF	5-14	1A6A1R20
P-D	5905-957-2009	B246 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	REF							REF	REF	5-14	1A6A1R30
P-D	5905-957-2009	B249 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	REF							REF	REF	5-14	1A6A1R31
P-D	5905-957-2009	B252 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	REF							REF	REF	5-14	1A6A1R38
P-D	5905-917-5526	B255 RESISTOR, FIXED, COMPOSITION: SAME AS A182	1,2,3	EA	1							REF	REF	5-14	1A6A1R4
P-D	5905-922-7215	B258 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	5							REF	REF	5-14	1A6A1R21
P-D	5905-922-7215	B261 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	REF							REF	REF	5-14	1A6A1R22
P-D	5905-922-7215	B264 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	REF							REF	REF	5-14	1A6A1R32
P-D	5905-922-7215	B267 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	REF							REF	REF	5-14	1A6A1R34
P-D	5905-922-7215	B270 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	REF							REF	REF	5-14	1A6A1R41
P-D	5905-940-2667	B273 RESISTOR, FIXED, COMPOSITION: RC05GF223J (81349)	1,2,3	EA	4							16	8	5-14	1A6A1R36
P-D	5905-940-2667	B276 RESISTOR, FIXED, COMPOSITION: SAME AS B273	1,2,3	EA	REF							REF	REF	5-14	1A6A1R37
P-D	5905-940-2667	B279 RESISTOR, FIXED, COMPOSITION: SAME AS B273	1,2,3	EA	REF							REF	REF	5-14	1A6A1R43
P-D	5905-940-2667	B282 RESISTOR, FIXED, COMPOSITION: SAME AS E273	1,2,3	EA	REF							REF	REF	5-14	1A6A1R44
P-D	5905-922-7176	B285 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1,2,3	EA	4							REF	REF	5-14	1A6A1R26
P-D	5905-922-7176	B288 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1,2,3	EA	REF							REF	REF	5-14	1A6A1R27
P-D	5905-922-7176	B291 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1,2,3	EA	REF							REF	REF	5-14	1A6A1R28
P-D	5905-922-7176	B294 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1,2,3	EA	REF							REF	REF	5-14	1A6A1R29

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY. INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						X2-D		B297 TERMINAL BOARD: 78929-1 (10412)	1,2	EA	1					
X2-D		B299 TERMINAL BOARD: 78929-3 (10412)	3	EA	1											
X2-D		B300 TERMINAL, STUD: 2064B (88245)	1,2,3	EA	25											
X2-D	5935-056-0816	B303 JACK: 3230-1 (71279)	1,2,3	EA	5											
P-D	5950-134-5823	B306 TRANSFORMER, OSCIL- LATOR: 78995-11 (10412)	1,2,3	EA	2						19	10	5-14	1A6A1A8		
P-D	5950-134-5823	B309 TRANSFORMER, OSCIL- LATOR: SAME AS B306	1,2,3	EA	REF						REF	REF	5-14	1A6A1A9		
X2-D		B312 COIL FORM: SAME AS A723	1,2,3	EA	1											
X2-D	5961-905-4815	B318 TRANSISTOR: SAME AS A633	1,2,3	EA	1											
X2-D	5905-922-7215	B321 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1,2,3	EA	1											
X2-D	5905-957-2009	B324 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1,2,3	EA	1											
X2-D	5905-917-5523	B327 RESISTOR, FIXED, COMPOSITION: SAME AS A648	1,2,3	EA	1											
X2-D	5905-923-3534	B330 RESISTOR, FIXED, COMPOSITION: SAME AS A651	1,2,3	EA	1											
X2-D	5910-835-6797	B333 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A759	1,2,3	EA	2											
X1-D		B351 CAPACITOR: DM5-080J (09647)	1,2,3	EA	1											
A-D-R		B363 PRESELECTOR ASSEMBLY: 78932-1 (10412)	1	EA	1									5-15	1A6A2	
A-D-R		B364 PRESELECTOR ASSEMBLY: 78932-3 (10412)	2	EA	1									5-15	1A6A2	
A-D-R		B365 PRESELECTOR ASSEMBLY: 78932-5 (10412)	3	EA	1									5-15	1A6A2	
X2-D	5305-054-5646	B366 SCREW, MACHINE: SAME AS A065	1,2,3	EA	2											
X2-D		B369 PRINTED WIRING BOARD: 79079-1 (10412)	1	EA	1											
X2-D		B370 PRINTED WIRING BOARD: 79079-3 (10412)	2	EA	1											
X2-D		B371 PRINTED WIRING BOARD: 79079-5 (10412)	3	EA	1											
X2-D	5910-695-3927	B372 TERMINAL, STUD: SAME AS A077	2,3	EA	7											
X2-D		B374 SHIELD: 79141-1 (10412)	1,2,3	EA	1											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER EQUIP CNTGTY	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
X2-D		B377 SHIELD: 79141-3 (10412)	1, 2, 3	EA	1									
P-D	5950-789-9835	B380 INDUCTOR, RADIO FREQUENCY: 79092-1 (10412)	1, 2, 3	EA	2						10	4	5-15	1A6A2L1
P-D	5950-789-9835	B383 INDUCTOR, RADIO FREQUENCY: SAME AS B380	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2L2
P-D	5950-789-9822	B389 INDUCTOR, RADIO FREQUENCY: 79092-3 (10412)	1, 2, 3	EA	1						5	2	5-15	1A6A2L4
P-D	5950-789-9829	B395 INDUCTOR, RADIO FREQUENCY: 79092-5 (10412)	1, 2, 3	EA	1						5	2	5-15	1A6A2L5
X1-D		B398 COIL FORM: SAME AS A768	1, 2, 3	EA	1									
P-D	5950-789-9832	B410 TRANSFORMER: 79093-1 (10412)	1, 2, 3	EA	1						5	2	5-15	1A6A2T1
P-D		B422 INDUCTOR, RADIO FREQUENCY: 79092-2 (10412)	1, 2, 3	EA	1						5	2	5-15	1A6A2L3
X2-D		B428 NUT: 3469 (91293)	1, 2, 3	EA	4									
P-D		B431 CAPACITOR: C80-51-5-29LG (78488)	1, 2, 3	EA	1						5	2	5-15	1A6A2C15
P-D		B434 CAPACITOR: C80-51-68-29LG (78488)	1, 2, 3	EA	1						5	2	5-15	1A6A2C3
P-D	5910-105-7660	B437 CAPACITOR: 5202 (91293)	1, 2, 3	EA	4						16	8	5-15	1A6A2C1
P-D	5910-105-7660	B440 CAPACITOR: SAME AS B437	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C5
P-D	5910-105-7660	B443 CAPACITOR: SAME AS B437	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C13
P-D	5910-105-7660	B446 CAPACITOR: SAME AS B437	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C17
P-D	5910-057-0920	B449 CAPACITOR: SAME AS B057	1, 2, 3	EA	4						REF	REF	5-15	1A6A2C2
P-D	5910-057-0920	B452 CAPACITOR: SAME AS B057	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C4
P-D	5910-057-0920	B455 CAPACITOR: SAME AS B057	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C14
P-D	5910-057-0920	B458 CAPACITOR: SAME AS B057	1, 2, 3	EA	REF						REF	REF	5-15	1A6A2C16
P-D		B461 CAPACITOR: C80-51-75-29LG (91293)	1	EA	1						5	2	5-15	1A6A2C8
P-D		B462 CAPACITOR (LIMITED EFFECTIVITY): JMC7200 (91293)	1, 2, 3	EA	1						5	2	5-15	1A6A2C8
P-D	5910-760-6877	B465 CAPACITOR: DM10-100J (72136)	1, 2, 3	EA	1						5	2	5-15	1A6A2C22
P-D	5910-835-6797	B468 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	9						REF	REF	5-15	1A6A2C6

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5910-835-6797	B471 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C7
P-D	5910-835-6797	B474 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C9
P-D	5910-835-6797	B477 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C10
P-D	5910-835-6797	B480 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C11
P-D	5910-835-6797	B483 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C12
P-D	5910-835-6797	B486 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C18
P-D	5910-835-6797	B489 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C19
P-D	5910-835-6797	B492 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1,2,3	EA	REF							REF	REF	5-15	1A6A2C21
P-D	5910-936-0530	B495 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1,2,3	EA	3							REF	REF	5-15	1A6A2C23
P-D	5910-936-0530	B498 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1,2,3	EA	REF							REF	REF	5-15	1A6A2C24
P-D	5910-936-0530	B501 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1,2,3	EA	REF							REF	REF	5-15	1A6A2C25
P-D	5950-078-8437	B504 INDUCTANCE STANDARD, FIXED: SAME AS B012	1,2,3	EA	1							REF	REF	5-15	1A6A2L6
P-D	5905-721-1488	B507 RESISTOR, FIXED, COMPOSITION: RC07GF150J (81349)	1,2,3	EA	2							10	4	5-15	1A6A2R10
P-D	5905-721-1488	B510 RESISTOR, FIXED, COMPOSITION: SAME AS B507	1,2,3	EA	REF							REF	REF	5-15	1A6A2R12
P-D	5905-801-2377	B513 RESISTOR, FIXED, COMPOSITION: RC07GF750J (81349)	1,2,3	EA	1							5	2	5-15	1A6A2R11
P-D	5905-683-7721	B516 RESISTOR, FIXED, COMPOSITION: SAME AS A327	1,2,3	EA	1							REF	REF	5-15	1A6A2R6
P-D		B519 RES. (VALUE TO BE SE- LECTED AT TEST): RC07GFXXXJ (81349)	1	EA	1							5	2	5-15	1A6A2R3
P-D	5905-686-9994	B520 RESISTOR, FIXED, COMPOSITION: RC07GF122J (81349)	2,3	EA	1							5	2	5-15	1A6A2R3
P-D	5905-681-9969	B522 RESISTOR, FIXED, COMPOSITION: RC07GF332J (81349)	1,2,3	EA	1							5	2	5-15	1A6A2R9

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) J YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5905-686-9998	B525 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1,2,3	EA	1				
P-D	5905-691-0195	B528 RESISTOR, FIXED, COMPOSITION: RC07GF562J (81349)	1,2,3	EA	1							5	2	5-15	1A6A2R13
P-D	5905-683-2238	B531 RESISTOR, FIXED, COMPOSITION: RC07GF103J (81349)	1,2,3	EA	1							13	6	5-15	1A6A2R8
P-D	5905-683-2246	B534 RESISTOR, FIXED, COMPOSITION: RC07GF473J (81349)	1,2,3	EA	4							23	12	5-15	1A6A2R1
P-D	5905-683-2246	B537 RESISTOR, FIXED, COMPOSITION: SAME AS B534	1,2,3	EA	REF							REF	REF	5-15	1A6A2R2
P-D	5905-683-2246	B540 RESISTOR, FIXED, COMPOSITION: SAME AS B534	1,2,3	EA	REF							REF	REF	5-15	1A6A2R4
P-D	5905-685-2246	B543 RESISTOR, FIXED, COMPOSITION: SAME AS B534	1,2,3	EA	REF							REF	REF	5-15	1A6A2R5
P-D		B546 TRANSISTOR: 2N4416 (81349)	1,2,3	EA	1							5	2	5-15	1A6A2Q1
P-D	5961-057-5641	B549 TRANSISTOR: MM1941 (04713)	1,2,3	EA	1							5	2	5-15	1A6A2Q2
P-D	5961-105-5496	B552 SEMICONDUCTOR DEVICE, DIODE: PG116R8 (01281)	1,2,3	EA	4							16	8	5-15	1A6A2CR1
P-D	5961-105-5496	B555 SEMICONDUCTOR DEVICE, DIODE: SAME AS B552	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR2
P-D	5961-105-5496	B558 SEMICONDUCTOR DEVICE, DIODE: SAME AS B552	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR3
P-D	5961-105-5496	B561 SEMICONDUCTOR DEVICE, DIODE: SAME AS B552	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR4
P-D		B564 SEMICONDUCTOR DEVICE (ALT PART): PG216R8 (01281)	1,2,3	EA	4							16	8	5-15	1A6A2CR1
P-D		B567 SEMICONDUCTOR DEVICE (ALT PART): SAME AS B564	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR2
P-D		B570 SEMICONDUCTOR DEVICE (ALT PART): SAME AS B564	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR3
P-D		B573 SEMICONDUCTOR DEVICE (ALT PART): SAME AS B564	1,2,3	EA	REF							REF	REF	5-15	1A6A2CR4
X2-D		B579 INSULATOR, STANDOFF: 1481A (15849)	1,2,3	EA	5										
X2-D	5305-059-8446	B582 SCREW, MACHINE: MS35216-11 (96906)	1,2,3	EA	5										
P-D	5961-943-9179	B585 HEATSINK, ELECTRIC COMPONENT: TXB2P019-028B (98978)	1,2,3	EA	1							5	2		

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5905-917-5092	B588 RESISTOR, VARIABLE: 61PR500 (80740)	2,3	EA	1				
M-D		B596 PLATE, DESIGNATION: 79110-1 (10412)	1,2,3	EA	1										
M-D		B599 PLATE, DESIGNATION: 79116-1 (10412)	1,2,3	EA	1										
P-D	5935-723-6862	B602 CONNECTOR, PLUG: 52-049-0000 (98291)	1,2,3	EA	2							13	6		1A6P5
P-D	5935-723-6862	B605 CONNECTOR, PLUG: SAME AS B602	1,2,3	EA	REF							REF	REF		1A6A7
P-D	5935-935-2167	B608 CONNECTOR, RECEPTACLE:	1,2,3	EA	1							10	4	5-13	1A6J6
X2-D	5305-764-2964	B611 SCREW, MACHINE: MS51959-4 (96906)	1,2,3	EA	2										
X2-D		B614 NUT, HEXAGON: HW42-02 (15653)	1,2,3	EA	2										
X2-D		B617 SCREW, SHOULDER: 78979-1 (10412)	1,2,3	EA	3										
X2-D		B620 STANDOFF: 9723SS0440 (06540)	1,2,3	EA	6										
X2-D		B623 STANDOFF: 9730SS0440 (06540)	1,2,3	EA	2										
X2-D		B626 RING, RETAINING: 79462-1 (10412)	1	EA	3										
X2-D		B627 NUT: 5W6-32UNC2B (04865)	2,3	EA	3										
X2-D		B638 CABLE, COAXIAL: 250-3940 (98278)	1,2,3	EA	1										
PD-F-R		B647 DECODER ASSY, COMMAND SIGNAL: 78921-1 (10412)	1	EA	1	2	2	3	2	2	3	5	2		1A4
PD-F-R	5820-177-3008	B648 DECODER ASSY, COMMAND SIGNAL: 78921-3 (10412)	2,3	EA	1	2	2	2	2	3	4	5	2		1A4
X2-H		B650 HOUSING: 78975-1 (10412)	1	EA	1										
X2-H		B651 HOUSING: 79673-1 (10412)	2,3	EA	1										
X2-H	5340-826-4023	B653 INSERT, SCREW THREAD: SAME AS A582	1,2,3	EA	12										
X2-H		B656 HOUSING: 78975-5 (10412)	1	EA	1										
X2-H		B657 INSERT, SCREW THREAD: 78975-7 (10412)	1	EA	1										
X2-H		B658 INSERT, SCREW THREAD: 78975-9 (10412)	1	EA	1										
M-D		B659 PLATE, DESIGNATION: 79111-1 (10412)	1	EA	1										
M-D		B660 PLATE, DESIGNATION: 79112-1 (10412)	1	EA	1										

## SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMP CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						M-D		B661 PLATE, DESIGNATION: 79732-1 (10412)	2,3	EA	1					
A-D-R		B663 ELECTRONIC COMPO- NENTS ASSY: 78908-1 (10412)	1,2,3	EA	1											
X2-D		B666 TERMINAL BOARD: 78907-1 (10412)	1,2,3	EA	1											
X2-D		B669 TERMINAL, STUD: 2064B (88254)	1,2,3	EA	22											
P-D	5910-782-8262	B672 CAPACITOR: DM10-251J (84171)	1,2,3	EA	1						5	2	5-21	1A4A2C12		
P-D	5910-105-7573	B675 CAPACITOR, FIXED, ELECTROLYTIC: C10A472J (16546)	1,2,3	EA	1						5	2		1A4A2C9		
P-D	5910-936-0530	B678 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1,2,3	EA	1						REF	REF	5-21	1A4A2C16		
P-D	5910-936-4820	B681 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1,2,3	EA	3						REF	REF	5-21	1A4A2C4		
P-D	5910-936-4820	B684 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1,2,3	EA	REF						REF	REF	5-21	1A4A2C5		
P-D	5910-936-4820	B687 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1,2,3	EA	REF						REF	REF	5-21	1A4A2C6		
P-D	5910-880-5434	B690 CAPACITOR, FIXED, ELECTROLYTIC: CS13BH154K (81349)	1,2,3	EA	5						19	10	5-21	1A4A2C8		
P-D	5910-880-5434	B693 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B690	1,2,3	EA	REF						REF	REF	5-21	1A4A2C10		
P-D	5910-880-5434	B696 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B690	1,2,3	EA	REF						REF	REF	5-21	1A4A2C13		
P-D	5910-880-5434	B699 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B690	1,2,3	EA	REF						REF	REF	5-21	1A4A2C14		
P-D	5910-880-5434	B702 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B690	1,2,3	EA	REF						REF	REF	5-21	1A4A2C15		
P-D	5910-784-6038	B705 CAPACITOR, FIXED, ELECTROLYTIC: CS13BF125K (81349)	1,2,3	EA	1						5	2	5-21	1A4A2C11		
P-D	5910-783-9403	B708 CAPACITOR, FIXED, ELECTROLYTIC: CS13BD226K (81349)	1,2,3	EA	1						13	6	5-21	1A4A2C7		



## SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						USABLE ON CODE	(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50			(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5961-938-1135	B711	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	13							REF	REF	5-21	1A4A2CR22
P-D	5961-938-1135	B714	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR23
P-D	5961-938-1135	B717	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR24
P-D	5961-938-1135	B720	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR25
P-D	5961-938-1135	B723	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR26
P-D	5961-938-1135	B726	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR27
P-D	5961-938-1135	B729	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR28
P-D	5961-938-1135	B732	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR29
P-D	5961-938-1135	B735	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR30
P-D	5961-938-1135	B738	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR31
P-D	5961-938-1135	B741	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR32
P-D	5961-938-1135	B744	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR33
P-D	5961-938-1135	B747	SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2CR34
P-D	5962-010-6541	B750	INTEGRATED CIRCUIT: MIC936-1D (14433)	1, 2, 3	EA	1							13	6	5-21	1A4A2Z7

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5962-010-6540	B753 INTEGRATED CIRCUIT: MIC944-1D (14433)	1, 2, 3	EA	1				
P-D	5962-878-8854	B756 INTEGRATED CIRCUIT: MIC946-1D (14433)	1, 2, 3	EA	1							27	15	5-21	1A4A2Z6
P-D	5962-878-8581	B759 INTEGRATED CIRCUIT: MIC951-1D (02859)	1, 2, 3	EA	4							16	8	5-21	1A4A2Z1
P-D	5962-878-8581	B762 INTEGRATED CIRCUIT: SAME AS B759	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2Z2
P-D	5962-878-8581	B765 INTEGRATED CIRCUIT: SAME AS B759	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2Z4
P-D	5962-878-8581	B768 INTEGRATED CIRCUIT: SAME AS B759	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2Z5
P-D	5962-781-0877	B771 INTEGRATED CIRCUIT: MIC962-1D (14433)	1, 2, 3	EA	1							13	6	5-21	1A4A2Z8
P-D	5905-060-3796	B774 RESISTOR, FIXED, FILM: SAME AS A238	1, 2, 3	EA	4							REF	REF	5-21	1A4A2R25
P-D	5905-060-3796	B777 RESISTOR, FIXED, FILM: SAME AS A238	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R26
P-D	5905-060-3796	B780 RESISTOR, FIXED, FILM: SAME AS A238	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R27
P-D	5905-060-3796	B783 RESISTOR, FIXED, FILM: SAME AS A238	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R28
P-D	5905-723-5251	B786 RESISTOR, FIXED, COMPOSITION: RC07GF222J (81349)	1, 2, 3	EA	3							13	6	5-21	1A4A2R20
P-D	5905-723-5251	B789 RESISTOR, FIXED, COMPOSITION: SAME AS B786	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R22
P-D	5905-723-5251	B792 RESISTOR, FIXED, COMPOSITION: SAME AS B786	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R24
P-D	5905-686-3129	B795 RESISTOR, FIXED, COMPOSITION: RC07GF104J (81349)	1, 2, 3	EA	3							16	8	5-21	1A4A2R19
P-D	5905-686-3129	B798 RESISTOR, FIXED, COMPOSITION: SAME AS B795	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R21
P-D	5905-686-3129	B801 RESISTOR, FIXED, COMPOSITION: SAME AS B795	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2R23
P-D	5961-951-8757	B804 TRANSISTOR: 2N2222A (81349)	1, 2, 3	EA	3							77	56	5-21	1A4A2Q12
P-D	5961-951-8757	B807 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2Q13
P-D	5961-951-8757	B810 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-21	1A4A2Q14
A-D-R		B825 ELECTRONIC COMPO- NENTS ASSY: 78919-1 (10412)	1, 2, 3	EA	1									5-20	1A4A1
X2-D		B828 TERMINAL BOARD: 78918-1 (10412)	1, 2, 3	EA	1										
X2-D		B831 TERMINAL, STUD: SAME AS B300	1, 2, 3	EA	27										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5910-783-9403	B834 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B708	1, 2, 3	EA	1							REF	REF	5-22	1A4A1C21
P-D	5910-936-4820	B837 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1, 2, 3	EA	1							REF	REF	5-22	1A4A1C20
P-D	5910-936-0530	B840 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	3							REF	REF	5-22	1A4A1C17
P-D	5910-936-0530	B843 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1C18
P-D	5910-936-0530	B846 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1C19
P-D	5961-938-1135	B849 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	3							REF	REF	5-22	1A4A1CR35
P-D	5961-938-1135	B852 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1CR36
P-D	5961-938-1135	B855 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1CR46
P-D	5962-878-8567	B858 INTEGRATED CIRCUIT: MIC945-1D (14433)	1, 2, 3	EA	9							32	18	5-22	1A4A1Z1
P-D	5962-878-8567	B861 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z2
P-D	5962-878-8567	B864 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z3
P-D	5962-878-8567	B867 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z4
P-D	5962-878-8567	B870 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z5
P-D	5962-878-8567	B873 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z6
P-D	5962-878-8567	B876 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z8
P-D	5962-878-8567	B879 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z9
P-D	5962-878-8567	B882 INTEGRATED CIRCUIT: SAME AS B858	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z10
P-D	5962-010-6541	B885 INTEGRATED CIRCUIT: SAME AS B750	1, 2, 3	EA	1							REF	REF	5-22	1A4A1Z7
P-D	5962-781-0877	B888 INTEGRATED CIRCUIT: SAME AS B771	1, 2, 3	EA	2							REF	REF	5-22	1A4A1Z12
P-D	5962-781-0877	B891 INTEGRATED CIRCUIT: SAME AS B771	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Z13
P-D	5962-010-6540	B894 INTEGRATED CIRCUIT: SAME AS B753	1, 2, 3	EA	1							REF	REF	5-22	1A4A1Z11
P-D	5962-878-8854	B897 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	1							REF	REF	5-22	1A4A1Z14

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D		B900 RESISTOR, FIXED, COMPOSITION: (7400 ohms is a nonpreferred value) RC07GF742J (81349)	1, 2, 3	EA	1				
P-D	5905-681-8818	B903 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	1							REF	REF	5-22	1A4A1R30
P-D	5905-686-3129	B906 RESISTOR, FIXED, COMPOSITION: SAME AS B795	1, 2, 3	EA	1							REF	REF	5-22	1A4A1R31
P-D	5905-683-7721	B909 RESISTOR, FIXED, COMPOSITION: SAME AS A327	1, 2, 3	EA	1							REF	REF	5-22	1A4A1R45
P-D	5961-951-8757	B912 TRANSISTOR: SAME AS B804	1, 2, 3	EA	2							REF	REF	5-22	1A4A1Q15
P-D	5961-951-8757	B915 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-22	1A4A1Q28
X2-D		B924 COVER, MODULE: 78980-1 (10412)	1, 2, 3	EA	1										
X2-D	5305-054-5644	B927 SCREW, MACHINE: MS51957-11 (96906)	1, 2, 3	EA	12										
X2-D	5310-723-9676	B930 WASHER, FLAT: SAME AS A597	1, 2, 3	EA	12										
X2-D		B933 SCREW, SHOULDER: 78979-3 (10412)	1	EA	3										
X2-D		B934 BAR, ROUND: 250D1AX2-625LG (10412)	1	EA	1										
X2-D		B935 SCREW, MACHINE: AN500D (88044)	2, 3	EA	3										
X2-D		B937 RING, RETAINING: SAME AS B626	1	EA	3										
X2-D		B938 NUT, NYLON: 5W (04865)	2, 3	EA	3										
X2-D	5330-584-1100	B940 PACKING, PREFORMED: MS9021-006 (96906)	1	EA	3										
X2-D	5310-773-7624	B943 WASHER, FLAT: NAS620C6 (80205)	1	EA	2										
P-D	5935-935-2168	B944 CONNECTOR RECEP- TACLE, ELEC: MDB1-25SH001 (71468)	1, 2, 3	EA	1							10	4		
P-D	5935-935-2169	B947 CONNECTOR, RECEP- TACLE, ELEC: MDB1-31SH001 (71468)	1, 2, 3	EA	1							10	4		
X2-D	5305-764-2964	B950 SCREW, MACHINE: SAME AS B611	1, 2, 3	EA	4										
X2-D	5310-928-2690	B953 WASHER, LOCK: SAME AS A416	1, 2, 3	EA	4										
X2-D	5310-043-4708	B956 WASHER, FLAT: SAME AS A259	1, 2, 3	EA	4										
X2-D	5310-812-4294	B959 NUT, PLAIN, HEXAGON: NAS671C2 (80205)	1, 2, 3	EA	4										
X2-D		B962 STANDOFF: SAME AS B620	1, 2, 3	EA	8										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X2-D		B965 INSULATOR, PLATE: 79391-1 (10412)	1	EA	1											
X2-D		B966 INSULATOR, PLATE: 79391-3 (10412)	2, 3	EA	2											
X2-D		B968 STRIP, NEOPRENE: KR2621 (75345)	1, 2, 3	EA	1											
P-F-R	6130-890-7599	B977 BATTERY COVER ASSEMBLY: 78960-1 (10412)	1	EA	1	*	*	*	*	*	*	13	6			1A7
X1-F		B978 HOUSING, BATTERY ASSEMBLY: 78961-1 (10412)	1	EA	1											
X1-F		B979 HOUSING: 78961-2 (10412)	1	EA	1											
X1-F		B980 PAD: 78961-3 (10412)	1	EA	4											
X2-F		B981 CATCH, CURVED: 79868-2 (10412)	1	EA	4											
X2-F	5320-117-7207	B982 RIVET: MS20426DD4-5 (96906)	1	EA	2											
X2-F	5320-639-1079	B983 RIVET: MS20470DD4-5 (96906)	1	EA	6											
X2-F	5340-558-8826	B984 INSERT, SCREW THREAD: MS21209C0620 (96906)	1	EA	1											
P-O	6140-890-7600	B985 BATTERY ASSEMBLY: 78920-1 (10412)	1	EA	1											
X2-F		B986 BATTERY PACK: 8-4V70SCMP (06860)	1	EA	1											
X2-F	5935-789-6191	B987 RECEPTACLE, PLUG, ELECTRICAL: 1625-3R (27264)	1	EA	1											
X2-F		B988 TERMINAL: 1560TLO-008 (27264)	1	EA	3											
M-F		B991 PLATE, IDENTIFICATION: 79433-1 (10412)	1	EA	1											
X1-F		B993 PLATE, BATTERY: 79400-1 (10412)	1	EA	1											
P-F-R	5935-177-2796	B996 COVER ASSEMBLY: POWER: 79461-1 (10412)	1	EA	1	*	2	2	*	2	2	13	3			
X1-O		B997 COVER: 79468-1 (10412)	1	EA	1											
X2-O	5940-549-8848	B998 TERMINAL, RING: 206 (79963)	1	EA	1											
X2-O		B999 BRACKET, MOUNTING: 78984-1 (10412)	1	EA	1											
X2-O		C001 SEELSKREW: SR4-40X1-4 (97539)	1	EA	2											
X2-O	5310-933-8118	C002 WASHER, LOCK: MS35338-135 (96906)	1	EA	2											
X2-O	5310-271-4642	C003 NUT, PLAIN, HEXAGON: SAME AS A374	1	EA	2											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						1-20	21-50	51-100	1-20	21-50	51-100				
M-D		C004 PLATE, IDENTIFICATION: 79199-1 (10412)	1	EA	1										
P-F		C005 CONNECTOR, RECEPTACLE, ELEC: PW-73C12-10P (77820)	1	EA	1	*	*	*	*	*	*	10	4		1A7P2
P-F	5935-807-0160	C006 CONNECTOR, RECEPTACLE, ELEC: DEM9S (71468)	1	EA	1	*	*	*	*	2	2	20	12		1A7J3
P-F	5340-855-4402	C007 SPRING, HELICAL COMPRESSION: C180-026-0380 (83553)	1	EA	2	*	2	2	2	2	2	39	24		
X2-F	5305-054-5652	C008 SCREW, MACHINE: SAME AS A365	1	EA	2										
X2-F		C009 NUT, PLAIN, HEXAGON: 52LH3324-40 (13257)	1	EA	2										
X2-F	5310-723-9676	C010 WASHER, FLAT: SAME AS A597	1	EA	2										
P-F		C011 CONNECTOR, RECEPTACLE, ELECTRICAL: 1625-3P1 (27264)	1	EA	1	*	*	*	*	*	*	5	2		1A7P15
X2-F		C012 PIN, MALE: 1560TLO-008 (27264)	1	EA	3										
X2-F	5305-054-6650	C013 SCREW, MACHINE: MS51957-26 (96906)	1	EA	1										
P-F-R	6140-177-3042	C017 BATTERY COVER ASSEMBLY: 79669-1 (10412)	2, 3	EA	1	*	2	2	*	2	2	13	3		1A7
X1-F		C019 HOUSING, BATTERY ASSEMBLY: 79660-1 (10412)	2, 3	EA	1										
X1-F		C021 HOUSING: 79746-1 (10412)	2, 3	EA	1										
X1-F		C023 PAD: 79660-3 (10412)	2, 3	EA	4										
X2-F		C025 CATCH, CURVED: 79678-1 (10412)	2, 3	EA	4										
X2-F	5305-054-5646	C027 SCREW, MACHINE: SAME AS A065	2, 3	EA	8										
X2-F	5310-042-9609	C029 WASHER, LOCK: SAME AS A371	2, 3	EA	8										
X2-F		C031 INSERT, SCREW THREAD: 55-12-104-24 (94222)	2, 3	EA	8										
X1-F		C033 DOUBLER: 79660-4 (10412)	2, 3	EA	2										
X2-F		C037 SILICONE COMPOUND: EPOCAST10F (99384)	2, 3	EA	1										
P-F	5935-177-2795	C039 COVER ASSY, POWER: SAME AS B996	2, 3	EA	1										
X2-O	5940-549-8848	C043 TERMINAL, RING: SAME AS B998	2, 3	EA	1										
M-D		C045 PLATE, IDENTIFICATION: 79726-1 (10412)	2, 3	EA	1										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-F		C047 CONNECTOR, RECEP- TACLE, ELEC: PW07C12-10P (17357)	2, 3	EA	1			*	*
P-F	5935-807-0160	C049 CONNECTOR, RECEP- TACLE, ELEC: SAME AS C006	2, 3	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		1A7J3
P-F	5340-855-4402	C051 SPRING, HELICAL COMPRESSION: SAME AS C007	2	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F	5305-054-5652	C053 SCREW, MACHINE: SAME AS A365	2, 3	EA	2										
X2-F		C055 NUT, PLAIN, HEXAGON: SAME AS C009	2, 3	EA	2										
X2-F	5310-723-9676	C057 WASHER, FLAT: SAME AS A597	2, 3	EA	2										
X2-F	5330-853-3975	C059 SEAL, PLAIN ENCASED: NAS1598C06Y (80205)	2, 3	EA	1										
X2-F	5305-054-6651	C061 SCREW, MACHINE: MS51957-27 (96906)	2, 3	EA	1										
X2-F	5310-274-8321	C063 NUT, SELF-LOCKING: 22NKM62 (13257)	2, 3	EA	1										
PD-FR		C071 POWER SUPPLY ASSY, DATA CONV: 78922-1 (10412)	1	EA	1	2	4	10	*	*	*	4	3		1A3
PD-FR	5820-177-3007	C072 POWER SUPPLY ASSY, DATA CONV: 78922-3 (10412)	2, 3	EA	1	2	4	10	*	*	*	4	3		1A3
X1-D		C074 HOUSING: 78975-3 (10412)	1	EA	1										
X1-D		C075 HOUSING: 79673-3 (10412)	2, 3	EA	1										
X2-D	5340-826-4023	C077 INSERT, SCREW THREAD: SAME AS A582	1, 2, 3	EA	12										
A-DR		C080 BOARD, ASSY, POWER SUPPLY: 78904-1 (10412)	1, 2, 3	EA	1										1A3A2
X2-D		C083 PRINTED WIRING BOARD: 78903-1 (10412)	1, 2, 3	EA	1										
X1-D		C086 TERMINAL, STUD: SAME AS B300	1, 2, 3	EA	23										
P-D	5910-936-4820	C092 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1, 2, 3	EA	1							REF	REF	5-25	1A3A2C22
P-D	5910-835-6797	C095 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B093	1, 2, 3	EA	1							REF	REF	5-25	1A3A2C2
P-D	5910-782-1973	C098 CAPACITOR, FIXED, ELECTROLYTIC: CS13BE106K (81349)	1, 2, 3	EA	1							13	6	5-25	1A3A2C1
P-D	5910-783-9403	C101 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS B708	1, 2, 3	EA	1							REF	REF	5-25	1A3A2C3
P-D	5910-776-6928	C104 CAPACITOR, FIXED, ELECTROLYTIC: CS13BD335K (81349)	1, 2, 3	EA	1							33	22	5-25	1A3A2C23

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5961-938-1135	C107 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	20							REF	REF	5-25	1A3A2CR1
P-D	5961-938-1135	C110 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR2
P-D	5961-938-1135	C113 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR3
P-D	5961-938-1135	C116 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR4
P-D	5961-938-1135	C119 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR5
P-D	5961-938-1135	C122 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR6
P-D	5961-938-1135	C125 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR8
P-D	5961-938-1135	C128 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR9
P-D	5961-938-1135	C131 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR10
P-D	5961-938-1135	C134 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR11
P-D	5961-938-1135	C137 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR12
P-D	5961-938-1135	C140 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR13
P-D	5961-938-1135	C143 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR14
P-D	5961-938-1135	C146 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR15
P-D	5961-938-1135	C149 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR16
P-D	5961-938-1135	C152 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR17
P-D	5961-938-1135	C155 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR18
P-D	5961-938-1135	C158 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR19
P-D	5961-938-1135	C161 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR20



SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5961-938-1135	C164 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2CR21
P-D	5961-752-6121	C167 SEMICONDUCTOR DEVICE, DIODE: 1N753A (81349)	1, 2, 3	EA	1							5	2	5-25	1A3A2CR7
P-D	5905-817-7971	C170 RESISTOR, FIXED, COMPOSITION: RC07GF100J (81349)	1, 2, 3	EA	1							5	2	5-25	1A3A2R6
P-D	5905-825-5592	C173 RESISTOR, FIXED, COMPOSITION: RC07GF161J (81349)	1, 2, 3	EA	1							5	2	5-25	1A3A2R10
P-D	5905-682-4107	C176 RESISTOR, FIXED, COMPOSITION: RC07GF181J (81349)	1, 2, 3	EA	1							5	2	5-25	1A3A2R11
P-D	5905-681-6462	C179 RESISTOR, FIXED, COMPOSITION: RC07GF102J (81349)	1, 2, 3	EA	4							16	8	5-25	1A3A2R1
P-D	5905-681-6462	C182 RESISTOR, FIXED, COMPOSITION: SAME AS C179	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R7
P-D	5905-681-6462	C185 RESISTOR, FIXED, COMPOSITION: SAME AS C179	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R8
P-D	5905-681-6462	C188 RESISTOR, FIXED, COMPOSITION: SAME AS C179	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R9
P-D	5905-686-9998	C191 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	4							REF	REF	5-25	1A3A2R16
P-D	5905-686-9998	C194 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R36
P-D	5905-686-9998	C197 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R38
P-D	5905-686-9998	C200 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R39
P-D	5905-726-4413	C203 RESISTOR, FIXED, COMPOSITION: RC07GF123J (81349)	1, 2, 3	EA	1							5	2	5-25	1A3A2R14
P-D	5905-681-8818	C206 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	5							REF	REF	5-25	1A3A2R2
P-D	5905-681-8818	C209 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R3
P-D	5905-681-8818	C212 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R4
P-D	5905-681-8818	C215 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R5
P-D	5905-681-8818	C218 RESISTOR, FIXED, COMPOSITION: SAME AS A241	1, 2, 3	EA	REF							REF	REF	5-25	1A3A2R18

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS  USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					P-D	5905-683-2246	C221 RESISTOR, FIXED, COMPOSITION: SAME AS B534	1, 2, 3	EA	2				
P-D	5905-683-2246	C224 RESISTOR, FIXED, COMPOSITION: SAME AS B534	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2R17
P-D	5905-682-4098	C227 RESISTOR, FIXED, COMPOSITION: RC07GF392J (81349)	1, 2, 3	EA	1						5	2	5-25	1A3A2R12
P-D	5905-688-3738	C230 RESISTOR, FIXED, COMPOSITION: RC07GF182J (81349)	1, 2, 3	EA	1						5	2	5-25	1A4A2R13
P-D	5905-686-9993	C233 RESISTOR, FIXED, COMPOSITION: RC07GF124J (81349)	1, 2, 3	EA	1						5	2	5-25	1A3A2R44
P-D	5961-951-8757	C236 TRANSISTOR: SAME AS B804	1, 2, 3	EA	11						REF	REF	5-25	1A3A2Q1
P-D	5961-951-8757	C239 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q2
P-D	5961-951-8757	C242 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q3
P-D	5961-951-8757	C245 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q4
P-D	5961-951-8757	C248 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q5
P-D	5961-951-8757	C251 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q8
P-D	5961-951-8757	C254 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q9
P-D	5961-951-8757	C257 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q11
P-D	5961-951-8757	C260 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q19
P-D	5961-951-8757	C263 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q21
P-D	5961-951-8757	C266 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF						REF	REF	5-25	1A3A2Q22
P-D	5961-913-1747	C269 TRANSISTOR: 2N2907 (81349)	1, 2, 3	EA	1						5	2	5-25	1A3A2Q10
A-D-R		C278 BOARD ASSY, POWER SUPPLY: (Reg router binary data stage) 78906-1 (10412)	1, 2, 3	EA	1								5-24	1A3A1
X2-D		C281 PRINTED WIRING BOARD: 78905-1 (10412)	1, 2, 3	EA	1									
X1-D		C284 TERMINAL, STUD: SAME AS B300	1, 2, 3	EA	31									
P-D	5961-938-1135	C287 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	9						REF	REF	5-24	1A3A1CR37
P-D	5961-938-1135	C290 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF						REF	REF	5-24	1A3A1CR38

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5961-938-1135	C293 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF				
P-D	5961-938-1135	C296 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR40
P-D	5961-938-1135	C299 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR41
P-D	5961-938-1135	C302 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR42
P-D	5961-938-1135	C305 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR43
P-D	5961-938-1135	C308 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR44
P-D	5961-938-1135	C311 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1CR45
P-D	5962-010-6541	C314 INTEGRATED CIRCUIT: SAME AS B750	1, 2, 3	EA	1							REF	REF	5-24	1A3A1Z1
P-D	5962-878-8854	C317 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	6							REF	REF	5-24	1A3A1Z2
P-D	5962-878-8854	C320 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z5
P-D	5962-878-8854	C323 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z6
P-D	5962-878-8854	C326 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z7
P-D	5962-878-8854	C329 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z8
P-D	5962-878-8854	C332 INTEGRATED CIRCUIT: SAME AS B756	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z9
P-D	5962-791-4925	C335 INTEGRATED CIRCUIT: M1C949-1D (14433)	1, 2, 3	EA	2							10	4	5-24	1A3A1Z1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5962-791-4925	C338 INTEGRATED CIRCUIT: SAME AS C335	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Z4
P-D	5905-686-3798	C341 RESISTOR, FIXED, COMPOSITION: RC07GF272J (81349)	1, 2, 3	EA	2							10	4	5-24	1A3A1R32
P-D	5905-686-3798	C344 RESISTOR, FIXED, COMPOSITION: SAME AS C341	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R34
P-D	5905-686-9998	C347 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	7							REF	REF	5-24	1A3A1R33
P-D	5905-686-9998	C350 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R35
P-D	5905-686-9998	C353 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R37
P-D	5905-686-9998	C356 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R40
P-D	5905-686-9998	C359 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R41
P-D	5905-686-9998	C362 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R42
P-D	5905-686-9998	C365 RESISTOR, FIXED, COMPOSITION: SAME AS A515	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1R43
P-D	5961-951-8757	C368 TRANSISTOR: SAME AS B804	1, 2, 3	EA	9							REF	REF	5-24	1A3A1Q16
P-D	5961-951-8757	C371 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q17
P-D	5961-951-8757	C374 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q18
P-D	5961-951-8757	C377 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q20
P-D	5961-951-8757	C380 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q23
P-D	5961-951-8757	C383 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q24
P-D	5961-951-8757	C386 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q25
P-D	5961-951-8757	C389 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q26
P-D	5961-951-8757	C392 TRANSISTOR: SAME AS B804	1, 2, 3	EA	REF							REF	REF	5-24	1A3A1Q27
X2-D		C404 COVER, MODULE: SAME AS B924	1, 2, 3	EA	1										
X2-D	5305-054-5644	C407 SCREW, MACHINE: SAME AS B927	1, 2, 3	EA	12										
X2-D	5310-723-9676	C410 WASHER, FLAT: SAME AS A597	1, 2, 3	EA	12										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SM CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
						1-20	21-50	51-100	1-20	21-50	51-100					
X2-D		C413 STANDOFF: SAME AS B620	1, 2, 3	EA	8											
X2-D		C416 SCREW, SHOULDER: SAME AS B933	1, 2, 3	EA	3											
M-D		C419 PLATE, DESIGNATION: 79109-1 (10412)	1, 2, 3	EA	1											
M-D		C420 PLATE, DESIGNATION: 79113-1 (10412)	1	EA	1											
M-D		C421 PLATE, DESIGNATION: 79730-1 (10412)	2, 3	EA	1											
P-D	5935-935-2169	C423 CONNECTOR, RECEPTACLE, ELEC: SAME AS B947	1, 2, 3	EA	1							REF	REF	5-23	1A3J8	
X2-D	5305-764-2964	C426 SCREW, MACHINE: SAME AS B611	1, 2, 3	EA	2											
X2-D	5310-928-2690	C429 WASHER, LOCK: SAME AS A416	1, 2, 3	EA	2											
X2-D	5310-043-4708	C432 WASHER, FLAT: SAME AS A259	1, 2, 3	EA	2											
X2-D	5310-812-4294	C435 NUT, PLAIN, HEXAGON: SAME AS B959	1, 2, 3	EA	2											
P-D	5935-935-2168	C438 CONNECTOR, RECEPTACLE, ELEC: SAME AS B944	1, 2, 3	EA	1							REF	REF	5-23	1A3J9	
X2-D	5305-764-2964	C441 SCREW, MACHINE: SAME AS B611	1, 2, 3	EA	2											
X2-D	5310-928-2690	C444 WASHER, LOCK: SAME AS A416	1, 2, 3	EA	2											
X2-D	5310-043-4708	C447 WASHER, FLAT: SAME AS A259	1, 2, 3	EA	2											
X2-D	5310-812-4294	C450 NUT, PLAIN, HEXAGON: SAME AS B959	1, 2, 3	EA	2											
X2-D		C453 INSULATOR, PLATE: SAME AS B965	1, 2, 3	EA	1											
X2-D		C456 RING, RETAINING: SAME AS B626	1	EA	3											
X2-D	5330-584-1100	C457 PACKING, PREFORMED: SAME AS B940	1	EA	3											
X2-D	5310-773-7624	C458 WASHER, FLAT: SAME AS B943	1	EA	2											
X2-D		C468 NUT, NYLON: SAME AS B938	2, 3	EA	3											
X2-D	5970-815-1447	C470 INSULATION, SLEEVING, ELECTRICAL: ML122129-7 (81349)	2, 3	EA	3											
PD-F-R	5820-779-2961	C472 AMPLIFIER FILTER ASSEMBLY: 78923-1 (10412)	1	EA	1	2	5	12	*	*	*	4	1	5-17	1A5	
PD-F-R	5820-177-3011	C473 AMPLIFIER FILTER ASSEMBLY: 78923-3 (10412)	2, 3	EA	1	2	5	12	*	*	*	4	1		1A5	
X1-D		C475 HOUSING: 78976-1 (10412)	1	EA	1											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						X1-D		C476 HOUSING: 79675-1 (10412)	2, 3	EA	1				
X2-D	5340-826-4023	C478 INSERT, SCREW THREAD: SAME AS A582	1, 2, 3	EA	25										
A-D-R		C481 AMPLIFIER FILTER SUBASSEMBLY: 78927-1 (10412)	1, 2, 3	EA	1								5-17	1A5A1	
X2-D	5305-054-5646	C484 SCREW, MACHINE: SAME AS A065	1	EA	7										
X2-D	5305-054-5648	C485 SCREW, MACHINE: SAME AS A591	1	EA	6										
P-D		C486 SCREW, MACHINE: 79915-1 (10412)	2, 3	EA	13						40	26			
X1-D		C488 TERMINAL BOARD: 78926-1 (10412)	1, 2, 3	EA	1										
X2-D	5940-655-3927	C491 TERMINAL, STUD: SAME AS A077	1, 2, 3	EA	22										
X2-D	5935-056-0816	C494 JACK: SAME AS B303	1, 2, 3	EA	24										
X2-D		C497 BOARD: 78926-3 (10412)	1, 2, 3	EA	1										
X2-D	5310-811-6419	C500 NUT: MS21042-04 (96906)	1, 2, 3	EA	8										
P-D	5950-789-9836	C503 TRANSFORMER, OSCILLATOR: 78995-3 (10412)	1, 2, 3	EA	1						10	4	5-17	1A5A1A5	
X1-D		C506 COIL FORM: SAME AS A627	1, 2, 3	EA	1										
X2-D	5961-905-4815	C512 TRANSISTOR: SAME AS A633	1, 2, 3	EA	1										
X2-D	5910-954-5496	C515 CAPACITOR: SAME AS B066	1, 2, 3	EA	1										
X2-D	5910-936-0530	C518 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	2										
X2-D	5905-922-7215	C521 RESISTOR, FIXED: COMPOSITION: SAME AS A152	1, 2, 3	EA	1										
X2-D	5905-957-2009	C524 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1, 2, 3	EA	1										
X2-D	5905-917-5523	C527 RESISTOR, FIXED, COMPOSITION: SAME AS A648	1, 2, 3	EA	1										
X2-D	5905-923-3534	C530 RESISTOR, FIXED, COMPOSITION: SAME AS A651	1, 2, 3	EA	1										
P-D	5950-134-9596	C548 TRANSFORMER: 78994-5 (10412)	1, 2, 3	EA	1						5	2	5-17	1A5A1T1	
X1-D		C551 COIL FORM: L45-2CTB4 (12856)	1, 2, 3	EA	1										
P-D	5950-105-7566	C563 TRANSFORMER: TT151-1248 (11911)	1, 2, 3	EA	1						5	2	5-17	1A5A1T6	

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D		C566 CRYSTAL: SAME AS A909	1, 2, 3	EA	1							REF	REF	5-17	1A5A1Y1
P-D		C569 TRANSFORMER: 78994-13 (10412)	1, 2, 3	EA	4							16	8	5-17	1A5A1T2
P-D		C572 TRANSFORMER: SAME AS C569	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1T3
P-D		C575 TRANSFORMER: SAME AS C569	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1T4
P-D		C578 TRANSFORMER: SAME AS C569	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1T5
X1-D		C580B COIL FORM: SAME AS C551	1, 2, 3	EA	1										
P-D	5962-079-3539	C581 INTEGRATED CIRCUIT: SAME AS A963	1, 2, 3	EA	4							REF	REF	5-17	1A5A1Z1
P-D	5962-079-3539	C584 INTEGRATED CIRCUIT: SAME AS A963	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1Z2
P-D	5962-079-3539	C587 INTEGRATED CIRCUIT: SAME AS A963	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1Z3
P-D	5962-079-3539	C590 INTEGRATED CIRCUIT: SAME AS A963	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1Z4
P-D	5962-781-0876	C593 INTEGRATED CIRCUIT: CA3020 (18722)	1, 2, 3	EA	1							5	2	5-17	1A5A1Z5
P-D	5961-105-9716	C596 TRANSISTOR: 2N2996 (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1Q1
P-D	5961-763-4710	C599 TRANSISTOR: 2N4045 (22229)	1, 2, 3	EA	1							5	2	5-17	1A5A1Q2
P-D	5961-911-6015	C602 TRANSISTOR: 2N3251A (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1Q3
P-D	5961-954-6100	C605 TRANSISTOR: 2N708 (81349)	1, 2, 3	EA	1							10	4	5-17	1A5A1Q4
P-D	5961-842-6937	C608 TRANSISTOR: 2N706 (81349)	1, 2, 3	EA	2							10	4	5-17	1A5A1Q5
P-D	5961-842-6937	C611 TRANSISTOR: SAME AS C608	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1Q6
P-D	5961-938-1135	C614 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	1							REF	REF	5-17	1A5A1CR1
P-D	5950-778-0866	C617 INDUCTOR: WEE220 (72259)	1, 2, 3	EA	5							20	12	5-17	1A5A1L1
P-D	5950-778-0866	C620 INDUCTOR: SAME AS C617	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L3
P-D	5950-778-0866	C623 INDUCTOR: SAME AS C617	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L5
P-D	5950-778-0866	C626 INDUCTOR: SAME AS C617	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L7
P-D	5950-778-0866	C629 INDUCTOR: SAME AS C617	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L8
P-D	5950-929-2721	C632 INDUCTANCE STANDARD, FIXED: DD220 (72259)	1, 2, 3	EA	3							13	6	5-17	1A5A1L2

## SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P-D	5950-929-2721	C635 INDUCTANCE STANDARD, FIXED: SAME AS C632	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L4
P-D	5950-929-2721	C638 INDUCTANCE STANDARD, FIXED: SAME AS C632	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1L6
P-D	5910-936-0530	C641 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	21							REF	REF	5-17	1A5A1C1
P-D	5910-936-0530	C644 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C3
P-D	5910-936-0530	C647 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C4
P-D	5910-936-0530	C650 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C5
P-D	5910-936-0530	C653 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C6
P-D	5910-936-0530	C656 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C8
P-D	5910-936-0530	C659 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C9
P-D	5910-936-0530	C662 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C10
P-D	5910-936-0530	C665 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C11
P-D	5910-936-0530	C668 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C14
P-D	5910-936-0530	C671 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C15
P-D	5910-936-0530	C674 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C16
P-D	5910-936-0530	C677 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C17
P-D	5910-936-0530	C680 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C19
P-D	5910-936-0530	C683 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C20
P-D	5910-936-0530	C686 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C21
P-D	5910-936-0530	C689 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C22



## SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						P-D	5910-936-0530	C692 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF				
P-D	5910-936-0530	C695 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C25
P-D	5910-936-0530	C698 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C26
P-D	5910-936-0530	C701 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C29
P-D	5910-905-8414	C704 CAPACITOR: DM10F361G0100WV4CR (84171)	1, 2, 3	EA	5							19	10	5-17	1A5A1C2
P-D	5910-905-8414	C707 CAPACITOR: SAME AS C704	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C7
P-D	5910-905-8414	C710 CAPACITOR: SAME AS C704	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C13
P-D	5910-905-8414	C713 CAPACITOR: SAME AS C704	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C18
P-D	5910-905-8414	C716 CAPACITOR: SAME AS C704	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C23
P-D	5910-577-3281	C719 CAPACITOR: TGS50 (05571)	1, 2, 3	EA	1							5	2	5-17	1A5A1C32
P-D		C722 CAPACITOR: 65F12AA683 (06011)	1, 2, 3	EA	1							5	2	5-17	1A5A1C34
P-D	5910-902-3662	C725 CAPACITOR, FIXED, ELECTROLYTIC: CS13BE155K (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1C30
P-D	5910-776-6928	C728 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	1							REF	REF	5-17	1A5A1C27
P-D	5910-786-9202	C731 CAPACITOR, FIXED, ELECTROLYTIC: CS13BF475K (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1C35
P-D	5910-082-4926	C734 CAPACITOR, FIXED, ELECTROLYTIC: CS13BF685K (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1C36
P-D	5910-782-1973	C737 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C098	1, 2, 3	EA	2							REF	REF	5-17	1A5A1C31
P-D	5910-782-1973	C740 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C098	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1C33
P-D		C743 CAPACITOR: 62F305G2 (06011)	1, 2, 3	EA	1							5	2	5-17	1A5A1C12
P-D		C746 CAPACITOR, FIXED, ELECTROLYTIC: CS13BE125K (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1C28
P-D	5905-931-4125	C749 RESISTOR, FIXED, COMPOSITION: RC05GF180J (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1R24
P-D	5905-914-2151	C752 RESISTOR, FIXED, COMPOSITION: RC05GF100J (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1R5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) S/R CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5905-056-0372	C755 RESISTOR, VARIABLE: 61PR10 (73138)	1, 2, 3	EA	1							10	4	5-17	1A5A1R29
P-D	5905-947-7840	C758 RESISTOR, FIXED, COMPOSITION: RC05GF331J (81349)	1, 2, 3	EA	4							16	8	5-17	1A5A1R3
P-D	5905-947-7840	C761 RESISTOR, FIXED, COMPOSITION: SAME AS C758	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R6
P-D	5905-947-7840	C764 RESISTOR, FIXED, COMPOSITION: SAME AS C758	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R8
P-D	5905-947-7840	C767 RESISTOR, FIXED, COMPOSITION: SAME AS C758	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R17
P-D	5905-782-4107	C770 RESISTOR, FIXED, COMPOSITION: SAME AS B216	1, 2, 3	EA	1							REF	REF	5-17	1A5A1R7
P-D	5905-923-3534	C773 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	4							REF	REF	5-17	1A5A1R9
P-D	5905-923-3534	C776 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R15
P-D	5905-923-3534	C779 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R21
P-D	5905-923-3534	C782 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R31
P-D	5905-924-3317	C785 RESISTOR, FIXED, COMPOSITION: RC05GF152J (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1R27
P-D	5905-945-6957	C788 RESISTOR, FIXED, COMPOSITION: SAME AS A185	1, 2, 3	EA	1							REF	REF	5-17	1A5A1R4
P-D	5905-922-7216	C791 RESISTOR, FIXED, COMPOSITION: RC05GF332J (81349)	1, 2, 3	EA	2							10	4	5-17	1A5A1R13
P-D	5905-914-2089	C794 RESISTOR, FIXED, COMPOSITION: SAME AS A206	1, 2, 3	EA	1							REF	REF	5-17	1A5A1R11
P-D	5905-957-2009	C797 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1, 2, 3	EA	3							REF	REF	5-17	1A5A1R19
P-D	5905-957-2009	C800 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R20
P-D	5905-957-2009	C803 RESISTOR, FIXED, COMPOSITION: SAME AS A209	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R23
P-D	5905-922-7215	C806 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	6							REF	REF	5-17	1A5A1R1
P-D	5905-922-7215	C809 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R10

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO., OR REFERENCE DESIGNATION
P-D	5905-922-7215	C812 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R12
P-D	5905-922-7215	C815 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R14
P-D	5905-922-7215	C818 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R18
P-D	5905-922-7215	C821 RESISTOR, FIXED, COMPOSITION: SAME AS A152	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R28
P-D	5905-056-0372	C824 RESISTOR, VARIABLE: SAME AS C755	1, 2, 3	EA	1							REF	REF	5-17	1A5A1R22
P-D	5905-940-2667	C827 RESISTOR, FIXED, COMPOSITION: SAME AS B273	1, 2, 3	EA	1							REF	REF	5-17	1A5A1R30
P-D	5905-967-4676	C830 RESISTOR, FIXED, COMPOSITION: RC05GF333J (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1R16
P-D	5905-942-3023	C833 RESISTOR, FIXED, COMPOSITION: RC05GF514J (81349)	1, 2, 3	EA	1							5	2	5-17	1A5A1R26
P-D		C836 RESISTOR, VARIABLE: KB23J1 (15801)	1, 2, 3	EA	1							5	2	5-17	1A5A1R32
P-D	5905-897-2164	C839 RESISTOR, FIXED, COMPOSITION: RC05GF620J (81349)	1, 2, 3	EA	2							10	4	5-17	1A5A1R2
P-D	5905-897-2164	C842 RESISTOR, FIXED, COMPOSITION: SAME AS C839	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R33
P-D	5905-922-7216	C845 RESISTOR, FIXED, COMPOSITION: SAME AS C791	1, 2, 3	EA	REF							REF	REF	5-17	1A5A1R25
A-DR		C848 FILTER DEMODULATOR ASSEMBLY, AF: 78925-1 (10412)	1, 2, 3	EA	1									5-19	1A5A1A2
X1-D		C851 PRINTED WIRING BOARD: 78924-1 (10412)	1, 2, 3	EA	1										1A5A1A2C8
X2-D		C854 CAP, (VALUE SELECTED AT TEST): SCDM10-XXXJ (84171)	1, 2, 3	EA	1										1A5A1A2C9
P-D	5910-776-6928	C857 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	3							REF	REF	5-19	1A5A1A2C9
P-D	5910-776-6928	C860 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A2C10
P-D	5910-776-6928	C863 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A2C11
X2-D		C866 CAP, (VALUE SELECTED AT TEST): DM10-XXXJ (84171)	1, 2, 3	EA	6									5-19	1A5A1A2C4
X2-D		C869 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A2C5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-D		C872 P, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF								5-19	1A5A1A2C6
X2-D		C875 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF								5-19	1A5A1A2C7
X2-D		C878 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF								5-19	1A5A1A2C14
X2-D		C881 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF								5-19	1A5A1A2C15
P-D	5910-936-0530	C884 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	1						REF	REF	5-19	1A5A1A2C12
P-D	5910-936-4820	C887 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1, 2, 3	EA	1						REF	REF	5-19	1A5A1A2C13
P-D	5910-923-6066	C890 CAPACITOR: DM19-182G (84171)	1, 2, 3	EA	3						13	6	5-19	1A5A1A2C1
P-D	5910-923-6066	C893 CAPACITOR: SAME AS C890	1, 2, 3	EA	REF						REF	REF	5-19	1A5A1A2C2
P-D	5910-923-6066	C896 CAPACITOR: SAME AS C890	1, 2, 3	EA	REF						REF	REF	5-19	1A5A1A2C3
P-D	5950-789-9417	C899 INDUCTOR: 78993-1 (10412)	1, 2, 3	EA	3						30	18	5-19	1A5A1A2L1
P-D	5950-789-9417	C902 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF						REF	REF	5-19	1A5A1A2L2
P-D	5950-789-9417	C905 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF						REF	REF	5-19	1A5A1A2L3
X2-D	5950-875-1919	C908 COIL FORM: 55050A2 (90797)	1, 2, 3	EA	1									
P-D	5905-782-4108	C926 RESISTOR, FIXED, COMPOSITION: RC05GF472J (81349)	1, 2, 3	EA	1						33	20	5-19	1A5A1A2R5
P-D	5905-923-3534	C929 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	1						REF	REF	5-19	1A5A1A2R1
P-D	5905-951-4682	C932 RESISTOR, FIXED, COMPOSITION: RC05GF242J (81349)	1, 2, 3	EA	1						30	18	5-19	1A5A1A2R4
P-D	5905-922-7176	C935 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	2						REF	REF	5-19	1A5A1A2R3
P-D	5905-922-7176	C938 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	REF						REF	REF	5-19	1A5A1A2R6
P-D	5905-946-9103	C941 RESISTOR, FIXED, COMPOSITION: RC05GF154J (81349)	1, 2, 3	EA	1						13	6	5-19	1A5A1A2R2
P-D	5961-951-8757	C944 TRANSISTOR: SAME AS B804	1, 2, 3	EA	1						REF	REF	5-19	1A5A1A2Q2
P-D		C947 TRANSISTOR: 80055 (10412)	1, 2, 3	EA	1						13	6	5-19	1A5A1A2Q1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CHTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
A-D-R		C959 FILTER DEMODULATOR ASSEMBLY: 78925-3 (10412)	1, 2, 3	EA	1									5-19	1A5A1A3
X1-D		C962 PRINTED WIRING BOARD: SAME AS C851	1, 2, 3	EA	1										
X1-D		C965 CAP, (VALUE SELECTED AT TEST): SAME AS C854	1, 2, 3	EA	1									5-19	1A5A1A3C8
P-D	5910-776-6928	C968 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	3							REF	REF	5-19	1A5A1A3C9
P-D	5910-776-6928	C971 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3C10
P-D	5910-776-6928	C974 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3C11
X1-D		C977 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	6									5-19	1A5A1A3C4
X1-D		C980 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A3C5
X1-D		C983 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A3C6
X1-D		C986 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A3C7
X1-D		C989 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A3C14
X1-D		C992 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A3C15
P-D	5910-936-0530	C995 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3C12
P-D	5910-936-4820	C998 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3C13
P-D		D002 CAPACITOR: DM19-102G (84171)	1, 2, 3	EA	3							18	9	5-19	1A5A1A3C1
P-D		D005 CAPACITOR: SAME AS D002	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3C2
P-D		D008 CAPACITOR: SAME AS D002	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3C3
P-D	5950-789-9417	D011 INDUCTOR: SAME AS C899	1, 2, 3	EA	3							REF	REF	5-19	1A5A1A3L1
P-D	5950-789-9417	D014 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3L2
P-D	5950-789-9417	D017 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3L3
X2-D	5950-875-1919	D020 COIL FORM: SAME AS C908	1, 2, 3	EA	1									5-19	
P-D	5905-782-4108	D038 RESISTOR, FIXED, COMPOSITION: SAME AS C926	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3R5
P-D	5905-923-3534	D041 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3R1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D	5905-951-4682	D044 RESISTOR, FIXED, COMPOSITION: SAME AS C932	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3R4
P-D	5905-922-7176	D047 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	2							REF	REF	5-19	1A5A1A3R3
P-D	5905-922-7176	D050 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A3R6
P-D	5905-946-9103	D053 RESISTOR, FIXED, COMPOSITION: SAME AS C941	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3R2
P-D	5961-951-8757	D056 TRANSISTOR: SAME AS B804	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3Q2
P-D		D059 TRANSISTOR: SAME AS C947	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A3Q1
A-DR		D071 FILTER DEMODULATOR ASSEMBLY: 78925-5 (10412)	1, 2, 3	EA	1									5-19	1A5A1A4
X1-D		D074 PRINTED WIRING BOARD: SAME AS C851	1, 2, 3	EA	1										
X1-D		D077 CAP, (VALUE SELECTED AT TEST): SAME AS C854	1, 2, 3	EA	1										1A5A1A4C8
P-D	5910-776-6928	D080 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	3							REF	REF	5-19	1A5A1A4C9
P-D	5910-776-6928	D083 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4C10
P-D	5910-776-6928	D086 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS C104	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4C11
X1-D		D089 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	6									5-19	1A5A1A4C4
X1-D		D092 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A4C5
X1-D		D095 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A4C6
X1-D		D098 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A4C7
X1-D		D101 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A4C14
X1-D		D104 CAP, (VALUE SELECTED AT TEST): SAME AS C866	1, 2, 3	EA	REF									5-19	1A5A1A4C15
P-D	5910-936-0530	D107 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4C12
P-D	5910-936-4820	D110 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A235	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4C13
P-D		D113 CAPACITOR: DM19-561G (84171)	1, 2, 3	EA	3							13	6	5-19	1A5A1A4C1
P-D		D116 CAPACITOR: SAME AD D113	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4C2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-D		D119 CAPACITOR: SAME AS D113	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4C3
P-D	5950-789-9417	D122 INDUCTOR: SAME AS C899	1, 2, 3	EA	3							REF	REF	5-19	1A5A1A4L1
P-D	5950-789-9417	D125 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4L2
P-D	5950-789-9417	D128 INDUCTOR: SAME AS C899	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4L3
X2-D	5950-875-1919	D131 COIL FORM: SAME AS C908	1, 2, 3	EA	1										
P-D	5905-782-4108	D149 RESISTOR, FIXED, COMPOSITION: SAME AS C926	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4R5
P-D	5905-923-3534	D152 RESISTOR, FIXED, COMPOSITION: SAME AS B225	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4R1
P-D	5905-951-4682	D155 RESISTOR, FIXED, COMPOSITION: SAME AS C932	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4R4
P-D	5905-922-7176	D158 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	2							REF	REF	5-19	1A5A1A4R3
P-D	5905-922-7176	D161 RESISTOR, FIXED, COMPOSITION: SAME AS A128	1, 2, 3	EA	REF							REF	REF	5-19	1A5A1A4R6
P-D	5905-946-9103	D164 RESISTOR, FIXED, COMPOSITION: SAME AS C941	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4R2
P-D	5961-951-8757	D167 TRANSISTOR: SAME AS B804	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4Q2
P-D		D170 TRANSISTOR: SAME AS C947	1, 2, 3	EA	1							REF	REF	5-19	1A5A1A4Q1
A-D		D182 DISCRIMINATOR ASSEMBLY: 79084-1 (10412)	1, 2, 3	EA	1									5-18	1A5A1A1
X1-D		D185 PRINTED WIRING BOARD: 79083-1 (10412)	1, 2, 3	EA	1										
P-D	5935-105-7608	D188 PLUG: 3231-2 (71279)	1, 2, 3	EA	6							40	12		
P-D	5910-106-1304	D191 CAPACITOR: 1U22RK1 (93958)	1, 2, 3	EA	2							10	4	5-18	1A5A1A1C8
P-D	5910-106-1304	D194 CAPACITOR: SAME AS D191	1, 2, 3	EA	REF							REF	REF	5-18	1A5A1A1C9
P-D	5910-998-5446	D197 CAPACITOR: CM04FD221G03 (81349)	1, 2, 3	EA	2							10	4	5-18	1A5A1A1C6
P-D	5910-998-5446	D200 CAPACITOR: SAME AS D197	1, 2, 3	EA	REF							REF	REF	5-18	1A5A1A1C7
P-D		D203 CAPACITOR: DM10-301J (84171)	1, 2, 3	EA	2							10	4	5-18	1A5A1A1C10
P-D		D206 CAPACITOR: SAME AS D203	1, 2, 3	EA	REF							REF	REF	5-18	1A5A1A1C11
P-D	5910-951-2148	D209 CAPACITOR: DM15-501J (84171)	1, 2, 3	EA	1							5	2	5-18	1A5A1A1C2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS  USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					P-D	5910-936-0530	D212 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	4				
P-D	5910-936-0530	D215 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1C3
P-D	5910-936-0530	D218 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1C4
P-D	5910-936-0530	D221 CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A512	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1C5
P-D	5950-778-0866	D224 INDUCTOR: SAME AS C617	1, 2, 3	EA	1						REF	REF	5-18	1A5A1A1L1
P-D	5961-938-1135	D227 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	2						REF	REF	5-18	1A5A1A1CR1
P-D	5961-938-1135	D230 SEMICONDUCTOR DEVICE, DIODE: SAME AS A080	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1CR2
P-D	5962-010-6537	D233 INTEGRATED CIRCUIT: USD770339-717 (07263)	1, 2, 3	EA	1						5	2	5-18	1A5A1A1Z1
P-D	5961-954-6100	D236 TRANSISTOR: SAME AS C605	1, 2, 3	EA	1						REF	REF	5-18	1A5A1A1Q1
P-D	5950-789-9831	D239 TRANSFORMER: 78994-7 (10412)	1, 2, 3	EA	1						10	4	5-18	1A5A1A1T1
X1-D		D242 COIL FORM: SAME AS A768	1, 2, 3	EA	1									
P-D	5950-789-9837	D254 TRANSFORMER: 78994-9 (10412)	1, 2, 3	EA	2						10	4	5-18	1A5A1A1T2
P-D	5950-789-9837	D257 TRANSFORMER: SAME AD D254	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1T3
X1-D		D260 COIL FORM: SAME AS A768	1, 2, 3	EA	1									
P-D	5905-801-6998	D272 RESISTOR, FIXED, COMPOSITION: RC07GF621J (81349)	1, 2, 3	EA	1						5	2	5-18	1A5A1A1R1
P-D	5905-683-7723	D275 RESISTOR, FIXED, COMPOSITION: RC07GF152J (81349)	1, 2, 3	EA	1						5	2	5-18	1A5A1A1R4
P-D	5905-682-4097	D278 RESISTOR, FIXED, COMPOSITION: RC07GF302J (81349)	1, 2, 3	EA	2						5	2	5-18	1A5A1A1R5
P-D	5905-682-4097	D281 RESISTOR, FIXED, COMPOSITION: SAME AS D278	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1R6
P-D	5905-685-2238	D284 RESISTOR, FIXED, COMPOSITION: SAME AS B531	1, 2, 3	EA	2						REF	REF	5-18	1A5A1A1R2
P-D	5905-683-2238	D287 RESISTOR, FIXED, COMPOSITION: SAME AS B531	1, 2, 3	EA	REF						REF	REF	5-18	1A5A1A1R3
P-D	5905-831-6134	D290 RESISTOR, FIXED, COMPOSITION: RC07GF822J (81349)	1, 2, 3	EA	2						10	4	5-18	1A5A1A1R7



SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						1-20	21-50	51-100	1-20	21-50	51-100				
P-D	5905-831-6134	D293 RESISTOR, FIXED, COMPOSITION: SAME AS D290	1, 2, 3	EA	REF							REF	REF	5-18	1A5A1A1R8
X1-D		D302 BRACKET, TRANSFORMER MOUNTING: 79226-1 (10412)	1, 2, 3	EA	1										
X2-D		D320 SCREW, SHOULDER: SAME AS B617	1, 2, 3	EA	2										
X2-D		D323 COVER: 79004-1 (10412)	1, 2, 3	EA	1										
X2-D	5305-054-5649	D326 SCREW, MACHINE: SAME AS A537	1, 2, 3	EA	6										
X2-D	5305-054-5651	D329 SCREW, MACHINE: SAME AS A395	1, 2, 3	EA	6										
X1-D		D332 WASHER, FLAT: SAME AS A597	1, 2, 3	EA	12										
P-D	5935-723-6862	D335 CONNECTOR, PLUG, ELECTRICAL: SAME AS B602	1, 2, 3	EA	1							REF	REF		
M-D		D338 PLATE, DESIGNATION: 79228-1 (10412)	1	EA	1										
M-D		D339 PLATE, DESIGNATION: 79731-1 (10412)	2, 3	EA	1										
P-D	5935-935-2167	D341 CONNECTOR, RECEP- TACLE, ELEC: SAME AS B608	1, 2, 3	EA	1							REF	REF		
X2-D	5305-727-8833	D344 SCREW, MACHINE: MS51959-3 (96906)	1, 2, 3	EA	2										
X2-D	5310-043-4708	D347 WASHER, FLAT: SAME AS A259	1, 2, 3	EA	2										
X2-D	5310-812-4294	D350 NUT, PLAIN, HEXAGON: SAME AS B959	1, 2, 3	EA	2										
X2-D		D353 STANDOFF: SAME AS B620	1, 2, 3	EA	5										
X2-D		D358 NUT, NYLON: SAME AS B938	2, 3	EA	3										
X2-D		D361 NEOPRENE STRIP: SAME AS B968	1, 2, 3	EA	1										
PD-F-R		D370 HOUSING ASSEMBLY, REAR: 79106-1 (10412)	1	EA	1	*	*	*	*	*	*	4	1		1A8
X1-D		D371 PIN, GUIDE: 79072-1 (10412)	1												
A-DR		D372 CABLE ASSEMBLY: 79107-1 (10412)	1	EA	1										
X2-D	5305-054-5652	D373 SCREW, MACHINE: SAME AS A365	1	EA	2										
X2-D	5340-855-4402	D374 SPRING HELICAL COMPRESSION: SAME AS C007	1	EA	2										
X2-D	5310-616-3648	D375 WASHER, FLAT: NAS620-4L (80205)	1	EA	2										
X2-D		D376 NUT, PLAIN, HEXAGON: SAME AS C009	1	EA	2										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						X2-D		D377 SEELSKREW: 4-40NC2AX3-8 (97539)	1	EA	2				
X2-D	5310-933-8118	D378 WASHER, LOCK: SAME AS C002	1	EA	2										
X2-D	5310-208-3786	D379 NUT, PLAIN, HEXAGON: SAME AS A609	1	EA	2										
P-D	5935-177-3309	D380 CONNECTOR: DEH9P (71468)	1	EA	1						5	2			
P-D	5935-807-0160	D381 CONNECTOR: SAME AS C006	1	EA	1						REF	REF			
X2-D	6145-669-6704	D382 WIRE, ELECTRICAL: B22YELLOW (81349)	1	EA	FT										
X2-D	5970-088-2975	D383 INSULATION SLEEVING, ELECTRICAL: FIT221-1-8 (92174)	1	EA	1										
X1-D		D384 HOUSING, REAR: 78934-1 (10412)	1	EA	1										
X1-D		D385 SHELL: 78934-2 (10412)	1	EA	1										
X1-D		D386 END: 78934-3 (10412)	1	EA	1										
X2-D		D387 CATCH: 78968-1 (10412)	1	EA	1										
X1-D	5320-639-1079	D388 RIVET: MS2047ODD4-5 (96906)	1	EA	8										
M-D		D389 STRIKE: SAME AS A019	1	EA	4										
X2-D	5320-639-1079	D390 RIVET: SAME AS D388	1	EA	8										
X1-D		D391 BRACKET, CONNECTOR: 79000-1 (10412)	1	EA	1										
X1-F		D392 STUD, THREADED: 77-04-104-13 (94222)	1, 2, 3	EA	2										
P-D		D393 INSERT, MODULE: 79002-1 (10412)	1, 2, 3	EA	1						5	2			
X1-D		D394 SEELSKREW: 4-40UNC2AX1-4 (97539)	1	EA	3										
X2-D	5961-925-6511	D395 RETAINER, HEATSINK: SAME AS A454	1	EA	2										
P-O		D396 FUSE: FM101-1A (71400)	1	EA	1	4	11	20	6	5	5	242	200		
P-O		D397 FUSE: FM101-2A (71400)	1	EA	1	4	11	20	6	5	5	242	200		
M-D		D398 PLATE, DESIGNATION: 79244-1 (10412)	1	EA	1										
M-D		D399 PLATE, DESIGNATION: SAME AS A300	1	EA	1										
M-D		D400 PLATE, DESIGNATION: 79246-1 (10412)	1	EA	1										
X2-D	5330-180-9183	D401 GASKET: 79516-1 (10412)	1, 2, 3	EA	1										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION	
X1-F		D402	GASKET, RETAINER: 79517-1 (10412)	1	EA	1										
X2-F	8040-225-4548	D403	SEALANT: SAME AS A386	1	EA	1										
X2-F	8030-984-7535	D404	ADHESIVE: EC711 (04633)	1	EA	1										
M-D		D405	PLATE, IDENTIFICA- TION: 79215-1 (10412)	1	EA	1										
PD-F-R	5820-177-3010	D406	HOUSING ASSEMBLY, CENTER: 79668-1 (10412)	2, 3	EA	1	*	*	2	2	2	2	4	1	6-9	1A8
X1-D		D408	HOUSING, CENTER: 79666-1 (10412)	2, 3	EA	1										
X1-D		D410	SHELL: 79666-2 (10412)	2, 3	EA	1										
X1-D		D412	STRAP: 79666-3 (10412)	2, 3	EA	1										
X1-D		D414	PAD: 79666-4 (10412)	2, 3	EA	4										
X1-D		D416	DOUBLER: 79666-5 (10412)	2, 3	EA	1										
X1-D		D420	BRACKET, CONNECTOR: 79667-1 (10412)	2, 3	EA	1										
X1-D		D422	STRIKE: 79678-3 (10412)	2, 3	EA	4										
X2-D	5305-054-5646	D424	SCREW, MACHINE: SAME AS A065	2, 3	EA	8										
X2-D	5310-042-9609	D426	WASHER, LOCK: SAME AS A371	2, 3	EA	8										
P-D		D428	CATCH: 79678-2 (10412)	2, 3	EA	4						10	4			
X2-D	5305-054-5646	D430	SCREW, MACHINE: SAME AS A065	2, 3	EA	8										
X2-D	5310-042-9609	D432	WASHER, LOCK: SAME AS A371	2, 3	EA	8										
X2-D		D434	INSERT, SCREW THREAD: SAME AS C031	2, 3	EA	16										
X1-D		D436	PAD: 79666-6 (10412)	2, 3	EA	4										
X1-D		D438	SHELL, BOTTOM: 79666-7 (10412)	2, 3	EA	1										
X1-D		D440	PLATE RETAINER ASSEMBLY: 79682-1 (10412)	2, 3	EA	1										
X1-D		D442	PLATE RETAINER: 79679-1 (10412)	2, 3	EA	1										
X2-D	5340-826-4023	D444	INSERT, SCREW THREAD: SAME AS A582	2, 3	EA	11										
P-D	5935-177-3307	D446	BATTERY CONNECTOR ASSEMBLY: 79671-1 (10412)	2, 3	EA	1						19	10			

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X2-D	5305-054-5648	D448 SCREW, MACHINE: SAME AS A591	2, 3	EA	4											
X2-D		D450 WASHER, LOCK: MS35340-2 (96906)	2, 3	EA	4											
X2-F	5310-595-6211	D452 WASHER, FLAT: MS15795-803 (96906)	2, 3	EA	4											
X1-D		D454 HOUSING, SOCKET: 79662-1 (10412)	2, 3	EA	1											
X1-D		D456 WAFER, SOCKET: 79662-3 (10412)	2, 3	EA	1											
X1-D		D458 PIN, INDEXING: 79664-1 (10412)	2, 3	EA	1											
X2-D	5310-834-5100	D460 NUT, PLAIN, HEXAGON: NAS671B4 (80205)	2, 3	EA	1											
X2-D	5310-543-2410	D462 WASHER, LOCK: MS35338-40 (96906)	2, 3	EA	1											
X2-D	5310-616-3648	D464 WASHER, FLAT: SAME AS D375	2, 3	EA	1											
P-D		D466 PIN, CONNECTOR: 79665-1 (10412)	2, 3	EA	4							16	8			
X2-D	5310-722-5400	D468 NUT, PLAIN, HEXAGON: NAS671B2 (80205)	2, 3	EA	4											
X2-D	5310-543-2410	D470 WASHER, LOCK: SAME AS D462	2, 3	EA	4											
X2-D	5310-616-6791	D472 WASHER, FLAT: NAS620-2 (80205)	2, 3	EA	4											
X2-D		D474 PIN, GUIDE: SAME AS A302	2, 3	EA	2											
X2-D	5305-770-2533	D476 SCREW, MACHINE: SAME AS A309	2, 3	EA	2											
X1-D		D478 BRACKET, BATTERY: 79677-1 (10412)	2, 3	EA	1											
X2-D	5305-054-5647	D480 SCREW, MACHINE: MS51957-13 (96906)	2, 3	EA	2											
X2-D		D482 WASHER, LOCK: SAME AS D450	2, 3	EA	2											
X2-D	5310-595-6211	D484 WASHER, FLAT: SAME AS D452	2, 3	EA	2											
A-D-R		D486 CONNECTOR ASSEMBLY: 79663-1 (10412)	2, 3	EA	1											
X1-D		D488 SEELSKREW: 4-40-1-4TYPER (97539)	2, 3	EA	6											
X2-D	5305-543-2767	D490 SCREW, MACHINE: MS35233-18 (96906)	2, 3	EA	2											
X2-D	5340-855-4402	D492 SPRING, HELICAL COMPRESSION: SAME AS C007	2, 3	EA	2											
X2-D	5310-723-9676	D494 WASHER, FLAT: SAME AS A597	2, 3	EA	2											
X2-D		D496 NUT, PLAIN, HEXAGON: SAME AS C009	2, 3	EA	2											

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTSCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X1-D		D498 MOUNTING PLATE, CONNECTOR: 79676-1 (10412)	2, 3	EA	1											
M-D		D500 PLATE: 79676-11 (10412)	2, 3	EA	1											
X2-D	5310-827-9286	D502 NUT, CLINCH: 79NCFMA2-40 (72962)	2, 3	EA	6											
P-D	5935-807-0160	D504 CONNECTOR, RECEPTACLE: SAME AS C006	2, 3	EA	1							REF	REF	6-9	1A8J4	
P-D	5935-177-3308	D506 CONNECTOR, PLUG: DEH9P101 (71468)	2, 3	EA	1							5	2	6-9	1A8P3	
P-D	5910-802-7432	D508 CAPACITOR: FA5C102W (01121)	2, 3	EA	4							16	8	6-9	1A8C1	
P-D	5910-802-7432	D510 CAPACITOR: SAME AS D508	2, 3	EA	REF							REF	REF	6-9	1A8C2	
P-D	5910-802-7432	D512 CAPACITOR: SAME AS D508	2, 3	EA	REF							REF	REF	6-9	1A8C3	
P-D	5910-802-7432	D514 CAPACITOR: SAME AS D508	2, 3	EA	REF							REF	REF	6-9	1A8C4	
P-D	5310-877-1641	D516 WASHER, SOLDER: M6447 (01121)	2, 3	EA	4							16	8			
X2-D		D518 GASKET, CONNECTOR: 79815-1 (10412)	2, 3	EA	1											
X2-D	5970-088-2975	D527 INSULATION SLEEVING, ELECTRICAL: SAME AS D383	3	EA	1											
X2-D		D534 SPACER, BATTERY: 79738-1 (10412)	2, 3	EA	2											
P-F	5960-886-1686	D536 CLIP, FUSE: TXBP032-037B (98978)	2, 3	EA	2	*	*	2	2	2	2	10	4			
P-O	5920-901-9938	D538 FUSE: SAME AS A445	2, 3	EA	1	REF	REF	REF	REF	REF	REF	REF	REF			
M-D		D540 PLATE, IDENTIFICATION: 79745-1 (10412)	2, 3	EA	1											
P-O	6140-935-8764	D546 BATTERY ASSY BB-668( )/U: 79661-1 (10412)	2, 3	EA	1											
X1-F		D548 BATTERY PACK: SAME AS B986	2, 3	EA	1											
X1-F		D550 SOCKET ASSY, BATTERY: 79685-1 (10412)	2, 3	EA	1											
X1-F		D552 WAFER, TOP: 79685-2 (10412)	2, 3	EA	1											
X1-F		D554 SOCKET: 6K5 (71785)	2, 3	EA	1											
X1-F		D556 EYELET: 7601D (15849)	2, 3	EA	3											
M-D		D558 PLATE, IDENTIFICATION: 79725-1 (10412)	2, 3	EA	1											
P-F	5820-791-1504	D568 INDICATOR ASSY DIGITAL DISPLAY: 79088-1 (10412)	1	EA	1	*	*	2	*	2	2	13	3		1A2	

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
						1-20	21-50	51-100	1-20	21-50	51-100				
P-F	5820-177-2996	D569 INDICATOR ASSY DIGITAL DISPLAY: 79088-2 (10412)	2, 3	EA	1	*	*	2	*	2	2	13	3		1A2
X1-D		D571 HOUSING, INDICATOR: 78970-1 (10412)	1	EA	1										
X1-D		D572 HOUSING, INDICATOR: 78970-2 (10412)	2, 3	EA	1										
X1-D		D574 COVER, INDICATOR: 78971-1 (10412)	1	EA	1										
X1-D		D575 COVER ASSEMBLY, DIGITAL DISPLAY: 79681-1 (10412)	2, 3	EA	1										
X1-D		D577 COVER, INDICATOR: 79656-1 (10412)	2, 3	EA	1										
X1-D		D579 GASKET: 79657-1 (10412)	2, 3	EA	1										
X1-D		D583 SCREW, CAPTIVE: 78998-1 (10412)	1, 2, 3	EA	2										
P-O		D586 KNOB: 78999-1 (10412)	1, 2, 3	EA	2	*	*	*	*	*	2	19	8		
P-O	5305-576-1215	D589 SETSCREW: AN565BC2H3 (88044)	1, 2, 3	EA	2	*	*	2	*	*	2	10	4		
X1-D		D592 BRACKET, DISPLAY: 78987-1 (10412)	1, 2, 3	EA	2										
X1-F		D595 FILTER, LIGHT: 78974-1 (10412)	1, 2, 3	EA	1										
P-O		D598 LIGHT, INDICATOR: 501-60K10K1CP (27697)	1, 2, 3	EA	1	*	*	2	*	2	2	10	5		
X1-F		D601 LIGHT, DIGITAL: 06-30 (28564)	1	EA	2										
P-O	6240-105-3098	D604 LAMP, INCANDESCENT: W1-30T1PB01F (27697)	1, 2, 3	EA	1	*	2	2	*	2	2	19	10		
X1-F		D607 CONNECTOR: DADH15P202-1 (71468)	1, 2, 3	EA	1										
X2-F	5305-770-2533	D610 SCREW, MACHINE: SAME AS A309	1, 2, 3	EA	2										
X1-D		D613 WASHER, FLAT: 5606-4-16 (86928)	1, 2, 3	EA	2										
X1-D		D640 TUBE CONTAINER: 79928-1 (10412)	2, 3	EA	1										
M-D		D642 PLATE, IDENTIFICATION: 79187-1 (10412)	1	EA	1										
X2-D	5305-054-5636	D643 SCREW, MACHINE: SAME AS A256	1	EA	2										
P-FR		D644 EXTENSION, READ OUT: 79500-1 (10412)	1	EA	1	*	2	2	*	2	2	16	10		
X2-F		D645 STANDOFF: 79102-1 (10412)	1	EA	2										
X2-F	5305-639-4777	D646 SCREW, MACHINE: MS35233-27 (96906)	1	EA	2										
X2-F	5310-929-6395	D647 WASHER, LOCK: MS35338-136 (96906)	1	EA	2										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) S/R CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		D648 HOUSING, INDICATOR: 79501-1 (10412)	1	EA	1										
X1-F		D649 HOUSING, CONNECTOR: 79502-1 (10412)	1	EA	1										
X1-F		D650 COVER, INDICATOR: 79101-1 (10412)	1	EA	1										
X2-F	5305-770-2533	D651 SCREW, MACHINE: SAME AS A309	1	EA	2										
X2-F		D652 NUT, PLAIN, HEXAGON: SAME AS C009	1	EA	2										
X1-F		D653 COVER, CONNECTOR: 79504-1 (10412)	1	EA	1										
X2-F	5305-550-5002	D654 SCREW, MACHINE: MS35233-13 (96906)	1	EA	2										
X2-F		D655 SCREW, CAPTIVE: 78998-3 (10412)	1	EA	2										
P-O		D656 KNOB: SAME AS D586	1	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P-O		D657 SETSCREW: AN565EC2H2 (88044)	1	EA	2	*	*	*	*	*	*	12	6		
X2-F		D658 WASHER, FLAT: SAME AS D613	1	EA	2										
X1-F		D659 BRACKET, COVER: 79503-1 (10412)	1	EA	4										
P-F	5305-763-6962	D660 SCREW, MACHINE: MS51959-27 (96906)	1	EA	4	*	*	*	*	*	2	10	4		
X2-F	5310-929-6395	D661 WASHER, LOCK: SAME AS D647	1	EA	4										
X2-F	5310-616-8660	D662 NUT, HEXAGON: NAS671C6 (80205)	1	EA	4										
X1-F		D663 CORD GRIP: 112 (94124)	1	EA	2										
P-F	6145-128-2260	D664 CABLE: 8458 (70903)	1	EA	1	6	16	29	9	8	7	322	300		
P-F		D665 CONNECTOR: DADH-15P102-1 (71468)	1	EA	1	*	*	2	*	2	2	10	5		
P-F	5935-942-3900	D666 CONNECTOR: DAD15SA (71468)	1	EA	1	*	*	*	*	*	*	5	2		
X2-F		D667 BUSHING: AN3420-6A (10412)	1	EA	2										
X2-D		D668 COMPOUND, ENCAP- SULATING: TM18STD (12405)	1	EA	1										
X1-F		D669 COVER, ANTENNA: 11869 (71602)	1, 2, 3	EA	1										
X2-F		D672 HARNESS: 11870 (71602)	1, 2, 3	EA	1										
P-F		D675 ANTENNA ASSEMBLY, SHORT WHIP: 79392-1 (10412)	1	EA	1	*	*	2	*	2	2	10	5		
P-F		D676 ANTENNA ELEMENT, FLEXIBLE WHIP: 79143-1 (10412)	1, 2, 3	EA	1	*	*	*	*	*	2	12	6		

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION  REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X1-F		D677 ADAPTER CONNECTOR ASSEMBLY: 79174-1 (10412)	1	EA	1											
X2-F		D678 GASKET, CONNECTOR: 78989-1 (10412)	1	EA	1											
X1-F		D679 ADAPTER: 3917AB0PSAE2 (15536)	1	EA	1											
P-O	6810-987-4126	D680 GREASE, HIGH VACUUM: NONUMBER (21752)	1	EA	1	*	*	2	*	*	2	10	4			
P-O	5965-177-1607	D683 HEAD SET: H139GR (80058)	2, 3	EA	1	*	*	*	*	*	*	5	2			
P-F		D685 ANTENNA ASSEMBLY, TACTICAL: 79145-1 (10412)	1	EA	1	*	*	2	*	2	2	10	5			
P-F		D686 ANTENNA ASSEMBLY, TACTICAL: 79145-2 (10412)	2, 3	EA	1	*	*	2	*	2	2	10	5			
X1-F		D688 BASE, ANTENNA: 79142-1 (10412)	1, 2, 3	EA	1											
X1-F		D691 ANTENNA SECTION, TELESCOPING: 79144-1 (10412)	1, 2, 3	EA	1											
X1-F		D694 CONTACT BUSHING, ANTENNA: 79359-1 (10412)	1, 2, 3	EA	1											
X2-F	5305-054-6654	D697 SCREW, MACHINE: MS51957-30 (96906)	1, 2, 3	EA	1											
X1-F		D701 FITTING, BASE TELESCOPING: 3921BA0PSAE10 (15536)	1, 2, 3	EA	1											
X1-F		D704 SPACER, ANTENNA: 79572-1 (10412)	1, 2, 3	EA	1											
X1-F		D707 ADAPTER, CONNECTOR: 3917AB0PSAE10 (15536)	1, 2, 3	EA	1											
X2-F	5310-011-5549	D710 WASHER, LOCK: MS35333-8 (96906)	1, 2, 3	EA	2											



SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
MONITOR SET, RADIO FREQUENCY AN/USQ-42, AN/USQ-42A, AN/USQ-42B			5905-686-9998	5-24	1A3A1R35
5820-177-2996		1A2	5905-686-9998	5-24	1A3A1R37
5820-177-3007		1A3	5905-686-9998	5-24	1A3A1R40
5820-177-3008		1A4	5905-686-9998	5-24	1A3A1R41
5820-177-3009	3-2	1A6	5905-686-9998	5-24	1A3A1R42
5820-177-3010	6-9	1A8	5905-686-9998	5-24	1A3A1R43
5820-177-3011		1A5	5905-686-9998	5-25	1A3A2R16
5820-779-2961	5-17	1A5	5905-686-9998	5-25	1A3A2R36
5820-779-3258	3-2	1A6	5905-686-9998	5-25	1A3A2R38
5820-791-1504		1A2	5905-686-9998	5-25	1A3A2R39
5905-056-0372	5-17	1A5A1R22	5905-686-9998	5-15	1A6A2R7
5905-056-0372	5-17	1A5A1R29	5905-688-3738	5-25	1A4A2R13
5905-060-3796	4-4	1A1A1A2TB2R1	5905-691-0195	5-15	1A6A2R13
5905-060-3796	5-21	1A4A2R25	5905-721-1488	5-15	1A6A2R10
5905-060-3796	5-21	1A4A2R26	5905-721-1488	5-15	1A6A2R12
5905-060-3796	5-21	1A4A2R27	5905-723-5251	5-21	1A4A2R20
5905-060-3796	5-21	1A4A2R28	5905-723-5251	5-21	1A4A2R22
5905-106-1391	4-2	1A1R1	5905-723-5251	5-21	1A4A2R24
5905-577-0436		1A1R4	5905-726-4413	5-25	1A3A2R14
5905-681-6462	5-25	1A3A2R1	5905-782-4103	4-3	1A1A1A1TB1R4
5905-681-6462	5-25	1A3A2R7	5905-782-4103	4-3	1A1A1A1TB1R9
5905-681-6462	5-25	1A3A2R8	5905-782-4103	4-3	1A1A1A1TB1R14
5905-681-6462	5-25	1A3A2R9	5905-782-4103	4-3	1A1A1A1TB1R19
5905-681-8818	4-4	1A1A1A2TB2R2	5905-782-4107	5-17	1A5A1R7
5905-681-8818	5-25	1A3A2R2	5905-782-4107	5-14	1A6A1R33
5905-681-8818	5-25	1A3A2R3	5905-782-4107	5-14	1A6A1R39
5905-681-8818	5-25	1A3A2R4	5905-782-4107	5-14	1A6A1R42
5905-681-8818	5-25	1A3A2R5	5905-782-4108	5-19	1A5A1A2R5
5905-681-8818	5-25	1A3A2R18	5905-782-4108	5-19	1A5A1A3R5
5905-681-8818	5-22	1A4A1R30	5905-782-4108	5-19	1A5A1A4R5
5905-681-9969	5-15	1A6A2R9	5905-782-4109	4-3	1A1A1A1TB1R5
5905-682-4097	5-18	1A5A1A1R5	5905-782-4109	5-15	1A6A2R11
5905-682-4097	5-18	1A5A1A1R6	5905-801-2377	5-18	1A5A1A1R1
5905-682-4098	5-25	1A3A2R12	5905-801-6998	5-18	1A3A2R6
5905-682-4107	5-25	1A3A2R11	5905-817-7971	5-25	1A3A2R10
5905-683-2238	5-18	1A5A1A1R2	5905-825-5592	5-25	1A5A1A1R7
5905-683-2238	5-18	1A5A1A1R3	5905-831-6134	5-18	1A5A1A1R8
5905-683-2238	5-15	1A6A2R8	5905-831-6134	5-18	1A1R3
5905-683-2246	5-25	1A3A2R15	5905-890-2725	4-2	1A6A1R10
5905-683-2246	5-25	1A3A2R17	5905-897-2159	5-14	1A6A1R11
5905-683-2246	5-15	1A6A2R1	5905-897-2159	5-14	1A6A1R17
5905-683-2246	5-15	1A6A2R2	5905-897-2159	5-14	1A6A1R12
5905-683-2246	5-15	1A6A2R4	5905-897-2160	5-14	1A6A1R13
5905-683-2246	5-15	1A6A2R5	5905-897-2160	5-14	1A6A1R14
5905-683-7721	4-2	1A1A1R29	5905-897-2160	5-14	1A6A1R15
5905-683-7721	4-2	1A1A1R30	5905-897-2160	5-14	1A6A1R18
5905-683-7721	5-22	1A4A1R45	5905-897-2164	5-17	1A5A1R2
5905-683-7721	5-15	1A6A2R6	5905-897-2164	5-17	1A5A1R33
5905-683-7723	5-18	1A5A1A1R4	5905-912-2815	4-3	1A1A1A1TB1R2
5905-686-3129	5-22	1A4A1R31	5905-912-2815	4-3	1A1A1A1TB1R11
5905-686-3129	5-21	1A4A2R19	5905-912-2815	4-3	1A1A1A1TB1R13
5905-686-3129	5-21	1A4A2R21	5905-912-2815	4-3	1A1A1A1TB1R16
5905-686-3129	5-21	1A4A2R23	5905-914-2088	4-3	1A1A1A1TB1R10
5905-686-3798	5-24	1A3A1R32	5905-914-2088	4-3	1A1A1A1TB1R17
5905-686-3798	5-24	1A3A1R34	5905-914-2088	4-3	1A6A1R2
5905-686-9993	5-25	1A3A2R44	5905-914-2088	5-14	1A6A1R3
5905-686-9994	5-15	1A6A2R3	5905-914-2088	5-14	1A1A1A1TB1R18
5905-686-9998		1A1R4	5905-914-2089	4-3	1A5A1R11
5905-686-9998	5-24	1A3A1R33	5905-914-2089	5-17	1A5A1R5
			5905-914-2151	5-17	1A1A1A1TB1R29
			5905-915-0981	4-3	1A1A1A1TB1R21
			5905-915-0984	4-3	1A6A2R14
			5905-917-5092	5-15	

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5905-917-5526	4-3	1A1A1A1TB1R7	5905-946-9103	5-19	1A5A1A3R2
5905-917-5526	5-14	1A6A1R4	5905-946-9103	5-19	1A5A1A4R2
5905-922-7176	4-3	1A1A1A1TB1R1	5905-947-7840	5-17	1A5A1R3
5905-922-7176	4-3	1A1A1A1TB1R20	5905-947-7840	5-17	1A5A1R6
5905-922-7176	4-3	1A1A1A1TB1R28	5905-947-7840	5-17	1A5A1R8
5905-922-7176	5-19	1A5A1A2R3	5905-947-7840	5-17	1A5A1R17
5905-922-7176	5-19	1A5A1A2R6	5905-948-2391	4-3	1A1A1A1TB1R15
5905-922-7176	5-19	1A5A1A3R3	5905-948-2391	4-3	1A1A1A1TB1R23
5905-922-7176	5-19	1A5A1A3R6	5905-948-2393	4-3	1A1A1A1TB1R3
5905-922-7176	5-19	1A5A1A4R3	5905-951-4682	5-19	1A5A1A2R4
5905-922-7176	5-19	1A5A1A4R6	5905-951-4682	5-19	1A5A1A3R4
5905-922-7176	5-14	1A6A1R26	5905-951-4682	5-19	1A5A1A4R4
5905-922-7176	5-14	1A6A1R27	5905-952-5156		1A1A1A1TB1R22
5905-922-7176	5-14	1A6A1R28	5905-957-2007	4-3	1A1A1A1TB1R24
5905-922-7176	5-14	1A6A1R29	5905-957-2007	4-3	1A1A1A1TB1R25
5905-922-7215	4-3	1A1A1A1TB1R6	5905-957-2009	4-3	1A1A1A1TB1R27
5905-922-7215	4-3	1A1A1A1TB1R26	5905-957-2009	5-17	1A5A1R19
5905-922-7215	5-17	1A5A1R1	5905-957-2009	5-17	1A5A1R20
5905-922-7215	5-17	1A5A1R10	5905-957-2009	5-17	1A5A1R23
5905-922-7215	5-17	1A5A1R12	5905-957-2009	5-14	1A6A1R19
5905-922-7215	5-17	A15A1R14	5905-957-2009	5-14	1A6A1R20
5905-922-7215	5-17	1A5A1R18	5905-957-2009	5-14	1A6A1R30
5905-922-7215	5-17	1A5A1R28	5905-957-2009	5-14	1A6A1R31
5905-922-7215	5-14	1A6A1R21	5905-957-2009	5-14	1A6A1R38
5905-922-7215	5-14	1A6A1R22	5905-967-4676	5-17	1A5A1R16
5905-922-7215	5-14	1A6A1R32	5905-978-7455	4-2	1A1R2
5905-922-7215	5-14	1A6A1R34	5910-051-4610	5-14	1A6A1C41
5905-922-7215	5-14	1A6A1R41	5910-057-0920	5-14	1A6A1C44
5905-922-7216	5-17	1A5A1R13	5910-057-0920	5-14	1A6A1C48
5905-922-7216	5-17	1A5A1R25	5910-057-0920	5-14	1A6A1C56
5905-923-3534	5-17	1A5A1R9	5910-057-0920	5-15	1A6A2C2
5905-923-3534	5-17	1A5A1R15	5910-057-0920	5-15	1A6A2C4
5905-923-3534	5-17	1A5A1R21	5910-057-0920	5-15	1A6A2C14
5905-923-3534	5-17	1A5A1R31	5910-057-0920	5-15	1A6A2C16
5905-923-3534	5-19	1A5A1A2R1	5910-067-4408	5-14	1A6A1C6
5905-923-3534	5-19	1A5A1A3R1	5910-082-4926	5-17	1A5A1C36
5905-923-3534	5-19	1A5A1A4R1	5910-105-7573		1A4A2C9
5905-923-3534	5-14	1A6A1R23	5910-105-7660	5-15	1A6A2C1
5905-923-3534	5-14	1A6A1R24	5910-105-7660	5-15	1A6A2C5
5905-923-3534	5-14	1A6A1R35	5910-105-7660	5-15	1A6A2C13
5905-923-3534	5-17	1A5A1R27	5910-105-7660	5-15	1A6A2C17
5905-926-8466	5-14	1A6A1R5	5910-106-1304	5-18	1A5A1A1C8
5905-926-8466	5-14	1A6A1R6	5910-106-1304	5-18	1A5A1A1C9
5905-926-8466	5-14	1A6A1R7	5910-577-3281	5-17	1A5A1C32
5905-926-8466	5-14	1A6A1R8	5910-760-6877	5-15	1A6A2C22
5905-926-8466	5-14	1A6A1R9	5910-776-6928	5-25	1A3A2C23
5905-926-8466	5-14	1A6A1R16	5910-776-6928	5-17	1A5A1C27
5905-931-0744	5-14	1A6A1R40	5910-776-6928	5-19	1A5A1A2C9
5905-931-4125	5-17	1A5A1R24	5910-776-6928	5-19	1A5A1A2C10
5905-939-3902	5-14	1A6A1R25	5910-776-6928	5-19	1A5A1A2C11
5905-940-2667	5-17	1A5A1R30	5910-776-6928	5-19	1A5A1A3C9
5905-940-2667	5-14	1A6A1R36	5910-776-6928	5-19	1A5A1A3C10
5905-940-2667	5-14	1A6A1R37	5910-776-6928	5-19	1A5A1A3C11
5905-940-2667	5-14	1A6A1R43	5910-776-6928	5-19	1A5A1A4C9
5905-940-2667	5-14	1A6A1R44	5910-776-6928	5-19	1A5A1A4C10
5905-942-3023	5-17	1A5A1R26	5910-776-6928	5-19	1A5A1A4C11
5905-942-3744	4-3	1A1A1A1TB1R15	5910-782-1973	5-25	1A3A2C1
5905-945-6957	4-3	1A1A1A1TB1R12	5910-782-1973	5-17	1A5A1C31
5905-945-6957	5-17	1A5A1R4	5910-782-1973	5-17	1A5A1C33
5905-946-6352	4-3	1A1A1A1TB1R8	5910-782-8262	5-21	1A4A2C12
5905-946-9103	5-19	1A5A1A2R2	5910-783-9403	5-25	1A3A2C3

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5910-783-9403	5-22	1A4A1C21	5910-936-0530	5-17	1A5A1C9
5910-783-9403	5-21	1A4A2C7	5910-936-0530	5-17	1A5A1C10
5910-784-6038	5-21	1A4A2C11	5910-936-0530	5-17	1A5A1C11
5910-786-9202	5-17	1A5A1C35	5910-936-0530	5-17	1A5A1C14
5910-795-2127	5-14	1A6A1C35	5910-936-0530	5-17	1A5A1C15
5910-802-7432	6-9	1A8C1	5910-936-0530	5-17	1A5A1C16
5910-802-7432	6-9	1A8C2	5910-936-0530	5-17	1A5A1C17
5910-802-7432	6-9	1A8C3	5910-936-0530	5-17	1A5A1C19
5910-802-7432	6-9	1A8C4	5910-936-0530	5-17	1A5A1C20
5910-834-9437	5-14	1A6A1C33	5910-936-0530	5-17	1A5A1C21
5910-834-9437	5-14	1A6A1C37	5910-936-0530	5-17	1A5A1C22
5910-835-6797	5-25	1A3A2C2	5910-936-0530	5-17	1A5A1C24
5910-835-6797	5-14	1A6A1C24	5910-936-0530	5-17	1A5A1C25
5910-835-6797	5-14	1A6A1C25	5910-936-0530	5-17	1A5A1C26
5910-835-6797	5-14	1A6A1C26	5910-936-0530	5-17	1A5A1C29
5910-835-6797	5-14	1A6A1C27	5910-936-0530	5-18	1A5A1A1C1
5910-835-6797	5-14	1A6A1C42	5910-936-0530	5-18	1A5A1A1C3
5910-835-6797	5-14	1A6A1C45	5910-936-0530	5-18	1A5A1A1C4
5910-835-6797	5-14	1A6A1C46	5910-936-0530	5-18	1A5A1A1C5
5910-835-6797	5-14	1A6A1C47	5910-936-0530	5-19	1A5A1A2C12
5910-835-6797	5-14	1A6A1C50	5910-936-0530	5-19	1A5A1A3C12
5910-835-6797	5-14	1A6A1C54	5910-936-0530	5-19	1A5A1A4C12
5910-835-6797	5-14	1A6A1C55	5910-936-0530	5-14	1A6A1C1
5910-835-6797	5-14	1A6A1C58	5910-936-0530	5-14	1A6A1C5
5910-835-6797	5-14	1A6A1C59	5910-936-0530	5-14	1A6A1C7
5910-835-6797	5-14	1A6A1C63	5910-936-0530	5-14	1A6A1C13
5910-835-6797	5-15	1A6A2C6	5910-936-0530	5-14	1A6A1C15
5910-835-6797	5-15	1A6A2C7	5910-936-0530	5-14	1A6A1C17
5910-835-6797	5-15	1A6A2C9	5910-936-0530	5-14	1A6A1C23
5910-835-6797	5-15	1A6A2C10	5910-936-0530	5-14	1A6A1C28
5910-835-6797	5-15	1A6A2C11	5910-936-0530	5-14	1A6A1C32
5910-835-6797	5-15	1A6A2C12	5910-936-0530	5-14	1A6A1C40
5910-835-6797	5-15	1A6A2C18	5910-936-0530	5-14	1A6A1C43
5910-835-6797	5-15	1A6A2C19	5910-936-0530	5-15	1A6A2C23
5910-835-6797	5-15	1A6A2C21	5910-936-0530	5-15	1A6A2C24
5910-880-5434	5-21	1A4A2C8	5910-936-0530	5-15	1A6A2C25
5910-880-5434	5-21	1A4A2C10	5910-936-4820	4-4	1A1A1A2TB2C1
5910-880-5434	5-21	1A4A2C13	5910-936-4820	5-25	1A3A2C22
5910-880-5434	5-21	1A4A2C14	5910-936-4820	5-22	1A4A1C20
5910-880-5434	5-21	1A4A2C15	5910-936-4820	5-21	1A4A2C4
5910-891-7265	5-14	1A6A1C16	5910-936-4820	5-21	1A4A2C5
5910-902-3662	5-17	1A5A1C30	5910-936-4820	5-21	1A4A2C6
5910-905-8414	5-17	1A5A1C2	5910-936-4820	5-19	1A5A1A2C13
5910-905-8414	5-17	1A5A1C7	5910-936-4820	5-19	1A5A1A3C13
5910-905-8414	5-17	1A5A1C13	5910-936-4820	5-19	1A5A1A4C13
5910-905-8414	5-17	1A5A1C18	5910-951-2148	5-18	1A5A1A1C2
5910-905-8414	5-17	1A5A1C23	5910-954-5496	5-14	1A6A1C34
5910-923-6066	5-19	1A5A1A2C1	5910-954-5496	5-14	1A6A1C36
5910-923-6066	5-19	1A5A1A2C2	5910-954-5496	5-14	1A6A1C38
5910-923-6066	5-19	1A5A1A2C3	5910-954-5496	5-14	1A6A1C39
5910-936-0530		1A1C1	5910-954-5496	5-14	1A6A1C49
5910-936-0530	5-22	1A4A1C17	5910-954-5496	5-14	1A6A1C51
5910-936-0530	5-22	1A4A1C18	5910-954-5496	5-14	1A6A1C53
5910-936-0530	5-22	1A4A1C19	5910-954-5496	5-14	1A6A1C57
5910-936-0530	5-21	1A4A2C16	5910-954-5496	5-14	1A6A1C60
5910-936-0530	5-17	1A5A1C1	5910-964-6506	5-14	1A6A1C62
5910-936-0530	5-17	1A5A1C3	5910-998-5446	5-18	1A5A1A1C6
5910-936-0530	5-17	1A5A1C4	5910-998-5446	5-18	1A5A1A1C7
5910-936-0530	5-17	1A5A1C5	5915-789-7158	5-14	1A6A1FL1
5910-936-0530	5-17	1A5A1C6	5920-054-0173		1A1F1
5910-936-0530	5-17	1A5A1C8	5920-785-5471	4-2	1A1XF1

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5920-785-5471	4-2	1A1XF2	5950-789-9381	5-14	1A6A1L29
5920-901-9938		1A1F2	5950-789-9382	5-14	1A6A1L25
5930-105-5547	4-2	1A1S7	5950-789-9382	5-14	1A6A1L28
5930-105-5548	4-2	1A1S5	5950-789-9417	5-19	1A5A1A2L1
5930-615-6816	4-2	1A1S3	5950-789-9417	5-19	1A5A1A2L2
5930-615-6816	4-2	1A1S4	5950-789-9417	5-19	1A5A1A2L3
5930-791-1778	4-2	1A1S1	5950-789-9417	5-19	1A5A1A3L1
5930-791-1779	4-2	1A1S2	5950-789-9417	5-19	1A5A1A3L2
5935-061-1821	4-2	1A1P4	5950-789-9417	5-19	1A5A1A3L3
5935-105-5523	4-2	1A1A1P8	5950-789-9417	5-19	1A5A1A4L1
5935-105-5523	4-2	1A1A1P10	5950-789-9417	5-19	1A5A1A4L2
5935-177-3308	6-9	1A8P3	5950-789-9417	5-19	1A5A1A4L3
5935-723-6862		1A6P5	5950-789-9822	5-15	1A6A2L4
5935-723-6862		1A6A7	5950-789-9829	5-15	1A6A2L5
5935-791-2493	4-2	1A1A1P6	5950-789-9830	5-14	1A6A1T2
5935-791-2493	4-2	1A1A1P12	5950-789-9831	5-18	1A5A1A1T1
5935-791-2494	4-2	1A1A1P9	5950-789-9832	5-15	1A6A2T1
5935-791-2494	4-2	1A1A1P11	5950-789-9833	5-14	1A6A1T1
5935-807-0160		1A7J3	5950-789-9834	5-14	1A6A1L2
5935-807-0160		1A7J3	5950-789-9835	5-15	1A6A2L1
5935-807-0160	6-9	1A8J4	5950-789-9835	5-15	1A6A2L2
5935-823-0667	4-2	1A1J2	5950-789-9836	5-17	1A5A1A5
5935-935-2167	5-13	1A6J6	5950-789-9837	5-18	1A5A1A1T2
5935-935-2168	5-23	1A3J9	5950-789-9837	5-18	1A5A1A1T3
5935-935-2169	5-23	1A3J8	5950-929-2718	5-14	1A6A1L13
5935-935-2228	4-2	1A1A1J7	5950-929-2718	5-14	1A6A1L14
5935-935-2228	4-2	1A1A1J13	5950-929-2718	5-14	1A6A1L15
5935-942-3900		1A1J3	5950-929-2718	5-14	1A6A1L16
5950-078-8437	5-14	1A6A1L1	5950-929-2718	5-14	1A6A1L23
5950-078-8437	5-14	1A6A1L5	5950-929-2721	5-17	1A5A1L2
5950-078-8437	5-14	1A6A1L11	5950-929-2721	5-17	1A5A1L4
5950-078-8437	5-14	1A6A1L12	5950-929-2721	5-17	1A5A1L6
5950-078-8437	5-14	1A6A1L17	5950-929-2722	5-14	1A6A1L3
5950-078-8437	5-15	1A6A2L6	5950-929-2722	5-14	1A6A1L4
5950-105-7566	5-17	1A5A1T6	5950-950-3390	5-14	1A6A1L6
5950-134-5823	5-14	1A6A1A8	5950-950-3390	5-14	1A6A1L7
5950-134-5823	5-14	1A6A1A9	5950-950-3390	5-14	1A6A1L8
5950-134-9596	5-17	1A5A1T1	5950-950-3390	5-14	1A6A1L9
5950-778-0866	5-17	1A5A1L1	5950-950-3390	5-14	1A6A1L10
5950-778-0866	5-17	1A5A1L3	5950-950-3390	5-14	1A6A1L22
5950-778-0866	5-17	1A5A1L5	5950-950-3390	5-14	1A6A1L30
5950-778-0866	5-17	1A5A1L7	5961-057-5641	5-15	1A6A2Q2
5950-778-0866	5-17	1A5A1L8	5961-081-4816	4-2	1A1Q6
5950-778-0866	5-18	1A5A1A1L1	5961-081-4816		1A1Q69
5950-789-9375	5-14	1A6A1A1	5961-105-5496	5-15	1A6A2CR1
5950-789-9375	5-14	1A6A1A2	5961-105-5496	5-15	1A6A2CR2
5950-789-9375	5-14	1A6A1A3	5961-105-5496	5-15	1A6A2CR3
5950-789-9375	5-14	1A6A1A4	5961-105-5496	5-15	1A6A2CR4
5950-789-9375	5-14	1A6A1A5	5961-105-9716	5-17	1A5A1Q1
5950-789-9376	5-14	1A6A1A10	5961-752-6121	5-25	1A3A2CR7
5950-789-9376	5-14	1A6A1A11	5961-763-4710	5-17	1A5A1Q2
5950-789-9377	5-14	1A6A1A6	5961-813-9360	4-2	1A1Q7
5950-789-9377	5-14	1A6A1A7	5961-813-9360	4-2	1A1A1Q69
5950-789-9378	5-14	1A6A1T3	5961-842-6937	5-17	1A5A1Q5
5950-789-9380	5-14	1A6A1L18	5961-842-6937	5-17	1A5A1Q6
5950-789-9380	5-14	1A6A1L19	5961-845-6458	4-2	1A1A1CR17
5950-789-9380	5-14	1A6A1L20	5961-905-4815		1A6A1
5950-789-9380	5-14	1A6A1L21	5961-905-4815	5-14	1A6A1Q1
5950-789-9381	5-14	1A6A1L24	5961-905-4815	5-14	1A6A1Q2
5950-789-9381	5-14	1A6A1L26	5961-905-4815	5-14	1A6A1Q3
5950-789-9381	5-14	1A6A1L27	5961-905-4815	5-14	1A6A1Q4

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5961-905-4815	5-14	1A6A1Q5	5961-938-1135	5-21	1A4A2CR22
5961-911-6015	5-17	1A5A1Q3	5961-938-1135	5-21	1A4A2CR23
5961-913-1747	5-25	1A3A2Q10	5961-938-1135	5-21	1A4A2CR24
5961-925-3777	4-2	1A1A1Q70	5961-938-1135	5-21	1A4A2CR25
5961-935-6476	5-14	1A6A1CR2	5961-938-1135	5-21	1A4A2CR26
5961-935-6476	5-14	1A6A1CR3	5961-938-1135	5-21	1A4A2CR27
5961-935-6476	5-14	1A6A1CR4	5961-938-1135	5-21	1A4A2CR28
5961-935-8001	5-14	1A6A1CR5	5961-938-1135	5-21	1A4A2CR29
5961-935-8001	5-14	1A6A1CR6	5961-938-1135	5-21	1A4A2CR30
5961-935-8001	5-14	1A6A1CR7	5961-938-1135	5-21	1A4A2CR31
5961-935-8001	5-14	1A6A1CR8	5961-938-1135	5-21	1A4A2CR32
5961-938-1135	4-2	1A1CR1	5961-938-1135	5-21	1A4A2CR33
5961-938-1135	4-2	1A1CR2	5961-938-1135	5-21	1A4A2CR34
5961-938-1135	4-3	1A1A1A1TB1CR1	5961-938-1135	5-17	1A5A1CR1
5961-938-1135	4-3	1A1A1A1TB1CR2	5961-938-1135	5-18	1A5A1A1CR1
5961-938-1135	4-3	1A1A1A1TB1CR3	5961-938-1135	5-18	1A5A1A1CR2
5961-938-1135	4-3	1A1A1A1TB1CR4	5961-939-4263	4-2	1A1A1CR18
5961-938-1135	4-3	1A1A1A1TB1CR5	5961-951-8757	5-24	1A3A1Q16
5961-938-1135	4-3	1A1A1A1TB1CR6	5961-951-8757	5-24	1A3A1Q17
5961-938-1135	4-3	1A1A1A1TB1CR7	5961-951-8757	5-24	1A3A1Q18
5961-938-1135	4-3	1A1A1A1TB1CR8	5961-951-8757	5-24	1A3A1Q20
5961-938-1135	4-3	1A1A1A1TB1CR9	5961-951-8757	5-24	1A3A1Q23
5961-938-1135	4-3	1A1A1A1TB1CR10	5961-951-8757	5-24	1A3A1Q24
5961-938-1135	4-3	1A1A1A1TB1CR11	5961-951-8757	5-24	1A3A1C25
5961-938-1135	4-3	1A1A1A1TB1CR12	5961-951-8757	5-24	1A3A1Q26
5961-938-1135	4-3	1A1A1A1TB1CR13	5961-951-8757	5-24	1A3A1Q27
5961-938-1135	4-3	1A1A1A1TB1CR14	5961-951-8757	5-25	1A3A2Q1
5961-938-1135	4-3	1A1A1A1TB1CR15	5961-951-8757	5-25	1A3A2Q2
5961-938-1135	4-3	1A1A1A1TB1CR16	5961-951-8757	5-25	1A3A2Q3
5961-938-1135	5-24	1A3A1CR37	5961-951-8757	5-25	1A3A2Q4
5961-938-1135	5-24	1A3A1CR38	5961-951-8757	5-25	1A3A2Q5
5961-938-1135	5-24	1A3A1CR39	5961-951-8757	5-25	1A3A2Q8
5961-938-1135	5-24	1A3A1CR40	5961-951-8757	5-25	1A3A2Q9
5961-938-1135	5-24	1A3A1CR41	5961-951-8757	5-25	1A3A2Q11
5961-938-1135	5-24	1A3A1CR42	5961-951-8757	5-25	1A3A2Q19
5961-938-1135	5-24	1A3A1CR43	5961-951-8757	5-25	1A3A2Q21
5961-938-1135	5-24	1A3A1CR44	5961-951-8757	5-25	1A3A2Q22
5961-938-1135	5-24	1A3A1CR45	5961-951-8757	5-22	1A4A1Q15
5961-938-1135	5-25	1A3A2CR1	5961-951-8757	5-22	1A4A1Q28
5961-938-1135	5-25	1A3A2CR2	5961-951-8757	5-21	1A4A2Q12
5961-938-1135	5-25	1A3A2CR3	5961-951-8757	5-21	1A4A2Q13
5961-938-1135	5-25	1A3A2CR4	5961-951-8757	5-21	1A4A2Q14
5961-938-1135	5-25	1A3A2CR5	5961-951-8757	5-19	1A5A1A2Q2
5961-938-1135	5-25	1A3A2CR6	5961-951-8757	5-19	1A5A1A3Q2
5961-938-1135	5-25	1A3A2CR8	5961-951-8757	5-19	1A5A1A4Q2
5961-938-1135	5-25	1A3A2CR9	5961-954-6100	5-17	1A5A1Q4
5961-938-1135	5-25	1A3A2CR10	5961-954-6100	5-18	1A5A1A1Q1
5961-938-1135	5-25	1A3A2CR11	5962-010-6535	4-5	1A1A1A2TB2Z2
5961-938-1135	5-25	1A3A2CR12	5962-010-6537	5-18	1A5A1A1Z1
5961-938-1135	5-25	1A3A2CR13	5962-010-6540	5-22	1A4A1Z11
5961-938-1135	5-25	1A3A2CR14	5962-010-6540	5-21	1A4A2Z3
5961-938-1135	5-25	1A3A2CR15	5962-010-6541	5-24	1A3A1Z1
5961-938-1135	5-25	1A3A2CR16	5962-010-6541	5-22	1A4A1Z7
5961-938-1135	5-25	1A3A2CR17	5962-010-6541	5-21	1A4A2Z7
5961-938-1135	5-25	1A3A2CR18	5962-079-3539	5-17	1A5A1Z1
5961-938-1135	5-25	1A3A2CR19	5962-079-3539	5-17	1A5A1Z2
5961-938-1135	5-25	1A3A2CR20	5962-079-3539	5-17	1A5A1Z3
5961-938-1135	5-25	1A3A2CR21	5962-079-3539	5-17	1A5A1Z4
5961-938-1135	5-22	1A4A1CR35	5962-079-3539	5-14	1A6A1Z1
5961-938-1135	5-22	1A4A1CR36	5962-079-3539	5-14	1A6A1Z2
5961-938-1135	5-22	1A4A1CR46	5962-781-0876	5-17	1A5A1Z5

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
 TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
5962-781-0877	5-22	1A4A1Z12				
5962-781-0877	5-22	1A4A1Z13				
5962-781-0877	5-21	1A4A2Z8				
5962-791-4925	5-24	1A3A1Z1	DM10-XXXJ	84171	5-19	1A5A1A4C4
5962-791-4925	5-24	1A3A1Z4	DM10-XXXJ	84171	5-19	1A5A1A4C5
5962-878-0876	4-5	1A1A1A2TB2Z1	DM10-XXXJ	84171	5-19	1A5A1A4C6
5962-878-8567	5-22	1A4A1Z1	DM10-XXXJ	84171	5-19	1A5A1A4C7
5962-878-8567	5-22	1A4A1Z2	DM10-XXXJ	84171	5-19	1A5A1A4C14
5962-878-8567	5-22	1A4A1Z3	DM10-XXXJ	84171	5-19	1A5A1A4C15
5962-878-8567	5-22	1A4A1Z4	DM10-301J	84171	5-18	1A5A1A1C10
5962-878-8567	5-22	1A4A1Z5	DM10-301J	84171	5-18	1A5A1A1C11
5962-878-8567	5-22	1A4A1Z6	DM10-330J	84171	5-14	1A6A1C14
5962-878-8567	5-22	1A4A1Z8	DM19-102G	84171	5-19	1A5A1A3C1
5962-878-8567	5-22	1A4A1Z9	DM19-102G	84171	5-19	1A5A1A3C2
5962-878-8567	5-22	1A4A1Z10	DM19-102G	84171	5-19	1A5A1A3C3
5962-878-8581	5-21	1A4A2Z1	DM19-561G	84171	5-19	1A5A1A4C1
5962-878-8581	5-21	1A4A2Z2	DM19-561G	84171	5-19	1A5A1A4C2
5962-878-8581	5-21	1A4A2Z4	DM19-561G	84171	5-19	1A5A1A4C3
5962-878-8581	5-21	1A4A2Z5	DM5-15J	78488	5-14	1A6A1C52
5962-878-8854	5-24	1A3A1Z2	DM5-15J	78488	5-14	1A6A1C61
5962-878-8854	5-24	1A3A1Z5	JMC7200	78488	5-15	1A6A2C8
5962-878-8854	5-24	1A3A1Z6	KB23J1	15801	5-17	1A5A1R32
5962-878-8854	5-24	1A3A1Z7	PG216R8	01281	5-15	1A6A2CR1
5962-878-8854	5-24	1A3A1Z8	PG216R8	01281	5-15	1A6A2CR2
5962-878-8854	5-24	1A3A1Z9	PG216R8	01281	5-15	1A6A2CR3
5962-878-8854	5-22	1A4A1Z14	PG216R8	01281	5-15	1A6A2CR4
5962-878-8854	5-21	1A4A2Z6	PW07C12-10P	17357		1A7P2
6130-890-7599		1A7	PW073C12-10P	77820		1A7P2
6140-177-3042		1A7	RC07GFXXXJ	81349	5-15	1A6A2R3
6625-779-3404	4-2	1A1M1	RC07GF742J	81349	5-22	1A4A1R29
			SCDM10-XXXJ	84171		1A5A1A2C8
			SCDM10-XXXJ	84171	5-19	1A5A1A3C8
			SCDM10-XXXJ	84171		1A5A1A4C8
			1625-3P1	27264		1A7P15
			2N4416	81349	5-15	1A6A2Q1
			62F305G2	06011	5-17	1A5A1C12
			65G12AA683	06011	5-17	1A5A1C34
CR55U	81349	5-17 1A5A1Y1	78904-1	10412		1A3A2
CR55U	81349	5-14 1A6A1Y1	78906-1	10412	5-24	1A3A1
CR55U	81349	5-14 1A6A1Y2	78908-1	10412	5-20	1A4A2
CR55U	81349	5-14 1A6A1Y3	78919-1	10412	5-20	1A4A1
CR55U	81349	5-14 1A6A1Y4	78921-1	10412		1A4
CR55U	81349	5-14 1A6A1Y5	78922-1	10412		1A3
CR56AU	81349	5-14 1A6A1Y6	78925-1	10412	5-19	1A5A1A2
CR56AU	81349	5-14 1A6A1Y7	78925-3	10412	5-19	1A5A1A3
CR56AU	81349	5-14 1A6A1Y8	78925-5	10412	5-19	1A5A1A4
CR56AU	81349	5-14 1A6A1Y9	78927-1	10412	5-17	1A5A1
CR60AU	81349	5-14 1A6A1Y10	78928-3	10412	3-2	1A6
CR60AU	81349	5-14 1A6A1Y11	78930-1	10412	5-14	1A6A1
CS13BE125K	81349	5-17 1A5A1C28	78930-3	10412	5-14	1A6A1
C80-51-5-29LG	78488	5-15 1A6A2C15	78932-1	10412	5-15	1A6A2
C80-51-68-29LG	78488	5-15 1A6A2C3	78932-3	10412	5-15	1A6A2
C80-51-75-29LG	91293	5-15 1A6A2C8	78932-5	10412	5-15	1A6A2
DM10-XXXJ	84171	5-19 1A5A1A2C4	78994-13	10412	5-17	1A5A1T2
DM10-XXXJ	84171	5-19 1A5A1A2C5	78994-13	10412	5-17	1A5A1T3
DM10-XXXJ	84171	5-19 1A5A1A2C6	78994-13	10412	5-17	1A5A1T4
DM10-XXXJ	84171	5-19 1A5A1A2C7	78994-13	10412	5-17	1A5A1T5
DM10-XXXJ	884171	5-19 1A5A1A2C14	79084-1	10412	5-18	1A5A1A1
DM10-XXXJ	84171	5-19 1A5A1A2C15	79086-1	10412	4-2	1A1A1
DM10-XXXJ	84171	5-19 1A5A1A3C4	79091-1	10412		1A1
DM10-XXXJ	84171	5-19 1A5A1A3C5	79092-2	10412	5-15	1A6A2L3
DM10-XXXJ	84171	5-19 1A5A1A3C6	79106-1	10412		1A8
DM10-XXXJ	84171	5-19 1A5A1A3C7				
DM10-XXXJ	84171	5-19 1A5A1A3C14				
DM10-XXXJ	84171	5-19 1A5A1A3C15				

SECTION IV INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE  
 TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION (CONTINUED)

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.	Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
79212-1	10412	4-2	1A1A1A1TB1				
79212-3	10412	4-2	1A1A1A1TB1				
79231-1	10412	4-4	1A1A1A2TB2				
79672-1	10412		1A1				
79672-2	10412		1A1				
79684-1	10412	4-2	1A1A1				
79684-2	10412	4-2	1A1A1				
79962-1	10412		1A1R3				
80055	10412	5-19	1A5A1A2Q1				
80055	10412	5-19	1A5A1A3Q1				
80055	10412	5-19	1A5A1A4Q1				
80766-1	10412	4-2	1A1A1A1TB1				

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1A1C1	B-13	1A1A1A1TB1R3	B-7	1A3A1R34	B-41
1A1CR1	B-13	1A1A1A1TB1R4	B-7	1A3A1R35	B-41
1A1CR2	B-13	1A1A1A1TB1R5	B-7	1A3A1R37	B-41
1A1F1	B-11	1A1A1A1TB1R6	B-7	1A3A1R40	B-41
1A1F2	B-11	1A1A1A1TB1R7	B-7	1A3A1R41	B-41
1A1J2	B-12	1A1A1A1TB1R8	B-7	1A3A1R42	B-41
1A1J3	B-12	1A1A1A1TB1R9	B-7	1A3A1R43	B-41
1A1M1	B-10	1A1A1A1TB1R10	B-7	1A3A1Z1	B-40
1A1P4	B-12	1A1A1A1TB1R11	B-7	1A3A1Z2	B-40
1A1Q6	B-12	1A1A1A1TB1R12	B-7	1A3A1Z4	B-41
1A1Q7	B-12	1A1A1A1TB1R13	B-7	1A3A1Z5	B-40
1A1Q69	B-12	1A1A1A1TB1R14	B-7	1A3A1Z6	B-40
1A1R1	B-13	1A1A1A1TB1R15	B-8	1A3A1Z7	B-40
1A1R2	B-13	1A1A1A1TB1R16	B-7	1A3A1Z8	B-40
1A1R3	B-13	1A1A1A1TB1R17	B-7	1A3A1Z9	B-40
1A1R4	B-13	1A1A1A1TB1R18	B-8	1A3A2	B-36
1A1S1	B-12	1A1A1A1TB1R19	B-7	1A3A2C1	B-36
1A1S2	B-12	1A1A1A1TB1R20	B-6	1A3A2C2	B-36
1A1S3	B-11	1A1A1A1TB1R21	B-8	1A3A2C3	B-36
1A1S4	B-11	1A1A1A1TB1R22	B-8	1A3A2C22	B-36
1A1S5	B-12	1A1A1A1TB1R23	B-7	1A3A2C23	B-36
1A1S7	B-12	1A1A1A1TB1R24	B-7	1A3A2CR1	B-37
1A1XF1	B-11	1A1A1A1TB1R25	B-7	1A3A2CR2	B-37
1A1XF2	B-11	1A1A1A1TB1R26	B-7	1A3A2CR3	B-37
1A1A1	B-5	1A1A1A1TB1R27	B-8	1A3A2CR4	B-37
1A1A1CR17	B-10	1A1A1A1TB1R28	B-6	1A3A2CR5	B-37
1A1A1CR18	B-10	1A1A1A1TB1R29	B-8	1A3A2CR6	B-37
1A1A1J7	B-8	1A1A1A2TB2	B-8	1A3A2CR7	B-38
1A1A1J13	B-9	1A1A1A2TB2C1	B-8	1A3A2CR8	B-37
1A1A1P6	B-9	1A1A1A2TB2R1	B-8	1A3A2CR9	B-37
1A1A1P8	B-9	1A1A1A2TB2R2	B-8	1A3A2CR10	B-37
1A1A1P9	B-9	1A1A1A2TB2Z1	B-8	1A3A2CR11	B-37
1A1A1P10	B-9	1A1A1A2TB2Z2	B-8	1A3A2CR12	B-37
1A1A1P11	B-9	1A2	B-58	1A3A2CR13	B-37
1A1A1P12	B-9	1A3	B-51	1A3A2CR14	B-37
1A1A1Q69	B-10	1A3J8	B-42	1A3A2CR15	B-37
1A1A1Q70	B-10	1A3J9	B-42	1A3A2CR16	B-37
1A1A1R29	B-10	1A3A1	B-39	1A3A2CR17	B-37
1A1A1R30	B-10	1A3A1CR37	B-39	1A3A2CR18	B-37
1A1A1A1TB1	B-5	1A3A1CR38	B-39	1A3A2CR19	B-37
1A1A1A1TB1CR1	B-5	1A3A1CR39	B-40	1A3A2CR20	B-37
1A1A1A1TB1CR2	B-6	1A3A1CR40	B-40	1A3A2CR21	B-38
1A1A1A1TB1CR3	B-6	1A3A1CR41	B-40	1A3A2Q1	B-39
1A1A1A1TB1CR4	B-6	1A3A1CR42	B-40	1A3A2Q2	B-39
1A1A1A1TB1CR5	B-6	1A3A1CR43	B-40	1A3A2Q3	B-39
1A1A1A1TB1CR6	B-6	1A3A1CR44	B-40	1A3A2Q4	B-39
1A1A1A1TB1CR7	B-6	1A3A1CR45	B-40	1A3A2Q5	B-39
1A1A1A1TB1CR8	B-6	1A3A1Q16	B-41	1A3A2Q8	B-39
1A1A1A1TB1CR9	B-6	1A3A1Q17	B-41	1A3A2Q9	B-39
1A1A1A1TB1CR10	B-6	1A3A1Q18	B-41	1A3A2Q10	B-39
1A1A1A1TB1CR11	B-6	1A3A1Q20	B-41	1A3A2Q11	B-39
1A1A1A1TB1CR12	B-6	1A3A1Q23	B-41	1A3A2Q19	B-39
1A1A1A1TB1CR13	B-6	1A3A1Q24	B-41	1A3A2Q21	B-39
1A1A1A1TB1CR14	B-6	1A3A1Q25	B-41	1A3A2Q22	B-39
1A1A1A1TB1CR15	B-6	1A3A1Q26	B-41	1A3A2R1	B-38
1A1A1A1TB1CR16	B-6	1A3A1Q27	B-41	1A3A2R2	B-38
1A1A1A1TB1R1	B-6	1A3A1R32	B-41	1A3A2R3	B-38



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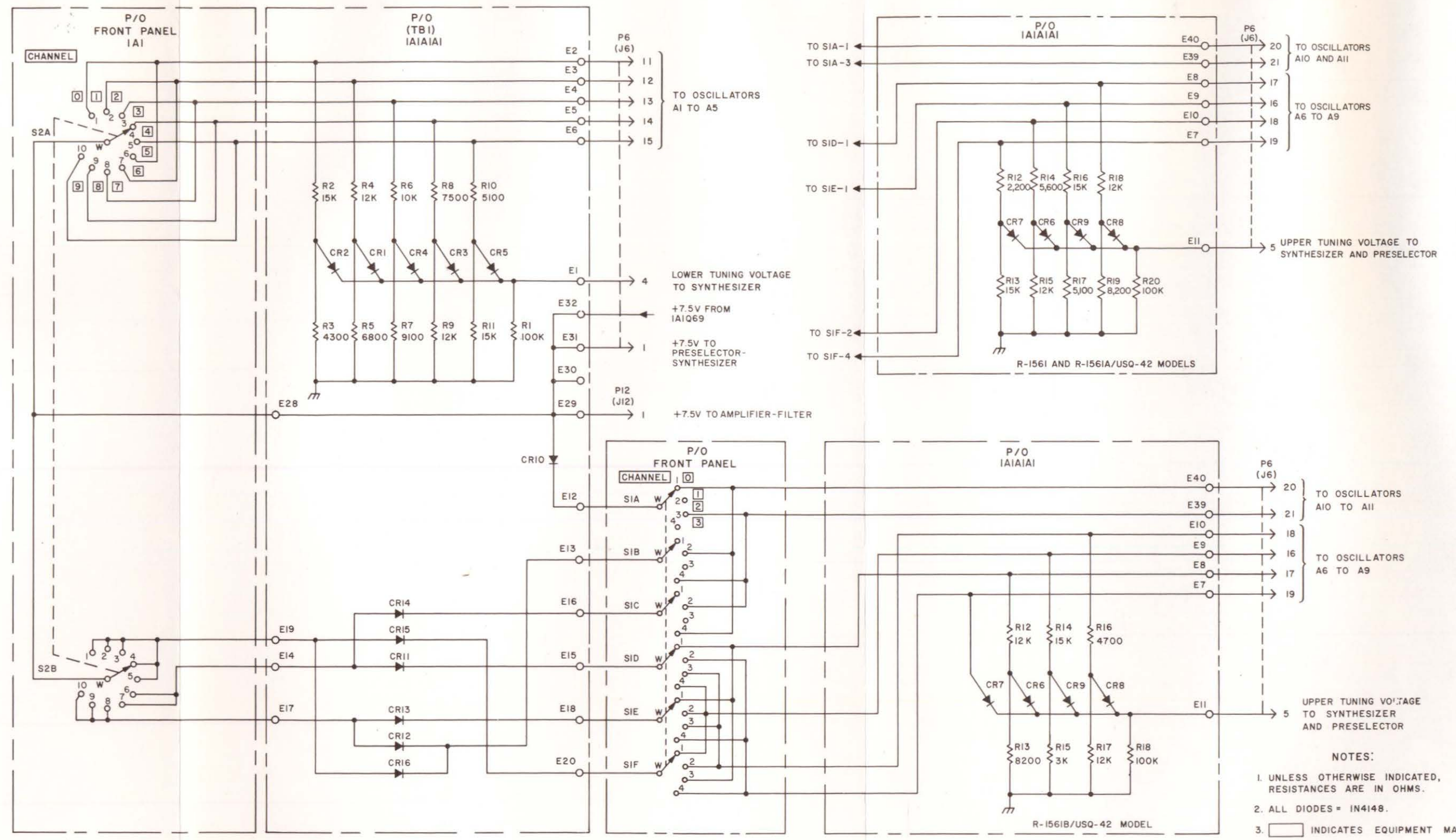
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1A3A2R5	B-38	1A4A2C13	B-29	1A5A1C17	B-45
1A3A2R6	B-38	1A4A2C14	B-29	1A5A1C18	B-48
1A3A2R7	B-38	1A4A2C15	B-29	1A5A1C19	B-45
1A3A2R8	B-38	1A4A2C16	B-29	1A5A1C20	B-45
1A3A2R9	B-38	1A4A2CR22	B-30	1A5A1C21	B-45
1A3A2R10	B-38	1A4A2CR23	B-30	1A5A1C22	B-45
1A3A2R11	B-38	1A4A2CR24	B-30	1A5A1C23	B-46
1A3A2R12	B-39	1A4A2CR25	B-30	1A5A1C24	B-46
1A3A2R14	B-34	1A4A2CR26	B-30	1A5A1C25	B-46
1A3A2R15	B-39	1A4A2CR27	B-30	1A5A1C26	B-46
1A3A2R16	B-38	1A4A2CR28	B-30	1A5A1C27	B-46
1A3A2R17	B-39	1A4A2CR29	B-30	1A5A1C28	B-46
1A3A2R18	B-38	1A4A2CR30	B-30	1A5A1C29	B-46
1A3A2R36	B-38	1A4A2CR31	B-30	1A5A1C30	B-46
1A3A2R38	B-38	1A4A2CR32	B-30	1A5A1C31	B-46
1A3A2R39	B-38	1A4A2CR33	B-30	1A5A1C32	B-46
1A3A2R44	B-39	1A4A2CR34	B-30	1A5A1C33	B-46
1A4	B-44	1A4A2Q12	B-31	1A5A1C34	B-46
1A4A1	B-48	1A4A2Q13	B-31	1A5A1C35	B-46
1A4A1C17	B-32	1A4A2Q14	B-31	1A5A1C36	B-46
1A4A1C18	B-32	1A4A2R13	B-39	1A5A1CR1	B-44
1A4A1C19	B-32	1A4A2R19	B-31	1A5A1L1	B-44
1A4A1C20	B-32	1A4A2R20	B-31	1A5A1L2	B-44
1A4A1C21	B-32	1A4A2R21	B-31	1A5A1L3	B-44
1A4A1CR35	B-32	1A4A2R22	B-31	1A5A1L4	B-45
1A4A1CR36	B-32	1A4A2R23	B-31	1A5A1L5	B-44
1A4A1CR46	B-32	1A4A2R24	B-31	1A5A1L6	B-45
1A4A1Q15	B-33	1A4A2R25	B-31	1A5A1L7	B-44
1A4A1Q28	B-33	1A4A2R26	B-31	1A5A1L8	B-44
1A4A1R29	B-33	1A4A2R27	B-31	1A5A1Q1	B-44
1A4A1R30	B-33	1A4A2R28	B-31	1A5A1Q2	B-44
1A4A1R31	B-33	1A4A2Z1	B-31	1A5A1Q3	B-44
1A4A1R45	B-33	1A4A2Z2	B-31	1A5A1Q4	B-44
1A4A1Z1	B-32	1A4A2Z3	B-31	1A5A1Q5	B-44
1A4A1Z2	B-32	1A4A2Z4	B-31	1A5A1Q6	B-44
1A4A1Z3	B-32	1A4A2Z5	B-31	1A5A1R1	B-47
1A4A1Z4	B-32	1A4A2Z6	B-31	1A5A1R2	B-48
1A4A1Z5	B-32	1A4A2Z7	B-30	1A5A1R3	B-47
1A4A1Z6	B-32	1A4A2Z8	B-31	1A5A1R4	B-47
1A4A1Z7	B-32	1A5	B-42	1A5A1R5	B-46
1A4A1Z8	B-32	1A5A1	B-43	1A5A1R6	B-47
1A4A1Z9	B-32	1A5A1C1	B-45	1A5A1R7	B-47
1A4A1Z10	B-32	1A5A1C2	B-46	1A5A1R8	B-47
1A4A1Z11	B-32	1A5A1C3	B-45	1A5A1R9	B-47
1A4A1Z12	B-32	1A5A1C4	B-45	1A5A1R10	B-47
1A4A1Z13	B-32	1A5A1C5	B-45	1A5A1R11	B-47
1A4A1Z14	B-32	1A5A1C6	B-45	1A5A1R12	B-48
1A4A2	B-45	1A5A1C7	B-46	1A5A1R13	B-47
1A4A2C4	B-29	1A5A1C8	B-45	1A5A1R14	B-48
1A4A2C5	B-29	1A5A1C9	B-45	1A5A1R15	B-47
1A4A2C6	B-29	1A5A1C10	B-45	1A5A1R16	B-48
1A4A2C7	B-29	1A5A1C11	B-45	1A5A1R17	B-47
1A4A2C8	B-29	1A5A1C12	B-48	1A5A1R18	B-48
1A4A2C9	B-29	1A5A1C13	B-46	1A5A1R19	B-47
1A4A2C10	B-29	1A5A1C14	B-45	1A5A1R20	B-47
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1A5A1R26	B-48	1A5A1A2C9	B-48	1A5A1A4C12	B-51
1A5A1R27	B-47	1A5A1A2C10	B-48	1A5A1A4C13	B-51
1A5A1R28	B-48	1A5A1A2C11	B-48	1A5A1A4C14	B-51
1A5A1R29	B-47	1A5A1A2C12	B-49	1A5A1A4C15	B-51
1A5A1R30	B-48	1A5A1A2C13	B-49	1A5A1A4L1	B-52
1A5A1R31	B-47	1A5A1A2C14	B-49	1A5A1A4L2	B-52
1A5A1R32	B-48	1A5A1A2C15	B-32	1A5A1A4L3	B-52
1A5A1R33	B-48	1A5A1A2L1	B-49	1A5A1A4Q1	B-52
1A5A1T1	B-43	1A5A1A2L2	B-49	1A5A1A4Q2	B-52
1A5A1T2	B-44	1A5A1A2L3	B-49	1A5A1A4R1	B-52
1A5A1T3	B-44	1A5A1A2Q1	B-49	1A5A1A4R2	B-52
1A5A1T4	B-44	1A5A1A2Q2	B-49	1A5A1A4R3	B-52
1A5A1T5	B-44	1A5A1A2R1	B-49	1A5A1A4R4	B-52
1A5A1T6	B-43	1A5A1A2R2	B-49	1A5A1A4R5	B-52
1A5A1Y1	B-44	1A5A1A2R3	B-49	1A5A1A4R6	B-52
1A5A1Z1	B-44	1A5A1A2R4	B-49	1A5A1A5	B-43
1A5A1Z2	B-44	1A5A1A2R5	B-49	1A6	B-14
1A5A1Z3	B-44	1A5A1A2R6	B-49	1A6J6	B-28
1A5A1Z4	B-44	1A5A1A3	B-50	1A6P5	B-28
1A5A1Z5	B-44	1A5A1A3C1	B-50	1A6A1	B-14
1A5A1A1	B-52	1A5A1A3C2	B-50	1A6A1C1	B-21
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1A5A1A1C2	B-52	1A5A1A3C4	B-50	1A6A1C6	B-19
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1A5A1A1C4	B-53	1A5A1A3C6	B-50	1A6A1C13	B-21
1A5A1A1C5	B-53	1A5A1A3C7	B-50	1A6A1C14	B-19
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1A5A1A1C8	B-52	1A5A1A3C10	B-50	1A6A1C17	B-21
1A5A1A1C9	B-52	1A5A1A3C11	B-50	1A6A1C23	B-21
1A5A1A1C10	B-52	1A5A1A3C12	B-50	1A6A1C24	B-20
1A5A1A1C11	B-52	1A5A1A3C13	B-50	1A6A1C25	B-20
1A5A1A1CR1	B-53	1A5A1A3C14	B-50	1A6A1C26	B-20
1A5A1A1CR2	B-53	1A5A1A3C15	B-50	1A6A1C27	B-20
1A5A1A1L1	B-53	1A5A1A3L1	B-50	1A6A1C28	B-21
1A5A1A1Q1	B-53	1A5A1A3L2	B-50	1A6A1C32	B-21
1A5A1A1R1	B-53	1A5A1A3L3	B-50	1A6A1C33	B-19
1A5A1A1R2	B-53	1A5A1A3Q1	B-51	1A6A1C34	B-20
1A5A1A1R3	B-53	1A5A1A3Q2	B-51	1A6A1C35	B-19
1A5A1A1R4	B-53	1A5A1A3R1	B-50	1A6A1C36	B-20
1A5A1A1R5	B-53	1A5A1A3R2	B-51	1A6A1C37	B-19
1A5A1A1R6	B-53	1A5A1A3R3	B-51	1A6A1C38	B-20
1A5A1A1R7	B-53	1A5A1A3R4	B-51	1A6A1C39	B-20
1A5A1A1R8	B-54	1A5A1A3R5	B-50	1A6A1C40	B-21
1A5A1A1T1	B-53	1A5A1A3R6	B-51	1A6A1C41	B-19
1A5A1A1T2	B-53	1A5A1A4	B-51	1A6A1C42	B-20
1A5A1A1T3	B-53	1A5A1A4C1	B-51	1A6A1C43	B-21
1A5A1A1Z1	B-53	1A5A1A4C2	B-51	1A6A1C44	B-20
1A5A1A2	B-48	1A5A1A4C3	B-52	1A6A1C45	B-20
1A5A1A2C1	B-49	1A5A1A4C4	B-51	1A6A1C46	B-20
1A5A1A2C2	B-49	1A5A1A4C5	B-51	1A6A1C47	B-20
1A5A1A2C3	B-49	1A5A1A4C6	B-51	1A6A1C48	B-20
1A5A1A2C4	B-48	1A5A1A4C7	B-51	1A6A1C49	B-20

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1A6A1C52	B- 19	1A6A1R5	B- 21	1A6A1A3	B-14
1A6A1C53	B- 20	1A6A1R6	B- 22	1A6A1A4	B-14
1A6A1C54	B- 20	1A6A1R7	B- 22	1A6A1A5	B-15
1A6A1C55	B- 21	1A6A1R8	B- 22	1A6A1A6	B-16
1A6A1C56	B- 20	1A6A1R9	B- 22	1A6A1A7	B-16
1A6A1C57	B- 20	1A6A1R10	B- 21	1A6A1A8	B-24
1A6A1C58	B- 21	1A6A1R11	B- 21	1A6A1A9	B-24
1A6A1C59	B- 21	1A6A1R12	B- 22	1A6A1A10	B-15
1A6A1C60	B- 20	1A6A1R13	B- 22	1A6A1A11	B-15
1A6A1C61	B- 19	1A6A1R14	B- 22	1A6A2	B-24
1A6A1C62	B- 20	1A6A1R15	B- 22	1A6A2C1	B-25
1A6A1C63	B- 21	1A6A1R16	B- 22	1A6A2C2	B-25
1A6A1CR2	B- 18	1A6A1R17	B- 21	1A6A2C3	B-11
1A6A1CR3	B- 18	1A6A1R18	B- 22	1A6A2C4	B-25
1A6A1CR4	B- 18	1A6A1R19	B- 23	1A6A2C5	B-25
1A6A1CR5	B- 18	1A6A1R20	B- 23	1A6A2C6	B-25
1A6A1CR6	B- 18	1A6A1R21	B- 23	1A6A2C7	B-26
1A6A1CR7	B- 18	1A6A1R22	B- 23	1A6A2C8	B-12
1A6A1CR8	B- 18	1A6A1R23	B- 22	1A6A2C9	B-26
1A6A1FL1	B- 14	1A6A1R24	B- 22	1A6A2C10	B-26
1A6A1L1	B- 19	1A6A1R25	B- 22	1A6A2C11	B-26
1A6A1L2	B- 16	1A6A1R26	B- 23	1A6A2C12	B-26
1A6A1L3	B- 19	1A6A1R27	B- 23	1A6A2C13	B-25
1A6A1L4	B- 19	1A6A1R28	B- 23	1A6A2C14	B-25
1A6A1L5	B- 19	1A6A1R29	B- 23	1A6A2C15	B-25
1A6A1L6	B- 18	1A6A1R30	B- 23	1A6A2C16	B-25
1A6A1L7	B- 18	1A6A1R31	B- 23	1A6A2C17	B-25
1A6A1L8	B- 18	1A6A1R32	B- 24	1A6A2C18	B-26
1A6A1L9	B- 19	1A6A1R33	B- 22	1A6A2C19	B-26
1A6A1L10	B- 19	1A6A1R34	B- 23	1A6A2C21	B-26
1A6A1L11	B- 19	1A6A1R35	B- 22	1A6A2C22	B-25
1A6A1L12	B- 19	1A6A1R36	B- 23	1A6A2C23	B-26
1A6A1L13	B- 18	1A6A1R37	B- 23	1A6A2C24	B-26
1A6A1L14	B- 18	1A6A1R38	B- 23	1A6A2C25	B-26
1A6A1L15	B- 18	1A6A1R39	B- 22	1A6A2CR1	B-27
1A6A1L16	B- 18	1A6A1R40	B- 22	1A6A2CR2	B-27
1A6A1L17	B- 19	1A6A1R41	B- 23	1A6A2CR3	B-27
1A6A1L18	B- 16	1A6A1R42	B- 22	1A6A2CR4	B-27
1A6A1L19	B- 16	1A6A1R43	B- 23	1A6A2L1	B-25
1A6A1L20	B- 16	1A6A1R44	B- 23	1A6A2L2	B-25
1A6A1L21	B- 16	1A6A1T1	B- 17	1A6A2L3	B-25
1A6A1L22	B- 19	1A6A1T2	B- 17	1A6A2L4	B-25
1A6A1L23	B- 18	1A6A1T3	B- 17	1A6A2L5	B-25
1A6A1L24	B- 16	1A6A1Y1	B- 17	1A6A2L6	B-26
1A6A1L25	B- 16	1A6A1Y2	B- 17	1A6A2Q1	B-27
1A6A1L26	B- 16	1A6A1Y3	B- 17	1A6A2Q2	B-27
1A6A1L27	B- 16	1A6A1Y4	B- 17	1A6A2R1	B-27
1A6A1L28	B- 17	1A6A1Y5	B- 17	1A6A2R2	B-27
1A6A1L29	B- 16	1A6A1Y6	B- 17	1A6A2R3	B-26
1A6A1L30	B- 19	1A6A1Y7	B- 17	1A6A2R4	B-27
1A6A1Q1	B- 17	1A6A1Y8	B- 17	1A6A2R5	B-27
1A6A1Q2	B- 17	1A6A1Y9	B- 17	1A6A2R6	B-26
1A6A1Q3	B- 17	1A6A1Y10	B- 17	1A6A2R7	B-27
1A6A1Q4	B- 17	1A6A1Y11	B- 17	1A6A2R8	B-27
1A6A1Q5	B- 18	1A6A1Z1	B- 18	1A6A2R9	B-26
1A6A1R2	B- 22	1A6A1Z2	B- 18	1A6A2R10	B-26



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS.
  2. ALL DIODES = IN4148.
  3.   INDICATES EQUIPMENT MARKING.
  4. ALL COMPONENTS EXCEPT S1 AND S2 ARE MOUNTED ON IA1AIA1(TB1).
  5.   INDICATES TERMINAL.

Figure 6-1. Channel selection logic, functional schematic diagram.

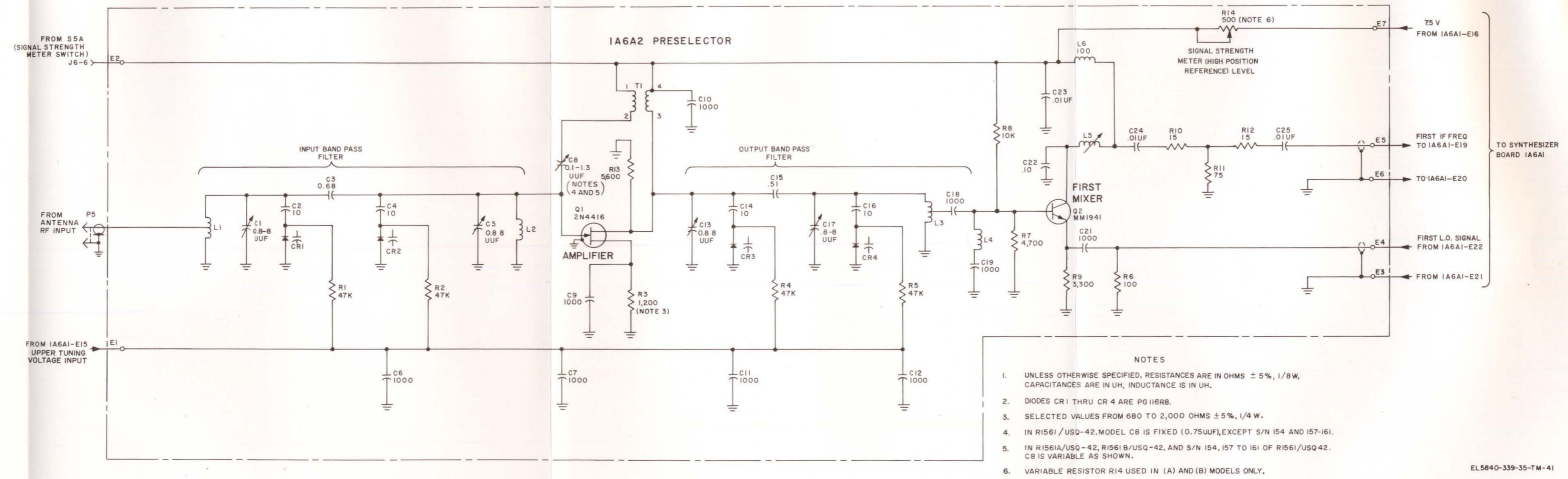


Figure 6-2. Preselector board 1A6A2, complete schematic diagram.

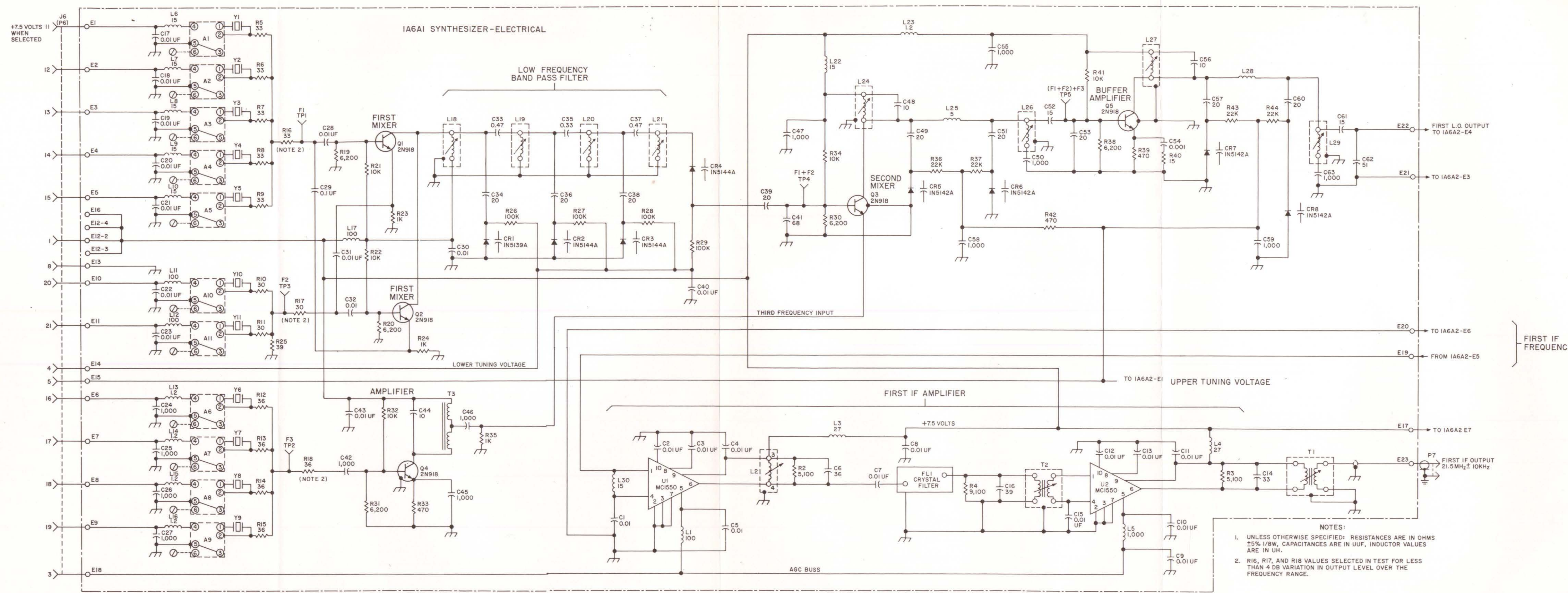
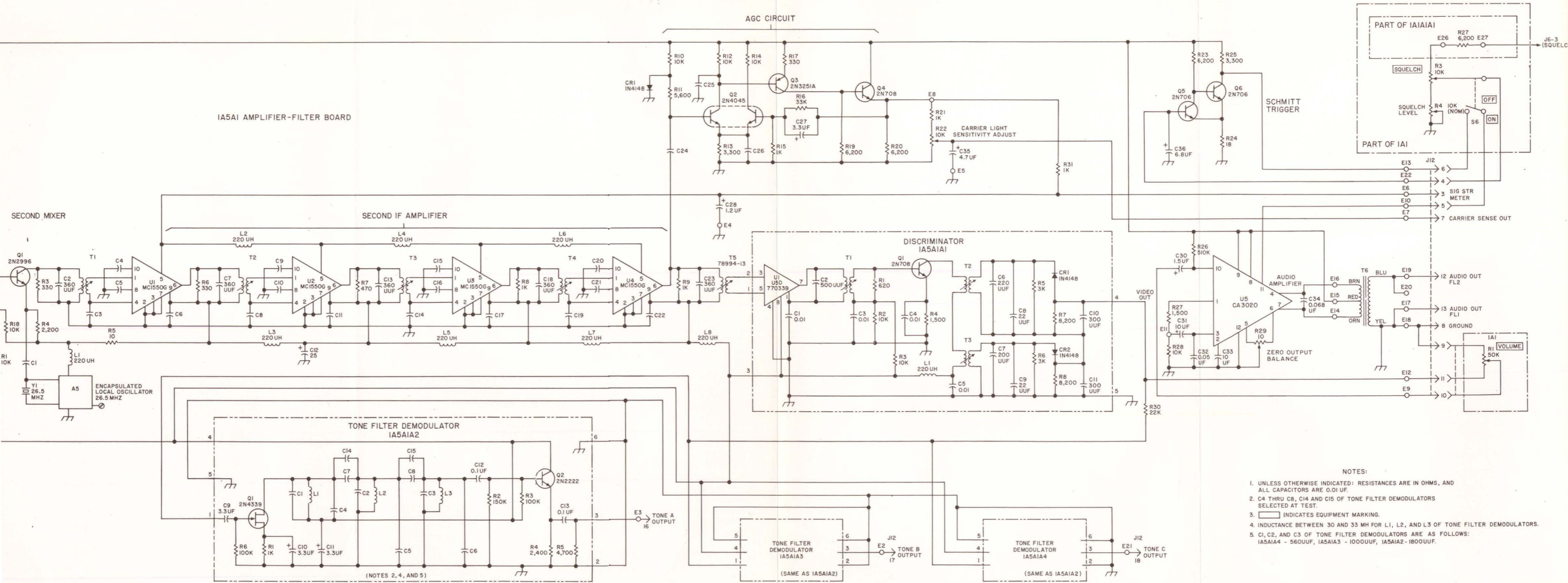
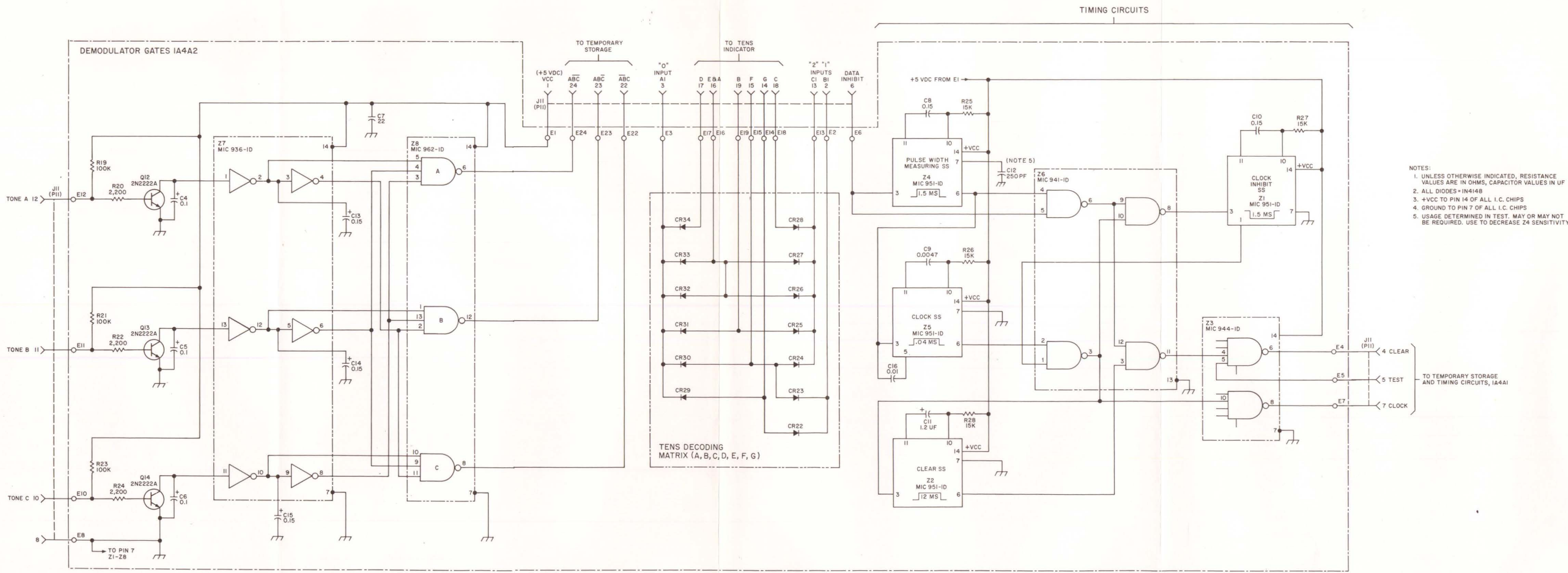


Figure 6-3. Synthesizer board 1A6A1, complete schematic diagram.



- NOTES:
1. UNLESS OTHERWISE INDICATED: RESISTANCES ARE IN OHMS, AND ALL CAPACITORS ARE 0.01 UF.
  2. C4 THRU C8, C14 AND C15 OF TONE FILTER DEMODULATORS SELECTED AT TEST.
  3.    INDICATES EQUIPMENT MARKING.
  4. INDUCTANCE BETWEEN 30 AND 33 MH FOR L1, L2, AND L3 OF TONE FILTER DEMODULATORS.
  5. C1, C2, AND C3 OF TONE FILTER DEMODULATORS ARE AS FOLLOWS: IA5A1A4 - 560UUF, IA5A1A3 - 1000UUF, IA5A1A2 - 1800UUF.

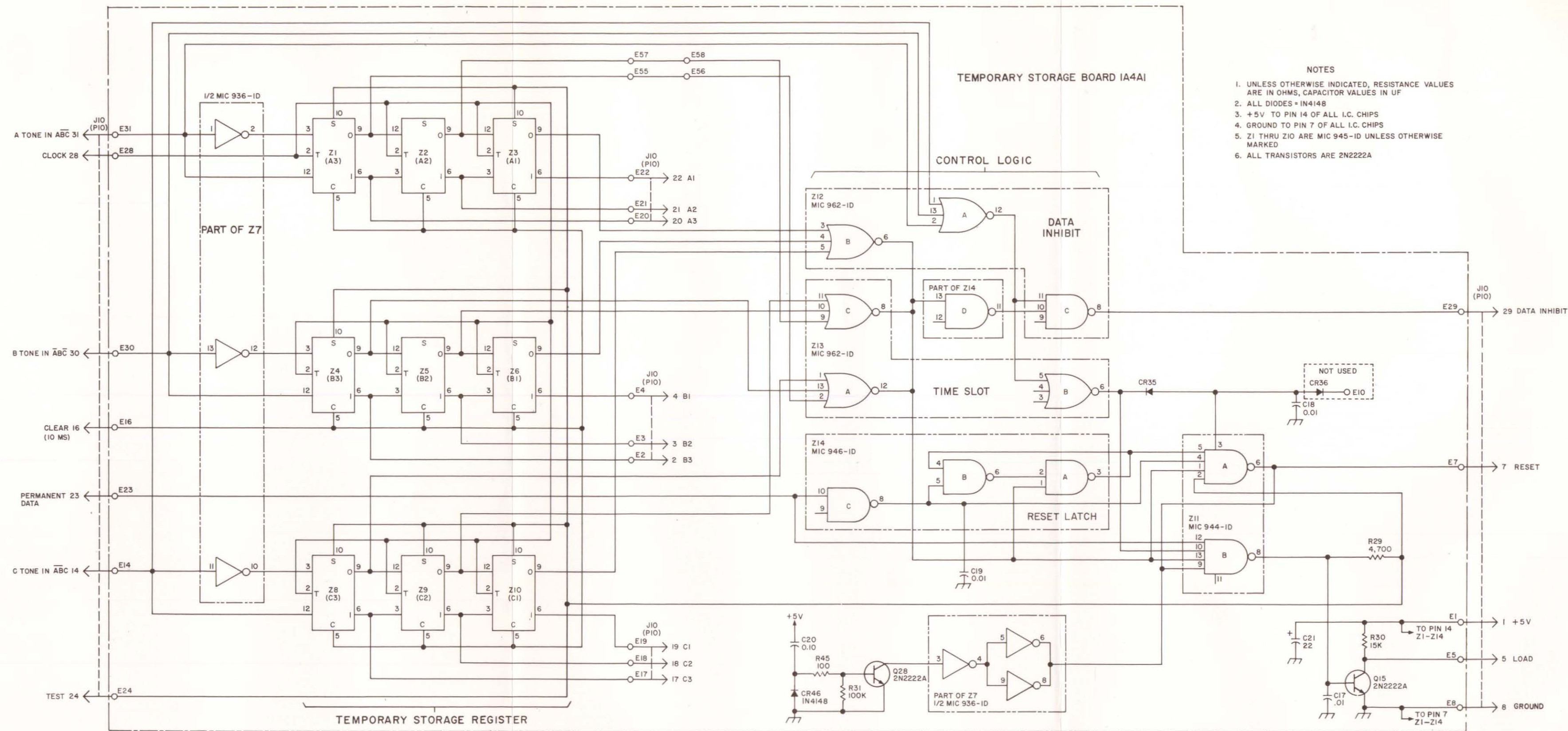
Figure 6-4. Amplifier-filter board IA5A1, complete schematic diagram.



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCE VALUES ARE IN OHMS, CAPACITOR VALUES IN UF
  2. ALL DIODES = 1N4148
  3. +VCC TO PIN 14 OF ALL I.C. CHIPS
  4. GROUND TO PIN 7 OF ALL I.C. CHIPS
  5. USAGE DETERMINED IN TEST. MAY OR MAY NOT BE REQUIRED. USE TO DECREASE Z4 SENSITIVITY.

Figure 6-5. Demodulator gates board 1A4A2, complete schematic diagram.

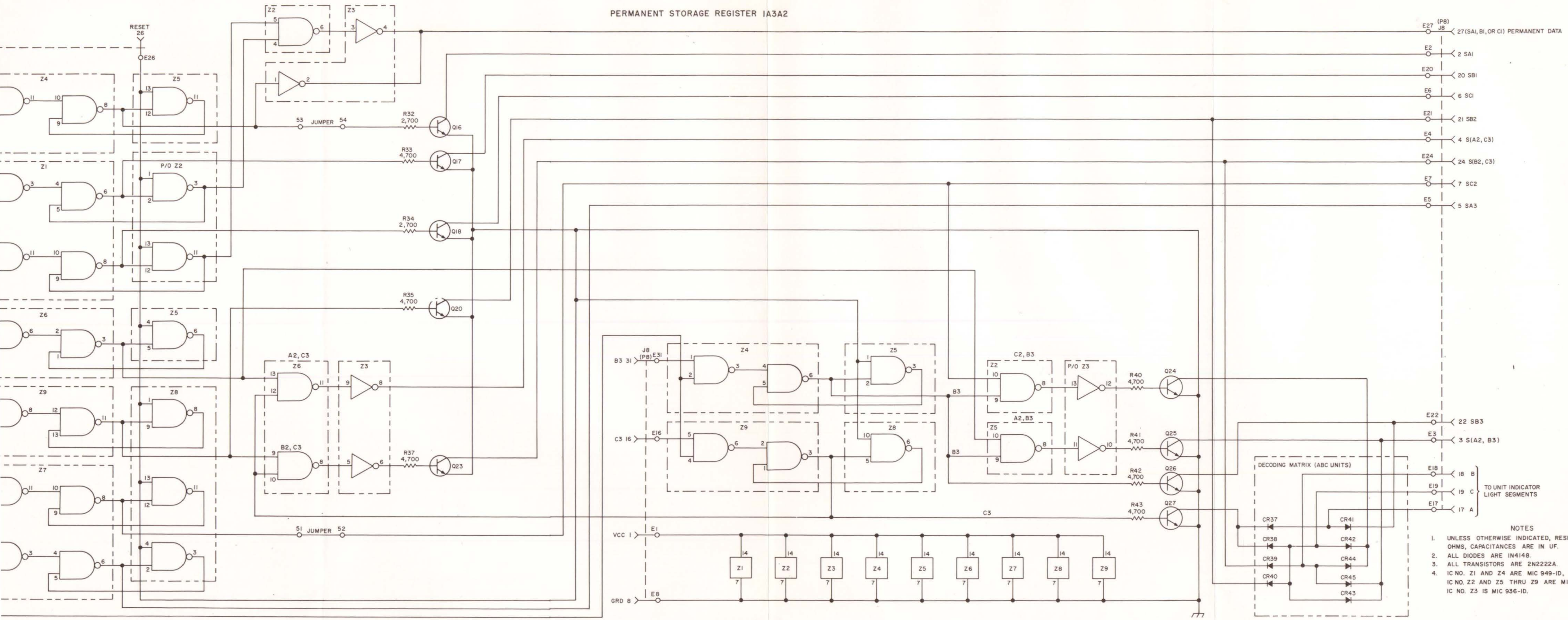




- NOTES
1. UNLESS OTHERWISE INDICATED, RESISTANCE VALUES ARE IN OHMS, CAPACITOR VALUES IN UF
  2. ALL DIODES = IN4148
  3. +5V TO PIN 14 OF ALL I.C. CHIPS
  4. GROUND TO PIN 7 OF ALL I.C. CHIPS
  5. Z1 THRU Z10 ARE MIC 945-ID UNLESS OTHERWISE MARKED
  6. ALL TRANSISTORS ARE 2N2222A

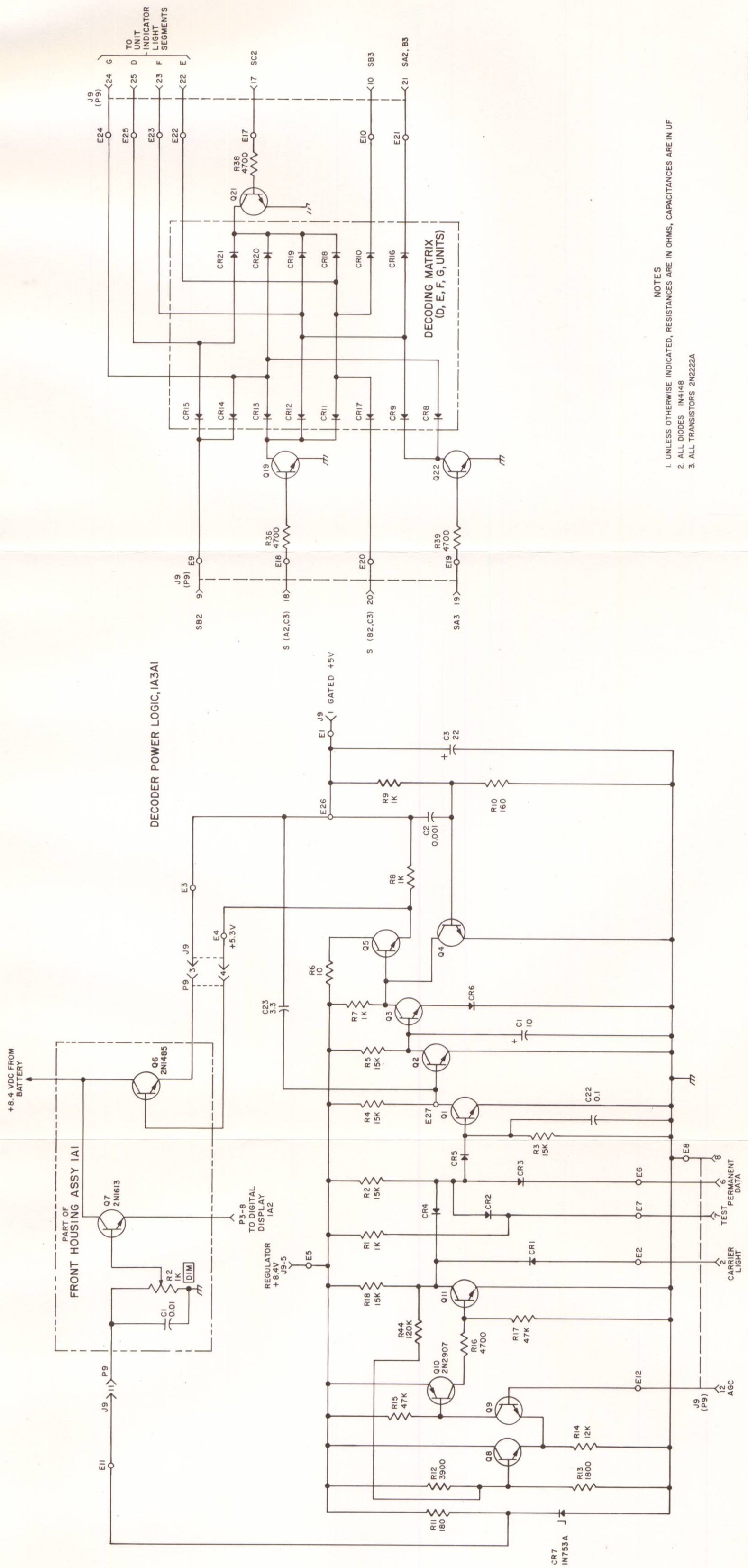
Figure 6-6. Temporary storage board 1A4A1, complete schematic diagram.

PERMANENT STORAGE REGISTER 1A3A2



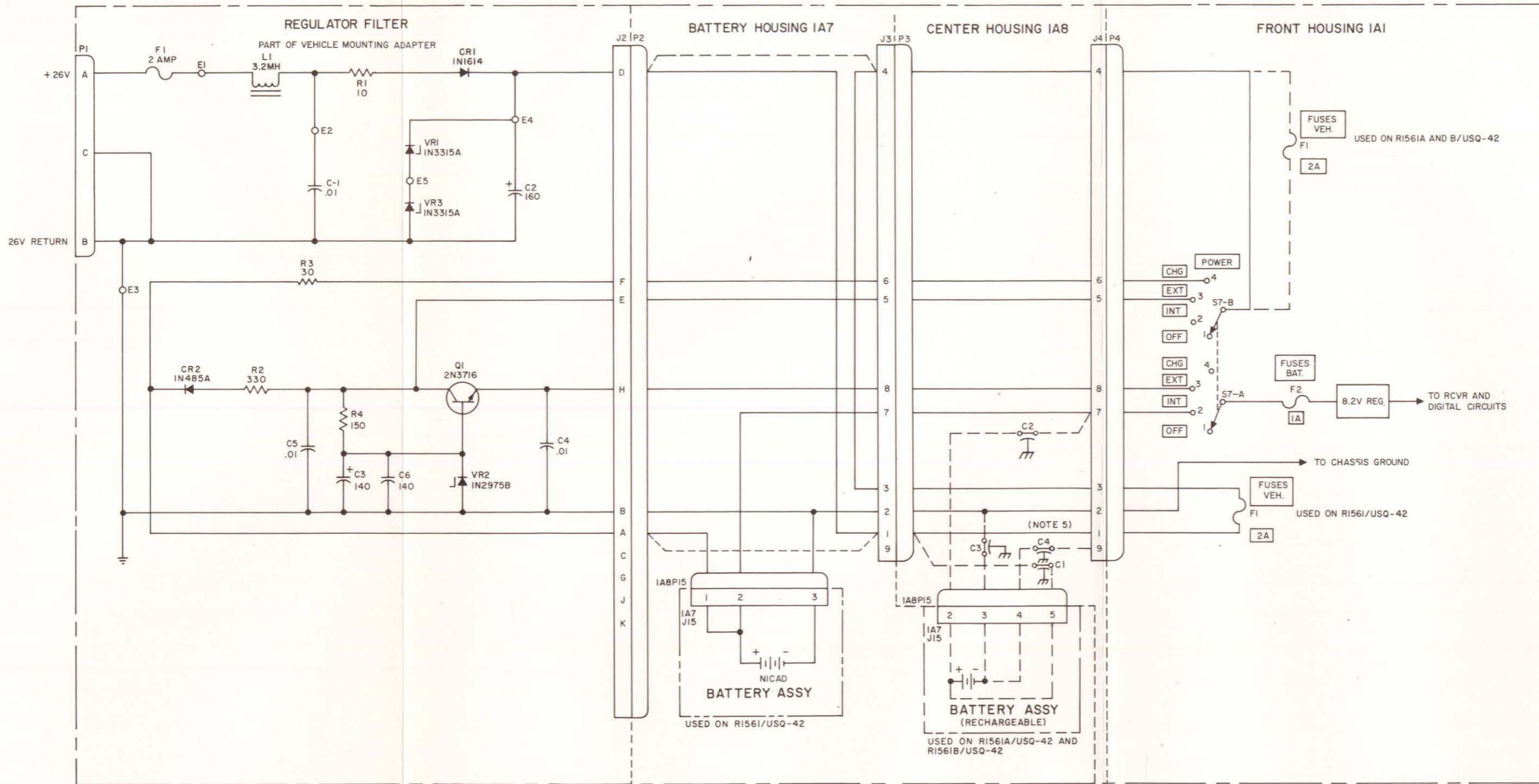
- NOTES
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UF.
  2. ALL DIODES ARE IN4148.
  3. ALL TRANSISTORS ARE 2N2222A.
  4. IC NO. Z1 AND Z4 ARE MIC 949-1D, IC NO. Z2 AND Z5 THRU Z9 ARE MIC 946-1D, IC NO. Z3 IS MIC 936-1D.

Figure 6-7. Permanent storage register board 1A3A2, complete schematic diagram.



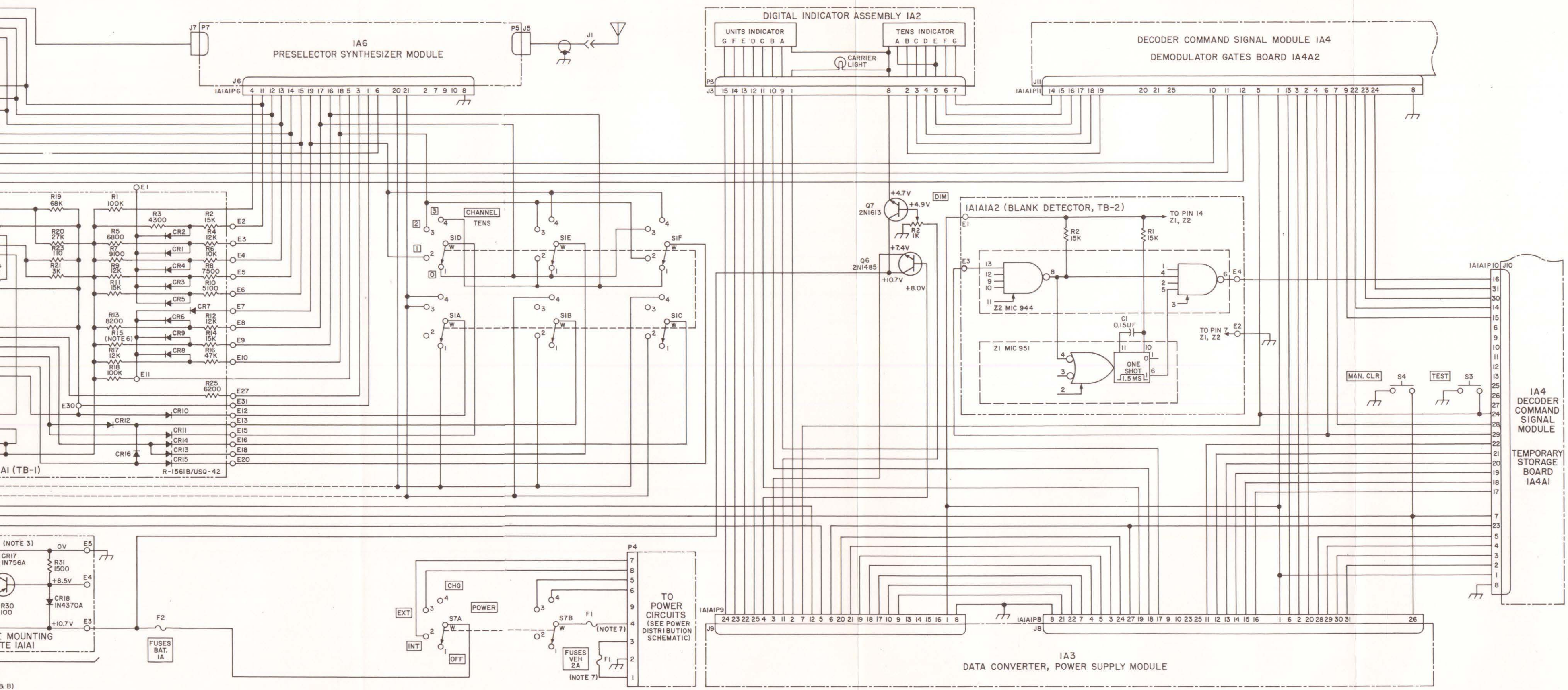
- NOTES
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UF
  2. ALL DIODES IN4148
  3. ALL TRANSISTORS 2N2222A

Figure 6-8. Decoder power logic board 1A3A1, complete schematic diagram.



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UF.
  2. INDICATES EQUIPMENT MARKING.
  3. -O- INDICATES TERMINAL.
  4. DASHED LINE CIRCUITS APPEAR ON R-1561A/USQ-42 AND R-1561B/USQ-42 MODELS.
  5. CAPACITORS IA8 C1 THRU C4 (1000 UUF) APPEAR ON R-1561A/USQ-42 AND R-1561B/USQ-42 MODELS.

Figure 6-9. Power distribution diagram.



- NOTES:
- UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, CAPACITANCES ARE UF.
  - ALL DIODES ON IAIAIA1 = 1N4148, UNLESS OTHERWISE INDICATED.
  - SERIES REGULATOR CIRCUIT (Q70, CR17, CR18, R30, AND R31) IN R-1561A/USQ-42 AND R-1561B/USQ-42 ONLY.
  - POTENTIOMETER R4 AND FILTERS FL1, FL2, AND FL3 IN R-1561A/USQ-42 AND R-1561B/USQ-42 ONLY.
  - PIN 3 OF S5A CONNECTED DIRECTLY TO GROUND IN R-1561/USQ-42.
  - RESISTOR IAIAIAIR5 SELECTED IN TEST. VALUES RANGE FROM 3300 TO 1800 OHMS. SELECTED FOR OPTIMUM TUNING VOLTAGE.
  - FUSE F1 BETWEEN P4 PINS 1 AND 3 ON R-1561/USQ-42 AND R-1561A/USQ-42. FUSE F1 BETWEEN P4 PIN 4 AND WIPER OF S7B ON R-1561B/USQ-42.
  - S6 APPEARS IN LATE A AND ALL B MODELS.
  - DASHED LINE CIRCUITS TO IAIAIAI E35, E36, E37, E38, E39 AND E40 WIRED IN R-1561/USQ-42 MODEL ONLY (TIE POINTS).
  - SIB-4, SIC-4, SID-4, AND SIE-4 WIRED ON R-1561B/USQ-42 MODEL ONLY.
  - VOLTAGES SHOWN ARE WITH A +10.7-VOLT INPUT FROM SIAI57A.

Figure 6-10. Front housing 1A1, complete schematic diagram.

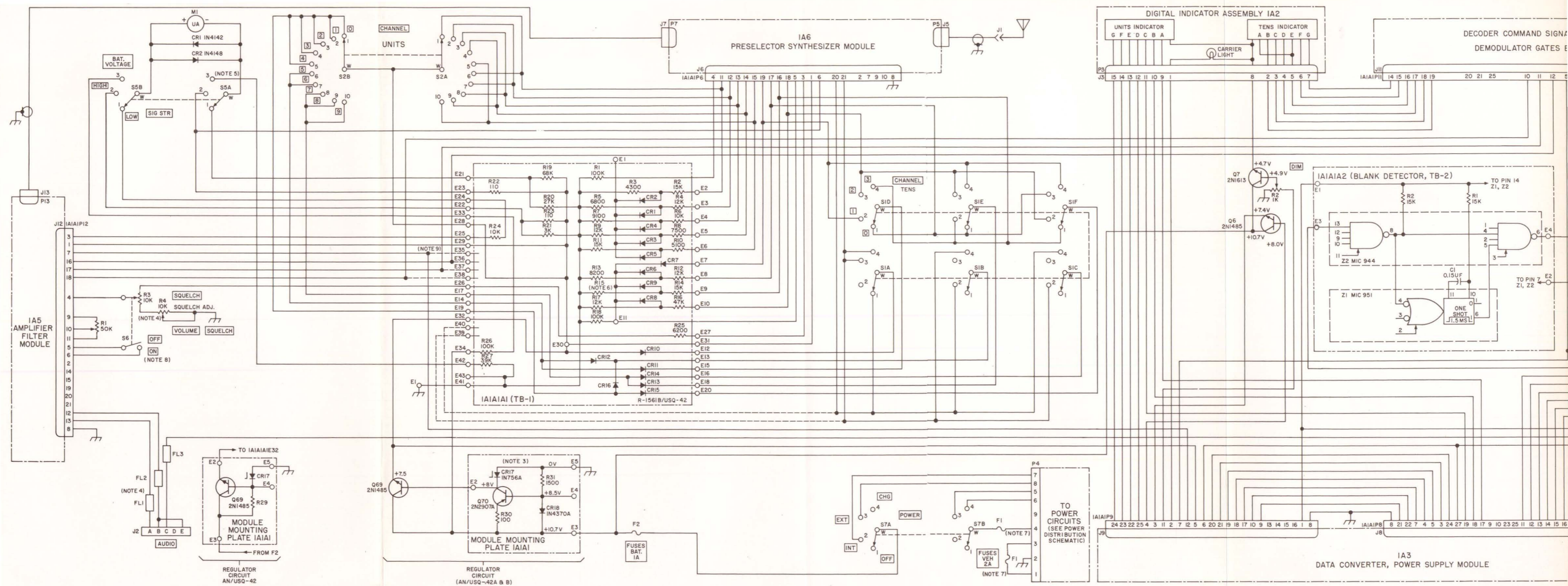
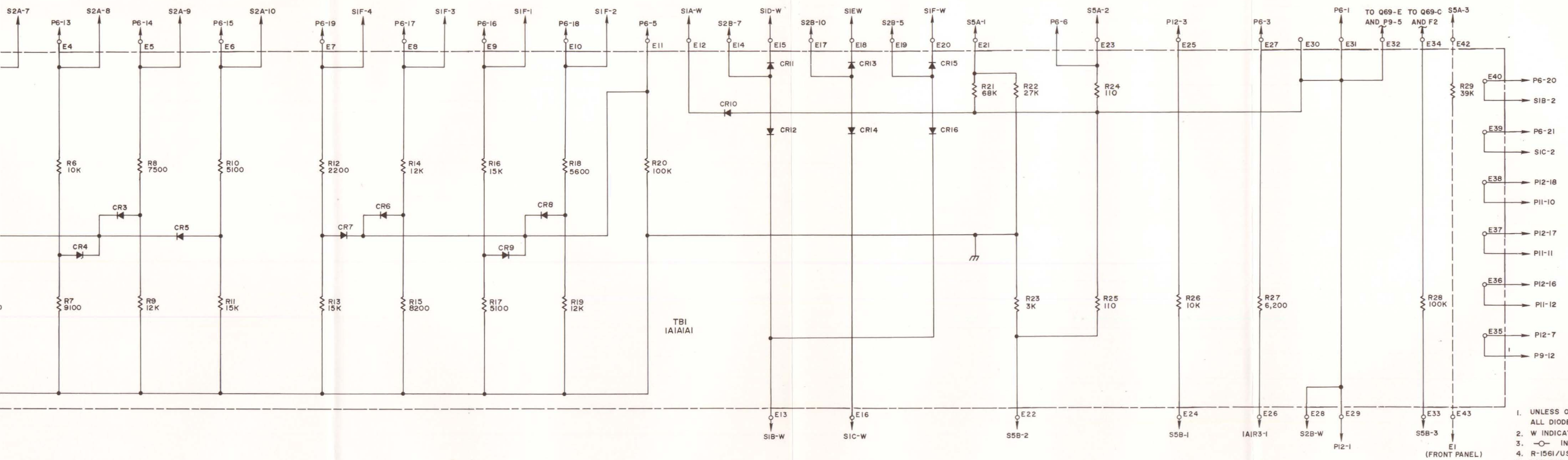
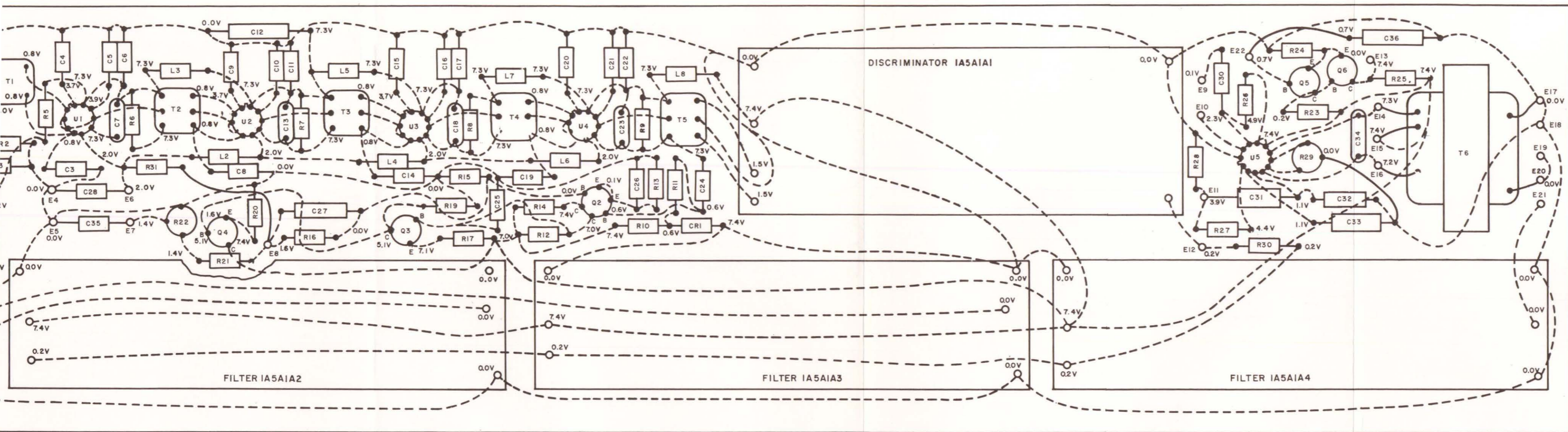


Figure 6-10. Front housing 1A1, complete schematic diagram.



- NOTES:
1. UNLESS OTHERWISE INDICATED, ALL DIODES ARE IN IN4148.
  2. W INDICATES WIPER ON SI.
  3. -O- INDICATES TERMINAL.
  4. R-156I/USQ-42 AND R-156IA/USQ-42.
  5. R29 WAS ADDED TO R-156I AND R-156IA/USQ-42 MODELS.
- EL 5840-339-35-TM-50

Figure 6-11. Voltage divider component board 1A1A1A1, complete schematic diagram (AN/USQ-42 and AN/USQ-42A)



- NOTES:
1. CIRCUIT VIEWED FROM SIDE ON WHICH PARTS ARE MOUNTED.
  2. — PARTS AND PIGTAILS ON FRONT OF BOARD.
  3. - - - WIRING ON BACK OF BOARD.

Figure 6-12. Amplifier-filter board IA5A1, component location and voltage measurement diagram.