

TM 11-2724

WAR DEPARTMENT TECHNICAL MANUAL

T7-534

INSTALLATION OF RADIO AND INTERPHONE EQUIPMENT IN CARRIAGE, MOTOR, 76-MM GUN, M18

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No person is entitled solely by virtue of his grade or position
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23b, AR 380-5, 15 March 1944.)

WAR DEPARTMENT

• APRIL 1945

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TM 11-2724
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TECHNICAL MANUAL

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MOTOR, 76-MM GUN, M18**

Changes }
No. 1 }

WAR DEPARTMENT
Washington 25, D. C., 14 July 1945

TM 11-2724, 11 April 1945, is changed as follows:

- ✓ Remove pages iii and iv and substitute revised page iii and page iv herewith.
 - ✓ Remove page 1 and substitute revised page 1 herewith.
 - ✓ Remove pages 3 through 8 and substitute revised page 3, pages 4 and 5, and revised pages 6, 7, and 8.
- Insert remaining pages at back of Manual according to order shown in new table of contents.
[AG 300.7 (5 Jul 45)]

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Refer to FM 21-6 for explanation of distribution formula.

RESTRICTED

INSTALLATION OF RADIO
AND
INTERPHONE EQUIPMENT
IN CARRIAGE, MOTOR,
76-MM GUN, M18



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WAR DEPARTMENT
Washington 25, D. C., 11 April 1945

TM 11-2724, Installation of Radio and Interphone Equipment in Carriage, Motor, 76-MM Gun, M18, is published for the information and guidance of all concerned.

[AG 300.7 (20 Mar 45)]

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DESTRUCTION NOTICE

WHY —To prevent the enemy from using or salvaging this equipment for his benefit.

WHEN—When ordered by your commander.

HOW —1. Smash—Use sledges, axes, handaxes, pickaxes, hammers, crow-bars, heavy tools.

2. Cut—Use axes, handaxes, machetes.

3. Burn—Use gasoline, kerosene, oil, flame throwers, incendiary grenades.

4. Explosives—Use firearms, grenades, TNT.

5. Disposal—Bury in slit trenches, fox holes, other holes. Throw in streams. Scatter.

USE ANYTHING IMMEDIATELY AVAILABLE FOR DESTRUCTION OF THIS EQUIPMENT

WHAT—1. Smash—All vacuum tubes, crystals, control dials, coupling coils, transformers, speakers in receivers, external loudspeakers, microphones, headsets, dynamotors, and cable connectors.

2. Cut—All connecting wires, cording, and cabling.

3. Burn—All equipment and all associated training, technical, and installation manuals.

4. Bury or scatter—All remains, after destroying their usefulness.

DESTROY EVERYTHING

SECTION I

GUIDE TO USE OF THIS MANUAL

1. Purpose

This manual provides methods and procedure, based upon actual field experience, for installation of radio and interphone equipment in Carriage, Motor, 76-mm Gun, M18. Items required to make a complete operating installation are listed for each set. Official nomenclature followed by empty parentheses, such as Headset HS-30-(), is used to indicate any model of equipment regardless of its procurement.

2. Equipment

Installations covered include the following:

- Radio Set SCR-610-().
- Interphone Equipment RC-99.
- Radio Set AN/VRC-3.

3. Holes and Brackets

Brackets required for installation of the radio set are normally drilled and installed prior to

delivery of Carriage, Motor, 76-mm Gun, M18. Drilling instructions are given in this manual for any other necessary holes and brackets. Do not relocate any holes or brackets unless absolutely necessary.

4. Preliminary Check

Study the illustrations, the installation methods outlined, and any subsequent changes to this manual.

Caution: Carriage, Motor, 76-mm Gun, M18 has a 24-volt electrical system. Before installing the radio sets, be sure they are designed for 24-volt operation, or tubes may burn out or dynamotors may be damaged.

5. Operating Check

Carefully study the Technical Manual covering the radio set before trying to operate it; then, make a thorough operating check to determine whether the equipment has been properly installed and is in working order.

SECTION II

IGNITION NOISE SUPPRESSION IN CARRIAGE, MOTOR,
76-MM GUN, M18

6. General

Excessive ignition or other electrical noises may interfere with operation of radio equipment in Carriage, Motor, 76-mm Gun, M18. The Technical Manual issued with the vehicle will be helpful in locating the source of the noise, since it describes the suppression system used. Study instructions for operating radio equipment used in this vehicle. See TM 11-483 for additional information on suppression of ignition noise in vehicles.

7. Procedure

Locate and suppress ignition noises as follows:

- a. Place another radio set of the same type as installed in vehicle at a remote location far enough away from the vehicle to provide signals at weakest level that can be distinctly heard in the receiver of the radio set under test. Set radio receiver gain control to maximum and listen to output of receiver with a headset.
- b. Start motor of the vehicle and accelerate vehicle engine to about 1,000 rpm. Check reception of weak signals from remote radio set at each frequency used for communication.
- c. When the frequency (or frequencies) with greatest noise level that affects reception of the weak signals is found, leave the receiver tuned to one particular frequency and turn off the vehicle ignition switch. That part of noise which stops when the ignition switch is turned off is caused by the ignition system. Noise which lingers after the switch is turned off and continues until the vehicle motor comes to a stop is caused by voltage regulator or by battery-charging generator. Auxiliary equipment, such as oil, fuel and temperature gauges, fans, motors, or others, should be turned on and off or disconnected individually in order to locate noises caused by them.

d. The table below will be helpful in distinguishing engine noises from static, etc.

Interference	Usual source
Popping: regular clicks corresponding to ignition firing; stops when motor is turned off; accelerates when motor speed is increased.	Ignition system.
Intermittent clicks: linger for several seconds when ignition system is turned off.	Generator regulator.
Whine: varies with speed of motor; ceases when motor comes to a complete stop.	Generator.

e. A probe antenna, figure 8, connected to antenna and ground terminals of radio set under test will sometimes aid materially in locating source of interference. Slowly move the loop of probe antenna over the various parts of electrical system, close to, but not in contact with, the part under examination. Noise from interference-producing parts should be heard in receiver.

f. Usually interference can be eliminated by cleaning, tightening, or replacing noise-producing parts. Examine and tighten all suppressor and shielding components, and all connections and grounding bonds. Clean surface under them. This will assure good electrical contact between wires and terminals and between metal casings and the frame of the vehicle. (Insulated but ungrounded metal parts absorb and reradiate electrical noises.)

g. If interference persists, check suppressor components by substituting new ones. If a replacement is not available, disconnect the suspected component, and test capacitors, resistors, and chokes within it. Replace any that are defective.

SECTION III

RADIO SET SCR-610-()

8. Required Parts

Items necessary for installation of Radio Set SCR-610-() in Carriage, Motor, 76-mm Gun, M18 are listed below:

Basic unit Stock No. 2S610/24			Basic unit Stock No. 2S610/24 (contd.)		
Quantity	Stock No.	Item	Quantity	Stock No.	Item
1	6Q349	Alignment Tool TL-207.	1	2Z8056	Roll BG-56-().
1	2A229C	Antenna AN-29-C.	15 ft	6Z7926	Rope RP-5, for tying down mast sections.
1	3B879	Case CS-79.	1	2Z9019	Strap ST-19.
1	2Z1890-137	Case CS-137.	2	6D13037	TM 11-615, for Radio Set SCR-610-().
1	6Z3147	Connector No. 61007 and Bondnut BL-50.	1	3H6711	Vibrator VB-11.
1	2A2352/1	Fitting, including spare.	1	27 ft 1B29	Wire W-29.
1	2B613	Handset TS-13, a spare.	6 ft	1B128	Wire W-128.
2	3G586	Insulator IN-86, for tying down mast sections.	Installation unit Stock No. 2S610-V65/50		
1	2G1250-64.15	Insulator, glazed porcelain.	Quantity	Stock No.	Item
2	2A2081-15	Mast Base AB-15/GR.	1	3A41	Battery BA-41.
2	2A2416	Mast Section MS-116, including spare.	1	3E1307-5.5	Cord CD-307.
2	2A2417	Mast Section MS-117, including spare.	1	3E1318	Cord CD-318.
2	2A2418	Mast Section MS-118, including spare.	1	3E1604	Cord CD-604.
1	2Z6721-250	Mounting FT-250-().	1	2Z3400-153	Cover BG-153.
1	3H4496-120	Power Supply Unit PE-120-().	1	6L50-610V65	Hardware bag.
1	2C5379	Radio Receiver and Transmitter BC-659-().	1	2B830	Headset HS-30.
			2	3G621	Insulator IN-121, including spare.
			1	2B1645	Microphone T-45.

¹ Items used for portable, fixed, or emergency operation.

² When Mast Base AB-15/GR, Mast Sections MS-116, MS-117, and MS-118 are not available, use Mast Base MP-48 or MP-48-A, Mast Sections MS-51, MS-52, MS-53, Clamps MC-423 and MC-424, and Cover BG-108.

³ Headset HS-18 (Cord CD-604 not required) or Headset P-18 (Cords CD-604 and CD-307 not required) may be substituted for Headset HS-30.

9. Assembly and Installation

Components of Radio Set SCR-610-() should be installed in Carriage, Motor, 76-mm Gun, M18 as shown in figure 1 and as directed below:

Part and location	Method and materials
Mounting FT-250-() (item 3, fig. 1), on mounting plate (item 31) attached floor of turret bulge.	Secure Mounting FT-250-() to mounting plate with hardware provided as shown in figure 1.
Power Supply Unit PE-120-() (item 2, fig. 1), on Mounting FT-250-().	Open case of Power Supply Unit PE-120-() and remove chassis cover. Install Vibrator VB-11 in its socket. Make certain that connector link is in BC-659 position; that change-over plug is set for 24 volts, and that tubes are pressed down firmly in their proper sockets. Replace cover on chassis and close case of power supply unit. Place unit on Mounting FT-250-() and secure with catch-clips provided.

<i>Part and location</i>	<i>Method and materials</i>
Battery BA-41, in battery compartment of Radio Receiver and Transmitter BC-659-().	Remove ten screws on outer edges of front panel of radio receiver and transmitter, and pull chassis out from case. Remove cover of battery compartment located on chassis, and insert battery into compartment. While chassis is out of its case, see that all tubes are in proper sockets and pushed down firmly; that crystals for desired operating frequencies are in their sockets; and that retaining clip is in position to hold them securely. Do not interchange these crystals. See that two toggle switches near left edge of chassis are in ON position. Replace chassis in case.
Radio Receiver and Transmitter BC-659-() (item 1, fig. 1), on Power Supply Unit PE-120-().	Place on Power Supply Unit PE-120-() and secure with catch-clips provided.
Insulator IN-121 (item 12, fig. 1), in hole provided beside mast base.	Place insulator through hole, with flange end outside, and secure with clip provided.
Mast Base AB-15/GR (item 4, fig. 1), in hole in roof of turret bulge.	Disassemble Mast Base AB-15/GR by holding lower insulator and turning body of mast base counterclockwise. Install mast base in hole in roof. Refer to figure 4 and assemble mast base as follows: Place insulator, item 5, over hole in roof. Place small neoprene washer, item 4, over item 5 and place plain washer, item 3, over item 4. Insert body of mast base, item 2, through hole in items 3, 4, 5, 6, and hole in roof. Insert bolt, item 8, through item 7 and into item 2 from under side and turn item 2 clockwise until mast base is tightened securely. Cut a 37-inch length of Wire W-128. Strip back ½ inch of insulation from each end and solder-tin tips. CAUTION: Wire W-128 must be exactly 36 inches long between binding post on mast base and antenna terminal on receiver and transmitter. Connect Wire W-128 to binding post on bottom of mast base and route wire to antenna terminal of left side of Radio Receiver and Transmitter BC-659-().
Mast Sections MS-116, MS-117, and MS-118 (items 5, 6, and 7, fig. 1), in mast base.	Screw mast sections together and secure joints with friction tape to prevent loss. Mast sections are carried in Roll BG-56-() when not in use.
Connector No. 61007, Bondnut BL-50 (items 13 and 14, fig. 1) and power cord for Power Supply Unit PE-120-(), to turret terminal box (item 37, fig. 1).	Slip connector over power cord at terminal box end. Remove terminal box knock-out most convenient for short connections. Secure connector to terminal box with bondnut. Connect terminal lugs of power cord to 24-volt positive and negative terminals as marked. Note: If Plate Supply Unit PE-117-() is substituted for Power Supply Unit PE-120-(), the connection must be made to 12-volt terminals, and plate supply unit adjusted for 12-volt operation.
Case CS-137.	Place remaining crystals in Case CS-137; stow case in Power Supply Unit PE-120-().

SECTION IV

INTERPHONE EQUIPMENT RC-99

10. Required Parts

Items necessary for installation of Interphone Equipment RC-99 in Carriage, Motor, 76-mm Gun, M18 are listed below:

Basic unit Stock No. 2S99/24			Installation unit Stock No. 2S99-V65/50		
Quantity	Stock No.	Item	Quantity	Stock No.	Item
4	6Z3147	Connector No. 61007 and Bondnut BL-50.	4	4B417-4	Chest Set TD-4.
2	2C675-739	Control Box BC-739-A, including Mounting FT-507, connectors, and hardware.	3	6Z3147	Connector No. 61007 and Bondnut BL-50.
1	2C1637	Interphone Amplifier BC-667-().	30 ft	3E2213	Cordage CO-213.
1	2C1738	Interphone Control Box BC-606-H, including Mounting FT-507, connectors, and hardware.	1	6L50-99V65	Hardware bag.
2	6D13033	TM 11-702.	4	2B800-16	Headset H-16/U.
			1	2C1738	Interphone Control Box BC-606-H.
			4	2B1645	Microphone T-45.
			1	6H306	Reel Assembly RL-106/V1, including:
			1	3E1264	Cord CD-264.
			1	3E1265	Cord CD-265.
			75 ft	3E2146	Cordage CO-146.
			1	6H875-171	Guide Ring MX-171/V1.
			1	2Z5600-65	Junction Box J-65/V1.
			1	6H6308	Reel RL-108/V1.
			2	6D13244	TM 11-2254.

¹ If Control Box BC-739-A is not available, Control Box BC-739 may be used.

² If Interphone Control Box BC-606-H is not available, Interphone Control Box BC-606-A, -B, -C, -D, -E, -F, or -G may be used.

11. Assembly and Installation

Components of Interphone Equipment RC-99 should be installed in Carriage, Motor, 76-mm Gun, M18 (figs. 1 and 3) as directed below:

<i>Part and location</i>	<i>Method and materials</i>
Cordage CO-213 (items 19, 20, 21, 22, 23, and 24, fig. 1).	Prepare ends of cable by stripping back insulation and solder-tinning ends. Provide a soldered ground connection for inner and outer shielding at both ends of cable. Tape ends of all unused wires.
Interphone Amplifier BC-667-() (item 11, fig. 1), on bracket on left side of turret bulge.	See figure 1. Remove eight screws at edge of front panel and pull out chassis. Remove two knock-outs from amplifier case for power cord and interphone cable. Wire as shown in figure 2. Secure cords to amplifier case with connectors and bondnuts provided. Secure amplifier case to bracket (fig. 1).
Control Boxes BC-739-A (item 10, fig. 1), on Mountings FT-507.	Wire control boxes as shown in figure 2. Secure Mountings FT-507 to brackets attached to left and right sides of turrets. Studs and nuts are provided with boxes for securing Control Boxes BC-739-A to mountings. Bush Cordage CO-213 through hole in side of control

Part and location

Method and materials

Interphone Control Boxes BC-606-H (item 9, fig. 1), on Mountings FT-507.

box. Use connector provided with box. If Control Box BC-739 is supplied, boxes are secured directly to brackets and cordage is secured with clamp No. 4. Substitute control boxes must be waterproofed as directed in TB SIG 140 for Interphone Control Box BC-606-D.

Connectors No. 61007 and Bond-nuts BL-50 (items 13 and 14, fig. 1).
Cordage CO-213.

Wire Interphone Control Boxes BC-606-H as shown in figure 23. Secure Mountings FT-507 to brackets at center of hull. Studs and nuts are provided with boxes for securing Interphone Control Box BC-606-H to mounting. Bush Cordage CO-213 through hole in side of interphone control box with connector provided with box. If Interphone Control Box BC-606-H is not available, substitute boxes are wired as shown in figure 2. These boxes are fastened directly to brackets, and cordage is secured with clamp No. 4. Substitute interphone control boxes must be waterproofed as directed in TB SIG 140 for Interphone Control Box BC-606-D.

Reel Assembly, Assembly RL-106/V1.

Locate on hull terminal box, turret terminal box, and Interphone Amplifier BC-667-() in position shown in figure 1.
Complete interconnection of component parts as shown in figure 2.

Mounting block (item 4, fig. 3), on left wall of turret.

See TM 11-2254 and disassemble reel assembly as follows: Place brake lever in drag position. Place a wrench on square shoulder of spindle, hold mounting block on other side of reel, and unscrew spindle from mounting block. This removes entire reel unit except brake disk from mounting block. Remove brake disk by removing the four screws holding brake disk and mounting block together. See figure 3 and proceed with installation.

Guide Ring MX-171/V1 (item 3, fig. 3), on left wall of turret.

Weld mounting block securely to left side wall of turret, forward from turret bulge, as shown in figure 3. Relocate hooks.

Reel RL-108/VI (item 1, fig. 3), on mounting block.

Weld guide ring securely to left side wall of turret, as shown in figure 3, cutting pad as required. Replace brake disk on mounting block, and secure with No. 8 screws previously removed.

Cords CD-264 and CD-265 (items 5 and 6, fig. 3).

Replace entire reel unit on mounting block. Place brake lever in drag position, and screw spindle into mounting block.

Cordage CO-146 (item 7, fig. 3).

Insert plugs on Cords CD-264 and CD-265 into jacks on jack box on Reel RL-108/VI and into commander's Control Box BC-739-(), located on left side wall of turret, as shown in figure 3.

Thread Cordage CO-146 through Guide Ring MX-171/V1 and install in Junction Box J-65/V1, installed in bracket on guide ring (fig. 3).

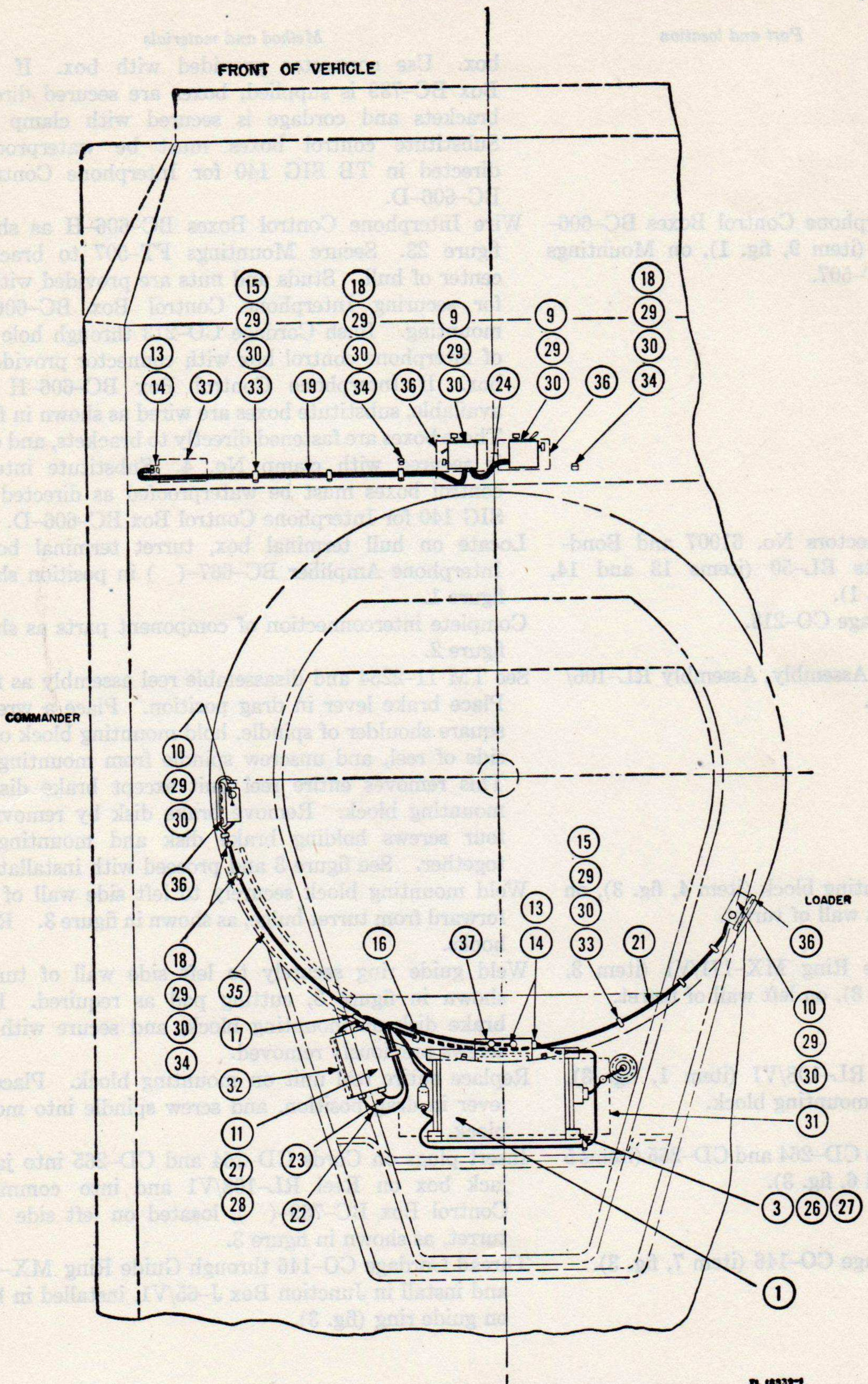
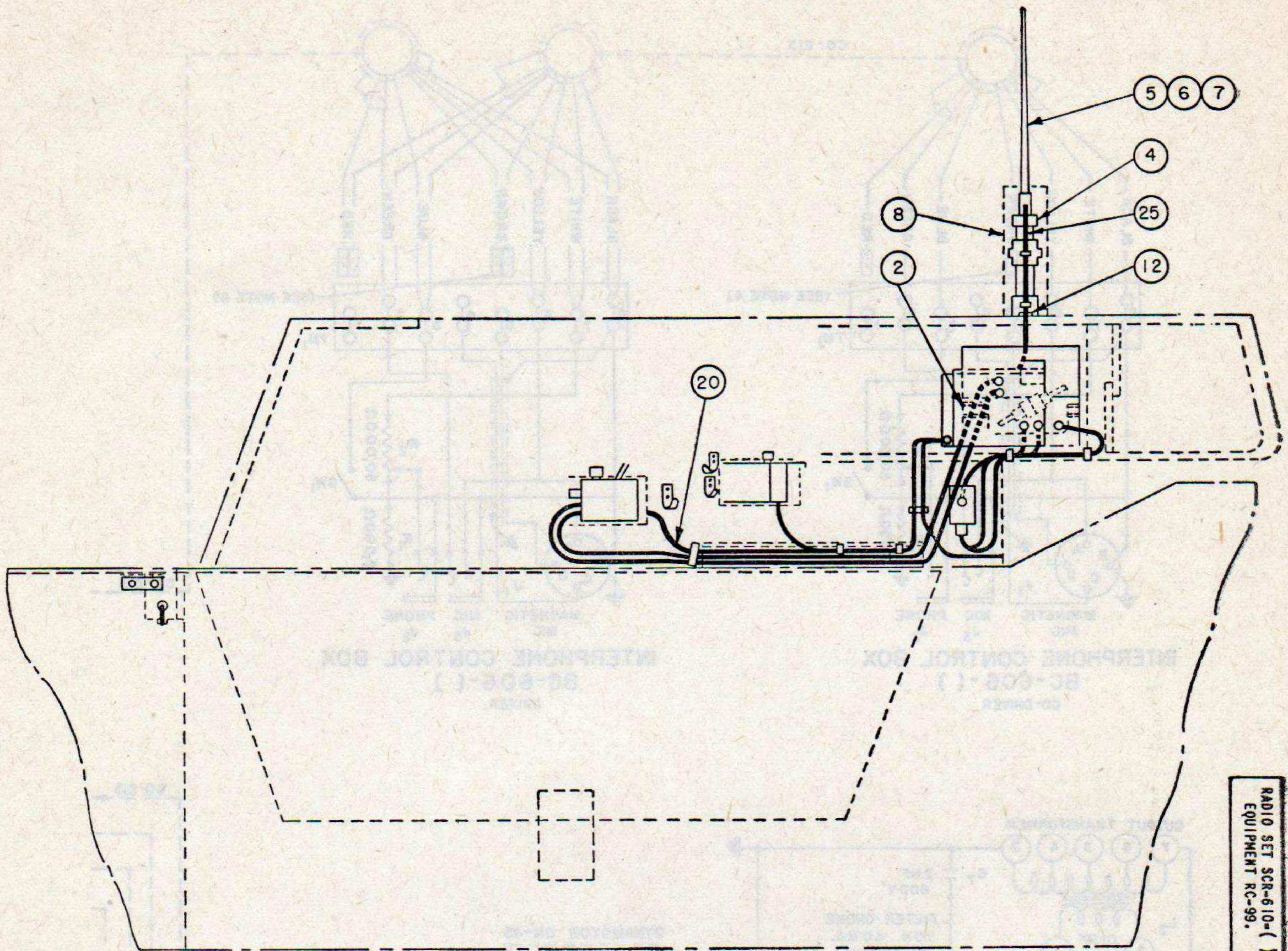


Figure 1. Installation of Radio Set SCR-610-() and Interphone.

VL 18939-1



RADIO SET SCR-610-() AND INTERPHONE EQUIPMENT RC-99.

NOTES:

1. (15) (18) (29) AND (30) ARE FURNISHED WITH (9) AND (10)
2. FOR ADDITIONAL COMPONENTS AND SPARE PARTS, SEE PARTS LIST.
3. (31) TO (37) INCLUSIVE SHALL BE FURNISHED AND INSTALLED BY THE VEHICLE MANUFACTURER.
4. FOR WIRING DIAGRAM OF INTERPHONE EQUIPMENT RC-99, SEE FIG. 2.
5. END OF WIRE (25) AFTER BEING CUT TO PROPER LENGTH SHALL BE TINNED FOR CONNECTION TO BINDING POST.
6. USE (8) WHEN MAST SECTIONS ARE NOT INSTALLED.
7. (17) SHALL BE MOUNTED WITH EXISTING SCREW ON (35)
8. USE MAST BASE AB-15/GR AND MAST SECTIONS MS-116 AND MS-117 AND MS-118 WHEN AVAILABLE.

ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	RADIO RECEIVER AND TRANSMITTER BC-659-()	8
2	POWER SUPPLY UNIT PE-120-()	1
3	MOUNTING FT-250-()	1
4	MAST BASE MP-48 OR MP-48-A	1
5	MAST SECTION MS-51 WITH CLAMP MC-423	} SEE NOTE 8
6	MAST SECTION MS-52 WITH CLAMP MC-424	
7	MAST SECTION MS-53	
8	COVER BG-108 SEE NOTE 6	1
9	INTERPHONE CONTROL BOX BC-606-()	2
10	CONTROL BOX BC-739-()	2
11	INTERPHONE AMPLIFIER BC-667	1
12	INSULATOR IN-121	1
13	CONNECTOR NO. 61007	8
14	BONDNUT BL-50	8
15	CLAMP NO. 4 SEE NOTE 1	} PER FIG. 6
16	CLAMP NO. 7	
17	CLAMP NO. 9 SEE NOTE 7	
18	HOOK PER FIG. 7 SEE NOTE 1	5
19	CORDAGE CO-213 67 IN. LONG	1
20	CORDAGE CO-213 62 IN. LONG	1
21	CORDAGE CO-213 92 IN. LONG	1
22	CORDAGE CO-213 58 IN. LONG	1
23	CORDAGE CO-213 45 IN. LONG	1
24	CORDAGE CO-213 14 IN. LONG	1
25	WIRE W-128 36 IN. LONG SEE NOTE 5	1
26	HEX. HEAD MACH. SCREW 1/4-20 X 3/4 LONG	4
27	LOCKWASHER STD. FOR 1/4 SCREW	8
28	HEX. HEAD MACH. SCREW 1/4-20 X 1 LONG	4
29	ROUNDHEAD MACH. SCREW NO. 8-32 X 3/8 LONG SEE NOTE 1	35
30	LOCKWASHER STD. FOR NO. 8 SCREW SEE NOTE 1	35
31	MOUNTING PLATE	1
32	AMPLIFIER BRACKET	1
33	SPACER	13
34	SPACER	5
35	GUARD	1
36	BRACKET	4
37	TERMINAL BOX	2

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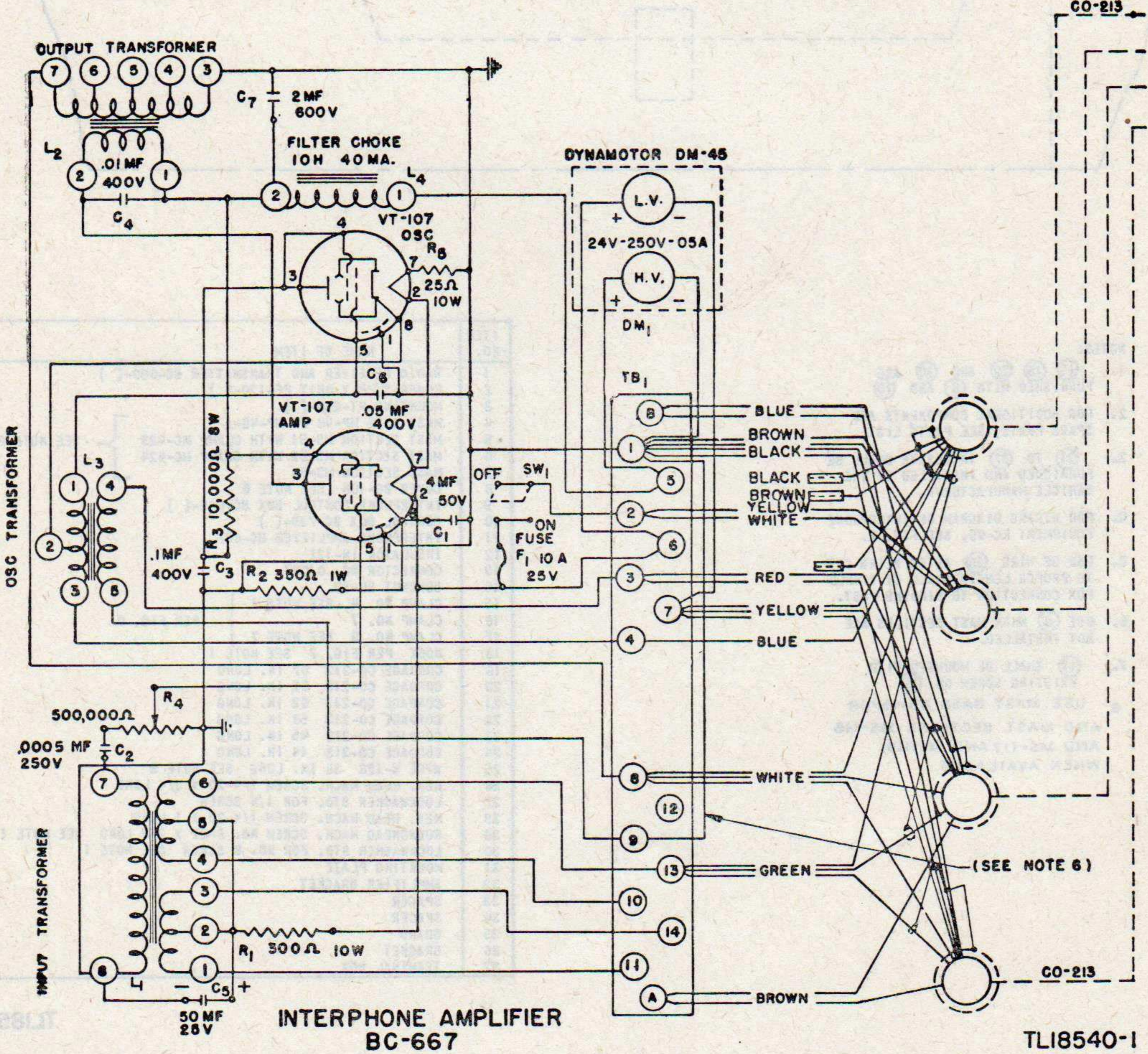
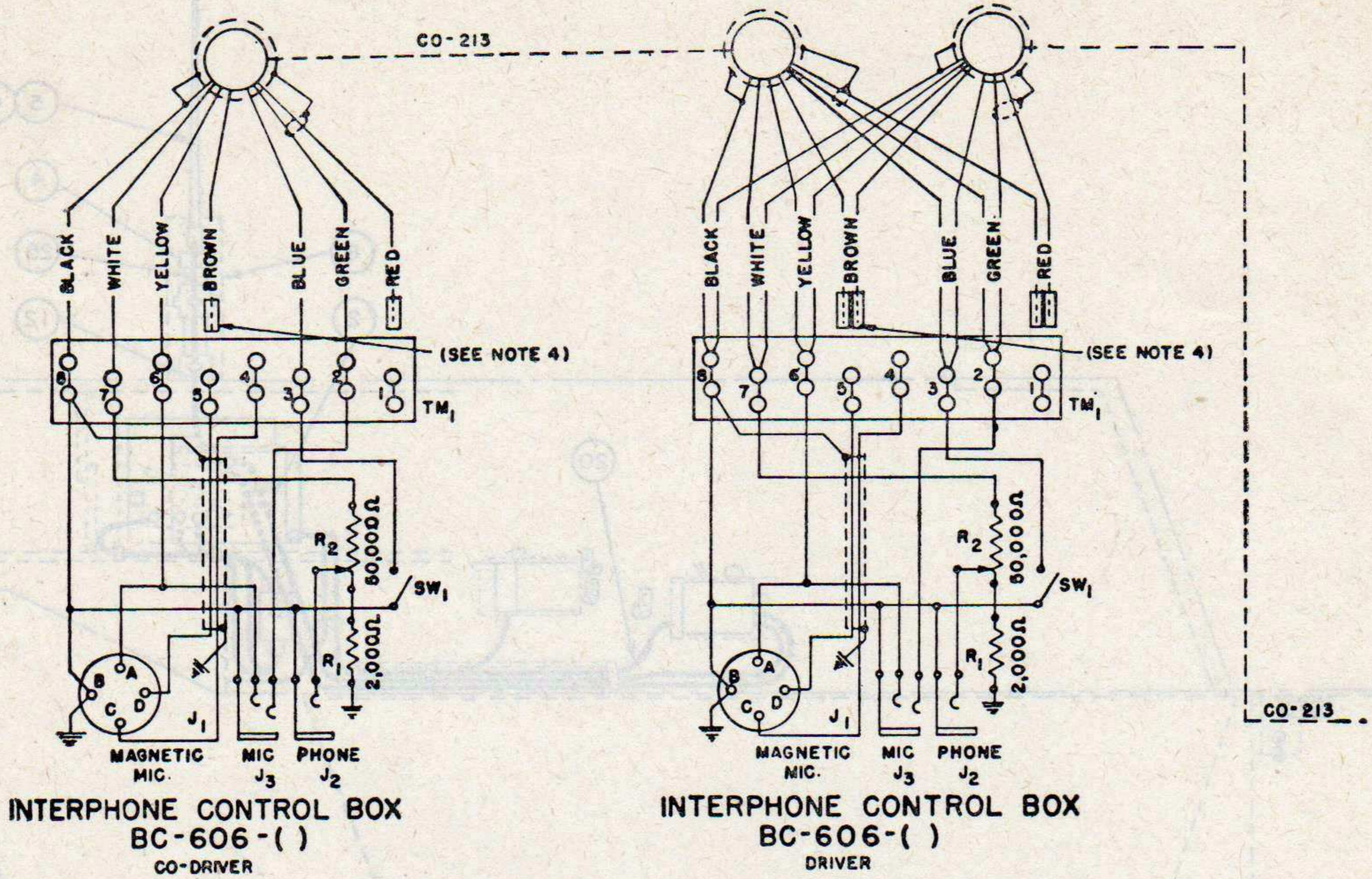
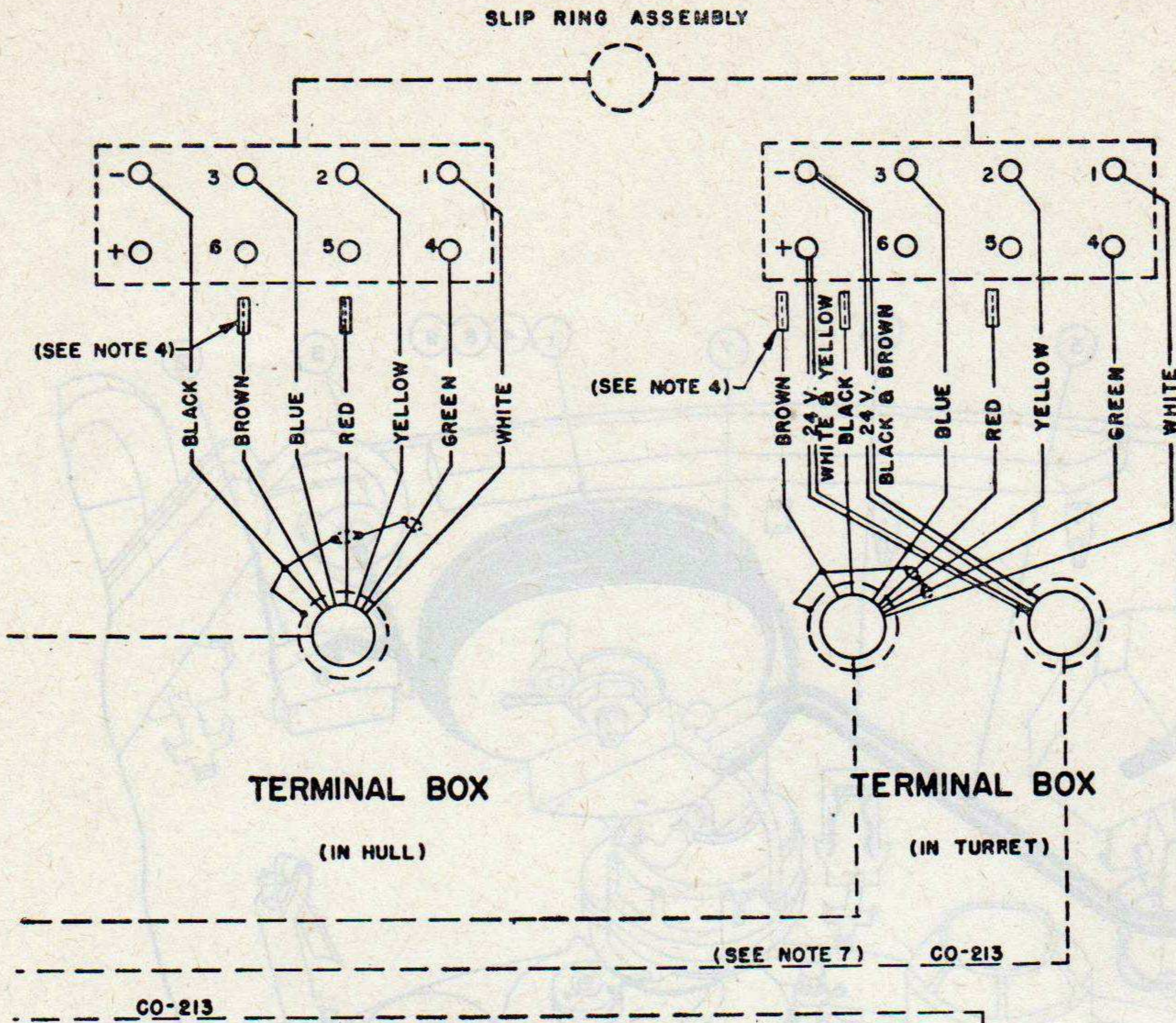
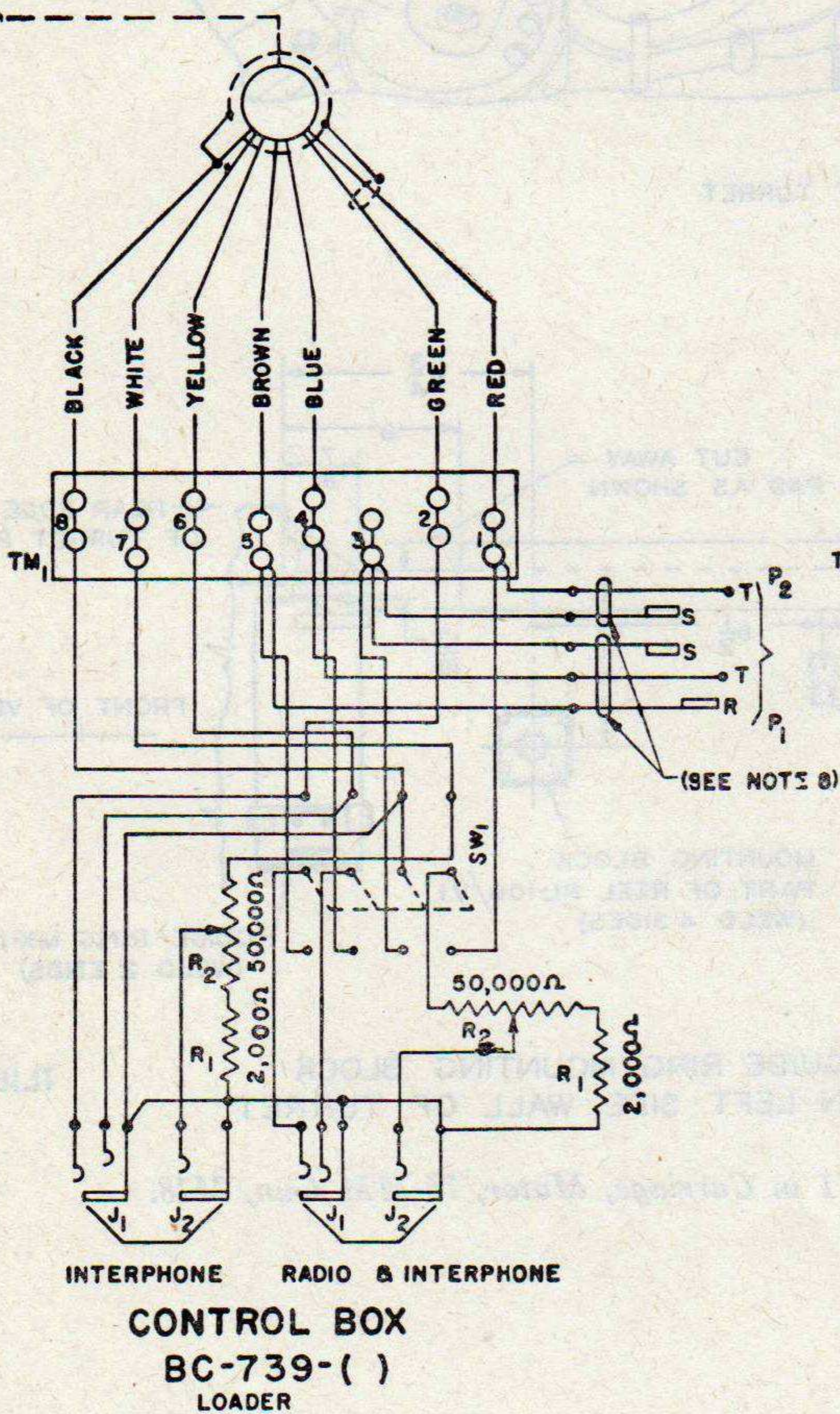


Figure 2. Wiring Diagram of Interphone Equipment

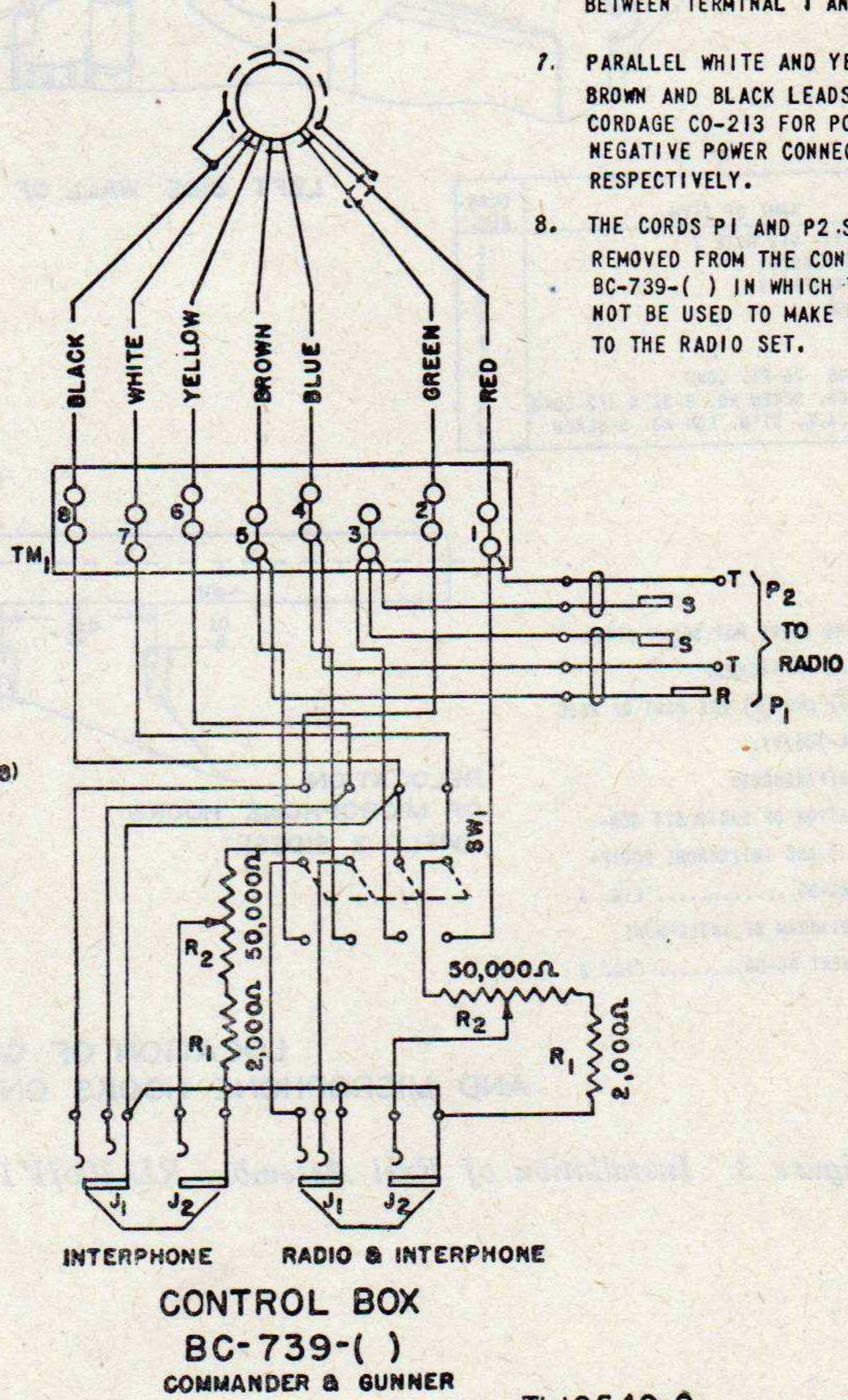


NOTES:

1. FOR INSTALLATION OF RADIO SET SCR-610-() AND INTERPHONE EQUIPMENT RC-99 SEE FIG. 1.
2. FOR WIRING OF SLIP RINGS AND TERMINAL BOXES SEE FIG. 5.
3. SHIELD OF CABLE AND SHIELD OF TWISTED PAIR OF LEADS IN CABLE SHALL BE SECURELY GROUNDED AT BOTH ENDS.
4. ENDS OF ALL UNUSED CABLE WIRES SHALL BE TAPED.
5. DOTTED CIRCLE AROUND CABLE INDICATES SHIELD.
6. A JUMPER WIRE MUST BE CONNECTED BETWEEN TERMINAL 1 AND 9.
7. PARALLEL WHITE AND YELLOW LEADS, BROWN AND BLACK LEADS OF CORDAGE CO-213 FOR POSITIVE AND NEGATIVE POWER CONNECTIONS, RESPECTIVELY.
8. THE CORDS P1 AND P2 SHOULD BE REMOVED FROM THE CONTROL BOX BC-739-() IN WHICH THEY WILL NOT BE USED TO MAKE CONNECTIONS TO THE RADIO SET.

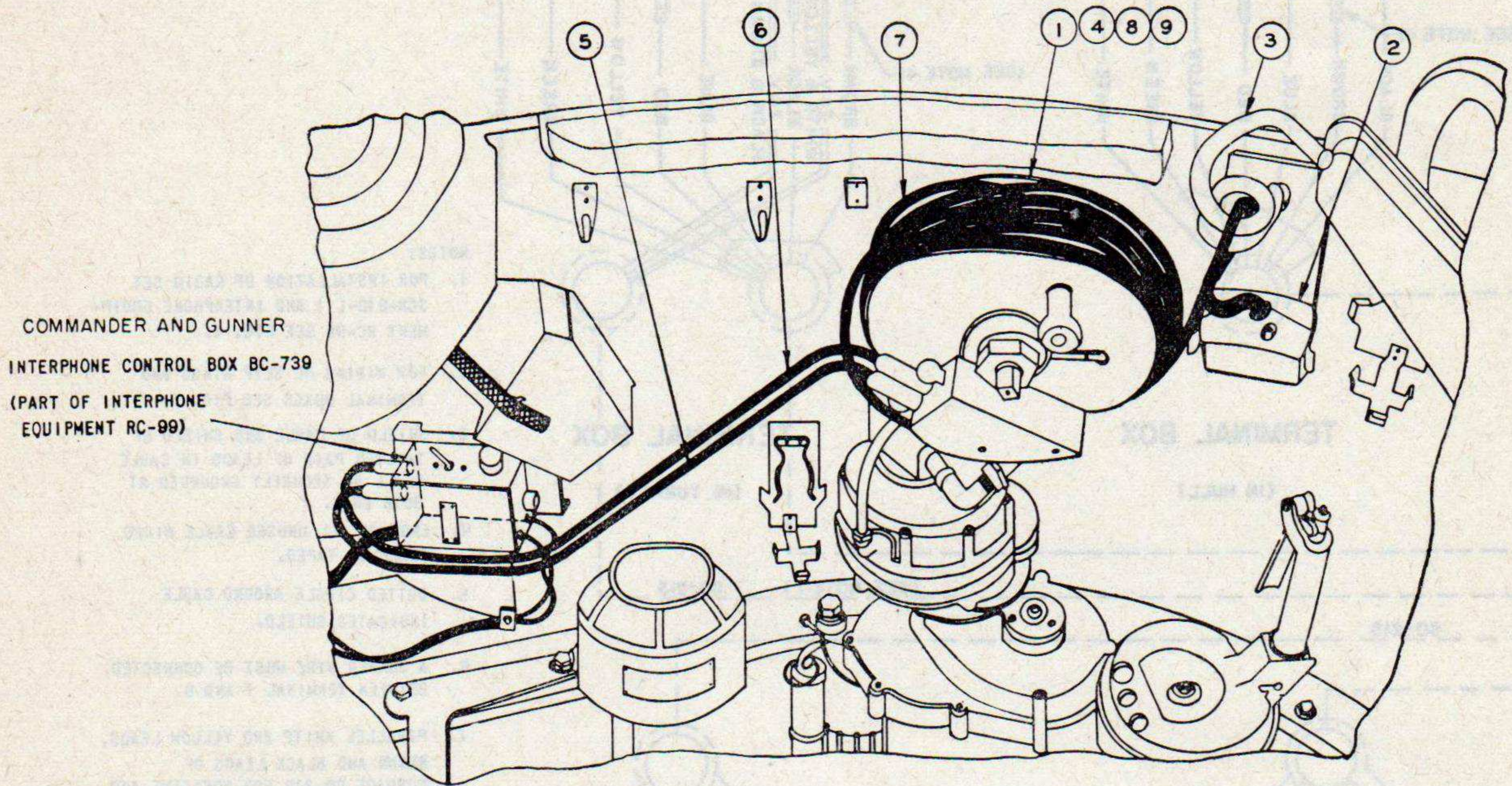


INTERPHONE RADIO & INTERPHONE
CONTROL BOX
 BC-739-()
 LOADER



INTERPHONE RADIO & INTERPHONE
CONTROL BOX
 BC-739-()
 COMMANDER & GUNNER

TL18540-2

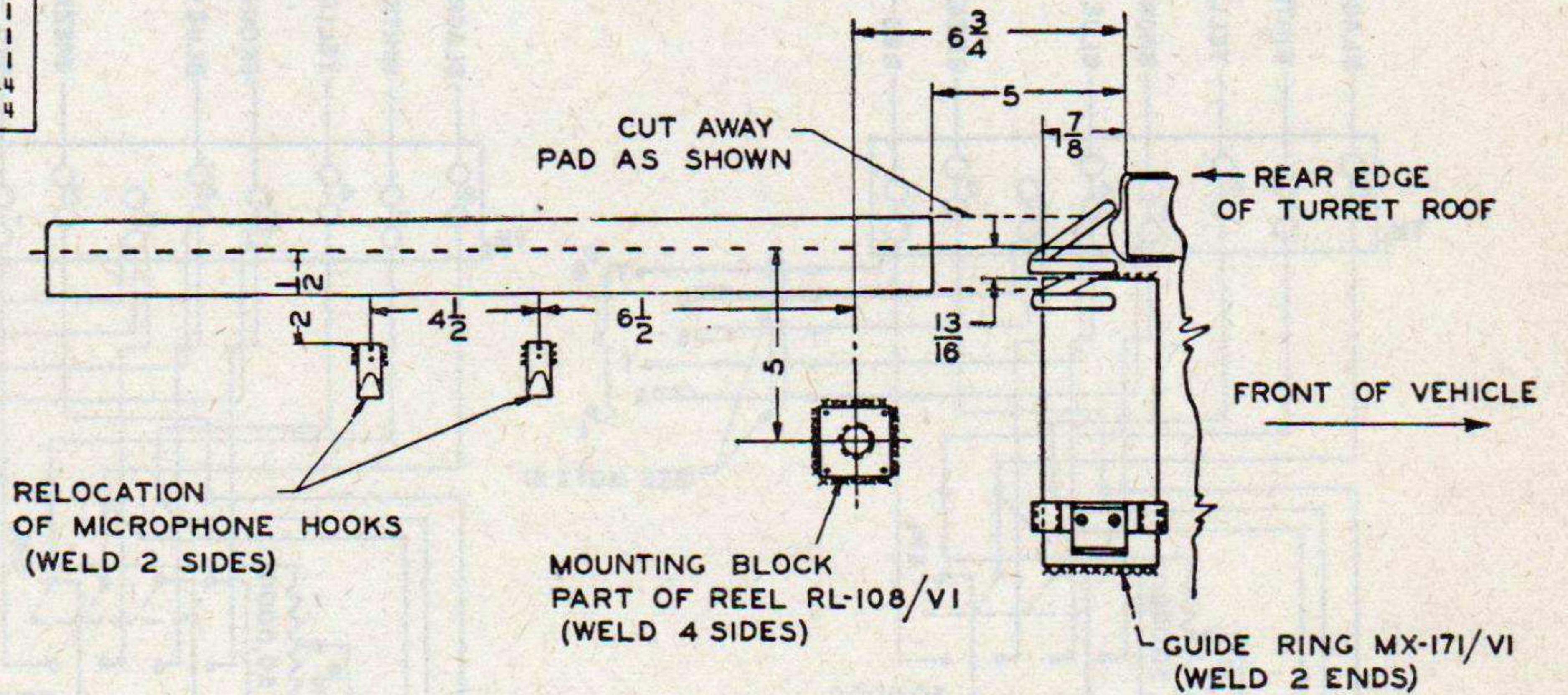


LEFT SIDE WALL OF TURRET

ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	REEL RL-108/V1 SEE NOTE 2	1
2	JUNCTION BOX J-65/V1	1
3	GUIDE RING MX-171/V1	1
4	MOUNTING BLOCK	1
5	CORD CD-264	1
6	CORD CD-265	1
7	CORDAGE CO-146 75 FT. LONG	1
8	ROUNDHEAD MACH. SCREW NO. 8-32 X 1/2 LONG	4
9	LOCKWASHER S.A.E. ST'D. FOR NO. 8 SCREW	4

NOTES:

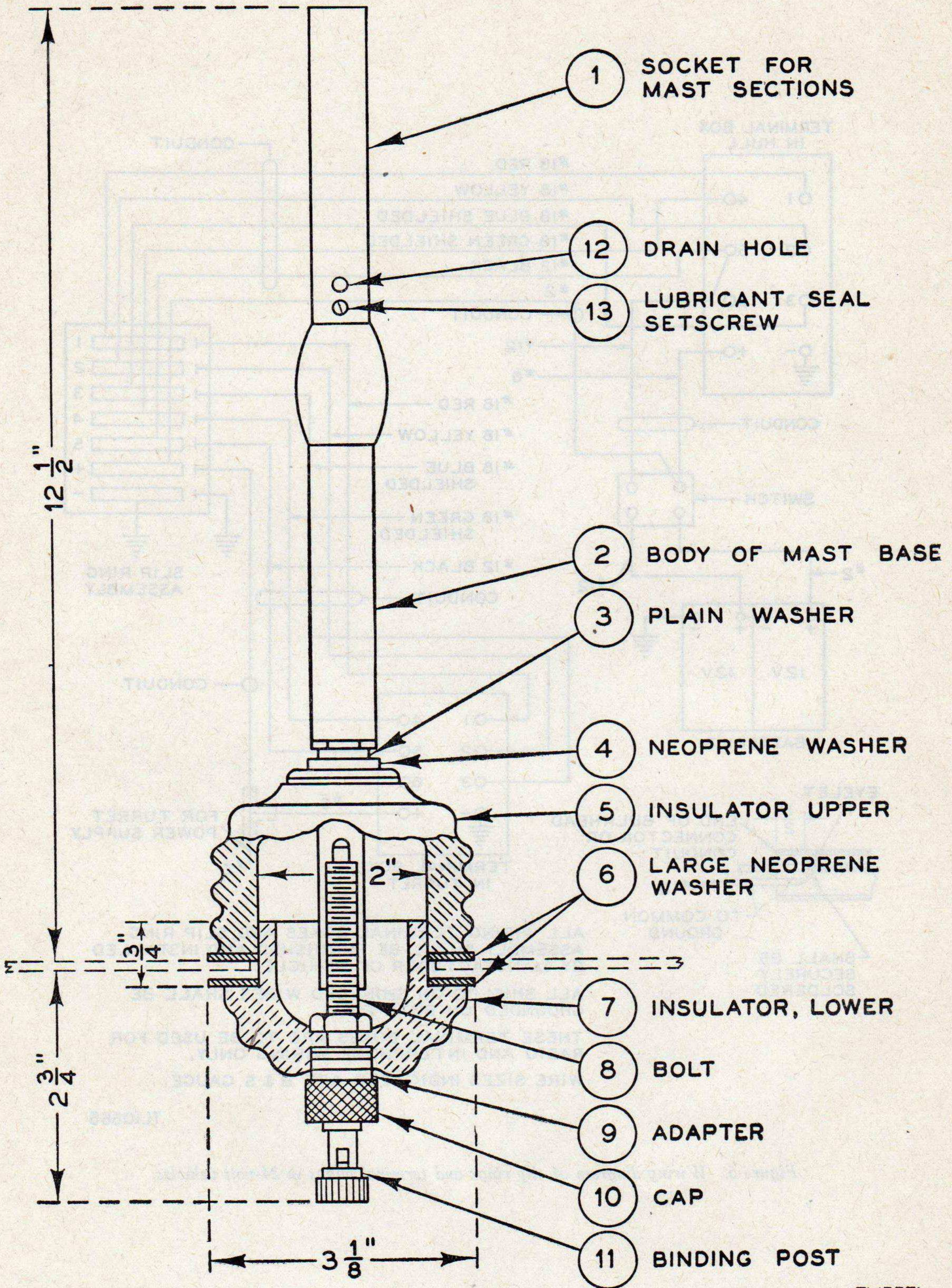
1. DIMENSIONS WHERE NOT SHOWN OTHERWISE ARE IN INCHES.
2. (2) (4) (8) AND (9) ARE PART OF REEL UNIT RL-108/V1.
3. DRAWING REFERENCES:
 INSTALLATION OF RADIO SET SCR-610-() AND INTERPHONE EQUIPMENT RC-99..... FIG. 1
 WIRING DIAGRAM OF INTERPHONE EQUIPMENT RC-99..... FIG. 2



LOCATION OF GUIDE RING, MOUNTING BLOCK AND MICROPHONE HOOKS ON LEFT SIDE WALL OF TURRET

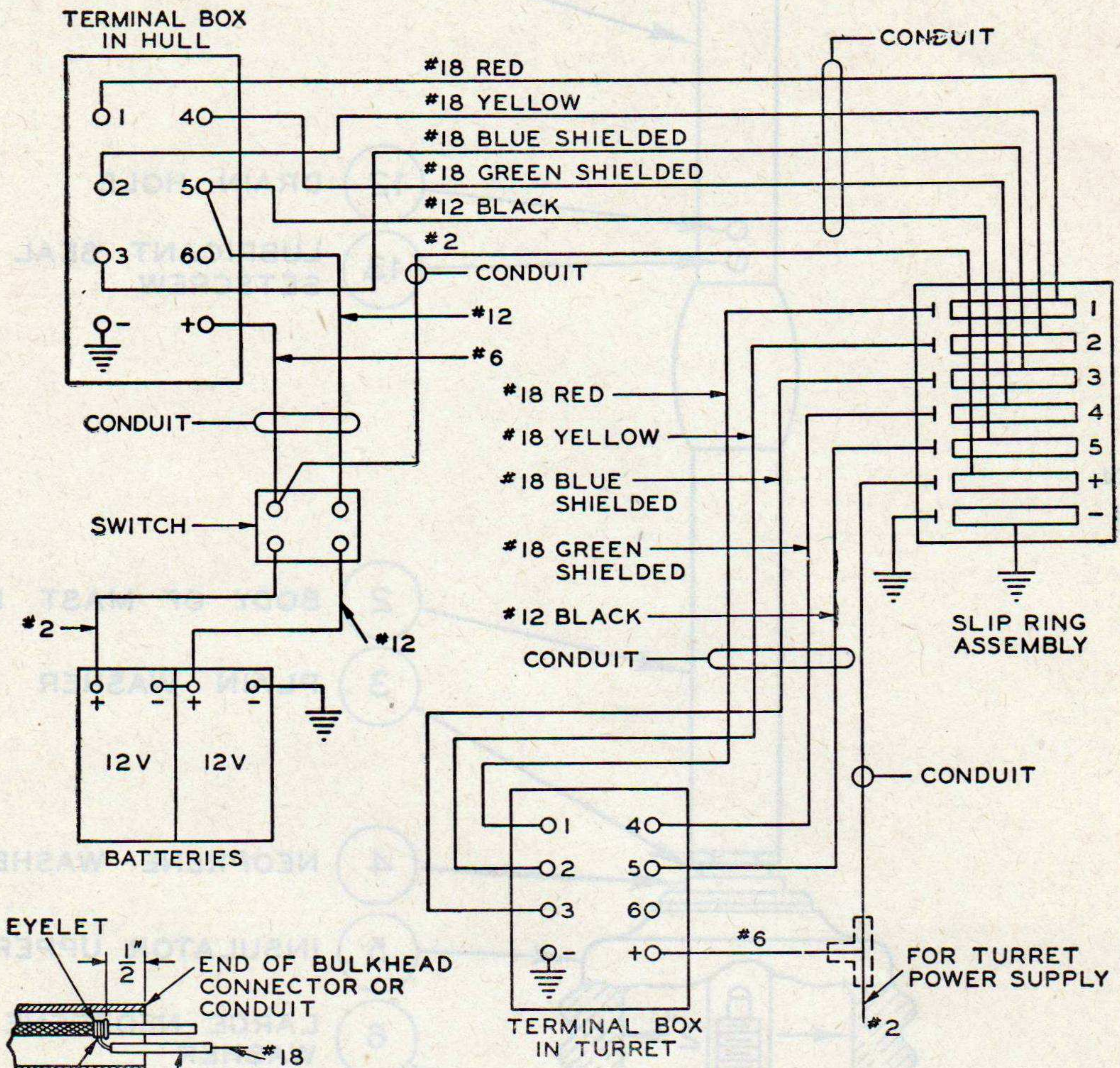
TL18541

Figure 3. Installation of Reel Assembly RL-106/V1 in Carriage, Motor, 76-MM Gun, M18.



TLI337I

Figure 4. Mast Base AB-15/GR, assembly for installation.



ALL WIRING, TERMINAL BOXES AND SLIP RING ASSEMBLY SHALL BE FURNISHED AND INSTALLED BY MANUFACTURER OF VEHICLE.

ALL SHIELDS ON SHIELDED WIRES SHALL BE GROUNDED ON BOTH ENDS.

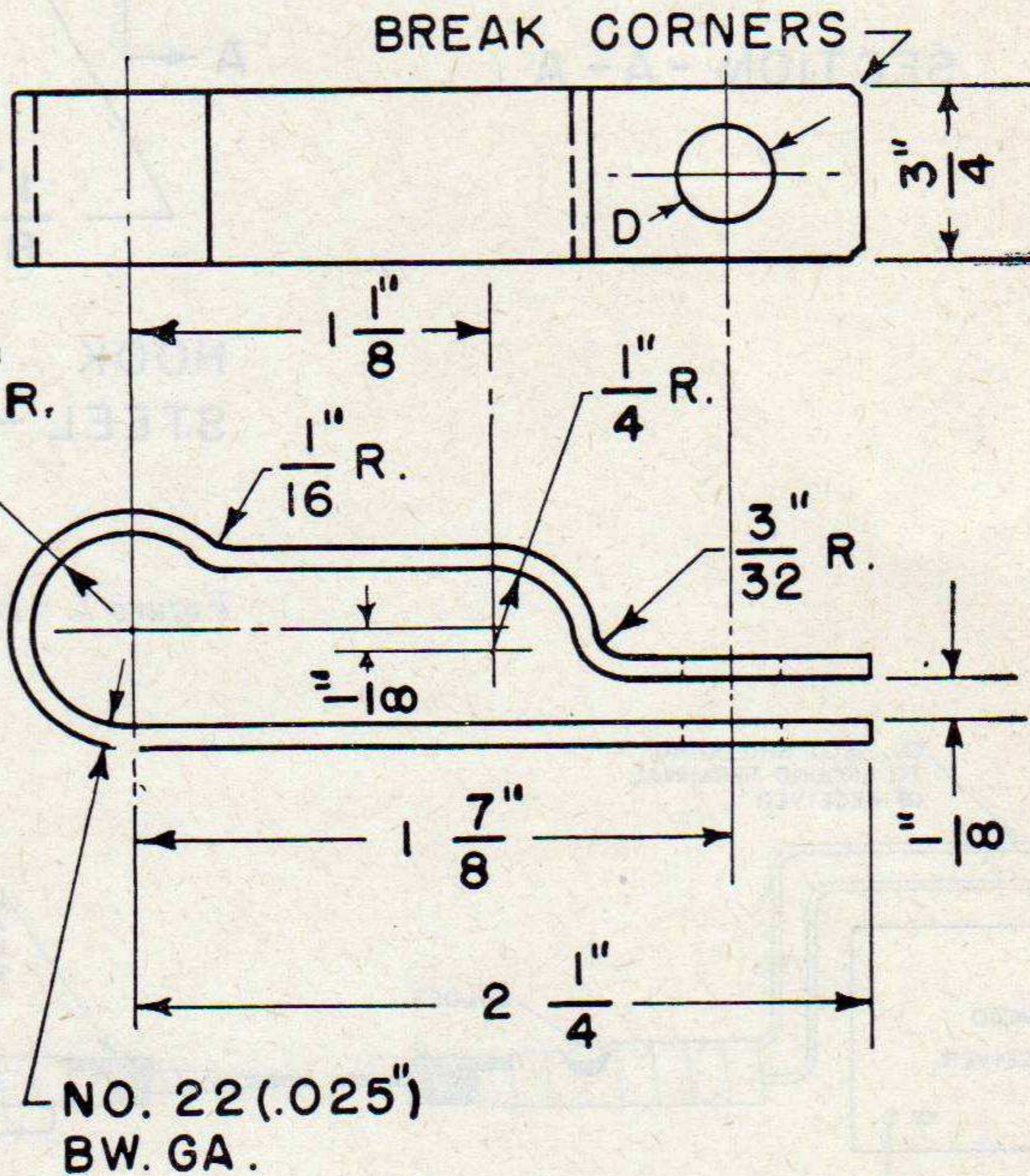
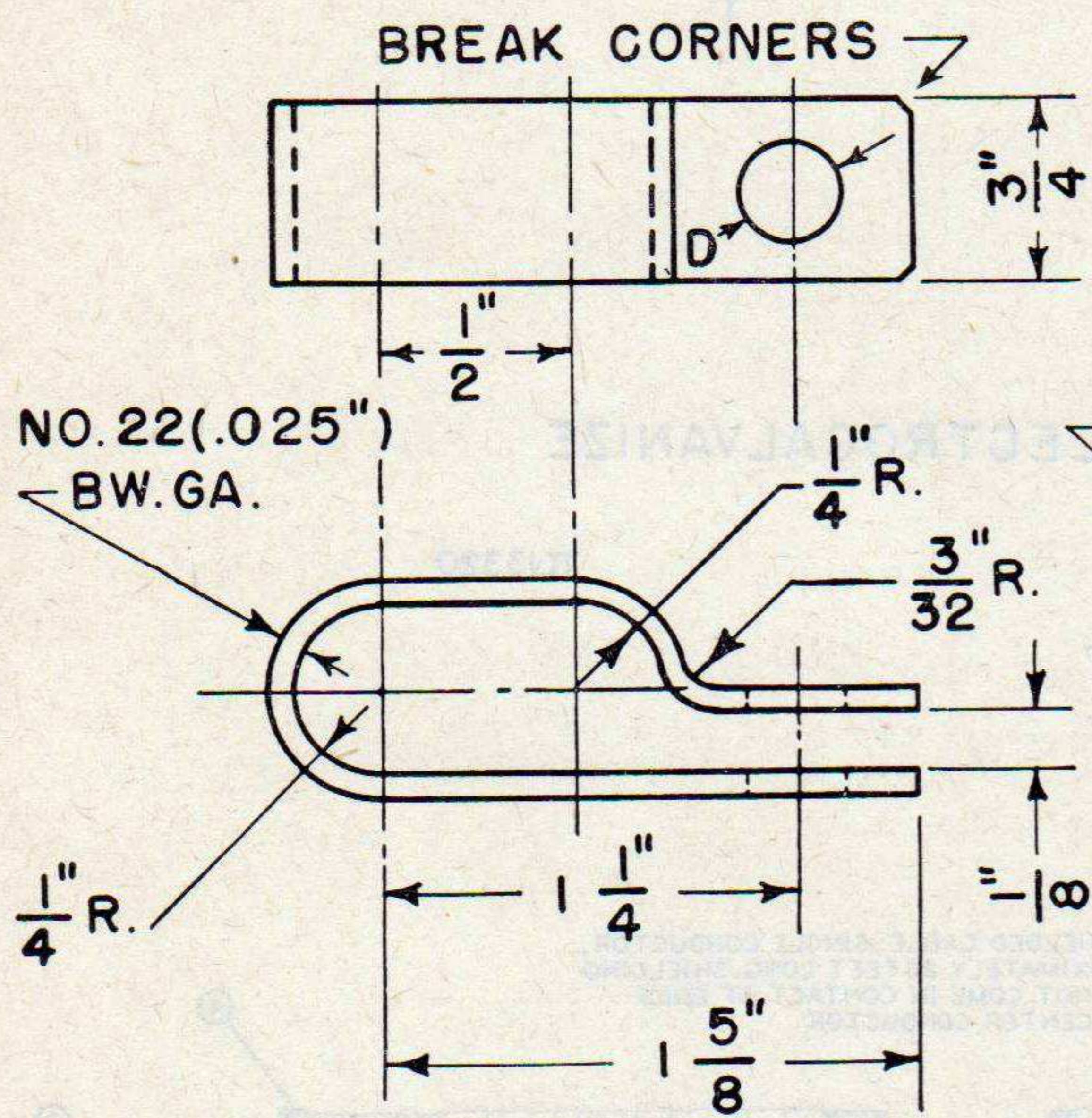
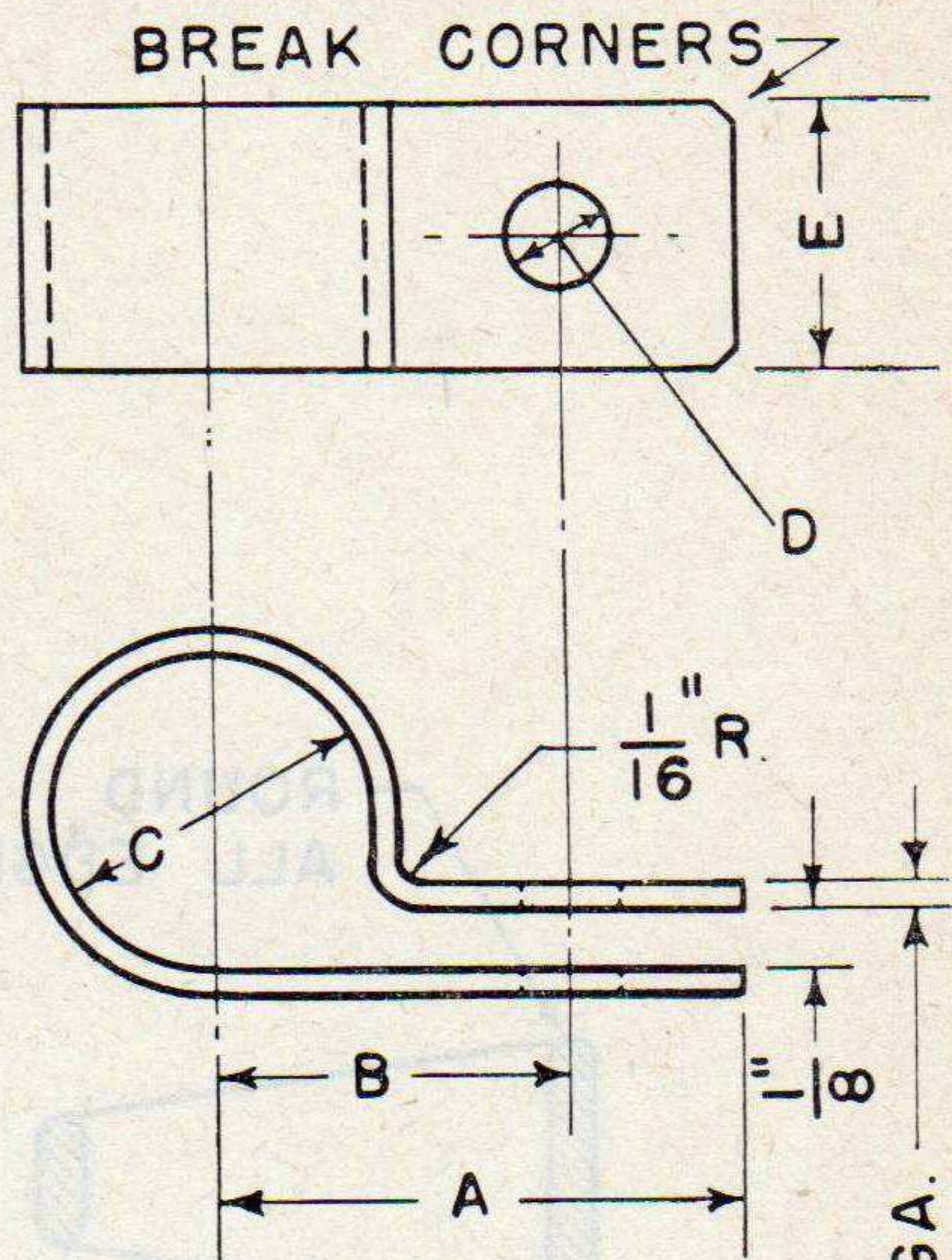
THESE TERMINAL BOXES ARE TO BE USED FOR RADIO AND INTERPHONE WIRING ONLY.

WIRE SIZES INDICATED ARE B & S GAUGE.

TL10665

Figure 5. Wiring diagram of slip rings and terminal boxes in 24-volt vehicles.

CLAMP	A	B	C	D	E	STOCK NO.
1	1-1/8"	3/4"	7/16"	3/16"	1/2"	2Z2637-1
2	1-1/8"	3/4"	7/16"	9/32"	3/4"	2Z2637-2
3	1-1/8"	3/4"	7/16"	13/32"	3/4"	2Z2637-3
4	1-1/8"	3/4"	17/32"	3/16"	1/2"	2Z2637-4
5	1-1/8"	3/4"	17/32"	9/32"	3/4"	2Z2637-5
6	1-1/8"	3/4"	17/32"	13/32"	3/4"	2Z2637-6



NO. 22(.025") BW. GA.

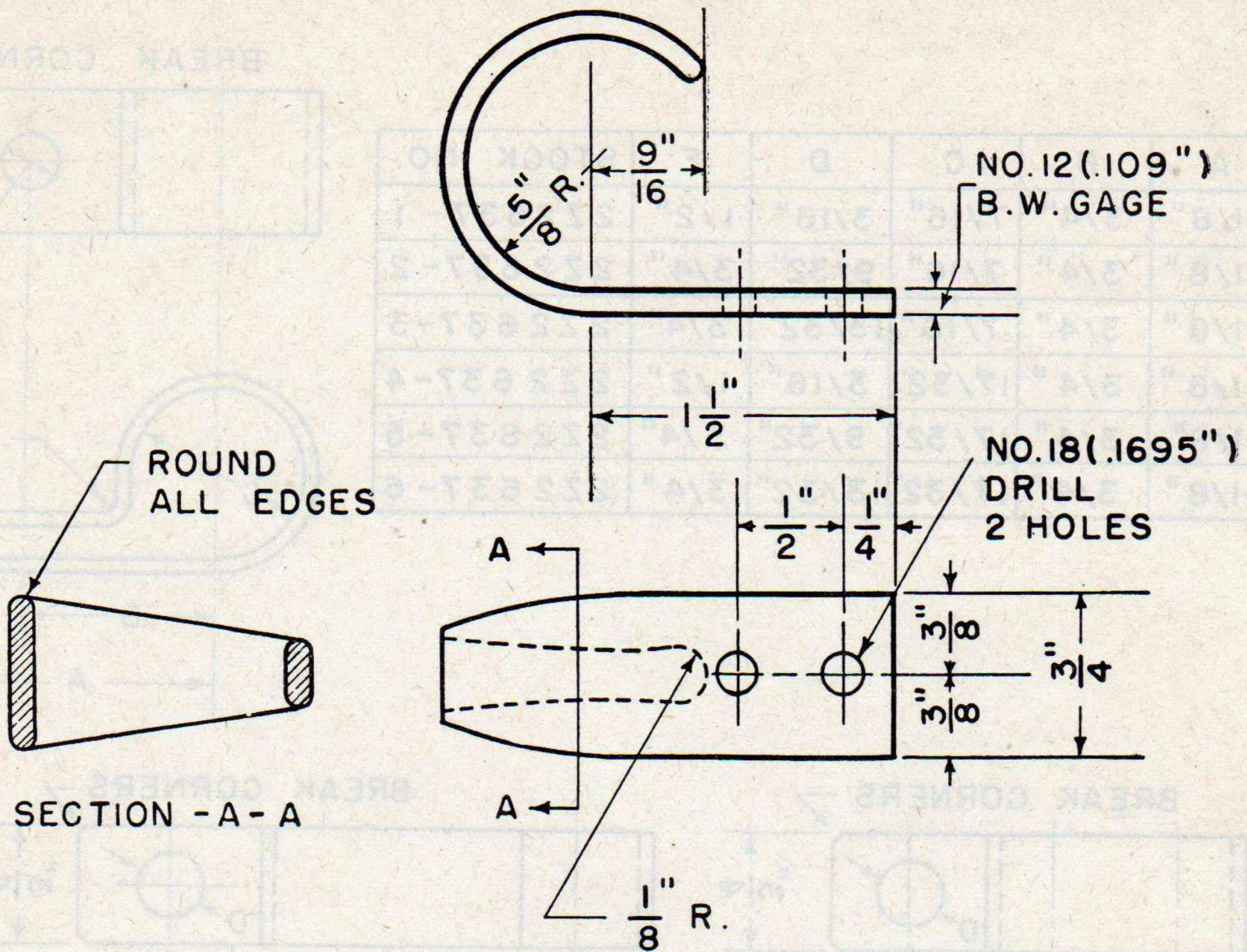
CLAMP	D	STOCK NO.
7	3/16"	2Z2637-7
8	9/32"	2Z2637-8
9	13/32"	2Z2637-9

CLAMP	D	STOCK NO.
10	9/32"	2Z2637-10
11	13/32"	2Z2637-11

NOTE:
TOLERANCES $\pm 1/32"$

TL13319

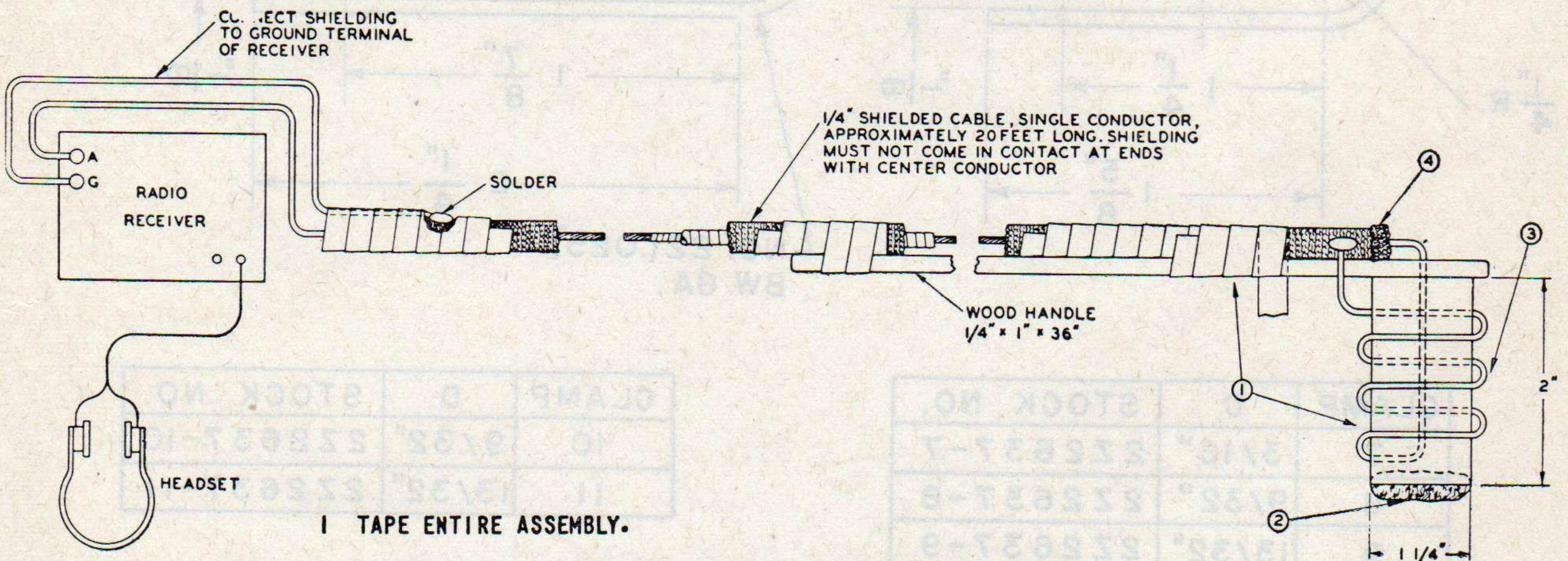
Figure 6. Clamps for radio cordage.



HOOK
STEEL - ELECTROGALVANIZE

TL13320

Figure 7. Hook.



- 1 TAPE ENTIRE ASSEMBLY.
- 2 STUFF END OF INSULATED TUBING WITH FELT AND TAPE OVER ENTIRE ASSEMBLY
- 3 WIND 3 TURNS NO. 16 OR NO. 18 WIRE ON TUBE OF INSULATING MATERIAL. SOLDER ONE END TO SHIELD ON CABLE, THE OTHER END ON INSULATED WIRE INSIDE CABLE.
- 4 ROLL BACK END OF SHIELDING, AND SECURE WITH SOLDER.

TL7547-4

Figure 8. Probe antenna.

SECTION V

RADIO SET AN/VRC-3

12. Required Parts

Items necessary for installation of Radio Set AN/VRC-3 in Carriage, Motor, 76-mm Gun, M18 are listed below:

Basic unit Stock No. 2S4502-3		
Quantity	Stock No.	Item
1	1F430-102.84	Cord CG-102/TRC-7, 7 feet long.
1	2A2081-15	Mast Base AB-15/GR.
2	2A2417	Mast Section MS-117, including spare.
2	2A2418	Mast Section MS-118, including spare.
1	2C5395-1000	Radio Receiver and Transmitter BC-1000.
2	2C7978C	Switchbox BC-658-C.
2	6D13502	TM 11-637.
2	6D13503	TM 11-983.
1	2Z9299-217	Terminal Box TM-217.
1	2Z9940-410.1	Transformer C-410.
1	3H6702-114	Vibrator Power Supply PP-114/VRC-3.

Installation unit Stock No. 2S4502-3-V65/50 (contd.)		
Quantity	Stock No.	Item
1	2Z2636-116	Mounting clamp (fig. 18).
1	2C7978C	Switchbox BC-658-C.
6 ft	1B128	Wire W-128, for ground and substitute antenna.

Installation unit Stock No. 2S4502-3-V65/50		
Quantity	Stock No.	Item
2	2Z299-359	Adapter M-359.
1	2Z1239.53	Bracket (fig. 19).
1	2Z1250.148	Bracket (fig. 17, item 1).
1	2Z1250.149	Bracket (fig. 17, item 2).
2	2Z1250.112	Bracket (fig. 22), for switchbox.
1	4B417-4	Chest Set TD-4.
12 ft.	3E2213	Cordage CO-213.
1	6L50-VRC-V65	Hardware bag.
1	2B800-16	Headset H-16/U.
1	2B1645	Microphone T-45.
1	-----	Modification kit, containing: 2 resistors, 3,900-ohm, AWS fixed composition. 6-inch synthetic rubber tubing, 3/16-inch OD, 1/8-inch ID. 12-inch wire No. 20 AWG, solid, pushback.
1	2Z6721-250/2	Mounting (fig. 12).
2	2A2822-3	Mounting pad (fig. 20).

¹ If basic unit contains Mast Base MP-48 or MP-48-A and Mast Section MX-53 instead of Mast Base AB-15/GR and Mast Sections MS-117 and MS-118, add Mast Section MS-52 and Clamp MC-424 to installation unit. Cord CG-102/TRC-7 and Terminal Box TM-217 are used only with Mast Base AB-15/GR.

² Switchbox BC-658-C contains Mounting FT-507 and one connector No. 61007 and Bondnut BL-50. If Switchbox BC-658-C is not available, Switchbox BC-658-A or -B may be substituted.

³ These items are stowed in vehicle at discretion of using organization.

⁴ If Vibrator Power Supply PP-114/VRC-3 is not available, use Battery BA-70 and Case CS-128.

⁵ If Chest Set TD-4 is not available, use Cord CD-307-A and Cord CD-318-B. If Headset H-16/U is not available, use Headset HS-30-() and Cord CD-604.

13. Assembly and Installation

a. PRELIMINARY MODIFICATION. Perform following operation on vehicle before installing radio equipment.

(1) Secure bracket (fig. 19) on radio mounting plate in turret bulge, as shown in figure 9, item 24, view of left side wall of turret.

(2) Remove spotlight from under side of ammunition ready rack, and stow it on bracket (fig. 19).

(3) Remove telescope and telescope mounting bracket from under side of ammunition ready rack.

(4) Weld two mounting pads (fig. 20) on under side of ammunition ready rack in locations shown in figure 9, item 25, view FF.

(5) Secure telescope mounting brackets on mounting pads.

(6) Weld spacer (fig. 15) and spacer (fig. 16) on under side of ammunition ready rack, right side of turret, as shown in figure 9, items 27 and 28, view FF.

(7) Weld two brackets (fig. 17) on under side of ammunition ready rack, as shown in figure 9, items 22 and 23, view FF.

(8) Cut a hole of 2½-inch diameter in top plate of ammunition ready rack, as shown in figure 9, view EE.

(9) Weld one bracket (fig. 22) and four spacers (fig. 13) on right wall of turret, as shown in figure 9, items 21 and 26, detail A.

(10) Weld one bracket (fig. 22) on left wall of turret, as shown in figure 9, item 21, detail B.

b. PROCEDURE. Install components of Radio Set AN/VRC-3 in Carriage, Motor, 76-mm Gun, M18 as shown in figure 9 and as directed below:

Part and location

Method and materials

Mounting (fig. 12) (item 3, fig. 9), to spacers on ammunition ready rack.

The mounting (fig. 12), if not available complete, may be made from Mounting FT-250 by following procedure shown in figure 12. Cut a 12-inch length of Wire W-128 for ground lead, and strip ½ inch of insulation from each end. Solder Terminal TM-91 to one end, and terminal (fig. 21) to other end. Secure mounting to tapped spacers (figs. 15 and 16) and brackets (fig. 17). See figure 9, view of right side wall of turret. Secure terminal (fig. 21) on end of ground lead with mounting screw used in spacer (fig. 15), as shown in figure 9, detail C. Place telescope, previously removed, in relocated telescope mounting brackets on under side of ammunition ready rack.

Terminal Box TM-217 (item 15, fig. 9), on Radio Receiver and Transmitter BC-1000.

Remove chassis of Radio Receiver and Transmitter BC-1000 from its case. Place mounting clamp (fig. 18) over Terminal Box TM-217. Secure mounting clamp with a screw in panel of receiver-transmitter, as shown in figure 9, item 23, detail G. Replace the original screw in panel with a No. 8-32 x ½-inch screw. Place a hex nut and an IET lockwasher on screw; tighten nut with a socket wrench. Cut a 3-inch length of Wire W-128. Strip insulation from ½ inch of each end, and solder terminal (fig. 21) to ends. Connect one terminal to antenna socket on receiver-transmitter with a ⅜-24 x ⅜-inch screw and IET lockwasher. Connect other terminal to stud on Terminal Box TM-217, as shown in figure 9, detail G.

Radio Receiver and Transmitter BC-1000 and Vibrator Power Supply PP-114/VRC-3 (items 1 and 2, fig. 9), in mounting (fig. 12).

See TM 11-983. Remove chassis of vibrator power supply from case and adjust for 24-volt operation. Replace chassis in case and secure power supply to bottom of receiver-transmitter with catch-clips provided. Place receiver-transmitter, with power supply attached, in mounting (fig. 12). Secure in place with strap and wingnuts provided on mounting, as shown in figure 9, view of right side wall of turret. Route power cord from power supply to vehicle terminal box as shown in figure 9. Bush power cord through hole in terminal box with connector No. 61007 and Bondnut BL-50. Connect leads of power cord to terminals in terminal box: observe proper polarity. If Case CS-128 and Battery BA-70 are supplied in place of Vibrator Power Supply PP-114/VRC-3, see TM 11-637 for installation instructions.

Part and location

Switchboxes BC-658-C and Transformer C-410 (items 8 and 4, fig. 9).

Method and materials

Cut Cordage CO-213 to proper length and prepare each end for connection as follows: Strip back $3\frac{1}{2}$ inches of outer rubber sheath and $2\frac{1}{2}$ inches of inner and outer shields, leaving 1 inch of shields exposed. Using a pointed instrument, separate the woven wires of both exposed shields. Twist strands into a pigtail. Strip about $\frac{1}{2}$ inch of insulation from black lead at point exposed by unweaving the shield. Twist bare portion of black lead around prepared pigtail of shielding and solder securely. Prepare ends of cordage wires by stripping $\frac{1}{2}$ inch of insulation from ends and solder-tinning tips. Use black lead for ground connection, as shown in figure 10. If Switchbox BC-658-A or -B is supplied, drill a $\frac{1}{16}$ -inch hole through side of each switchbox for entrance of Cordage CO-213, as shown in figure 9, detail D. Switchbox BC-658-C includes a connector No. 61007 and Bondnut BL-50, with a rubber washer, for securing cordage in switchbox. Remove disc sweated over hole in side of switchbox. Place rubber washer over threaded stem of connector, and secure connector in hole in switchbox with bondnut. Remove patch cords from radio side of switch in commander's switchbox. If Switchbox BC-658-C is used, install a short length of cordage through connectors provided for patch cords, or remove connectors and solder a strip of metal over holes. Cut four 1-inch lengths of rubber tubing. Place length of tubing over leads of each 3,900-ohm resistor. Connect resistor between center terminal and terminal on interphone side of section of Switch SW-155, used to transfer the headset circuit, in each switchbox. (See fig. 10.) Connect jumper wires between terminals on Switch SW-155, used to transfer the ground circuit, in each switchbox. Interconnect switchboxes with Cordage CO-213 as shown in figure 10. Cut the two-conductor patch cord, connected to radio side of switch in loader's switchbox, about 20 inches from the box. Prepare tips of patch cord wires and solder Terminals TM-163 to tips. Open case of Transformer C-410 by removing four screws in flat side of case. Connect Terminals TM-163 on patch cord from switchbox to terminals Nos. 3 and 4 on transformer. Connect Terminals TM-163 on remaining length of patch cord to terminals Nos. 1 and 2 on transformer. Replace flat side of case on transformer. Secure Mountings FT-507, supplied with Switchbox BC-658-C, to brackets (fig. 22). Use hardware provided. Secure switchboxes to Mountings FT-507 with studs and hex. nuts provided on sides of boxes. If Switchbox BC-658-A or -B is supplied, secure boxes directly to brackets. Use a No. 4 clamp around Cordage CO-213 and fasten with one of the

*Part and location**Method and materials*

- mounting screws. Apply waterproofing to Switchbox BC-658-A or -B as indicated in TB SIG 140. Insert plugs on patch cords from commander's switchbox into jacks marked COMMAND on commander's Control Box BC-739-(). Insert plugs on patch cords from interphone side of loader's switchbox into jacks marked COMMAND on commander's Control Box BC-739-(). Insert plugs on patch cords from interphone side of loader's switchbox into jacks marked COMMAND on loader's Control Box BC-739-(). Insert Plug PL-55 on patch cord, with Transformer C-410 attached, into PHONE NO. 1 jack. Insert Plug PL-68 on other patch cord into MICRO jack on Radio Receiver and Transmitter BC-1000.
- Mast Base AB-15/GR (item 5, fig. 9), in top plate of ammunition ready rack.** Disassemble Mast Base AB-15/GR by holding lower insulator and turning body of mast base counterclockwise. Remove binding post from adapter socket on bottom of mast base. Install mast base in 2½-inch hole through top plate of ammunition ready rack as follows (fig. 11): Place upper insulator, item 5, over hole in top plate. Place small neoprene washer, item 4, over item 5 and place plain washer, item 3, over item 4. Insert body of mast base, item 2, through holes in items 3, 4, 5, 6, and top plate. Place grounding ring, item 14, with large IT lockwasher attached, over flange of lower insulator, item 7. Insert bolt, item 8, into body of mast base from underneath. Turn body of mast base clockwise until mast base is tightened securely. Tighten mast base by hand. Large IT lockwasher must make good contact with under side of top plate. Apply a slight additional pressure, if necessary, with a wrench applied to hex. face of body of mast base.
- Adapter M-359 (item 12, fig. 9).** Secure one Adapter M-359 to adapter socket on bottom of mast base. Place hose clamp, part of mast base, over knurled coupling nut of adapter and tighten hose clamp firmly. Secure other Adapter M-359 to socket on Terminal Box TM-217.
- Cord CG-102/TRC-7 (item 11, fig. 9).** Connect Cord CG-102/TRC-7 to Adapters M-359. Coil excess cordage and tape coil as shown in figure 9.
- Mast Sections MS-117 and MS-118 (items 6 and 7, fig. 9).** Screw mast sections together and install assembled antenna into Mast Base AB-15/GR.
- Substitution of antenna components.** If Cord CG-102/TRC-7 is not available, use Wire W-128 and assemble Mast Base AB-15/GR as shown in figure 4. If Mast Base AB-15/GR is not available, use Mast Base MP-48 or MP-48-A, Mast Sections MS-52 and MS-53 with a 5-foot 6-inch length of Wire W-128. See figure 14 for Mast Base MP-48 or MP-48-A assembly instructions. Clamp MC-424 is used to secure joints of Mast Sections MS-52 and MS-53.

Part and location

Method and materials

Microphone T-45 and Headset H-16/U.

Microphone T-45 and Headset H-16/U are used with Chest Set TD-4. These components must be used with inter-phone system in vehicle, and must *not* be used for portable operation, since the impedance of Headset H-16/U does not match output impedance of Radio Receiver and Transmitter BC-1000.

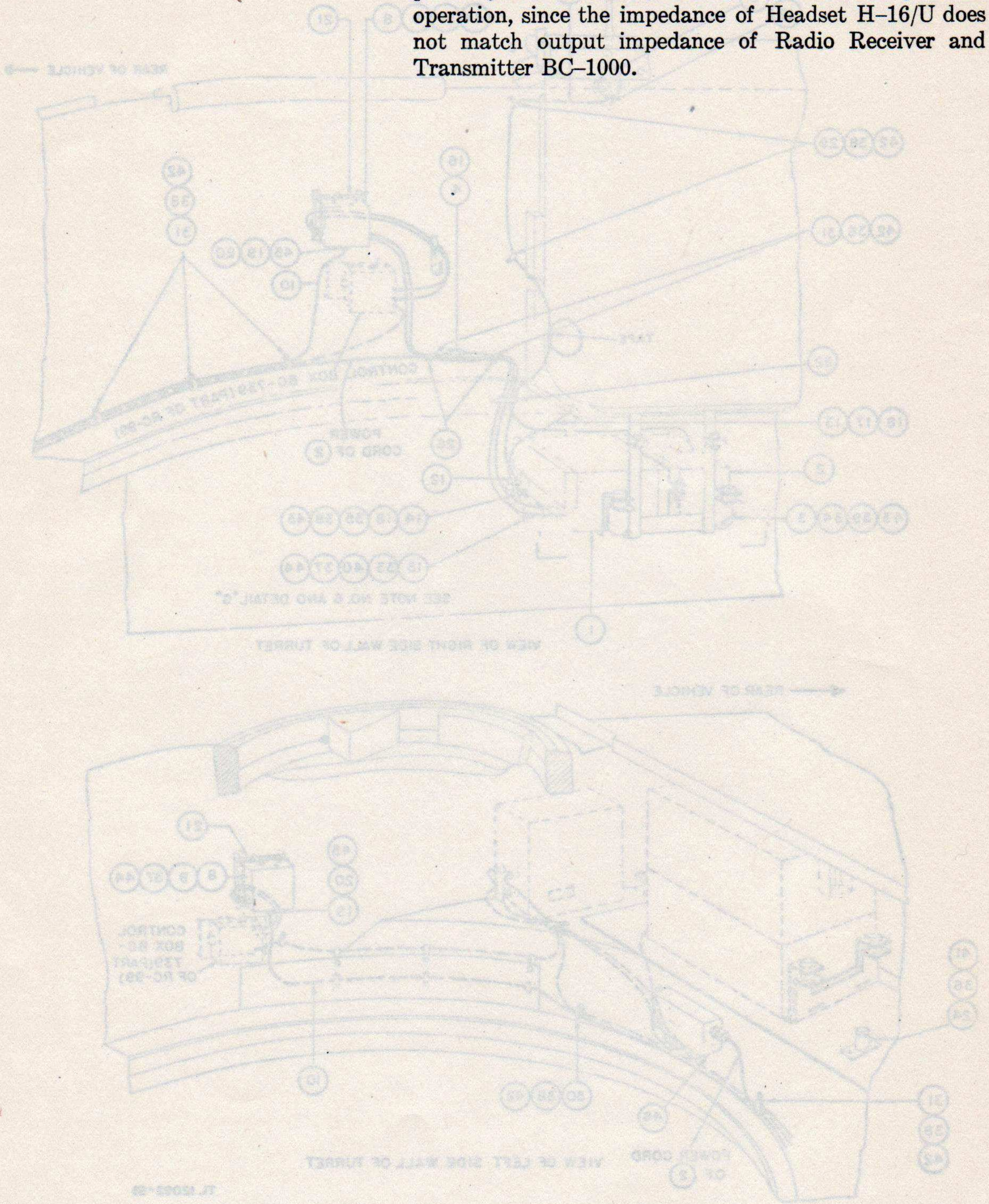
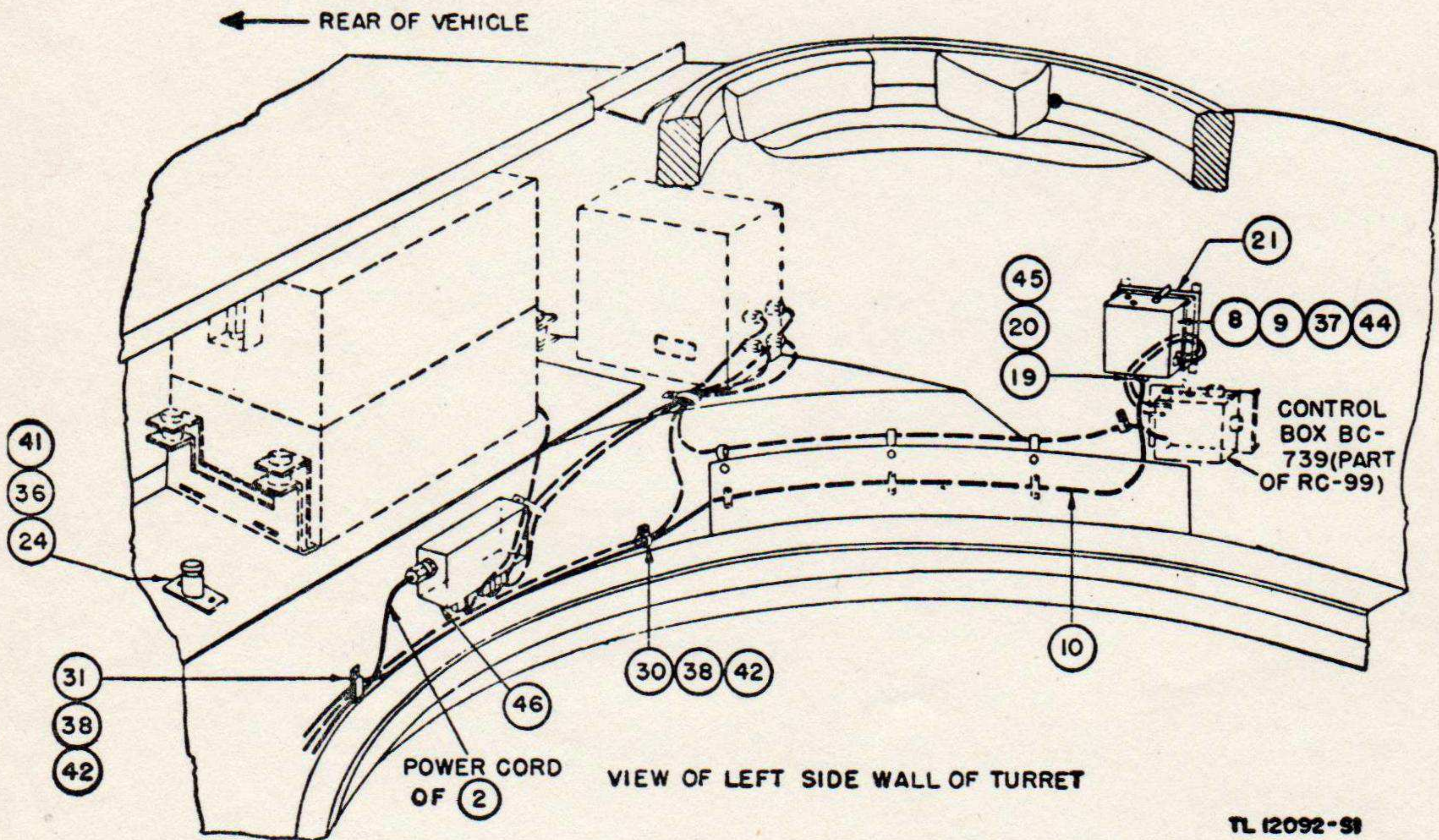
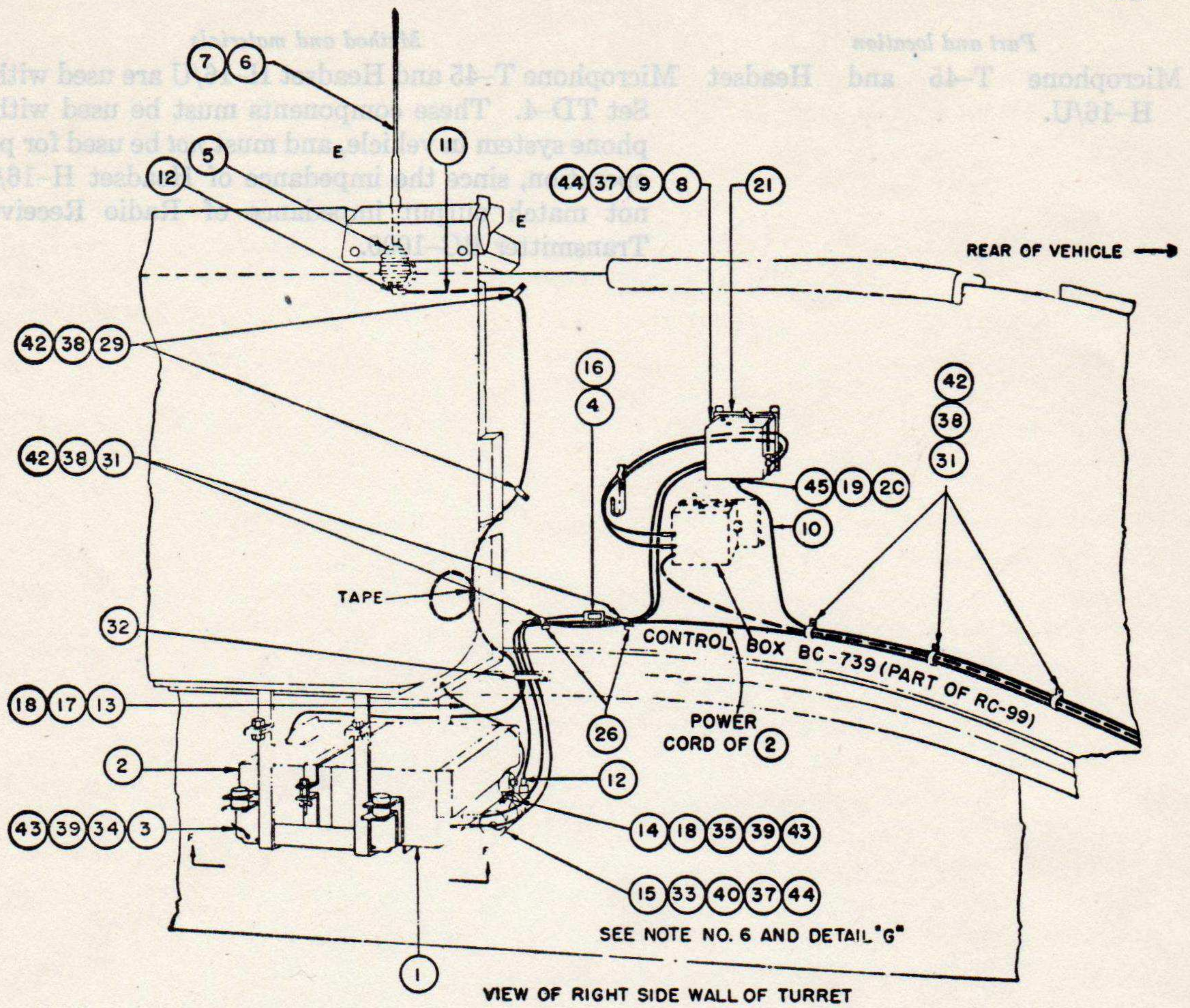


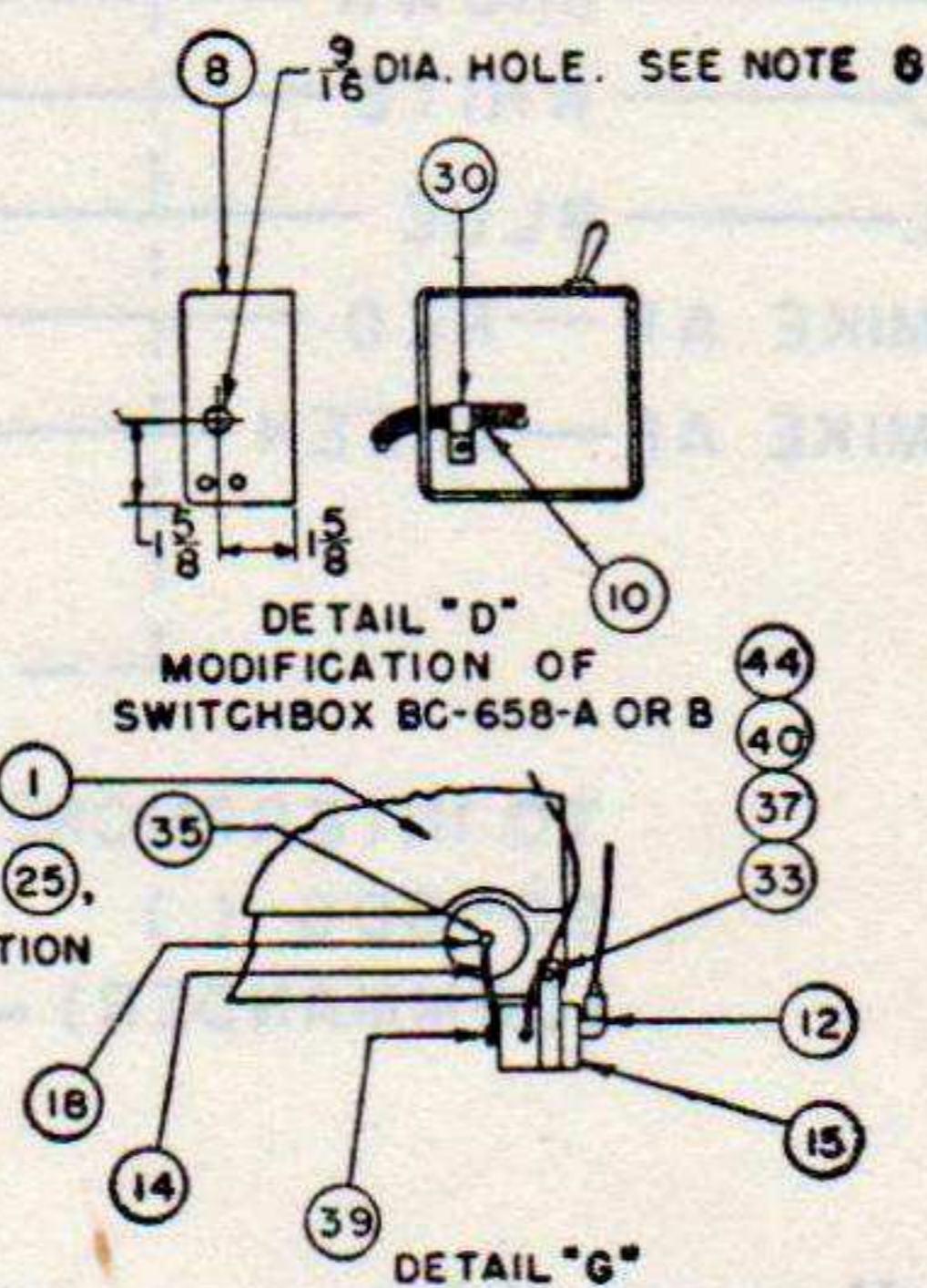
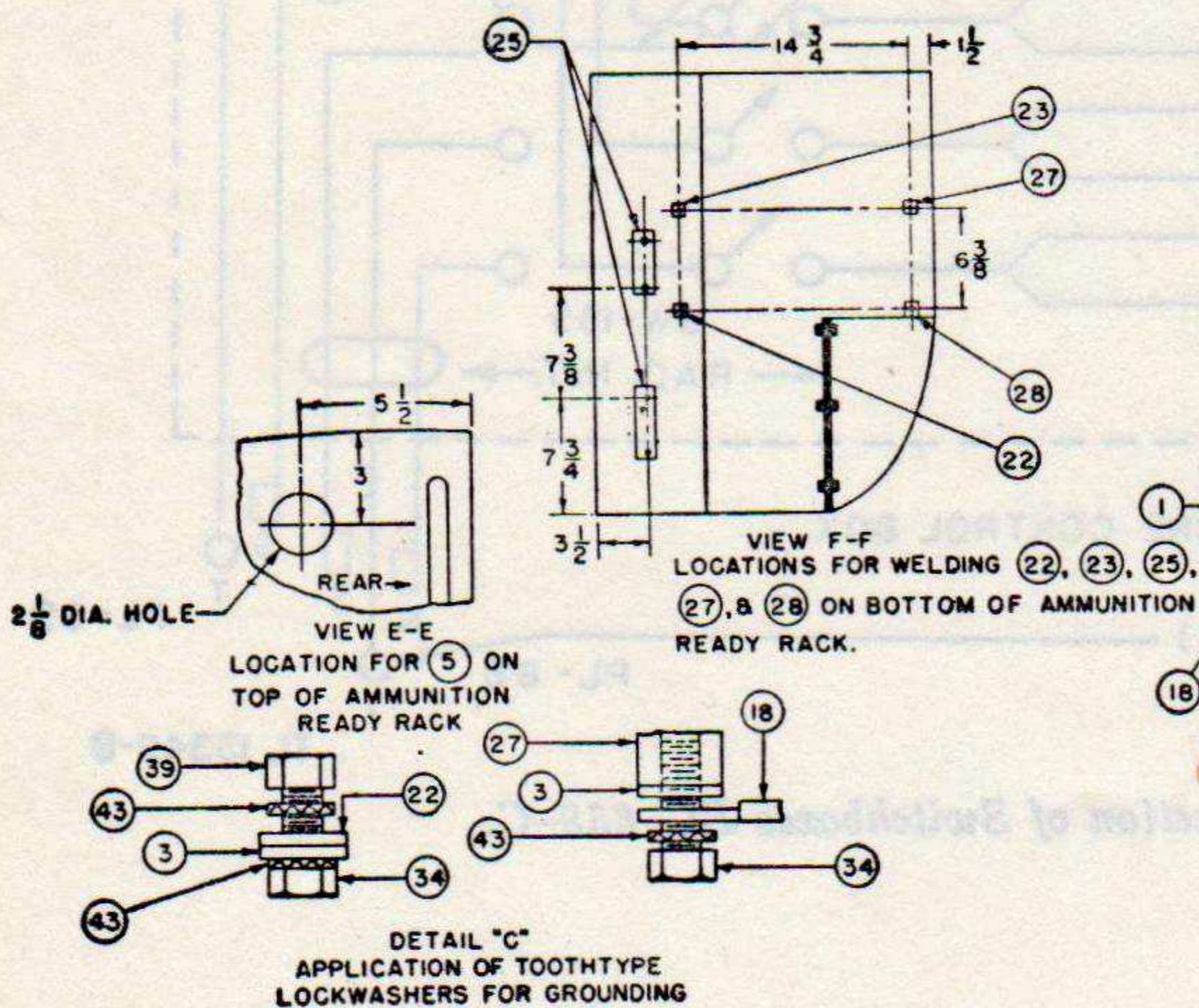
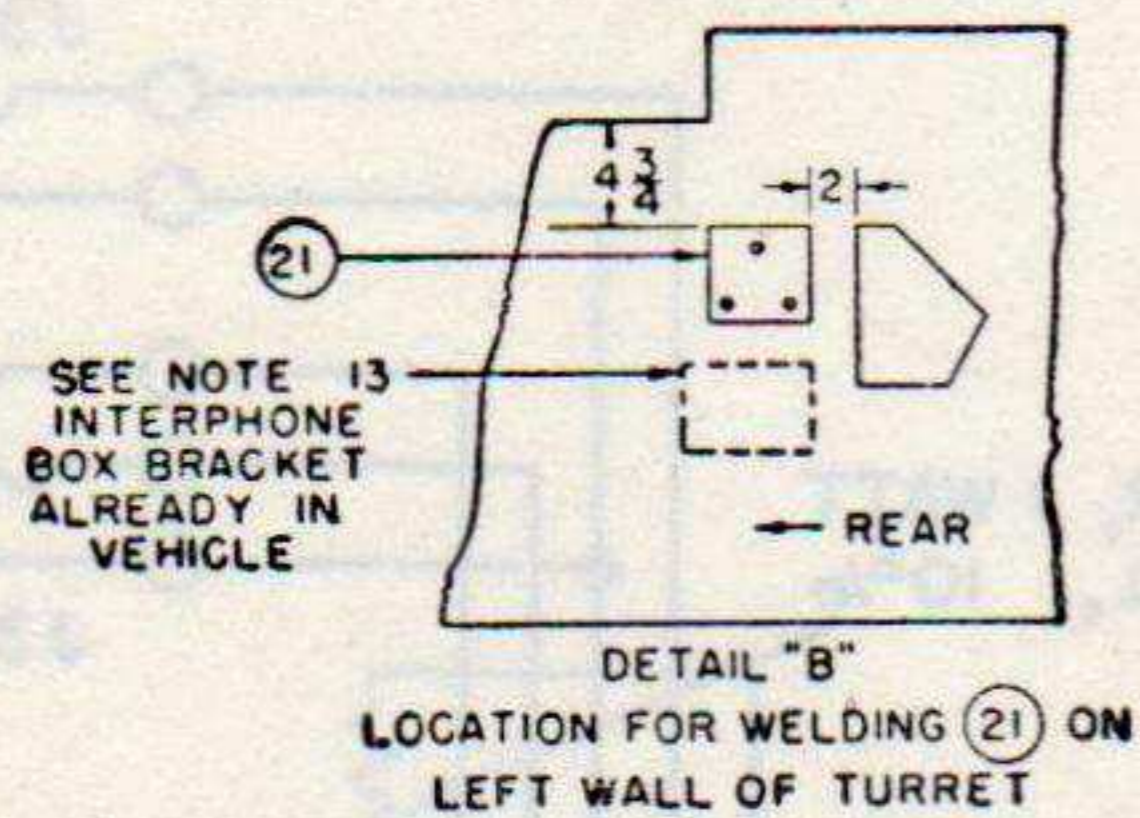
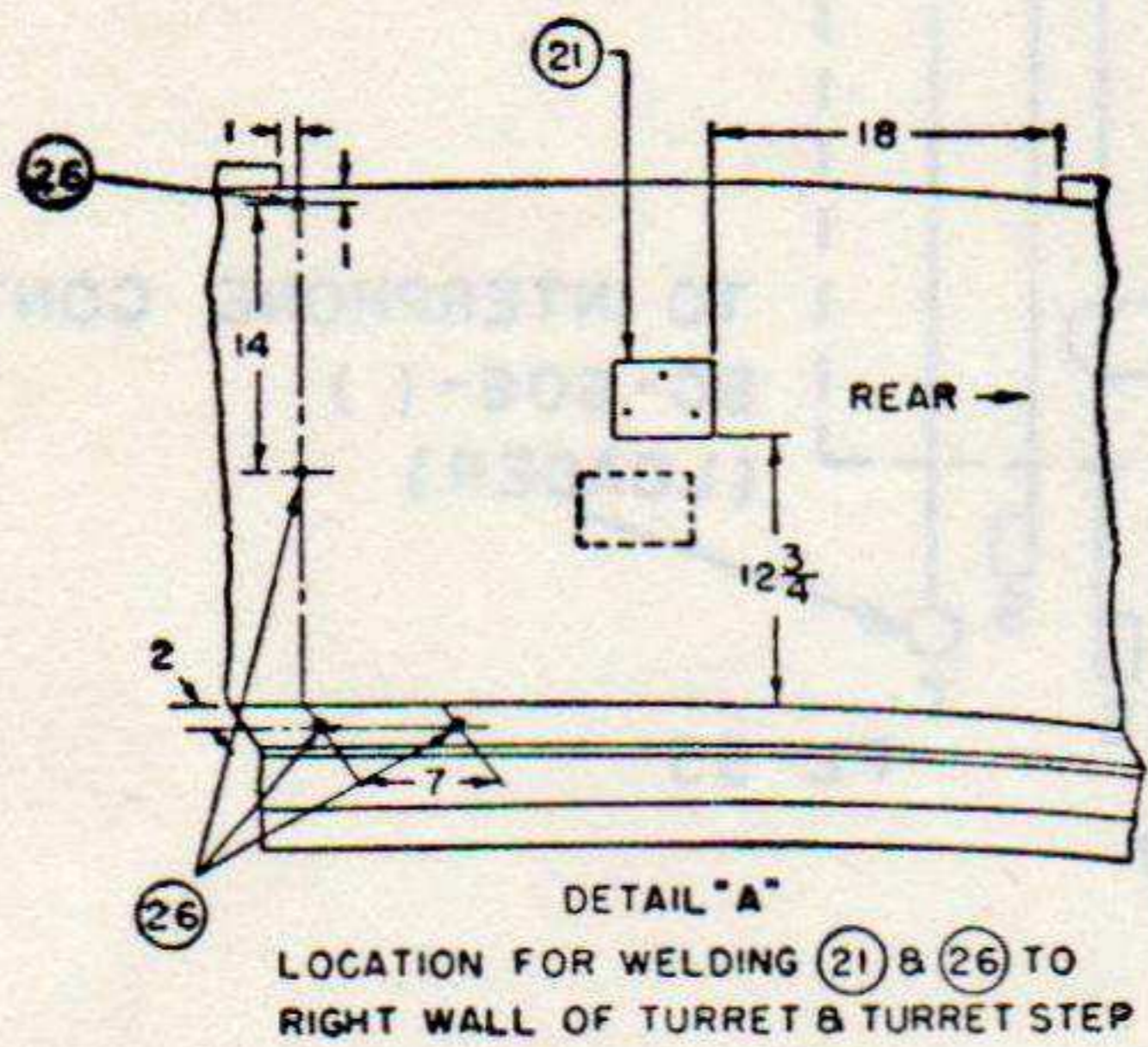
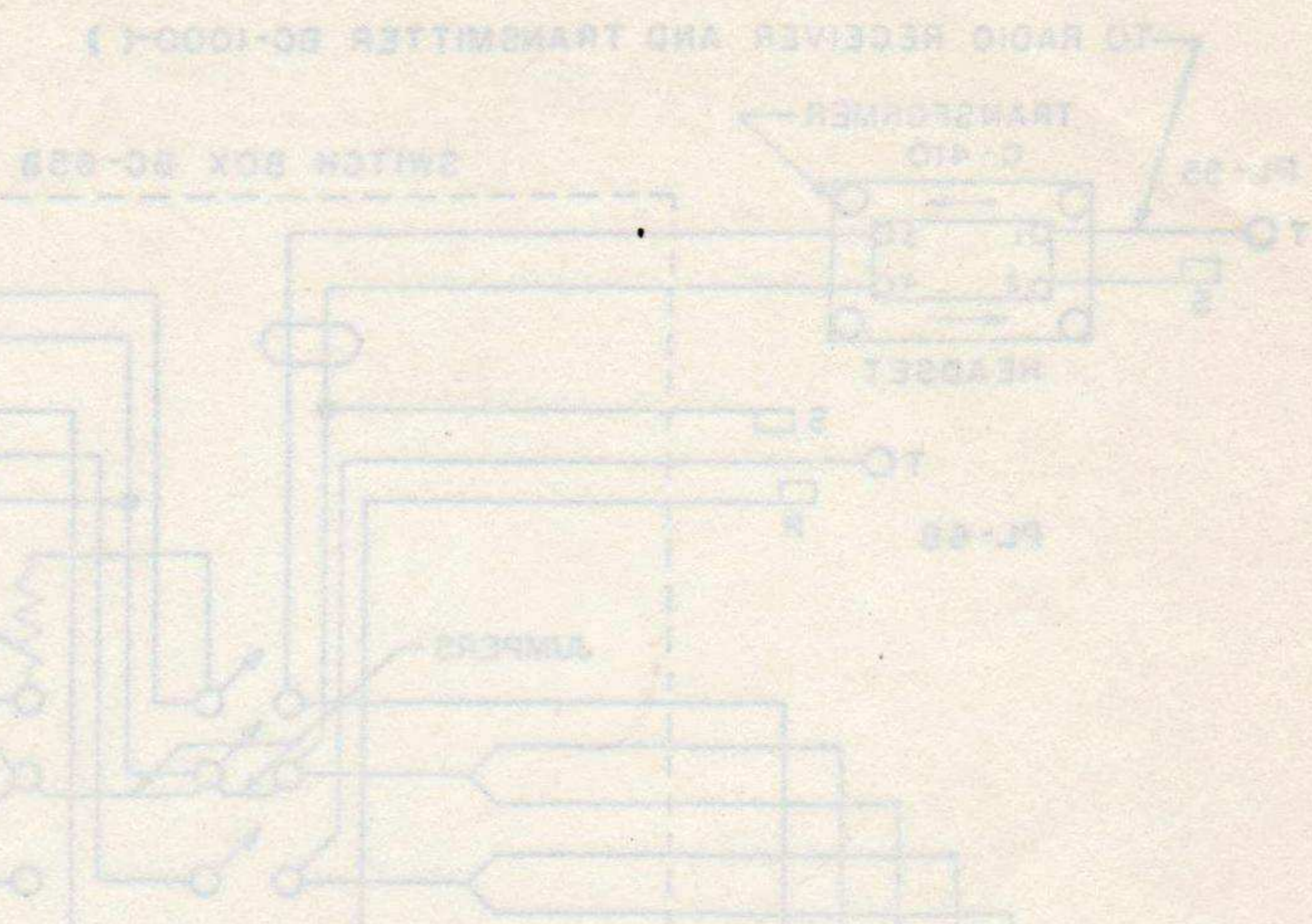
Figure 8. Installation of Radio Set ANVRC



TL 12092-98

Figure 9. Installation of Radio Set AN/VRC-

NOTE
ADD RESISTORS AND
JUMPER AT ONE OF THE
STATION
COVER RESISTOR LEADS
WITH SYNTHETIC RUBBER
TUBING, 1/8" O.D. X 1/4"



NOTES:

1. UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.
2. FOR ADDITIONAL COMPONENTS AND SPARE PARTS, SEE COMPONENTS PARTS LIST.
3. SOLDER (17) AND (16) TO ENDS OF (13). SOLDER ONE OF (16) TO EACH END OF (14).
4. IF (5) (8) AND (7) ARE NOT AVAILABLE, USE 50 INCHES OF WIRE W-128 WITH MAST BASE MP-48-A. IF CORD CG-102/TRC-7 IS NOT AVAILABLE, USE WIRE W-128 WITH MAST BASE AB-15/GR.
5. IF (8) IS NOT AVAILABLE, USE SWITCHBOX BC-658-A OR -B, AND MODIFY PER DETAIL D. IN THIS CASE, (15) (9) (10) AND (26) ARE NOT REQUIRED.
6. REMOVE SCREW FROM FRONT PANEL OF (1) AND SECURE (33) TO (1) WITH (40) (37) AND (44).
7. REMOVE SPOTLIGHT FROM UNDER AMMUNITION READY RACK, AND STOW ON (24). SECURE, USING PRESENT HOLES IN TURRET BULGE SHELF.
8. (46) IS PROVIDED IN VEHICLE BY MANUFACTURER.
9. SET (2) FOR 24-VOLT OPERATION.
10. REMOVE TELESCOPE FROM PRESENT LOCATION AND RESTOW ON (25).
11. AFTER WELDING (21) (22) (23) (26) (27) (28) AND (29), PAINT TO CONFORM TO ADJACENT AREA.
12. IF (2) IS NOT AVAILABLE, SUBSTITUTE CASE CS-128 AND BATTERY BA-70. REMOVE BELT CARRIER BRACKETS FROM CASE CS-128.
13. BEFORE WELDING (21) TO TURRET WALL, RELOCATE GUNNER'S QUADRANT STOWAGE BRACKET AS SHOWN IN DETAIL B.
14. INSTALL (37) AND (18) PER FIG. 10.

ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	RADIO RECEIVER AND TRANSMITTER BC-1000	1
2	VIBRATOR POWER SUPPLY PP-114/VRC-3 SEE NOTE 12	1
3	MOUNTING PER FIG. 12 SEE DETAIL C	1
4	TRANSFORMER C-410	1
5	MAST BASE AB-15/GR	1
6	MAST SECTION MS-117	1
7	MAST SECTION MS-118	1
8	SWITCHBOX BC-658-C SEE NOTE 5	2
9	MOUNTING FT-507, PROVIDED WITH 8	2
10	CORDAGE CO-213 9 FEET 11 INCHES LONG	1
11	CORD CG-102/TRC-7 7 FEET LONG	1
12	ADAPTER M-358	2
13	WIRE W-128 12 INCHES LONG	1
14	WIRE W-128 9 INCHES LONG	1
15	TERMINAL BOX TM-217	1
16	TERMINAL TM-143	4
17	TERMINAL TM-91	1
18	TERMINAL PER FIG. 21	3
19	CONNECTOR NO. 61007	2
20	BOND NUT BL-50	2
21	BRACKET PER FIG. 22	2
22	BRACKET PER FIG. 17	1
23	BRACKET PER FIG. 17	1
24	BRACKET PER FIG. 10	1
25	MOUNTING PAD PER FIG. 20	2
26	SPACER PER FIG. 13	0
27	SPACER PER FIG. 15	1
28	SPACER PER FIG. 16	1
29	CLAMP NO. 1	2
30	CLAMP NO. 4	2
31	CLAMP NO. 7	4
32	CLAMP NO. 11	1
33	MOUNTING CLAMP PER FIG. 18	1
34	HEX HEAD CAP SCREW 3/8-24 X 3/4 LONG	4
35	HEX HEAD CAP SCREW 3/8-24 X 3/8 LONG	1
36	HEX HEAD CAP SCREW 1/4-20 X 1/2 LONG	2
37	ROUNDHEAD MACH SCREW NO. 8-32 X 1/2 LONG	7
38	ROUNDHEAD MACH SCREW NO. 8-32 X 3/8 LONG	8
39	HEX NUT 3/8-24 STD	8
40	HEX NUT NO. 8-32 STD	1
41	LOCKWASHER SAE STD FOR 1/4 SCREW	2
42	LOCKWASHER SAE STD FOR NO. 8 SCREW	8
43	TOOTHTYPE LOCKWASHER 3/8 IET	6
44	TOOTHTYPE LOCKWASHER NO. 6 IET	7
45	WASHER 1-1/8 O.D. X 25/32 I.D. X 1/16	2
46	TERMINAL BOX SEE NOTE 8	1
47	RESISTOR, PART OF MODIFICATION KIT	2
48	TUBING, PART OF MODIFICATION KIT	1

FL 12092-52

3 in Carriage, Motor, 76-mm Gun, M18.

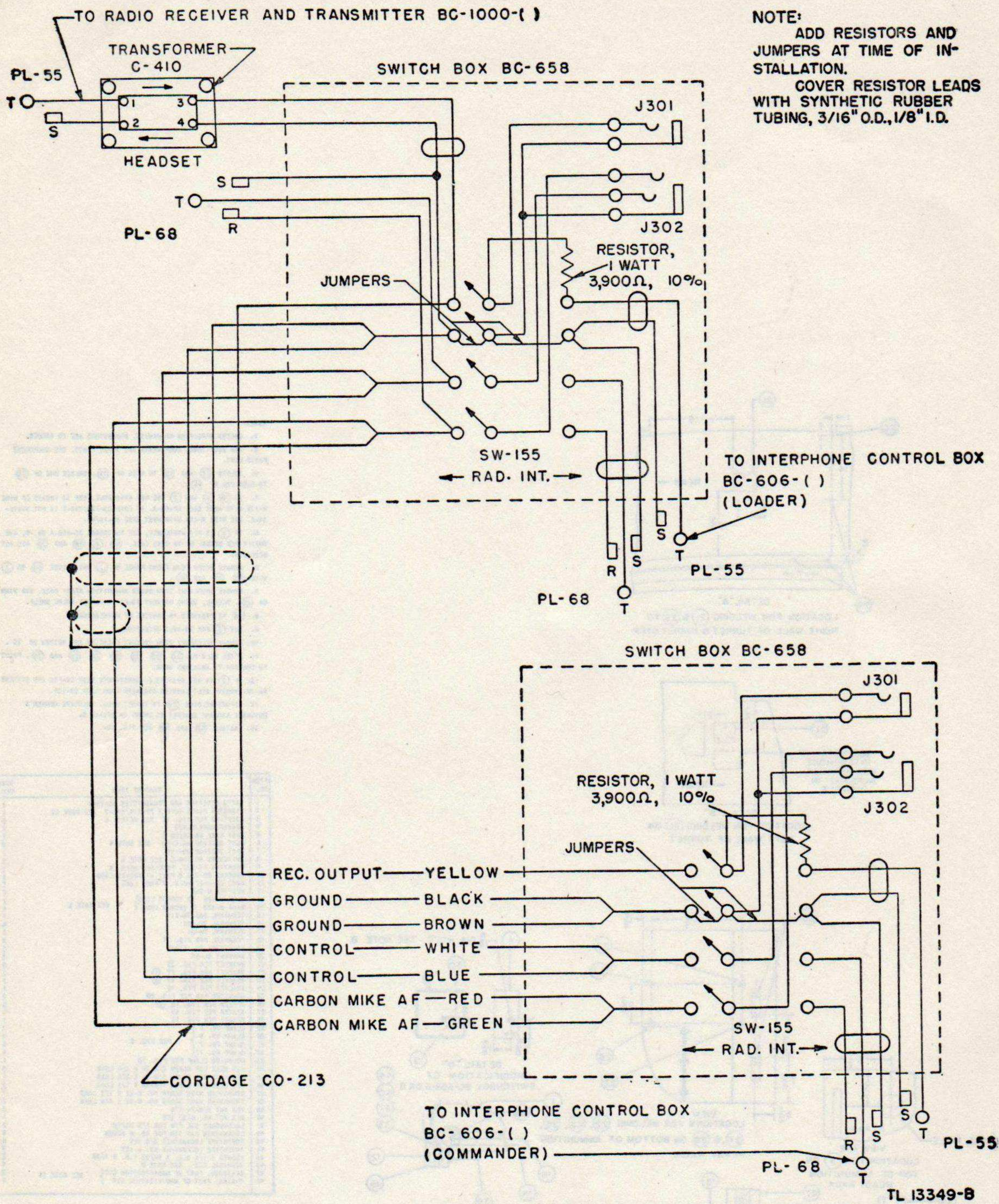


Figure 10. Wiring diagram of interconnection of Switchboxes BC-658-C.

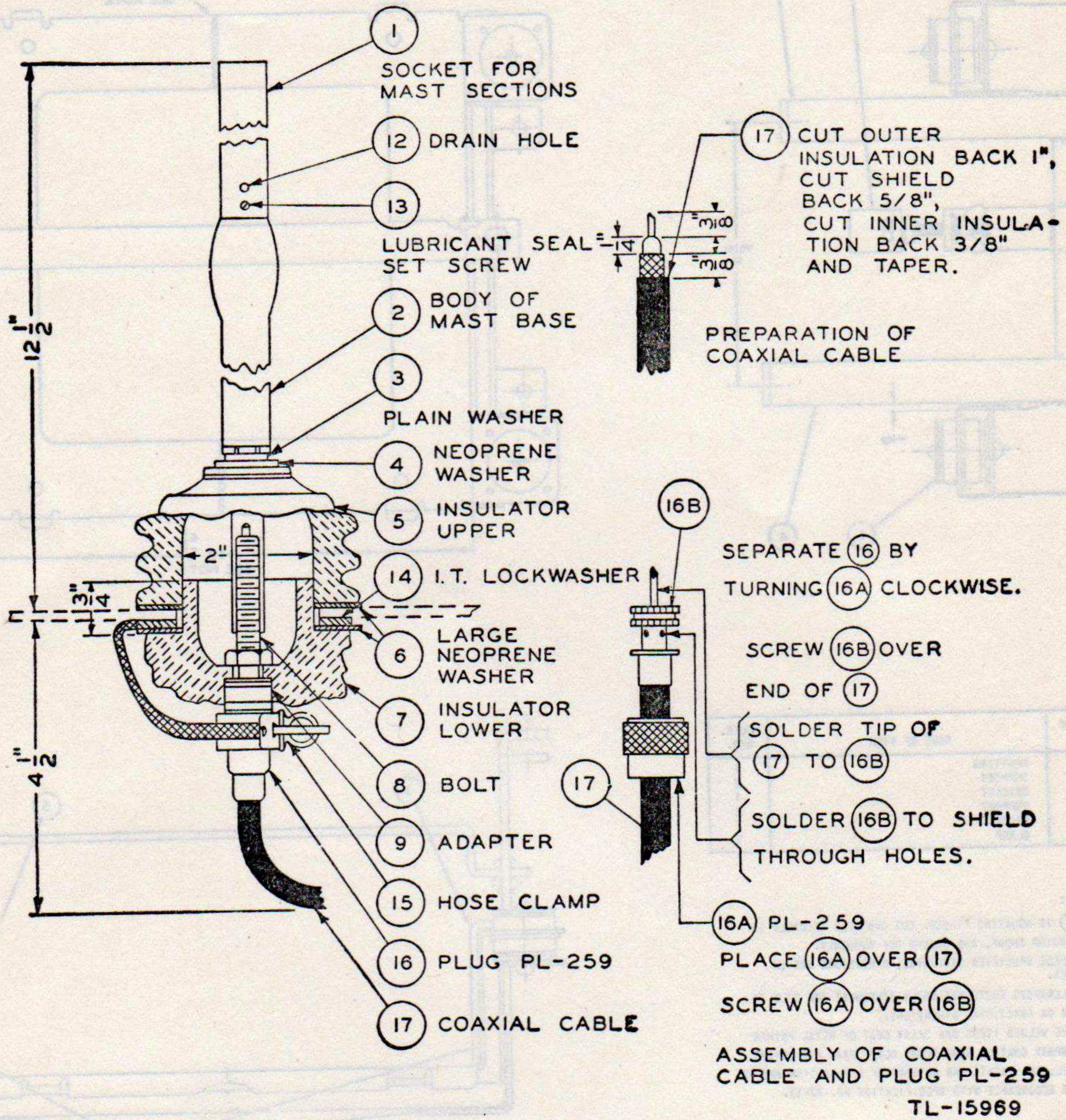
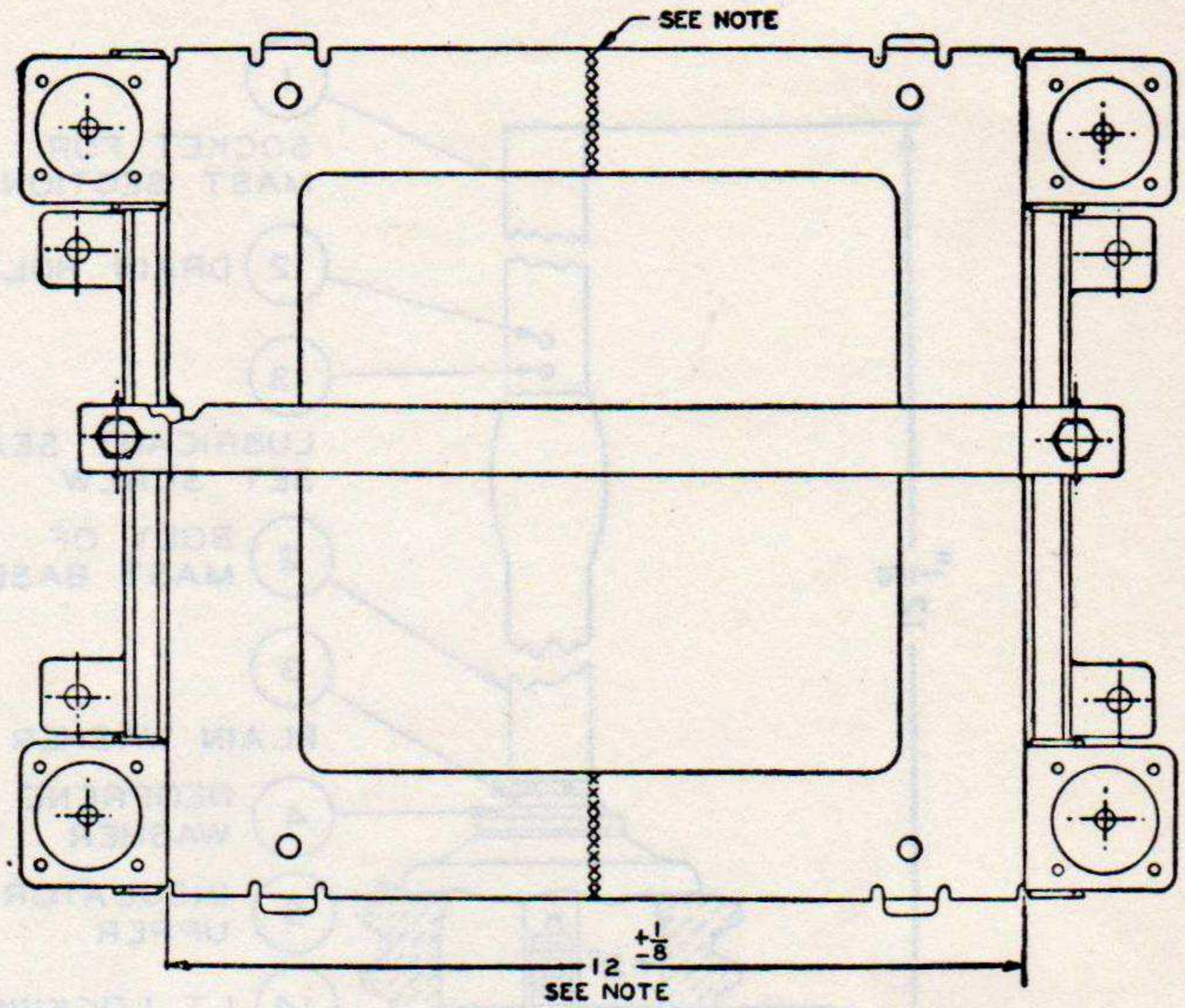
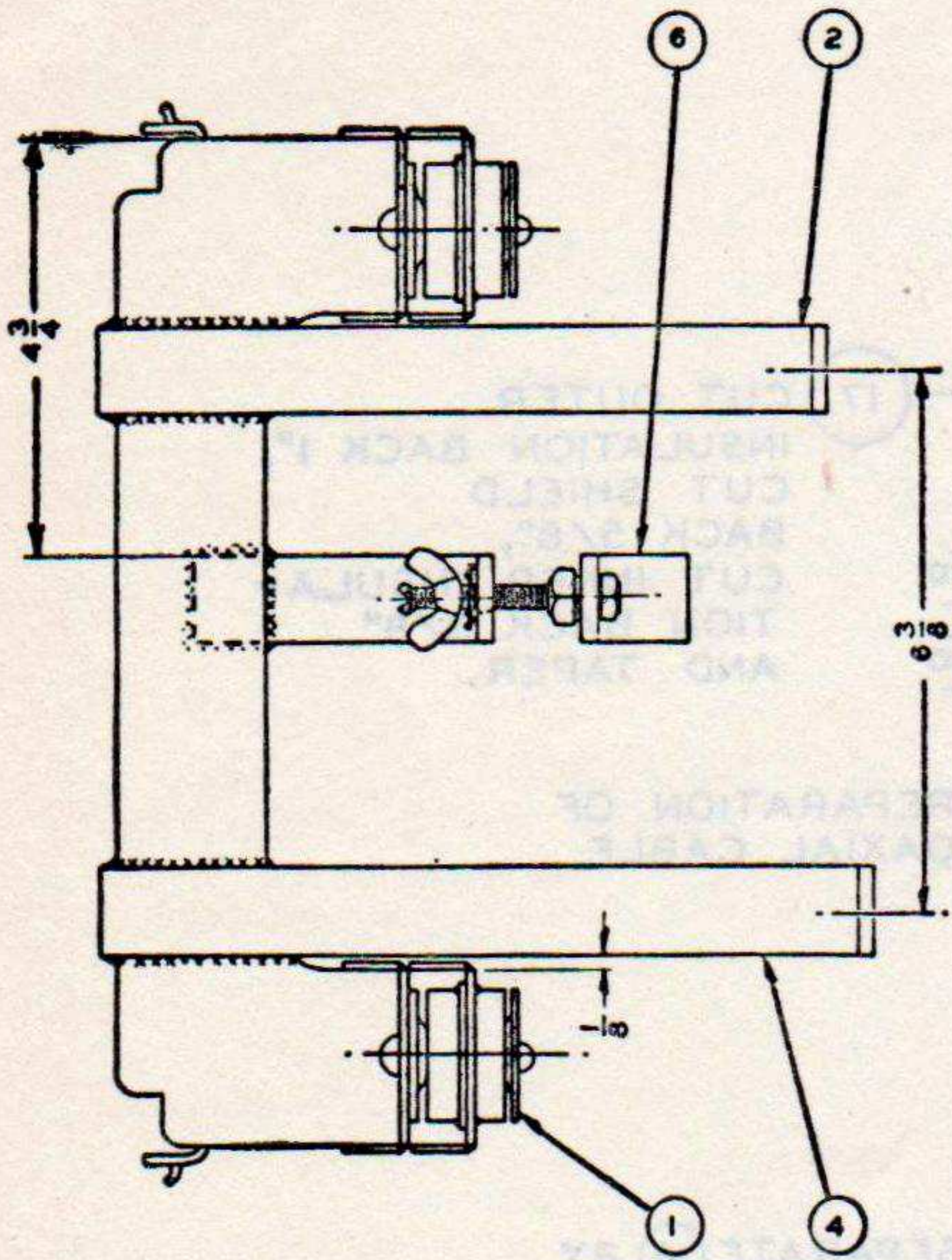


Figure 11. Mast Base AB-15/GR, coaxial lead-in.



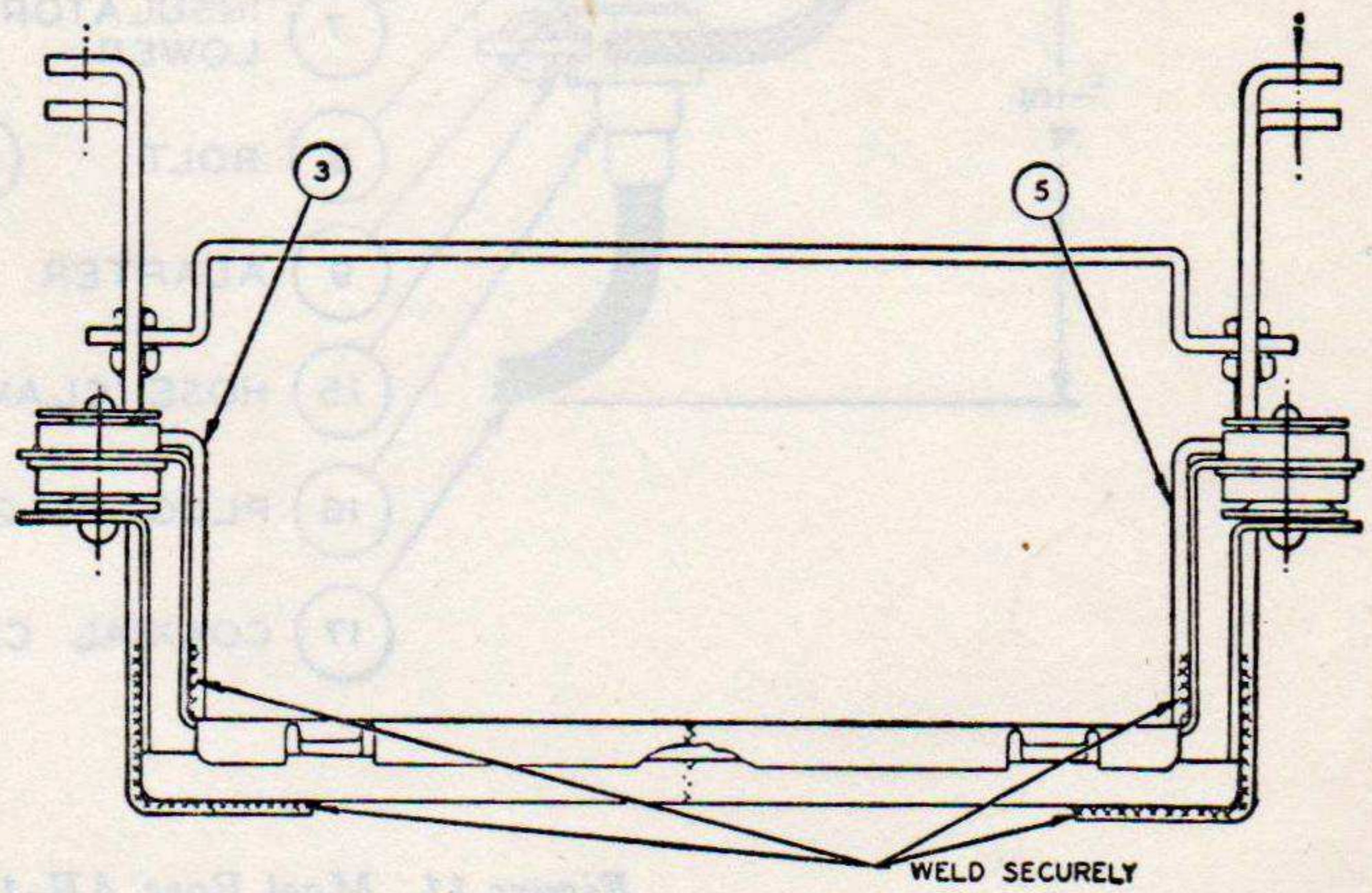
ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	MOUNTING	1
2	SUPPORT	2
3	BRACKET	1
4	SUPPORT	2
5	BRACKET	1
6	CLAMP	1

NOTE:

① IS MOUNTING FT-250. CUT AND WELD SECURELY TO DIMENSION SHOWN, AND GROUND OFF SMOOTHLY. UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.

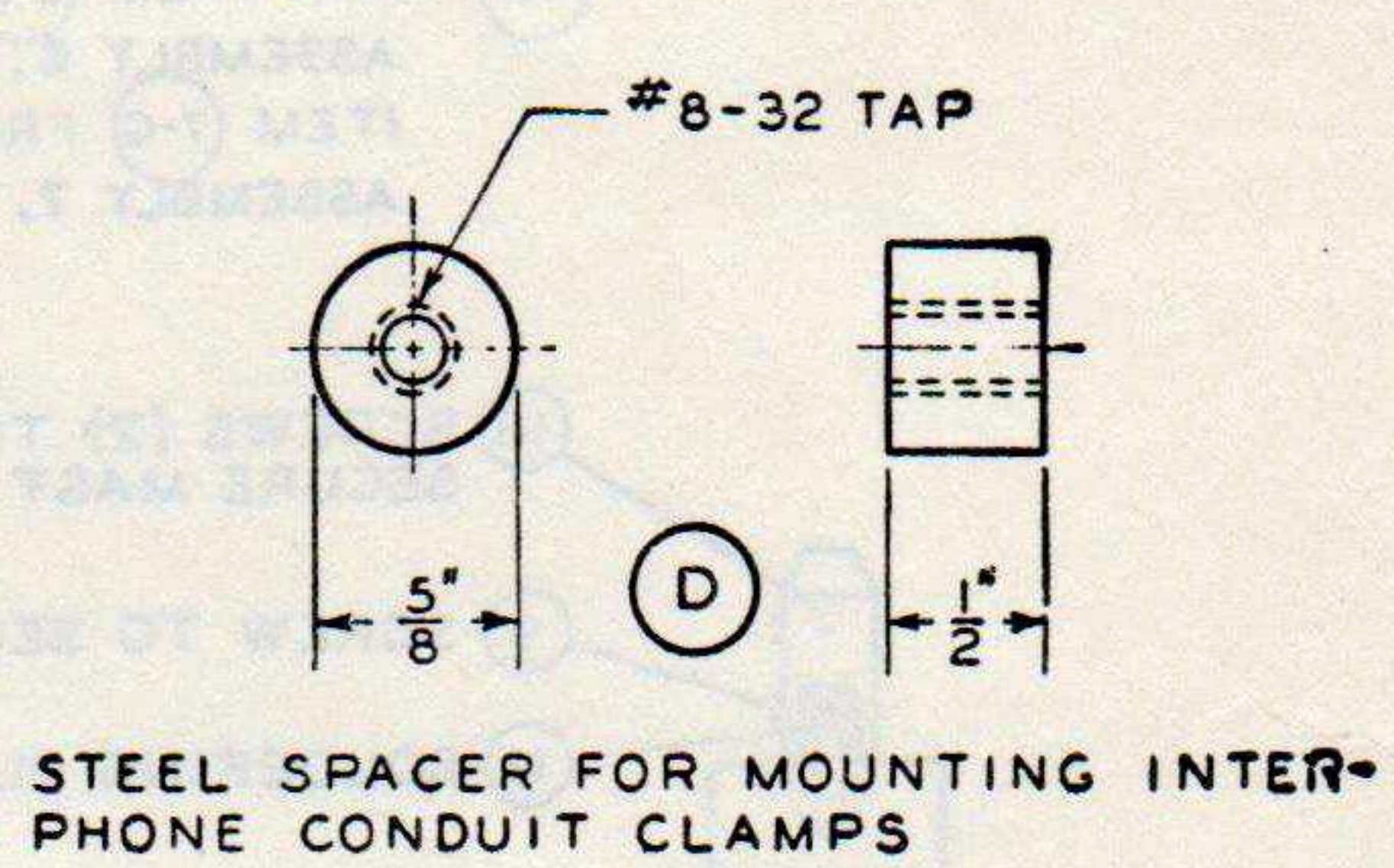
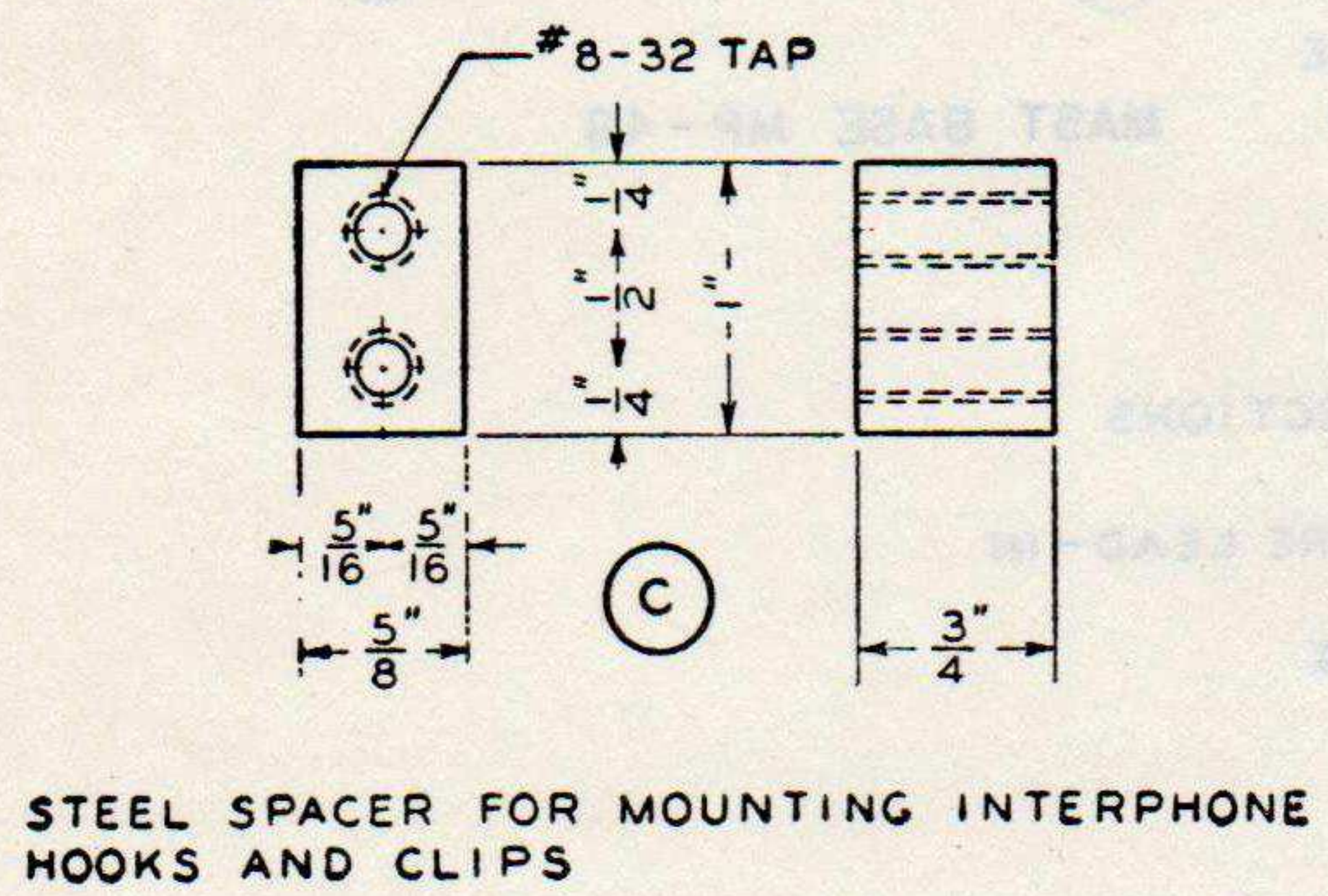
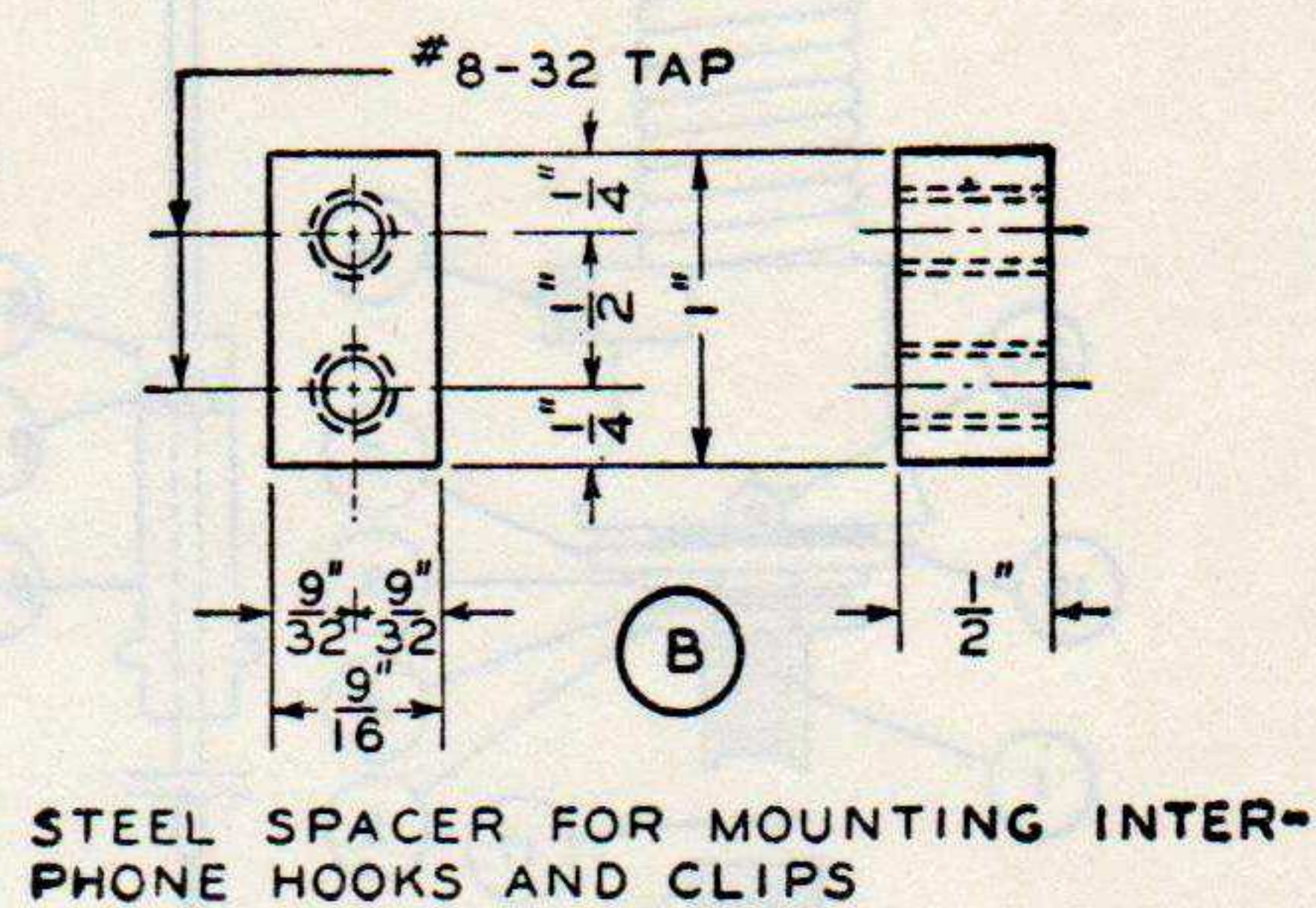
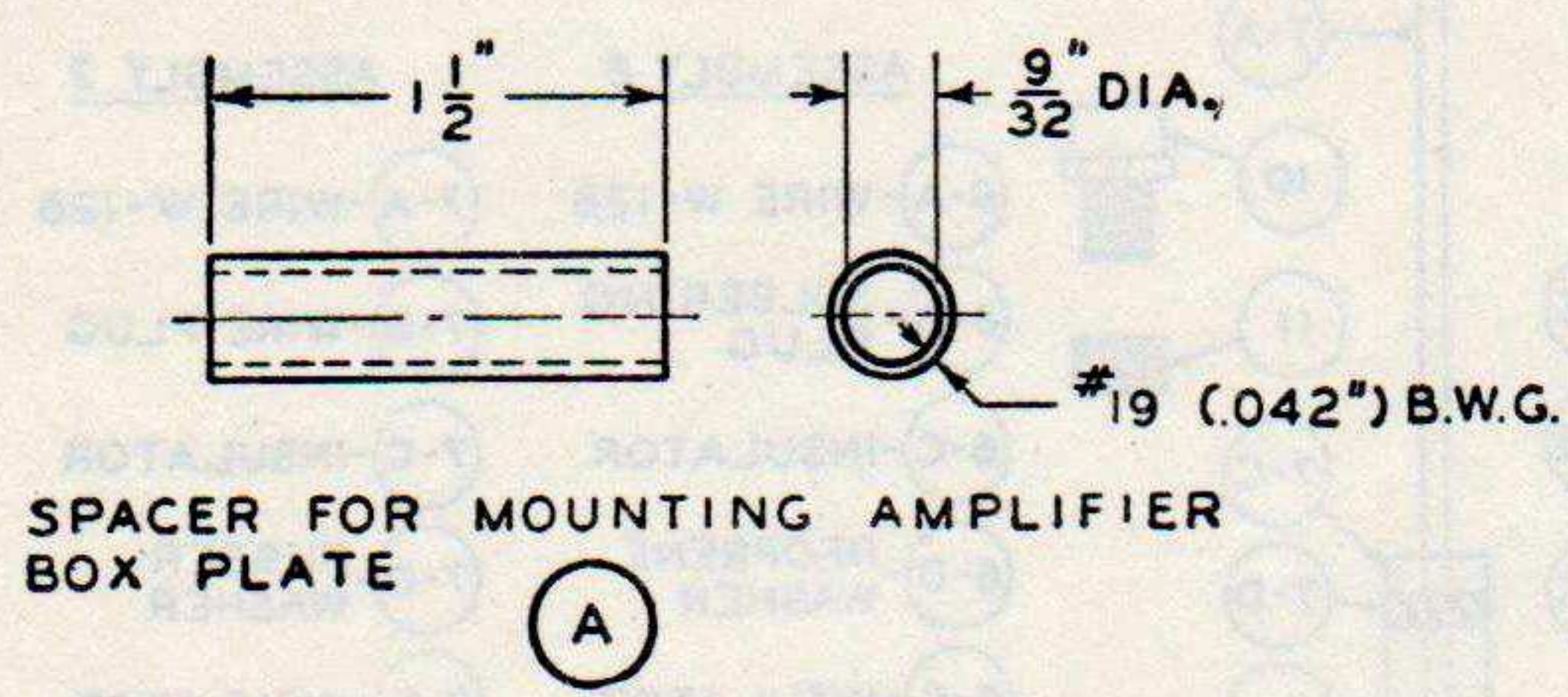
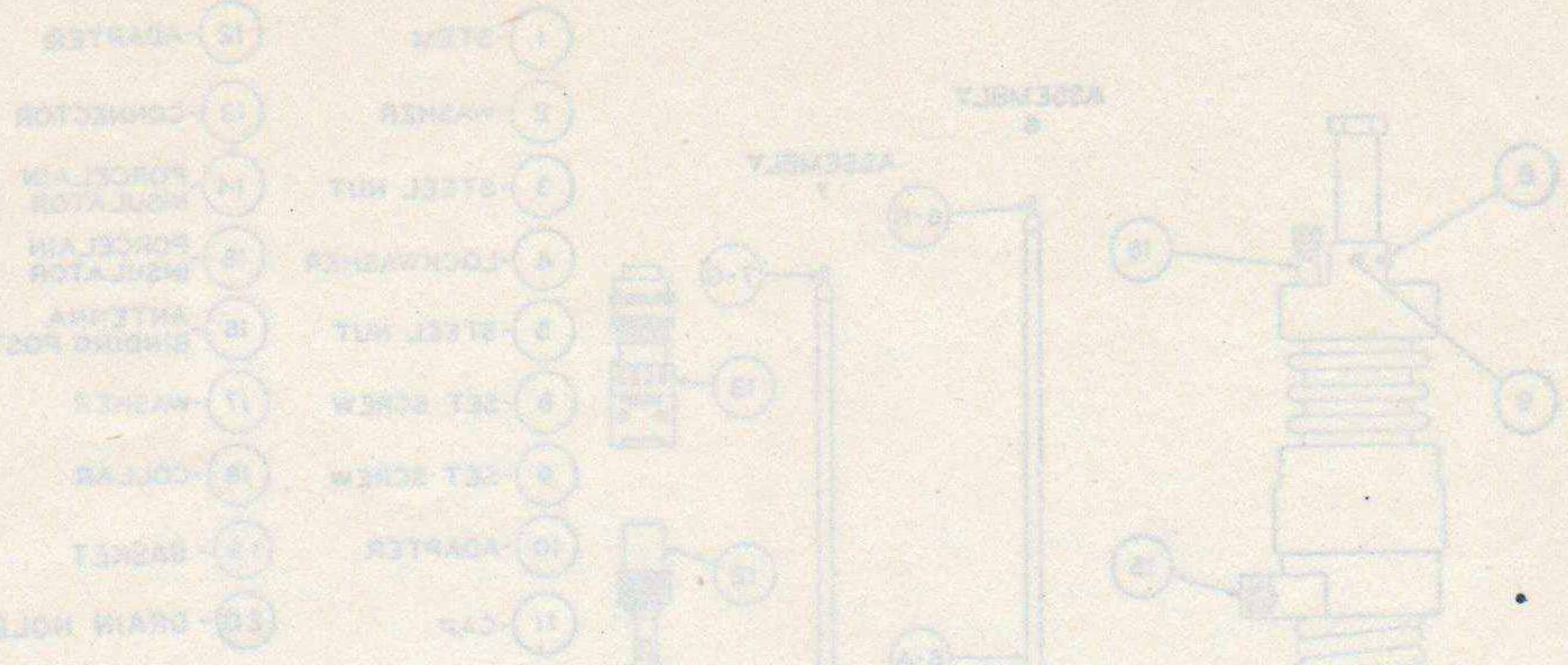
TOLERANCES WHERE NOT SHOWN OTHERWISE ARE HELD TO ±1/64 ON FRACTIONAL DIMENSIONS.

GIVE WELDED ITEMS ONE SPRAY COAT OF METAL PRIMER AND SPRAY COAT OF SEMI-GLOSS OLIVE DRAB AIR DRYING ENAMEL. ALL PAINTS AND METHODS OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.



TL12093-5

Figure 12. Mounting.



TL-13352

Figure 13. Spacer.

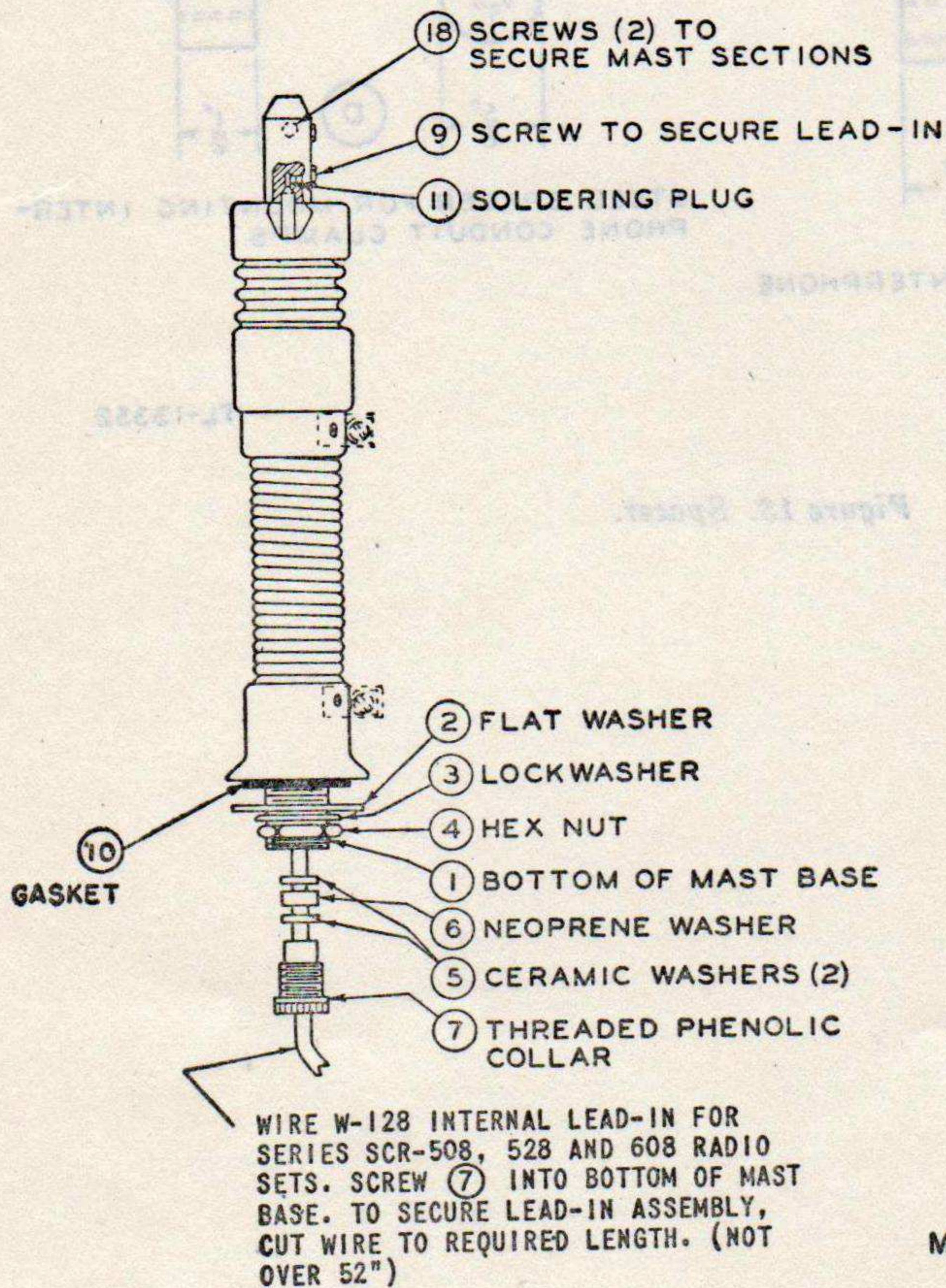
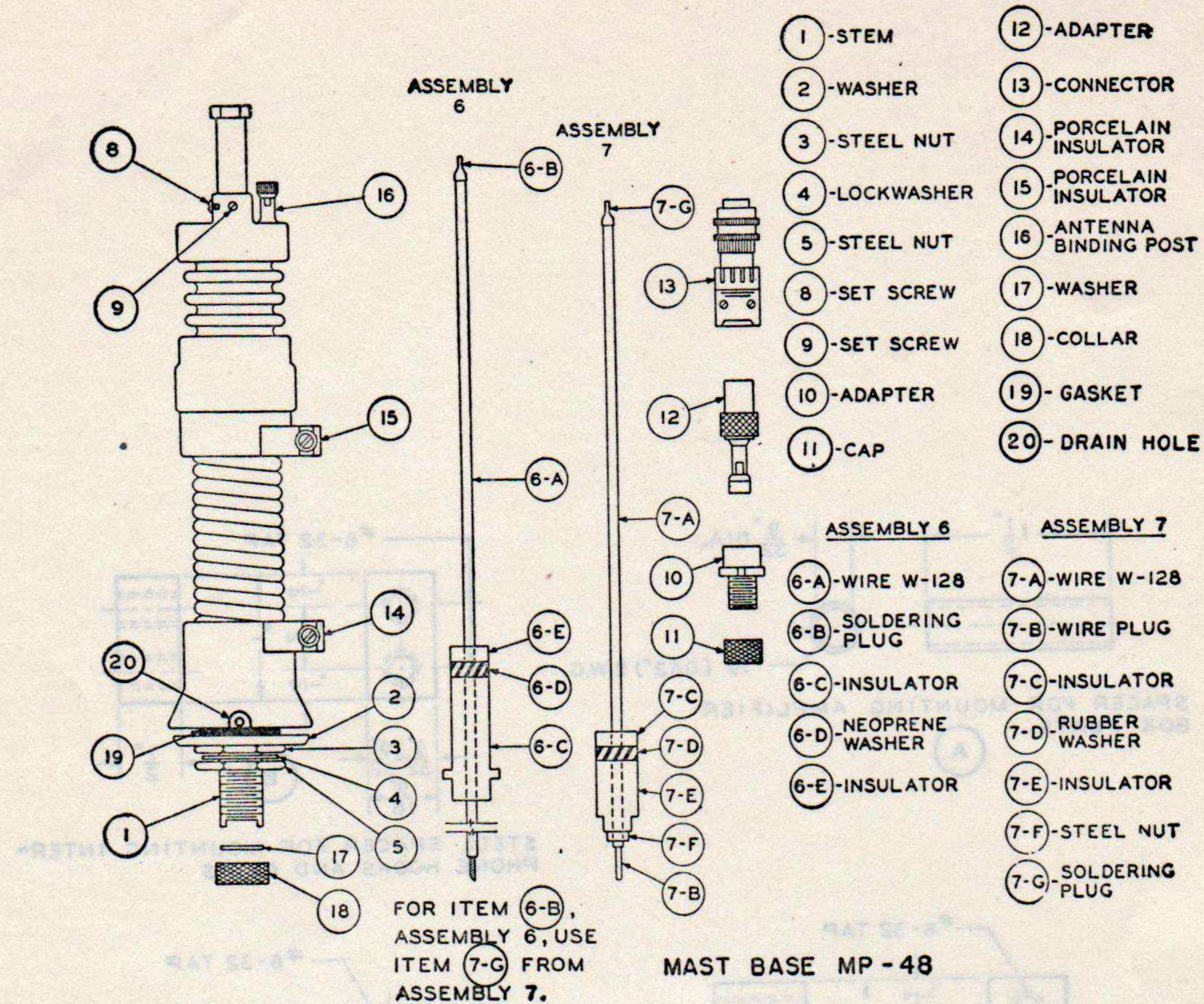
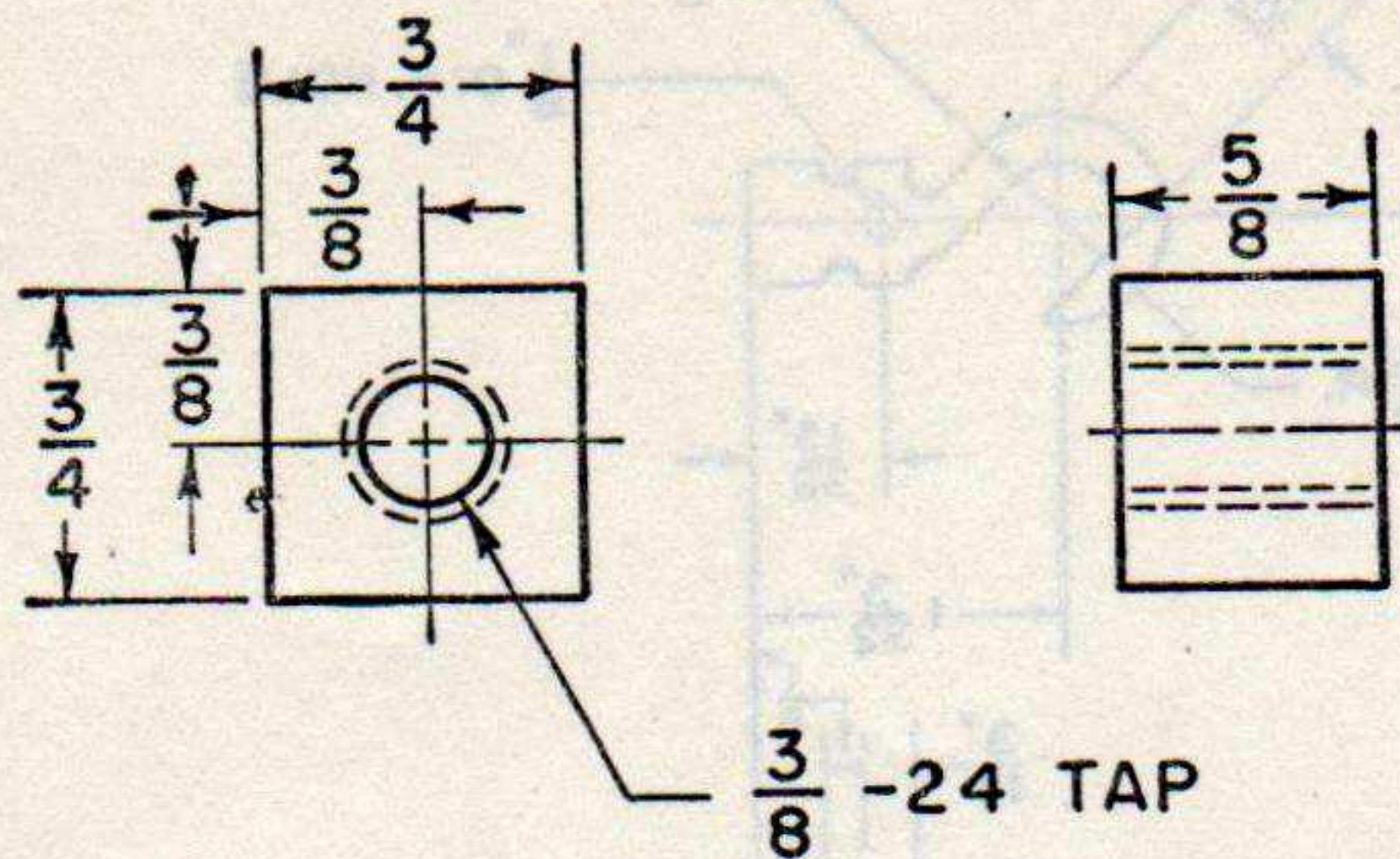


Figure 14. Mast Base MP-48 or MP-48-A, assembly for installation.



SPACER
STEEL-HOT ROLLED

NOTE:

TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $\pm 1/16$ ON FRACTIONAL DIMENSIONS.
UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.

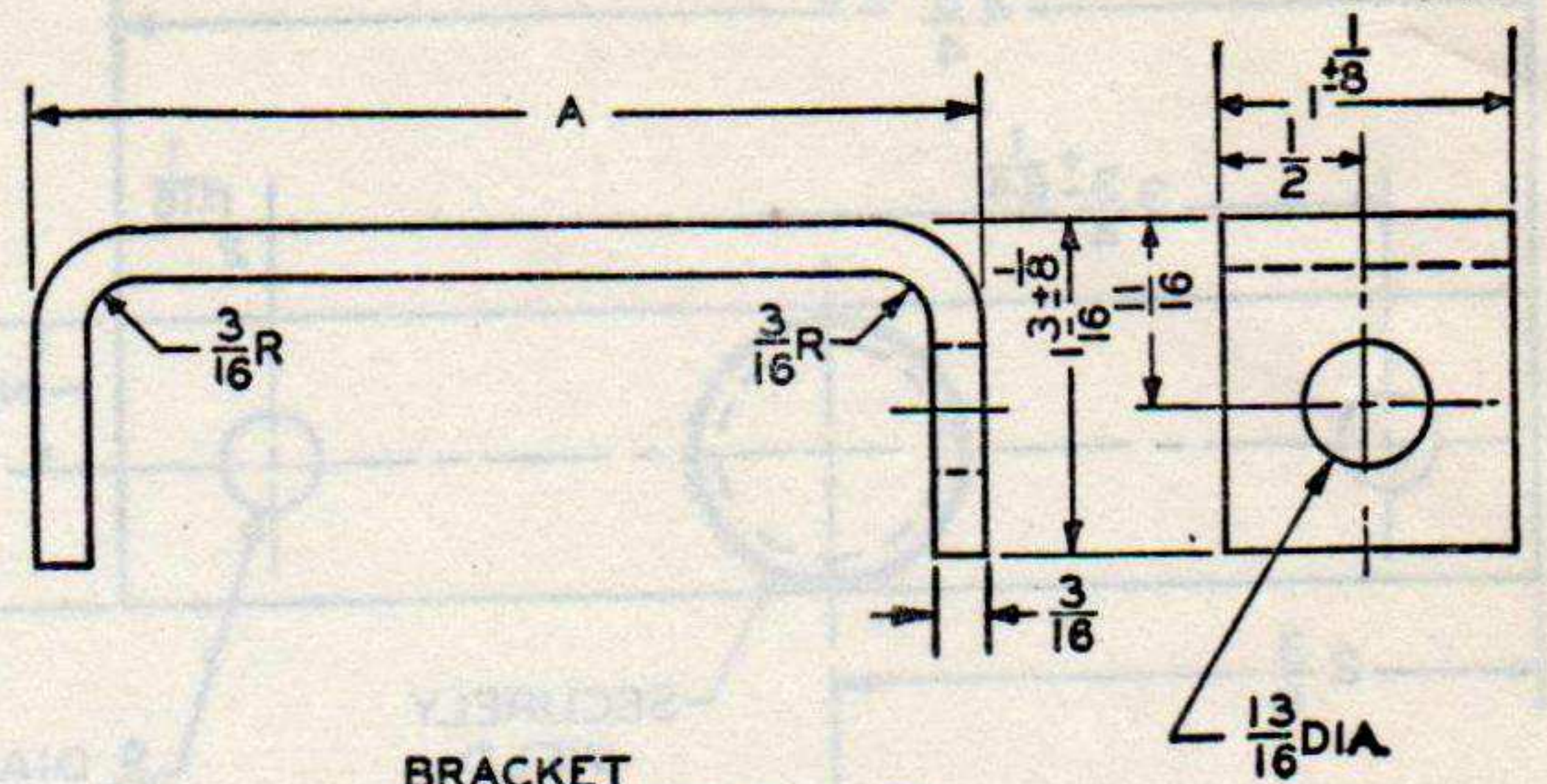
REMOVE ALL BURRS.

ALL SURFACES MUST BE BONDERIZED AND THEN GIVEN ONE SPRAY COAT OF METAL PRIMER. METAL PRIMER AND METHODS OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.

DO NOT PAINT TAPPED HOLE.

TL12094-S

Figure 15. Spacer.



BRACKET
STEEL-HOT ROLLED

ITEM	A
1	3-1/4
2	2-3/4

NOTE:

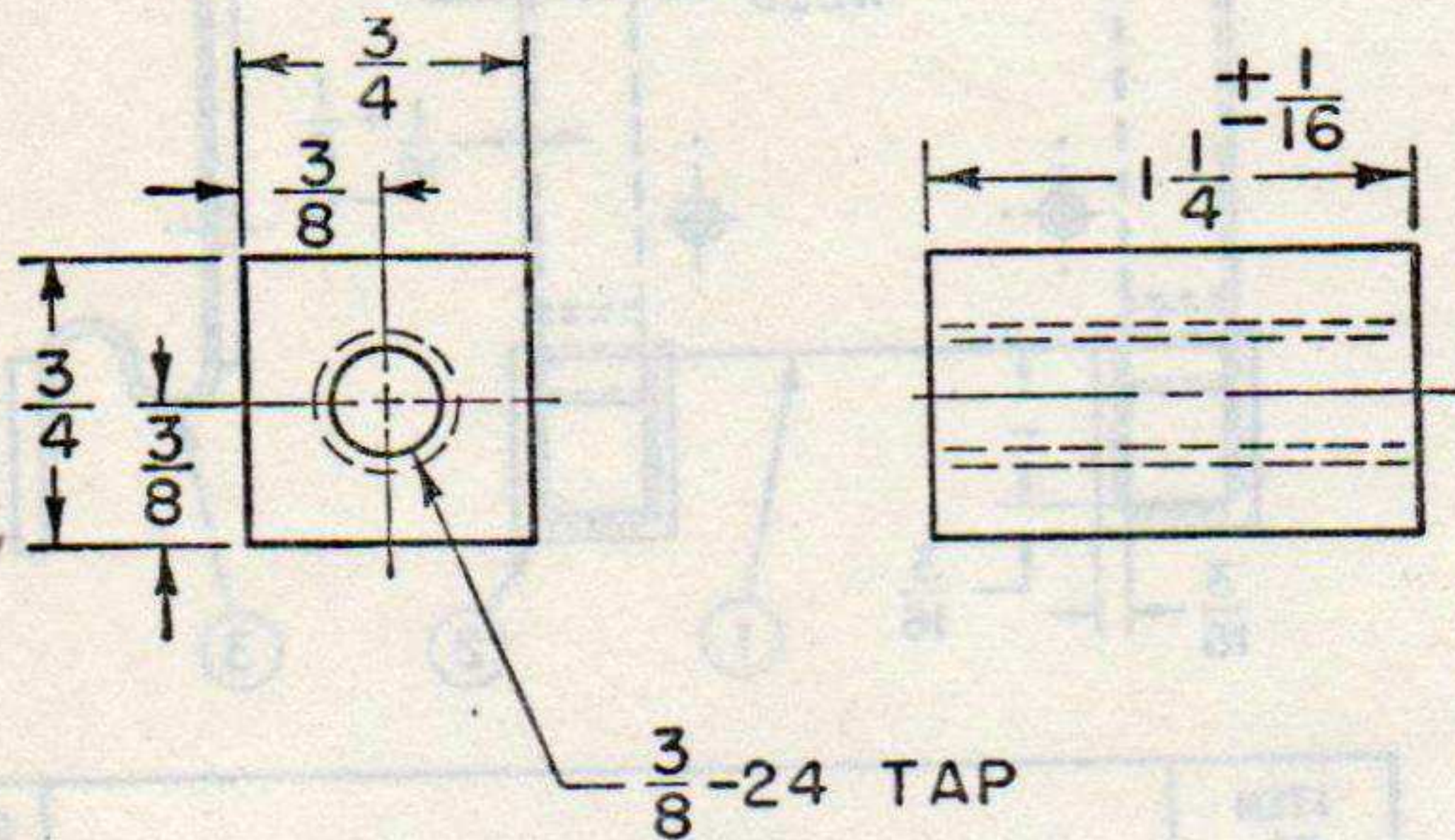
REMOVE ALL BURRS.
UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.

TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $1/64$.

BONDERIZE ALL SURFACES AND THEN GIVE ONE SPRAY COAT OF METAL PRIMER. METAL PRIMER AND METHODS OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.

TL12096-S

Figure 17. Brackets.



SPACER
STEEL-HOT ROLLED

NOTE:

REMOVE ALL BURRS.

UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.

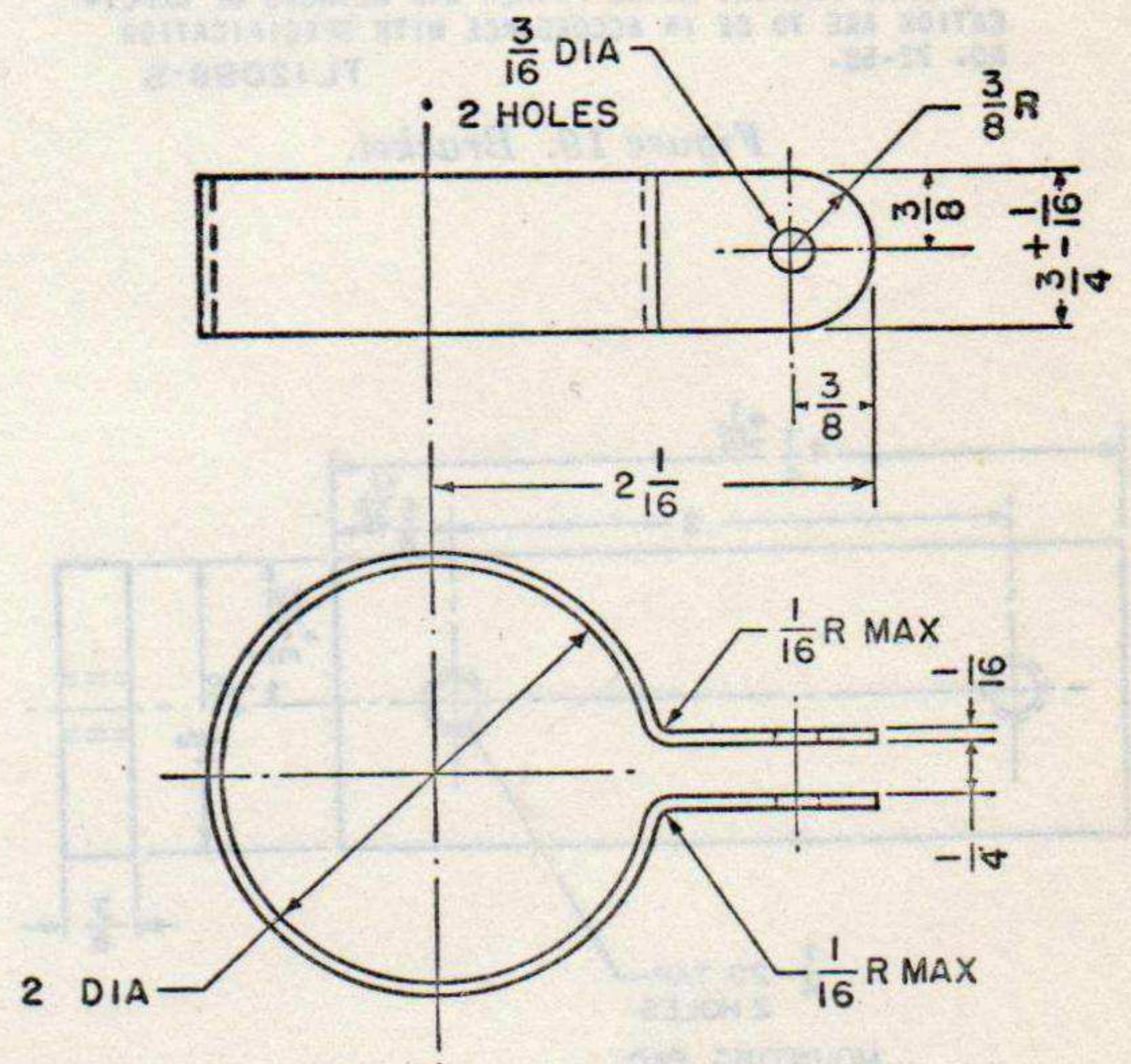
TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $\pm 1/32$.

ALL SURFACES MUST BE BONDERIZED AND THEN GIVEN ONE SPRAY COAT OF METAL PRIMER. METAL PRIMER AND METHOD OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.

DO NOT PAINT TAPPED HOLE.

TL12095-S

Figure 16. Spacer.



MOUNTING CLAMP
STEEL-HOT ROLLED

NOTE:

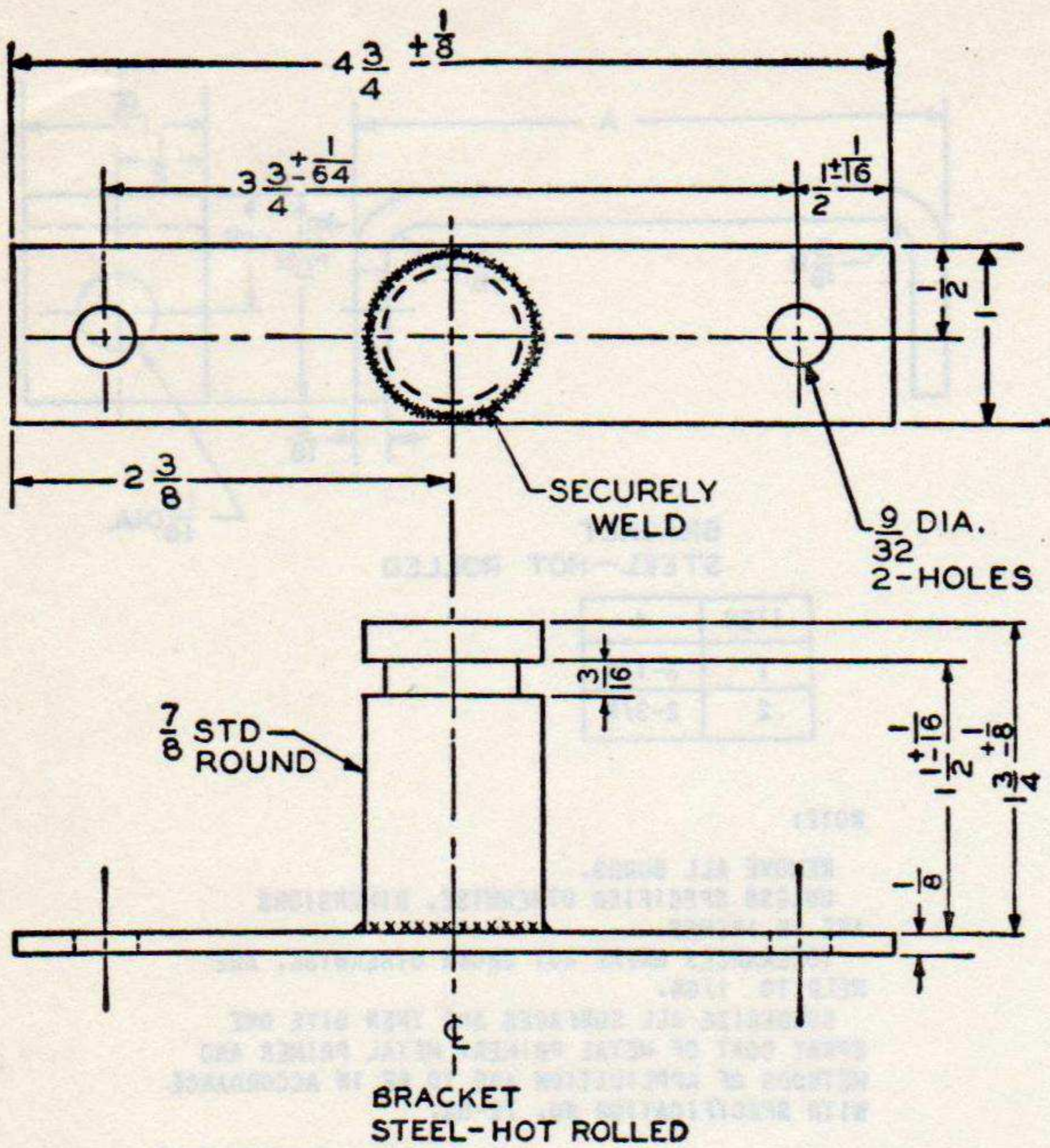
UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.

TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $1/32$.

BONDERIZE ALL SURFACES AND THEN GIVE ONE SPRAY COAT OF METAL PRIMER. METAL PRIMER AND METHODS OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.

TL12097-S

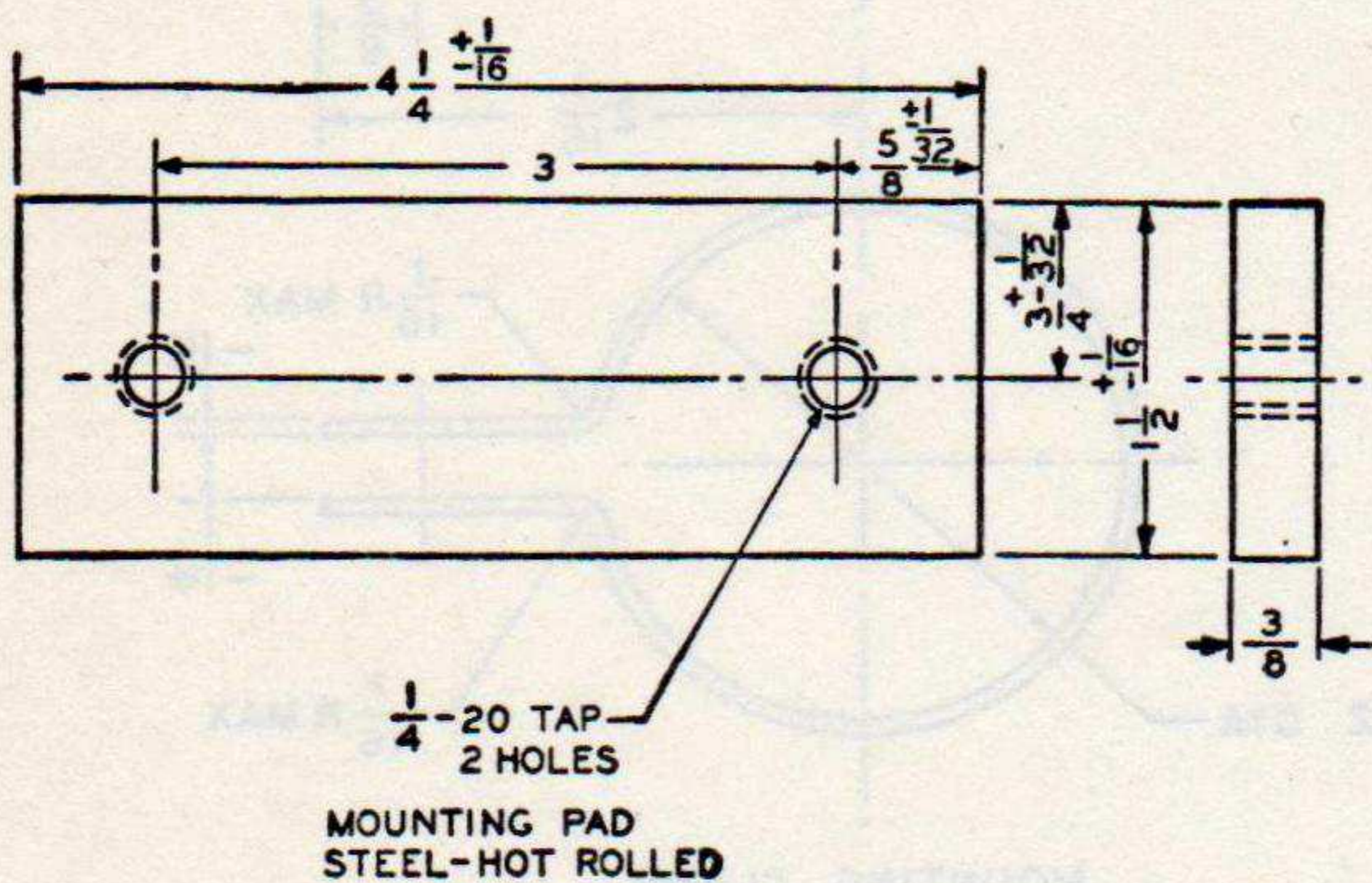
Figure 18. Mounting clamp.



NOTE:

REMOVE ALL BURRS.
UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.
TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $\pm 1/32$.
BONDERIZE ALL SURFACES AND THEN GIVE ONE SPRAY COAT OF METAL PRIMER. METAL PRIMER AND METHODS OF APPLICATION ARE TO BE IN ACCORDANCE WITH SPECIFICATION NO. 72-53.
TL12098-S

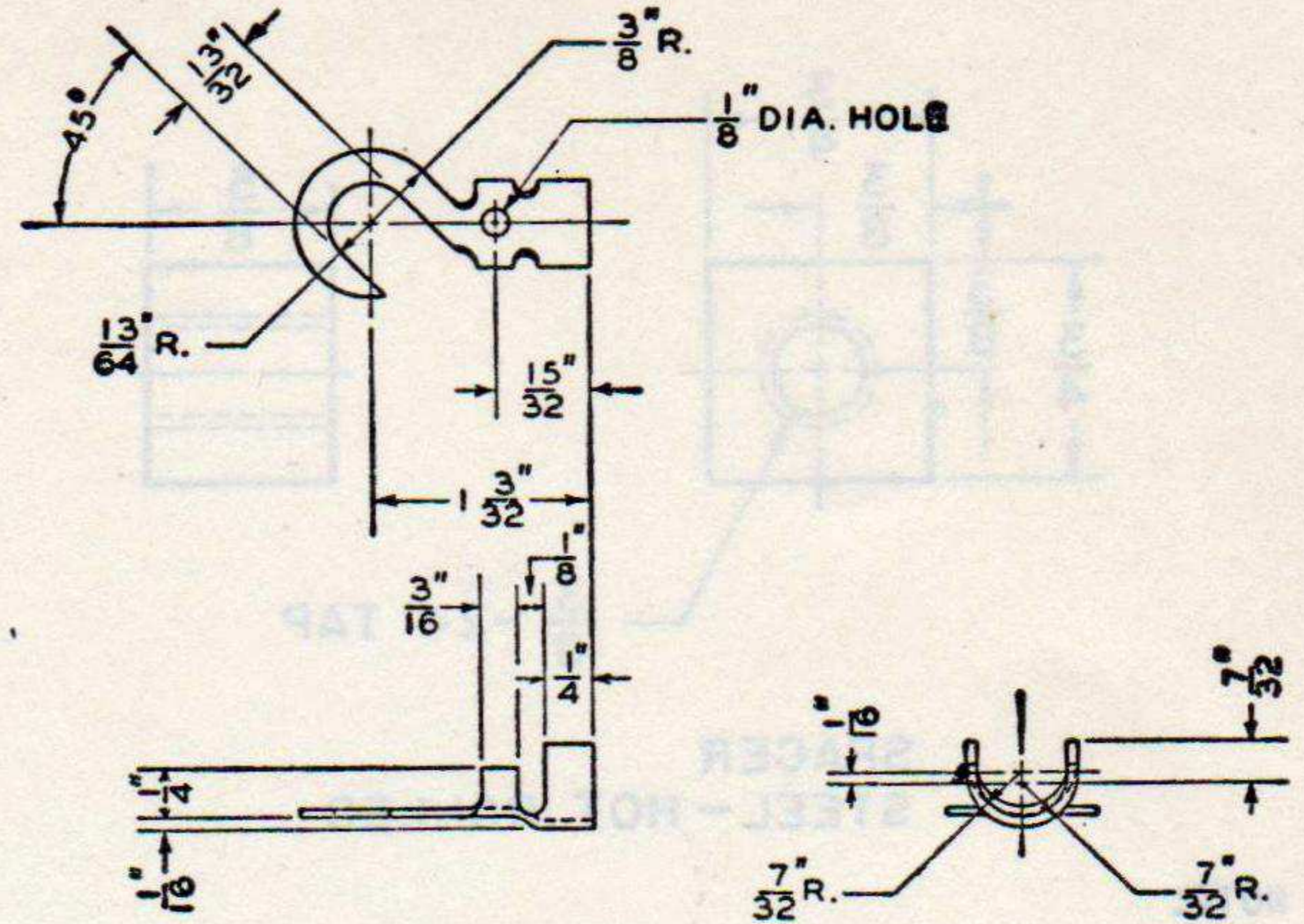
Figure 19. Bracket.



NOTE:

REMOVE ALL BURRS.
UNLESS SPECIFIED OTHERWISE, DIMENSIONS ARE IN INCHES.
TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO $\pm 1/64$.
DO NOT PAINT TAPPED HOLES.
TL12099-S

Figure 20. Mounting pad.

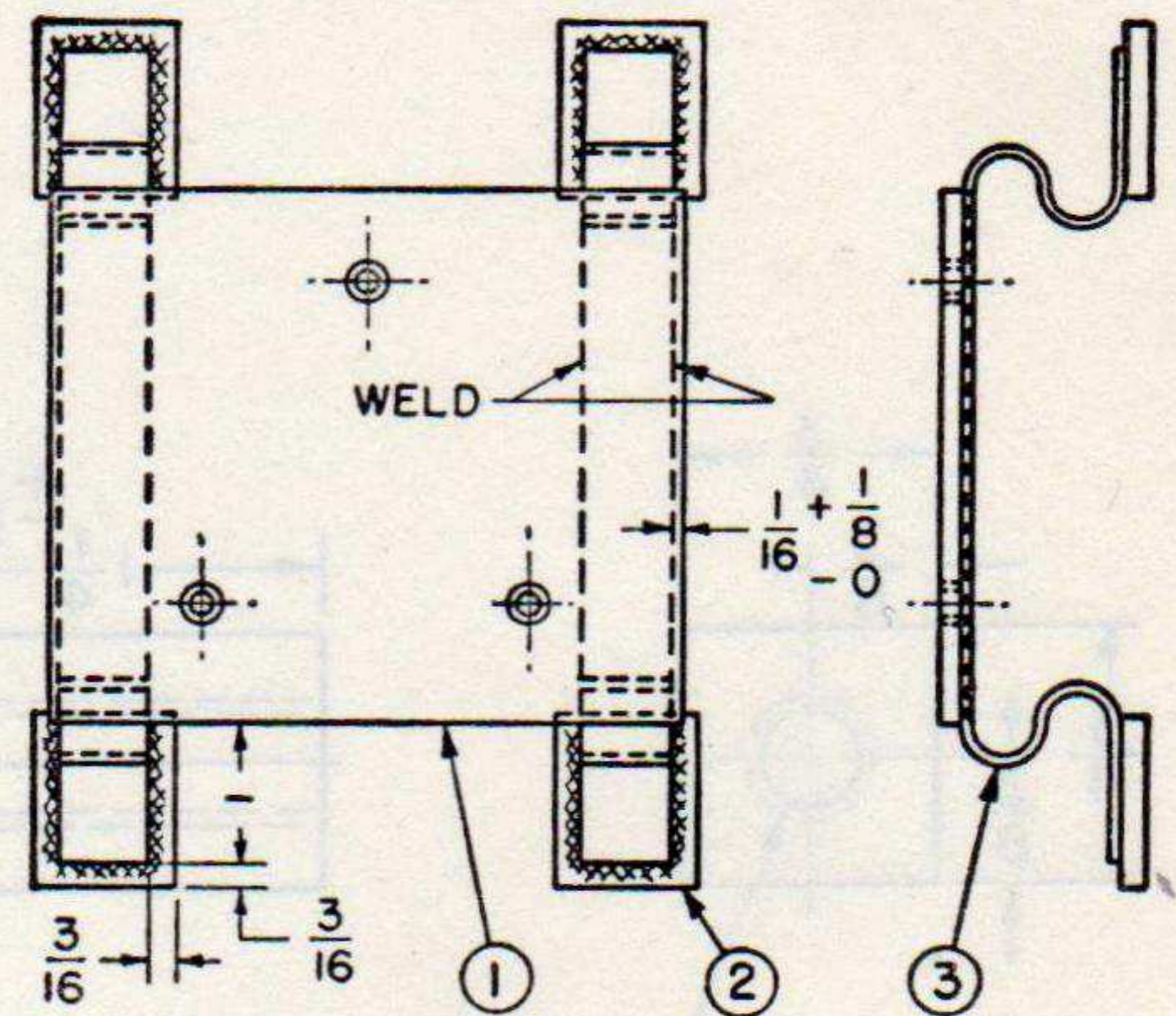


TERMINAL
COPPER-TINNED #18 (.040) B & S GA. AS REQ.

NOTE:
TOLERANCES WHERE NOT SHOWN OTHERWISE SHALL BE HELD TO $\pm 1/64$

TL-13326

Figure 21. Terminal.



ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	MOUNTING PLATE	1
2	WELDING PAD	4
3	SHOCK MOUNT RIBBON	2

NOTE:

REMOVE ALL BURRS.
DIMENSIONS WHETE NOT SHOWN OTHERWISE, ARE IN INCHES.
TOLERANCES WHERE NOT SHOWN OTHERWISE, ARE HELD TO 1/16.
PAINT BRACKET TO MATCH SURROUNDING SURFACES AT TIME OF INSTALLATION.
DO NOT PAINT TAPPED HOLES.
TL 12100-S

Figure 22. Bracket, for switchbox.

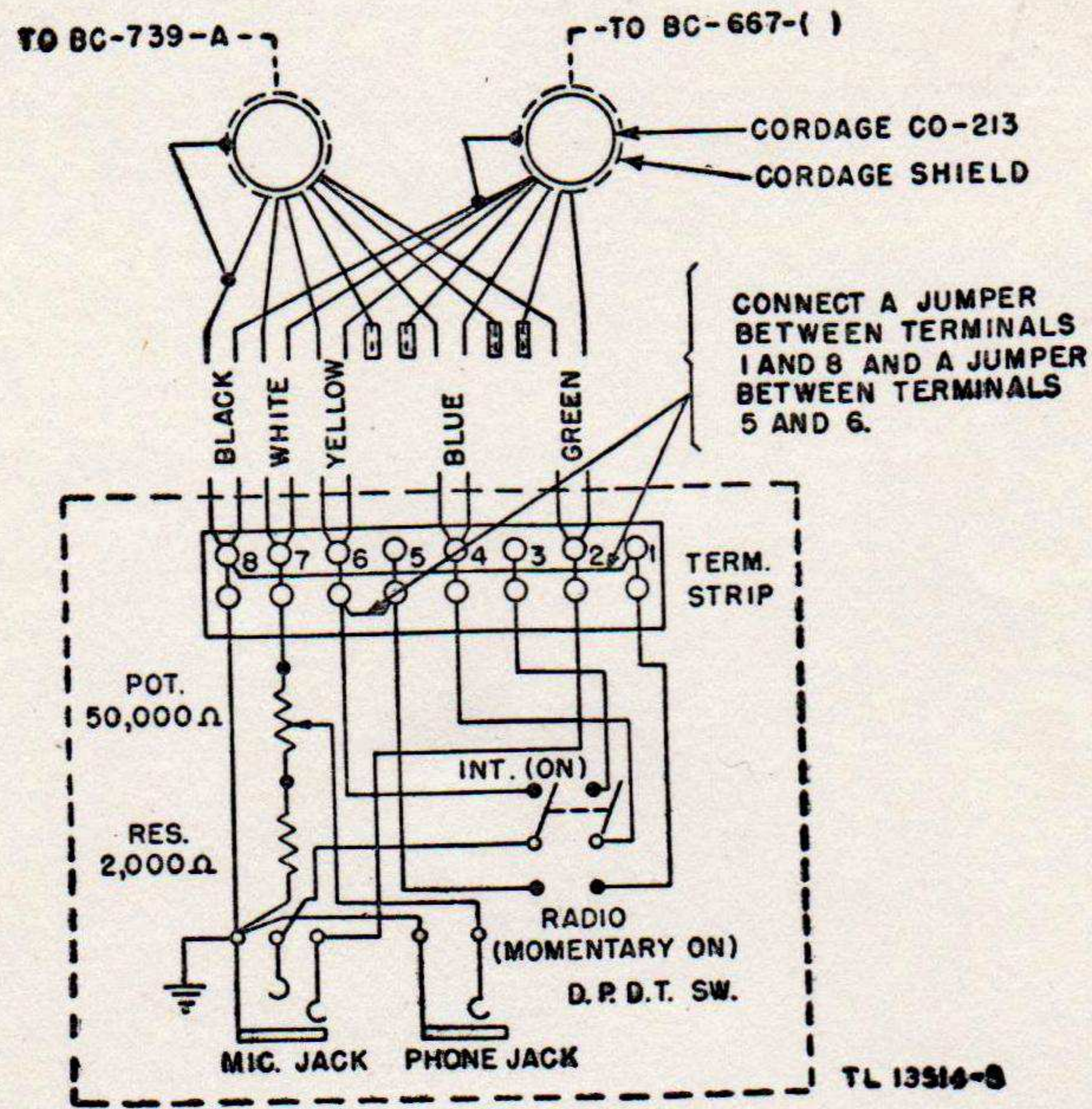


Figure 23. Wiring diagram of Interphone Control Box BC-606-H.

