

TM 11-2717

WAR DEPARTMENT TECHNICAL MANUAL

T7-532

INSTALLATION OF RADIO AND INTERPHONE EQUIPMENT IN CAR, SCOUT, M 3A1

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AND INTERPHONE EQUIPMENT
IN CAR, SCOUT, M 3A1



WAR DEPARTMENT • DECEMBER 1944

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WAR DEPARTMENT

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TM 11-2717, Installation of Radio and Interphone Equipment in Car, Scout, M3A1, is published for the information and guidance of all concerned.

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For explanation of symbols, see FM21-6.

DESTRUCTION NOTICE

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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, crowbars, 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



SAFETY NOTICE

This equipment uses high voltages which are dangerous to life. Observe all safety precautions.

1. Make no adjustments inside the equipment with the power switch on.
2. Do not operate the equipment with the shields removed.
3. Do not connect power to any unit of these radio sets until operating instructions have been read completely.

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SECTION I

GUIDE TO USE OF THIS MANUAL

1. Purpose

This manual provides method and procedure, based upon actual field experience, for installation of radio equipment in Car, Scout, M3A1. 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 Sets:

SCR-193-D

SCR-284-()

SCR-506-()

SCR-508-()

SCR-510-()

SCR-528-()

SCR-593-()

SCR-608-()

SCR-610-()

SCR-628-()

3. Holes and Brackets

Holes and brackets required for installation of the radio sets are normally located prior to delivery of Car, Scout, M3A1. 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 as outlined, and any subsequent changes to this manual.

Caution: Car, Scout, M3A1 has a 12-volt electrical system. Before installing the radio set, be sure it is designed for 12-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; then, make a thorough operating check to determine whether the equipment has been properly installed and is in working order.

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SECTION II

IGNITION NOISE SUPPRESSION IN CAR, SCOUT, M3A1

6. General

Excessive ignition or other electrical noises may interfere with the operation of radio equipment in Car, Scout, M3A1. The Technical Manual issued with the vehicle will be helpful in locating the source of the noise since it describes the suppression system used. Instructions for operating radio equipment used in the vehicle should also be studied.

7. Procedure

Locate and suppress ignition noises as follows:

a. Start the motor of the vehicle and turn on the radio set. Put the receiver sensitivity control at

maximum; then, listening to the receiver output with a headset, tune the receiver slowly over the entire range of frequencies to be used for communication.

b. When the frequency (or frequencies) with greatest noise level is found, turn off the vehicle engine. If interference persists, the source is outside the ignition system. If noise stops, the trouble is in the ignition system.

c. Start the engine again. Adjust the receiver sensitivity control until engine noises can be distinguished easily from static, etc. Interference may then be identified as follows:

<i>Interference</i>	<i>Usual source</i>
Popping sound : corresponds to ignition firing ; stops when engine is turned off ; accelerates when engine is raced.	Ignition system.
Intermittent, clicking sound ; lingers for several seconds when ignition is turned off.	Generator regulator.
Whining sound ; varies with speed of engine ; ceases only when generator stops rotating.	Generator.
Sparking, or continuous crackling noise.	Brushes and commutator of generator.

d. Interference from other electrical parts and circuits of the vehicle, such as panel gauges and heater fans, can usually be identified by turning off the gauges, fans, or other suspected mechanisms individually.

e. If the source of interference still cannot be found by any of the preceding methods, connect a probe antenna (fig. 2) to the antenna terminal of the radio set. Slowly move the loop of the probe antenna over the various parts of the electrical system of the vehicle. Keep the loop close to, but not in contact with, the part being examined. Noise from interference-producing parts should be heard in the 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 the 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-193-D

8. Required Parts

Items necessary for installation of Radio Set SCR-193-D in Car, Scout, M3A1 are listed below:

Quantity	Stock No.	Item
1	2A224A.....	Antenna AN-24-A, auxiliary.
1	2Z1108.....	Box BX-8, for transmitter spare tubes.
1	2Z1119.....	Box BX-19, for receiver spare tubes.
1	2Z1121.....	Box BX-21, for headset, microphone, etc.
1		Bracket (fig. 27) for Loudspeaker LS-3.
1	2Z1577-153.....	Chest CH-153-().
2	4B417-4.....	Chest Set TD-4.
1	2Z1848.....	Case CS-48, for transmitter tuning unit.
2	2Z2651-421.....	Clamp MC-421, for mast section.
2	2Z2651-422.....	Clamp MC-422, for mast section.
2	2Z2651-423.....	Clamp MC-423, for mast section.
2	2Z2651-424.....	Clamp MC-424, for mast section.
1	3E1411.....	Cord CD-411, connecting Radio Receiver BC-312-() to terminal box, including one connector No. 61007 and one Bondnut BL-50.
1	3E1267.....	Cord CD-267, for Loudspeaker LS-3.
2	3E1307-5.5.....	Cord CD-307-A, 65 in. long.
1	3E1320.....	Cord CD-320, connecting Radio Transmitter BC-191-() to Dynamotor Unit BD-77-().
1	3E1346.....	Cord CD-346, connecting Radio Transmitter BC-191-() to Dynamotor Unit BD-77-().
1	3E1410.....	Cord CD-410, connecting Radio Transmitter BC-191-() to terminal box, including one connector No. 61007 and one Bondnut BL-50.
1	3E2189.....	Cord CO-189, connecting Dynamotor Unit BD-77-() to terminal box, including one connector No. 61007 and one Bondnut BL-50.
2	3E1604.....	Cord CD-604.
1	2Z3367A.....	Cover BG-67, for mast base.
1	2Z3375A.....	Cover BG-75-A, for Radio Receiver BC-312-().
1	2Z3378A.....	Cover BG-78-A, for Radio Transmitter BC-191-().
1	3H1359A.....	Cover BG-79-A, for Dynamotor Unit BD-77-().
1	2Z3384.....	Cover BG-84, for radio cabinet.
1	6C18-41.....	Cover CW-41/U, for Loudspeaker LS-3.
1	3H1777.....	Dynamotor Unit BD-77-(), including Mounting FT-107.
1	6L50-193V13.....	Hardware bag.
*2	2B800-16.....	Headset H-16/U or IIS-30-().
	2B830.....	
3	3G586.....	Insulator IN-86, used with Rope RP-5 for tying down mast sections.
2	3G601.....	Insulator IN-101.
1	2A224A/1.....	Instructions for installation of auxiliary Antenna AN-24-A.
4	3G604.....	Insulator IN-104.
1	3Z3445.....	Key J-45.
1	2Z6303.1.....	Loudspeaker LS-3.
1	2A2087.....	Mast Base MP-37.

* Headset HS-23 may be substituted for Headset H-16/U or HS-30-(). When this is done, Cord CD-604 is not required.

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Quantity	Stock No.	Item
2	2A2349.....	Mast Section MS-49.
2	2A2350.....	Mast Section MS-50.
2	2A2351.....	Mast Section MS-51.
2	2A2352.....	Mast Section MS-52.
2	2A2353.....	Mast Section MS-53.
2	2B1567.....	Microphone Cover M-367.
2	{ 2B1645..... 2B1617..... }	Microphone T-45 or T-17.
1	2Z6712.....	Mounting FT-172, snubber for Radio Transmitter BC-191-().
1	2Z6718.....	Mounting FT-178, snubber for Radio Receiver BC-312-().
1	2C4312.....	Radio Receiver BC-312-(), including Mounting FT-162.
1	2C6191.....	Radio Transmitter BC-191-(), including Mounting FT-151-().
1	2Z8056A.....	Roll BG-56-A, for mast section.
50 ft.	6Z7926.....	Rope RP-5, for tying down mast sections.
1	2Z8793A.....	Socket Cap M-163-A, for unused socket in Radio Transmitter BC-191-().
2	6D13073.....	TM-11-273, for Radio Set SCR-193-D.
1	2Z9313.....	Terminal Block TM-183, for terminal box.
1	2C8005.....	Transmitter Tuning Unit TU-5-().
1	2C8006.....	Transmitter Tuning Unit TU-6-().
20 ft.	1B128.....	Wire W-128.

9. Assembly and Installation

a. Before proceeding with this installation, perform all necessary drilling of the vehicle for Chest CH-153-() and mast base pedestal as shown in

figure 4.

b. Components of Radio Set SCR-193-D should be installed in Car, Scout, M3A1 as shown in figures 1, 3, and 5 and as directed below:

<i>Part and location</i>	<i>Method and materials</i>
Mast Base MP-37, on mast base pedestal. (See fig. 5.)	Assemble as shown in figure 6.
Chest CH-153-(), on floor of vehicle in front of mast base pedestal.	Fasten in place with eight 1/4"-20 x 1-inch screws, nuts, lockwashers provided.
Mounting FT-107-().	Attach to floor of Chest CH-153-(), left side, with six 1/4"-20 x 7/16-inch screws and lockwashers provided.
Mounting FT-151-().	Attach to floor of Chest CH-153-(), right side, with eight 1/4"-20 x 7/16-inch screws and lockwashers provided.
Mounting FT-162.	Attach to shelf inside Chest CH-153-() with ten No. 10-32 x 3/4-inch screws, nuts, and lockwashers provided.
Dynamotor Unit BD-77-() and Cover BG-79-A, on Mounting FT-107-().	Secure dynamotor on mounting with snap-slide fasteners provided. Place Cover BG-79-A over dynamotor.
Radio Receiver BC-312-(), Mounting FT-178 (fig. 26), and Cover BG-75-A, on Mounting FT-162 (fig. 5).	Remove receiver from its case. Drill right end of case as shown in figure 8 and attach small angle bracket (part of Mounting FT-178). Replace receiver in case. Attach Mounting FT-178 to Chest CH-153-(). Place receiver on Mounting FT-162 and secure with snap slide fasteners provided. Place Cover BG-75-A over receiver, cut slot for small angle bracket, and secure

<i>Part and location</i>	<i>Method and materials</i>
Radio Receiver BC-312-()— <i>Continued</i>	threaded rod of Mounting FT-178 to small angle bracket with wingnuts provided.
Radio Transmitter BC-191-(), Mounting FT-172 (fig. 26), and Cover BG-78-A, on Mounting FT-151-(). (See fig. 5.)	Drill top of transmitter as shown in figure 9 and attach small angle bracket (part of Mounting FT-172). Attach Mounting FT-172 to Chest CH-153-(). Place transmitter on Mounting FT-151-() and secure with snap slide fasteners provided. Place Cover BG-78-A over transmitter, cut slot in cover for small angle bracket, and secure threaded rod of Mounting FT-172 to small angle bracket with wingnuts provided.
Three Insulators IN-104.	Screw two Insulators IN-104 into tap holes provided in mast base pedestal. Install one inside Chest CH-153-(), utilizing upper right hole for Mounting FT-172. (See fig. 10.)
Cover BG-84.	Drill necessary holes and install cover over Chest CH-153-().
Insulator IN-101.	Install through hole provided in top of Chest CH-153-(). (See fig. 10.)
Mast Sections MS-49 to MS-53 inclusive; Clamps MC-421 to MC-424 inclusive.	Screw mast sections together, place clamps over joints, and screw into mast base. When removed, stow mast sections and clamps in Roll BG-56-A and close Cover BG-67 over mast base.
Wire W-128 for Radio Set SCR-193-D.	Route and connect as shown in figures 10 and 5.
Loudspeaker LS-3. (See fig. 28.)	Secure loudspeaker bracket (fig. 27) to vehicle and mount loudspeaker as shown in figure 28. Plug Cord CD-267 into loudspeaker and radio set.
Cover CW-41/U on Loudspeaker LS-3.	Remove screws from outer edge of front panel on loudspeaker. Place Cover CW-41/U over front of loudspeaker (flap opening upward) and secure by replacing screws in front panel of speaker.
Headset H-16/U, Microphone T-45, and Chest Set TD-4.	To be used in place of Headset HS-30-(), Microphone T-17, and associated cording, when available.
Microphone Cover M-367.	Place over Microphone T-45.
Terminal Block TM-183.	Install in terminal box supplied by car manufacturer.
Cord CO-189, connector No. 61007, and Bondnut BL-50.	Connects Dynamotor Unit BD-77-() to terminal box. Install through hole in terminal box, using connector and bondnut provided with cord.
Cord CD-410, connector No. 61007, and Bondnut BL-50.	Connects Radio Transmitter BC-191-() to terminal box. Install through hole in terminal box, using connector and bondnut provided with cord.
Cord CD-411, connector No. 61007, and Bondnut BL-50.	Connects Radio Receiver BC-312-() to terminal box. Install through hole in terminal box, using connector and bondnut provided with cord.

SECTION IV

RADIO SET SCR-284-()

10. Required Parts

Items necessary for installation of Radio Set SCR-284-() in Car, Scout, M3A1 are listed below:

Quantity	Stock No.	Item
1	2Z502A.....	Bag BG-102-A, for spare parts, batteries, headsets, etc.
1	2Z529.....	Bag BG-129, for Power Unit PE-103-A.
1	2Z1131A.....	Box BX-31-A, for tubes.
3	2Z1250.....	Bracket, for Frame FM-41.
1	2Z2651-421.....	Clamp MC-421.
1	2Z2651-422.....	Clamp MC-422.
1	2Z2651-423.....	Clamp MC-423.
1	2Z2651-424.....	Clamp MC-424.
1	3Z1501A.....	Cord CD-501-A, connecting Radio Receiver and Transmitter BC-654-A to power supply.
*1	3E1605-6.5.....	Cord CD-605, for Headset HS-30-().
1	2Z3367.....	Cover BG-67, for Mast Base MP-37.
1	2Z3400-154.....	Cover BG-154, for Power Unit PE-103-().
1	2Z4641.....	Frame FM-41, mounting for Radio Set SCR-284-().
1	6L50-284V13.....	Hardware bag.
*1	2B830.....	Headset HS-30-().
1	3Z3448.....	Key J-48-().
1	2Z6310-7.....	Loudspeaker LS-7.
1	{ 2A2087..... 2A2088-57..... }	Mast Base MP-37 or MP-57.
1	2A2349.....	Mast Section MS-49.
1	2A2350.....	Mast Section MS-50.
1	2A2351.....	Mast Section MS-51.
1	2A2352.....	Mast Section MS-52.
1	2A2353.....	Mast Section MS-53.
1	2B1617.....	Microphone T-17.
1	3H4600-104.....	Power Converter Unit PE-104-().
1	3H4600-103.....	Power Unit PE-103-().
1	2C5374.....	Radio Receiver and Transmitter BC-654-(), including Crystal Unit DC-24-().
1	2Z8058.....	Roll BG-58 for mast section and generator legs.
4	6Z5093.....	Strap Holder.
3		Tapping Plate.
10 ft.	1B142.....	Wire W-142, for antenna and ground leads.

* Headset HS-30-() may be replaced by Headset P-23. In this case, Cord CD-605 is not required.

11. Assembly and Installation

a. LOCATION AND ASSEMBLY OF COMPONENTS. Components of Radio Set SCR-284-() should be installed in Car, Scout, M3A1 as shown in figure 11 and as directed below:

<i>Part and location</i>	<i>Method and materials</i>
Frame FM-41, on floor of vehicle. (See fig. 11.)	Secure Frame FM-41 to floor using Z brackets, tapping plates, and hardware provided. Four web straps are used to hold frame firmly in place. Web straps are attached to floor of vehicle using strap holders as illustrated in figure 11.
Radio Receiver and Transmitter BC-654-(), on Frame FM-41.	Slide in place on frame and secure by closing the two spring fasteners which hook into the loops at bottom of case. The web strap which passes through slot in back of frame is slipped through loop on top of receiver-transmitter case and buckled.
Power Converter Unit PE-104-(), in power supply compartment of Radio Receiver and Transmitter BC-654-().	Power Converter Unit PE-104-() is supplied installed. Before placing equipment in operation, open small door of power supply compartment, pull out plug, slide power converter forward to gain access to voltage switch, and set it for 12-volt operation.
Power Unit PE-103-(), on mounting Frame FM-41.	Open spring cover in base of Power Unit PE-103-() and set slotted voltage adjustment to 12-VOLT OPERATION as marked. Set three circuit breakers (through door in side of base) to ON position, as marked. Place Power Unit PE-103-() on bottom of Frame FM-41 as shown in figure 11, and secure in place by tightening wingnuts provided.
Cord CD-501-A.	Connect to proper receptacles on Radio Receiver and Transmitter BC-654-() and Power Unit PE-103-().
Mast Base MP-37 or MP-57, on mast base pedestal.	Install mast base through hole in plate at top of mast base pedestal by assembling the necessary washers and insulator sections as follows (fig. 7): Place large fiber washer, item 1, over hole in plate. Place large insulator section, item 2, over item 1. Place fabric washer, item 3, over item 2. Insert mast base, item 4, through hole. Place small fiber washer, item 5, over flange of small insulator section, item 6. Insert insulator, item 6, over item 4 (underneath) and push upward through hole in plate. Place washers, items 7 and 8, beneath item 6 and secure assembly in place with nuts, item 9, and lockwasher, item 10.
Key J-48-() and Microphone T-17.	Install in place provided on the inside of Radio Receiver and Transmitter BC-654-() case cover. Insert cord plugs in proper jacks on panel of Radio Receiver and Transmitter BC-654-().

Part and location	Method and materials
Headset HS-30-() and Cord CD-605.	Connect headset to Cord CD-605 and connect plug to proper jack on panel of Radio Receiver and Transmitter BC-654-().
Mast Sections MS-49 through MS-53, and Clamps MC-421 through MC-424, on Mast Base MP-37 or MP-57.	Screw sections together and after placing clamps over joints, screw into mast base. When removed, stow in Roll BG-58.
Roll BG-58.	Disposition left to discretion of using arms.
Wire W-142.	Cut to correct length and connect between antenna terminal on mast base to antenna terminal on Radio Receiver and Transmitter BC-654-(). (See fig. 11.)
Cover BG-67.	Place on Mast Base MP-37 when mast sections are removed.
Loudspeaker LS-7.	Plug into phone jack on receiver panel.

b. CORDING AND WIRING. Cord and wire Radio Set SCR-284-() as shown in figure 11. Tighten the plug locks on the various cords by hand. *Do not use a tool to tighten these plug locks.* Leave sufficient slack in cording and wiring to permit free motion of all units having shock mountings. Connect all cords and clamp in place in such a manner as not to interfere with accessibility and operation of the equipment. Install power cord and connect leads to appropriate terminals in car terminal box after all other connections have been completed. This procedure will prevent accidental short circuiting of the vehicle battery.

SECTION V

RADIO SET SCR-506-()

12. Required Parts

Items necessary for installation of Radio Set SCR-506-() in Car, Scout, M3A1 are listed below:

Quantity	Stock No.	Item
1	2A275-27	Antenna A-27, Phantom.
1	2Z1246-2	Bracket, for Cabinet CH-74-A.
1	2Z1250.82	Bracket, for Antenna A-27, Phantom.
1	2Z1574A	Cabinet CH-74-A.
2	4B417-4	Chest Set TD-4.
1	2Z2651-421	Clamp MC-421, for mast section.
1	2Z2651-422	Clamp MC-422, for mast section.
1	2Z2651-423	Clamp MC-423, for mast section.
1	2Z2651-424	Clamp MC-424, for mast section.
2	6Z3147	Connector No. 61007 and Bondnut BL-50.
1	3E1307A-4	Cord CD-307-A, 48 in. long, for Headset HS-30-().
1	3E1604	Cord CD-604, 6 in. long, for Headset HS-30-().
1	3E1314	Cord CD-314, for Loudspeaker LS-3.
1	2Z3367	Cover BG-67, for Mast Base MP-37 or MP-57.
1	6C18-41	Cover CW-41/U, for Loudspeaker LS-3.
1	3H1640	Dynamotor DM-40-(), 12 volts, for Radio Receiver BC-652-(), including attached spare parts.
1	3H1642	Dynamotor DM-42-(), 12 volts, for Radio Transmitter BC-653-(), including attached spare parts.
1	6L50-506V13	Hardware bag.
11	{ 2B800-16 2B830	Headset H-16/U or HS-30-().
1	3Z3445	Key J-45.
1	2Z6303	Loudspeaker LS-3.
21	{ 2A2087 2A2088-57	Mast Base MP-37 or MP-57.
1	2A2090-52	Mast Base Bracket MP-52.
1	2A2349	Mast Section MS-49.
1	2A2350	Mast Section MS-50.
1	2A2351	Mast Section MS-51.
1	2A2352	Mast Section MS-52.
1	2A2353	Mast Section MS-53.
1	{ 2B1645 2B1617	Microphone T-45 or T-17.
1	2B1567	Microphone Cover M-367.
1	2Z6721-253	Mounting FT-253-(), including two Cords CO-280, spare parts, fuses, hardware, etc.
1	2Z6721-326	Mounting FT-326.
1	2C4452	Radio Receiver BC-652-(), including spare parts, crystal unit, and set of tubes installed.
1	2C6530-653	Radio Transmitter BC-653-(), including spare parts, and set of tubes installed.
1	2Z8056	Roll BG-56-(), for mast sections.
5 ft.	1B146	Wire W-146, for antenna and ground leads.

¹ Headset HS-23 may be substituted for Headset HS-30-(). In this case, Cord CD-604 is not required.

² Mast Base MP-57 may be substituted for Mast Base MP-37.

13. Assembly and Installation

a. LOCATION AND ASSEMBLY OF COMPONENTS. Components of Radio Set SCR-506-() should be installed in Car, Scout, M3A1 as shown in figures 12, 13, and 14 and as directed below:

<i>Part and location</i>	<i>Method and materials</i>
Mounting FT-326, on floor at rear of vehicle.	Fasten to floor of vehicle with hexagonal head bolts and elastic stopnuts provided. (See figs. 14 and 12.)
Cabinet CH-74-A (fig. 25), on Mounting FT-326.	Attach on mounting with bolts, lockwashers, etc., furnished with cabinet.
Bracket, on corner of Cabinet CH-74-A.	Used to secure Cabinet CH-74-A to rear of vehicle as shown in figure 14.
Mounting FT-253-(), inside Cabinet CH-74-A.	Locate and secure in place with hardware provided as shown in figure 13. In order to avoid noisy reception while vehicle is in motion, make certain that radio set makes good electrical contact with vehicle. Clean surface upon which feet of Mounting FT-253-() rest, using emery cloth or sandpaper before mounting is bolted in place. Clean surfaces under heads of all mounting bolts to insure good electrical contact between Mounting FT-253-(), Cabinet CH-74-A, and Mounting FT-326.
Mast Base Bracket MP-52, on top right front of Cabinet CH-74-A.	Remove blank cover over 2-inch hole in top right front of cabinet. Mount mast base bracket over 2-inch hole with 12 hexagonal headscrews and lockwashers already installed in top of cabinet. (See fig. 13.)
Mast Base MP-37 or Mast Base MP-57, on Mast Base Bracket MP-52.	Remove cover plate from top of mast base bracket and install mast base. (Refer to figure 6 for assembly of Mast Base MP-37 or figure 7 for assembly of Mast Base MP-57.) Strip insulation from one end of Wire W-146 and connect to binding post on mast base. Run Wire W-146 down through mast base bracket. Cut Wire W-146 to proper length and connect to antenna terminal on Radio Transmitter BC-653-().
Mast Sections MS-49 to MS-53 inclusive; Clamps MC-421 to MC-424 inclusive, on Mast Base MP-37 or MP-57.	Screw sections together and after placing clamps over joints, screw into mast base. When removed, stow in Roll BG-56-().
Dynamotor DM-40-(), on top of Radio Receiver BC-652-() chassis.	If Dynamotor DM-40-() is supplied uninstalled, proceed as follows: Remove screws around edge of receiver panel and the screw in rear center of cabinet. Pull receiver chassis from cabinet and secure dynamotor in place with snap slide fasteners provided. Insert plug in which dynamotor lead terminates into socket on receiver chassis. Replace receiver in cabinet. Installation of proper dynamotor automatically adjusts receiver circuit

<i>Part and location</i>	<i>Method and materials</i>
Dynamotor DM-40-()— <i>Continued</i>	for correct operating voltage. Voltage indicating plate on front panel of receiver should be turned to read 12-VOLT OPERATION.
Dynamotor DM-42-(), in dynamotor compartment, lower right-hand side of Radio Transmitter BC-653-().	If Dynamotor DM-42-() is supplied uninstalled, slide it into dynamotor compartment and secure front panel of dynamotor chassis with screws provided. Remove patch cover plate located on top of Radio Transmitter BC-653-() (right end), and connect six connector links for 12-VOLT OPERATION as indicated by arrow on link terminal strip. Nameplate on dynamotor panel should read 12 VOLTS.
Radio Transmitter BC-653-(), on Mounting FT-253-().	Place on mounting as shown in figure 13, and secure in place with wingnuts provided.
Radio Receiver BC-652-(), on Mounting FT-253-().	Place on mounting as shown in figure 13, and secure in place with wingnuts provided.
Headset HS-30-(), Microphone T-17, and Key J-45.	Connect as shown in figure 13.
Microphone Cover M-367.	Place over Microphone T-45.
Roll BG-56-().	Disposition left to discretion of using arms.
Cover BG-67.	To be placed over Mast Base MP-37 or Mast Base MP-57 when mast base is not in use.
Loudspeaker LS-3 and Cord CD-314, on right ammunition chest. (See fig. 29.)	Drill right ammunition chest as shown in figure 29 and mount loudspeaker with hardware provided. Connect into properly designated jack on front panel of Radio Receiver BC-652-() if use of loudspeaker is desired.
Cover CW-41/U.	Remove screws from outer edge of front panel of loudspeaker. Place cover over front of loudspeaker (flap opening upward) and secure by replacing screws in front panel of speaker.
Connector No. 61007 and Bondnut BL-50.	Install connectors and bondnuts in manner shown in figure 13.
Headset H-16/U, Microphone T-45, and Chest Set TD-4.	Use in place of Headset HS-30-(), Microphone T-17, and associated cording, when available.
Antenna A-27, Phantom, on bracket. (See fig. 36.)	Drill floor of vehicle as shown in figure 35 and mount bracket (fig. 36) with hardware provided.

b. CORDING AND WIRING. Cord and wire this equipment as shown in figures 13 and 14. Leave sufficient slack in all cording and wiring to permit free motion of all units having shock mountings. *Do not* connect the positive and negative 12-volt leads in the terminal box until all other connections have been made, thus preventing accidental short circuiting of the vehicle storage battery. In the event excess length is cut from Cord CO-280, the terminal lugs must be resoldered to the leads before connections are completed.

SECTION VI

RADIO SET SCR-508-(), SCR-528-(), SCR-608-(), OR SCR-628-()

14. Required Parts

Items necessary for installation of Radio Set SCR-508-(), SCR-528-(), SCR-608-(), or SCR-628-() in Car, Scout, M3A1 are listed below:

QUANTITY		Stock No.	Item
Radio Set SCR-508-() or SCR-528-()	Radio Set SCR-608-() or SCR-628-()		
1	0	2A262.....	Antenna A-62, phantom.
0	1	2Z1140.....	Box BX-40, for crystal holders.
1	0	2Z1250.56.....	Bracket (fig. 34) for Antenna A-62, Phantom.
1	50	2Z1246-2.....	Bracket, for Cabinet CH-74-A.
1	1	2Z1574A.....	Cabinet CH-74-A.
2	2	2B1645.....	Chest Set TD-4.
1	0	3E1307-5.5.....	Cord CD-307-A, 65 in. long, for Headset HS-30-().
¹ 1	0	3E1604.....	Cord CD-604, 6 in. long, for Headset HS-30-().
0	1	3E1605.....	Cord CD-605.
² 417 ft.	50	3E2218.....	Cordage CO-218.
412 ft.	⁵ 12 ft.	3E2212.....	Cordage CO-212.
1	1	6Z3147.....	Connector No. 61007 and Bondnut BL-50, for power cable connection.
⁴ 1	50	6Z3147-1.....	Connector No. 61004 and Bondnut BL-50.
1	1	2Z3400-108.....	Cover BG-108, for Mast Base MP-48.
1	1	2Z2651-424.....	Clamp MC-424, for Mast Section MS-52.
80	120	2Z3541.....	Crystal Holder FT-241-(), with crystal.
³ 2	³ 2	3H1634.....	Dynamotor DM-34-(), 12-volt, including attached spare parts, for Radio Receiver BC-603-() or BC-683-().
1	1	3H1635.....	Dynamotor DM-35-(), 12-volt, including attached spare parts, for Radio Transmitter BC-604-() or BC-684-().
⁴ 0	⁵ 1	2Z4643.....	Frame FM-43.
1	1	6L50-508V13.....	Hardware bag.
¹ 1	¹ 1	{ 2B800-16..... 2B830..... }	Headset H-16/U or HS-30-().
² 41	² 51	2C1738.....	Interphone Control Box BC-606-().
1	1	2A2088-48.....	Mast Base MP-48 or MP-48-A.
1	1	2A2090-52.....	Mast Base Bracket MP-52.
1	1	2A2352.....	Mast Section MS-52.
1	1	2A2353.....	Mast Section MS-53.
1	1	{ 2B1645..... 2B1617..... }	Microphone T-45 or T-17.
1	1	2B1567.....	Microphone Cover M-367.
1	1	2Z6721-237.....	Mounting FT-237-(), including Cord CO-278 to car terminal box, and necessary mounting bolts, lockwashers, nuts, etc.
⁴ 1	⁵ 0	2Z6721-326.....	Mounting FT-326.
³ 2	0	2C4403.....	Radio Receiver BC-603-(), including one set of tubes installed, spare fuses, and lamps.
0	³ 2	2C4460.....	Radio Receiver BC-683-(), including one set of tubes installed, spare fuses, and lamps.

QUANTITY		Stock No.	Item
Radio Set SCR-508-() or SCR-528-()	Radio Set SCR-608-() or SCR-628-()		
1	0	2C6494.....	Radio Transmitter BC-604-(), including one set of tubes, spare fuses, and lamps.
0	1	2C6530-684.....	Radio Transmitter BC-684-(), including one set of tubes, spare fuses, and lamps.
1	1	2Z8056A.....	Roll BG-56-(), for antenna mast sections.
5 ft.	5 ft.	1B128.....	Wire W-128.

¹ Headset HS-23 may replace Headset H-16/U or HS-30-(). In this case, Cord CD-604 is not required.

² Interphone Control Box BC-606-() and Cordage CO-218 are provided to permit operation of Radio Set SCR-508-() or SCR-528-() from the car commander's seat beside the driver. The interphone control box is used with Radio Set SCR-608-() or SCR-628-() in conjunction with Radio Set SCR-193-D to permit remote control.

³ Only one Radio Receiver BC-603-() and one Radio Receiver BC-683-() are issued for Radio Sets SCR-528-() and SCR-628-(), respectively. Only one Dynamotor DM-34-() is issued for Radio Set SCR-528-() or SCR-628-().

⁴ Mounting FT-326 is required when Radio Set SCR-508-() or

SCR-528-() is installed alone or in conjunction with Radio Set SCR-193-D in Car, Scout, M3A1. When Radio Set SCR-508-() or SCR-528-() is installed in combination with Radio Set SCR-506-() in Car, Scout, M3A1, delete Mounting FT-326, Cordage CO-212, Cordage CO-218, connector No. 61004 and one Bondnut BL-50, bracket, Interphone Control Box BC-606-(), and add Frame FM-43. (See fig. 15.)

⁵ When Radio Set SCR-608-() or SCR-628-() is installed in combination with Radio Set SCR-193-D use figures 5, 16, and 17. Delete Frame FM-43 and add one Interphone Control Box BC-606-(), 17 feet of Cordage CO-218, 12 feet of Cordage CO-212, one bracket, one connector No. 61004 and Bondnut BL-50, and Mounting FT-326.

15. Assembly and Installation

a. LOCATION AND ASSEMBLY OF COMPONENTS. Components of Radio Set SCR-508-(), SCR-528-(), SCR-608-(), or SCR-628-() should be installed in Car, Scout, M3A1 as shown in figures 15, 16, 17, and 23, and as directed below:

<i>Part and location</i>	<i>Method and materials</i>
Mounting FT-326, on floor in rear of vehicle. For Radio Set SCR-508-() or SCR-528-(), see ⁴ above. For Radio Set SCR-608-() or SCR-628-(), see ⁵ above.	Fasten to floor of vehicle with hexagonal head bolts and elastic stopnuts provided. See figures 4 and 12 for location and drilling data.
Cabinet CH-74-A and bracket, on Mounting FT-326. For Radio Set SCR-508-() or SCR-528-(), see ⁴ . For Radio Set SCR-608-() or SCR-628-(), see ⁵ above.	Fasten to mounting with screws and nuts provided. Fasten bracket to top of cabinet and rear wall as shown in figure 17.
Frame FM-43, on floor between ammunition chests. For Radio Set SCR-508-() or SCR-528-(), see ⁴ above. For Radio Set SCR-608-() or SCR-628-(), see ⁵ above.	Place as shown in figure 23 and fasten with hardware provided. Refer to <i>c</i> below for reinforcing of Frame FM-43.
Cabinet CH-74-A, on Frame FM-43. For Radio Set SCR-508-() or SCR-528-(), see ⁴ above. For Radio Set SCR-608-() or SCR-628-(), see ⁵ above.	Fasten to frame with screws and stopnuts provided with cabinet. (See fig. 15.)
Mounting FT-237-(), in Cabinet CH-74-A.	Attach to floor of cabinet with bolts and nuts provided with mounting.
Cordage CO-212. (See figs. 16 and 17.)	Cordage CO-212 is used for power cord instead of Cordage CO-278 when Radio Set SCR-508-() or SCR-528-() is installed at rear of vehicle, or when Radio Set SCR-608-() or SCR-628-() is installed in combination with Radio Set SCR-193-D.

<i>Part and location</i>	<i>Method and materials</i>
<p>Mast Base Bracket MP-52, on top right front of Cabinet CH-74-A, for Radio Set SCR-508-() or SCR-528-(). Also for Radio Set SCR-608-() or SCR-628-(), when used in combination with Radio Set SCR-193-D.</p>	<p>Remove blank cover over 2-inch hole in top right part of cabinet. Mount mast base bracket over 2-inch hole with 12 hexagonal headscrews and lockwashers already installed in top of cabinet. (See fig. 17.)</p>
<p>Mast Base Bracket MP-52, on top left front of Cabinet CH-74-A, for Radio Set SCR-608-() or SCR-628-(). Also for Radio Set SCR-508-() or SCR-528-() when used in combination with Radio Set SCR-506-().</p>	<p>Fasten in place with screws provided in top of cabinet.</p>
<p>Mast Base MP-48 or MP-48-A and Wire W-128, on Mast Base Bracket MP-52.</p>	<p>Remove cover plate from top of mast base bracket and install mast base in place. (See fig. 18.) Remove setscrews, items 8 and 9, and remove the internal lead-in assembly, item 7. Strip 1/2 inch of insulation from one end of Wire W-128 and solder metallic tip, item 6B, to it. Insert this end of Wire W-128 inside mast base, making certain that the tip is inserted in slot at top of mast base as far as possible. This may be viewed through holes for setscrews, items 8 and 9. Replace setscrews and tighten firmly. Slip insulator, item 6E, rubber gasket, item 6D, and insulator, item 6C, over Wire W-128 and install inside hollow stem of mast base. Be sure to provide enough slack wire inside mast base to allow for flexing of mast base spring, and tighten insulators and rubber gasket in place with knurled collar, item 18. Run Wire W-128 down through mast base bracket. Cut Wire W-128 to proper length and connect to terminal on Radio Transmitter BC-604-() or BC-684-() for Radio Set SCR-508-() and for Radio Set SCR-608-() or SCR-628-() when used in combination with Radio Set SCR-193-D. Connect to terminal on Mounting FT-237-() for Radio Set SCR-608-() or SCR-628-() and for Radio Set SCR-508-() or SCR-528-() when used in combination with Radio Set SCR-506-(). See figure 37 for assembly of Mast Base MP-48-A.</p>
<p>Dynamotor DM-34-(), in cabinet of Radio Receiver BC-603-() or BC-683-().</p>	<p>If dynamotor is not already installed in radio receiver, proceed as follows: Remove chassis from receiver cabinet by loosening screw lock in rear center of cabinet. Dynamotor unit is installed on top rear of receiver chassis by means of four screws in its base.</p>
<p>Dynamotor DM-35-(), in cabinet of Radio Transmitter BC-604-() or BC-684-().</p>	<p>If dynamotor is not already installed in radio transmitter, proceed as follows: Remove crystal case from transmitter cabinet by loosening two screw locks on front panel and pulling crystal case out.</p>

Part and location	Method and materials
<p>Dynamotor DM-35-()—Continued</p> <p>Radio Transmitter BC-604-() or BC-684-(), on Mounting FT-237-().</p> <p>Radio Receiver BC-603-() or BC-683-(), on Mounting FT-237-().</p> <p>Headset H-16/U, Microphone T-45, Chest Set TD-4.</p> <p>Microphone Cover M-367.</p> <p>Headset HS-30-(), Cord CD-604-(), and Cord CD-307-A, for Radio Set SCR-508-() or SCR-528-().</p> <p>Headset HS-30-() and Cord CD-605, for Radio Set SCR-608-() or SCR-628-().</p> <p>Connector No. 61007 and Bondnut BL-50.</p> <p>Connector No. 61004 and Bondnut BL-50. For Radio Set SCR-508-() or SCR-528-(), refer to ⁴ above. For Radio Set SCR-608-() or SCR-628-(), refer to ⁵ above.</p> <p>Microphone T-17.</p>	<p>Loosen four screw locks holding cover on top of transmitter and remove cover. Dynamotor unit is installed in left rear of transmitter chassis by means of four screws in its base.</p> <p>Mount in position shown in figures 15, 16, 17, and 23 by means of thumbscrew locking devices.</p> <p>Mount in position shown in figures 15, 16, 17, and 23 by means of thumbscrew locking devices.</p> <p>Use, when available, to replace Headset HS-30-(), Microphone T-17, and associated cording. Place over Microphone T-45 when not in use.</p> <p>Connect Headset HS-30-() to Cord CD-604. Attach Cord CD-604 to Cord CD-307-A and connect Cord CD-307-A to jack on Radio Receiver BC-603-().</p> <p>Connect Headset HS-30-() to jack on Radio Receiver BC-683-() with Cord CD-605.</p> <p>Install through knock-out hole in terminal box as shown in figures 17 and 23.</p> <p>Install through hole in bulkhead. Required for Cordage CO-218 in addition to connector No. 61007.</p> <p>For use when Microphone T-45 is not available. Plug into microphone jack on front panel of Radio Transmitter BC-604-() or BC-684-().</p>
<p>Mast Sections MS-52 and MS-53 and Clamp MC-424.</p>	<p>Screw together and after placing Clamp MC-424 over joint, screw into mast base. When removed, stow mast sections in Roll BG-56-().</p>
<p>Cover BG-108.</p>	<p>Place over mast base when mast sections are removed.</p>
<p>Roll BG-56-().</p> <p>Interphone Control Box BC-606-() and Cordage CO-218. For Radio Set SCR-508-() or SCR-528-(), refer to ⁴ above. For Radio Set SCR-608-() or SCR-628-(), refer to ⁵ above.</p>	<p>Disposition left to discretion of using arms.</p> <p>On instrument panel in place occupied by nameplate. Prepare ends of cable by standard methods. Provide a soldered ground connection at each end of cable for both inner and outer shielding. Install cable as shown in figure 17. Wire as shown in figure 19.</p>
<p>Antenna A-62, Phantom, on bracket (fig. 34), and Wire W-128.</p>	<p>Refer to position 3 of figure 33. Remove two screws from left front corner of Mounting FT-237-() and secure bracket (with antenna attached) to mounting using original lockwashers and two 10-32 x 5/8-inch screws provided. Disconnect standard antenna lead-in from binding post on Radio Transmitter BC-604-() for Radio Set SCR-508-() or SCR-528-() and Radio Set SCR-608-() or SCR-628-() when used in combination with Radio Set SCR-193-D, or</p>

Part and location	Method and materials
Antenna A-62, Phantom, on bracket (fig. 34), and Wire W-128—Continued	from binding post on mounting FT-237-() for Radio Set SCR-608-() or SCR-628-() and for Radio Set SCR-508-() or SCR-528-() when used in combination with Radio Set SCR-506-(). Connect one end of the 2-foot length of Wire W-128 to binding post from which lead-in was disconnected. Remove cover from antenna and connect other end of 2-foot length of Wire W-128 to antenna binding post marked ANT. Fasten ground clamp (connected to binding post marked GND) to tip of bracket.

Note. When Radio Set SCR-608-() or SCR-628-() is installed in combination with Radio Set SCR-193-D, see figures 5, 16, and 17. When this installation is made, Frame FM-43 is not used.

b. CORDING AND WIRING. Cord and wire Radio Set SCR-508-(), SCR-528-(), SCR-608-(), or SCR-628-() as shown in figures 15, 16, 17, and 23. Connect Cord CO-212 or CO-278 to vehicle terminal box only after all other connections have been completed, thus preventing accidental short circuiting of the vehicle battery. Leave sufficient slack in all cording and wiring to permit free motion of the shock mounting.

c. REINFORCING FRAME FM-43.

(1) Reports from the field state that excessive movement of Radio Set SCR-508-(), SCR-528-(), SCR-608-(), or SCR-628-() causes the bolts securing Frame FM-43 to the floor of Car, Scout, M3A1 to break loose.

(2) The addition of reinforcing brackets between the rear corners of Frame FM-43 and the two adjacent ammunition racks will prevent this trouble.

(a) Items necessary for reinforcing Frame FM-43 are listed below:

Quantity	Stock No.	Item
1		Bracket (item 1, fig. 30).
1		Bracket (item 2, fig. 30).
2	2Z6721-429.....	Plate FT-429, reinforcing. (See fig. 31.)
8	5B1505-1.....	Screw, machine, 5/16 in.-24 x 1 1/4 in., hex. head, steel.
8	5B6405-24.....	Nut, steel, hex. standard, for 5/16 in.-24 screw.
8	6L73028.....	Lockwasher, steel, SAE regular, for 5/16 in. screw.

(b) See figure 32 for details of installation.

(c) With Frame FM-43 installed in vehicle, use bracket (item 1, fig. 30) as a template to mark the centers for two 1 1/32-inch holes in the left rear edge of the frame and in the left ammunition chest. Do the same on the right side of the frame and right ammunition chest, using bracket (item 2, fig. 30) as the template.

(d) Drill 1 1/32-inch holes (eight required) as marked.

(e) Mount bracket (item 1, fig. 30) to upper left rear corner of the frame and fasten with two machine screws, nuts, and lockwashers.

(f) Mount bracket (item 2, fig. 30) to upper right rear corner of the frame and fasten with two machine screws, nuts, and lockwashers.

(g) Use reinforcing Plate FT-429 on the inner portion of each ammunition rack, and insert the machine screws through the bracket, ammunition rack, and reinforcing plate. Tighten lockwashers and nuts securely at all points.

SECTION VII

RADIO SET SCR-510-() OR SCR-610-()

16. Required Parts

Items necessary for installation of Radio Set SCR-510-() or SCR-610-() in Car, Scout, M3A1 are listed below:

QUANTITY		Stock No.	Item
Radio Set SCR-510-()	Radio Set SCR-610-()		
1	1	6Q349.....	Alignment Tool TL-207.
1	1	3A41.....	Battery BA-41, internal.
0	1	2Z1140.....	Box BX-40-(), for crystals.
0	1	3B879.....	Case CS-79-(), for battery power supply.
0	1	2Z2651-423.....	Clamp MC-423, for Mast Section MS-51.
1	1	2Z2651-424.....	Clamp MC-424, for Mast Section MS-52.
1	1	6Z3147.....	Connector No. 61007 and Bondnut BL-50, for connection to car terminal box.
1	1	3E1605-6.5.....	Cord CD-605, 78 in. long, for Headset HS-30-().
80	120	2Z3543.....	Crystal Holder FT-243, with crystal.
1	1	2Z3400-108.....	Cover BG-108, for Mast Base MP-48.
1	1	2Z3400-153.....	Cover BG-153, for Radio Receiver and Transmitter BC-620-().
1	1	6L50-510V13.....	Hardware bag.
11	11	2B830.....	Headset HS-30-().
1	1	2A2088-48.....	Mast Base MP-48 or MP-48-A.
1	1	2A2090-50.....	Mast Base Bracket MP-50.
0	1	2A2351.....	Mast Section MS-51.
1	1	2A2352.....	Mast Section MS-52.
1	1	2A2353.....	Mast Section MS-53.
1	1	2B1617.....	Microphone T-17.
21	21	2Z6721-250.....	Mounting FT-250-().
31	31	3H4496-120.....	Power Supply Unit PE-120-().
1	0	2G5360.....	Radio Receiver and Transmitter BC-620-(), including necessary crystals and set of tubes installed.
0	1	2C6659.....	Radio Receiver and Transmitter BC-659-(), including necessary crystal and set of tubes installed.
3	3	2Z6721-429.....	Reinforcing Plate FT-429, for Mast Base Bracket MP-50.
1	1	2Z8056A.....	Roll BG-56-().
1	1	3H6713.....	Vibrator VB-13.
5 ft.	5 ft.	1B128.....	Wire W-128, for antenna lead-in.

¹ Headset HS-30-() may be replaced by Headset P-23. In this case, Cord CD-605 is not required.

² When Radio Set SCR-510-() or SCR-610-() is installed in combination with Radio Set SCR-193-D, and Mounting FT-317 and Cord CD-509 and install as shown in figure 20.

³ Plate Supply Unit PE-97-() or PE-117-() may be substituted for Power Supply Unit PE-120-(). When this is done, delete Vibrator VB-13 and add CD-509.

17. Assembly and Installation

Components of Radio Set SCR-510-() or SCR-610-() should be installed in Car, Scout, M3A1 as shown in figures 21 and 22 and as directed below. (Before proceeding see note below.)

<i>Part and location</i>	<i>Method and materials</i>
Mounting FT-250-(), on floor of vehicle, right side. (See fig. 22.)	Fasten to floor with hardware provided. See figure 4 for drilling data.
Mast Base Bracket MP-50 and reinforcing Plate FT-429, on side of right ammunition rack. (See fig. 22.)	Fasten in place with hardware provided. See figure 4 for drilling data.
Mast Base MP-48 or MP-48-A, on Mast Base Bracket MP-50.	Install as shown in figure 22. Assemble as shown in figure 18. See figure 37 for Mast Base MP-48-A. Mast Base MP-48 is so designed that three approved modes of lead-in connections are possible: (a) coaxial cord; (b) Wire W-128, internal; and (c) Wire W-128, external. Wire W-128, external mode of connection, must be used in this installation as follows: Referring to figure 18, loosen setscrews 8 and 9, and pull assembly 7 from inside mast base. Strip 1/2 inch of insulation from one end of Wire W-128, scrape wire clean, and solder-tin exposed end. Run tinned end of wire upward through holes in items 14 and 15 and fasten in slot of binding post, item 16. Tighten setscrews of items 14 and 15. Be sure to allow enough slack wire to allow mast base spring to flex freely. Cut Wire W-128 to a total length of 24 inches for Radio Set SCR-510-() or 36 inches for Radio Set SCR-610-(). Strip 1 inch of insulation from end of wire. Clean and solder-tin this end for connection to Radio Receiver and Transmitter BC-620-() or BC-659-().
Battery BA-41, in battery box inside Radio Receiver and Transmitter BC-620-() or BC-659-().	If battery is not already installed, proceed as follows: Remove ten screws around outer edge of front panel and pull receiver and transmitter chassis from case. Remove cover of battery box located on chassis near front panel. Place Battery BA-41 in box, being careful to engage plug in socket of battery. Replace cover. Before replacing chassis in case, make sure that all tubes are pressed down firmly in their proper sockets, that crystals for desired operating frequencies are in their proper sockets with retaining clip in position, and that two toggle switches near left side of chassis are at ON position.
Power Supply Unit PE-120-() and Vibrator VB-13, on Mounting FT-250-().	Open case of Power Supply Unit PE-120-() and remove chassis cover, Install Vibrator VB-13 in its socket. Make certain that connector link is in BC-620 position (BC-659 position for Radio Set SCR-610-()), that change-over plug is set for

<i>Part and location</i>	<i>Method and materials</i>
Power Supply Unit PE-120-()— <i>Continued</i>	12 volts (arrow pointing to 12), and that tubes are pressed down firmly in their proper sockets. Replace cover on chassis and close lid of power supply unit. Secure to Mounting FT-250-() with hook fasteners provided.
Radio Receiver and Transmitter BC-620-() or BC-659-() on Power Supply Unit PE-120-(). Microphone T-17 and Headset HS-30-().	Secure in place with catch-clips provided. Plug into properly designated cords and jacks. (See fig. 21.) Cord CD-605 is supplied for connecting to Headset HS-30-().
Mast Sections MS-52 and MS-53 and Clamp MC-424. Add Mast Sections MS-51 and Clamp MC-423 for installation of Radio Set SCR-610-().	Screw together and after placing clamps over joints, screw into mast place. When removed, stow mast sections and clamps in Roll BG-56-().
Cover BG-108.	Place over Mast Base MP-48 or MP-48-A when not in use.
Connector No. 61007 and Bondnut BL-50.	Install through knock-out hole in terminal box for power cord from Power Supply Unit PE-120-(). Secure power cord in place with clamps provided as shown in figure 22.

Note. For installation of Radio Set SCR-510-() or SCR-610-() in combination with Radio Set SCR-193-D, perform necessary drilling of Chest CH-153 and right ammunition rack as shown in figure 4, and make the installation as above with the following installation changes shown in figure 20:

<i>Part and location</i>	<i>Method and materials</i>
Mounting FT-317-() and Power Supply Unit PE-120-().	Attach mounting to front end of right ammunition rack with hardware provided. Place power supply unit on mounting and secure with bracket provided.
Mounting FT-250-() and Radio Receiver and Transmitter BC-620-() or BC-659-().	Attach mounting to top of Chest CH-153-() with hardware provided. Place receiver-transmitter on mounting and secure with hook fasteners provided.
Cord CD-509.	Use Cord CD-509 to connect Power Supply Unit PE-120-() and Radio Receiver and Transmitter BC-620-() or BC-659-(). Route and clamp all cording as shown in figure 20.

SECTION VIII

RADIO SET SCR-593-()

18. Required Parts

Items necessary for installation of Radio Set SCR-593-() in Car, Scout, M3A1 are listed below:

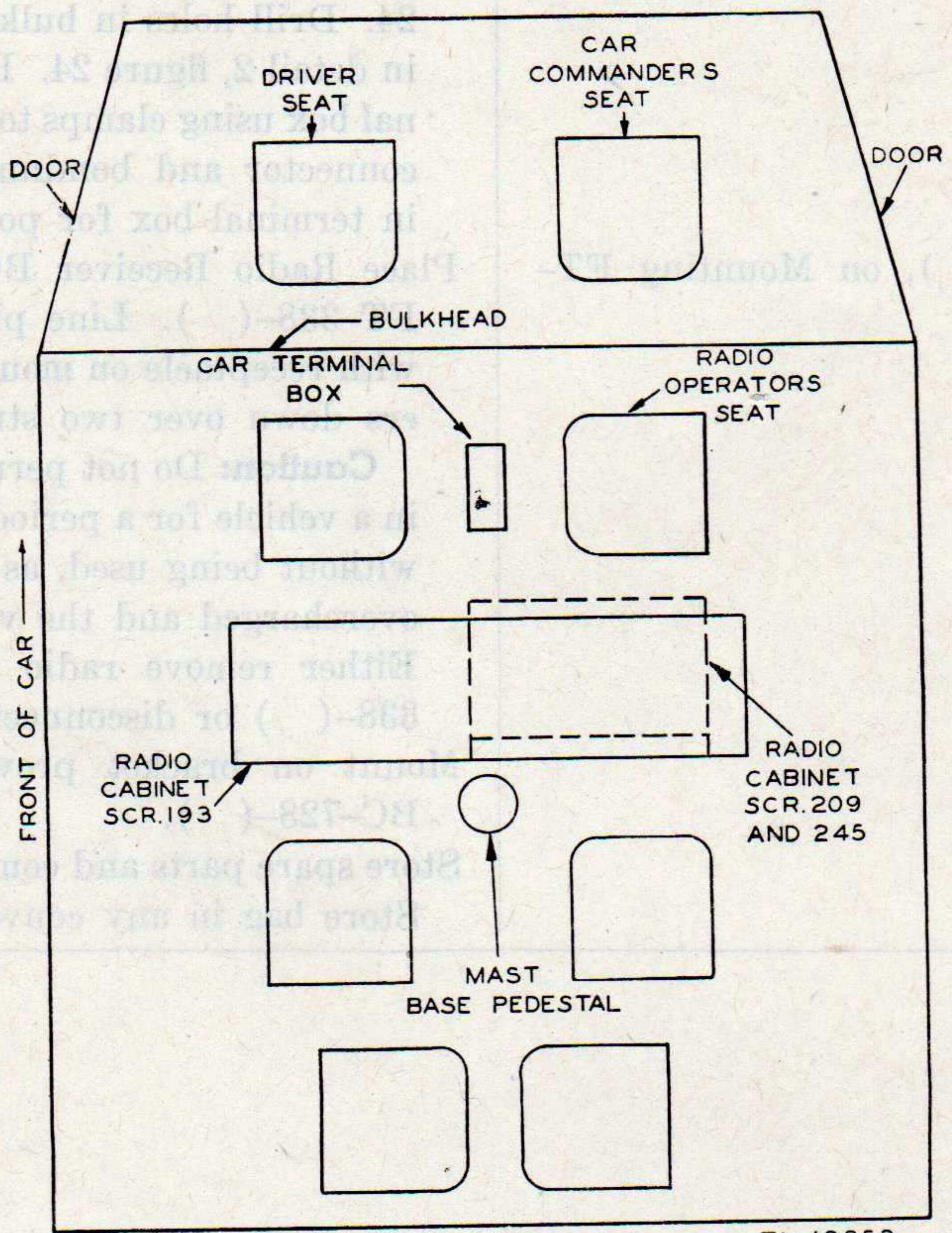
Quantity	Stock No.	Item
1	2A269-75.....	Antenna AN-75-(), telescopic.
1	3B54.....	Battery BB-54-().
1	2Z551-169.....	Bag BG-169.
1	6Z3147-1.....	Connector No. 61004 and Bondnut BL-50, for power-lead connection.
1	3E1605.....	Cord CD-605, 78 in. long, for Headset HS-30-().
1	6L50-593V13.....	Hardware bag.
1	2B830.....	Headset HS-30-().
1	2Z6721-338.....	Mounting FT-338-(), including extension bracket, strap, mounting screws, Cord CD-618, etc.
1	2C4728.....	Radio Receiver BC-728-(), with tubes.
1		Reinforcing bracket.
1	6D13100.....	TM-11-859, for Radio Set SCR-593-().
1	2C4728/T1.....	Tubes, vacuum, complete set of spares, consisting of one VT-171, one VT-172, three VT-173, and two VT-174.
2	3H6708.....	Vibrator VB-8-(), 2-volt.
2	3H6709.....	Vibrator VB-9-(), 12-volt.

19. Assembly and Installation

Components of Radio Set SCR-593-() should be installed in Car, Scout, M3A1 as shown in figure 24 and as directed below:

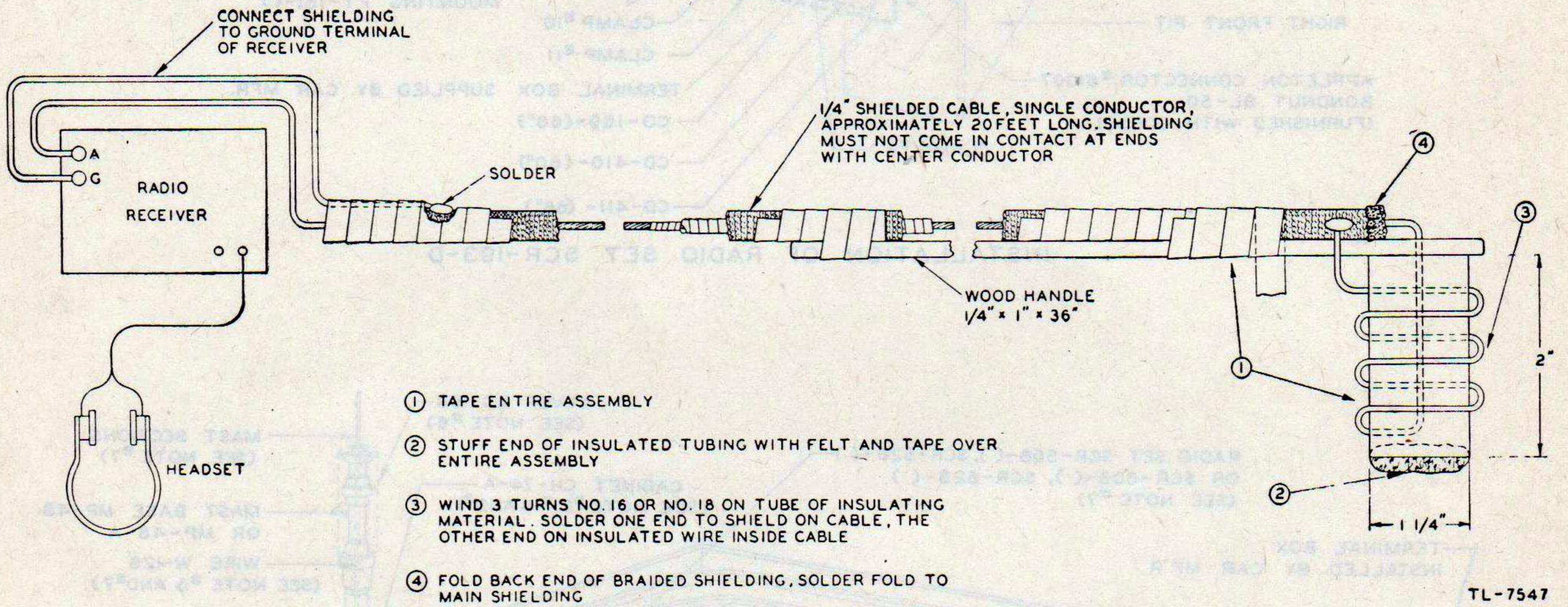
<i>Part and location</i>	<i>Method and materials</i>
Battery BB-54-(), in battery compartment of Radio Receiver BC-728-().	<p>Place battery in service in accordance with instructions attached. Open case of radio set, lift chassis upon its hinges, and remove battery retainer bracket. Connect yellow-coded battery lead to positive terminal and other lead to negative terminal.</p> <p>Caution: In placing battery into compartment be sure to attach airvent hose to battery air vent. Otherwise, sulphuric acid fumes may penetrate radio parts and produce harmful results.</p> <p>Push battery into compartment and replace retainer bracket. Before tightening screws, be sure antenna plug receptacle fits into opening provided inside of case.</p>

<i>Part and location</i>	<i>Method and materials</i>
Extension bracket and reinforcing bracket, on cover of tool chest located between two front seats.	Drill cover of tool chest and modify extension bracket according to details 1 and 3 in figure 24. Fasten extension bracket in position with hardware provided. Brace bracket from rear by means of reinforcing bracket.
Mounting FT-338-(), on extension bracket.	Make sure switch actuating plug is removed from top of mounting and secure mounting to extension bracket with hardware provided, using flat washers for spacers as shown in detail 3, figure 24. Drill holes in bulkhead for clamps as shown in detail 2, figure 24. Route power cord to terminal box using clamps to secure in position. Install connector and bondnut through knock-out hole in terminal box for power cord.
Radio Receiver BC-728-(), on Mounting FT-338-().	Place Radio Receiver BC-728-() on Mounting FT-338-(). Line plug on radio set squarely with receptacle on mounting. Draw two cam levers down over two studs mounted on receiver.
Antenna AN-75-().	<p>Caution: Do not permit the radio set to be left in a vehicle for a period of more than 3 or 4 days without being used, as the 2-volt battery will be overcharged and the vehicle battery discharged. Either remove radio set from Mounting FT-338-() or disconnect lead from terminal box.</p>
Bag BG-169.	Mount on bracket provided on Radio Receiver BC-728-(). Store spare parts and components not in use in bag. Store bag in any convenient location in vehicle.



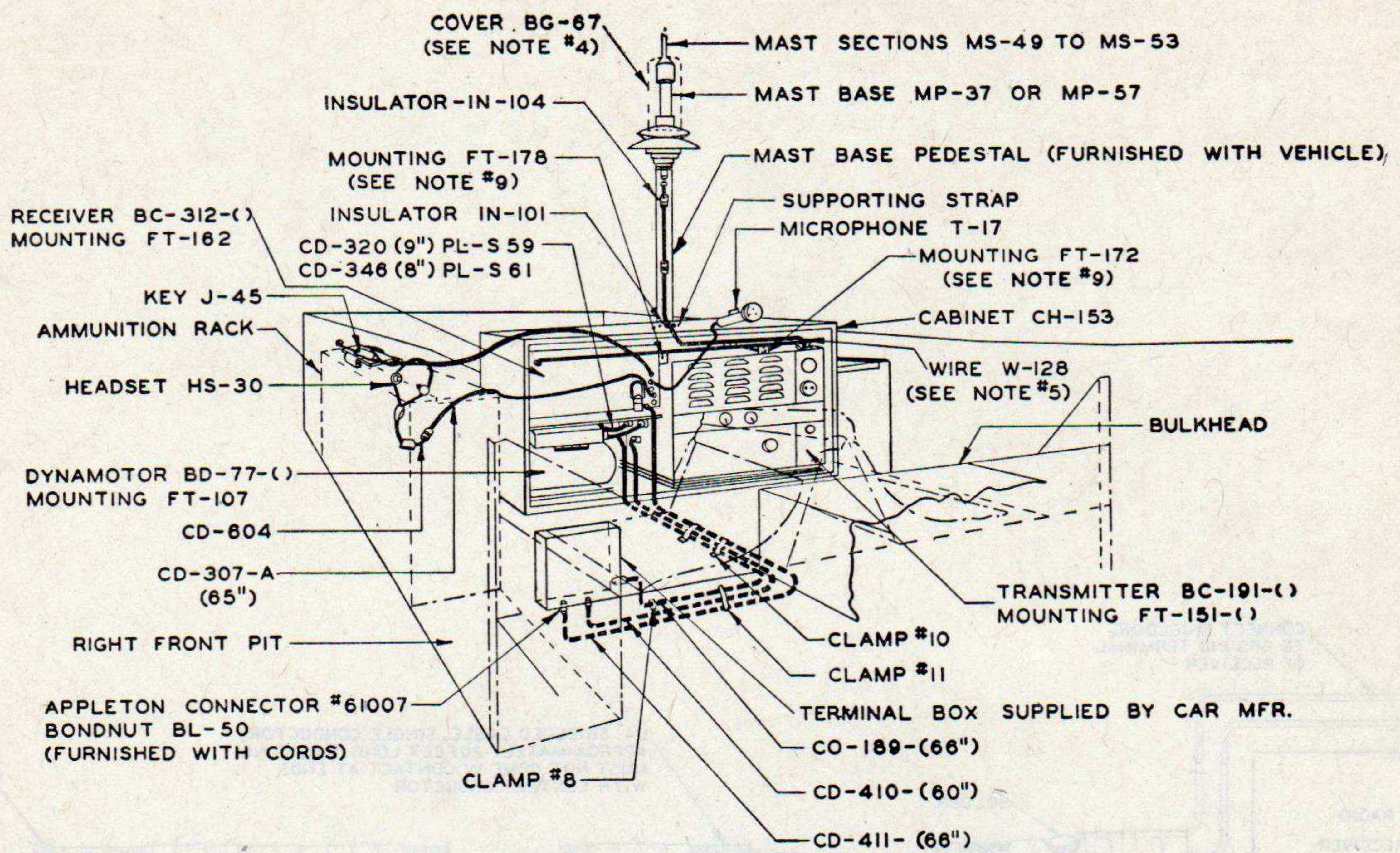
TL 13353

Figure 1. Location of Radio Set SCR-193-D and seating arrangement in Car, Scout, M3A1.

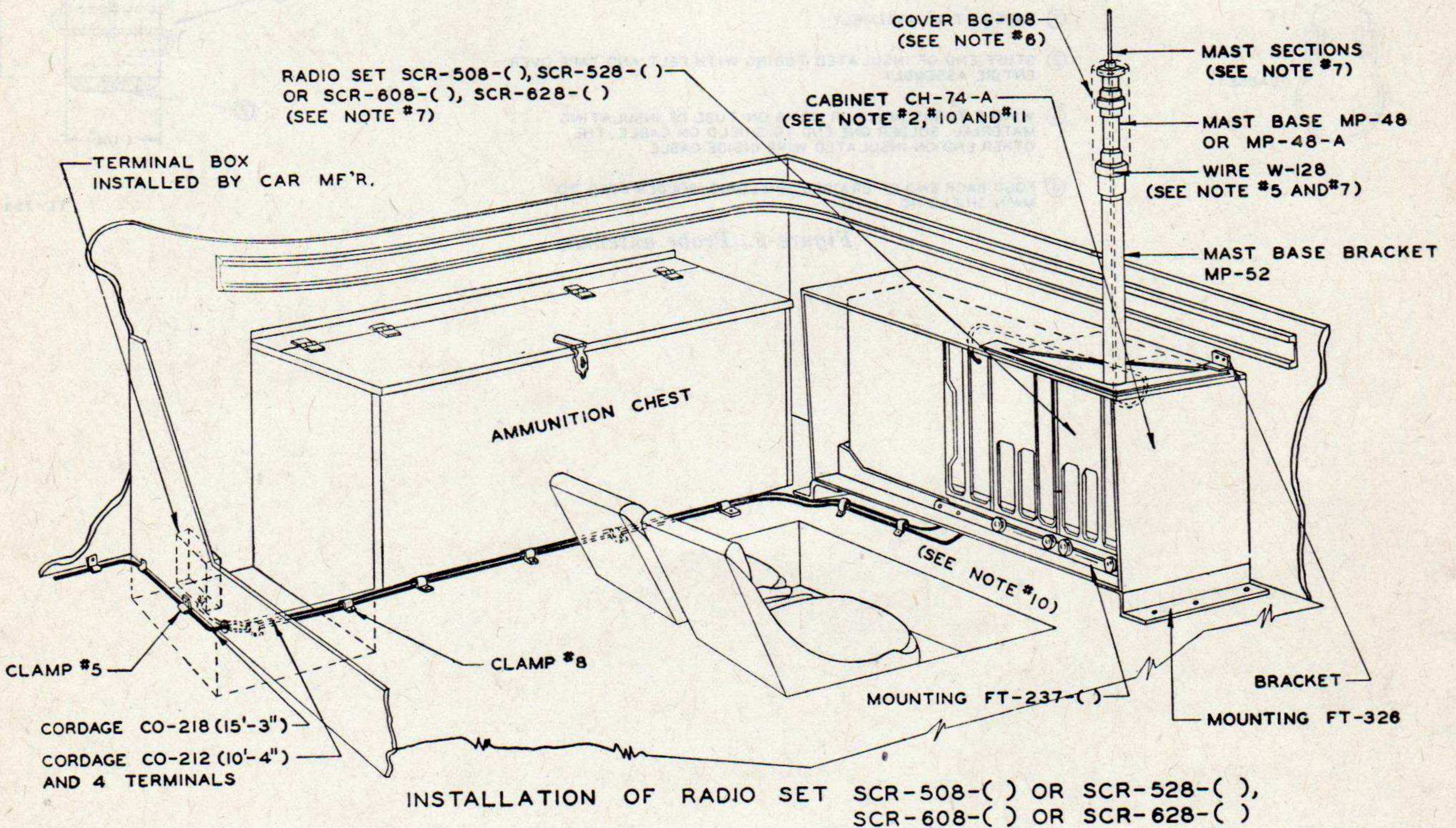


TL-7547

Figure 2. Probe antenna.



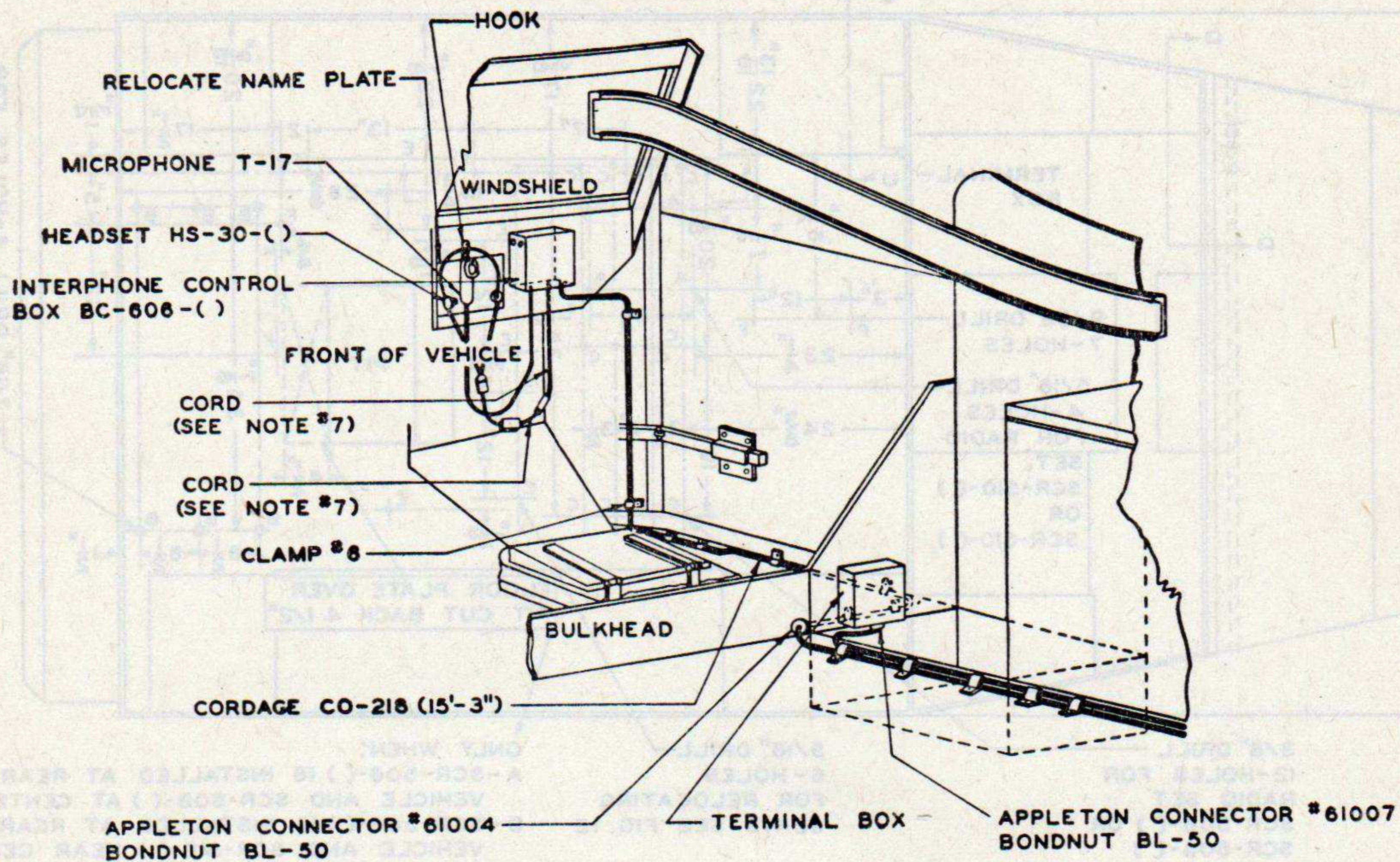
INSTALLATION OF RADIO SET SCR-193-D



INSTALLATION OF RADIO SET SCR-508-() OR SCR-528-(), SCR-608-() OR SCR-628-()

TL-13354-1

Figure 3. Pictorial view of Radio Set SCR-193-D in combination with Radio Set SCR-508-(), SCR-528-(), SCR-608-(), or SCR-628-() in Car, Scout, M3A1.



HARDWARE REQUIRED:

- MOUNTING FT-162
 - 10-#10-32X3/4" LG. RD. HD. MACH. SCREWS
 - 10-#10-32 HEX. NUTS
 - 10-#10 LOCKWASHERS
 - MOUNTING FT-107
 - 6-1/4"-28X7/16" LG. RD. HD. MACH. SCREWS
 - 6-1/4" LOCKWASHERS
 - MOUNTING FT-151
 - 8-1/4"-28X7/16" LG. RD. HD. MACH. SCREWS
 - 8-1/4" LOCKWASHERS
 - MOUNTING FT-172 AND FT-178
 - 8-#10-32X1/2" LG. RD. HD. MACH. SCREWS
 - 8-#10-32 HEX. NUTS
 - 8-#10 LOCKWASHERS
 - MOUNTING FT-326 (SEE NOTE 2)
 - 8-3/8" LOCKWASHERS
 - 2-3/8"-16 HEX. HD. NUTS AND SPACERS
 - 2-3/8"-16X1-3/4" LG. RD. HD. BOLTS
 - 6-3/8"-16 HEX. HD. NUTS
 - 6-3/8"-16X1-1/4" LG. HEX. HD. BOLTS
 - CABINET CH-74-A (SEE NOTE 2)
 - 6-1/4"-28X3/4" LG. HEX. HD. MACH. SCREWS
 - 6-1/4"-28 ELASTIC STOP NUTS
 - MOUNTING FT-237-() (SEE NOTE 2)
 - 8-5/16"-24X3/4" LG. HEX. HD. MACH. SCREWS
 - 8-5/16"-24 ELASTIC STOP NUTS
 - INTERPHONE CONTROL BOX BC-606-()
 - 3-#8-32X3/8" LG. RD. HD. MACH. SCREWS
 - 3-#8-32 HEX. NUTS
 - 3-#8 LOCKWASHERS
 - HOOK
 - 2-#8-32X3/8" LG. RD. HD. MACH. SCREWS
 - 2-#8-32 HEX. NUT
 - 2-#8 LOCKWASHERS
 - HOOK ON DASH
 - 1-#8X1/2" LG. SELF TAPPING SCREW
 - 1-#8 LOCKWASHER
- SCREWS, NUTS AND LOCKWASHERS SHOULD BE STEEL GALVANIZED.

NOTES:

1. FOR SCR-193-D CORDING DIAGRAM SEE FIG.10
2. SCREWS, NUTS, ELASTIC STOP NUTS, AND LOCKWASHERS ARE FURNISHED WITH MOUNTING FT-237-(), CABINET CH-74-A AND MOUNTING FT-326.
3. FOR CORDING DIAGRAM OF RADIO SET SCR-508-() OR SCR-528-() SEE FIG.16
4. USE COVER BG-67 WHEN MAST SECTIONS ARE NOT INSTALLED.
5. CUT WIRE W-128 TO PROPER LENGTH. TIN ENDS FOR ANTENNA AND GROUND CONNECTIONS.
6. USE COVER BG-108 WHEN MAST IS NOT INSTALLED.
7. INSTALLATION COMPONENTS

RADIO SET	SCR-508	SCR-528
MAST SECTIONS	MS-52, 53	MS-52, 53
ANTENNA LEAD-IN W-128	58"	58"
TRANSMITTER	BC-604	BC-604
RECEIVER	2-BC-603	BC-603
HEADSET CORDS	CORD CD-307-A (65")	CORD CD-604

8. FOR MTG. HOLES AND LOCATIONS SEE FIG. 4
9. SEE FIG.26 FOR ASSEMBLY OF MTG. FT-172 AND FT-178.

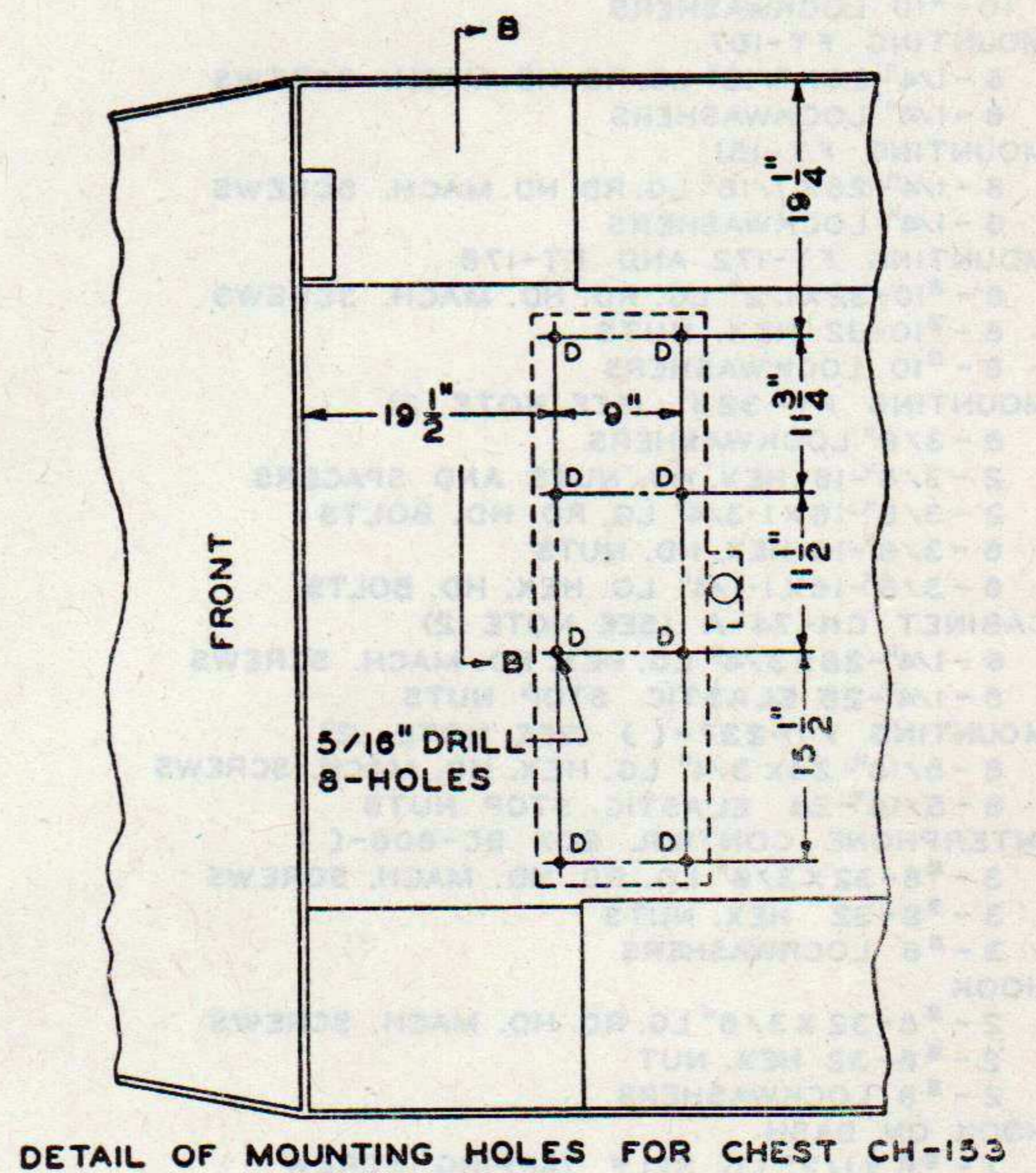
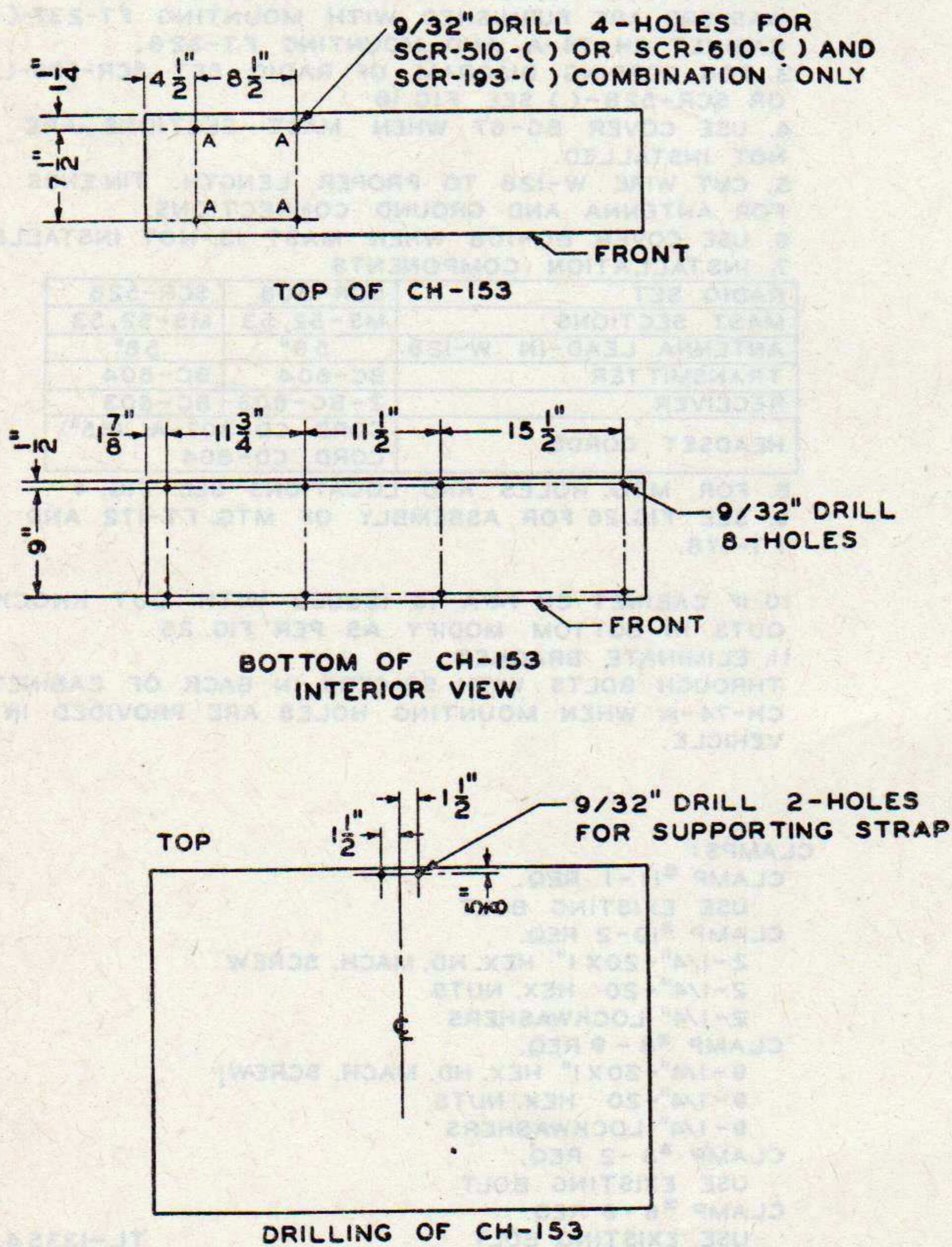
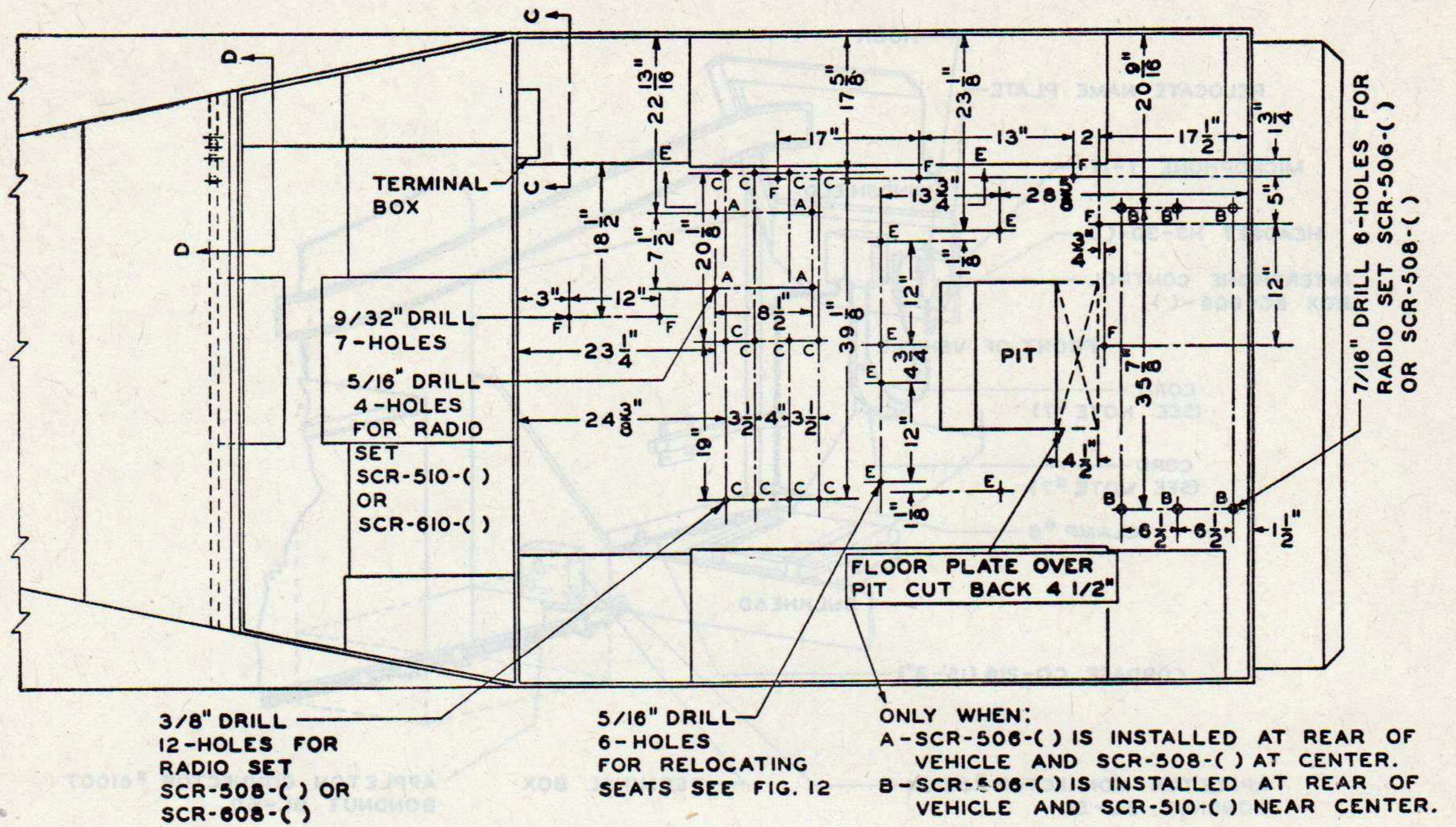
10. IF CABINET CH-74-A IS ISSUED WITH OUT KNOCK-OUTS IN BOTTOM MODIFY AS PER FIG. 25
11. ELIMINATE BRACKET THROUGH BOLTS WITH SPACERS IN BACK OF CABINET CH-74-A WHEN MOUNTING HOLES ARE PROVIDED IN VEHICLE.

CLAMPS:

- CLAMP #11-1 REQ.
USE EXISTING BOLT
- CLAMP #10-2 REQ.
2-1/4"-20X1" HEX. HD. MACH. SCREW
2-1/4"-20 HEX. NUTS
2-1/4" LOCKWASHERS
- CLAMP #8-9 REQ.
9-1/4"-20X1" HEX. HD. MACH. SCREW
9-1/4"-20 HEX. NUTS
9-1/4" LOCKWASHERS
- CLAMP #5-2 REQ.
USE EXISTING BOLT
- CLAMP #6-6 REQ.
USE EXISTING BOLT

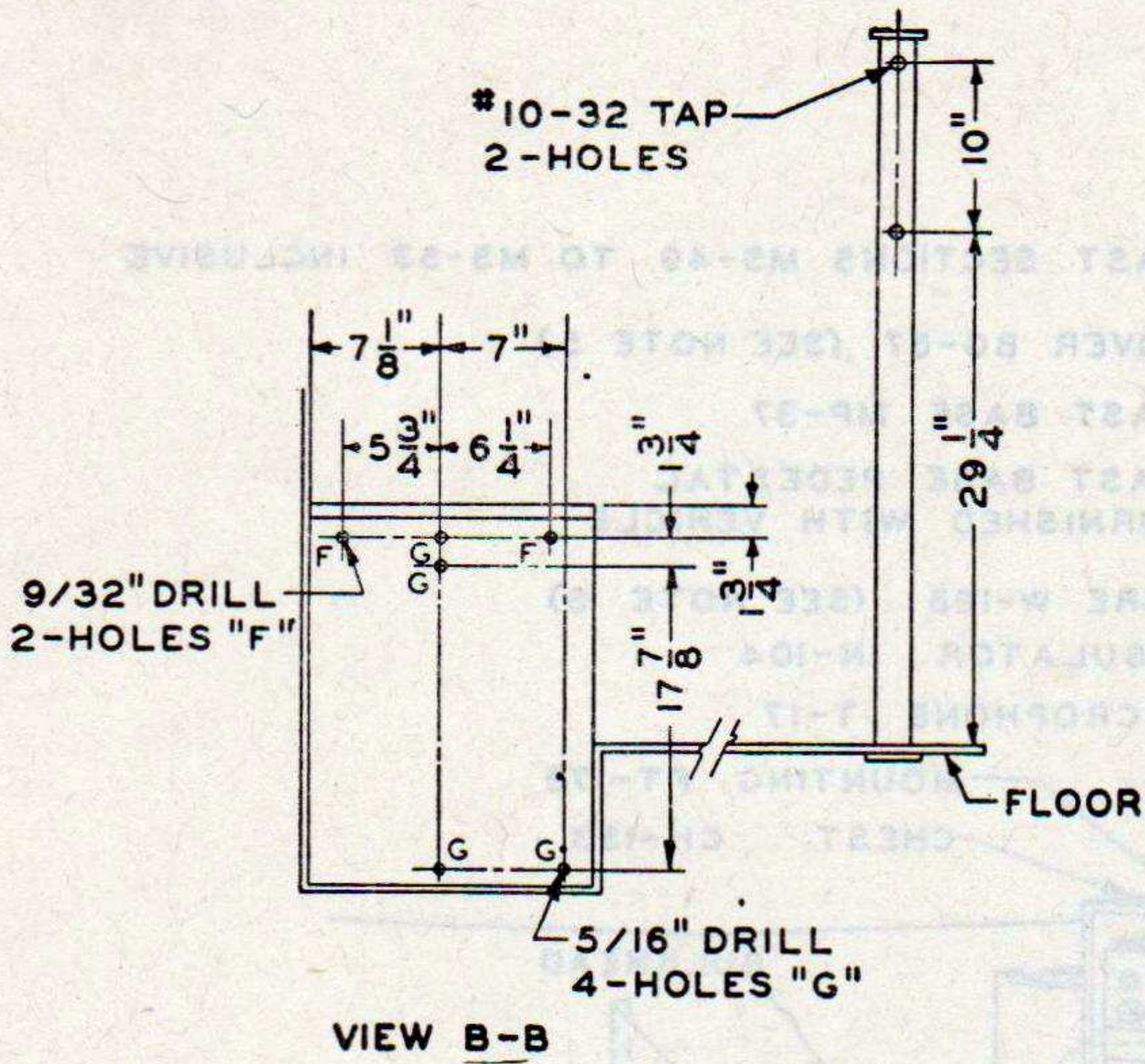
Figure 3—Continued.

TL-13354-2



TL-13335-1

Figure 4. Mounting holes and locations in Car, Scout, M3A1.



LEGEND FOR HOLES:
 "A"-FOR SCR-510-(), SCR-610-() (FT-250) 4-HOLES
 "B"-FOR SCR-506-() OR SCR-508-() (FT-326) 6-HOLES
 "C"-FOR SCR-508-() OR SCR-608-() (FM-43) 12-HOLES
 "D"-FOR SCR-193-() (CH-153) 8-HOLES
 "E"-FOR RELOCATING SEATS-6-HOLES
 "F"-FOR ROUTING POWER AND REMOTE CONTROL CORDS
 "G"-FOR FT-317 (SCR-510-()) 4-HOLES

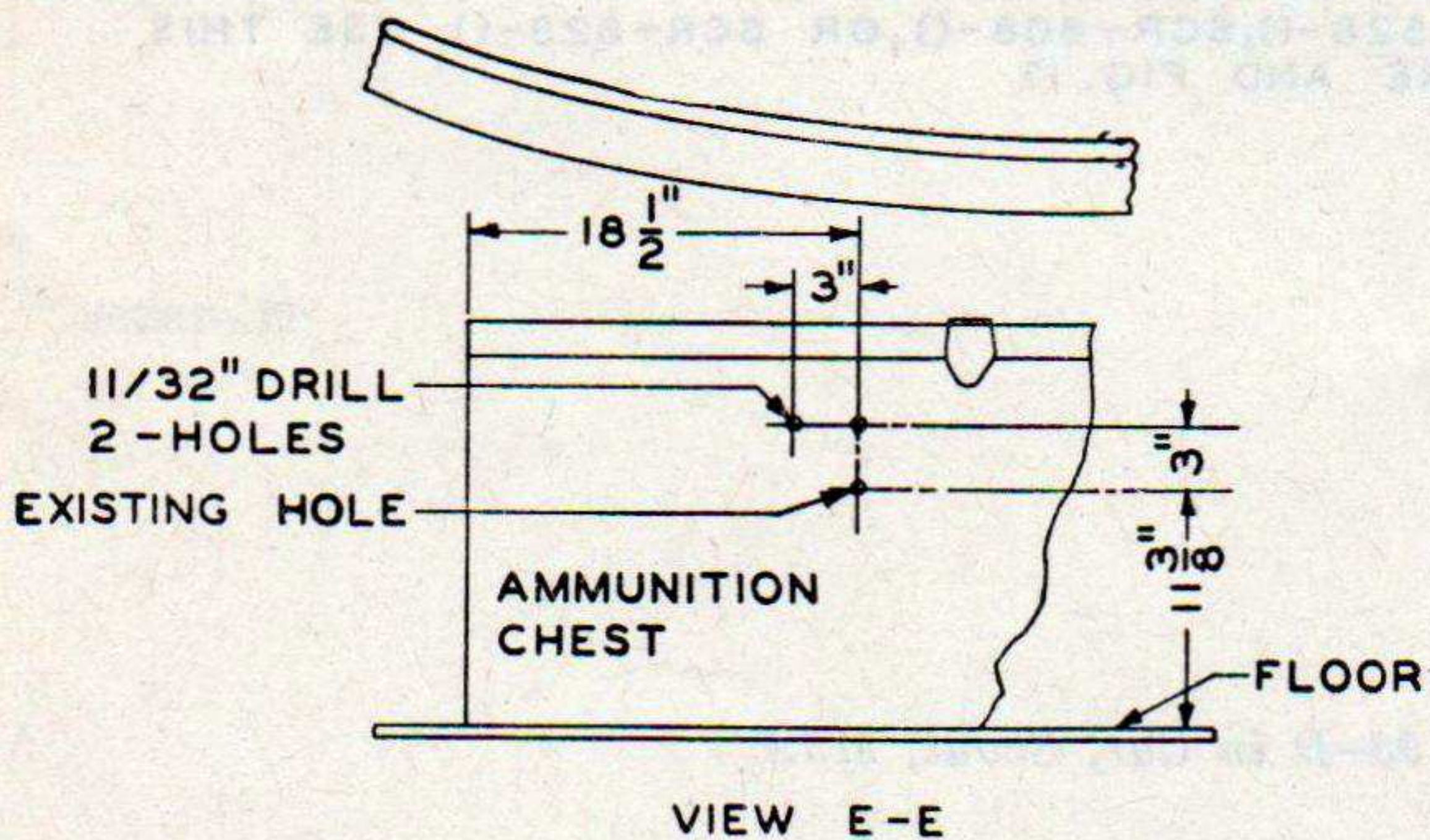
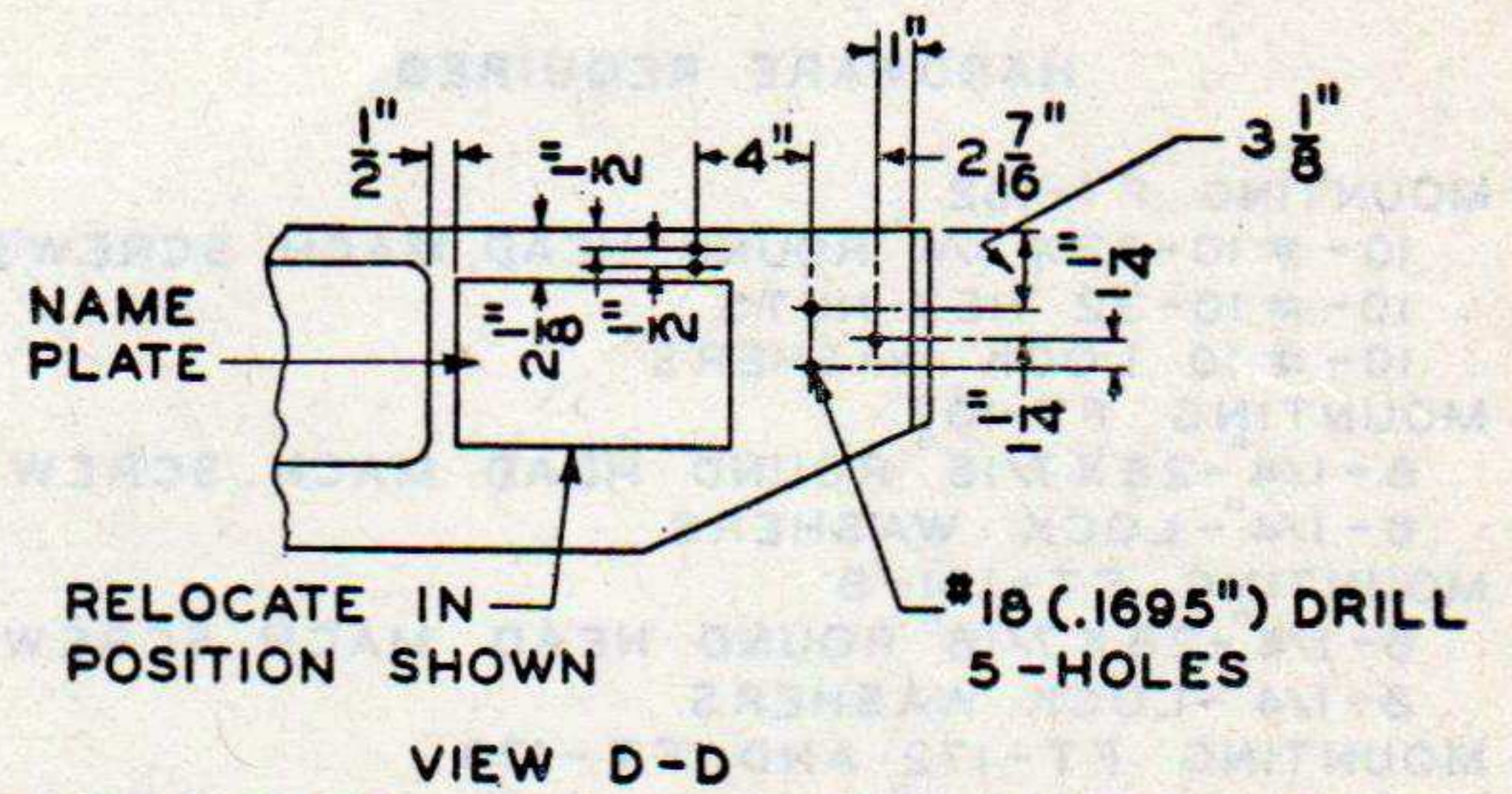
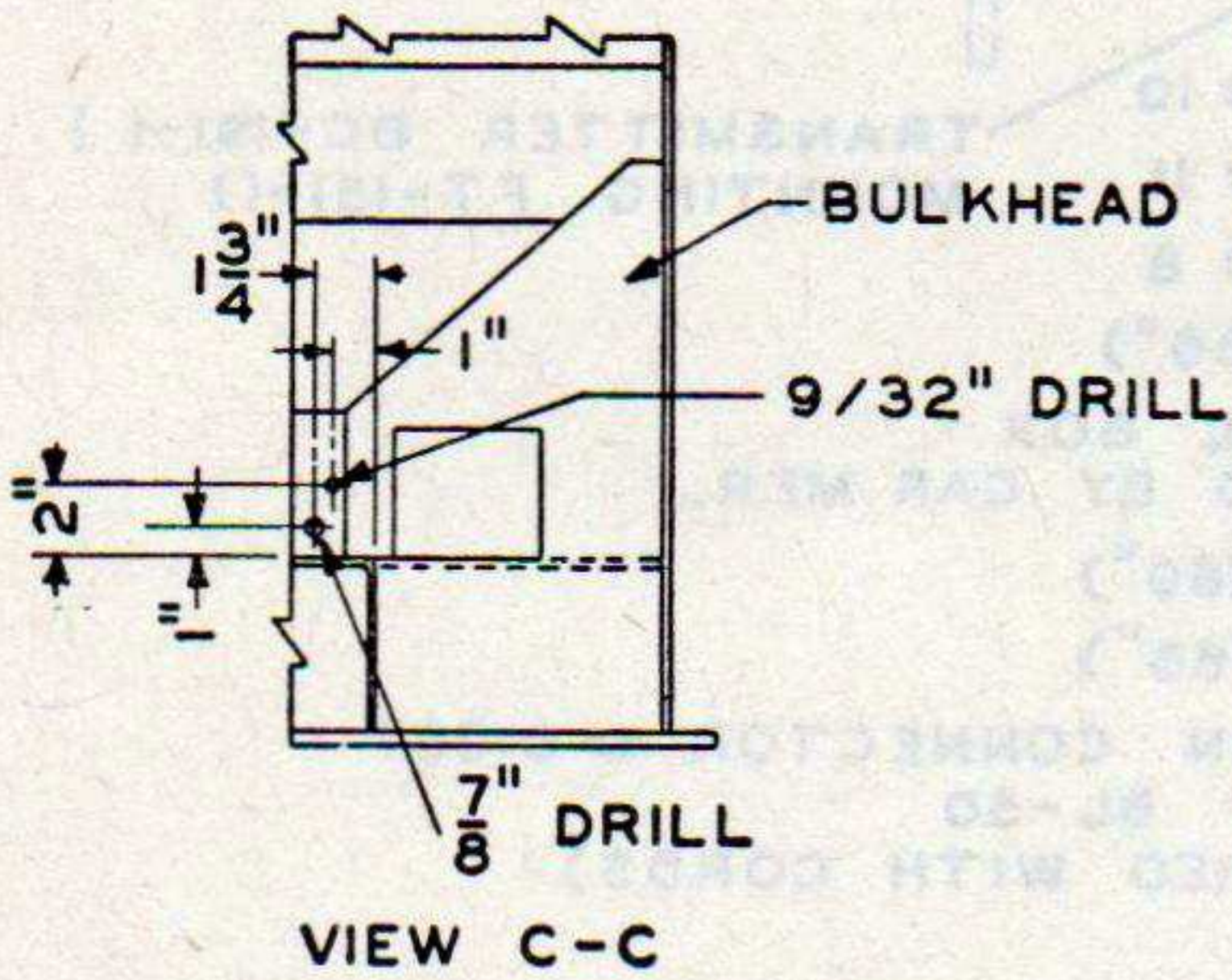
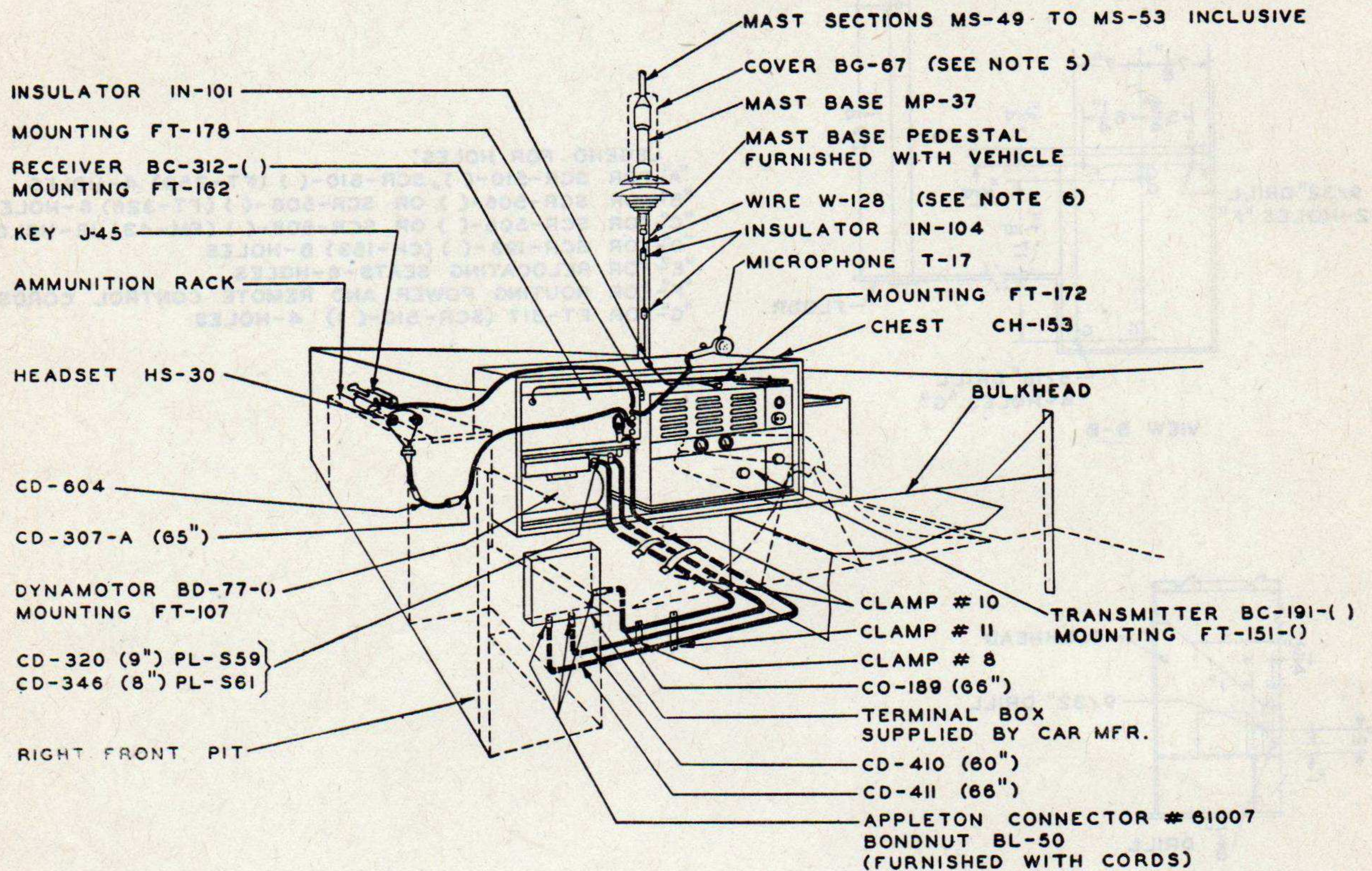


Figure 4—Continued.

TL-13355-2



HARDWARE REQUIRED

MOUNTING FT-162
 10- # 10-32 X 3/4" ROUND HEAD MACH. SCREWS
 10- # 10-32 HEX. NUTS
 10- # 10 LOCK WASHERS
 MOUNTING FT-107
 6- 1/4"-28 X 7/16" ROUND HEAD MACH. SCREWS
 6- 1/4"-LOCK WASHERS
 MOUNTING FT-151-B
 8- 1/4"-28 X 7/16" ROUND HEAD MACH. SCREWS
 8- 1/4"-LOCK WASHERS
 MOUNTING FT-172 AND FT-179
 8- # 10-32 X 1/2" ROUND HEAD MACH. SCREWS
 8- # 10-32 HEX NUTS
 8- # 10 LOCK WASHERS
 CLAMP # 11-1 REQ.
 (USE EXISTING BOLT)
 CLAMP # 10-2 REQ.
 2- 1/4"-20 X 1" H.H.M.S.
 2- 1/4"-20 HEX. NUT
 2- 1/4"- LOCK WASHER
 CLAMP # 8-1 REQ.
 1- 1/4"-20 X 1" H.H.M.S.
 1- 1/4"-20 HEX. NUT
 1- 1/4" LOCK WASHER
 SCREWS, NUTS AND LOCK WASHERS
 SHOULD BE STEEL GALVANIZED

NOTE:

1. FOR CORDING DIAGRAM SEE FIG.10.
2. FOR MOUNTING HOLES AND LOCATION SEE FIG.4.
3. SEE FIG.26 FOR ASSEMBLY OF MOUNTINGS FT-172 AND FT-178.
4. SEE FIGS.8 AND 9 FOR DRILLING OF RECEIVER AND TRANSMITTER FOR MOUNTING SNUBBERS.
5. USE COVER BG-67 WHEN MAST SECTIONS ARE NOT INSTALLED.
6. CUT WIRE W-128 TO PROPER LENGTH TIN ENDS FOR ANTENNA AND GROUND CONNECTIONS.
7. FOR COMBINATION OF SCR-193-() AND SCR-508-() SCR-528-(), SCR-608-(), OR SCR-628-() USE THIS FIGURE AND FIG.17

TL-13356

Figure 5. Pictorial view of Radio Set SCR-193-D in Car, Scout, M3A1.

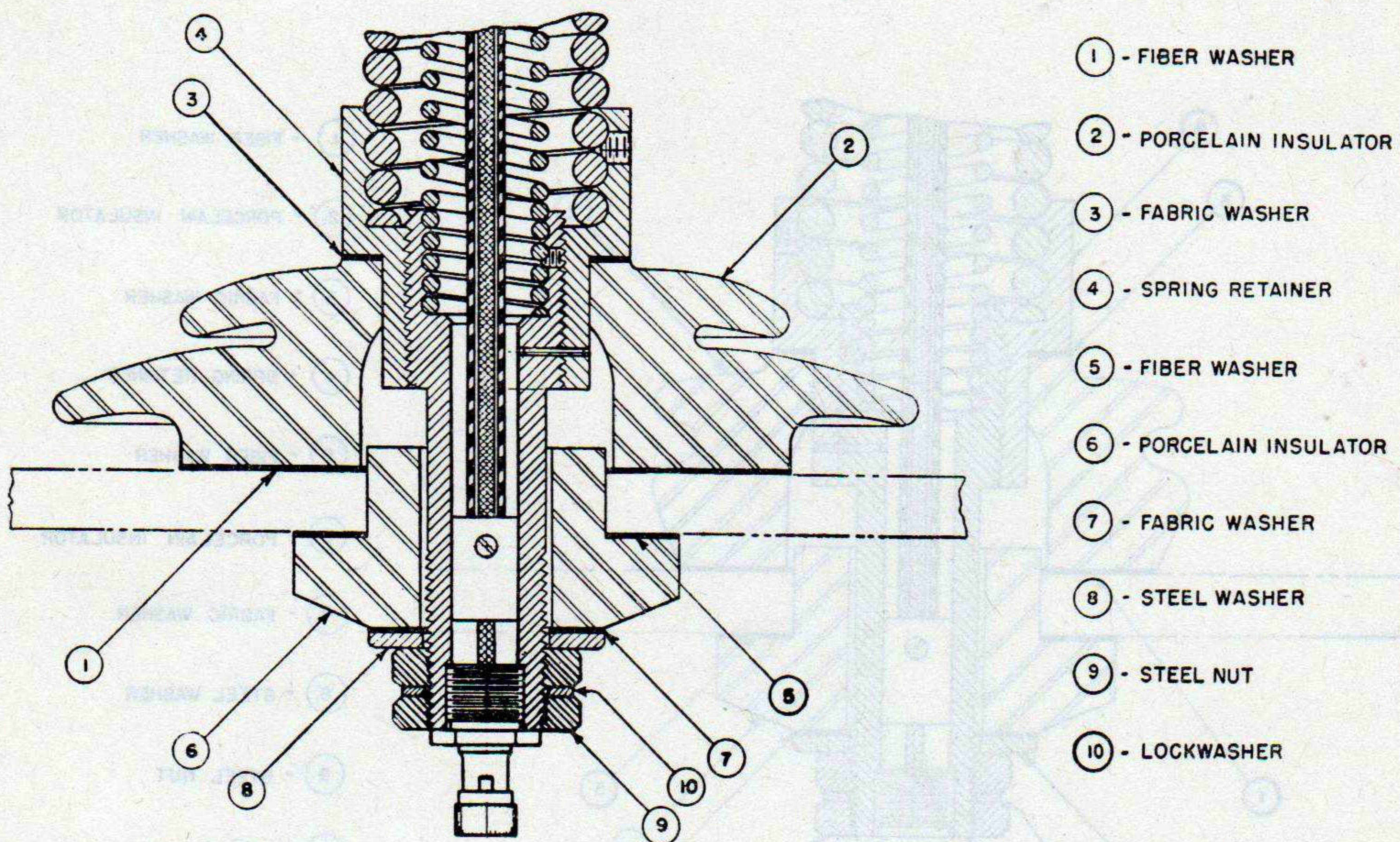


Figure 6. Mast Base MP-37, assembly for installation.

TL-7539

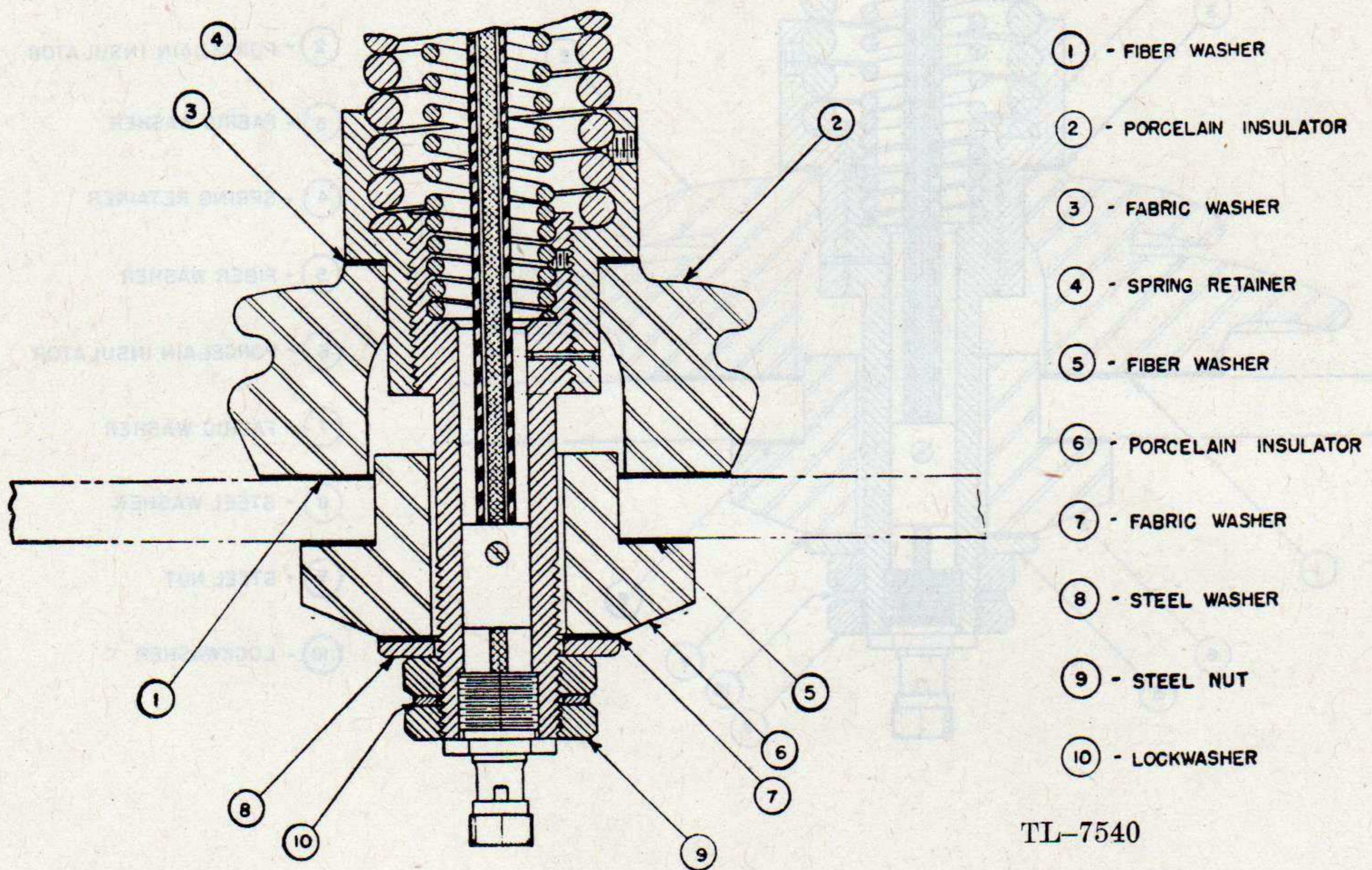
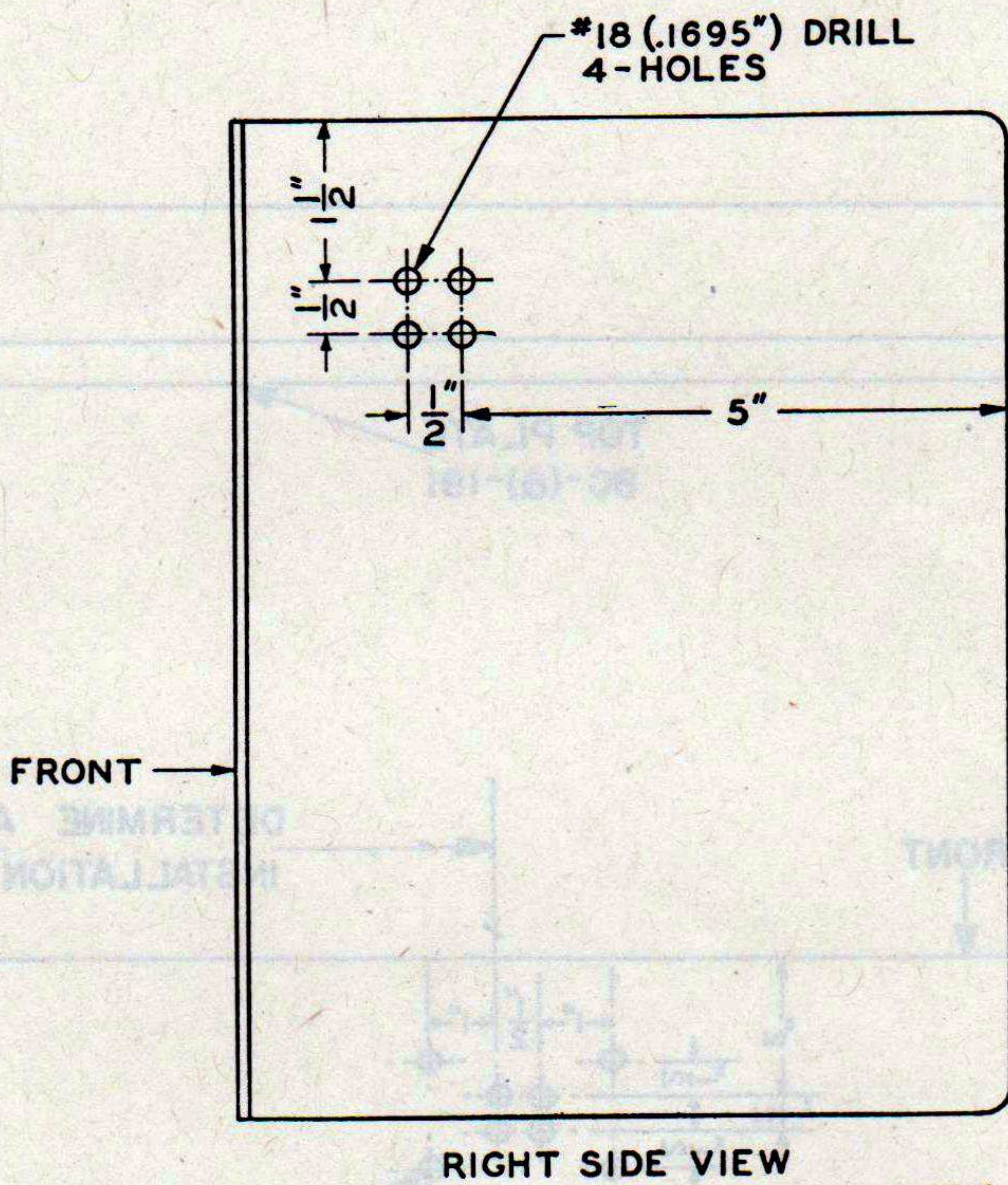


Figure 7. Mast Base MP-57, assembly for installation.



TL9506

Figure 8. Drilling of Radio Receiver BC-312-() for Mounting FT-178.

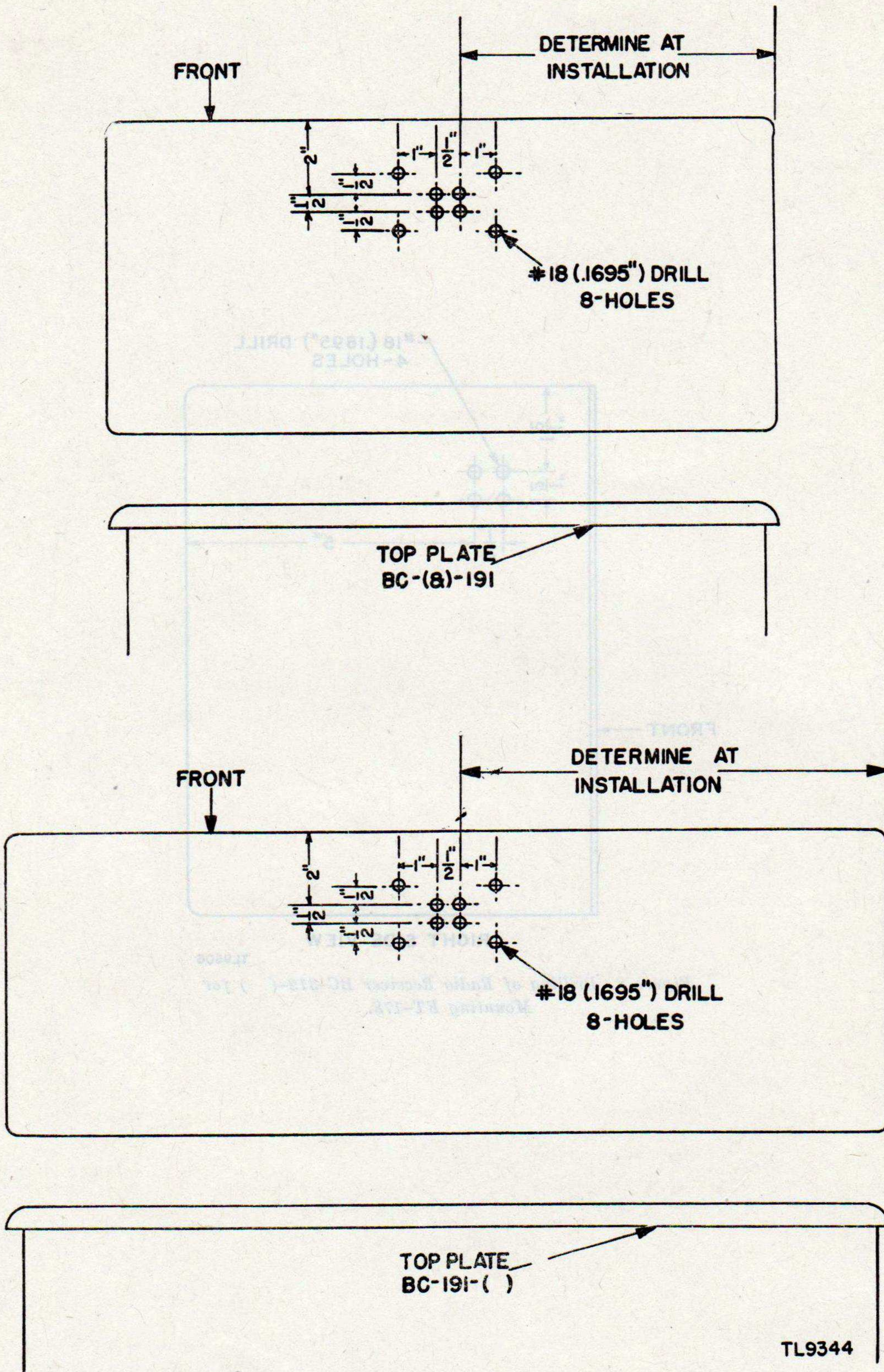


Figure 9. Drilling for Radio Transmitter BC-191-().

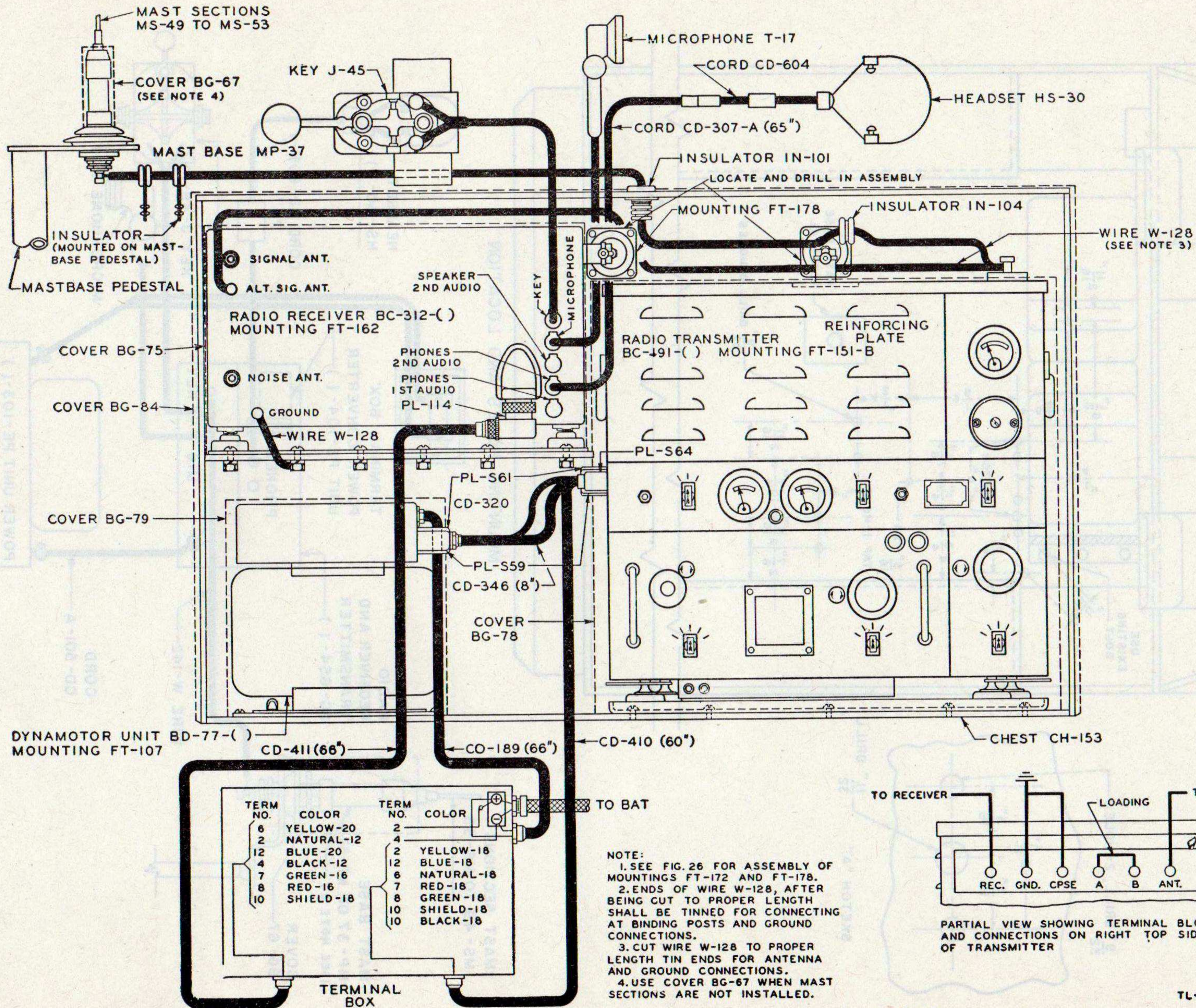
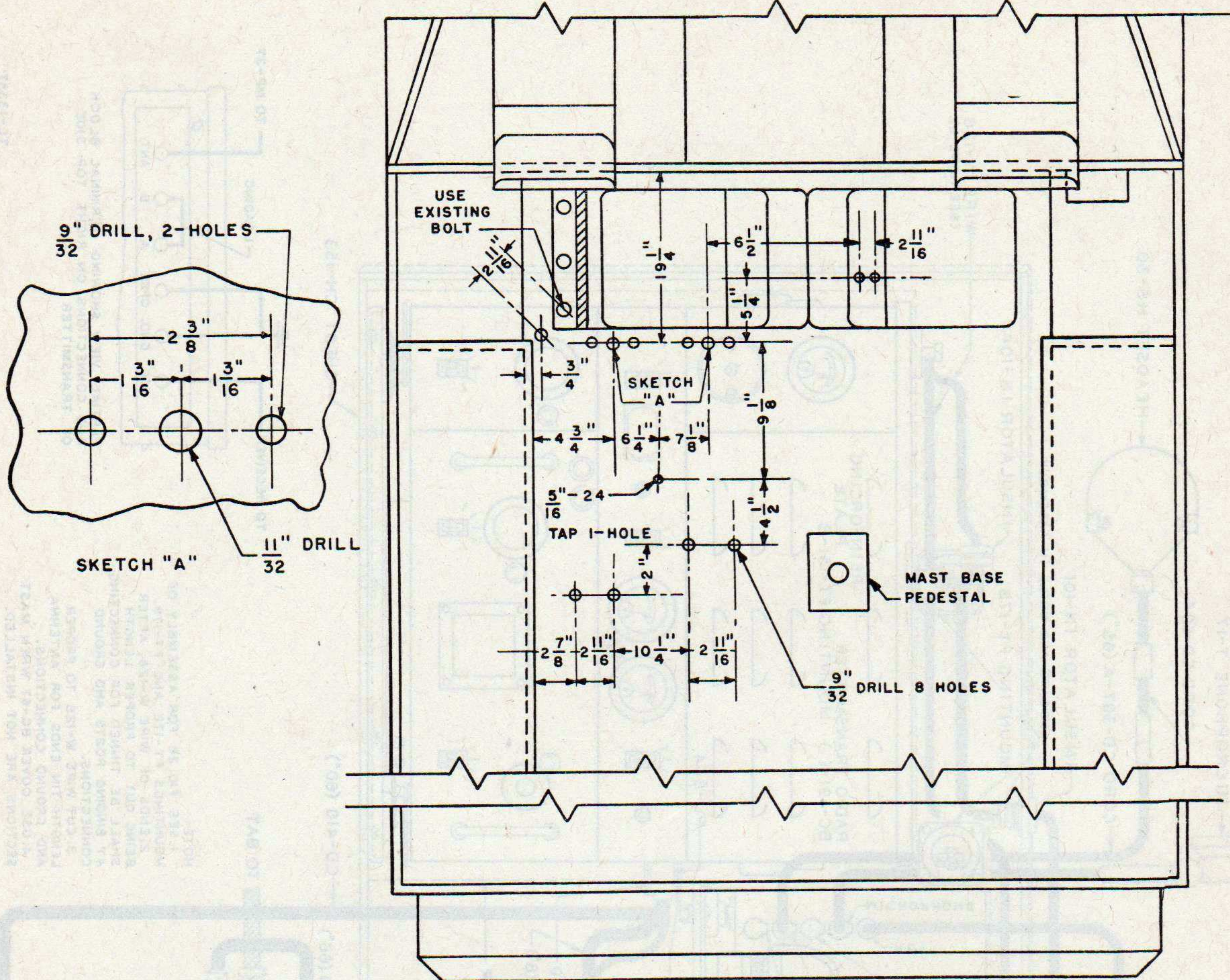


Figure 10. Cording diagram for Radio Set SCR-193-D in Car, Scout, M3A1.

FRONT OF CAR



MAST SECTIONS
MS-49 TO MS-53

MAST BASE
MP-37 OR MP-57
(SEE NOTE 2)

COVER
BG-67

RADIO
RECEIVER AND
TRANSMITTER
BC-654-()

TERMINAL BOX
POWER CONVERTER
UNIT PE-104-()

HEADSET
HS-30-()

CORD CD-605
78"

PHONES

MIC KEY

KEY J-48-()

MICROPHONE T-17

WIRE W-142

CORD
CD-501-A

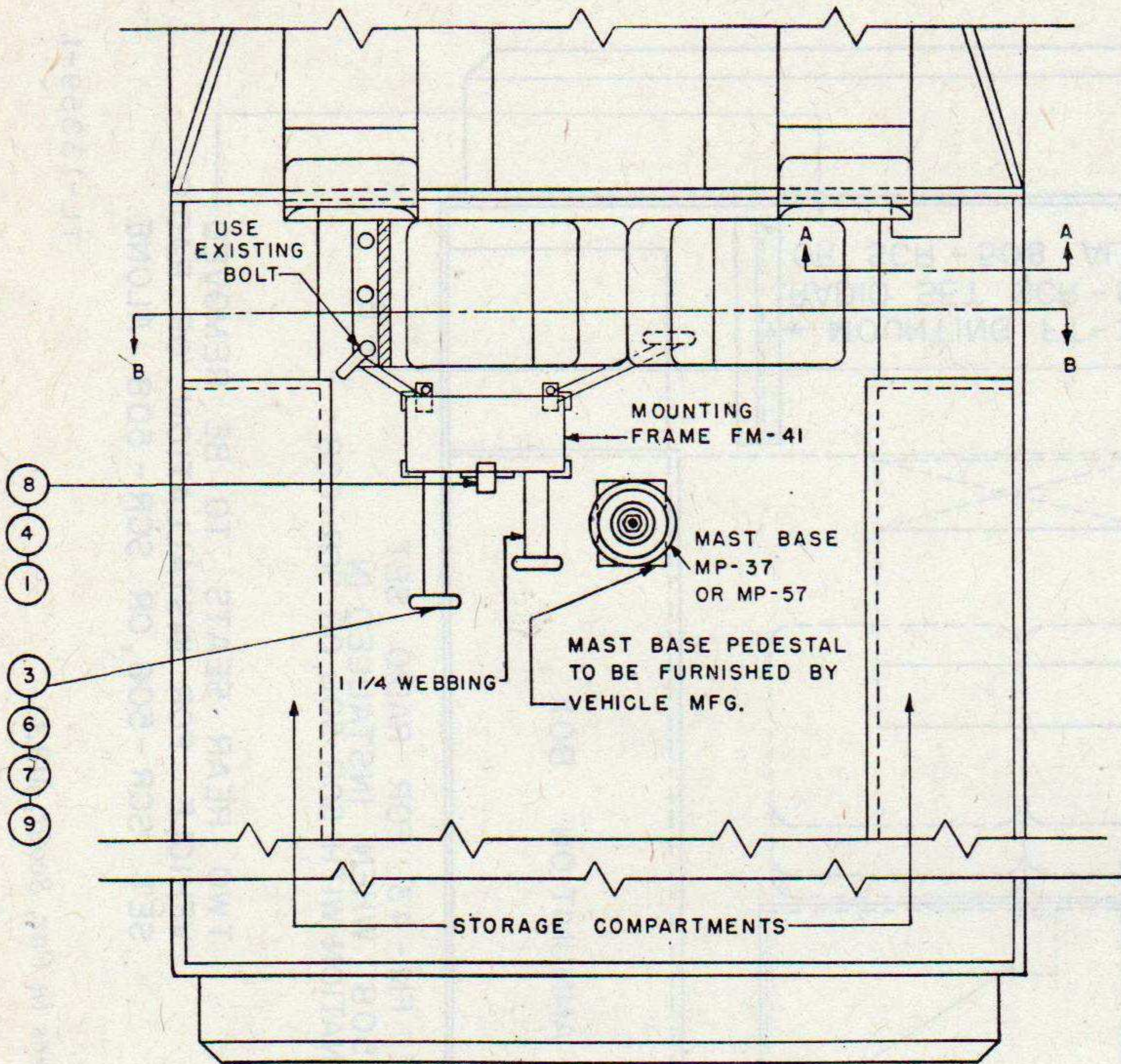
POWER UNIT PE-103-()

CORDING DIAGRAM

TL-13358-1

Figure 11. Mounting holes and location, cording diagram, and installation of Radio Set SCR-284-() in Car, Scout, M3A1.

FRONT OF CAR

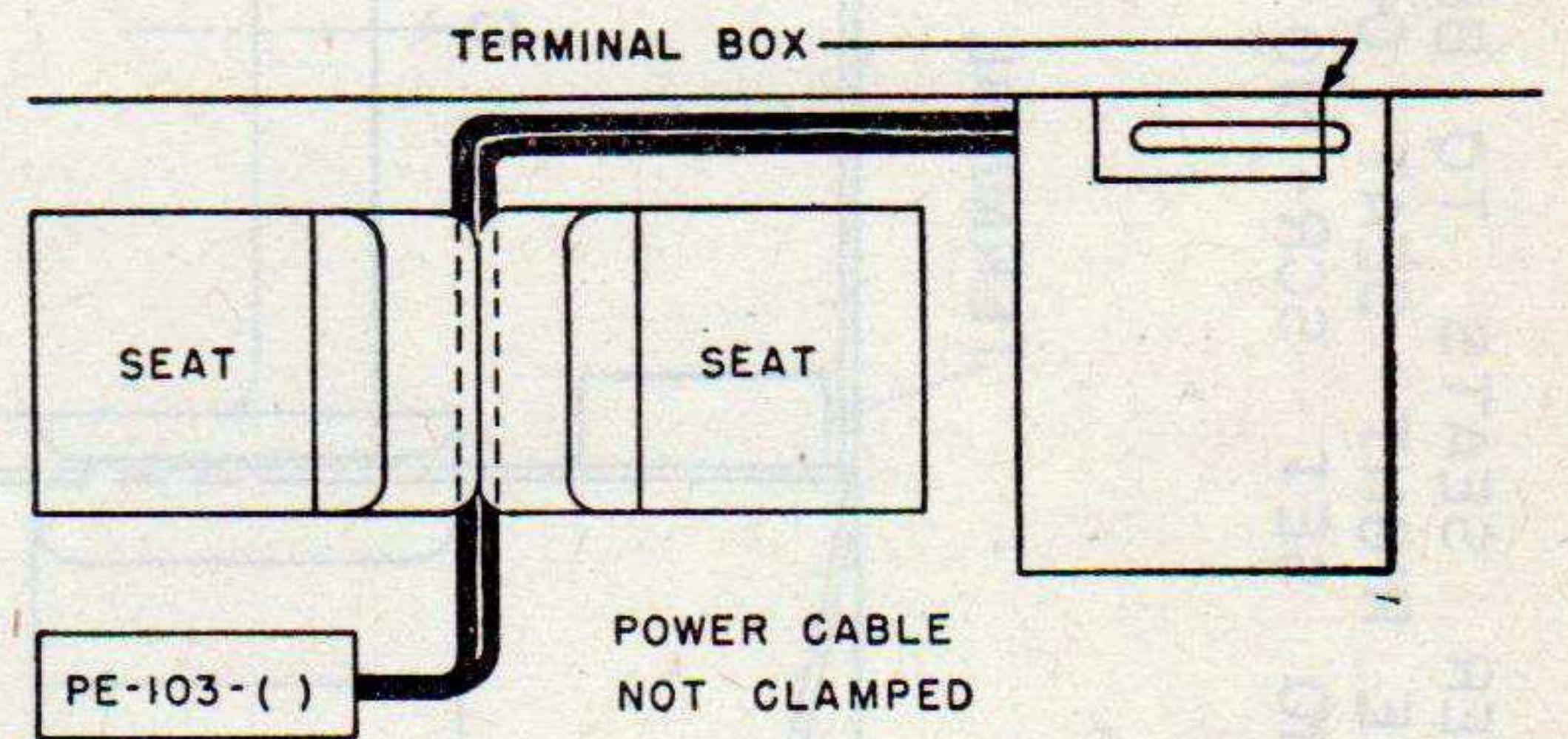
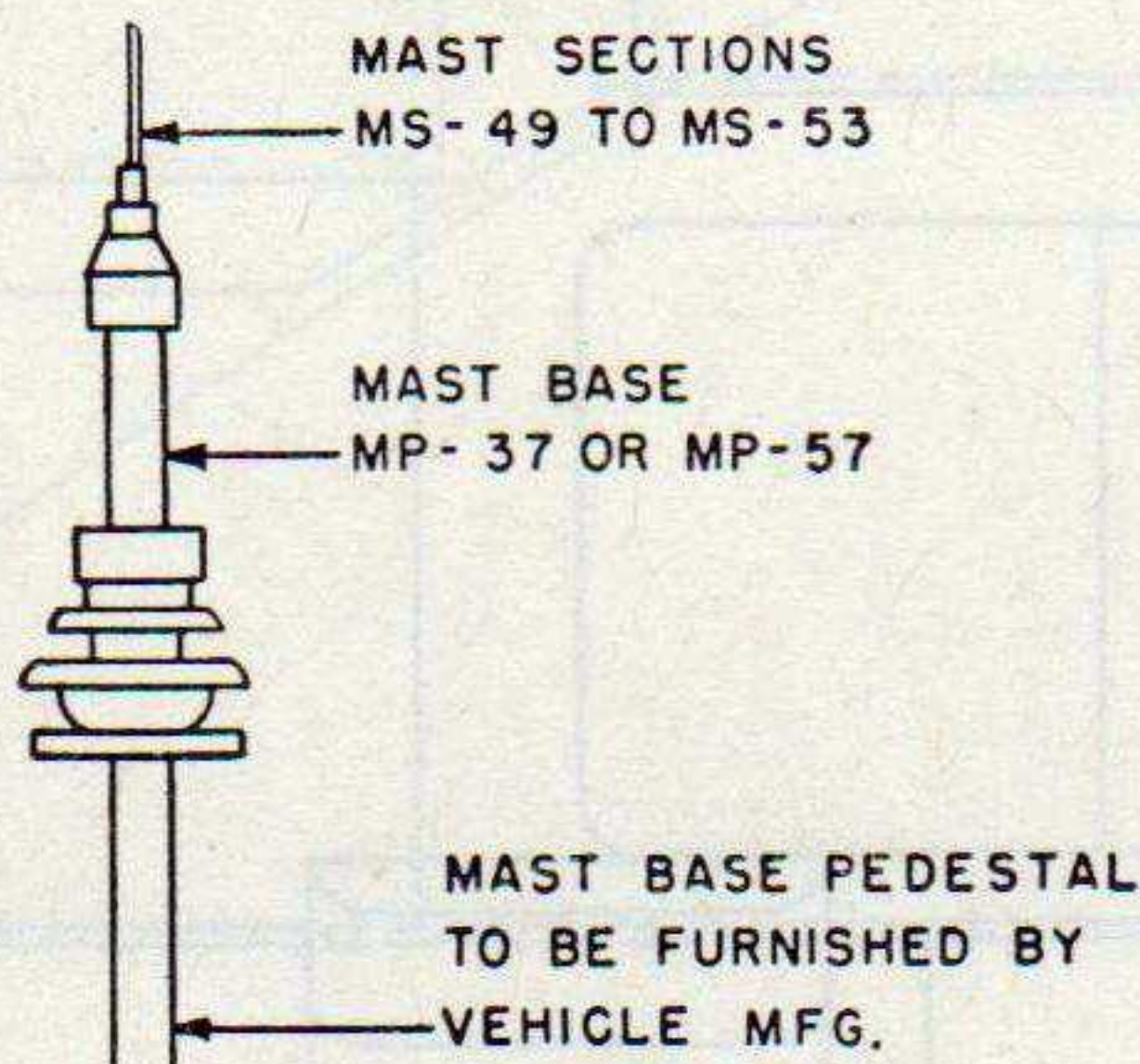
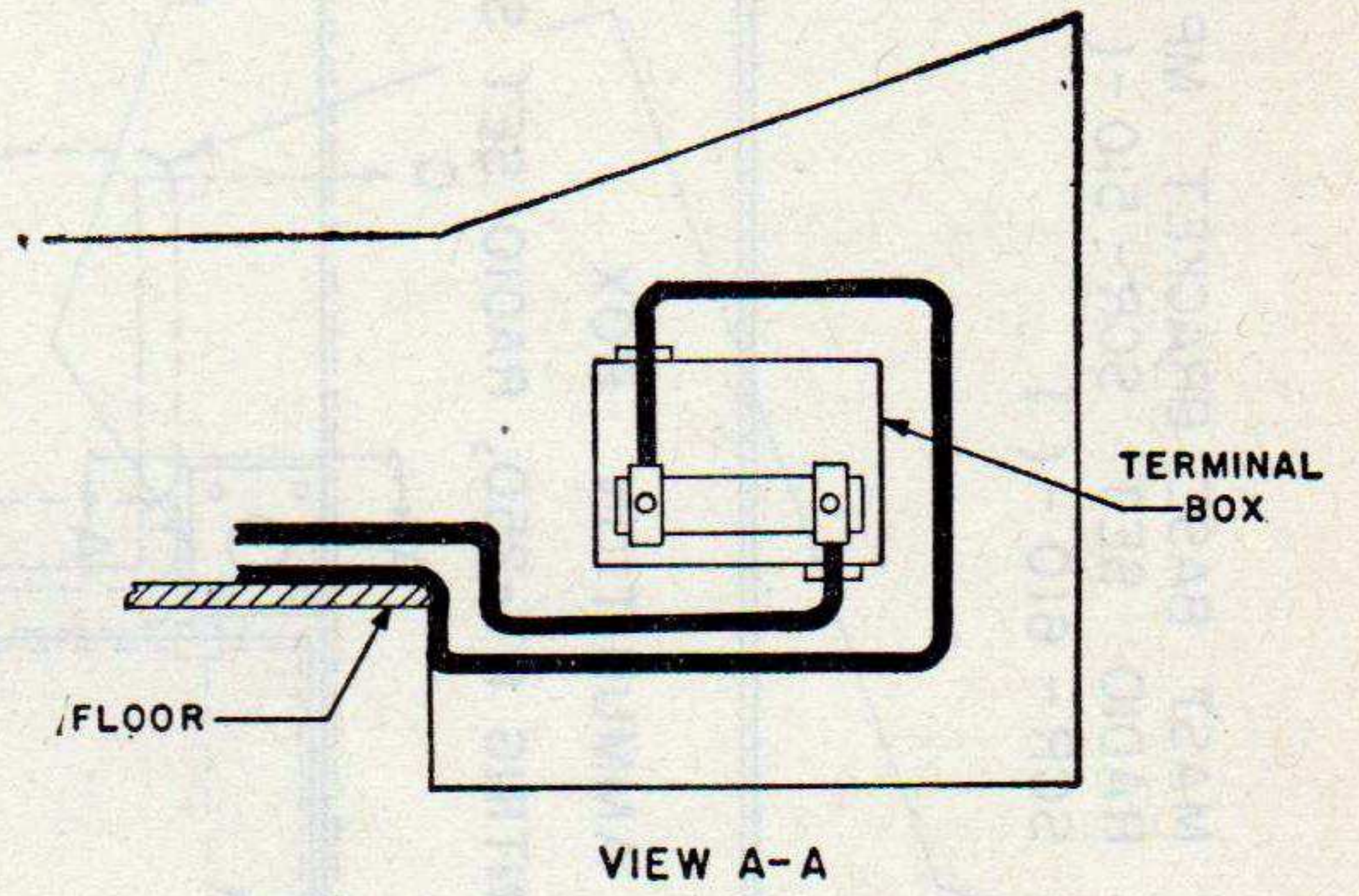


1. FIGURE REFERENCES

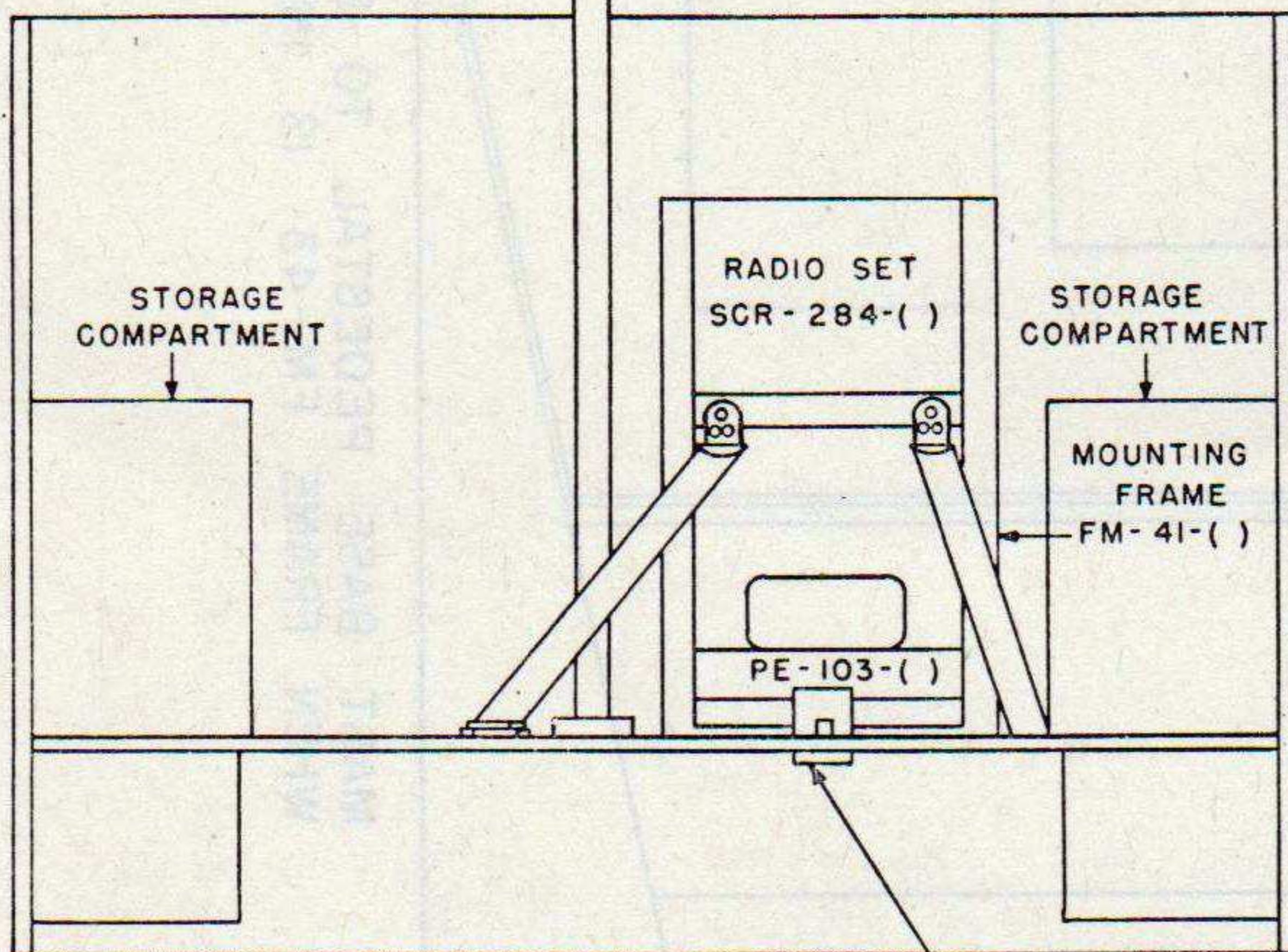
- SCR-193, FIG. 5.
- SCR-193 AND SCR-510 OR 610 COMB., FIG. 20.
- SCR-510 OR 610, FIG. 21.
- SCR-508 OR 528, FIG. 17.
- SCR-608 OR 628, FIG. 23.
- SCR-508 OR 528 IN COMB. WITH SCR-506, FIG. 15.
- SCR-506, FIG. 14.
- SCR-593, FIG. 24.
- SCR-608 OR 628 IN COMB. WITH SCR-193, FIG. 3.

2. USE COVER BG-67 WHEN MAST SECTIONS ARE NOT INSTALLED.

3. CUT WIRE W-142 TO PROPER LENGTH. TIN ENDS FOR ANTENNA CONNECTIONS.



PLANE VIEW OF POWER CABLES



ELEVATION INSTALLATION VIEW B-B

ITEM NO.	QUAN REQ.	NAME OF ITEM
1	3	BRACKET
2	3	TAPPING PLATE
3	4	STRAP HOLDER
4	3	HEX. HEAD MACH. SCR. $\frac{5}{16}$ " - 24 X $\frac{3}{4}$ " LONG
5	6	ROUND HEAD MACH. SCR. $\frac{1}{4}$ " - 20 X $\frac{1}{2}$ " LONG
6	8	HEX. HEAD MACH. SCR. $\frac{1}{4}$ " 20 X $\frac{3}{4}$ " LONG
7	8	HEX. NUT $\frac{1}{4}$ " - 20 STD.
8	3	LOCK WASHER SAE. REG. FOR $\frac{5}{16}$ " SCR.
9	14	LOCK WASHER REG. FOR $\frac{1}{4}$ " SCR.

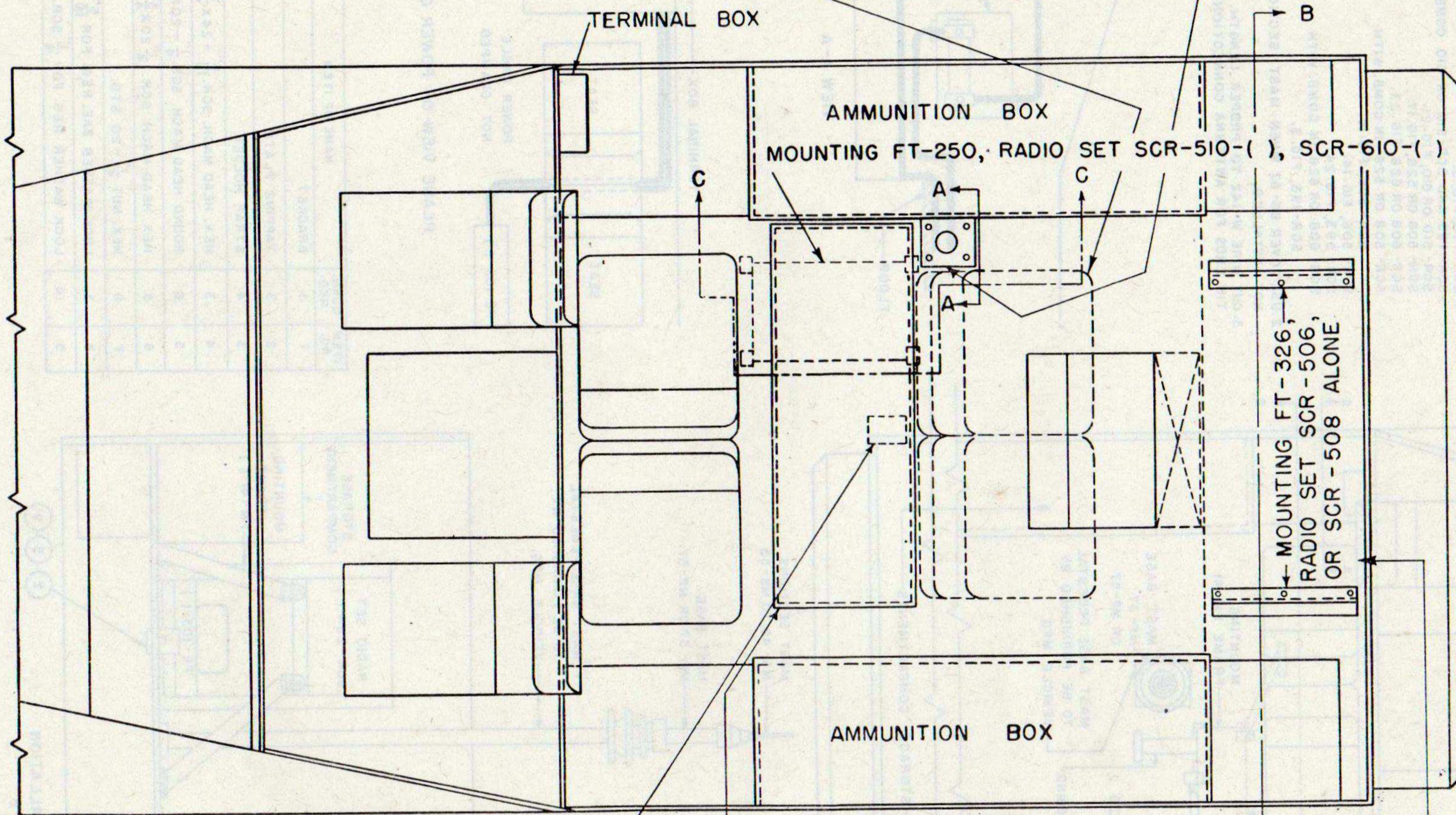
Figure 11—Continued.

TL-13358-2

WHEN FRAME FM-43 IS USED, CENTER SEATS TO BE
 MOVED 7-1/4" TO REAR OF VEHICLE RIGHT SEAT ONLY
 MOVED 7-1/4" TO REAR FOR RADIO SET SCR-510-(),
 SCR-610-()

MAST BASE BRACKET MP-50 FOR
 RADIO SET SCR-510-(),
 SCR-610-()

RESTRICTED



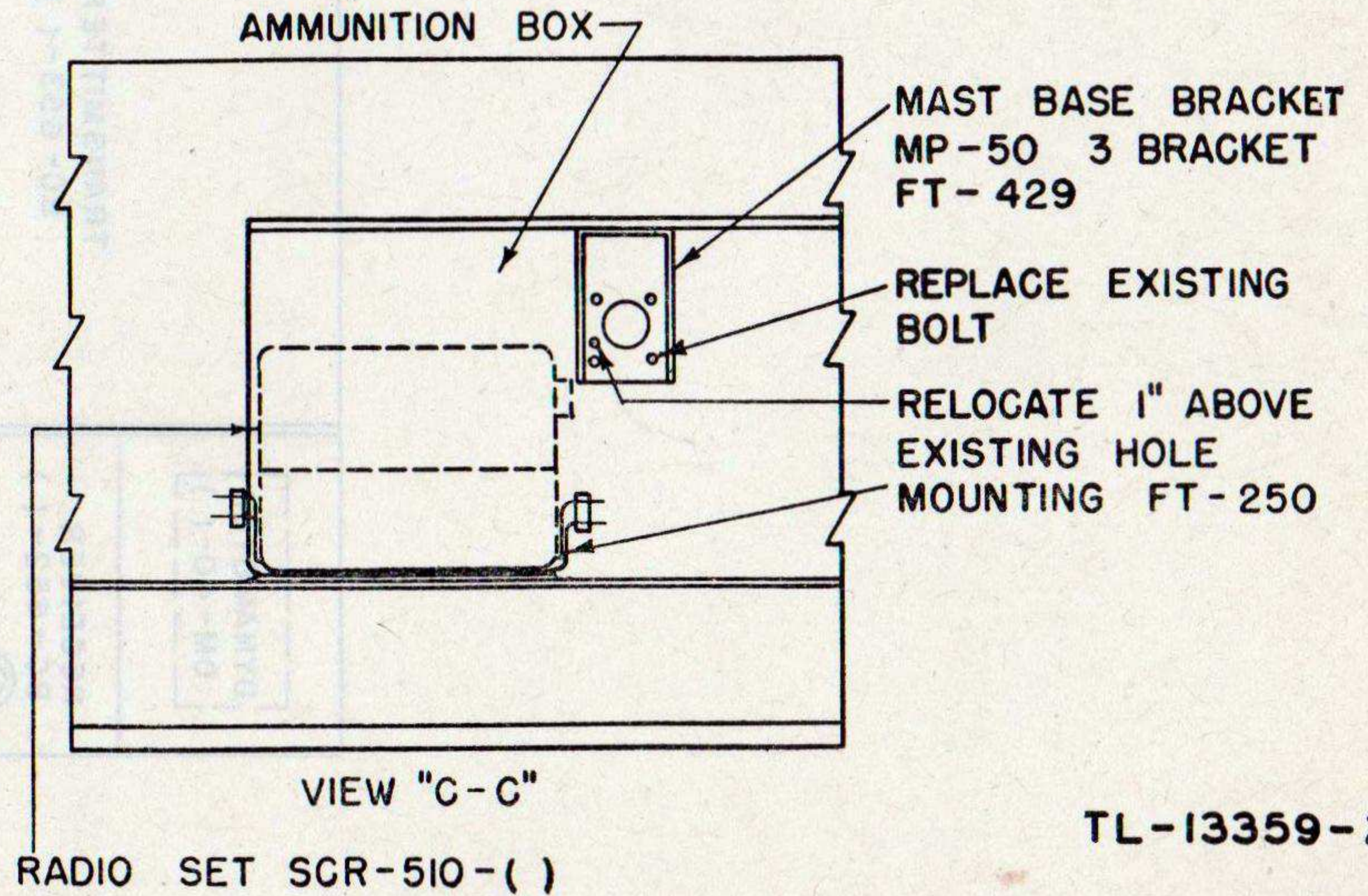
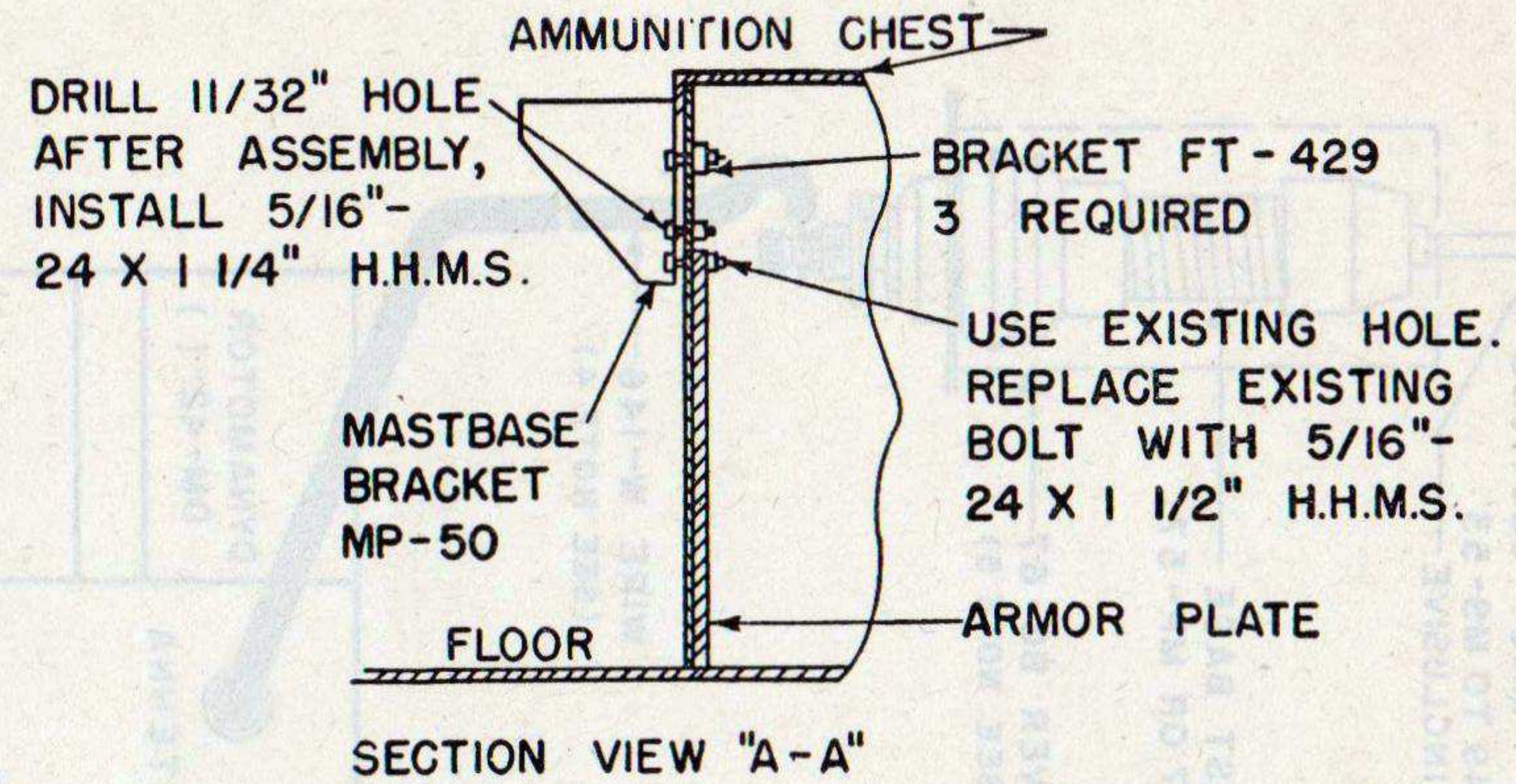
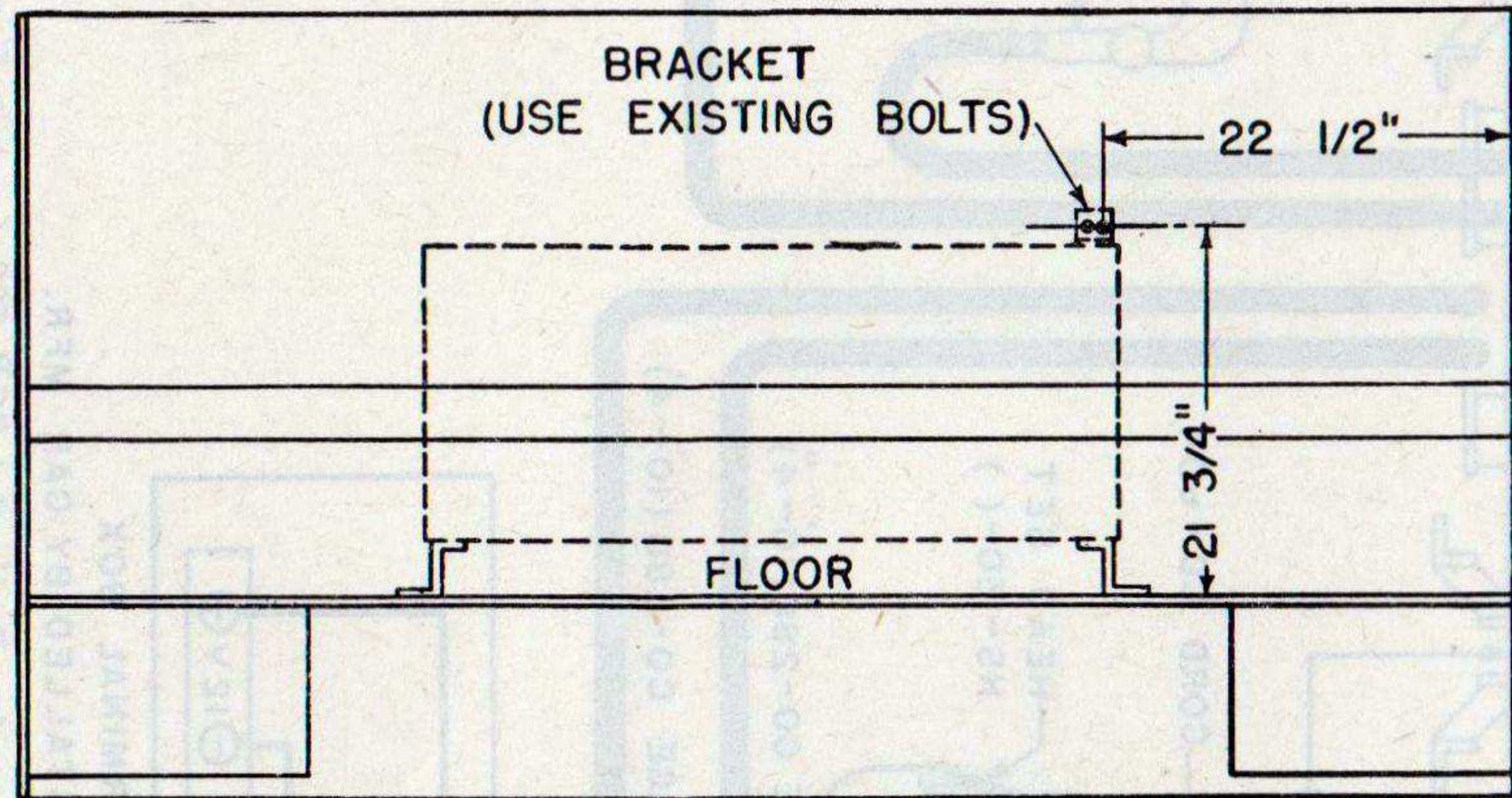
MAST BASE PEDESTAL TO BE REMOVED
 WHEN FRAME FM-43 IS INSTALLED

FRAME FM-43 FOR RADIO SET
 SCR-508 WHEN INSTALLED IN
 COMBINATION WITH SCR-506, OR SCR-608
 ALONE

TWO REAR SEATS TO BE REMOVED
 VEHICLE FOR INSTALLATION OF RADIO
 SET SCR-506, OR SCR-508 ALONE.

Figure 12. Installation of mounting frames in Car, Scout, M3A1.

RESTRICTED



TL-13359-2

Figure 12—Continued.

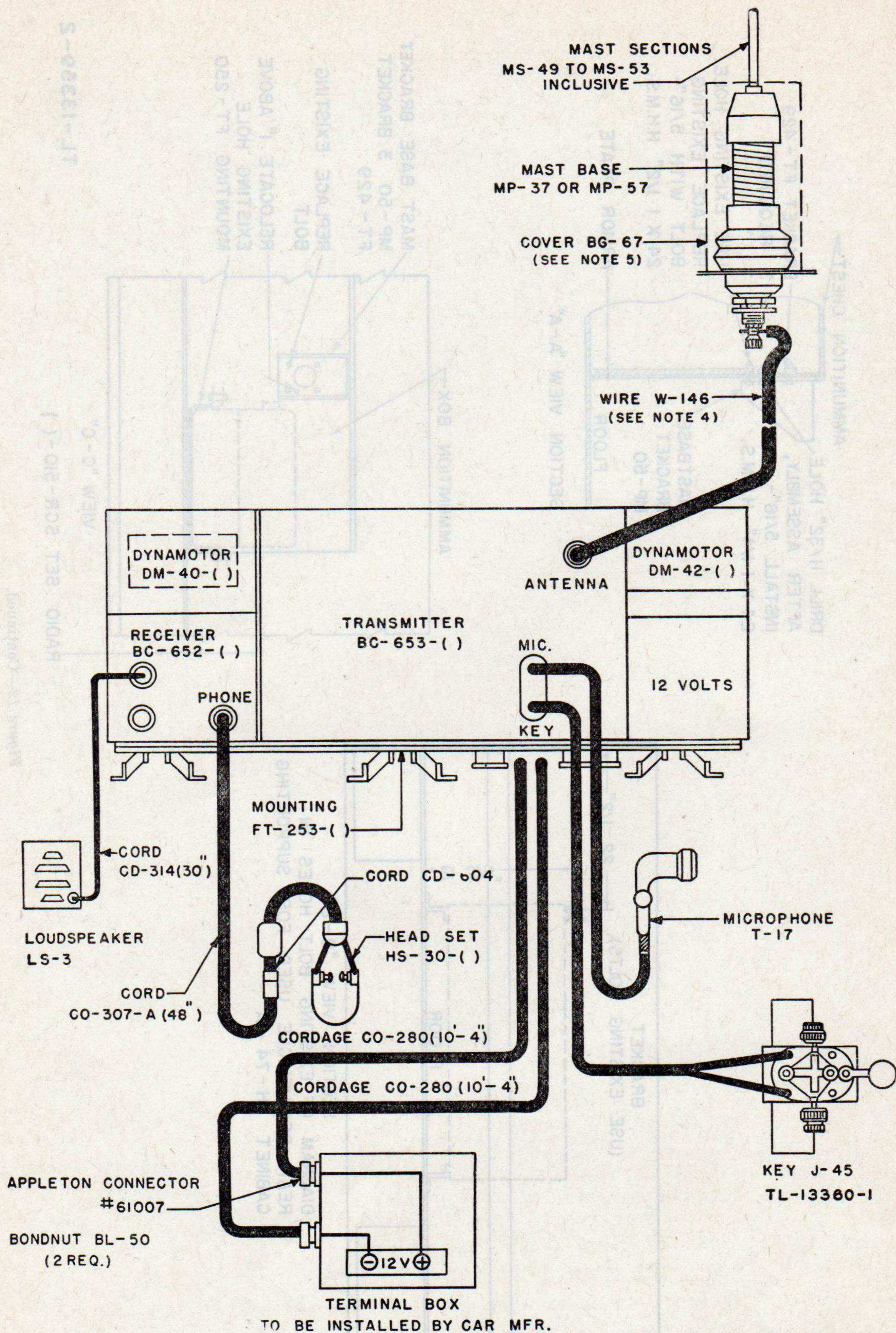
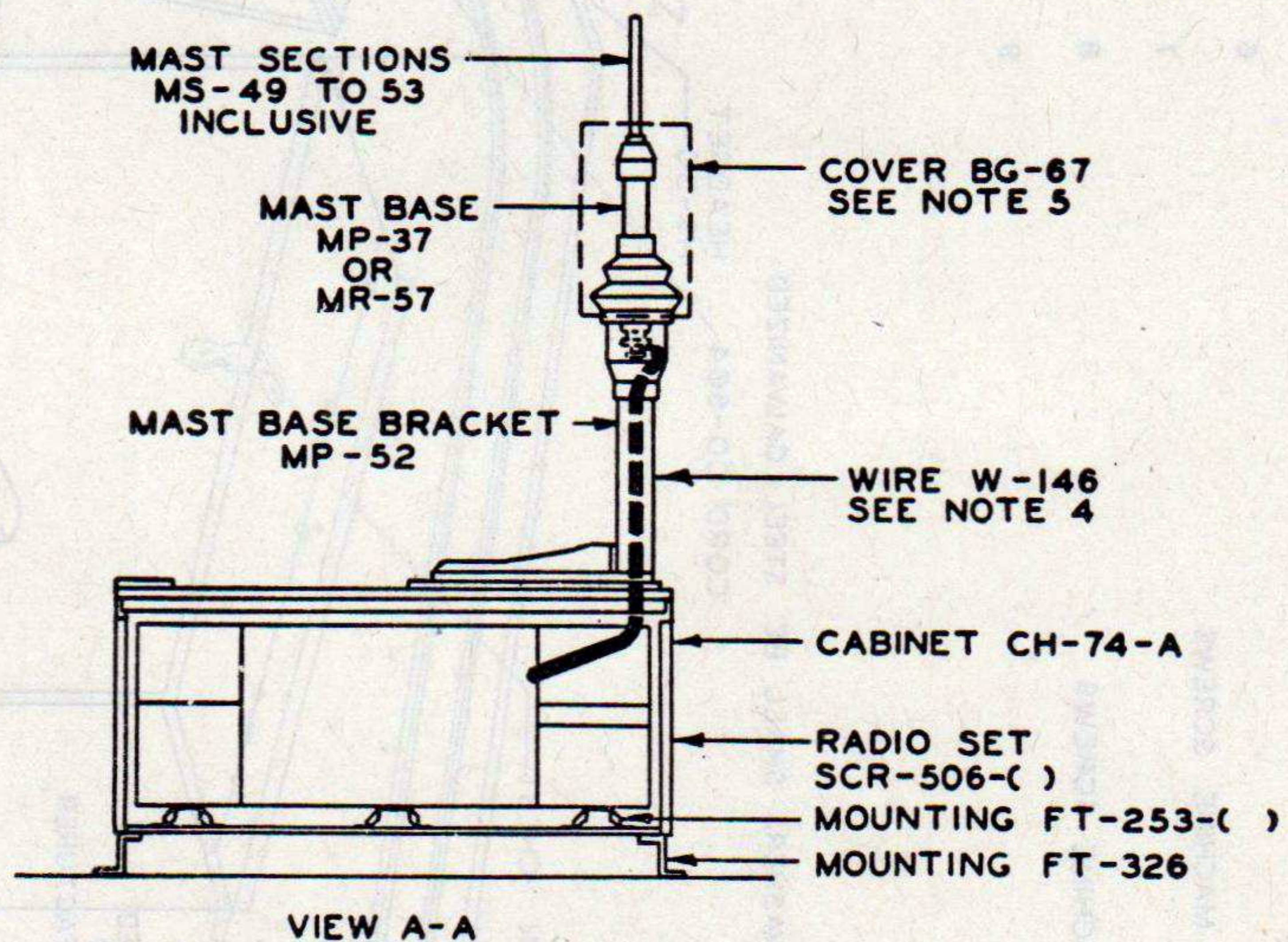
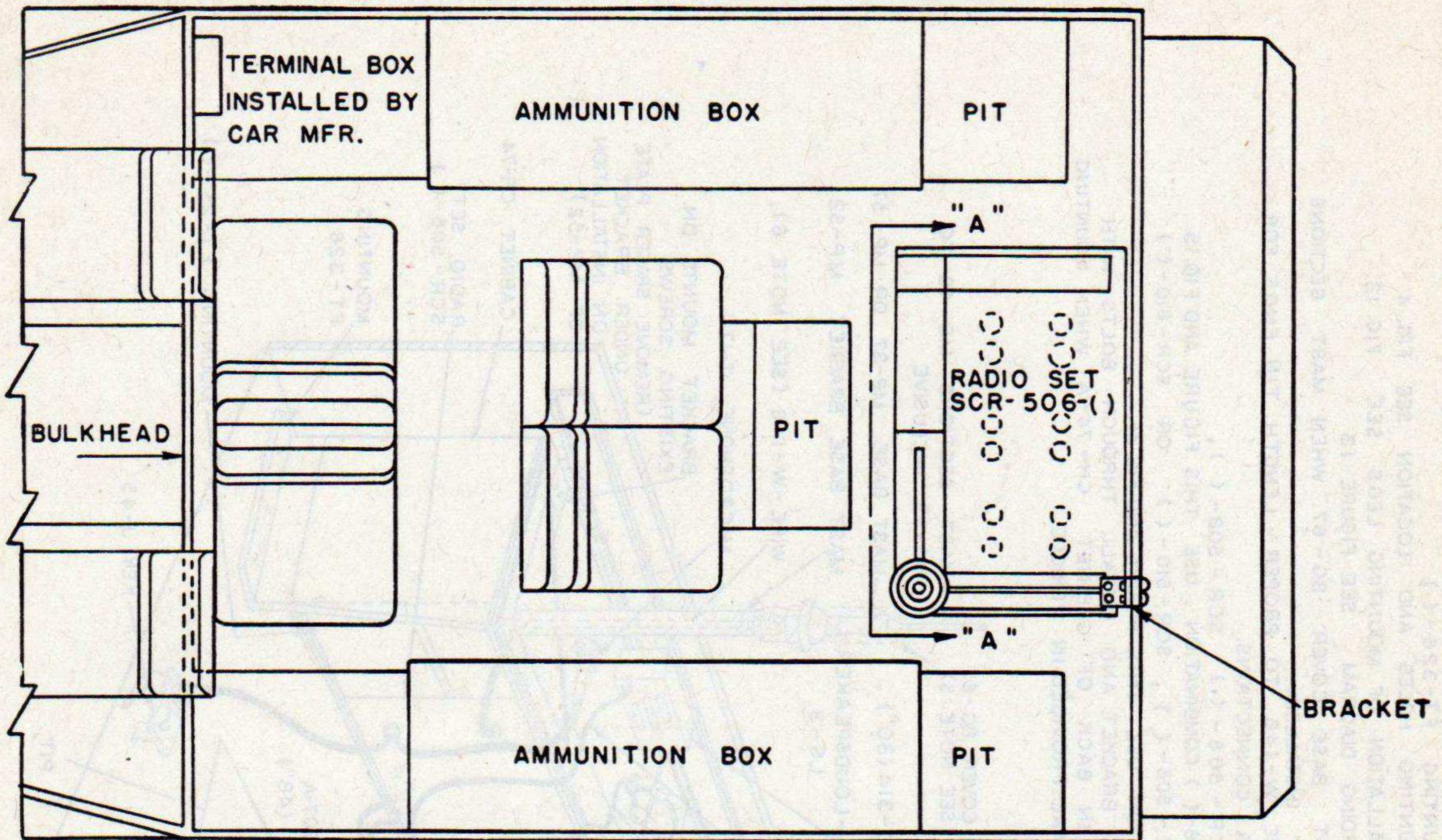


Figure 13. Cording diagram for Radio Set SCR-506-() in Car, Scout, M3A1.



LOCATION OF EQUIPMENT

- 1 FOR MOUNTING HOLES AND LOCATION SEE FIG.4
- 2 FOR INSTALLATION OF MOUNTING SEE FIG.12
- 3 MACHINE SCREWS STOP NUTS, NUTS AND LOCK-WASHER ARE FURNISHED WITH MOUNTING FT-253 CABINET CH-74-A AND MOUNTING-FT-326
- 4 CUT WIRE W-146 TO PROPER LENGTH AND TIN ENDS FOR ANTENNA CONNECTIONS
- 5 USE COVER BG-67 WHEN MAST SECTIONS ARE NOT INSTALLED

Figure 13—Continued.

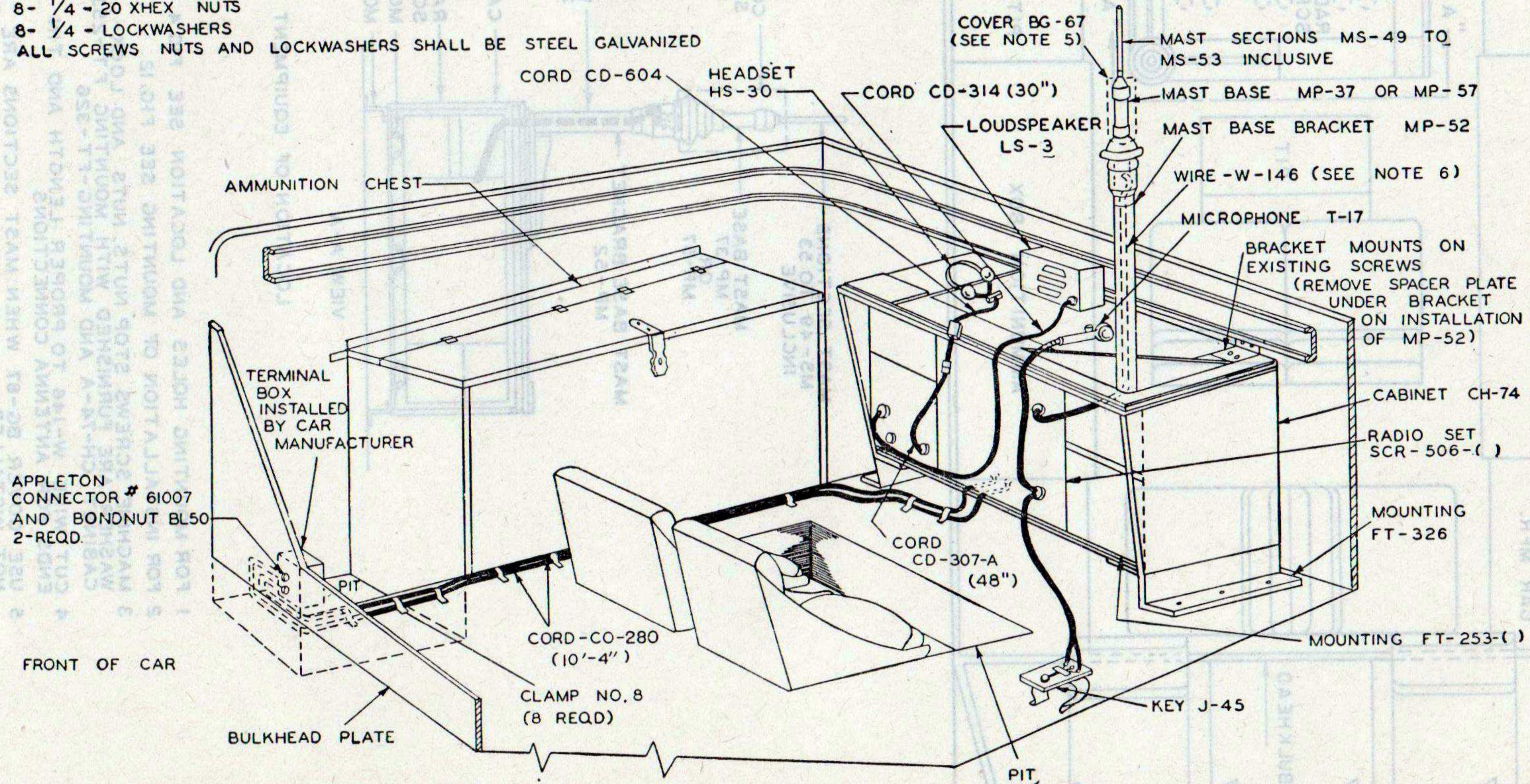
TL-13360-2

RESTRICTED

HARDWARE REQUIRED

MOUNTING FT-253-() (SEE NOTE - 1)
 12- 1/4"-20 X 3/4" HEX. HEAD MACHINE SCREWS
 12- 1/4"-20 ELASTIC STOP NUTS
 CABINET CH-74-A (SEE NOTE-1)
 6- 1/4"-28 X 3/4" HEX. HEAD MACHINE SCREWS
 6- 1/4"-28 ELASTIC STOP NUTS
 MOUNTING FT-326
 2 SPACERS (2)
 2- 3/8"-16 X 1 3/4" ROUND HEAD MACHINE SCREWS
 2 3/8"-16 HEX. NUTS
 2- 3/8" LOCK WASHERS
 6- 3/8"-16 X 1 1/4" HEX. HEAD MACHINE SCREWS
 6- 3/8"-16 HEX. NUTS
 6- 3/8" LOCKWASHERS
 CLAMPS
 CLAMP # 8 (8 REQD.)
 8- 1/4"-20 X 1 H.H. BOLTS
 8- 1/4"-20 X HEX NUTS
 8- 1/4"- LOCKWASHERS
 ALL SCREWS NUTS AND LOCKWASHERS SHALL BE STEEL GALVANIZED

- 1 SCREWS, NUTS, LOCKWASHERS, AND SPACERS ARE FURNISHED WITH MOUNTING FT-253-(), CABINET CH-74-A AND MOUNTING FT-326-()
- 2 FOR MOUNTING HOLES AND LOCATION SEE FIG. 4
- 3 FOR INSTALLATION OF MOUNTING LEGS SEE FIG. 12
- 4 FOR CORDING DIAGRAM SEE FIGURE 13
- 5 USE MAST BASE COVER BG-67 WHEN MAST SECTIONS ARE NOT INSTALLED.
- 6 CUT WIRE W-146 TO PROPER LENGTH. TIN ENDS FOR ANTENNA CONNECTIONS.
- 7 FOR SCR-506-() SCR-508-(), SCR-528-() COMBINATION USE THIS FIGURE AND FIG. 15.
- 8 FOR SCR-506-(), SCR-510-() OR SCR-610-() COMBINATION USE THIS FIGURE AND FIG. 21.
- 9 ELIMINATE BRACKET AND INSTALL THROUGH BOLTS WITH SPACERS IN BACK OF CABINET CH-74-A WHEN MOUNTING HOLES ARE PROVIDED IN VEHICLE.



TL-13361

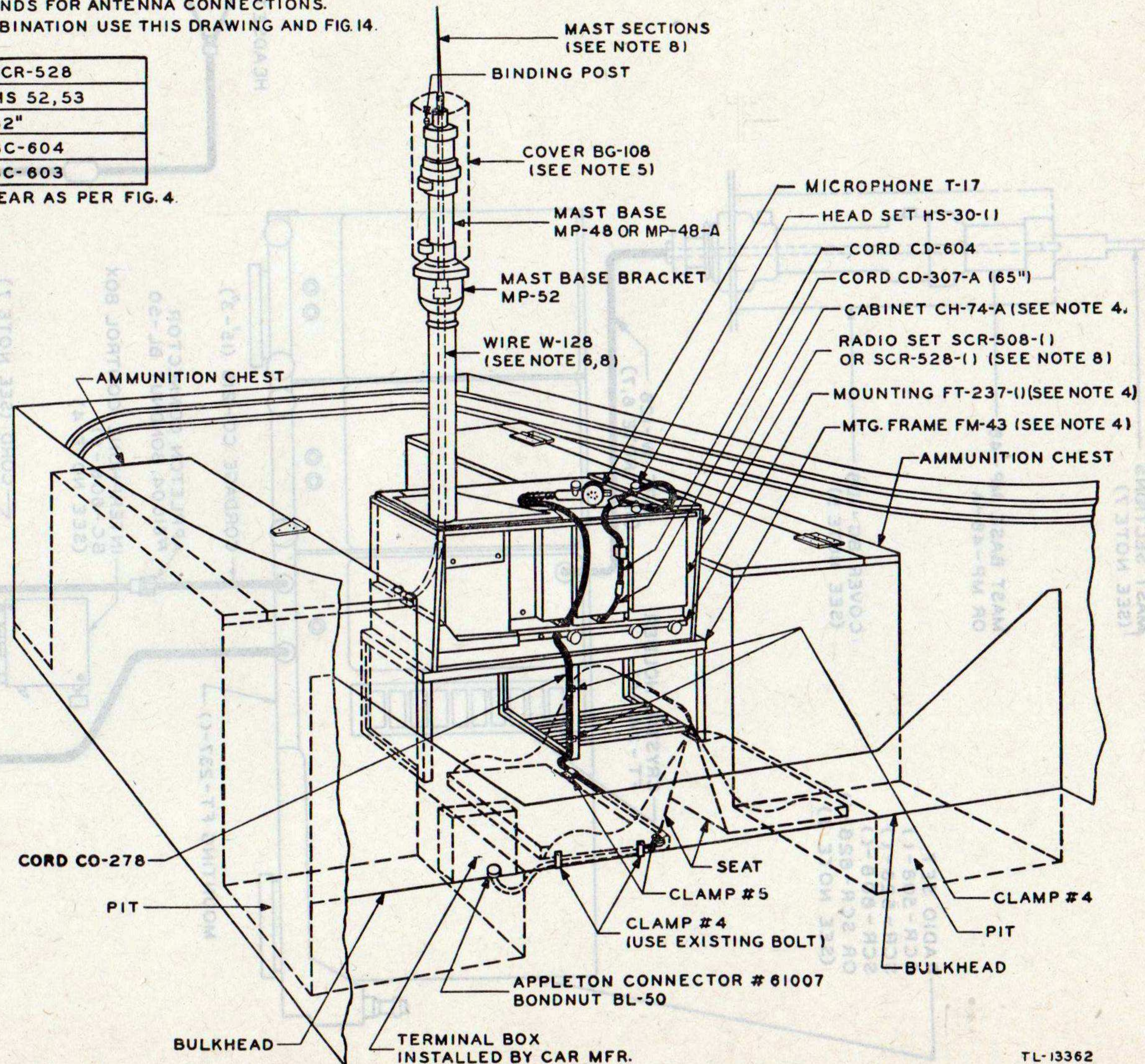
Figure 14. Pictorial view of Radio Set SCR-506-() in Car, Scout, M3A1.

NOTE:

1. FOR MOUNTING HOLES AND LOCATION SEE FIG. 4.
2. FOR INSTALLATION OF MOUNTING FRAME SEE FIG. 12.
3. FOR CORDING DIAGRAM SEE FIG. 13 AND FIG. 16
4. SCREWS AND ELASTIC STOP NUTS ARE FURNISHED WITH MOUNTING FT-237-(1), CABINET CH-74-A, AND FRAME FM-43.
5. USE COVER BG-108 WHEN MAST SECTIONS ARE NOT INSTALLED.
6. CUT WIRE W-128 TO PROPER LENGTH AND TIN ENDS FOR ANTENNA CONNECTIONS.
7. FOR SCR-508-(1) OR SCR-528-(1) AND SCR-506-(1) COMBINATION USE THIS DRAWING AND FIG. 14.
8. INSTALLATION COMPONENTS:

RADIO SET	SCR-508	SCR-528
MAST SECTIONS	MS-52 AND 53	MS 52, 53
WIRE W-128	52"	52"
TRANSMITTER	BC-604	BC-604
RECEIVER	2 BC-603	BC-603

9. CENTER SEATS ARE RELOCATED 7 1/4" TO THE REAR AS PER FIG. 4.



HARDWARE REQUIRED:

- MOUNTING FT-237-(1) (SEE NOTE 4)
- 8-5/16"-24 X 3/4" HEX. HEAD MACH. SCREWS
- 8-5/16"-24 ELASTIC STOP NUTS
- CABINET CH-74-A (SEE NOTE 4)
- 6-1/4"-28 X 3/4" HEX. HEAD MACH. SCREWS
- 6-1/2"-28 ELASTIC STOP NUTS
- FRAME FM-43 (SEE NOTE 4)
- 12-5/16"-24 X 1 1/4" HEX. HEAD MACH. SCREWS
- 12-5/16"-24 HEX. NUTS
- 12-5/16" LOCKWASHERS
- 12-5/16" FLATWASHERS
- CABLE CLAMPS
- CLAMP #4-(2 REQ.)
- 2-#8-32 X 3/4" R.H.M.S.
- 2-#8-32 HEX. NUTS
- 2-#8-32 LOCKWASHERS
- CLAMP #5 (2 REQ.)
- 2-1/4"-20 X 3/4" R.H.M.S.
- 2-1/4"-20 HEX. NUT
- 2-1/4"-20 LOCKWASHERS
- CLAMP #4-(2 REQ.)
- (USE EXISTING BOLT)
- SCREWS, NUTS, AND WASHERS SHALL BE STEEL GALVANIZED.

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Figure 15. Pictorial view of Radio Set SCR-508-() or SCR-528-() in combination with SCR-506-() in Car, Scout, M3A1.

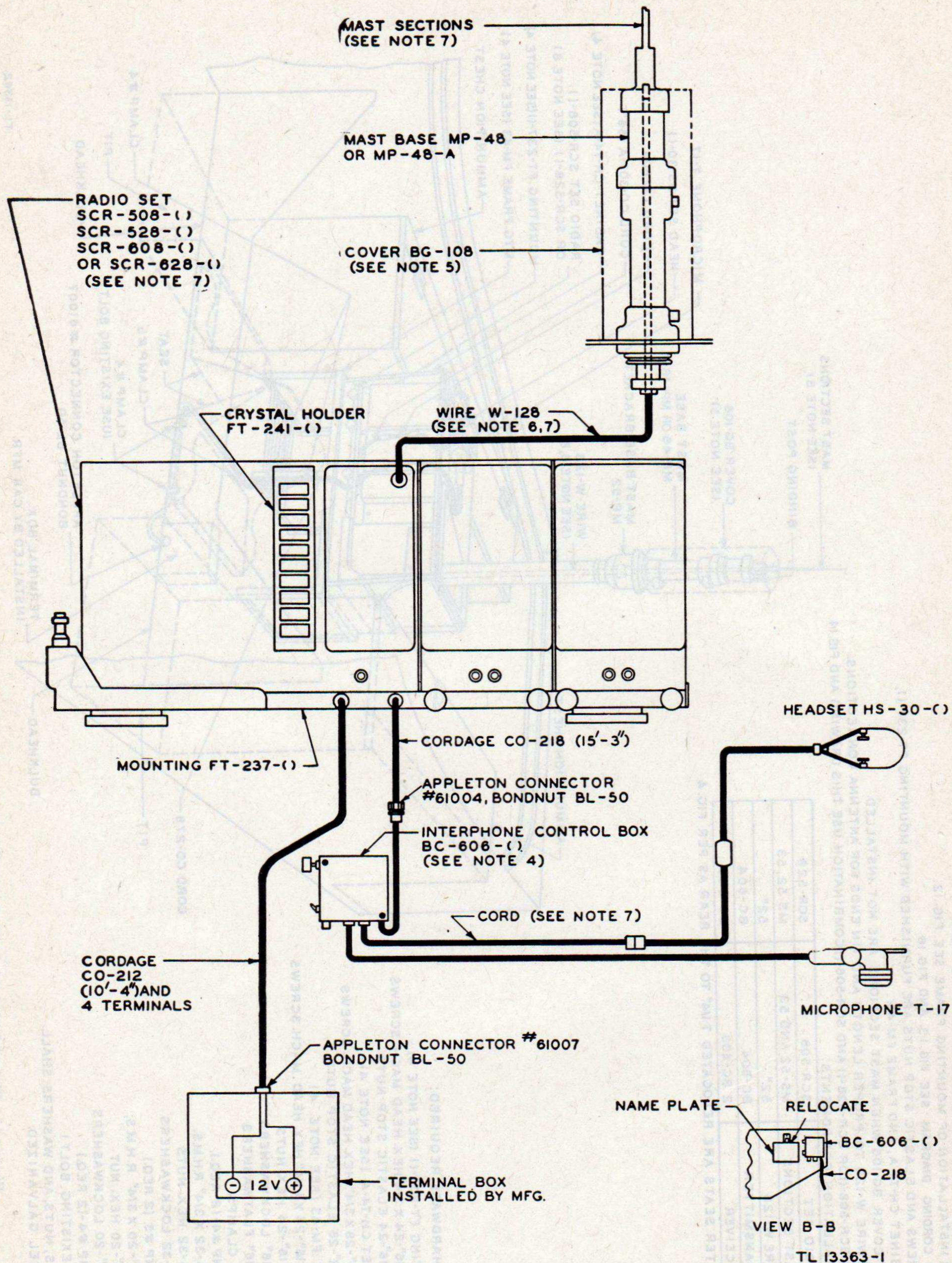
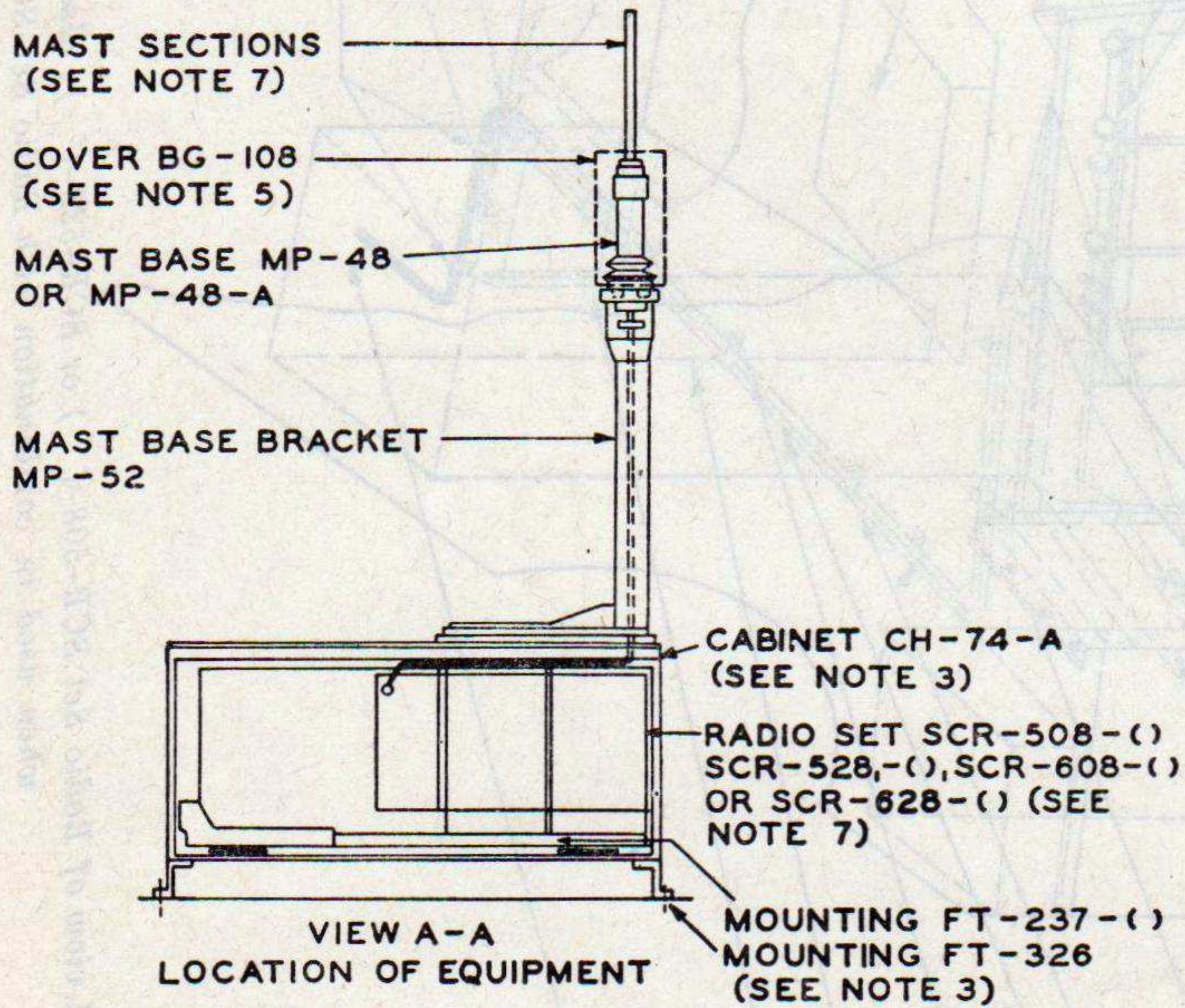
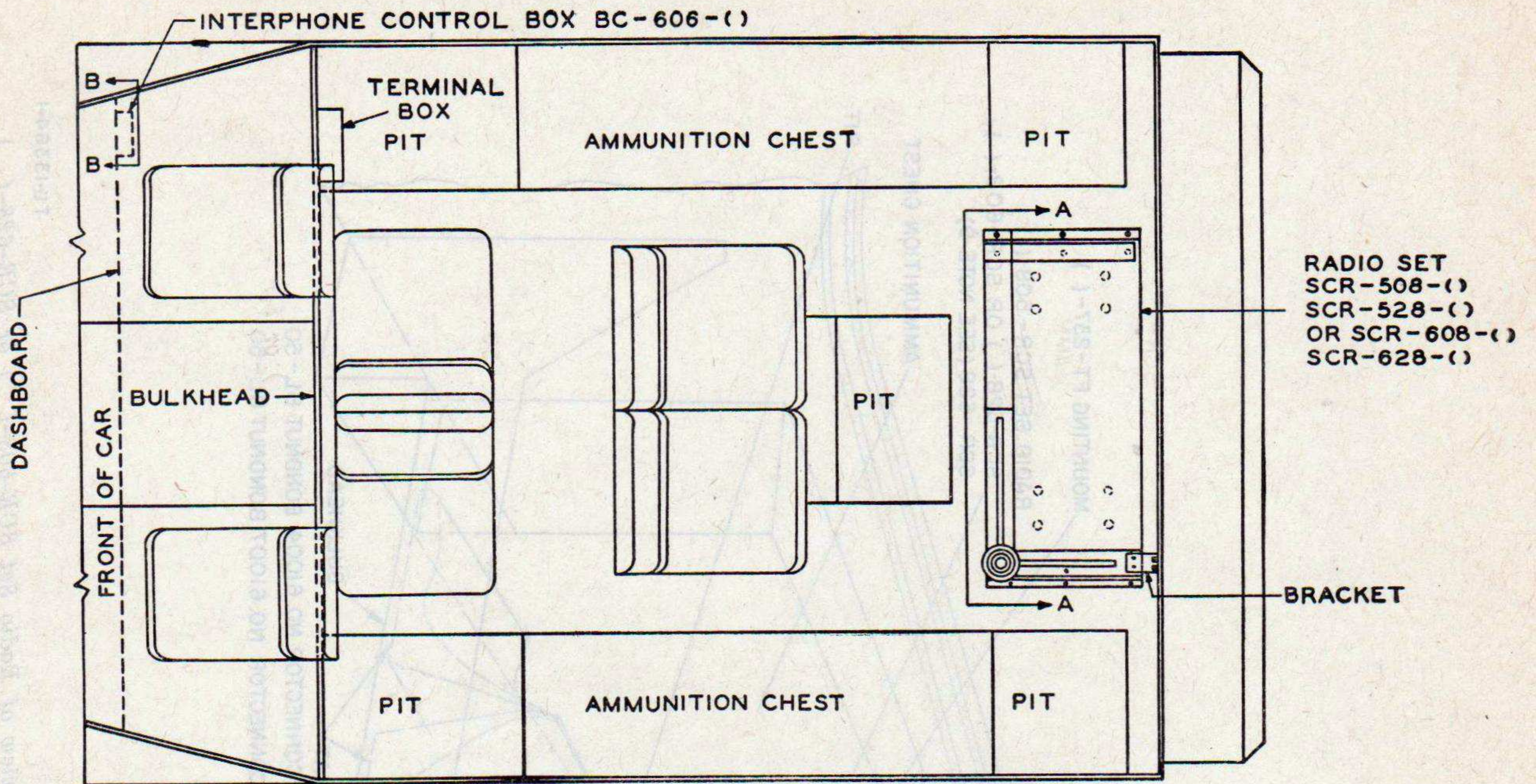


Figure 16. Cording diagram for Radio Set SCR-508-() or SCR-528-(); also cording diagram for Radio Set SCR-608-() or SCR-628-() when used in combination with Radio Set SCR-193-D in Car, Scout, M3A1.



1. FOR MOUNTING HOLES AND LOCATION SEE FIG. 4.
2. FOR INSTALLATION OF MOUNTING FRAME SEE FIG. 12.
3. SCREWS AND ELASTIC STOP NUTS ARE FURNISHED WITH MOUNTING FT-237-(), CABINET CH-74-A AND MOUNTING FT-326.
4. FOR WIRING OF INTERPHONE CONTROL BOX BC-606-() FOR REMOTE CONTROL SEE FIG. 19.
5. USE COVER BG-108 WHEN MAST SECTIONS ARE NOT INSTALLED.
6. CUT WIRE W-128 TO PROPER LENGTH, TIN ENDS FOR ANTENNA CONNECTIONS.
7. INSTALLATION COMPONENTS

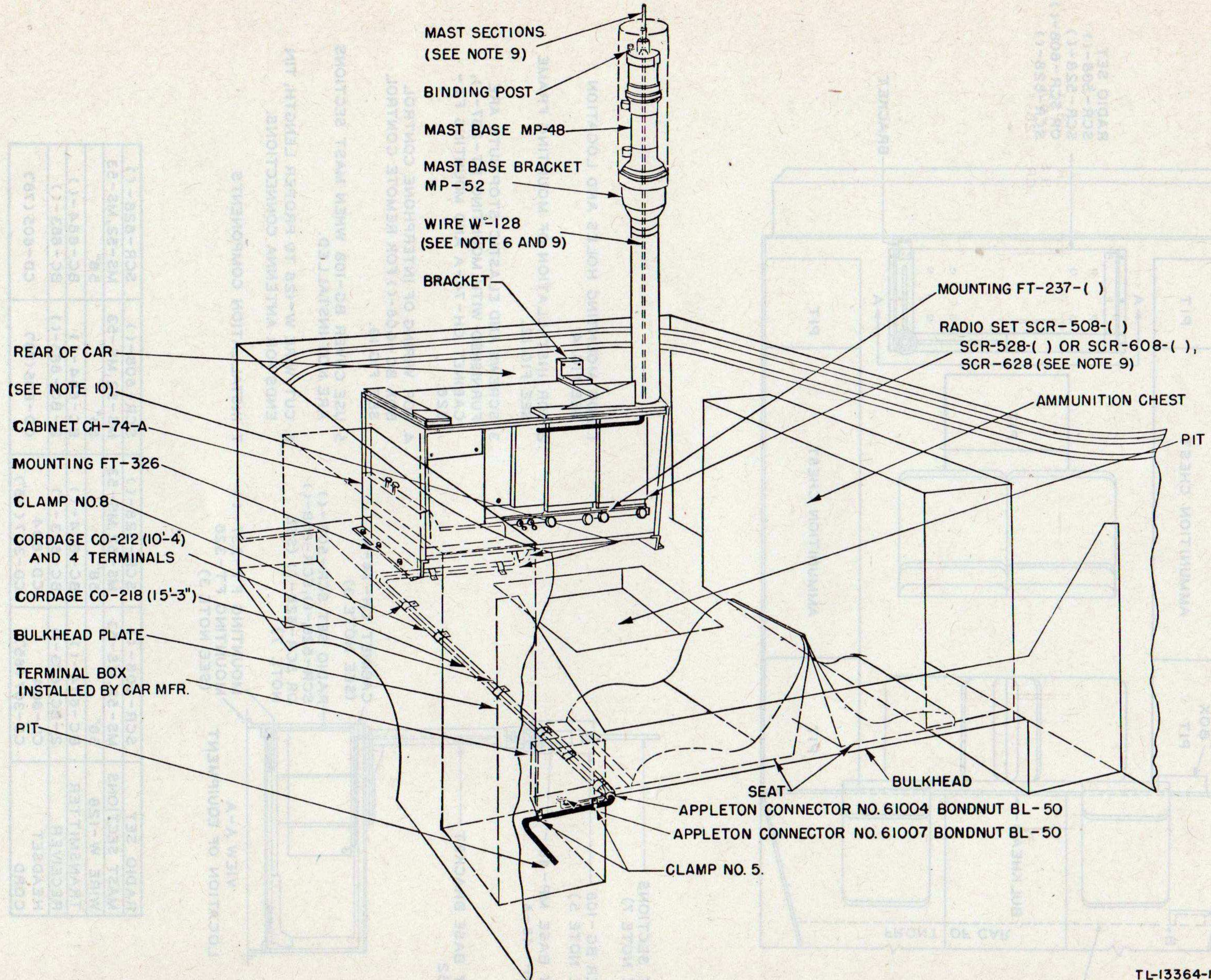
RADIO SET	SCR-508-()	SCR-528-()	SCR-608-()	SCR-628-()
MAST SECTIONS	MS-52,MS-53	MS-52,MS-53	MS-52,MS-53	MS-52,MS-53
WIRE W-128	58"	58"	58"	58"
TRANSMITTER	BC-604-()	BC-604-()	BC-684-()	BC-684-()
RECEIVER	2-BC-603-()	BC-603-()	2-BC-683-()	BC-683-()
HEADSET	CD-604	CD-604	CD-605(78")	CD-605(78")
CORD	CD-307(65")	CD-307(65")		

Figure 16—Continued.

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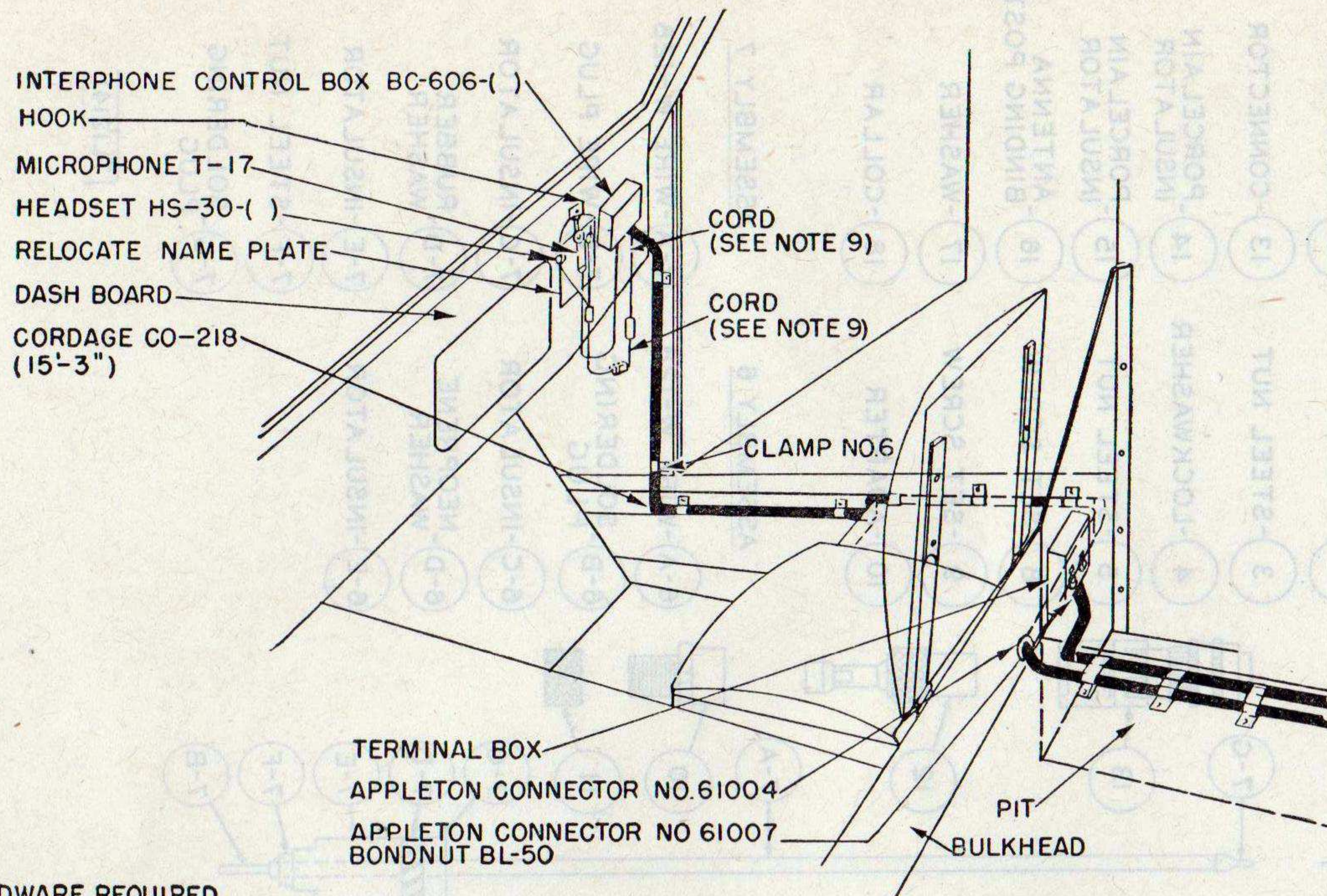
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Figure 17. Pictorial view of Radio Set SCR-508-() or SCR-528-(); also pictorial view of Radio Set SCR-608-() or SCR-628-() when used in combination with Radio Set SCR-193-D in Car, Scout, M3A1.



HARDWARE REQUIRED

- MOUNTING FT-237-() (SEE NOTE 4)
- 8-5/16"-24 X 3/4" LG. HEX. HD. MACH. SCREWS
- 8-5/16"-24 ELASTIC STOP NUTS
- CABINET CH-74-A (SEE NOTE 4)
- 6-1/4"-28 X 3/4" LG. HEX. HD. MACH. SCREWS
- 6-1/4"-28 ELASTIC STOP NUTS
- MOUNTING FT-326 (SEE NOTE 4)
- 6-3/8"-16 X 1 1/4" LG. HEX. HD. BOLTS
- 6-3/8"-16 HD. NUTS
- 6-3/8"-LOCKWASHERS
- CLAMPS
- CLAMP NO. 5 (2 REQ'D.)
- USE EXISTING BOLTS
- CLAMP NO. 6 (6 REQ'D.)
- USE EXISTING BOLTS
- CLAMP NO. 8 (8 REQ'D.)
- 8-1/4"-20 X 1" H.H.M.S.
- 8-1/4"-20 HEX. NUT
- 8-1/4"-LOCKWASHER
- SCREWS, NUTS AND LOCKWASHERS SHALL BE STEEL, GALVANIZED.
- HOOK (SEE NOTE 7)
- 2-NO. 8-32 X 3/4" LG. RD. HD. MACH. SCREWS
- 2-NO. 8-32 HEX. NUTS
- 3-NO. 8-LOCKWASHER

- INTERPHONE CONTROL BOX BC-606-() (SEE NOTE 7)
- 3-NO. 8-32 X 1/2" LG. RD. HD. MACH. SCREWS
- 3-NO. 8-32 HEX. NUTS
- 3-NO. 8-LOCKWASHERS
- MOUNTING FT-326 (SEE NOTE II)
- 2-SPACERS
- 2-3/8"-16 X 1 3/4" LONG RD. HEAD MACH. SCREWS
- 2-3/8"-16 HEX. NUTS
- 2-3/8"-LOCKWASHERS

1. FOR MOUNTING HOLES AND LOCATION SEE FIG. 4.
2. FOR INSTALLATION OF MOUNTING FRAME FIG. 12.
3. FOR CORDING DIAGRAM SEE FIG. 16.
4. SCREWS, NUTS, LOCKWASHERS AND ELASTIC STOP NUTS ARE FURNISHED WITH MOUNTING FT-326, MOUNTING FT-237-(), CABINET CH-74-A
5. USE COVER BG-108 WHEN MAST IS NOT INSTALLED.
6. CUT WIRE W-128 TO PROPER LENGTH T IN

- ENDS FOR ANTENNA CONNECTIONS
- 7. SCREWS, NUTS AND HOOK FURNISHED WITH CONTROL BOX BC-606-()
- 8. FOR COMBINATION OF RADIO SET SCR-193-D AND SCR-608-(), OR SCR-628-(), USE THIS DWG. AND FIG. 5.
- 9. INSTALLATION COMPONENTS:

RADIO SET	SCR-508	SCR-528	SCR-608	SCR-628
MAST SECTIONS	MS-52-53	MS-52-53	MS-52-53	MS-52-53
ANTENNA LEAD-IN W-128	58"	58"	58"	58"
TRANSMITTER	BC-604	BC-604	BC-684	BC-684
RECEIVER	2-BC-603	BC-603	2-BC-683	BC-683
HEADSET CORDS	CORD CD-307-A (65") CORD CD-604		CORD CD-605-78"	

10. ELIMINATE BRACKET AND INSTALL THROUGH BOLTS WITH SPACERS IN BACK OF CABINET CH-74-A WHEN MOUNTING HOLES ARE PROVIDED IN VEHICLE.

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Figure 17—Continued.

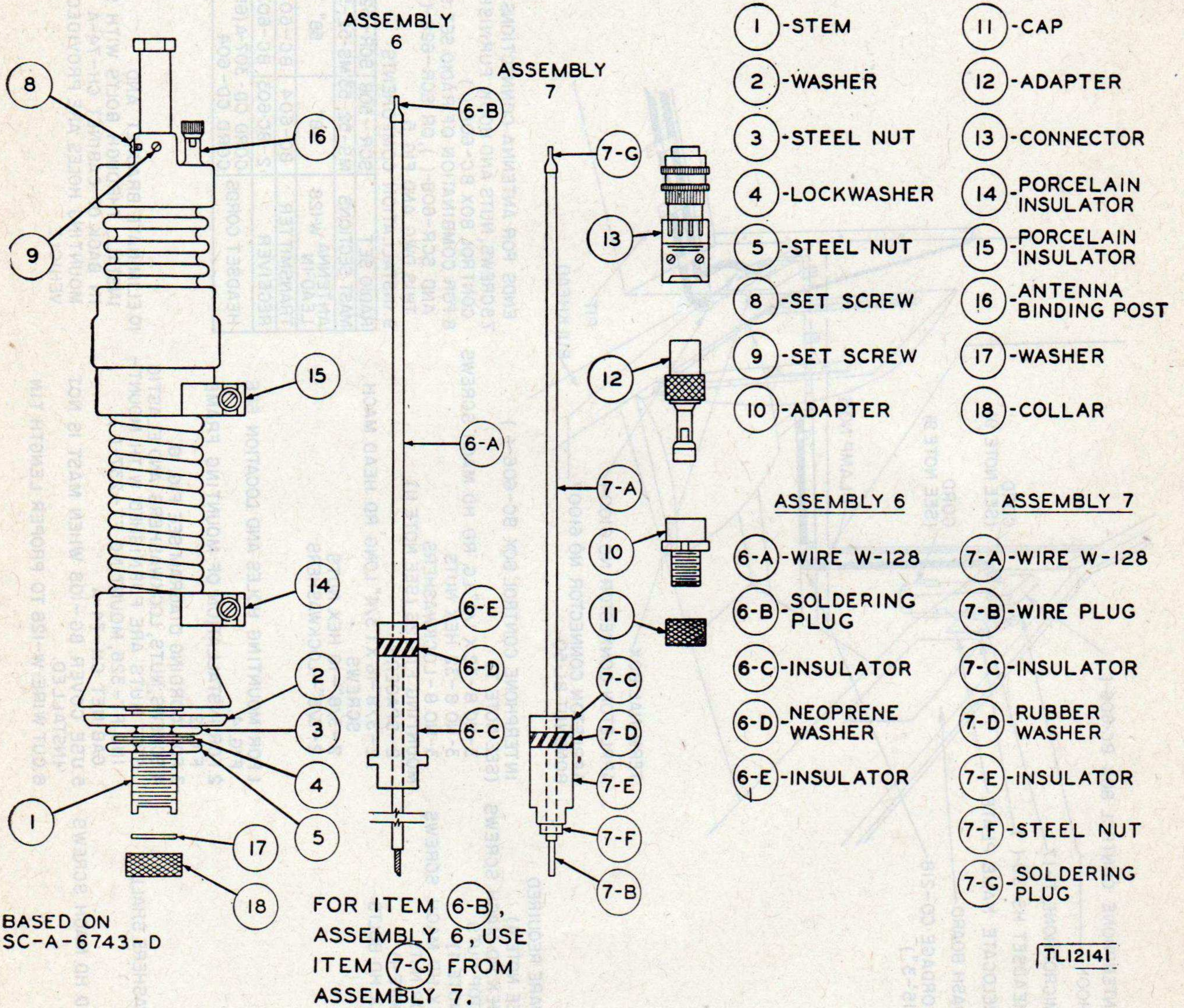


Figure 18. Mast Base MP-48, assembly for installation.

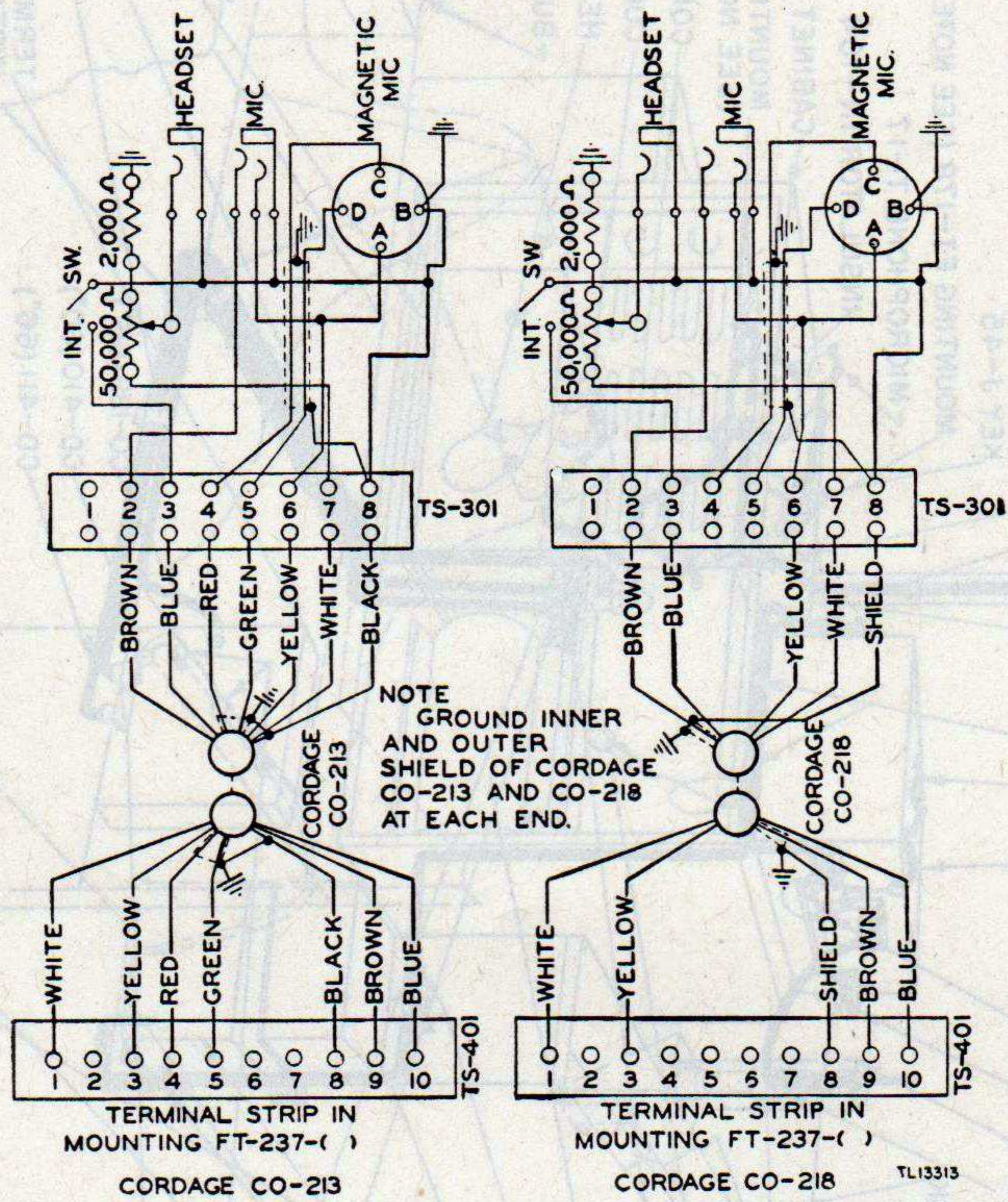
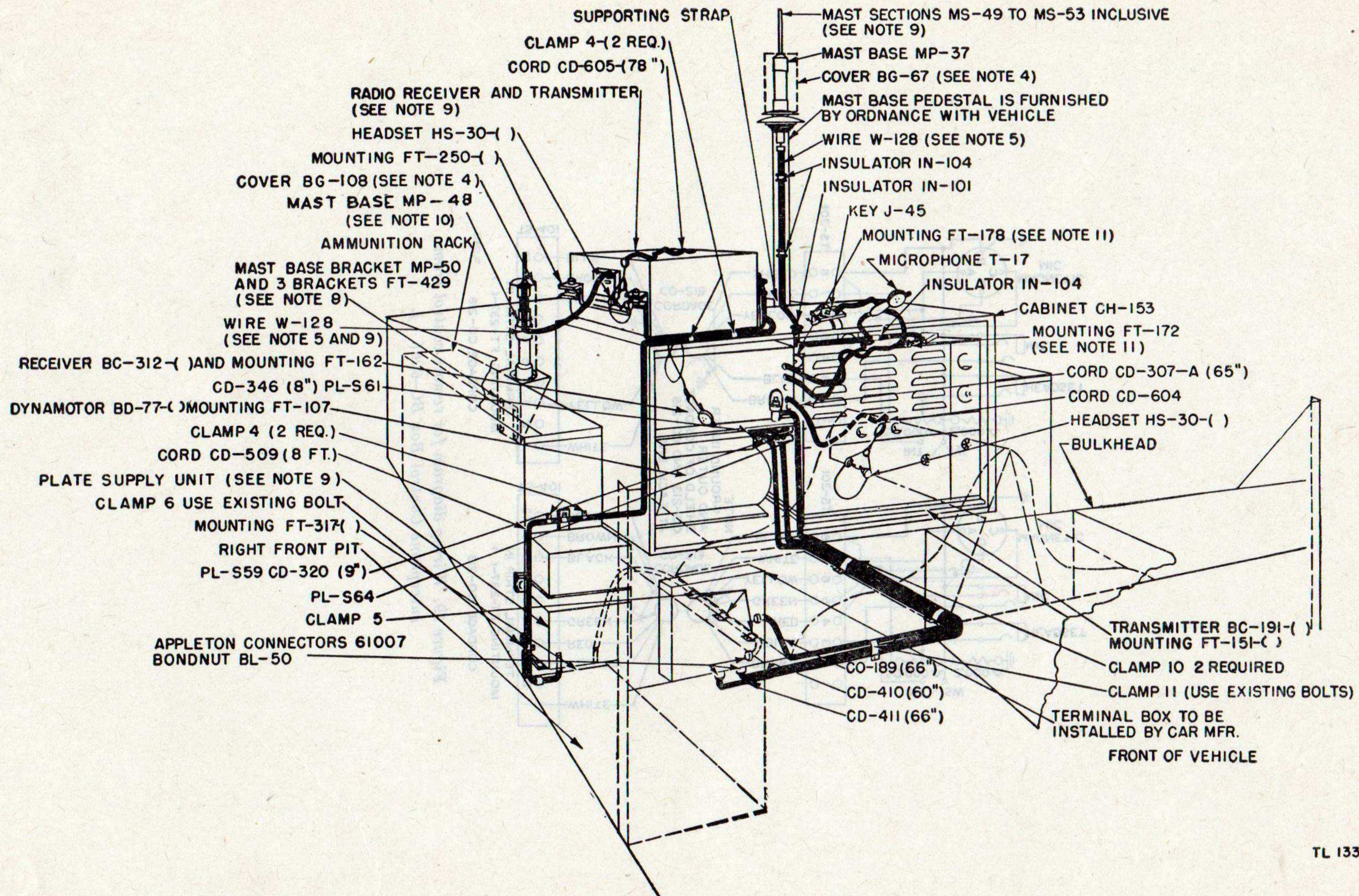


Figure 19. Wiring diagram for remote control from Interphone Control Box BC-606().

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Figure 20. Pictorial view of Radio Set SCR-193-D in combinaton with Radio Set SCR-510-() or SCR-610-() in Car, Scout, M3A1.

HARDWARE REQUIRED

MOUNTING FT-317

- 4-5/16"-24 X 3/4" HEX. HEAD MACH. SCREW
- 4-5/16"-24 HEX. NUT
- 4-5/16" LOCKWASHER

MAST BASE BRACKET MP-50 AND 3 BRACKETS FT-429

- 3-5/16"-24 X 1 1/4" HEX. HEAD MACH. SCREW
- 4-5/16"-24 HEX. NUT
- 4-5/16" LOCKWASHER
- 1-5/16"-24 X 2" HEX. HEAD MACH. SCREW

MOUNTING FT-250-()

- 4-1/4"-20 X 3/4" HEX. HEAD MACH. SCREW
- 4-1/4"-20 HEX. NUT
- 4-1/4" LOCKWASHER

MOUNTING FT-178 AND FT-172

- 8-#10-32 X 1/2" ROUND HEAD MACH. SCREW
- 8-#10-32 HEX. NUT
- 8-#10 LOCKWASHER

MOUNTING FT-162

- 10-#10-32 X 3/4" ROUND HEAD MACH. SCREW
- 10-#10-32 HEX. NUT
- 10-#10 LOCKWASHER

MOUNTING FT-107

- 6-1/4"-28 X 7/16" ROUND HEAD MACH. SCREW
- 6-1/4" LOCKWASHER

MOUNTING FT-151-B

- 8-1/4"-28 X 7/16" ROUND HEAD MACH. SCREW
- 8-1/4" LOCKWASHER

SCREWS, NUTS AND LOCKWASHERS SHOULD BE STEEL, GALVANIZED

CLAMPS

CLAMP #4-4 REQ

- 4-#8-32 X 3/4" ROUND HEAD MACH SCREW
- 4-#8-32 HEX. NUT
- 4-#8 LOCKWASHER
- 4-#8 FLATWASHER

CLAMP #6-2 REQ

USE EXISTING BOLTS

CLAMP #5-3 REQ

USE EXISTING BOLTS

CLAMP #10-2 REQ

- 2-1/4"-20 X 1" HEX BOLT
- 2-1/4"-20 HEX. NUT
- 2-1/4" LOCKWASHER

CLAMP #11-1 REQ

USE EXISTING BOLTS

1. FOR CORDING DIAGRAM OF RADIO SET SCR-193-D SEE FIG.10.
2. FOR MOUNTING HOLES AND LOCATION SEE FIG. 4.
3. FOR CORDING DIAGRAM OF RADIO SET SCR-510-() OR SCR-610-() SEE FIG.21.
4. USE COVER BG-67 AND BG-108 WHEN MAST SECTIONS ARE NOT INSTALLED.
5. CUT WIRE W-128 TO PROPER LENGTH AND TIN ENDS FOR ANTENNA CONNECTIONS
6. FOR DRILLING OF RECEIVER BC-312 AND TRANSMITTER BC-191 SEE FIGS. 8 AND 9.
7. SEE FIG.26 FOR ASSEMBLY OF MOUNTINGS FT-172 AND FT-178.
8. AFTER INSTALLATION OF MAST BASE BRACKET MP-50, DRILL 11/32" HOLE ONE INCH ABOVE EXISTING MOUNTING HOLE MP-50 THROUGH ENTIRE ASSEMBLY INSTALL 5/16"-24 X 1 1/4" HEX. HEAD MACH. SCREW.

9. INSTALLATION COMPONENTS:

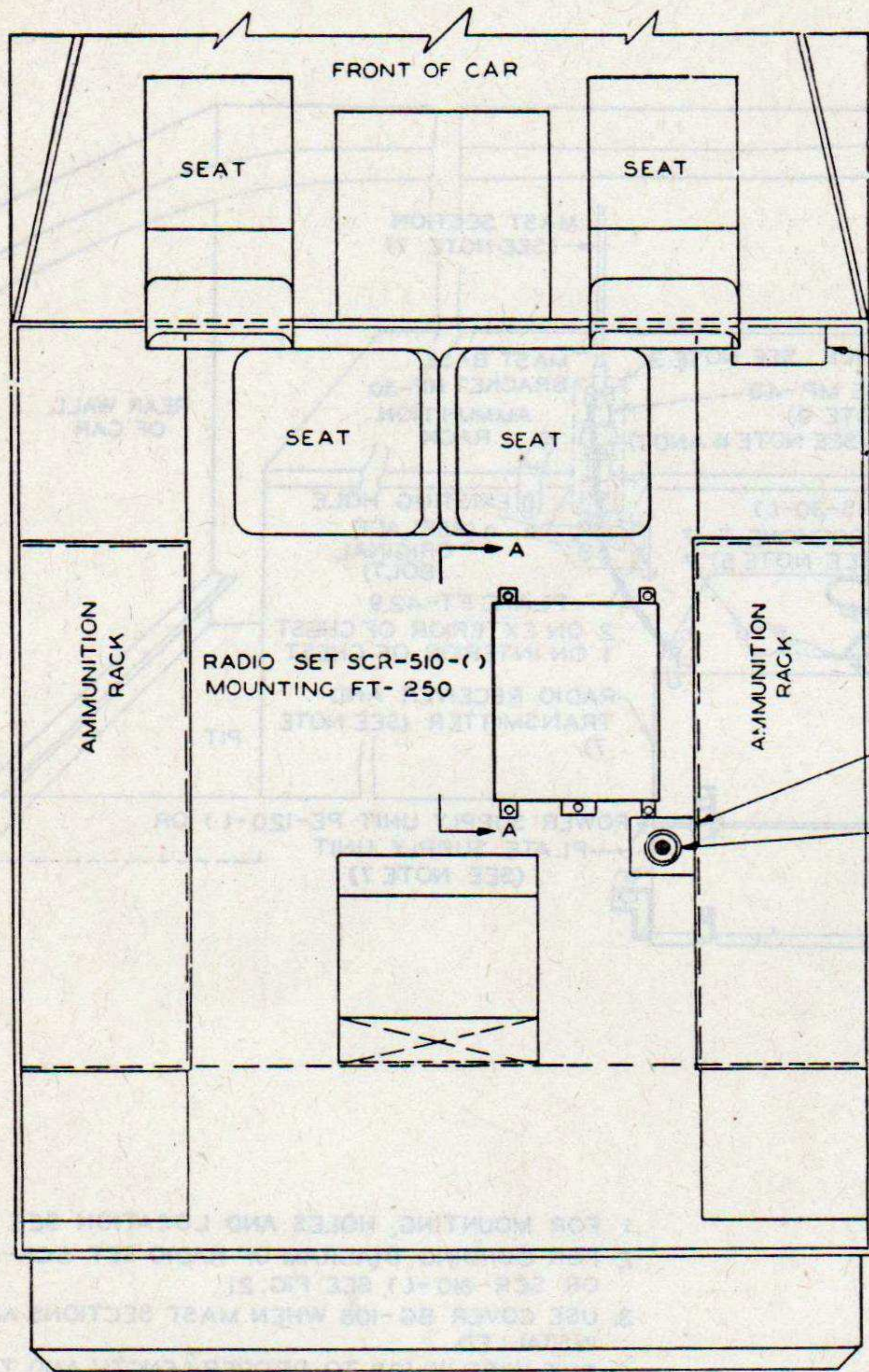
RADIO SET	SCR-510-()	SCR-610-()
MAST SECTIONS	MS-52,53	MS-51,52,53
LEAD IN WIRE W-128	24" ±1"	36" ±1"
RADIO RECEIVER AND TRANSMITTER	BC-620	BC-659
PLATE SUPPLY UNIT	PE-97	PE-117

10. REMOVE INTERNAL LEAD (ASSEMBLY #7) FROM MAST BASE MP-48.

11. FOR ASSEMBLY OF MOUNTING FT-172 AND FT-178 SEE FIG. 26.

Figure 20—Continued.

RESTRICTED



TERMINAL BOX
TO BE INSTALLED
BY CAR MFG

MAST BASE
BRACKET MP-50

MAST BASE
MP-48 OR MP-48-A

- 1 FOR INSTALLATION OF MOUNTING FRAMES AND BRACKETS SEE FIG 2
- 2 FOR MOUNTING HOLES AND LOCATION SEE FIG 4
- 3 USE COVER BG-108 WHEN MAST IS NOT INSTALLED
- 4 CUT WIRE W-128 TO PROPER LENGTH TIN ENDS FOR ANTENNA CONNECTIONS
5. INSTALLATION COMPONENTS

	SCR-510	SCR-610
MAST SECTION	MS-52 AND MS-53	MS-51, MS-52, AND MS-53
LEAD-IN WIRE W-128	24" ± 1"	36" ± 1"
RADIO RECIEVER AND TRANSMITTER	BC-620	BC-659
PLATE SUPPLY UNIT	PE-97	PE-117

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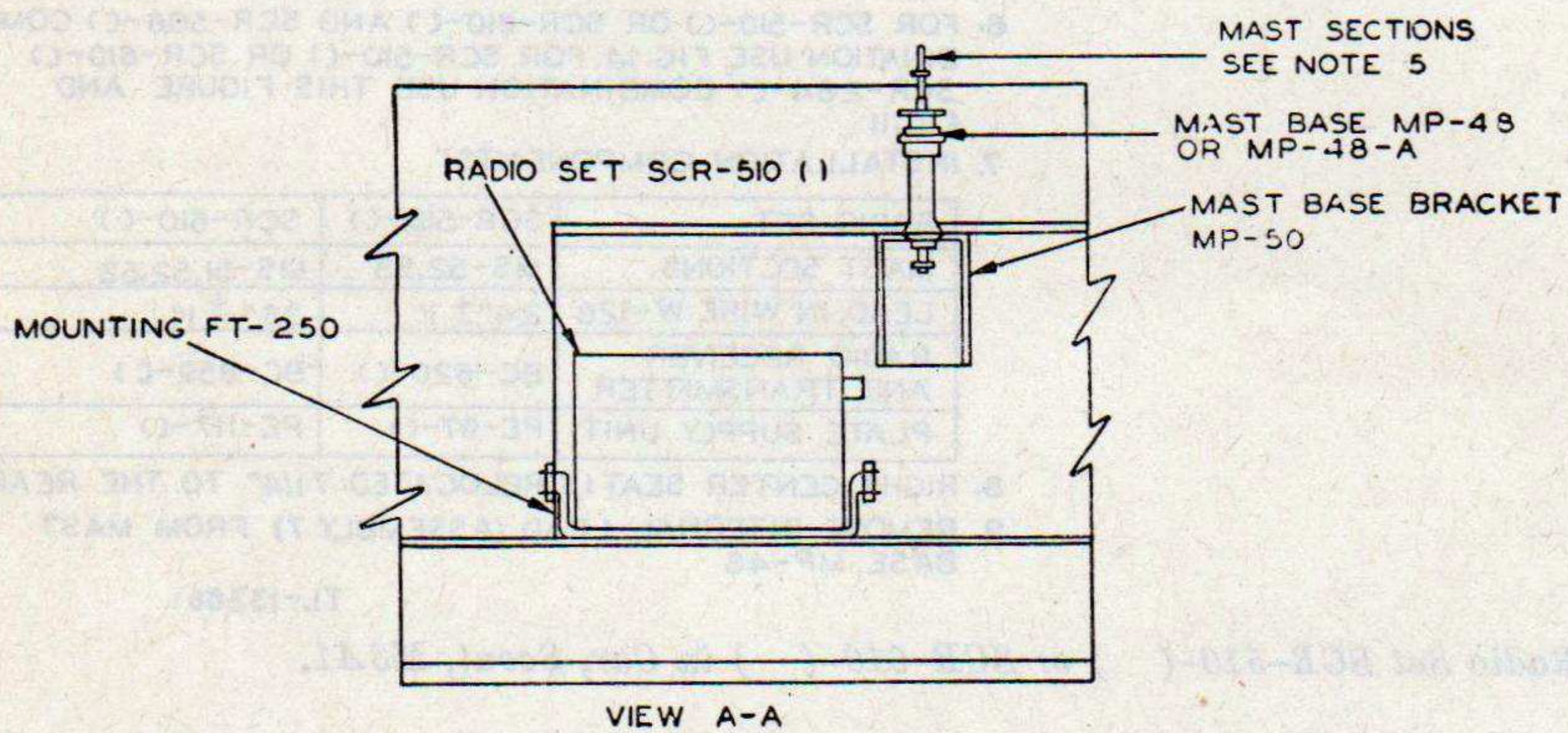
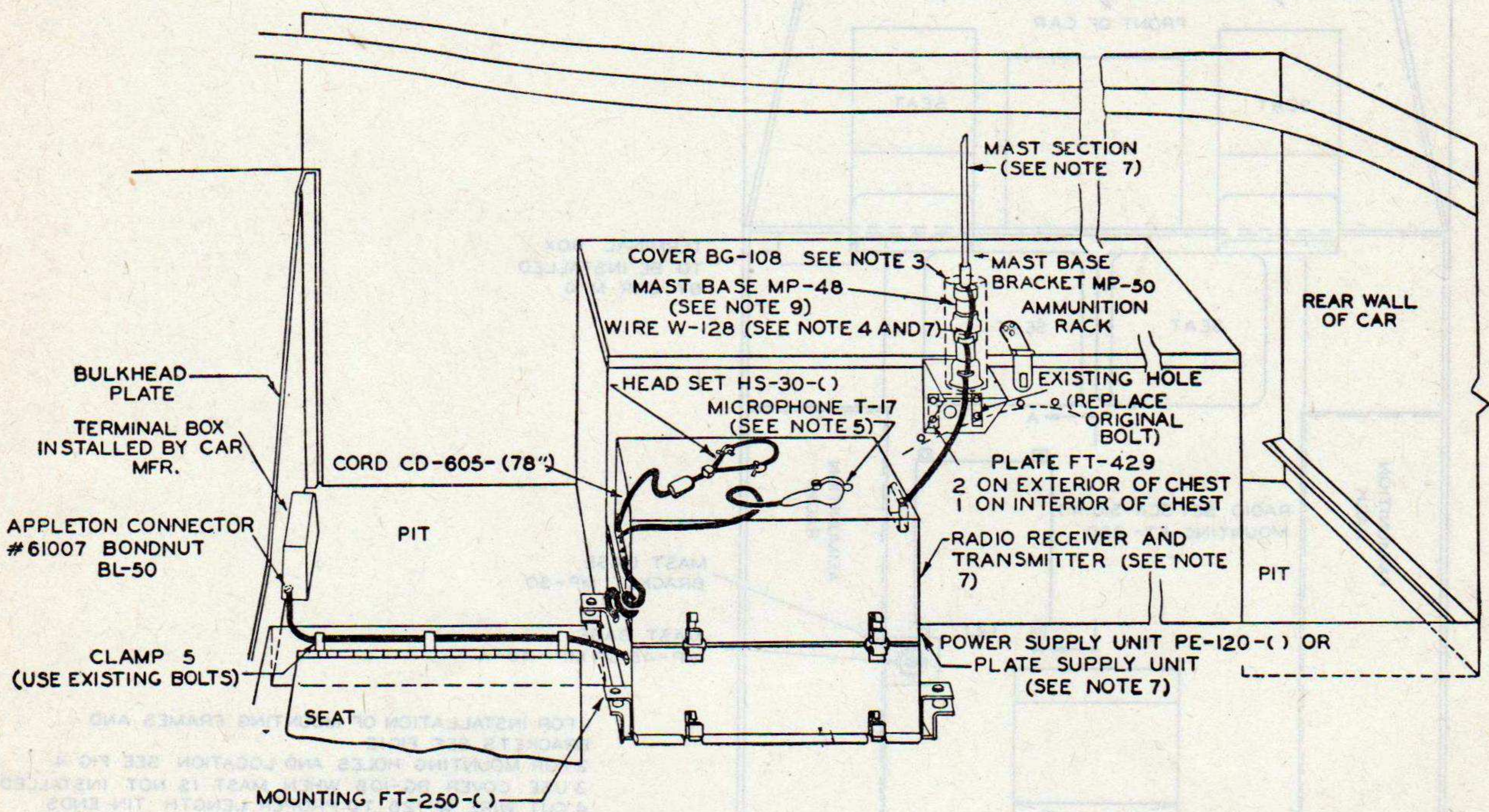


Figure 21—Continued.



- HARDWARE REQUIRED**
- MOUNTING FT.-250-()
- 4-1/4"-20 X 3/4" HEX. HEAD MACH. SCREWS
- 4-1/4"-20 HEX. NUTS
- 4-1/4" LOCK WASHERS
- MAST BASE BRACKET MP-50 AND 3-FT-429 BRACKETS
- 3-5/16"-24 X 1 1/4" HEX. HEAD MACH. SCREWS
- 1-5/16"-24 X 2" HEX. HEAD MACH. SCREWS
- 4-5/16"-24 HEX. NUTS
- 4-5/16" LOCKWASHERS
- CLAMPS
- CLAMP # 5 (3 REQ)
- USE EXISTING BOLTS
- ALL SCREWS, NUTS, AND LOCKWASHERS SHALL BE STEEL, ELECTRO - GALVANIZED.

- FOR MOUNTING HOLES AND LOCATION SEE FIG. 4
- FOR CORDING DIAGRAM OF RADIO SET SCR-510-() OR SCR-610-() SEE FIG. 21
- USE COVER BG-108 WHEN MAST SECTIONS ARE NOT INSTALLED.
- CUT WIRE W-128 TO PROPER LENGTH AND THEN TIN ENDS FOR CONNECTIONS.
- AFTER INSTALLATION OF MAST BASE BRACKET MP-50, DRILL 11/32" HOLE ONE INCH ABOVE EXISTING MOUNTING HOLES IN MP-50. INSTALL 5/16"-24 X 1 1/4" HEX. HEAD MACH. SCREW THROUGH ENTIRE ASSEMBLY.
- FOR SCR-510-() OR SCR-610-() AND SCR-508-() COMBINATION USE FIG. 14. FOR SCR-510-() OR SCR-610-() SCR-284-() COMBINATION USE THIS FIGURE AND FIG. 11
- INSTALLATION COMPONENTS:

RADIO SET	SCR-510-()	SCR-610-()
MAST SECTIONS	MS-52,53	MS-51,52,53
LEAD IN WIRE W-128	24" ± 1"	36" ± 1"
RADIO RECEIVER AND TRANSMITTER	BC-620-()	BC-659-()
PLATE SUPPLY UNIT	PE-97-()	PE-117-()

- RIGHT CENTER SEAT IS RELOCATED 7 1/4" TO THE REAR
- REMOVE INTERNAL LEAD (ASSEMBLY 7) FROM MAST BASE MP-48

TL-13366

Figure 22. Pictorial view of Radio Set SCR-510-() or SCR-610-() in Car, Scout, M3A1.

HARDWARE REQUIRED

- MOUNTING FT-237-() (SEE NOTE 4)
 8-5/16"-24 X 3/4" HEX. HEAD MACH SCREW
 8-5/16"-24 ELASTIC STOP NUTS
- CABINET CH-74-A (SEE NOTE 4)
 6-1/4"-28 X 3/4" HEX. MACH SCREWS
 6-1/4"-28 ELASTIC STOP NUTS
- FRAME FM-43 (SEE NOTE 3)
 12-5/16"-24 X 1 1/4" HEX. HEAD MACH SCREW
 12-5/16"-24 HEX. NUTS
 12-5/16" LOCKWASHERS
 12-5/16" FLAT WASHERS
- CABLE CLAMPS
 CLAMP 4 (2 REQ)
 2- 8-32 X 3/4" ROUND HEAD MACH SCREWS
 2- 8-32 HEX. NUTS
 2- 8-32 LOCKWASHERS
 CLAMP 5 (3 REQ)
 3-1/4"-20 X 3/4" ROUND HEAD SCREWS
 3-1/4"-20 HEX. NUTS
 3-1/4"-20 LOCKWASHERS
 CLAMP 4 (1 REQ)
 (USE EXISTING BOLT)

ALL SCREWS NUTS AND WASHERS SHALL BE STEEL GALVANIZED

NOTES

- FOR MOUNTING HOLES AND LOCATION SEE FIG 4
- FOR INSTALLATION OF MOUNTING FRAME SEE FIG 12
- SCREWS AND ELASTIC STOP NUTS ARE FURNISHED WITH MOUNTING FT-237-() AND CABINET CH-74-A.
- SCREWS NUTS AND LOCKWASHERS ARE FURNISHED WITH FM-43
- USE COVER BG-108 WHEN MAST SECTIONS ARE NOT INSTALLED
- CUT WIRE W-128 TO PROPER LENGTH AND TIN ENDS FOR CONNECTIONS
- FOR SCR-608-() OR SCR-628-() AND SCR-506-() COMBINATION USE THIS DRAWING AND FIG 14
- INSTALLATION COMPONENTS

RADIO SET	SCR-608-()	SCR-628-()
MAST SECTIONS	MS-52,53	MS-52,53
WIRE W-128	52"	52"
TRANSMITTER	BC-684-()	BC-684-()
RECEIVER	2-BC-683-()	BC-683-()

- CENTER SEATS ARE RELOCATED 7 1/4" TO THE REAR AS PER FIG 4

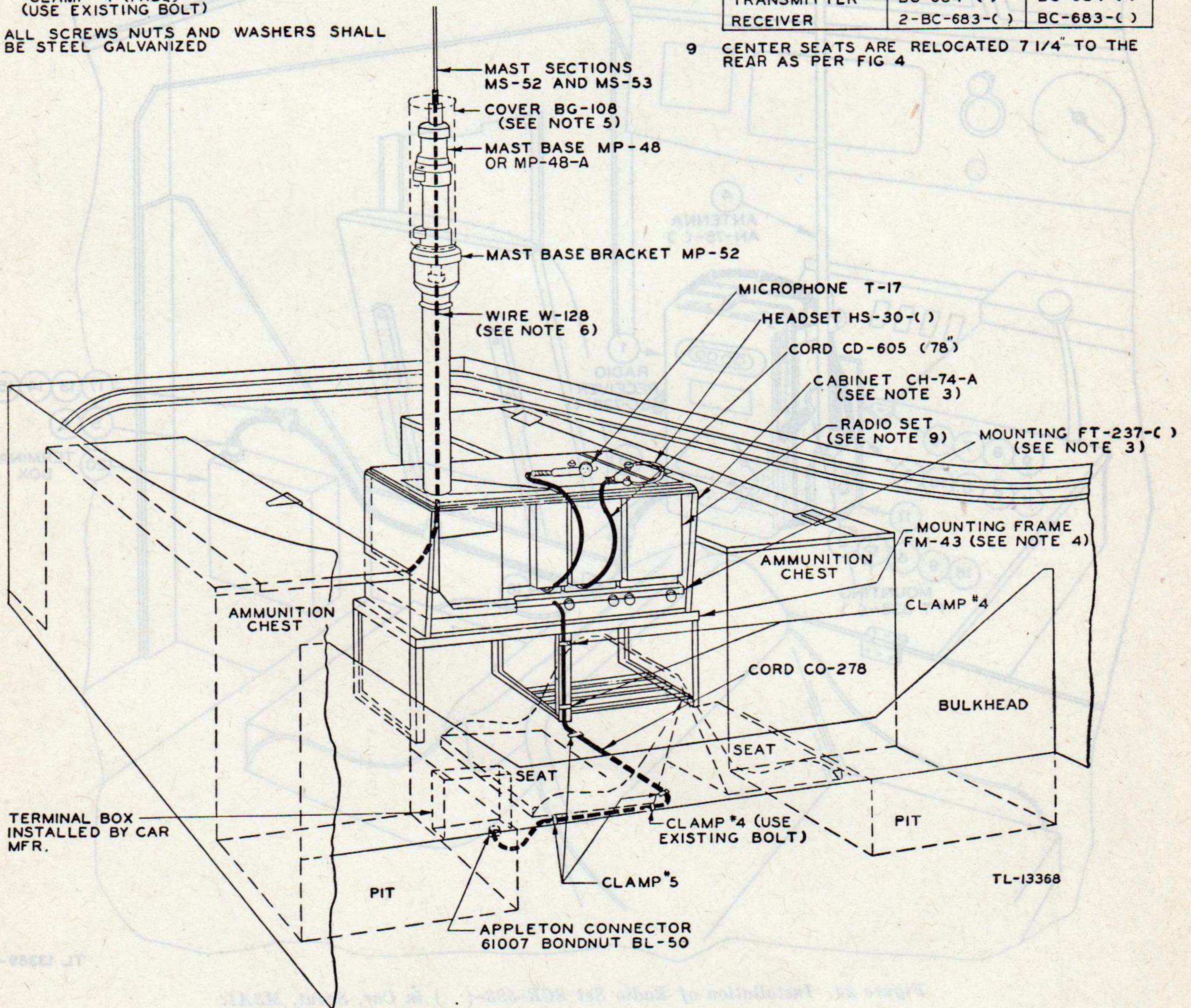


Figure 23. Pictorial view of Radio Set SCR-608-() or SCR-628-() in Car, Scout, M3A1.

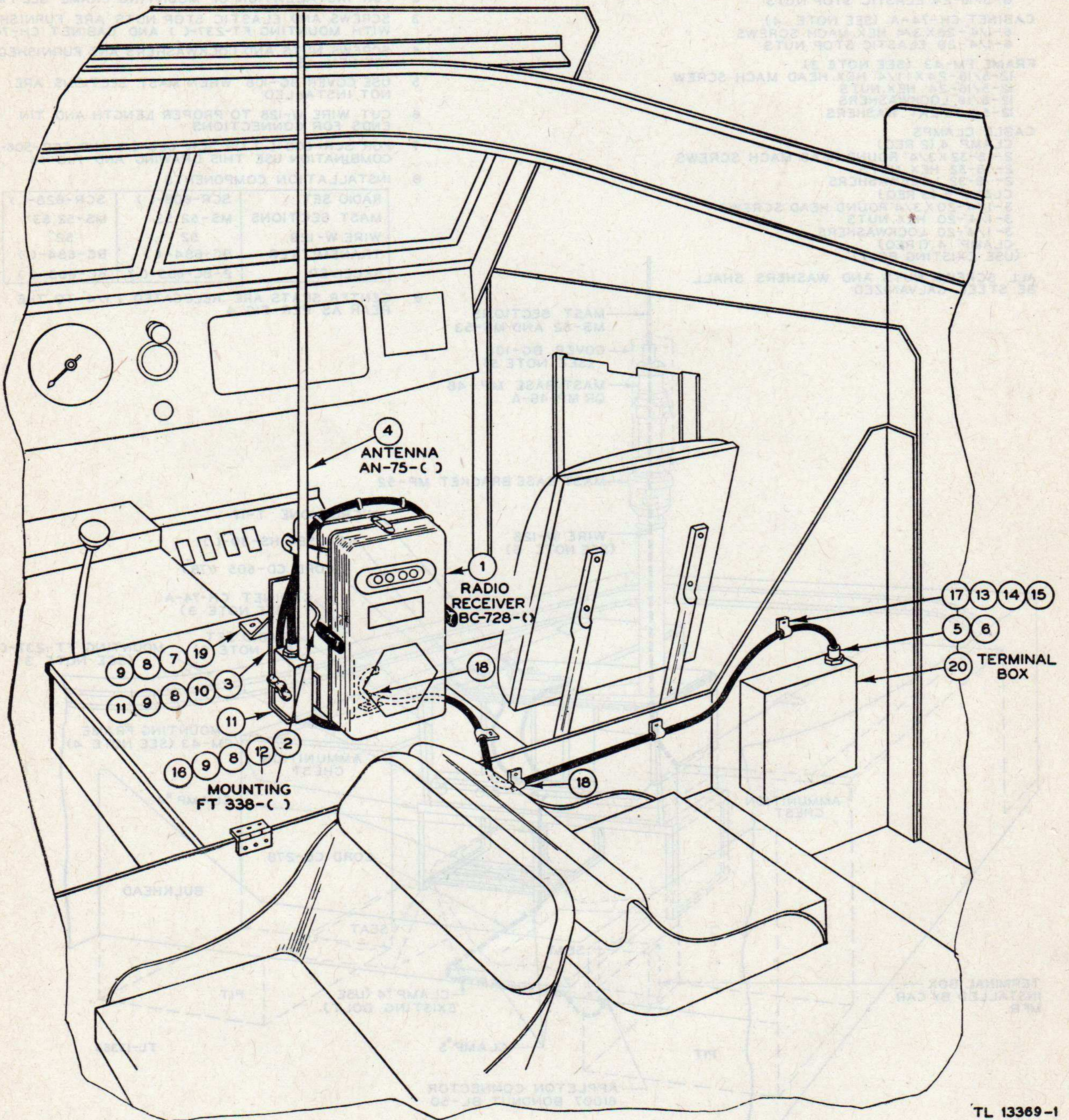


Figure 24. Installation of Radio Set SCR-593-() in Car, Scout, M3A1.

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RESTRICTED

ITEM NO.	NAME OF ITEM	QUAN. REQ.
1	RADIO RECEIVER BC-728-()	1
2	MOUNTING FT-338-()	1
3	EXTENSION BRACKET PART OF FT-338-() SEE DETAIL 3	1
4	ANTENNA AN-75-()	1
5	APPLETON CONNECTOR CAT. 81004	1
6	APPLETON BONDNUT CAT. BL-50	1
7	CAP SCREW 1/4"-20 X 1/2" LONG	2
8	LOCKWASHER 1/4" INTERNAL TOOTH	9
9	HEX. NUT 1/4"-20 STANDARD	9
10	CAP SCREW 1/4"-20 X 1 1/4" LONG	4
11	LOCKWASHER 5/16" INT.-EXT. TOOTH	4
12	HEX. HEAD MACHINE SCREW 1/4"-20 X 3/4" LONG	3
13	ROUND HEAD MACH. SCREW #8-32 X 1/2" LONG	3
14	HEX. NUT #8-32 STANDARD	3
15	LOCKWASHER SAE STANDARD FOR #8 SCREW	3
16	FLAT WASHER SAE STANDARD FOR 1/4" SCREW	9
17	CLAMP NO. 1	3
18	CLAMP NO. 2 (SEE NOTE 1)	2
19	REINFORCING BRACKET	1
20	TERMINAL BOX C100427 (SEE NOTE 8)	1

NOTE:

- (18) SHALL BE MOUNTED WITH EXISTING BOLTS.
- (7) TO (11) INCLUSIVE ARE FURNISHED WITH (2).
- TOOL CHEST COVER IN VEHICLE SHALL BE DRILLED PER DET.#1.
- RIGHT BULKHEAD IN VEHICLE SHALL BE DRILLED PER DET.#2.
- ONE HEADSET HS-30-(), WITH CORD CD-605 SHALL BE FURNISHED FOR EACH RADIO SET SCR-593-().
- (20) SHALL BE FURNISHED AND INSTALLED BY VEHICLE M'F'G'

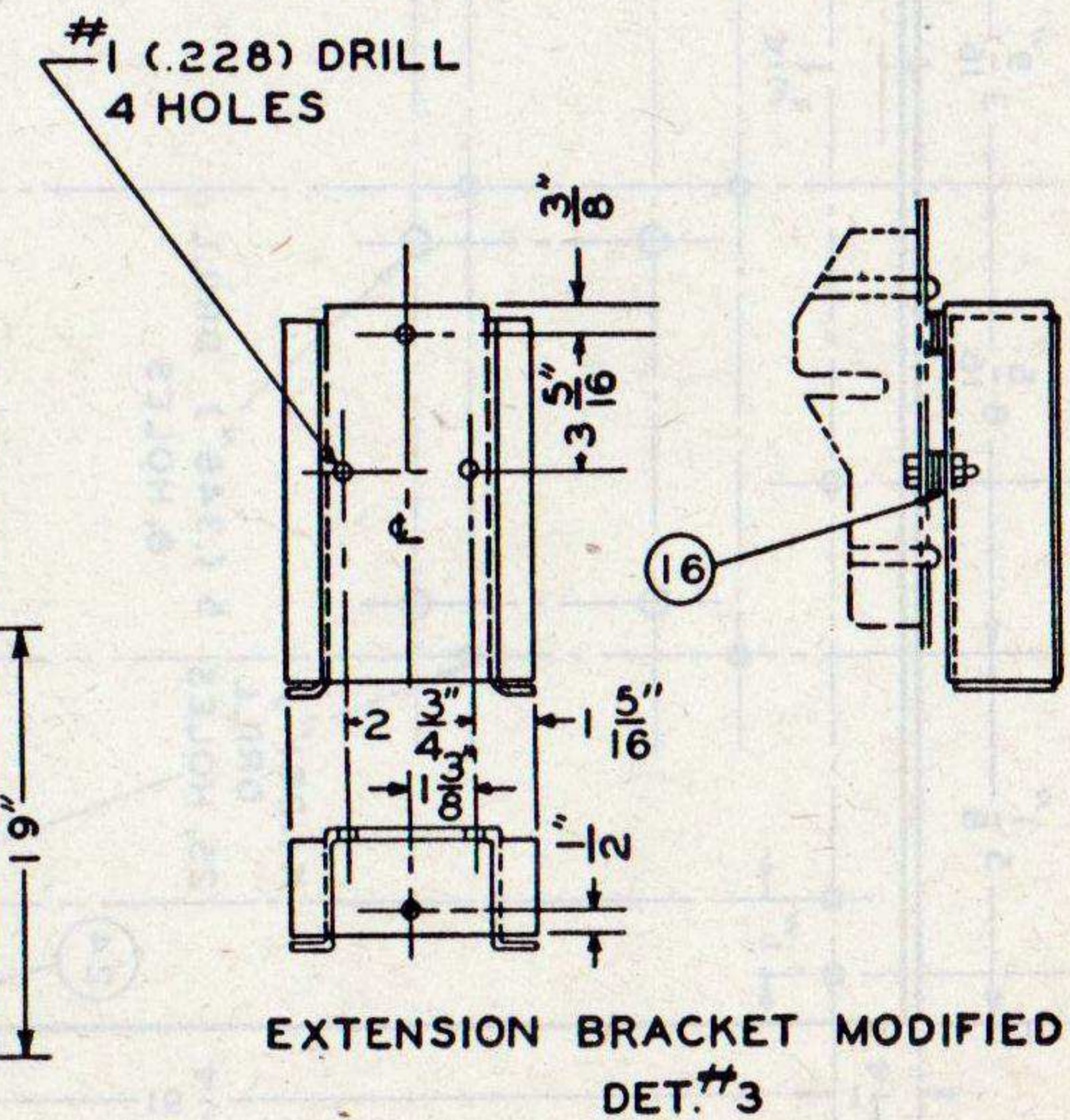
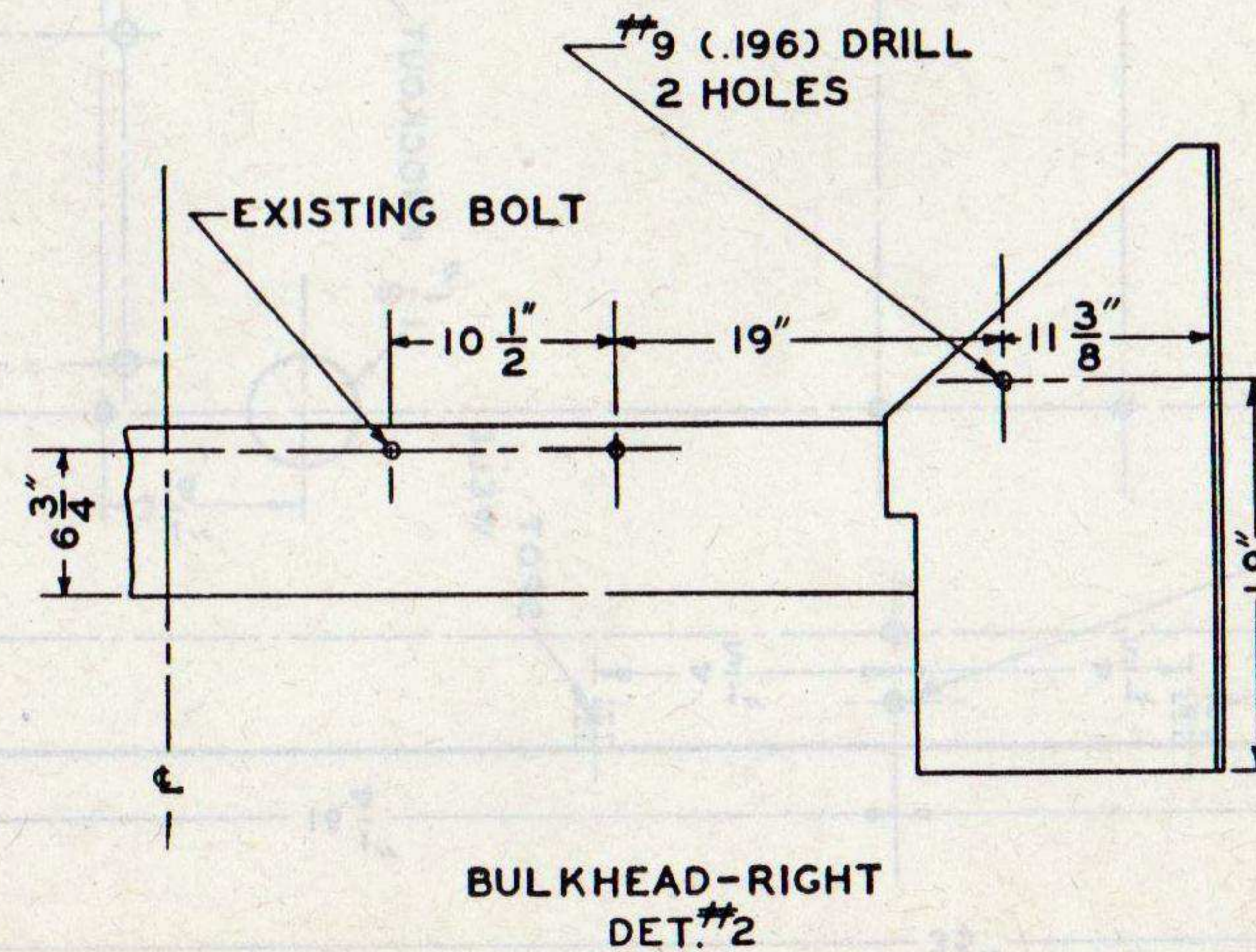
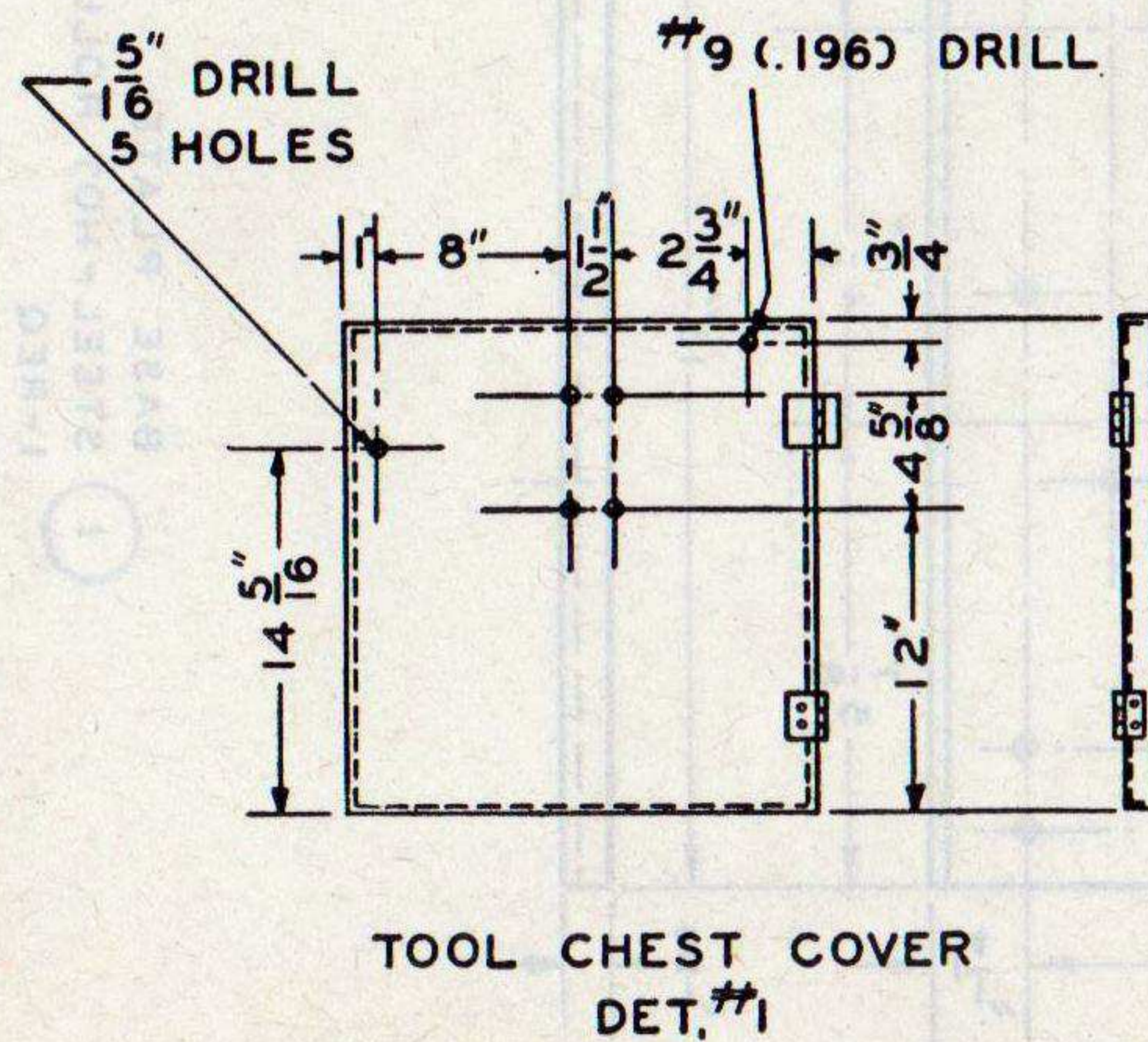


Figure 24—Continued.

TL 13369-2

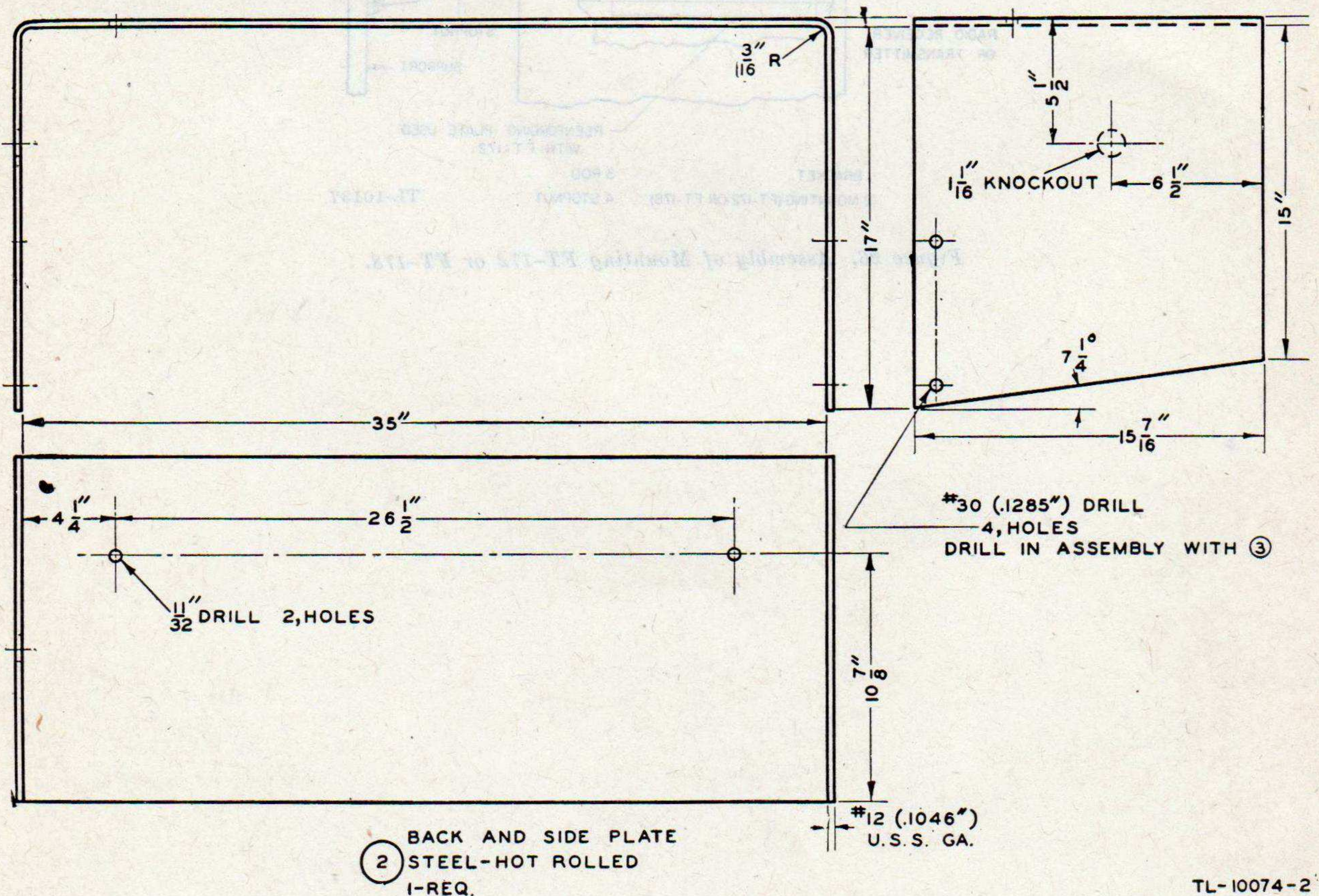
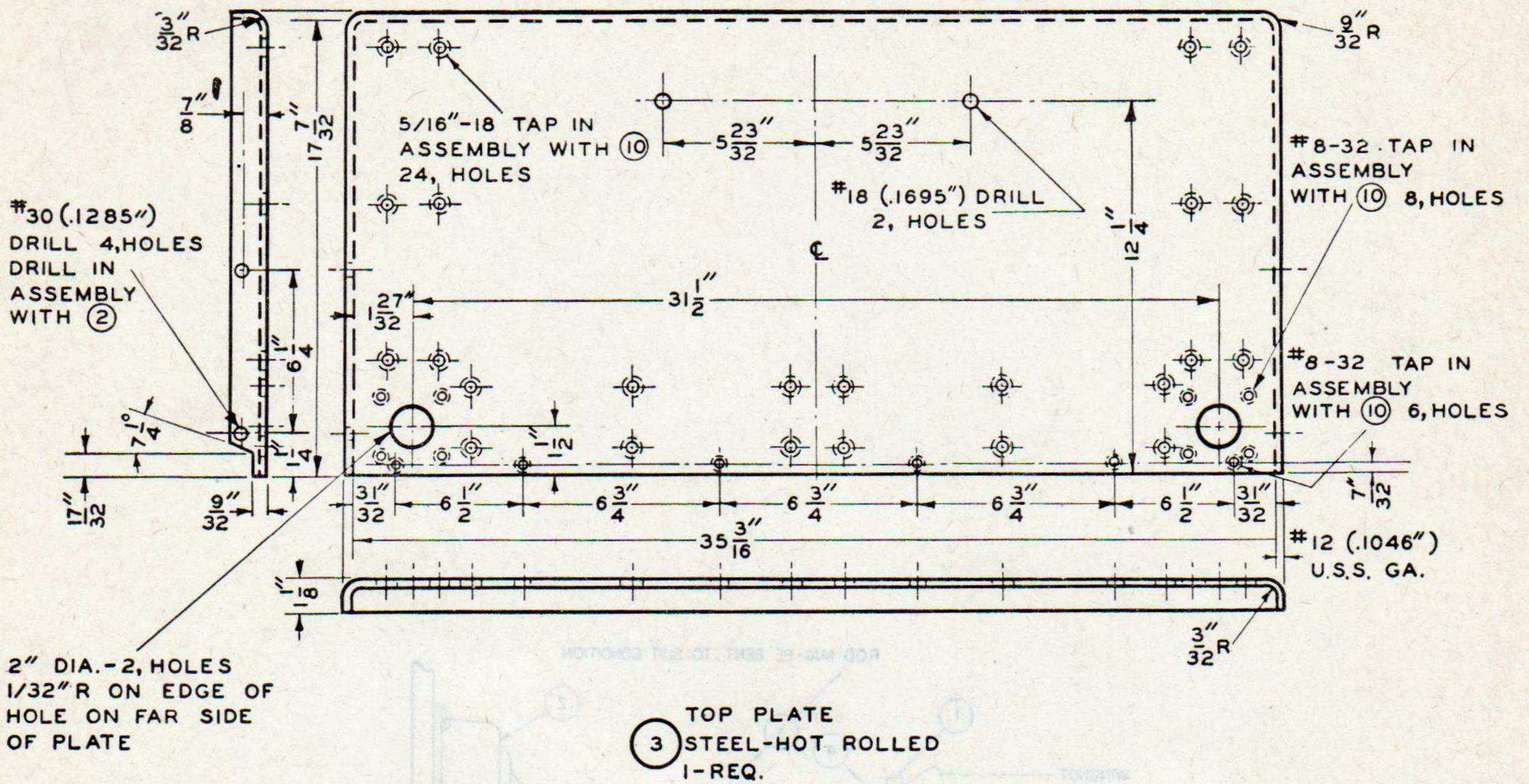


Figure 25—Continued.

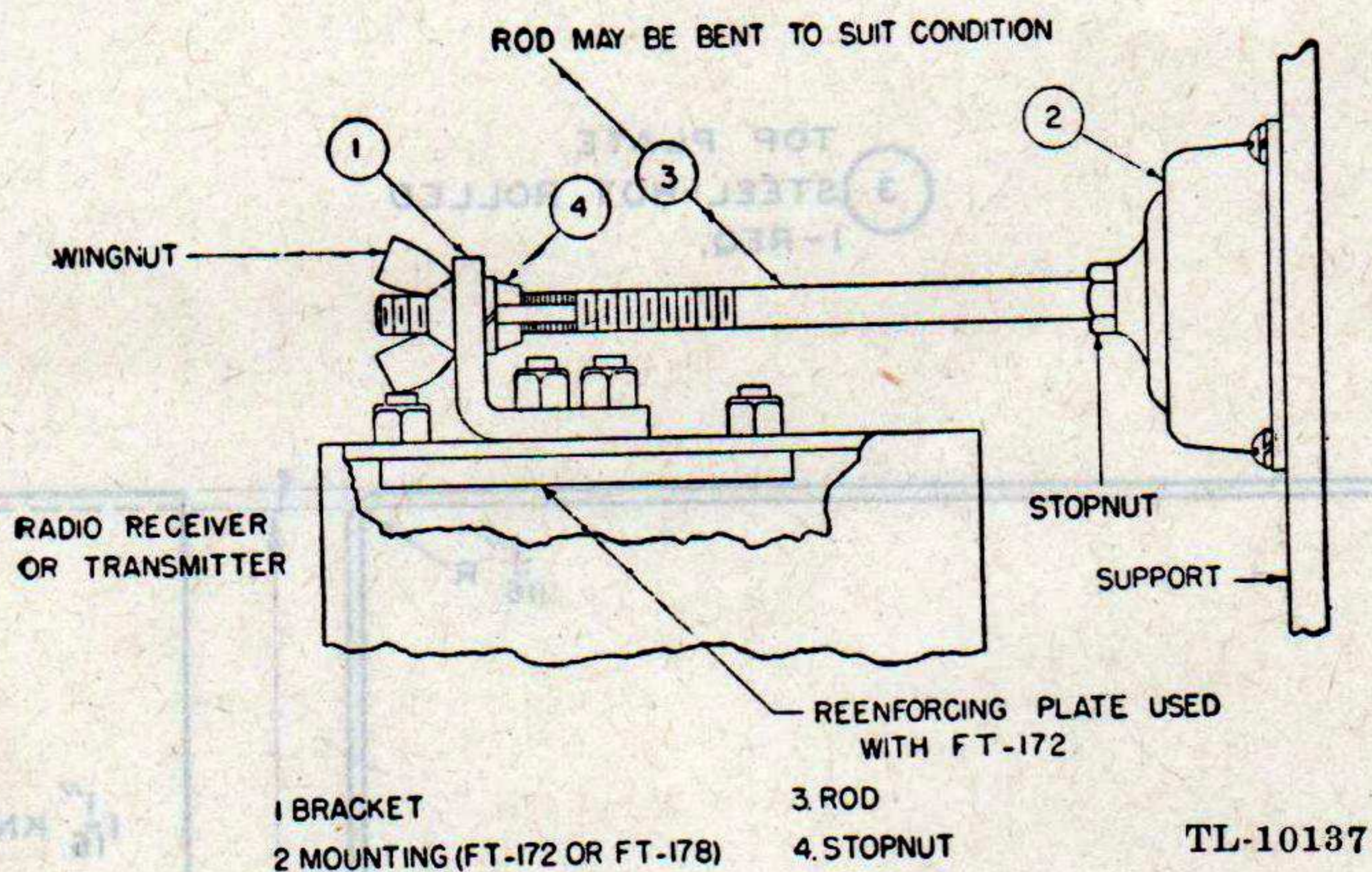


Figure 26. Assembly of Mounting FT-172 or FT-178.

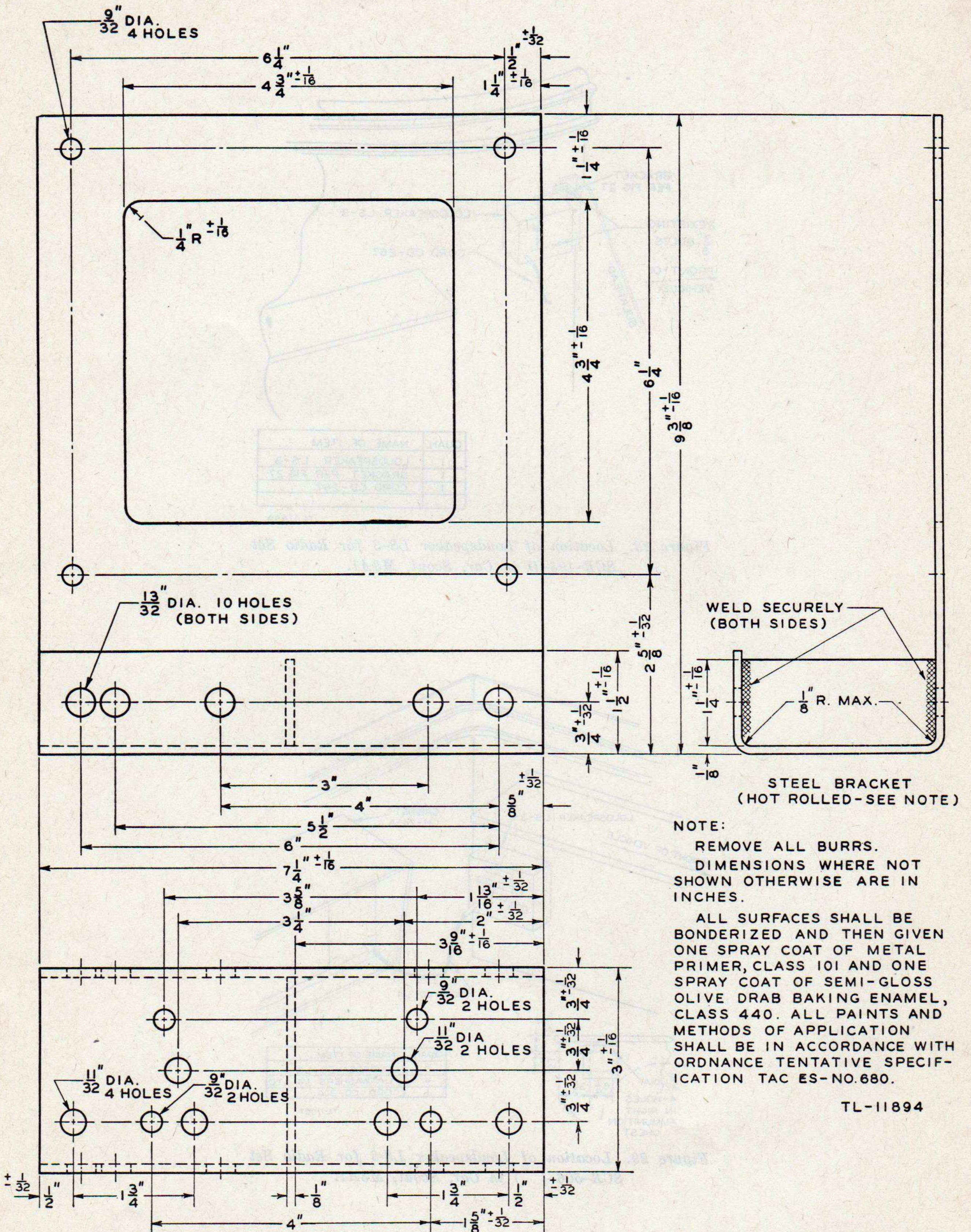
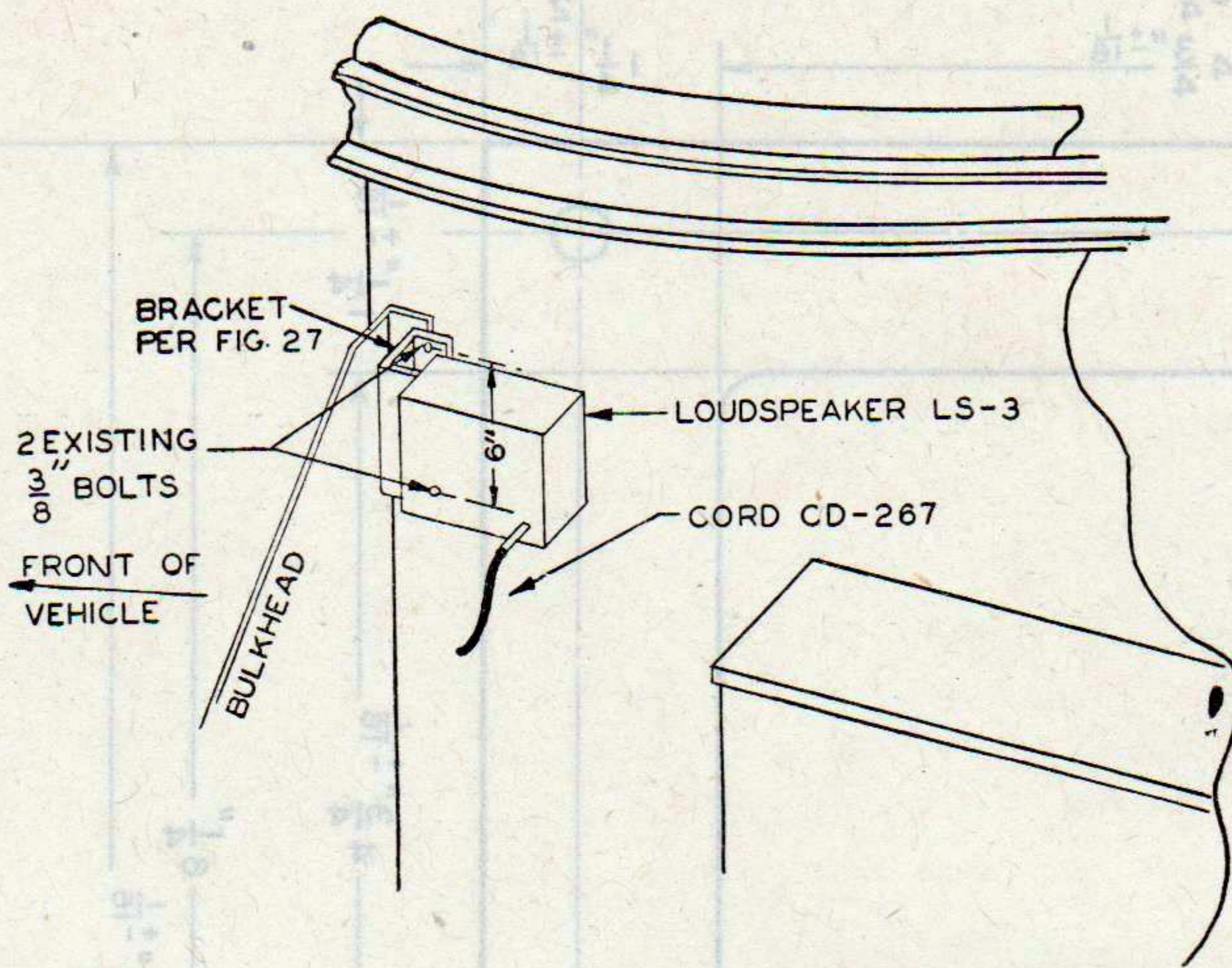


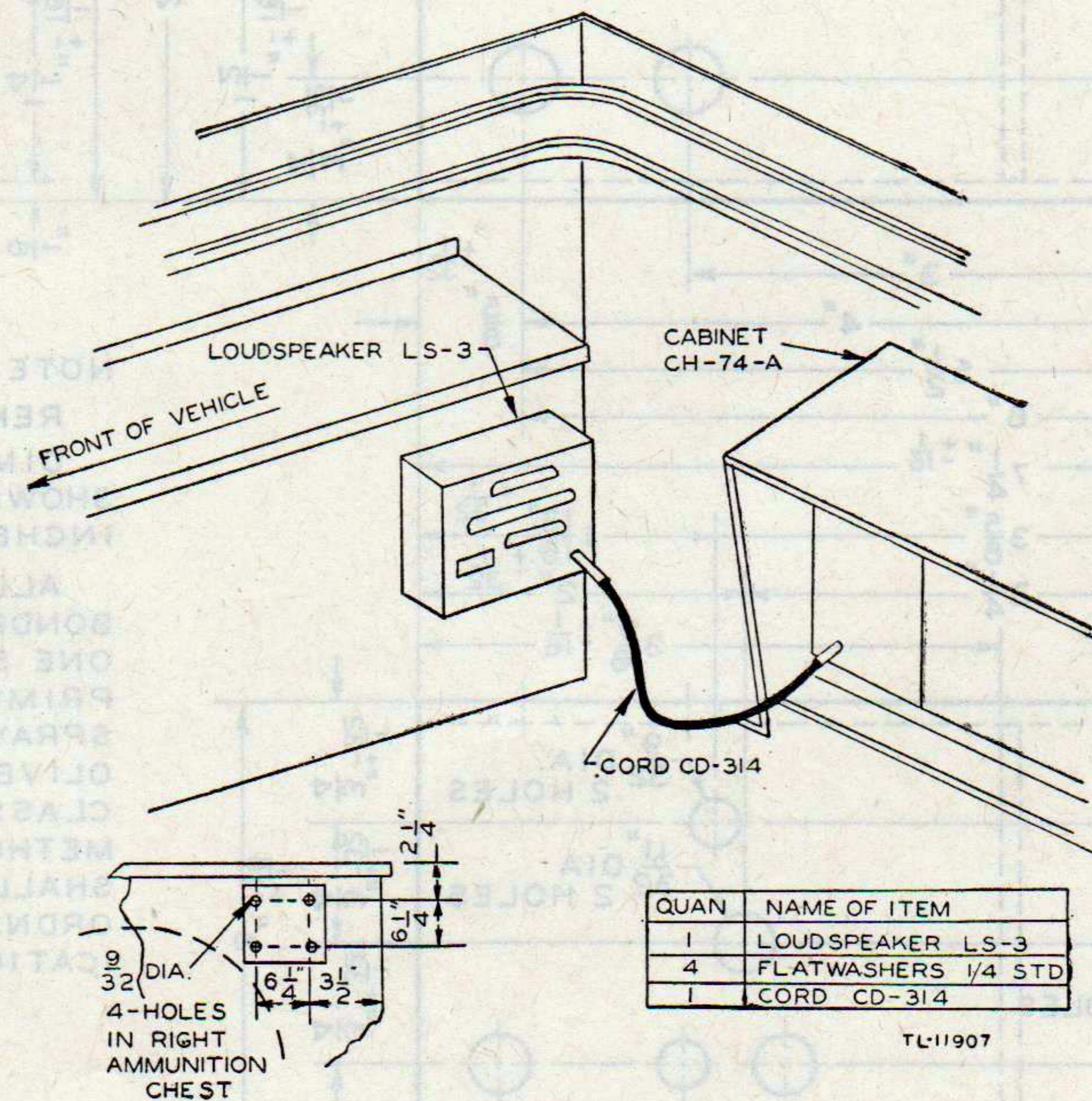
Figure 27. Bracket for Loudspeaker LS-3.



QUAN.	NAME OF ITEM
1	LOUDSPEAKER LS-3
1	BRACKET PER FIG. 27
1	CORD CD-267

TL11899

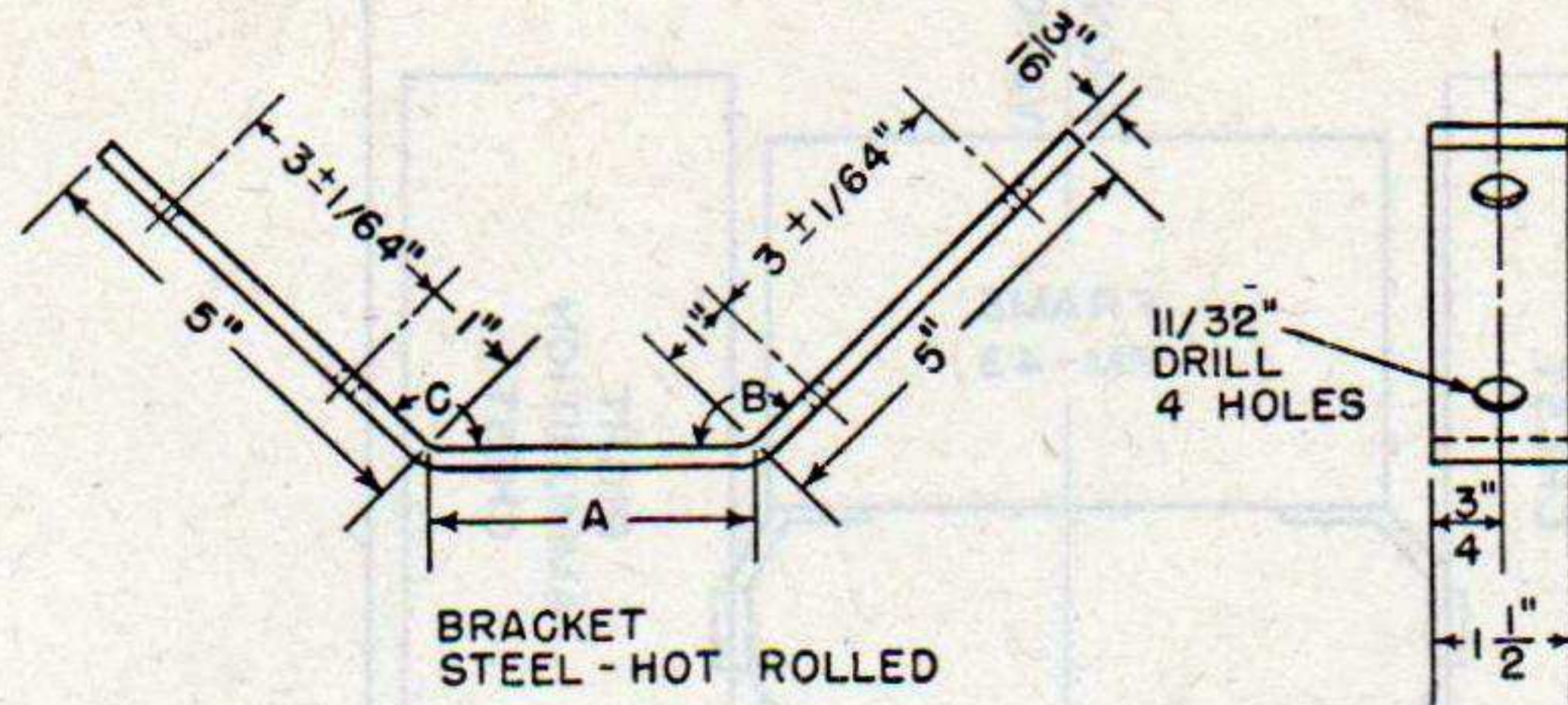
Figure 28. Location of Loudspeaker LS-3 for Radio Set SCR-193-D in Car, Scout, M3A1.



QUAN	NAME OF ITEM
1	LOUDSPEAKER LS-3
4	FLATWASHERS 1/4 STD
1	CORD CD-314

TL11907

Figure 29. Location of Loudspeaker LS-3 for Radio Set SCR-506-() in Car, Scout, M3A1.



BRACKET
STEEL - HOT ROLLED

ITEM	A	B	C
1	5 1/2"	125°	145°
2	3 1/2"	155°	115°

NOTE:

REMOVE ALL BURRS
ALL SURFACES SHALL BE BONDERIZED AND THEN GIVEN ONE SPRAY COAT OF METAL PRIMER, CLASS 101, AND ONE SPRAY COAT OF SEMI-GLOSS OLIVE DRAB BAKING ENAMEL, CLASS 440. ALL PAINTS AND METHODS OF APPLICATION SHALL BE IN ACCORDANCE WITH ORDNANCE TENTATIVE SPECIFICATION TAC ES-NO. 680.
TOLERANCES WHERE NOT SHOWN OTHERWISE SHALL BE HELD TO $\pm 1/16"$
DIMENSIONS WHERE NOT SHOWN OTHERWISE ARE IN INCHES

TL-12470

Figure 30. Bracket.

NOTE:

REMOVE ALL BURRS.
BRACKET SHALL BE BONDERIZED AND THEN GIVEN ONE LIGHT SPRAY COAT OF METAL PRIMER, CLASS 101, AND ONE FULL SPRAY COAT OF LUSTRELESS OLIVE DRAB ENAMEL, CLASS 204. ALL PAINTS AND BAKING SHALL BE IN ACCORDANCE WITH ORDNANCE DEPT. TENTATIVE SPECIFICATION TAC ES-680. THEN FILL ENGRAVING WITH PERMANENT WHITE AND APPLY ONE COAT OF SILVER SPRAYING LACQUER ON ENGRAVING.
TOLERANCES WHERE NOT SHOWN SHALL BE $\pm 1/16"$

ENGRAVE OR METAL STAMP 3/8" CHARACTERS OF SUFFICIENT DEPTH THAT WHEN FINISH IS APPLIED THE CHARACTERS WILL BE CLEAR AND CLEAN OUT.

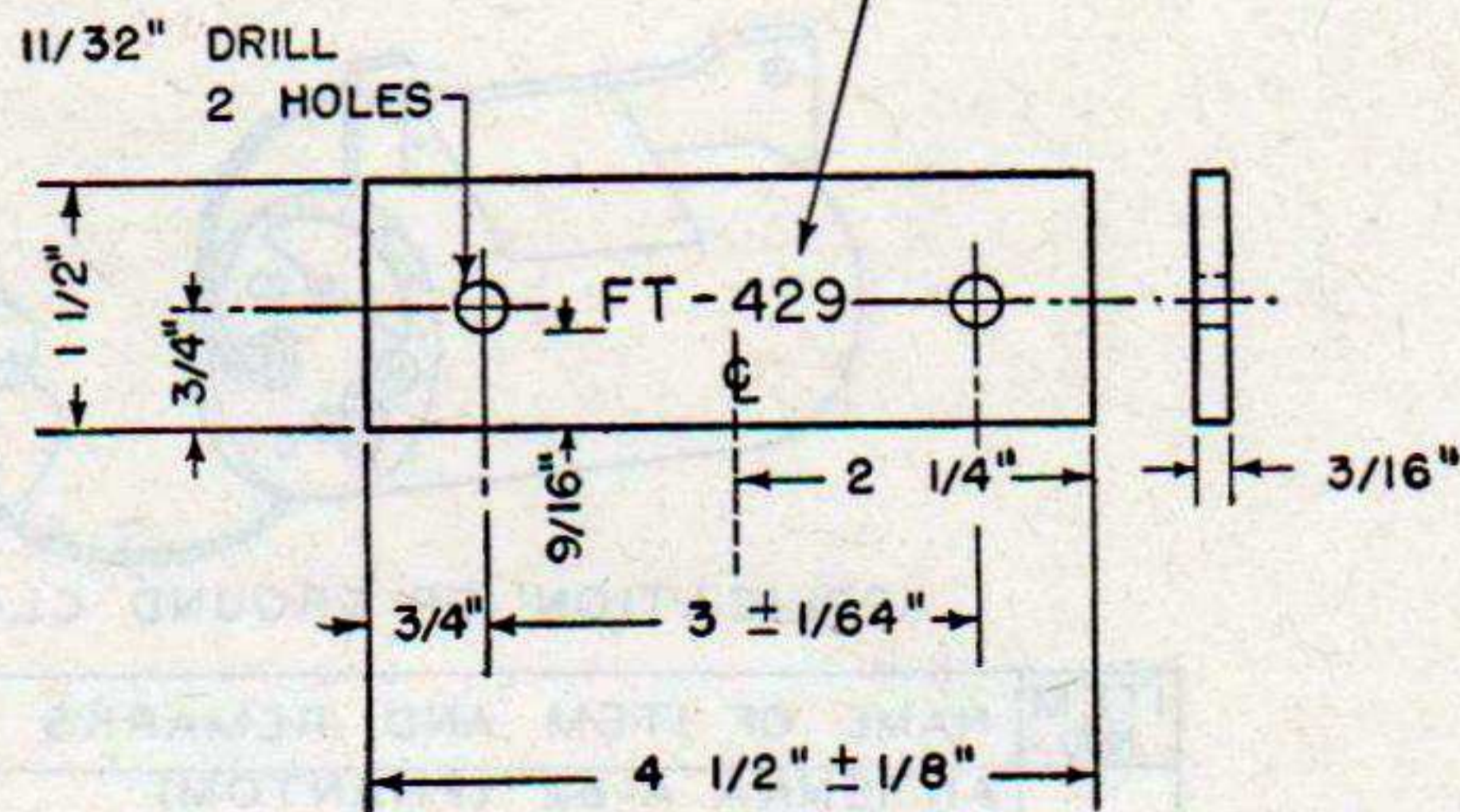
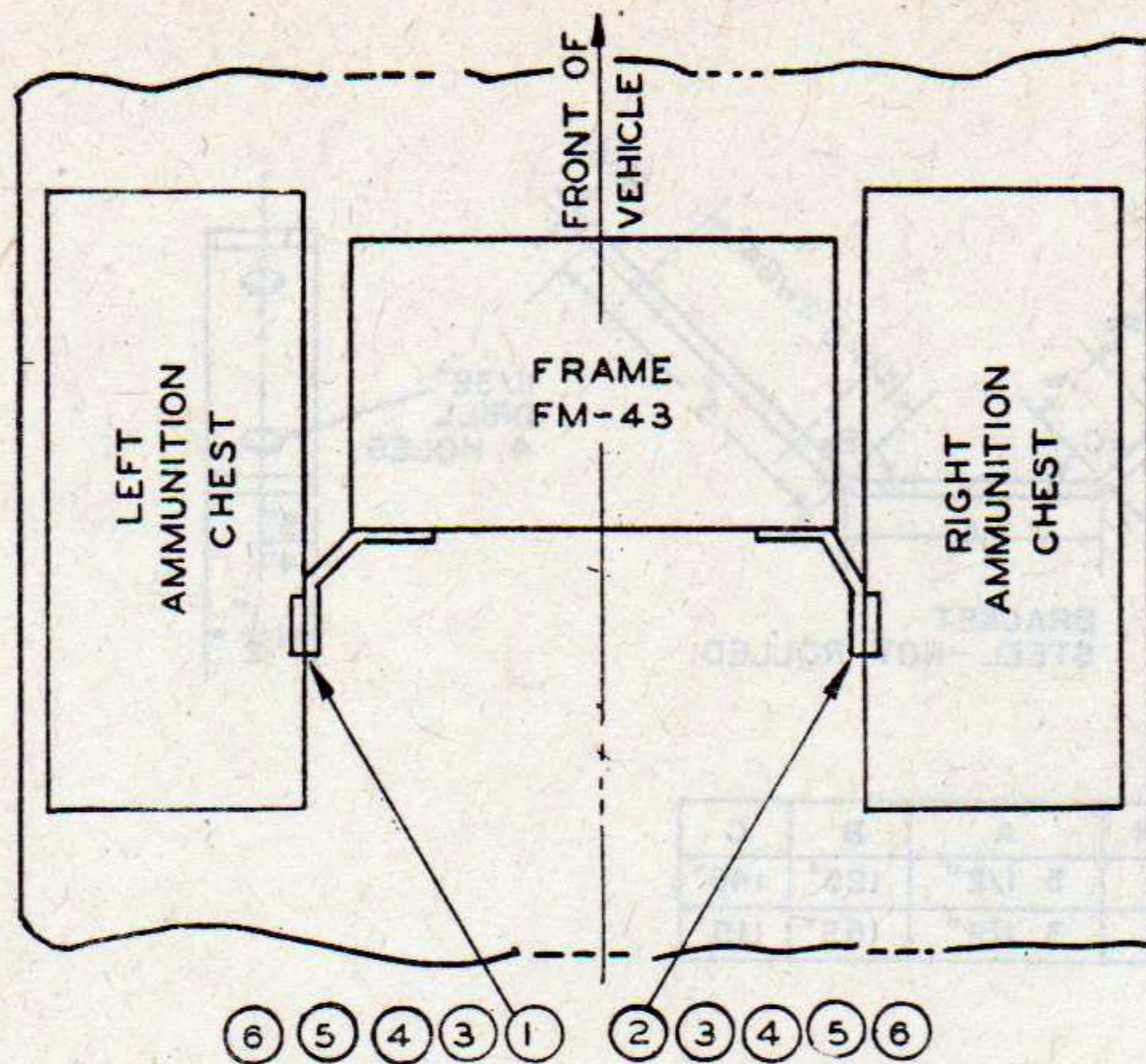


PLATE
3/16" STEEL HOT ROLLED (SEE NOTE) AS REQUIRED

TL-12471

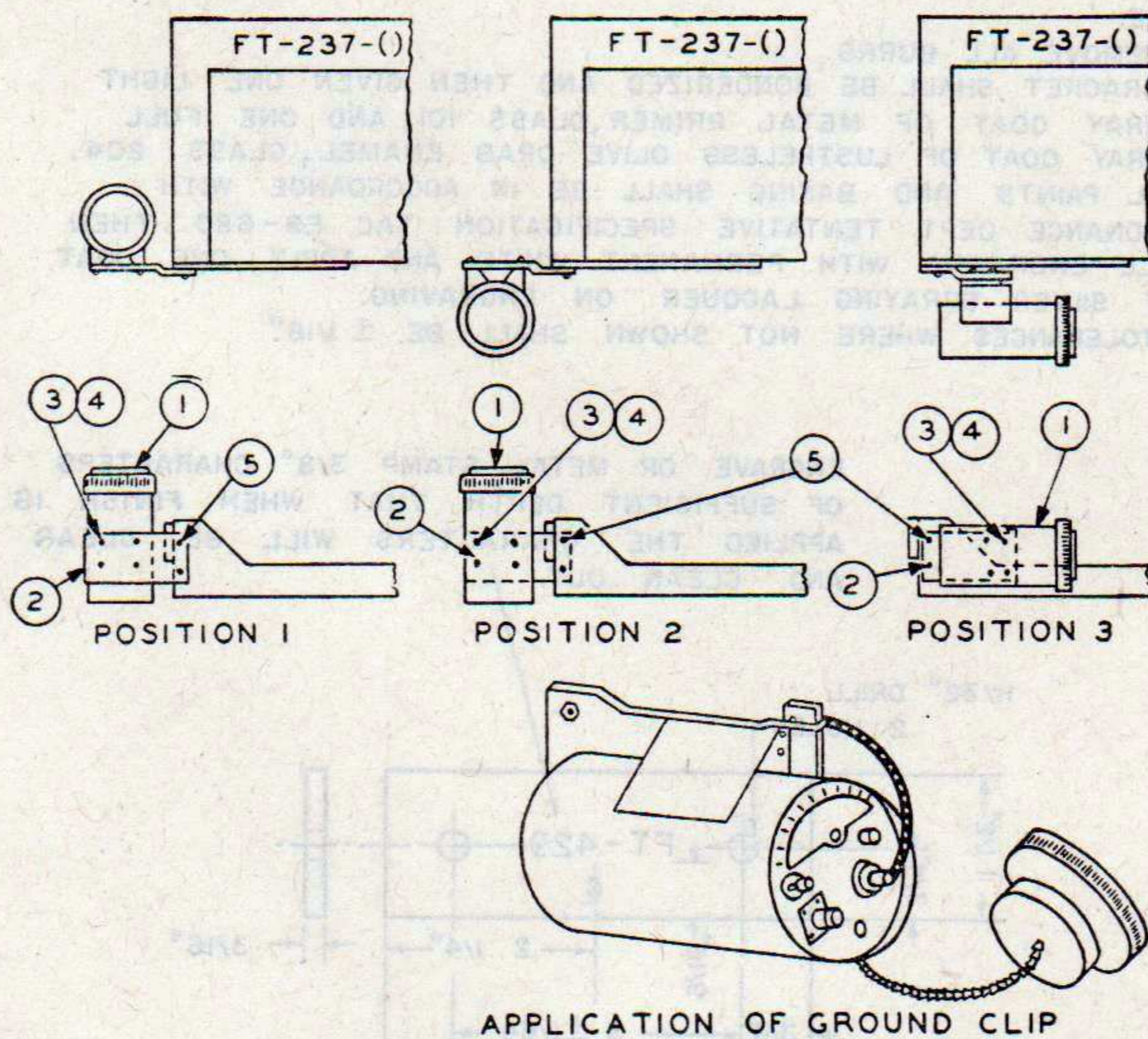
Figure 31. Plate FT-429.



QUAN REQ	NAME OF ITEM	MATERIAL	TYPE NO	ITEM NO	REMARKS
1	BRACKET			1	PER. FIG. 30
1	BRACKET			2	PER. FIG. 30
2	PLATE FT-429			3	PER. FIG. 31
8	HEX HD MACH SCR	STEEL ELECT GALV.		4	5/16"24X1 1/4"
8	HEX NUT		5	5/16"24X STD	
8	LOCKWASHER		6	STD FOR 5/16"SCR.	

TL12472

Figure 32. Method of reinforcing Frame FM-43 in Car, Scout, M3A1



APPLICATION OF GROUND CLIP

ITEM NO	NAME OF ITEM AND REMARKS	QUAN REQ
1	ANTENNA A-62 (PHANTOM)	1
2	BRACKET	1
3	RD. HD MACH. SCR. #6-32 X 1/2" FURN. WITH #1	4
4	LOCKWASHER #6 STD. FURN WITH #1	4
5	RD. HD. MACH. SCR. #10-32 X 5/8"	2

NOTE:

1. FOR ALL POSITIONS USE TIP OF BRACKET TO RECEIVE THE GROUND CLAMP OF ANTENNA A-62
 2. USE LONGER SCREW ⑤ WHEN INSTALLING BRACKET ② ON MOUNTING FT-237-() AND RE-APPLY TOOTH-TYPE LOCKWASHERS.

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Figure 33. Installation of Antenna A-62, Phantom, on Mounting FT-237-().

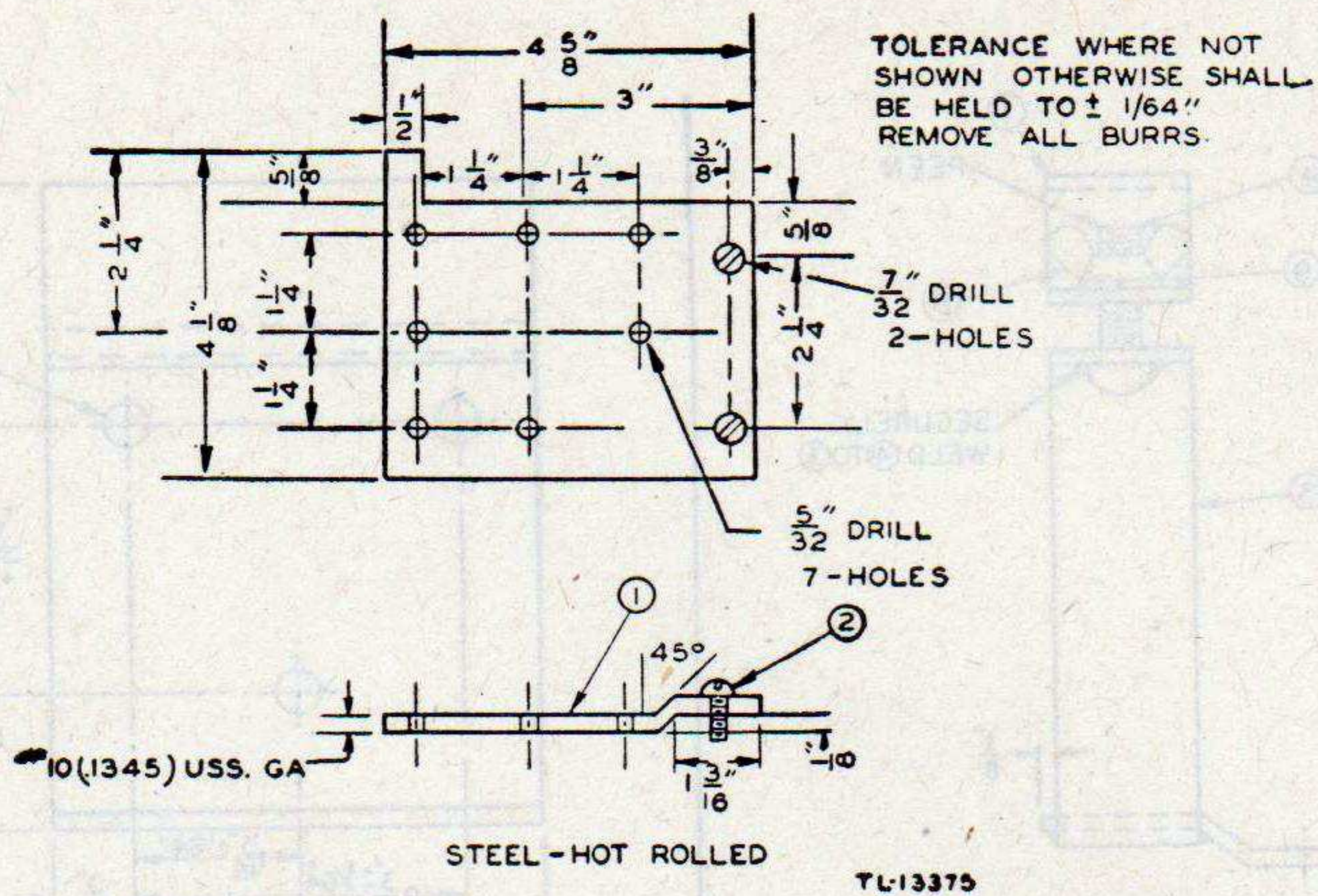
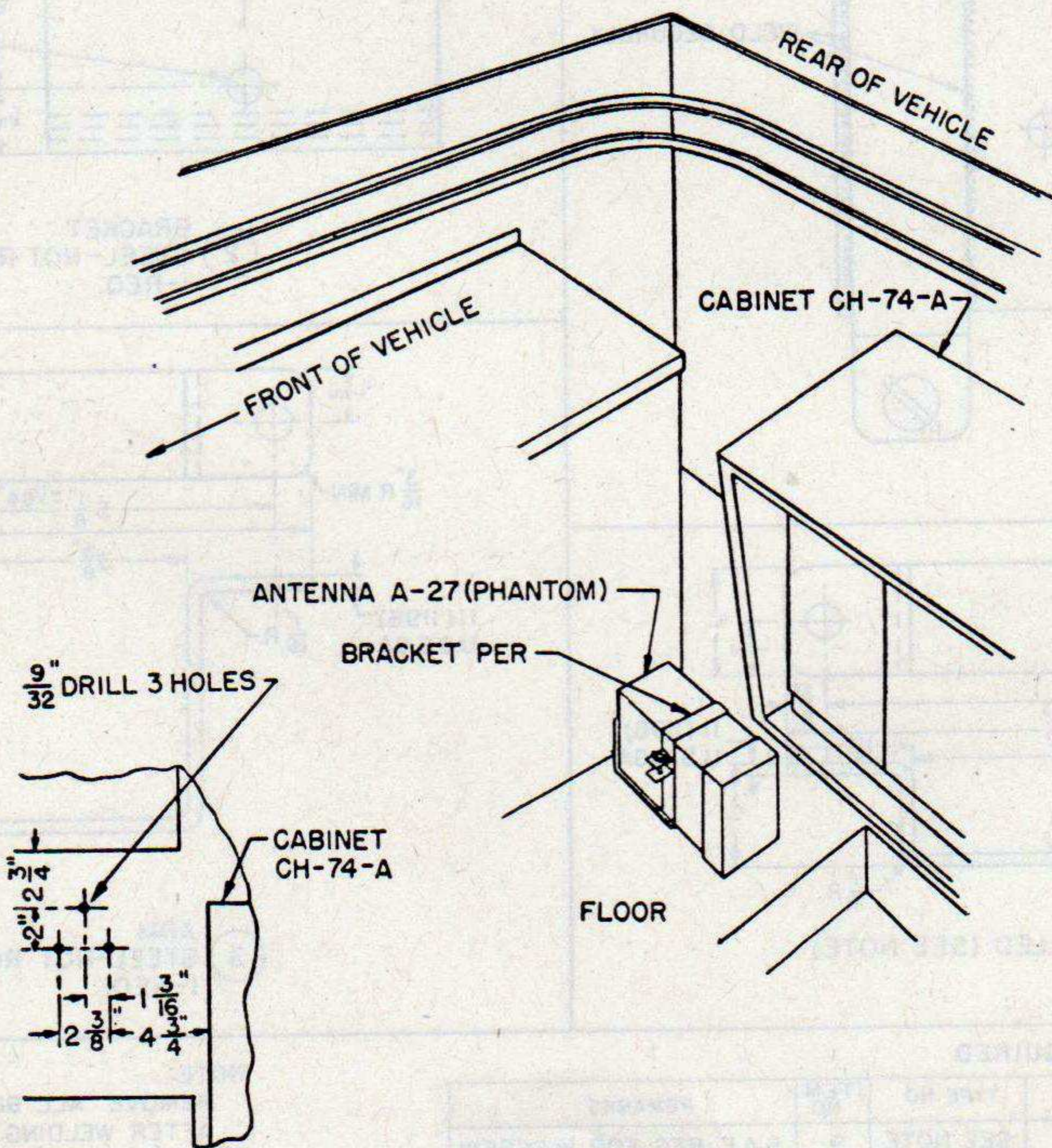


Figure 34. Bracket for Antenna A-62, Phantom.



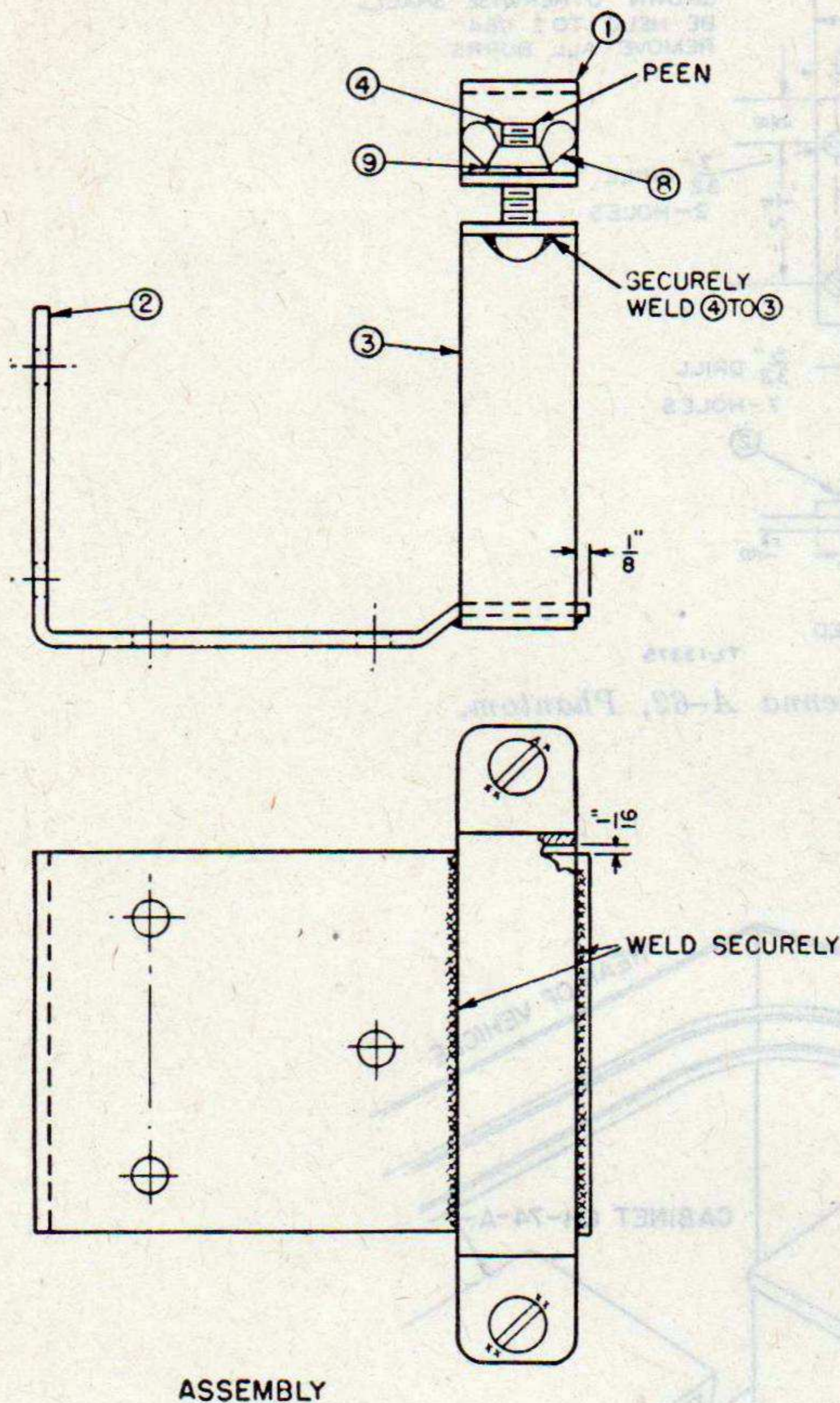
ITEMS REQUIRED

QUAN.	NAME	TYPE NO.	REMARKS
1	ANTENNA (PHANTOM)	A-27	
1	BRACKET		
3	HEX. HD. CAP SCR.		1/4"-20X3/4" LG.
3	HEX. NUT		1/4"-20 ST'D.
3	LOCKWASHER		S.A.E. REG. FOR 1/4" SCR.

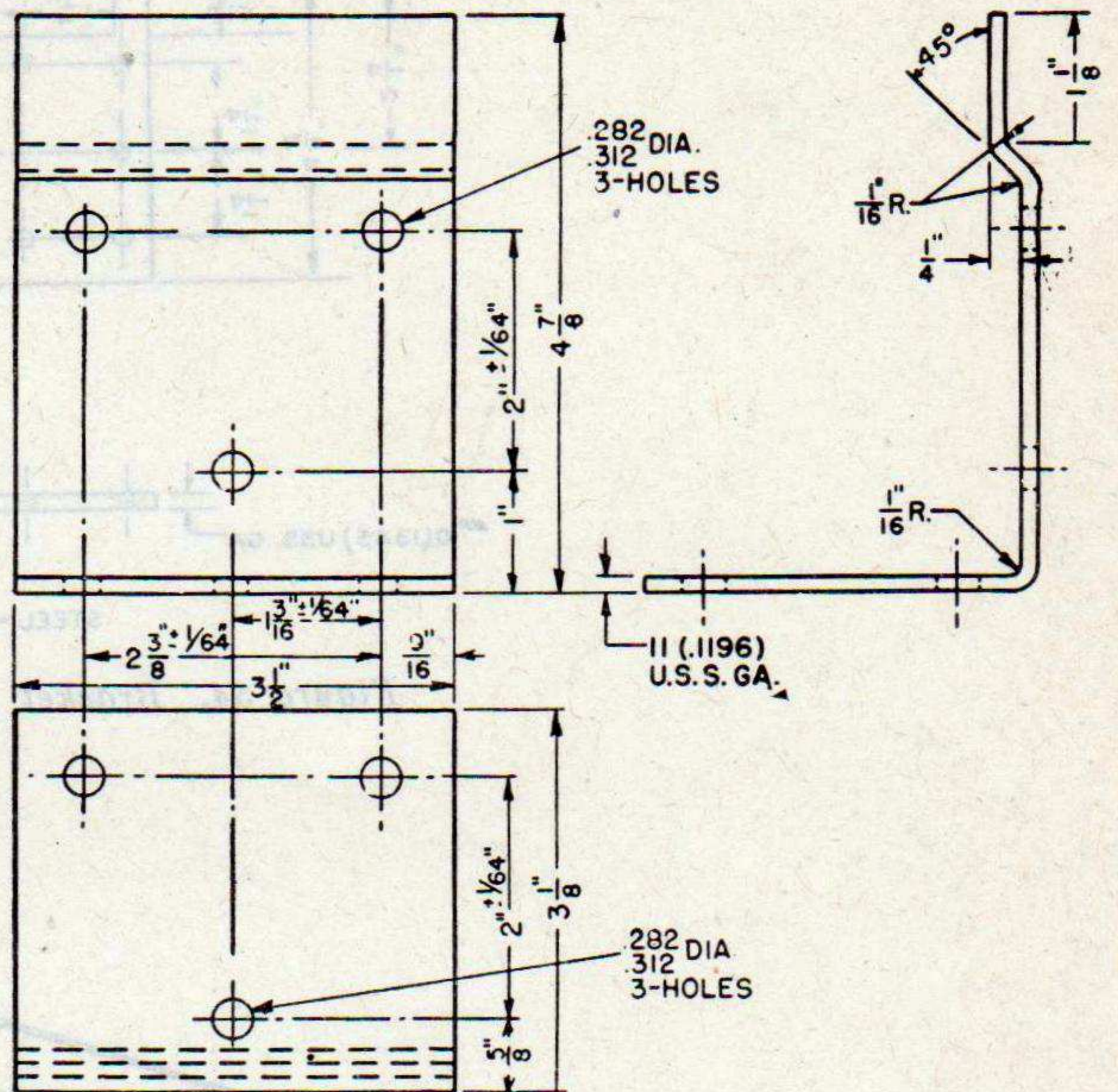
BASED ON SC-A-7253-A
REF SC-D-9113

TL15081

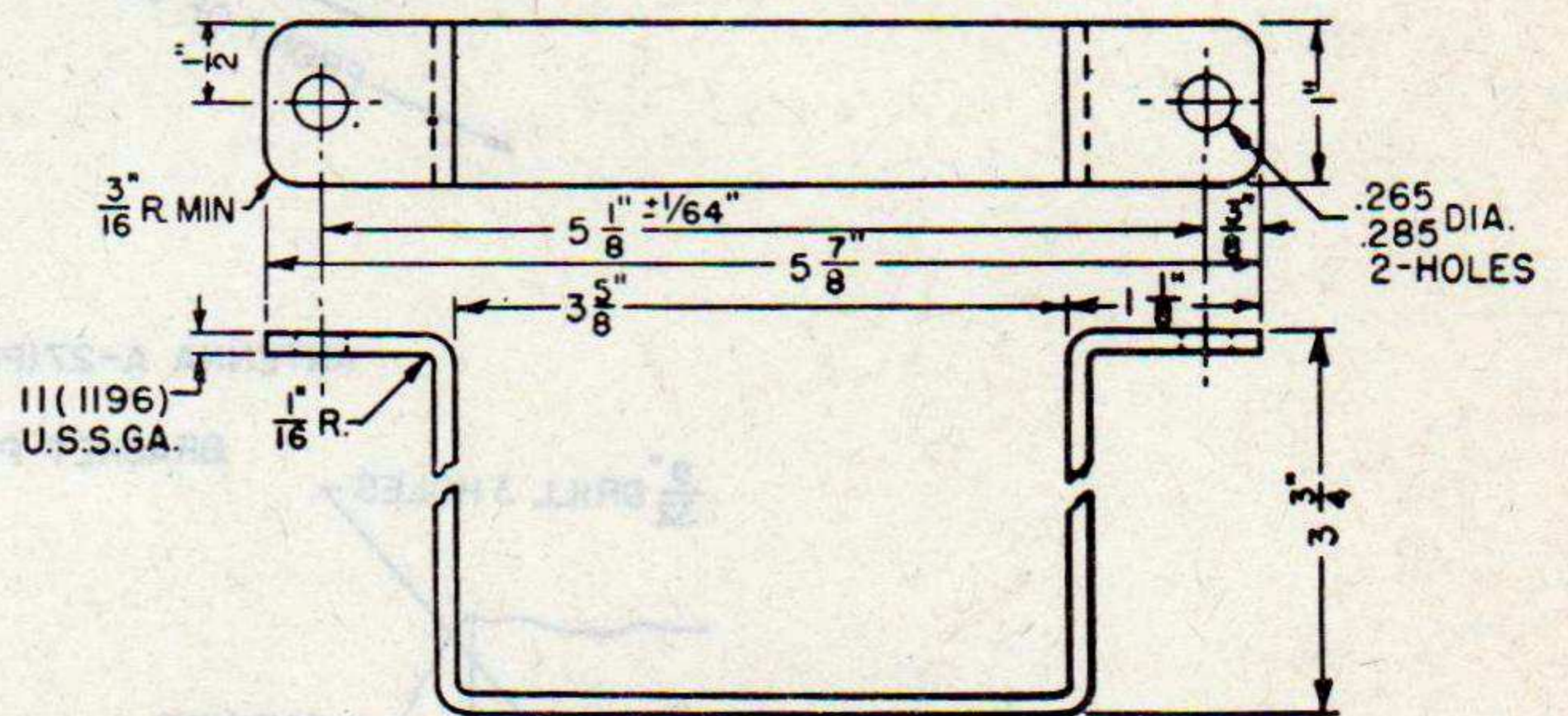
Figure 35. Location of Antenna A-27, Phantom in Car, Scout, M3A1.



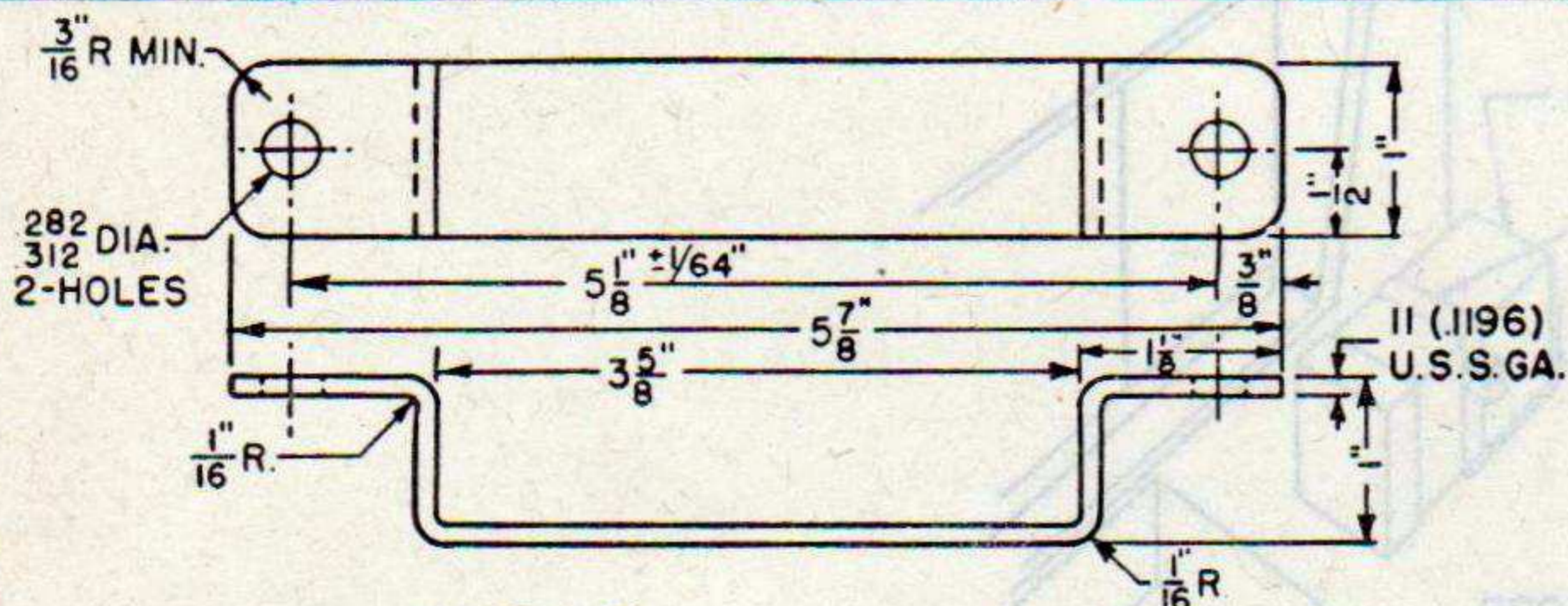
ASSEMBLY



② BRACKET
STEEL-HOT ROLLED (SEE NOTE)
1-REQ.



③ ARM
STEEL-HOT ROLLED (SEE NOTE)
1-REQ.



① CLAMP
STEEL-HOT ROLLED (SEE NOTE)
1-REQ.

ITEMS REQUIRED

QUAN. REQ.	NAME OF ITEM	MATERIAL	TYPE NO.	ITEM NO.	REMARKS
6	LOCKWASHER	STEEL ELECTRO- GALVANIZED	SEE NOTE	9	S.A.E. REG. FOR 1/4 SCREW
2	WING NUT		8	1/4 - 20	
4	HEX. NUT		7	1/4 - 20 STD.	
4	HEX. HD. CAP SCREW		6	1/4 - 20 X 3/4 LONG	
4	HEX. HD. CAP SCREW		5	1/4 - 20 X 1/2 LONG	
2	RD HD. MACH. SCREW		4	1/4 - 20 X 1 LONG	
1	ARM	STEEL		3	
1	BRACKET	STEEL		2	
1	CLAMP	STEEL		1	

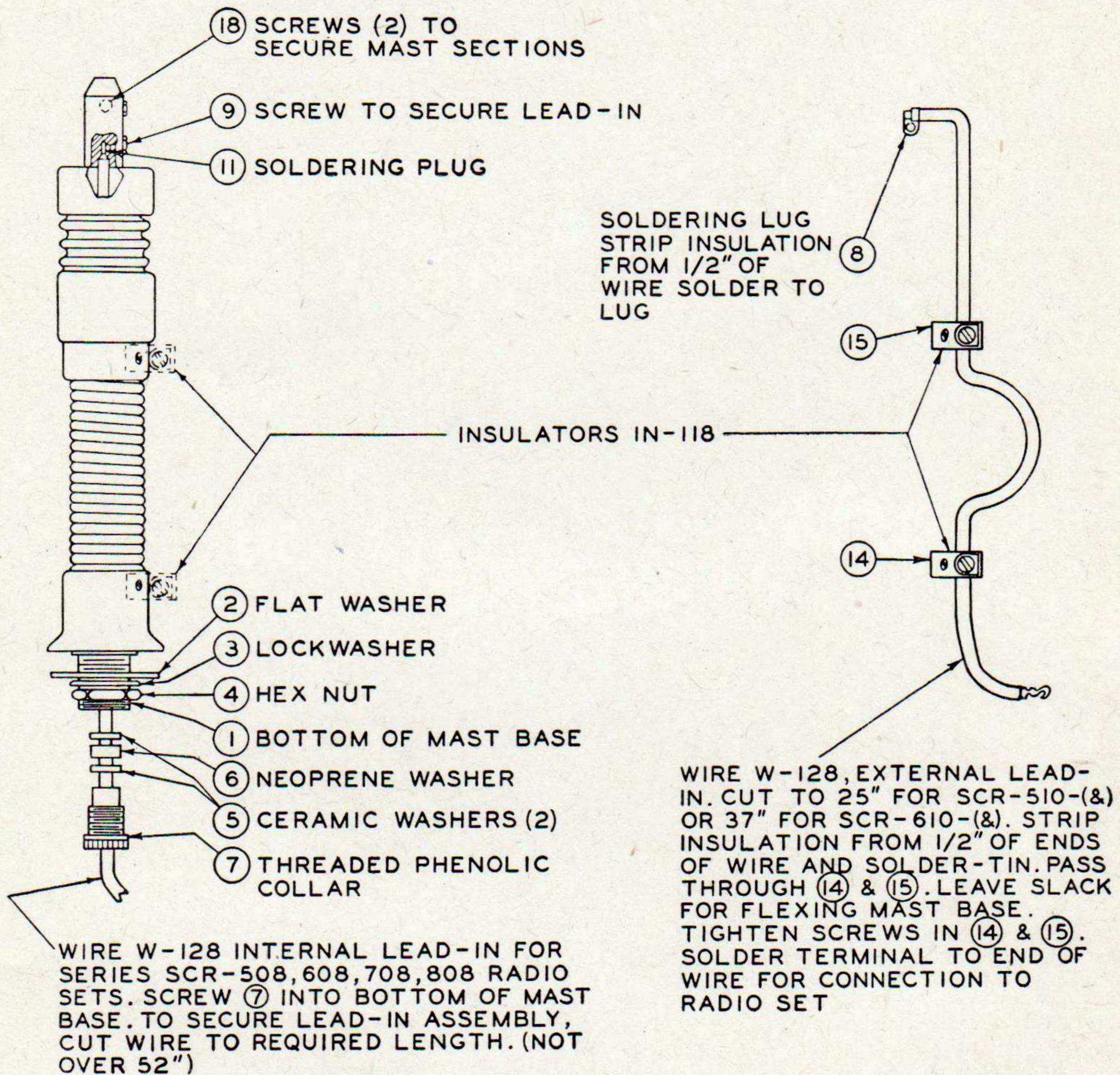
BASED ON SC-D-7367

NOTE:

REMOVE ALL BURRS.
AFTER WELDING ② & ④ TO ③, ①, ② & ③ SHALL BE BONDERIZED AND THEN GIVEN ONE SPRAY COAT OF METAL PRIMER, CLASS 101, AND ONE SPRAY COAT OF SEMI-GLOSS OLIVE DRAB BAKING ENAMEL, CLASS 440. TOUCH UP HEADS OF ④ TO MATCH SURROUNDING SURFACE. ALL PAINTS AND METHODS OF APPLICATION SHALL BE IN ACCORDANCE WITH ORDNANCE TENTATIVE SPECIFICATION TAC ES-NO. 680.
⑤, ⑥, ⑦ & ④ OF ③ ARE USED FOR INSTALLATION AND SHALL BE PLACED IN A HEAVY CLOTH BAG PLAINLY AND PERMANENTLY MARKED "THIS BAG CONTAINS SCREWS NUTS AND LOCKWASHERS FOR INSTALLATION. SPARES ARE INCLUDED IN QUANTITIES." THIS BAG SHALL BE TIED TO THE BRACKET.

TL 15087

Figure 36. Bracket for Antenna A-27, Phantom.



BASED ON
 SC-A-7166-A

TL10134

Figure 37. Mast Base MP-48-A, assembly with Wire W-128 lead-in.

