

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

INSTALLATION OF
RADIO SET
AN/MRC-117

HEADQUARTERS, DEPARTMENT OF THE ARMY

MARCH 1968

WARNING

Extremely dangerous voltages exist in Radio Set AN/MRC-117, and at the antenna connections of Radio Set AN/GRC-158. Serious injury or death may result from contact with the antenna and the antenna lead-in cable. Dangerous potentials may exist on the equipment even when it is turned off. Follow *all* precautions outlined in TB SIG 291 at all times before operating the equipment.

DON'T TAKE CHANCES

EXTREMELY DANGEROUS VOLTAGES EXIST IN THE FOLLOWING UNITS OF RADIO SET AN/GRC-158:

- Antenna Coupler CU-1669/GRC..... 12, 000 volts
- Whip Antenna 12, 000 volts
- Either Receiver-Transmitter, Radio RT-698/ARC-102 12, 000 volts

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TECHNICAL MANUAL

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HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 21 March 1968

INSTALLATION OF RADIO SET AN/MRC-117

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SECTION I

INTRODUCTION

1-1. Scope

This technical manual contains installation to instructions for the various kits, pedestals, remounts, and hardware which are required in a vehicle so that Radio Set AN/GRC-158 may be mounted in the vehicle as part of Radio Set AN/MRC-117. Included in this manual are a list of all the contractor's kits with part numbers for each required items, unpacking instructions, instructions for modification of the vehicle, and all installation procedures that are necessary. The material herein supplements that given in TM 11-5820-672-12 and other applicable technical manuals listed in appendix A. Both official and unofficial (contractor's) nomenclature and part numbers are used throughout this manual.

1-2. Indexes of Publications

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

b. DA Pam. 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment. DA Pam 310-7 lists all authorized Department of the Army modification work orders, identifying the type, model, series, and federal stock number of the item to be modified; the number, date, and classification of the MWO; the category of maintenance authorized to perform the

modification; and the man-hours required to apply the modification to each item.

1-3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Use equipment forms and records in accordance with instructions in TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Report of Packaging and Handling Deficiencies) as prescribed in AR 700-58 (Army), NAVSUP Publication 378 (Navy), AFR 71-4 (Air Force), and MCO P4610-5 (Marine Corps).

c. Discrepancy in Shipment Report (DIS-REP) (SF361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF361) prescribed in AR 55-38 (Army), NAVSUP Pub 459 (Navy), AFM 75-34 (Air Force), and MCO P4610.19 (Marine Corps).

d. Report of Equipment Manual Improvements. Report of errors, omissions, and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-CR, Fort Monmouth, N.J. 07703.

SECTION II

DESCRIPTION AND DATA

2-1. Table of Components

Components required for equipment mounting are cited in the following paragraphs and tables:

<i>Paragraph</i>	<i>Table</i>	<i>Pages</i>	<i>Title</i>
2	1	3 through 6	Component Parts for Installation Kit.
3	2	6 and 7	Radio Set AN/MRC-117 Modification Kit.

2-2. Items Furnished t

a. The complete installation and modification kit for Radio Set AN/MRC-117 is shown in figure 2.

b. Views of the individual kits, pedestals, mounts, and hardware are given in figures 3 through 23

c. Cable Assembly, Special Purpose, Electrical CX-10359/G (fig. 6) is not furnished with the installation and modification kits. This cable is part of Radio Set AN/GRC-158 and is described in TM 11-5820-672-12.

2-3. Contract Identification m

a. Electronics and installation equipments covered in this manual were purchased under Contract No. DAABO-7-67-C-0439 and Order No. FR 28-043-I6-22750(E).

b. Vehicles were purchased under Contract No. DAAE07-67-C 2771. Radio Set AN/GRC-158 is installed in Truck, Cargo Pickup, with 4-door cab, 7000 GVW 4x4 (International Harvester). Throughout this manual, the vehicle will be referred to as International Harvester Crew, Cargo Travellette Model 1200 A commercial truck, and the work track shall refer to this commercial vehicle.

2-4. System Application

For siting, shelter requirements, equipment interconnection, and antenna installation, refer to TM 11-5820-672-12.

2-5. Additional Illustrations

Illustrations shown in appendix D, TM 11-5820-672-12, which will aid in following the installation instructions are listed as follows:

a. Figure D-1, main case, outline and mounting dimensions.

b. Figure D-2, control panel, outline and mounting dimensions.

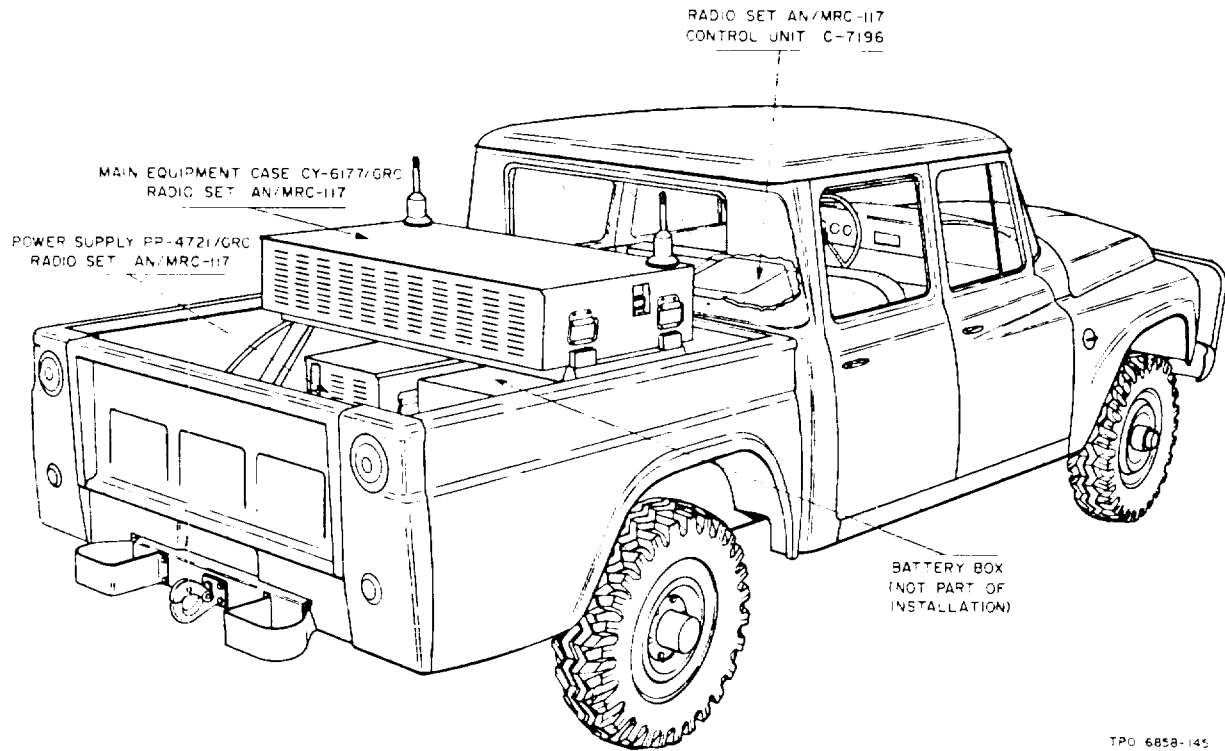
c. Figure D-3, power supply, outline and mounting dimensions.

SECTION III

INSTALLATION AND MODIFICATION KIT AN/MNRC-117

3-1. GENERAL

These instructions provide complete installation procedures for mounting Radio Set AN/GRC-158 in an International Harvester Crew/Cargo Travellette Model 1200 A commercial truck. When AN/GRC-158 is installed, truck and radio set will be designated Radio Set AN/MRC-117, figure 1. Figure 2 shows the parts of the kit as listed in tables 1 and 2 less mounting hardware.



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Figure 1. Diagram, Radio Set AN/mRC-117

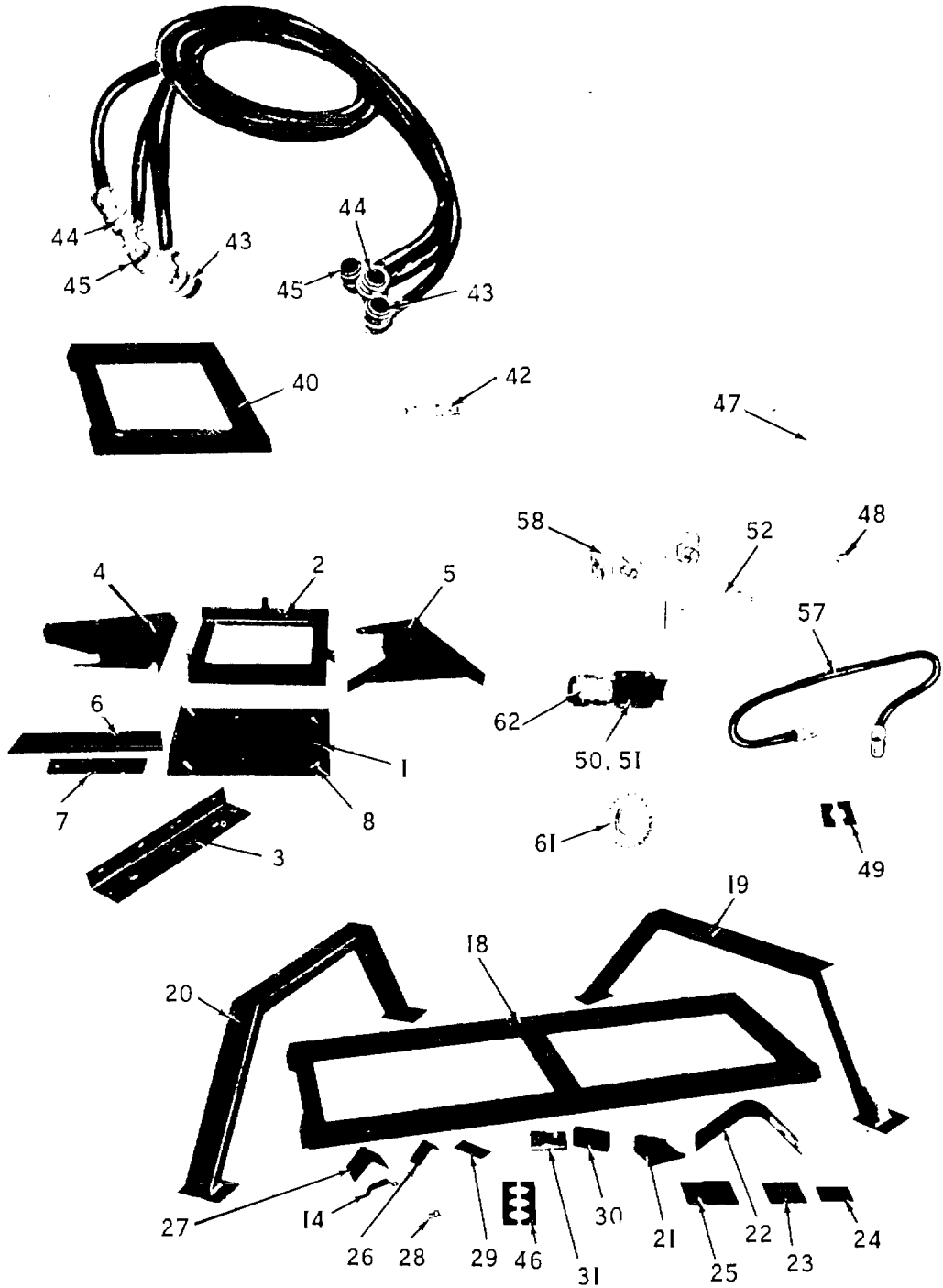


Figure 2. Installation and Modification Kit AN/MRC-117

3-2. INSTALLATION KIT

Table 1 lists the component parts for installation kit, Radio Set AN/MRC-117.

Table 1. Component Parts for Installation Kit

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
		775-0373-001	Control unit pedestal consisting of the following:	
1	2, 4	775-0676-001	Plate, mounting	1
2	2, 3	775-0677-001	Frame, mounting	1
3	2, 3	775-0407-001	Angle support	2
4	2, 3	775-0411-002	Support, left	1
5	2, 3	775-0411-001	Support, right	1
6	2, 3	775-0415-001	Plate, brace	2
7	2, 4	775-0404-001	Plate, backup	2
8	2, 4	553-9882-004	Pin, locating	4
9	4	757-0495-010	3/8-16 X 1-1, /4 hexhead bolt	4
10	4	757-0494-007	3, /8 locknut	4
11	3	757-0495-016	11/4-20 X 7/8 hexhead bolt	22
12	3	757-0494-005	1, '4-20 locknut	22
13	3	553-6937-003	1/4 flat washer	44
14	3	775-0670-001	Clamp, cable	2
15	3, 4	343-0802-000	10-32 X 5/8 screw	4
16	3, 4	757-0494-004	10-32 locknut	4
		775-0371-001	Main case mount consisting of the following:	
18	2, 5	775-0517-001	Frame, mounting	1
19	2, 5	775-0416-001	Support, frame mounting right	1

Table 1. Component Parts for Installation Kit (Cont)

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
20	2, 5	775-0410-001	Support, frame mounting left	1
21	2, 5	775-0408-001	Brace, frame mounting	2
22	2, 7	775-0409-001	Plate, brace, frame mounting	2
23	2, 7	775-0667-001	Plate, backup number 1	4
24	2, 7	775-0668-001	Plate, backup number 2	2
25	2, 7	775-0669-001	Plate, backup number 3	2
2G	2, 5	775-0665-001	Bracket, retaining	7
27	2, 5	775-0662-001	Bracket, angle, cable mounting	1
14	2, 5	775-0670-001	Clamp, cable	1
2, 8	2, 5	775-0511-001	Pin, locating	2
29	2, 7	775-0513-001	Plate, lock support	
30	2, 7	77.5-0514-001	Block, lock support	4
31	2, 7	775-0417-001	Lock	4
32	7	757-0495-009	3/8-16 X 1 hexhead bolt	12
17	4, 7	553-6942-003	3/8 flat washer	40
10	5	757-0494-007	3/8-16 locknut	42
11	5	757-0495-016	1/4-20 X 7/8 hexhead bolt	16
13	5	553-6937-003	1/4 flat washer	16
12	5	757-0494-005	1/4 locknut	16
33	5	343-0803-000	10-32 X 3/4 screw	2
9	5	757-0495-010	3/8-16 X 1-1/4 hexhead bolt	28
35	7	553-6951-003	10 lockwasher	20
15	7	343-0802-000	10-32 X 5/8 screw	20
16	7	757-0494-004	10-32 locknut	10

Table 1. Component Parts for Installation Kit (Cont)

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
36	7	541-6114-002	Spacer, sleeve	8
38	7	324-1529-000	3/8-24 X 1-1/14 hexsocket screw	8
39	7	310-0291-000	3/8 lockwasher	8
34	7	343-0809-000	10-32 x 1-1/2 screw	8
		775-0375-001	Power supply mount consisting of the following:	
40	2, 22	775-0515-001	Frame, mounting	1
28	2, 22	775-0511-001	Pin, locating	2
29	2, 22	775-0513-001	Plate, lock; support	4
30	2, 22	775-0514-001	Block, lock support	4
31	2, 22	775-0417-001	Lock	4
42	2, 22	775-0516-001	Plate, backup	4
38	22	324-1-529-000	3/8-24 X 1-1/2 hexsocket screw	8
39	22	310-0291-000	3/8 lockwasher	8
9	22	757-0495-010	3/8-16 X 1-1/4 hexhead bolt	8
10	22	757-0494-007	3/8-16 locknut	10
17	22	553-6942-003	3/8 flat washer	8
35	22	553-6951-003	10 lockwasher	20
15	22	343-0802-000	10-32 X 5/8 screw	28
16	22	757-0494-004	10-32 locknut	8
36	22	541-6114-002	Spacer, sleeve	8
34	22	313-0809-000	10-32 x 1-1/2 screw	8

Table 1. Component Parts for Installation Kit (Cont)

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
		775-0369-001	Control cable set consisting of the following:	
43	2, 18	775-0370-001	Cable, control #1	1
44	2, 18	775-0371-001	Cable, control #2	1
45	2, 18	775-0372-001	Cable, control #3	1
14	2, 4	775-0670-001	Clamp, cable control set	2
46	2, 4	775-04114-001	Retainer, cable control set	4
16	4	757-0494-004	10-32 locknut	20
15	4	343-0802-000	10-32 X 5/8 screw	20

NOTE: Items 37 and 41 have been deleted.

3-3. MODIFICATION KIT

Table 2 lists the component parts for Radio Set AN/MRC-117 modification kit.

Table 1. Component Parts for Installation Kit (Cont)

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
			Modification kit, 24-volt power cable consisting of the following:	
47	2, 12	775-0671-001	Strap, cable retainer	8
46	2, 12	546-7481-002	Clamp, power cable	2
49	2, 12	775-0664-001	Retainer, cable, power	2
50	2, 12	763-4045-001	Clamp, connector, strain relief	1
51	2, 12	763-4044-001	Plate, connector, strain relief	1
52	2, 12	775-0672-001	Bus bar	1

Table 2. Radio Set AN/MRC-117 Modification Kit (Cont)

ITEM	FIGURE	PART NUMBER	NOMENCLATURE	QTY
53	12	775-0687-001	Cover, access hole, battery box	2
54	12	757-0495-017	1/4-20 X 1-1/2 hexhead bolts	16
12	12	757-0494-005	1/4-20 locknut	21
16	12	757-0494-001	10-32 locknut	12
15	12	343-0802-000	10-32 X 5/8 screw	10
55	12	342-0227-000	10-32 X 7/8 flat head screw	2
56	12	343-0370-000	1/4-20 X 1 screw (brass)	1
57	2, 12	775-0368-001	Cable, ground	1
58	2, 12	265-1173-002	Terminal block	1
59	12	304-0009-000	Lugs, solder	2
60	12	152-3973-000	Sleeving, shrink	2
61	2, 12	150-0173-000	Grommet	1
62	2, 12	357-4537-010	Connector MS 3106E-32-5S	1

3-4. UNPACKING

- a. When packed for shipment, the parts of installation and modification kit Radio Set AN/MRC-117 will be in one package.
- b. Remove all mounting frame parts and check for damaged and/or missing parts.

3-5. ASSEMBLY INSTRUCTIONS FOR CONTROL UNIT PEDESTAL

Note

Leave all fastenings loose to allow movement in all joints to compensate for minor variations in truck dimensions.

- a. Attach one brace plate, item 6, to front of left support, item 4, and right support, item 5, using items 11, 12, and 13 (figure 3).
- b. Attach second brace plate, item 6, to rear of left and right supports, items 4 and 5, with items 11, 12, and 13 (figure 3).
- c. Attach the two angle supports, item 3, to the left and right supports, items 4 and 5, with items 11, 12, and 13 (figure 3).
- d. Attach mounting frame, item 2, to the top of the left and right supports with items 11, 12, and 13 (figure 3).
- e. Attach mounting plate, item 1, to bottom of outer case of Control Unit C-719G6/GRC using four locating pins, item 8 (figure 4). Fasten tightly.

3-6. ASSEMBLY INSTRUCTIONS FOR MAIN CASE MOUNT

- a. Attach left frame support, item 20, to mounting frame, item 18, using items 9, 10, and 17 (figure 5).
- b. Attach right frame support, item 19, to mounting frame, item 18, using items 9, 17, and 10 (figure 5). Fasten items 19 and 20 tightly to item 18 at this time.
- c. Attach the seven retaining brackets, item 26, to the main case mount assembly with items 11, 12, and 13 (figures 5 and 6). Fasten loosely.
- d. Attach the angle bracket, item 27, to the left frame support with items 11, 12, and 13 (figures 5 and 6). Fasten loosely.
- e. Attach mounting frame brace, item 21, to mounting frame, item 18, with items 9, 10, and 17 (figures 5 and 8). Fasten tightly.

3-7. VEHICLE MODIFICATION AND POWER CABLE INSTALLATION

Note

Disconnect battery cable at battery box. Carefully tag cable with correct polarity to ensure proper reinstallation. Reversed polarity will result in damage to the alternator.

- a. Cut a 1-3/4-inch-diameter hole in floor of truck cargo compartment. Locate this hole just forward of the battery box, second full rib of cargo compartment floor counting from the right hand (passenger) side (figures 9 and 10).
- b. Install grommet, item 61, in the 1-3/4-inch hole and cement in place using adhesive 3M EC 847 or equivalent (figure 22).
- c. Drill seven sets of holes on the lower lip of the right-hand channel of truck frame and one set on the upper lip (figure 11).

- d. In the engine compartment, locate the battery cable to the generator. Measure back from the terminal lug about 12 inches and cut the cable. Install sleeving, item GO, and solder lugs, item 59, to the cut ends of the cable (figure 12, detail A).
- e. Locate an existing hole in the side wall of the engine compartment near where the cut was made in the cable (figure 13). Use this hole to position terminal block, item 58, and drill the other hole using the block as a template. Fasten terminal block, item 58, in place tightly with items 55 and 16 (figure 12). Attach bus bar, item 52, battery cable (existing) and ground cable, item 57, to terminal block, item 5.5, and fasten tightly (figures 12 and 14).
- f. Drill a hole in the upper lip of truck frame just below the terminal block, item 58 (figures 11 and 14). Spot-face around the hole, and attach the loose end of ground cable, item 57, to the truck frame with items 56; and 12 (figures 12 and 14).

Note

Make sure metal is thoroughly clean to provide good ground connection.

- g. Fasten power cable to battery post on voltage regulator and negative generator post. Route the cable to the rear of the truck by way of the right-hand channel of the truck frame. Fasten cable retainer straps, item 47, on the lower lip of frame channel using items 54 and 12, holding the cable in position (figure 12). Fasten loosely.
- h. Drill four holes in side wall of engine compartment using cable clamps, item 48, as templates (figures 12 and 14). Fasten tightly with items 15 and 16.
- i. Pass cable up through the 1-3/4-inch hole cut in floor of cargo compartment. Position cable retainer, item 49, around cable and drill four required holes. Fasten loosely with items 11, 12, and 13 (figures 10 and 22).
- j. Attach connector, item 52, and strain relief plate and clamp, items 50 and 51, to cable (figures 10 and 12).
- k. Fasten access hole covers, item 53, in place switch items 15 and 16 (figure 12).
- l. Reconnect battery cable at battery box observing correct polarity.

3-8. CONTROL CABLE INSTALLATION

- a. Cut three 1-3/4-inch-diameter holes in floor of cargo compartment on a front-to-rear axis (figure 9). Cut the holes just forward of where the power supply will be mounted (figure 19) on the second full rib of truck floor from the left (driver) side.
- b. Remove the rear seat. Cut three 1-3/4-inch-diameter holes in floor of crew compartment under the rear seat position (figures 18 and 20). Use the front seat belt holddown bolts for a guide in positioning these holes (figures 15, 18, and 20).
- c. Set control cable clamp, item 14, in position on top of drive-shaft hump and drill two holes (figures 15 and 18).
- d. Drill two holes in angle chassis brace on left (driver) side just forward of rear axle (figure 16).

- e. Pass control cables down through holes in floor of crew compartment, on top of angle chassis brace (between brace and truck frame), and up through holes in floor of cargo compartment (figures 10, 16, 18, and 19).

Note

For identification purposes control cable #1 connects to J1 on main case and control unit, control cable #2 to J2, and control cable #3 to J3. Figure 17 gives keying information for the connectors. The holes in truck floor are numbered 1, 2, and 3, front to rear in crew compartment, and 1A, 2A, and 3A, front to rear in cargo compartment.

- f. Lay the control cables, items 43, 44, and 45, in position on floor of crew compartment under the rear seat position. Fasten in place using cable clamp and hardware, items 14, 15, and 16. Fasten loosely (figure 18).
- g. Place control cables, items 43, 44, and 45, on the chassis brace (figure 16) and fasten with clamp and hardware, items 14, 15, and 16.
- h. Position two sets of grommets in the 1-3/4-inch holes in truck floor. Position cable retainers, item 46, around cables and grommets. Drill holes for fastening hardware, and fasten in place using items 15 and 16 (figures 4 and 18). Fasten loosely.

3-9. INSTALLATION OF CONTROL UNIT PEDESTAL

- a. Move front seat as far forward as it will go.
- b. Remove front seat belt holddown bolts from either side of drive shaft hump (figures 4, 21, and 20).
- c. Set the preassembled control unit pedestal in the approximate desired position (figures 20 and 21). Use the seat belt holddown bolts as locating pins, and line up the forward slotted holes in the floor mounting brackets with the seat belt bolt holes (figures 4, 21, and 20).
- d. Reinstall seat belt hardware. Fasten loosely.
- e. Move front seat all the way to the rear, and adjust control unit pedestal for desired clearance between seat and pedestal (figures 20 and 21).
- f. Tighten all bolts on the control unit pedestal.
- g. Tighten the front seat belt holddown bolts.
- h. Drill four holes corresponding to the holes in the angle supports, item 3. Position the backup plates, item 7, on the underside of the floor, and fasten pedestal and plates with items 9, 17, and 10 (figure 4).
- i. Set Radio Set Control C-7196/GRC, with mounting plate, item 1, attached in place on the pedestal and lock (figures 4 and 21).

- j. Connect control cables, item 43, 14, and 45 to C-719?i. Dress neatly along pedestal support, and fasten with c, lamps and hardware, items 14, 15, and 16 (figure 21). Fasten loosely.

3-10. INSTALLATION OF POWER SUPPLY MOUNT

- a. Set the mount, item 40, into the cargo compartment. Position it symmetrically on the first and third full ribs of the cargo, compartment floor, 14-1/2 inches back from the forward of the compartment (figures 9, 22, and 23).
- b. Use the power supply mount, item 40, as a template, and drill 2 holes at each corner (figures 9 and 22).
- c. Use hardware provided, items 9, 10, and 17, and fasten mount tightly in position (figure 22).

Note

Make sure that backup plates, item 42, are attached to the underside of the cargo compartment floor.

- d. Install locating pins, item 28. Fasten loosely (figure 22).

3-11. INSTALLATION OF MAIN CASE MOUNT

Note

The cargo compartment is n)t symmetrical or uniform in all cases. For this reason measurements are not given.

- a. Position the main case mount in the cargo compartment. Align the inside edges of the frame-support feet symmetrically with the seams in the floor of the cargo compartment. Make sure the frame-support feet are NOT touching the forward wall, side wall, and wheel sponson in the cargo compartment (figures 7, 19, and 23).
- b. Set frame mounting brace plate, item 22, in position on wheel sponsons with the eight holes in the plate on top) (figures 7 and 8).
- c. Carefully:, align brace plate, item 22, and frame mounting brace, item 21, so that two sets of holes in the brace plate show completely in the slotted holes of the mounting brace {figures 7 and 8).

Note

Either the first and third or second and fourth sets of holes, counting from out to in, should show completely. The brace plate, item 22, also must fit snugly against the side of the wheel sponson. If it does not, the main case mount will have to be repositioned carefully for the proper fit of the brace and brace plate.

When brace and brace plate are aligned properly, drill four holes in top of each wheel sponson (figure 7).

- d. Make sure the main case mount is not moved. Drill 12 holes in floor of cargo compartment using the holes in the support feet as drill guides (figure 7).
- e. Remove main case mount. Check alignment of brace plate, and drill four holes in side of left wheel sponson. Fasten brace plate and backup plates, item 23, with items 9, 10, and 17 (figure 7).
- f. Check the alignment of brace and brace plate on right wheel sponson, and drill the two upper holes in the side of the wheel sponson. Fasten brace plate and backup plates, item 23, with items 9, 10, and 17. From the tire side, drill the bottom two holes and finish fastening brace plate and backup plate to truck.
- g. Set the main case mount back in the truck and align it with the holes just drilled. Place backup plates, item 24, under the forward holes, and fasten with items 32, 10, and 17. Place backup plates, item 25, under the rear holes, and fasten with items 32, 10, and 17 (figure 7).
- h. Attach control unit cables, items 43, 44, and 45, and Radio Set AN/GRC-158 Cable CX-10359/G to main case mount (figures 19 and 23).

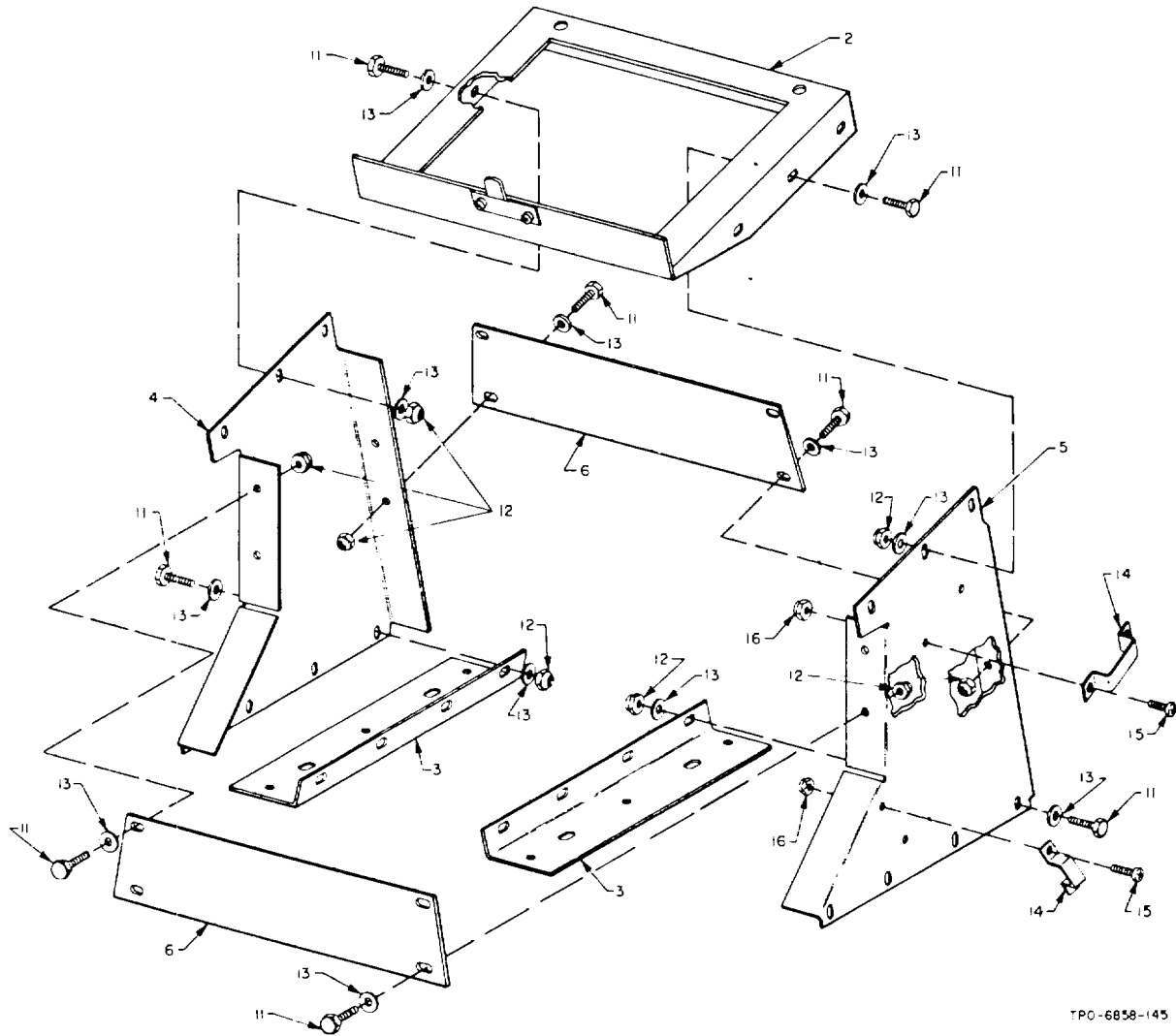
Note

Cable clamps were installed during mount assembly (paragraph (6)). Cable CX-10359/G is part of Radio Set AN/GRC-158 and is not supplied with the AN/MRC 117 installation and modification kit. CX-10359/G connects J5 on main case to J1 of power supply.

Install locating pins, item 28 (figure 5). Fasten loosely.

3-12. FINAL INSTALLATION PROCEDURES

- a. Attach lock support block, item 30, to power supply case and main equipment case using items 38 and 39 (figures 7 and 22). Fasten tightly.
- b. Attach lock support plate, item 29, to lock support block, item 30, with items 15, 35, and 36 (figures 7 and 22). Fasten tightly.
- c. Fasten the upper half of the lock, item 31, to the main equipment case and power supply case. Use items 34 and 35 (figures 7 and 22).
- d. Set all components of Radio Set AN/GRC-158 in place. Adjust locating pins, item 28, on main case mount and power supply mount. When properly adjusted, remove main case and power supply and tighten pins. Set main case and power supply back in position and lock all components of Radio Set AN/GRC-158 in place.
- e. Connect all cables to the equipment.
- f. Tighten all cable fastening hardware.
- g. Check all fastenings for proper tightness.



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Figure 3. Control Unit Pedestal, Exploded View

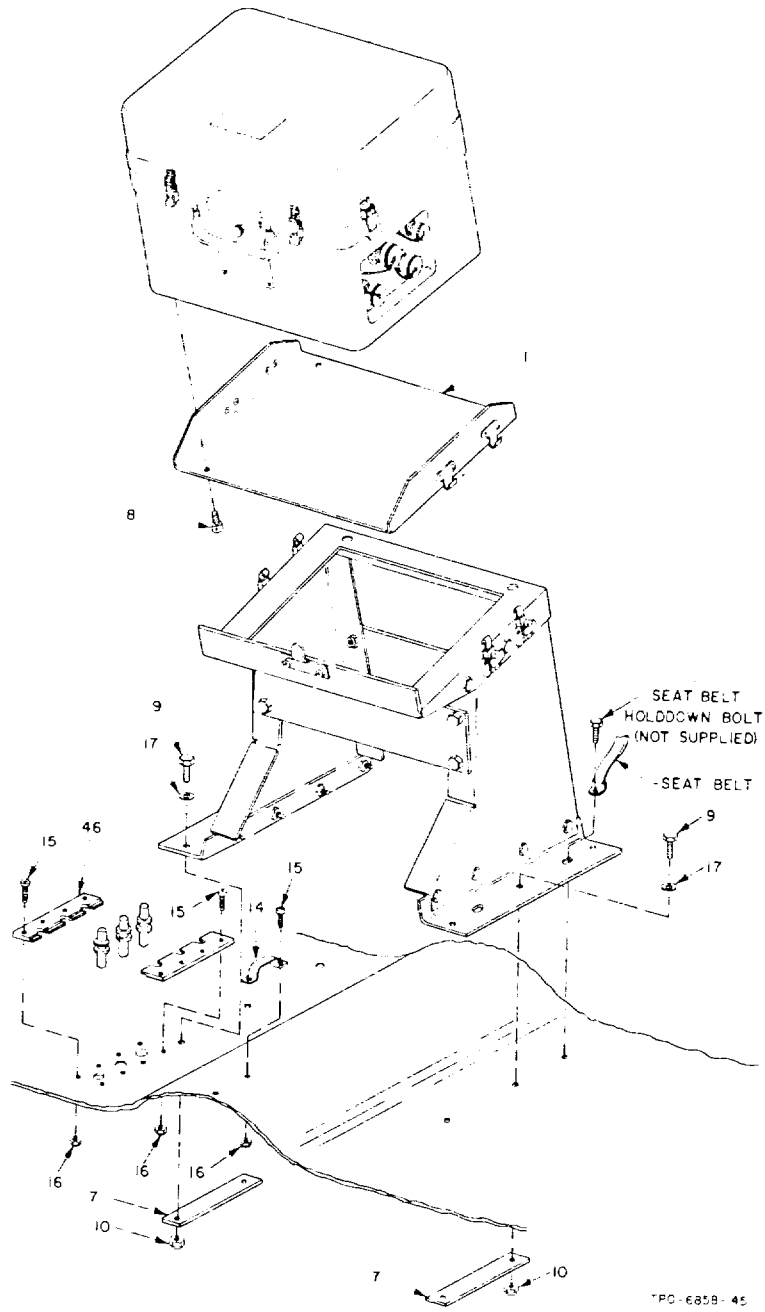


Figure 4. Control Unit Pedestal and Cable Retainer Installation

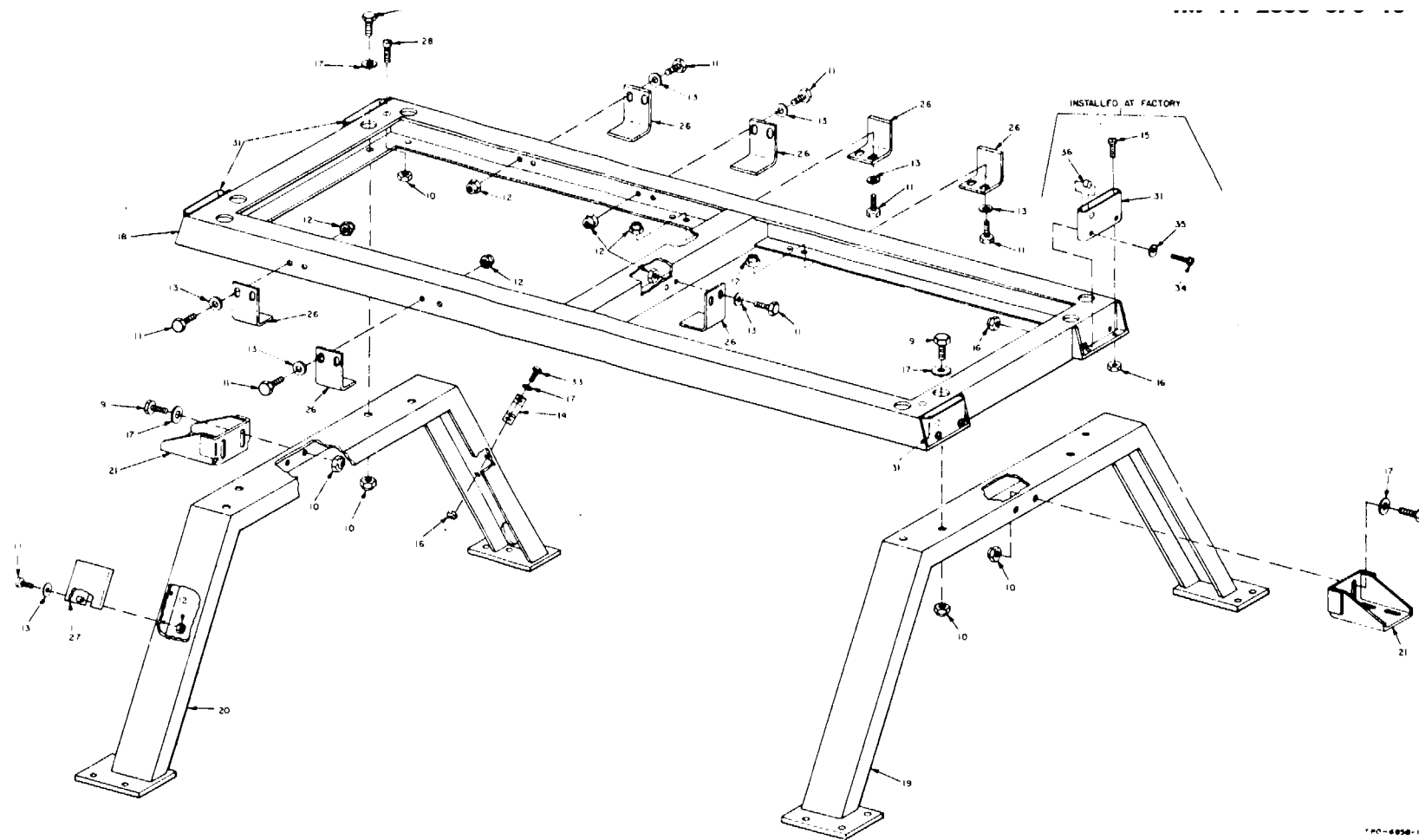


Figure 5. Main Case Mount Assembly, Exploded View

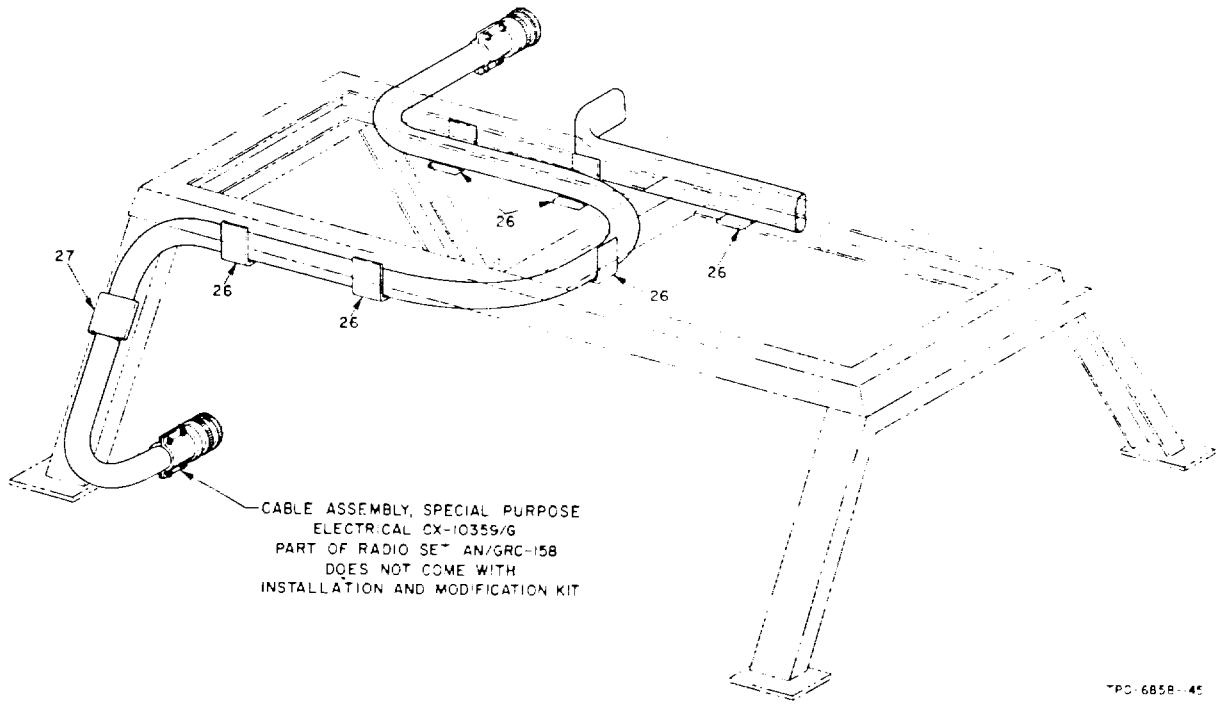


Figure 6. Main Case Mount, Cable Routing

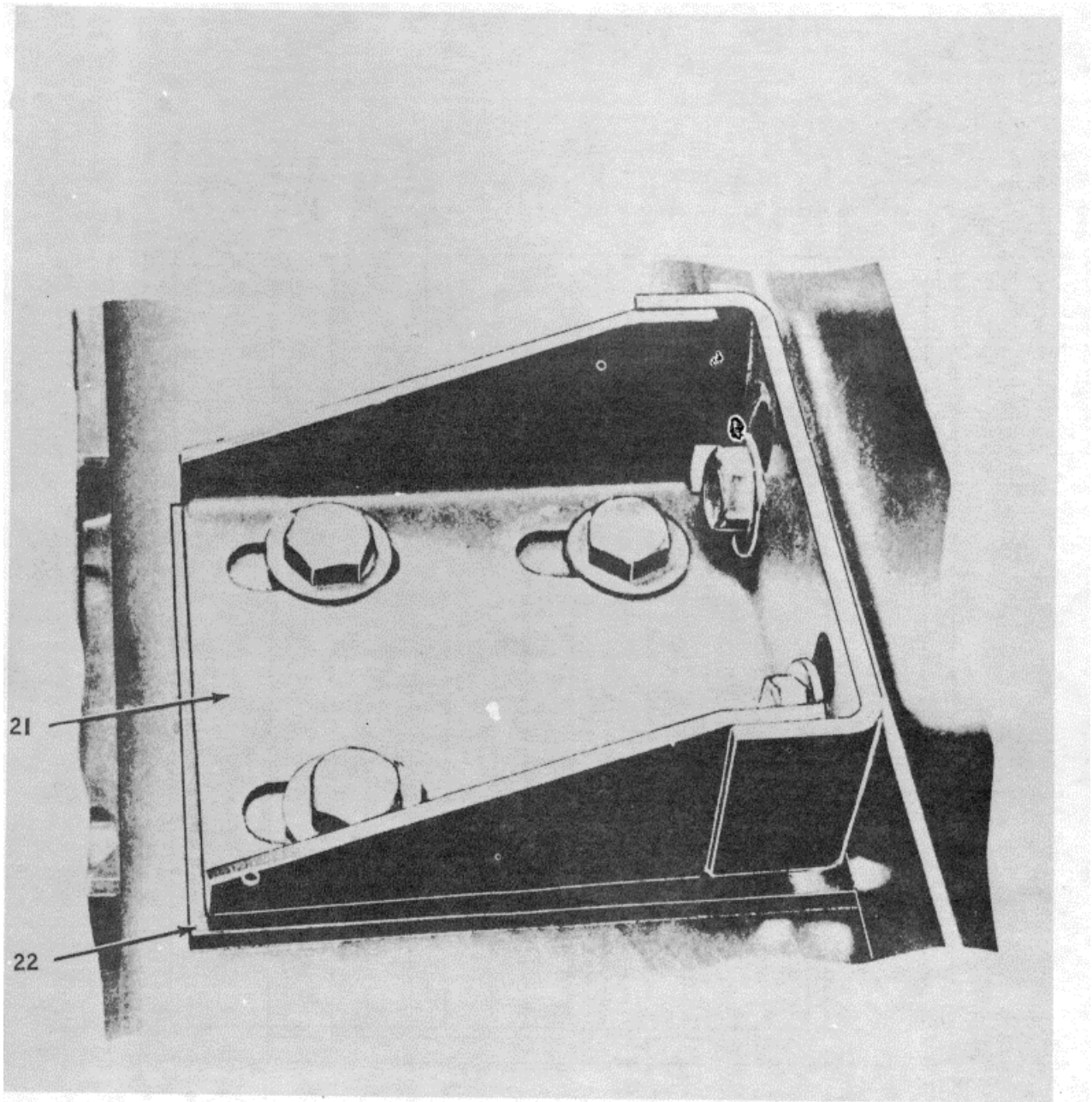


Figure 8. Frame Mount Brace and Plate

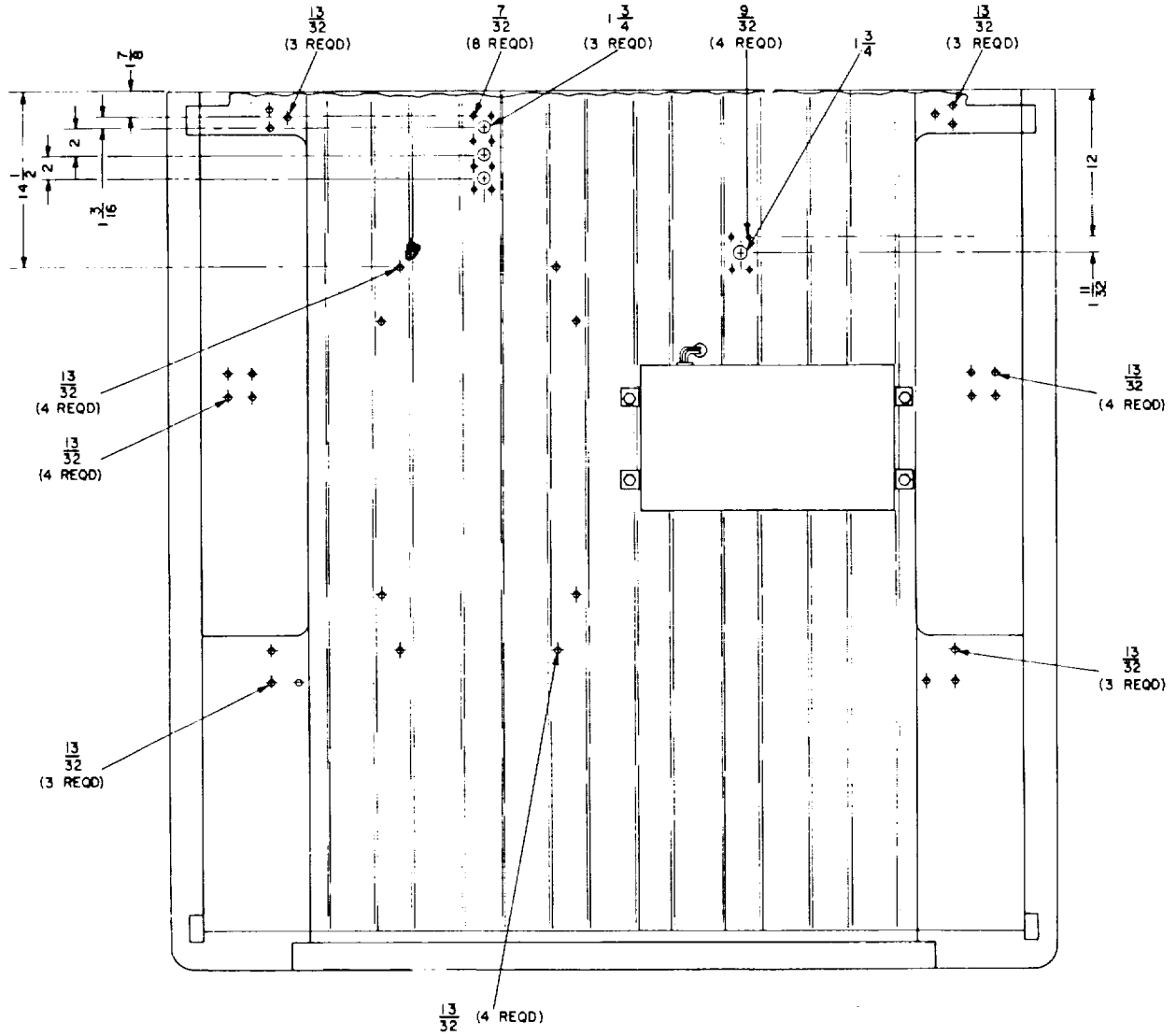


Figure 9. Truck Box Modification, Dimensioning Layout

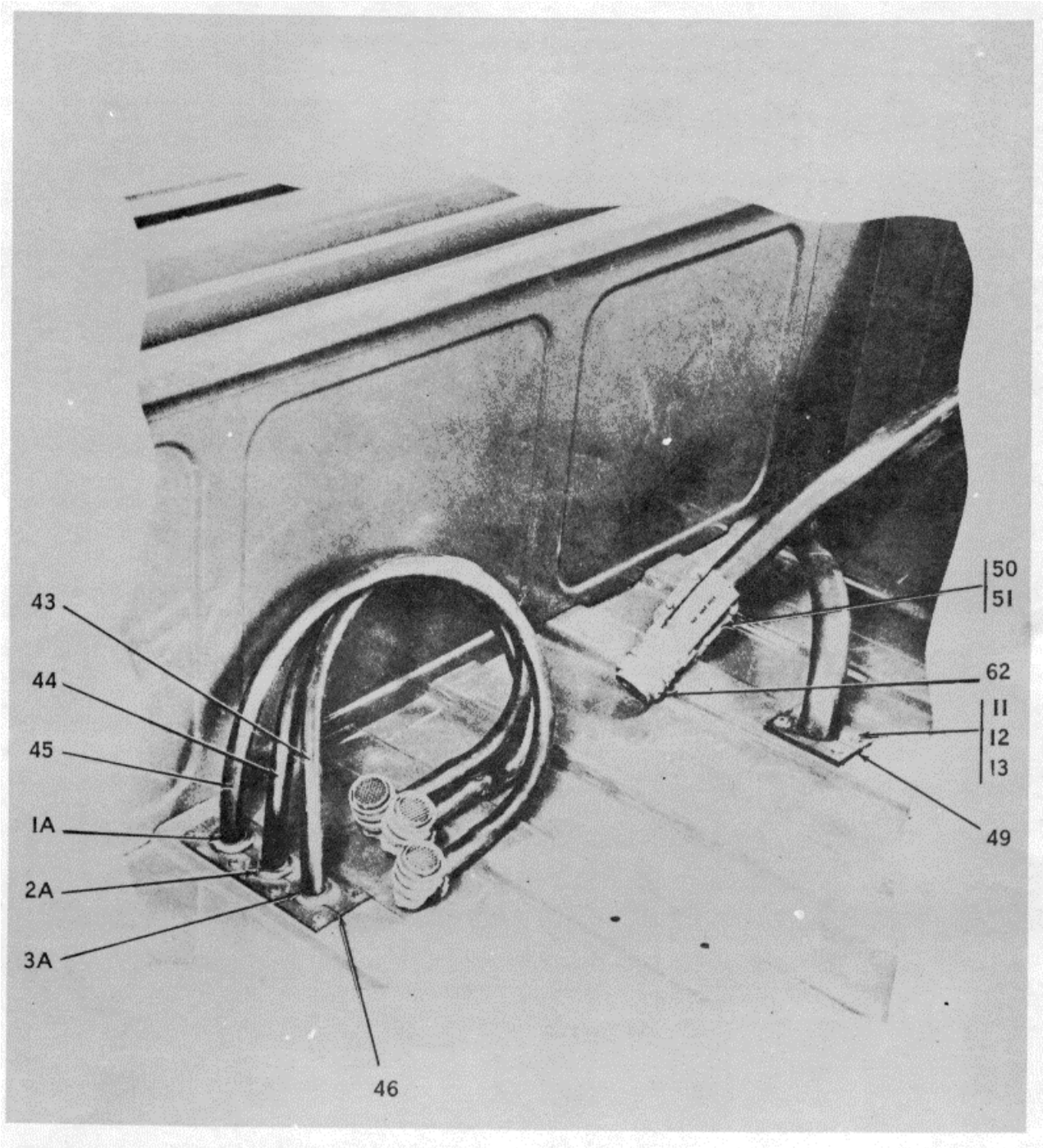


Figure 10. Cargo Compartment Cable, Modification and Installation

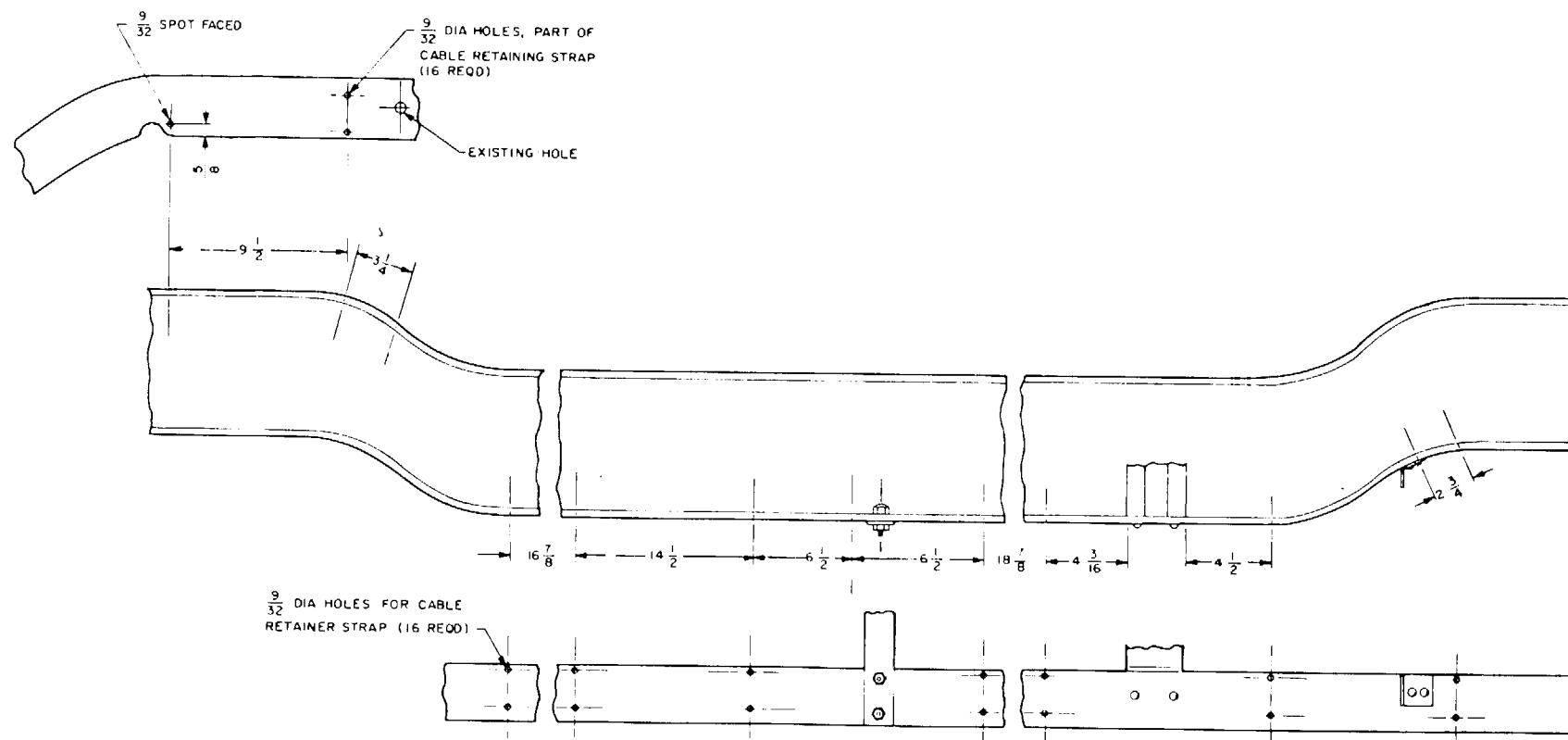


Figure 11. Chassis Modification

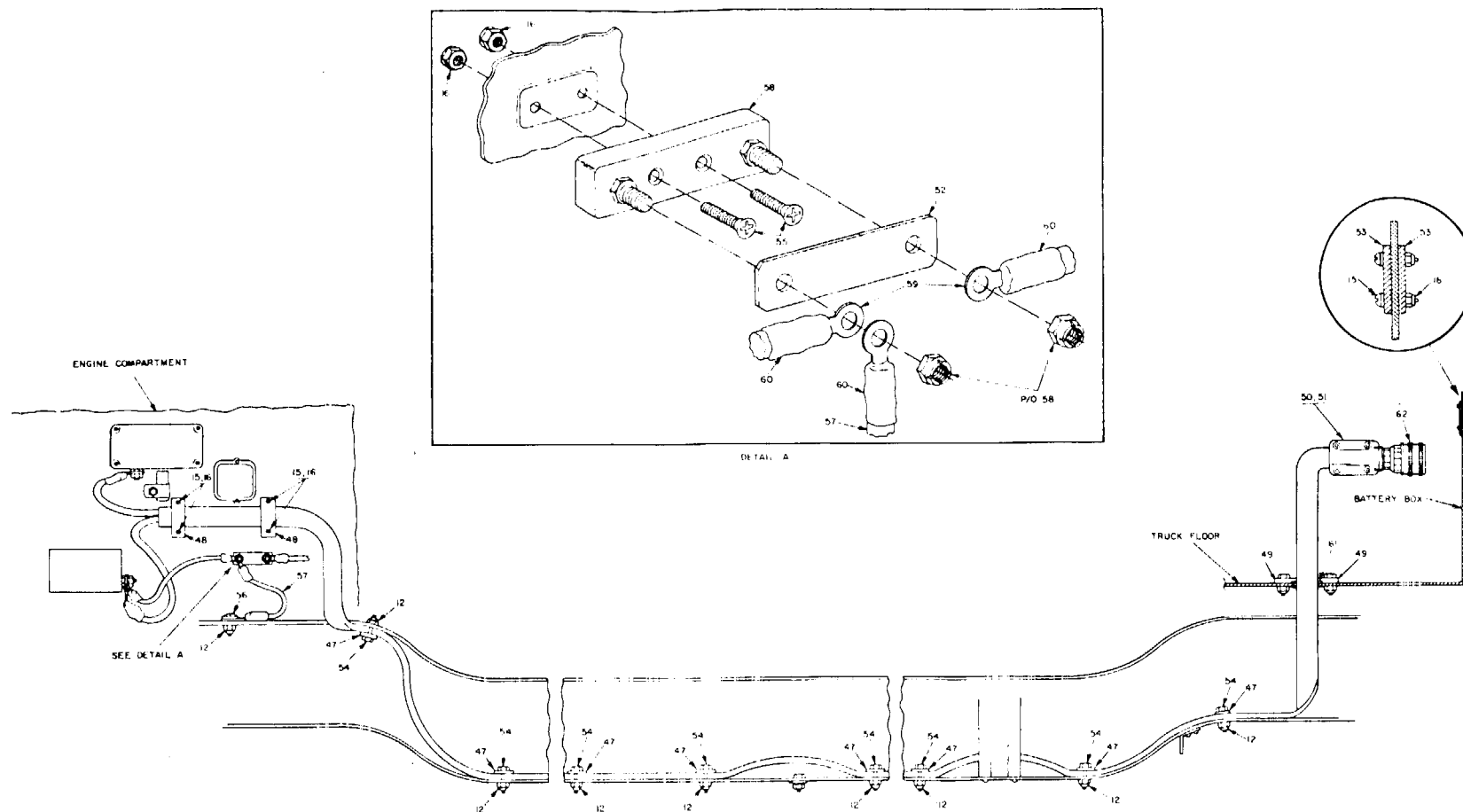


Figure 12. Power Cable Routing Hookup

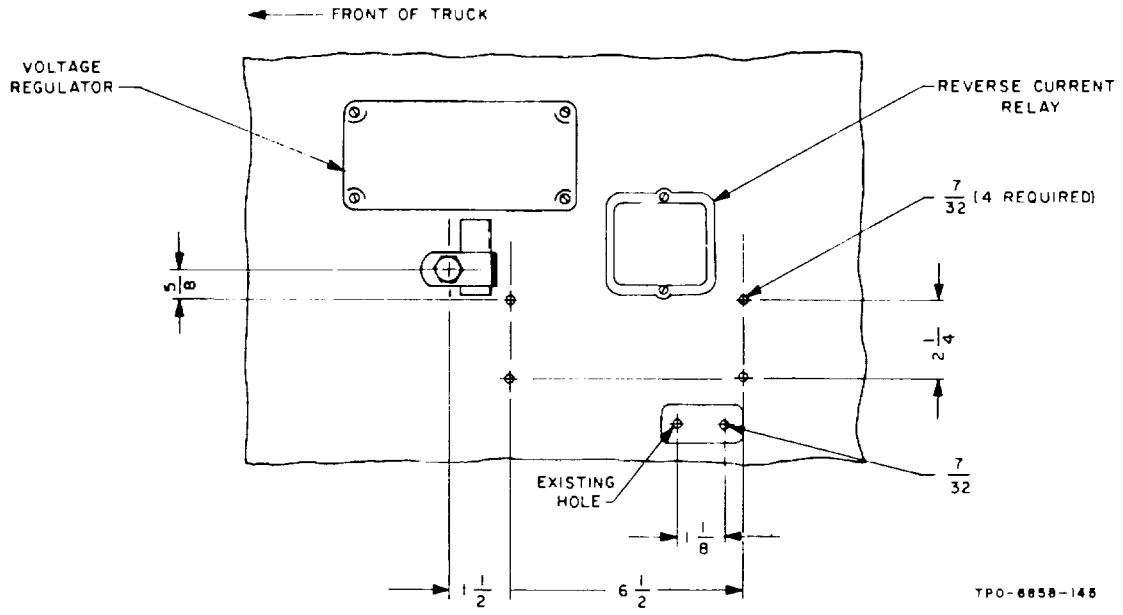


Figure 13. Engine Compartment Cable Clamp Layout

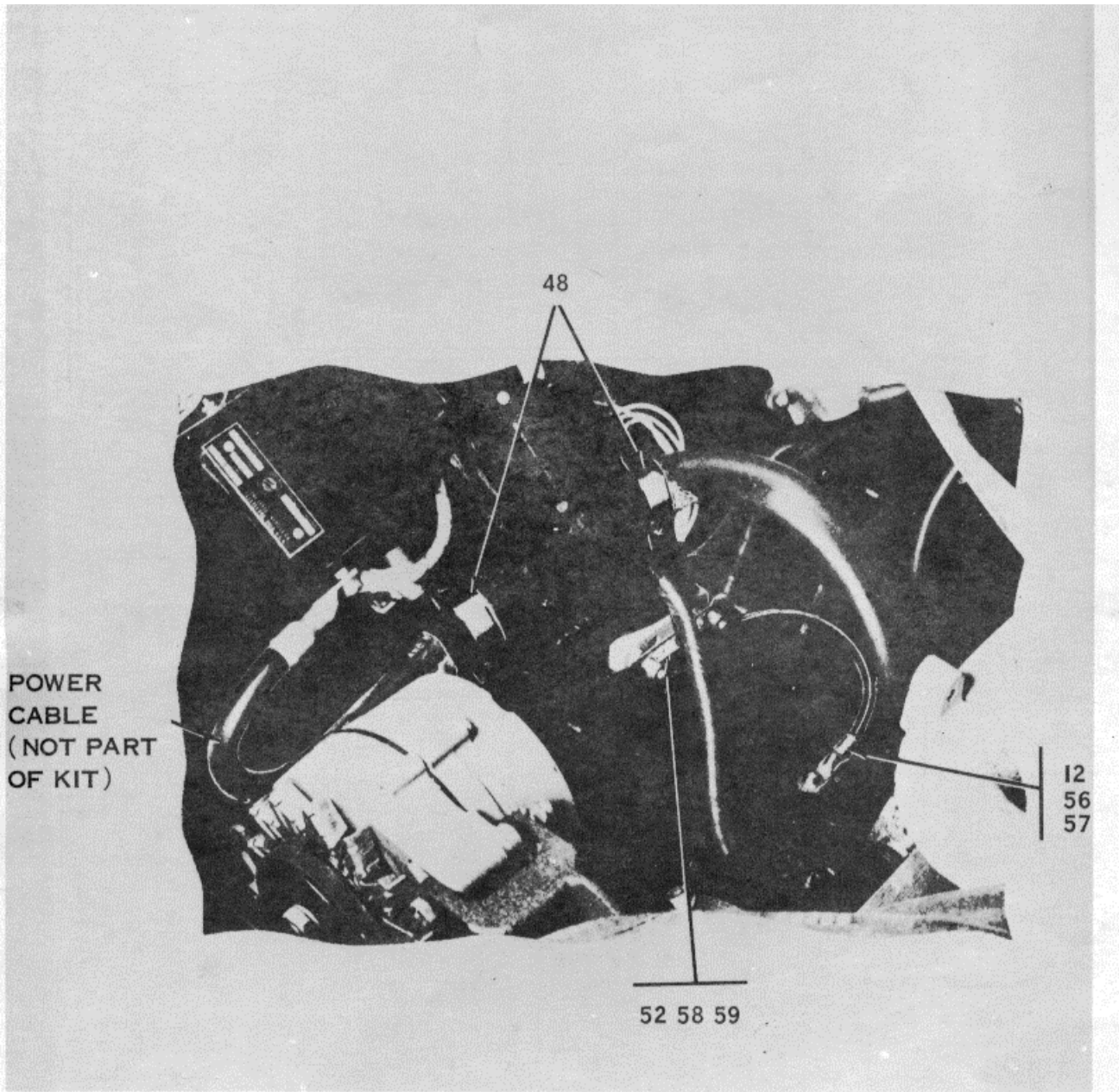


Figure 14. Terminal Block and Cable Installation

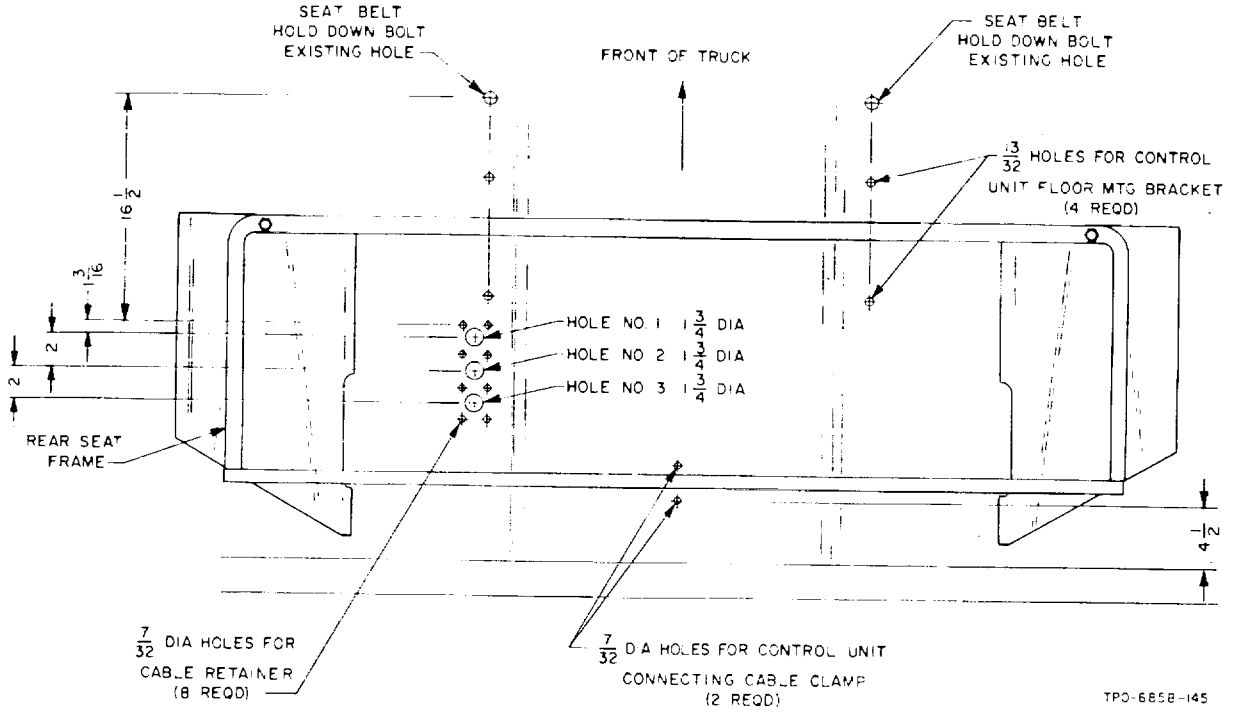


Figure 15. Control Unit Pedestal -Modification, Dimensioning Layout

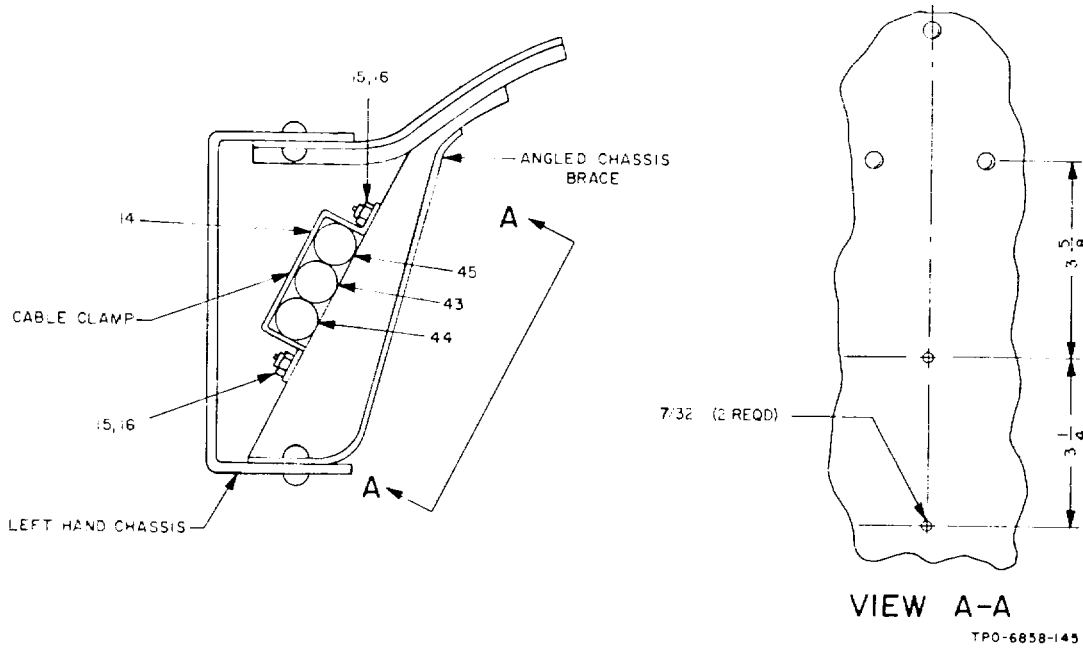
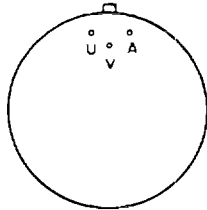


Figure 16. Control Cable Chassis Clamp Installation

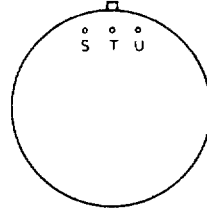
CABLE NO 1

CABLE NO 2

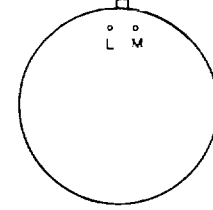
CABLE NO 3



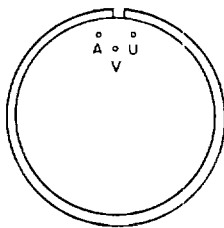
PT08E-22-55P



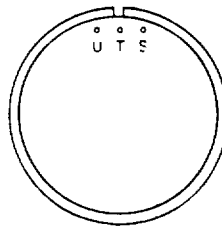
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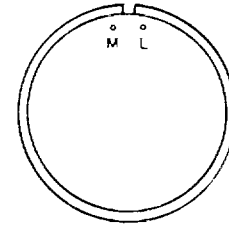
PT08E-22-55PX



PT08E-22-55S



PT08E-22-55SW



PT08E-22-55SX

NOTE.
SHOWN ARE BENDIX CONNECTORS. THEY ARE IDENTICAL
TO AMPHENOL MS-3124 CONNECTORS

Figure 17. Control Cable Connector, Keying Information

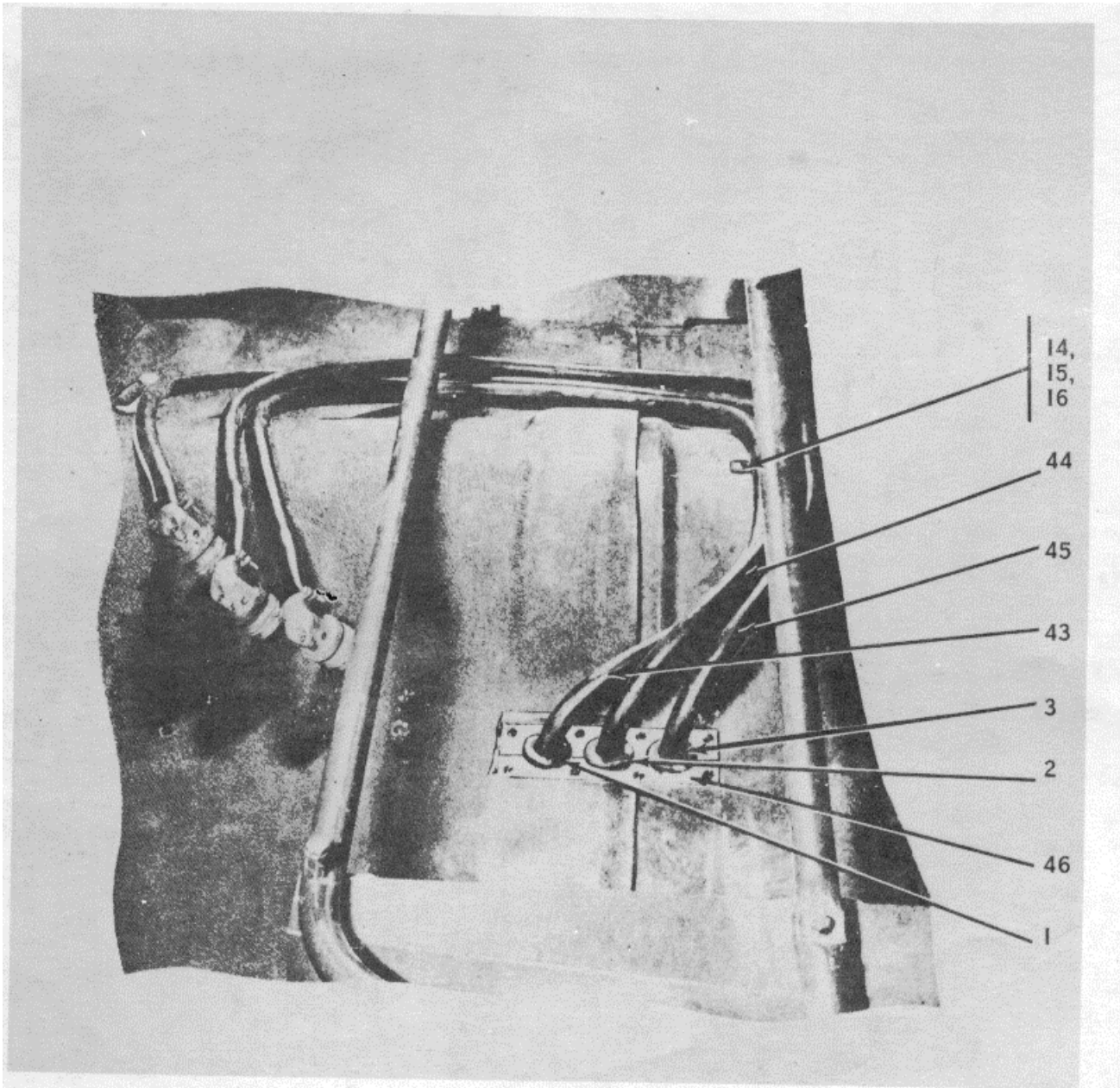


Figure 18. Crew Compartment Cable, Modification and Installation

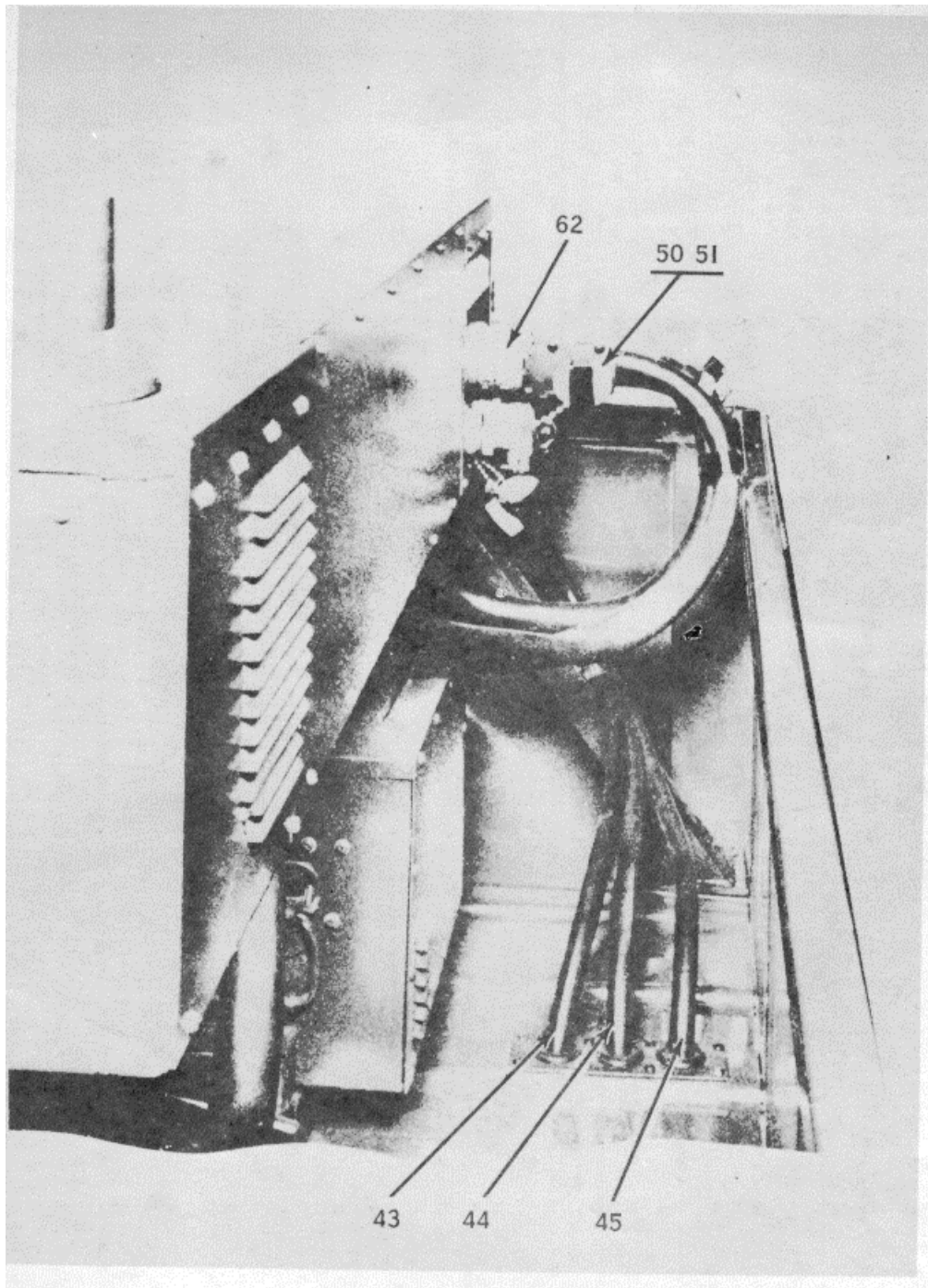


Figure 19. CARGO COMPARTMENT INSTALLATION

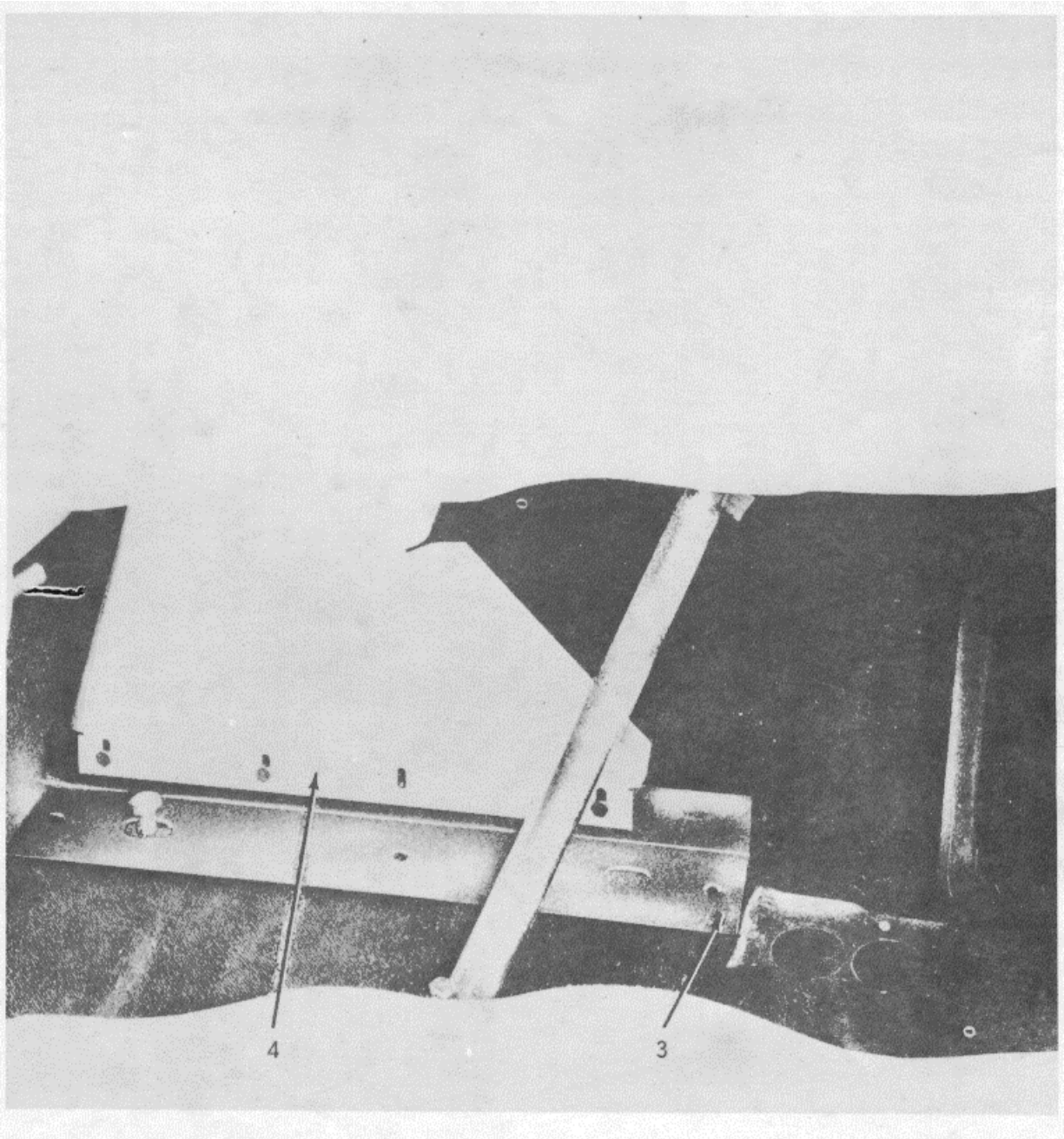


Figure 20. Control Unit Pedestal Modification

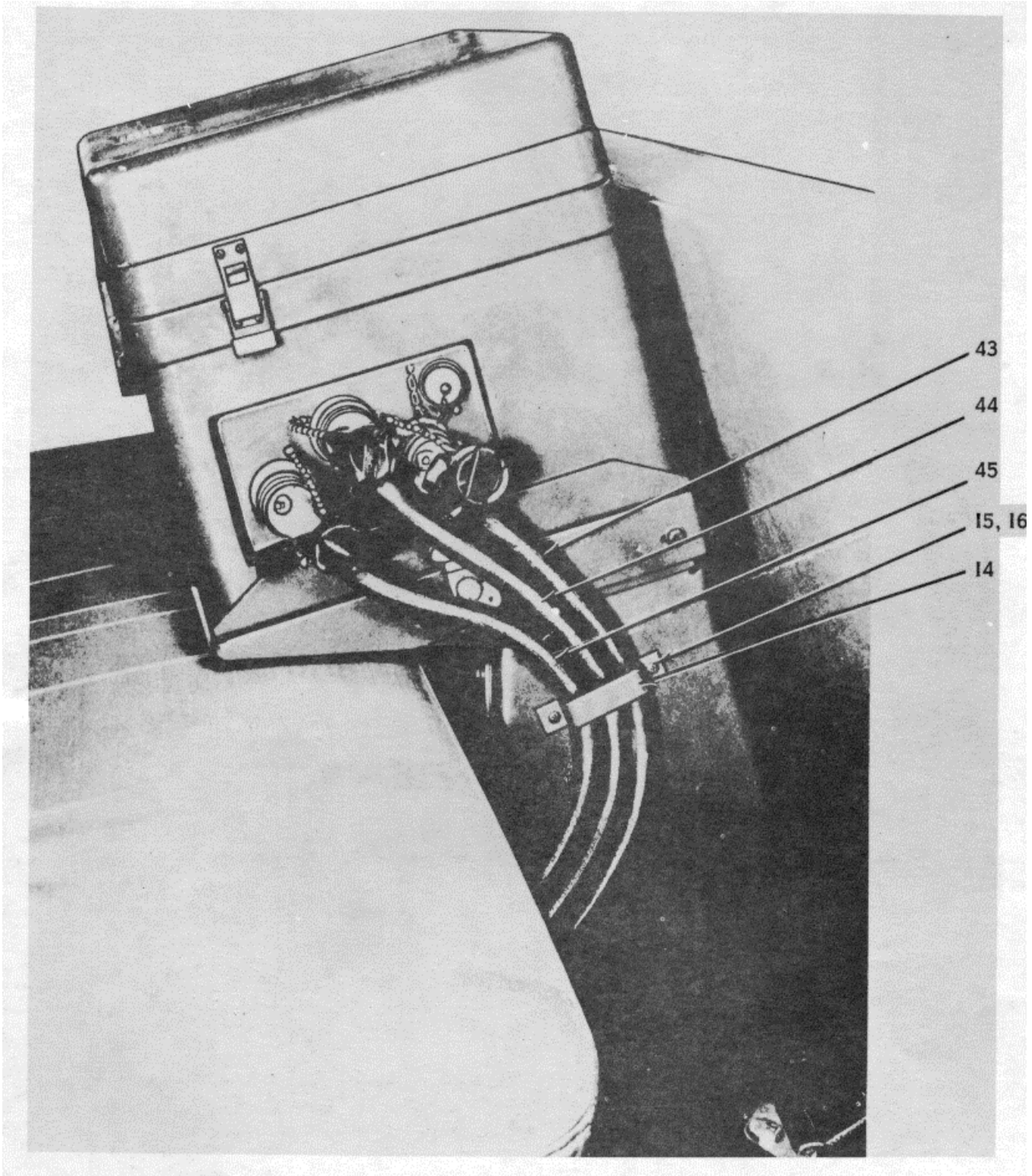
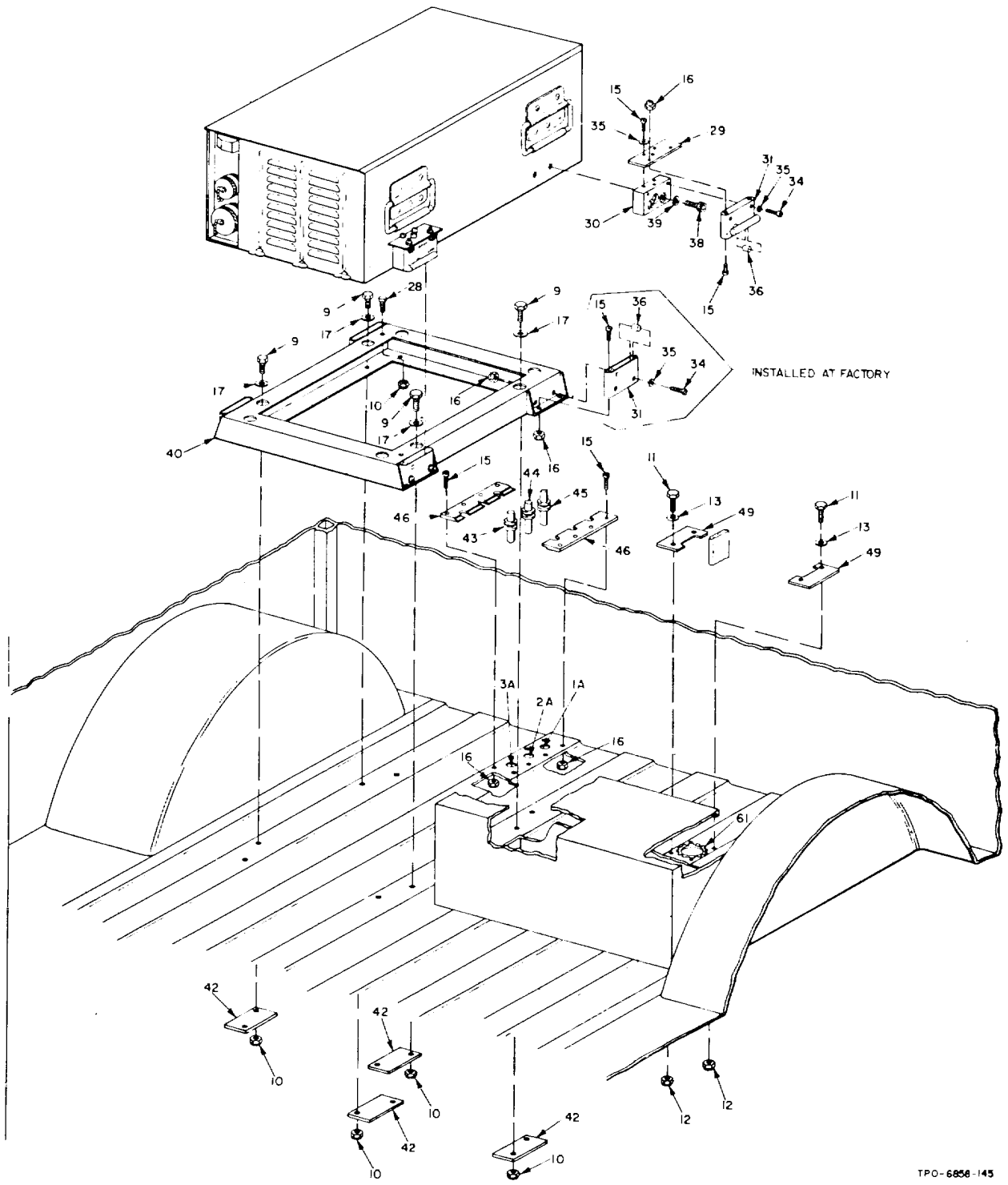


Figure 21. Control Unit Pedestal Installation



TPO-6858-145

Figure 22. Power Supply Mount Assembly and Installation

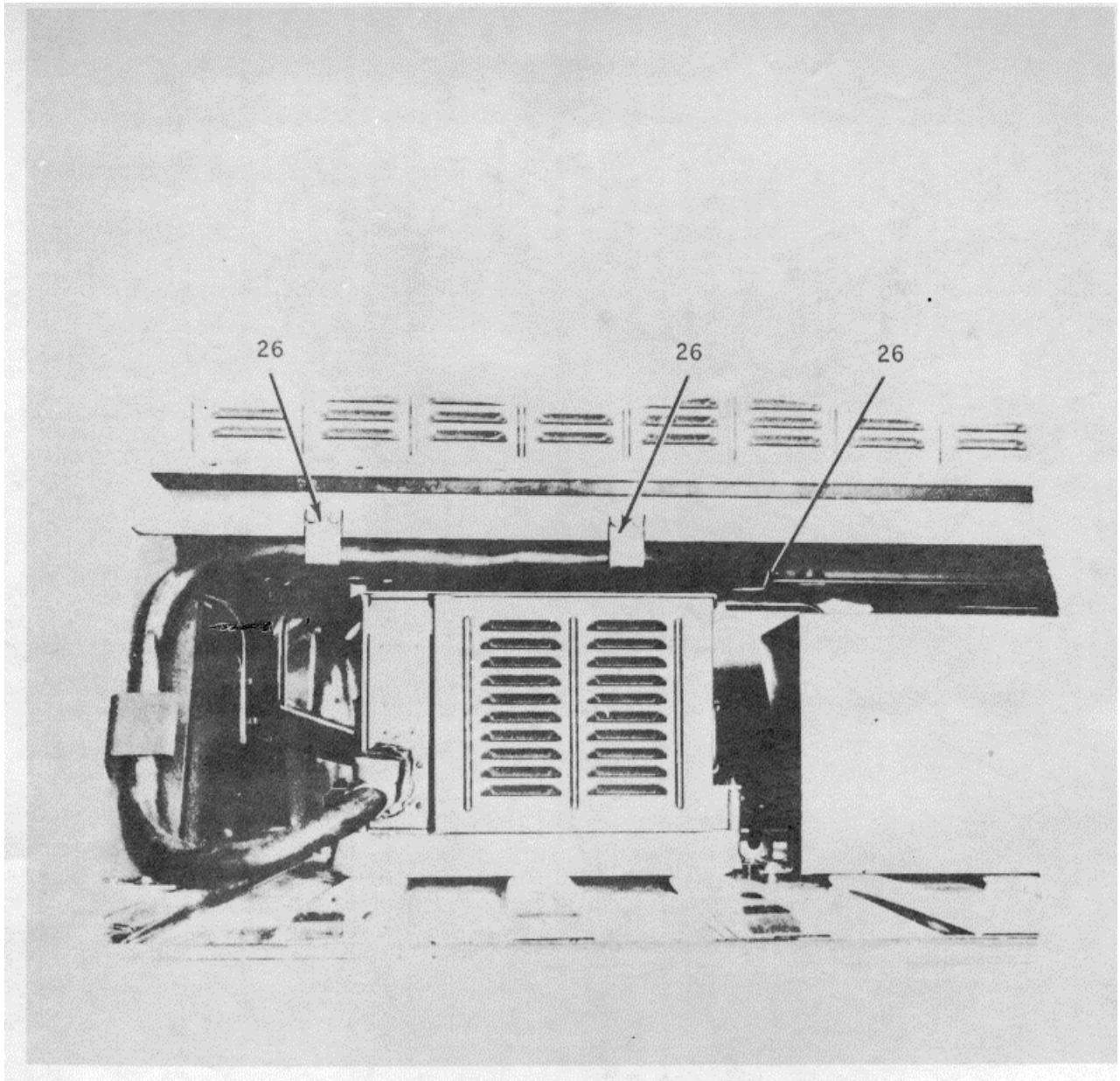


Figure 23. Main Case and Power Supply Installation

APPENDIX

REFERENCES

Following is a list of applicable references that should be available to the personnel concerned with Radio Sets AN/GRC-158 and AN/MRC-117:

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	U.S. Army Equipment Index of Modification Work Orders.
SB 11-614	Caution Notice for Antenna Bases, Towers, and Other Mast Structures.
TB SIG 291	Safety Measures To Be Observed When Installing and Using Whip Antennas, Field Type Masts, Towers, Antennas, and Metal Poles That are Used With Communication, Radar, and Direction Finder Equipment.
TB SIG 364	Field Instructions for Painting and Preserving Electronics Command Equipment.
TM 5-6115-271-15	Organizational, DS, GS, and Depot Maintenance Manual: Generator Set, Gasoline Engine, 3 KW (less engine) 3 KW, AC, 400 cycle (Military Model HF 3.0 MD) FSN 6115-075-1638 and FSN 6115-012-1993, 3 KW, AC, 60 cycle (Military Model SF 3.0 MD) FSN 6115-075-1640 and FSN 6115-913-9290/3 KW, DC, 28V (Military Model DC 3.0/MD/28V) FSN 6115-012-1997.
TM 9-2330-202-14P	Operator, Organizational, and Field Maintenance Instructions, Repair Parts and Special Tools List for Trailer, Cargo: 3/4-Ton, 2-Wheel, M101 (2320-738-9509) M101A1 (2330-898-6779); Chassis; Trailer: 3/4-Ton, 2-Wheel M116 (2330-542-5987) and M116A1 (2330-898-6780).
TM 11-2651	Antenna Groups AN/GRA-5 and AN/GRA-12.
TM 11-4000	Troubleshooting and Repair of Radio Equipment.
TM 11-5820-467-15	Operator, Organizational, Field and Depot Maintenance Manual: Antenna Group AN/GRA-50.
TM 11-5820-514-12	Organizational Maintenance Manual: Including Repair Parts and Special Tool Lists: Radio Set AN/MRC-95.
TM 11-5820-514-35	DS, GS, and Depot Maintenance Manual: Radio Set AN/MRC-95.
TM 11-5820-672-12	Operator and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Radio Sets AN/GRC-158 and AN/MRC-117.
TM 11-5820-696-15	Organizational, DS, GS, and Depot Maintenance Manual: Communications Facility, Mobilized AN/MRC-119 and Communications Facility, Jeep Mounted AN/MRC-120.

TM 11-5821-2,18-12	Organizational Maintenance Manual: Radio Set AN/ARC-102.
TM 11-5821-2,18-35	DS, GS, and Depot Maintenance Manual: Radio Set AN/ARC-102.
TM 11-5821-250-35P	Direct and GS and Depot Maintenance Repair Parts and Special Tool Lists: Receiver-Transmitter, Radio RT-698/ARC-102.
TM 11-5821-271-15	Organizational, DS, GS, and Depot Maintenance Manual: Couplers, Antenna CU--1658/A and CU-1669/GRC.
TM 11-5895-558-15	Organizational, DS, GS, and Depot Maintenance Manual: Radio Set AN/TRC-146.
TM 11-6625-622-12	Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Test Harness, Radio Set AN/URM-157.
TM 11-6625-682-15	Organizational, GS, and Depot Maintenance Manual: Including Repair Parts and Special Tool Lists: Meter, Field Strength ME61/GRC.
TM 11-6625-1636-15	Organizational,-DS, GS, and Depot Maintenance Manual: Test Set, Antenna Coupler AN/ARM-109.
TM 38-750	Army Equipment Record Procedures.

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USAR: None.

For explanation of abbreviations used, see AR 320-50.

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