TB 9-1425-480-20

TECHNICAL BULLETIN

MOUNTING INSTRUCTIONS

FOR

KIT, GM INFRARED TRACKER CASE M213
NSN 1430-01-030-1437

AND

KIT, APC INSTALLATION, DRAGON HARDWARE
NSN 4935-01-073-1665

DRAGON MEDIUM ANTITANK/
ASSAULT WEAPON SYSTEM

This copy is a reprint which includes current pages from Changes 1 THROUGH 2.

HEADQUARTERS, DEPARTMENT OF THE ARMY
DECEMBER 1984

Technical Bulletin)
)
No. 9-1425-480-20)

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 26 December 1984

MOUNTING INSTRUCTIONS FOR:
KIT, GM INFRARED TRACKER CASE M213
NSN 1430-01-030-1437
AND
KIT, APC INSTALLATION, DRAGON HARDWARE
NSN 4935-01-073-1665
(DRAGON MEDIUM ANTITANK/ASSAULT WEAPON SYSTEM)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this bulletin. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), direct to: Commander, US Army Missile Command, Attn: AMSMI-LC-ME-PM, Redstone Arsenal, Al 35898-5238. A reply will be furnished to you.

CONTENTS

* This document supersedes TB 9-1425-480-20, dated 24 November 1980.

CONTENTS

CHAPTER 1

INTRODUCTION

1-1. SCOPE

This bulletin contains instructions for installing DRAGON hardware kits and associated modifications in the Armored Personnel Carrier M113A1/A2.

1-2. DESCRIPTION OF KITS

a. **Kit, GM Infrared Tracker Case M213. This kit includes a container for storing the Infrared Tracker SU-36/P when not in use and the hardware for mounting the container.**

b. **Kit, APC Installation, DRAGON Hardware. This kit includes the assemblies and mounting hardware for the night tracker rack, the battery charger rack, the cable ducts clamps, and cable entrance into the vehicle battery box, the bottle case racks, and the battery case rack; and the modification hardware with instructions for modification of curb side passenger seat back.**

1-3. INVENTORY LIST

Nomenclature - PN/NSN	Quantity
Kit, Case M213, GM Infrared Tracker **PN 5952299** **NSN 1430-01-030-1437** **Consisting of:**	**1 ea**
CONTAINER, M213, DRAGON TRACKER 11508677	1 **ea**
INSERT-THREADED METAL, LIGHT WEIGHT, SELF-LOCKING, NAS1394-C4L	4 **ea**
SCREW, CAP, SOCKET HEAD, MS16996-24	4 **ea**
WASHER, FLAT, AN960-416	4 **ea**
Kit, APC Installation DRAGON Hardware **PN 5952323, NSN 4935-01-073-1665** **Consisting of:**	**1 ea**
SUPPORT ASSEMBLY, 13043963-2	3 **ea**
SUPPORT ASSEMBLY, 13043963-1	**1 ea**
BRACKET ASSEMBLY, 13043958	**1 ea**

Nomenclature - PN/NSN	Quantity
CASE SUPPORT ASSEMBLY, 13043956	1 ea
STRAP ASSEMBLY, 13043961	2 ea
SCREW, PAN HD, MS35207-261	19 ea
CABLE DUCT, 11572742-1	1 ea
CABLE DUCT, 11572742-2	2 ea
STRAP, STOW, 11572744-2	2 ea
PLATE, CLAMP, 11572743	2 ea
SCREW PAN HD, MS35207-264	16 ea
WASHER, LOCK, MS35338-43	21 ea
NUT, HEX, MS35650-302	2 ea
INSERT, THREADED, MS5183O-104L	4 ea
WASHER, FLAT, AN960C8	4 ea
SCREW, SOC HD, MS16997-33	4 ea
SCREW 82° FL HD, MS35191-273	4 ea
WASHER, FLAT, AN960C10	18 ea
NUT, SELF-LOCK, NAS1291C3M	16 ea
SCREW, HEX HD, MS90726-17	4 ea
WASHER, FLAT, AN960C416	4 ea
INSERT, THREADED, MS51830-202L	10 ea
NUT, HEK, NAS1291C6M	1 ea
SCREW 82° FL HD, MS35191-294	6 ea
CABLE CLAMP, MS21919DG8	4 ea
GROMMET, MS35489-16	2 ea
SCREW, HEX HD, MS90726-58	1 ea
WASHER, LOCK, MS35333-76	1 ea

Nomenclature - PN/NSN	Quantity
WASHER, FLAT, AN960C616	1 ea
SUPPORT, SEAT BACK, 13170601	1 ea
BRACKET SUPPORT, SEAT BACK, 13170600	1 ea

NOTE

Additional authorization list of TM 9-1425-484-10 (Appendix C) includes the Vehicle Power Conditioner and the Battery Charger. Mounting brackets and plates for these two items are part of the kits included in this TB.

1-4. SPECIAL TOOLS AND FIXTURES REQUIRED

a. Insert, screw thread kit, NSN 5120-00-110-4568

b. Countersinking Tool, NSN 5133-00-239-0786, 3/8” dia., 82 deg., 3/16” dia. X 1-7/6” long shank.

c. Round Radio Chassis Punch 13/16 dia., No. 500-4226.2, Die No. 500-4225.4, Screw No. 500-6976.4 (Screw size 3/8) from Greenlee Tool Co., Rockford, IL, or equivalent.

d. Welding Rod, electrode type 5356, spec MIL-E-16053. Quantity - as required.

1-5. KIT REMOVAL PROCEDURE FOR TURNED IN APC

If your APC is turned in for major overhaul or repair, all the kits and modified seat back included in this TB, except weldments and inserts, must be removed by your organization and installed on your replacement APC, including required modifications. The seat back modification hardware may be requisitioned thru normal supply channels (see TM 9-1425-480-24P). The unmodified seat back removed from your replacement APC should be turned in to the proper commodity command for installation on reassigned APC’s.

SPECIAL NOTE

All dimensions shown in this technical bulletin are in inches unless otherwise specified.

CHAPTER 2

INSTALLATION OF KIT, GM INFRARED TRACKER CASE M213, PN 5952299

2-1. INSTALLATION OF M213 CONTAINER PN 11508677

a. Position the M213 Container PN 11508677 in a clear unobstructed area on the forward curbside wall and ceiling, between the heater and an existing mounting lug welded to the ceiling, as shown in figure 2-1.

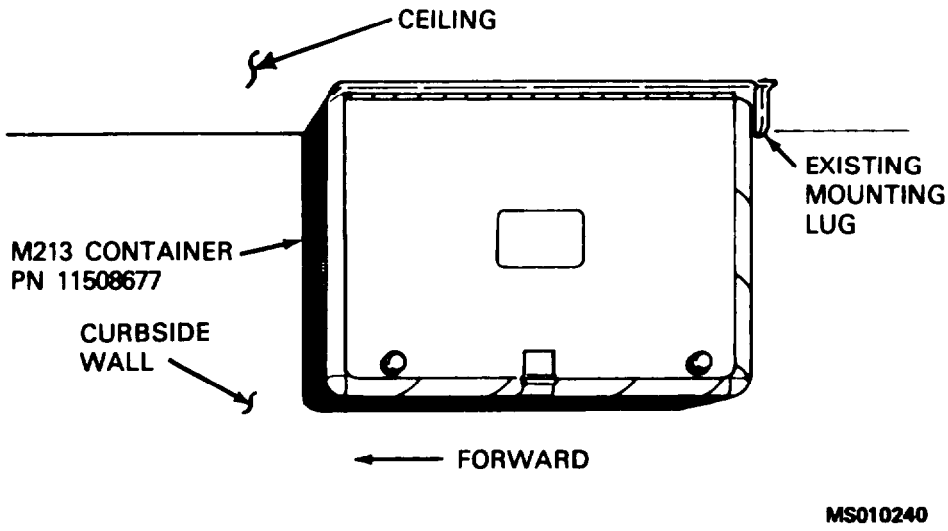


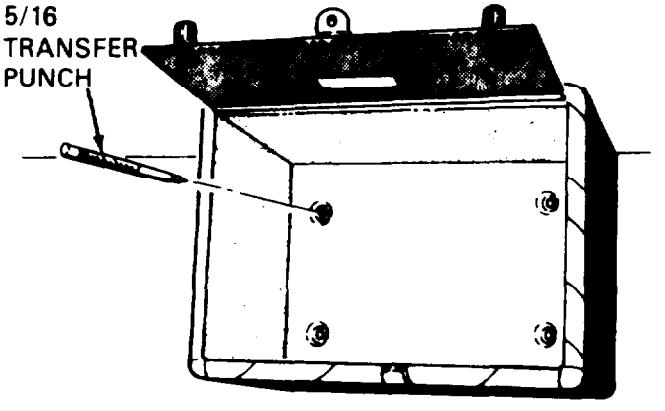
FIGURE 2-1. M213 CONTAINER LOCATION

b. Hold the container firmly against the curbside wall and move the container up until the top surface is contacting the ceiling as shown in figure 2-1.

CAUTION

Do not allow the container to move before the hole location is marked or the mounting screw may be mislocated. Use care not to drill completely through the APC wall.

c. Locate a drill center for the upper left mounting hole by striking 5/16 diameter transfer punch with hammer (reference figure 2-2). Strike the punch hard to make a deep impression.



MS010241

FIGURE 2-2. MOUNTING HOLE LOCATION

d. Lower the container and place it out of the way.

e. Using a "Q" (0.332 diameter) drill bit, drill the upper left mounting hole between 0.625 to 0.750 deep.

f. Install a starting thread tap 3/8-16 UNC into a T-handle tap wrench. Thread the hole until the tap bottoms in the hole.

g. Install a bottoming tap 3/8-16 UNC in the T-handle and thread the hole until the tap bottoms in the hole.

h. Countersink the hole using a hand held or drill rotor countersink tool. The countersink should be 0.375 to 0.395 diameter.

i. Remove the metal fragments from around and inside the hole.

j. Using an insert screw thread kit, NSN 5120-00-110-4568, remove the TD428L (3/8-16) installation tool (used for key-locked inserts).

CAUTION

Do not screw the insert too deep. The keys may not gouge enough threads to achieve proper locking.

k. Install insert NAS1394-C4L into installation tool and screw into threaded hole until insert is just below the surface as shown in figure 2-3. This position can be felt when the insert keys start dragging on the threaded hole.

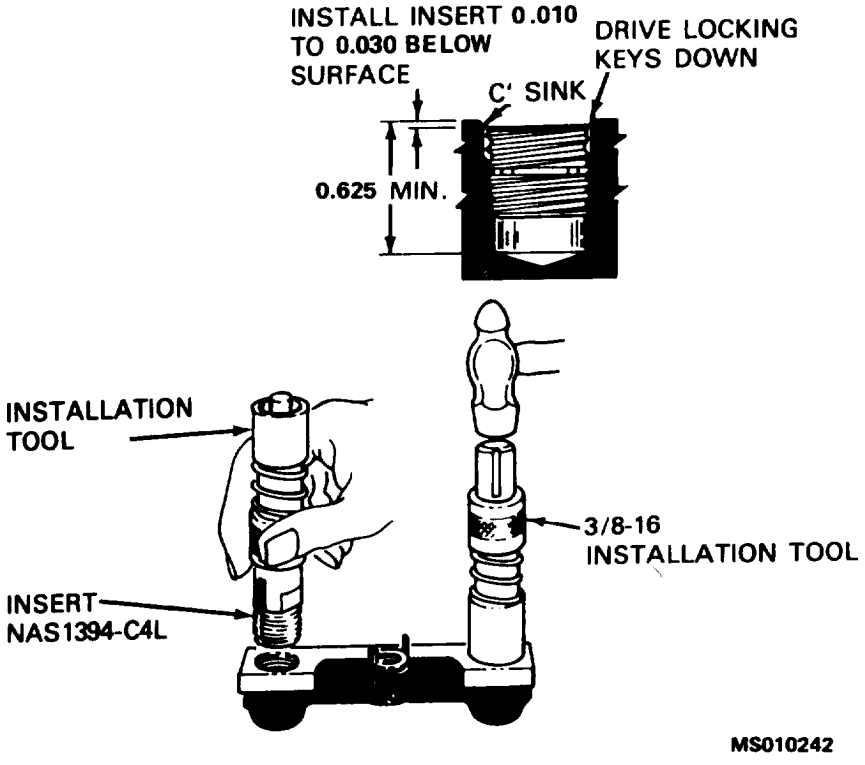


FIGURE2-3. INSERT INSTALLATION

l. Lift installation tool and place other end of tool firmly onto insert. Strike with hammer until locking keys are below surface. The insert is now installed.

m. Mount the container with one screw and one flat washer as shown in figure 2-4, using a 3/16 socket head screw key.

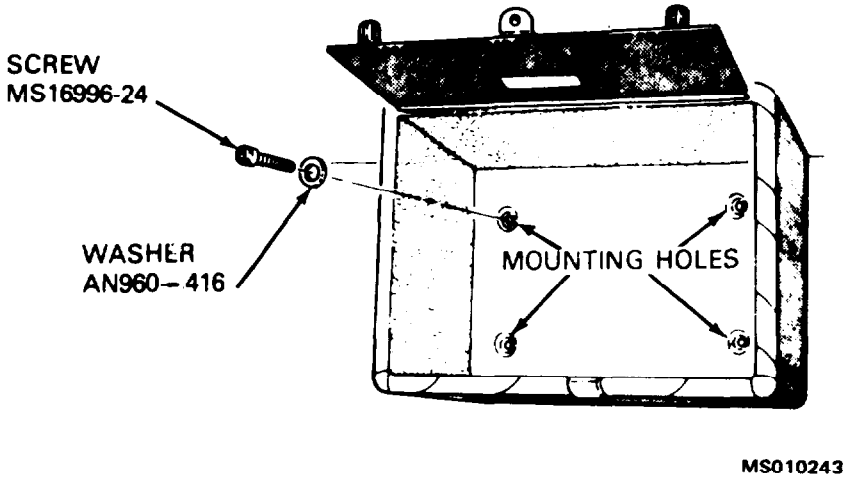


FIGURE2-4. CONTAINER MOUNTING

n. Locate drill centers for the three remaining holes by striking the 5/16 diameter transfer punch with a hammer.

o. Remove the container by removing the screw and washer.

p. Repeat steps (e.) through (1.) above for installation of the three remaining inserts.

q. Install the container using four screws and four flatwashers with the 3/16 socket head screw key as shown in figure 2-4.

CHAPTER 3

INSTALLATION OF KIT, APC INSTALLATION, DRAGON HARDWARE, PN 5952323

3-1. INSTALLATION OF BRACKET ASSEMBLY PN 13043958

a. Position the Bracket Assembly PN 13043958 against the forward curbside wall and on the sponson, 14.00 from the engine wall as shown in figure 3-1.

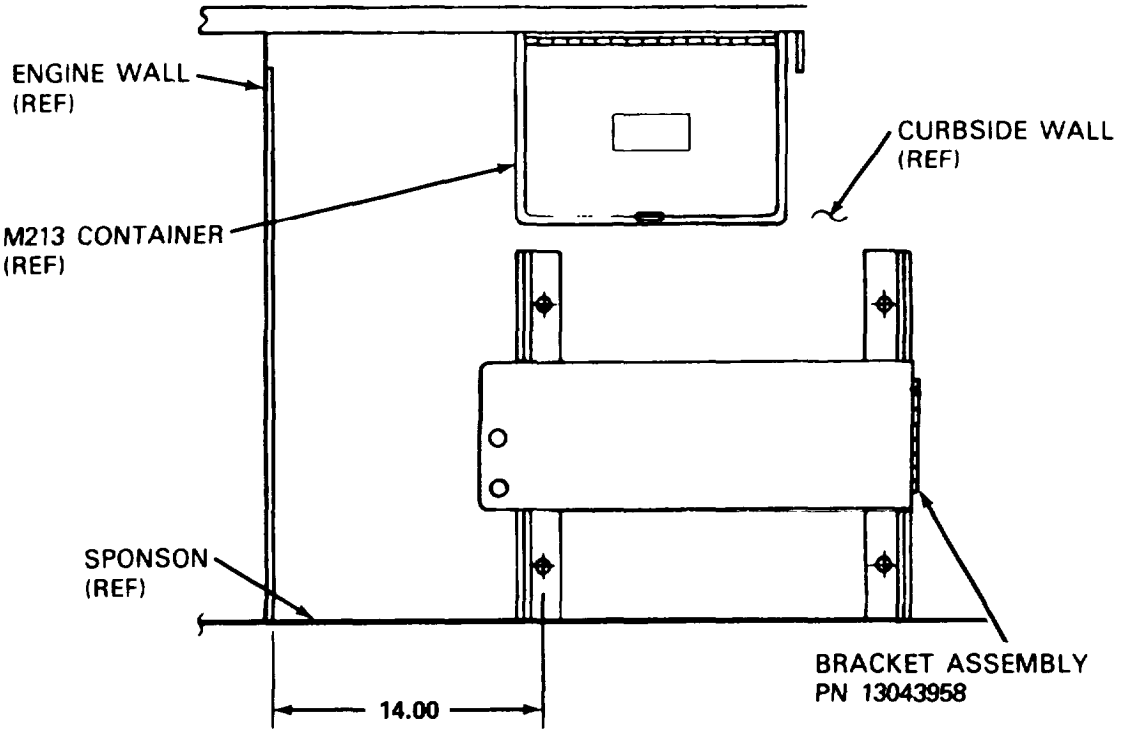


FIGURE3-1. BRACKET ASSEMBLY LOCATION

CAUTION

Do not allow the bracket to move before the hole location is marked or the mounting screw may be dislocated. Use care not to drill completely through the APC wall.

b. Locate a drill center for the upper left mounting hole by striking 17/64 diameter transfer punch hard to make a deep impression (reference figure 3-2).

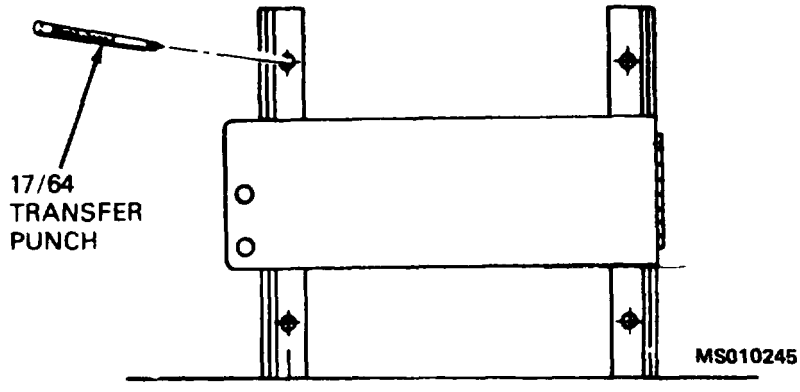


FIGURE 3-2. MOUNTING HOLE LOCATION

c. Place the bracket out of the way.

d. Using a "Q" (0.332 diameter) drill bit, drill the center punched mounting hole between 0.625 and 0.750 deep.

e. Install a starting thread tap 3/8-16 UNC into a T-handle tap wrench. Thread the hole until the tap bottoms in the hole.

f. Install a bottoming tap 3/8-16 UNC in the T-handle and thread the hole until the tap bottoms in the hole.

g. Countersink the hole using a hand held or drill motor countersink tool. The countersink should be 0.375 to 0.395 diameter.

h. Remove the metal fragments from around and inside the hole.

CAUTION

Do not screw the insert too deep. The keys may not gouge enough threads to achieve proper locking.

i. Using the TD428L (3/8-16) insert installation tool from kit NSN 5120-00-110-4568, install insert into tool as shown in figure 3-3 and screw into threaded hole until insert is just below the surface. This position can be felt when the insert keys start dragging on the threaded hole.

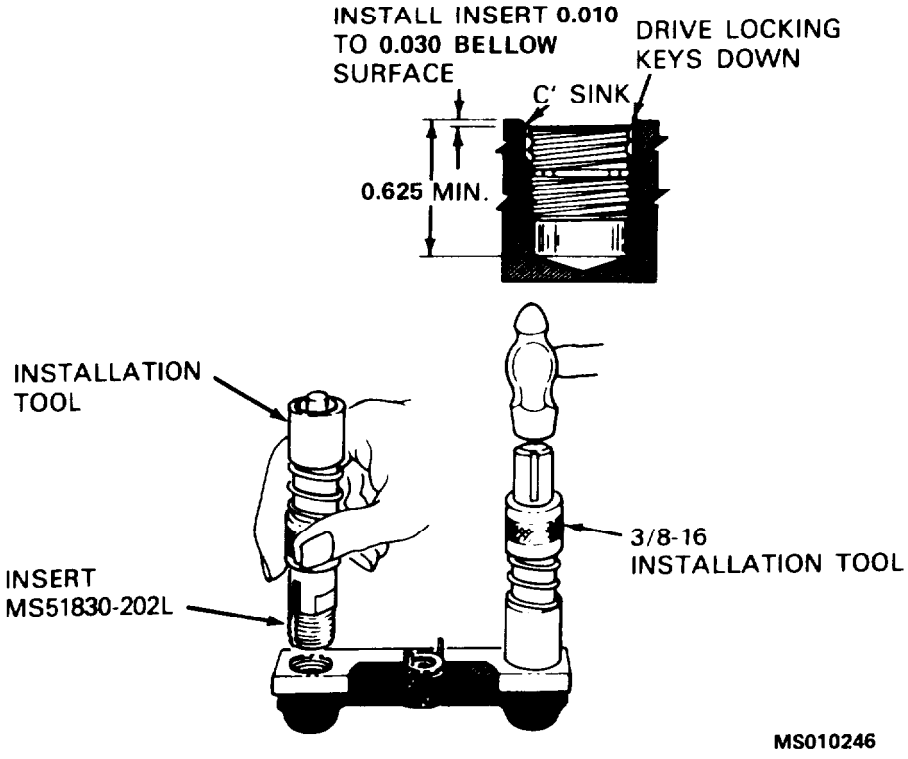


FIGURE 3-3. INSERT LOCATION

j. Lift installation tool and place other end of tool firmly onto insert. Strike with hammer until locking keys are below surface. The insert is now installed.

k. Mount the bracket with one screw and one washer as shown in figure 3-4.

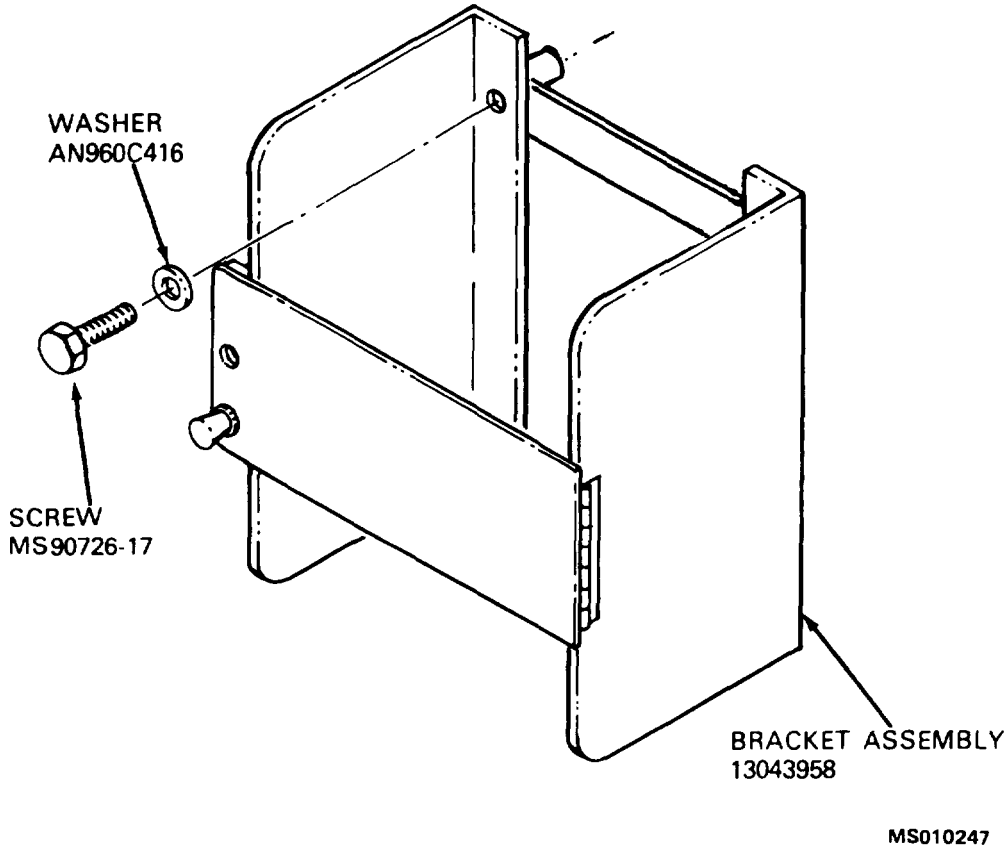


FIGURE 3-4. BRACKET MOUNTING

l. Locate drill centers for the three remaining holes using the 17/64 diameter transfer punch.

m. Remove the bracket by removing the screw and washer.

n. Repeat steps d. through j. above for installation of the three remaining inserts.

o. Mount the bracket in the vehicle using four screws and four flatwashers as shown in figure 3-4.

p. For Bracket Assemblies with door configuration using lock hasps, see paragraph 3-10 for modification instructions.

q. The Bracket Assembly shown in fiqure 3-4 above does not reflect the latest configuration with the tracker tie-down strap installed inside. Refer to assembly drawing # 13043958 (Appendix A) for strap installation instructions and location.

3-2. INSTALLATION OF CASE SUPPORT ASSEMBLY PN 13043956

a. Position the case support assembly PN 13043956 against the curbside wall over the vehicle battery box cover, holding the 2-inch and 9-inch dimension as shown in figure 3-5.

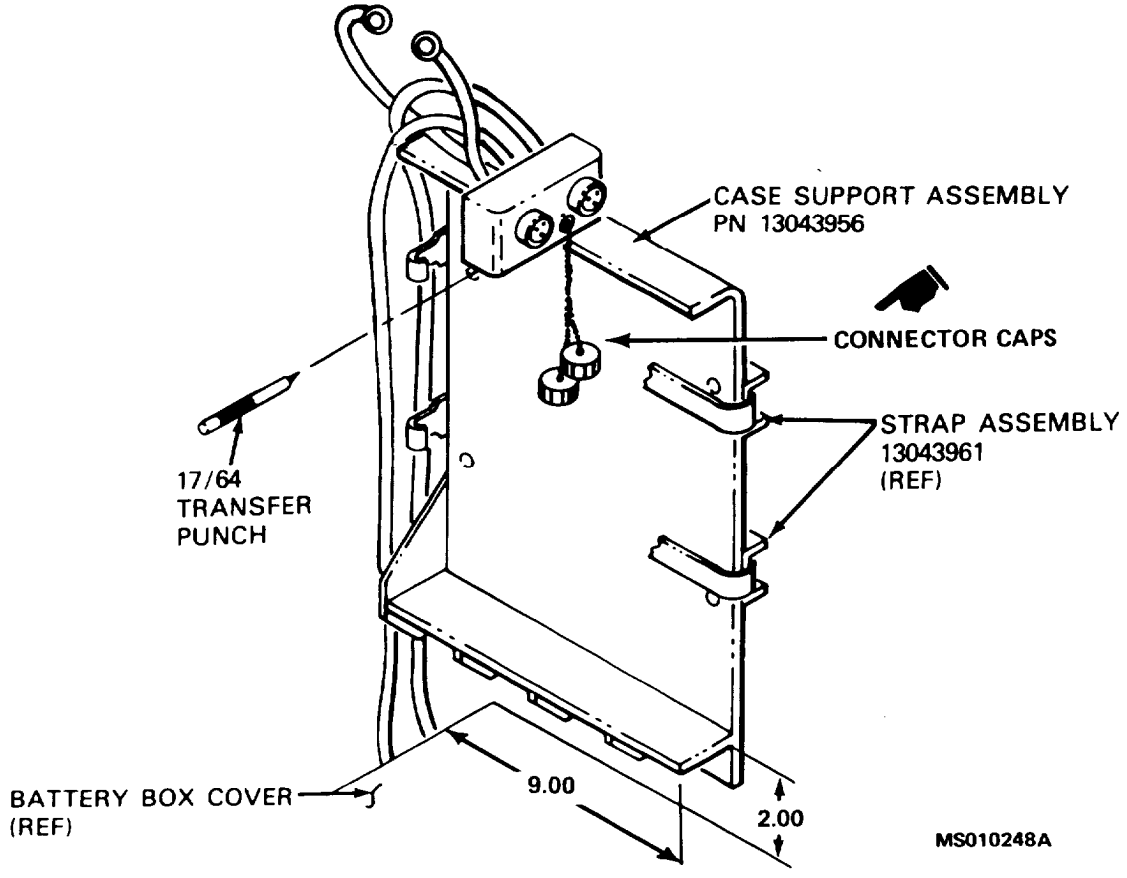


FIGURE3-5. CASE SUPPORT LOCATION

CAUTION

Do not allow the case support to move before the hole location is marked or the mounting screw may be dislocated. Use care not to drill completely through the APC wall.

b. Holding the case support firmly against the curbside wall, obtain drill center of the upper left mounting hole by striking 17/64 diameter transfer punch hard to make a deep impression (reference figure 3-5).

c. Lower the case support and place it out of the way.

d. Using a "Q" (0.332 diameter) drill bit, drill the center punched mounting hole between 0.625 and 0.750 deep.

e. Install a starting thread tap 3/8-16 UNC into a T-handle tap wrench. Thread hole until the tap bottoms in the hole.

f. Install a bottoming tap 3/8-16 UNC in the T-handle and thread the hole until the tap bottoms in the hole.

g. Countersink the hole using a hand held or drill motor countersink tool. The countersink should be 0.375 to 0.395 diameter.

h. Remove the metal fragments from around and inside the hole.

CAUTION

Do not screw the insert too deep. The keys may not gouge enough threads to achieve proper locking.

i. Using the TD428L (3/8-16) insert installation tool from kit NSN 5120-00-110-4568, install insert into tool as shown in figure 3-3 and screw into threaded hole until insert is just below the surface. This position can be felt when the insert keys start dragging on the threaded hole.

j. Lift installation tool and place other end of tool firmly onto insert. Strike with hammer until locking keys are below surface. The insert is now installed.

l. Mount the support with one screw, maintaining the dimensions shown in figure 3-6.

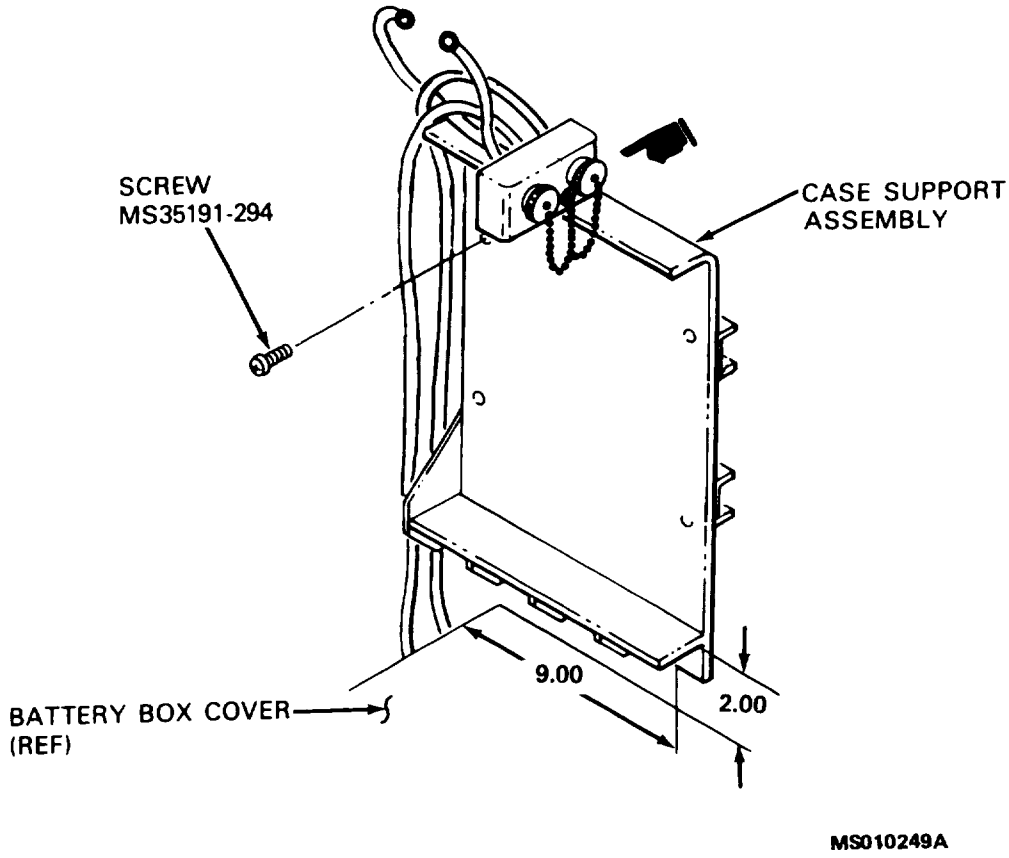


FIGURE 3-6. CASE SUPPORT MOUNTING

l. Locate the drill centers for five remaining holes using the 17/64 diameter transfer punch.

m. Remove the support by removing the screw installed in step k.

n. Repeat steps d. through j. above for installation of the five remaining inserts.

o. Place straps in the two channels on the back side of the support, insuring the locking clamps are on the right side as shown in figure 3-7 and with strap hooks facing in towards the support. Mount the support containing the straps on the vehicle wall using six screws shown in figure 3-6.

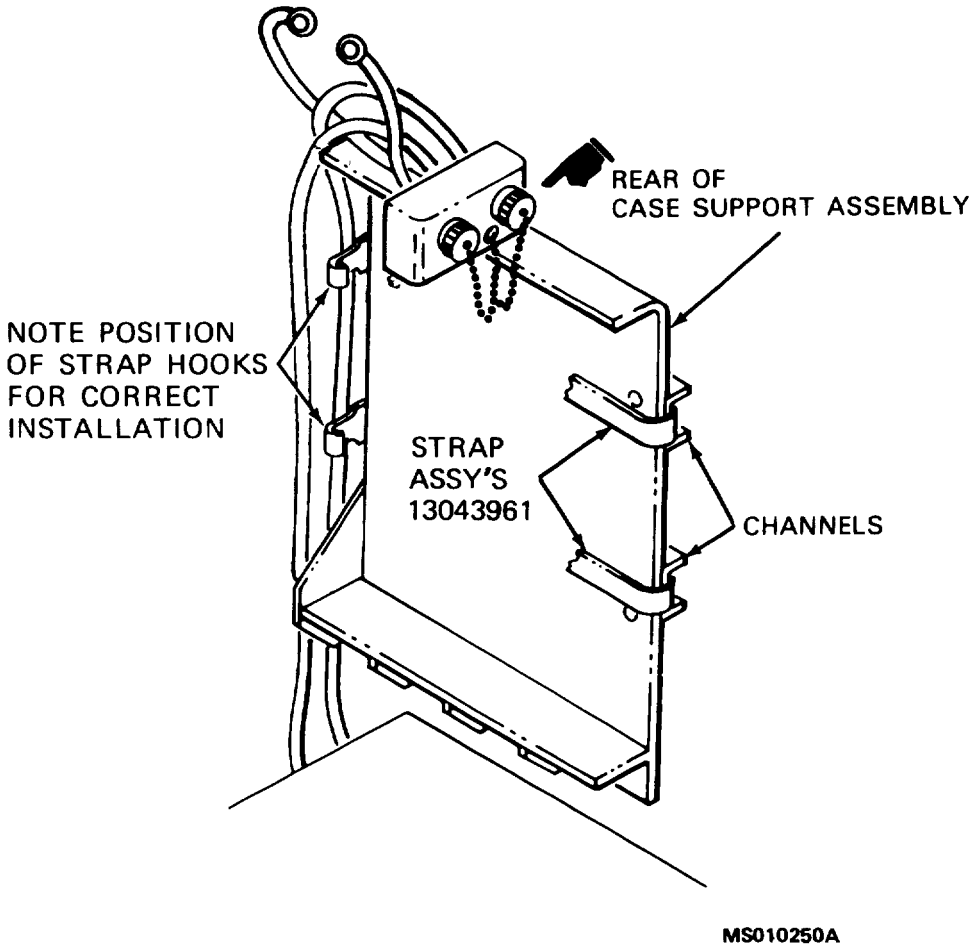


FIGURE 3-7. RIGHT SIDE OF CASE SUPPORT ASSEMBLY

3-3. INSTALLATION OF CABLE CLAMP MS21919DG8 AND TWO ADDITIONAL HOLES IN VEHICLE BATTERY BOX

a. Layout and mark hole pattern for cable clamps to the dimensions shown in figure 3-8.

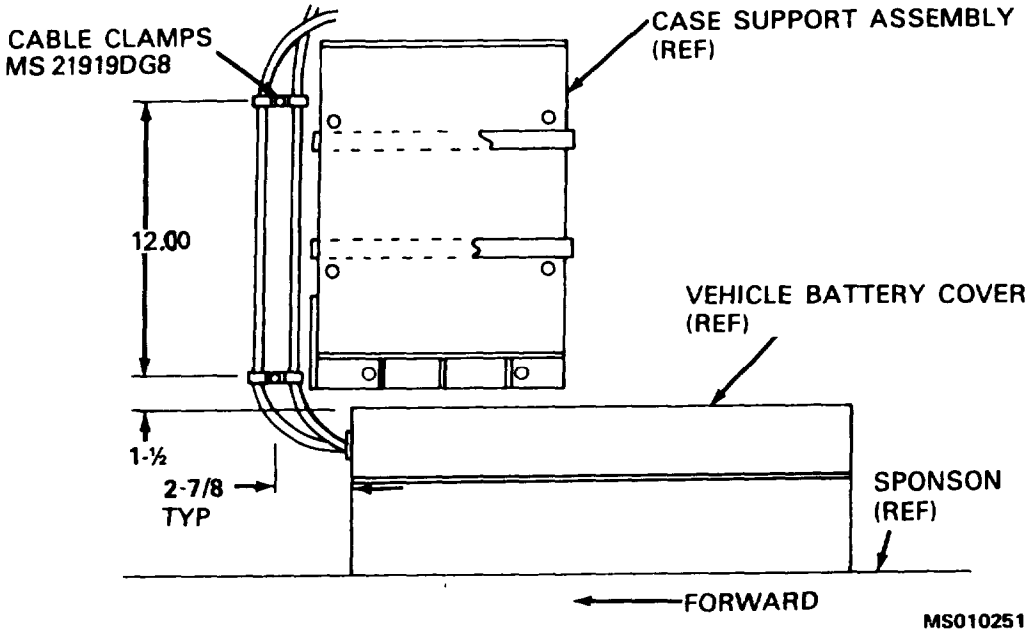


FIGURE 3-8. CABLE CLAMP LOCATION

b. Locate the drill centers for the two mounting holes by striking a center punch hard to make a deep impression.

CAUTION

Use care not to drill completely through the APC wall.

c. Using a No. 21 (0.159 diameter) drill bit, drill one hole at least 5/8 (0.625) deep but not more than 3/4 (0.750) deep. Repeat this operation for the second hole.

d. Install a starting thread tap 10-32 UNF-2B into the T-handle tap wrench. Thread the holes until tap bottoms in the hole.

e. Install the bottoming tap 10-32 UNF-2B in the T-handle and thread the hole until the tap bottoms in the hole.

f. Remove the metal fragments from around and inside the holes.

g. Locate two cable clamps (one wire per clamp) at each hole.

h. Mount the cable clamps using two screws and two washers as shown in figure 3-8.

i. Remove the Vehicle Battery Box cover. On the left forward portion of the battery box, locate the center line of the two existing holes and scribe a line across the box as shown in figure 3-9.

j. Locate and mark the center of the two new holes by striking a center punch.

CAUTION

Holes can be drilled with the battery installed but care must be taken to insure that the drill bit does not strike or puncture the battery case. The battery should also be covered during drilling to prevent metal shavings and dirt from falling on the battery.

k. Using a 25/64 drill bit, drill two holes (pilot) into the battery box.

l. Use a round "Radio Chassis" punch (13/16 diameter) or equivalent to finish the two pilot holes.

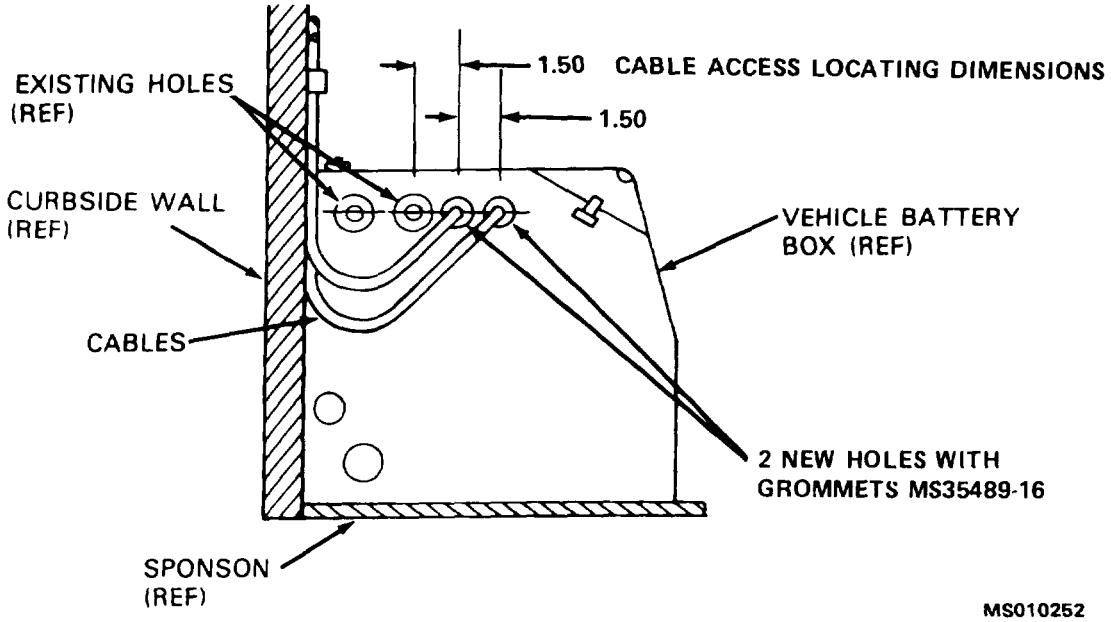


FIGURE 3-9 HOLE AND GROMMET LOCATIONS

m. Deburr the 13/16 holes and remove all metal fragments from inside and around the battery box.

n. Install the two grommets as shown in figure 3-9.

o. Route the two cables through the new grommets and connect to nearest battery Positive (+) lug.

p. Replace the vehicle battery box cover.

3-4. INSTALLATION OF GROUNDING CABLES

Make grounding connection on existing bracket by removing paint on bracket surface where lockwasher and bracket make contact. Connect ground wires and hardware as shown in figure 3-10.

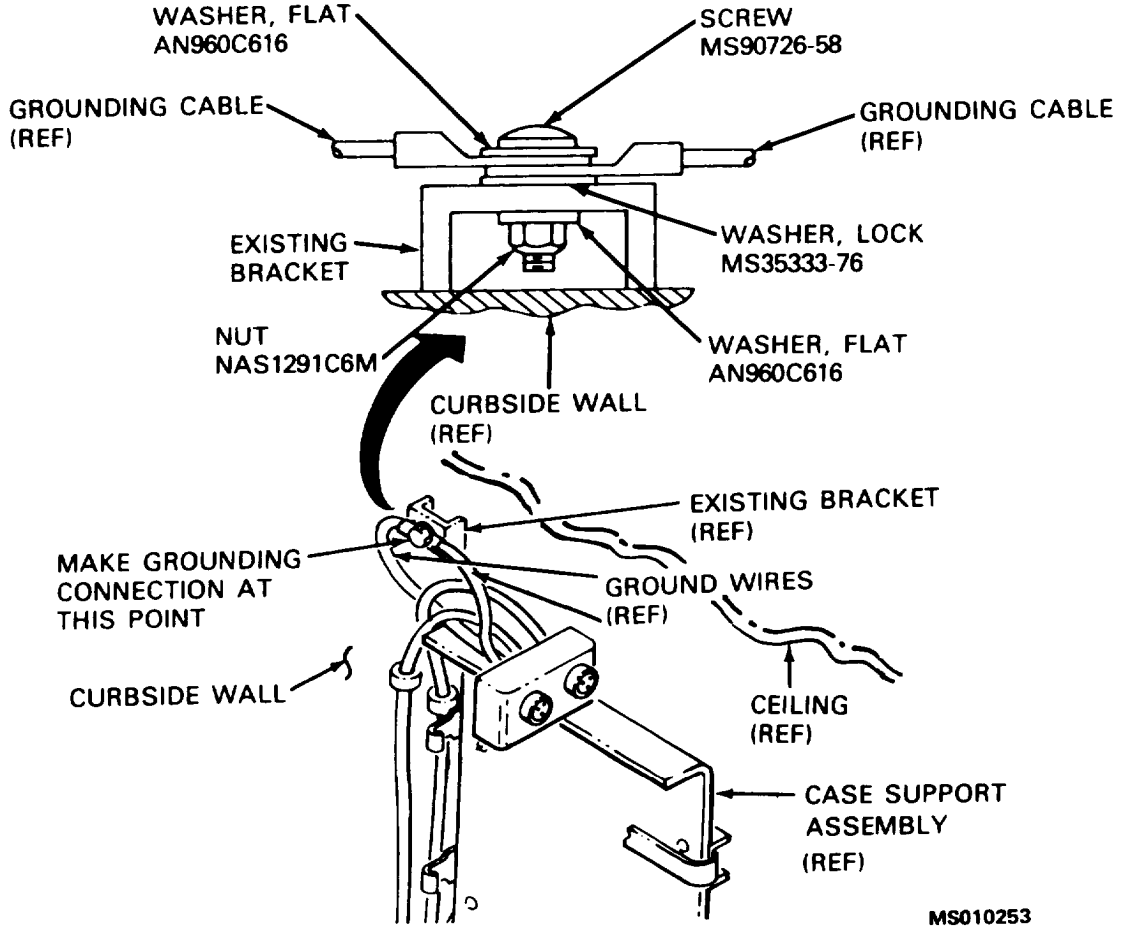


FIGURE 3-10. GROUNDING CABLE LOCATION

3-5. INSTALLATION OF VEHICLE POWER CONDITIONER HOLES

a. Fabricate a template and drill four 3/16 diameter holes to the dimensions shown in figure 3-11. Make scribe marks as shown.

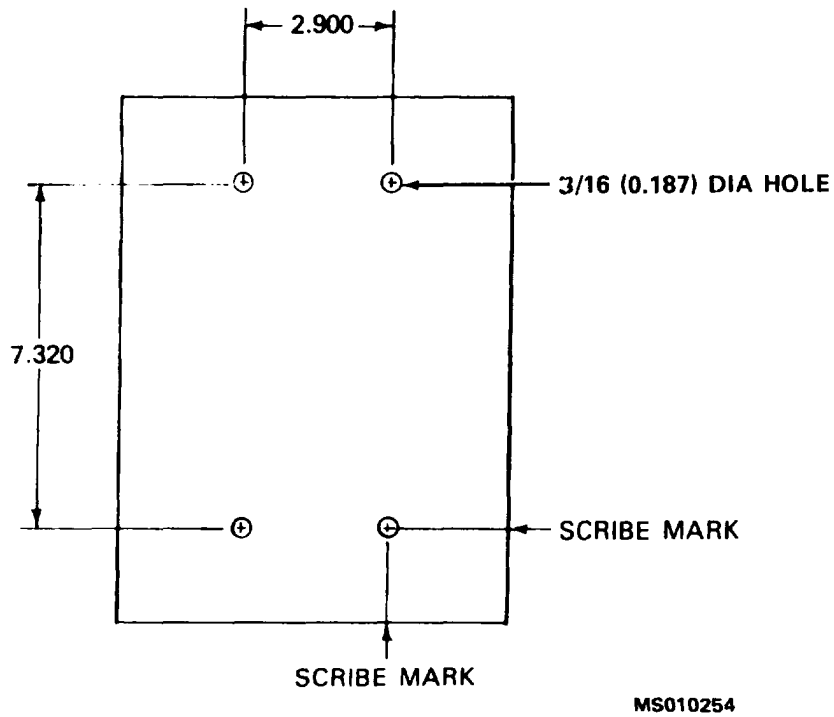


FIGURE 3-11. TEMPLATE

NOTE

Additional authorization list of TM 9-1425-484-10 (Appendix C) includes the Vehicle Power Conditioner and the Battery Charger. Mounting brackets and plates for these two items are part of the kit included in this TB.

b. On the inside, right rear ceiling of the APC, scribe mark 5.25 in from aft wall and 6.00 in from the curbside wall as shown in figure 3-12.

c. Align template scribe marks with scribe marks on ceiling of APC as shown in figure 3-13.

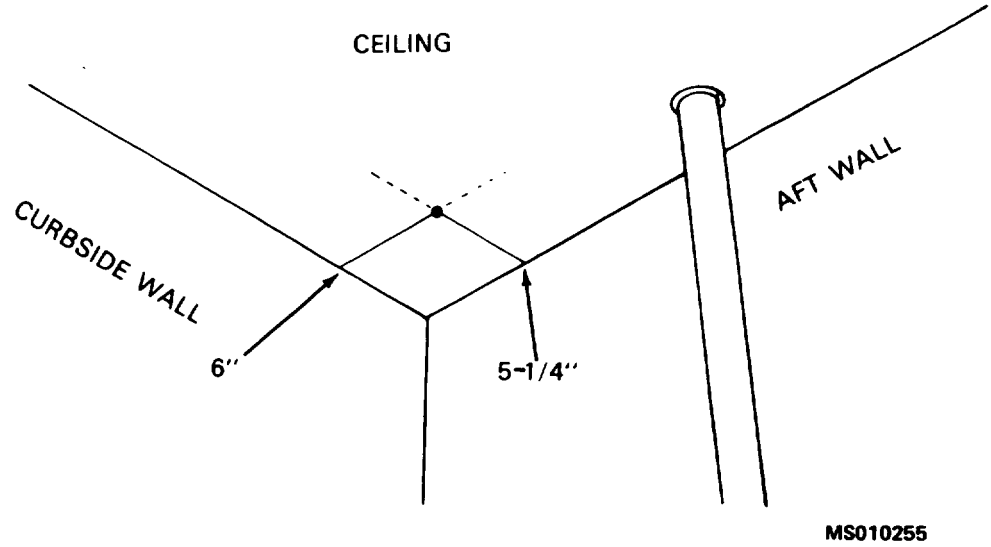


FIGURE 3-12. CEILING SCRIBE MARKS

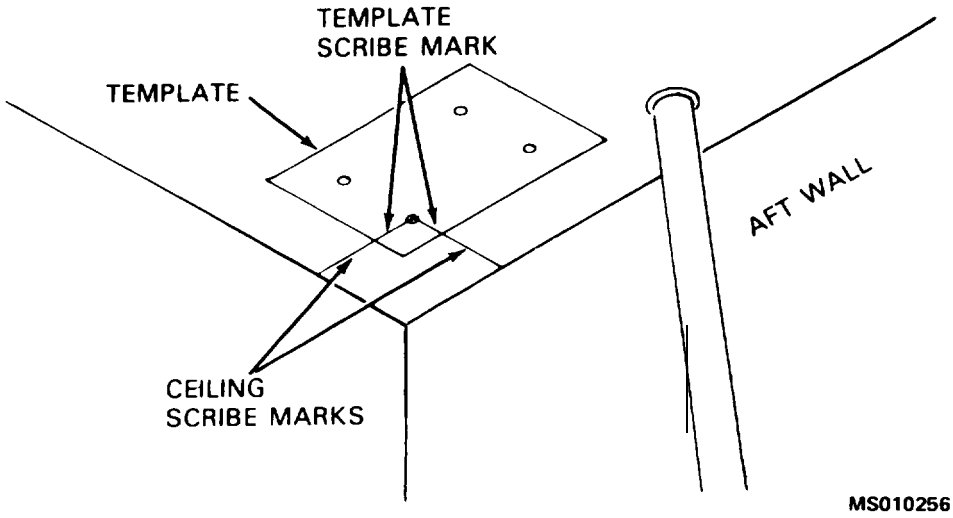


FIGURE 3-13. VEHICLE POWER CONDITIONER HOLE LOCATION

d. While holding template in place, transfer hole pattern to the ceiling of APC using a 3/16 diameter transfer punch. Strike punch hard enough to make a deep impression.

e. Using a No. 1 (0.228) drill bit, drill the mounting holes at least 0.210 deep.

f. Install a starting thread tap 1/4-28-UNF-2B into a T-handle tap wrench. Thread all four holes until the tap bottoms in the holes.

g. Install a bottoming tap in 1/4-28-UNF-2B the T-handle and thread the holes until the tap bottoms in the hole.

h. Countersink the holes to a diameter of 0.245 to 0.265 using a hand held or drill motor countersink tool.

i. Remove metal fragments from around and in the holes.

CAUTION

Do not screw the insert too deep. The keys may not gouge enough threads to achieve proper locking.

j. Using the TKNC-08 (1/4-28) insert installation tool from kit NSN 5120-00-110-4568, install insert into tool as shown in figure 3-14 and screw into threaded hole until insert is just below the surface. This position can be felt when the insert keys start dragging on the threaded hole.

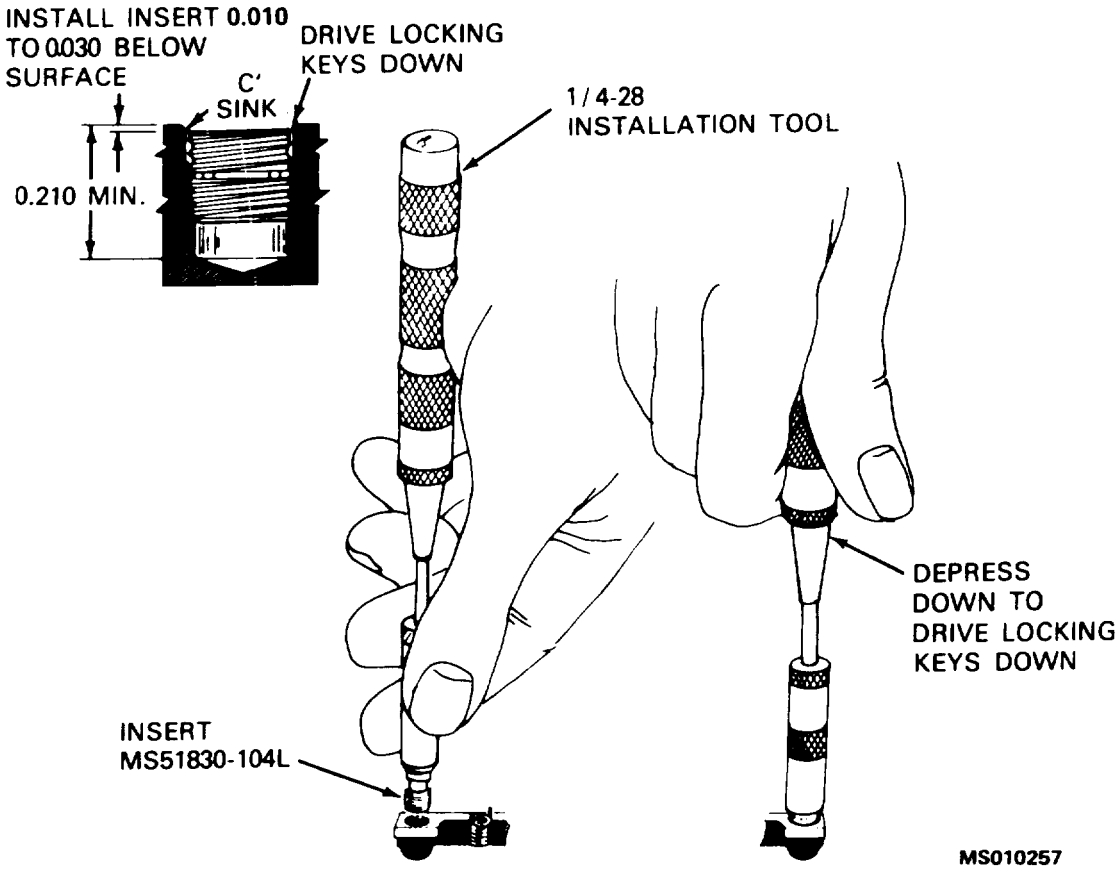


FIGURE 3-14. INSERT INSTALLATION

k. Depress the top of installation tool firmly until locking keys are below surface. The insert is now installed.

l. Repeat steps j. and k. for the remaining three holes.

m. Install four screws (MS16997-33) and four washers (AN960C8) into holes. (If vehicle power conditioner is available, install at this time. See Chapter 5).

3-6. INSTALLATION OF CABLE DUCTS PN 11572742-1, PN 11572742-2 (2 EA.) AND STRAP PN 11572744-2 (FORWARD POSITION)

NOTE

If Vehicle Power Conditioner was installed in paragraph 3-5n. be sure to route cable 2W2 through ducts as they are installed (see Chapter 5).

a. On the inside, right rear ceiling of the APC, make a mark 5.62 inches from the open hatch area, 10 inches from the aft wall of the APC and 3.62 inches from the edge of the open hatch area as shown in figure 3-15.

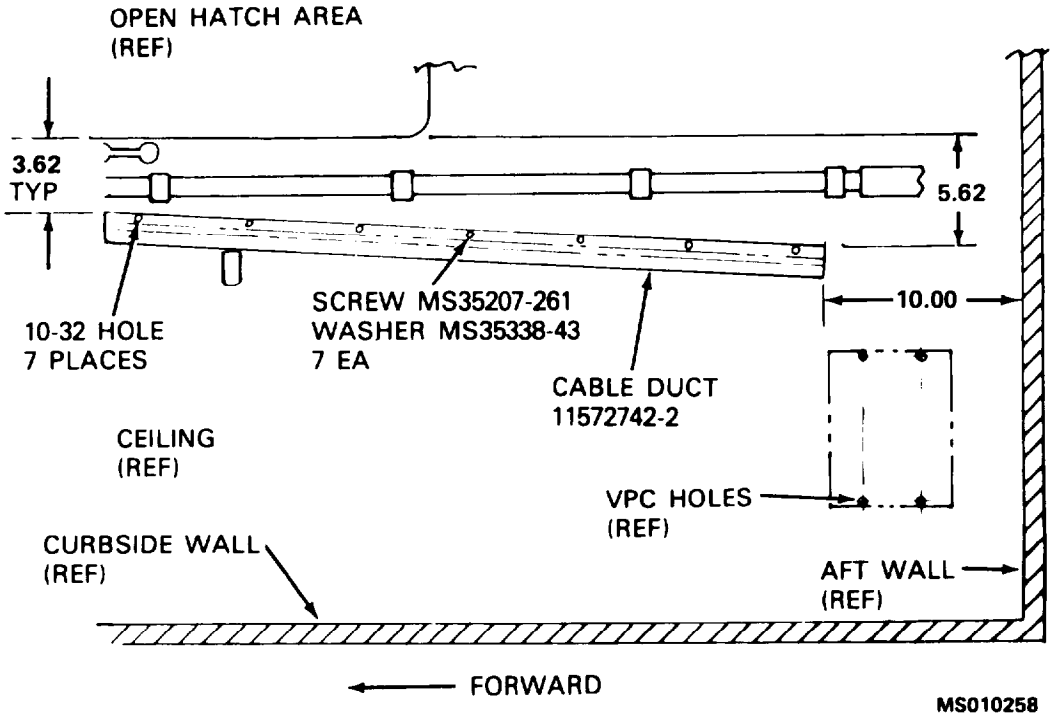


FIGURE 3-15. CABLE DUCT LOCATION

(LOOKING UP FROM INSIDE A. P.C.)

b. Position the Cable Duct PN 11572742-2 as shown in figure 3-15. Obtain drill center of both forward and aft holes in the cable duct by striking a 3/16 transfer punch with a hammer. Strike the punch hard to make a deep impression.

c. Lower the cable duct and set it out of the way.

d. Using a No. 21 (0.159) drill bit, drill the forward and aft mounting holes at least 3/8 deep. Remove metal fragments from around and inside the holes.

e. Using a starting thread 10-32 UNF-2B tap and T-handle tap wrench, thread the holes until tap bottoms in the holes.

f. Using a bottoming tap 10-32 UNF-2B in the T-handle, thread the holes until the tap bottoms in the holes.

g. Remove the metal fragments from around and inside the holes.

h. Mount the forward and aft end of the cable duct with two screws and two washers as shown in figure 3-15.

i. Repeat steps b. through g. above for the remaining five holes.

j. Remount the cable duct with seven screws and seven washers as shown in figure 3-15.

k. Position cable duct PN 11572742-1 using the dimensions as specified in figure 3-16.

l. Locate drill center of three holes in the cable duct by striking a 3/16 transfer punch hard to make a deep impression.

m. Repeat steps c. through g. above.

n. Mount the cable duct with the three screws and three washers as shown in figure 3-16.

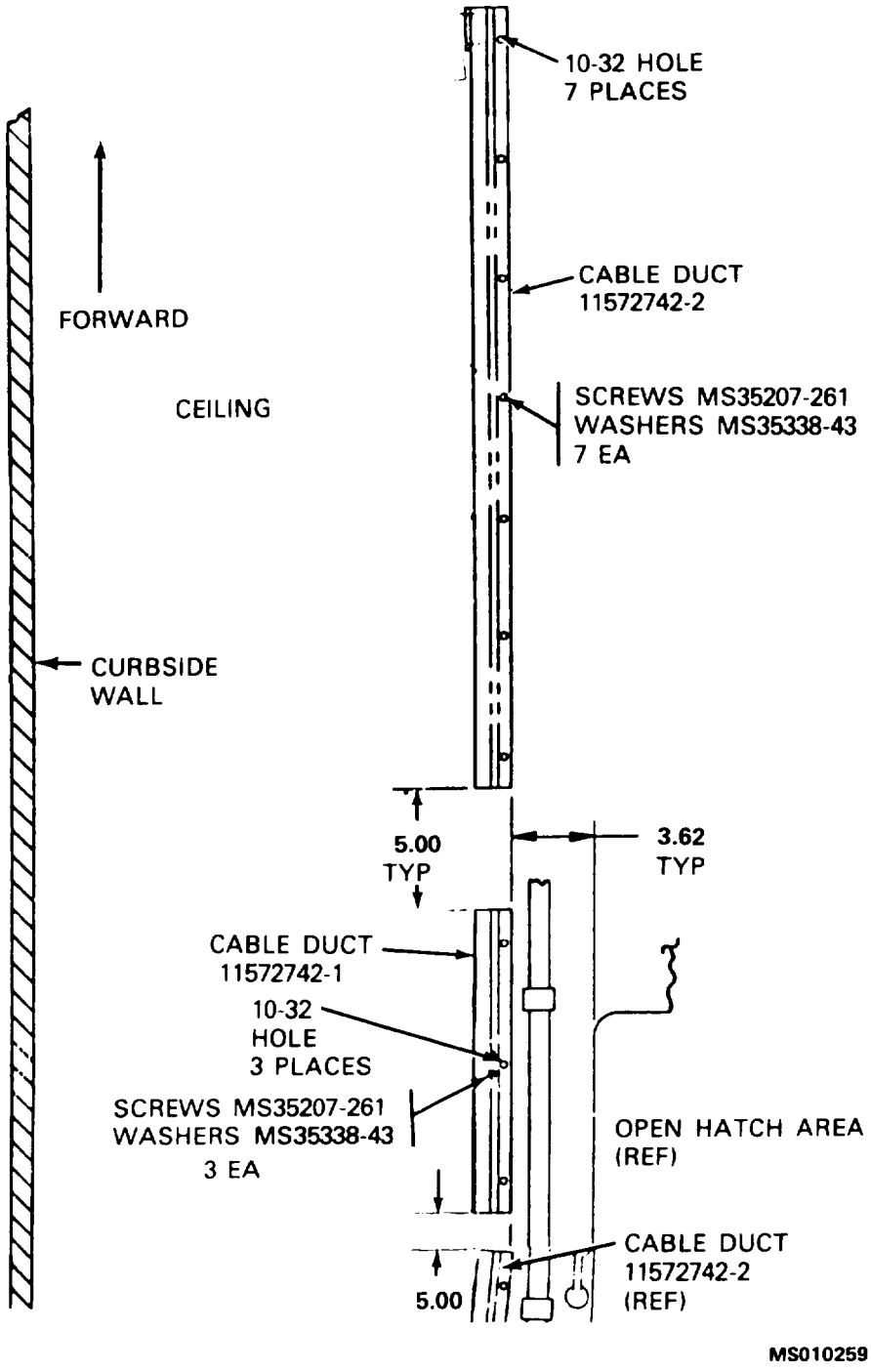


FIGURE 3-16. CABLE DUCT INSTALLATION
(LOOKING UP FROM INSIDE A. P. C.)

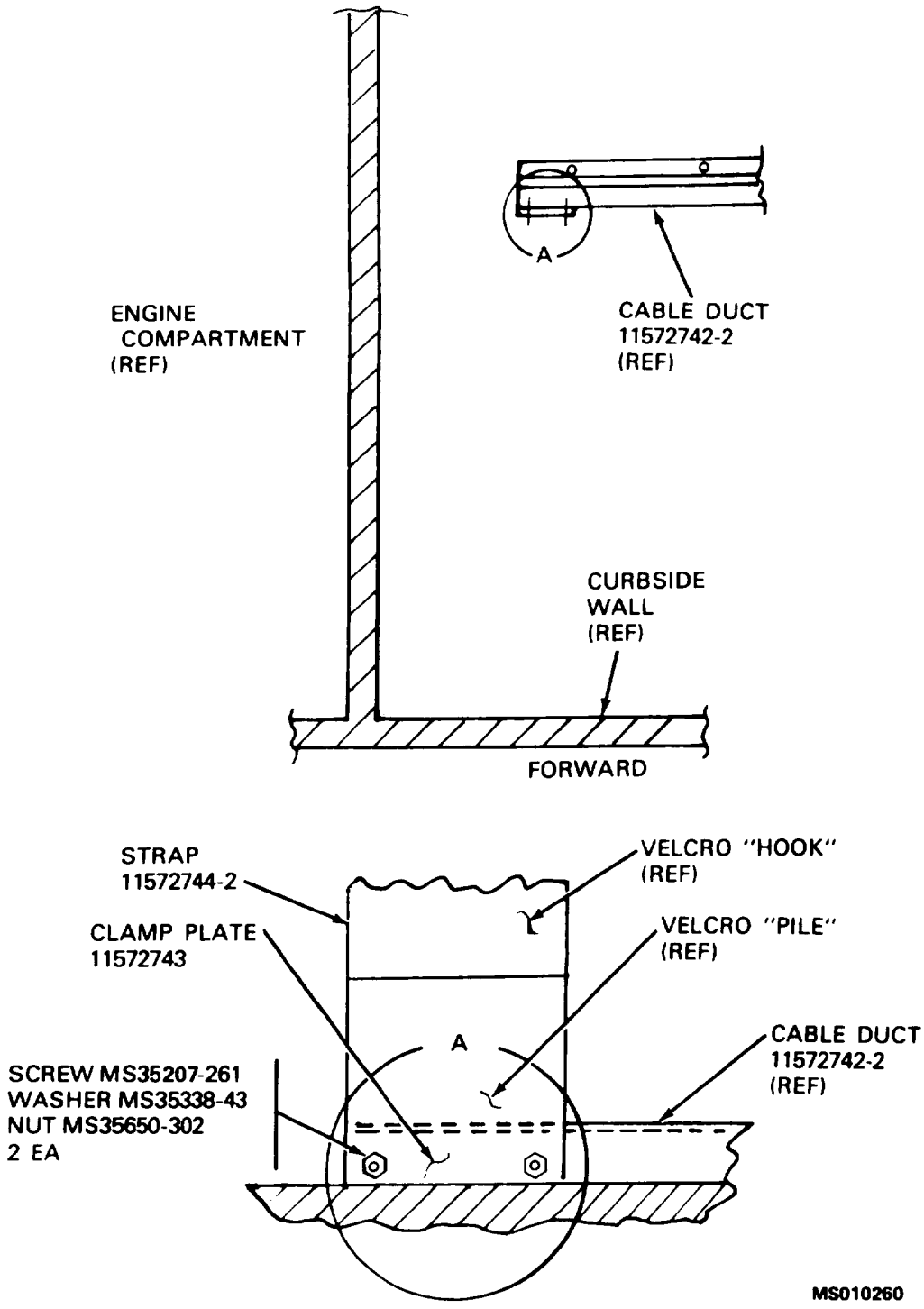


FIGURE 3-17. CLAMP PLATE AND STRAP INSTALLATION

o. Position cable duct PN 11572742-2 using the dimensions as specified in figure 3-16.

p. Repeat steps b. through i. above.

q. Install strap PN 11572744-2 to the end of cable duct PN 11572542-2 as shown in figure 3-17.

r. Install cable duct to APC with the seven screws and seven washers as shown in figure 3-16.

NOTE

The cable ducts will have to be removed later in order to install the cable included with the vehicle power conditioner assembly. See the NOTE at the end of the inventory list, paragraph 1-3.

3-7. INSTALLATION OF STRAP ASSEMBLY PN 11572744-2 (AFT POSITION)

a. Layout and mark to the dimensions shown in figure 3-18 for the aft strap.

b. Position the clamp plate PN 11512743 and locate the two drill centers by striking a 3/16 transfer punch hard to make a deep impression.

c. Lower the clamp plate and set it out of the way.

d. Using a No. 21 (0.159) drill bit, drill both mounting holes at least 0.38 deep. Remove any metal fragments from around and inside the holes.

e. Using a starting thread tap 10-32 UNF-2B and T-handle tap wrench, thread the holes until tap bottoms in the holes.

f. Using a bottoming tap 10-32 UNF-2B in the T-handle, thread the holes until the tap bottoms in the holes.

g. Remove the metal fragments from around and inside the holes.

h. Mount the strap 11572744-2 and clamp plate 11572743 to the rear wall with two screws and two washers as shown in figure 3-18.

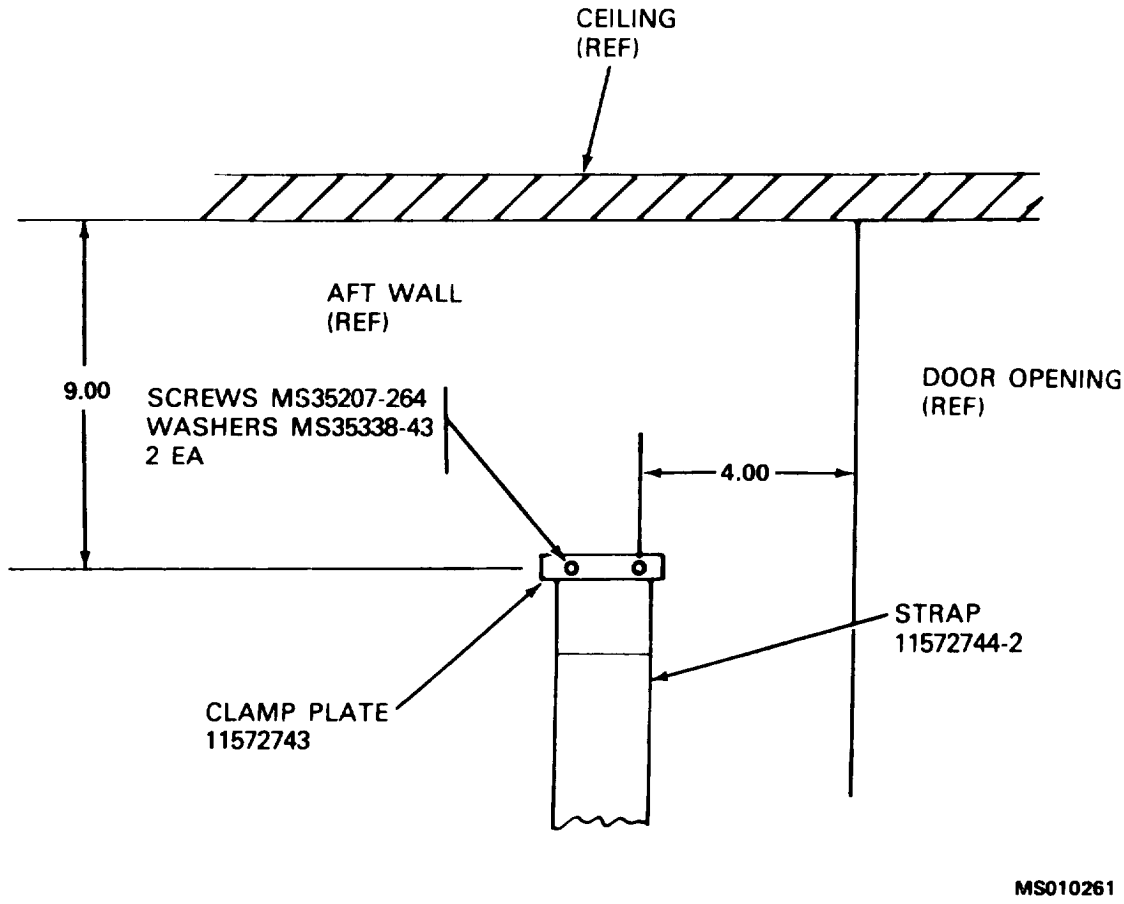


FIGURE 3-18. AFT CLAMP PLATE AND STRAP INSTALLATION

3-8. INSTALLATION OF SUPPORTS PN 13043963-1 and 13043963-2

a. Unbolt the curbside, roadside, and rear floor plates and remove from APC (save mounting hardware for floor plate reinstallation).

b. On the curbside floor plate, locate two supports PN 13043963-2 as shown in figure 3-19, centered between the middle and aft mounting holes (where large diameter flatwashers are used).

c. Mark the floor plate 0.38 (3/8) inboard from curbside edge. Place the rear of the support on the same mark and separate by 0.13 (1/8) as shown in figure 3-19.

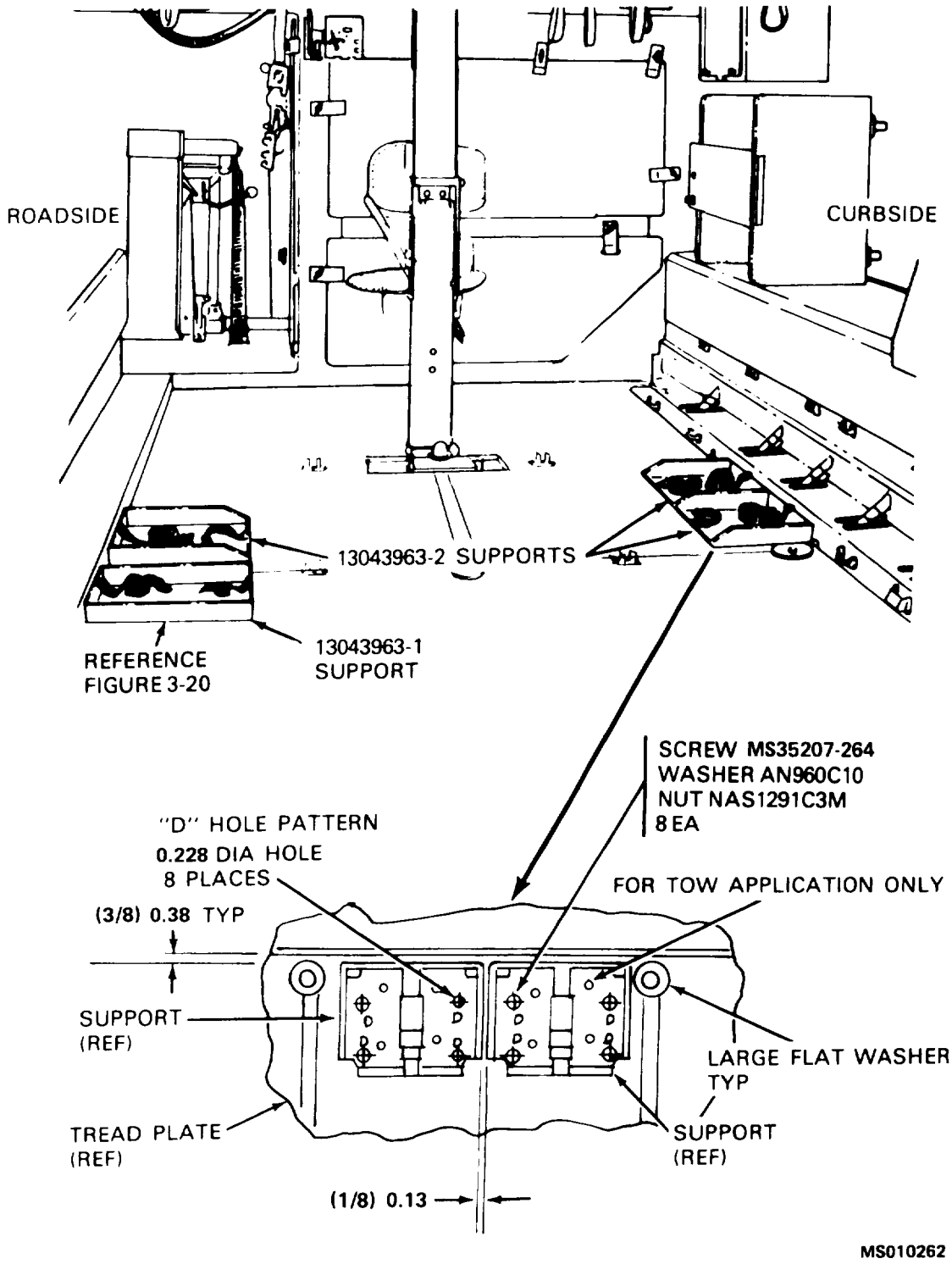


FIGURE 3-19. 13043863-2 SUPPORT LOCATION AND INSTALLATION

d. While holding the supports firmly in this position, locate the drill center of each "D" mounting hole by striking a 7/32 transfer punch (through the existing hole pattern of the support) hard to make a deep impression.

e. Remove both supports out of the way.

f. Using a No. 1 (0.228) drill bit, drill all eight mounting holes through the floor plate. Remove all metal fragments from around the holes.

g. Mount the supports on the floor plates using the "D" hole pattern with eight screws, eight washers and eight nuts as shown on figure 3-19.

h. Reinstall curbside floor plate with hardware removed in step a. above.

i. On the roadside floor plate and rear floor plate, locate support PN 13043963-2 and support PN 13043963-1 as shown in figures 3-19 and 3-20.

j. Locate and scribe mark both floor plates holding the dimensions as shown in figure 3-20.

k. Place the rear of the supports on the 0.38 scribe mark from the roadside edge of the plates and align the supports to the 2.88 scribe mark and 1.38 scribe mark as shown in figure 3-20.

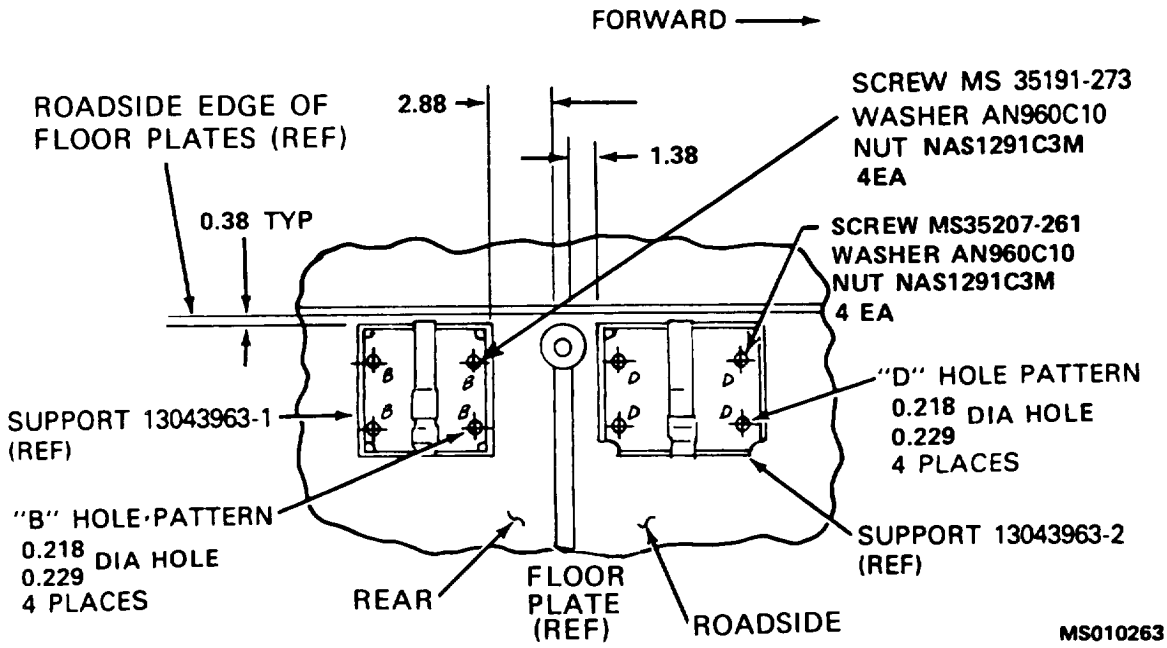


FIGURE 3-20. 13043963-1&-2 SUPPORT LOCATION AND INSTALLATION

l. Repeat step d. above for the PN 13043963-2 support.

m. Repeat step d. above for PN 13043963-1 support but transfer the four hole pattern “B” from support as shown in figure 3-20.

n. Repeat steps e. and f. above for supports PN 13043963-1 and -2.

0. Mount support PN 13043963-2 to the roadside floor plate using four screws, four washers, and four nuts as shown in figure 3-20.

CAUTION

Support PN 13043963-1 is mounted to rear floor plate using 82° countersink screws. The "B" holes in the support may or may not have been countersunk during fabrication; therefore, use a drill motor or hand drill with countersinking tool NSN 5133-00-239-0786 (3/8 dia., 82 deg.) to rework holes when required.

p. Install support PN 13043963-1 to the rear floor plate using four screws, four washers, and four nuts as shown in figure 3-20.

q. Reinstall roadside and rear floor tread plates with hardware removed in step a. above.

3-9. MODIFICATION OF SEAT BACK PN 11647452

a. Remove two 3/8 bolts and nuts from the two seat back bracket supports, P/N 10865686, and remove the right seat back, PN 11647452. Save bolts and nuts for installation of modified seat back.

b. Measure 19.50 from the aft bracket (mounted close to battery box), and scribe a line as shown in figure 3-21.

c. Shorten seat back using hacksaw as shown in figure 3-21. After removing the forward section of the seat, remove all burrs, break sharp edges, and remove paint from areas to be welded.

d. Locate new bracket, PN 13170601, 18.50 from original aft bracket.

e. Weld the new bracket, PN 13170601 to the seat back 11647452 in accordance with Class B, MIL-W-45205 as shown in figure 3-21.

f. Apply primer per TT-P-1757, color optional. Primer may be applied by spraying or brushing. Allow primer to dry thoroughly in accordance with manufacturer’s instruction.

g" Apply green enamel, Class A per TT-E-529, color to match No. 24533 FED-STD-595, 0.75 to 1.25 MILS thick. Enamel may be applied by spraying or brushing.

h. Using modified seat back to locate bracket support, weld bracket support 13170600 to top of curbside equipment shelf in accordance with Class B, MIL-W-45205 as shown in figure 3-22.

i. Paint as required in accordance with paragraphs f. and g. above.

j. Mount modified seat back with the two 3/8 bolts and nuts removed in step a. above.

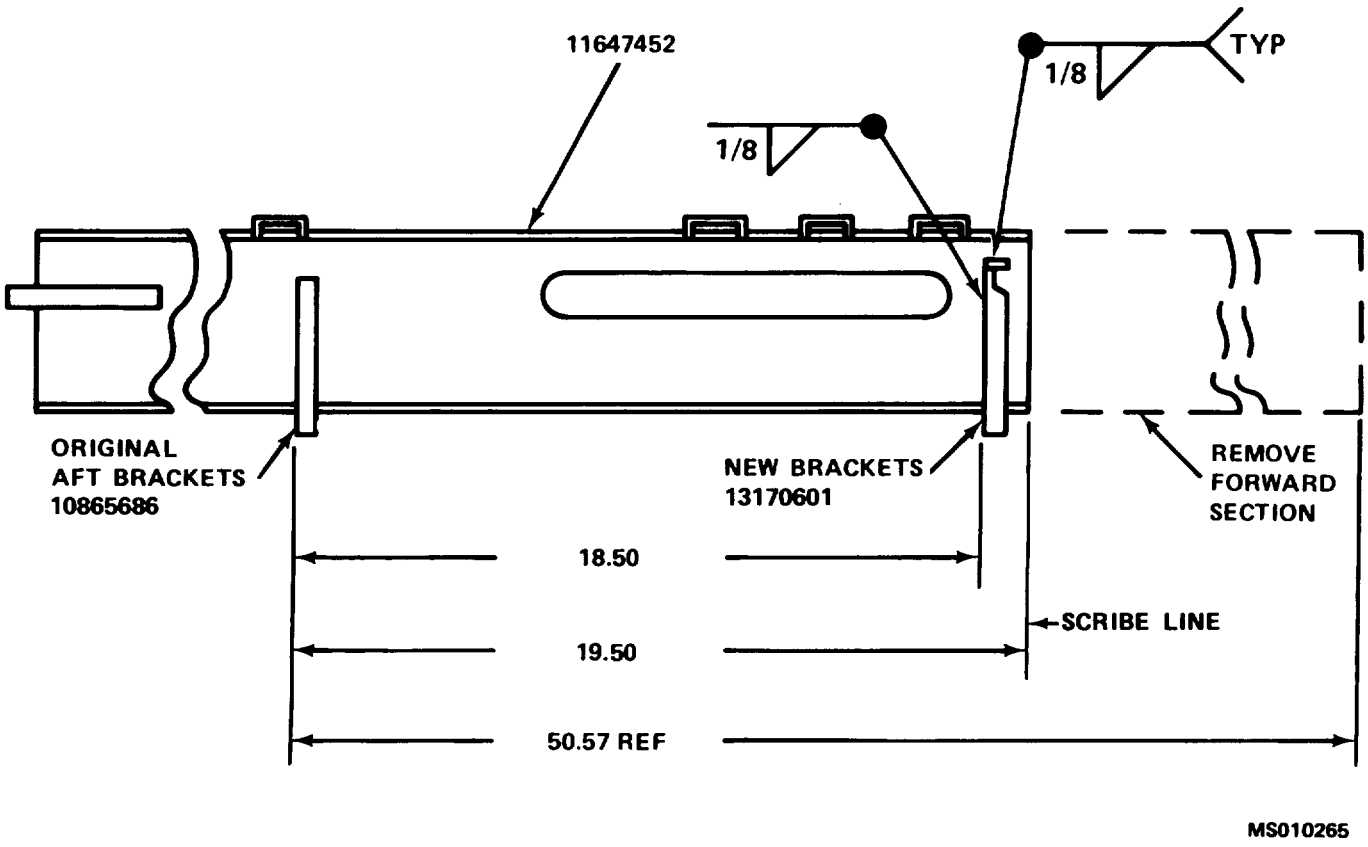


FIGURE 3-21. SEAT BACK MODIFICATION

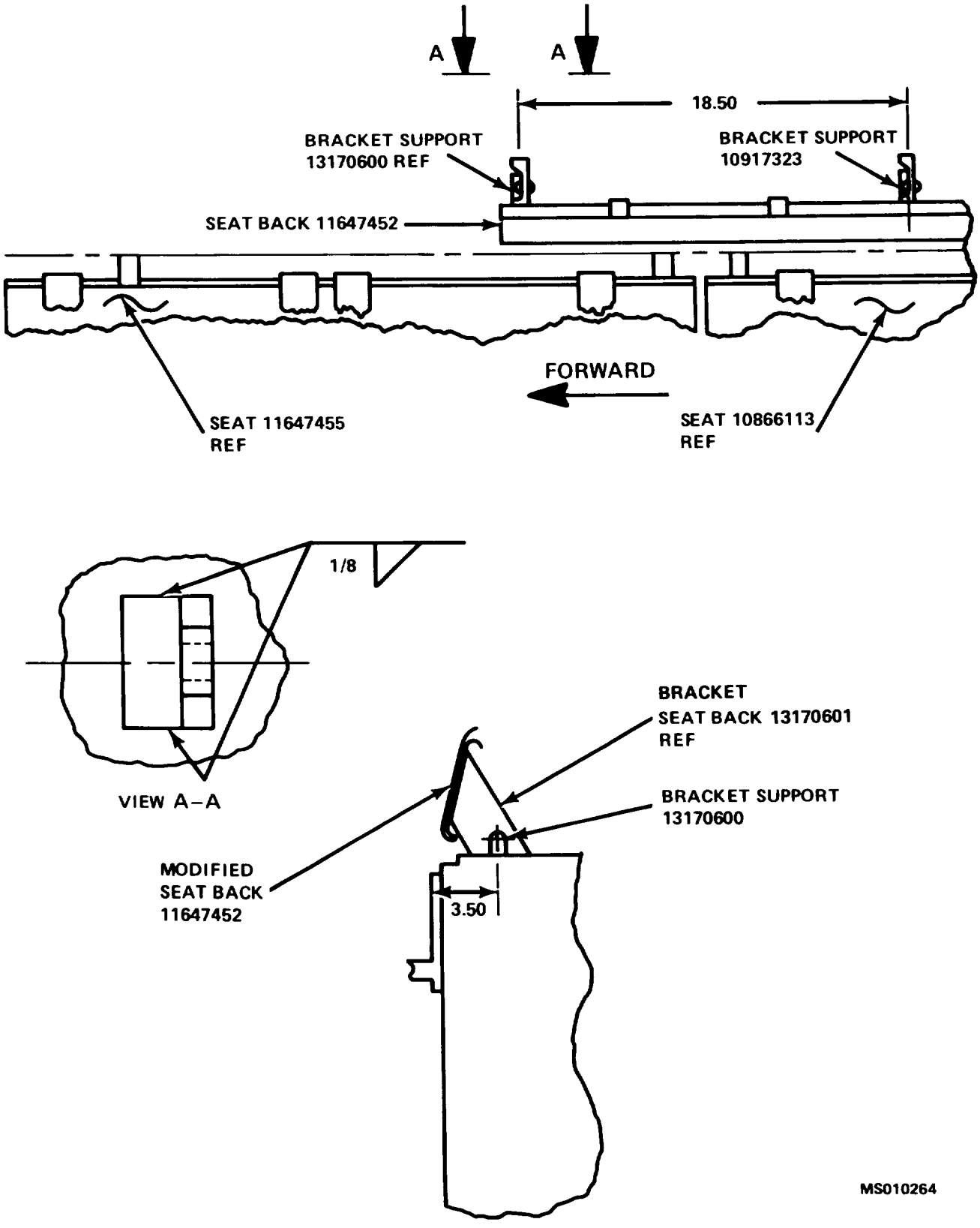


FIGURE 3-22. SEAT BACK BRACKET INSTALLATION

3-10. MODIFICATION OF BRACKET ASSEMBLY DOOR

There are two different door configurations on bracket assemblies PN 13043958 supplied in the DRAGON APC kit. The door configuration, containing the lock hasp (see figure 3-23) must be modified to the configuration shown in figure 3-24 in accordance with the following procedure:

a. Rotate the door knob, unlatch the door and open.

b. Using a hack saw, cut the hasp bar off as indicated in figure 3-23.

c. Using a portable grinder or rasp file, remove remaining hasp material or burrs so that the face of the hasp angle is smooth.

d. On the hasp angle face locate and center punch for a hole as shown in figure 3-24.

e. Using a drill motor and 0.50 drill bit, drill a hole through the hasp angle. Remove any sharp edges and burrs from around hole. Modification is now complete.

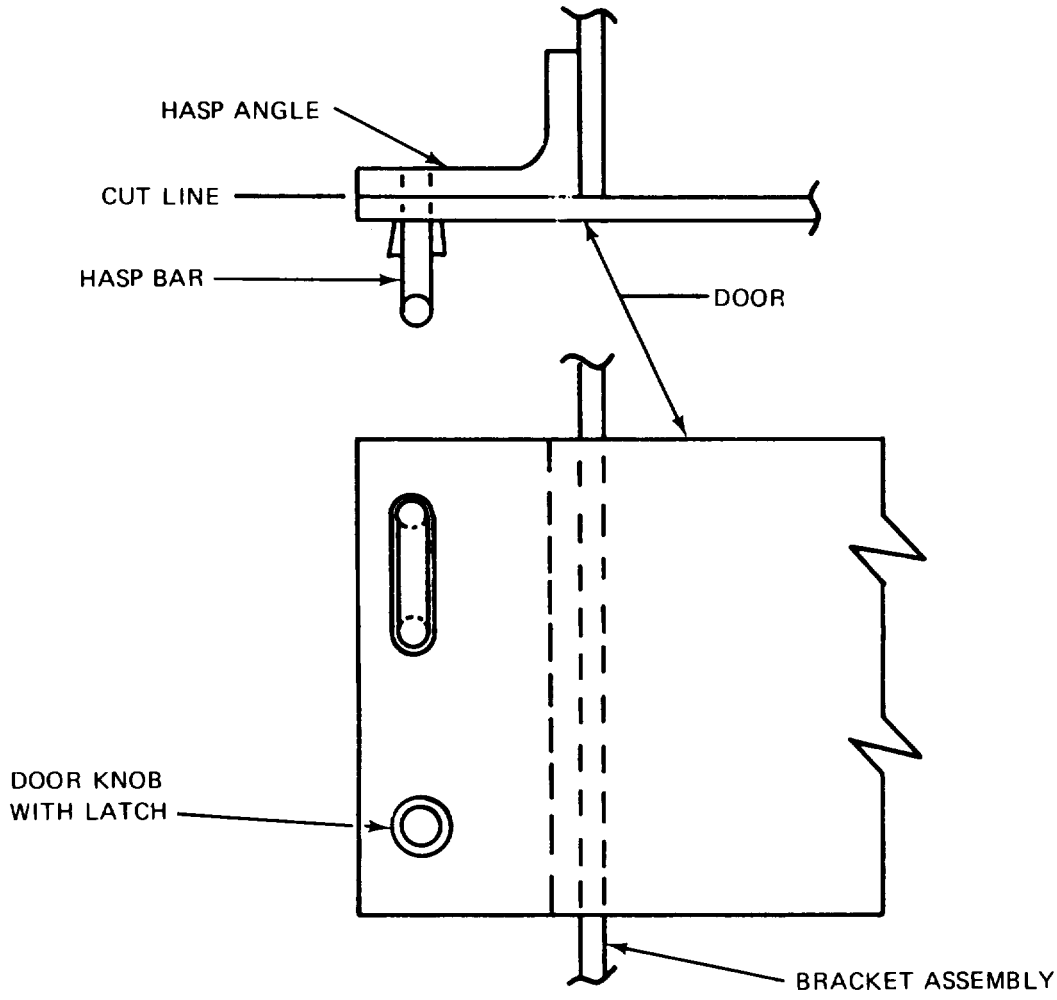


Figure 3-23. Bracket Assembly Door and **Hasp**

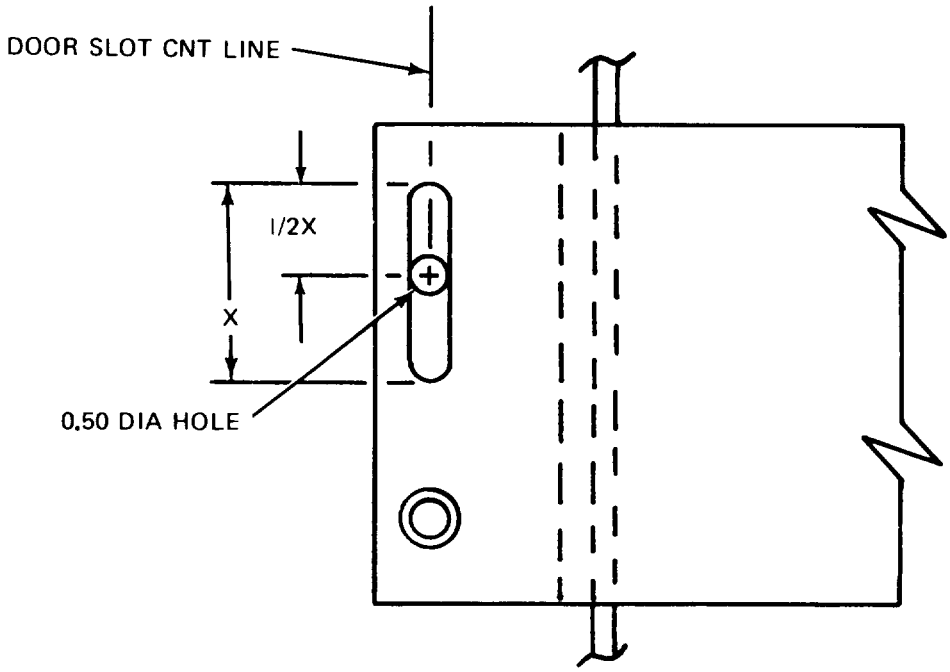


Figure 3-24. Modified Bracket Assembly Door

CHAPTER 4

QUALITY ASSURANCE REQUIREMENTS

a. Verify the M213 container PN 11508677 has been properly installed in accordance with Paragraph 2-1.

b. Verify the Bracket Assembly PN 13043958 has been properly installed in accordance with paragraph 3-1.

c. Verify the Case Support Assembly PN 13043956 has been properly installed in accordance with Paragraph 3-2.

d. Verify the Cable Clamps MS21919DG8 and two new holes with grommets have been located and installed in the Battery Box in accordance with paragraph 3-3.

e. Verify the Installation of Grounding Cables are in accordance with Paragraph 3-4.

f. Verify the hole locations for mounting the Vehicle Power Conditioner are in accordance with Paragraph 3-5.

g. Verify the Cable Ducts PN 11572742-1, PN 11572742-2 and strap PN 11572744-2 are installed in accordance with Paragraph 3-6.

h. Verify the Aft Strap Assembly PN 11572744-2 has been installed in accordance with Paragraph 3-7.

i. Verify the Supports PN 13043963-1 and -2 have been installed in accordance with paragraph 3-8.

j. Verify that the seat back PN 11647452 has been modified and reinstalled in accordance with Paragraph 3-9.

CHAPTER 5

SPECIAL INSTALLATION PROCEDURES FOR VEHICLE POWER CONDITIONER (VPC)

5-1. GENERAL

Initial installation of the DRAGON VPC/APC mounting kit hardware is scheduled to be accomplished by depot teams. The VPC is issued separately to the using organization and is not a part of the kit, therefore, it is the responsibility of the using organization to install the VPC as specified in Paragraph 5-2 below.

5-2. VPC INSTALLATION PROCEDURE

a. Remove four screws and washers installed in paragraph 3-5m. Place the VPC (connectors facing roadside wall) over installation holes and reinstall four screws (MS16997-33) and four washers (AN960C8).

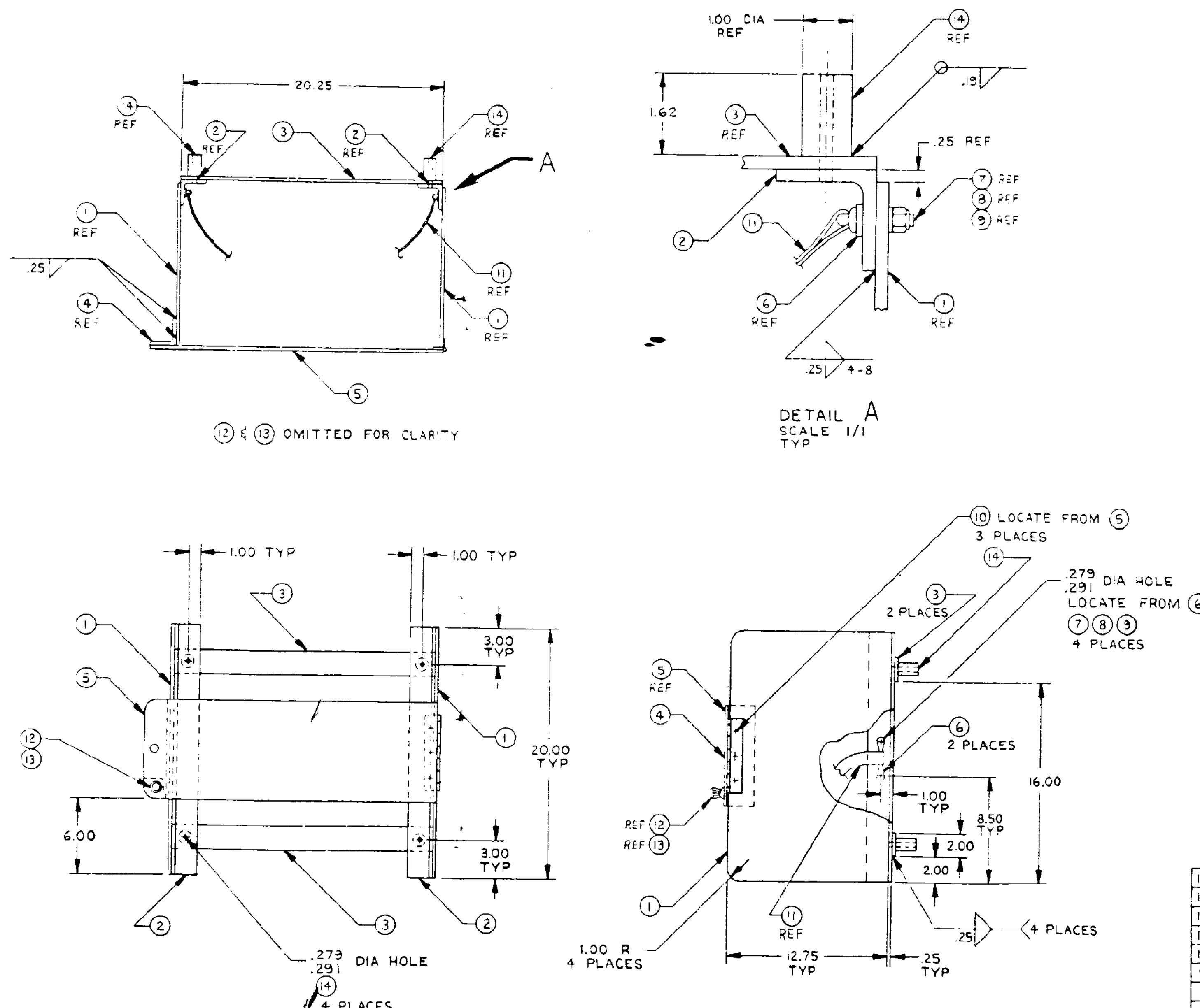
b. Remove the three cable ducts installed in paragraph 3-6 and route VPC cable 2W2 through the ducts. Make sure connector P2 is routed forward towards engine compartment. Secure cable ducts with attaching screws and tie loose coils on forward end of 2W2. Secure tied coil with velcro strap.

5-3. VPC AND BATTERY CHARGER MAINTENANCE

For repair and maintenance procedures on the VPC and Night Vision Sight Tracker Battery Charger refer to TM 11-5855-247-24 and TM 11-5855-254-14&P respectively.

APPENDIX A

SUPPORTING DOCUMENTATION



NOTES:

1. REMOVE BURRS & BREAK SHARP EDGES.
2. WELD PER MIL-W-8604.
3. .250 PLATE 6061-T6 AL PER QQ-A-250/11d.
4. 2.00 x 2.00 x .250 ANGLE 6061-T6 AL PER QQ-A-200/8.
5.
6. INSTALL PER MANUFACTURER'S INSTRUCTIONS
   SUGGESTED SOUTHCO, INC.
   SOURCE: LESTER, PA. 19113
7. CHEM FILM COAT (1) THRU (12) & (14) PER MIL-C-5541, CLASS 1A.
8. FINISH (1) THRU (10) & (14) PER MIS-13960 USING ONE COAT PRIMER AND TWO COATS ENAMEL PER TT-E-529, CLASS A, COMP. L, COLOR GREEN NO. 24410 PER FED-STD-595.
9. IDENTIFY PER MIL-STD-130 USING RUBBER STAMP; LOCATION OPTIONAL, USING INK PER MIL-I-43553, COLOR BLACK.
10. 1.00 DIA ROD 6061-T6 AL PER QQ-A-200/8c.
11. QUALITY ASSURANCE PROVISIONS:
    UNLESS OTHERWISE SPECIFIED STANDARD MEASURING EQUIPMENT AND/OR STANDARD TEST EQUIPMENT SHALL BE USED TO INSPECT THE FOLLOWING CHARACTERISTICS. ALL CHARACTERISTICS ARE CONSIDERED MINOR WITH A 4.0 AQL S-1 LEVEL, MIL-STD-105 APPLIED, EXCEPT THOSE GOVERNED BY THE FOLLOWING SPECIFICATIONS: QQ-A-200, MIL-W-8604, QQ-A-250, MIL-A-8625, TT-E-529 & MIS-13960.
12. RIVET PER MIL-STD-403.

FIND NO	PART OR IDENTIFYING NO.	CODE IDENT	NOMENCLATURE OR DESCRIPTION	SPECIFICATION	P	QTY REQD
14	-4	18876	STANDOFF	10		4
13	16-0-2345-16	94222	LOCKWASHER	6		1
12	16-10-201-11	94222	ADJUSTABLE PAWL	6		1
11	11508947		STRAP, TIE DOWN			1
10	MS20470DD6-10		RIVET			3
9	MS51922-1		NUT			4
8	AN960-416		WASHER			4
7	MS35206-344		SCREW			4
6	10225715	18876	LOOP			2
5	13043960	18876	DOOR ASSY			1
4	13043953	18876	LOCK BRACKET			1
3	13043958-3	18876	STIFFENER	3		2
2	13043958-2	18876	ANGLE	4		2
1	13043958-1	18876	SIDE PLATE	3		2

LIST OF MATERIALS OR PARTS LIST

NEXT ASSY	USED ON
5352323	M113A/DRAGON
13043957	M113A/DRAGON

APPLICATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS ± ANGLES ± 3 PLACE DECIMALS ± .010 2 PLACE DECIMALS ± .03

MATERIAL

DATE JAN 22 1978

PREPARED

CHECKED

ENGINEER

APPROVED BY ORDER OF CG, USAMICOM

APPROVED

U.S. ARMY MISSILE COMMAND
REDSTONE ARSENAL, ALABAMA

BRACKET ASSY - DRAGON NIGHT SIGHT BAG

SIZE F | CODE IDENT NO 18876 | DRAWING NO. 13043958

SCALE 1/4 | SHEET 1 OF 1

By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR.
General, United States Army
Chief of Staff

Official:

DONALD J. DELANDRO
Brigadier General, United States Army
The *Adjutant General*

Distribution:

To be distributed in accordance with DA Form 12–32, Section II, Organizational Maintenance requirements for DRAGON Weapon System.

*U.S. GOVERNMENT PRINTING OFFICE: 1994 - 533-072/00128