TECHNICAL BULLETIN

INSTALLATION INSTRUCTIONS FOR INTERCOMMUNICATION SET, VEHICULAR AN/VIC-3(V)13 (NSN 5830-01-449-2253) (EIC: NA) IN AN M7 BRADLEY FIRE SUPPORT TEAM VEHICLE

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HEADQUARTERS, DEPARTMENT OF THE ARMY

1 APRIL 2000

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Original 1 Apr 00

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5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK

1 DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2 IF POSSIBLE, TURN OFF THE ELECTRICAL POWER

3 IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE OR SOME OTHER INSULATING MATERIAL

4 SEND FOR HELP AS SOON AS POSSIBLE

5 AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION

WARNING

HIGH VOLTAGE

IS USED IN THE OPERATION OF THIS EQUIPMENT.

DEATH ON CONTACT

MAY RESULT IF PERSONNEL FAIL TO OBSERVE SAFETY PRECAUTIONS.

NEVER WORK ON ELECTRONIC EQUIPMENT UNLESS THERE IS ANOTHER PERSON NEARBY WHO IS FAMILIAR WITH THE OPERATION AND HAZARDS OF THE EQUIPMENT AND WHO IS COMPETENT IN ADMINISTERING FIRST AID. WHEN THE TECHNICIAN IS AIDED BY OPERATORS, HE MUST WARN THEM ABOUT DANGEROUS AREAS.

BE CAREFUL NOT TO CONTACT HIGH-VOLTAGE CONNECTIONS OF THE AC INPUT CONNECTIONS WHEN INSTALLING OR OPERATING THIS EQUIPMENT.

WHENEVER THE NATURE OF THE OPERATION PERMITS, KEEP ONE HAND-AWAY FROM THE EQUIPMENT TO REDUCE THE HAZARD OF CURRENT FLOWING THROUGH VITAL ORGANS OF THE BODY.

WARNING

DO NOT BE MISLED BY THE TERM "LOW VOLTAGE". POTENTIALS AS LOW AS 30 VOLTS MAY CAUSE DEATH UNDER CERTAIN CONDITIONS.

FOR ARTIFICIAL RESPIRATION, REFER TO FM 21-11.

WARNING

WHEN LISTENING TO THE VIS RADIO HEADSET WITH THE OPERATOR VOLUME CONTROLS SETTING IN THE RED ZONE CLICK STOP AT A FULL ON VOLUME SETTING, EXTREME CAUTION MUST BE EXERCISED TO PREVENT NOISE-INDUCED HEARING LOSS. EXPOSURES TO RADIO SIGNALS IN THE FULL ON POSITION BEYOND 45 SECONDS MAY CAUSE HEARING LOSS. ANY PROLONGED EXPOSURE IN THE FULL ON VOLUME CONTROL SETTING REQUIRES THE USE OF A SINGLE HEARING PROTECTIVE DEVICE IN EACH EAR.

WARNING

ALKALINE BATTERIES CONTAIN CAUSTIC KOH ELECTROLYTE, WHICH MAY LEAK IF THE BATTERY IS ABUSED. KOH IS A STRONG ALKALI SIMILAR TO CAUSTIC SODA (SODIUM HYDROXIDE). SERIOUS CHEMICAL BURNS CAN RESULT IF ELECTROLYTE COMES INTO CONTACT WITH THE SKIN OR EYES. IF THE BATTERY ELECTROLYTE GETS INTO YOUR EYES, IT CAN CAUSE SEVERE DAMAGE AND/OR BLINDNESS.

DO NOT TRY TO NEUTRALIZE CAUSTIC ELECTROLYTE WITH VINEGAR OR ANY OTHER ACIDIC SOLUTIONS. NEUTRALIZATION WILL DO MORE HARM THAN GOOD, AS IT WILL TRAP CAUSTIC UNDER THE SKIN, PREVENTING IT FROM COMING OUT. FLUSH WITH COPIOUS AMOUNTS OF COOL WATER.

TECHNICAL BULLETIN

NO. 11-5830-263-20-13

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 1 APRIL 2000

INSTALLATION INSTRUCTIONS FOR INTERCOMMUNICATION SET, VEHICULAR AN/VIC-3(V)13 (NSN 5830-01-449-2253) (EIC: NA) IN AN M7 BRADLEY FIRE SUPPORT TEAM VEHICLE

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5007. The fax number is 732-532-1413, DSN 992-1413. You may also email your recommendations to AMSEL-LC-LEO-PUBS-CHG@cecom3.monmouth.army.mil

In either case a reply will be furnished direct to you.

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Section I. INTRODUCTION

1.1 SCOPE

This technical bulletin provides installation instructions for the Intercommunication Set, Vehicular AN/VIC-3(V), hereinafter referred to by its common name, VIS (Vehicular Intercommunication System). There are many current and future variations of this system, e.g. AN/VIC-3(V)1, (V)2, etc., designed for specific vehicles and/or platforms, each with its own unique technical bulletin. The version this technical bulletin covers and the vehicle/platform it is being installed in is:

"AN/VIC-3(V)13"

into the

"M7 BRADLEY FIRE SUPPORT TEAM VEHICLE"

The information contained in this technical bulletin is the official authorization to perform the installation of the VIS at the Unit Maintenance Level.

1.2 GENERAL INFORMATION

a. Reference Publications
There are two manuals associated with the VIS, TM 11-5830-263-10 Operator's Manual, and TM 11-5830-263-20&P Unit Maintenance Manual (Including Repair Parts and Special Tools List (RPSTL)). Additionally, for periodic updated information on the VIS and its specific components refer to the CECOM Supply Bulletin and The Preventive Maintenance Monthly.

b. Purpose of Equipment
The AN/VIC-3(V) or VIS is an intercommunication and radio-control system designed for ground mobile combat vehicles. Digital audio enhances speech quality and intelligibility. Headsets that incorporate active noise reduction (ANR) circuitry increase the effectiveness of vehicle communications. They offer increased hearing protection in the noisy environment of combat vehicles.

c. Equipment Components
The AN/VIC-3(V) or VIS versions are configured for specific vehicles and/or platforms. When installed in a vehicle/platform it loses its identity. VIS is designed to replace the AN/VIC-1 or -2, in some cases utilizing the existing mounting hardware and brackets used by the AN/VIC-1 or -2. VIS consists of LRU's (Line Replaceable Units (Boxes)) (the type and quantity of which vary depending upon the specific vehicle and/or platform), various types of cables (highway, power, alarm, etc.), headsets (the type and quantity of which vary depending upon the specific vehicle and/or platform), brackets, and mounting hardware (nuts, bolts, screws, etc.) for securing both the LRU's and brackets. Every vehicle/platform contains one Master Control Station (MCS), a number of Full Function Crew Stations (FFCS), and a Permanent Magnet Loudspeaker (LS). Depending upon the vehicle/platform VIS is being installed in, it may also contain Radio Interface Terminal(s) (RIT) and Monitor Only Station(s) (MOS).

1.3 CONSOLIDATED INDEX OF ARMY PUBLICATIONS

Refer to the latest issue of DA PAM 25-30 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

1.4 MAINTENANCE FORMS, RECORDS, AND REPORTS

a. Reports of Maintenance and Unsatisfactory Equipment
Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, as contained in Maintenance Management Update.

b. Reporting of Item and Packaging Deficiencies
Fill out and forward SF364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/SECNAVINST 4355.18/AFR400-54/MCO 4430.3J.

c. Transportation Discrepancy Report (TDR)(SF361)
Fill out and forward Transportation Discrepancy Report (TDR) (SF361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

1.5 CORROSION PREVENTION AND CONTROL

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problems can be corrected and improvements can be made to prevent the problem in the future.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

If a corrosion problem is identified, it can be reported using SF 368, Product Quality Deficiency Report (QDR). Use of key words such as “corrosion”, “rust”, “deterioration”, or “cracking” will ensure that the information is identified as a CPC problem.

The form should be submitted to the address specified in DA PAM 738-750, Functional User’s Manual for the Maintenance Management System (TAMMS).

SECTION II. PREPARATION FOR INSTALLATION

Prior to preparing the vehicle for installation or actually installing the VIS this technical bulletin should be read in its entirety.

2.1 PREPARING THE VEHICLE

a. To prepare the vehicle for installation, ensure that the site includes adequate lighting. Inspect the vehicle for damage that could effect installation. Have any such damage repaired before installing VIS.

b. Installing the AN/VIC-3(V) into the vehicle/platform sometimes requires retaining the existing mounting hardware (and brackets) that were used to secure the AN/VIC-1 or -2 systems being replaced. Table 2-1 lists the items, if any, to be retained prior to installation.

Table 2-1. Retained Items List

Item Description and Part Number	Quantity
(None required for this installation)	

2.2 EXPENDABLE/DURABLE ITEMS

Table 2-2 lists the Expendable/Durable items the unit or retrofit/installation team should have on hand prior to the installation of the VIS. Refer to the VIS Operator's TM for specific uses for these items not cited in this technical bulletin.

Table 2-2. Expendable/Durable Items

Item No.	National Stock Number	Description	U/M
1.	6850-00-973-9091	Fluid, Penetrating, (01267) DUOL	CN
2.	7920-00-044-9281	Cloth, Cleaning, (81349), MIL-C-85043	BX
3.	6810-00-292-9625	Degreasing Solvent, (83574) PR-146BLUE	QT
4.	6850-00-664-4959	Silicone Compound, (71984), DC 6	GL
5.	7930-00-282-9699	Detergent, General Purpose, (81349), MIL-D-16791	GL
7.	6810-01-075-5546	Isopropyl Alcohol	CN

2.3 TOOLS AND TEST, MEASUREMENT AND DIAGNOSTIC EQUIPMENT (TMDE)

Table 2-3 lists the tools, and if required, the TMDE needed for installation of the VIS.

Table 2-3. Tools and Test, Measurement and Diagnostic Equipment

NOMENCLATURE	NSN	QUANTITY
Screwdriver, No. 3 Point Phillips, 4 in.	5120-00-234-8912	1
Tool Kit TK101 /G	5180-00-064-5178	1

2.4 VIS COMPONENTS (PARTS LIST)

Table 2-4 lists, with quantities, the Line Replaceable Units (LRU's)(Boxes), Headsets, Cables, Brackets, Mounting Hardware and any other items that will be installed in the vehicle/platform covered by this technical bulletin. This table will be used as a checklist when the pre-installation inventory is conducted. Illustrations (Figures) referenced in Table 2-4 are on the pages immediately following the table. It should be noted that this table does not list parts that need to be retained for reuse from removing the previous AN/VIC-1 or -2 system. Refer to Table 2-1 for those items.

Table 2-4. VIS Components (Parts List)

NSN	ITEM DESCRIPTION AND PART NUMBER	QTY IN VIS	SMR CODE	FIGURE *, ITEM NO.
5895-01-382-3221	Master Control Station (MCS), A3205747	1	PAODD	2-1, 1
5830-01-382-3218	Full Function Crew Station (FFCS), A3205746 (Driver's, Spare, FSSgt, FSO, and FSS)	5	PAODD	2-1, 2
5895-01-382-3220	Radio Interface Terminal, A3205749	1	PAODD	2-1, 3
5965-01-382-3222	Loudspeaker, Permanent Magnet, LS-688, A3206080	1	PAOOO	2-1, 4
5965-01-397-7542	Headset, CVC Small, A3206101-1	4 Total	PAOOO	2-1, 5
5965-01-398-1551	Headset, CVC Medium, A3206101-2		PAOOO	2-1, 5
5965-01-397-7544	Headset, CVC Large, A3206101-3		PAOOO	2-1, 5
5995-01-392-9107	Cable Assembly, Power, A3206017-6	1	PAOZZ	2-2, 6
5995-01-392-6202	Cable Assembly, Highway, A3206018-4	1	PAOZZ	2-2, 7
5995-01-392-6197	Cable Assembly, Highway, A3206018-6	1	PAOZZ	2-2, 7
5995-01-392-6198	Cable Assembly, Highway, A3206018-7	1	PAOZZ	2-2, 7
5995-01-406-1171	Cable Assembly, Highway, A3206018-10	1	PAOZZ	2-2, 7
5995-01-392-7352	Cable Assembly, Highway, A3206018-21	1	PAOZZ	2-2, 7
5995-01-392-7359	Cable Assembly, R/T, A3206019-6	3	PAOZZ	2-2, 8
5995-01-386-9109	Cable Assembly, Bailout, A3206020	4	PAOZZ	2-2, 9
5995-01-392-7358	Cable Assy, Hwy/Vehicle, A3206023-13-16	1	PAOZZ	2-2, 10
5995-01-392-7325	Cable Assembly, Alarm, A3206116	1	PAOZZ	2-2, 11
5995-01-392-7326	Cable Assembly, R/T, A3206127-6	1	PAOZZ	2-2, 12
5995-01-393-7694	Cable Assembly, Loudspeaker, A3206193-6	1	PAOZZ	2-2, 13
5995-01-426-1354	Cable Assy, Hwy/Vehicle, A3206257-16-17	1	PAOZZ	2-2, 14
5995-01-392-7326	Plate, Mounting Control, M2/M3, A3206126	5	PAOZZ	
Not Applicable	Hanger, Headset, A3206565	2	PAOZZ	
Not Applicable	Bracket, Loudspeaker, A3206488	1	PAOZZ	
5340-01-152-2937	Vibration Mount, Round Double Stud, 12293273	10	PAOZZ	
5342-01-147-9961	Vibration Mount, Round Double Stud, 12293273-1	9	PAOZZ	
5306-00-226-4830	Bolt, Machine, B1821BH031C138N	12	PAOZZ	
5305-00-821-3869	Bolt, Machine, MS90725-65	2	PAOZZ	
5310-00-984-3806	Nut, Self-Locking, Hex 5/16-18, MS51922-9	39	PAOZZ	
5310-00-081-4219	Washer, Flat, MS27183-12	51	PAOZZ	
5310-01-306-1624	Washer, Flat, MS27183-58	2	PAOZZ	
5310-00-576-5752	Washer, Lock, MS35333-39	4	PAOZZ	
5310-00-550-1130	Washer, Lock, MS35333-40	1	PAOZZ	
5310-01-315-3803	Washer, Lock, MS35338-46	2	PAOZZ	
5310-00-728-2044	Washer, Lock, MS45904-73	7	PAOZZ	
5310-00-935-8984	Washer, Lock, MS45904-84	1	PAOZZ	
5999-01-421-1339	Cable Assembly, Ground, A3206132	5	PAOZZ	
5999-01-412-1341	Cable Assembly, Ground, A3206133	1	PAOZZ	
5975-00-133-8696	Strap, Tiedown, MS3367-6-9	35	PAOZZ	
Not applicable	Decal, Reference, A3210746	1	XBOZZ	

* See Figures 2-1 and 2-2 for illustration of the referenced part(s).

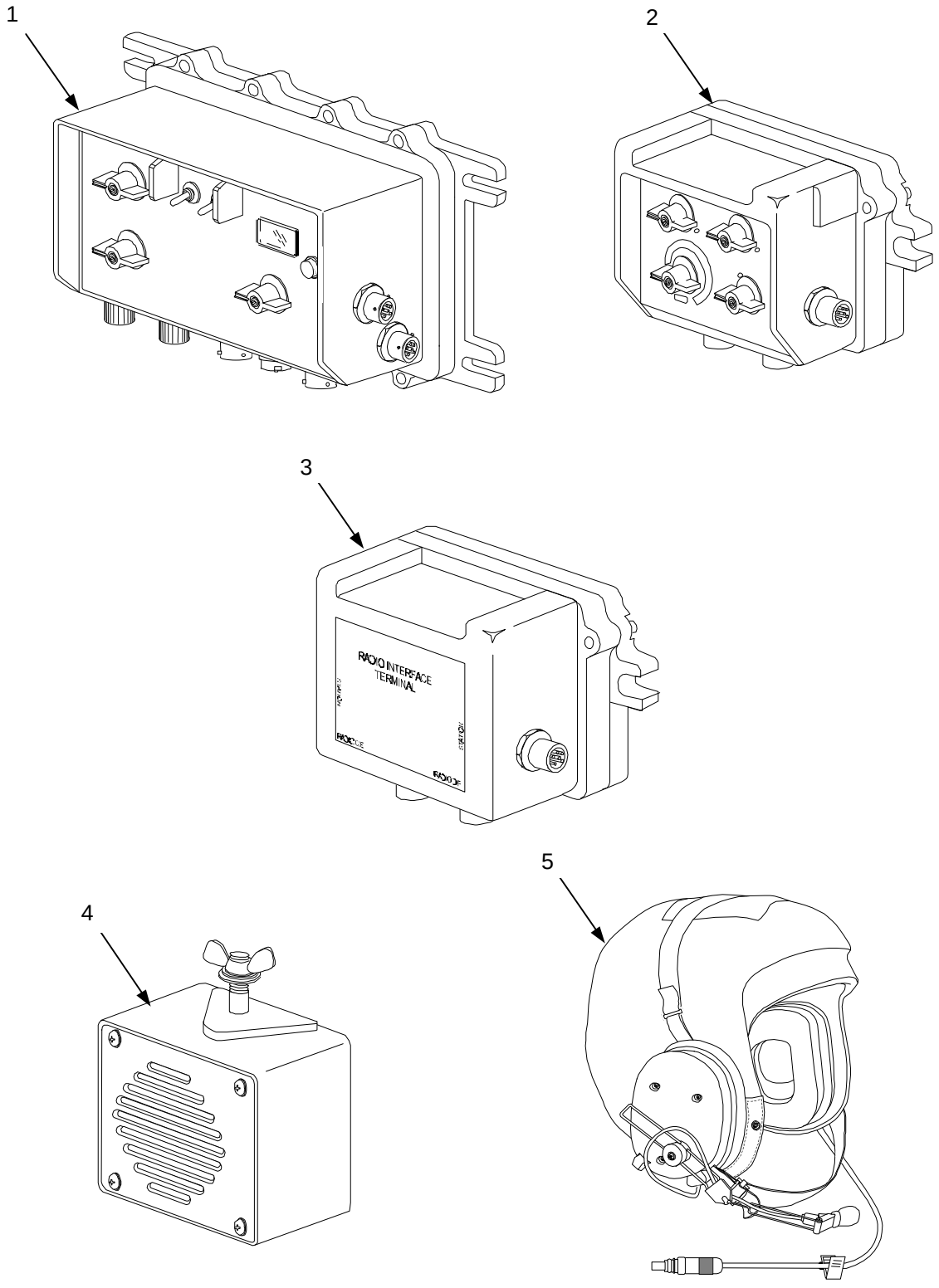


Figure 2-1. Illustrated Parts List

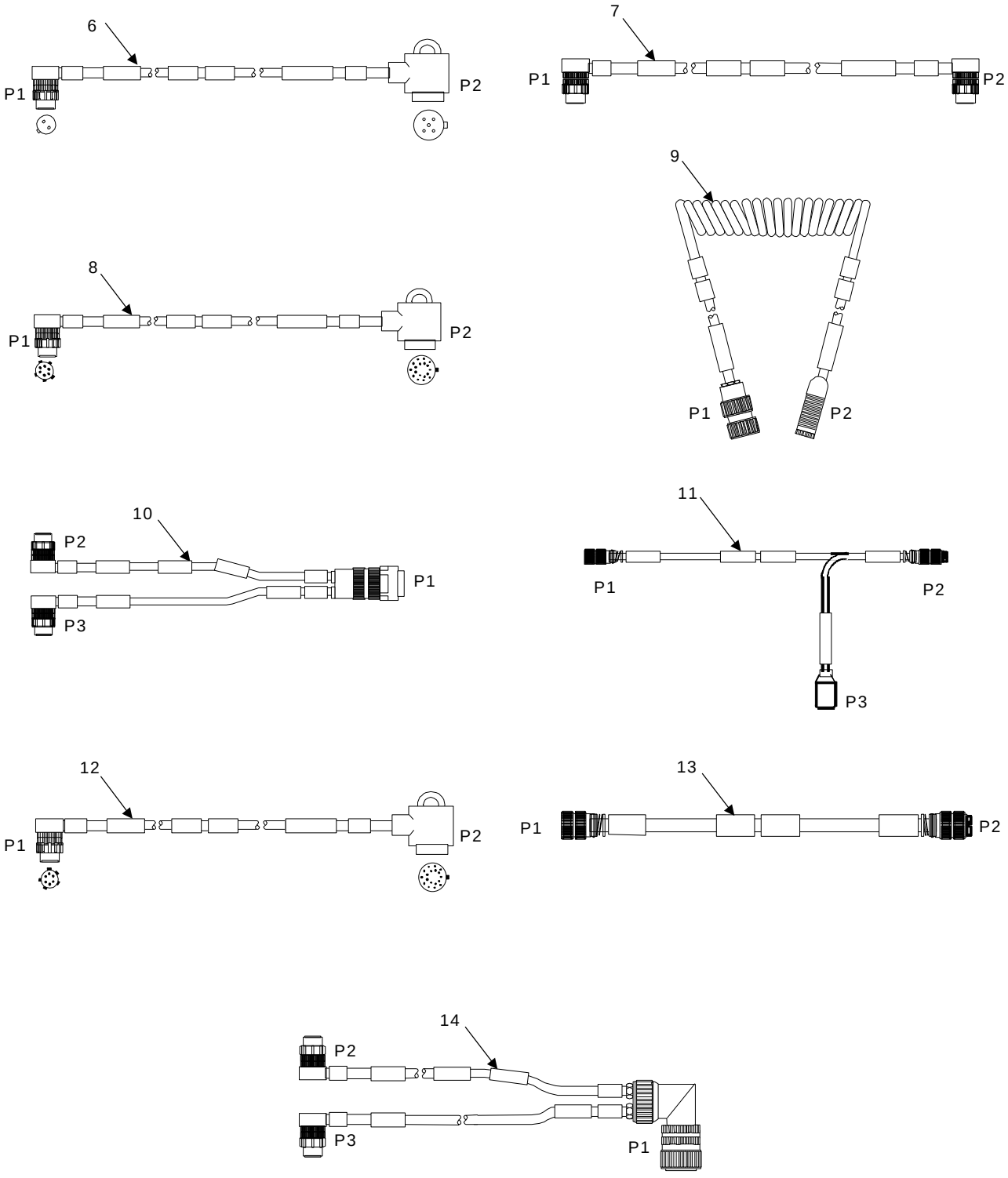


Figure 2-2. Illustrated Parts List - Cables

2.5 PRE-INSTALLATION STEPS AND PROCEDURES

a. Read the technical bulletin in its entirety prior to performing any designated tasks.

b. Ensure that the expendable/durable items identified in Table 2-2, and the tools and TMDE, if required, identified in Table 2-3 are available for use.

c. Remove the AN/VIC-1 or -2 system, if present, in preparation of installing the VIS. Refer to Table 2-1 to determine, what, if any, AN/VIC-1 or -2 components need to be retained.

d. Unpack VIS equipment/components and conduct a complete physical inventory of the items using Table 2-4 as a checklist. Be sure to inspect packaging for evidence of damage and examine each item for damage. If any discrepancies are noted refer to paragraphs 1.4 and 1.5 for the appropriate maintenance documentation to fill out.

e. Examine the decal provided with the kit. Identify the number of FFCSs and RIT's. Mark the FFCSs and RITs numerically to match the decal (a piece of tape is recommended).

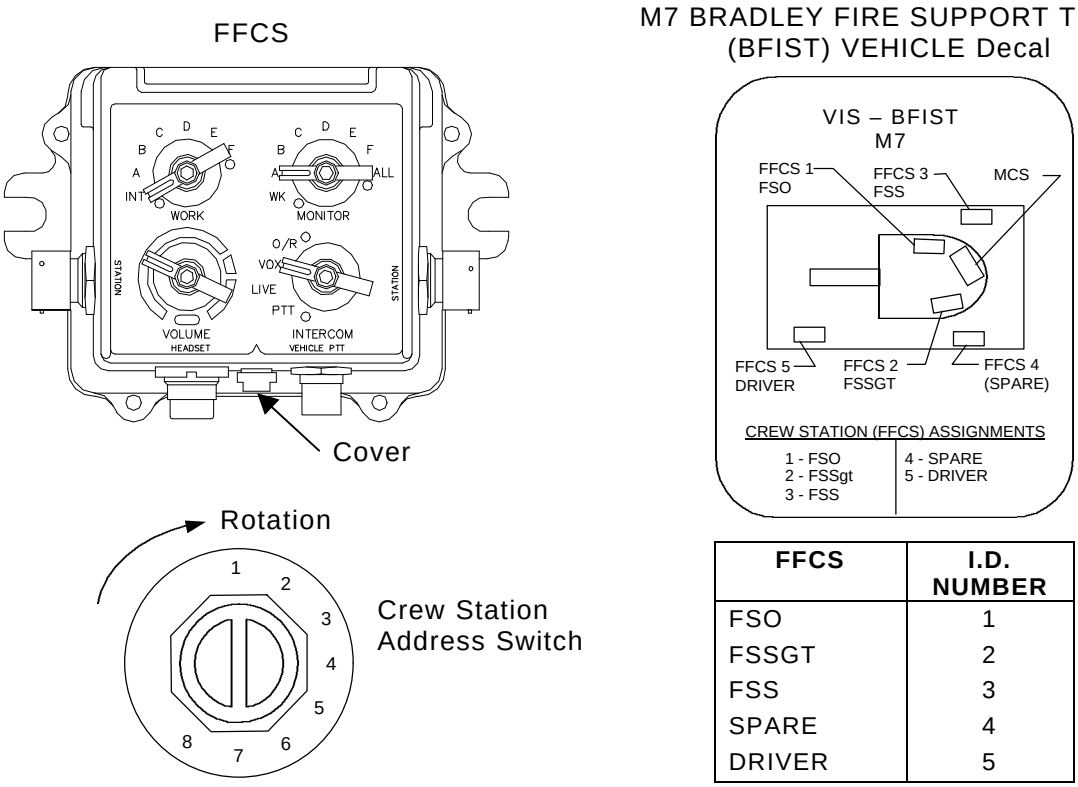
f. For each FFCS, set the Crew Station Address Switch to the number marked on it. For each RIT, set the Radio Selection Switch to the appropriate radio setting. Refer to Section III for the appropriate procedures to accomplish these tasks.

g. You are now ready to install the VIS into the vehicle/platform.

SECTION III. FFCS AND RIT CREW STATION/RADIO SWITCH SETTING PROCEDURES

3.1 FFCS CREW STATION ADDRESS SWITCH SETTING PROCEDURES

Perform the following procedure to change the FFCS Crew Station Address switch setting located on the bottom of the FFCS. Crew Station Addresses are as shown on the Decal.



FFCS	I.D. NUMBER
FSO	1
FSSGT	2
FSS	3
SPARE	4
DRIVER	5

Figure 3-1. FFCS Crew Station Address Switch

a. Rotate switch cover screw counterclockwise (ccw) and remove.

b. Using a jeweler's screwdriver, rotate the adjustment screw ccw, until stop is reached. This is the setting for Crew Station #1.

c. Each click of the switch in a clockwise direction changes the address by one position. For example, with the switch in the full ccw position (Crew Station #1), turning the switch two clicks in a clockwise direction will set the FFCS to Crew Station #3.

d. The address switch has 8 positions. Crew Station settings are numbered 1 through 6. Position 7 on the switch is the same as position 6. Position 8 on the switch is normally used for testing, however, if the MCS is not functioning correctly, e.g., loss of timing signal (sync pulse), but is supplying power to the rest of the system, setting the switch to position 8 will result in the FFCS putting out a timing signal like the MCS.

e. When the correct Crew Station address has been set replace switch cover screw and hand tighten.

3.2 RIT RADIO SELECTION SWITCH SETTING PROCEDURES

Perform the following procedures to set the Radio Selection Switch on RIT.

Note

The following procedures can only be performed when the RIT is dismounted.

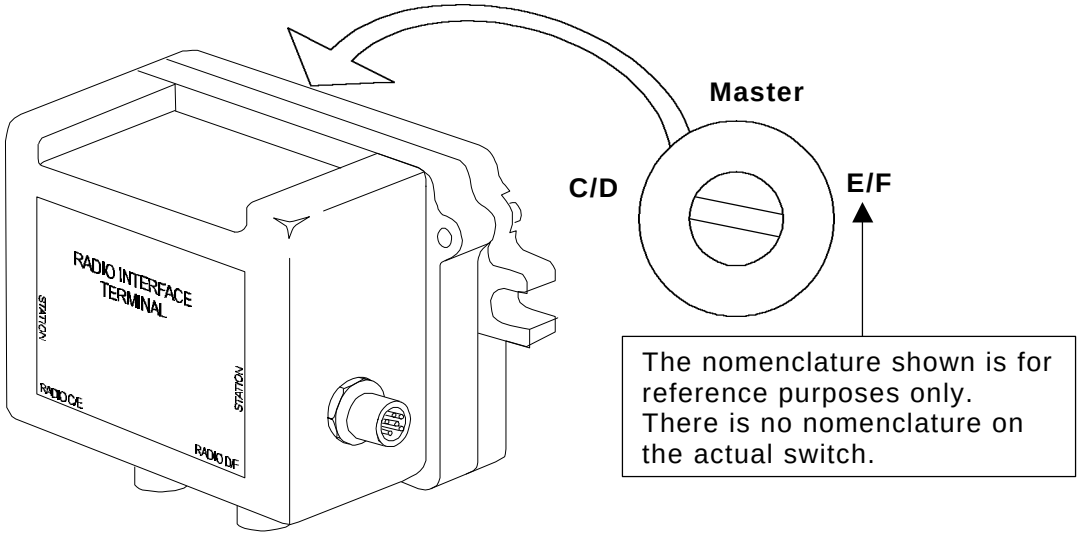


Figure 3-2. RIT Radio Selection Switch

a. Remove the switch protective cover from rear plate of RIT using a spanner wrench, and rotating counterclockwise.

b. Using a jeweler's screwdriver turn switch counterclockwise to stop, this sets the RIT to Radio's C/D.

c. Turning the switch clockwise one position sets the RIT to center position. This position is used for testing, however, if the MCS is not functioning correctly, e.g., loss of timing signal (sync pulse), but is supplying power to the rest of the system, setting the switch to this position will result in the RIT putting out a timing signal like the MCS.

d. Turning the switch clockwise one more position sets the RIT to Radio's E/F.

e. When the correct Radio setting position for the RIT has been made replace switch protective cover using spanner wrench and tighten.

SECTION IV. INSTALLATION INSTRUCTIONS

4.1 EQUIPMENT LOCATION AND SYSTEM CONFIGURATION DIAGRAMS

The Equipment Location and the System Configuration Diagrams are shown in Figures 4-1 and 4-2.

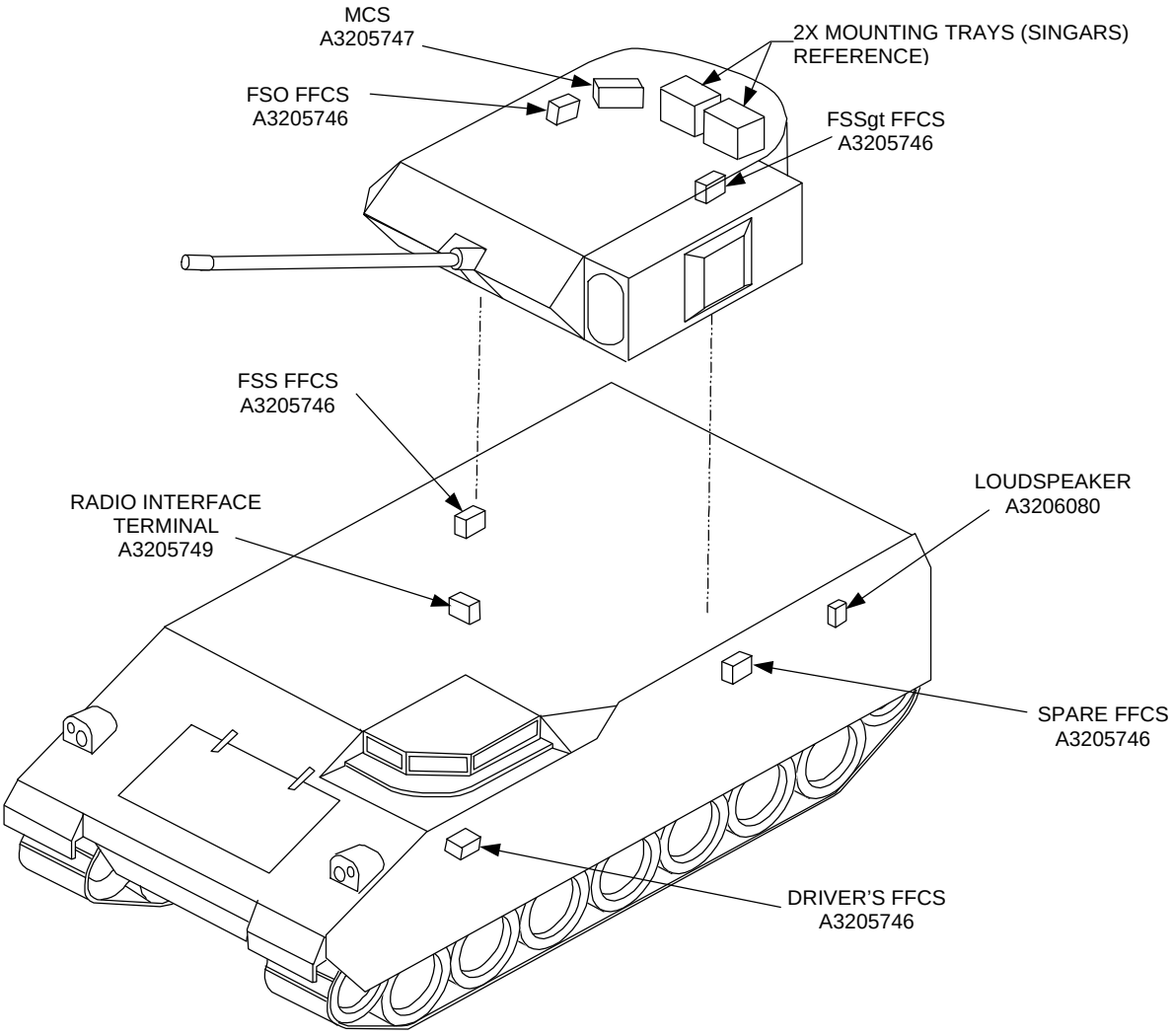
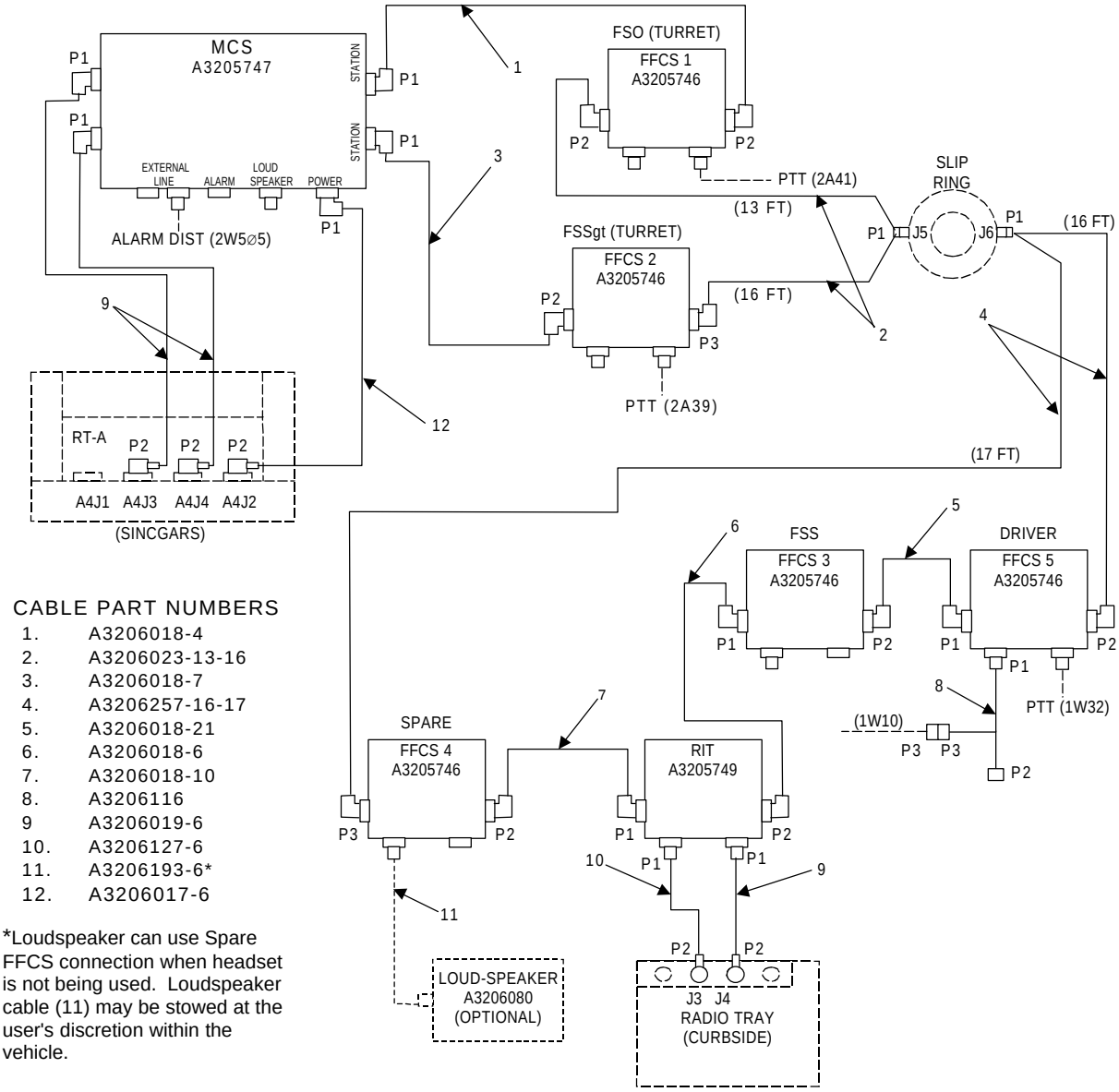


Figure 4-1. Equipment Location Diagram



CABLE PART NUMBERS

1. A3206018-4
2. A3206023-13-16
3. A3206018-7
4. A3206257-16-17
5. A3206018-21
6. A3206018-6
7. A3206018-10
8. A3206116
9 A3206019-6
10. A3206127-6
11. A3206193-6*
12. A3206017-6

*Loudspeaker can use Spare FFCS connection when headset is not being used. Loudspeaker cable (11) may be stowed at the user's discretion within the vehicle.

Cable #	FROM			TO		
	Cable Conn.	Unit	Unit Conn.	Cable Conn.	Unit	Unit Conn.
9	P1	MCS	Radio A	P2	Radio Tray	A4J3
9	P1	MCS	Radio B	P2	Radio Tray	A4J4
12	P1	MCS	Power	P2	Radio Tray	A4J2
1	P1	MCS	Top Station	P2	FFCS #1	Right
2	P2	FFCS #1	Left	P1	Slip Ring	J5
4	P1	Slip Ring	J6	P2	FFCS #5	Right
8	P1	FFCS #5	Headset	P3	1W10	P3
5	P1	FFCS #5	Left	P2	FFCS #3	Right
6	P1	FFCS #3	Left	P2	RIT	Right
9	P1	RIT	Radio D/F	P2	Radio Tray	J4
10	P1	RIT	Radio C/E	P2	Radio Tray	J3
7	P1	RIT	Left	P2	FFCS #4	Right
11		FFCS #4	Headset		Loudspeaker	
4	P3	FFCS #4	Left	P1	Slip Ring	J6
2	P1	Slip Ring	J5	P3	FFCS #2	Right
3	P2	FFCS #2	Left	P1	MCS	Bottom Station

Figure 4-2. System Configuration Diagram

4.2 MASTER CONTROL STATION (MCS) INSTALLATION

a. Install and secure the MCS to the existing standoffs on the turret wall in the sequence(s) shown in Figure 4-3 using the parts listed in Table 4-1 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench
Phillips Screwdriver

b. Place the M7 Bradley Fire Support Team Vehicle decal (Item 7), on the turret wall to the left of the MCS as shown in Figure 4-11.

Table 4-1. MCS Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	MCS	1	A3205747	5895-01-382-3221
2	Nut, Self-Locking, Hex	4	MS51922-9	5310-00-984-3806
3	Washer, Lock	1	MS45904-73	5310-00-728-2044
4	Washer, Flat	4	MS28173-12	5310-00-081-4219
5	Vibration Mount, Round, Double Stud	4	12293273	5340-01-152-2967
6	Cable Assembly, Ground	1	A3206132	5999-01-412-1339
7	Decal, M7 Bradley Fire Support Team Vehicle	1*	A3210746	

* See note 4.2b above and Figure 4-11.

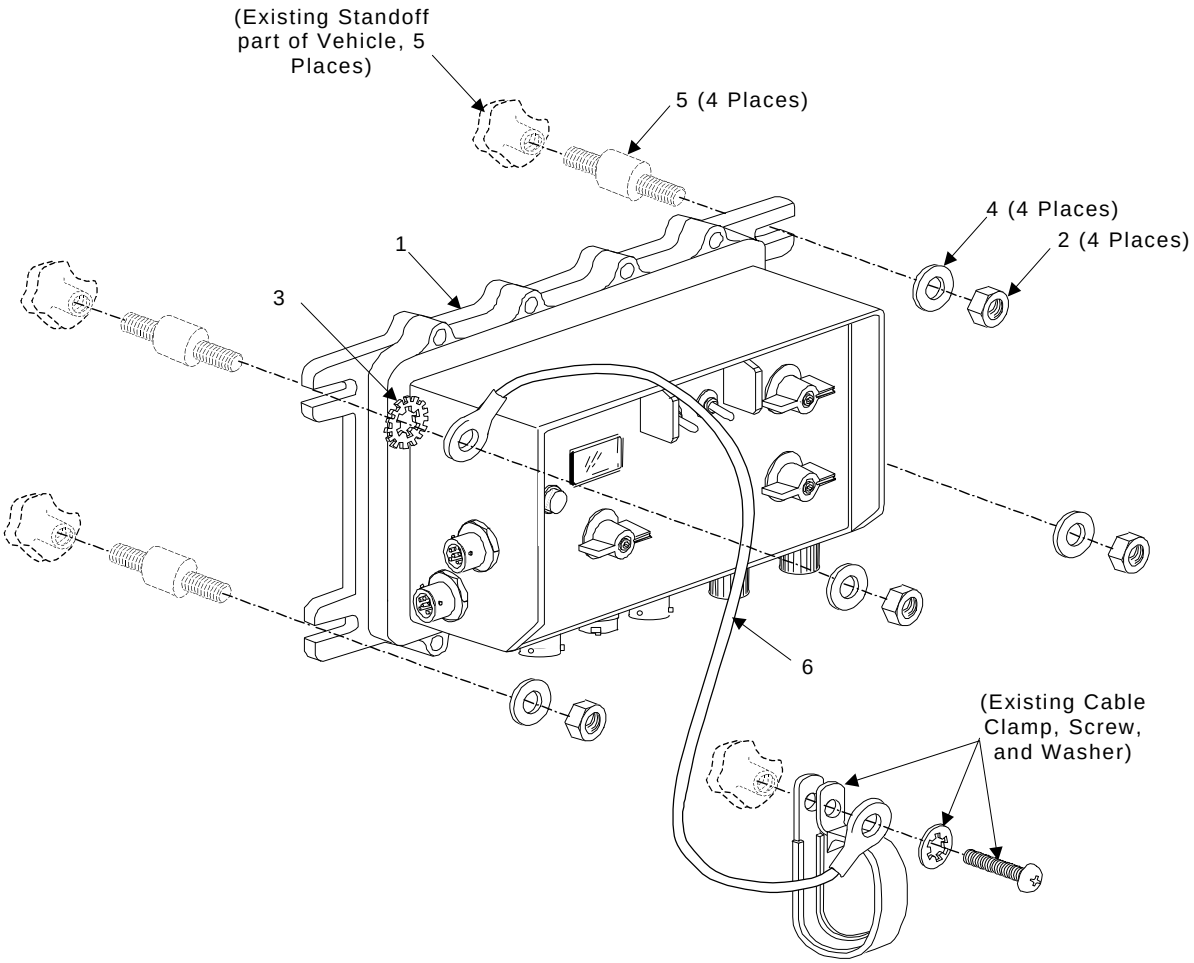


Figure 4-3. MCS Installation

4.3 FULL FUNCTION CREW STATION (FFCS) INSTALLATION

Note

The FSO and FSSgt FFCS utilize the same mounting hardware.

a. FSO and FSSgt FFCS Installation

(1) Install and secure the FSO and FSSgt FFCS's on existing standoffs on the turret wall in the sequence(s) shown in Figures 4-4 and 4-5. Secure the FFCS's using the parts listed in Table 4-2 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench
Phillips Screwdriver

(2) To install FSO Ground Cable Assembly (9) on existing standoff it may be necessary to remove Ammo Cans then loosen or remove four (4) screws on the bottom of the Ammo Can Bracket. Move the bracket forward or remove from the shelf completely. After installation of Ground Cable Assembly (9), reinstall bracket and Ammo Cans. See Figure 4-11.

Table 4-2. FSO and FFSGT FFCS Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	FFCS	1	A3205746	5830-01-382-3218
2	Plate, Mounting, Control, M2/M3	1	A3206126	5995-01-392-7321
3	Bolt, Machine	2	B1821BH031C138N	5306-00-226-4830
4	Nut, Self-Locking, Hex	5	MS51922-9	5310-00-984-3806
5	Washer, Lock	1	MS45904-73	5310-00-728-2044
6	Washer, Lock	1	MS35333-39	5310-00-576-5752
7	Washer, Flat	7	MS28173-12	5310-00-081-4219
8	Vibration Mount, Round, Double Stud	3	12293273	5340-01-152-2967
9	Cable Assembly, Ground	1	A3206132	5999-01-412-1339

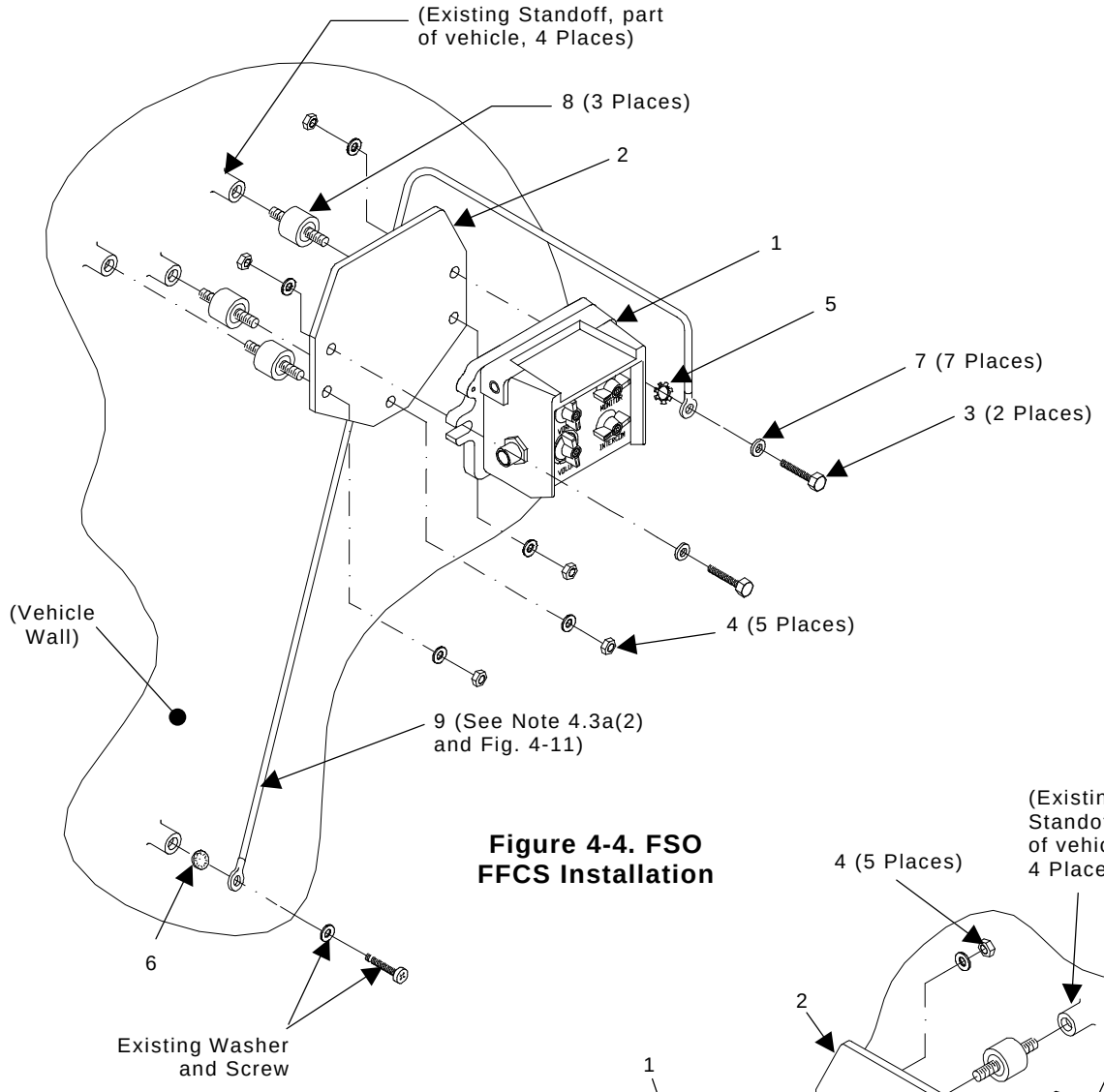


Figure 4-4. FSO FFCS Installation

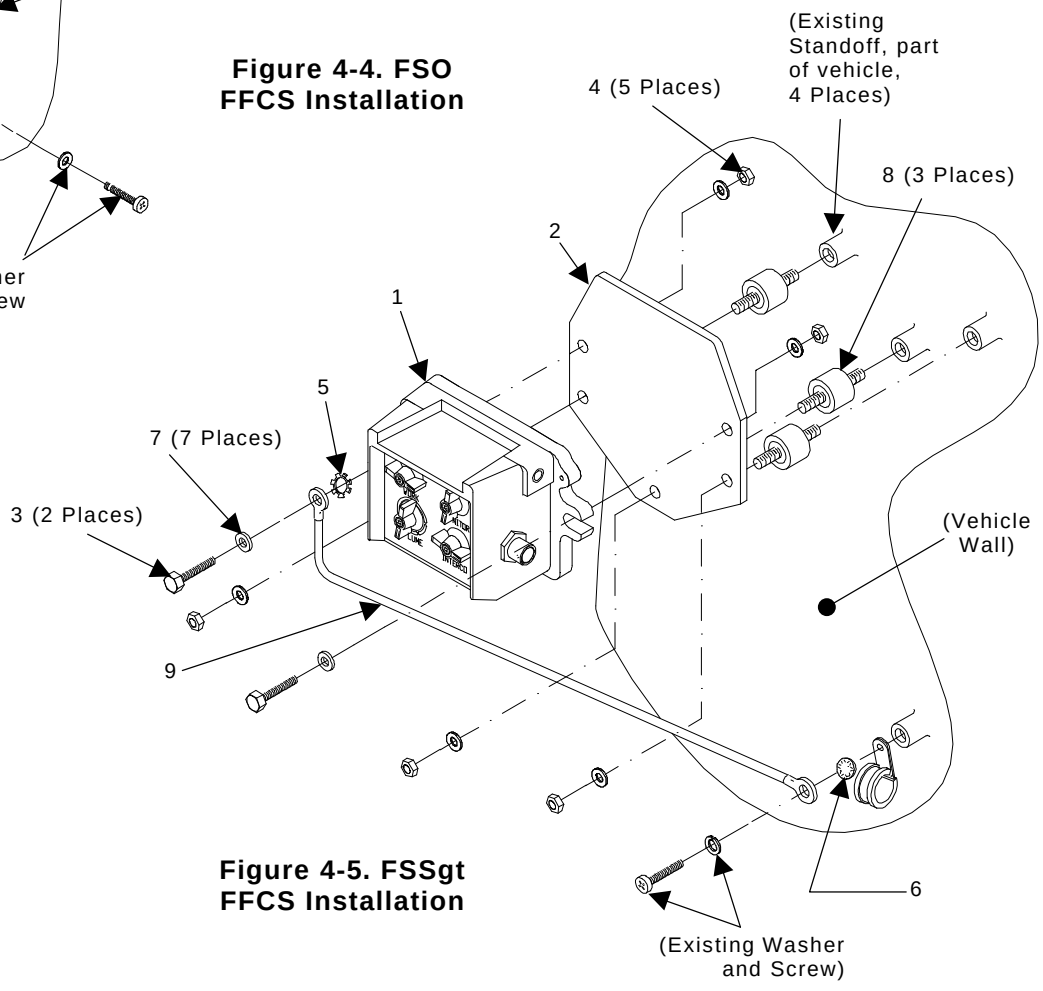


Figure 4-5. FSSgt FFCS Installation

4.3 FULL FUNCTION CREW STATION (FFCS) INSTALLATION (Continued)

b. FSS FFCS Installation

Install and secure the FSS FFCS on the existing bracket in the sequence(s) shown in Figures 4-6. Secure the FFCS using the parts listed in Table 4-3 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench
Phillips Screwdriver

Table 4-3. FSS FFCS Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	FFCS	1	A3205746	5830-01-382-3218
2	Plate, Mounting, Control, M2/M3	1	A3206126	5995-01-392-7326
3	Hanger, Headset	1	A3206565	
4	Bolt, Machine	2	B1821BH031C138N	5306-00-226-4830
5	Nut, Self-Locking, Hex	8	MS51922-9	5310-00-984-3806
6	Washer, Lock	1	MS45904-73	5310-00-728-2044
7	Washer, Lock	1	MS35333-40	5310-00-550-1130
8	Washer, Flat	10	MS28173-12	5310-00-081-4219
9	Vibration Mount, Round, Double Stud	3	12293273-1	5342-01-147-9961

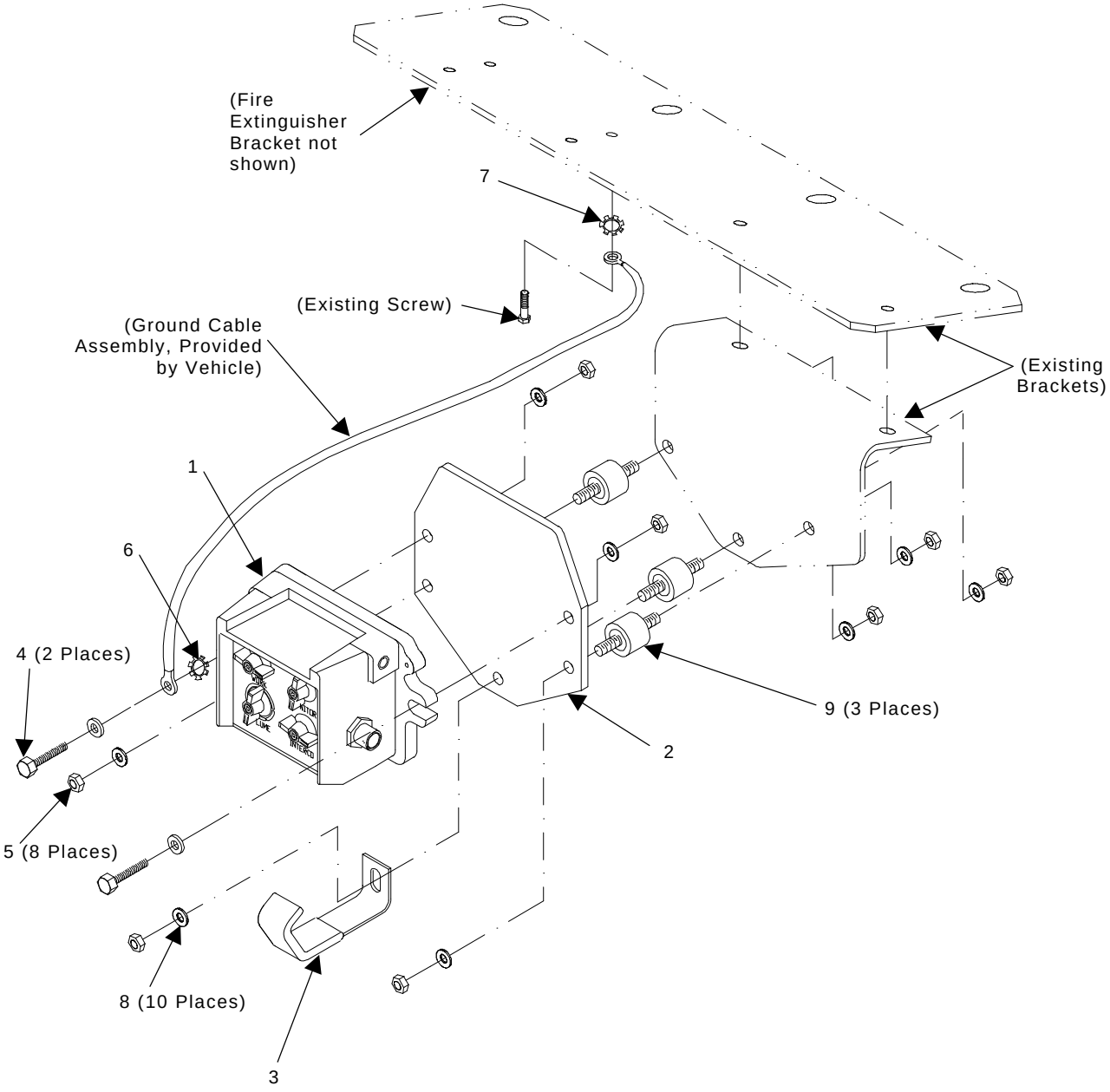


Figure 4-6. FSS FFCS Installation

4.3 FULL FUNCTION CREW STATION (FFCS) INSTALLATION (Continued)

c. Spare FFCS Installation

Install and secure the Spare FFCS on the existing bracket in the sequence(s) shown in Figures 4-7. Secure the FFCS using the parts listed in Table 4-4 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench

Table 4-4. Spare FFCS Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	FFCS	1	A3205746	5830-01-382-3218
2	Plate, Mounting, Control, M2/M3	1	A3206126	5995-01-7326
3	Hanger, Headset	1	A3206565	
4	Bolt, Machine	2	B1821BH031C138N	5306-00-226-4830
5	Nut, Self-Locking, Hex	5	MS51922-9	5310-00-984-3806
6	Washer, Lock	1	MS45904-73	5310-00-728-2044
7	Washer, Lock	1	MS45904-84	5310-00-935-8984
8	Washer, Flat	7	MS28173-12	5310-00-081-4219
9	Vibration Mount, Round, Double Stud	3	12293273-1	5342-01-147-9961
10	Cable Assembly, Ground	1	A3206133	5999-01-412-1341

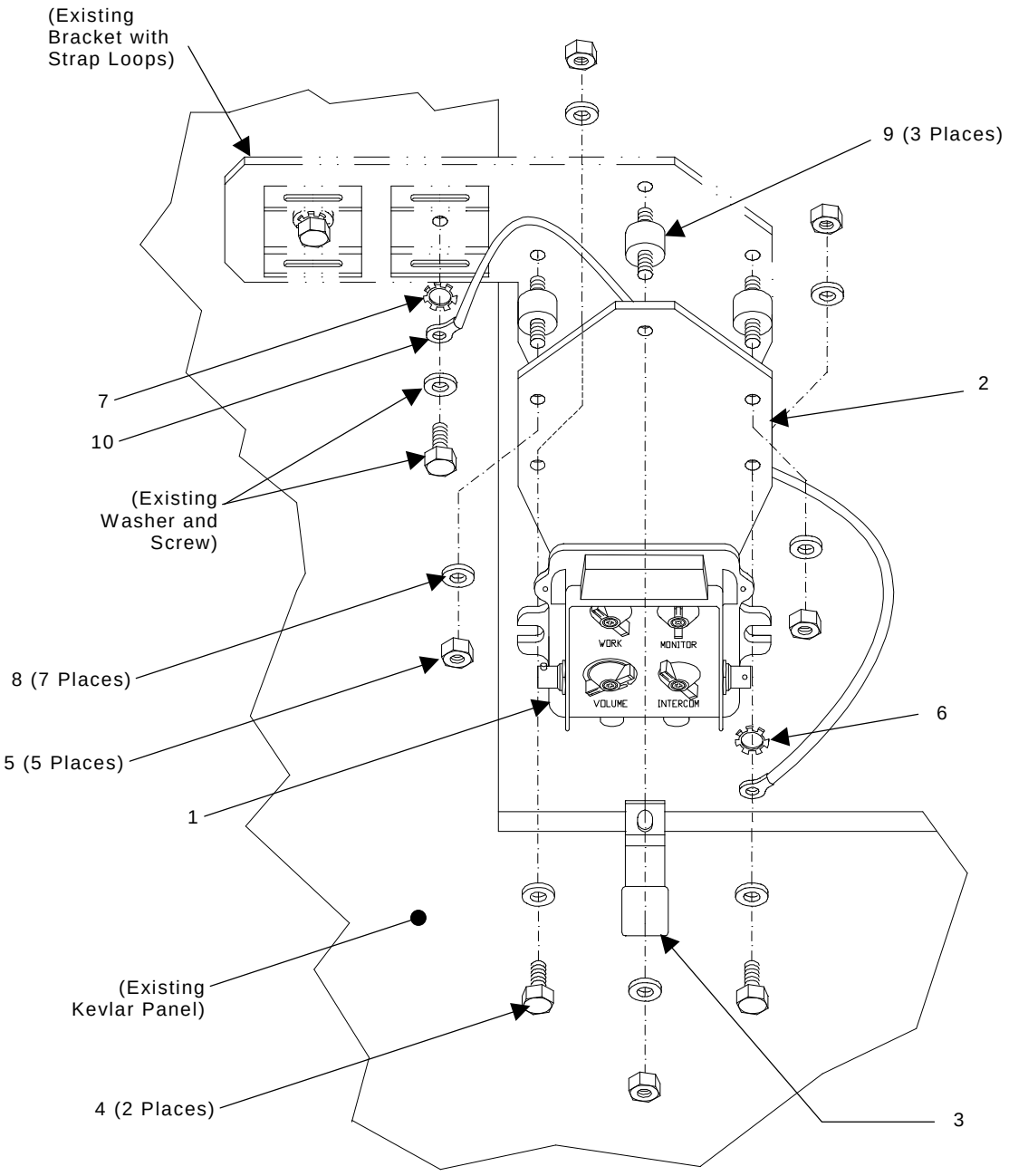


Figure 4-7. Spare FFCS Installation

4.3 FULL FUNCTION CREW STATION (FFCS) INSTALLATION (Continued)

d. Driver's FFCS Installation

Install and secure the Driver's FFCS on the existing bracket in the Driver's Compartment in the sequence(s) shown in Figures 4-8. Secure the FFCS using the parts listed in Table 4-5 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench
Phillips Screwdriver

Table 4-5. Driver's FFCS Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	FFCS	1	A3205746	5830-01-382-3218
2	Bolt, Machine	2	B1821BH031C138N	5306-00-226-4830
3	Nut, Self-Locking, Hex	4	MS51922-9	5310-00-984-3806
4	Washer, Lock	1	MS45904-73	5310-00-728-2044
5	Washer, Lock	1	MS35333-39	5310-00-576-5752
6	Washer, Flat	6	MS28173-12	5310-00-081-4219
7	Cable Assembly, Ground	1	A3206132	5999-01-412-1339

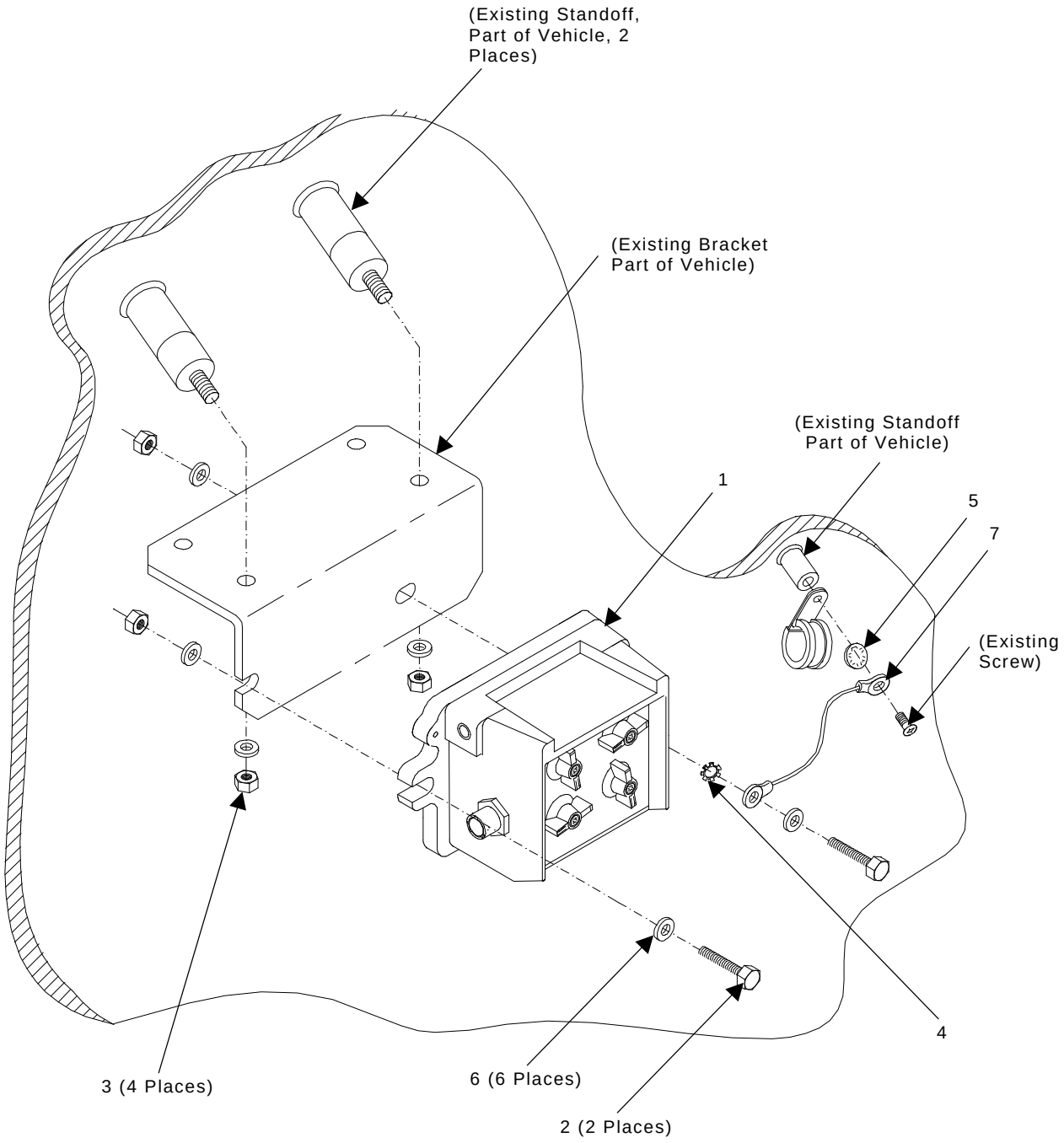


Figure 4-8. Driver's FFCS Installation

4.4 RADIO INTERFACE TERMINAL (RIT) INSTALLATION

Install and secure the RIT on the hull wall in the sequence(s) shown in Figure 4-9 using the parts listed in Table 4-6 and the following tools:

1/2 Inch Socket Wrench
1/2 Box or Open End Wrench
Phillips Screwdriver

Table 4-6. RIT Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	RIT	1	A3205749	5895-01-382-3220
2	Plate, Mounting, Control, M2/M3	1	A3206126	5995-01-392-7326
3	Bolt, Machine	2	B1821BH031C138N	5306-00-226-4830
4	Nut, Self-Locking, Hex	8	MS51922-9	5310-00-984-3806
5	Washer, Lock	1	MS45904-73	5310-00-728-2044
6	Washer, Lock	1	MS35333-39	5310-00-576-5752
7	Washer, Flat	10	MS28173-12	5310-00-081-4219
8	Vibration Mount, Round, Double Stud	3	12293273-1	5342-01-147-9961
9	Cable Assembly, Ground	1	A3206132	5999-01-412-1339

4.5 MONITOR ONLY STATION (MOS) INSTALLATION

This vehicle does not contain any MOS'.

4.6 LOUDSPEAKER (LS) INSTALLATION

Install and secure the Loudspeaker Bracket (2) on the roadside hull wall in the sequence(s) shown in Figure 4-10 using the parts listed in Table 4-7 and the following tools:

9/16 Inch Socket Wrench

Install and secure Loudspeaker (1) to Loudspeaker Bracket (2) by sliding loudspeaker shaft into bracket slot and tightening wing nut.

Table 4-7. Loudspeaker Bracket Installation Parts

Item No.	Description	Qty	Part Number	NSN
1	Loudspeaker	1	A3206080	5965-01-382-2222
2	Loudspeaker Bracket	1	A3206488	Not Applicable
3	Bolt, Machine	2	MS90725-65	5305-01-821-3869
4	Washer, Lock	2	MS35338-46	5310-01-315-3803
5	Washer, Flat	2	MS27183-58	5310-01-306-0624

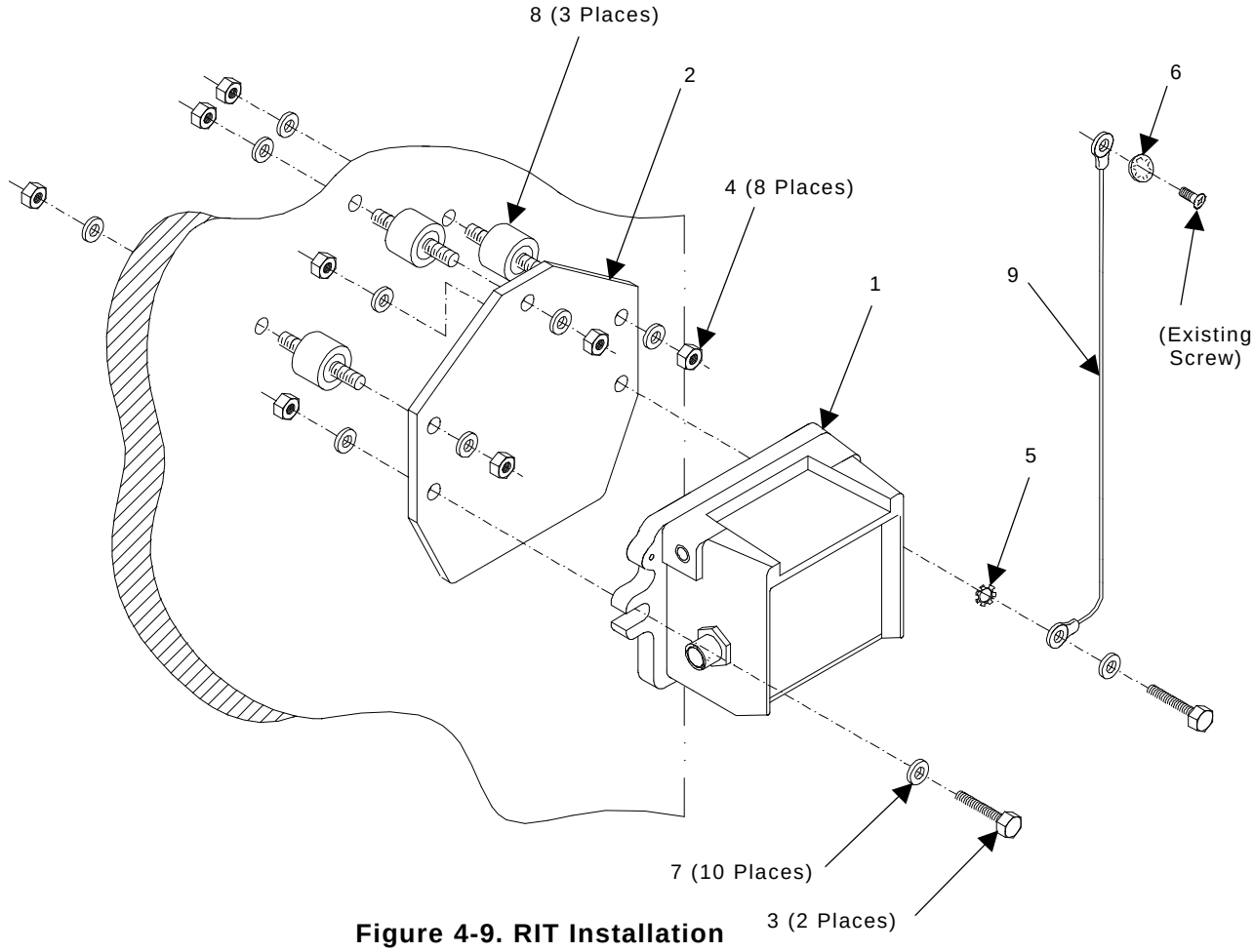


Figure 4-9. RIT Installation

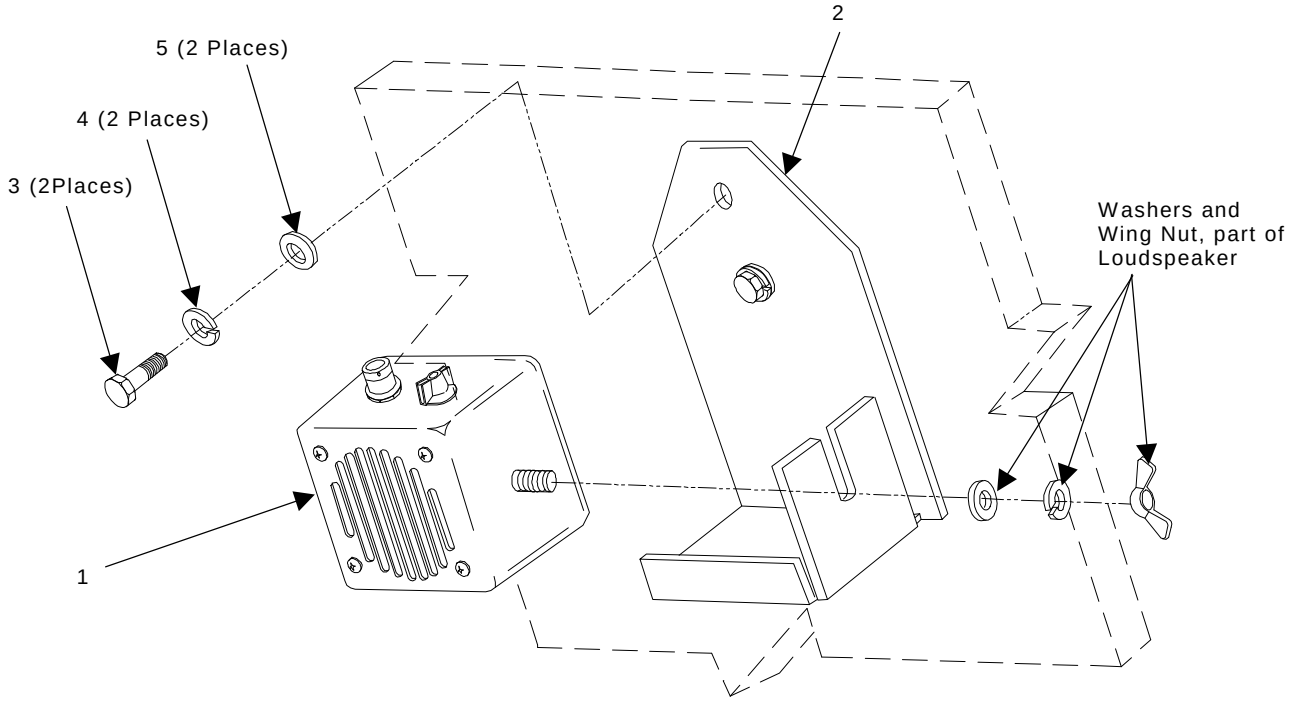


Figure 4-10. Loudspeaker Bracket Installation

4.7 VIS CABLING INSTALLATION

Note

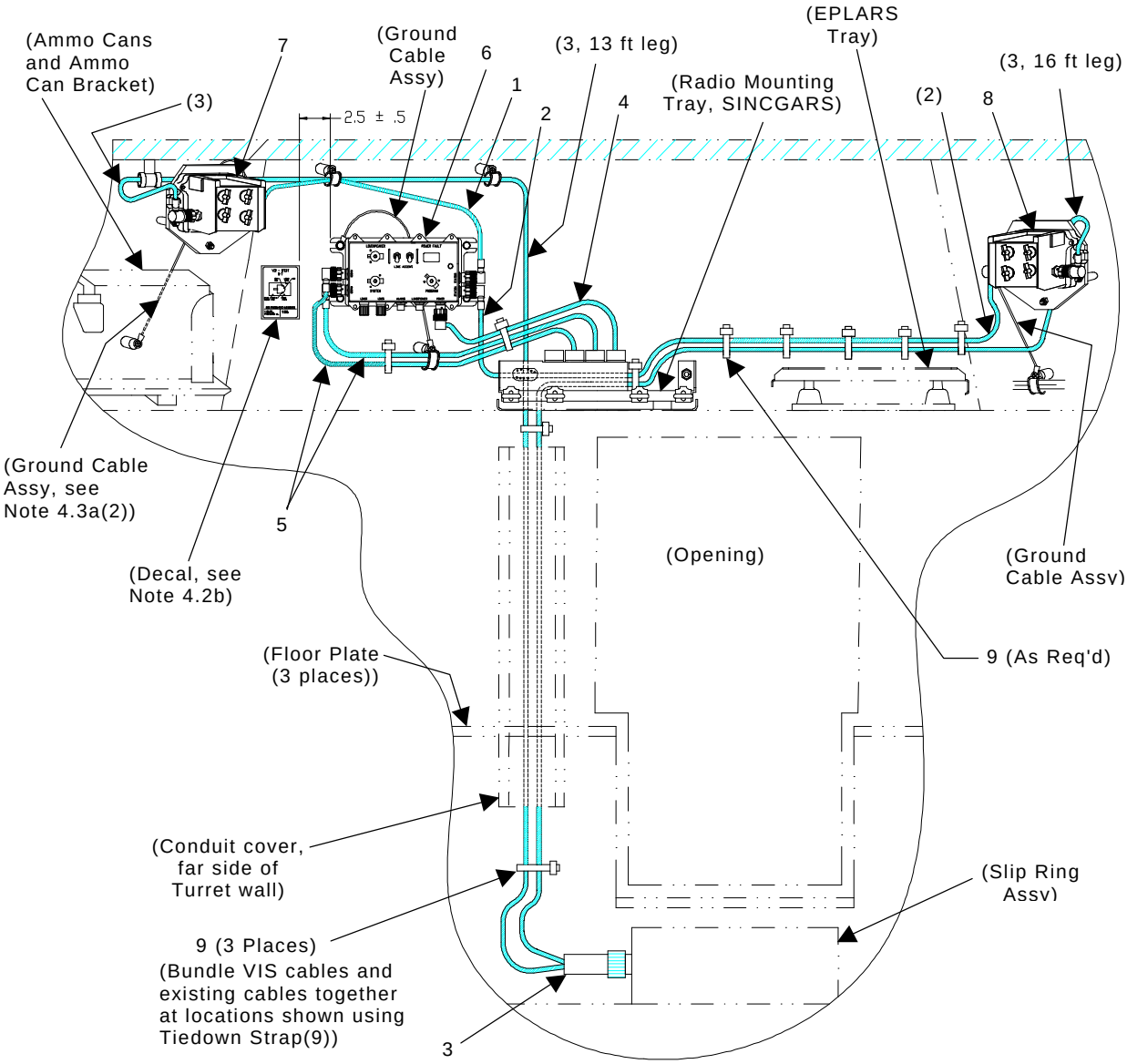
Where possible, run VIS cables along existing vehicle cable paths. Use existing cable clamps to hold VIS cables in place. If cable clamps are not large enough to hold VIS cables and vehicle cables, tie wrap VIS cables to clamped vehicle cables using tiedown straps supplied with kit, as required. During installation, leave tiedown straps loose enough to adjust cable slack and allow for easy adjustment of equipment. When installation is complete, tighten and secure tiedown straps.

WARNING

MAKE SURE VEHICLE POWER SOURCE IS POSITIONED OFF OR DISCONNECTED BEFORE INSTALLING CABLES.

a. MCS, FSO and FSSgt FFCS Cabling Installation (Fig. 4-11)

1. Secure connector P1 of the Radio R/T Cable Assembly (5) to the Radio A connector on the MCS (6).
2. Route the Radio R/T Cable (5) as shown in Figure 4-11, until the Radio Mounting Tray is reached.
3. Secure connector P2 of the Radio R/T Cable Assembly (5) to the Radio Mounting Tray connector A4J3.
4. Secure connector P1 of the Radio R/T Cable Assembly (5) to the Radio B connector on the MCS (6).
5. Route the Radio R/T Cable (5) as shown in Figure 4-11, until the Radio Mounting Tray is reached.
6. Secure connector P2 of the Radio R/T Cable Assembly (5) to the Radio Mounting Tray connector A4J4.
7. Secure connector P1 of the Power Cable Assembly (4) to the Power connector on the MCS (6).
8. Route the Power Cable Assembly (4) as shown in Figure 4-11, until the Radio Mounting Tray is reached.
9. Secure connector P2 of the Power Cable Assembly (4) to the Radio Mounting Tray connector A4J2.
10. Secure connector P1 of the Highway Cable Assembly (2) to the bottom Station connector on the MCS (6).
11. Route the Highway Cable Assembly (2) as shown in Figure 4-11, until the FSSgt FFCS (8) is reached.
12. Secure connector P2 of the Highway Cable Assembly (2) to the left side Station connector of the FSSgt FFCS (8).
13. Secure connector P1 of the Highway Cable Assembly (1) to the top Station connector on the MCS (6).
14. Route the Highway Cable Assembly (1) as shown in Figure 4-11, until the FSO FFCS (7) is reached.
15. Secure connector P2 of the Highway Cable Assembly (1) to the right side Station connector of the FSO FFCS (7).



AFT TURRET VIEW

1. Highway Cable Assembly (A3206018-4)
2. Highway Cable Assembly (A3206018-7)
3. Highway/Vehicle Cable Assembly (A3206023-13-16)
4. Power Cable Assembly (A3206017-6)
5. R/T Cable Assembly (A3206019-6)
6. MCS
7. FSO FFCS
8. FSSgt FFCS
9. Tiedown Strap (MS3367-6-9)

Figure 4-11. MCS, FSO and FSSgt FFCS Cabling

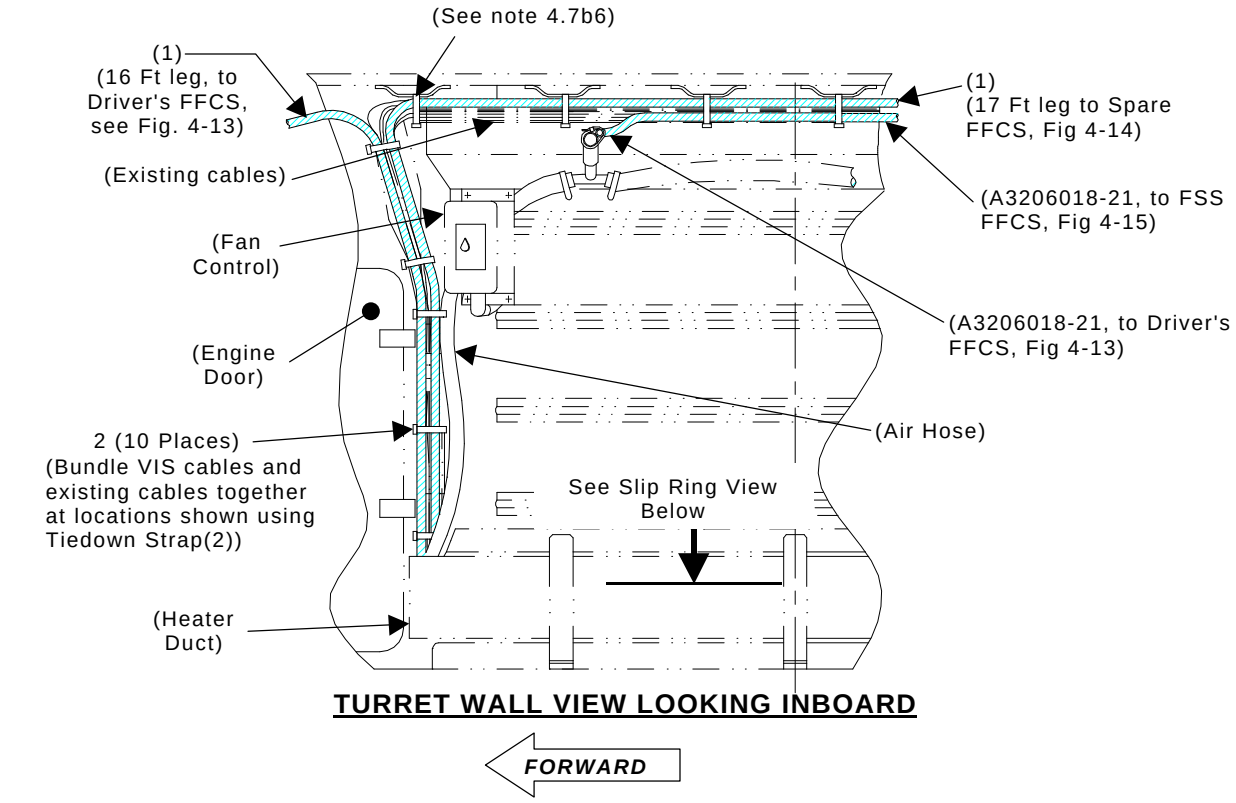
4.7 VIS CABLING INSTALLATION (continued)

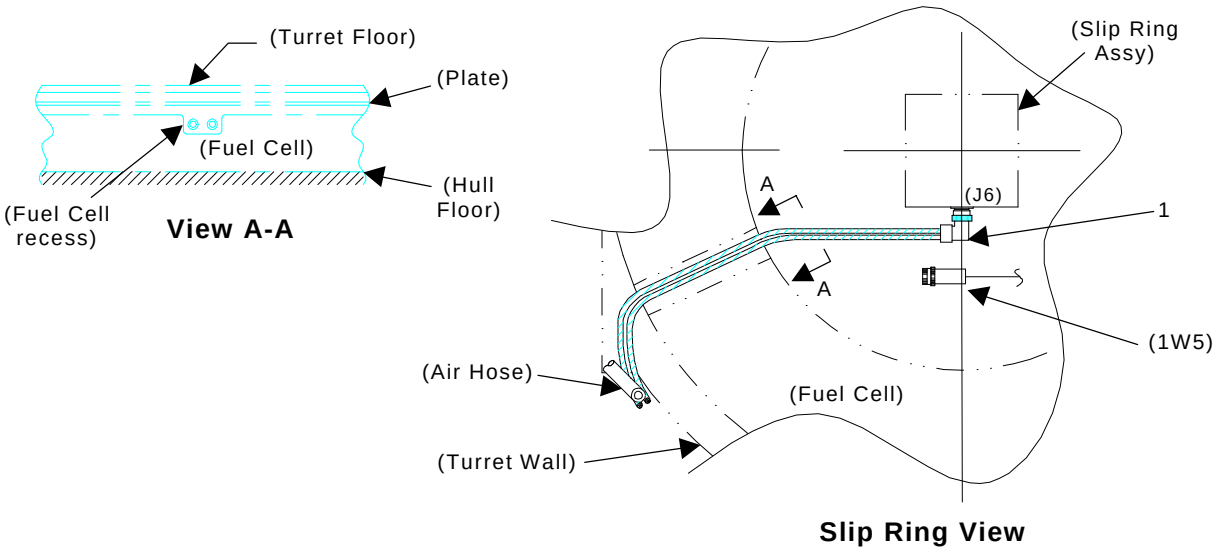
a. MCS, FSO and FSSgt Cabling Installation (Fig. 4-11) (continued)

16. Secure connector P1 of Highway/Vehicle Cable Assembly (3) to Slip Ring connector J5. The slip ring may be accessed by removing the center turret floor plate. (See paragraph b.1 below).
17. Remove the floor plate on the FSO side and the conduit cover and route the Highway/Vehicle Cable Assembly (3) as shown in Figure 4-11. The cable enters the turret through an opening in the radio shelf under Radio A. After cable routing is complete, replace cover and floor plate.
18. Route the P2, 13 foot, leg of the Highway/Vehicle Cable Assembly (3) as shown in Figure 4-11, until the FSO FFCS (7) is reached.
19. Secure connector P2 to the left side Station connector of the FSO FFCS (7).
20. Route the P3, 16 foot, leg of the Highway/Vehicle Cable Assembly (3) as shown in Figure 4-11, until the FSSgt FFCS (8) is reached.
21. Secure connector P3 to the right side Station connector of the FSSgt FFCS (8).

b. Slip Ring Cabling Installation (Fig. 4-12)

1. Access the Slip Ring Assembly by removing the center turret floor plate. Remove 1W5 cable from Slip Ring connector J6.
2. Secure connector P1 of the Highway/Vehicle Cable Assembly (1) to the J6 connector of the Slip Ring. Cap 1W5 cable connector with tethered cap of Highway/Vehicle Cable Assembly (1).
3. Route both legs of forward to Air Hose through recess in Fuel Cell (see Fig. 4-12). Replace center turret floor plate.
4. Continue routing both legs of the Highway/Vehicle Cable Assembly (1) along wall to ceiling as shown in Figure 4-12.
5. Route the 16 foot leg of Highway/Vehicle Cable Assembly (1) forward until the Driver's FFCS (see Figure 4-13) is reached.
6. Route the 13 foot leg of Highway/Vehicle Cable Assembly (1) across the ceiling as shown in Figure 4-12, until the Spare FFCS (see Figure 4-14) is reached. Hold cable bundle in place by passing tiedown straps (2) through metal loops welded to vehicle ceiling.





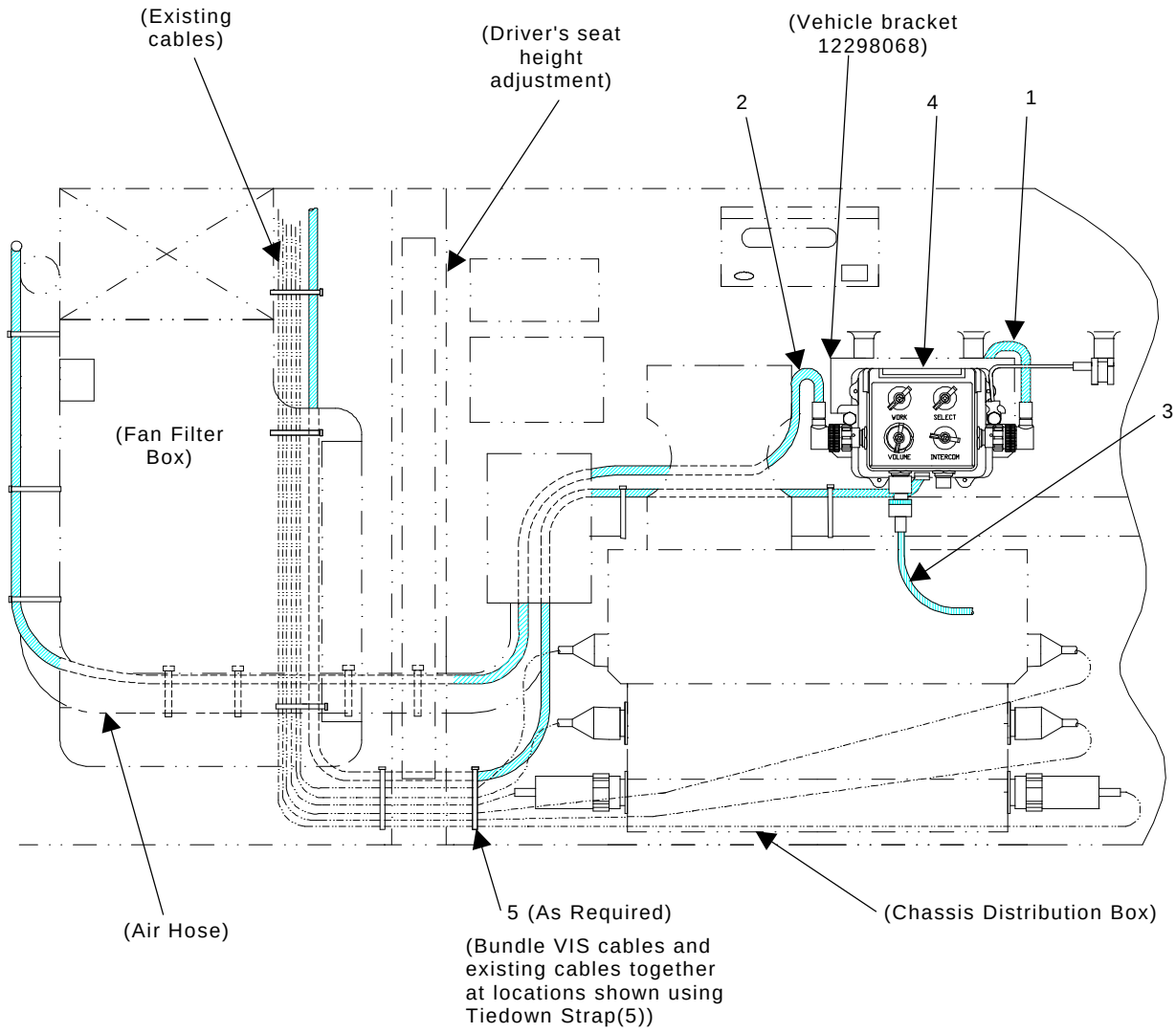
1. Highway/Vehicle Cable Assembly (A3206257-16-17)
2. Tiedown Strap (MS3367-6-9)

Figure 4-12. Slip Ring Cabling

4.7 VIS CABLING INSTALLATION (continued)

c. Driver’s FFCS Cabling Installation (Fig. 4-13)

1. Secure connector P2 of the Highway/Vehicle Cable Assembly (1) to the right side Station connector of the Driver’s FFCS (4).
2. Secure connector P1 of Alarm Cable Assembly (3) to "Headset" connector on Driver's FFCS (4).
3. Secure connector P2 of Alarm Cable Assembly (3) to vehicle bracket (12298068) using the following existing hardware: U-bolt, washers, and hex nuts. Loosen the hardware sufficiently for the P2 connector to slip under the U-bolt. Tighten hardware so that the U-bolt captivates the connector by clamping around the recessed portion of the connector.
4. Secure P3 of Alarm Cable Assembly (3) to vehicle cable 1W10 connector P3.
5. Secure connector P1 of the Highway Cable Assembly (2) to the left side Station connector of the Driver’s FFCS (4).
6. Route Highway Cable Assembly (2) along the Air Hose and behind the filter box as shown in Figure 4-13, and to the ceiling (see Figure 4-12 and 4-14).



DRIVER'S COMPARTMENT, ROADSIDE

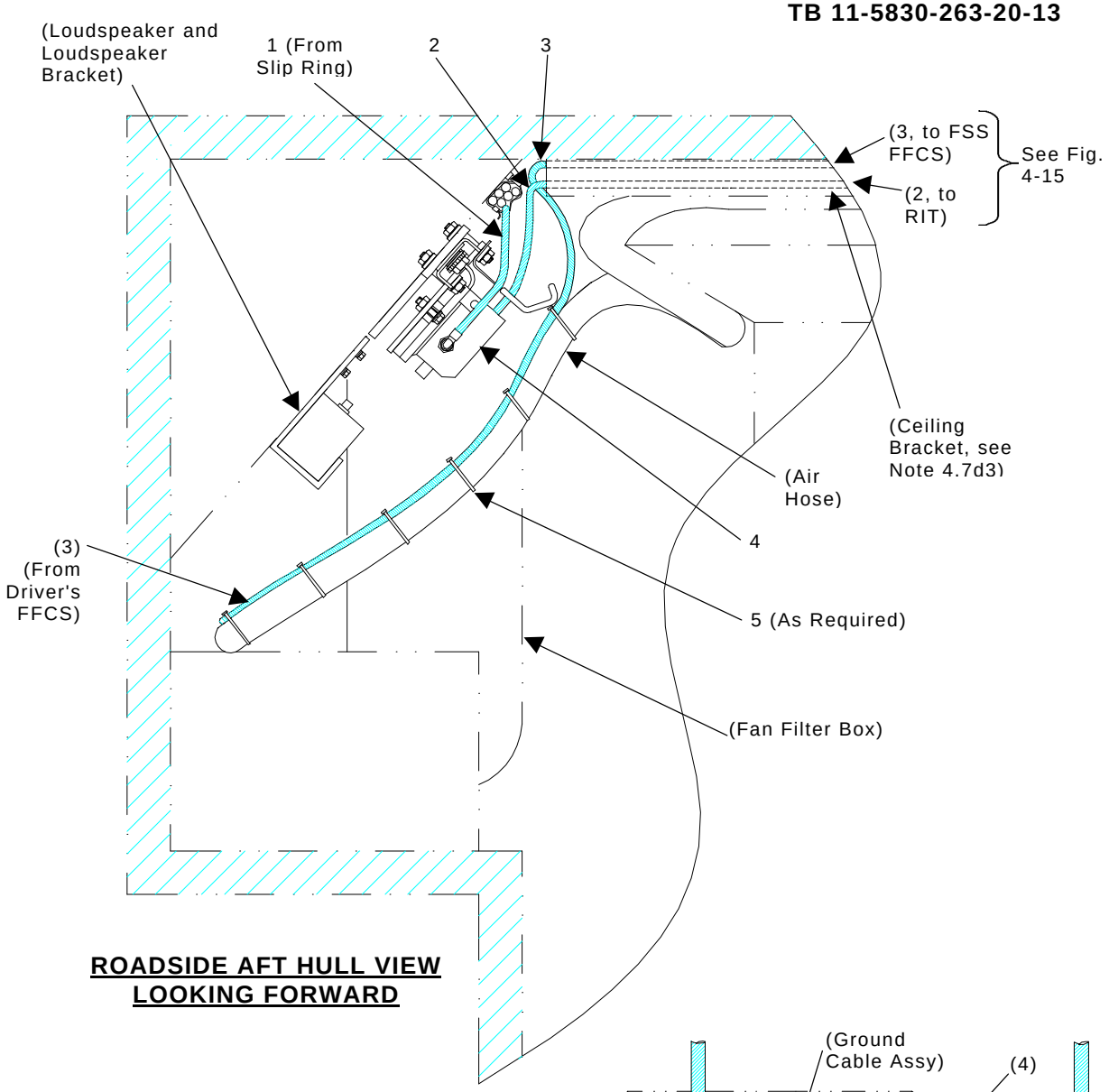
1. Highway/Vehicle Cable Assembly (A3206257-16-17)
2. Highway Cable Assembly (A3206018-21)
3. Alarm Cable Assembly (A3206116)
4. Driver's FFCS
5. Tiedown Strap (MS3367-6-9)

Figure 4-13. Driver's FFCS Cabling

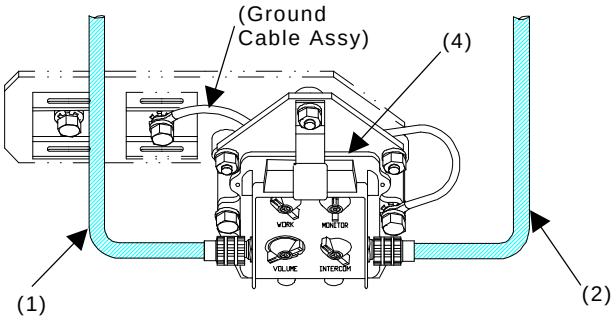
4.7 VIS CABLING INSTALLATION (continued)

d. Spare FFCS Cabling Installation (Fig. 4-14)

1. Secure connector P3 of the Highway/Vehicle Cable Assembly (1), from the Slip Ring, to the left side Station connector of the Spare FFCS (4).
2. Secure connector P2 of the Highway Cable Assembly (2) to the right side Station connector of the Spare FFCS (3).
3. Remove ceiling bracket and route Highway Cable Assembly (2) and Highway Cable Assembly (3) across ceiling until RIT and FSS FFCS (see Figure 4-15) are reached. Replace bracket.



ROADSIDE AFT HULL VIEW LOOKING FORWARD



Spare FFCS Cabling Detail

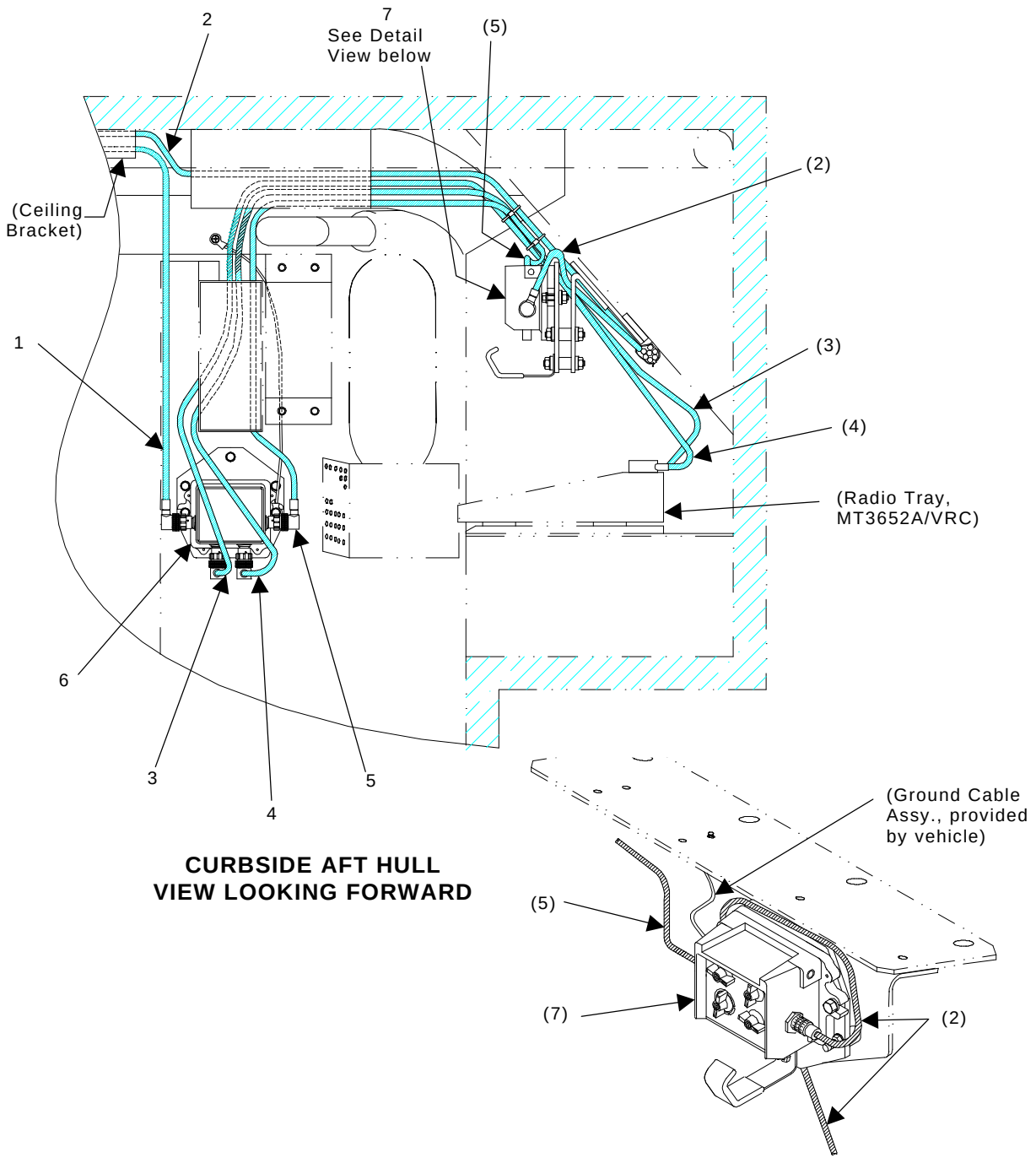
1. Highway/Vehicle Cable Assembly (A3206257-16-17)
2. Highway Cable Assembly (A3206018-10)
3. Highway Cable Assembly (A3206018-21)
4. Spare FFCS
5. Tiedown Strap (MS3367-6-9)

Figure 4-14. Spare FFCS and RIT Cabling

4.7 VIS CABLING INSTALLATION (continued)

e. FSS FFCS and RIT Cabling Installation (Fig. 4-15)

1. Secure connector P1 of Highway Cable Assembly (1), from the Spare FFCS, to the left side Station connector of the RIT (6).
2. Secure connector P1 of R/T Cable Assembly (3) to the Radio C/E connector of the RIT (6).
3. Secure connector P1 of R/T Cable Assembly (4) to the Radio D/F connector of the RIT (6).
4. Route R/T Cable Assemblies (3) and (4) as shown in Figure 4-15 until the Radio Tray is reached.
5. Secure P2 of R/T Cable Assembly (3) to Radio Tray connector J3.
6. Secure P2 of R/T Cable Assembly (4) to Radio Tray connector J4.
7. Secure connector P2 of Highway Cable Assembly (5) to the right side Station connector of the RIT (6).
8. Route Highway Cable Assembly (5) As shown in Figure 4-15 until the FSS FFCS (7) is reached.
9. Secure connector P1 of Highway Cable Assembly (5) to the left side Station connector of the FSS FFCS (7).
10. Secure connector P2 of Highway Cable Assembly (2), from the Driver's FFCS, Fig 4-13, to the right side Station connector of the FSS FFCS (7)



CURBSIDE AFT HULL
VIEW LOOKING FORWARD

FSS FFCS Detail View

1. Highway Cable Assembly (A3206018-10)
2. Highway Cable Assembly (A3206018-21)
3. R/T Cable Assembly (A3206127-6)
4. R/T Cable Assembly (A3206019-6)
5. Highway Cable Assembly (A3206018-6)
6. RIT
7. FSS FFCS
8. Tiedown Strap (MS3367-6-9)

Figure 4-15. FSS FFCS and RIT Cabling

SECTION V. POST-INSTALLATION

5.1 POST-INSTALLATION CHECKOUT PROCEDURES

a. Check that all LRU's are securely mounted.

b. Verify that all cables are securely and correctly fastened and routed properly. Refer to Figure 4-2, System Configuration Diagram if needed.

c. Tighten all tiedown straps and ensure that there is enough slack in the cables to allow for ease in disconnecting and connecting from the LRU's.

d. Apply a small amount of silicone grease to the O-Ring in the bailout cable connector of the headset. Connect bailout cables to the bailout connectors of the vehicle headsets. Connect bailout cables to the HEADSET connector on the FFCS', and MOS' if present. Spare FFCS does not have a permanent cable and headset. If usage of this FFCS with a headset is desired, then a headset from one of the other FFCS units shall be used.

5.2 POST-INSTALLATION OPERABILITY VERIFICATION PROCEDURES

Note

The following steps are simple go; no-go procedures to ensure that communication can be accomplished utilizing the LRU's and headsets. For actual programming instructions and for more thorough operating procedures refer to the VIS Operator's Technical Manual.

a. Setting the System Configuration on the MCS

1. On the MCS, set and hold the **PROGRAM** switch in the **STORE** position. While holding the **PROGRAM** switch in the **STORE** position depress and hold the **CHANGE** button.
2. While holding the **PROGRAM** switch in the **STORE** position and depressing the **CHANGE** button, set the **SYSTEM** switch in the **ALL** position.
3. Observe the display as it cycles through "********", "**Pr15**", "**v07**" and "**cfig**". When "**cfig**" appears on the display release the **PROGRAM** switch and **CHANGE** button.
4. The display will show the system configuration, e.g. what FFCS' (1,2,3,4,5,6) and RITs (C/D, E/F) are connected as well as if the ring is connected.

Note

Observing the display while the system configuration is being conducted allows the operator to cross check if the FFCS' and RIT's identification switch settings are correct. If there are four FFCS', with the address switch settings of 1 through 4, then the display should show "1c", "2c", "3c", and "4c". If a RIT or RITs are connected the display should show "Cc" or "Cc", "Dc", "Ec" and "Fc".

5. When system configuration has been completed, the display will show "**done**", immediately followed by "**Avhf**" with the "**vhf**" portion blinking. Holding the **PROGRAM** switch momentarily in the **STORE** position will program "**Avhf**" into the system configuration memory. Upon releasing the **PROGRAM** switch "**done**" will again appear on the display. "**Bvhf**" will then appear on the display with the "**vhf**" portion blinking.
6. Repeat the process for holding the **PROGRAM** switch momentarily in the **STORE** position for "**Bvhf**". If a RIT or RITs are connected, "**Cvhf**", "**Dvhf**", etc.; will also appear on the display. Simply repeat the process used for storing "**Avhf**" and "**Bvhf**" to the system configuration memory.
7. After the radios are stored in the system configuration memory the display will show "**test**", "**pass**", then "**ALL**". At this time turn the MCS **SYSTEM** switch to **OFF**.

b. FFCS and Headset Operability

Note

Checking the operability of the FFCS' and Headsets requires two people.

1. Set the MCS **PROGRAM** switch on **SYSTEM** and the **SYSTEM** switch on **PROG 1**.
2. The system will initialize then start conducting Built-In-Test (BIT). The display will show "**test**" while BIT is being conducted.
3. If there are no configuration discrepancies or errors, the display shows "**pass**" followed immediately by the system mode "**P1**". If there are configuration discrepancies or errors, the display will show "**fail**", followed by error codes. If the display does show "**fail**" followed by the error codes, refer to the VIS Operator's Manual and/or Unit Maintenance Manual for troubleshooting and repair procedures.
4. Go to the first two FFCS' and put on the headsets connected to them. For both FFCS's, place the **WORK** switch on **INT**, the **MONITOR** switch on **WK**, and the **INTERCOM** switch on **PTT.**

Note

For the full procedures on FFCS, MOS, and Headset operations refer to the VIS Operator's Manual.

5. Communicate on the intercom by activating the headset or vehicle PTT switch. After intercom communication has been established, cycle through the **LIVE**, **VOX** and **O/R** functions of the FFCS **INTERCOM** switch as well as testing the operability of the Active Noise Reduction (ANR) switch (if present) and the PTT switch on the headsets.
6. Repeat these actions for all remaining FFCS' and Headsets, and MOS' if present. Additionally, test the Loudspeaker by placing the MCS **LOUDSPEAKER** switch on **INT** and communicating.
7. Upon completion of these procedures turn the MCS **SYSTEM** switch to **OFF**. The post-installation operability verification procedures are complete.

APPENDIX A - REFERENCES

A-1. SCOPE

This appendix lists forms, technical manuals, and miscellaneous publications that are either referenced in this technical bulletin or may be of use in installing and/or operating the Vehicular Intercommunication System (VIS).

A-2. FORMS

DA Form 2028-2	Recommended Changes to Equipment Technical Publications
SF 361	Discrepancy in Shipment Report (DISREP)
SF 364	Report of Discrepancy (ROD)
SF 368	Product Quality Deficiency Report (QDR)

A-3. TECHNICAL MANUALS

TM 11-5805-201-12	Operator's and Unit Maintenance Manual for Telephone Sets, TA-312/PT and TA-312A/PT
TM 11-5820-401-10-1	Operator's Manual for Radio Sets AN/VRC-12, AN/VRC-43, AN/VRC-44, AN/VRC-45, AN/VRC-46, AN/VRC-47, AN/VRC-48, and AN/VRC-49 (used without Intercom Systems)
TM 11-5820-401-10-2	Operator's Manual for Radio Sets, AN/VRC-12, AN/VRC-43, AN/VRC-44, AN/VRC-45, AN/VRC-46, AN/VRC-47, AN/VRC-48, and AN/VRC-49 (used with Intercom Systems)
TM 11-5820-401-20-1	Organizational Maintenance for Radio Sets, AN/VRC-12, AN/VRC-43, AN/VRC-44, AN/VRC-45, AN/VRC-46, AN/VRC-47, AN/VRC-48, and AN/VRC-49(used w/o Intercom Set)
TM 11-5820-401-20-2	Organizational Maintenance Manual for Radio Sets, AN/VRC-12, AN/VRC-43, AN/VRC-44, AN/VRC-45, AN/VRC -46, AN/VRC-47, AN/VRC-48, and AN/VRC-49 (used with Intercom Set AN/VIC-1(V))
TM 11-5820-890-10-3	Operator's Manual for Sincgars Ground Combat Net Radio, Non-ICOM Manpack Radio AN/PRC-119, Short Range Vehicular Radio AN/VRC-87, Short Range Vehicular Radio (with Radio Mount) AN/VRC-87D, Short Range Vehicular Radio with Dismount AN/VRC-88, Short Range Vehicular Radio with Dismount (with Single Radio Mount) AN/VRC-88D, Short Range/Long Range Vehicular Radio AN/VRC-89, Long Range Vehicular Radio AN/VRC-90, Short Range/Long Range Vehicular Radio With Dismount AN/VRC-91, Long Range/Long Range Vehicular Radio AN/VRC-92

TM 11-5820-890-10-8	Operator's Manual for Sincgars Ground Combat Net Radio, ICOM Manpack Radio, AN/PRC-119A, Short Range Vehicular Radio AN/VRC-87A, Short Range Vehicular Radio with Dismount AN/VRC-88A, Short Range/Long Range Vehicular Radio AN/VRC-88C, Short Range/Long Range Vehicular Radio AN/VRC-89A, Long Range Vehicular Radio AN/VRC-90A, Short Range/Long Range Vehicular Radio with Dismount AN/VRC-91A, Short Range/Long Range Vehicular Radio AN/VRC-92A used with Automated Net Control Device (ANCD)(AN-CYZ-10), Precision Lightweight GPS Receiver (PLGR)(AN/PSN-11) Secure Telephone Unit(STU) Frequency Hopping Multiplexer(FHMUX)
TM 11-5820-890-20-1	Unit Maintenance Manual for Ground ICOM Radio Sets AN/PRC-119A, AN/VRC-87A, AN/VRC-88A, AN/VRC-89A, AN/VRC-90A, AN/VRC-91A, AN/VRC-92A
TM 11-5820-890-20-2	Unit Maintenance Manual for Ground ICOM Radio Sets AN/PRC-119A, AN/VRC-87A, AN/VRC-87C, AN/VRC-88A, AN/VRC-89A, AN/VRC-90A, AN/VRC-91A, AN/VRC-92A (with Control, Receiver-Transmitter C-11561(C)/U(RCU))
TM 11-5820-890-20-3	Unit Level Maintenance Handbook Sincgars ICOM Ground Radios for Ground ICOM Radio Sets AN/PRC-119A, AN/VRC-87A, AN/VRC-88A, AN/VRC-89A, AN/VRC-90A, AN/VRC-91A, AN/VRC-92A
TM 11-5820-890-20-4	
TM 11-5820-923-12	Operator's and Organizational Maintenance Manual for Radio Set, AN/GRC-213
TM 11-5830-263-10	Operator's Manual for Vehicular Intercommunication Set AN/VIC-3(V)
TM 11-5830-263-20&P	Unit Maintenance Manual for Intercommunication Set, Vehicular AN/VIC-3(V)
TM 11-5830-340-12	Operator's and Unit Organizational Maintenance Manual for Intercommunication Set, AN/VIC-1(V) and Control, Intercommunication Set, C-10456/VRC
TM 746-10	General Packaging Instructions for Field Units
TM 750-244-2	Procedure for Destruction of Electronics Material to Prevent Enemy Use (Electronics Command)

A-4. MISCELLANEOUS PUBLICATIONS

AMDF	Army Master Data File(Microfiche)
AR 55-38	Transportation Deficiency Report (TDR)
AR 380-5	Department of the Army Information Security Program
AR 710-2	Inventory Management Supply Policy Below the Wholesale Level
AR 725-50	Requisition, Receipt and Issue System
AR 735-11-2	Reporting of Item and Packaging Discrepancies

A-4. MISCELLANEOUS PUBLICATIONS (continued)

DA PAM 25-30	Consolidated Index of Army Publications (Microfiche)
DA PAM 710-2-1	Using Unit Supply System Manual Procedures as Contained in Unit Supply UPDATE
DA PAM 738-750	Maintenance Management Update
SB 11-131-2	Vehicular Radio Sets and Authorized Installations Volume II (Sincgars, FHMUX, and EPLRS)
SB 11-573	Painting and Preservation of Supplies Available for Field Use for Electronics Command Equipment

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:

JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0017519

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Stateside Army Depot
A-I-I-N: AMSTA-US
Stateside, N.J. 07703-5007

DATE SENT
10 July 1975

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE
TM 11-5840-340-12	23 Jan 74	Radar Set AN/PRC-76

BE EXACT PIN-POINT WHERE IT IS

PAGE NO	PARAGRAPH	FIGURE NO	TABLE NO	IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:
2-25	2-28			Recommend that the installation antenna alignment procedure be changed throughout to specify a 20 IFF antenna lag rather than 10. REASON: Experience has shown that with only a 10 lag, the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing stress to the drive train. Hunting is minimized by adjusting the lag to 20 without degradation of operation.
3-10	3-3		3-1	Item 5, Function and column. Change □2 dB" to □3 dB". REASON: The adjustment procedure for the TRANS POWER FAULT indicator calls for a 3 dB (500 watts) adjustment to light the TRANS POWER FAULT indicator.
5-6	5-8			Add new step f.1 to read, □Replace cover plate removed in step f above." REASON: To replace the cover plate.
		FO-3		Zone C 3. On J1-2, change □+24 VDC" to □+5 VDC". REASON: This is the output line of the 5 VDC power supply. +24 VDC is the input voltage.

SAMPLE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER
SSG I. M. DeSpiritof 999-1776

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THE METRIC SYSTEM AND EQUIVALENTS

'NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

'VEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

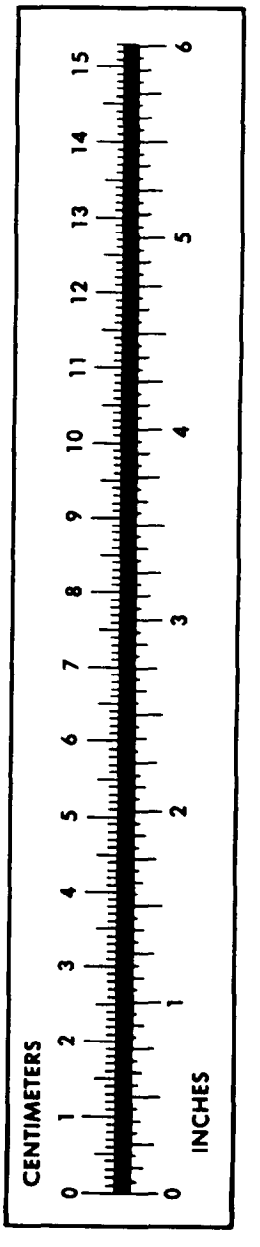
TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
ıts	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
lometers per Liter	Miles per Gallon	2.354
meters per Hour	Miles per Hour	0.621



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