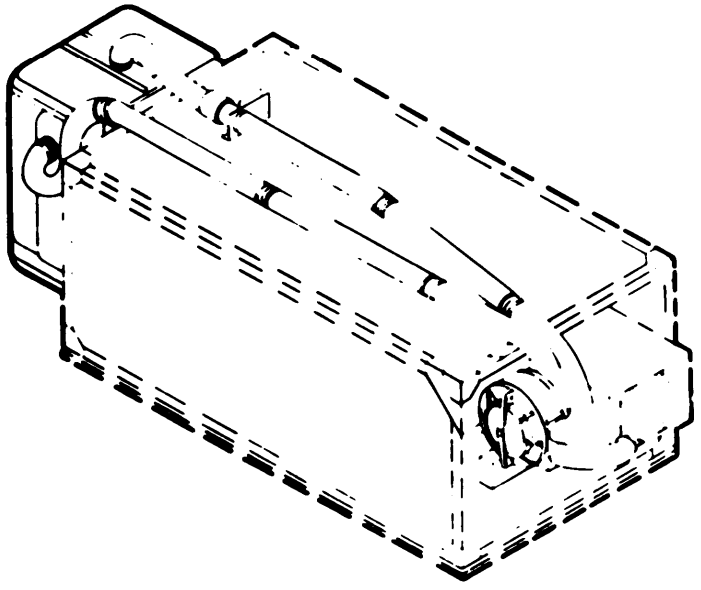
**TECHNICAL MANUAL**

**ORGANIZATIONAL MAINTENANCE MANUAL**
**(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)**

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




| | |
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**COLLECTIVE PROTECTION EQUIPMENT, FIRE DIRECTION SYSTEM, ARTILLERY, (TACFIRE) AN/GSG-10(V)**
**CONSISTING OF**
**ENTRANCE, PROTECTIVE, PRESSURIZED, COLLAPSIBLE, M10 (NSN 4240-00-229-2610);**
**FILTER UNIT, GAS-PARTICULATE, 200 CFM, 208 V, 400 Hz, M56 (NSN 4240-00-237-0227);**
**AND**
**INSTALLATION KIT, CBR, PROTECTIVE EQUIPMENT, TACFIRE, M262 (NSN 4240-01-063-4655)**

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**DECEMBER 1981**

## WARNINGS

High voltage is used to power this equipment. Before removing or installing power cable, be sure that POWER switch on compartment control module is in OFF position and that the collective protection equipment power source is shut down to avoid personal injury or loss of life.

If filter unit is operating, high voltage is present at the 208V indicator lamp socket on the power distribution unit. Personal injury or loss of life may result if socket is contacted.

Do not remove covers to service components after toxic exposure without observing proper handling procedures.

Filter seals must be properly seated to prevent bypass of contaminated air:

- Torque access cover bolts 180 to 200 inch-pounds to seat gas filter.
- Tighten inner cover retaining bar until sleeve is flush with top surface to seat particulate filter.

CHANGE

NO. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 23 December 1989

ORGANIZATIONAL MAINTENANCE MANUAL
( INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)
FOR
COLLECTIVE PROTECTION EQUIPMENT
FIRE DIRECTION SYSTEM, ARTILLERY (TACFIRE) , AN/GSG-10 (V)

1. The purpose of this change is to update guidance for disposal, handling, and storage of filters.

2. New or changed material is indicated by a vertical bar in the margin of the page. RPSTL listing changes are indicated by an asterisk to the left of the item number column adjacent to the line item;

3. Remove old pages and insert new pages as follows:

| Remove Pages | Insert Pages |
|---|---|
| None | a/(b blank) |
| 2-1 and 2-2 | 2-1 and 2-2 |
| C-9 and C-10 | C-9 and C-10 |

4. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

WILLIAM J. MEEHAN II
Brigadier General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-28 (block 40), maintenance requirements for TM 3-4240-284-20&P.

CHANGE
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC 30 August 1982

Organizational Maintenance Manual
(Including Repair Parts and Special Tools List)

**COLLECTIVE PROTECTION EQUIPMENT, FIRE DIRECTION SYSTEM, ARTILLERY: (TACFIRE) AN/GSG-10(V)**
**CONSISTING OF**
**ENTRANCE, PROTECTIVE, PRESSURIZED, COLLAPSIBLE, M10 (NSN 4240-00-229-2610);**
**FILTER UNIT, GAS-PARTICULATE, 200 CFM, 208 V, 400 Hz, M56 (NSN 4240-00-237-0227);**
**AND**
**INSTALLATION KIT, CBR, PROTECTIVE EQUIPMENT, TACFIRE, M262 (NSN 4240-01-063-4655)**

This change provides procedures for preventing the spread of small cracks *in the* plastic top and bottom shells of protective entrances.

TM 3-4240-284-20&P, 16 December 1981, is changed as follows:

1. Remove old pages and insert new pages as indicated below

| *Remove pages* | *Insert* pages |
|---|---|
| 2-3/2-4 | 2-3/2-4 |
| 2-55/2-56 | 2-55/2-56 |
| None | 2-62.1/2-62.2 |
| B-3/B-4 | B-3/B-4 |

2. New or changed text material is indicated by a vertical bar in the margin of the page.

3. File this change sheet in front of the publication for reference purposes.

By Order of the Secretary of the Army:

E. C. MEYER
*General, United States Army*
*Chief of Staff.*

*Official:*

ROBERT M. JOYCE
*Major General, United States Army*
*The Adjutant General*

DISTRIBUTION:
To be distributed in accordance with DA Form 12-28, Organizational Maintenance requirements for Collective Protection Equipment, Field and Shelters.

This Publication is a courtesy quick copy from the UNITED STATES ARMY PUBLICATIONS CENTER, ST. LOUIS MISSOURI, to meet your needs while we are replenishing our regular stock.

**WARNING**

**HEALTH/ENVIRONMENTAL HAZARD**

Filters use ASC Whetlerite Carbon which contains Chromium VI. Chromium VI is a known carcinogen if inhaled or swallowed. Damaged or unusable filters are classified as hazardous waste:

DO NOT throw away damaged or unusable filters as ordinary trash.

DO turn in damaged or unusable filters to your hazardous waste managemnt office or Defense Reutilization and Marketing Office (DRMO).

Filters are completely safe to handle and use if they are not damaged in such a way that carbon leaks from them. In unlikely event that carbon should leak, use protection such as a dust respirator *to* cover nose and mouth and put carbon in container such as self-sealing plastic bag; turn in to hazardous waste management office or DRMO.

Disposal of hazardous waste is restricted by the Resource Conservation and Recovery Act as amended (42 U.S.C.A sec 6901 et seq). Violation of these laws is subject to severe criminal penalties.

TECHNICAL MANUAL
NO. 3-4240-284-20&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 16 December 1981

Organizational Maintenance Manual
(Including Repair Parts and Special Tools List)

# COLLECTIVE PROTECTION EQUIPMENT, FIRE DIRECTION SYSTEM, ARTILLERY: (TACFIRE) AN/GSG-10(V)
# CONSISTING OF
# ENTRANCE, PROTECTIVE, PRESSURIZED, COLLAPSIBLE, M10
# (NSN 4240-00-229-2610);
# FILTER UNIT, GAS-PARTICULATE, 200 CFM, 208 V, 400 Hz, M56
# (NSN 4240-00-237-0227);
# AND
# INSTALLATION KIT, CBR, PROTECTIVE EQUIPMENT, TACFIRE, M262
# (NSN 4240-01-063-4655)

Current as of 18 August 1981

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

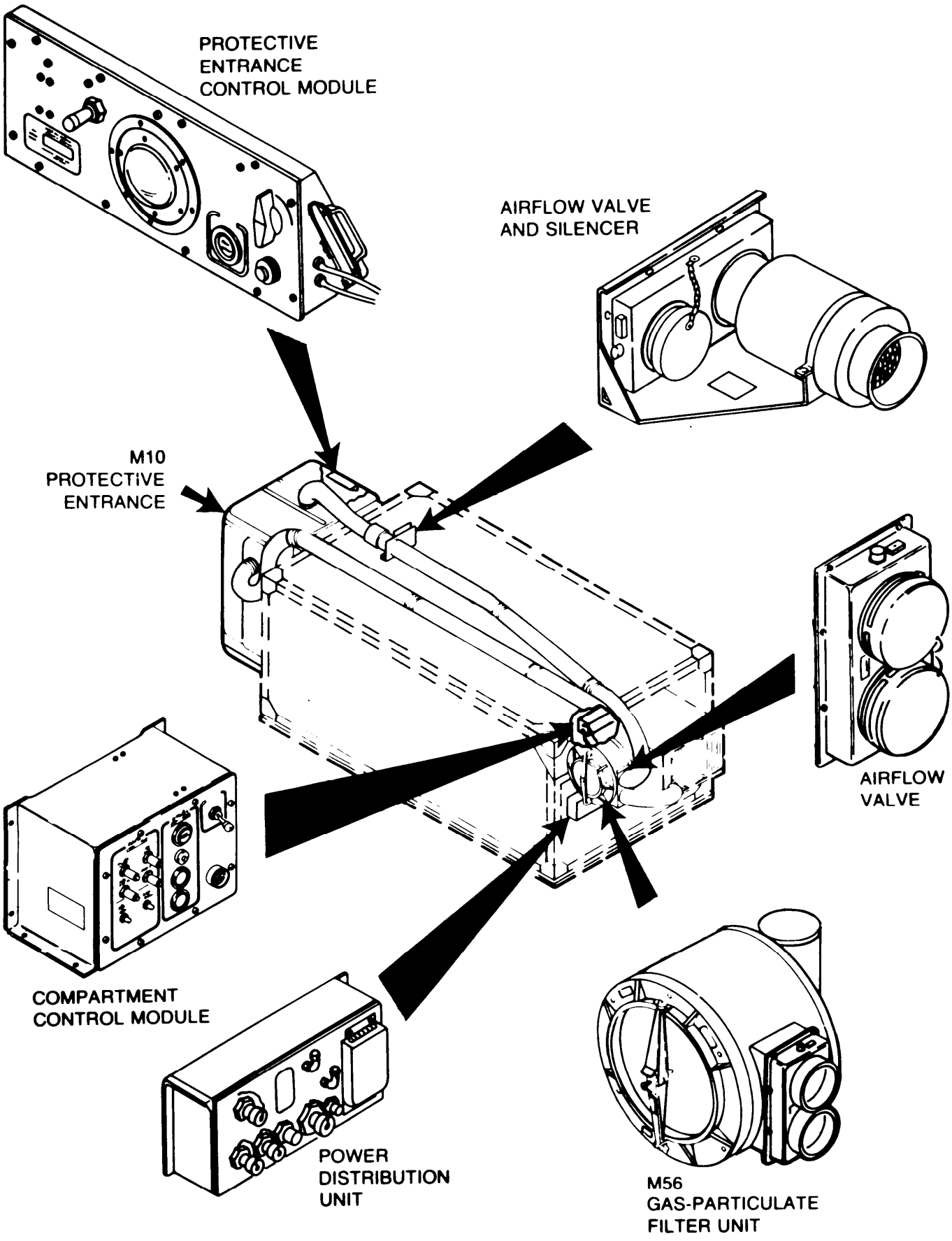
You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS-C, Aberdeen Proving Ground, MD 21010. A reply will be furnished to you.


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PROTECTIVE
ENTRANCE
CONTROL MODULE
AIRFLOW VALVE
AND SILENCER
M10
PROTECTIVE
ENTRANCE
AIRFLOW
VALVE
COMPARTMENT
CONTROL MODULE
POWER
DISTRIBUTION
UNIT
M56
GAS-PARTICULATE
FILTER UNIT

# CHAPTER 1

# INTRODUCTION

**CHAPTER OVERVIEW**

This chapter contains general information and equipment data for your collective protection equipment for TACFIRE

## Section I. GENERAL INFORMATION

**1-1. SCOPE.**

a. *Type of Manual:* Organizational Maintenance, including the Repair Parts and Special Tools List.

b. *Model Numbers and Equipment Names:* The Collective Protection Equip ment, Fire Direction System, Artillery, (TACFIRE) AN/GSG-10(V) consists of:
M10 Protective Entrance
M56 Gas-Particulate Filter Unit
M262 Installation Kit

c. *Purpose of Equipment:* Provides filtered air under positive pressure to the M10 Protective Entrance and to the TACFIRE shelter.

**1-2. MAINTENANCE FORMS AND RECORDS.** Department of the Army forms and procedures used for equipment maintenamnce will be those prescribed by TM 38-750, The Army Maintenance Mantigement System .

**1-3. DESTRUCTION OF MATERIAL TO PREVENT ENEMY USE.** Refer to TM 43-0002-31, Destruction of Chemical Weapons and Defense Equipment to Prevent Enemy Use.

**1-4. PREPARATION FOR STORAGE OR SHIPMENT.** Refer to TM 11-7440-294-14 (to be published).

**1-5. NOMENCLATURE CROSS-REFERENCE LIST.** This listing including nomenclature cross-references used this manual.

| *Common Number* | *Official Nomenclature* |
|---|---|
| M10 Protective Entrance | Entrance, Protective, Pressurized, Collapsible, M10 |
| M56 Gas-Particulate Filter Unit | Filter Unit, Gas-Particulate, 200 CFM, 208 V, 400 Hz, M56 |
| M262 Installation Kit | Installation Kit, M262 |
| Cable C5-19-6170-40 | Cable Assembly, Special Purpose Electrical, C5-19-6170-40 |
| Cable C5-19-6162-10 | Cable Assembly, Special Purpose Electrical, C5-19-6162-10 |
| Cable C5-19-6170-10 | Cable Assembly, Special Purpose Electrical, C5-19-6170-10 |
| Cable C5-19-6691 | Cable Assembly, Special Purpose Electrical, C5-19-6691 |
| Cable C5-19-6693 | Cable Assembly, Special Purpose Electrical, C5-19-6693 |
| Silencer | Muffler, Intake |

**1-6. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR).** If your collective protection equipment needs improvement, let us know". Send us an EIR. You, the user. tire the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at Command US Army Armament Materiel Readineess Command, ATTN: DRSAR-MAP-A, Aberdeen Proving Ground. MD 21010. We'll send you a reply.

## Section II. EQUIPMENT DESCRIPTION AND DATA

### 1-7. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.

Characteristics

- The CPE is designed to operate in a chemicdbiological agent contaminated zone.
- The filter unit provides filtered air under positive pressure to the M10 Protective Entrance and to the TACFIRE shelter.
- Positive pressure prevents dangerous amounts of chemical and biological (CB) agents from entering the protected area.

The M10 Rotective Entrance, while under positrive pressure, allows personnel to enter or leave without loss of positive pressure protection in the TACFIRE shelter.

*capabilities and' Features*

- Control modules are provided for both the M10 Protective Entrance and the TACFIRE shelter.
- Major components of the collective protection equipment (CPE) may be attached or detached from the TACFIRE shelter without affecting the operation of the shelter.
- Modular design of CPE permits:
  a. Easy access to the major components for servicing and maintenance.
  b. Quick replacement of malfunctioning components.

### 1-8. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

(A) PROTECTIVE ENTRANCE. Consists Of:

- Shell assembly, which is in two halves, forms the roof and floor.
- Door assembly, when fully extended, provides for entering and leaving the protective entrance. The door frame supports the front of the protective entrance.
- Two support assemblies, when fully extended, form rigid poles between the roof and the floor of the shell assembly. The support assemblies are located at the rear of the protective entrance.
- An impermeable fabric assembly is attached to the two halves of the shell assembly. When the fabric is fully extended, it forms the walls of the protective entrance.

(B) PROTECTIVE ENTRANCE CONTROL MODULE. Mounted in the roof of the shell assembly, provides white/or black-out red light, purge timing and low pressure warning for the protective entrance.

(C) GAS-PARTICULATE FILTER UNIT. The filter unit housing contains the main fan, the gas filter, and the particulate filter. Inner and outer access covers permit changing the filters.

- The airflow valve, attached to the outside of the filter unit housing, controls the airflow between the filter unit, the shelter, and the protective entrance.

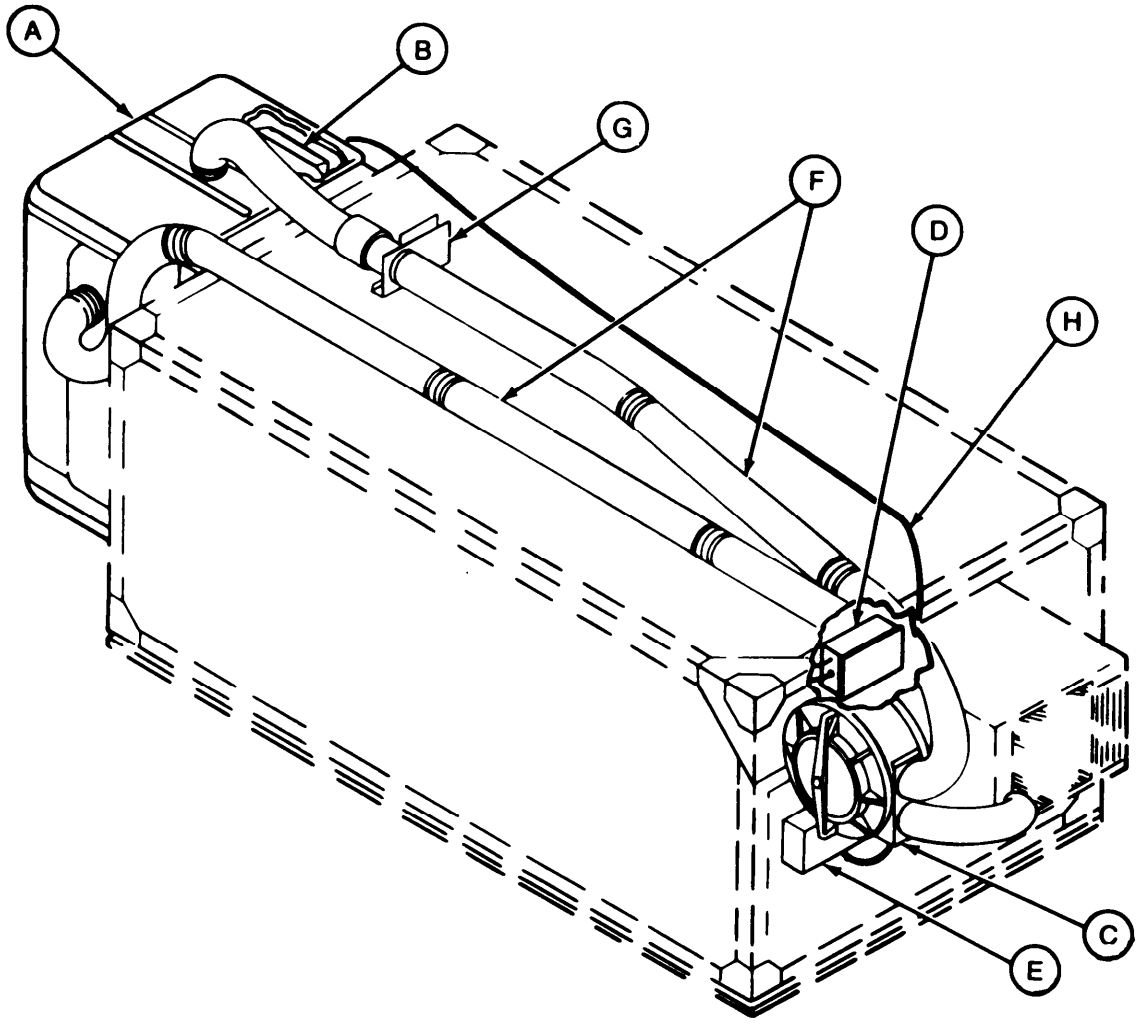
(D) COMPARTMENT CONTROL MODULE. Mounts inside the shelter and contains controls and indicators to operate the collective protection equipment.

(E) POWER DISTRIBUTION UNIT. Mounts on the outside of the shelter below the filter unit. It serves as the electrical power distribution center for the collective protection equipment.

(F) AIRDUCT HOSE. Large diameter (6") impermeable fabric hose, in 6 foot sections, connects filter unit, shelter, and protective entrance for filtered and return air circulation.

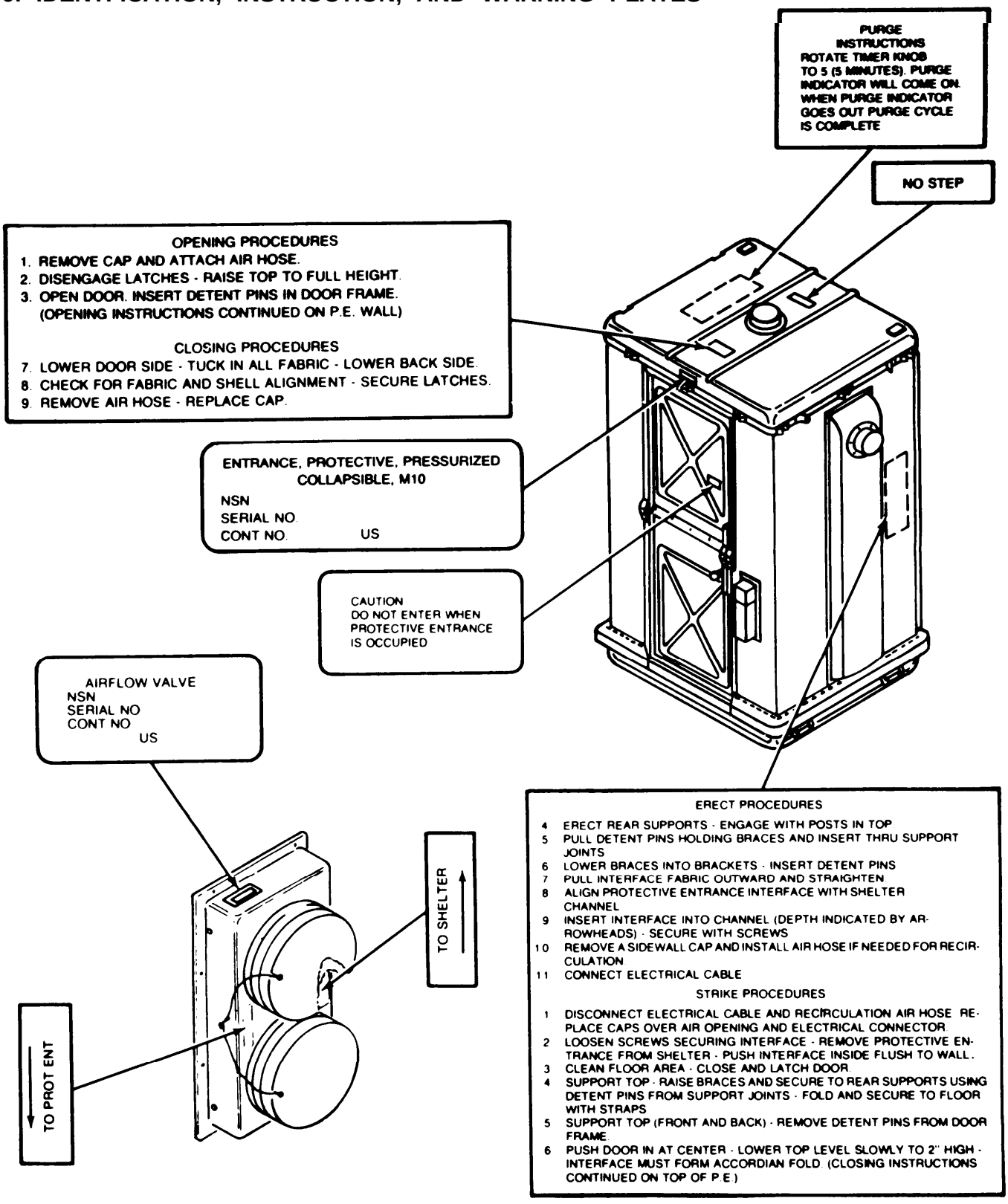
(G) AIRFLOW VALVE AND SILENCER. Adjusts and silences the flow of filtered air to the protective entrance. The valve is controlled by the protective entrance control module.

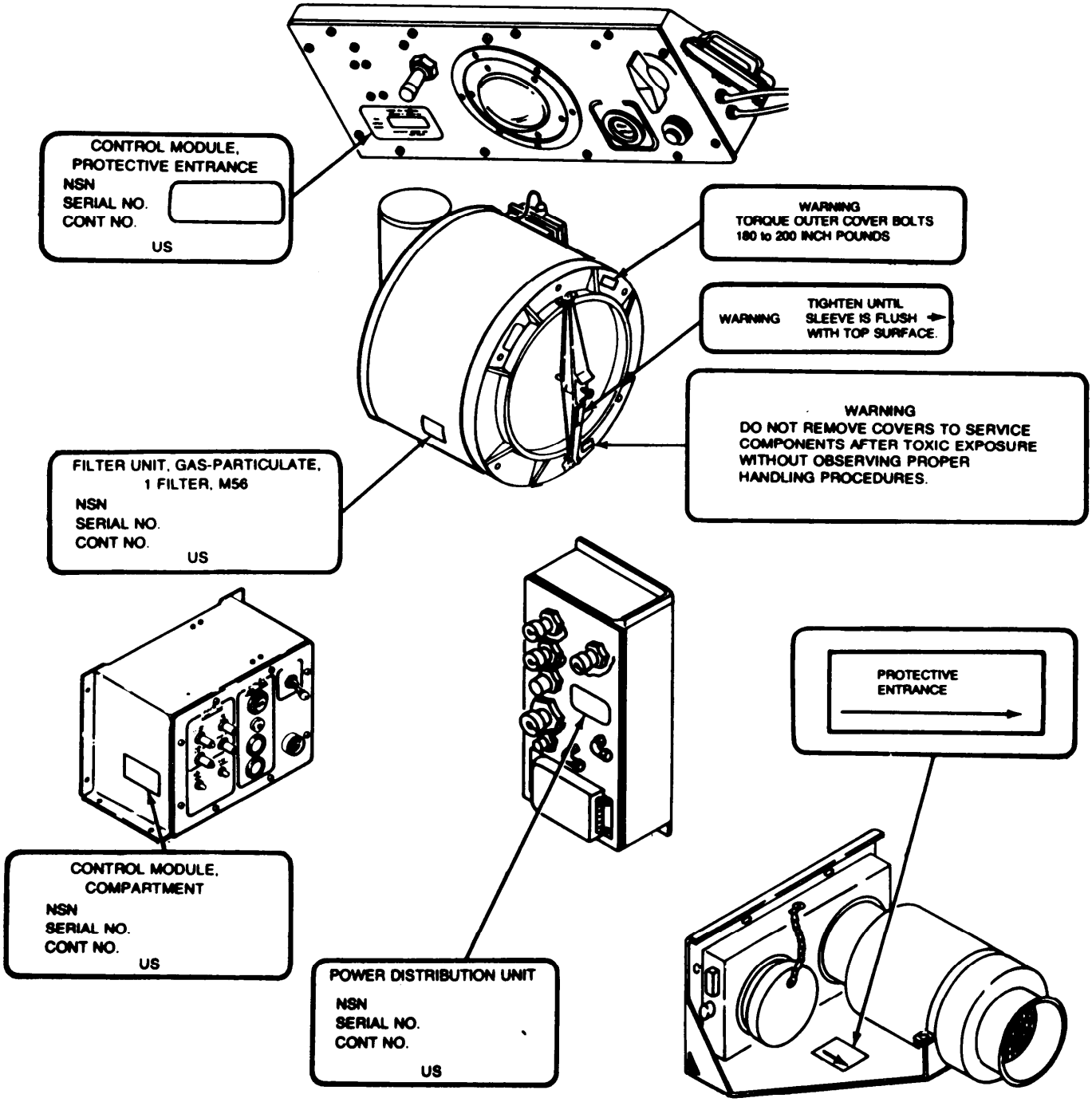
(H) SPECIAL PURPOSE ELECTRICAL CABLES. Six cables route electrical power and electrical operating signals between the filter unit, power distribution unit, compartment control module, protective entrance, and valve and silencer assembly. (Not all cables are shown. )




MAJOR COMPONENTS

## 1-9. IDENTFICATION, INSTRUCTION, AND WARNING PLATES




CONTROL MODULE,
PROTECTIVE ENTRANCE
NSN
SERIAL NO.
CONT NO.
US
WARNING
TORQUE OUTER COVER BOLTS
180 to 200 INCH POUNDS
WARNING
TIGHTEN UNTIL
SLEEVE IS FLUSH
WITH TOP SURFACE.
WARNING
DO NOT REMOVE COVERS TO SERVICE
COMPONENTS AFTER TOXIC EXPOSURE
WITHOUT OBSERVING PROPER
HANDLING PROCEDURES.
FILTER UNIT, GAS-PARTICULATE,
1 FILTER, M56
NSN
SERIAL NO.
CONT NO.
US
PROTECTIVE
ENTRANCE
CONTROL MODULE,
COMPARTMENT
NSN
SERIAL NO.
CONT NO.
US
POWER DISTRIBUTION UNIT
NSN
SERIAL NO.
CONT NO.
US

## 1-10. EQUIPMENT DATA.

### DIMENSIONS AND WEIGHTS OF COLLECTIVE PROTECTION EQUIPMENT COMPONENTS

| Component | Length | | Width | | Height | | Weight | |
|---|---|---|---|---|---|---|---|---|
| | Inch | CM | Inch | CM | Inch | CM | LB | Kg |
| M10 Protective Entrance | | | | | | | | |
| Packaged dimensions | 49.3 | 125.22 | 43.3 | 109.98 | 12.5 | 31.75 | 145 | 65.77 |
| Erected dimensions | 49.3 | 125.22 | 43.3 | 109.98 | 85.4 | 216.91 | 145 | 65.77 |
| Protective Entrance Control Module | 16 | 40.64 | 6.75 | 17.14 | 5 | 12.70 | 7.5 | 3.40 |
| M56 Gas-Particulate Filter Unit | 31 | 78.74 | 36 | 91.24 | 32 | 81.28 | 123 | 55.79 |
| PE Airflow Valve and Silencer | 15 | 38.10 | 8 | 20.32 | 4 | 10.16 | 13 | 5.90 |
| Power Distribution Unit | 18.5 | 46.99 | 8.25 | 20.95 | 4.25 | 10.79 | 16 | 7.26 |
| Compartment Control Module | 7.7 | 19.55 | 11.75 | 29.84 | 6.5 | 16.51 | 9 | 4.09 |
| | Outer Dia | | Inner Dia | | | | | |
| Particulate Filter | 16.6 | 42.16 | 12 | 30.48 | 10 | 25.40 | 7.8 | 3.54 |
| | Outer Dia | | Inner Dia | | | | | |
| Gas Filter | 21.4 | 54.35 | 16.7 | 42.41 | 10 | 25.40 | 37.8 | 17.15 |

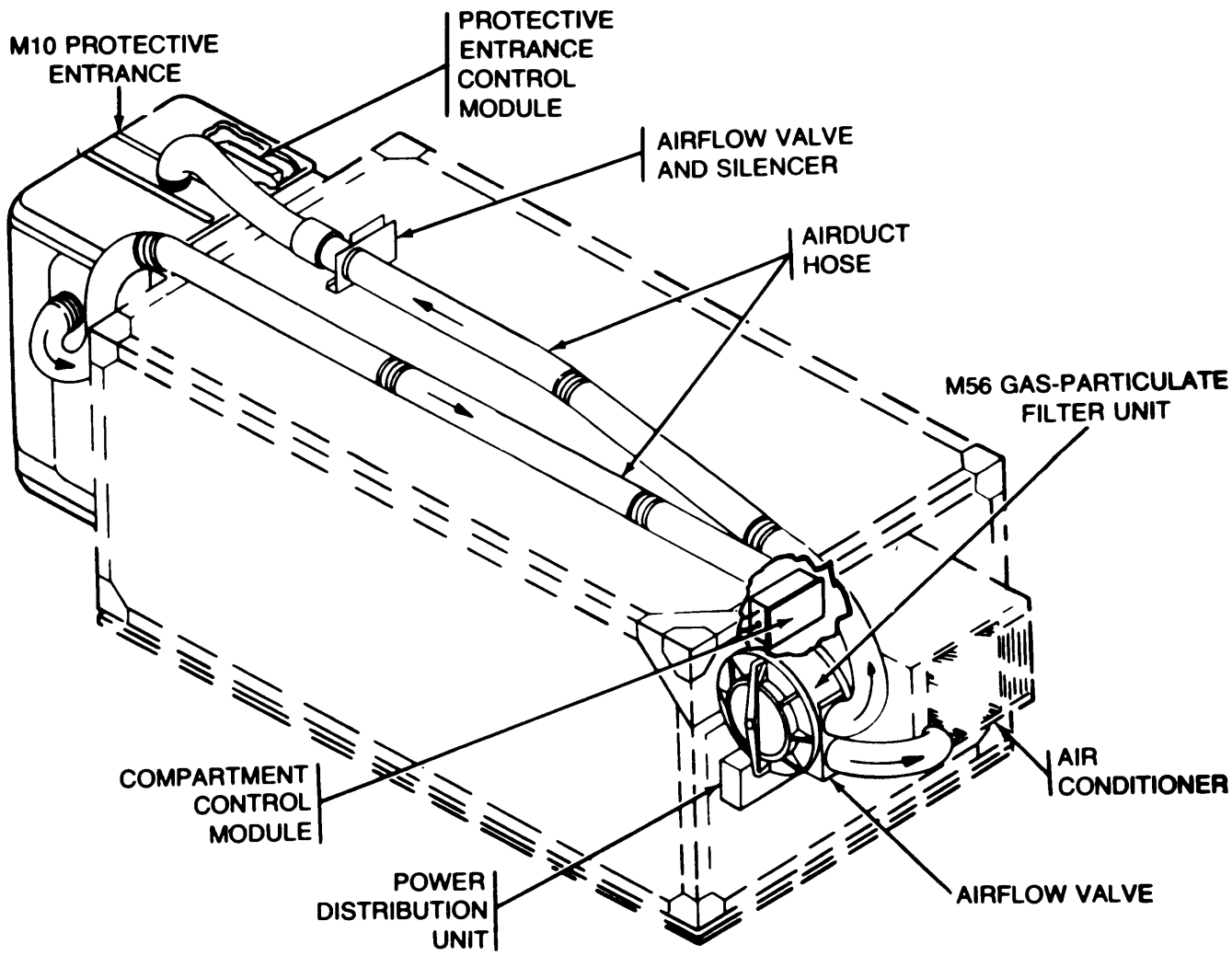
**OPERATING POWER REQUIREMENTS AND CHARACTERISTICS OF COLLECTIVE PROTECTION EQUIPMENT COMPONENTS**

| Component | Power Requirements | Input Voltage | Maximum Capacity | Airflow (cfm) |
|---|---|---|---|---|
| Protective Entrance Control Module | 2 amp at 28 V d c | 28 V d c | | |
| M56 Gas-Particulate Filter Unit | 800 Watts | 200 V, 400 Hz, 3-phase | | 200 maximum |
| Airflow Valve | 1 amp max at 28 V dc | | | 40 minimum at 20.0 in. water gage |
| Power Distribution Unit | | 208 V, 400 Hz, 3-phase | 3.5 kW | |
| Compartment Control Module | 1 amp max at 28 V dc | 28 V dc | | |
| Particulate Filter | | | | 200 |
| Gas Filter | | | | 200 |

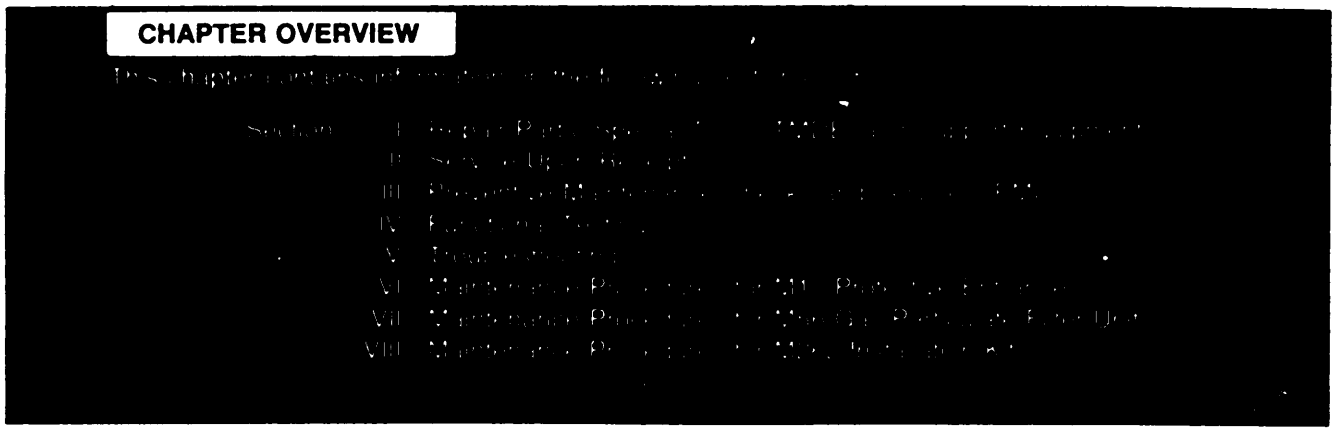
## Section III. PRINCIPLES OF OPERATION

**1-11. AIR FILTERING AND PRESSUREIZATION SYSTEM.**

a The M56 gas-particulate filter unit removes toxic gases and dust from air supplied to the M10 protective entrance and shelter. Outside and are drawn through the air inlet of the by the main fan. From the main fan, the air is pushed through the particulate and gas filter to the airflow valve. The filtered air passes through the airflow valve and is carried by airduct hoses to the protective entrance through the airflow valve and silencer and to the shelter through the air conditioner. Pressure sensing components in compartment control module automatically adjust the airflow valve to maintain a positive pressure in the shelter b. The M10 protective entrance provides a pressurized transition area between the shelter and the outside contaminated zone. Personnel entering from the outside must wait five minutes within the protective enbefore entering the shelter. Contamination is purged by the flow of the filtered air. The protective entrance control module automatically adjustS the airflow valve and silencer assembly to maintain the proper air pressure inside the protective entrance.



# CHAPTER 2
# MAINTENANCE INSTRUCTIONS




## Section I. REPAIR PARTS, SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT

**2-1. COMMON TOOLS AND EQUIPMENT.** For authorized common tools and equipment refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

**2-2. SPECIAL TOOLS, TMDE, AND SUPPORT EQUIPMENT.** Special tools, TMDE, and sup port equipment are listed in Appendix C, Section III of this manual.

**2-3. REPAIR PARTS.** Repair parts are listed and illustrated in Appendix C of this manual.

## Section II SERVICE UPON RECEIPT

**2-4. SERVICE UPON RECEIPT.** Refer to TM 11-7440-294-14 (to be published).

## Section III. PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

**2-5. PMCS PROCEDURES.**

a. *General.* The PMCS procedures are contained in table below. They are arranged in logical sequence requiring a minimum amount of time and motion on the part of the persons performing them and are arranged so that there will be a-minimum interference between persons performing checks simultaneously on the same end item.

b. *Item Number Column.* Checks and services are numbered in chronological order regardless of interval. This column shall be used as a source of item numbers for the "TM Number" column on DA Form 2404, Equipment Inspection and Maintenance Worksheet, in recording results of PMCS.

c. *Item To Be Inspected Column. The* items listed in this column are divided into groups indicating the portion of the equipment of which they are a part, for example, "Filter Unit,"" Protective Entrance." Under these groupings, the items to be inspected are identified by as few words, usually the common name, as will clearly identify the item, for example, "main fan assembly, " "airflow valve."

d. *Procedures Column.* This column contains a brief description of the procedure by which the check is to be performed. It contains all the information required to accomplish the checks and services, including appropriate tolerances, adjustment limits, and instrument and gage readings.

**PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) SEMIANNUAL SCHEDULE**

**NOTE**
Perform these checks and services in the order listed before you perform functional testing.

| Item No. | Item To Be Inspected | Procedures |
|---|---|---|
| 1 | Filter Housing | Inspect identfication and instruction plates. You must be able to read them. Replace plates if necessary (p 2-77 and p 2-78).<br>Inspect outside surfaces for rust, chipped paint, or bare metal on painted surfaces. Repaint or touchup as necessary (p 2-78).<br>Make sure that all parts are secure and that there is no loose or missing hardware. Tighten loose hardware. Replace missing hardware. |
| 2 | Special Purpose Electrical Cable Assemblies | Inspect cable assemblies for bare wires, broken insulation, broken or damaged connectors. Replace damaged cable assemblies (p 2-95 through 2-106). |
| 3 | Main Fan Assembly Cable | Inspect cable assembly for bare wire, broken insulation, broken or damaged connector. Replace damaged main fan assembly (p 2-79). |
| 4 | Airflow Valve | Inspect valve for damage and loose mounting hardware. Replace missing mounting hardware. Replace damaged airflow valve (p 2-82). |
| 5 | Power Distribution unit | Inspect unit for loose or missing mounting hardware. Tighten loose hardware. Replace missing hardware.<br>Inspect for damaged or missing electrical covers. Replace power distribution unit if the covers are damaged or missing (p 2-85). |
| 6 | Gas-Particulate Filters | WARNING<br>DO NOT throw away damaged or unusable filters as ordinary trash.<br>DO turn in damaged or unusable filters to your hazardous waste management office or Defense Reutilization and Marketing Office (DRMO).<br>Remove fiters (p 2-70) and check for physical or water damage.<br>Inspect housing seal and inner cover gasket for damage. Replace seal or gasket if unserviceable (p 2-71).<br>Reinstall filters or install new filter (p 2-72). |

| Item No. | Item To Be 1nspected | Procedures |
|---|---|---|
| 7 | Airduct Hoses | Inspect airduct hoses for damage or missing clamps. Repair or replace aifiuct hoses if necessary (p 2-108). Replace missing clamps. |
| 8 | M10 Protective Entrance | Inspect identification and instruction plates. You must be able to read them. Replace plates if necessary (p 2-57).<br>Inspect protective entrances with plastic top and bottom shells for cracks (p 2-62.1).<br>Inspect outside surface for chipped paint or bare metal on painted surfaces. Repaint or touch up as necessary (p 2-62).<br>Make sure that all parts are secure and that there is no loose or missing hardware. Tighten loose hardware. Replace missing hardware. |
| 9 | Valve and Silencer | Inspect identification and instruction plates. You must be able to read them. Replace instruction plate (p 2-91).<br>Inspect valve and silencer for damage and loose or missing hardware. Tighten loose hardware Replace missing hardware. Replace damaged valve and silencer (p 2-89). |
| 10 | Collective Protection Equipment | Perform functional testing (p 2-3 thru p 2-10). |

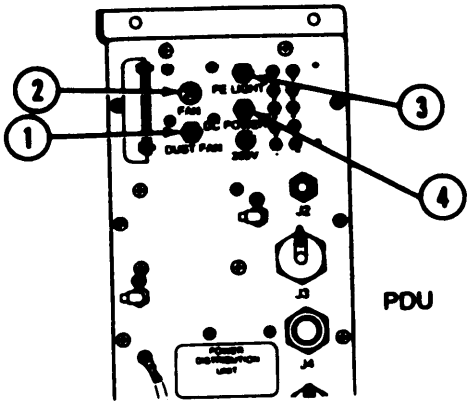
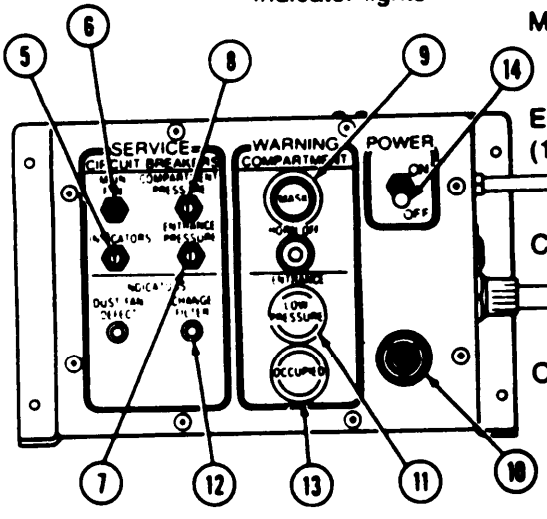
## Section IV. FUNCTIONAL TESTING

**2-6. GENERAL.** This section contains instructions for fictional testing the collective protection equipment for shelter. These tests must be performed following installation of the equipment, and semiannually then after.

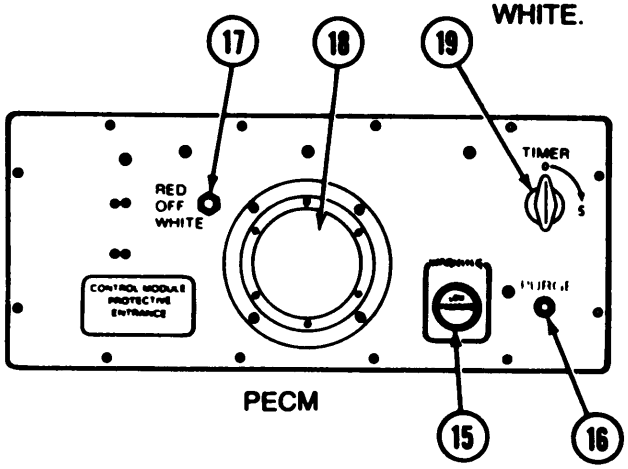
& Preventive Maintenance *Checks and Services* (PMCS). Perform PMCS on page 2-1 before performing functional testing.

b. *Troubleshooting Procedures*. Refer to troubleshooting on page 2-11 for malfunctions and corrections.

## 2-7. FUNCTION TEST

| LOCATION | ITEM | ACTION | INDICATION/REMARKS |
|---|---|---|---|
| Power Circuit | Cables | Check that all connections are tight. | Connector J6 on power distribution unit is not used. |
| | Power source | Check that power is supplied to power distribution unit. | |
| Power Distribution Unit (PDU) | Circuit breakers | Check that circuit breakers (1, 2, 3 and 4) are set. Press to set. | Power distribution unit is actually installed on its side, but is shown rightside up for clarity. |
| | |   | |
| Compartment Control Module (CCM) | | Set POWER switch (14) to OFF. | |
| | Circuit breakers | Check that circuit breakers (5, 6, 7, and 8) are set. Press to set. | |
| | Indicator lights | Press to test lamps: MASK (9) | Light will flash and warning horn (10) will sound. Replace lamp if necessary (p 2-88). |
| | |   | |
| | | ENTRANCE LOW PRESSURE (11) | Light will light when pressed. Replace lamp if necessary (p 2-88). |
| | | CHANGE FILTER (12) | Light will light when pressed. Replace lamp if necessary (p 2-88). |
| | | OCCUPIED (13) | Light will light when pressed. Replace lamp if necessary (p 2-88). |

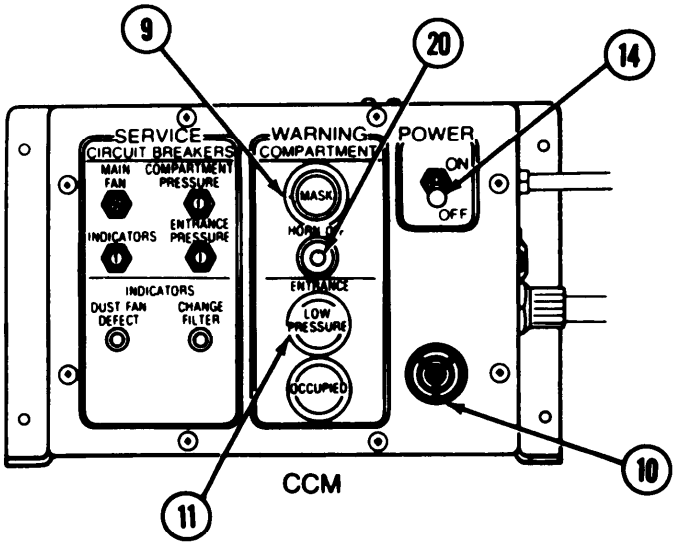
| LOCATION | ITEM | ACTION | indication/REMARKS |
|---|---|---|---|
| Protective Entrance Control Module (PECM) | Indicator lights | Press to test lamps: LOW PRESSURE (15) | Light will light when pressed. Replace lamp if necessary (p 2-66). |
| | | PURGE (16) | Light will light when pressed. Replace lamp if necessary (p 2-85). |
| | Dome light | Set dome light *switch* (17) to **WHITE**. | Dome light (18) will show white light. Replace lamp if necessary (p 2-67). |
| | | Set switch (17) to RED. | Dome light (18) will show red light. Replace lamp if necessary (p 2-67). |
| | | Set switch (17) to OFF. | Dome light (18) will go off. |
| | Timer | Rotate TIMER (19) fully clockwise. | PURGE light (16) will light. |
| | | | OCCUPIED light in compartment control module will light. |
| | | Allow TIMER (19) to return to "O (approximately five minutes). | PURGE and OCCUPIED light will go off. |

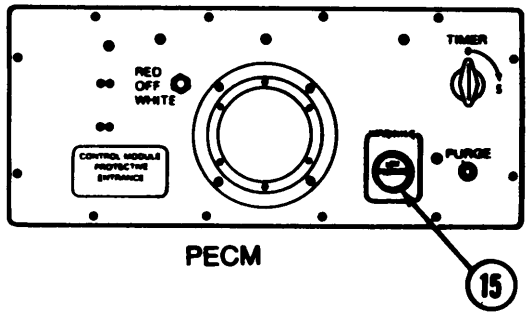


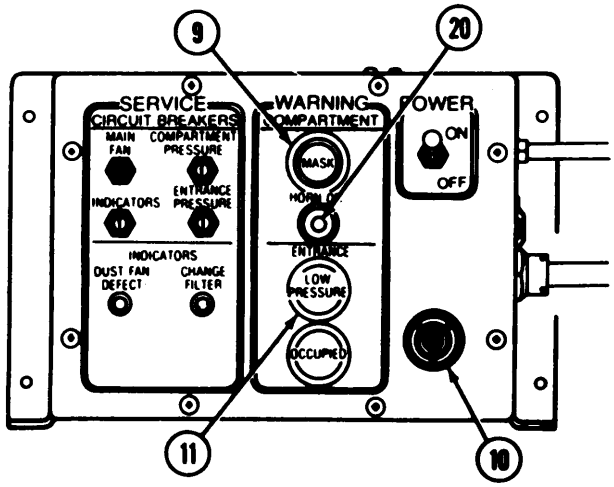
PECM

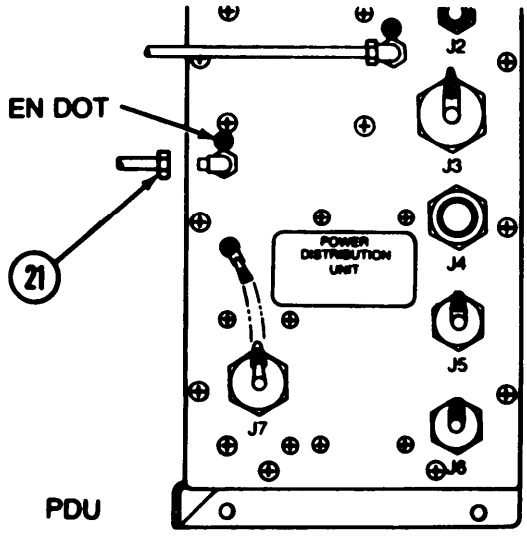
## 2-7. FUNCTIONAL TEST (CONT).

| LOCATION | ITEM | ACTION | INDICATION/REMARKS |
|---|---|---|---|
| | | Close shelter door and protective entrance door. | |
| Compartment Control Module | Pressure circuit | Set POWER switch (14) to ON. | Main fan must start and run.<br><br>MASK indicator light (9) will flaeh.<br><br>Warning horn(10) will sound until shelter is pressurized (approximately 30 seconds). |
| | | Allow horn to silence automatically. This will indicate proper system operation. | MASK light (9) will go off and Warning horn (10) will silence. when Propper shelter pressure is reached.<br><br>ENTRANCE LOW PRESSURE light (11) will light twhen filter until is started and then go off when proper protective entrance pressure is reached.<br><br>When loss of power to the collective protection equipment occurs with the compartment control module POWER switch in the ON position, the MASK light (9) will flash and warning horn (10) will sound. |
| | | open shelter door. | MASK light (9) will flash.<br><br>warning horn (lo) will eound。 |
| | | Press HORN OFF button (20). | Button will stay in pressed positbn. Warning horn willstop sounding MASK light (9) will light and etay on. |

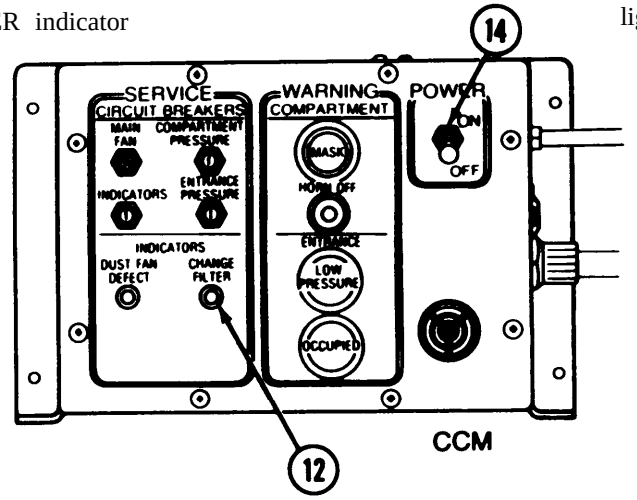


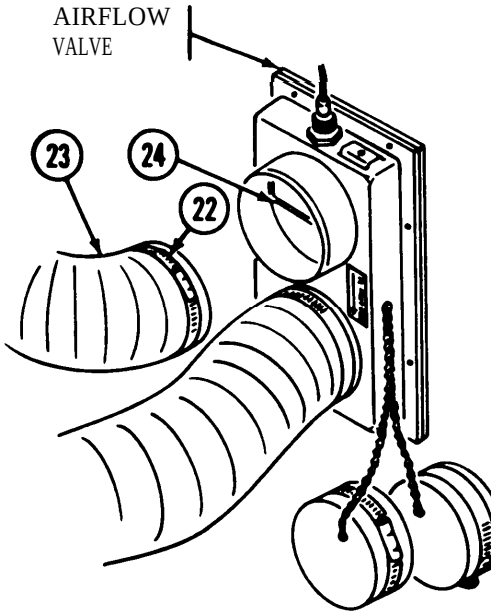
| LOCATION | ITEM | ACTION | INDICATION/REMARKS |
|---|---|---|---|
| | | Open protective entrance door. | |
| Compartment Control Module<br>Protective Entrance control Module | Pressure circuit |  | ENTRANCE LOW PRESSURE light (11) will light.<br>LOW PRESSURE light (15) will light. |
| | | Close protective entrance and shelter doors. | Within 30 seconds:<br>ENTRANCE LOW PRESSURE light (11) will go off. Also, the LOW PRESSURE light (15) on the protective entrance control module will go off.<br>MASK light *(9) will* go Off. HORN OFF button (20) will reset. |
| Power Distribution Unit | CHANGE FILTER indicator light | Disconnect tubing (21) (green dot). | Fitter unit must be operating. |



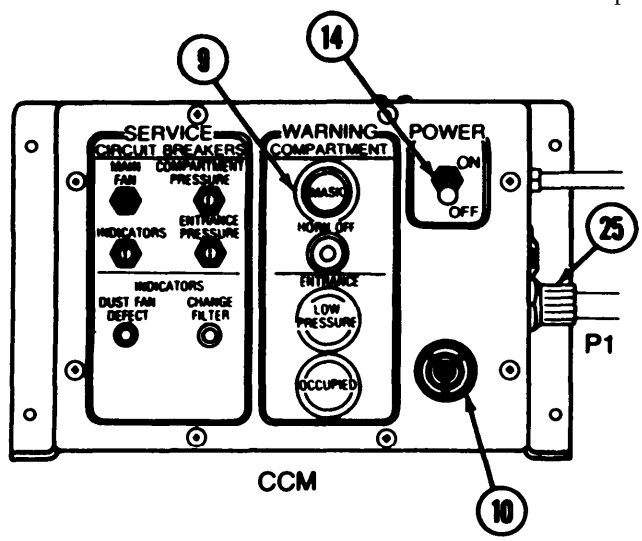



## 2-7. FUNCTIONAL TEST (CONT).

| LOCATION | ITEM | ACTION | indication/REMARKS |
|---|---|---|---|
| Compartment Control Module | CHANGE FILTER indicator light |  | CHANGE FILTER light (12) will light. |
| Power Distribution Unit | | | |
| Fan and Airfiow Valve Housing Unit | Airflow valve | | Filter unit must be operating. |
| | | | The sliding plate (24) in the airflow valve must move to completely close off the outlet marked TO PROT ENT. |
| | | Close shelter door. | The sliding plate (24) in the airflow valve will move toward the port marked TO SHELTER. This partly opens the port marked TO PROT ENT. |
| | | Turn off filter unit:<br>Set compartment control POWER switch (14) to OFF. | Observe that skiing plate (24) covers the port marked TO SHELTER. |
| | | Replace airduct hose (23) on port marked TO PROT ENT. Tighten hose damp (22). | |



| LOCATION | ITEM | ACTION | INDICATION/REMARKS |
|---|---|---|---|
| Compartment Control Module | Loss of power warning system | Disconnect plug P1 (25). | |
| | | Set POWER switch (14) to ON. | MASK light (9) win flash.<br>Warning horn (10) will sound. |
| | | Set POWER switch (14) to OFF.<br>Reconnect plug P1 (25). | |




| | | | |
|---|---|---|---|
| | | Set POWER switch (14) to ON. | Filter unit must be operating and the shelter and protective entrance must be pressurized. |

## 2-7. FUNCTIONAL TEST (CONT).

| LOCATION | ITEM | ACTION | INDICATION/REMARKS |
|---|---|---|---|

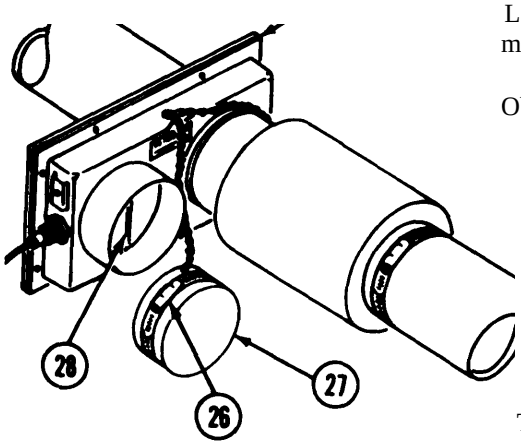
**NOTE**

Two technicians are needed for this checkout procedure: on the outside of the protective entrance and the other shelter at airflow valve and silencer.

Airflow Valve and Silencer

Airflow valve

VALVE AND SILENCER




Make sure that shelter and protective entrance doors are closed.

Loosen hose clamp(26) and remove cap (27)from outlet port.

Observe the sliding plate.

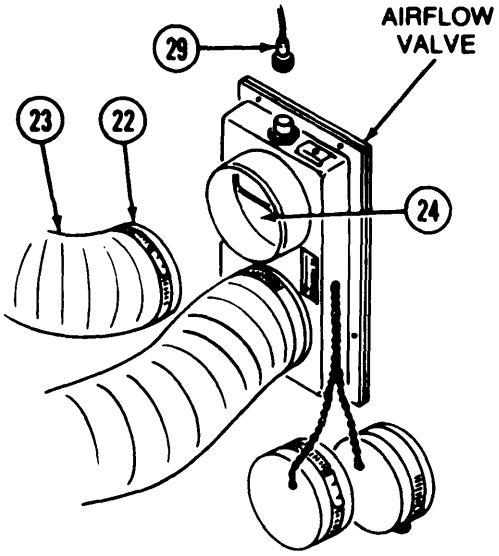
The sliding plate (28) will move in a direction to allow more airflow into the protective entrance.

Replace cap(27) *on* outlet port. Tighten hose damp (26).

Fan and Airflow Valve Housing unit

Airflow valve

Disconnect cable P15 (29).

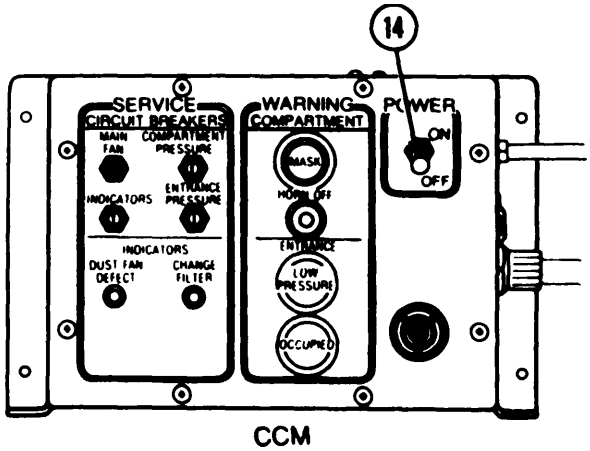



Hold airduct hose (23) going to the protective entrance and loosen hose damp (22). Remove airduct hose.

Reconnect cable P15 (29).

Skidng plate (24) will move to reduce airflow into the protective entrance.

Replace airduct hose (23). Tighten hose damp (22).




CCM

Compartment control Module

POWER Switch

Set POWER switch (14) to OFF.

## Section V. TROUBLESHOOTING

### 2-8. GENERAL.

a. This section contains troubleshooting information for locating and correcting most of the operating troubles which may develop in your protective equipment. Each malfunction for an individual component, unit, or system is followed by a list of tests or inspections which will help you to determine corrective actions to take. You should perform the test/inspections and corrective actions in the order listed.

b. This manual cannot list all possible malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed (except when malfunction and cause are obvious) or is not corrected by listed corrective actions, notify your supervisor.

**NOTE**

When measuring voltage at the Power Distribution Unit (PDU), TP #10 is ground. PDU is actually installed on its side, but is shown rightside up for clarity.

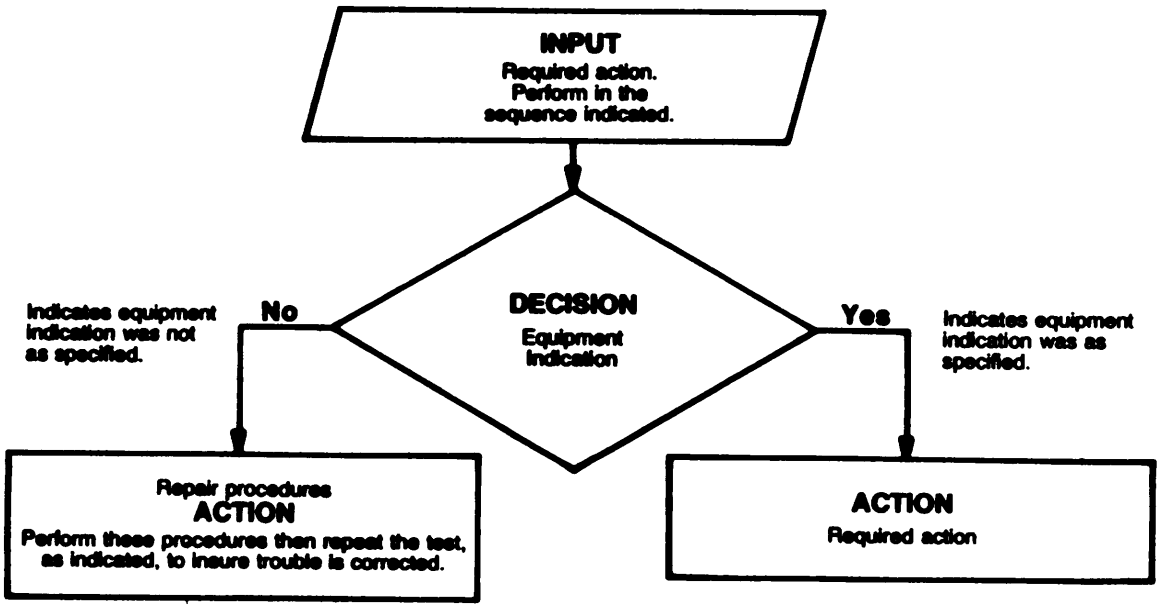
### 2-9. TROUBLESHOOTING PROCEDURES.

a. Perform functional test first. Then use the symptom index for quick access to the troubleshooting procedures.

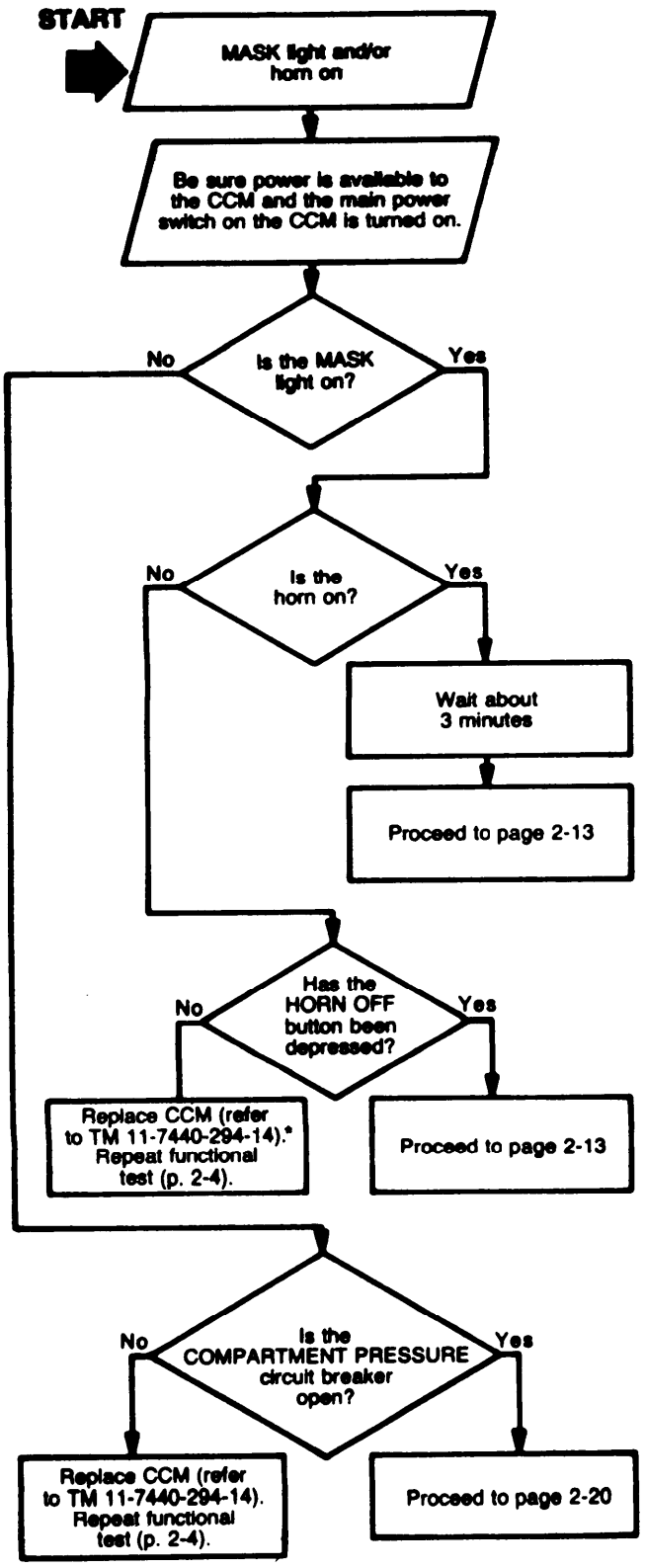
SYMPTOM INDEX

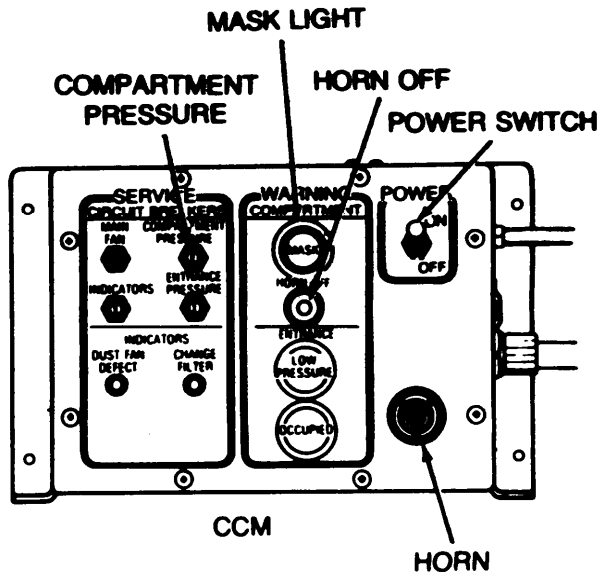

| | | Troubleshooting Procedure Page |
|---|---|---|
| 1. | MASK light flashing and/or warning horn sounding | 2-l2 |
| 2. | Protective entrance LOW PRESSURE lights on | 2-22 |
| 3. | No power indication (all indicator lights do not illuminate when pressed to test) | 2-33 |
| 4. | Protective entrance LOW PRESSURE lights will not come on | 2-39 |
| 5. | CHANGE FILTER lights with clean filter | 2-45 |
| 6. | CHANGE FILTER light does not illuminate | 2-46 |
| 7. | OCCUPIED AND PURGE lights do not operate properly | 2-48 |
| 8. | INDICATORS circuit breaker trips | 2-51 |
| 9. | Protective Entrance dome light does not come on | 2-54 |


**b. The following describes the use of the troubleshooting charts:**



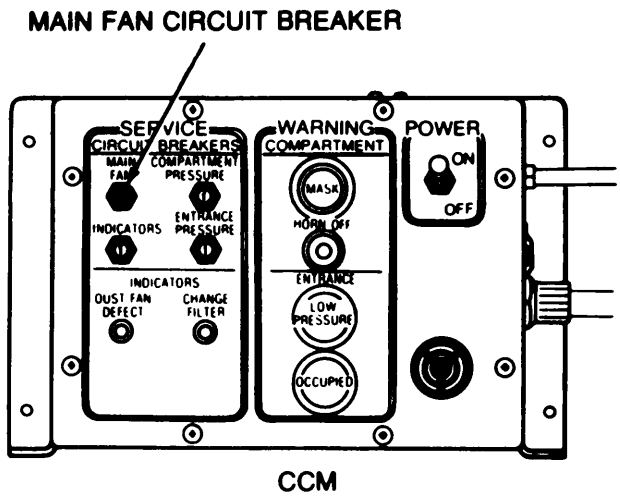
## 1. MASK LIGHT FLASHING AND/OR WARNING HORN SOUNDING.

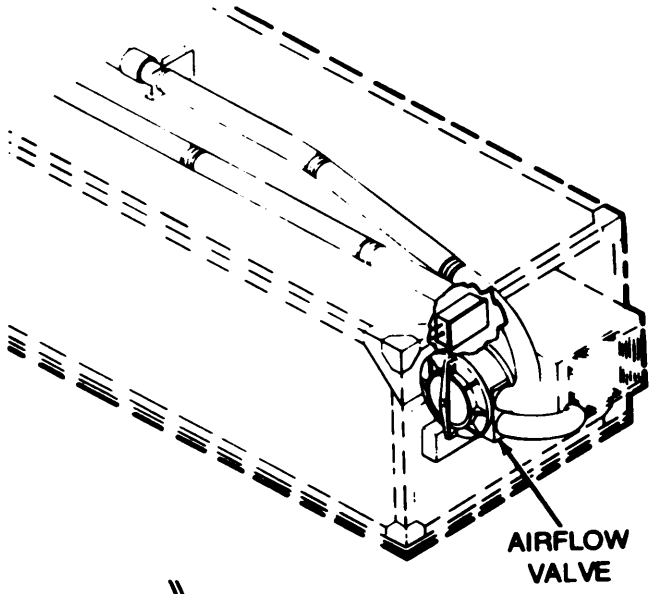


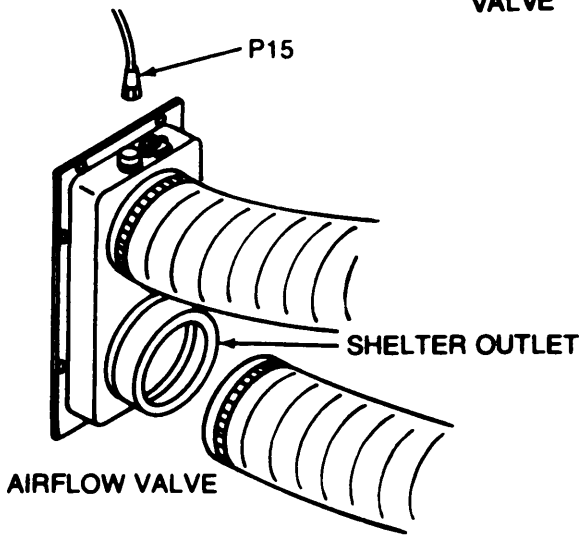



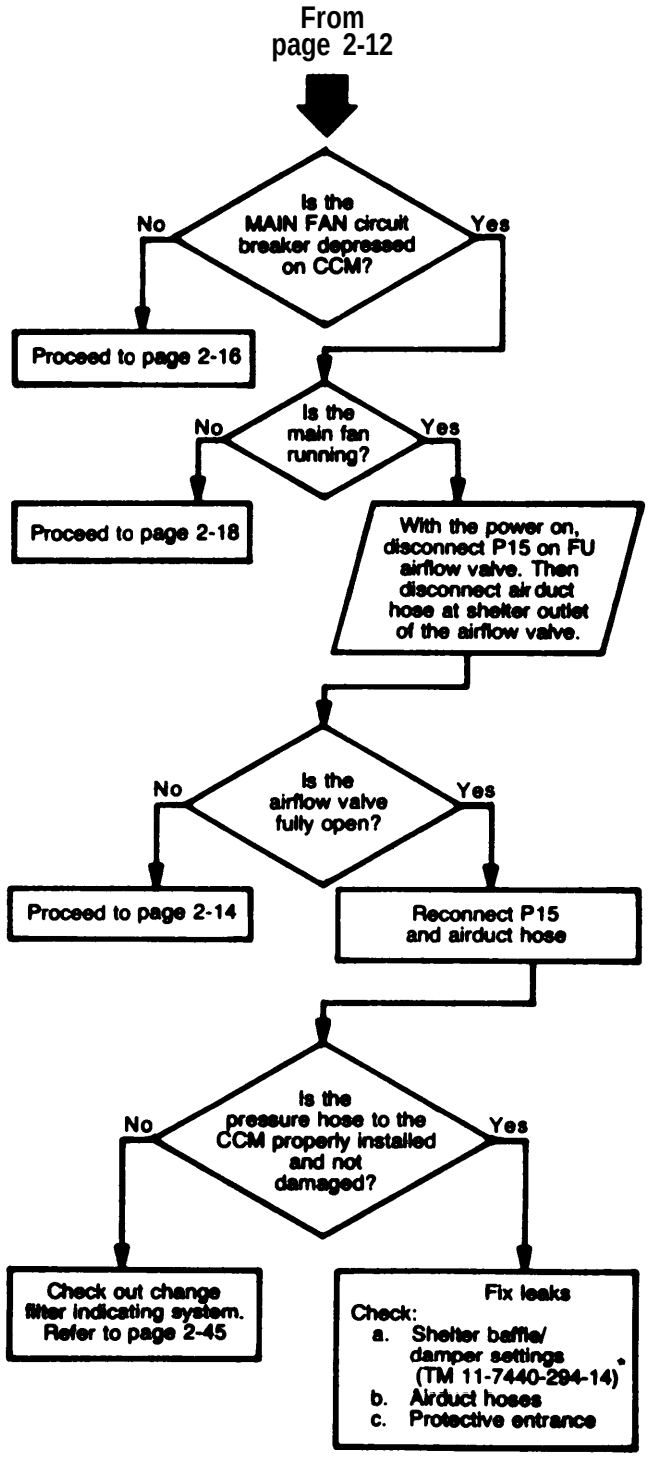

**LEGEND**

CCM = Compartment Control Module
* = To Be Published




**LEGEND**

CCM = Compartment Control Module
FU = Filter Unit
* = To Be Published

## 1. MASK LIGHT FLASHING AND/OR WARNING HORN SOUNDING (CONT)

Page 2-13

Connect P15 on the FU airflow valve

Does the airflow valve fully open?

No → Loosen test point cover on top of airflow valve and rotate it 90°

Yes → Replace CCM (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

Is there approximately 28 V dc at TP# 12(+) with respect to TP# 11(−) on the airflow valve?

No → Turn off power

Yes → Replace airflow valve (p. 2-82). Repeat functional test (p. 2-4).

Disconnect P15 and P2 from PDU to FU airflow valve

Check continuity

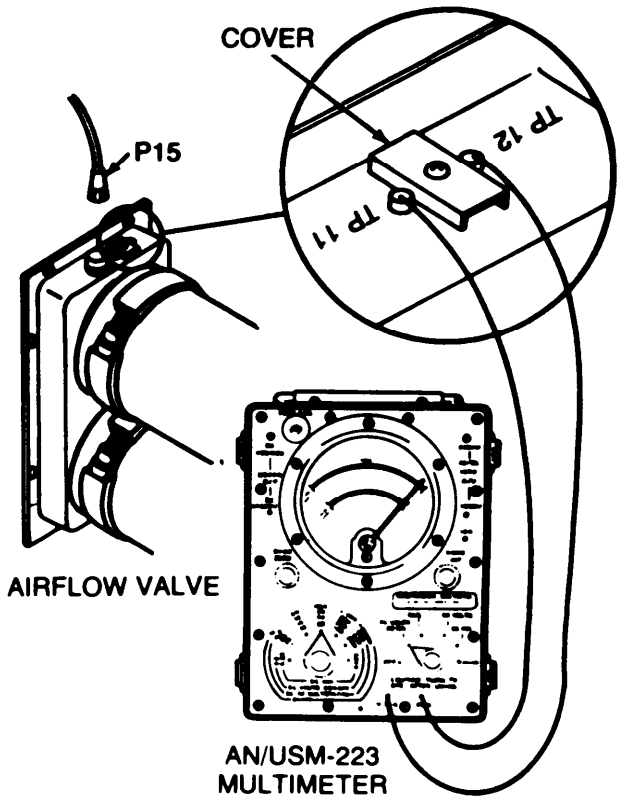
| From | To |
|---|---|
| P15A | P2A |
| P15B | P2B |

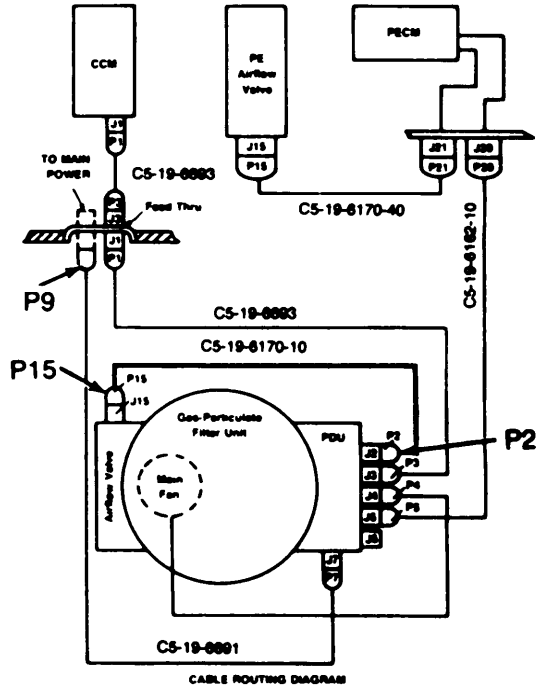
Is there continuity?

No → Replace cable C5-19-6170-10 (p.2-100). Repeat functional test (p. 2-4).

Yes → Reconnect P15

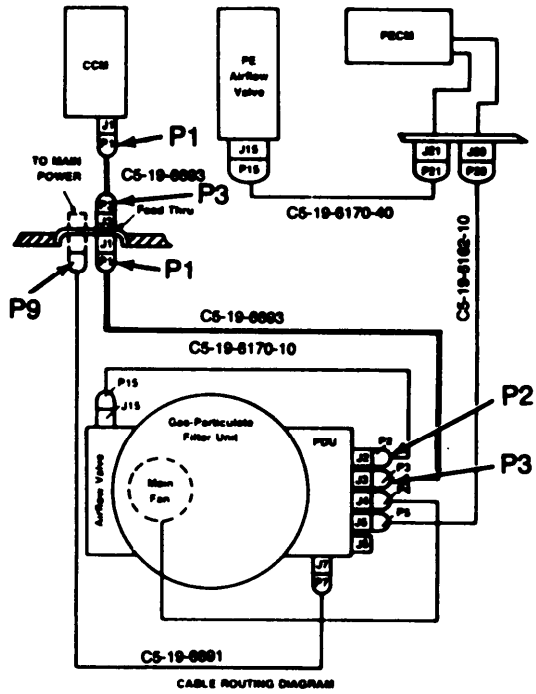
Proceed to page 2-15




LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
FU = Filter Unit
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




PAGE 2-14

Disconnect P3 at the PDU

Check continuity

| From | To |
|---|---|
| J2A | J3P |
| J2B | J3N |

Is there continuity?

No → Replace PDU (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

Yes → Reconnect P2

Disconnect P1 at the feed thru

Check continuity

| From | To |
|---|---|
| P3P | P1P |
| P3N | P1N |

Is there continuity?

No → Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes → Reconnect cable C5-19-6693

Disconnect P1 at the CCM and P3 at the feed thru

Check continuity

| From | To |
|---|---|
| P3P | P1P |
| P3N | P1N |

Is there continuity?

No → Replace cable C5-19-6693 (p. 2-102). Repeat functional test (p. 2-4).

Yes → Reconnect P3 at feed thru

Replace CCM (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

**LEGEND**

CCM = Compartment Control Module
PDU = Power Distribution Unit
Feed Thru = Elec/Pneu Feed Thru
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## 1. MASK LIGHT FLASHING AND/OR WARNING HORN SOUNDING (CONT)

Page 2-13

Press the MAIN FAN circuit breaker and wait about 3 minutes

Does the MAIN FAN circuit breaker remain set?

No → Turn off power. Disconnect P4. Turn on power. Reset MAIN FAN circuit breaker on CCM

Yes → Proceed to page 2-18

Does the MAIN FAN circuit breaker on CCM remain set?

No → Open circuit breaker access cover on the PDU

Yes → Proceed to page 2-19

Is the FAN circuit breaker open?

No → Proceed to page 2-17

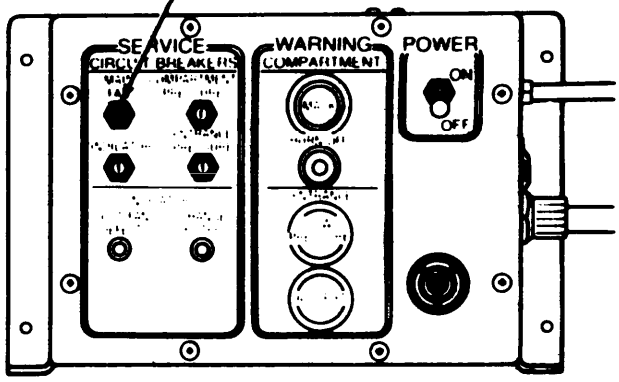
Yes → Reset FAN circuit breaker on PDU

Does the FAN circuit breaker on the PDU remain set?

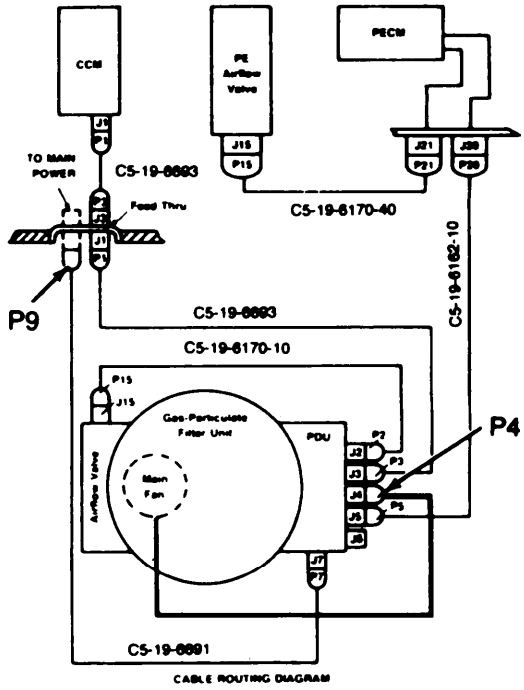
No → Replace PDU (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

Yes → Proceed to page 2-19

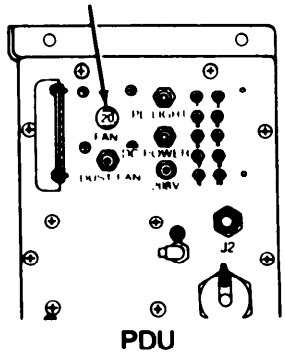
MAIN FAN CIRCUIT BREAKER




CCM



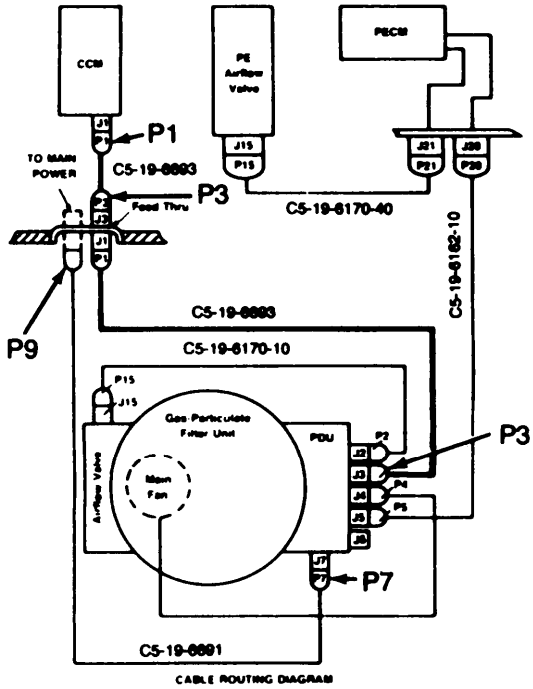

MAIN FAN CIRCUIT BREAKER

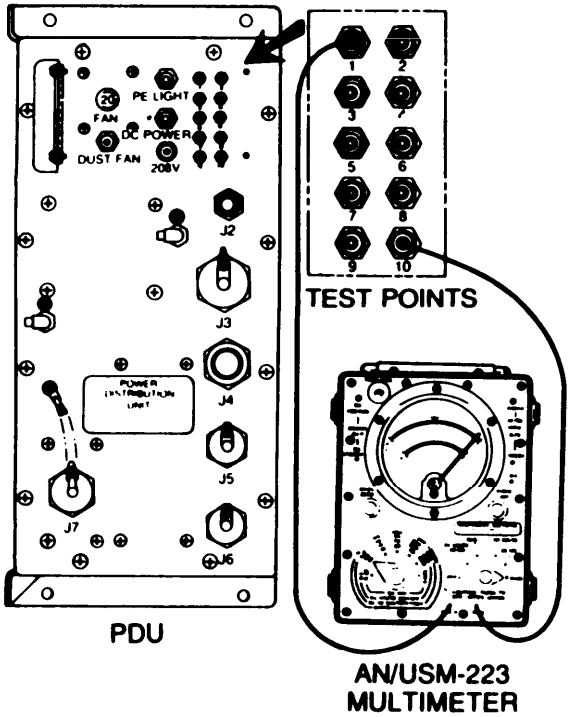


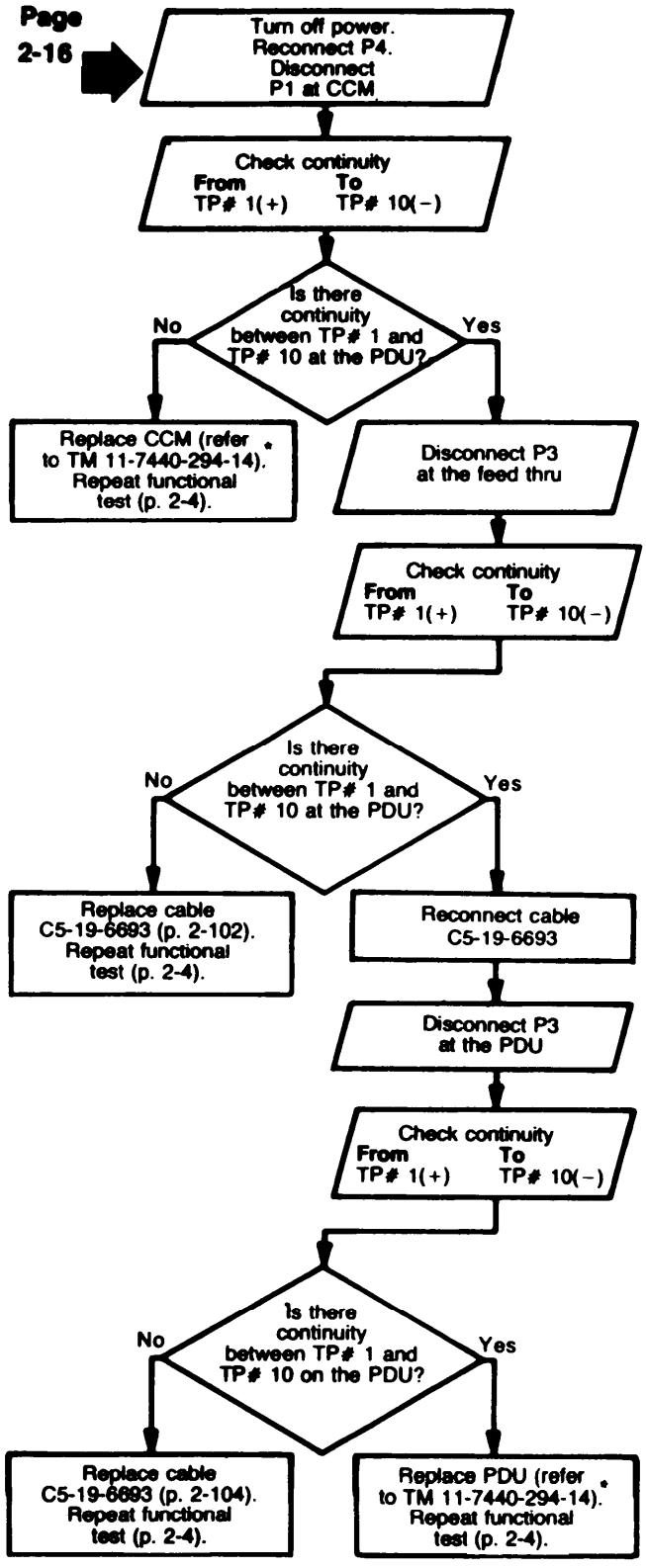
PDU

LEGEND

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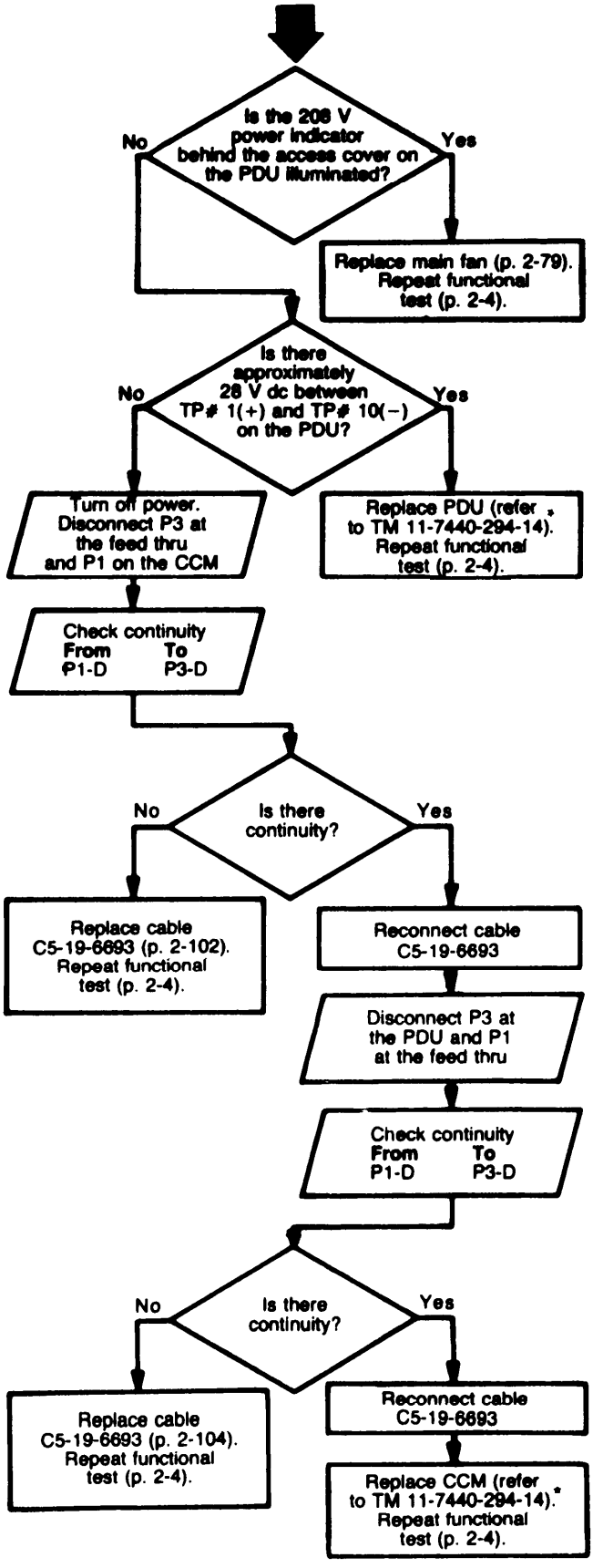



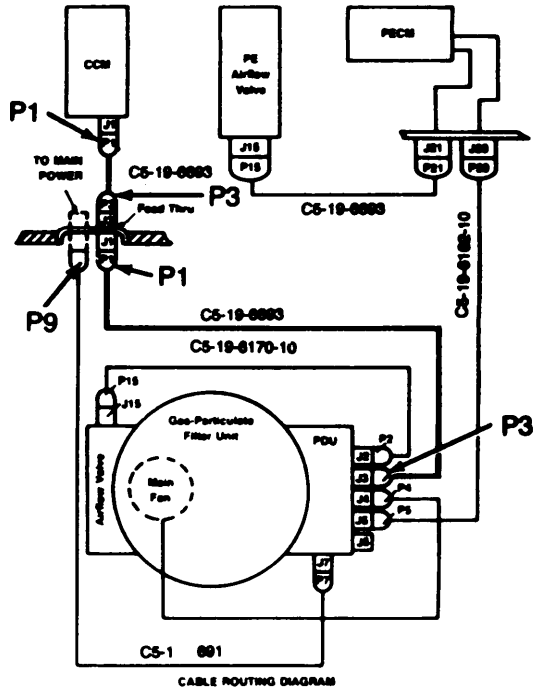

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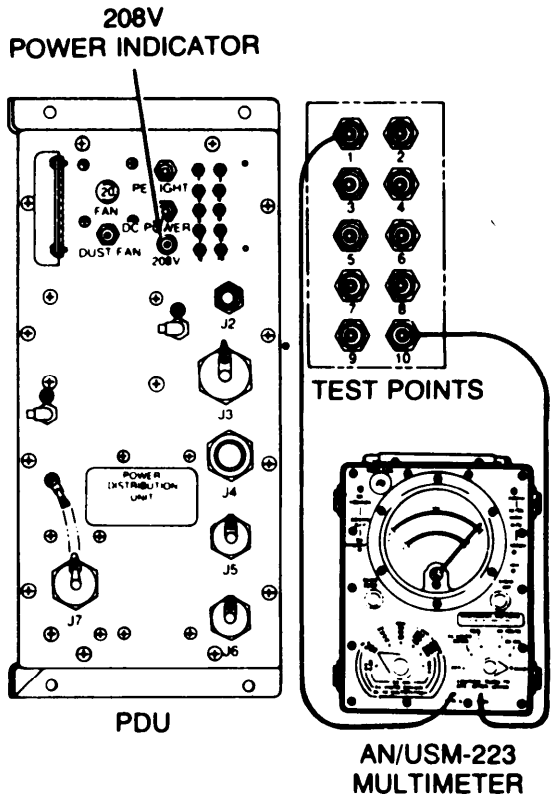
CCM = Compartment Control Module
PDU = Power Distribution Unit
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## 1. MASK LIGHT FLASHING AND/OR WARNING HORN SOUNDING (CONT)

Page 2-13 or Page 2-15

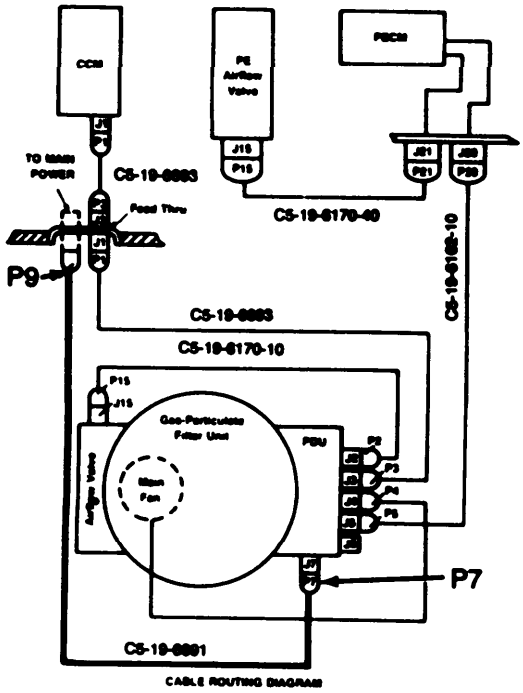


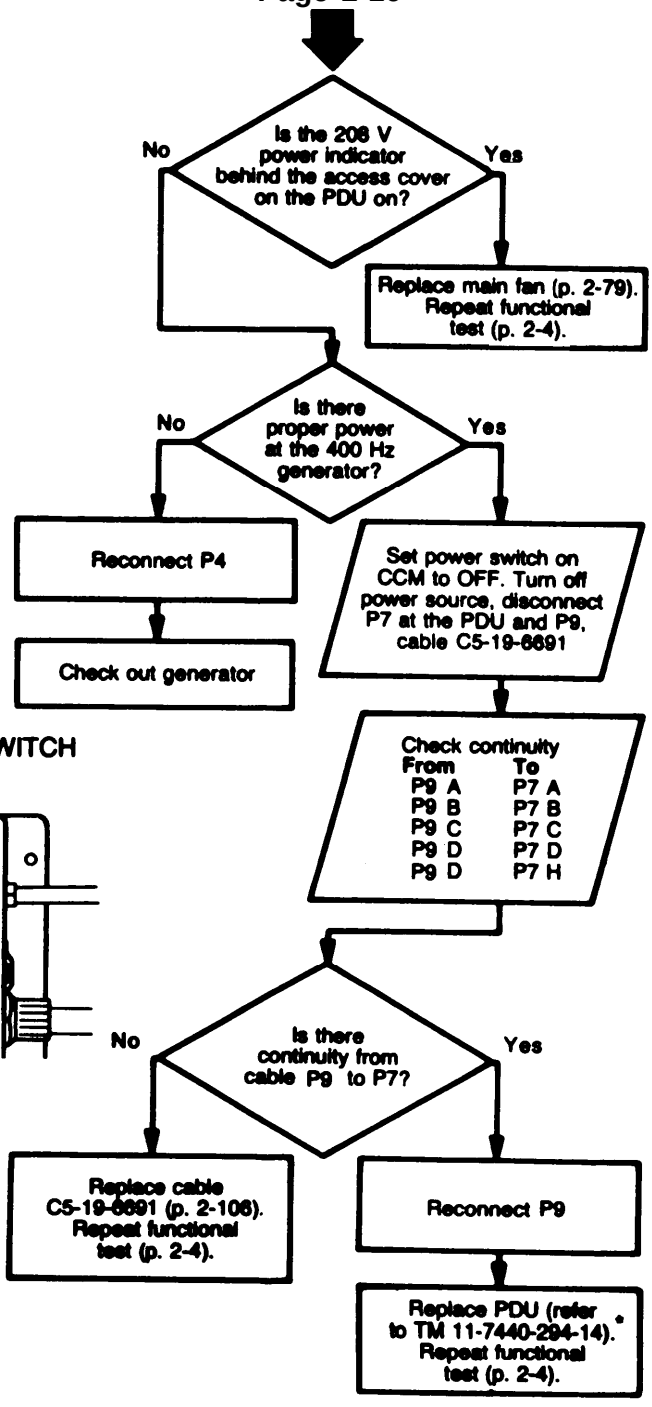



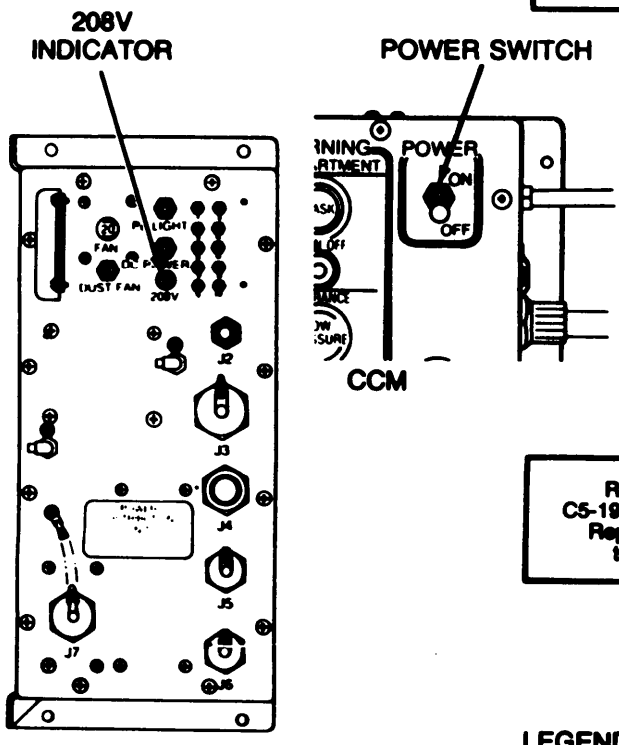

LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




Page 2-16

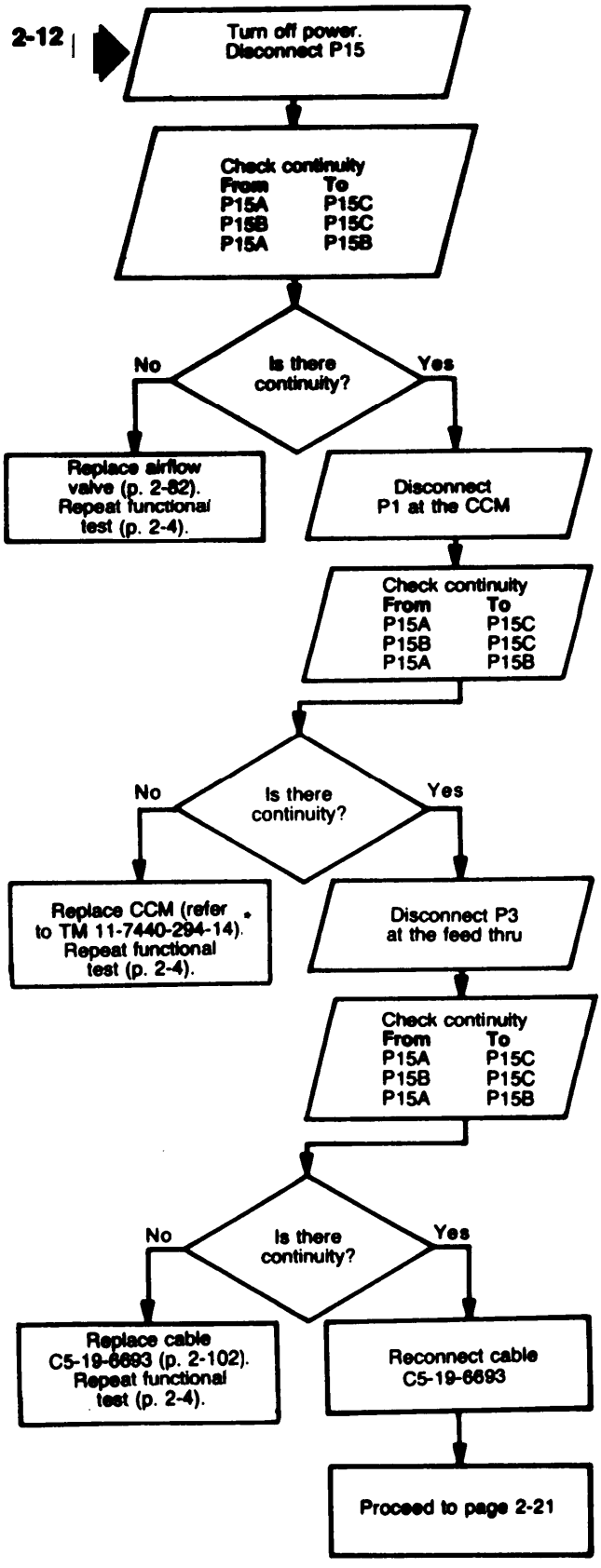


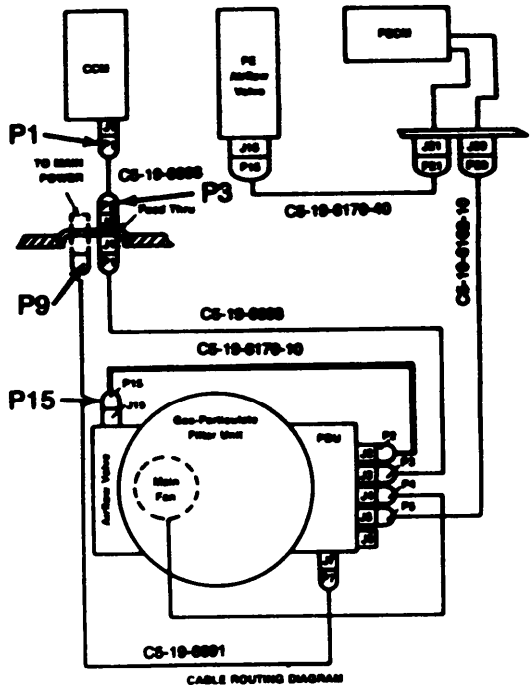




**LEGEND**

CCM = Compartment Control Module
PDU = Power Distribution Unit
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

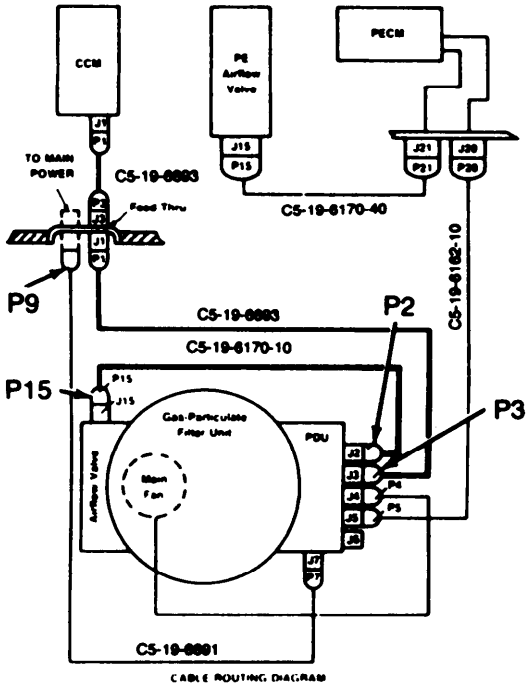
## 1. MASK LIGHT FLASHING AND/OR WARNING HORN SOUNDING (CONT)



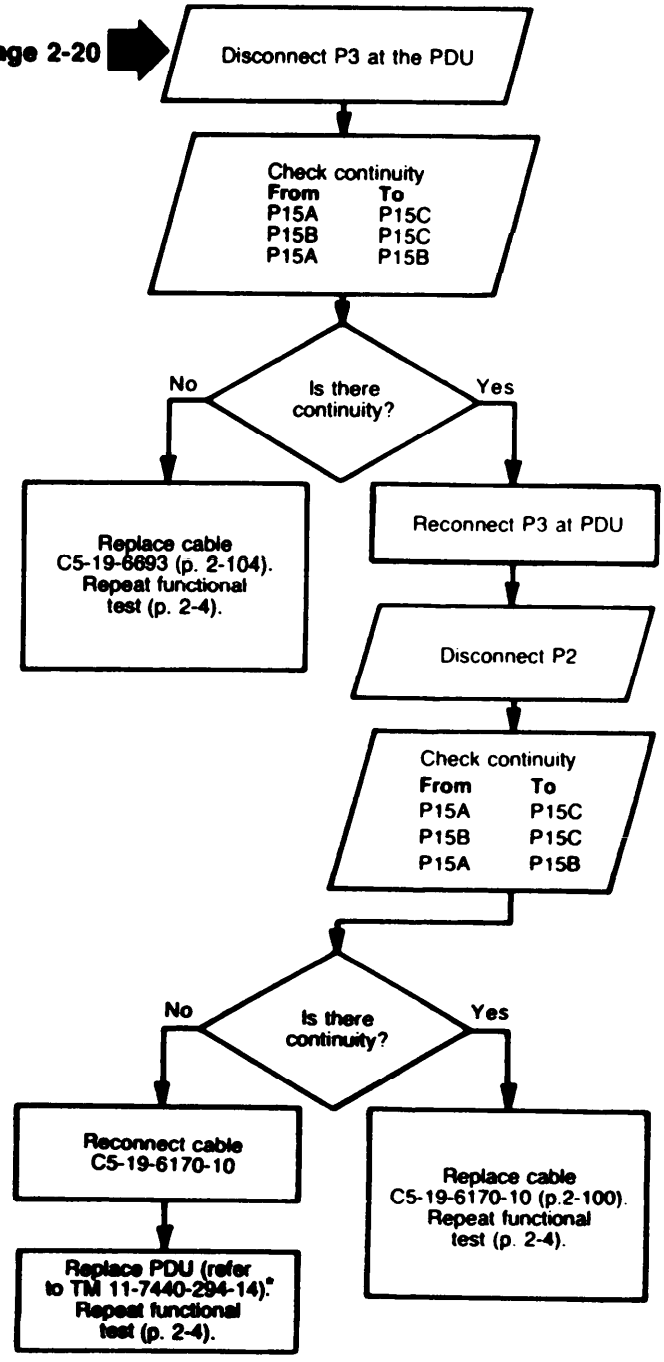




**LEGEND**

**CCM = Compartment Control Module**
**Feed Thru = Elec/Pneu Feed Thru**
*** = To Be Published**



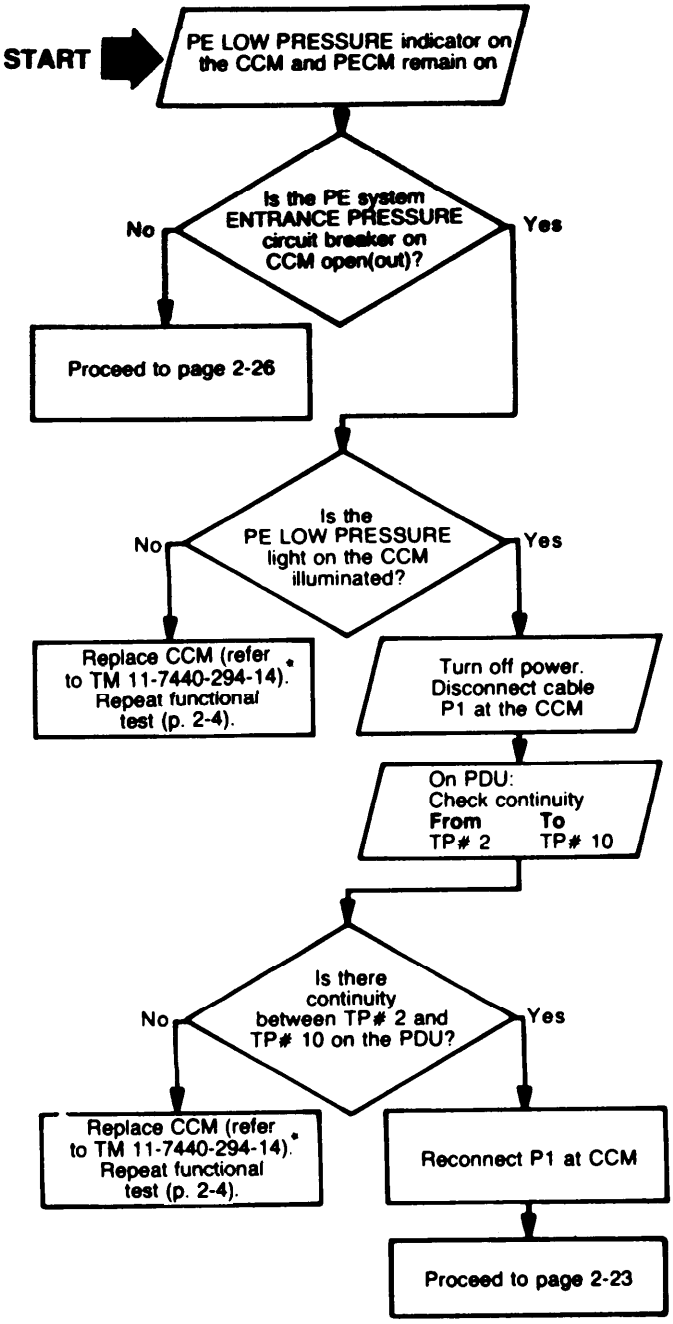

Page 2-20

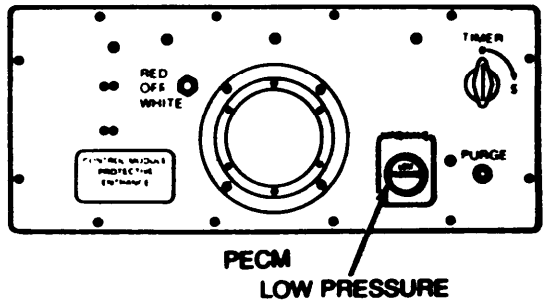


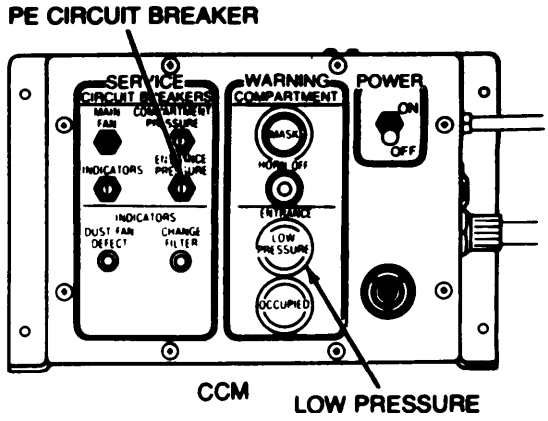

**LEGEND**

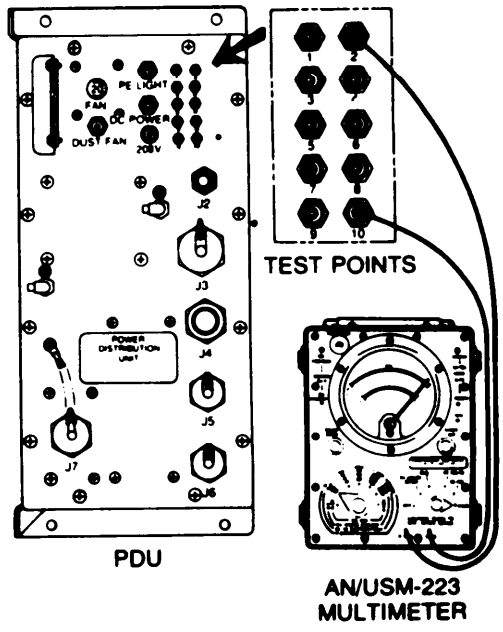
**PDU = Power Distribution Unit**
**Feed Thru = Elec/Pneu Feed Thru**
*** = To Be Published**

## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON



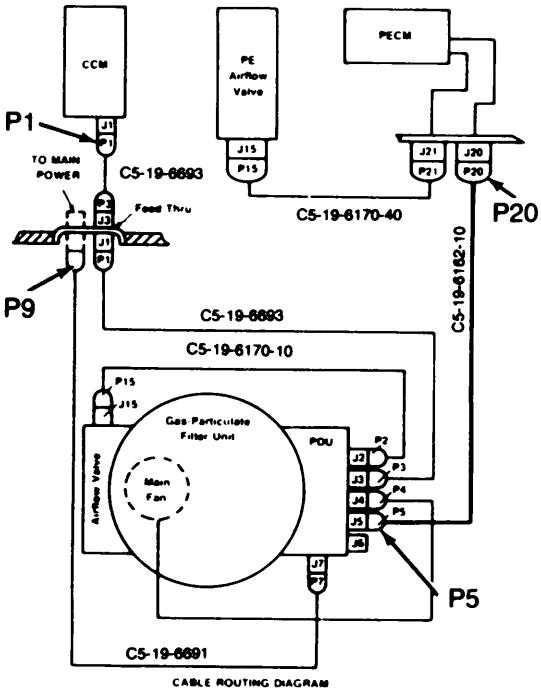



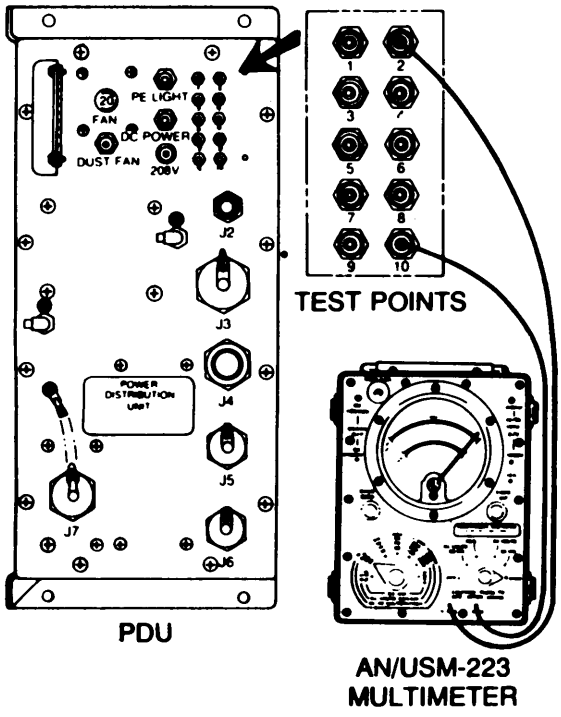



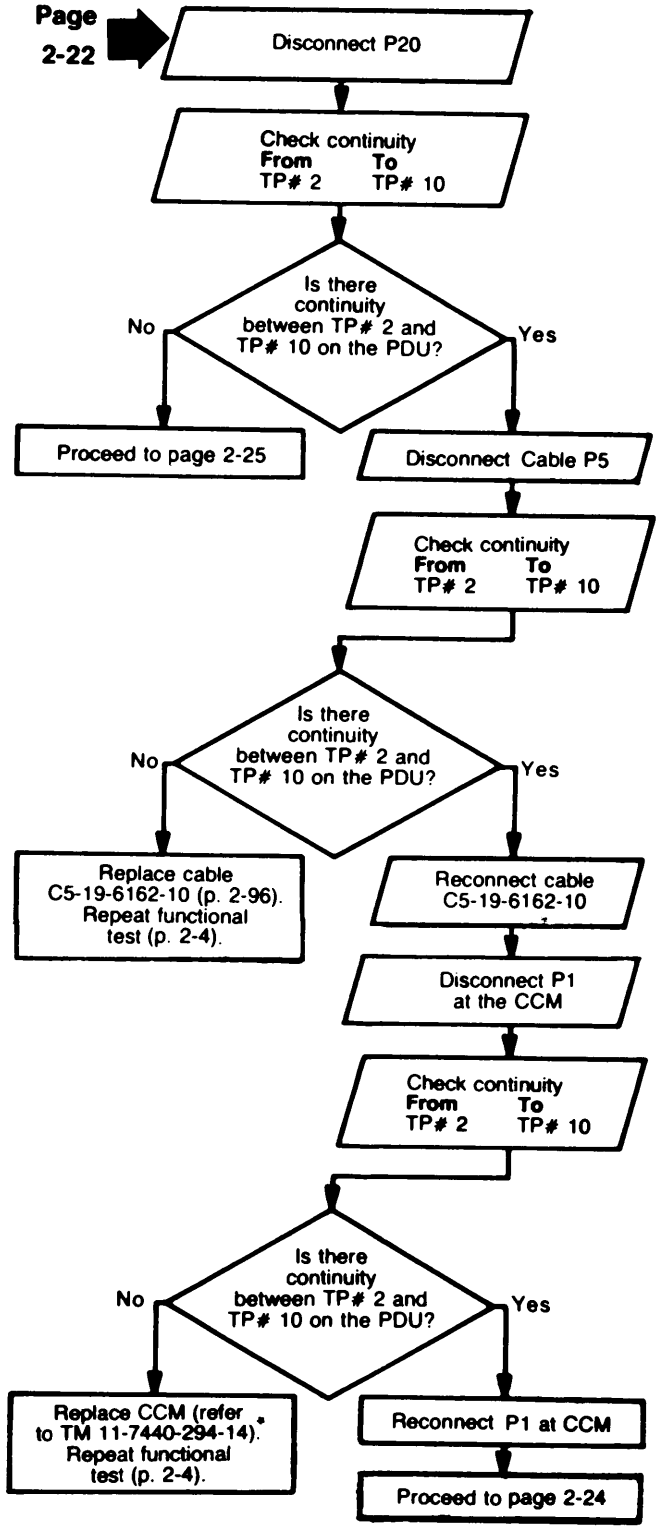




LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
PE = Protective Entrance
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON (CONT)

Page 2-23

Remove P1 at the feed thru

Check continuity
From To
TP# 2 TP# 10

Is there continuity between TP# 2 and TP# 10 on the PDU?

No

Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes

Disconnect cable P3 at the PDU

Check continuity
From To
TP# 2 TP# 10

Is there continuity between TP# 2 and TP# 10 on the PDU?

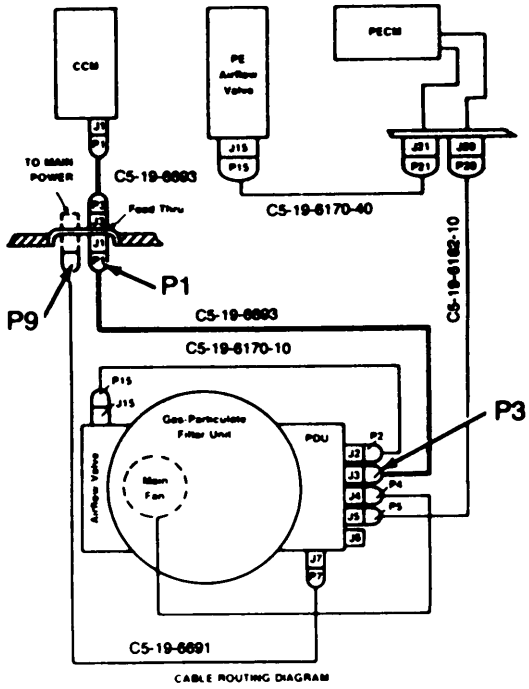
No

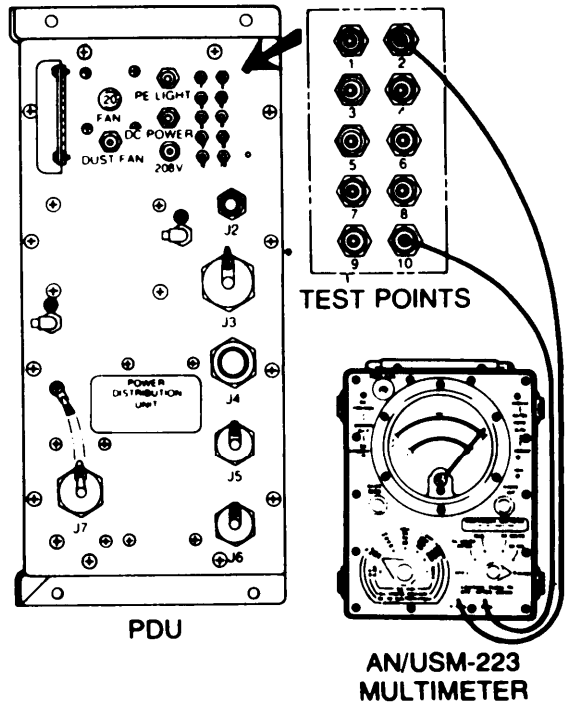
Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes

Reconnect cable C5-19-6693

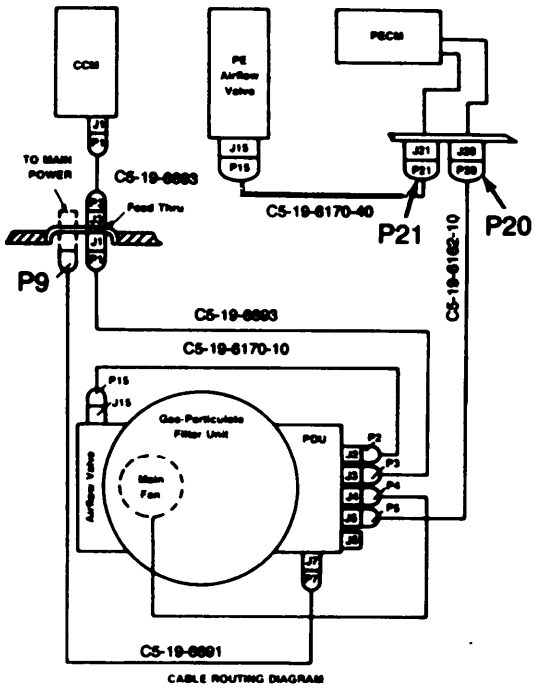
Replace PDU (refer to TM 11-7440-294-*4). Repeat functional test (p. 2-4).

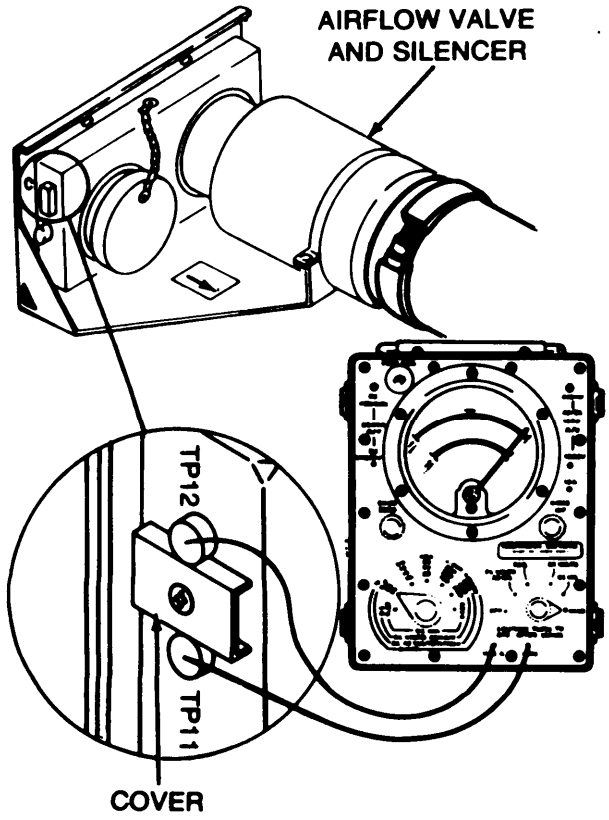


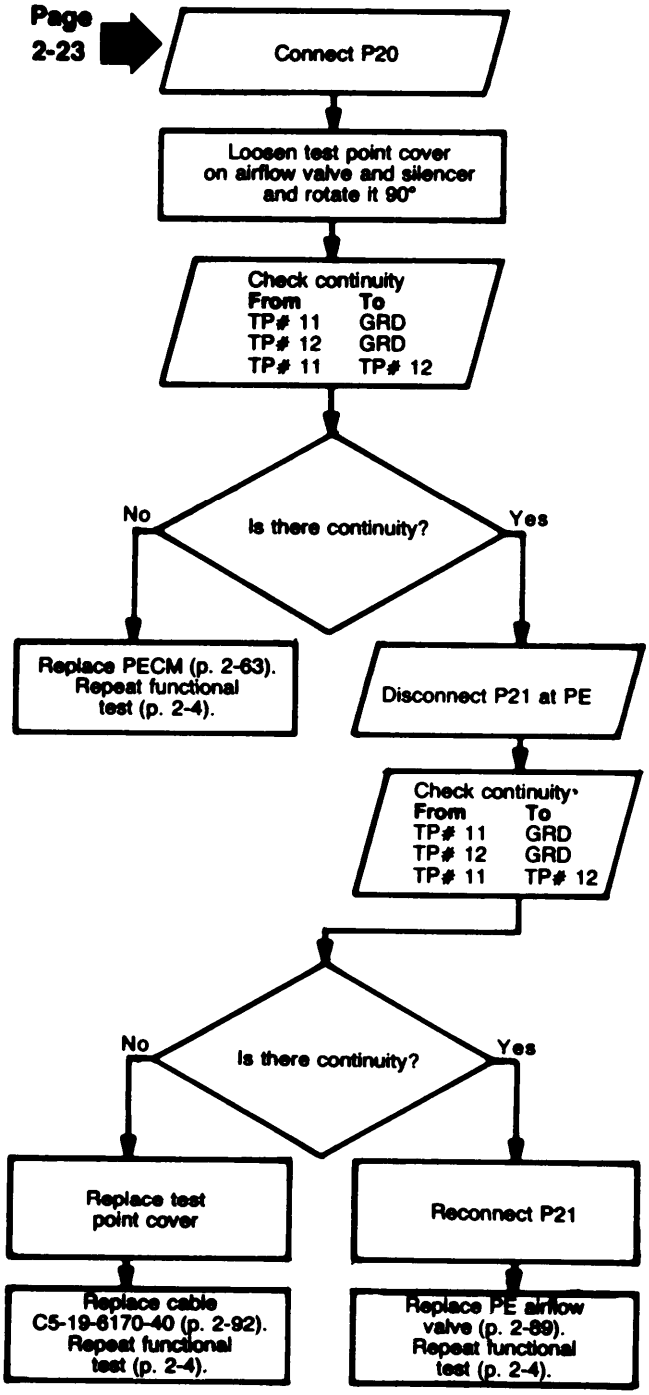




LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




**LEGEND**

GRD = Ground
PE = Protective Entrance
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru

## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON (CONT)

Page 2-22

With the power on and both entrance doors closed, disconnect P15 at PE airflow valve and remove airduct to PE airflow valve and silencer

Is the airflow valve fully open?

No → Proceed to page 2-29

Yes → Remove the hose from the port marked TO PROT ENT on the filter unit airflow valve

Is this port on filter unit airflow valve fully open?

No → Remove low pressure hose connected to CCM at the feed thru. Gently draw air from the hose

Yes → Check PE attachment to shelter and hose for leaks.

Are there any leaks?

Yes → Repair leaks

No → Is CHANGE FILTER light on?

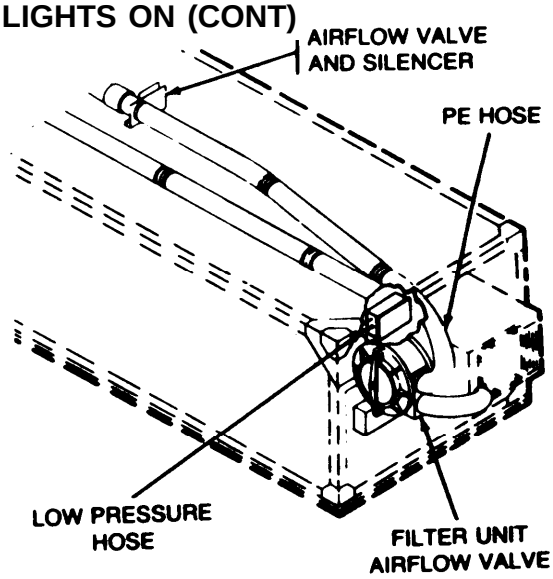
Yes → Replace particulate filter (p. 2-69). Repeat functional test (p. 2-4).

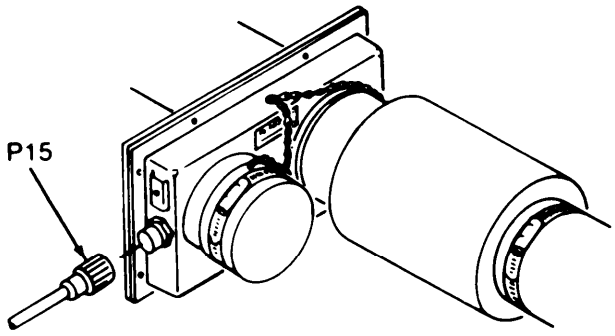
No → Checkout change filter indication system. Refer to troubleshooting procedure 6. CHANGE FILTER light does not illuminate, page 2-46.

Does filter unit airflow valve port (TO PROT ENT) open?

No → Reconnect all cables and hoses → Proceed to page 2-27

Yes → Reconnect all cables and hoses → Check PE attachment to shelter and hose for leaks. → If there are no leaks, replace PECM (p. 2-63) and repeat functional test (p. 2-4)

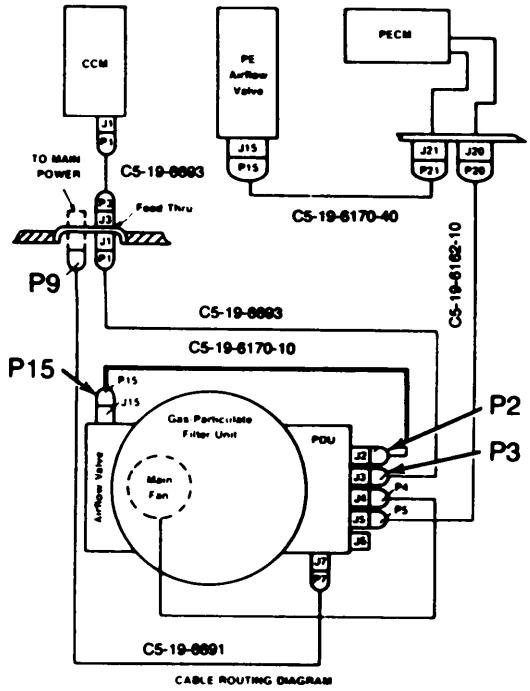


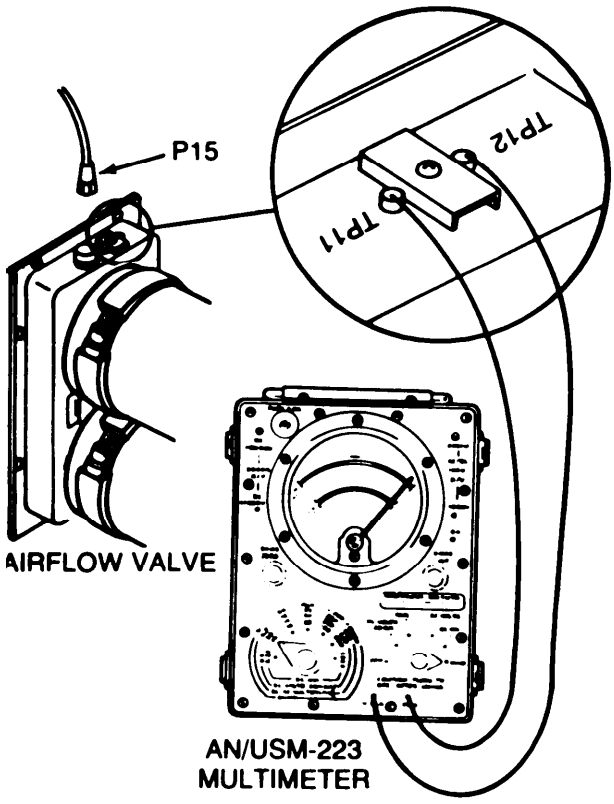




AIRFLOW VALVE AND SILENCER

LEGEND

CCM = Compartment Control Module
PE = Protective Entrance
Feed Thru = Elec/Pneu Feed Thru




Page 2-26

Loosen test point cover on filter unit airflow valve and rotate it 90°

Is there approximately 25 V dc on TP# 12(+) with respect to TP# 11(−)?

No → Replace test point cover. Turn off power.

Yes → Replace airflow valve (p. 2-82). Repeat functional test (p. 2-4).

Disconnect P15 at filter unit airflow valve and P2 at PDU

Check continuity

| From | To |
|---|---|
| P15A | P2A |
| P15B | P2B |

Is there continuity?

No → Replace cable C5-19-6170-10(p.2-100). Repeat functional test (p. 2-4).

Yes → Disconnect P3 at PDU

Check continuity

| From | To |
|---|---|
| J2A | J3P |
| J2B | J3N |

Is there continuity?

No → Replace PDU (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

Yes → Reconnect cable C5-19-6170-10

Proceed to page 2-28

LEGEND

PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON (CONT)

Page 2-27

Disconnect P1 at feed thru

Check continuity

| From | To |
|---|---|
| P3P | P1P |
| P3N | P1N |

Is there continuity?

No → Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes → Reconnect cable C5-19-6693

Disconnect P3 at feed thru and P1 at the CCM

Check continuity

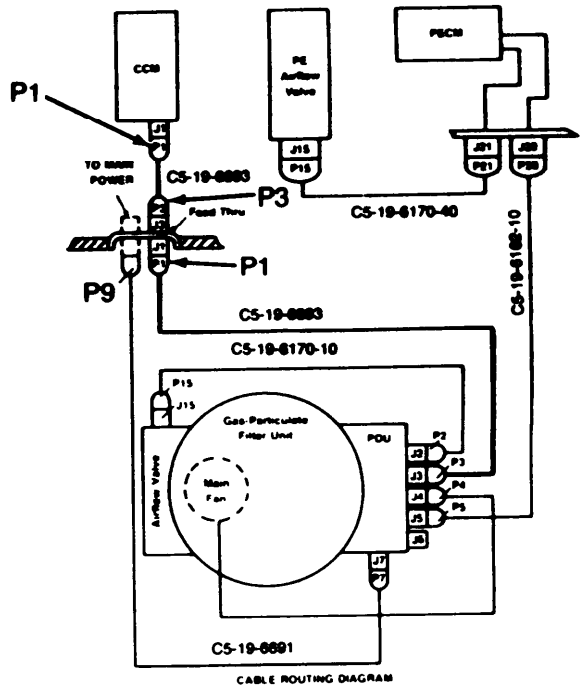
| From | To |
|---|---|
| P3P | P1P |
| P3N | P1N |

Is there continuity?

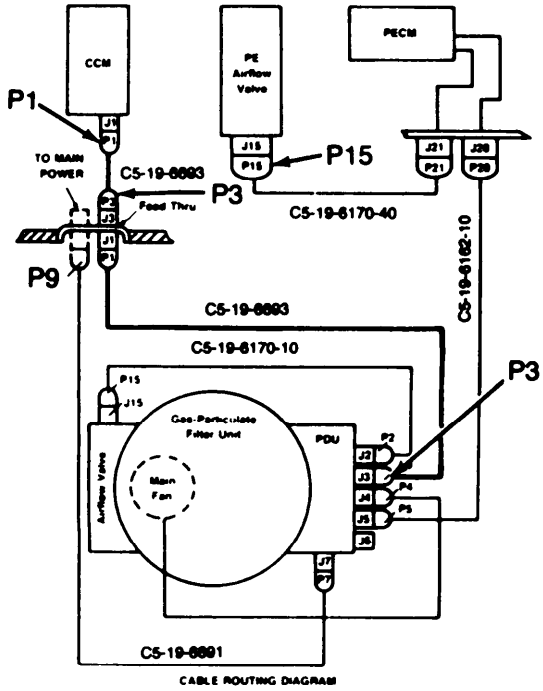
No → Replace cable C5-19-6693 (p. 2-102). Repeat functional test (p. 2-4).

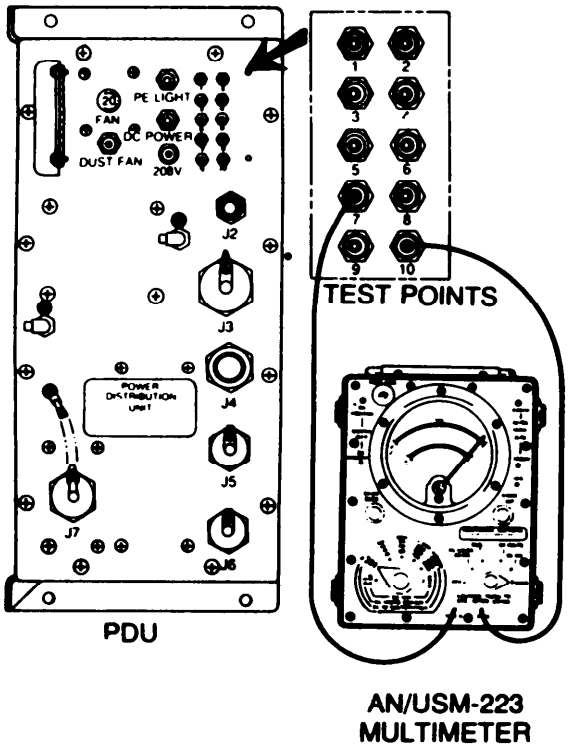
Yes → Reconnect cable C5-19-6693

Replace CCM (refer * to TM 11-7440-294-14). Repeat functional test (p. 2-4).



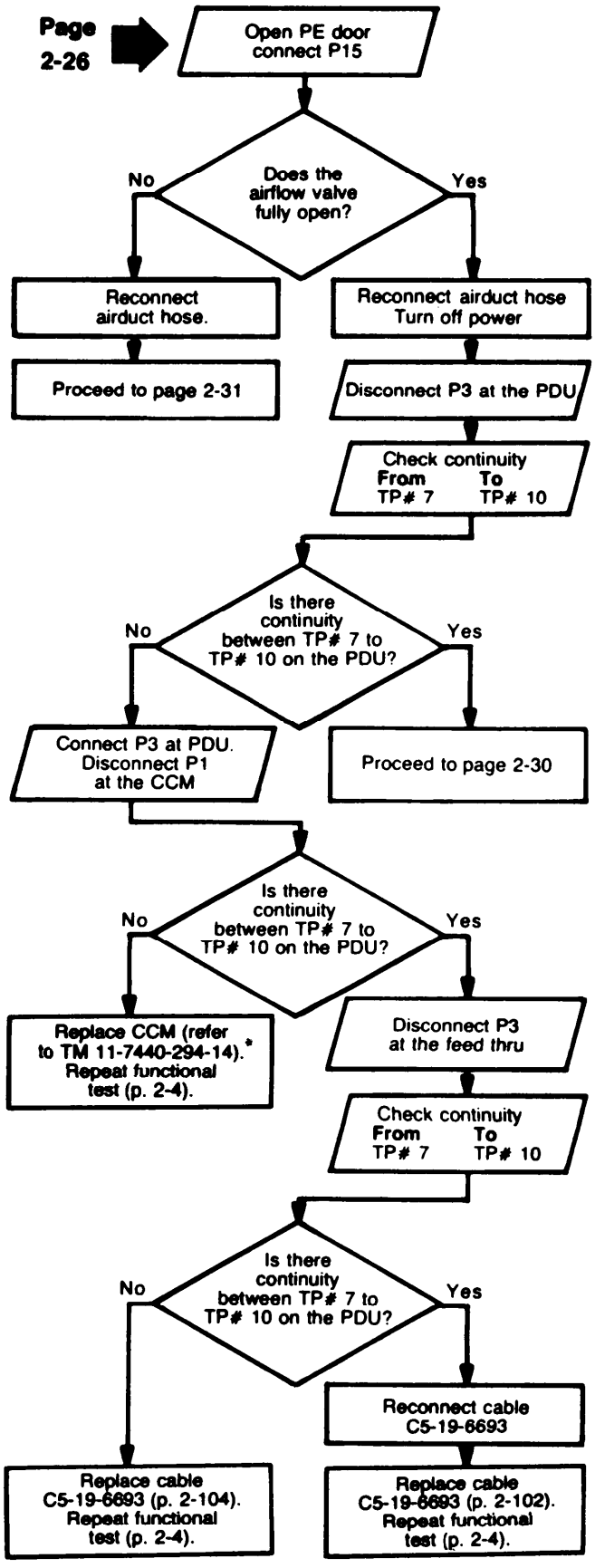

LEGEND
CCM = Compartment Control Module
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published



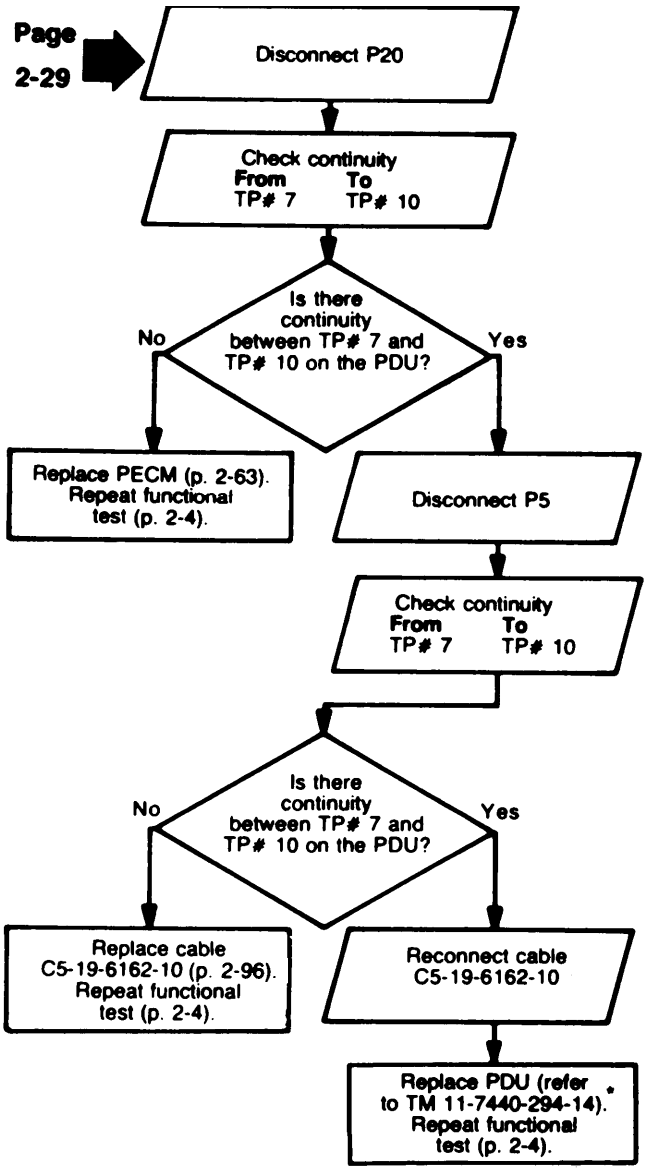



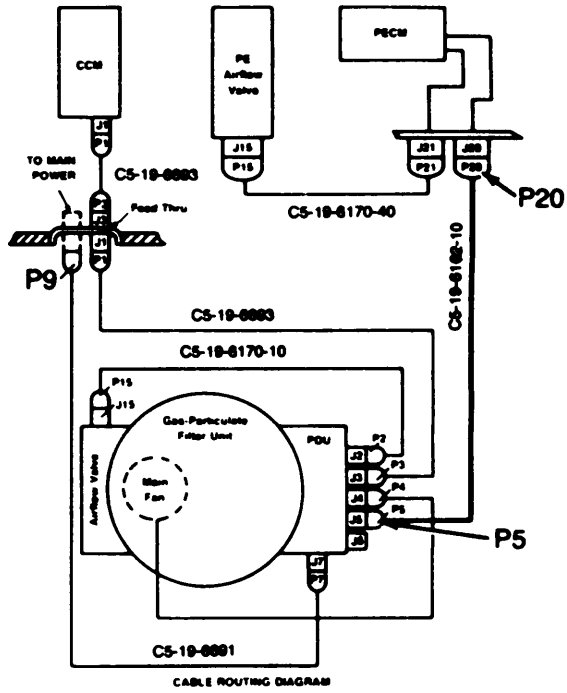

LEGEND

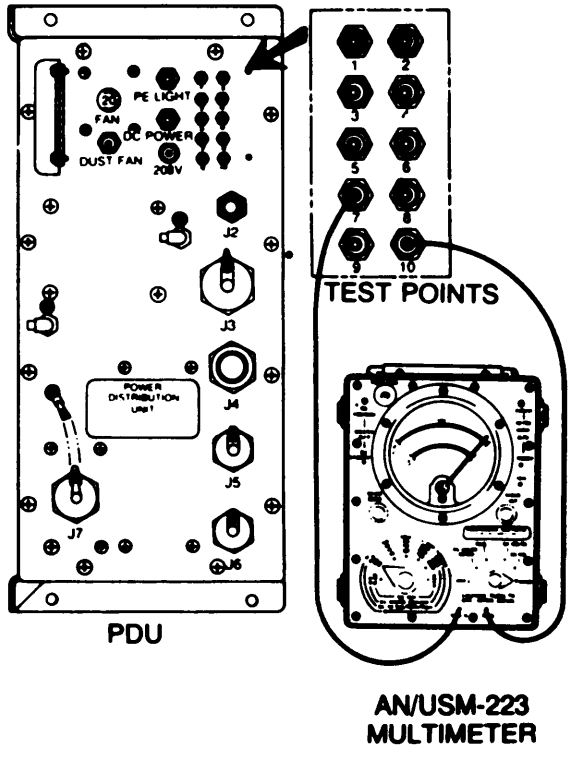
CCM = Compartment Control Module
PDU = Power Distribution Unit
PE = Protective Entrance
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published



## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON (CONT)

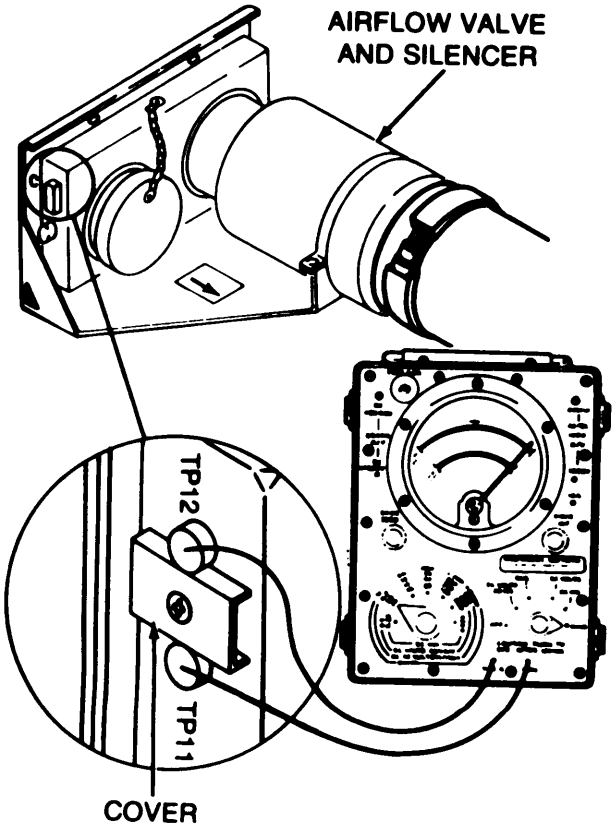


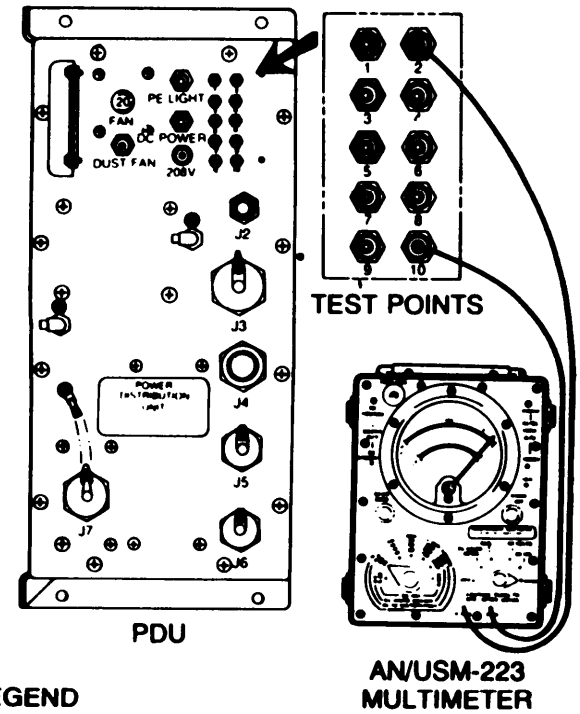




LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




**LEGEND**

**PDU** = Power Distribution Unit
**PE** = Protective Entrance
**PECM** = Protective Entrance Control Module
**TP** = Test Point
**Feed Thru** = Elec/Pneu Feed Thru

**Page 2-29**

Loosen test point cover on PE airflow valve and silencer and rotate it 90°

Is there approximately 25 V dc at TP# 12(+) with respect to TP# 11(−) on PE airflow valve?

No → Replace test point cover

Yes → Replace PE airflow valve (p. 2-89). Repeat functional test (p. 2-4).

Is there approximately 28 V dc between TP# 2(+) and TP# 10(−) on the PDU?

No → Proceed to page 2-32

Yes → Turn off power

Disconnect P20 and P5

Check continuity

| From | To |
|---|---|
| P5C | P20C |

Is there continuity?

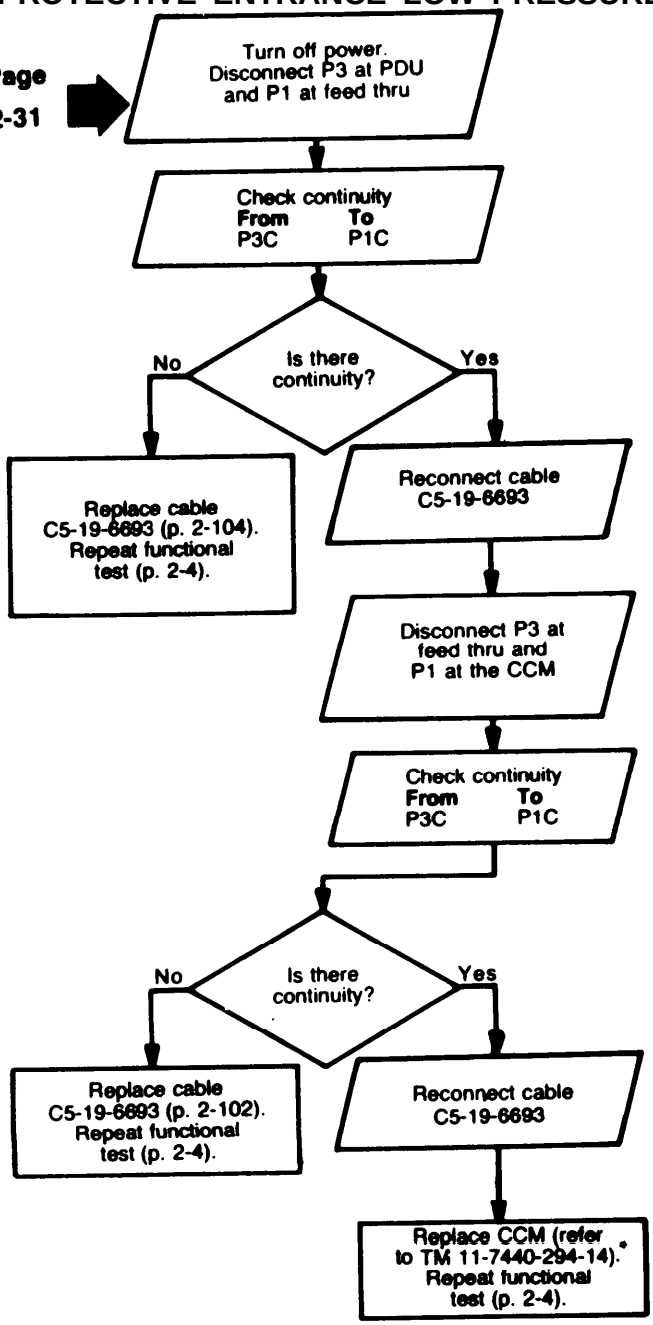
No → Replace cable C5-19-6162-10 (p. 2-96). Repeat functional test (p. 2-4).

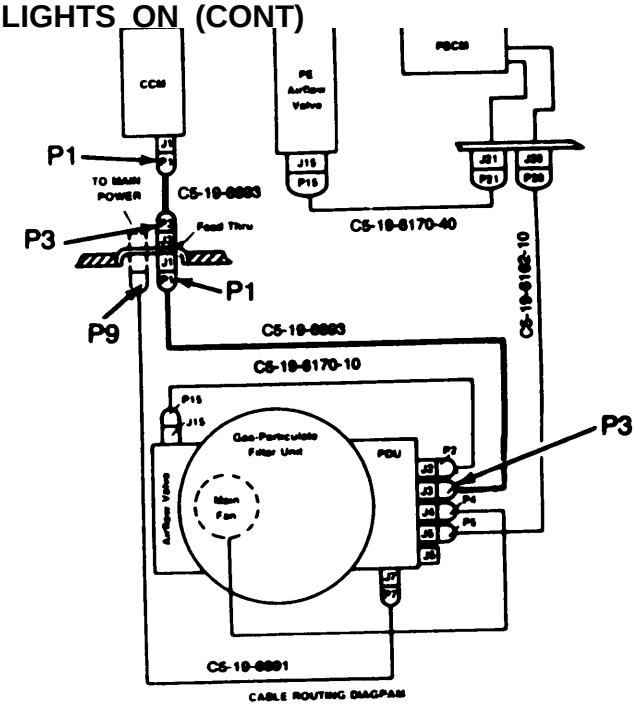
Yes → Reconnect cable C5-19-6162-10

Replace PECM (p. 2-63). Repeat functional test (p. 2-4).

## 2. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS ON (CONT)

Page 2-31

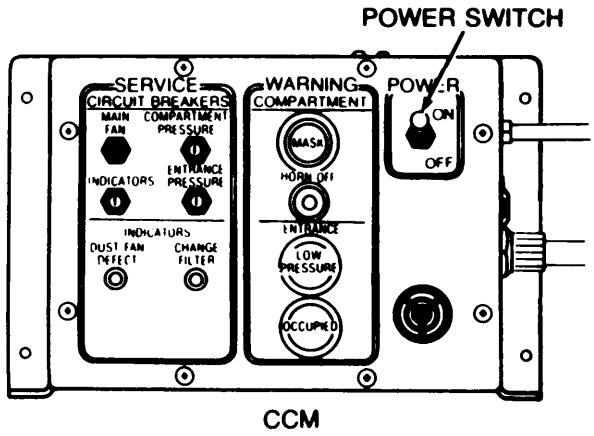


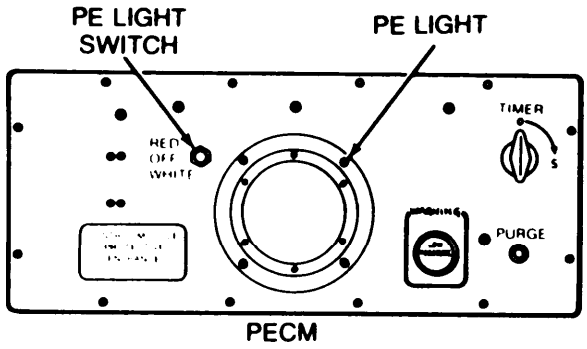



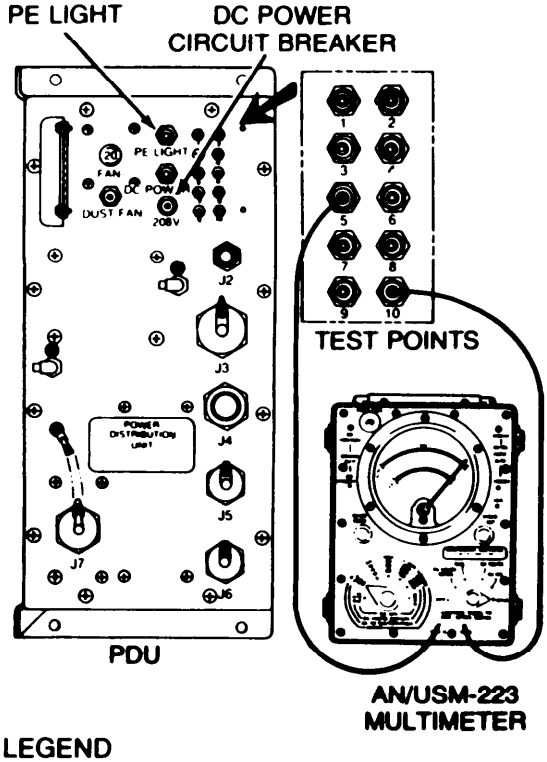

LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

3. NO POWER INDICATTION (ALL INDICATOR LIGHTS DO NOT ILLUMINATE WHEN PRESSED TO TEST.)

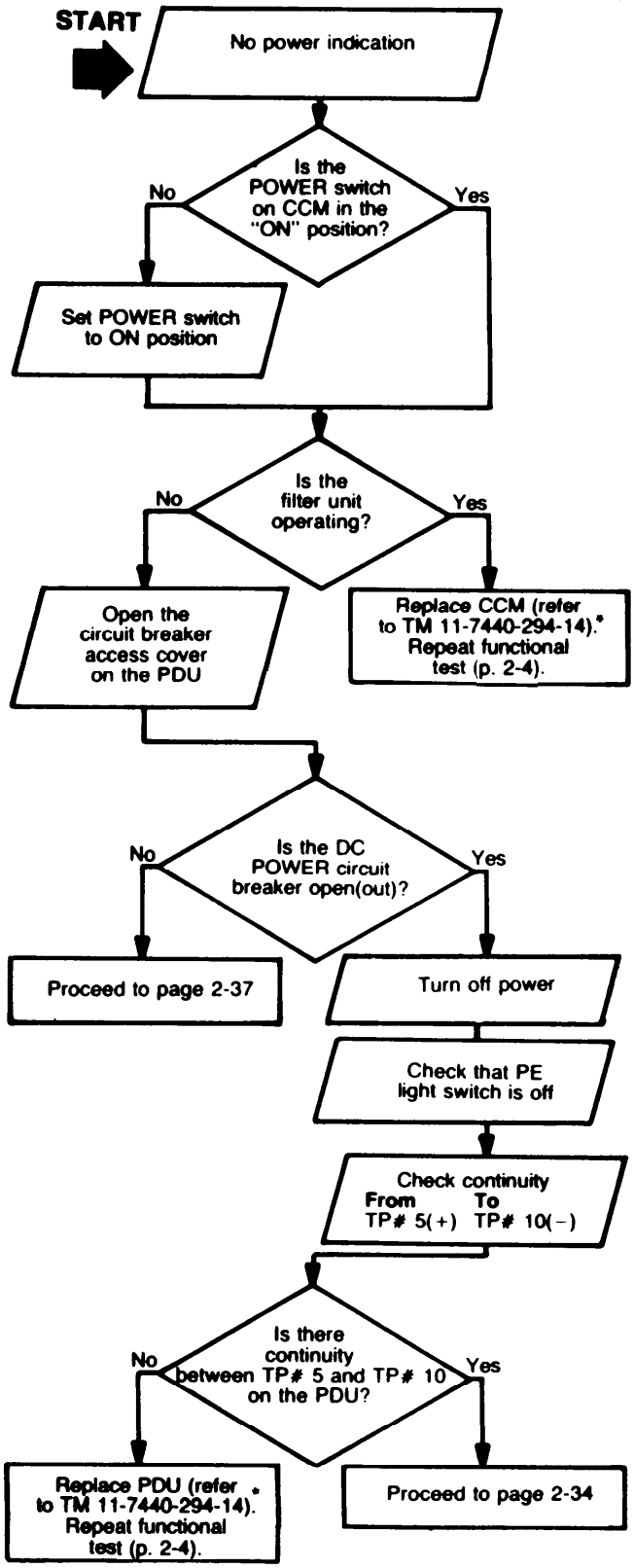



LEGEND

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PDU = Power Distribution Unit
PE = Protective Entrance




PECM = Protective Entrance Control Module
TP = Test Point
* = To Be Published

## 3. NO POWER INDICATION (ALL INDICATOR LIGHTS DO NOT ILLUMINATE WHEN PRESSED TO TEST) (CONT)

Page 2-33

Disconnect P1 at the CCM

Check continuity
From To
TP# 5(+) TP# 10(−)

Is there continuity between TP# 5 and TP# 10 on the PDU?

No → Replace CCM (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

Yes → Reconnect P1 at CCM

Disconnect P1 at the feed thru

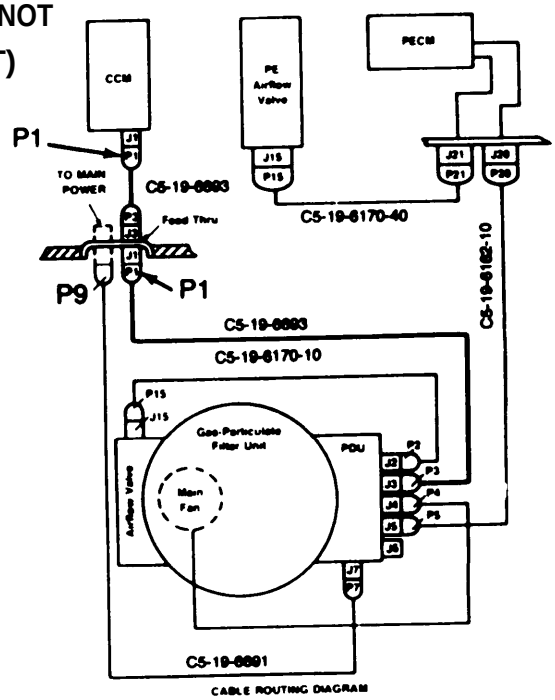
Check continuity
From To
PDU TP# 5(+) TP# 10(−)

Is there continuity between TP# 5 and TP# 10 on the PDU?

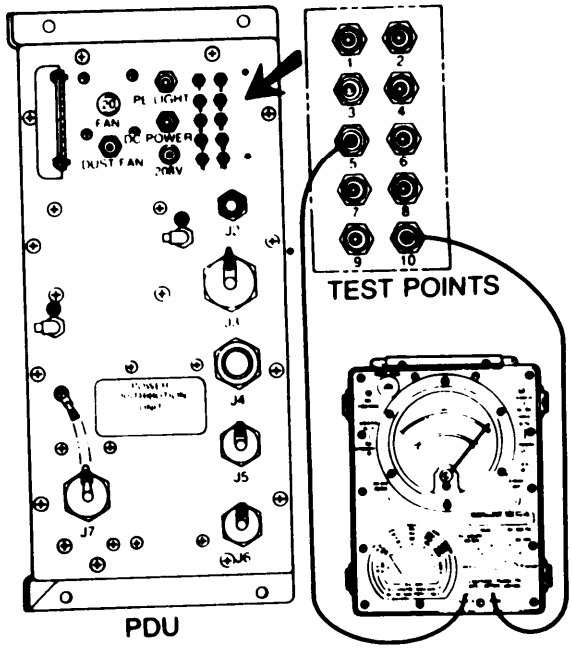
No → Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes → Reconnect P1 at feed thru

Proceed to page 2-35



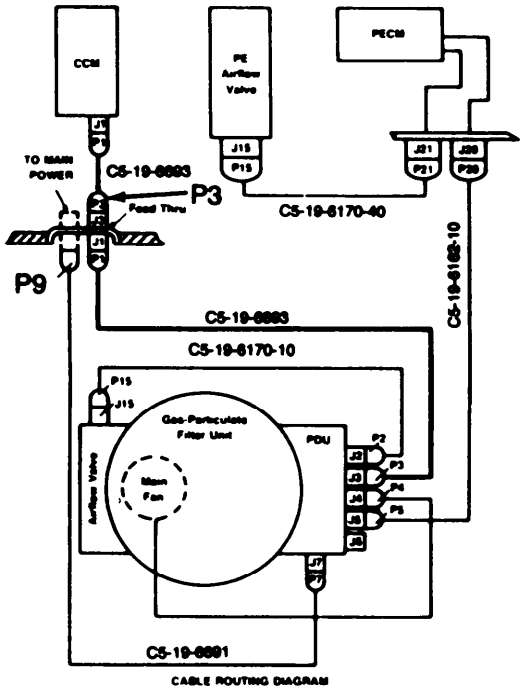
CABLE ROUTING DIAGRAM

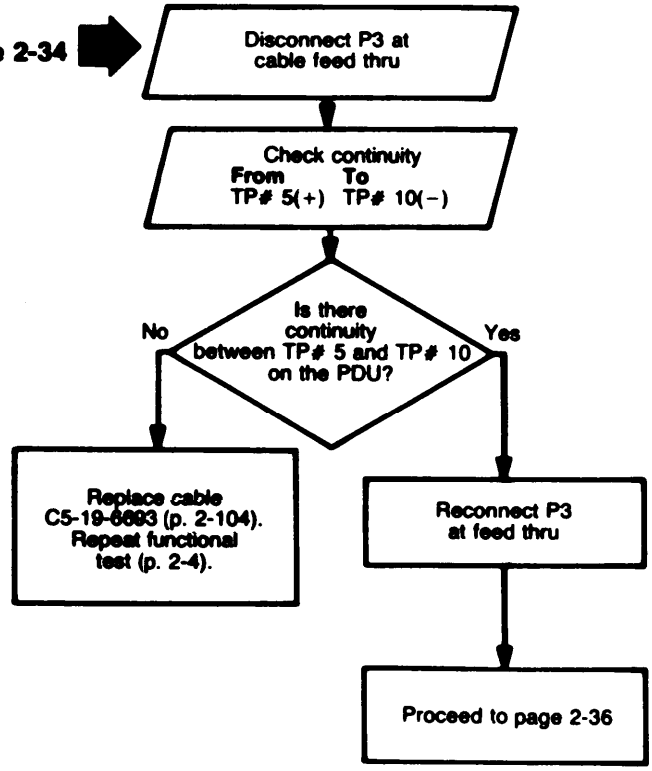


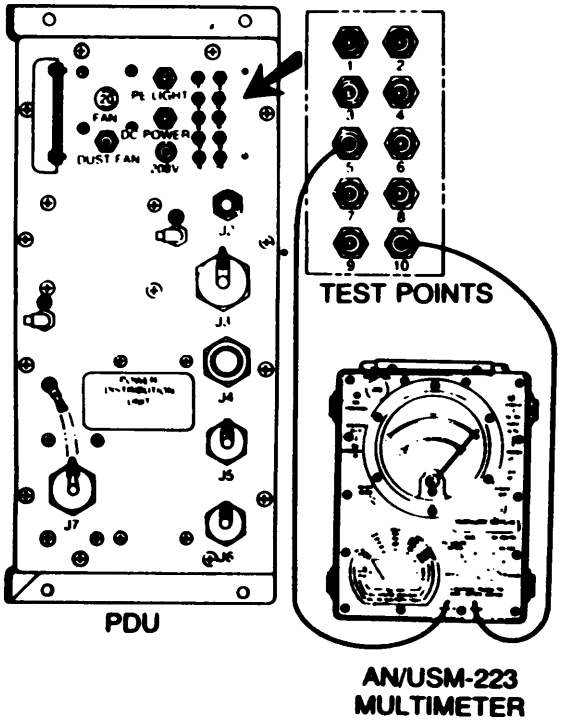
AN/USM-223 MULTIMETER

LEGEND

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published



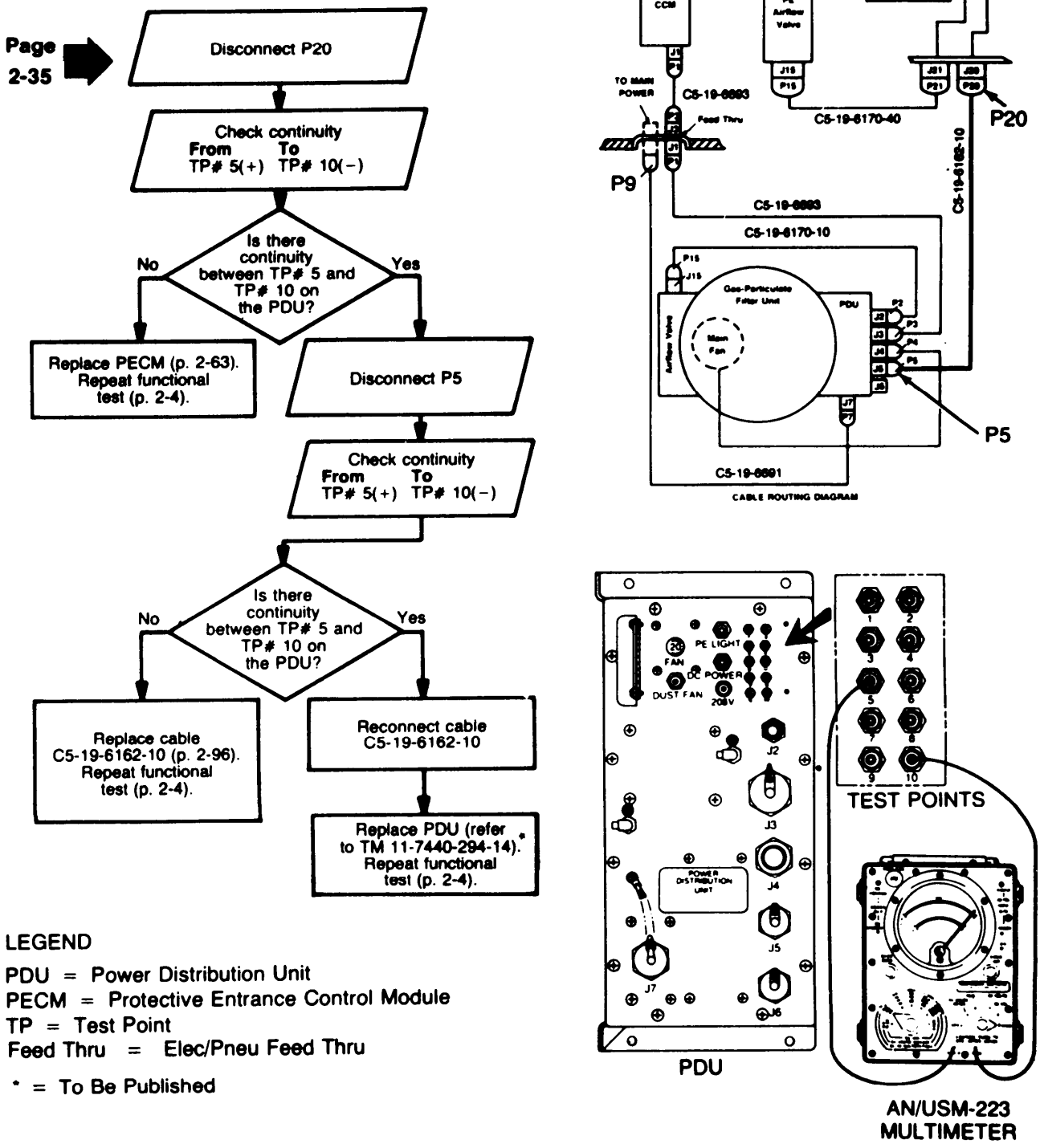




LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
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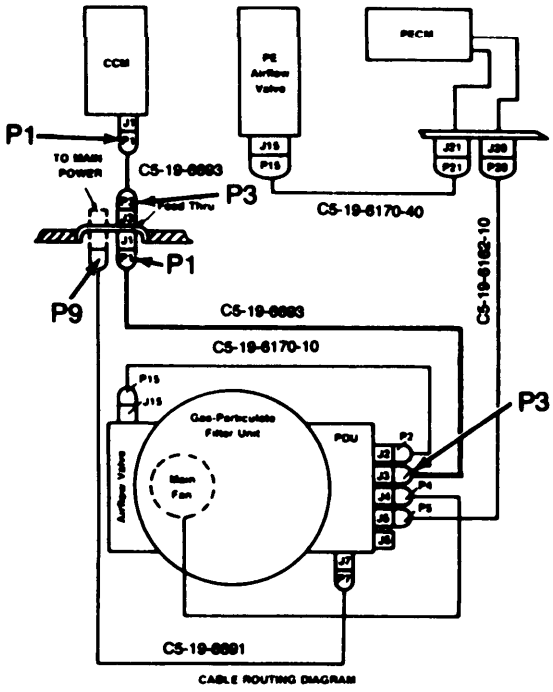
## 3. NO POWER INDICATION (ALL INDICATOR LIGHTS DO NOT ILLUMINATE WHEN PRESSED TO TEST) (CONT).

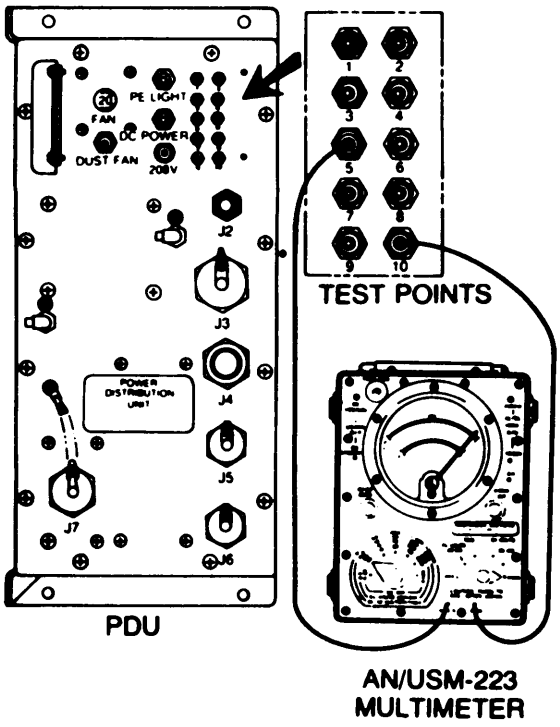



LEGEND

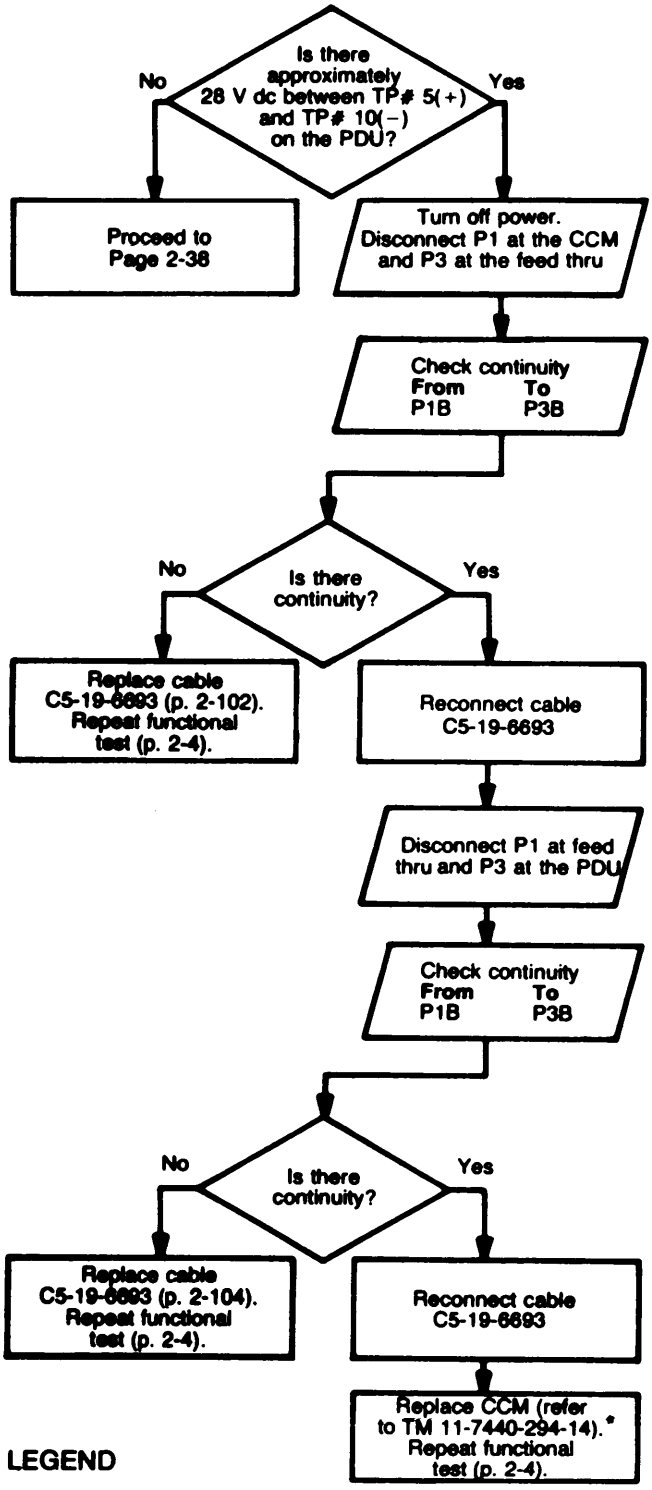
PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
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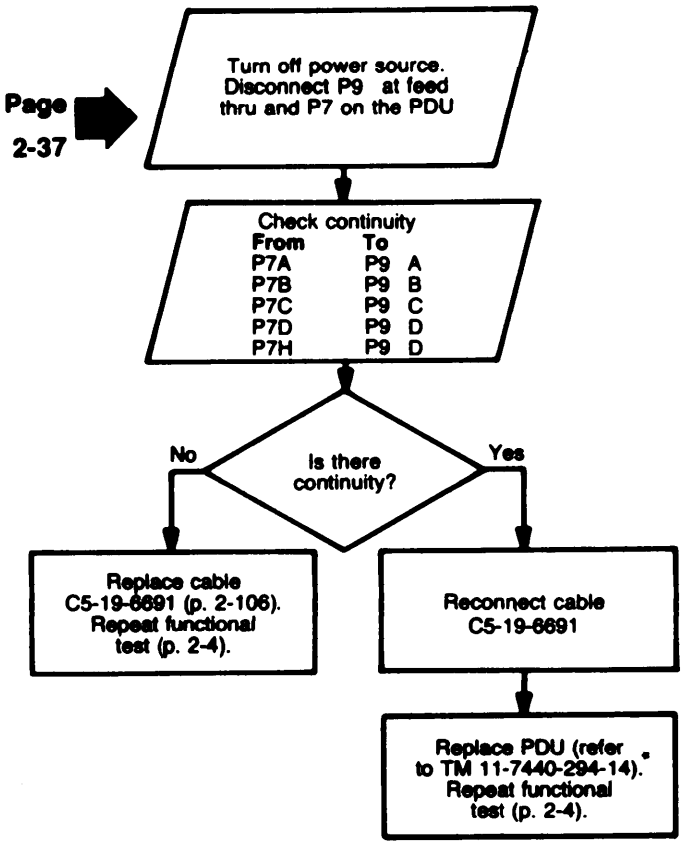

Page 2-33

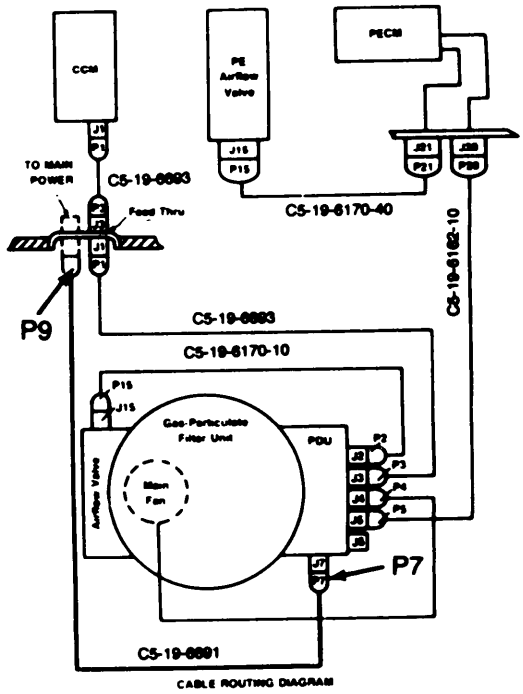



**LEGEND**

CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## 3. NO POWER INDICATION (ALL INDICATOR LIGHTS DO NOT ILLUMINATE WHEN PRESSED TO TEST) (CONT).

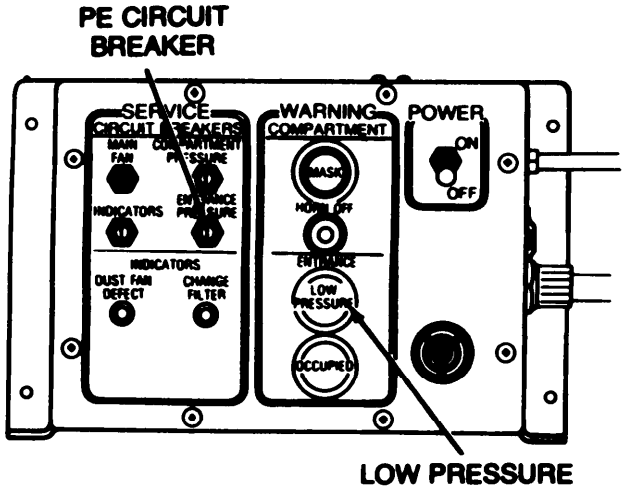


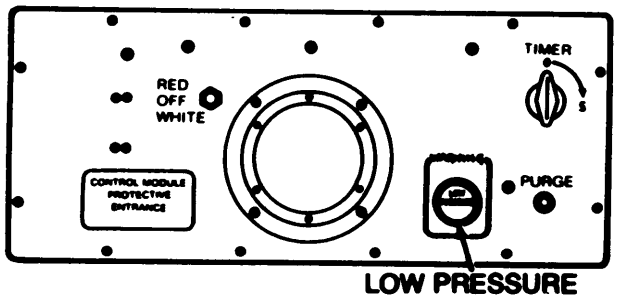

LEGEND

PDU = Power Distribution Unit
Feed Thru = Elec/Pneu Feed Thru
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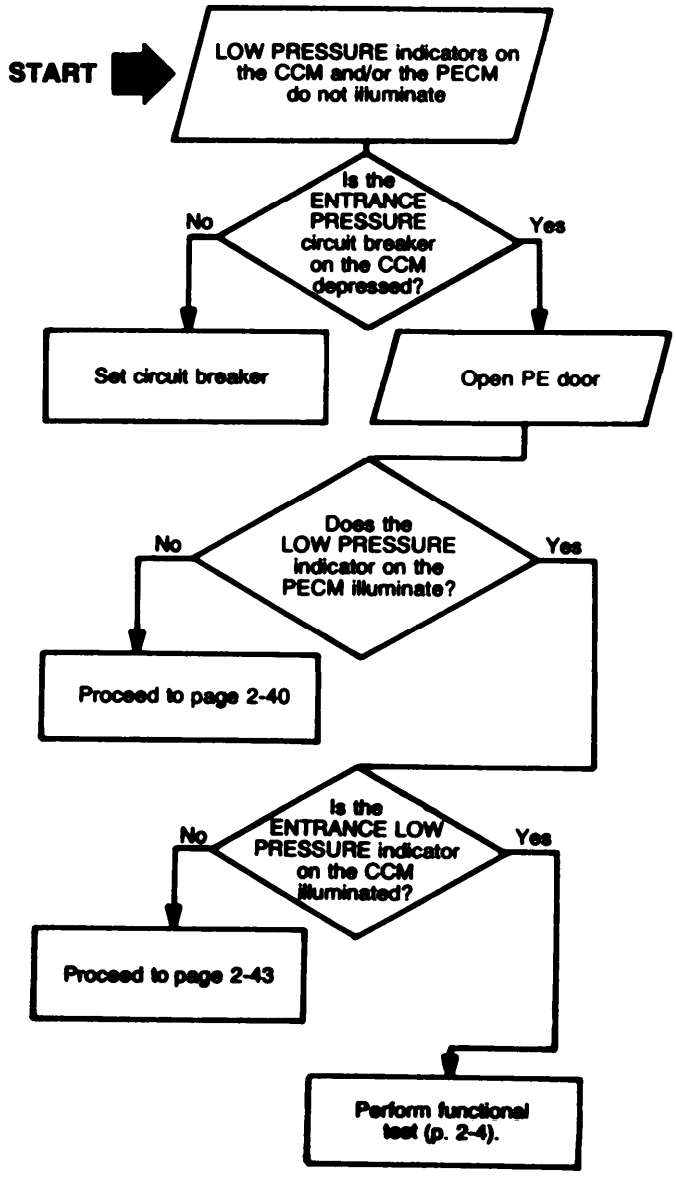
4. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS WILL NOT COME ON.




CCM




PECM

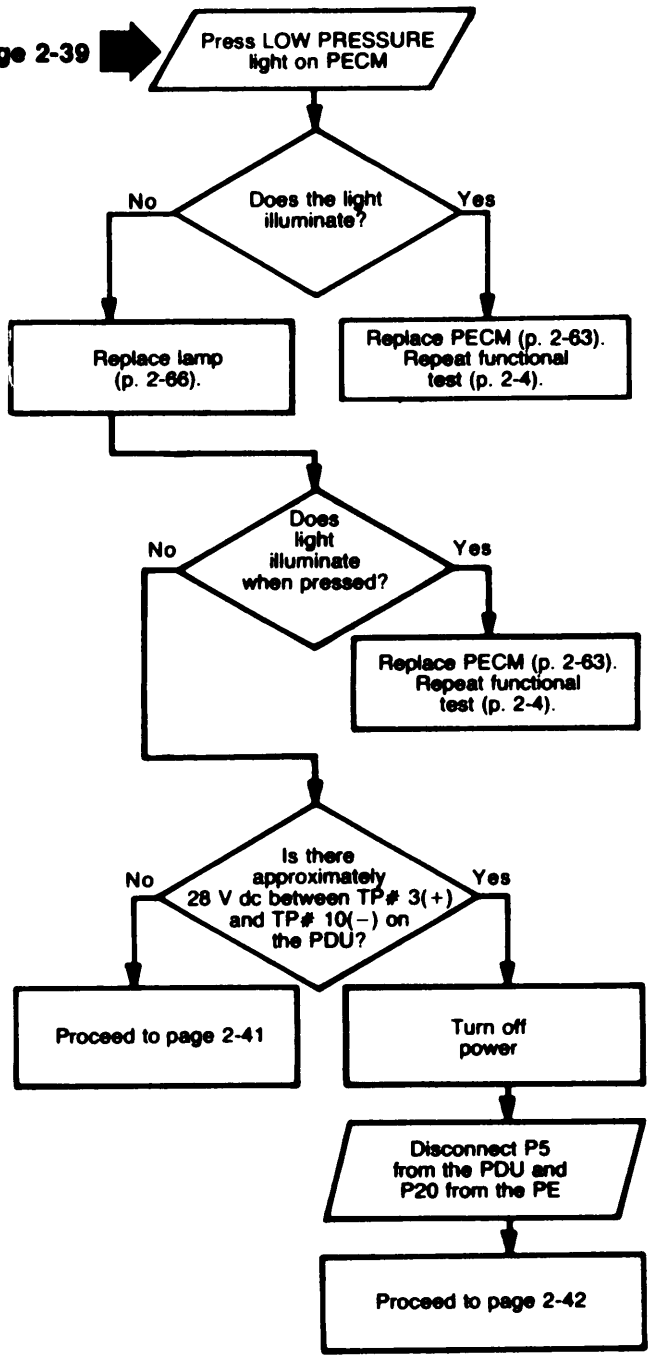


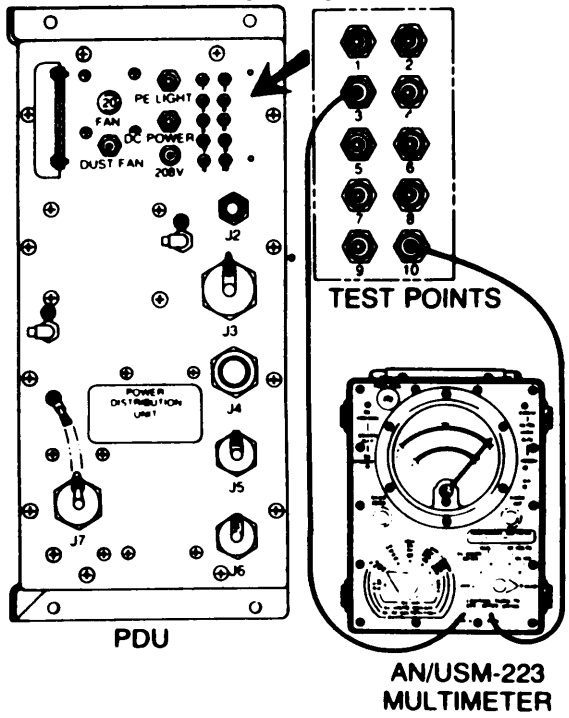

**LEGEND**

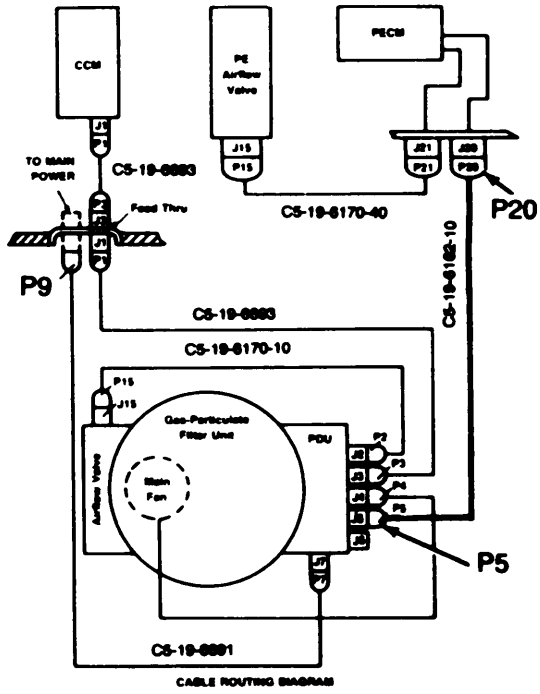
CCM = Compartment Control Module
PE = Protective Entrance
PECM = Protective Entrance Control Module

4. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS WILL NOT COME ON (CONT).

Page 2-39

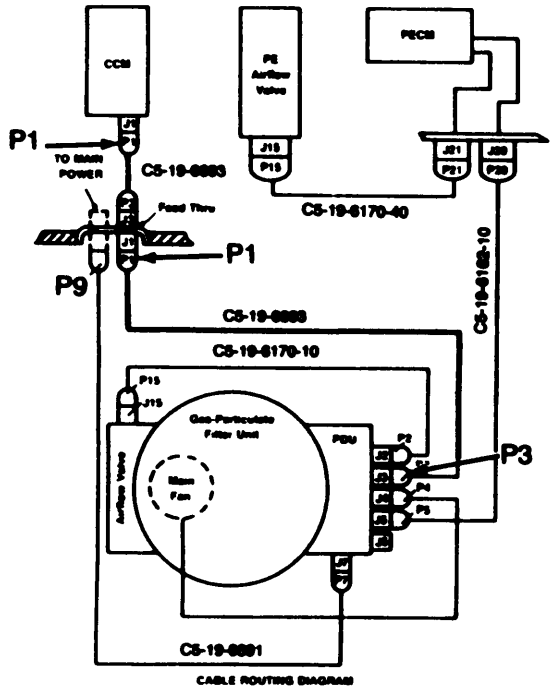


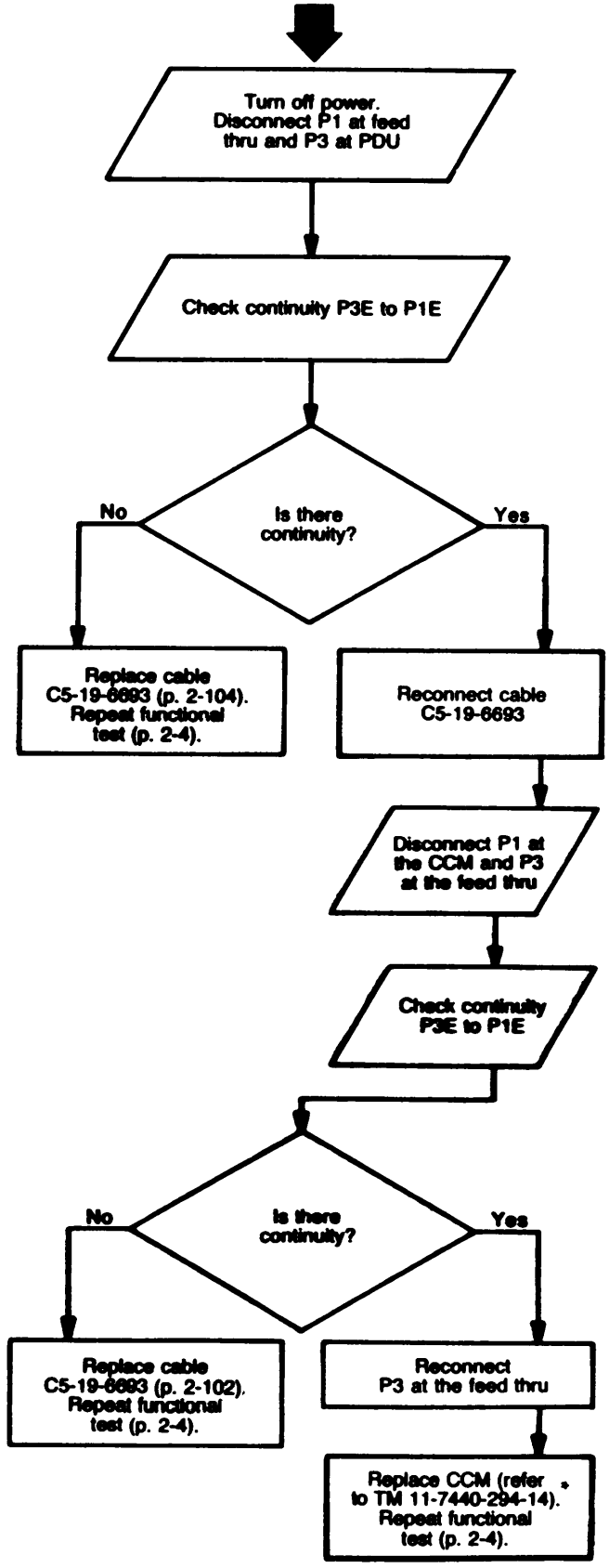




LEGEND

PDU = Power Distribution Unit
PE = Protective Entrance
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru

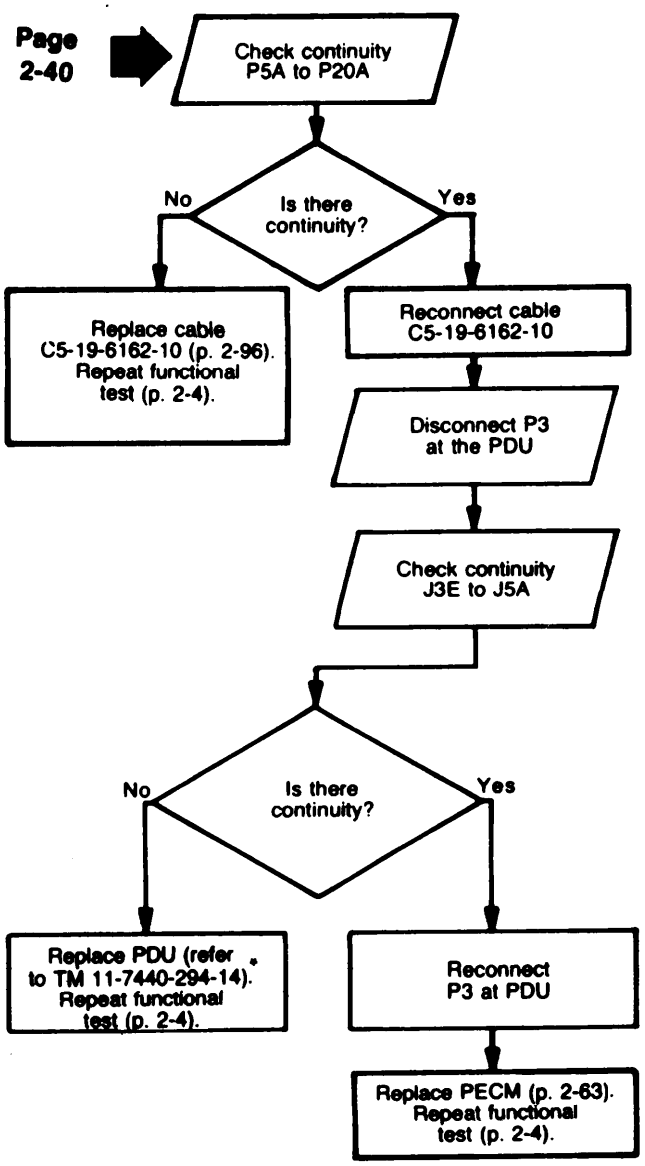


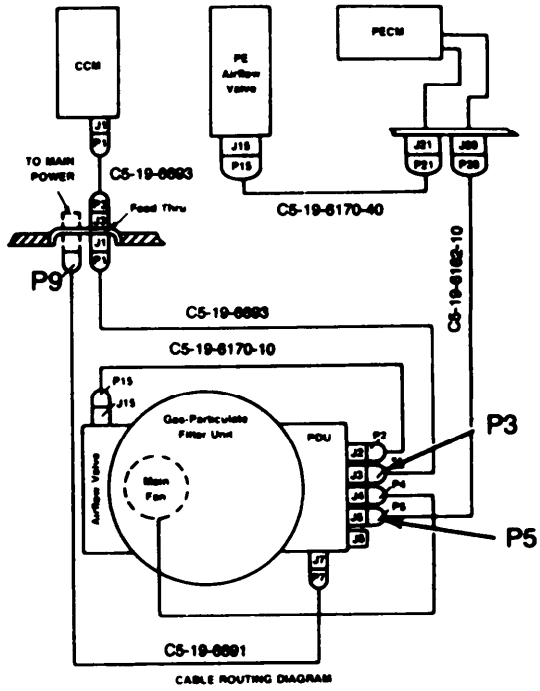




**LEGEND**

**CCM** = Compartment Control Module
**PDU** = Power Distribution Unit
**Feed Thru** = Elec/Pneu Feed Thru
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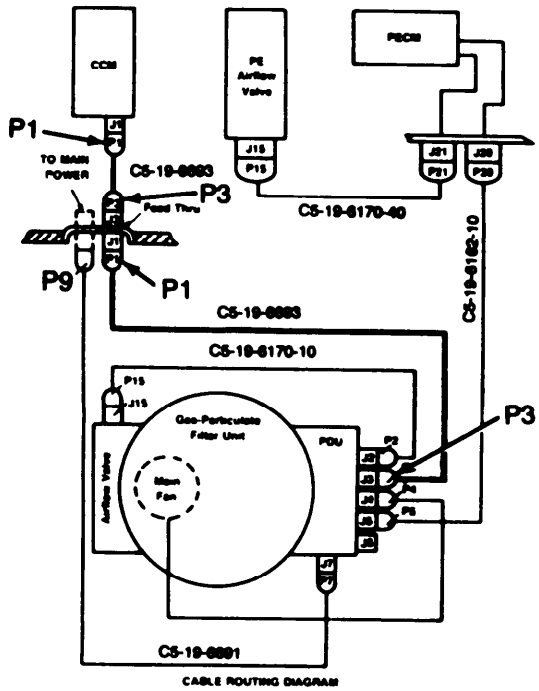
4. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS WILL NOT COME ON (CONT).

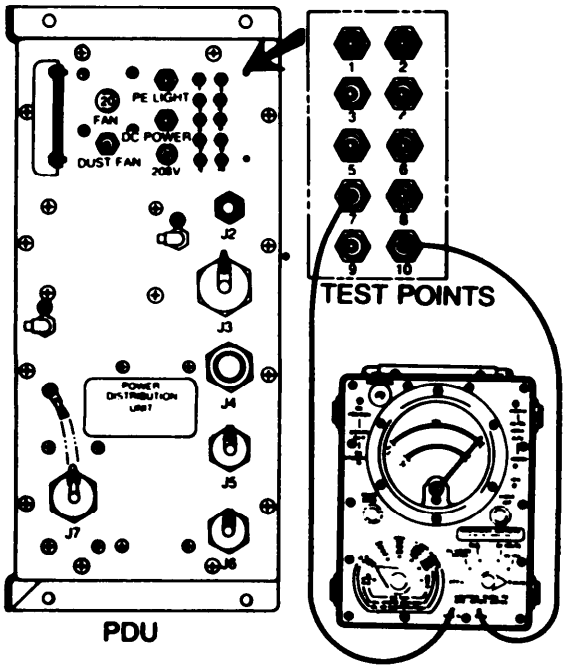



LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
Feed Thru = Elec/Pneu Feed Thru
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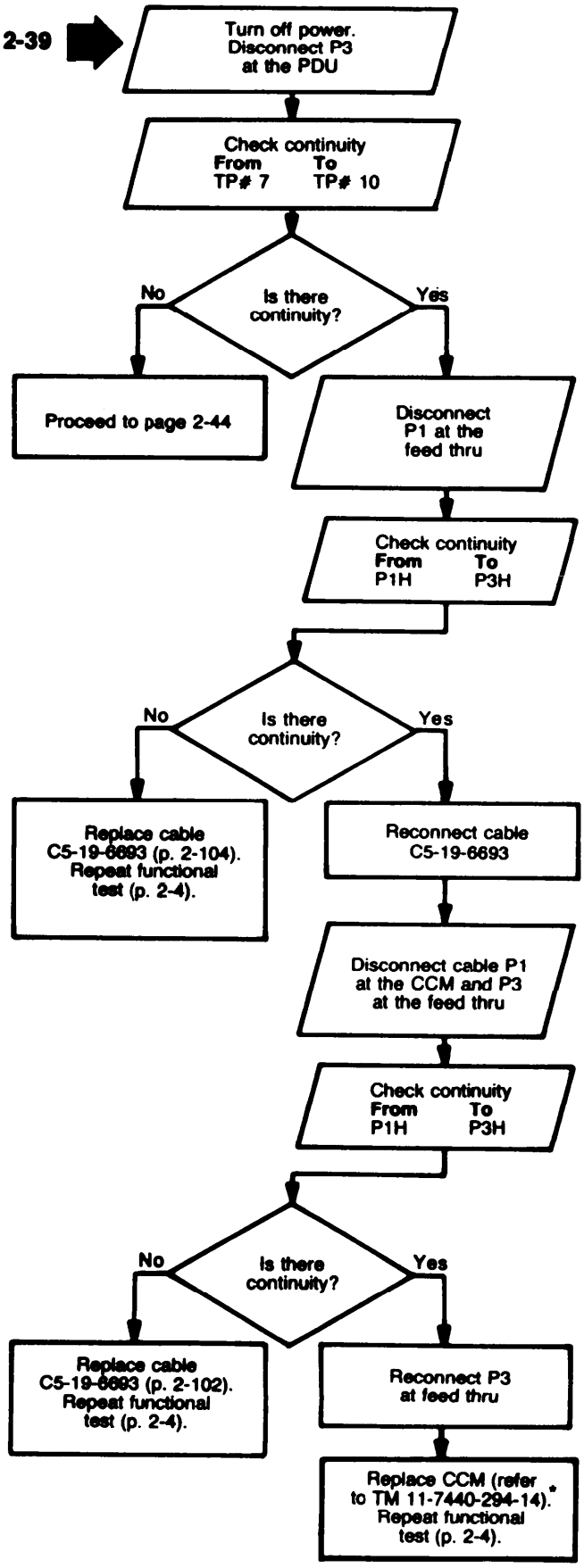




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**LEGEND**

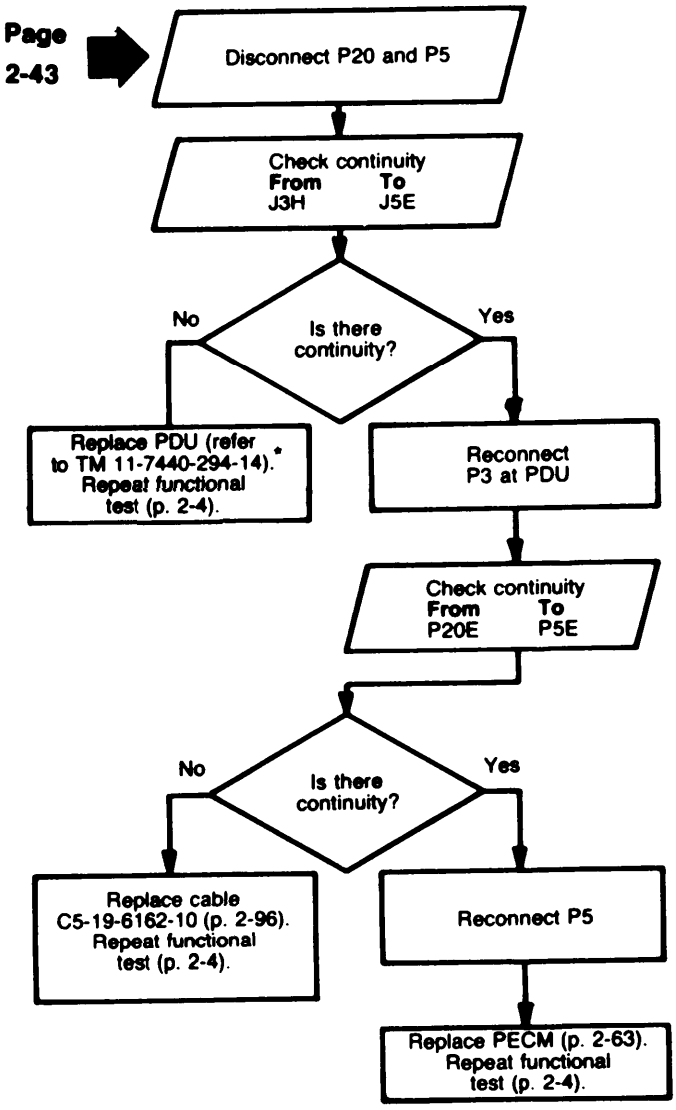
CCM = Compartment Control Module
PDU = Power Distribution Unit
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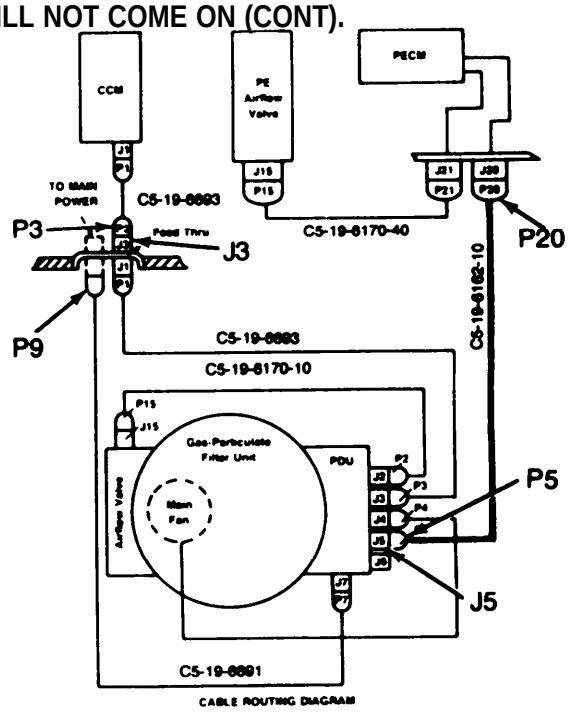
Page 2-39



4. PROTECTIVE ENTRANCE LOW PRESSURE LIGHTS WILL NOT COME ON (CONT).

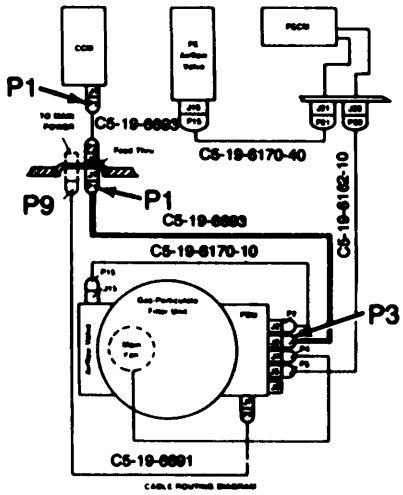
Page 2-43

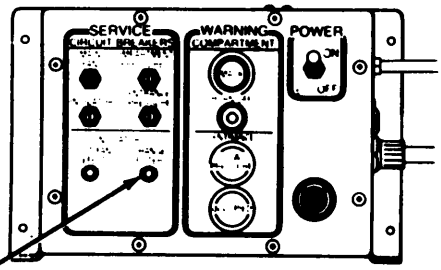


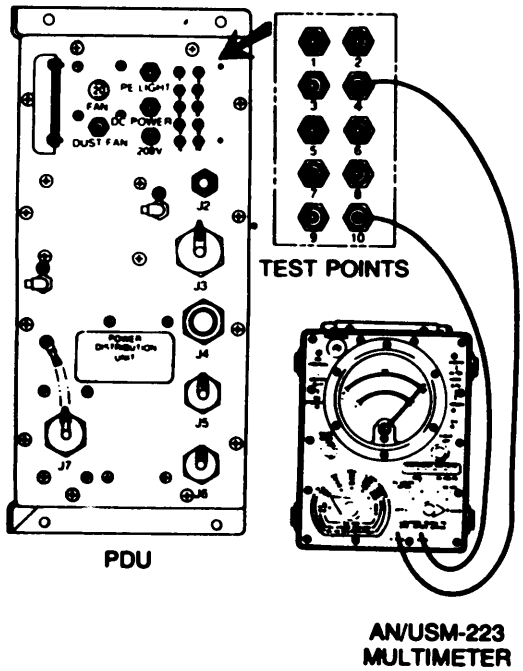




LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
Feed Thru = Elec/Pneu Feed Thru
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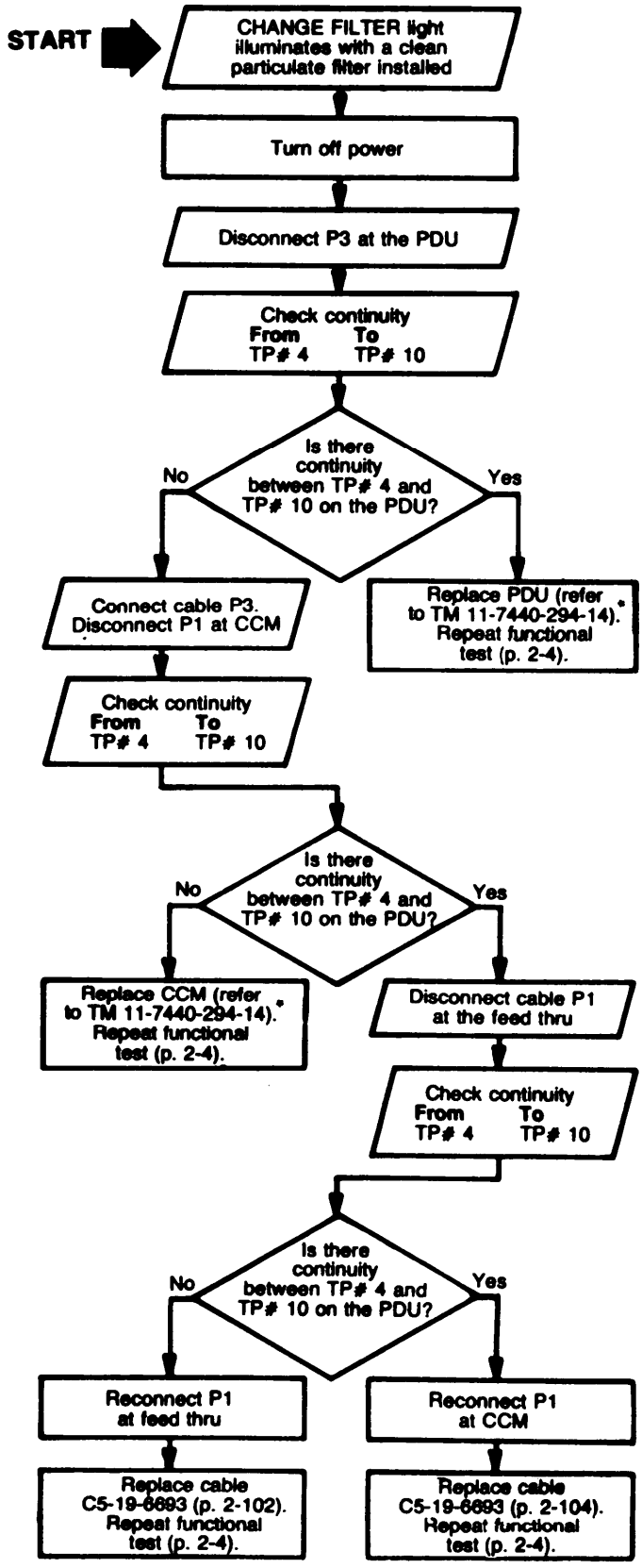



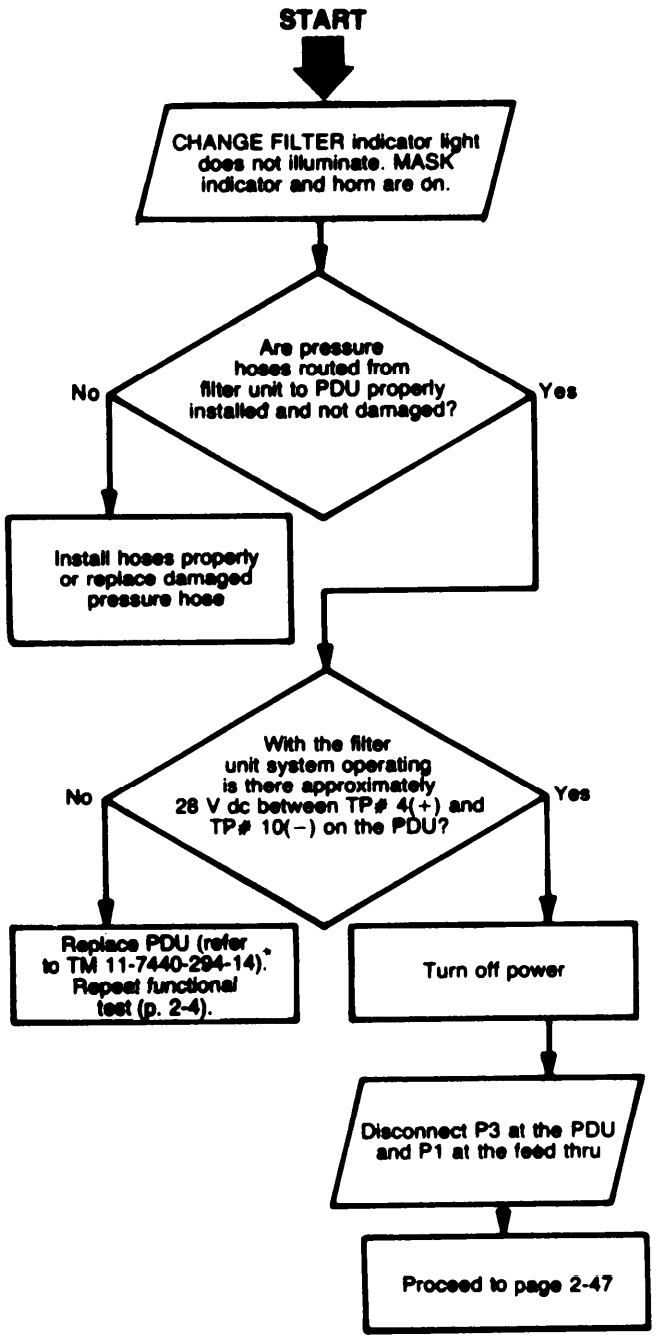

**LEGEND**

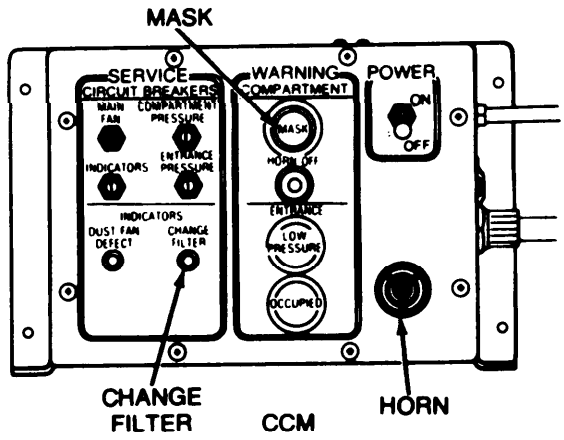
CCM = Compartment Control Module
PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
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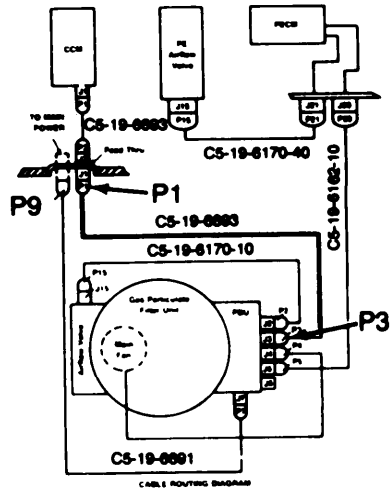
## 5. CHANGE FILTER LIGHTS WITH CLEAN FILTER.

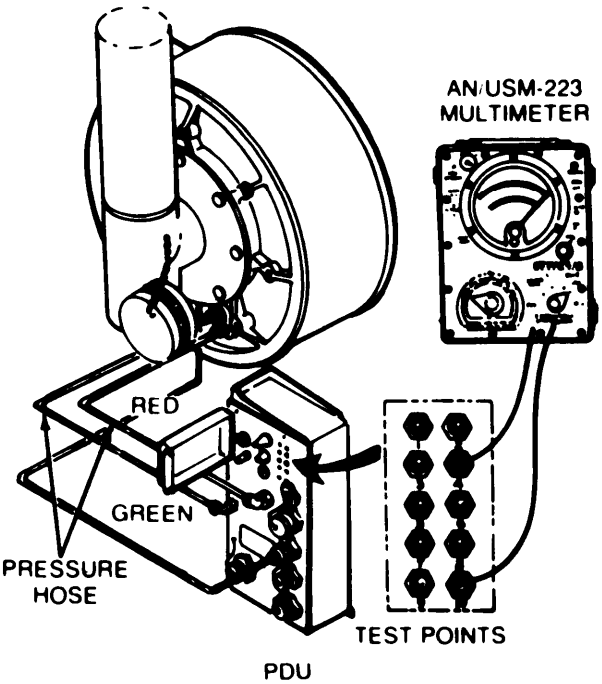


## 6. CHANGE FILTER LIGHT DOES NOT LIGHT.



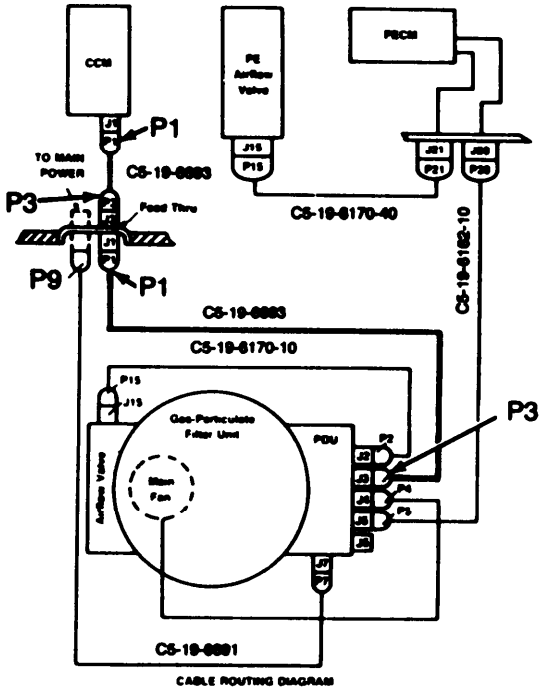




**LEGEND**

**PDU = Power Distribution Unit**
**TP = Test Point**
**Feed Thru = Elec/Pneu Feed Thru**
*** = To Be Published**




Page 2-46

Check continuity
From P1F To P3F

Is there continuity?

No

Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes

Reconnect cable C5-19-6693

Disconnect P3 at the feed thru and P1 at the CCM

Check continuity
From P1F To P3F

Is there continuity?

No

Replace cable C5-19-6693 (p. 2-102). Repeat functional test (p. 2-4).

Yes

Reconnect cable C5-19-6693

Replace CCM (refer to TM 11-7440-294-14).* Repeat functional test (p. 2-4).

**LEGEND**

CCM = Compartment Control Module
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## 7. OCCUPIED AND PURGE LIGHTS DO NOT OPERATE PROPERLY.

START

OCCUPIED and/or PURGE lights do not operate properly

Is the purge TIMER activated?
- No → Turn purge TIMER on
- Yes

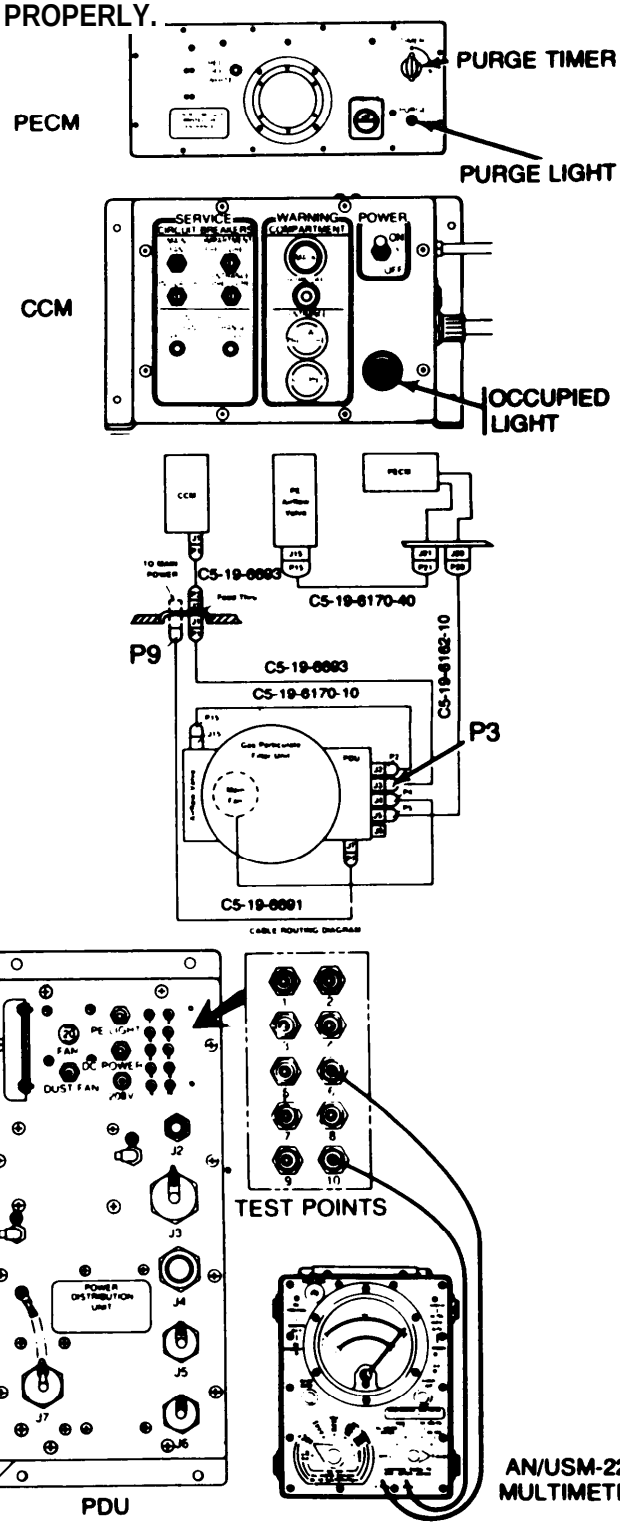
Is the OCCUPIED light illuminated?
- No → Turn off power.
- Yes

Is the PURGE light illuminated?
- No → Replace PECM (p. 2-63). Repeat functional test (p. 2-4).
- Yes → Perform functional test (p. 2-4).

Disconnect P3 at the PDU

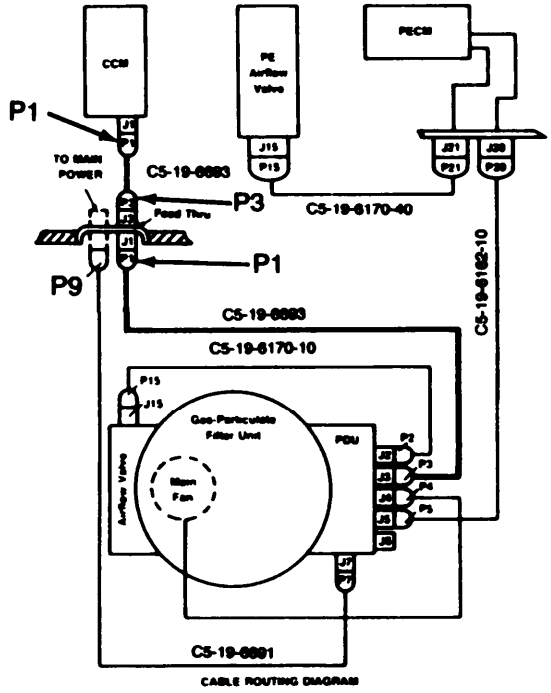
Check continuity
From TP# 6 To TP# 10

Is there continuity?
- No → Proceed to page 2-50
- Yes → Proceed to page 2-49




LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
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Feed Thru = Elec/Pneu Feed Thru




Page 2-48

Disconnect P1 at the feed thru

Check continuity
From To
P1G P3G

Is There Continuity?

No

Replace cable C5-19-6693 (p. 2-104). Repeat functional test (p. 2-4).

Yes

Reconnect cable C5-19-6693

Disconnect cable C5-19-6693 from feed thru to CCM

Check continuity
From To
P1G P3G

Is there continuity?

No

Replace cable C5-19-6693 (p. 2-102). Repeat functional test (p. 2-4).

Yes

Reconnect cable C5-19-6693

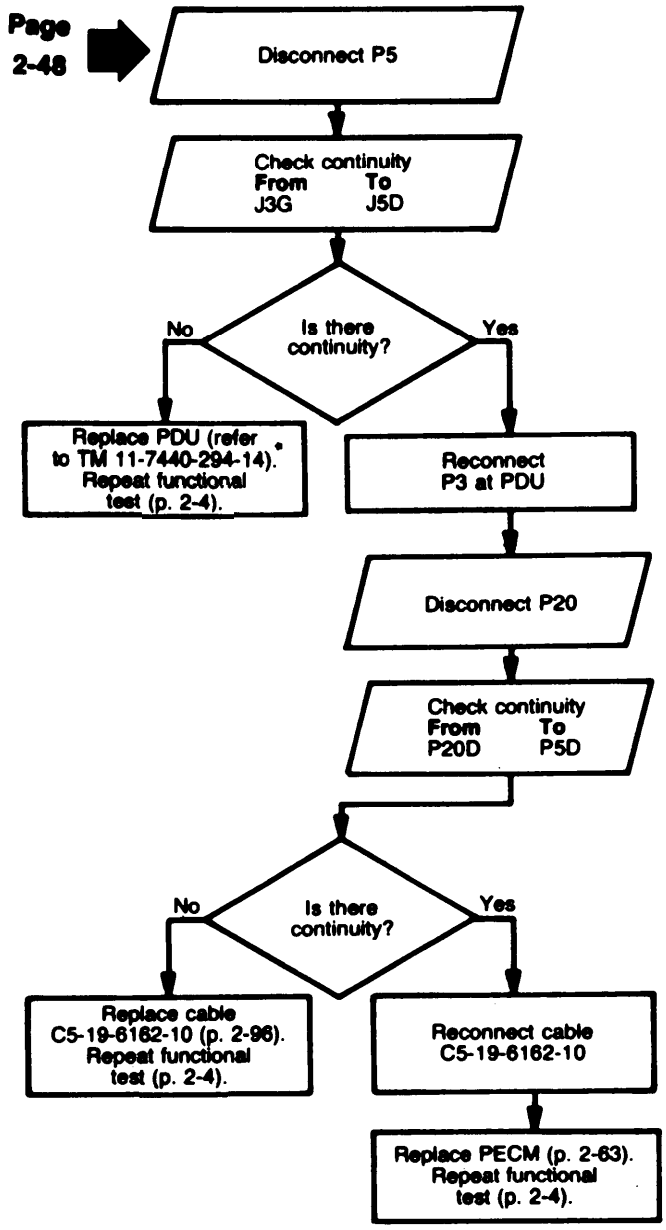
Replace CCM (refer * to TM 11-7440-294-14). Repeat functional test (p. 2-4).

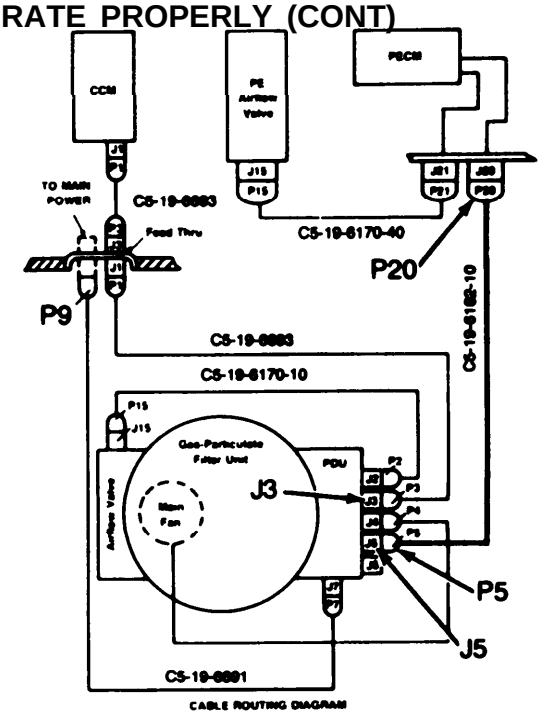
**LEGEND**

CCM = Compartment Control Module
Feed Thru = Elec/Pneu Feed Thru

* = To Be Published

## 7. OCCUPIED AND PURGE LIGHTS DO NOT OPERATE PROPERLY (CONT)

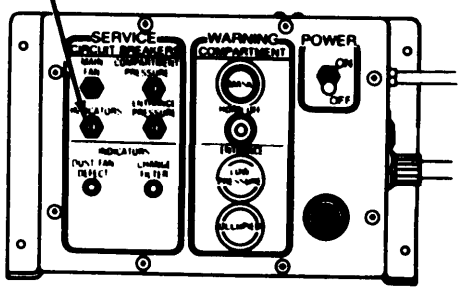


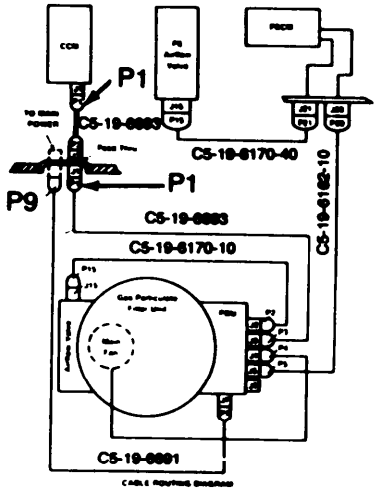

LEGEND

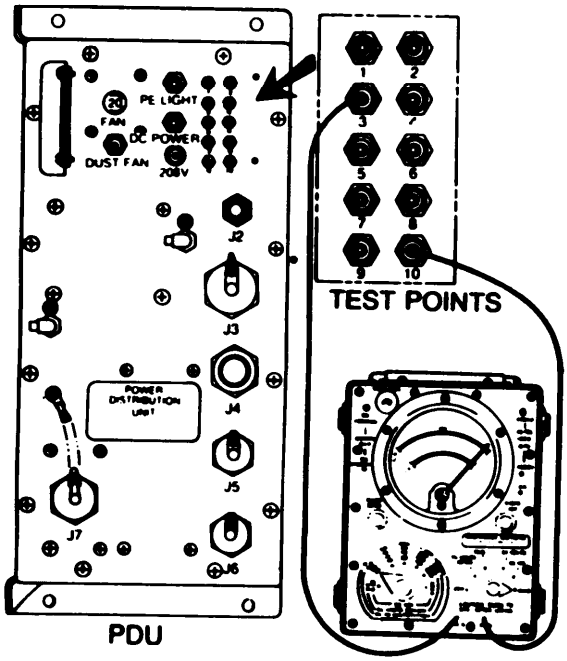
PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
Feed Thru = Elec/Pneu Feed Thru
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INDICATORS CIRCUIT BREAKER




CCM

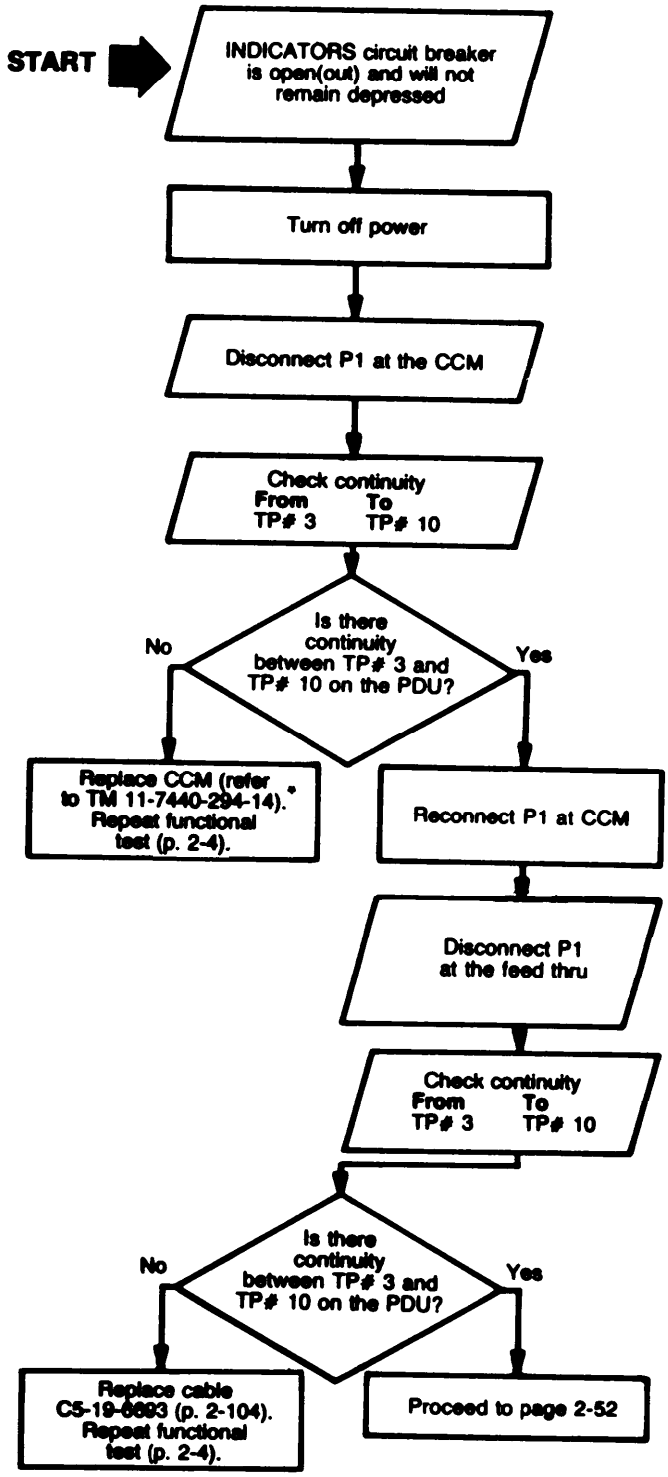



PDU

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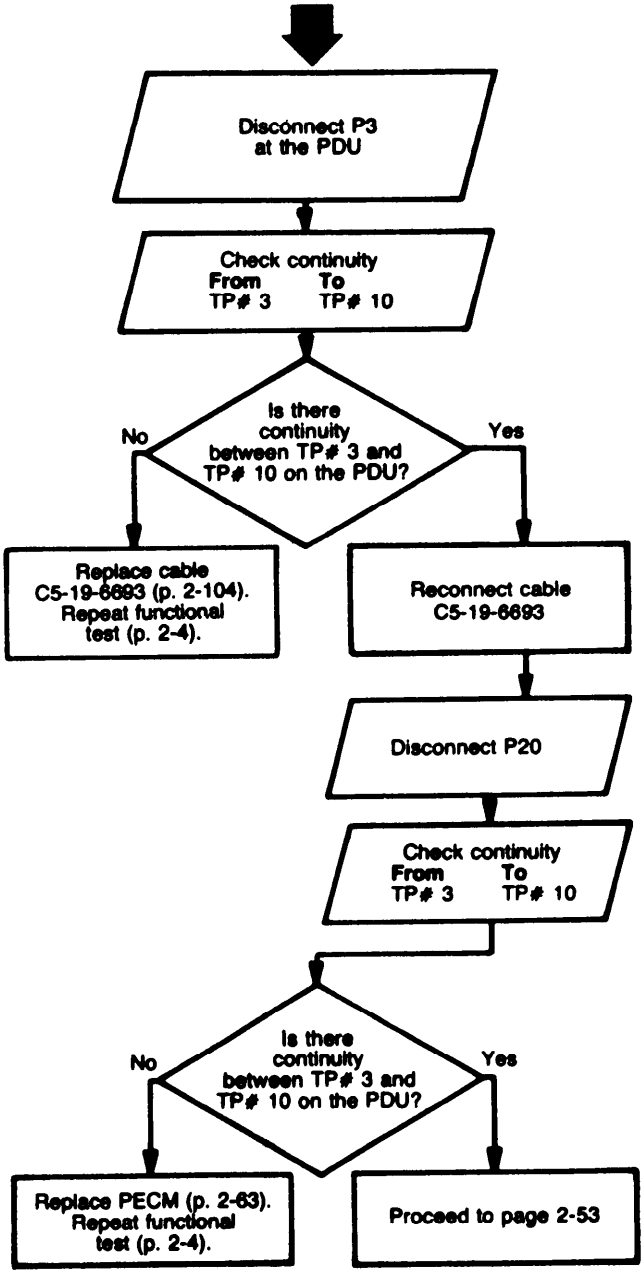
## 8. INDICATORS CIRCUIT BREAKER TRIPS.

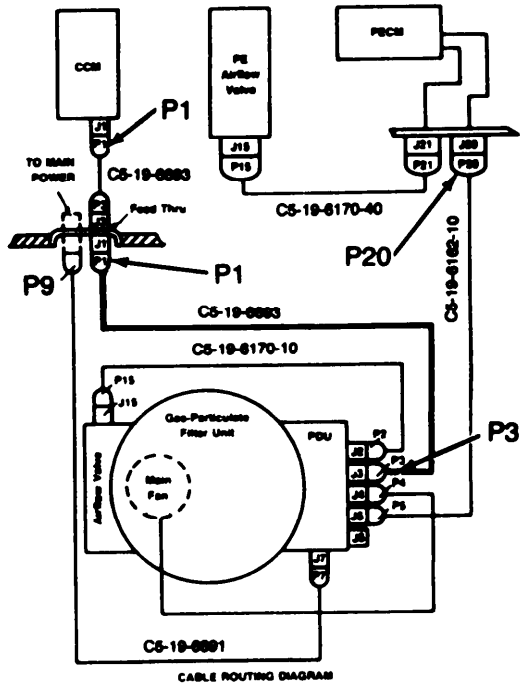


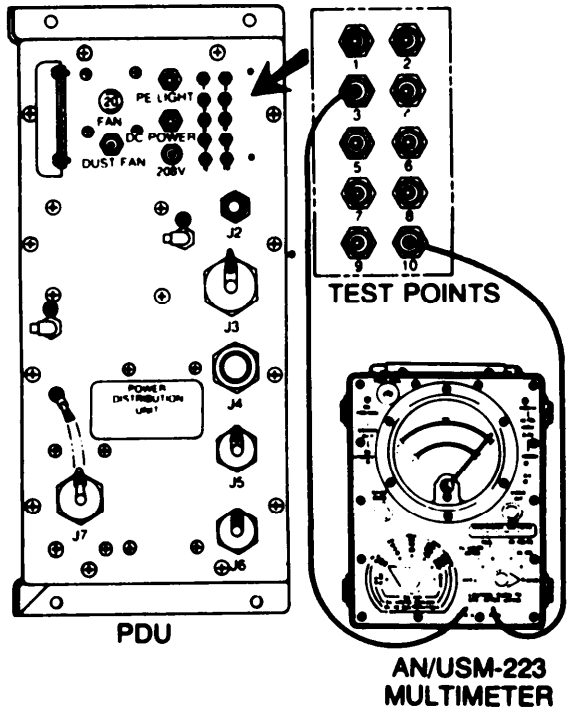

LEGEND CCM = Compartment Control Module
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* = To Be Published

8. INDICATOR CIRCUIT BREAKER TRIPS (CONT).

**Page 2-51**

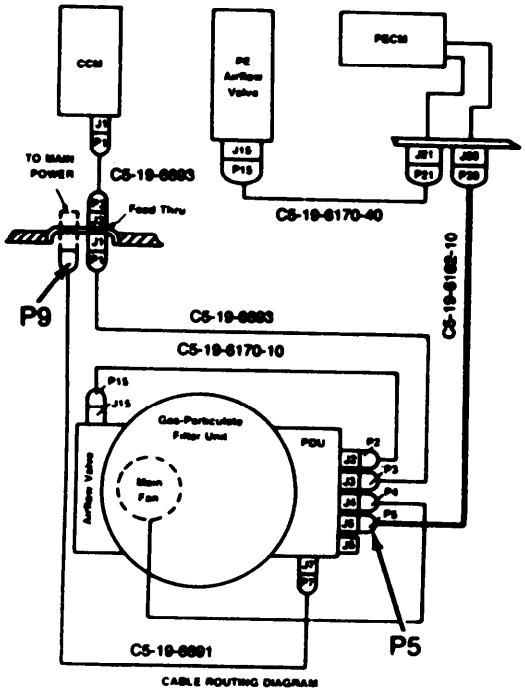


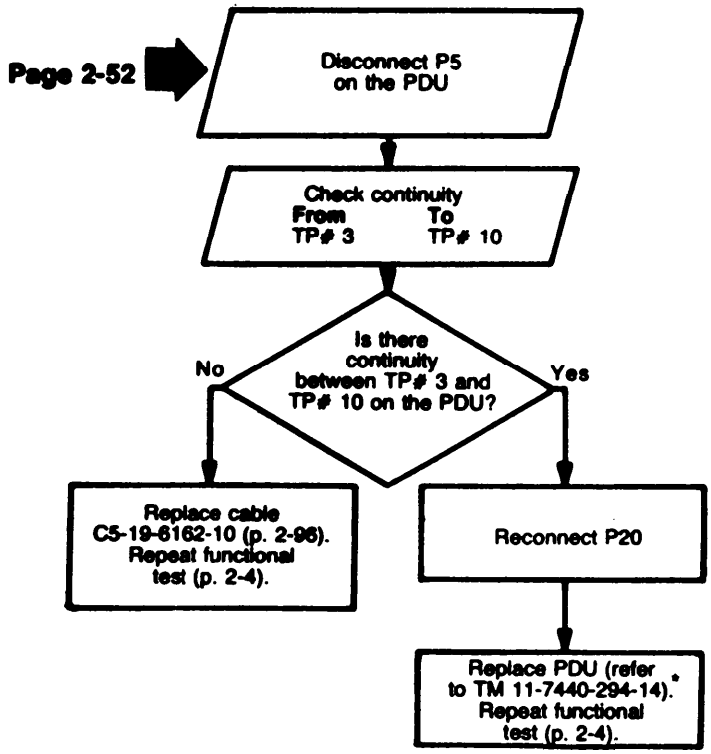



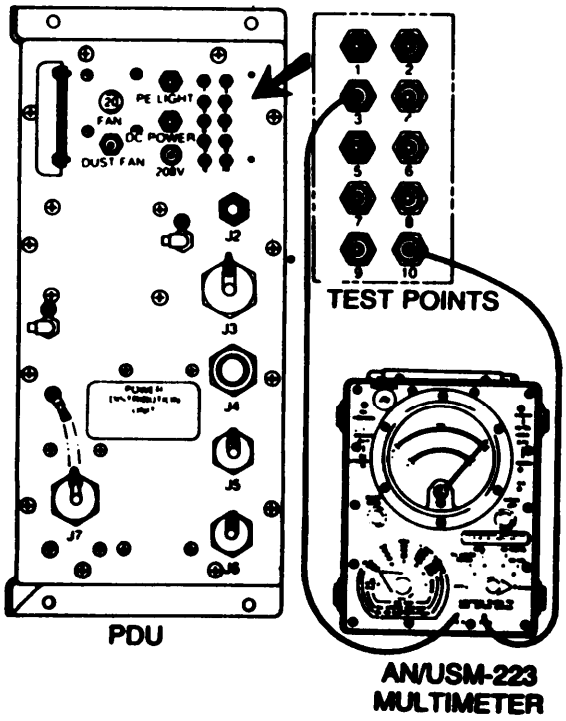




LEGEND

PDU = Power Distribution Unit
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru



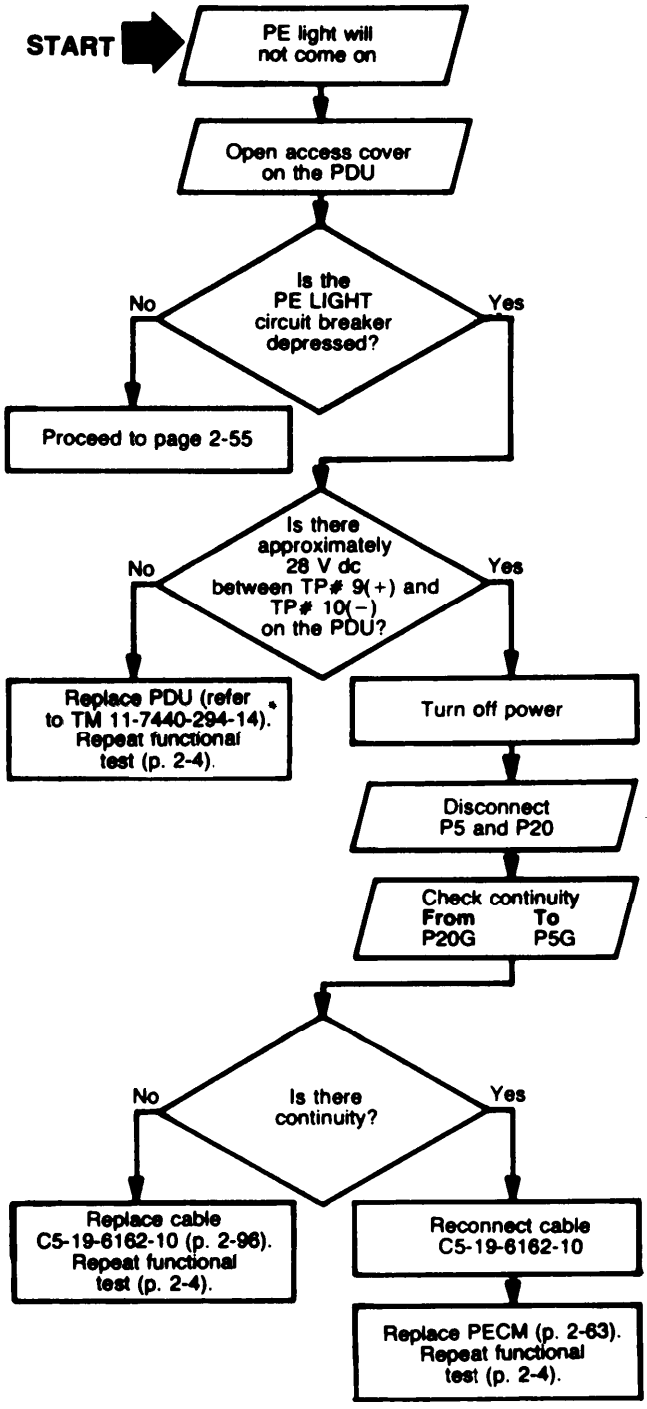



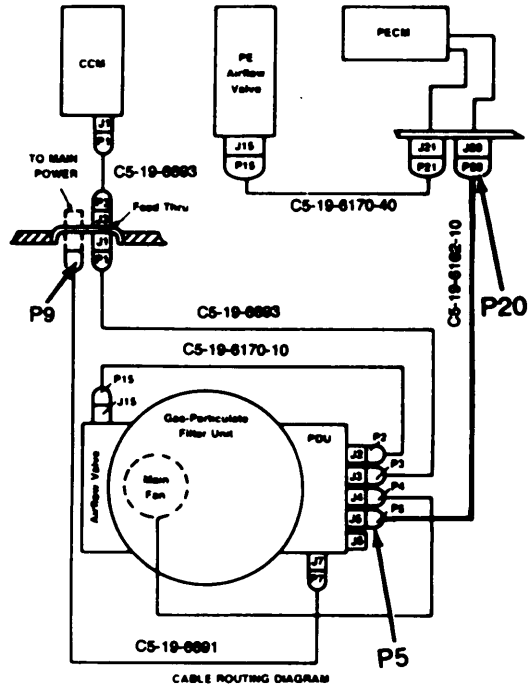



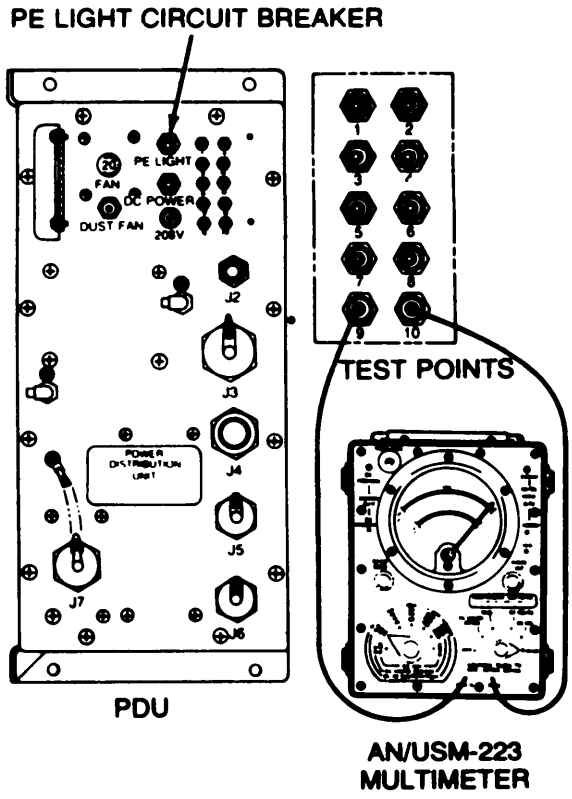

LEGEND

PDU = Power Distribution Unit
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## 9. PROTECTIVE ENTRANCE DOME LIGHT DOES NOT COME ON

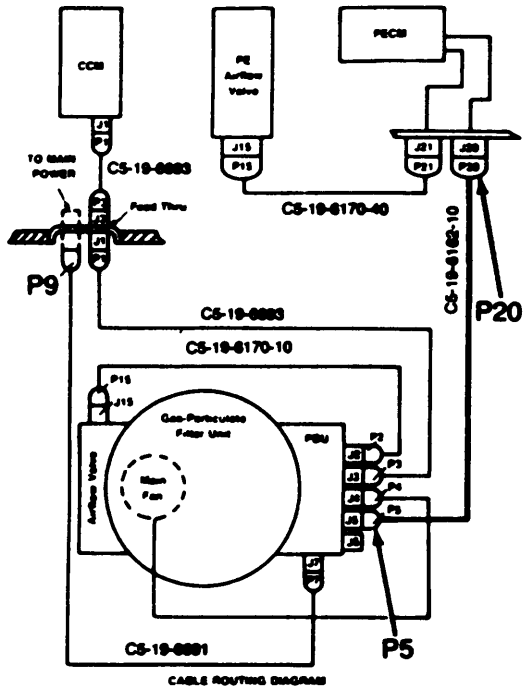


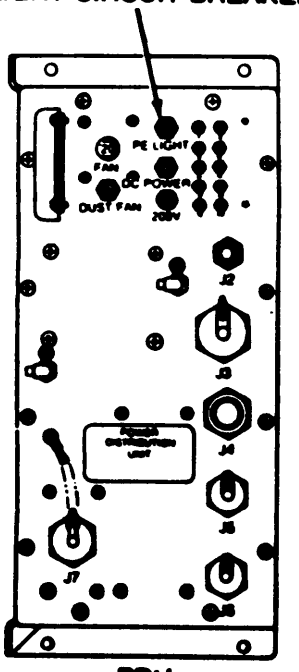




LEGEND

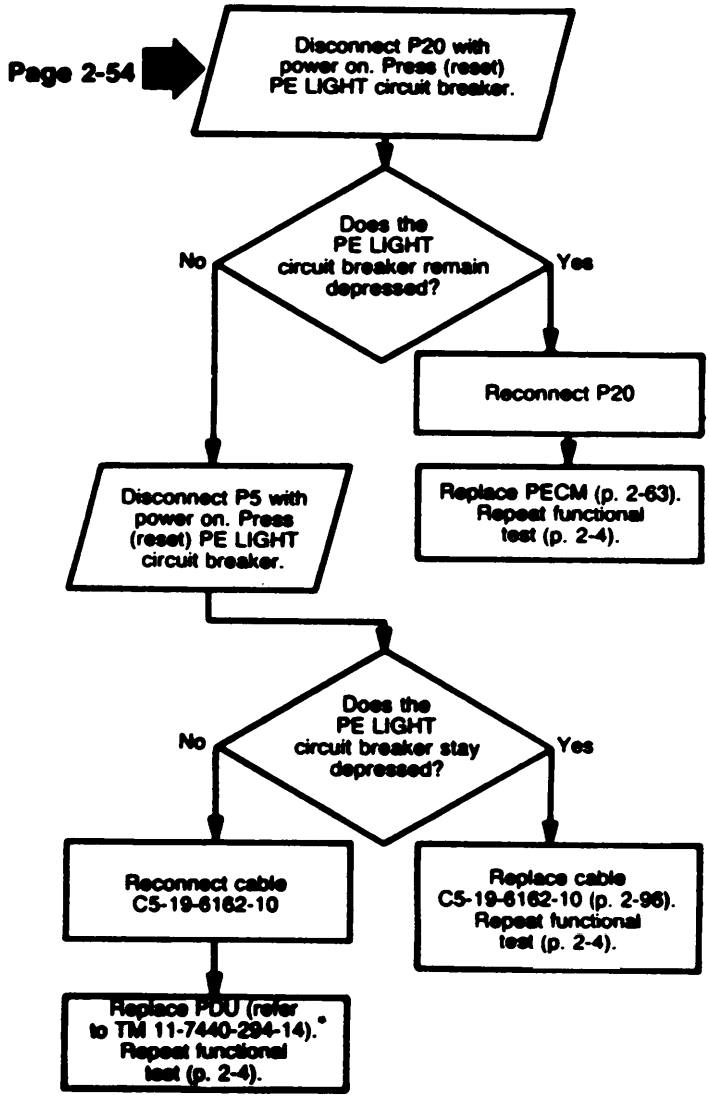
PDU = Power Distribution Unit
PE = Protective Entrance
PECM = Protective Entrance Control Module
TP = Test Point
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published




PE LIGHT CIRCUIT BREAKER




PDU




**LEGEND**

PDU = Power Distribution Unit
PE = Protective Entrance
PECM = Protective Entrance Control Module
Feed Thru = Elec/Pneu Feed Thru
* = To Be Published

## Section VI. MAINTENANCE PROCEDURES FOR M10 PROTECTIVE ENTRANCE

**2-10. GENERAL.** These instructions are for use by organizational maintenance personnel. They apply to:
M10 Protective entrance
Protective entrance control module

### 2-11. M10 PROTECTIVE ENTRANCE - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Replacement
b. Repair
c. Removal
d. Installation
e. Disassembly
f. Reassembly
g. Painting
h. Inspection/Repair

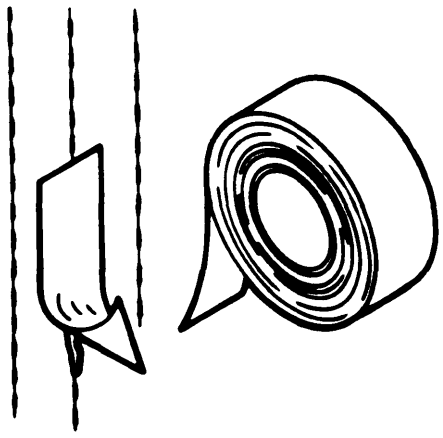
**INITIAL SETUP**

***Tools***
General Mechanics Tool Kit
SC 5180-90-CL-N26
Portable electric drill NSN 5130-00-889-8994
Twist drill NSN 5133-00-227-9650

**References**
TM 11-7440-294-14 (to be published)

*Personnel Required: 2*

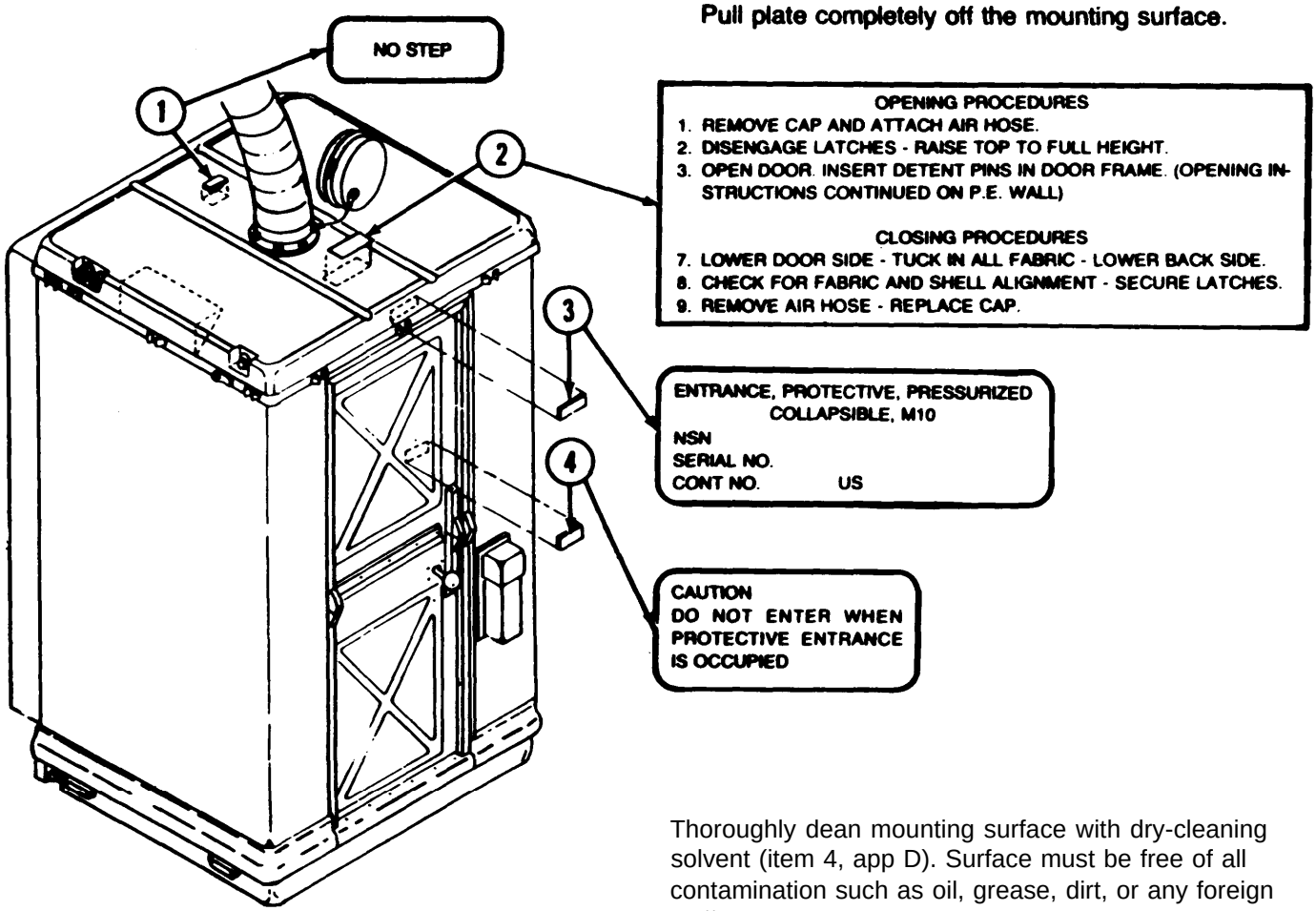
| LOCATION | ITEM | ACTION |
|---|---|---|
| **REPLACEMENT** | | |
| TACFIRE | Ml O Protective entrance | Refer to TM 11-7440-294-14 for protective entrance replacement instructions. |
| **REPAIR** | | |
| M10 Protective Entrance (PE) | Impermeable wall fabric | Repair tears or slits:<br>Clean damaged area using rags (Item 6, app D) and dry-cleaning solvent (item 4, app D).<br><br>Cut a piece of tape (item 7, app D) about four inches longer than the tear **or** slit. position tape over the tear or slit and press firmly in place.<br><br>Apply tape to the inside of the protective entrant" impermeable fabric wall. If necessary for added strength, crossed strips of tape may be used |



| LOCATION | ITEM | ACTION |
|---|---|---|

REMOVAL

| | | |
|---|---|---|
| M10 Protective Entrance | Instruction plates (1, 2, and 4) and identification plate (3) | Lift edge of plate with a sharp tool.<br><br>Pull plate completely off the mounting surface. |




## INSTALLATION

Thoroughly dean mounting surface with dry-cleaning solvent (item 4, app D). Surface must be free of all contamination such as oil, grease, dirt, or any foreign matter.

**NOTE**

Identification and instndon plates are made of aluminum foil with a solvent-activated backing.

Activate the back of the plate with dry-cleaning solvent (item 4, app D).

Mount the plate and apply pressure to the plate surface.

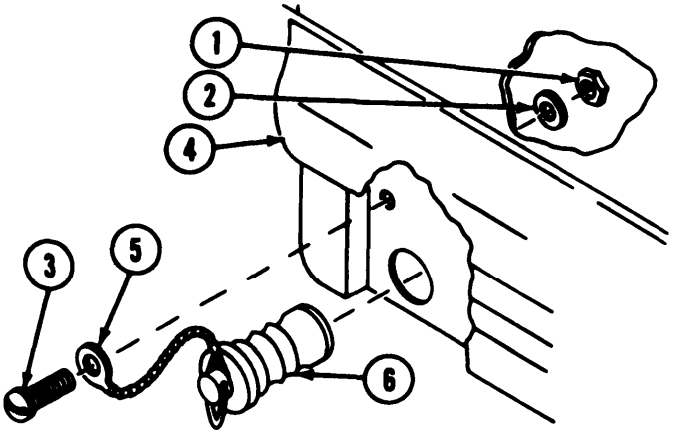
Spray or- brush plate with aliphatic polyurethane coating (item 2, app D).

**2-11. M10 PROTECTIVE ENTRANCE - MAINTENANCE INSTRUCTIOTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL**

| | | |
|---|---|---|
| M10 Protective Entrance | Plug drain | Remove cap plain nut (1) and washer (2).<br><br>Remove screw (3) from protective entrance (4) and chain loop (5).<br><br>Unscrew plug drain (6) and remove. |



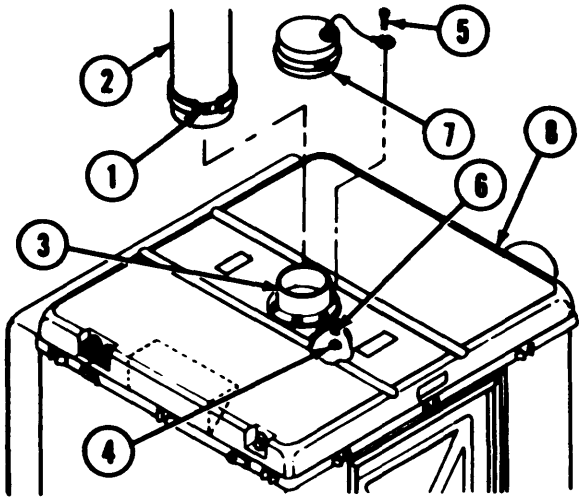

**INSTALLATION**

| | | |
|---|---|---|
| | | Install screw (3) through chain loop (5) and hole in protective entrance (4).<br><br>Install washer (2) and cap plain nut (1). Tighten securely.<br><br>Install plug drain (6). Tighten finger tight. |

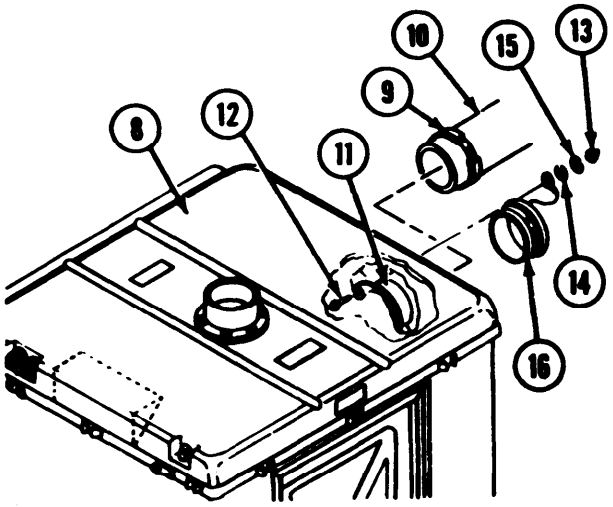
| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL**

| | | |
|---|---|---|
| M10 Protective Entrance Airduct Inlet | Dust and moisture seal protective | Loosen hose clamps (1). Remove airduct hose (2). from inlet (3). |
| | | Reach through inlet and hold nut (4) with a wrench. |
| | | Remove screw (5) from nut (4), washer (6), and cable loop on cap (7) from inlet (3). |
| | | Remove cap (7) from protective entrance (8). |

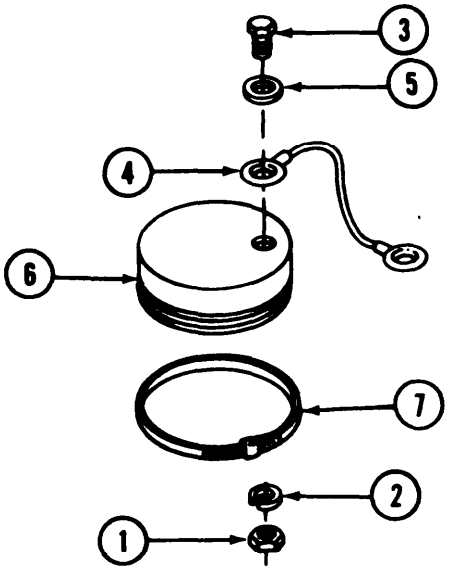



| | | |
|---|---|---|
| M10 Protective Entrance Airduct Cutlet | Dust and moisture seal protective cap | Loosen hose clamp (9) Remove airduct hose (10) from Outlet (11). |
| | | Reach through outlet hold screw (12) with a wrench. |
| | | Unscrew nut (13). |
| | | Remove washers (14 and 15) and screw (12). |
| | | Remove cap (16) from protective entrance (8). |



**2-11. M10 PROTECTIVE ENTRANCE - MAINTENANCE INSTRUCTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|
| **DISASSEMBLY** | | |
| | Dust and moisture seal protective cap | Unscrew nut (1). Remove washer (2), screw (3), support cable (4), and washer (5) from rubber cap (6).<br><br>Unscrew adjustment screw on hose clamp (7) and remove from rubber cap (6). |



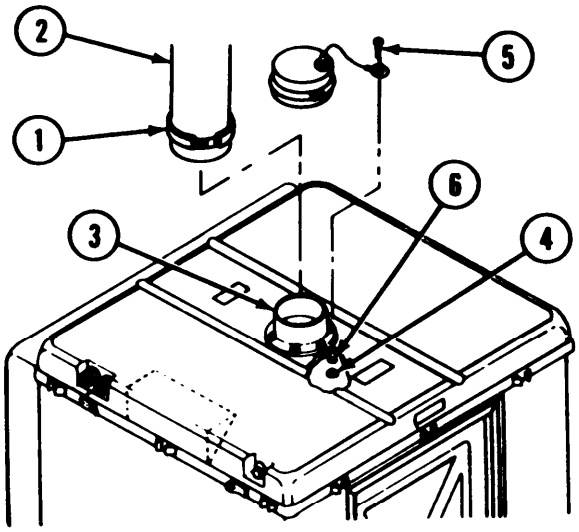

| | | |
|---|---|---|
| **REPAIR** | Support cable | Fabricate support cable (fig E-1, app E). |
| **REASSEMBLY** | | |
| | Dust and moisture seal protective cap | Install hose clamp (7) in groove in rubber cap (6). Turn adjustment screw just enough to keep clamp in place.<br><br>Secure support cable (4) to rubber cap (6) with screw (3), washer (5), washer (2), and nut (1). |

| LOCATION | ITEM | ACTION |
|---|---|---|

**INSTALLATION**

M10 Protective Entrance Airduct Inlet

Dust and moisture seal protective cap




Place screw (5) through support cable loop and screw hole at base of airduct inlet (3).

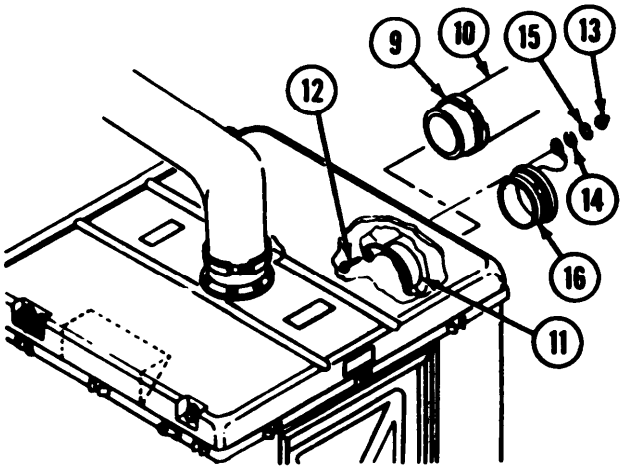
Reach through airduct inlet and install washer (6) and nut (4) Tighten security

Place airduct hose (2) on air duct inlet

Tighten hose clamps (1) securely

M10 Protective Entrance Airduct outlet

Dust and moisture seal protective cap




Reach through airduct outlet and install screw (12).

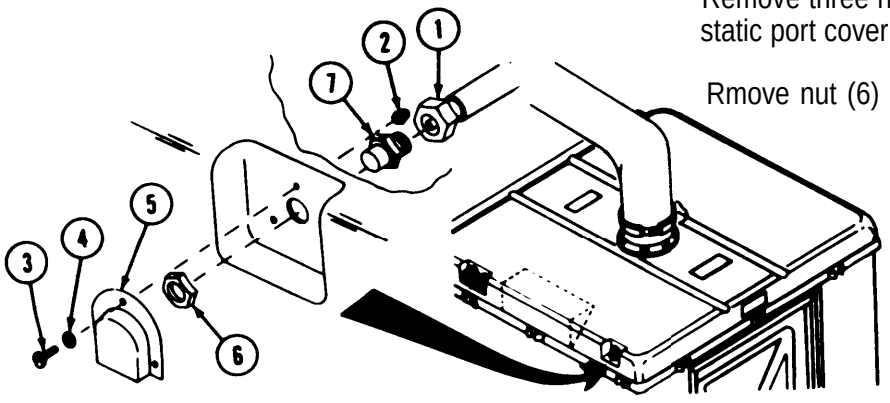
Place support cable loop, washers (14 and 15), and nut (13) on screw (12). Tighten nut securely.

Place airduct hose (10) on airduct outlet (11).

Tighten hose damp (9) securely.

## 2-11. M10 PROTECTIVE ENTRANCE - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REMOVAL** | | |
| M10 Protective Entrance (PE) | Static port adapter | Disconnect hose adapter (1).<br>Remove three nuts (2), screws (3), washers (4), and static port cover (5).<br>Rmove nut (6) and static port adapter (7) |




| | | |
|---|---|---|
| **INSTALLATION** | | |
| | | Install static port adapter (7) and nut (6). Tighten securely.<br>Install static port cover (5) using screws(3), waskers (4), and nuts (2).<br>connect hose adapter (1) to static port adapter (7). Tighten securety. |
| **PAINTING** | | |
| M0 Protective Entrance | Painted surfaces | Touch-up painting of metal surfaces is authorized:<br>Clean surfaces to be painted using rags (Item 6, app D) and dry-cleaning solvent (item 4, app D).<br>**NOTE**<br>Refer to TM 43-0139 for painting instructions for field use.<br>Paint surface with one coat of printer (item 5, app D).<br>Paint surfaces of equipment mounted outside of the protective entrance with aliphatic polyurethane coating (item 2, app D). |

| LOCATION | ITEM | ACTION |
|---|---|---|

**INSPECTION/REPAIR**

M10 Protective Entrance

Top and bottom shells

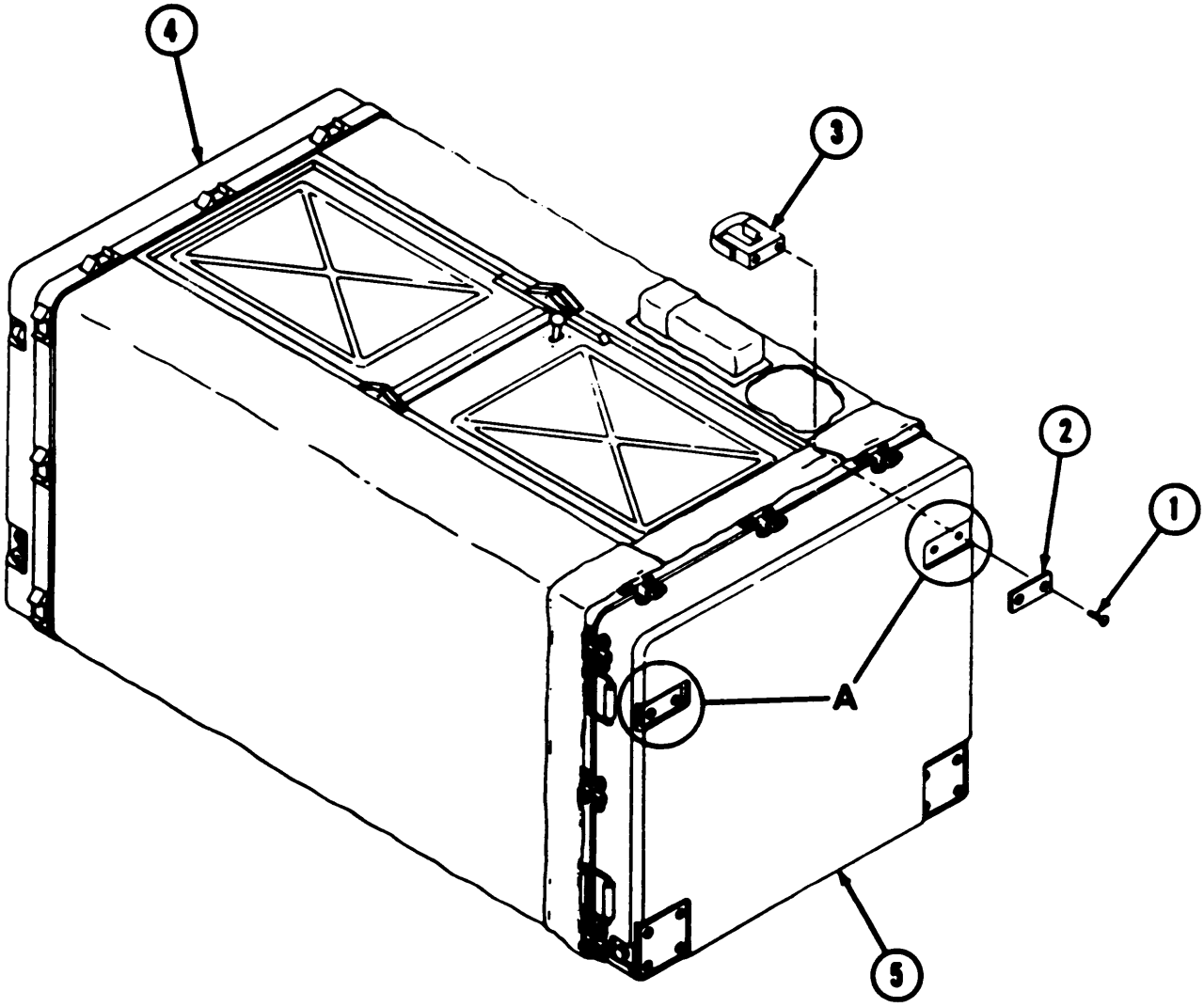
**NOTE**

Two technicians are needed for this procedure: one on theinsideof the entrance and one on the outside.

Lay erected entrance on its side with door up.

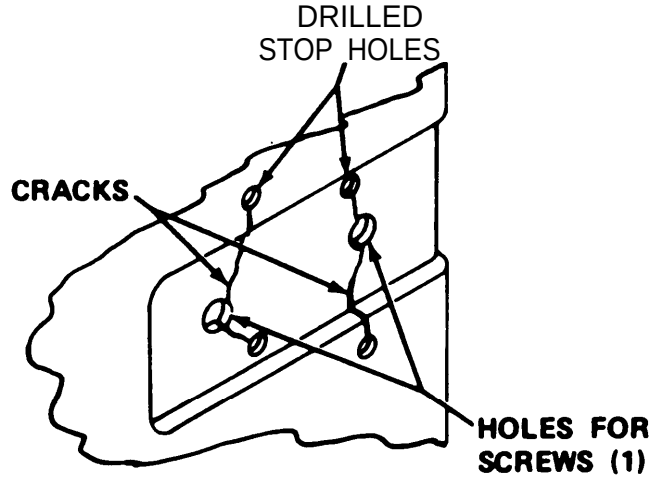
Remove screws (1), pads (2), and retainer assemblies (3).

Examine top (4) and bottom (5) shells for cracks, particularly in the area of A.

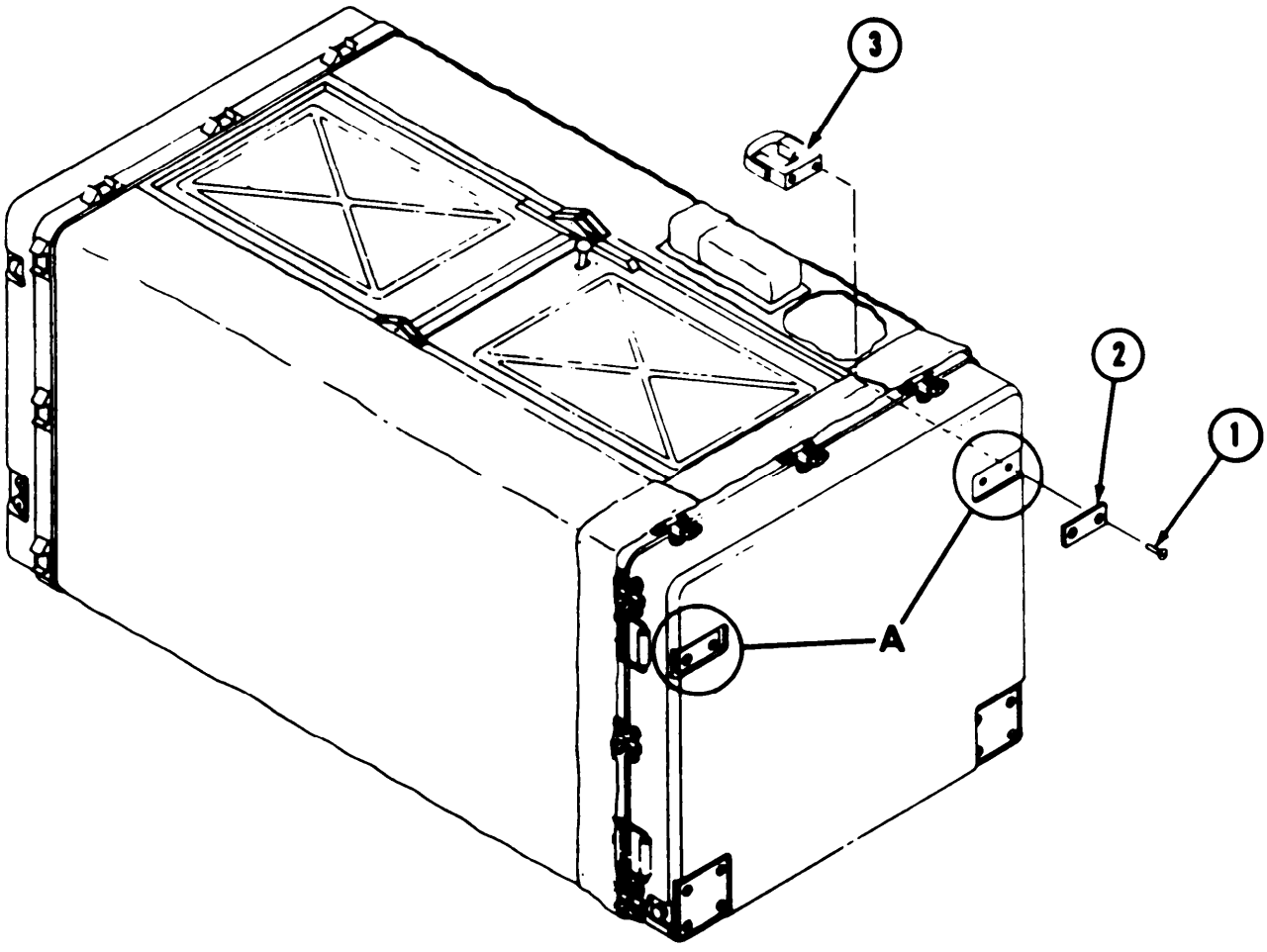


## 2-11. M10 PROTECTIVE ENTRANCE - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **INSPECTION/REPAIR (CONT)** | | |
| M10 Protective Entrance | Top and bottom shells | Press suspect crack areas on outside of shell with a block of wood to expose end point of cracks for technician inside entrance.<br><br>Drill a 1/8-inch diameter stop hole through shell from inside entrance at endpoint of each crack. See detail A.<br><br>Reinstall screws (1), pads (2), and retainer assemblies (3). |




**DETAIL A**



## 2-12. PROTECTIVE ENTRANCE CONTROL MODULE - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal
b. Repair
c. Installation
d. Disassembly
e. Reassmbly

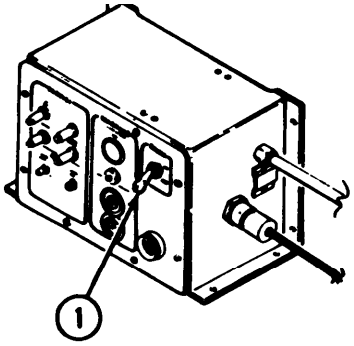
### INITIAL SETUP

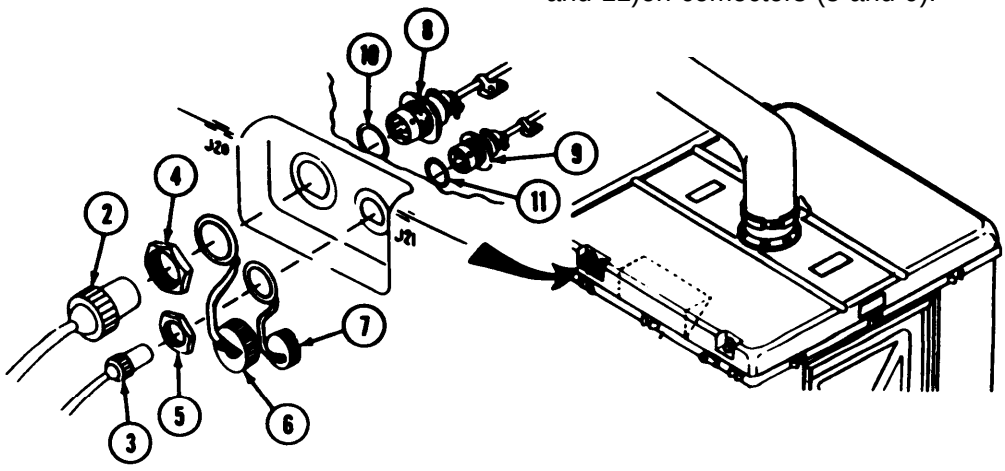
*Tools*
General Mechanics Tool Kit
SC 5180-90-CL-N26

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL

| | | |
|---|---|---|
| M10 Protective Entrance | Protective entrance control module | Set POWER switch (1) on compartment control module to OFF.<br><br>Shut down collective protection equipment power source.<br><br>Disconnect electrical cable plugs P20 (2) and P21 (3) from outside of protective entrance and remove nuts (4 and 5).<br><br>Remove electrical connector covers (6 and 7) with chains and loops. Withdraw electrical cable connectors (8 and 9). Remove and retain preformed packings (10 and 11)on comectors (8 and 9). |



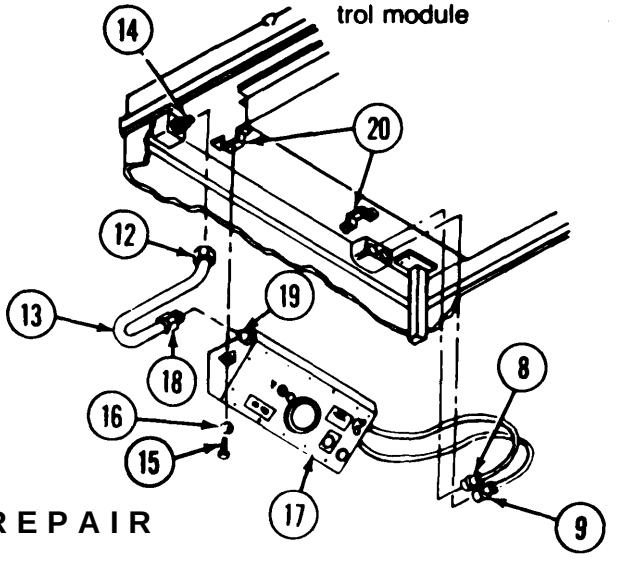
**2-12. PROTECTIVE ENTRANCE CONTROL MODULE - MAINTENANCE INSTRUCTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL (CONT)**

M10 Protective Entrance

Protective entrance control module




Disconnect adapter (12) on hose (13) from coupling (14).

Remove screws (15) and washers (16).

Remove protective entrance control module (17) from inside the protective entrance.

**CAUTION**

Pressure circuit may be damaged. Hold coupling on protective entrance control module with a wrench to prevent it from turning.

Disconnect adapter (18) on hose (13) from adapter(19) on protective entrance control module.

**REPAIR**

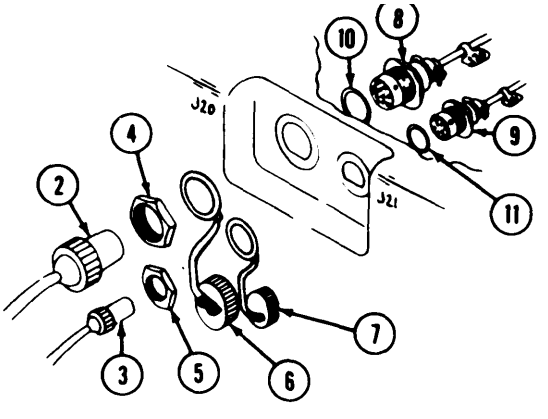
Hose

Fabricate replacement hose (13) (fig E-4A, app E). Cut adapters (12 and 18) from hose and insert adapters in new hose.

**INSTALLATION**

M10 Protective Entrance

Protective entrance control module



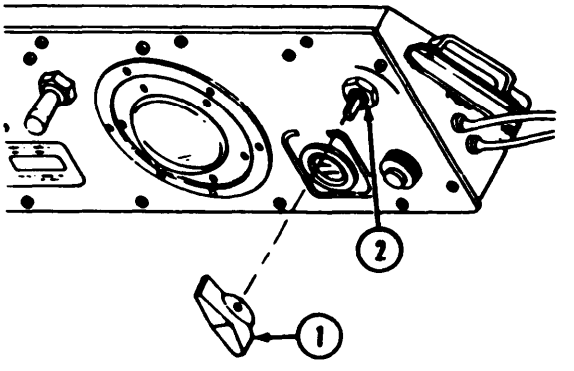
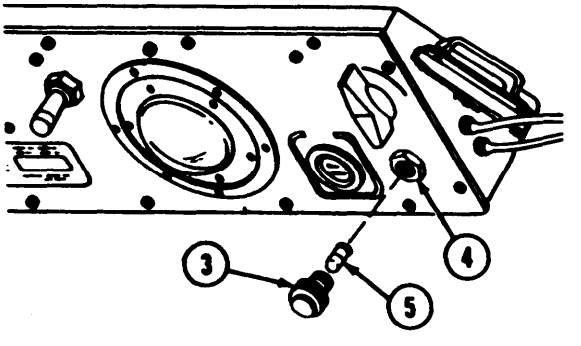

Install hose on protective entrance control module. Hold adapter (19) with a wrench and tighten adapter (18).

Position protective entrance control module (17) against brackets (20) in protective entrance.

Install screws (15) through washers (16) and into brackets (20). Tighten securely.

Install adapter (12) on coupling (14) and tighten.

Install electrical cable connectors J21 (9) and J20 (8) with prefortned packings (10 and 11) in protective entrance from the inside.

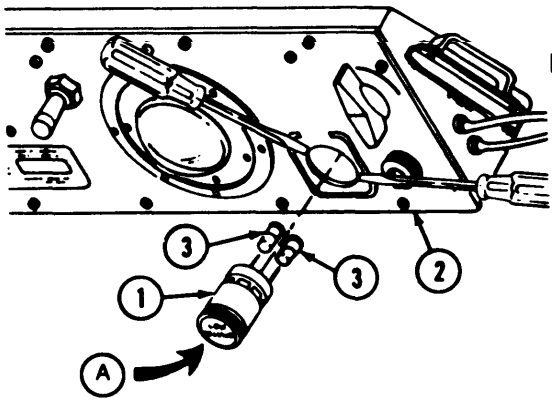
| LOCATION | ITEM | ACTION |
|---|---|---|
| | | From the outside, install loop of connector cover (7) and nut (5) on cable connector J21 (9). Tighten nuts securely. From the outside, install loop of connector cover (6) and nut (4) on cable connector J20 (8). lighten nut securely.<br><br>Reconnect electrical cable plugs P20 (2) and P21 (3). |
| **REMOVAL** | | |
| **Protective Entrance Control Module** | **Knob** | **Pull knob (1) from timer shaft (2).** |
| | |  |
| **INSTALLATION** | | |
| | | Aline knob pointer with 0 on panel. Push knob (1) on timer shaft (2). |
| **REMOVAL** | | |
| Protective Entrance Control Module | PURGE indicator lamp | Unscrew indicator light (3) from indicator light base (4).<br><br>Pull out lamp (5) from indicator light (3). |
| | |  |
| **INSTALLATION** | | |
| | | Insert indicator lamp (5) in indicator light (3).<br><br>Install indicator light (3) in light base (4). |

## 2-12. PROTECTIVE ENTRANCE CONTROL MODULE - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

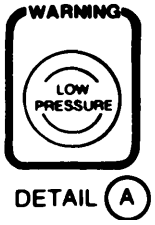
### REMOVAL

Protective Entrance Control Module — LOW PRESSURE lamp




Using two screwdrivers, gently pry lens (1) from panel (2)

Remove lamps (3) from lens (1).




### INSTALLATION

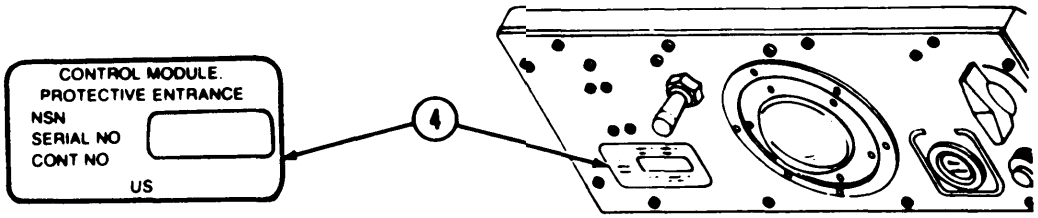
Insert lamps (3) in lens (1 ). Insert lens (1) into panel (2) as shown in detail A. Press lens into panel until it snaps into place.

### REMOVAL

Protective Entrance Control Module — Identification plate

Lift edge of plate (4) with a sharp tool.

Pull plate completely off the mounting surface.



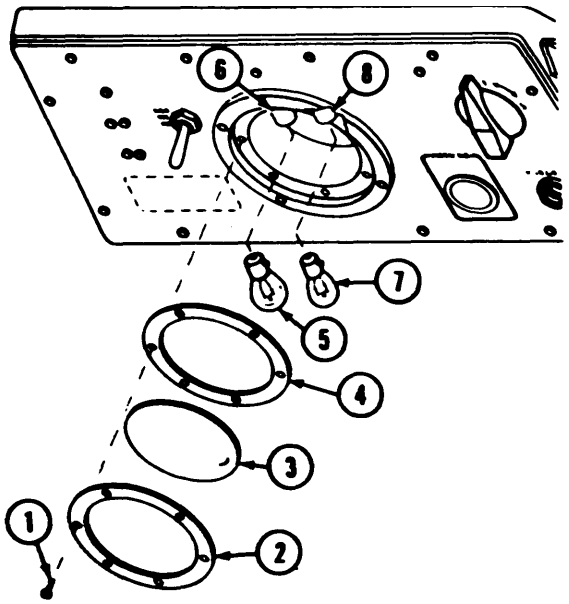

### INSTALLATION

Thoroughly clean mounting surface with dry-cleaning solvent (item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt, or any foreign matter.

Activate the back of the plate with dry-cleaning solvent

Mount the plate and apply pressure to the plate surface.

Spray of brush plate with aliphatic Polyureth- coating (item 2, app D).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **DISASSEMBLY** | | |
| Protective Entrance Control Module | Dome light | Remove screws (1), retainer (2), light lens (3), and dome light gasket (4).<br><br>Remove red lamp (5) by pressing in on the bulb and rotating it counterclockwise. Pull red lamp from socket (6).<br><br>Remove clear lamp (7) by pressing in on the bulb and rotating it counterclockwise. Pull clear lamp from socket (8). |
| |  | |
| **REPAIR** | | |
| | Lamps, screws, lens, and dome light gasket | Replace if unserviceable. |
| **REASSEMBLY** | | |
| Protective Entrance Control Module | Dome light | Insert red lamp (5) in socket(6). Aline studs in lamp base with slot in socket. Press in and turn red lamp clockwise until it locks in place.<br><br>Insert clear lamp (7) in socket (8). Aline studs in lamp base with slot in Socket. Press in and turn clear lamp clockwise until it locks in place.<br><br>Place gasket (4) on dome light lens (3).<br><br>Place retainer (2) on gasket and aline screw hales.<br><br>Position assembly in place and install screws (1). Tighten securely. |

## Section VII. MAINTENANCE PROCEDURES FOR M56 GAS-PARTICULATE FILTER UNIT

**2-13. GENERAL.** These instructions are for use by organizational maintenance personnel. They apply to:

M56 Gas-particulate filter unit
Main fan
Airflow valve
Power distribution unit
Compartment control module

### 2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Replacement
b. Removal
c. Installation
d. Disassembly
e. Reassembly
f. Repair
g. Painting

**INITIAL SETUP**

*Tools*
General Mechanics Tool Kit
SC 5180-90-CL-N26
Torque wrench 0-500 inch-pounds

*References*
TM 11-7440-294-14 (to be published)

*General Safety Instructions*
The unit commander or senior officer in charge of maintenance personnel assigned to remove and dispose of the contaminated gas and particulate filters must prescribe the necessary protective clothing (TM 10-277) to be worn during this operation. He must also prescribe the necessary safety measures to be followed including the decontamination operation (TM 3-220) that must be performed before the new filters are installed.

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REPLACEMENT** | | |
| TACFIRE | M56 Gas-particulate filter unit | Refer to TM 11-7440-294-14 for M58 gas-particulate filter unit removal and installation instuctions. |

| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL**

**NOTE**

The unit commander or senior officer in charge of maintenance personnel assigned to remove and dispose of the contaminated gas and particulate filters must prescribe the necessary protective clothing (TM 10-277) to be worn during this operation. He must also prescribe the necessary safety measures to be followed including the decontamination operation (TM 3-220) that must be performed before the new filters are installed.

M56 Gas-Particulate Filter Unit — Particulate filter

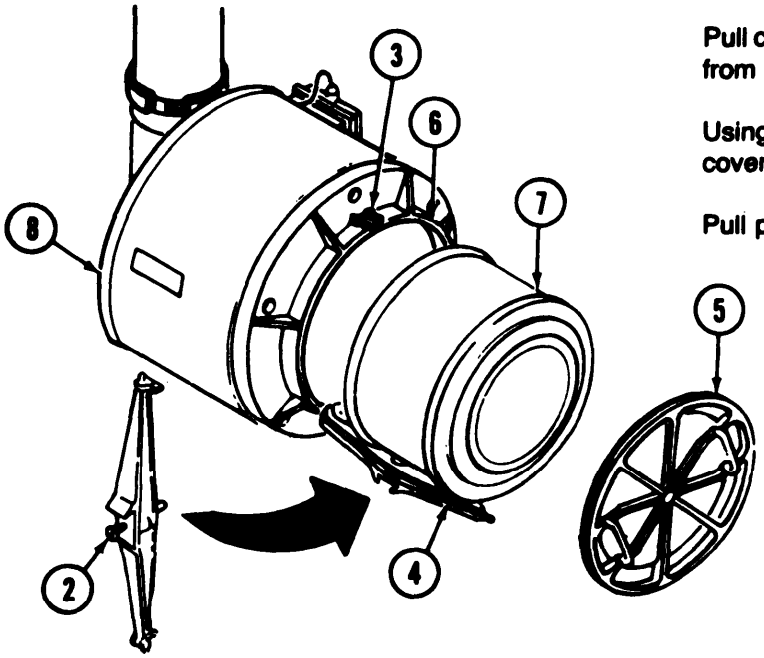
Set POWER switch (1) on the compartment control module to OFF.

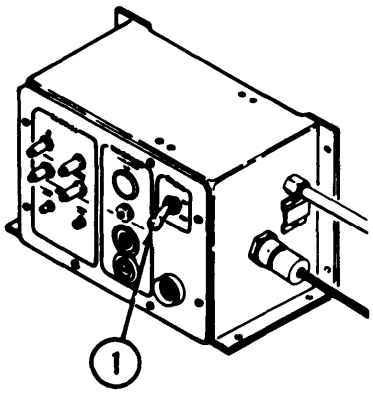
Loosen screw *(2).*

**Pull catch (3) outward and swing retaining bar (4) away from inner cover (5).**

**Using handles, pull inner cover (5) from access cover (6).**

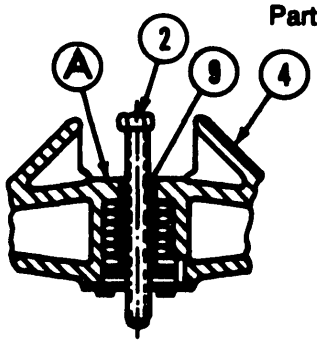
**Pull particulate filter (7) from filter housing (8).**




**INSTALLATION**

**Particulate filter**




Place particulate fitter (7) in fitter housing (8), either end first.

Grasp lnner cover by the handle andplace it in the access cover (6).

Swing retaining bar (4) up across inner cover and engage end of bar with catch (3).

**WARNING**

**Filter seals must be properly seated to prevent bypass of contaminated air.**

Tlghten screw (2) until sleeve (9) is flush with top surface (A) of retaining bar (4).

## 2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS (CONT).

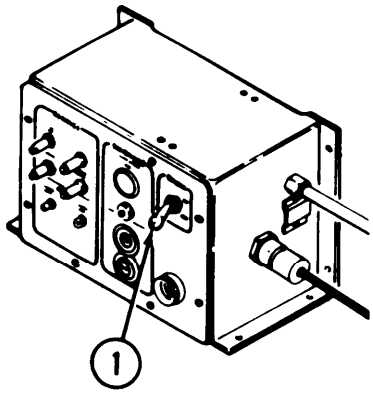
| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL

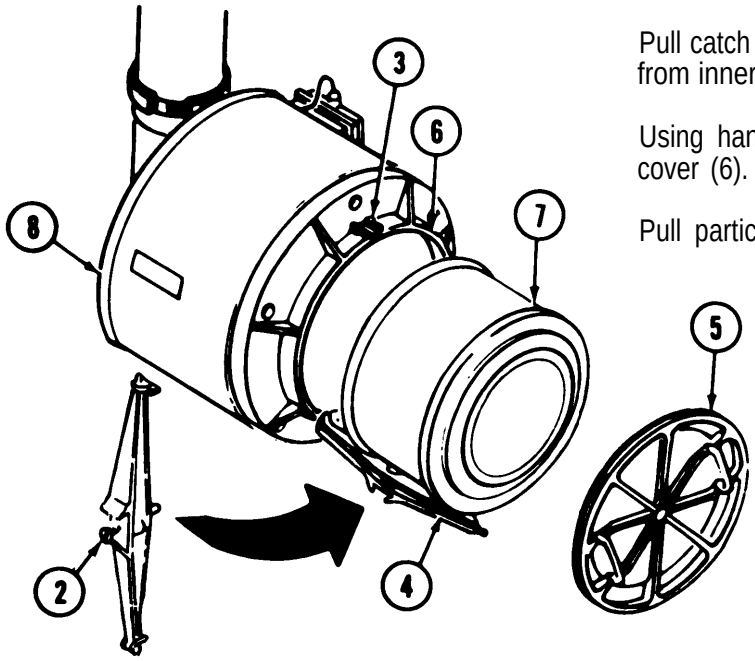
**NOTE**

The unit commander or senior officer in charge of maintenance personnel assigned to remove and dispose of the contaminated gas and particulate filters must prescribe the necessary protective clothing (TM 10-277) to be worn during this operation. He must also prescribe the necessary safety measures to be followed including the decontamination operation (TM 3-220) that must be performed before the new filters are installed.

| | | |
|---|---|---|
| M56 Gas-Particulate Filter Unit | Particulate and gas filters | Set POWER switch (1) on the compartment control module to OFF. |




Loosen screw (2).




Pull catch (3) outward and swing retaining bar (4) away from inner cover (5).

Using handles, pull inner cover (5) from access cover (6).

Pull particulate filter (7) from fitter housing (8).

| LOCATION | ITEM | ACTION |
|---|---|---|

## REMOVAL (CONT)

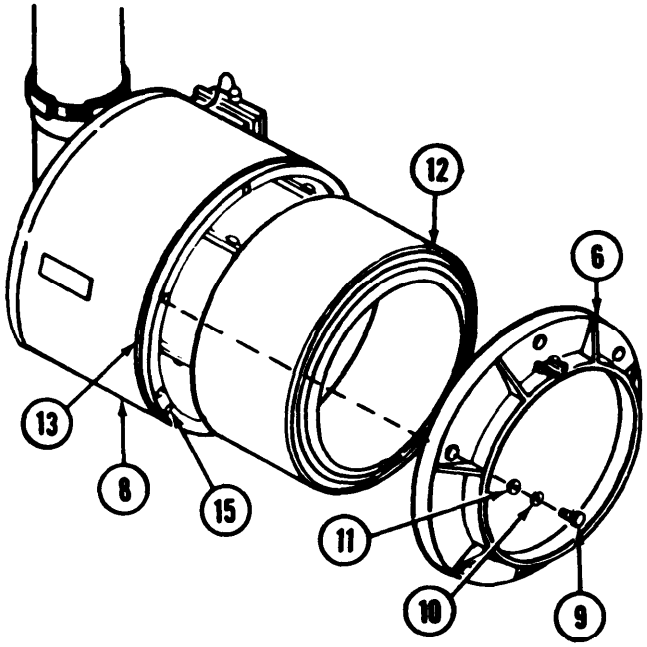
M56 Gas-Particulate Filter Unit

Particullate and gas filters

Remove screws (9), aluminum washer (10), and washer (11).

Pull access cover (6) from filter housing (8).

Pull gas filter (12) from filter housing (8).

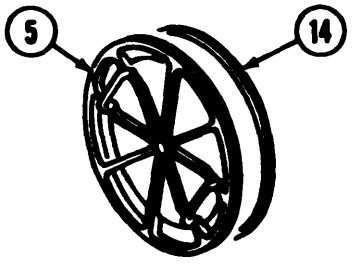



*Filter Housing/* Inner Cover

Seal or Gasket

Replace access cover seal(13)on filter housing, or gasket (14) on inner cover (5) if unserviceable.

a. Remove seal or gasket from groove.
b. CIean groove using solvent (item 4, app D).
C. Apply adhesive (item 1 appd D)in groove
d. Install seal or gasket.

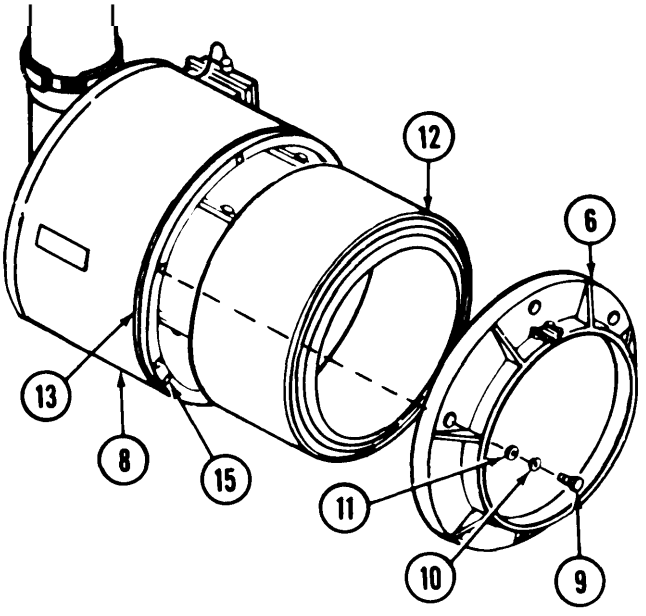


## 2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

### INSTALLATION

M56 Gas-Particulate Filter Unit — Gas filter




Place gas filter (12) in filter housing (8), either end first.

Position access cover (6) on filter housing, aline guide pin with guide hole (15). Push access cover (6) into place.

**NOTE**

To prevent binding of outer access cover against filter housing rim, screws must be tightened alternately, in a criss-cross pattern.

Install washers (11), aluminum washers (10), and screws (9) finger tight.

**WARNING**

Filter seals must be properly seated to prevent bypass of contaminated air.

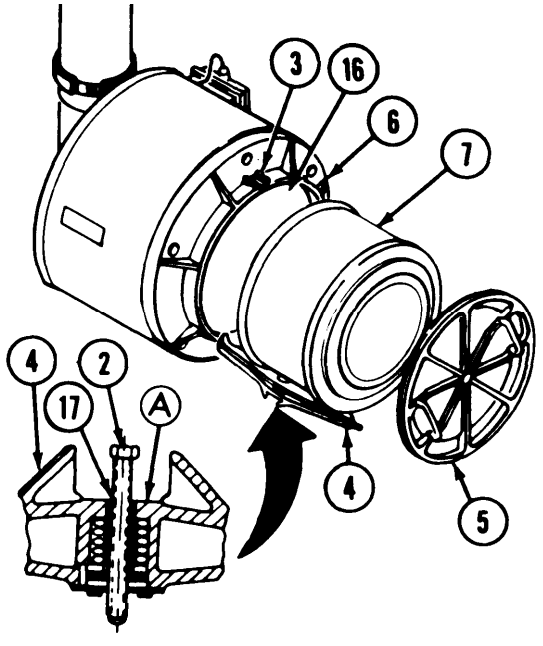
**CAUTION**

Be sure to observe torque values for the torque wrench being used.

Preliminary torque. In a crisscross pattern, torque screws to 8-10 foot-pounds (100-125 inch-pounds).

Final torque. In a crisscross pattern, torque screws to 15-16 foot-pounds (180-200 inch-pounds).

Particulate filter




Place particulate filter (7) in gas filter (16), either end first.

Grasp inner cover by the handles and place it in the access cover (6).

Swing retaining bar (4) up across inner cover and engage end of bar with catch (3).

**WARNING**

Filter seals must be properly seated to prevent bypass of contaminated air.

Tighten screw (2) until sleeve (17) is flush with top surface (A) of retaining bar (4).

| LOCATION | ITEM | ACTION |
|---|---|---|

## REMOVAL

M56 Gas-Particulate Filter Unit

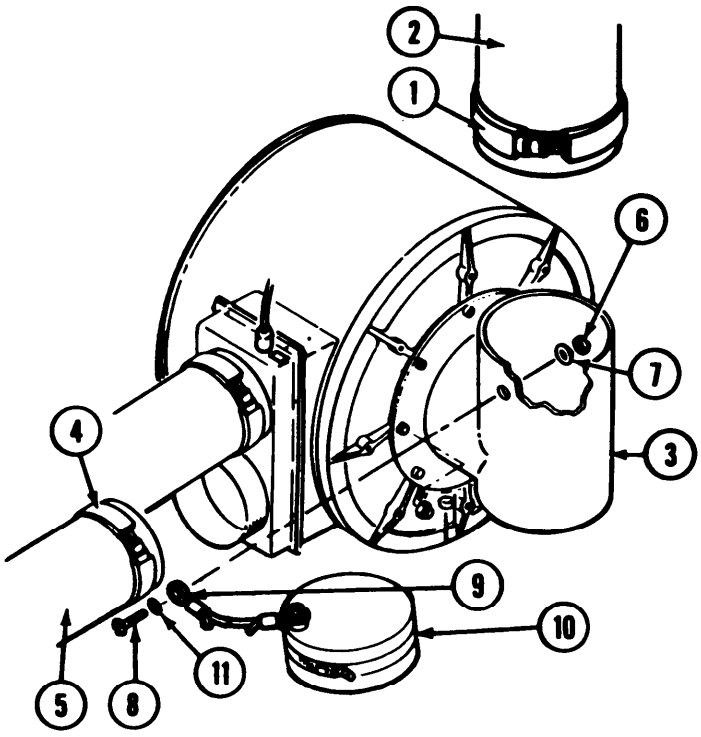
Dust and moisture seal protective cap

Unscrew hose clamp adjusting screw (1) and remove airduct hose (2) from inlet tee (3).

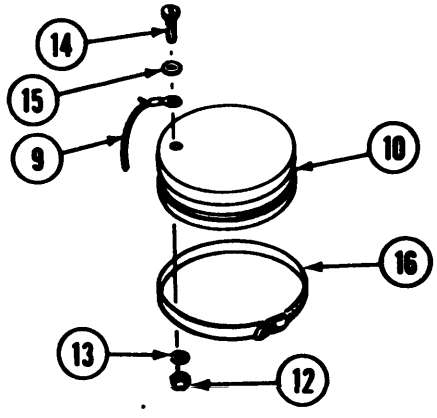
Unscrew hose clamp adjusting screw (4) and remove shelter airduct hose (5).

Remove nut (6) and washer (7) from screw (8).

Remove screw (8) from inlet tee (3), loop of support cable (9) with dust and moisture seal protective cap (10), and washer (11).




## DISASSEMBLY




Remove nut (12) and washer (13) from screw (14).

Remove screw (14) from rubber cap (10), loop of support cable (9), and washer (15).

Remove hose clamp (16) from rubber cap (10).

## REPAIR

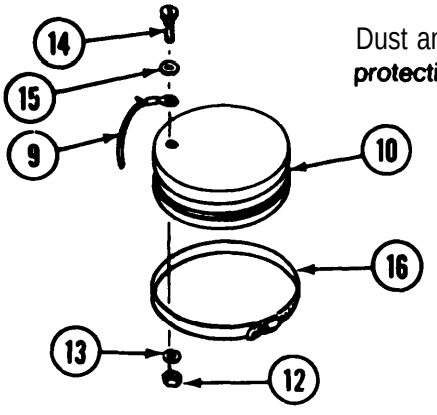
Support cable

Fabricate support cable (fig E-1, app E).

**2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|

## REASSEMBLY




Dust and moisture seal protective cap

Insert screw (14) in washer (1 5), loop of support cable (9) and hole in rubber cap (10).

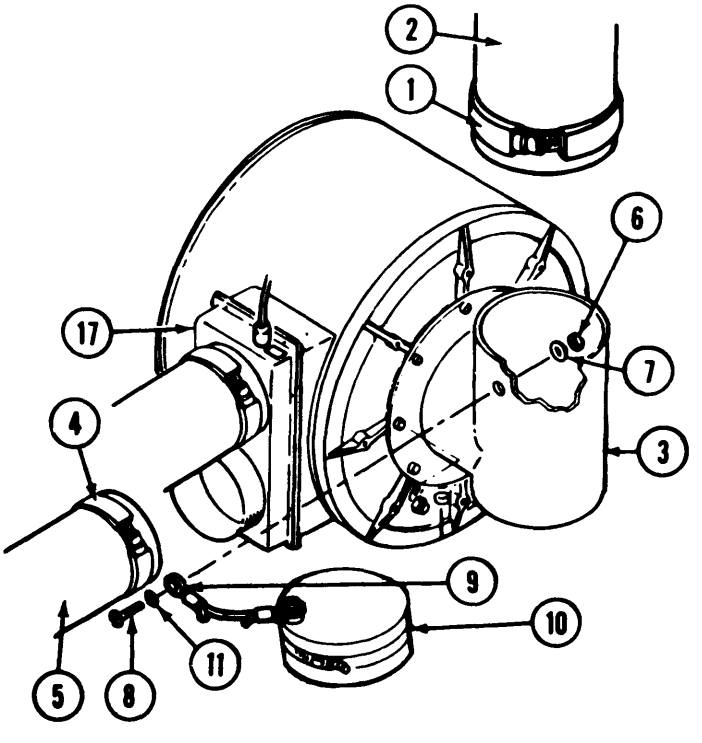
Install washer (13) and nut (12). Tighten securely.

Install hose clamp (16) in groove in rubber cap (10).

## INSTALLATION

M56 Gas-Particulate Filter Unit

Dust and moisture seal protective cap




Insert screw (8) in washer (11), loop of supportable (9), and hole in inlet tee (3).

Install washer (7) and nut (6). Tighten securely.

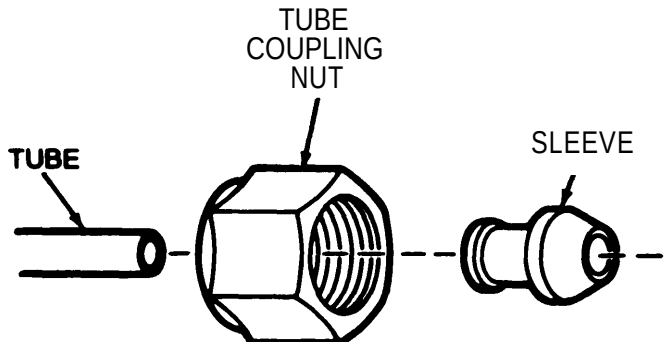
Place airduct hose (2) on inlet tee. Tighten hose clamp adjusting screw (1).

Install airduct hose (5) on airflow valve (17). Tighten hose clamp adjusting screw (4).

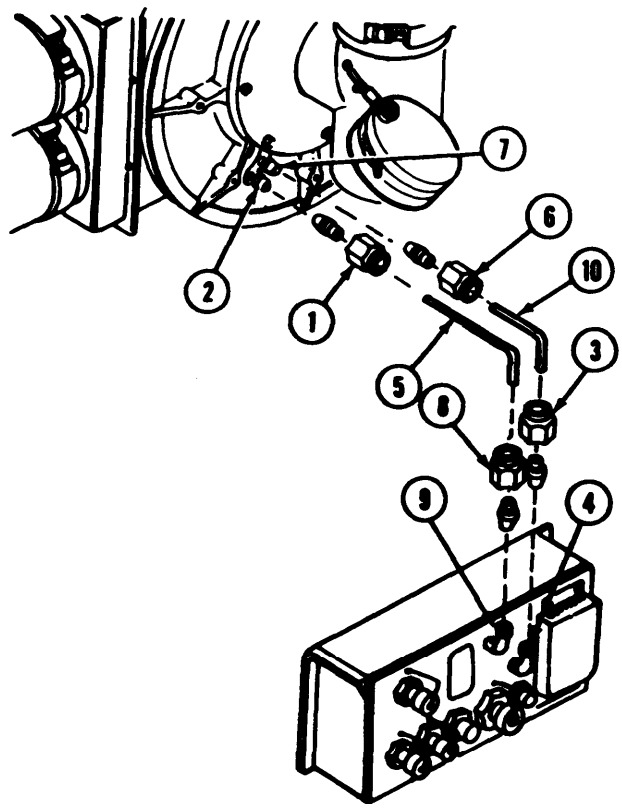
| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL**

| | | |
|---|---|---|
| M56 Gas-Particulate Filter Unit/power Distribution unit | Tubing (nonmetallic) | Unscrew tube (green) coupling nut (1) from connector (2). |
| | | Unscrew tube (green) coupling nut (3) from connector (4). |
| | | Pull tube coupling nuts with sleeves (1 and 3) off tube (5). See detail A. |
| | | Unscrew tube (red) coupling nut (6) from connector (7). |
| | | Unscrew tube (red) coupling nut (8) from connector (9). |
| | | Pull tube coupling nuts with sleeves (6 and 8) off tube (10). |




**DETAIL A**




**REPAIR**

| | | |
|---|---|---|
| | Tubing (nonrnetallic) | Fabricate tubing (fig E-2, app E). |

**2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|

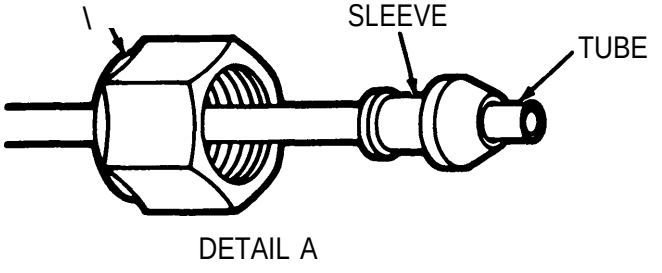
## INSTALLATION

M56 Gas-Particulate Filter Unit/Power Distribution Unit

Red tubing (nonmetallic)

Push tube coupling nuts (6 and 8) with sleeves on red tube (10). See detail A.

Push one end of tube (10) into connector (7) and one end into connector (9). RED dot on power distribution unit indicates connector (9).




DETAIL A

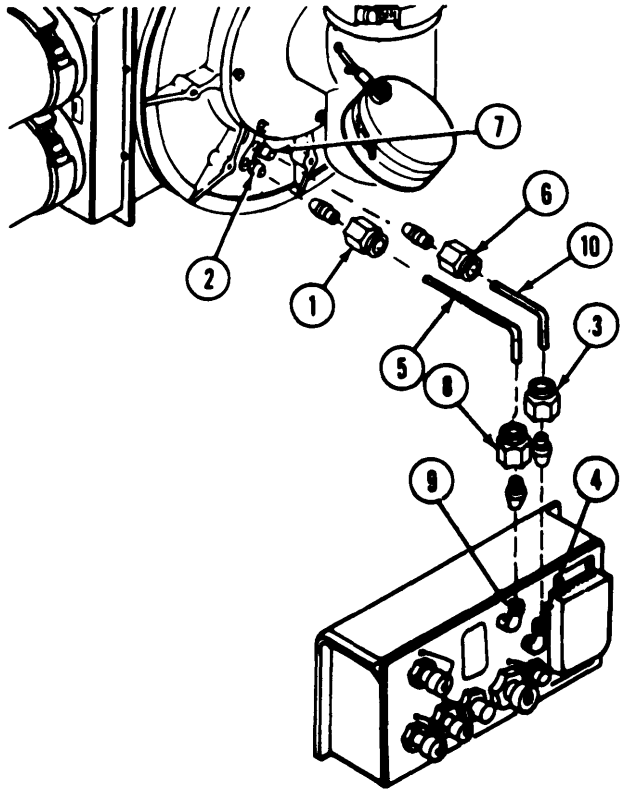
Push tube coupling nut (6) with sleeve onto connector (7) and handtighten.

Push tube coupling nut (8) with sleeve onto connector (9) and handtighten.

Green tubing (nonmetallic)

Push tube coupling nuts (1 and 3) with sleeves on green tube (5). See detail A.

Push one end of tube (5) into connector (2) and one end into connector (4). GREEN dot on power distribution unit indicates connector (4).




Push tube coupling nut (1) with sleeve onto connector (2) and handtighten,

Push tube coupling nut (3) with sleeve onto connector (4) and handtighten.

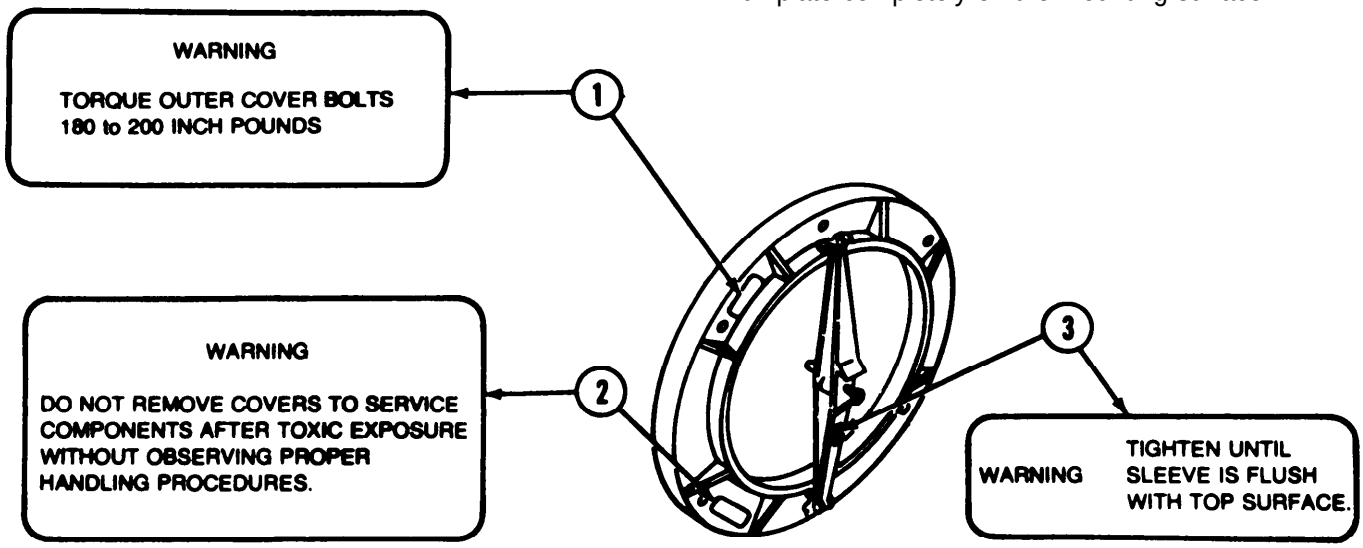
| LOCATION | ITEM | ACTION |
|---|---|---|

## REMOVAL

Access Cover — Instruction plates

Lift edge of plate (1,2,or 3) with a sharp tool.

Pull plate completely off the mounting surface.




## INSTALLATION

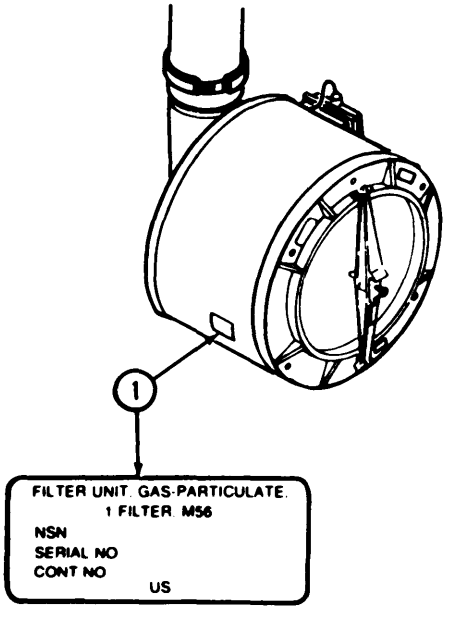
Thoroughly clean mounting surface with dry-cleani solvent (item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt or any foreign matter.

Activate the back of the mounting plate with dry-cleaning solvent (Item 4, app D).

Mount the plate (1, 2, or 3)and pressure to the plate surface.

Sprayer brush plate with aliphatic polyurethane coating (item 2, app D).

## 2-14. M56 GAS-PARTICULATE FILTER UNIT - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REMOVAL** | | |
| M56 Gas-Particulate Filter Unit | Identification plate | Lift edge of plate with a sharp tool.<br><br>Pull plate completely off the mounting surface. |
| **INSTALLATION** | | |
|  | | Thoroughly clean mounting surface with dry-cleaning solvent (item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt or any foreign matter.<br><br>Activate the back of the mounting plate with dry-cleaning solvent (item 4, app D).<br><br>Mount the plate (1) and apply pressure to the plate surface.<br><br>Spray or brush plate with aliphatic polyurethane coating (item 2, app D). |
| **PAINTING** | | |
| | Filter housing, compartment control module, and power distribution unit | Touch-up painting is authorized.<br><br>Thoroughly clean the surfaces to be repainted. U&rags (item 6, app D) and dry-cleaning solvent (item 4, app D).<br><br>**NOTE**<br>Refer to TM 43-0139 for painting instructions for field use.<br><br>Paint surfaces with one coat of primer (item 5, app D).<br><br>Paint primed surfaces with aliphatic polyurethane coating (item 2, app D). |

## 2-15. MAIN FAN - MAINTENANCE INSTRUCTIONS.

This task covers:
a. Removal
b. Installation

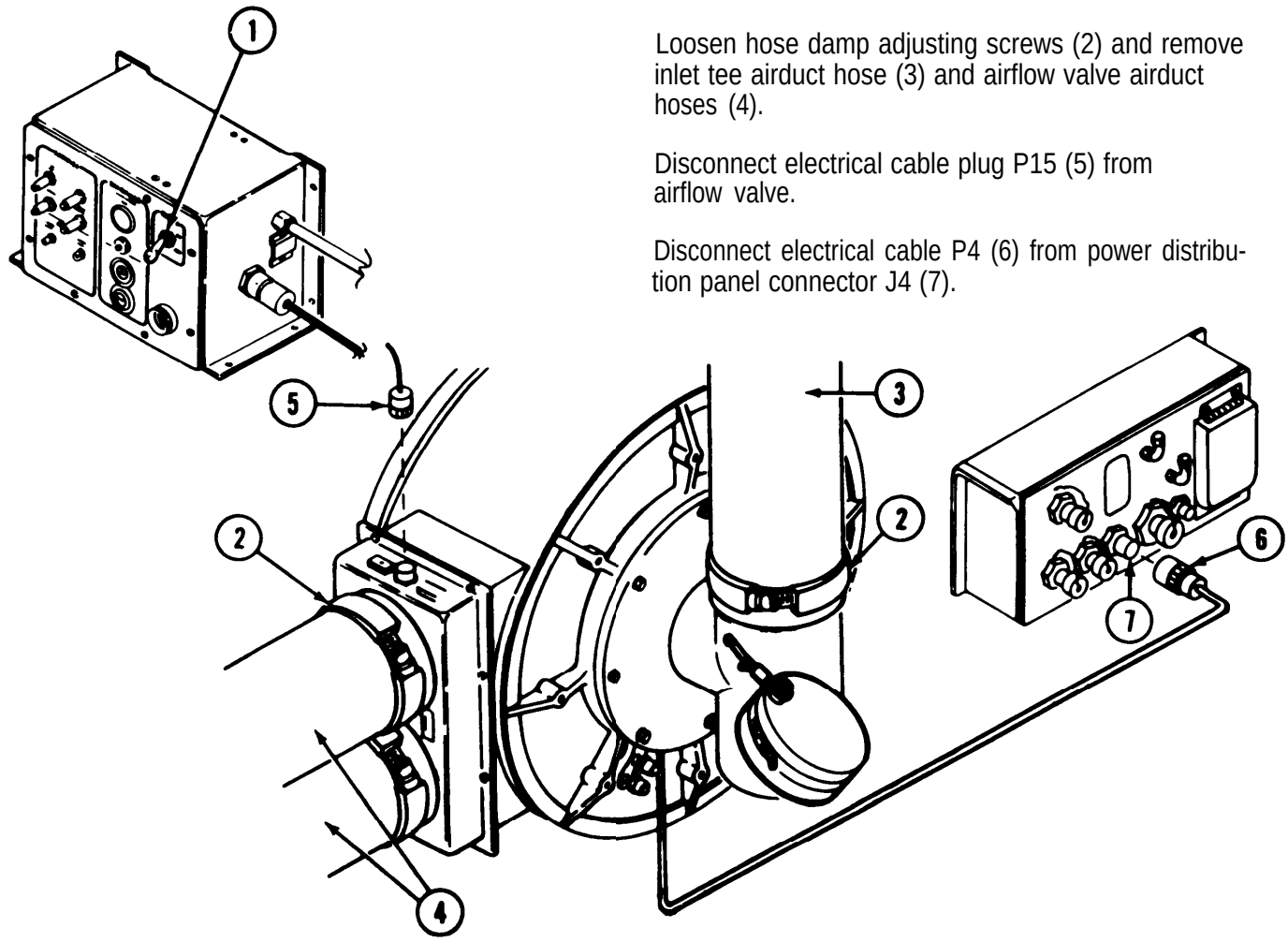
## INITIAL SETUP

*Tools*
General Mechanics Tool Kit
SC 5160-90-CL-N26

| LOCATION | ITEM | ACTION |
|---|---|---|

## REMOVAL

| | | |
|---|---|---|
| M56 Gas-Particulate Filter Unit | Main fan/inlet tee | Set POWER switch (1) on compartment control module to OFF.<br><br>Loosen hose damp adjusting screws (2) and remove inlet tee airduct hose (3) and airflow valve airduct hoses (4).<br><br>Disconnect electrical cable plug P15 (5) from airflow valve.<br><br>Disconnect electrical cable P4 (6) from power distribution panel connector J4 (7). |



## 2-15. MAIN FAN - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL (CONT)

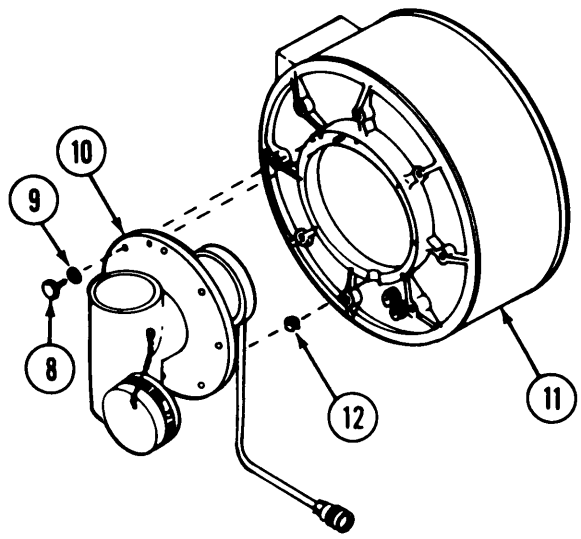
M56 Gas-Particulate Filter Unit

Main fan/inlet tee

Remove screws (8) and washers (9).

Pull inlet tee (10) with main fan attached from filter housing (11). Remove cable from bushing (12).

Remove main fan electrical cable bushing (12) from filter housing. Retain.

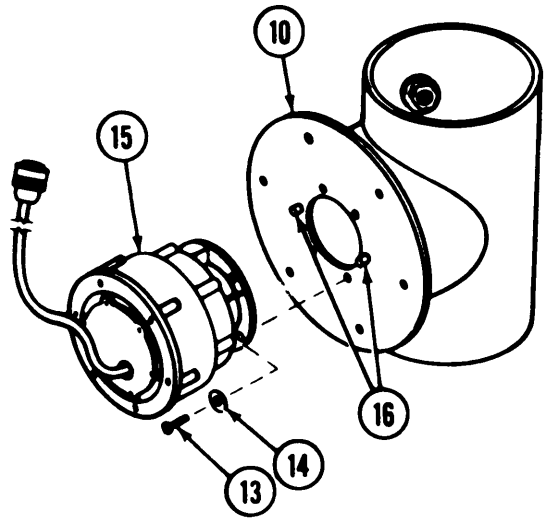



Inlet Tee

Main fan

Remove screws (13) and washers (14).

Separate main fan (15) from inlet tee (10).




### INSTALLATION

Inlet Tee

Main fan

Position main fan (15) up to inlet tee (10). Aline guide pins (16) on inlet tee with guide pin holes in main fan. Push main fan against inlet tee.

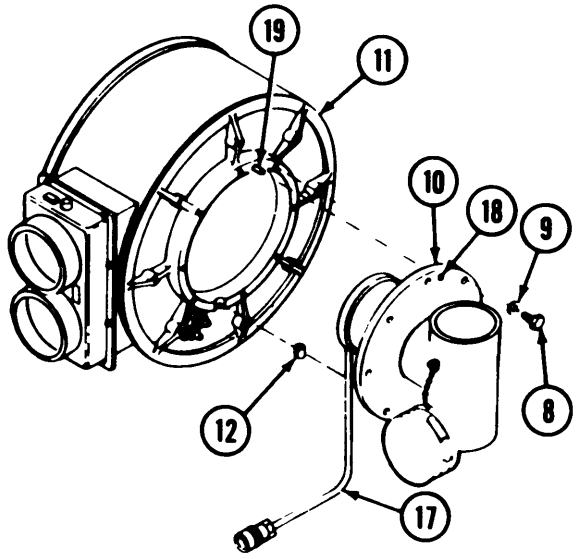
Install washers (14) and screws (13). Tighten securely.

| LOCATION | ITEM | ACTION |
|---|---|---|

## INSTALLATION (CONT)

M56 Gas-Particulate Filter unit

Main fan/inlet tee




Install bushing (12) on cable ( 17) about 10 inches from motor.

Position inlet tee (10) up to filter housing (11).

Install bushing (12) in slot in face of filter housing (11) with slit away from housing.

Aline guide pin hole (18) with guide pin (19). Push inlet tee against filter housing.

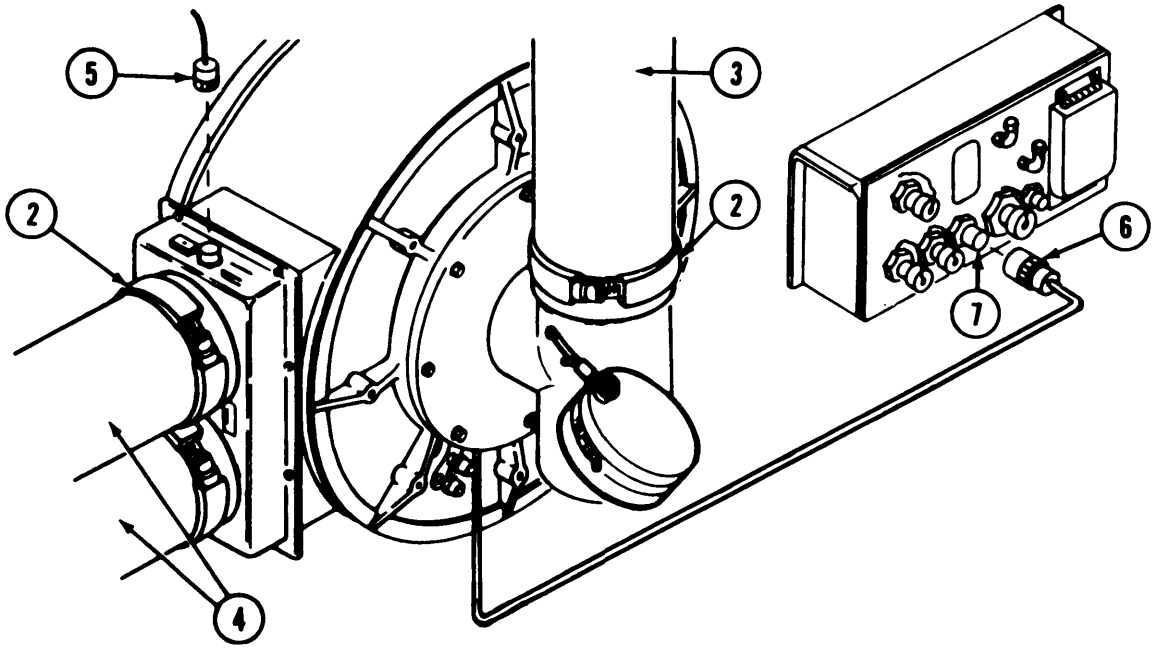
Install washers (9) and screws (8). Tighten securely.

Connect electrical cable plug P4 (6) to power distribution panel connector J4 (7).

Connect electrical cable plug P15 (5) to airflow valve.

Install airduct hoses (3 and 4).

Tighten hose damp adjusting screws (2).



## 2-16 AIRFLOW VALVE - MAINTENANCE INSTRUCTIONS.

This task covers:
a. Removal
b. Disassembly
c. Repair
d Reassembly
e. Installation

### INITIAL SETUP

*Tools*
General Mechanics Tool Kit
SC 5180-90-CL-N26

References
TM 11-7440-294-14 (to be published)

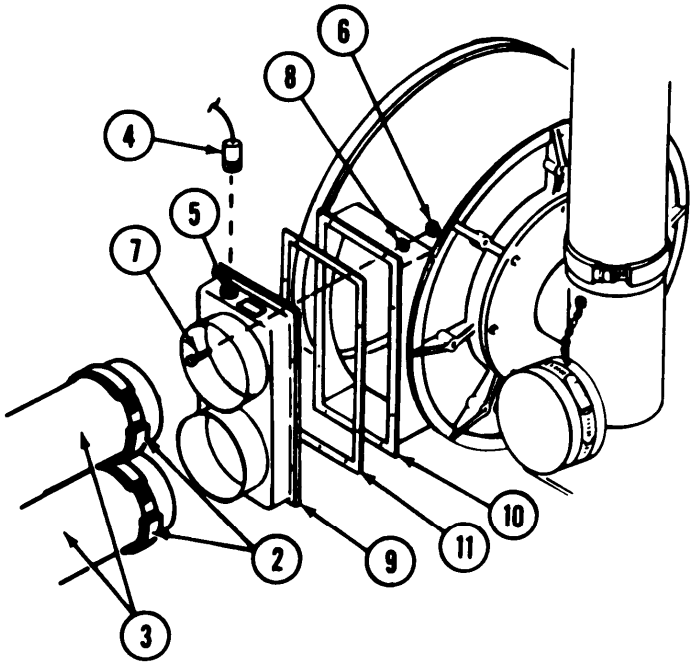
| LOCATION | ITEM | ACTION |
|---|---|---|

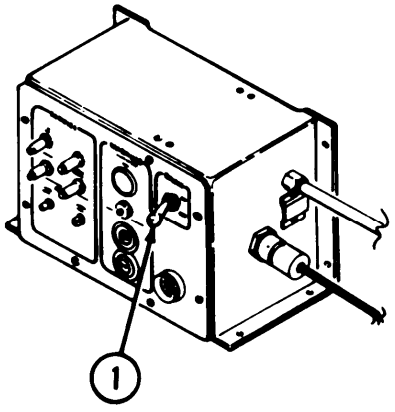
### REMOVAL

M56 Gas-Particulate Filter Unit

Airflow valve

Set POWER switch (1) on compartment control module to OFF.




Loosen hose damp adjusting screws (2) and remove airduct hoses (3).

Disconnect electrical plug P15 (4) from airflow valve connector J15 (5).

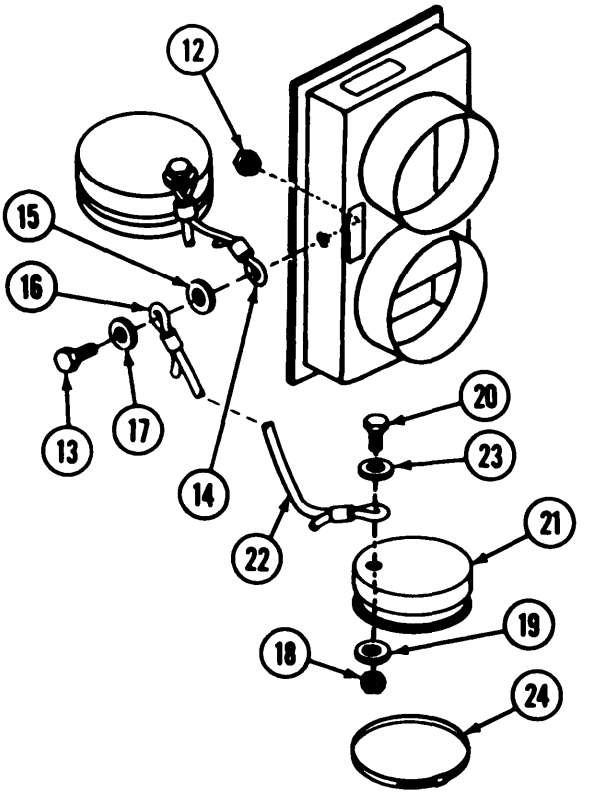
Remove nuts (6), screws (7), and washers (8).

Separate airflow valve (9) from fitter unit (10).

**Gasket**

Replace airflow valve gasket (11) if unserviceable.
Remove gasket from flange on airflow valve.
Clean flange using dry-cleaning solvent (item 4, app D).
Apply adhesive (item 1, app D) to flange.
Install gasket.

| LOCATION | ITEM | ACTION |
|---|---|---|
| **DISASSEMBLY** | | |
| *Airflow* Valve | Dust and moisture seal protective cap | Remove nut (12) from screw (13). Remove screw (13) from airflow valve, supportable (14), washer (15), sup port cable (16), and washer (17).<br><br>Remove nut (18) and washer (19) from screw (20).<br><br>Remove screw (20) from rubber cap (21), support cable (22), and washer (23).<br><br>Remove hose damp (24) from rubber cap (21). |




**REPAIR**

| | | |
|---|---|---|
| | Support cable | Fabricate support cable (fig E-1, app E). |

**REASSEMBLY**

| | | |
|---|---|---|
| Airflow Valve | Dust and moisture seal protective | Install screw (20) in washer (23), loop of support cable (22), hole in rubber cap (21), washer, and nut (18). Tighten nut securely.<br><br>Install hose damp (24) in groove in rubber cap (21). Do not tighten adjusting screw.<br><br>Install screw (13) in washer (17), loop of support cable (16), washer (15), support cable (14), hole in airflow valve, and nut (12). Tighten nut securely. |

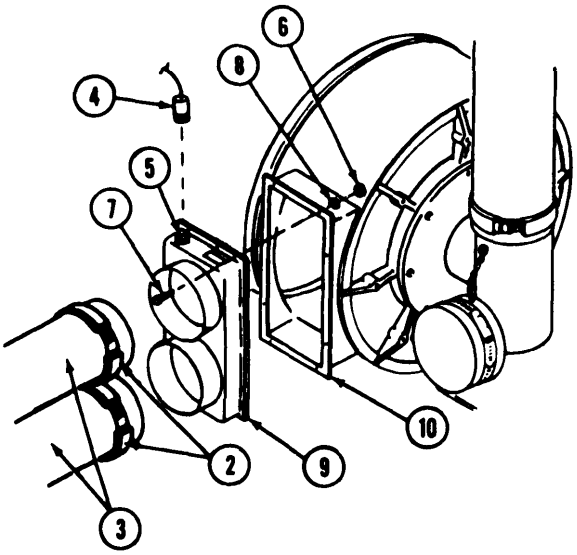
## 2-16. AIRFLOW VALVE - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

### INSTALLATION

M56 Gas-Particulate Filter Unit

Airflow valve




Place airflow valve (9) against fitter housing (10). Aline screw holes.

Install washers (8), screws (7), and nuts (6). Tighten securely.

Connect electrical plug PI 5 (4) to airflow valve connector J15 (5).

Install airduct hoses (3) on airflow valve. Tighten hose clamp adjusting screws (2).

### REMOVAL

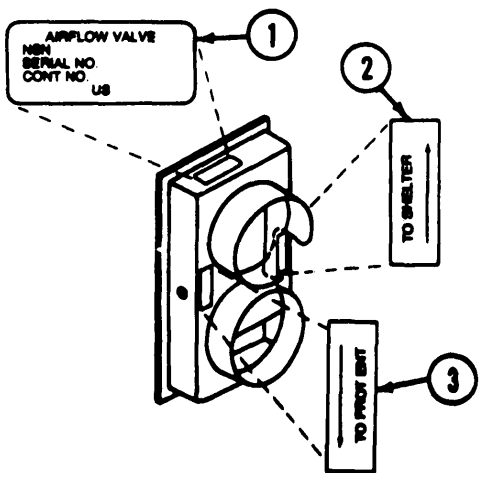
Airflow Valve

Identification plate and instruction plates

Lift edge of plate (1,2,or 3) with a sharp tool.

Pull plate completely off the mounting surface.

### INSTALLATION




Thoroughly dean mounting surface with dry-cleaning solvent (Item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt or any foreign matter.

Activate the back of the plate (1, 2, or 3) with dry-cleaning solvent (Item 4, app D),

Mount the plate and apply pressure to the phlate surface.

Spray of brush plate with allphetic polyurethane coating (Item 2, app D).

## 2-17. POWER DISTRIBUTION UNIT - MAINTENANCE INSTRUCTIONS.

This task covers:
a. Replacement b. Removal c. Installation

### INITIAL SETUP

*Tools*
General Mechanics Tool Kit
SC 5160-90-CL-N26

*General Safety Instructions*
If filter is operating, 208 V is present at the indicator lamp socket.

References
TM 11-7440-294-14 (to be published)

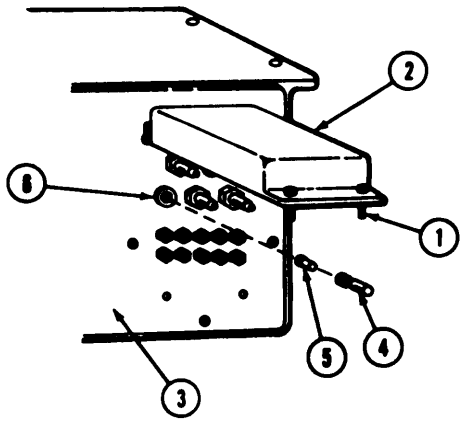
| LOCATION | ITEM | ACTION |
|---|---|---|

### REPLACEMENT

| | | |
|---|---|---|
| TACFIRE | Power distribution unit | Refer to TM 11-7440-294-14 for power distribution unit removal and installation instructions. |

### REMOVAL

| | | |
|---|---|---|
| Power Distribution Panel | 206 V lamp | Loosen screws (1). |
| | | Open access cover (2) on power distribution panel (3). |
| | | Unscrew lens (4). |
| | | **WARNING**<br>If filter unit is operating, high voltage is present at the indicator lamp socket. Personal injury or loss of life may result if socket is contacted. |
| | | Remove 206 V lamp (5) from indicator lamp socket (6). |




### INSTALLATION

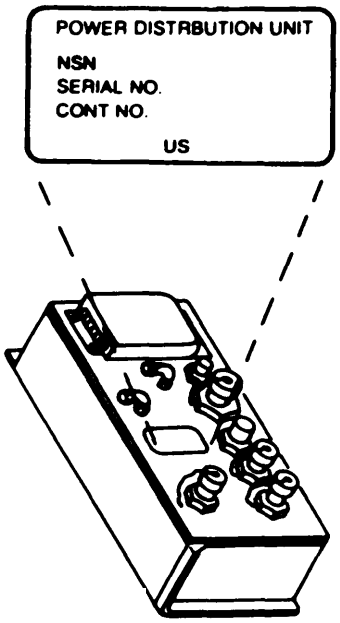
Insert 206 V lamp (5) in lens (4).

Screw lens (4) into indicator lamp socket (6).

Close access cover (2) against panel (3) and secure with screws (1).

## 2-17. POWER DISTRIBUTION UNIT - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REMOVAL** | | |
| Power Distribution Unit | Identificatio plate | Lift edge of plate (1) with a sharp tool.<br><br>Pull plate completely off the mounting surface. |




| | | |
|---|---|---|
| **INSTALLATION** | | |
| | | Thoroughly dean mounting surface with dry-cleaning solvent (item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt or any foreign matter.<br><br>Activate the back of the plate with dry-cleaning solvent (item 4, app D).<br><br>Mount plate (1) and apply pressure to the plate surface.<br><br>Spray or brush plate with aliphatic polyurethane coating (item 2, app D). |

## 2-18. COMPARTMENT CONTROL MODULE - MAINTENANCE INSTRUCTIONS.

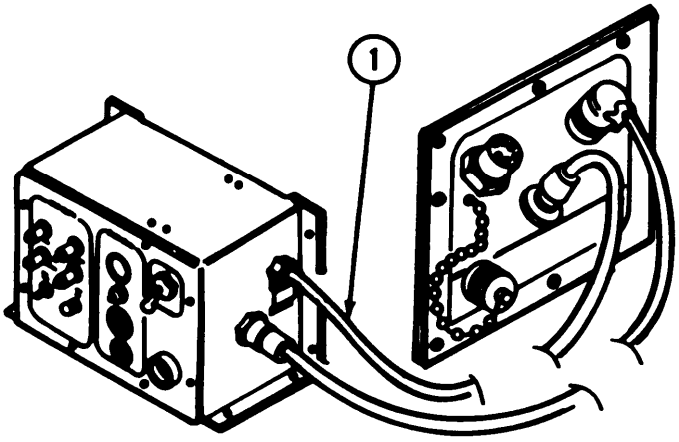
This task covers:
a. Replacement
b. Repair
c. Removal
d. Installation

### INITIAL SETUP

*Tools*
General Mechanics Tool Kit
SC 5180-90-CL-N26

*References*
TM 11-7440-294-14 (to be published)

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REPLACEMENT** | | |
| TACFIRE | Compartment control module | Refer to TM 11-7440-294-14 for compartment control module removal and installation instructions. |
| **REPAIR** | | |
| Compartment Control Module and Feed-Thru* Connector | Hose | Pull off hose (1).<br>Fabricate replacement hose (fig E-4B, app E).<br>Install new hose. |

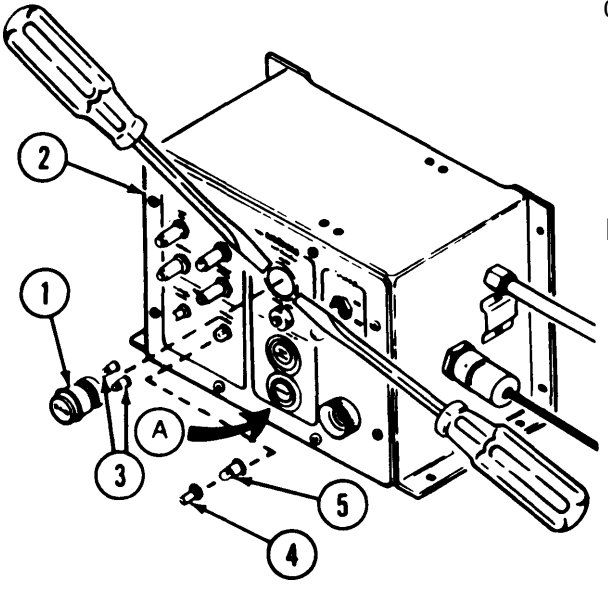


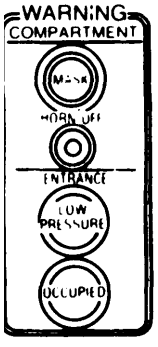

INTERIOR VIEW OF FEED-THRU*

I ELEC/PNEU FEED THRU

**2-18. COMPARTMENT CONTROL MODULE - MAINTENANCE INSTRUCTIONS (CONT).**

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REMOVAL** | | |
| Compartment Control Module | MASK lamp | Using two screwdrivers, gently pry lens (1) module from control panel (2). |
| | | **NOTE**<br>Observe the location of the lamps in the lens module. Lamps must be reinstalled in the same sockets. |
| | | Pull lamps (3) from lens (1). |
| | LOW PRESSURE lamp | Same as MASK lamp. |
| | OCCUPIED lamp | Same as MASK lamp. |
| | CHANGE FILTER lamp | Unscrew lens (4). Remove lamp (5). |
| **INSTALLATION** | | |
| | MASK lamp | Insert lamps (3) into lens (1). Use the same lamp sockets that lamps were removed from. |
| | | Insert lens (1) into control panel (2), as shown in detail A. Press lens into panel until it snaps into place. |
| | LOW PRESSURE lamp | Same as MASK lamp. |
| | OCCUPIED lamp | Same as MASK lamp. |
| | CHANGE FILTER lamp | Insert lamp (5) into lens (4). |
| | | Screw lens (4) into control panel (2). |




DETAIL A

## Section VIII. MAINTENANCE PROCEDURES FOR M262 INSTALLATION KIT

**2-19. GENERAL.** These instructions are for use by organizational maintenance personnel. They apply to:
Airflow valve and silencer
Cables
Airduct hoses

### 2-20. AIRFLOW VALVE AND SILENCER - MAINTENANCE INSTRUCTIONS.

This task covers:

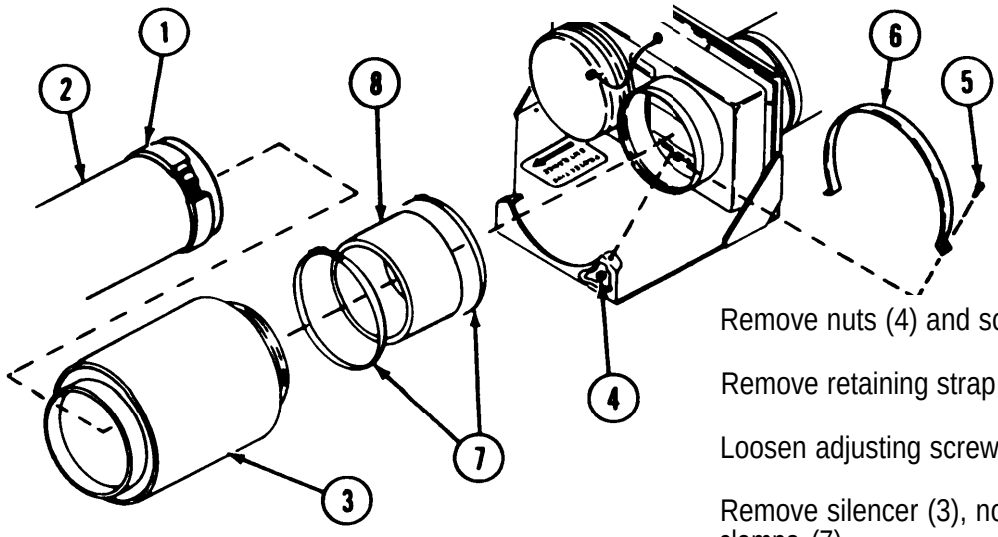
a. Installation
b. Removal
c. Repair
d. Installation

### INITIAL SETUP

*Tools*
General Mechanics Tool Kit
SC 5180-90-CL-N26

*References*
TM 11-7440-294-14 (to be published)

| LOCATION | ITEM | ACTION |
|---|---|---|
| **INSTALLATION** | | |
| TACFIRE | Airflow Valve and Silencer | Refer to TM 11-7440-294-14 for airflow valve and silencer installation instructions. |
| **REMOVAL** | | |
| Airflow Valve and Silencer | Silencer | Loosen hose clamp adjusting screw (1) and remove airduct hose (2) from silencer (3). |
| | | Remove nuts (4) and screws (5). |
| | | Remove retaining strap (6). |
| | | Loosen adjusting screws on hose clamps (7). |
| | | Remove silencer (3), nonmetallic hose (8), and hose clamps (7). |

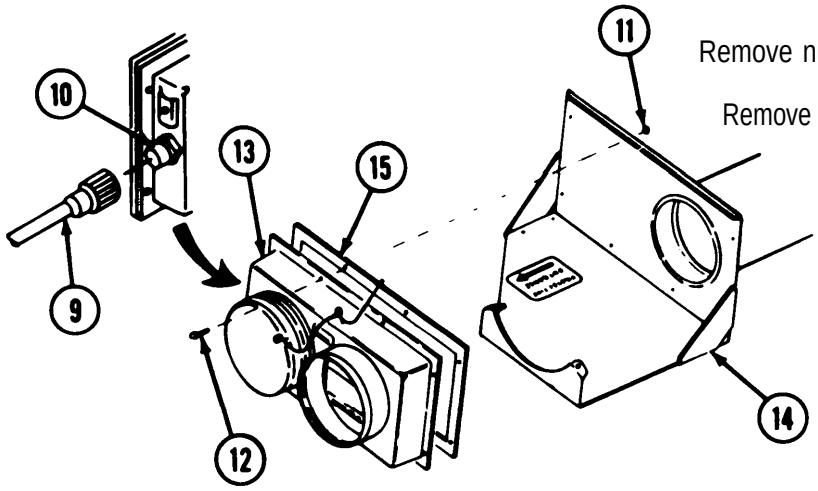


## 2-20. AIRFLOW VALVE AND SILENCER - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL (CONT)

| | | |
|---|---|---|
| Airflow Valve and Silencer | Airflow valve | Disconnect electrical cable plug P15 (9) from airflow valve connector J15 (10). |
| | | Remove nuts (11 ) and screw (12). |
| | | Remove airflow valve (13) from mounting bracket (14). |




### REPAIR

| | | |
|---|---|---|
| | Nonmetallic hose | Fabricate replacement nonmetallic hose (fig E-3, app E). |
| | Gasket | Replace airflow valve gasket (15) if unserviceable.<br>Remove gasket from flange.<br>Clean flange using dry-cleaning solvent (item 4, app D).<br>Apply adhesive (item 1, app D) to flange. Install gasket. |

### INSTALLATION

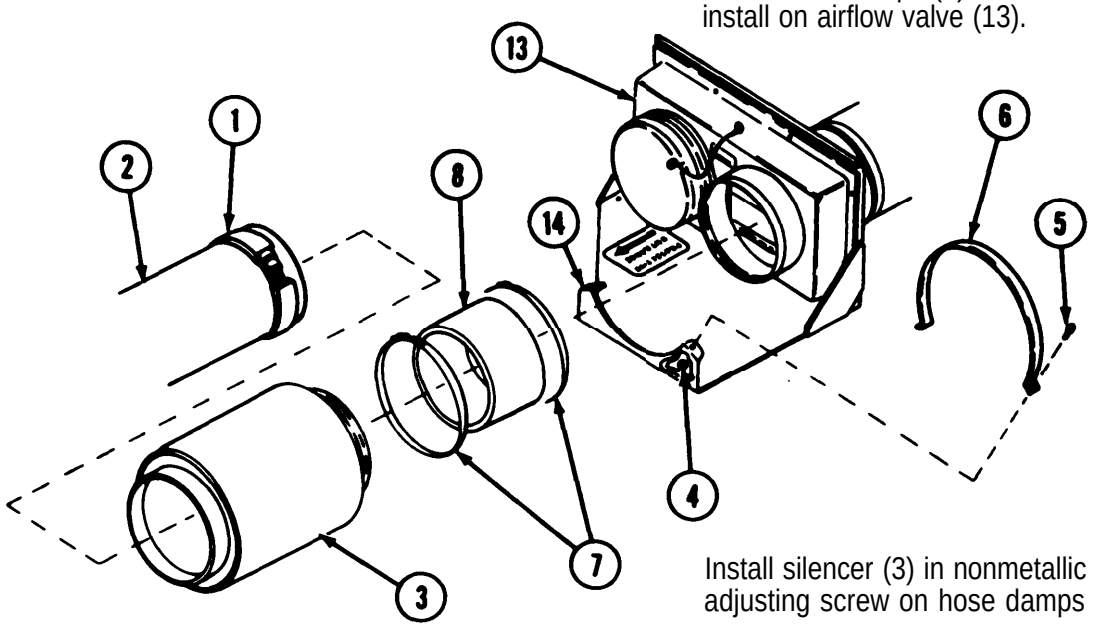
| | | |
|---|---|---|
| Airflow Valve and Silencer | Airflow valve | Position airflow valve (13) against bracket (14) and aline screw holes. |
| | | Install screws (12) and nuts (11). Ttghten securely. |
| | | Connect electrical cable plug P15 (9) to airflow valve connector J15 (10). |

| LOCATION | ITEM | ACTION |
|---|---|---|

## INSTALLATION (CONT)

Airflow Valve and Silencer — Silencer

Place hose damps (7) on nonmetallic hose (8) and install on airflow valve (13).




Install silencer (3) in nonmetallic hose (8) and tighten adjusting screw on hose damps (7)

Place retaining strap (6) over silencer (3), and aline screw holes in strap and mounting bracket (14).

Install screws (5) and nuts (4). Tighten securely.

Install airduct hose (2) on silencer (3) and tighten hose clamp adjusting screw (1).

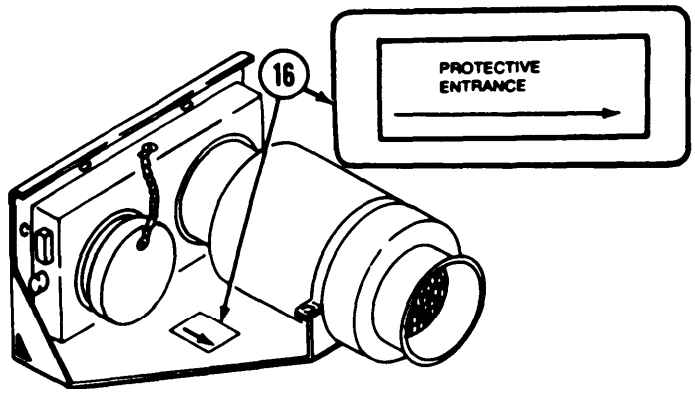
## REMOVAL

Airflow Valve and Silencer — Instruction plate

Lift edge of plate (16) with a sharp tool.

Pull plate completely off the mounting surface.

## INSTALLATION




Thoroughly clean mounting surface with dry-cleaning solvent (item 4, app D). Mounting surface must be free of all contamination such as oil, grease, dirt or any foreign matter.

Activate the back of the plate with dry-cleaning solvent (item 4, app D).

Mount the plate and apply pressure to the plate surface.

Spray or brush plate with aliphatic polyurethane coating (item 2, app D).

## 2-21. CABLE C5-19-6170-40 - MAINTENANCE INSTRUCTIONS.

This task covers:

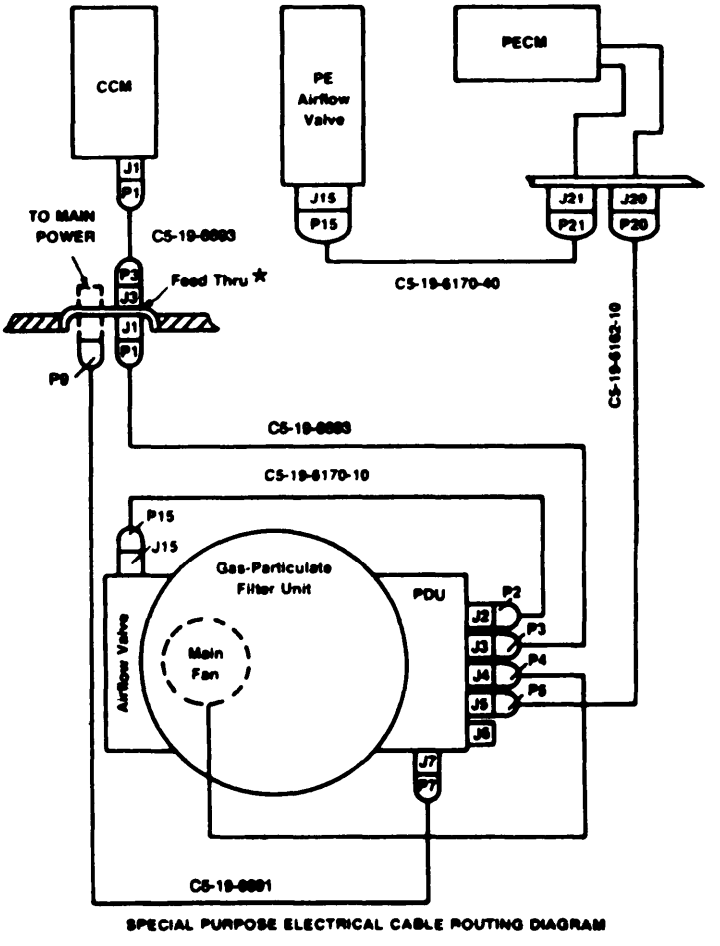
a. Removal
b. Test
c. Replace
d. Installation

### INITIAL SETUP

*Test Equipment*
Mulitmeter AN/USM223

| LOCATION | ITEM | ACTION |
|---|---|---|

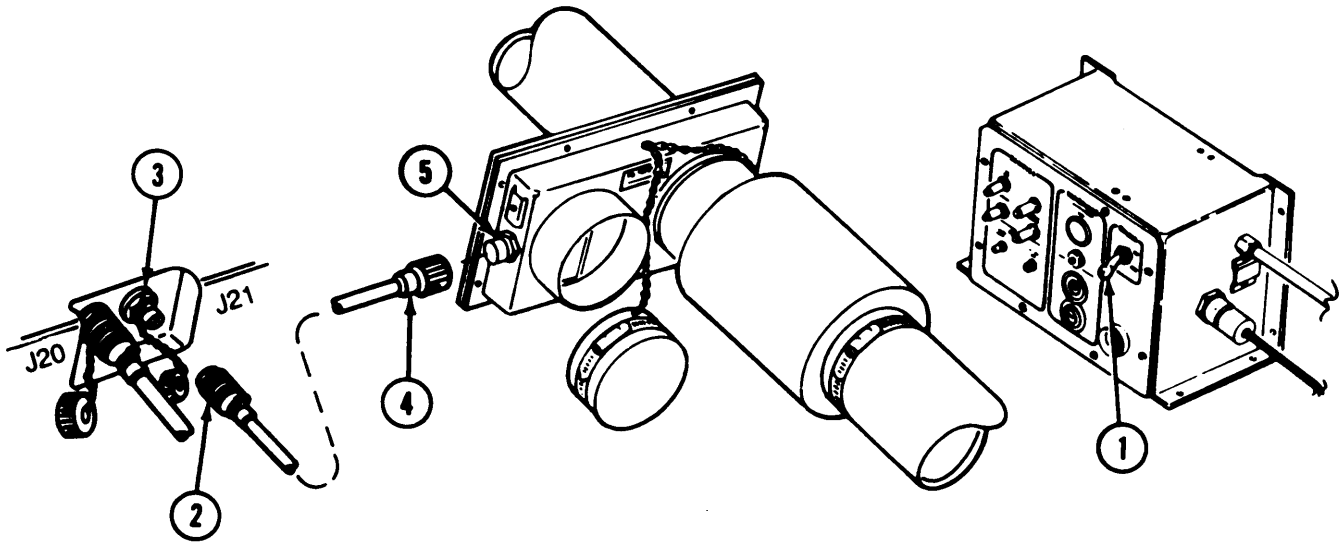
**NOTE**
Use the cable routing diagram below to locate each of the six cables.




SPECIAL PURPOSE ELECTRICAL CABLE ROUTING DIAGRAM

*ELEC/PNEU FEED THRU

| LOCATION | ITEM | ACTION |
|---|---|---|
| **REMOVAL** | | |
| M10 Protective Entrance and Airflow Valve and Silencer | Cable C5-19-6170-40 | Set compartment control module POWER switch (1) to OFF.<br><br>Shut down collective protection equipment power source.<br><br>Disconnect cable plug P21 (2) from protective enclosure connector J21 (3).<br><br>Disconnect cable plug P15 (4) from airflow valve and silencer connector J15 (5). |



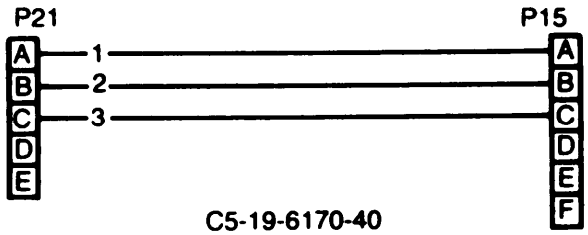
## 2-21. CABLE C5-19-6170-40 - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|

### TEST

Cable C5-19-6170-40

Check continuity of each wire between P21 and p15




C5-19-6170-40
CABLE ASSEMBLY WIRING DIAGRAM

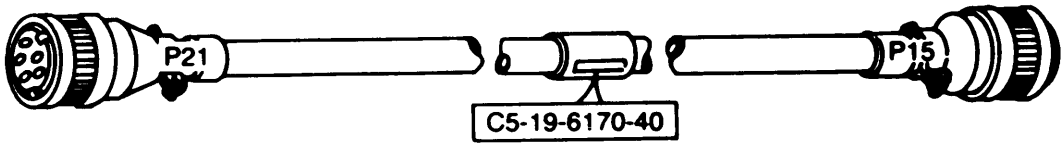
**NOTE**

Use multimeter and cable C5-19-6170-40 wiring diagram.

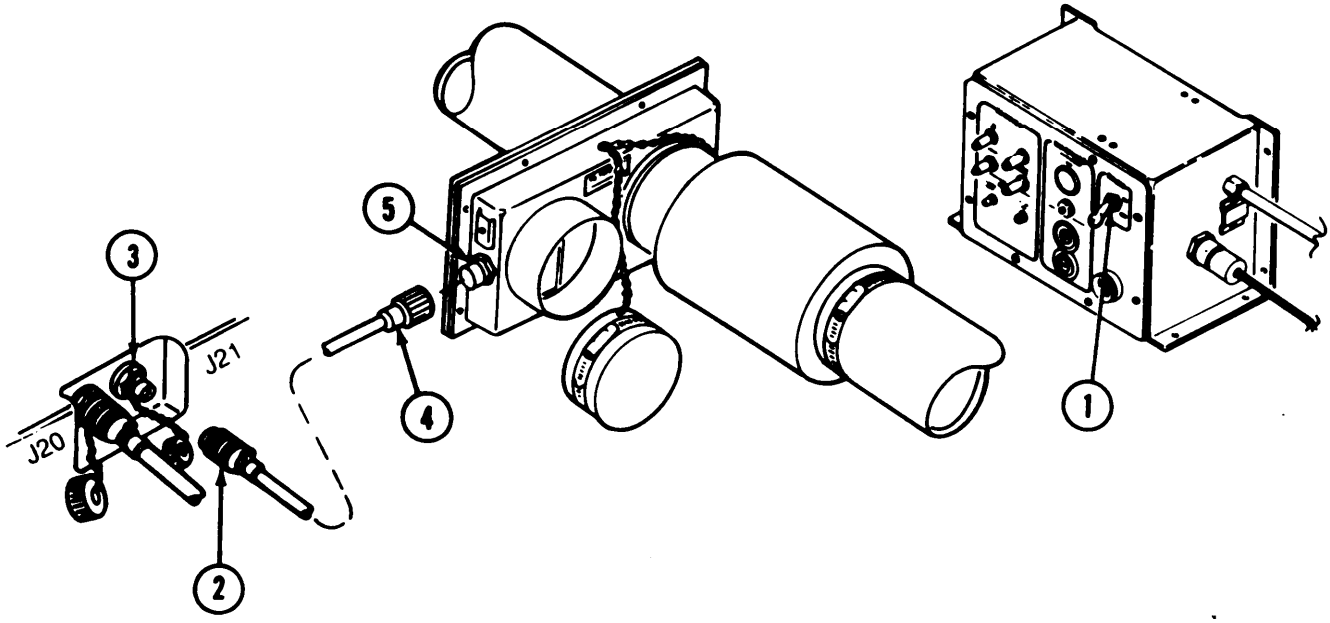
### REPLACE

Cable C5-19-6170-40

Replace cable if it fails continuity check.



| LOCATION | ITEM | ACTION |
|---|---|---|
| **INSTALLATION** | | |
| M10 Protective Entrance and Airflow Valve and Silencer | Cable C5-19-6170-40 | Set POWER switch (1) on compartment control module to OFF.<br><br>Connect cable plug PI 5 (4) to airflow valve connector J15 (5).<br><br>Connect cable plug P21 (2) to protective entrance connector J21 (3). |



## 2-22. CABLE CS-19-6162-10 - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal b. Test c. Installation

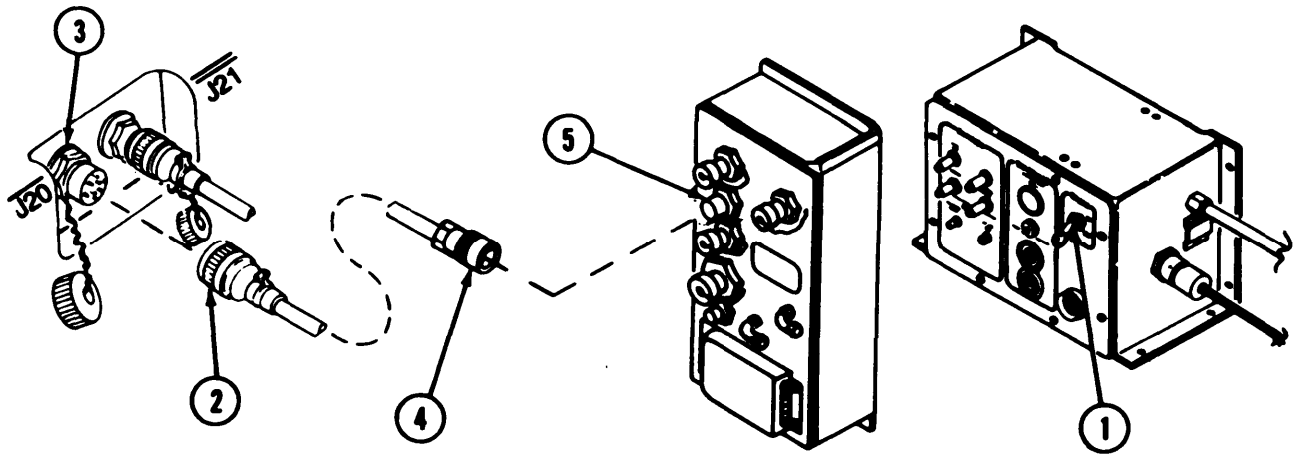
### INITIAL SETUP

*Test Equipment*
Multimeter AN/USM223

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL

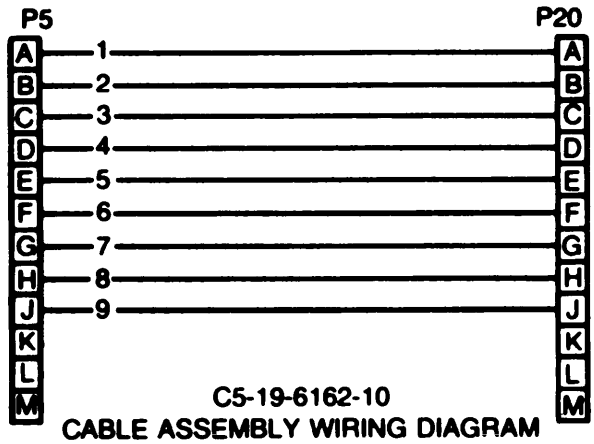
| | | |
|---|---|---|
| M10 Protective Entrance and Power Distribution Unit | Cable C5-19-6162-10 | Set compartment control module POWER switch (1) to OFF.<br><br>Shut down collective protection equipment power source.<br><br>Disconnect electrical cable plug P20 (2) from protective entrance enclosure connector J20 (3).<br><br>Disconnect electrical cable plug P5 (4) from power distribution unit connector J5 (5). |



| LOCATION | ITEM | ACTION |
|---|---|---|
| T E S T | | |
| | Cable C5-19-6162-10 | Check continuity of each wire between P5 and P20. |

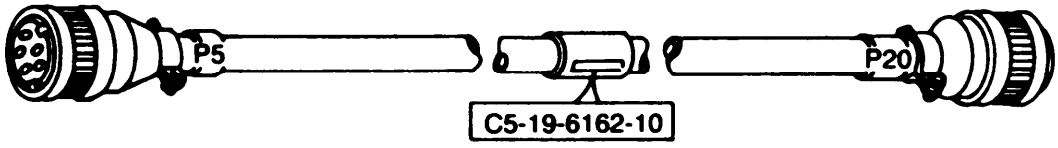
**NOTE**

Use multimeter and cable C5-19-6162-10 wiring diagram.



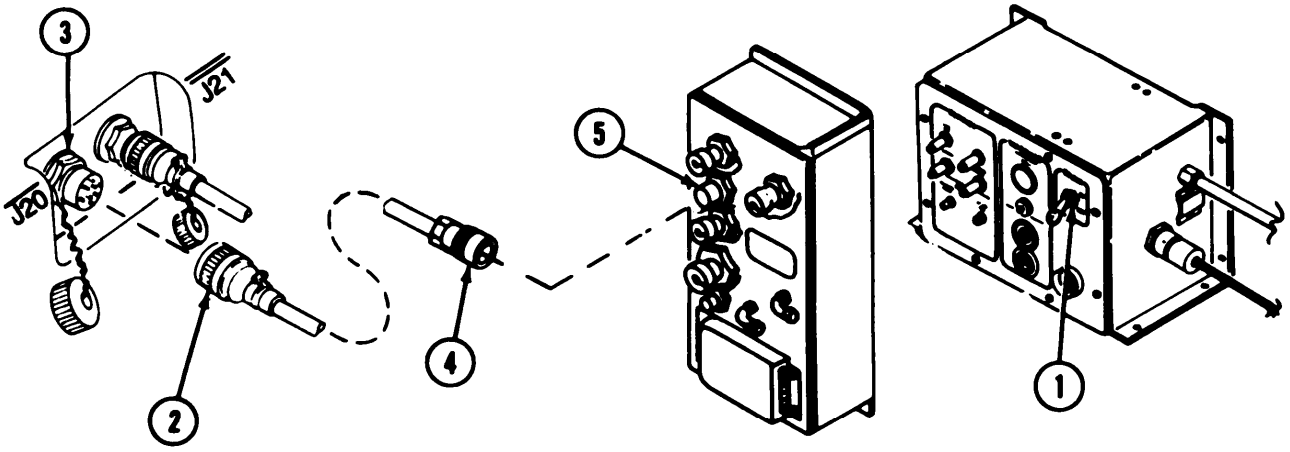

C5-19-6162-10
CABLE ASSEMBLY WIRING DIAGRAM

| | | |
|---|---|---|
| | Cable C5-19-6162-10 | Replace cable if it fails continuity check. |



## 2-22. CABLE CS-16-6162-10 - MAINTENANCE INSTRUCTIONS (CONT)

| LOCATION | ITEM | ACTION |
|---|---|---|
| **INSTALLATION** | | |
| M10 Protective Entrance and Power Distribution Unit | Cable C5-19-6162-10 | Set POWER switch (1) on compartment control module to OFF.<br><br>Connect electrical cable plug P5 (4) to power distribution unit connector J5 (5).<br><br>Connect electrical cable plug P20 (2) to protective entrance enclosure connector J20 (3). |



## 2-23. CABLE C5-19-6170-10 - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal
b. Test
c. Replace
d. Installation

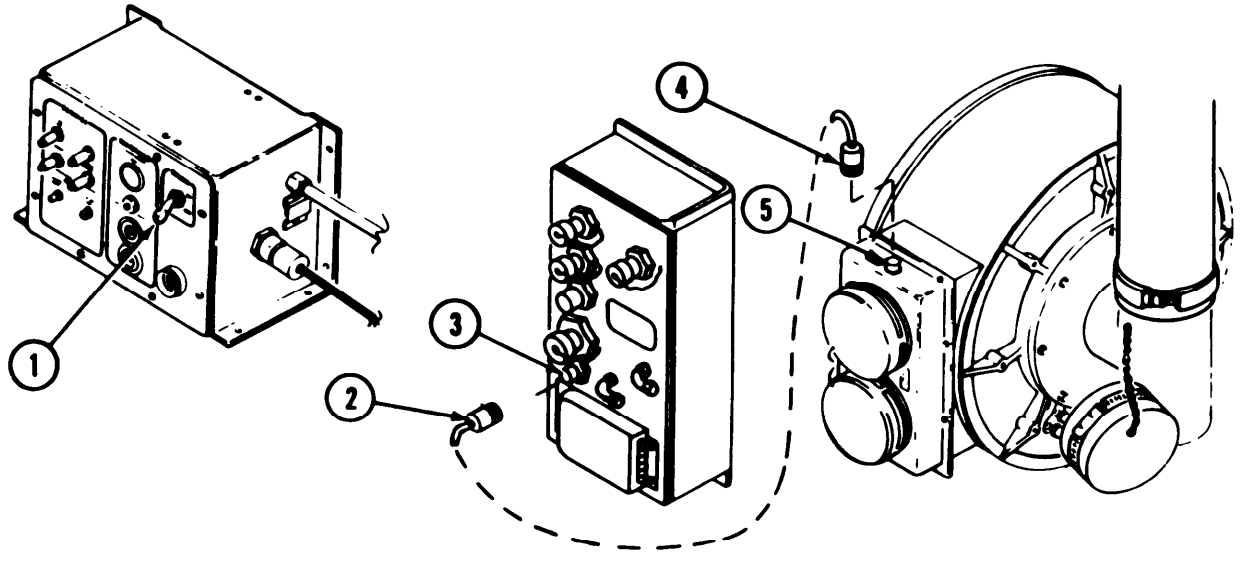
### INITIAL SETUP

*Test Equipment*
Multimeter AN/USM223

| LOCATION | ITEM | ACTION |
|---|---|---|

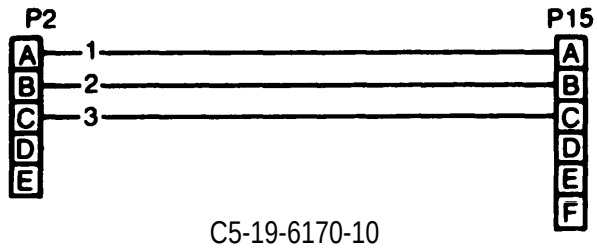
### REMOVAL

| | | |
|---|---|---|
| Power Distribution Unit and Airflow Valve on Fitter Unit | Cable C5-19-6170-10 | Set compartment control module POWER switch (1) to OFF.<br><br>Shut down collective protection equipment power source.<br><br>Disconnect cable assembly plug P2 (2) from PDU connector J2 (3).<br><br>Disconnect cable assembly plug PI 5 (4) from airflow valve connector J15 (5). |



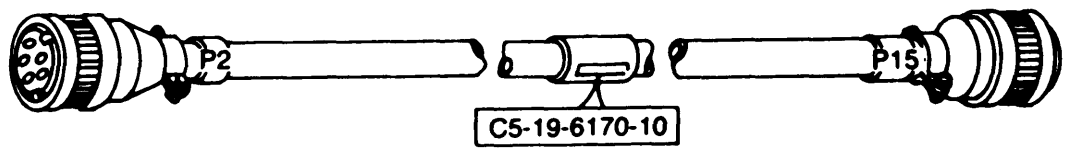
## 2-23. CABLE C5-19-6170-10 - MAINTENANCE INSTRUCTIONS (CONT).

| LOCATION | ITEM | ACTION |
|---|---|---|
| **TEST** | | |
| Power Distribution unit and Airflow Valve on Filter unit | Cable C5-19-6170-10 | Check continuity of each wire between P2 and P15.<br>**NOTE**<br>use multimeter and cable C5-19-6170-10 wiring diagram. |

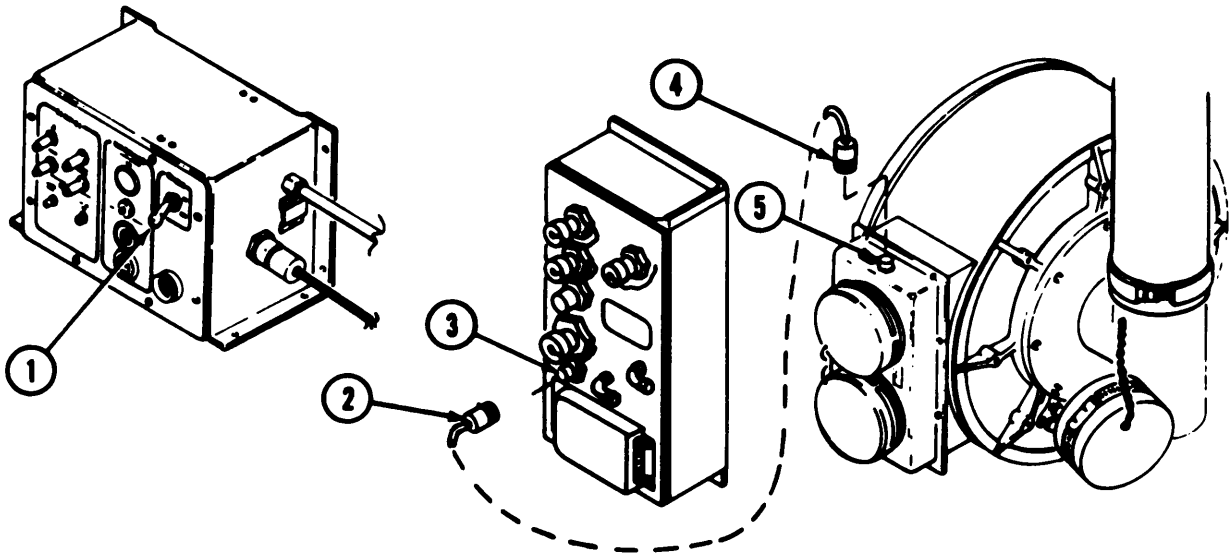



C5-19-6170-10
CABLE WIRING DIAGRAM

| | | |
|---|---|---|
| **REPLACE** | | |
| Power Distribution Unit and Airflow Valve on Filter Unit | cable C5-19-6170-10 | Replace cable if it fails continuity check |



| LOCATION | ITEM | ACTION |
|---|---|---|
| **INSTALLATION** | | |
| Power Distribution Unit and Airflow Valve on Filter Unit | Cable C5-19-6170-10 | Set POWER switch (1) on compartment control module to OFF.<br><br>Connect cable assembly plug P15 (4) to airflow valve connector J15 (5).<br><br>Connect cable assembly plug P2 (2) to power distribution unit connector J2 (3). |



## 2-24. CABLE C5-19-6693 - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal
b. Test
c. Replace
d. Installation

### INITIAL SETUP

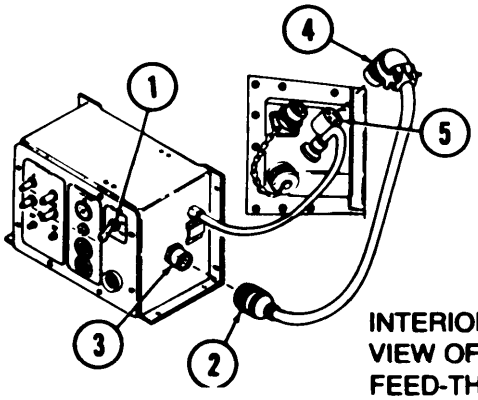
*Test Equipment*
Multimeter AN/USM223

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL

Compartment Control Module and Feed-Thru* Connector

Cable C5-19-6693



INTERIOR VIEW OF FEED-THRU*

Set compartment control module POWER switch (1) to OFF.

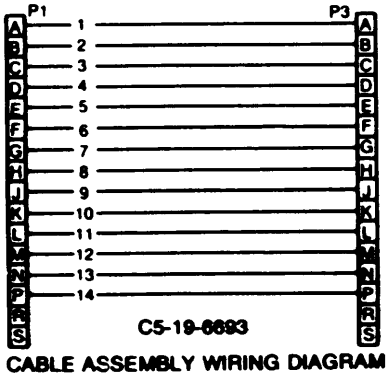
Shut down collective protection equipment power source.

Disconnect cable assembly plug P1 (2) from compartment control module connector J1 (3).

Disconnect cable assembly plug P3 (4) from feed-thru* connector J3 (5).

### TEST

Cable C5-19-6693



CABLE ASSEMBLY WIRING DIAGRAM

Check continuity of each wire between P1 and P3.

**NOTE**

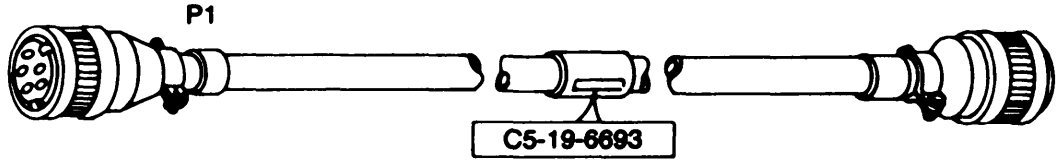
Use multimeter and cable C519-6693 wiring diagram.

*ELEC/PNEU FEED THRU

| LOCATION | ITEM | ACTION |
|---|---|---|

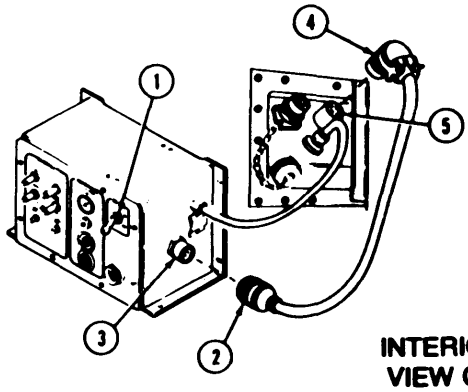
## REPLACE

| | | |
|---|---|---|
| Compartment Control Module and Feed-Thru* Connector | Cable C5-19-6693 | Replace cable if it fails continuity check. |




## INSTALLATION

| | | |
|---|---|---|
| Compartment Control Module and Feed-Thru* Connector | cable C5-19-6693 | Set compartment control module POWER switch (1) to OFF.<br><br>Connect cable assembly plug P3 (4) to feed-thru" connector J3 (5).<br><br>Connect cable assembly plug P1 (2) to compartment control module connector J1 (3). |




INTERIOR VIEW OF FEED-THRU*

ELEQPNEU FEED THRU

## 2-25. CABLE C5-19-6693 - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal
b. Test
c. Replace
d. Installation

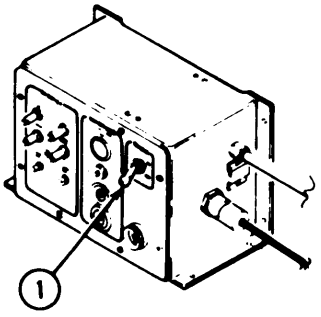
### INITIAL SETUP

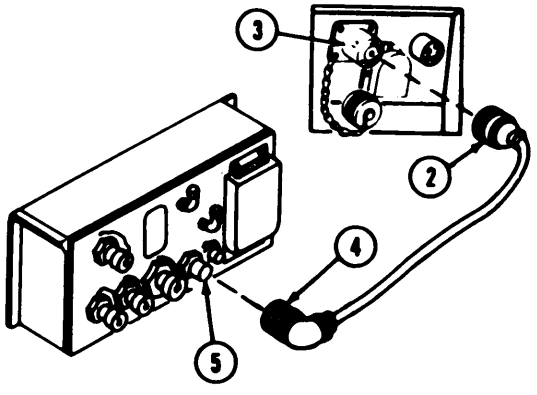
*Test Equipment*
Multimeter AN/USM223

| LOCATION | ITEM | ACTION |
|---|---|---|

### REMOVAL

| | | |
|---|---|---|
| Power Distribution Unit and Feed-Thru" Connector | cable C5-19-6693 | Set compartment control module POWER switch (1) to OFF. |
| | | Shut down collective protection equipment power source. |
| | | Disconnect cable assembly plug P1 (2) from feed-thru* connector J1 (3). |
| | | Disconnect cable assembly plug P3 (4) from power distribution unit connector J3 (5). |



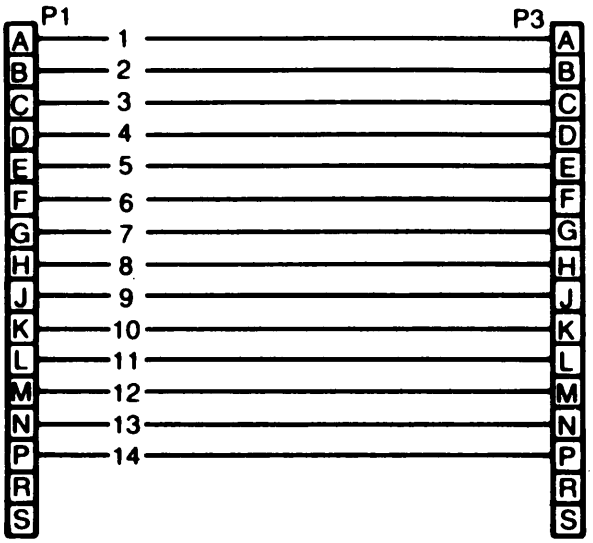

EXTERIOR VIEW OF FEED-THRU*

*ELEC/PNEU FEED THRU

| LOCATION | ITEM | ACTION |
|---|---|---|

**T E S T**

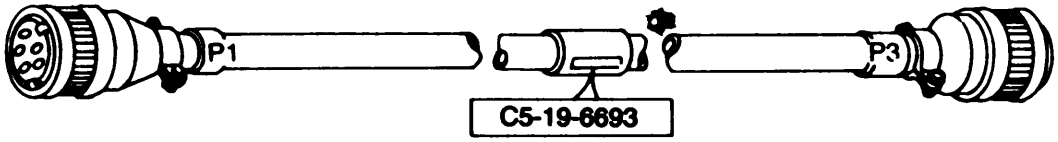
| | | |
|---|---|---|
| | Cable C5-19-6693 | Check continuity of each wire between P1 and P3. |




C5-19-6693
CABLE ASSEMBLY WIRING DIAGRAM

**R E P A I R**

| | | |
|---|---|---|
| Power Distribution Unit and Feed-Thru* Connector | cable c5-19-6693 | Replace cable if it fails continuity check. |




**INSTALLATION**

| | | |
|---|---|---|
| Power Distribution Unit and Feed-Thru* Connector | cable C5-19-6693 | Set compartment control module POWER switch (1) to OFF.<br><br>Connect cable assembly plug P3 (4) to power distribution unit connector J3 (5).<br><br>Connect cable assembly plug P1 (2) to feed-thru* connector J1 (3). |
| ELEC/PNEU FEED THRU | | |

## 2-26. CABLE C5-19-6691 - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal
b. Test
c. Replace
d. Installation

### INITIAL SETUP

*Test Equipment*
Multimeter AN/USM223

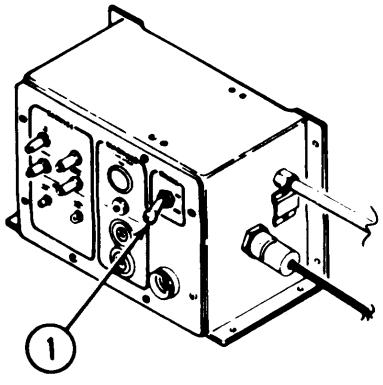
| LOCATION | ITEM | ACTION |
|---|---|---|

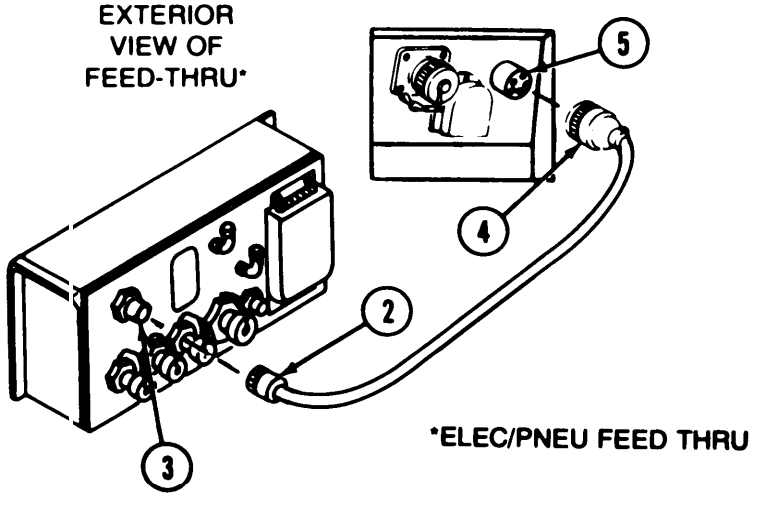
### REMOVAL

**WARNING**

High voltage is used to power this equipment. Before removing power cable, be sure that POWER switch on compartment control module is in the OFF position and that the collective protection equipment power source is shut down to avoid personal injury or loss of life.

| | | |
|---|---|---|
| Power Distribution Unit and Power Source Connector | Cable C5-19-6691 | Set compartment control module POWER switch (1) to OFF.<br><br>Shut down collective protection equipment power source.<br><br>Disconnect cable assembly plug P7 (2) from power distribution unit connector J7 (3).<br><br>Disconnect cable assembly plug PI 2 (4) from power source connector (5). |



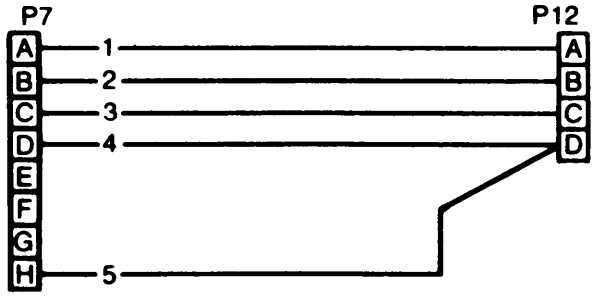



| LOCATION | ITEM | ACTION |
|---|---|---|

**T E S T**

| | | |
|---|---|---|
| Power Distribution Unit and Power Source Connector | cable C5-19-6691 | Check continuity of each wire between P7 and P12. |

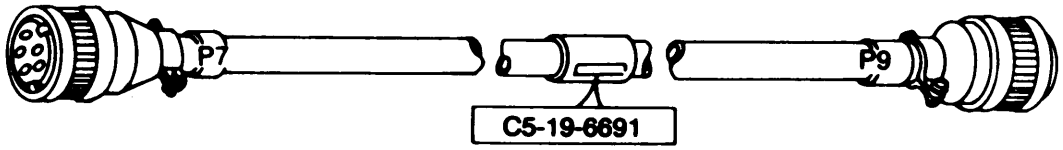
**NOTE**
Use multimeter and cable C5-19-6691 wiring diagram.




**C5-19-6691**
**CABLE WIRING DIAGRAM**

**R E P L A C E**

| | | |
|---|---|---|
| Power Distribution Unit and Power Source Connector | cable C5-19-6691 | Replace cable if it fails continuity check. |




**INSTALLATION**

**WARNING**
High voltage is used to power this equipment. Before installing power cable, be sure that POWER switch on compartment control module is in the OFF position and that the collective protection equipment power source is shut down to avoid personal injury or loss of life.

| | |
|---|---|
| Power Distribution unit and cable C5-19-6691 Power source connector | Set compartment control module POWER switch (1) to OFF.<br><br>Connect cable assembly plug P9 (4) to power source connect J9 (5) at feed thru.<br><br>connect cable assembly plug P7 (2) to power distribution unit connector J7 (3). |

## 2-27. AIRDUCT HOSES - MAINTENANCE INSTRUCTIONS.

This task covers:

a. Removal b. Replace/Repair c. Installation

INITIAL SETUP

*Tools*

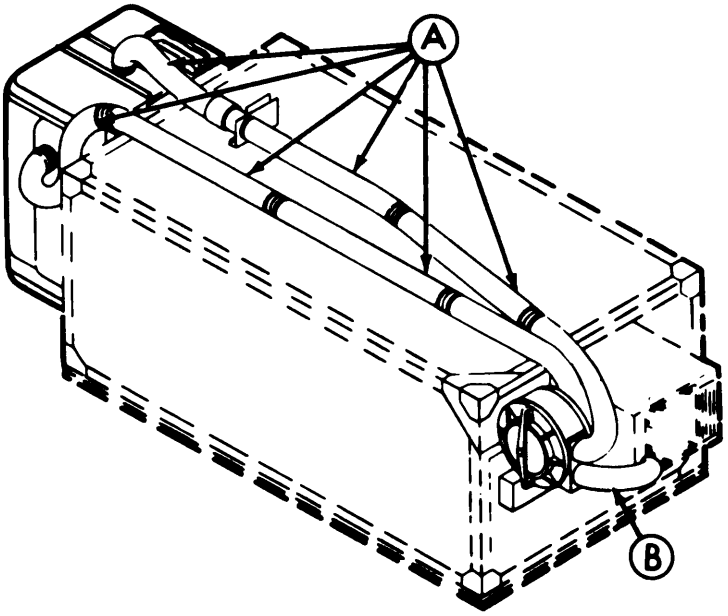
SC5180-90-CL-N26

| LOCATION | ITEM | ACTION |
|---|---|---|

**REMOVAL**

TACFIRE

Airduct hoses

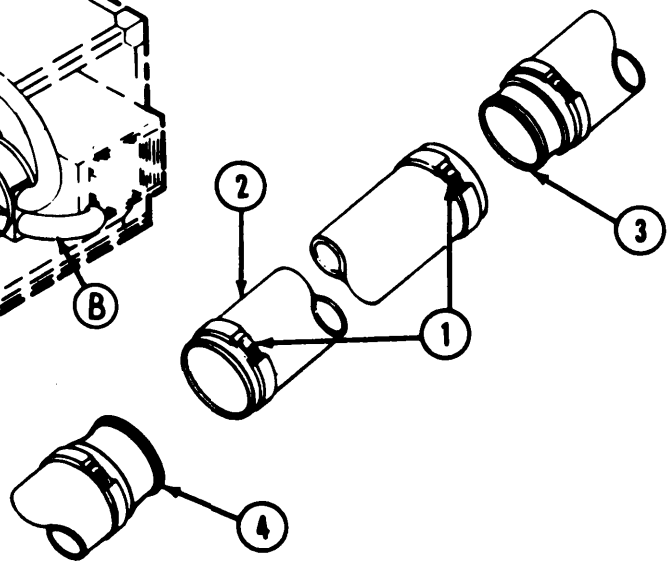



**NOTE**

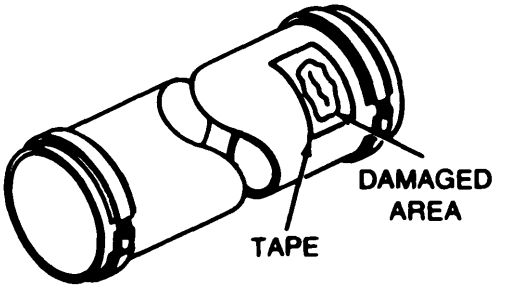
Airduct hoses (A) are 6 ft long. Airduct hose (B) is 3 ft long. Each airduct hose section can be removed or installed as explained below.

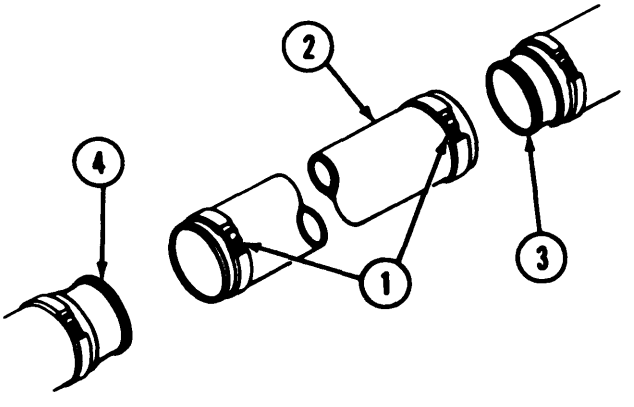
Loosen hose clamp adjusting screws (1).

Pull airduct hose (2) from adapters (3 and 4).



| LOCATION | ITEM | ACTION |
|---|---|---|
| **REPLACE/REPAIR** | | |
| TACPIRE | Airduct hoses | Replace if not repairable.<br><br>Repair:<br>Clean damaged areas using rags (item 6, app D) and dry-cleaning solvent (item 4, app D).<br><br>Cut a piece of tape (item 7, app D) 4 inches longer than the slit or tear.<br><br>Apply the tape over the damaged area leaving 2 inches of tape beyond the tear or slit at each end.<br><br>Press tape firmly in place. |
| **INSTALLATION** | | |
| TACFIRE | Airduct hoses | Push each end of airduct hose (2) over adapters (3 and 4).<br><br>Check that edge of hose is pushed against the bead on the adapter.<br><br>Tighten hose damp adjusting screws (1) securely. |



# APPENDIX A
# REFERENCES

The following publications are related to information contained in this manual.

**A-1. TECHNICAL MANUALS.**

| | |
|---|---|
| TM 3-220 | Chemical, Biological and Radiological (CBR) Decontamination |
| TM 10-277 | Protective Clothing Chemical Operations |
| *TM 11-7440-294-14 | Installation and Operation Instructions for Installation of Modular Collective Protection Equipment (MCPE) in Tacfire Display and Computer Shelters (S-280) |
| TM 38-750 | The Army Maintenance Management System (TAMMS) |
| TM 43-0002-31 | Destruction of Chemical Weapons and Defense Equip ment to Prevent Enemy Use |
| TM 43-0139 | Painting Instructions for Field Use |
| TM 740-90-1 | Administrative Storage of Equipment |

**A-2. COMMON TABLE OF ALLOWANCES.**

| | |
|---|---|
| CTA 50-970 | Expendable Items (Except: Medical ,Class V, Repair Parts and Heraldic Items) |

**A-3. SUPPLY BULLETIN.**

| | |
|---|---|
| SB 708-41/42 | Federal Supply Code for Manufacturers; United States and Canada- Name to Code and Code to Name |

**A-4. SUPPLY CATALOG.**

| | |
|---|---|
| SC 5180-90-CL-N26 | Tool Kit, General Mechanic's; Automotive |

*To be published

# APPENDIX B
# MAINTENANCE ALLOCATION CHART

## Section I. INTRODUCTION

**B-1. GENERAL.**

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance categories.

b. The Maintenance Allocation Chart (MAC) in section II designates overall responsibility for the performance of maintenance functions on the identified end item or Component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

c. Section III lists the special tools and test equipment required for each maintenance function as referenced from section II.

d. Section IV contains supplemental instructions and explanatory notes for a particular maintenance function.

**B-2. MAINTENANCE FUNCTIONS.** Maintenance functions will be limited to and defined as follows:

a. *Inspect.* To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. *Test.* To verify serviceability by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. *Service.* Operations required periodically to keep an item in proper operating condition, i.e., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases.

d. *Adjust.* To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. *Aline.* To adjust specified variable elements of an item to bring about optimum or desired performance.

f. *Calibrate.* To determine and cause corrections to be made or to be adjusted on instruments or test, measuring, and diagnostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. *Install The* act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equip ment or system.

h. *Replace. The* act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services[1] or other maintenance actions[2] to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j *Overhaul.* That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards in appropriate technical publications (i.e., DMWR). Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

[1] Services - inspect, test, service, adjust, aline, calibrate, or replace.

[2] Actions - welding, grinding, riveting, straightening, facing, remachining, or resurfacing.

k. *Rebuild.* Consists of those serviced actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc) considered in classifying Army equipment components.

**B-3. EXPLANATION OF COLUMNS IN THE MAC, SECTION II.**

a *Column 1, Group Number.* Column 1 lists fictional group code numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. *Column 2, Component/Assembly.* Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. *Column 3, Maintenance Function.* Column 3 lists the functions to be performed on the item listed in Column 2. (For detailed explanation of these functions, see paragraph B-2.)

d. *Column 4, Maintenance Category.* Column *4 specifies, by* the listing of a work time figure in the appropriate subcolumn(s), the category of maintenance authorized to perform the function listed in Column *3. This figure* represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate work time figures will be shown for each category. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance categories are as follows

C Operator or crew.
O Organizational maintenance.
F Direct support maintenance.
H General support maintenance.
D Depot maintenance.

e. *Column 5, Tools and Equipment. Column 5 specifies,* by code, those common tool sets (not individual tools) and special tools, TMDE, and support equipment required to perform the designated function.

f. *Column* 6, *Remarks. This column shall,* when applicable, contain a letter code, in alphabetic order, which shall be keyed to the remarks contained in Section IV.

**B-4. EXPLANATION OF COLUMNS IN TOOL AND TEST EQUIPMENT REQUIREMENTS, SECTION III.**

a. *Column 1, Reference* Code. The tool and test equipment reference code correlates with a code used in the MAC, Section II, Column 5.

b. *Column 2, Maintenance Category. The* lowest category of maintenance authorized to use the tool or test equipment.

c. *Column 8, Nomaclature.* Name or identification of the tool or test equipment.

d. *Column b,* National *Stock Number.* The National stock number of the tool or test equipment.

e. *Column 5, Tool Number. The* manufacturer's part number.

**B-5. EXPLANATION OF COLUMNS IN REMARKS, SECTION IV.**

a. *Column 1, Reference Code. The code recorded* in column 6, Section II.

b. *Column 2, Remarks. This* column lists information pertinent to the maintenance function being performed as indicated in the MAC, Section II.

## Section II. MAINTENANCE ALLOCATION CHART

| (1) GROUP NUMBER | (2) COMPONENT/ASSEMBLY | (3) MAINTENANCE FUNCTION | (4) MAINTENANCE CATEGORY | | | | | (5) TOOLS AND EQPT. | (6) REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | C | O | F | H | D | | |
| 0100 | M10 PROTECTIVE ENTRANCE | Inspect | 0.2 | | | | | | |
| | | Test | | 0.2 | | | | 4 | |
| | | Install | 0.3 | | | | | | |
| | | Replace | | 0.5 | | | | | |
| | | Repair | | 0.3 | | | | 1, 15, 16 | |
| 0110 | PROTECTIVE ENTRANCE CONTROL MODULE | Test | | | 0.5 | | | 4, 5, 6, 8, 9, 10, 11 | |
| | | Replace | | 0.4 | | | | 1 | |
| | | Repair | | 0.1 | 4.0 | | | 2 | |
| 0200 | M56 GAS-PARTICULATE FILTER UNIT | Inspect | 0.2 | | | | | | |
| | | Test | | 0.5 | | | | 4 | |
| | | Replace | | 0.3 | | | | 1 | |
| | | Repair | | 1.0 | | | | 1, 3 | |
| 0210 | MAIN FAN | Test | | | 0.5 | | | 4 | |
| | | Replace | | 0.8 | | | | 1 | |
| | | Repair | | | 4.0 | | | 2, 12, 13, 14 | |
| 0220 | AIRFLOW VALVE | Test | | | 0.3 | | | 4 | |
| | | Replace | | 0.3 | | | | 1 | |
| | | Repair | | 0.5 | 2.0 | | | 2 | |
| 0230 | POWER DISTRIBUTION UNIT | Replace | | 0.2 | | | | 1 | |
| | | Repair | | | 0.1 | | | 2 | |
| 0231 | POWER DISTRIBUTION PANEL | Test | | | 0.5 | | | 4, 5, 6, 7, 9, 10, 11 | |
| | | Repair | | 0.1 | 2.0 | | | 2 | |
| 0240 | COMPARTMENT CONTROL MODULE | Test | | | 1.0 | | | 4, 5, 6, 8, 9, 10, 11 | |
| | | Replace | | 0.2 | | | | 1 | |
| | | Repair | | 0.1 | 4.0 | | | 2 | |
| 0300 | M262 INSTALLATION KIT | Test | | 0.3 | | | | 4 | |
| | | Inspect | 0.5 | | | | | | |
| | | Install | 0.7 | | | | | | |
| | | Repair | 0.1 | 0.7 | | | | | |
| 0310 | AIRFLOW VALVE AND SILENCER | Test | | 0.2 | | | | 4 | |
| | | Install | 0.1 | | | | | | |
| | | Repair | | 1.0 | | | | 1 | |
| 0311 | AIRFLOW VALVE | Test | | | 0.3 | | | 4 | |
| | | Replace | | 0.3 | | | | 1 | |
| | | Repair | | 0.5 | 2.0 | | | 2 | |

## Section III. T00L AND TEST EQUIPMENT REQUIREMENTS

| TOOL OR TEST EQUIPMENT REF CODE | MAINTENANCE CATEGORY | NOMENCLATURE | NATIONAL/NATO STOCK NUMBER | TOOL NUMBER |
|---|---|---|---|---|
| 1 | o | TOOL KIT, GENERAL MECHANICS | 5180-00-177-7033 | SC 5180-90-CL-N26 |
| 2 | F | TOOL KIT, ELECTRONIC EQUIPMENT | 5180-00-610-8177 | SC 5180-91-CL-R07 |
| 3 | o | WRENCH, TORQUE | 5120-00-247-2536 | |
| 4 | 0 | MULTIMETER | 6625-00-999-7465 | AN/USM223 |
| 5 | F | POWER SUPPLY DIRECT CURRENT | 6130-00-408-4962 (or equivalent) | |
| 6 | F | GAGE, DIFFERENTIAL, DIAL INDICATING, 06 inches ($H_20$) | 6685-00-087-6331 | |
| 7 | F | RESISTOR, 680 OHM, ±50/o, 2 WATT | 5905-00-256-0390 | |
| 8 | F | RESISTOR, 100 OHM ± $10^0/_0$ 10 WATT | 5905-00752-6460 | |
| 9 | F | SYRINGE, HYPODERMIC | 651$00-754-0412 | |
| 10 | F | TEE, HOSE | 4730-00082-5402 | |
| 11 | F | TUBING, NONMETALLIC | 4720-00-059-5819 | |
| 12 | F | PULLER KIT | 5120-00289-9597 | |
| 13 | F | GAGE, DEPTH, MICROMETER | 5210-00-619-4O45 | |
| 14 | F | PRESS, ARBOR | 344440-243-2655 (or equivalent) | |
| 15 | 0 | DRILL, ELECTRIC, PORTABLE | 5130-00-889-8994 | |
| 16 | 0 | DRILL, TWIST 1/8 INCH | 5133-00-227-9650 | |

## Section IV. REMARKS

| REFERENCE CODE | REMARKS |
|---|---|
| | *None* |

# APPENDIX C

# REPAIR PARTS AND SPECIAL TOOLS LIST

## Section I. INTRODUCTION

**C-1. SCOPE.** This manual lists spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE), and other special support equipment required for performance of organizational maintenance of the collective protection equipment. It authorizes the requisitioning and issue of spares and repair parts as indicated by the source and maintenance codes.

**C-2. GENERAL.** This Repair Parts and Special Tools List is divided into the following sections:

a. *Section II. Repair Parts List.* A list of spares and repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in numeric sequence, with the parts in each group listed in figure and item number sequence. Bulk materials are listed in NSN sequence.

b. *Section III. Special Tools List.* Not applicable.

c. *Section IV. National Stock Number and Part Number Index.* A list, in National item identification number (NIIN) sequence, of all National stock numbers (NSN) appearing in the listings, followed by a list in alphameric sequence of all parts numbers appearing in the listings. National stock numbers and part numbers are cross--referenced to each illustration figure and item number appearance.

**C-3. EXPLANATION OF COLUMNS.**

a. *Illustration.* This column is divided as follows:

(1) *Figure Number.* Indicates the figure number of the illustration on which the item is shown.

(2) *Item Number. The* number used to identifi item called out in the illustration.

b. *Source, Maintenance, and Recoverability (SMR) Codes.*

(1) Source *Code.* Source codes indicate the manner of acquiring support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

| *Code* | *Definition* |
|---|---|
| PA | Item procured and stocked for anticipated or known usage. |
| MO | Item to be manufactured or fabricated at organizational level. |
| AO | Item to be assembled at organizational level. |
| XA | Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly. |
| XB | Item is not procured or stocked. If not available through salvage, requisition. |

**NOTE**

Cannibalization or salvage may be used as a source of supply for any items coded above except those coded XA and aircraft support items as restricted by AR 700-42.

(2) *Maintenance Code.* Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

| code | *Application/Explanation* |
|---|---|
| O | Support item is removed, replaced, used at the organizational level. |

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes.

| *Code* | *Application/Explanation* |
|---|---|
| O | The lowest maintenance level capable of complete repair of the support item is the organizational level. |
| F | The lowest maintenance level capable of complete repair of the support item is the direct support level. |
| Z | Nonreparable. No repair is authorized. |

(3) *Recoverability Code.* Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows

| *Recoverability Codes* | *Definition* |
|---|---|
| Z | Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3. |
| O | Reparable item. When uneconomically reparable, condemn and dispose at organizational level. |
| F | Reparable item. When uneconomically reparable, condemn and dispose at the direct support level. |
| A | Item requires special handling or condemnation procedures because of specific reasons (i. e., precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions. |

c. *National Stock Number.* Indicates the National stock number assigned to the item and which will be used for requisitioning.

d. *Federal Supply Code for Manufacturer (FSCM). The* FSCM is a 5-digit numeric code listed in SB 708-42 which is used to identify the manufacturer, distributor, or Government agency, etc.

e. *Part Number.* Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

**NOTE**

When a stock numbered item is requisitioned, the item received may have a different part number than the part being replaced.

f. *Description.* Indicates the Federal item name and, if required, a minimum description to identify the item.

g. *Unit of Measure (UIM).* Indicates the standard of the basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in, pr, etc). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

h. *Quantity Incorporated in Unit.* Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable, (e. g., shims, spacers, etc).

## C-4. SPECIAL INFORMATION.

a. Detailed manufacturing instructions for items source coded to be manufactured or fabricated are found in appendix E of this manual. Bulk materials required to manufacture items are listed in the Bulk Material Group of this manual.

b. Action change codes indicated in the lefthand margin of the listing page denote the following

N Indicates an added item.
C Indicates a change in data.
R Indicates a change in NSN only.

## C-5. HOW TO LOCATE REPAIR PARTS.

a. When National Stock Number or Part Number is Unknown:

(1) *First.* Using the table of contents determine the functional group within which the item belongs. This is necessary since illustrations are prepared for fictional groups, and listings are divided into the same groups.

(2) Second. Find the illustration covering the fictional group to which the item belongs.

(3) *Third.* Identify the item on the illustration and note the illustration figure and item number of the item.

(4) *Fourth.* Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. *When National Stock Number or Part Number* is *Known:*

*(1) First.* Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in NIIN sequence followed by a list of part numbers in alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) Second. After finding the figure and item number, locate the figure and item number in the repair parts list.

## C-6. ABBREVIATIONS.

| *Abbreviation* | *Explanation* |
|---|---|
| CFM | cubic feet per minute |
| dia | diameter |
| hd | head |
| hex | hexagon |
| in. | inch |
| id | inside diameter |
| lg | long |
| MFD | manufactured |
| mtg | mounting |
| NPS | National Pipe Standard |
| nom | nominal |
| no | number |
| oa | overall |
| od | outside diameter |
| porm | plus or minus |
| PSI | pounds per square inch |
| thk | thick |
| thd | thread |
| UNC | United National Course |
| UNF | United National Fine |
| W/ | with |

## Section II. REPAIR PARTS LIST

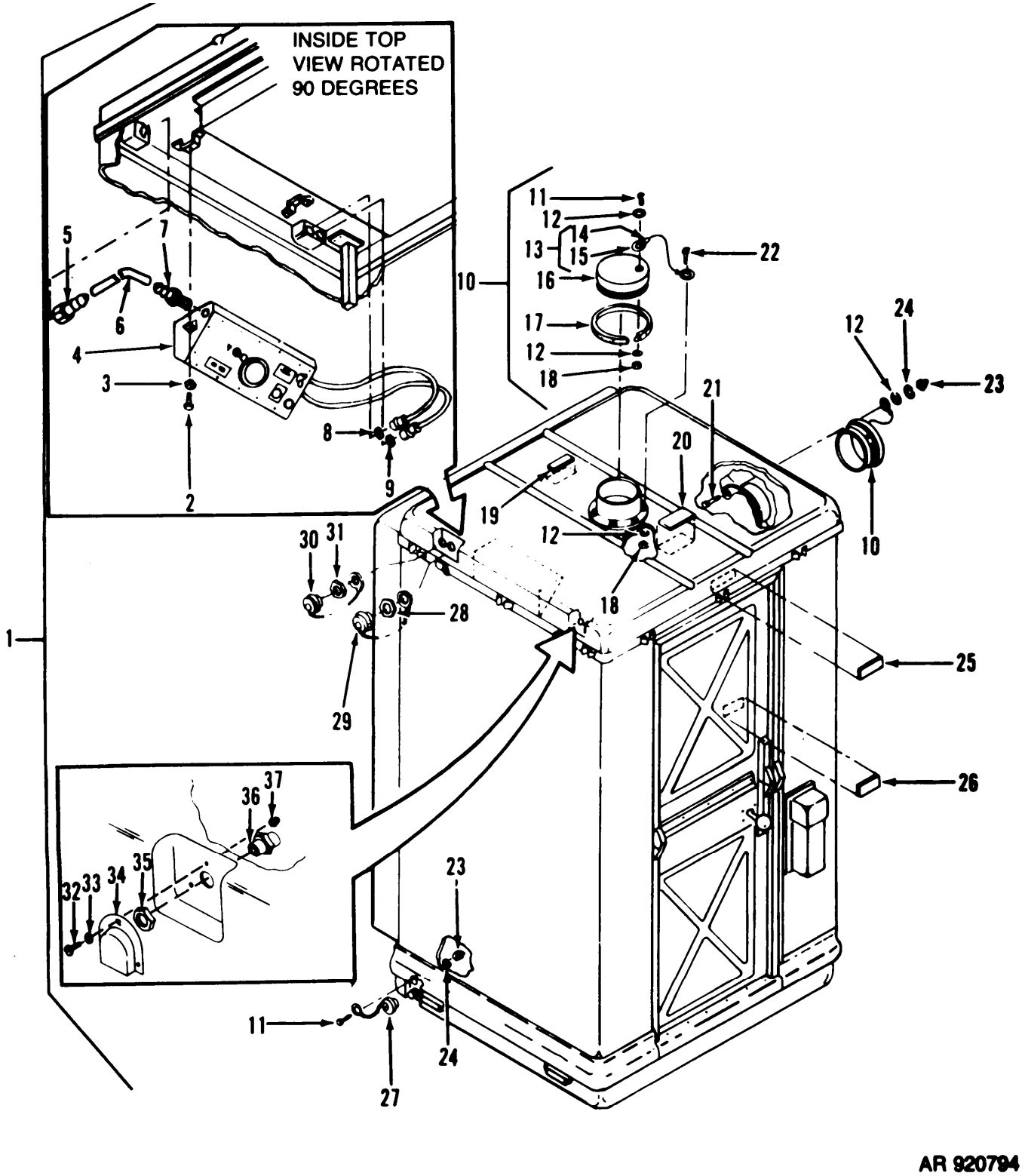



*Figure C-1. M10 Protective Entrance*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0100 PROTECTIVE ENTRANCE | | |
| | | | | | | E5-19-6201-40 | | |
| C-1 | 1 | PAOFF | 4240-00-229-2610 | 81361 | E5-19-6201-40 | ENTRANCE, PROTECTIVE, PRESSURIZED: M10 | EA | 1 |
| C-1 | 2 | PAOZZ | 5305-00-179-8946 | 96906 | MS51849-66 | SCREW,MACHINE HEX HD, NO. 10-32UNF-2A, 3/4 IN LG | EA | 3 |
| C-1 | 3 | PAOZZ | 5310-00-045-3296 | 96906 | MS35338-43 | WASHER,LOCK SPRING, NO. 10 NOM SIZE | EA | 3 |
| C-1 | 4 | PAOFF | 4240-01-048-2803 | 81361 | E5-19-6357 | CONTROL MODULE, PROTECTIVE ENTRANCE | EA | 1 |
| C-1 | 5 | PAOZZ | 4730-01-050-7540 | 30327 | KF03-04RV | ADAPTER,STRAIGHT | EA | 1 |
| C-1 | 6 | MOOZZ | | 81361 | E5-19-6357-111 | HOME,NONMETALLIC LOW PRESSURE: MFD FROM 4720-00-065-5682, | EA | 1 |
| C-1 | 7 | PAOZZ | 4730-01-017-5119 | 30327 | KF03-02PS | ADAPTER,STRAIGHT | EA | 1 |
| C-1 | 8 | PAOZZ | 5330-00-250-0236 | 96906 | MS29513-24 | PACKING,PREFORMED | EA | 1 |
| C-1 | 9 | PAOZZ | 5330-00-248-3849 | 96906 | MS29513-019 | PACKING,PREFORMED | EA | 1 |
| C-1 | 10 | PAOOO | 5340-01-048-6327 | 81361 | C5-19-6145 | CAP,PROTECTIVE,DUST  DUST AND MOISTURE SEAL | EA | 2 |
| C-1 | 11 | PAOZZ | 5305-00-115-9934 | 96906 | MS51849-55 | SCREW,MACHINE  HEX HD, NO. 8-32UNC-2A, 5/8 IN LG | EA | 3 |
| C-1 | 12 | PAOZZ | 5310-00-765-3197 | 96906 | MS27183-41 | WASHER,FLAT .186 IN ID, .438 IN OD. .049 IN THK | EA | 5 |
| C-1 | 13 | A0000 | | 99862 | CL-2-FANDCL-2-C 8.0 | CABLE | EA | 2 |
| C-1 | 14 | PAOZZ | 4030-00-878-8693 | 99862 | CL2F | FERRULE,WIRE ROPE | EA | 4 |
| C-1 | 15 | MOOZZ | | 99862 | CL-2-C-8.0 | CABLE, NYLON: 8IN. LG MFD FROM 4010-00-069-5180 | EA | 2 |
| C-1 | 16 | XAOZZ | | 81361 | C5-19-6309 | CAP, RUBBER | EA | 2 |
| C-1 | 17 | PAOZZ | 4730-00-908-6294 | 96906 | MS35842-16 | CLAMP, HOSE 4-1/8 TO 7 IN DIA RANGE | EA | 2 |
| C-1 | 18 | PAOZZ | 5310-00-811-3494 | 96906 | MS21044N08 | NUT,SELF-LOCKING, HEXAGON: 9-32 UNJC-38 | EA | 3 |
| C-1 | 19 | PAOZZ | 9905-01-068-2368 | 81361 | 5-19-6657 | PLATE, INSTRUCTION NO STEP | EA | 1 |
| C-1 | 20 | PAOZZ | 9905-01-049-1385 | 81361 | C5-19-6175 | PLATE, INSTRUCTION | EA | 1 |
| C-1 | 21 | PAOZZ | 5305-00-211-8193 | 96906 | MS51849-54 | SCREW,MACHINE HEX HD, NO. 8-32UNC-2A, 1/2 IN LG | EA | 1 |
| C-1 | 22 | PAOZZ | 5305-00-157-5621 | 96906 | MS51849-56 | SCREW,MACHINE HEX. HD, NO. 8-32UNC-2A, 3/4 IN LG | EA | 1 |
| C-1 | 23 | PAOZZ | 5310-00-928-9821 | 96906 | MS24679-2 | NUT,PLAIN,CAP NO. 8-32UNC-28 | EA | 2 |
| C-1 | 24 | PAOZZ | 5310-00-045-3299 | 96906 | MS35338-42 | WASHER,LOCK SPRING, NO. 8 NOM SIZE | EA | 2 |
| C-1 | 25 | PAOZZ | 9905-01-062-0672 | 81361 | C5-19-6316-12 | PLATE, IDENTIFICATION: ENTRANCE, PROTECTIVE, PRESSURIZED, M10 | EA | 1 |
| C-1 | 26 | PAOZZ | 9905-01-048-2790 | 81361 | B5-19-6238 | PLATE,INSTRUCTION CAUTION, DO NOT ENTER WHEN PROTECTIVE ENTRANCE IS OCCUPIED | EA | 1 |
| C-1 | 27 | PAOZZ | 5410-00-981-8701 | 01943 | 8173 | CAP,FILLER OPENING W/CHAIN | EA | 1 |
| C-1 | 28 | PAOZZ | 5310-01-054-4643 | 96906 | MS3186-34 | NUT,PLAIN,HEXAGON 11/16-24UNEF-2B | EA | 1 |
| C-1 | 29 | PAOZZ | 5935-00-912-9599 | 96906 | MS3181-10N | COVER,ELECTRICAL CONNECTOR | EA | 1 |
| C-1 | 30 | PAOZZ | 5935-00-990-5580 | 96906 | MS3181-14N | COVER,ELECTRICAL CONNECTOR | EA | 1 |
| C-1 | 31 | PAOZZ | 5310-00-435-8983 | 96906 | MS3186-43 | NUT,PLAIN,HEXAGON 1-20UNEF-2B | EA | 1 |
| C-1 | 32 | PAOZZ | 5305-00-115-9406 | 96906 | MS51849-53 | SCREW,MACHINE HEX HD, NO. 6-32UNC-2A, .38 IN LG | EA | 3 |
| C-1 | 33 | PAOZZ | 5310-00-045-3299 | 96906 | MS35338-42 | WASHER,LOCK SPRING NO. 9 NOM SIZE | EA | 3 |
| C-1 | 34 | PAOZZ | 4240-01-049-0804 | 81361 | C5-19-6236 | COVER,PROTECTIVE | EA | 1 |
| C-1 | 35 | PAOZZ | 5310-00-897-6081 | 96906 | MS35691-32 | NUT,PLAIN,HEXAGON JAM. 7/16-20 UNF-2B | EA | 1 |
| C-1 | 36 | PAOZZ | 4730-01-067-9232 | 81361 | C5-19-6654 | ADAPTER,PIPE TO TUBE 1/4NPS, 7/16-20UNF-2A | EA | 1 |
| C-1 | 37 | PAOZZ | 5310-00-928-9821 | 96906 | MS24679-2 | NUT,PLAIN,CAP NO.8-32UNC-2B | EA | 3 |

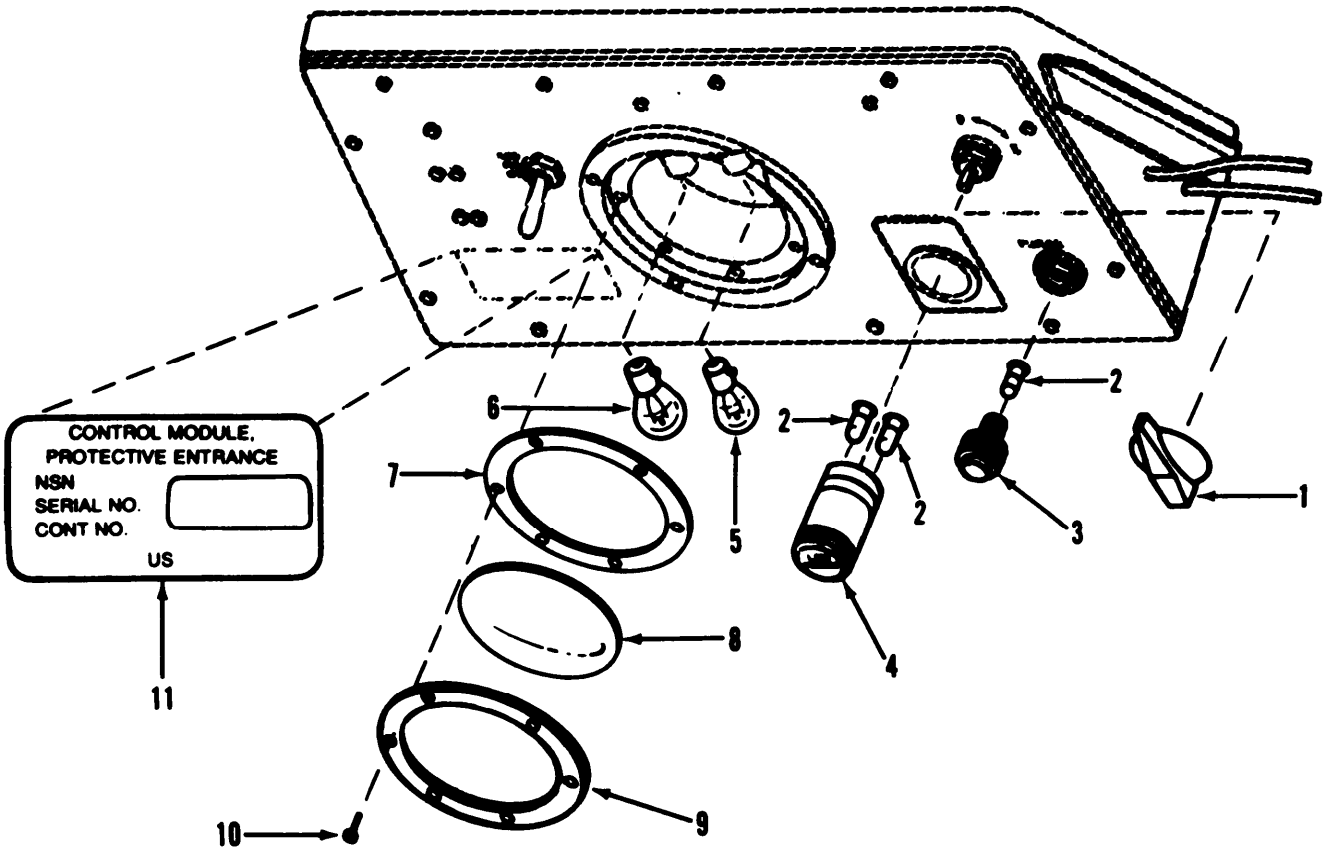



*Figure C-2.* Protective entrance *control module*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0110 PROTECTIVE ENTRANCE | | |
| | | | | | | CONTROL MODULE | | |
| | | | | | | E-5-19-6357 | | |
| C-2 | 1 | PAOZZ | 5355-00-821-5225 | 79919 | K35B1 | KNOB | EA | 1 |
| C-2 | 2 | PAOZZ | 6240-00-763-7744 | 96906 | MS25237-387 | LAMP,INCANDESCENT | EA | 3 |
| C-2 | 3 | XAOZZ | | 96906 | MS25041-8 LENS ONLY | LENS | EA | 1 |
| C-2 | 4 | XAOZZ | | 04426 | 44-601 | LIGHT MODULE | EA | 1 |
| C-2 | 5 | PAOZZ | 6240-00-155-7784 | 96906 | MS35478-307 | LAMP,INCANDESCENT | EA | 1 |
| C-2 | 6 | PAOZZ | 6240-00-155-7932 | 96906 | MS25235R311 | LAMP,INCANDESCENT RED | EA | 1 |
| C-2 | 7 | PAOZZ | 5330-00-143-8571 | 96906 | MS25358-6 | GASKET DOME LIGHT | EA | 1 |
| C-2 | 8 | PAOZZ | 6220-00-283-9732 | 96906 | MS25358-4 | LENS,LIGHT | EA | 1 |
| C-2 | 9 | XAOZZ | | 96906 | MS25358-5 | RETAINER LIGHT | EA | 1 |
| C-2 | 10 | PAOZZ | 5305-00-889-2999 | 96906 | MS35206-217 | SCREW,MACHINE PAN HD, NO. 4-40UNC-2A, 1/2 IN LG | EA | 6 |
| C-2 | 11 | PAOZZ | 9905-01-053-3006 | 81361 | C5-19-6316-4 | PLATE, IDENTIFICATION: CONTROL MODULE, PROTECTIVE ENTRANCE | EA | 1 |

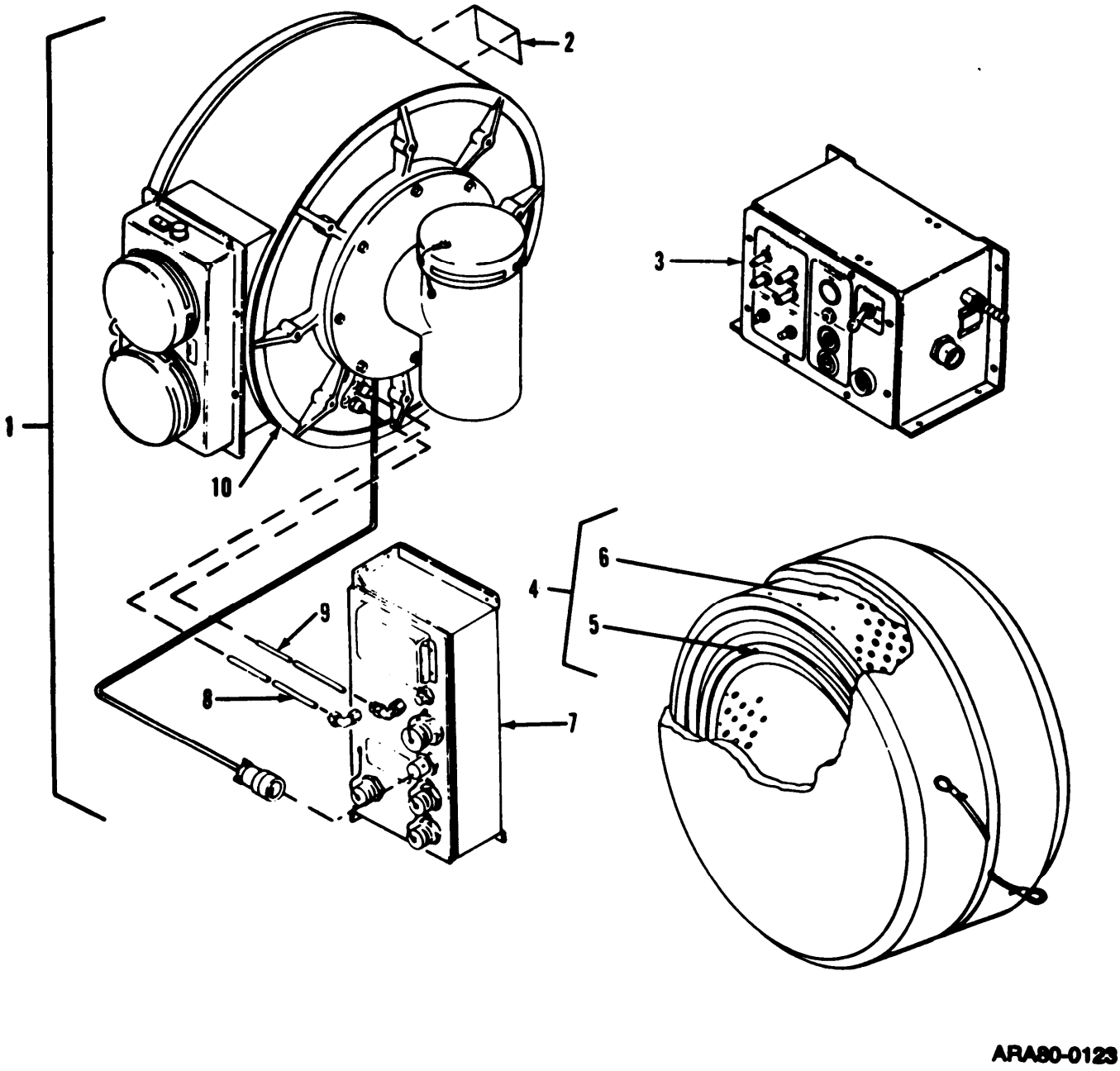



*Figure C-3. M56 gas-particulate filter unit (1 of 2)*

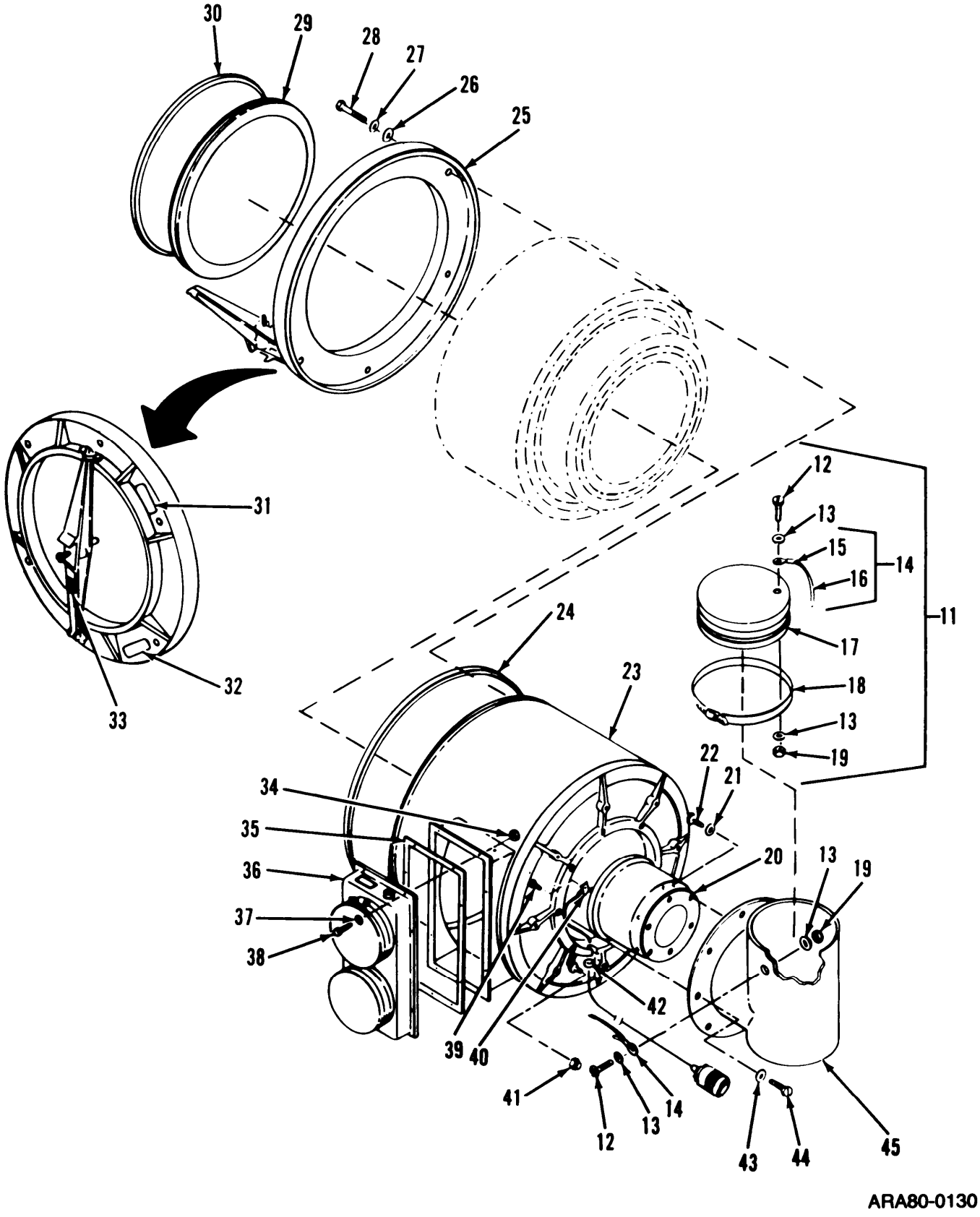



*Figure C-3. M56 gas-particulate filter unit (2 of 2)*

| (1) ILLUSTRATION (a) FIG NO | (1) ILLUSTRATION (B) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | **GROUP 0200 GAS PARTICULATE FILTER UNIT** | | |
| | | | | | | **ES-19-6402** | | |
| C-3 | 1 | PAOFF | 4240-00-237-0227 | 81361 | E5-19-6402 | FILTER UNIT, GAS-PARTICULATE: 1 FILTER, M56 | EA | 1 |
| C-3 | 2 | PAOZZ | 9905-01-071-5711 | 81361 | 5-19-6316-9 | PLATE, IDENTIFICATION: FILTER UNIT, GAS-PARTICULATE, 1 FILTER, M56 | EA | 1 |
| C-3 | 3 | PAOFF | 4240-01-057-3378 | 81361 | E5-19-6376 | CONTROL MODULE COMPARTMENT | EA | 1 |
| C-3 | 4 | PAOZA | 4240-01-067-5605 | 81361 | 5-19-6718 | FILTER BET, GAS AND PARTICULATE | EA | 1 |
| C-3 | 5 | PAOZA | 4240-01-066-3266 | 81361 | D5-19-6262 | FILTER, PARTICULATE | EA | 1 |
| C-3 | 6 | XAOZA | | 81361 | D5-19-6368 | FILTER, GAS | EA | 1 |
| C-3 | 7 | PAOFF | 4240-01-068-8645 | 81361 | E5-19-6387 | POWER DISTRIBUTION UNIT | EA | 1 |
| C-3 | 8 | MOOZZ | | 81361 | E5-19-6402-8 | TUBING, NOMETALLIC ¼ IN. DD. GREEN, MFD FROM 4720-01-053 0316- | EA | 1 |
| C-3 | 9 | MOOZZ | | 81361 | E5-19-6402-7 | TUBING, NOMETALLIC ¼ IN. DD, RED MFD FROM 4720-00-996-0381 | EA | 1 |
| C-3 | 10 | XBOFF | 4240-01-054-7020 | 81361 | E5-19-6314-20 | HOUSING UNIT, FAN AND AIRFLOW VALVE | EA | 1 |
| C-3 | 11 | PAOOO | 5340-01-048-6327 | 81361 | C5-19-6145 | CAP, PROTECTIVE, DUST DUST AND MOISTURE SEAL | EA | 1 |
| C-3 | 12 | PAOZZ | 5305-00-115-9934 | 96906 | M851849-55 | SCREW, MACHINE HEX HD, NO. 8-32UNC-2A, 5/8 IN LG | EA | 2 |
| C-3 | 13 | PAOZZ | 5310-00-765-3197 | 96906 | MS27183-41 | WASHER, FLAT .100 IN ID. .430 IN OD. .049 IN THK | EA | 4 |
| C-3 | 14 | AOOOO | | 99862 | CL-2-FANDCL-2-C-8.0 | CABLE | EA | 1 |
| C-3 | 15 | PAOZZ | 4030-00-878-8693 | 99862 | CL2F | FERRULE, WIRE ROPE | EA | 2 |
| C-3 | 16 | MOOZZ | | 99862 | CL-2-C-B.0 | CABLE, NYLON: B IN. LG, MFD FROM 4010-00-069-5180 | EA | 1 |
| C-3 | 17 | XAOZZ | | 81361 | C5-19-6309 | CAP, RUBBER | EA | 1 |
| C-3 | 18 | PAOZZ | 4730-00-908-6294 | 96906 | MS35842-16 | CAP,HOSE 4-1/8 TO 7 IN DIA RANGE | EA | 1 |
| C-3 | 19 | PAOZZ | 5310-00-811-3494 | 96906 | MS21044N08 | NUT, SELF-LOCKING, HEXAGON: ND. 6-32UNJC-38 | EA | 2 |
| C-3 | 20 | PAOFF | 4140-01-059-2095 | 81361 | E5-19-6240 | FAN, TUBEAXIAL 200 CFM | EA | 1 |
| C-3 | 21 | PAOZZ | 5310-00-809-4058 | 96906 | MS27183-10 | WASHER, FLAT .281 IN ID. .625 IN OD. .065 IN THK | EA | 6 |
| C-3 | 22 | PAOZZ | 5305-00-068-0513 | 96906 | MS90727-6 | SCREW, CAP, HEXAGON HEAD: ¼-28UNF-2A. ¾ IN LG | EA | 6 |
| C-3 | 23 | XBOZZ | 4240-01-107-2433 | 81361 | E5-19-6120 | HOUSING, GAS PARTICULATE 1 FILTER | EA | 1 |
| C-3 | 24 | PAOZZ | 5330-01-069-9824 | 81361 | C5-19-5687-2 | SEAL, RUBBER | EA | 1 |

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| C-3 | 25 | XBOZZ | | 81361 | E5-19-6128 | COVER, ACCESS | EA | 1 |
| C-3 | 26 | PAOZZ | 5310-00-080-6004 | 96906 | MS27183-14 | WASHER,FLAT .406 IN ID, .812 IN OD, .065 IN THK | EA | 6 |
| C-3 | 27 | PAOZZ | 5310-00-187-2400 | 88044 | AN960PD616 | WASHER,FLAT 0.390 IN. ID, 0.625 IN. OD, 0.063 IN. THK | EA | 6 |
| C-3 | 28 | PAOZZ | 5305-00-269-3240 | 96906 | MS90727-64 | SCREW,CAP,HEXAGON HEAD: 3/8-24UNF-2A, 1-1/2 IN LG | EA | 6 |
| C-3 | 29 | XBOZZ | | 81361 | D5-19-6260 | COVER, INNER | EA | 1 |
| C-3 | 30 | PAOZZ | 5330-01-068-0515 | 81361 | C5-19-5687-1 | SEAL, RUBBER | EA | 1 |
| C-3 | 31 | PAOZZ | 9905-01-067-8634 | 81361 | B5-19-6134 | PLATE,INSTRUCTION WARNING TORQUE OUTER COVER BOLTS 180 TO 200INCH POUNDS | EA | 1 |
| C-3 | 32 | PAOZZ | 9905-01-066-3084 | 81361 | 5-19-6135 | PLATE,INSTRUCTION WARNING- DO NOT REMOVE COVERS TO SERVICE COMPONENTS AFTERTOXIC EXPOSURE, WITHOUT OBSERVING PROPER HANDLING PROCESDURES | EA | 1 |
| C-3 | 33 | PAOZZ | 9905-01-050-7557 | 81361 | B5-19-6133 | PLATE,INSTRUCTION WARNING- TIGHTEN UNTIL SLEEVE IS FLUSH WITH TOP SURFACE | EA | 1 |
| C-3 | 34 | PAOZZ | 5310-00-877-5797 | 96906 | MS21044N3 | NUT, SELF-LOCKING, HEAXGON: NO. 10-32UNJF-3B | EA | 8 |
| C-3 | 35 | PAOZZ | 5330-01-088-4442 | 81361 | 5-19-6348 | GASKET AIRFLOW VALVE | EA | 1 |
| C-3 | 36 | PAOFF | 4240-01-055-1493 | 81361 | E5-19-6136 | VALVE,AIRFLOW | EA | 1 |
| C-3 | 37 | PAOZZ | 5310-00-014-5850 | 96906 | MS27183-42 | WASHER,FLAT .219 IN ID, .500 IN OD, .049 IN THK | EA | 8 |
| C-3 | 38 | PAOZZ | 5305-00-824-7363 | 80205 | NAS1096-3-12 | SCREW,MAHCINE HEX HD, NO. 10-32NF-3A, 3/4 IN LG | EA | 8 |
| C-3 | 39 | PAOZZ | 5305-00-180-4966 | 96906 | MS51849-64 | SCREW,MACHINE HEX, NO. 10-32UNF-2A, 1/2 IN LG | EA | 1 |
| C-3 | 40 | PAOZZ | 5340-00-119-4705 | 96906 | MS9352-05 | CLAMP,LOOP CUSHIONED, 3/8 IN NOM TUBE OD | EA | 1 |
| C-3 | 41 | PAOZZ | 4730-00-817-1891 | 30327 | 261P1-4 | NUT,TUBE COUPLING 1/4 IN TUBE OD, 3/8 THD SIZE, W/SLEEVE. | EA | 2 |
| C-3 | 42 | PAOZZ | 5365-01-057-7379 | 81361 | B5-19-6347 | BUSHING,RUBBER | EA | 1 |
| C-3 | 43 | PAOZZ | 5310-00-081-4219 | 96906 | MS27183-12 | WASHER,FLAT .344 IN ID, .685 IN OD, .065 IN THK | EA | 9 |
| C-3 | 44 | PAOZZ | 5305-00-051-4075 | 96906 | MS90727-33 | SCREW,CAP,HEXAGON HEAD: 5/16-24UNF-2A, 7/8 IN LG | EA | 8 |
| C-3 | 45 | PAOZZ | 4520-01-057-7010 | 81361 | D5-19-6401-10 | TEE,AIR INLET | EA | 1 |

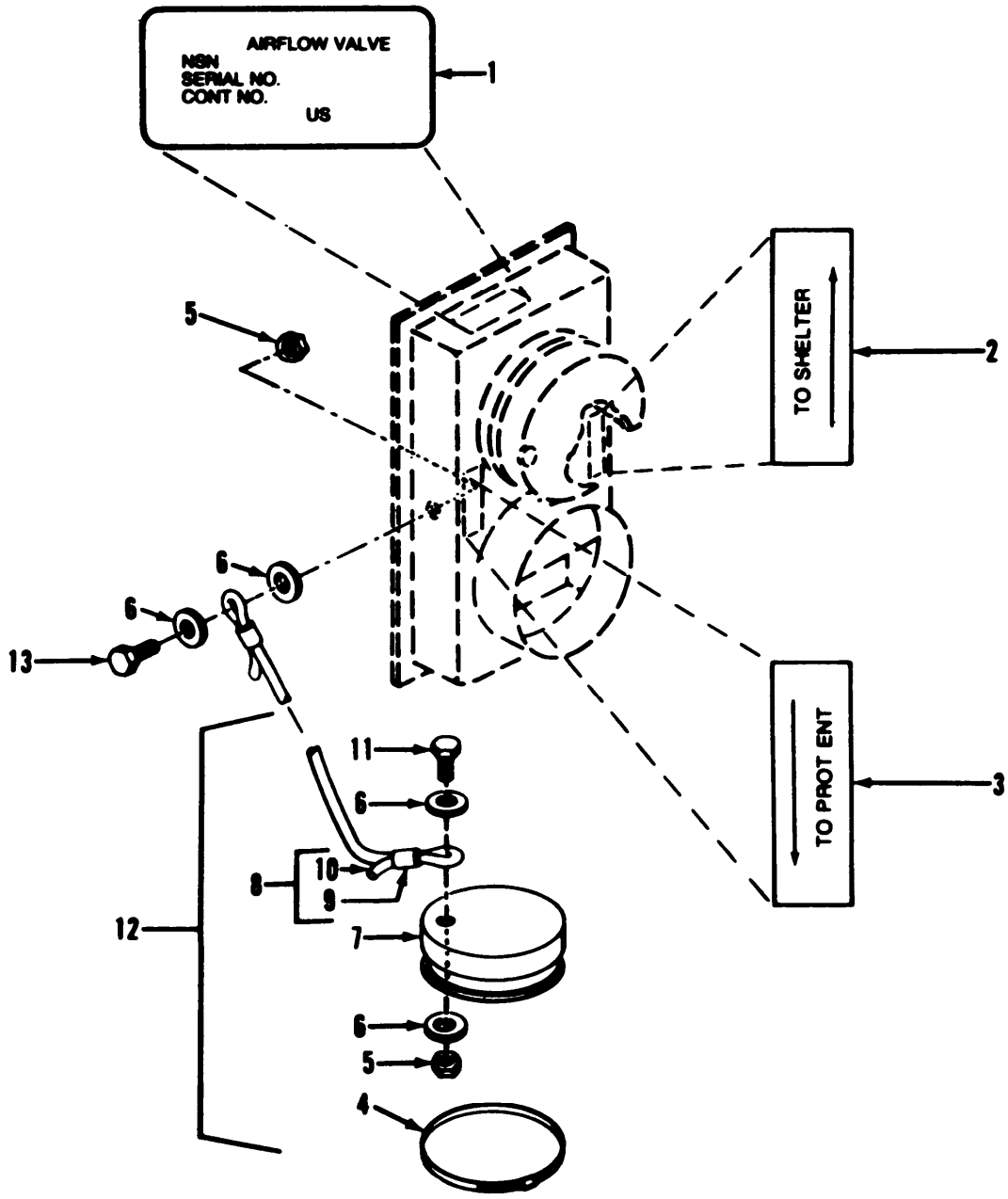



*Figure C-4. Airflow valve*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0220 AIRFLOW VALVE | | |
| | | | | | | E-5-19-6136 | | |
| C-4 | 1 | PAOZZ | 9905-01-065-9382 | 81361 | C5-19-6149 | PLATE, IDENTIFICATION: AIRFLOW VALVE | EA | 1 |
| C-4 | 2 | PAOZZ | 9905-01-051-0186 | 81361 | B5-19-6147 | PLATE,INSTRUCTION TO SHELTER | EA | 1 |
| C-4 | 3 | PAOZZ | 9905-01-050-7556 | 81361 | B5-19-6148 | PLATE,INSTRUCTION TO PROT ENT | EA | 1 |
| C-4 | 4 | PAOZZ | 4730-00-908-6294 | 96906 | MS35842-16 | CLAMP,HOME 4-1/8 TO 7 IN. DIA RANGE | EA | 2 |
| C-4 | 5 | PAOZZ | 5310-00-811-3494 | 96906 | MS21044N08 | NUT,SELF-LOCKING, HEXAGON: NO. 8-32UNJC-38 | EA | 3 |
| C-4 | 6 | PAOZZ | 5310-00-765-3197 | 96906 | MS27183-41 | WASHER,FLAT .188 IN ID, .438 IN OD, .49 IN THK | EA | 6 |
| C-4 | 7 | XAOZZ | | 81361 | C5-19-6309 | CAP, RUBBER | EA | 2 |
| C-4 | 8 | AOOOO | | 99862 | CL-2-FANDCL-2-C-8.0 | CABLE | EA | 2 |
| C-4 | 9 | PAOZZ | 4030-00-878-8693 | 99862 | CL2F | FERRULE,WIRE ROPE | EA | 4 |
| C-4 | 10 | MOOZZ | | 99862 | CL-2-C-8.0 | CABLE, NYLON: 8 IN LG, MFD FROM 4010-00-069-5180 | EA | 2 |
| C-4 | 11 | PAOZZ | 5305-00-115-9934 | 96906 | MS51849-55 | SCREW,MACHINE HEX HD, NO. 8-32UNC-2A, 5/8 IN LG | EA | 2 |
| C-4 | 12 | PAOOO | 5340-01-048-6327 | 81361 | C5-19-6145 | CAP,PROTECTIVE,DUST DUST AND MOISTURE SEAL | EA | 2 |
| C-4 | 13 | PAOZZ | 5305-00-157-5621 | 96906 | MS51849-56 | SCREW,MACHINE HEX HD, NO. 8-32UNC-2A, 3/4 IN LG | EA | 1 |

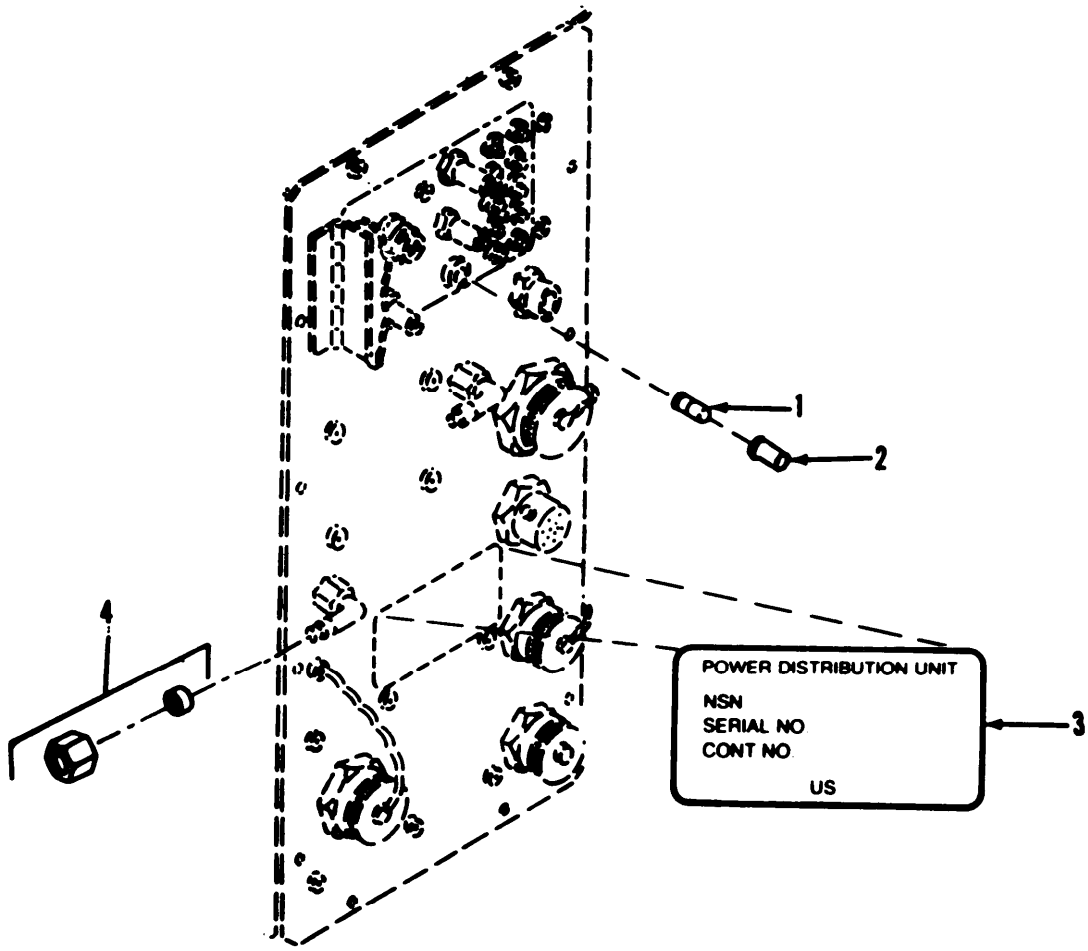



*Figure C-5. Power distribution panel*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0231 POWER DISTRIBUTION PANEL | | |
| | | | | | | E5-19-6391 | | |
| C-5 | 1 | PAOZZ | 6240-00-892-4420 | 81349 | M15098/11-001 | LAMP,GLOW | EA | 1 |
| C-5 | 2 | XAOZZ | | 07137 | PTL-A1 (3-C7A) LENS ONLY | LENS | EA | 1 |
| C-5 | 3 | PAOZZ | 9905-01-065-3065 | 81361 | C5-19-6316-6 | PLATE, IDENTIFICATION: POWER DISTRIBUTION UNIT | EA | 1 |
| C-5 | 4 | PAOZZ | 4730-00-817-1891 | 30327 | 261P1-4 | NUT,TUBE COUPLING 1/4 IN TUBE OD, 3/8-24 THD SIZE, W/SLEEVE | EA | 2 |

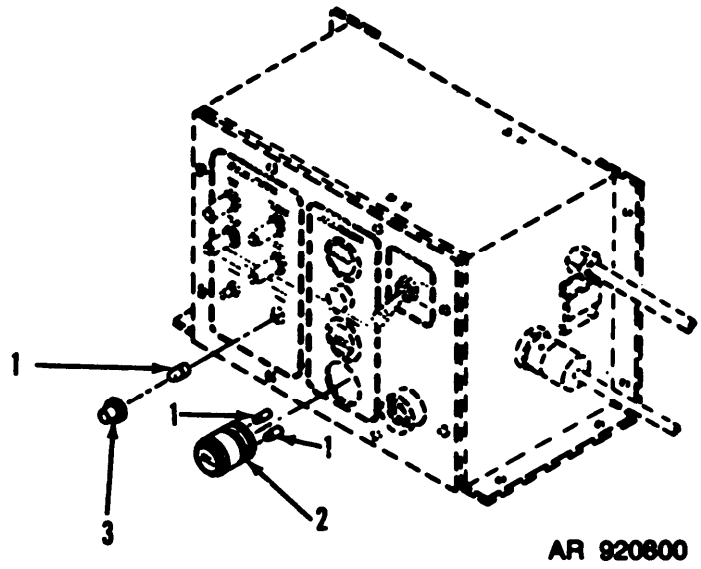



*Figure C-6. Compartment control module*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION / USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0240 COMPARTMENT CONTROL MODULE | | |
| | | | | | | E5-19-6376 | | |
| C-6 | 1 | PAOZZ | 6240-00-763-7744 | 96906 | MS25237-387 | LAMP,INCANDESCENT | EA | 8 |
| C-6 | 2 | XAOZZ | | 04426 | 44-601 | LIGHT MODULE | EA | 3 |
| C-6 | 3 | XAOZZ | | 96906 | MS25041-8 LENS ONLY | LENS | EA | 2 |

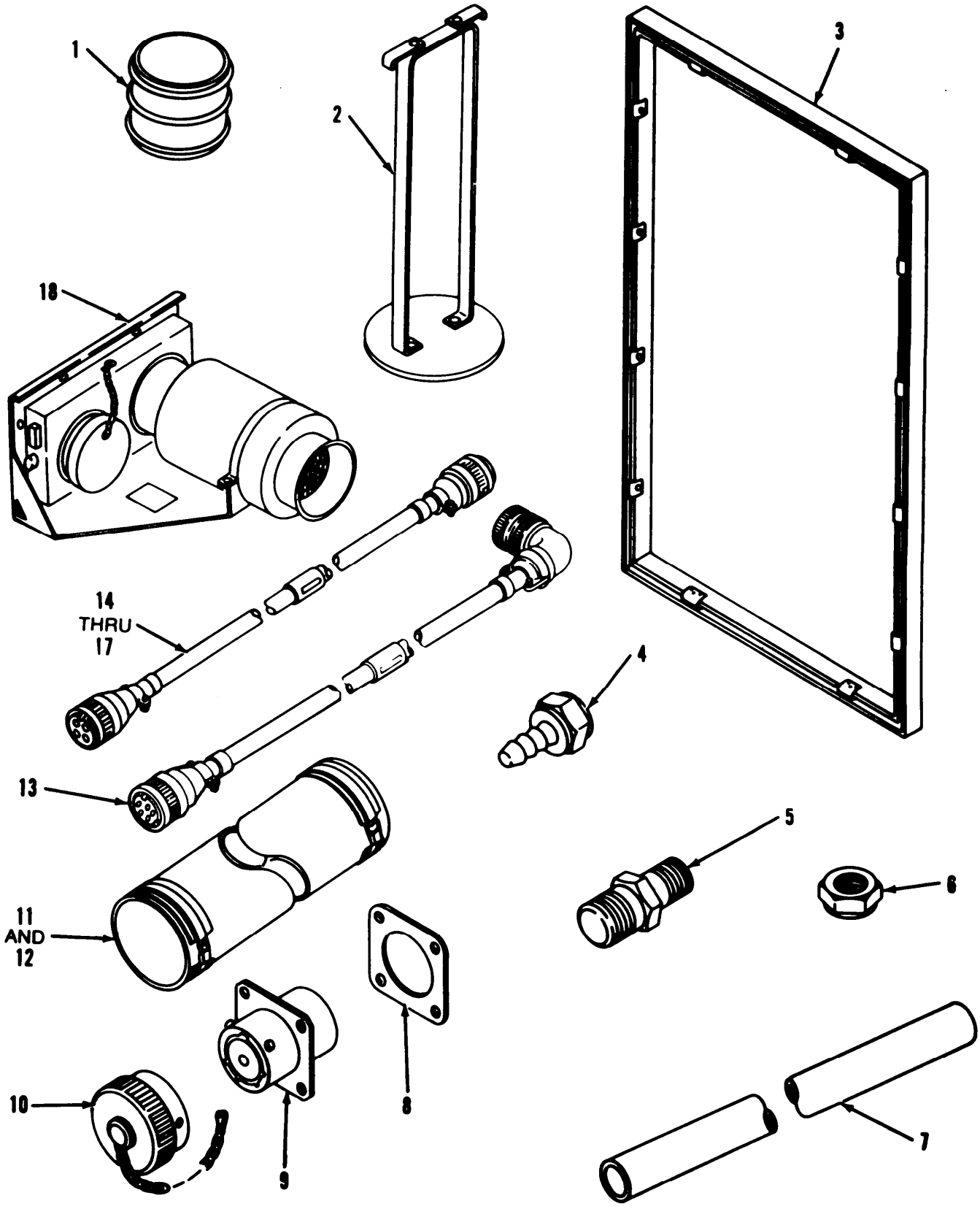



*Figure C-7. M262. Installation kit.*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0300 M262 INSTALLATION KIT | | |
| | | | | | | PL5-19-6704 | | |
| C-7 | 1 | PAOZZ | 4730-01-049-0805 | 81361 | C5-19-6182 | COUPLING,AIR DUCT | EA | 5 |
| C-7 | 2 | PAOZZ | 4240-01-052-3783 | 81361 | C5-19-6180 | HOLDER,STORAGE,AIR | EA | 9 |
| C-7 | 3 | PAOZZ | 4240-01-061-7233 | 81361 | E5-19-5908 | FRAME,INTERFACE ENTRANCE | EA | 1 |
| C-7 | 4 | PAOZZ | 4730-01-050-7540 | 30327 | KF03-04RV | ADAPTER,STRAIGHT, TUBE TO HOBE | EA | 1 |
| C-7 | 5 | PAOZZ | 4730-01-067-9232 | 81361 | C5-19-6654 | ADAPTER,PIPE TO TUBE 1/4 NPS, 7/16-20 UNF-2A | EA | 1 |
| C-7 | 6 | PAOZZ | 5310-00-897-6081 | 96906 | MS35691-32 | NUT,PLAIN,HEXAGON | EA | 1 |
| C-7 | 7 | MOOZZ | | 81361 | PL5-19-6704-19 | HOBE,NONMETALLIC 3/16 IN. NOM ID MFD FROM 4720-00-065-5682 | EA | 1 |
| C-7 | 8 | PAOZZ | 5330-01-054-0857 | 96906 | MS90484-20-1 | GASKET MOUNT,ELECTRICAL CONNECTOR | EA | 1 |
| C-7 | 9 | PAOZZ | 5935-00-994-0294 | 96906 | MS3119E20-16 | ADAPTER,CONNECTOR ELECTRICAL: THRU-BULKHEAD MTO | EA | 1 |
| C-7 | 10 | PAOZZ | 5935-00-762-1392 | 96906 | MS3181-20C | COVER,ELECTRICAL CONNECTOR | EA | 1 |
| C-7 | 11 | PAOOO | 4720-01-074-9220 | 81361 | C5-19-6181-10 | HOBE,AIR DUCT 6 IN. ID, 72 IN LG O/A | EA | 6 |
| C-7 | 12 | PAOOO | 4720-01-063-4567 | 81361 | C5-19-6181-20 | HOBE,AIR DUCT  6 IN. ID, 36 IN LG O/A | EA | 2 |
| C-7 | 13 | PAOZZ | 4240-01-068-2354 | 81361 | 5-19-6693 | CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL: 72 IN NOM LG EXCLUDING TERMINATIONS | EA | 2 |
| C-7 | 14 | PAOZZ | 4240-01-069-9827 | 81361 | 5-19-6691 | CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL: 33 IN. NOM LG EXCLUDING TERMINATIONS | EA | 1 |
| C-7 | 15 | PAOZZ | 4240-01-073-3439 | 81361 | 5-19-6162-10 | CABLE ASSEMBLY, SPECIAL PURPOSE, ELECTRICAL: 240 IN. NOM LG EXCLUDING TERMINATIONS | EA | 1 |
| C-7 | 16 | PAOZZ | 4240-01-067-8376 | 81361 | 5-19-6170-10 | CABLE ASSEMBLY, SPEICAL PURPOSE, ELECTRICAL: 54 IN NOM LG EXCLUDING TERMINATIONS | EA | 1 |
| C-7 | 17 | PAOZZ | 4240-01-068-2355 | 81361 | 5-19-6170-40 | CABLE ASSEMBLY, SPEICAL PURPOSE, ELECTRICAL 76 IN. NOM LG | EA | 1 |
| C-7 | 18 | XBOOO | | 81361 | D5-19-6628 | AIRFLOW VALVE AND SILENCER | EA | 1 |

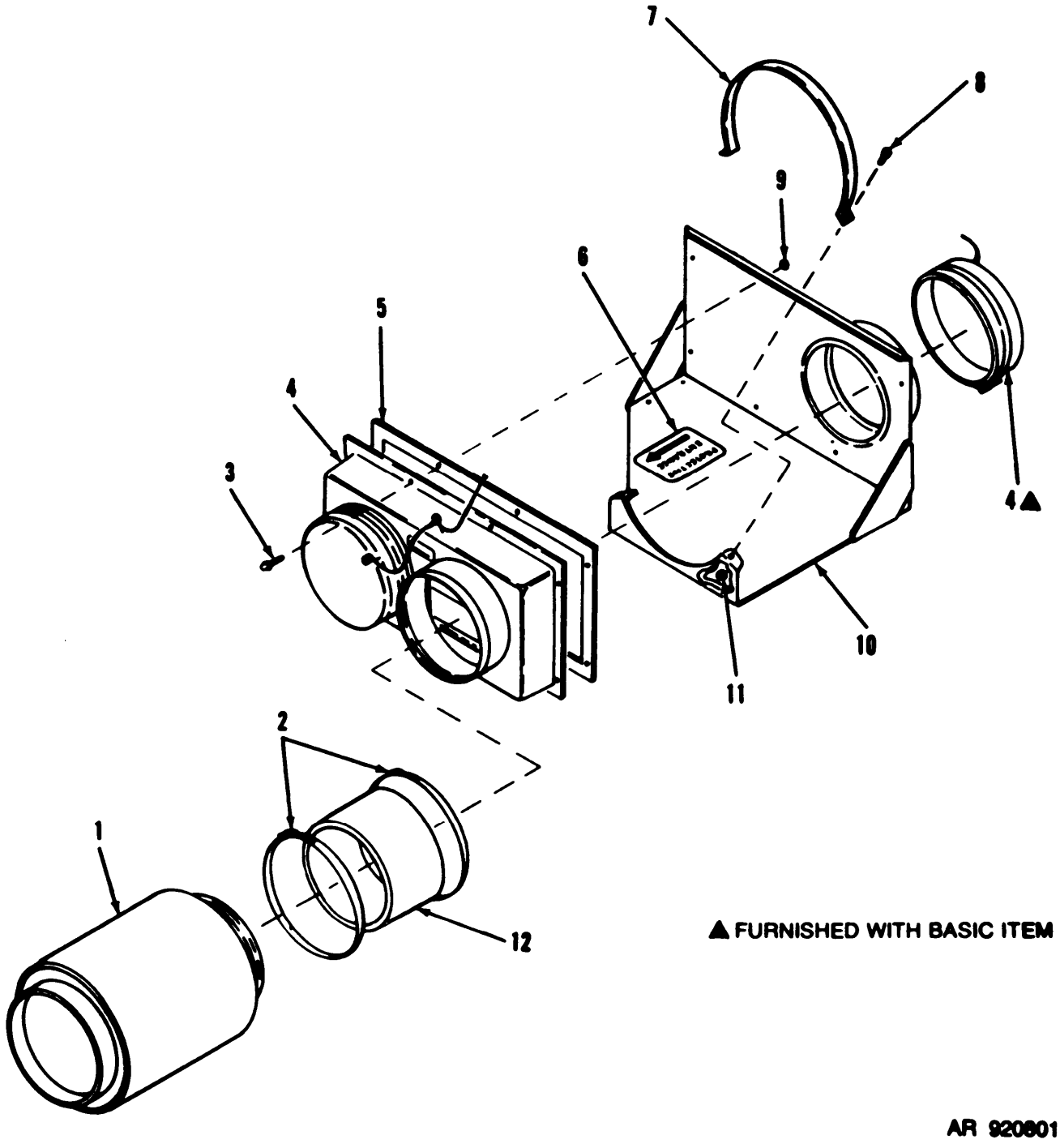



*Figure C-8. Airflow valve and silencer*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0310 AIRFLOW VALVE AND SILENCER | | |
| | | | | | | D5-19-6628 | | |
| C-8 | 1 | PAOZZ | 2990-01-057-3475 | 81361 | C5-19-6627 | MUFFLER,INTAKE | EA | 1 |
| C-8 | 2 | PAOZZ | 4730-00-908-6294 | 96906 | MS35842-16 | CLAMP,HOSE 4-1/8 TO 7 IN DIA RANGE | EA | 2 |
| C-8 | 3 | PAOZZ | 5305-00-179-8946 | 96906 | MS51849-66 | SCREW,MACHINE HEX HD, NO. 10-32UNF-2A, 3/4 IN LG | EA | 8 |
| C-8 | 4 | PAOFF | 4240-01-055-1493 | 81361 | E5-19-6136 | VALVE,AIRFLOW | EA | 1 |
| C-8 | 5 | PAOZZ | 5330-01-088-4442 | 81361 | 5-19-6348 | GASKET AIRFLOW VALVE | EA | 1 |
| C-8 | 6 | PAOZZ | 9905-01-051-0187 | 81361 | B5-19-6656 | PLATE,INSTRUCTION PROTECTIVE ENTRANCE | EA | 1 |
| C-8 | 7 | XBOZZ | | 81361 | C5-19-6626 | STRAP, RETAINING | EA | 1 |
| C-8 | 8 | PAOZZ | 5305-00-157-5621 | 96906 | MS51849-56 | SCREW,MACHINE HEX HD, NO. 8-32UNC-2A, 3/4 IN LG | EA | 2 |
| C-8 | 9 | PAOZZ | 5310-00-877-5797 | 96906 | MS21044N3 | NUT,SELF-LOCKING, HEXAGON: NO. 10-32UNJF-3B | EA | 8 |
| C-8 | 10 | XBOZZ | | 81361 | D5-19-6625 | BRACKET, MOUNTING | EA | 1 |
| C-8 | 11 | PAOZZ | 5310-00-811-3494 | 96906 | MS21044N08 | NUT,SELF-LOCKING, HEXAGON: NO. 8-32UNJC-3B | EA | 2 |
| C-8 | 12 | MOOZZ | | 81361 | D5-19-6716 | HOSE,NONMETALLIC-3-1/2 IN LG MFD FROM 4720-01-106-4602 | EA | 1 |

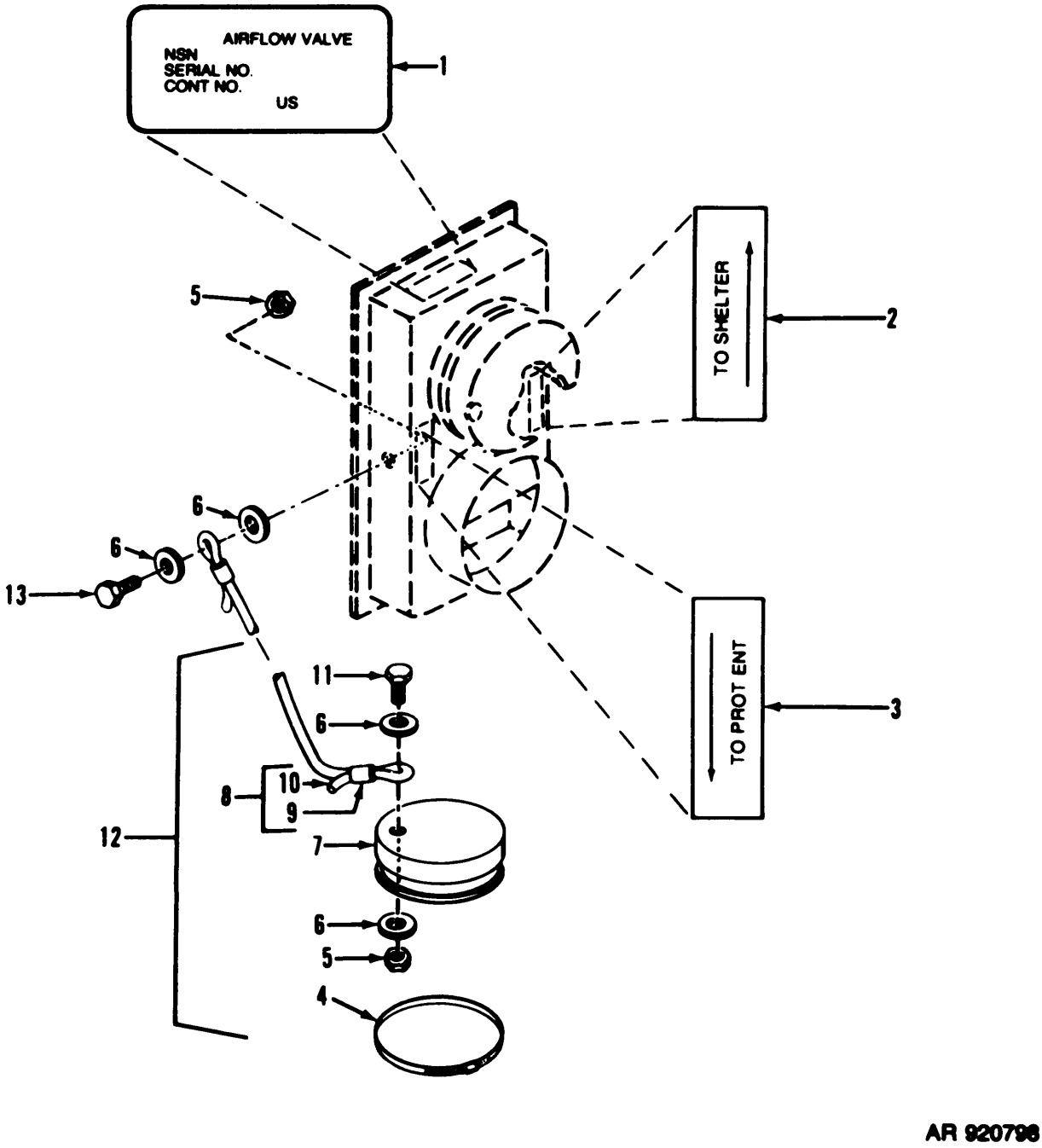



*Figure C-9. Airflow valve*

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0311 AIRFLOW VALVE | | |
| | | | | | | E5-19-6136 | | |
| | | | | | | E5-19-6136 | | |
| C-9 | 1 | PAOZZ | 9905-01-065-9382 | 81361 | C5-19-6149 | PLATE, IDENTIFICATION: AIRFLOW VALVE | EA | 1 |
| C-9 | 2 | PAOZZ | 9905-01-051-0186 | 81361 | B5-19-6147 | PLATE,INSTRUCTION TO SHELTER | EA | 1 |
| C-9 | 3 | PAOZZ | 9905-01-050-7556 | 81361 | B5-19-6148 | PLATE,INSTRUCTION | EA | 1 |
| C-9 | 4 | PAOZZ | 4730-00-908-6294 | 96906 | MS35842-16 | CLAMP,HOSE 4-1/8 TO 7 IN DIA RANGE | EA | 2 |
| C-9 | 5 | PAOZZ | 5310-00-811-3494 | 96906 | MS21044N08 | NUT,SELF-LOCKING, HEXAGON: NO. 8-32UNJC-3B | EA | 3 |
| C-9 | 6 | PAOZZ | 5310-00-765-3197 | 96906 | MS27183-41 | WASHER,FLAT .198 IN ID, .438 OD, .049 IN THK | EA | 6 |
| C-9 | 7 | XAOZZ | | 81361 | C5-19-6309 | CAP, RUBBER | EA | 2 |
| C-9 | 8 | AOOOO | | 99862 | CL-2-FANDCL-2-C 8.0 | CABLE | EA | 2 |
| C-9 | 9 | PAOZZ | 4030-00-878-8693 | 99862 | CL2F | FERRULE,WIRE ROPE | EA | 4 |
| C-9 | 10 | MOOZZ | | 99862 | CL-2-C-8.0 | CABLE, NYLON: 9 IN. LG. MFD FROM 4010-00-069-5180 | EA | 2 |
| C-9 | 11 | PAOZZ | 5305-00-115-9934 | 96906 | MS51849-55 | SCREW,MACHINE HEX HD, NO. 9-32UNC-2A, 5/8 IN LG | EA | 2 |
| C-9 | 12 | PAOOO | 5340-01-048-6327 | 81361 | C5-19-6145 | CAP,PROTECTIVE,DUST DUST AND MOISTURE SEAL | EA | 2 |
| C-9 | 13 | PAOZZ | 5305-00-157-5621 | 96906 | MS51849-56 | SCREW,MACHINE HEX HD, NO. 8-32UNC-2A, 3/4 IN LG | EA | 1 |

| (1) ILLUSTRATION (a) FIG NO | (b) ITEM NO | (2) SMR CODE | (3) NATIONAL STOCK NUMBER | (4) FSCM | (5) PART NUMBER | (6) DESCRIPTION USABLE ON CODE | (7) U/M | (8) QTY INC IN UNIT |
|---|---|---|---|---|---|---|---|---|
| | | | | | | GROUP 0500 BULK MATERIALS | | |
| BULK | | PAOZZ | 4010-00-069-5180 | 99862 | CL2C | CABLE, NYLON COVERE NYLON COVERED | FT | 7 |
| BULK | | PAOZZ | 4720-00-065-8682 | 30327 | C403 | HOBE, NONMETALLIC RUBBER 3/16 IN NOM ID | FT | 3 |
| BULK | | PAOZZ | 4720-00-996-0381 | 30327 | 44P RED | TUBING,NONMETALLIC 1/4 IN OD, .040 IN. WALL THM RED. | FT | 5 |
| BULK | | PAOZZ | 4720-01-053-0316 | 30327 | 44PGREEN | TUBING,NONMETALLIC 1/4 IN. OD, .040 IN. WALL THK GREEN | FT | 5 |
| BULK | | PAOZZ | 4720-01-106-4602 | 96906 | MS521301B225360 | HOSE, PREFORMED RUBBER, RADIATOR, 6.00 PORM .03 ID X .10 PORMWALL (3 PLY) 50 PSI PRESSURE | FT | 1 |

SECTION III. SPECIAL TOOLS AND EQUIPMENT LIST
Not applicable

SECTION IV. NATIONAL STOCK NUMBER AND PART NUMBER INDEX

| STOCK NUMBER | FIGURE NO. | ITEM NO. | STOCK NUMBER | FIGURE NO. | ITEM NO. |
|---|---|---|---|---|---|
| 5310-00-014-5850 | C-3 | 37 | 4730-00-908-6294 | C-8 | 2 |
| 5310-00-045-3296 | C-1 | 3 | 4730-00-908-6294 | C-9 | 4 |
| 5310-00-045-3299 | C-1 | 24 | 5935-00-912-9599 | C-1 | 29 |
| 5310-00-045-3299 | C-1 | 33 | 5310-00-928-9821 | C-1 | 23 |
| 5305-00-051-4075 | C-3 | 44 | 5310-00-928-9821 | C-1 | 37 |
| 4720-00-065-8682 | BULK | | 5410-00-981-8701 | C-1 | 27 |
| 5305-00-068-0513 | C-3 | 22 | 5935-00-990-5580 | C-1 | 30 |
| 4010-00-069-5180 | BULK | | 5935-00-994-0294 | C-7 | 9 |
| 5310-00-080-6004 | C-3 | 26 | 4720-00-996-0381 | BULK | |
| 5310-00-081-4219 | C-3 | 43 | 4730-01-017-5119 | C-1 | 7 |
| 5305-00-115-9406 | C-1 | 32 | 9905-01-048-2790 | C-1 | 26 |
| 5305-00-115-9934 | C-1 | 11 | 4240-01-048-2803 | C-1 | 4 |
| 5305-00-115-9934 | C-3 | 12 | 5340-01-048-6327 | C-1 | 10 |
| 5305-00-115-9934 | C-4 | 11 | 5340-01-048-6327 | C-3 | 11 |
| 5305-00-115-9934 | C-9 | 11 | 5340-01-048-6327 | C-4 | 12 |
| 5340-00-119-4705 | C-3 | 40 | 5340-01-048-6327 | C-9 | 12 |
| 5330-00-143-8571 | C-2 | 7 | 4240-01-049-0804 | C-1 | 34 |
| 6240-00-155-7784 | C-2 | 5 | 4730-01-049-0805 | C-7 | 1 |
| 6240-00-155-7932 | C-2 | 6 | 9905-01-049-1385 | C-1 | 20 |
| 5305-00-157-5621 | C-1 | 22 | 4730-01-050-7540 | C-1 | 5 |
| 5305-00-157-5621 | C-4 | 13 | 4730-01-050-7540 | C-7 | 4 |
| 5305-00-157-5621 | C-8 | 8 | 9905-01-050-7556 | C-4 | 3 |
| 5305-00-157-5621 | C-9 | 13 | 9905-01-050-7556 | C-9 | 3 |
| 5305-00-179-8946 | C-1 | 2 | 9905-01-050-7557 | C-3 | 33 |
| 5305-00-179-8946 | C-8 | 3 | 9905-01-051-0186 | C-4 | 2 |
| 5305-00-180-4966 | C-3 | 39 | 9905-01-051-0186 | C-9 | 2 |
| 5310-00-187-2400 | C-3 | 27 | 9905-01-051-0187 | C-8 | 6 |
| 5305-00-211-8193 | C-1 | 21 | 4240-01-052-3783 | C-7 | 2 |
| 4240-00-229-2610 | C-1 | 1 | 4720-01-053-0316 | BULK | |
| 4240-00-237-0227 | C-3 | 1 | 9905-01-053-3006 | C-2 | 11 |
| 5330-00-248-3849 | C-1 | 9 | 5330-01-054-0857 | C-7 | 8 |
| 5330-00-250-0236 | C-1 | 8 | 5310-01-054-4643 | C-1 | 28 |
| 5305-00-269-3240 | C-3 | 28 | 4240-01-054-7020 | C-3 | 10 |
| 6220-00-283-9732 | C | 8 | 4240-01-055-1493 | C-3 | 36 |
| 5310-00-435-8983 | C-1 | 31 | 4240-01-055-1493 | C-8 | 4 |
| 5935-00-762-1392 | C-7 | 10 | 4240-01-057-3378 | C-3 | 3 |
| 6240-00-763-7744 | C-2 | 2 | 2990-01-057-3475 | C-8 | 1 |
| 6240-00-763-7744 | C-6 | 1 | 4520-01-057-7010 | C-3 | 45 |
| 5310-00-765-3197 | C-1 | 12 | 5365-01-057-7379 | C-3 | 42 |
| 5310-00-765-3197 | C-3 | 13 | 4140-01-059-2095 | C-3 | 20 |
| 5310-00-765-3197 | C-4 | 6 | 4240-01-061-7233 | C-7 | 3 |
| 5310-00-765-3197 | C-9 | 6 | 9905-01-062-0672 | C-1 | 25 |
| 5310-00-809-4058 | C-3 | 21 | 4720-01-063-4567 | C-7 | 12 |
| 5310-00-811-3494 | C-1 | 18 | 9905-01-065-3065 | C-5 | 3 |
| 5310-00-811-3494 | C-3 | 19 | 9905-01-065-9382 | C-4 | 1 |
| 5310-00-811-3494 | C-4 | 5 | 9905-01-065-9382 | C-9 | 1 |
| 5310-00-811-3494 | C-8 | 11 | 9905-01-066-3084 | C-3 | 32 |
| 5310-00-811-3494 | C-9 | 5 | 4240-01-066-3266 | C-3 | 5 |
| 4730-00-817-1891 | C-3 | 41 | 4240-01-067-5605 | C-3 | 4 |
| 4730-00-817-1891 | C-5 | 4 | 4240-01-067-8376 | C-7 | 16 |
| 5355-00-821-5225 | C-2 | 1 | 9905-01-067-8634 | C-3 | 31 |
| 5305-00-824-7363 | C-3 | 38 | 4730-01-067-9232 | C-1 | 36 |
| 5310-00-877-5797 | C-3 | 34 | 4730-01-067-9232 | C-7 | 5 |
| 5310-00-877-5797 | C-8 | 9 | 5330-01-068-0515 | C-3 | 30 |
| 4030-00-878-8693 | C-1 | 14 | 4240-01-068-2354 | C-7 | 13 |
| 4030-00-878-8693 | C-3 | 15 | 4240-01-068-2355 | C-7 | 17 |
| 4030-00-878-8693 | C-4 | 9 | 9905-01-068-2368 | C-1 | 19 |
| 4030-00-878-8693 | C-9 | 9 | 4240-01-068-8645 | C-3 | 7 |
| 5305-00-889-2999 | C-2 | 10 | 5330-01-069-9824 | C-3 | 24 |
| 6240-00-892-4420 | C-5 | 1 | 4240-01-069-9827 | C-7 | 14 |
| 5310-00-897-6081 | C-1 | 35 | 9905-01-071-5711 | C-3 | 2 |
| 5310-00-897-6081 | C-7 | 6 | 4240-01-073-3439 | C-7 | 15 |
| 4730-00-908-6294 | C-1 | 17 | 4720-01-074-9220 | C-7 | 11 |
| 4730-00-908-6294 | C-3 | 18 | 5330-01-088-4442 | C-3 | 35 |
| 4730-00-908-6294 | C-4 | 4 | 5330-01-088-4442 | C-8 | 5 |
| | | | 4720-01-106-4602 | BULK | |
| | | | 4240-01-107-2433 | C-3 | 23 |

| FSCM | PART NUMBER | FIGURE NO. | ITEM NO. |
|---|---|---|---|
| 88044 | AN960PD616 | C-3 | 27 |
| 81361 | B5-19-6133 | C-3 | 33 |
| 81361 | B5-19-6134 | C-3 | 31 |
| 81361 | B5-19-6147 | C-4 | 2 |
| 81361 | B5-19-6147 | C-9 | 2 |
| 81361 | B5-19-6148 | C-4 | 3 |
| 81361 | B5-19-6148 | C-9 | 3 |
| 81361 | B5-19-6238 | C-1 | 26 |
| 81361 | B5-19-6347 | C-3 | 42 |
| 81361 | B5-19-6656 | C-8 | 6 |
| 81361 | B5-19-6716 | C-8 | 12 |
| 99862 | CL-2-C-8.0 | C-1 | 15 |
| 99862 | CL-2-C-8.0 | C-3 | 16 |
| 99862 | CL-2-C-8.0 | C-4 | 10 |
| 99862 | CL-2-C-8.0 | C-9 | 10 |
| 99862 | CL-2-FANDCL-2-C-8.0 | C-1 | 13 |
| 99862 | CL-2-FANDCL-2-C-8.0 | C-3 | 14 |
| 99862 | CL-2-FANDCL-2-C-8.0 | C-4 | 8 |
| 99862 | CL-2-FANDCL-2-C-8.0 | C-9 | 8 |
| 99862 | CL2C | BULK | |
| 99862 | CL2F | C-1 | 14 |
| 99862 | CL2F | C-3 | 15 |
| 99862 | CL2F | C-4 | 9 |
| 99862 | CL2F | C-9 | 9 |
| 30327 | C403 | BULK | |
| 81361 | C5-19-5687-1 | C-3 | 30 |
| 81361 | C5-19-5687-2 | C-3 | 24 |
| 81361 | C5-19-6145 | C-1 | 10 |
| 81361 | C5-19-6145 | C-3 | 11 |
| 81361 | C5-19-6145 | C-4 | 12 |
| 81361 | C5-19-6145 | C-9 | 12 |
| 81361 | C5-19-6149 | C-4 | 1 |
| 81361 | C5-19-6149 | C-9 | 1 |
| 81361 | C5-19-6175 | C-1 | 20 |
| 81361 | C5-19-6180 | C-7 | 2 |
| 81361 | C5-19-6181-10 | C-7 | 11 |
| 81361 | C5-19-6181-20 | C-7 | 12 |
| 81361 | C5-19-6182 | C-7 | 1 |
| 81361 | C5-19-6236 | C-1 | 34 |
| 81361 | C5-19-6309 | C-1 | 16 |
| 81361 | C5-19-6309 | C-3 | 17 |
| 81361 | C5-19-6309 | C-4 | 7 |
| 81361 | C5-19-6309 | C-9 | 7 |
| 81361 | C5-19-6316-12 | C-1 | 25 |
| 81361 | C5-19-6316-4 | C-2 | 11 |
| 81361 | C5-19-6316-6 | C-5 | 3 |
| 81361 | C5-19-6626 | C-8 | 7 |
| 81361 | C5-19-6627 | C-8 | 1 |
| 81361 | C5-19-6654 | C-1 | 36 |
| 81361 | C5-19-6654 | C-7 | 5 |
| 81361 | D5-19-6260 | C-3 | 29 |
| 81361 | D5-19-6262 | C-3 | 5 |
| 81361 | D5-19-6368 | C-3 | 6 |
| 81361 | D5-19-6401-10 | C-3 | 45 |
| 81361 | D5-19-6625 | C-8 | 10 |
| 81361 | D5-19-6628 | C-7 | 18 |
| 81361 | E5-19-5908 | C-7 | 3 |
| 81361 | E5-19-6120 | C-3 | 23 |
| 81361 | E5-19-6128 | C-3 | 25 |
| 81361 | E5-19-6136 | C-3 | 36 |
| 81361 | E5-19-6136 | C-8 | 4 |
| 81361 | E5-19-6201-40 | C-1 | 1 |
| 81361 | E5-19-6240 | C-3 | 20 |
| 81361 | E5-19-6314-20 | C-3 | 10 |
| 81361 | E5-19-6357 | C-1 | 4 |
| 81361 | E5-19-6357-111 | C-1 | 6 |
| 81361 | E5-19-6376 | C-3 | 3 |
| 81361 | E5-19-6387 | C-3 | 7 |
| 81361 | E5-19-6402 | C-3 | 1 |
| 81361 | E5-19-6402-7 | C-3 | 9 |
| 81361 | E5-19-6402-8 | C-3 | 8 |
| 30327 | KF03-02PS | C-1 | 7 |
| 30327 | KF03-04RV | C-1 | 5 |
| 30327 | KF03-04RV | C-7 | 4 |
| 79919 | K35B1 | C-2 | 1 |
| 96906 | MS21044N08 | C-1 | 18 |
| 96906 | MS21044N08 | C-3 | 19 |
| 96906 | MS21044N08 | C-4 | 5 |
| 96906 | MS21044N08 | C-8 | 11 |
| 96906 | MS21044N08 | C-9 | 5 |
| 96906 | MS21044N3 | C-3 | 34 |
| 96906 | MS21044N3 | C-8 | 9 |
| 96906 | MS24679-2 | C-1 | 23 |
| 96906 | MS24679-2 | C-1 | 37 |
| 96906 | MS25041-8 LENS ONLY | C-2 | 3 |
| 96906 | MS25041-8 LENS ONLY | C-6 | 3 |
| 96906 | MS25235R311 | C-2 | 6 |
| 96906 | MS25237-387 | C-2 | 2 |
| 96906 | MS25237-387 | C-6 | 1 |
| 96906 | MS25358-4 | C-2 | 8 |
| 96906 | MS25358-5 | C-2 | 9 |
| 96906 | MS25358-6 | C-2 | 7 |
| 96906 | MS27183-10 | C-3 | 21 |
| 96906 | MS27183-12 | C-3 | 43 |
| 96906 | MS27183-14 | C-3 | 26 |
| 96906 | MS27183-41 | C-1 | 12 |
| 96906 | MS27183-41 | C-3 | 13 |
| 96906 | MS27183-41 | C-4 | 6 |
| 96906 | MS27183-41 | C-9 | 6 |
| 96906 | MS27183-42 | C-3 | 37 |
| 96906 | MS29513-019 | C-1 | 9 |
| 96906 | MS29513-24 | C-1 | 8 |
| 96906 | MS3119E20-16 | C-7 | 9 |
| 96906 | MS3181-10N | C-1 | 29 |
| 96906 | MS3181-14N | C-1 | 30 |
| 96906 | MS3181-20C | C-7 | 10 |
| 96906 | MS3186-34 | C-1 | 28 |
| 96906 | MS3186-43 | C-1 | 31 |
| 96906 | MS35206-217 | C-2 | 10 |
| 96906 | MS35338-42 | C-1 | 24 |
| 96906 | MS35338-42 | C-1 | 33 |
| 96906 | MS35338-43 | C-1 | 3 |
| 96906 | MS35478-307 | C-2 | 5 |
| 96906 | MS35691-32 | C-1 | 35 |
| 96906 | MS35691-32 | C-7 | 6 |
| 96906 | MS35842-16 | C-1 | 17 |
| 96906 | MS35842-16 | C-3 | 18 |
| 96906 | MS35842-16 | C-4 | 4 |
| 96906 | MS35842-16 | C-8 | 2 |
| 96906 | MS35842-16 | C-9 | 4 |
| 96906 | MS51849-53 | C-1 | 32 |
| 96906 | MS51849-54 | C-1 | 21 |
| 96906 | MS51849-55 | C-1 | 11 |
| 96906 | MS51849-55 | C-3 | 12 |
| 96906 | MS51849-55 | C-4 | 11 |
| 96906 | MS51849-55 | C-9 | 11 |
| 96906 | MS51849-56 | C-1 | 22 |
| 96906 | MS51849-56 | C-4 | 13 |
| 96906 | MS51849-56 | C-8 | 8 |
| 96906 | MS51849-56 | C-9 | 13 |
| 96906 | MS51849-64 | C-3 | 39 |
| 96906 | MS51849-66 | C-1 | 2 |
| 96906 | MS51849-66 | C-8 | 3 |
| 96906 | MS521301B225360 | BULK | |
| 96906 | MS90484-20-1 | C-7 | 8 |
| 96906 | MS90727-33 | C-3 | 44 |
| 96906 | MS90727-6 | C-3 | 22 |
| 96906 | MS90727-64 | C-3 | 28 |
| 96906 | MS9352-05 | C-3 | 40 |
| 81349 | M15098/11-001 | C-5 | 1 |
| 80205 | NAS1096-3-12 | C-3 | 38 |
| 81361 | PL5-19-6704-19 | C-7 | 7 |
| 07137 | PTL-A1 (3-C7A) LENS ONLY | C-5 | 2 |
| 30327 | 261P1-4 | C-3 | 41 |
| 30327 | 261P1-4 | C-5 | 4 |
| 04426 | 44-601 | C-2 | 4 |
| 04426 | 44-601 | C-6 | 2 |
| 30327 | 44P RED | BULK | |
| 30327 | 44P GREEN | BULK | |
| 81361 | 5-19-6135 | C-3 | 32 |
| 81361 | 5-19-6162-10 | C-7 | 15 |
| 81361 | 5-19-6170-10 | C-7 | 16 |
| 81361 | 5-19-6170-40 | C-7 | 17 |
| 81361 | 5-19-6316-9 | C-3 | 2 |
| 81361 | 5-19-6348 | C-3 | 35 |
| 81361 | 5-19-6348 | C-8 | 5 |
| 81361 | 5-19-6657 | C-1 | 19 |
| 81361 | 5-19-6691 | C-7 | 14 |
| 81361 | 5-19-6693 | C-7 | 13 |
| 81361 | 5-19-6718 | C-3 | 4 |
| 01943 | 8173 | C-1 | 27 |

# APPENDIX D
# EXPENDABLE SUPPLIES AND MATERIALS LIST

## Section I. INTRODUCTION

**D-1. SCOPE.** This appendix lists expendable supplies and materials you will need to operate and maintain the collective protection equip ment. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts and Heraldic Items).

**D-2. EXPLANATION OF COLUMNS.**

*a. Column 1- Item Number.* This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use dry-cleaning solvent, item 4, app D").

b. *Column 2- Level. This* column identifies the lowest level of maintenance that requires the listed item.
O - Organizational Maintenance
F - Direct Support Maintenance

*c. Column 3- National Stock Number. This* is the National stock number assigned to the item; use it to request or requisition the item.

d. *Column 4- Description.* Indicates the Federal item name and, if required, a de scription to identify the item. The last line for each item indicates the part number followed by the Federal Supply Code for Manufacturer (FSCM) in parentheses, if applicable.

*e. Column 5- Unit of Measure (U/M).* Indi cates the measure used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation (e.g., ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

## Section II. EXPENDABLE SUPPLIES AND MATERIALS LIST

| (1) ITEM NUMBER | (2) LEVEL | (3) NATIONAL STOCK NUMBER | (4) DESCRIPTION | (5) U/M |
|---|---|---|---|---|
| 1 | o | | ADHESIVE, BONDING VULCANIZED: MMM-A-121 (81348) | |
| | | 8040-00-165-8614 | 1 qt can | QT |
| *2* | 0 | | ALIPHATIC POLYURETHANE COATING low reflective, chemical agent resistant MIL-C-46168 (MR) | |
| | | 8010-01-055-2319 | 1gal cntnr | EA |
| | 0 | 7920-00-223-8002 | BRUSH, ACID SWABBING horsehair bristle, 5.750 length HR643 | EA |

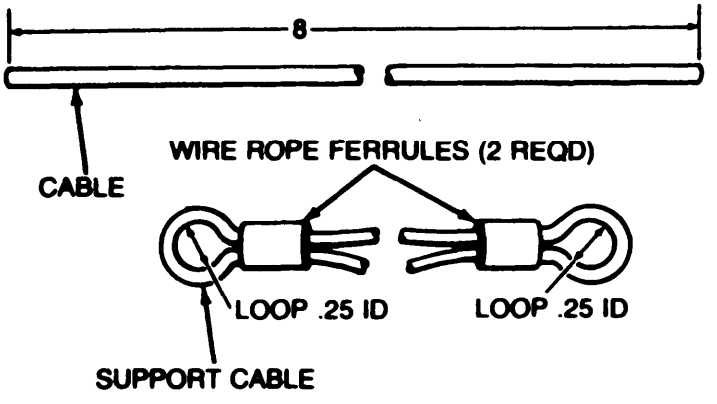
| (1) ITEM NUMBER | (2) LEVEL | (3) NATIONAL STOCK NUMBER | (4) DESCRIPTION (FSCM) | (5) U/M |
|---|---|---|---|---|
| 4 | 0 | | DRY-CLEANING SOLVENT: P-D-680 | |
| | | 6850-00-664-5685 | 1 QT CNTNR | EA |
| | | 6850-00-281-1985 | 1 GAL CNTNR | EA |
| 5 | 0 | | PRIMER: CLASS 2 MIL-P-23377 | |
| | | 8010-00-142-9279 | KIT | EA |
| 6 | 0 | | RAG,WIPING: COTTON DESIGNED FOR GENERAL PURPOSE USE DDD-R-30 (81348) | |
| | | 7920-00-205-1711 | 50 IL BALE | EA |
| 7 | 0 | | TAPE: OLIVE DRAB, CLASS 1,3 WIDE PP-T-60 | |
| | | 7510-00-663-3738 | ROLL | EA |

# APPENDIX E
# ILLUSTRATED LIST OF MANUFACTURED ITEMS

## E-1. INTRODUCTION.

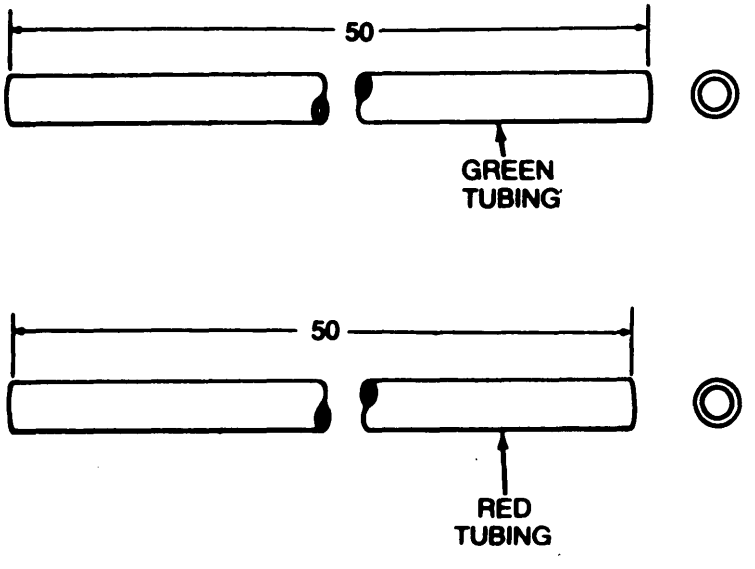
a. This appendix includes complete instructions for making items authorized to be manufactured or fabricated at organizational maintenance level.

b. All bulk materials needed for manufacture of an item are listed by National Stock Number in a tabular list on the illustration.



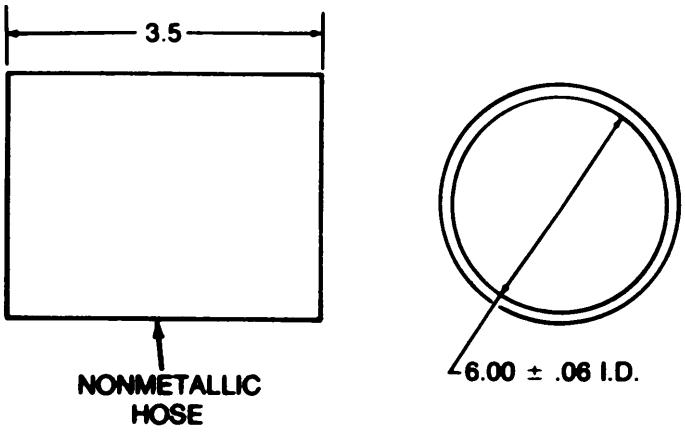

NOTES:
1. FABRICATE SUPPORT CABLE FROM NSN 4010-00-069-5180 STOCK.
2. CRIMP WIRE ROPE FERRULES (NSN 4030-00-878-8693) ON CABLE AS SHOWN.
3. ALL DIMENSIONS ARE IN INCHES.

*Figure E-1. Support cable*



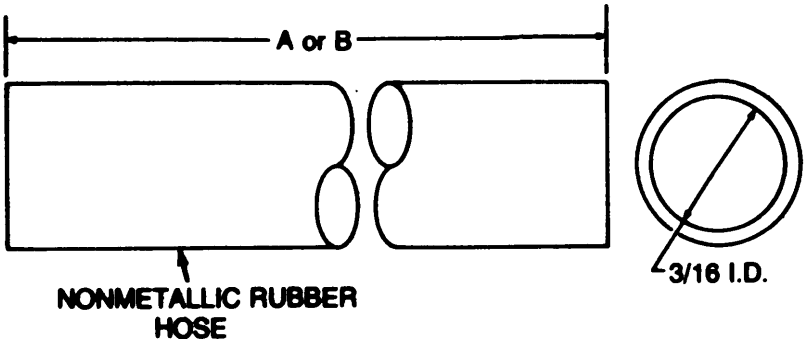

NOTES:
1. FABRICATE GREEN NONMETALLIC TUBING FROM NSN 4720-01-053-0316 STOCK.
2. FABRICATE RED NONMETALLIC TUBING FROM NSN 4720-00-996-0381 STOCK.
3. ALL DIMENSIONS ARE IN INCHES.

*Figure E-2. Nonmetallic tubing*




NOTES:
1. FABRICATE FROM NSN 4720-01-106-4602 STOCK
2. ALL DIMENSIONS ARE IN INCHES

*Figure E-3. Nonmetallic hose*




| | LENGTH |
|---|---|
| A | 12 |
| B | 22 |

NOTES:
1. FABRICATE FROM NSN 4720-00-065-8682 STOCK.
2. ALL DIMENSIONS ARE IN INCHES.

*Figure E-4. Rubber hose*

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