

TM 11-6130-243-12

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL

POWER SUPPLY PP-4606/G

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

HEADQUARTERS, DEPARTMENT OF THE ARMY
15 JUNE 1966

WARNING

DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT

High voltages and currents exist in this equipment. **SERIOUS INJURY** or **DEATH** may result from contact with the input or output connections. Deenergize the equipment before connecting or disconnecting the load to be powered and before performing any maintenance.

DON'T TAKE CHANCES!

CHANGE }
No. 2 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON DC, 4 December 1981

Operator's and Organizational Maintenance Manual
POWER SUPPLY PP-4606/G
(NSN 6130-00-504-0327)

TM 11-6130-243-12, 15 June 1966, is changed as follows:

1. Title of the manual is changed as shown above.
2. New or changed material is indicated by a vertical bar in the margin of the page.
3. Remove and insert pages as indicated below:

<i>Remove</i>	<i>Insert</i>
None	a through c(front of manual)
i	i/(iiblack)
1-0	1-0
1-1 and 1-2	1-1 and 1-2
2-1 through 2-4	2-1 through 2-4
3-3 and 3-4	3-3 and 3-4
A-1	AI-1

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

By Order of the Secretary of the Army:

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

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-31, Operator maintenance requirements for All Fixed & Rotor Wing Aircraft.

**5**

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

1

DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL

2

IF POSSIBLE , TURN OFF THE ELECTRICAL POWER

3

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

4

SEND FOR HELP AS SOON AS POSSIBLE

5

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

WARNINGS

DANGEROUS VOLTAGES (220 vac and 440 vac) exist in this equipment. When equipment is operated with covers open or removed, DO NOT touch exposed connections or components. SERIOUS INJURY OR DEATH MAY RESULT. Reenergize the equipment before connecting or disconnecting the battery to be charged, and before performing any maintenance. Follow all precautions listed in TB 385-4. Avoid personal injury. Power Supply PP-4606/G weighs 375 pounds; be careful when moving. A mechanical lift is required.

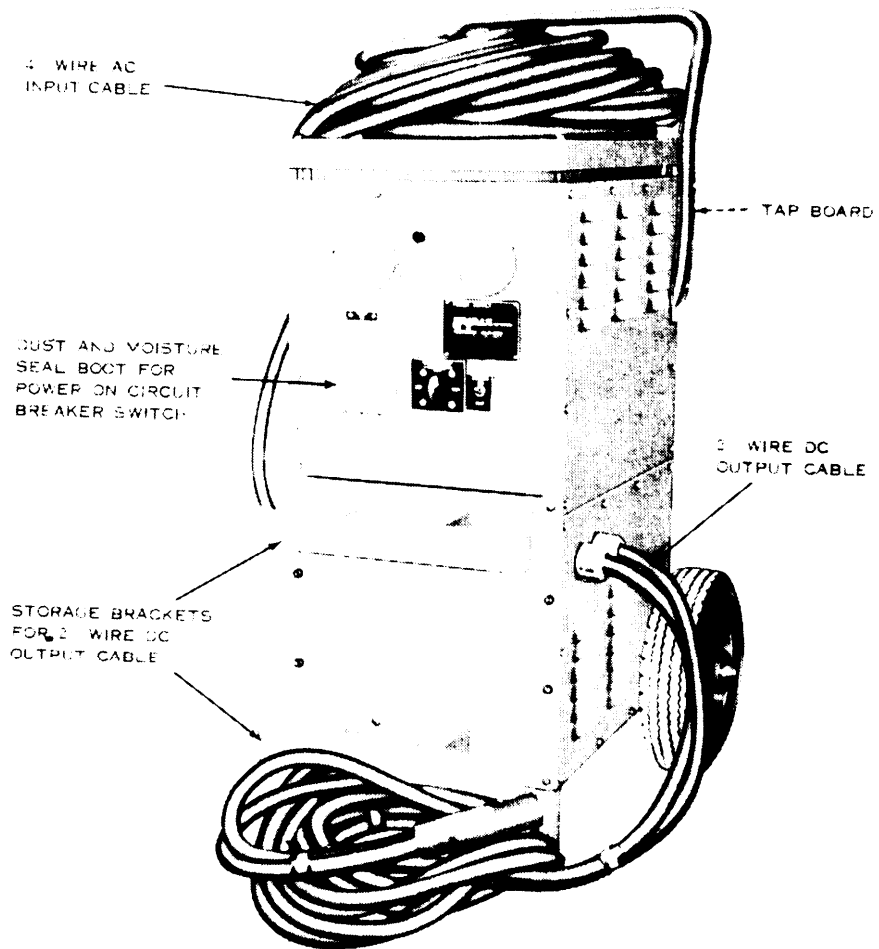
Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

TECHNICAL MANUAL }
 No. 11-6130-243-12 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 Washington, DC, 15 June 1966

**OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
 POWER SUPPLY PP-4606/G
 (NSN 6130-00-504-0327)**

		Paragraph	Page
CHAPTER	1. INTRODUCTION		
SECTION	I. General		
	Scope	1-1	1-1
	Index of technical publications	1-2	1-1
	Maintenance forms records, and reports	1-3	1-1
	Reporting errors and recommending improvements	1-3.1	
	Reporting equipment improvement recommendations (EIR)	1-3.2	
	Administrative storage e.....	1-3.3	
	Destruction of army electronics materiel	1-3.4	
	II. Description and data		
	Purpose and use	1-4	
	Technical characteristics	1-5	1-1
	Description	1-6	1-2
CHAPTER	2. INSTALLATION AND OPERATING INSTRUCTIONS		
SECTION	I. Service upon receipt of equipment		
	Unpacking	2-1	2-1
	Checking unpacked equipment.	2-2	2-1
	Input power connections	2-3	2-1
	II. Operation		
	Controls and indicate	2-4	2-4
	Operating Procedure	2-5	2-4
	Stopping Procedure	2-6	2-4
CHAPTER	3. MAINTENANCE INSTRUCTIONS		
	Scope of maintenance	3-1	3-1
	Preventive maintenance	3-2	3-1
	Preventive maintenance checks and services periods	3-3	3-1
	Operator's daily preventive maintenance checks and services chart	3-4	3-2
	Operator's weekly preventive maintenance checks and services chart	3-5	3-2
	Organizational monthly preventive maintenance checks and services chart	3-6	3-2
	Organizational quarterly preventive maintenance checks and services chart	3-7	3-3
	Cleaning	3-8	3-3
	Touchup painting instructions	3-9	3-3
	Troubleshooting	3-10	3-3
	Replacement of indicator lamp	3-11	3-4
CHAPTER	4. SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE		
SECTION	I. Shipment and limited storage		
	Repackaging for shipment or limited storage	4-1	4-1
	Packing	4-2	4-1
	II. Demolition of materiel to prevent enemy use		
	Authority for demolition	4-3	4-1
	Methods of destruction	4-4	4-1
APPENDIX	I. REFERENCES		AI-1
	II. BASIC ISSUE ITEMS LIST		AII-1
	III. MAINTENANCE ALLOCATION		AIII-1



TM 11-6130-243-12-1

Figure 1-1. Power Supply PP-4606/G.

CHAPTER 1 INTRODUCTION

Section 1. GENERAL

1-1. Scope.

This manual describes Power Supply PP-4606/G (fig. 1-1) and provides instruction for, installation, operation, and operator and organizational maintenance. It includes instructions for cleaning and inspection of the equipment, and replacement of parts available to the operator and organizational repairman. Power Supply PP-4606/G is referred to as *power supply* in this manual.

1-2. Index of Technical Publications

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

1-3. Maintenance Forms, Records, and Reports

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by TM 38-750, The Army Maintenance Management System.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735/11-2/DLAR 4140.55/NAVMATINST 4355.73/AFR 400-54/MCO 4430.3E.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO 4610.19C/DLAR 4500.15.

1-3.1. 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 or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to Commander, US Army Communications-Electronics Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. In either case, a reply will be furnished direct to you.

1-3.2. Reporting Equipment Improvement Recommendations (EIR)

If your equipment needs improvement, let us know. Send us an EIR. You, the user, are 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 Commander, US Army Communications-Electronics Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. We'll send you a reply.

1-3.3. Administrative Storage

Administrative Storage of Equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage the PMCS should be performed to assure operational readiness. Disassembly and repacking of equipment for shipment or limited storage are covered in paragraphs 4-1 and 4-2.

1-3.4. Destruction of Army Electronics Materiel

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

Power Supply PP-4606/G converts 220 or 440 volts alternating current (ac), three-phase power, to 28 volts direct current (dc) power. This power supply is used for ground support of aircraft with 28-volt dc electrical systems.

1-5. Technical Characteristics

Power input:

Voltage220 or 440.

Frequency . . .60 cps.

Phase3-phase.

Current (full 20 amperes for 220-volt ac input load) power, or 10 amperes for 440-volt ac input power.

Power output:

Voltage28.5 volts dc (at no load and
VOLTAGE ADJUST switch set to
NOM).

Current ,200 amperes (maximum).

Ripple5 percent (maximum).

Regulation . . .9 percent.

Weight375 pounds.

1-6. Description

(fig. 1-1)

Power Supply PP-4606/G is a two-wheel mobile unit in a metal cabinet, 46 ¾ inches high, 25 ½ inches wide, and 29½ inches deep. All operating controls are mounted on the front panel. Louvers on the panels of the cabinet are provided for air circulation. A tap board with jumpers

(figs. 2-2 and 2-3) is installed behind the upper rear panel of the power supply so that either a 220- or 440-volt ac input power maybe utilized. The power supply includes one spare indicator lamp and one technical manual. The spare indicator lamp is padded and taped to the lower rear skid channel on the right side of the power supply. The four-wire ac input cable consisting of a red, white, black, and green wire (green wire is for ground connection) is 100 feet long. The two-wire dc output cable terminates in a molded and keyed female connector and is 16 feet long. A dust and moisture seal boot is provided for protection of the POWER ON circuit breaker switch. The dust and moisture seal boot is of flexible plastic material that does not interfere with positioning the POWER ON circuit breaker switch.

CHAPTER 2 INSTALLATION AND OPERATING INSTRUCTIONS

Section 1. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unpacking

(fig. 2-1)

a. Packaging Data. When packed for shipment, the power supply is placed in protective material and packed in a 54- by 36- by 31-inch wooden packing case. A typical wooden packing case and its contents are shown in figure 2-1. The volume is 35 cubic feet and the total weight is 488 pounds.

b. Removing Contents.

WARNING

Avoid personal injury. Power Supply PP-4606/G weighs 375 pounds; be careful when moving. A mechanical lift is required.

- (1) Cut and remove the metal straps.
- (2) Remove the nails that secure the sides of the wooden packing case to the base.
- (3) Lift the wooden packing case off the base.
- (4) Remove the packing material, nuts, bolts, and lockwashers that secure the mounting base to the power supply.
- (5) Remove the two bolts, locknuts, and washers that secure the handle to the angle iron support. Reverse the position of the handle. Secure the handle with four bolts, nuts, and washers stowed in the mounting holes of the handle.
- (6) Stow all loose material in the wooden packing case.
- (7) Using the handle and the wheels, wheel the power supply to the area where it is to be used.

2-2. Checking Unpacked Equipment

a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 1-3).

b. See that the equipment is complete as listed on the packing slip. If a packing slip is not available, check the equipment against the basic issue items list (appx II). Report all discrepancies in accordance with TM 38-750. Shortage of a minor assembly or part that does not affect proper functioning of the equipment should not prevent use of the equipment.

c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the front panel near the nomenclature plate. See that any operational instruction changes resulting from the modification have been entered in the equipment manual.

Note. Current MWO's applicable to the equipment are listed in DA Pam 310-4.

2-3. Input Power Connections

Before connecting the power supply to a power source, remove the upper rear panel from the power supply to gain access to the tap board.

a. 220-Volt Input Power (fig. 2-2). If the power supply is to be connected to a 220-volt ac input power source, connect nine jumper leads on the tap board as follows:

- (1) Jumper leads from each of the three C terminals to their associated L4 220V, L5 220V, and L6 220V terminals.
- (2) Jumper leads from each of the three S terminals to their associated L4 220V, L5 220V, and L6 220V terminals.
- (3) Jumper leads from each of the three 1 terminals to their associated 5 terminals.

b. 440-Volt Input Power (fig. 2-3). If the power supply is to be connected to a 440-volt ac input

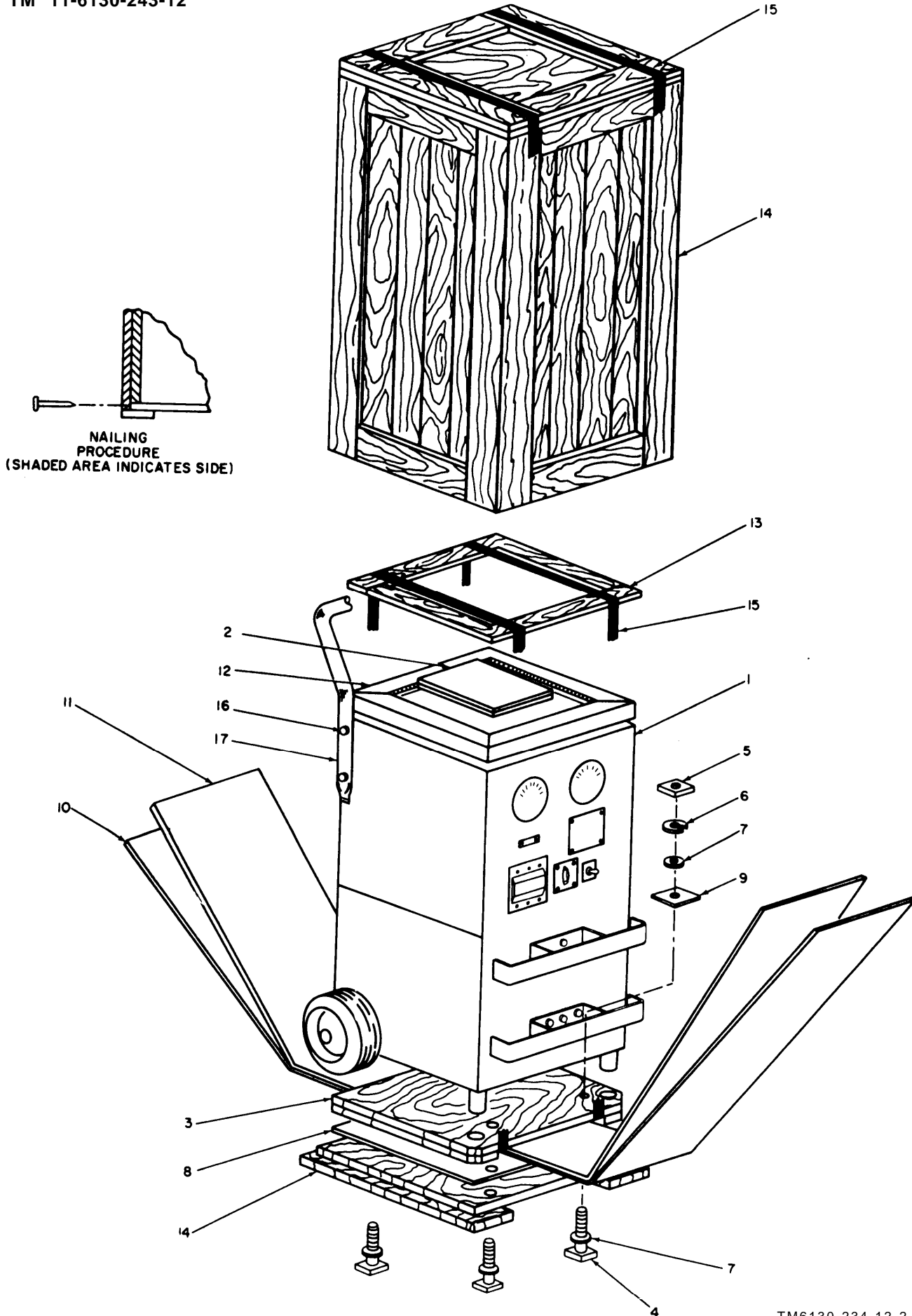
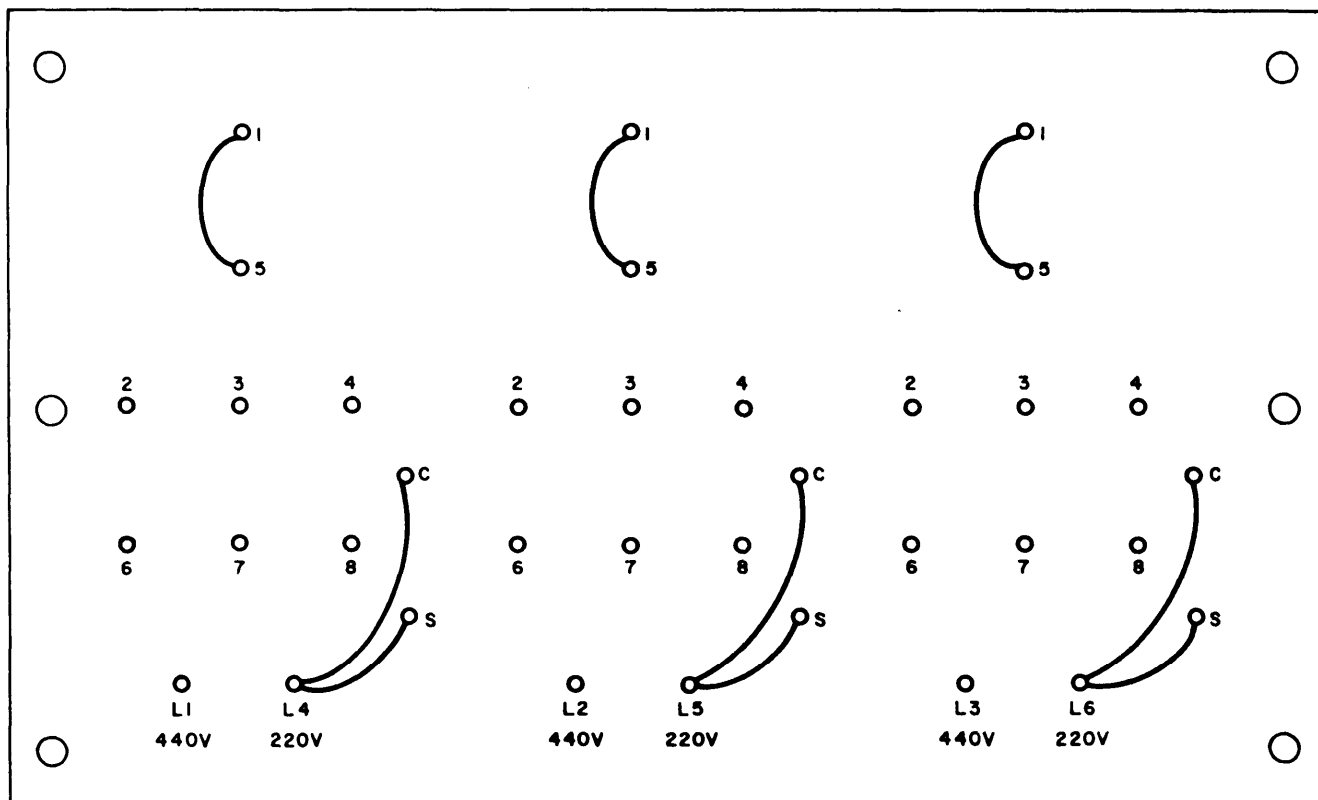
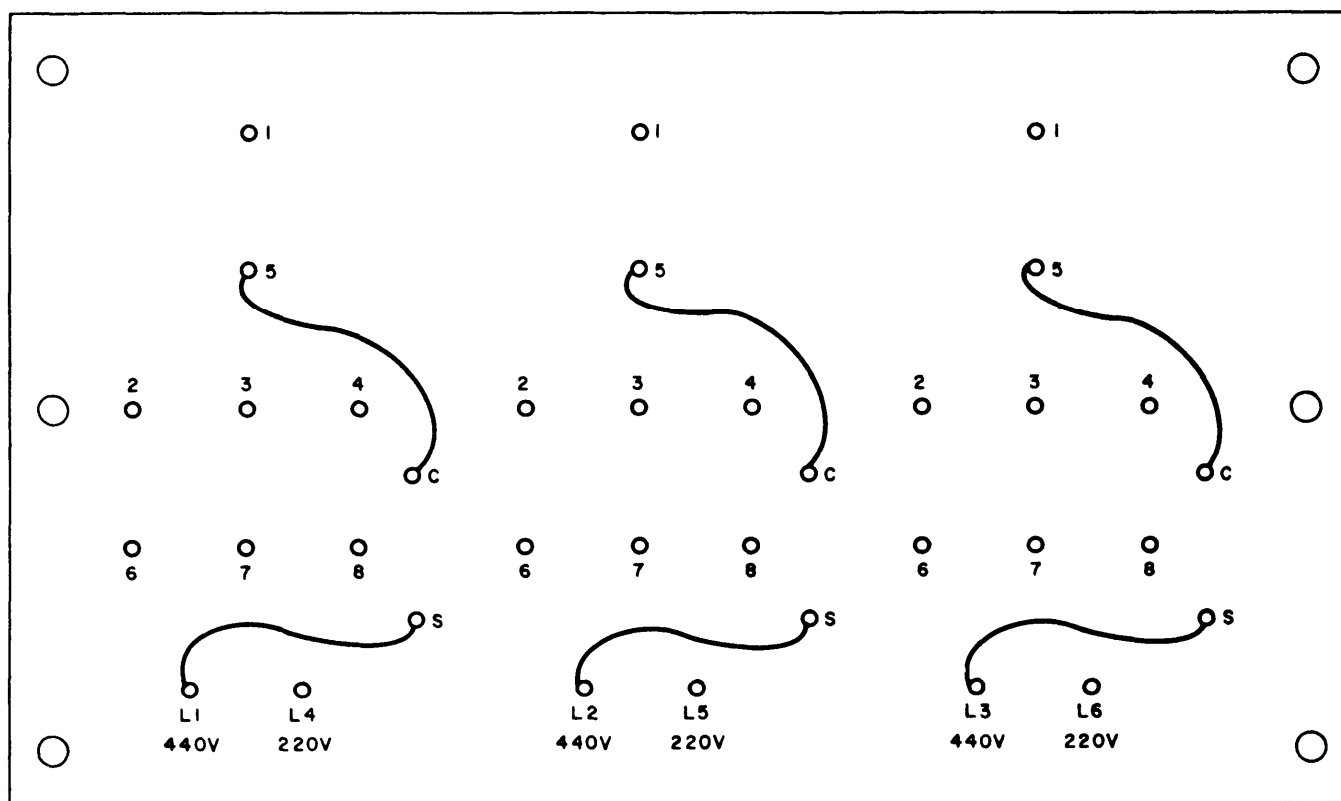


Figure 2-1. Packaging Diagram.



TM6130-243-12-3

Figure 2-2. Connections on Lap Board for 220-Volt AC input Power.



TM6130-243-12-4

Figure 2-3. Connections on Tap Board for 440-Volt AC Input Power.

power source, connect six jumper leads on the tap board as follows:

- (1) Jumper leads from each of the three S terminals to their associated L1 440V, L2 440V, and L3 440V terminals.
- (2) Jumper leads from each of the three 5

terminals to their associated C terminals.

Note. The ac power input electrical connections are made by authorized installation personnel and should be protected with a fuse and controlled by an external switch for convenient removal of power from the power supply during maintenance.

- c. Connect the four-wire ac input power cable to the ac power input source.

Section II. OPERATION

2-4. Controls and Indicators

(fig. 2-4)

The following chart lists the power supply controls and indicators and their functions:

<i>Control or indicator</i>	<i>Function</i>								
POWER ON circuit breaker switch.	Turns power supply on and off manually. Provides overload protection by automatically disconnecting ac input power whenever input current is excessive.								
Indicator lamp.	When illuminated, indicates that input power is applied to power supply.								
VOLTAGE ADJUST switch (3-position rotary).	Permits adjustment of output voltage if input voltage is high or low. <table border="0" style="margin-left: 20px;"> <tr> <td><i>Position</i></td> <td><i>Action</i></td> </tr> <tr> <td>LOW</td> <td>Lowers output voltage.</td> </tr> <tr> <td>NOM</td> <td>Provides nominal dc output of 28 volts.</td> </tr> <tr> <td>HIGH</td> <td>Raises output voltage.</td> </tr> </table>	<i>Position</i>	<i>Action</i>	LOW	Lowers output voltage.	NOM	Provides nominal dc output of 28 volts.	HIGH	Raises output voltage.
<i>Position</i>	<i>Action</i>								
LOW	Lowers output voltage.								
NOM	Provides nominal dc output of 28 volts.								
HIGH	Raises output voltage.								
AMMETER switch (2-position, spring-loaded).	When depressed, DIRECT CURRENT AMPERES meter indicates power supply output current.								
DIRECT CURRENT VOLTS meter.	Indicates output voltage.								
DIRECT CURRENT AMPERES meter.	Indicates output current.								

2-5. Operating Procedure

(fig. 2-4).

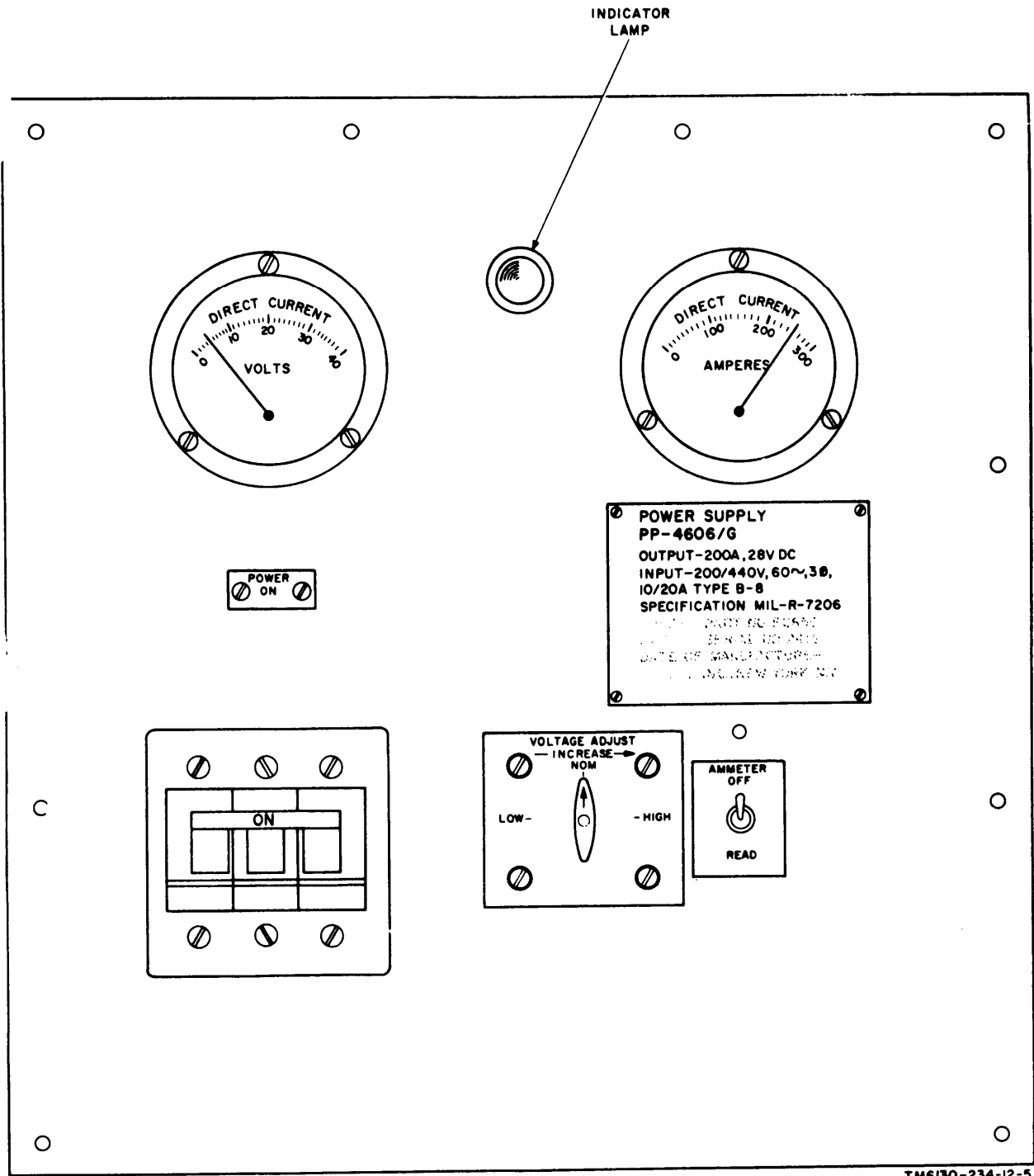
After performing the input power connection procedures given in paragraph 2-3, proceed as follows:

- a. Set the VOLTAGE ADJUST switch to NOM.
- b. Connect the dc output cable to the equipment to be powered.
- c. Set the POWER ON circuit breaker switch to ON.
- d. Check to see that the DIRECT CURRENT VOLTS meter indicates 28 volts. If the voltage indicated is less than 28 volts, set the VOLTAGE ADJUST switch to HIGH. If the voltage indicated is greater than 28 volts, set the VOLTAGE ADJUST switch to LOW.
- e. Depress the AMMETER switch to READ and see that the DIRECT CURRENT AMPERES meter indicates output current (200 amperes maximum).

2-6. Stopping Procedure

Stop the power supply as follows:

- a. Set the equipment being powered to off.
- b. Set the POWER ON circuit breaker switch to the off (down) position.
- c. Disconnect the dc output cable from the equipment being powered and rewind the dc output cable on the brackets on the front of the power supply.



TM6130-234-12-5

Figure 2-4. Power Supply PP-4606/G, controls and indicators.

CHAPTER 3

MAINTENANCE INSTRUCTIONS

3-1. Scope of Maintenance

The maintenance duties assigned to the operator and organizational repairman of the equipment are listed below, together with references to the paragraphs covering the specific maintenance functions. The tools and test equipment required are listed in appendix III.

- a. Operator's daily preventive maintenance checks and services (para 3-4).
- b. Operator's weekly preventive maintenance checks and services (para 3-5).
- c. Organizational monthly preventive maintenance checks and services (para 3-6).
- d. Organizational quarterly preventive maintenance checks and services (para 3-7).
- e. Cleaning (para 3-8).
- f. Touchup painting (para 3-9).
- g. Troubleshooting (para 3-10).
- h. Replacement of indicator lamp (para 3-11).

3-2. Preventive Maintenance

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to assure that the equipment is serviceable.

a. *Systematic Care.* The procedures given in paragraphs 3-4 through 3-8 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. *Preventive Maintenance Checks and Services.* The preventive maintenance checks and services charts (paras 3-4 through 3-7) outline functions to be performed at specific intervals. These checks and services are to maintain Army electronic equipment in a combat-serviceable condition; that is, in good general (physical) condition and in good operating condition. To assist operators in maintaining combat serviceability, the chart indicates what to check, how to check, and what the normal conditions are. The *References* column lists the paragraphs, figures, or manuals that contain detailed repair or replacement procedures. If the defect cannot be remedied by the corrective actions listed, higher category of maintenance or repair is required. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38-750.

3-3. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the equipment are required daily, weekly, monthly, and quarterly.

a. Paragraph 34 specifies the checks and services that must be accomplished daily (or at least once each week if the equipment is maintained in standby condition).

b. Paragraphs 3-5, 3-6, and 3-7 specify additional checks and services, that must be performed on a weekly, monthly, and quarterly basis, respectively.

3-4. Operator's Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be Inspected	Procedures	References
1	Completeness	See that the equipment is complete.	Appx II. Para 3-8.
2	Exterior surfaces.	Clean the exterior surfaces, including the panel and meter glasses. Check both meter glasses and indicator lens for cracks.	
3	Connectors	Check the tightness of all connectors.	Para 2-3. Para 2-5.
4	Controls and indicators	While making the operating checks (items 5 through 8), observe that the mechanical action of each switch is smooth, and free of external or internal binding, and that there is no excessive looseness. Also, check the meters for sticking or bent pointers.	
5	Connections	See that the jumper leads are connected properly for input power.	
6	Operation	Operate the equipment. The indicator lamp should glow. The DIRECT CURRENT VOLTS and DIRECT CURRENT AMPERES meters should indicate output voltage and current, respectively.	
7	VOLTAGE ADJUST switch	Set the VOLTAGE ADJUST switch as necessary. Note that the voltage indication on the DIRECT CURRENT VOLTS meter increases as the switch is set clockwise.	
8	POWER ON circuit breaker switch.	Set to off (down) position. Note that the indicator lamp extinguishes.	

3-5. Operator's Weekly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be respected	Procedures	References
1	Cables	Inspect cables for chafed, cracked, or frayed insulation. Replace connectors that are broken, arced, stripped, or worn excessively.	Para 3-9.
2	Metal surfaces	Inspect exposed metal surfaces for rust and corrosion. Clean and touch up paint as required.	

3-6. Organizational Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedures	References
1	Transformer terminals	Inspect the terminals on the power transformer, All nuts must be tight. There should be no evidence of dirt or corrosion.	None.
2	Resistors and capacitors	Inspect resistors and capacitors for cracks, blistering, or other detrimental defects.	None.
3	Gaskets and insulators	Inspect gaskets, insulators, bushings, and sleeves for cracks, chipping, and excessive wear,	None.
4	Tap board	Inspect the tap board for loose terminals, cracks, and other detrimental defects.	None.
5	Interior	Clean the interior of the chassis and cabinet.	None.

3-7. Organizational Quarterly Preventive Maintenance Checks and Services Chart

Sequence No.	Item to be inspected	Procedures	References
1	Publications	See that all publications are complete, serviceable, and current.	DA Pam 310-4.
2	Modifications	Check DA Pam 310-4 to determine whether new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	TM 38-750 and DA Pam 310-4.
3	Spare part	Check the spare part for general condition and method of storage. No overstock should be evident and shortages must be on valid requisitions.	Appx II.

3-8. Cleaning

Inspect the exterior of the equipment. The exterior surfaces should be free of dust, dirt, grease, and fungus.

a. Remove dust and loose dirt with a clean soft cloth.

WARNING

Adequate ventilation should be provided while using TRICHLOROTRIFLUOROETHANE. Prolonged breathing of vapor should be avoided. The solvent should not be used near heat or open flame; the products of decomposition are toxic and irritating. Since TRICHLOROTRIFLUOROETHANE dissolves natural oils, prolonged contact with skin should be avoided. When necessary, use gloves which the solvent cannot penetrate. If the solvent is taken internally, consult a physician immediately.

b. Remove grease, fungus, and ground-in dirt from the case; use a cloth dampened (not wet) with

Trichlorotrifluoroethane (NSN 6850-00-105-3084),

c. Remove dust or dirt from plugs and packs with a brush.

CAUTION

Do not press on the meter faces (glasses) when cleaning; the meters may become damaged.

d. Clean the front panel, meters, and switches; use a soft clean cloth. If necessary, dampen the cloth with water; mild soap may be used for more effective cleaning.

3-9. Touchup Painting Instructions

Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint on the bare metal to protect it from further corrosion. Refer to the applicable cleaning and refinishing practices specified in TB SIG 364.

3-10. Troubleshooting

a. *General.* The troubleshooting chart below is furnished to help locate trouble in the power supply. Only those corrective measures are given which the unit repairman can accomplish. If the corrective measure does not restore normal equipment performance, higher category of maintenance is required.

TM 11-6130-243-12

b. Troubleshooting Chart.

Sequence No.	Item to reinspected	Probable trouble	Corrective measures
1	Indicator lamp does not illuminate.	Defective indicator lamp, or no power input.	Check power input. If correct, replace indicator lamp (para 3-1 1).
2	DIRECT CURRENT VOLTS meter does not indicate properly.	Connections to meter faulty or defective.	Check for loose connection in output circuit. Check connections to meter. If meter connections are not faulty, higher category maintenance is required.
3	DIRECT CURRENT AMPERES meter does not indicate properly.	Connections to meter or to AM-METER switch faulty or defective.	Check for loose connections at meter and switch. If connections are not faulty, higher category maintenance is required.
4	Voltage indication on DIRECT CURRENT VOLTS meter does not respond to change in position of VOLTAGE ADJUST switch.	Defective VOLTAGE ADJUST switch.	Higher category maintenance is required.
5	With POWER ON circuit breaker switch set to OFF, DIRECT CURRENT VOLTS meter does not indicate 0, and indicator lamp does not extinguish.	Defective circuit breaker switch	Higher category maintenance is required.
6	Overheating	Poor ventilation	Check vent openings for excessive dirt or foreign matter.

3-11. Replacement of Indicator Lamp

a. Turn the red indicator jewel counterclockwise and pull it out to expose the defective lamp.

b. Press in the lamp and turn it counterclockwise to unlock it.

c. Pull the defective lamp out and replace it with a new one. Push the new lamp in and twist it clockwise to lock it.

d. Secure the red indicator jewel in place by turning it clockwise.

CHAPTER 4

SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED STORAGE

4-1. Repackaging for Shipment or Limited Storage

The exact procedure for repackaging depends on the material available and the conditions under which the equipment is to be shipped or stored. Adapt the procedure outlined below whenever circumstances permit. The information concerning the original packaging (para 2-1) will also be helpful.

a. Material Requirements. The following materials are required for packaging the power supply. For stock numbers of materials, refer to SB 38-100.

Material	Quantity
Corrugated, single-face, flexible paper	100 sq ft
Gummed paper tape	30 sq ft
Pressure-sensitive tape	25 ft
Waterproof paper	80 sq ft
Wooden packing case (inside dimensions 48 X 31 X 27 in.)	1

b. Packaging (fig. 2-1). Package the items of the power supply as outlined below.

- (1) *Main unit.* Cushion the main unit on all-sides with fillers and pads made up of corrugated, single-face, flexible paper. Secure the cushioning with gummed paper tape. Wrap the cushioned unit with corrugated, single-face, flexible paper and secure the wrap with gummed paper tape.

- (2) *Spare indicator lamp and technical manual.* Wrap the indicator lamp in corrugated, single-face, flexible paper and secure with gummed paper tape. Wrap the technical manual in waterproof paper and seal the package with pressure-sensitive tape. Fasten the package containing the technical manual to the top of the power supply with pressure-sensitive tape. Fasten the spare indicator lamp package to the lower rear skid channel on the right side of the main unit with pressure-sensitive tape.

4-2. Packing

Pack the equipment as follows:

- a.* Use waterproof paper and pressure-sensitive tape to make a waterproof liner for the wooden packing case.
- b.* Place the equipment into the open side of the wooden packing case.
- c.* Fasten the power supply to the bottom of the wooden packing case with four bolts, nuts, and washers.
- d.* Nail the top and side to the wooden packing case.
- e.* Fasten the metal straps to the wooden packing case.

Section II. DEMOLITION OF MATERIEL TO PREVENT ENEMY USE

4-3. Authority for Demolition

The demolition procedures given in paragraph 4-4 are used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

4-4. Methods of Destruction

The tactical situation and time available will determine the method to be used when destruction of equipment is ordered. In most cases, it is preferable to demolish completely some portions of the

TM 11-6130-243-12

equipment rather than partially destroy all the equipment components.

a. *Smash.* Smash the cabinet, meters, and controls. Smash the internal components.

b. *Cut.* Cut the wiring of the power supply.

***Warning:* Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.**

c. *Burn.* Burn the technical manual first. Burn as much of the equipment as is flammable.

d. *Dispose.* Bury or scatter the destroyed parts.

APPENDIX I REFERENCES

DA Pam 310-4	Index of Technical Publications.
SB 38-100	Preservation, Packaging, Packing and Marking Materials, Supplies, and Equipment Used by the Army.
TB 385-4	Safety Precautions for Maintenance of Electrical/Electronic Equipment.
TB 43-0118	Field Instructions for Painting and Preserving Electronics Command Equipment Including Camouflage Pattern Painting of Electrical Equipment Shelters.
TM 11-6625-203-12	Operator's and Organizational Maintenance Manual: Multimeter AN/URM-105 and AN/URM-105C (Including Multimeter ME-77/U and ME-77C/U).
TM 38-750	Army Maintenance Management System (TAMMS).
TM 750-244-2	Procedures for Destruction of Electronics Material to Prevent Enemy Use (Electronics Command).

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APPENDIX II

BASIC ISSUE ITEMS LIST

A2-1. General

This appendix lists items supplied for initial operation and for running spares. The list includes tools, parts, and material issued as part of the major end item. The list includes all items authorized for basic operator maintenance of the equipment. End items of equipment are issued on the basis of allowances prescribed in equipment authorization tables and other documents that are a basis for requisitioning.

A2-2. Columns

Columns are as follows:

- a. *Federal Stock Number.* This column lists the 11-digit Federal stock number.
- b. *Designation by Model.* Not used.
- c. *Description.* Nomenclature or the standard item name and brief identifying data for each item are listed in this column. When requisitioning, enter the nomenclature and description.

d. *Unit of Issue.* The unit of issue is each unless otherwise indicated and is the supply term by which the individual item is counted for procurement, storage, requisitioning, allowances, and issue purposes.

e. *Expendability.* Nonexpendable items are indicated by NX. Expendable items are annotated.

f. *Quantity Authorized.* Under "Items Comprising an Operable Equipment", the column lists the quantity of items supplied for the initial operation of the equipment. Under "Running Spare Items" the quantities listed are those issued initially with the equipment as spare parts. The quantities are authorized to be kept on hand by the operator for maintenance of the equipment.

g. *Illustration.* The "Item No." column lists the reference symbols used for identification of the items in the illustration or text of the manual.

Section I. FUNCTIONAL PARTS LIST

Federal stock No.	Designation by model	Description	Unit of issue	Exp	Qty auth	Illustration	
						Figure No.	Item No.
6130-947-9670		POWER SUPPLY PP-4606/G ITEMS COMPRISING AN OPERABLE EQUIPMENT POWER SUPPLY PP-4606/G (Basic Component) TECHNICAL MANUAL TM 11-6130-243-12 <i>Note.</i> For technical manuals the quantity indicates the maximum number of copies authorized for packing (or issue) with the equipment. Where a number of these equipments are concentrated in a small area, the quantity on hand may be reduced to practical levels. Excess publications must be returned to publication supply centers through AG channels. RUNNING SPARE ITEMS LAMP INCANDESCENT: Dialco p/n 135-408-1431 (M6Tb2-A043)		NX	1 1		
ORD through AGC					1	DS1	

APPENDIX III

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

A3-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Power Supply PP-4606/G. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

A3-2. Explanation of Format for Maintenance Allocation Chart

a. Group Number. Group numbers correspond to the reference designation prefix assigned in accordance with ASA Y32.16, Electrical and Electronics Reference Designations. They indicate the relation of listed items to the next higher assembly.

b. Component Assembly Nomenclature. This column lists the item names of component units, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Maintenance Function. This column indicates the maintenance category at which performance of the specific maintenance function is authorized. Authorization to perform a function at any category also includes authorization to perform that function at higher categories. The numbers used represent the various maintenance categories as follows:

<i>Number</i>	<i>Maintenance Category</i>
1	Operator's
2	Organizational
3	Direct support
4	General support
5	Depot

d. Tools and Equipment. The numbers appearing in this column refer to specific tools and equipment which are identified by these numbers in Section III.

e. Remarks. Self explanatory.

A3-3. Explanation of Format for Tool and Test Equipment Requirements

The columns in the tool and test equipment requirements chart are as follows:

a. Tools and Equipment. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool for the maintenance function.

b. Maintenance Category. The numbers in this column indicate the maintenance category normally allocated the facility.

c. Nomenclature. This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

d. Federal Stock Number. This column lists the Federal stock number.

e. Tool Number. Not used.

Section II. MAINTENANCE ALLOCATION CHART

Group No.	Component assembly nomenclature	Maintenance functions											Tools and equipment	Remarks		
		Inspect	Test	Service	Adjust	Align	Calibrate	Install	Replace	Repair	Overhaul	Rebuild				
1	POWER SUPPLY PP-4606/G	1	..	1	..	..	..	..	..	..	..	..	..	..	..	Exterior only.
		2	..	..	1	..	..	..	..	..	..	..	..	..	..	Operating output voltage.
		2	..	..	..	..	..	..	..	..	2	..	..	..	..	Replace knobs, switches, cables, exterior connectors, wirelinks, lamp.
		4	..	..	..	..	..	..	..	..	..	..	..	..	..	Output voltage and circuit continuity.
		5	..	..	..	..	..	..	..	..	..	..	..	..	..	Output voltage range.

Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

Tools and equipment	Maintenance category	Nomenclature	Federal stock No.	Tool No.
1	5	AMMETER AN/USM-69	Non-Standard	
2	4, 5	AMMETER ME-65/U	6625-752-8817	
3	2	MULTIMETER AN/URM-105	6625-581-2036	
4	4, 5	MULTIMETER TS-352/U	6625-242-5023	
5	5	OHMMETER ZM-21A/U	6625-246-5880	
6	4	LOW VOLTAGE TEST SET TV-100	4910-092-9136	
7	4, 5	VOLTMETER ME-30/U	6625-669-0742	
8	5	WATTMETER TS-430/U	6625-498-3630	
9	2, 4, 5	TOOL KIT, ELECTRONIC EQUIPMENT TK-105/G	5180-610-8177	
10	4, 5	TOOL KIT, ELECTRONIC EQUIPMENT TK-100/G	5180-605-0079	
11	4, 5	WRENCH, CROW FOOT 5/16"-1/4" DRIVE	5120-541-4074	
12	4, 5	WRENCH, TORSION 1/4" SQ MALE DRIVE 5-150 in-lbs	5120-542-4489	

By order of the Secretary of the Army:

Official:

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Major General, United States Army,
The Adjutant General.

HAROLD K. JOHNSON,
General, United States Army,
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THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

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

WEIGHTS

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

LIQUID MEASURE

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

SQUARE MEASURE

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

CUBIC MEASURE

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

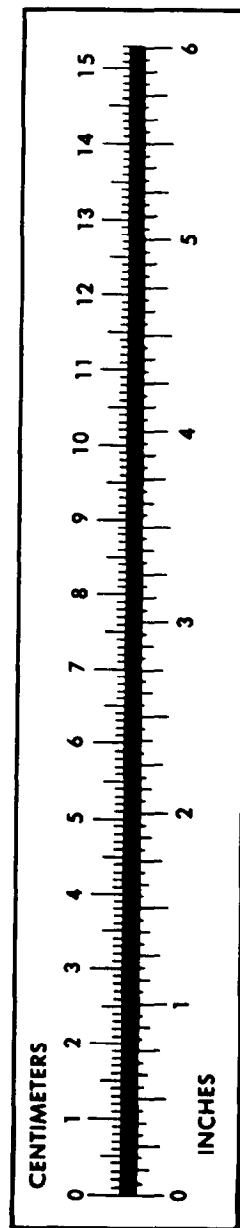
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

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

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



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