TECHNICAL MANUAL

ORGANIZATIONAL, DIRECT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR AIRCRAFT ELECTRONIC WEIGHING KIT

PART NUMBERS	NATIONAL STOCK NUMBERS
C-7500, Model C-1	6670-00-526-8498
C-46500, Model M-1	6670-00-999-1195

This manual supersedes TM 55-6670-200-15, 28 September 1964, including all changes.

HEADQUARTERS, DEPARTMENT OF THE ARMY

31 DECEMBER 1975

WARNING

Personnel performing operations, procedures, and practices which are included or implied in this tech - nical manual shall observe the following warnings. Disregard of these warnings and precautionary infor - mation can cause serious injury, death, or an aborted mission.

TOXIC FUMES OF FUELS AND SOLVENTS

Fumes of most aircraft fuels and solvents are highly toxic, especially if they contain TCP. Avoid extended inhalation of fuel odors. Fuels and solvents shall be used only in well ventilated areas,

HANDLING FUEL AND OILS

Fuels containing TCP are highly toxic, If TCP comes in contact with the skin, affected areas shall be washed immediately with soap and water. Precautions shall be observed to prevent inhalation of TCP va- pors. Skin contact with leaded fuels shall be avoided, as the lead can be absorbed through the skin causing lead poisoning. All fuels form explosive mixtures readily. To ensure safety of personnel, aircraft handling and filling operations shall conform to TM 10-1101.

Prolonged skin contact with synthetic oils (such as MIL-L-7808 and MIL-L-23699) may cause a skin rash Skin shall be thoroughly washed after contact, and saturated clothing shall be removed immediately Are- as where synthetic oils are used shall have adequate ventilation to keep mist and fumes to a minimum

Warnings, cautions, and notes shall be used to emphasize important and critical instructions and shall be used for the following conditions:

WARNING

An operating procedure, practice, etc., which, if not correctly followed, could result in personnel injury or loss of life.

CAUTION

An operating procedure, practice, etc., which, if not strictly observed, could result in damage to or de- struction of equipment.

NOTE

An operating procedure, condition, etc., which it is essential to highlight.

CHANGE
NO. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 13 November 1989

ORGANIZATIONAL, DIRECT, AND GENERAL SUPPORT
MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND
SPECIAL TOOLS LIST
FOR

AIRCRAFT ELECTRONIC WEIGHING KIT
PARTS NUMBERS C-7500, MODEL C-1; C-46500, MODEL M-1
NATIONAL STOCK NUMBERS 6670-00-526-8498 and 6670-00-999-1195

TM 55-6670-200-14&P, 31 December 1975, is changed as follows.

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
2-1 and 2-2	2-1 and 2-2

2. Retain this sheet in front of manual for reference purposes.

By Order of the Secretary of the Army:

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General, United States Army
Chief of Staff

Official:

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ORGANIZATIONAL, DIRECT, AND GENERAL SUPPORT
MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND
SPECIAL TOOLS LIST
FOR

AIRCRAFT ELECTRONIC WEIGHING KIT
PARTS NUMBERS C-7500, MODEL C-1; C-46500, MODEL M-1
NATIONAL STOCK NUMBERS 6670-00-526-8498 and 6670-00-999-1195

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1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
i and ii	i and ii
1-1 and 1-2	1-1 and 1-2
1-5 and 1-6	1-5 and 1-6
2-1 and 2-2	2-1 and 2-2
---	2-2.1/2-2.2
3-1 and 3-2	3-1 and 3-2
A-1	A-1/A-2

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CHANGE NO. 1

HEADQUARTERS
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WASHINGTON, D.C., 21 October 1987

ORGANIZATIONAL, DIRECT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST FOR AIRCRAFT ELECTRONIC WEIGHING KIT

PARTS NUMBERS C-7500, Model C-1; C-46500, Model M-1
NATIONAL STOCK NUMBERS 6670-00-526-8498 and 6670-00-999-1195

TM 55-6670-200-14&P, 31 December 1975, is changed as follows.

1. Remove and insert pages as indicated below. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

Remove pages	Insert pages
1-1 and 1-2	1-1 and 1-2
2-1 through 2-3/2-4	2-1 through 2-3/2-4
A-1/A-2	A-1/A-2
B-1 and B-2	B-1 and B-2

2. Retain this sheet in front of manual for reference purposes.

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Technical Manual

No. 55-6670-200-14&P

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., 31 DECEMBER 1975

Organizational, Direct and General Support Maintenance Manual Including Repair Parts and Special Tools List For Aircraft Electronic Weighing Kit

LIST OF ILLUSTRATIONS

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1-1. Scope.

These instructions cover the aircraft electronic weighing kit, (fig. 1-1) part numbers C-7500 and C-46500, and provide complete information for operation, maintenance, inspection, overhaul, and testing.

1-2. Forms and Records.

DA PAM 738-751 lists the forms used by operating and maintenance personnel for recording and reporting operational, direct support, and general support.

1-3. Reporting of Errors.

Report of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028, Recommended Changes to Publications and Blank Forms, and forwarded direct to Commander, US Army Aviation Systems Command, ATTN: AMSAV-MMD, 4300 Goodfellow Blvd., St. Louis, Missouri 63120-1798.

Section II. DESCRIPTION AND LEADING PARTICULARS

1-4. Description.

a. The aircraft electronic weighing kit is a complete unit for weighing an aircraft. A power supply of 110-volts ac or 24-volts dc is required and, in some cases, specialized jacks may be required.

b. The kit consists of a carrying case containing the indicator assembly and the power supply assembly. The cells, cables, adapters, and accessories are stored in spaces provided within the carrying case (fig. 1-1).

c. The indicator assembly is accessible for maintenance and is easily removed from the carrying case. The circuits, adjustable resistances, and amplifying equipment of the indicator assembly are contained in a dust proof box. The control panels are shown in figures 1-2 and 1-3.

d. The CELL SELECTOR (6) is used to select the cell from which load recording is to be taken. The ZERO SET knobs (9) are provided to adjust balance of cells at NO LOAD condition. The INITIAL LOAD knob (7) has a direct reading dial from 0 to 50,000 pounds in 5,000-pound increments. The WEIGHT dial (10) is calibrated from 0 to 5,000 pounds in 10-pound graduations and is numbered every 50 pounds. The CELL BALANCE switch (1) turns on the milliammeter (5). When the spring-loaded BATTERY VOLTAGE switch (3) is ON, the milliammeter gives an instantaneous reading of power supply voltage and insures that proper polarity prevails when batteries are used.

e. The power supply assembly provides the controls to select 110-volts ac or 24-volts dc and to adjust the ac voltage. In addition, the AC LINE fuse holder (11) and the AC LINE receptacle (12) are located on the power supply panel. The dc connection extends from the right of the indicator assembly.

f. The kit contains three cells (3, fig. 1-4). Although similar in appearance, they are not interchangeable; each must be matched to its corresponding color-coded cable. Each cell weighs approximately 3 pounds and has a capacity of 50,000 pounds. The cells have a tapped hole on the bottom to receive the plug adapter which fits into the jack. The top of the cell is shaped to receive the spherical adapter or AN spherical jack pad. An electrical receptacle is located on the side of the cell to plug in the 50-foot cable which connects cell and indicator assembly.

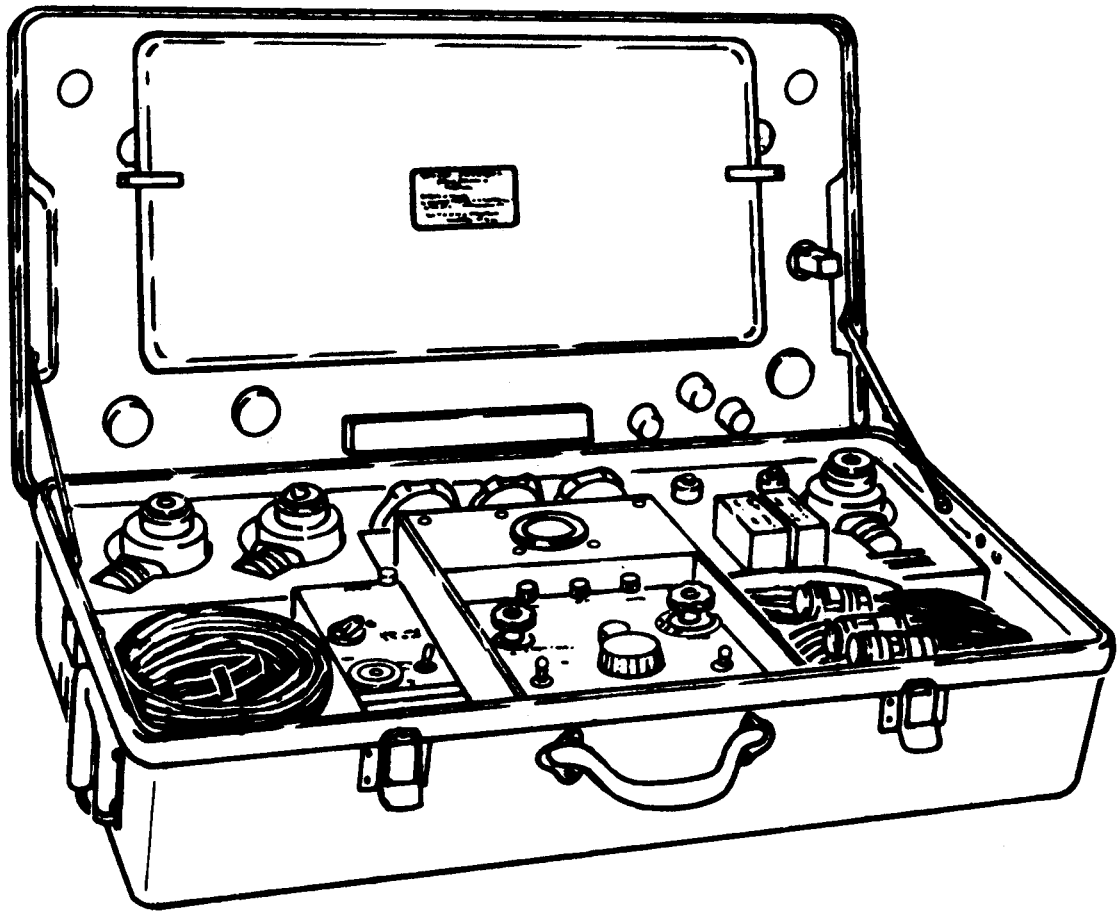


Figure 1-1. Aircraft Electronic Weighing Kit.

g. The three essential 50-foot cables are reeled and stored in the case. Cables (8 and 9) are also provided so that the kit may be operated by 110-volt ac or 24-volt dc power supply or battery.

h. For the purpose of mounting cells under varying physical arrangements, the following adapters are provided: three plugs and three ring adapters for securing cells to jack, and three spherical adapters to fit cells to an AN conical jack pad.

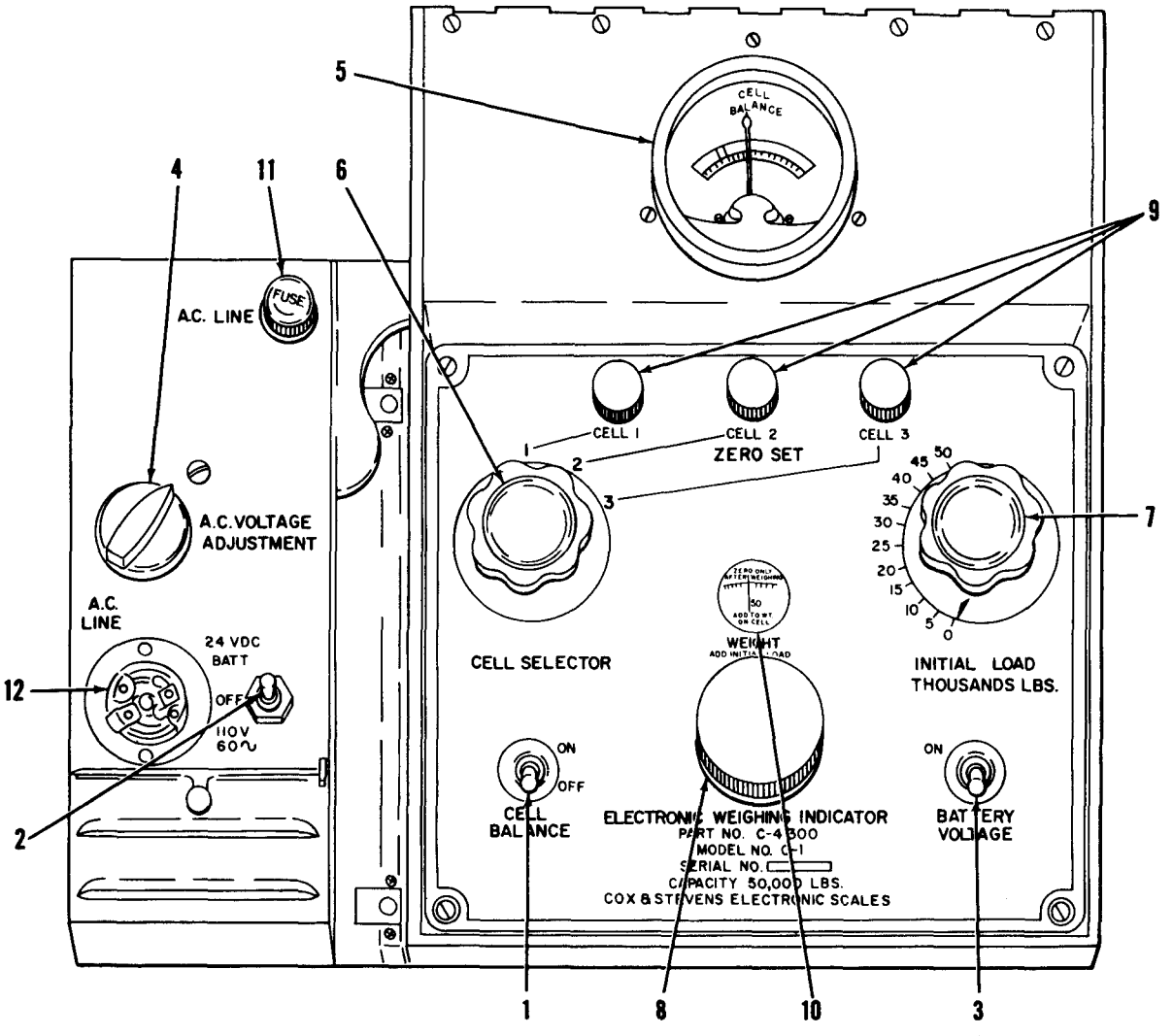
i. A separate accessory kit containing equipment needed for weighing operations is provided (figs. 4-26 and 4-27).

1-5. Identification.

Figure 1-1 illustrates the nameplate located inside the case cover. Each assembly is marked with part number and data peculiar to that assembly.

1-6. Data.

Type C-1or M-1
Capacity . . . . . 150,000 pounds
Jack points 3
Power supply . . . 110-volts ac, 24-volts dc



KEY to figs. 1-2 and 1-3:

1. Cell balance switch
2. Ac or dc selector
3. Battery voltage switch
4. Ac voltage adjustment knob
5. Milliammeter
6. Cell selector knob
7. Initial load knob
8. Weight knob
9. Zero set knobs
10. Weight dial
11. Ac line fuse holder
12. Ac line receptacle

Figure 1-2. Panel Assembly of Indicator and Power Supply Assemblies (Model C-1).

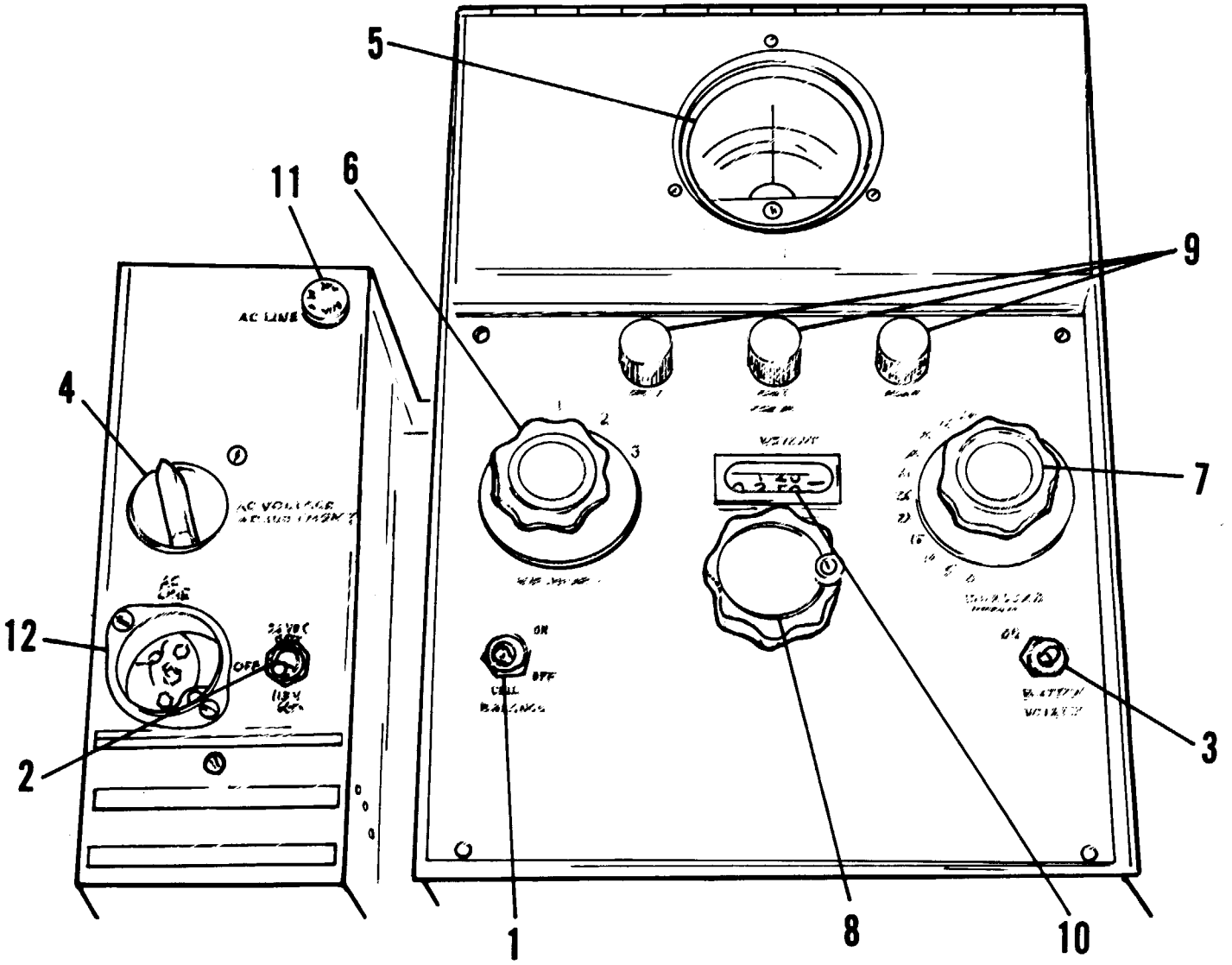
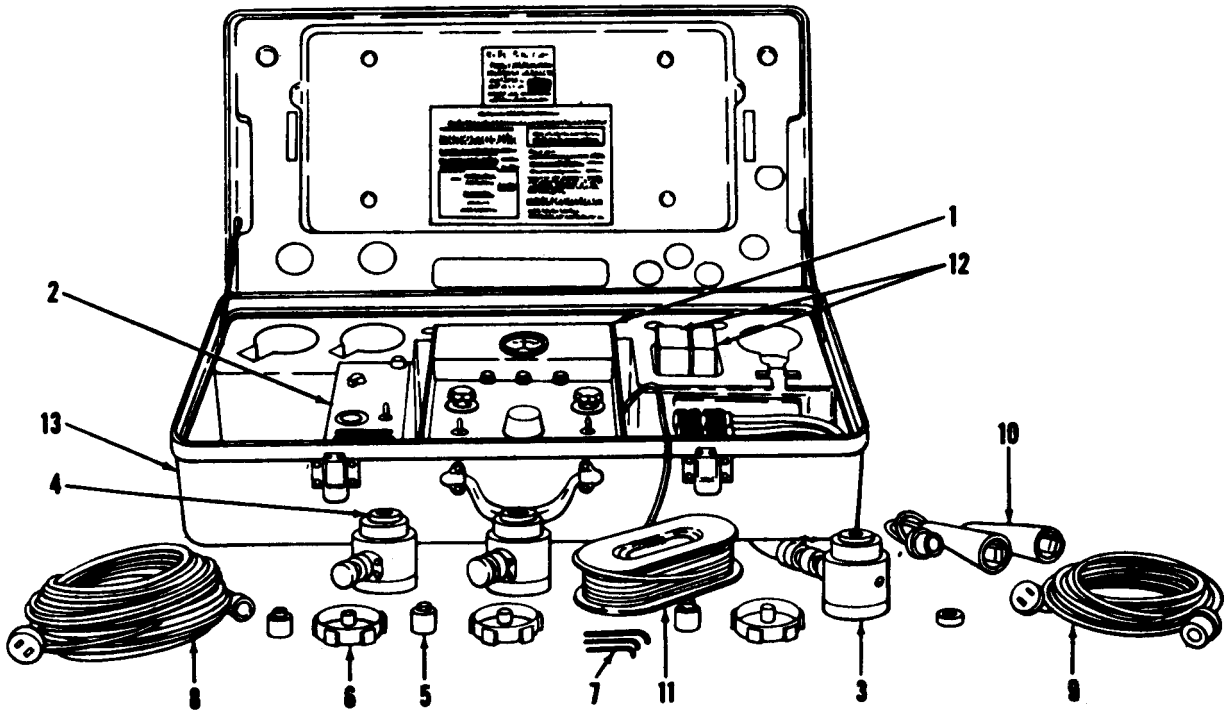


Figure 1-3. Panel Assembly of Indicator and Power Supply Assemblies (Model M-1).



KEY TO fig. 1-4:

1. Indicator assembly
2. Power supply assembly
3. Cell
4. Spherical adapter
5. Plug adapter
6. Ring adapter
7. Allen wrench
8. Extension cable
9. Power cable
10. Battery cable
11. Cell cable
12. Spare tubes
13. Case assembly

Figure 1-4. Components of Weighing Kit.

Section III. TEST EQUIPMENT, SPECIAL TOOLS, AND MATERIAL

1-7. Test Equipment.

Special test equipment is listed in table 1-1.

1-8. Special Tools.

No special tools are required.

Table 1-1. Test Equipment Required.

Part number	Nomenclature	Technical description
0S8E or equivalent	Cathode ray oscilloscope.	Used for testing phasing of circuits.
Shallcross Model AM4BU or equivalent.	Decade resistance box (0-15,000 ohms).	Used to test resistance of units.
Corwell-Dublier Model CDA5 (0-10,000 mmf) or equivalent.	Calibrated variable capacitance (0-500 micro-micro-farads).	Used as a capacitor substitute.
AN/URM-39	Wheatstone bridge.	Used to check resistance and impedance.
4225	Galvanometer.	Used to provide accurate load control.
Ballantine Model 300 or equivalent.	Voltmeter.	Used to make capacity balance check.

1-9. Latitude Correction Factor.

Refer to Table 1-2, Correction Factor for Weighing Kits at Various Latitudes.

Table 1-2. Correction Factor for Weighing Kits at Various Latitudes

NOTE: Kit is calibrated to standard gravity G 980.665 cm/sec2 (32.174 ft/sec2)

Lat	Cor Factor	Lat	Cor Factor
0°	1.0027	50°	0.9996
5°	1.0026	55°	0.9991
10°	1.0025	60°	0.9987
15°	1.0023	65°	0.9984
20°	1.0021	70°	0.9980
25°	1.0017	75°	0.9978
30°	1.0014	80°	0.9976
35°	1.0010	85°	0.9974
40°	1.0005	90°	0.9974
45°	1.0000		

CHAPTER 2
OPERATING INSTRUCTIONS

2-1. Preoperation Procedure.

a. Unreel cell cables and connect them to proper cells, observing color codings (red-to-red and yellow-to-yellow).

CAUTION

Do not interchange cells and cables.

b. Turn CELL BALANCE switch (1, figs. 1-2 or 1-3) to OFF. Switch AC or DC selector switch (2) to 110-volts ac or 24-volts dc, depending on power source used,

(1) If 110-volts ac is used, connect 25-foot extension cable (8, fig. 1-4) between ac outlet in power supply unit and 110-volt power supply. Press BATTERY VOLTAGE switch (3, figs. 1-2 or 1-3) on indicator panel. Turn AC VOLTAGE ADJUSTMENT knob (4) until pointer of balance meter rests in center of green area on scale of milliammeter (5).

(2) If 24-volts dc is used, connect 15-foot power cable (9, fig. 1-4) from male connector on right-hand side of indicator to power supply. Battery clips are also provided. Turn AC or DC selector switch (2, figs. 1-2 or 1-3) to 24 VDC BATT position. Attach clips of battery cable (10, fig. 1-4) to battery terminals if battery is used. Press BATTERY VOLTAGE switch (3, figs. 1-2 or 1-3) and check for polarity. If pointer swings to yellow section of milliammeter scale, leads must be reversed. After leads are changed, press switch again. If pointer rests in red section of scale dc voltage is either too high or too low for proper operation. Replace with a battery of proper voltage or adjust power supply voltage accordingly.

NOTE

Check power frequently to assure that correct voltage is maintained. Unless constant voltage is maintained throughout weighing operation, inaccurate readings may result.

c. Keep power on and allow equipment to warm up for a minimum of 20 minutes. Aircraft may be prepared for weighing during warmup period.

2-2. Preparation of Aircraft.

a. Check fixed operating equipment with Basic Weight Checklist appearing in Weight and Balance data of aircraft involved. Be sure all items on aircraft are checked on list. Add to list any fixed equipment that has not been listed.

b. Remove all loose equipment.

c. Clean aircraft to remove any accumulated dirt and grease,

d. Drain oil from all tanks or fill to known capacity. Fill all reservoirs with proper liquid to normal operating levels.

WARNING

Fumes of most aircraft fuels and solvents are highly toxic, especially if they contain TCP. Avoid extended inhalation of fuel odors. Fuels and solvents shall be used only in well ventilated areas.

e. Drain fuel tanks. If draining is not feasible, determine quantity of fuel in aircraft using a calibrated tank dipstick, fuel tank manometer, or electric gages. Aircraft should be in position for which instrument is calibrated--usually flight level.

f. Determine the unit weight of the fuel. Obtain a sample from the tank with fuel dipper (1, Figs. 4-26 or 4-27). Slowly and carefully pour the sample into a clean, dry hydrometer cylinder, filling the cylinder approximately three quarters full. Lower the hydrometer gently in the sample, and when it has settled, push it down appraximately two scale. divisions into the liquid and release it. Do not push it all the way down; wetting the upper part of the stem will make test results false.

NOTE

To obtain actual weight, multiply the weight read from the weighing kit indicator by the correction factor for the latitude at which the kit is being used. Ref Table 1-2.

g. Inflate or deflate main gear oleo struts to normal extension or anticipated desired height. If all wing jacks or a combination of wing and axle jacks are being used, restrain shock struts to prevent them from extending when aircraft is lifted on jacks.

h. Level aircraft longitudinally and, if possible, laterally with main wheels on hanger floor. Use level (12) and leveling bar (10), if required, on aircraft's leveling lugs. For location of leveling lugs, consult the Weight and Balance data of aircraft involved. Level aircraft in accordance with approved procedure outlined in TM 55-1500-342-23.

CAUTION

When leveling, be sure there is no load on weighing cells. Excessive side loads may cause incorrect readings, cell breakage, and possible damage to aircraft.

2-3. Operation.

a. Set cells on their respective jacks, selecting jack adapters and spherical adapters in accordance with figure 2-1. In attaching a weighing cell to a jack adapter, be sure adapter is fully threaded into cell. If a ring-type adapter is used, see that it is centered flush on ram, applying a partial load before tightening setscrews.

CAUTION

Use proper adapters to prevent jacks from slipping or buckling. Damage to aircraft or inaccurate weight readings may result if improper adapters are used. Never apply load to rim of cell.

b. Set jacks and cells at their respective support points.

c. Turn CELL BALANCE switch (1, figs. 1-2 or 1-3) to ON.

CAUTION

There must be no load on cells at this time.

d. Adjust WEIGHT knob (8) so that WEIGHT dial (10) reads zero. Adjust INITIAL LOAD knob (7) to zero.

e. Set CELL SELECTOR knob (6) to cell no.1. Adjust milliammeter pointer to zero by turning ZERO SET knob (9) of cell no. 1. Milliammeter pointer moves in same direction as rotation of knob. Repeat this procedure for remaining cells.

NOTE

Once cell circuits are *zeroed, ZERO SET knobs (9) must not be touched until weight is off cells.*

f. Jack aircraft until it is entirely supported by the three cells.

CAUTION

Keep aircraft level while jacking to prevent cell breakage and damage to aircraft.

g. Set CELL SELECTOR knob (6) to cell on which applied weight is desired. The pointer on milliammeter (5) should swing to right. If load on cell is less than 5,000 pounds, weight on the cell can be obtained by turning WEIGHT knob (8) until pointer of meter returns to zero (CELL BALANCE arrow). If load on cell is greater than 5,000 pounds, turn INITIAL LOAD knob (7) until meter pointer swings to left, Then turn INITIAL LOAD knob to next lower position. For example: If INITIAL LOAD knob is set on 40,000 pounds when pointer swings to left, return knob to 35,000 pounds. Next adjust WEIGHT knob (8) until meter pointer rests on zero. Combined reading of INITIAL LOAD knob (7) and WEIGHT dial (10) is weight on cell.

NOTE

If initial load has been set too high or too low, meter pointer cannot be set on zero. *Pegging needle will not damage indicator.*

***2-4.* Determining Center of Gravity.**

a. Record weight at three support points in applicable spaces on Airplane Weighing Form as shown in Weight and Balance data in TM 55-1500-342-23.

b. Make sure aircraft is in a level flight attitude. Use plumb bobs provided in kit to establish points on ground that are directly beneath each cell and aircraft reference point, as shown in Weight and Balance data in TM 55-1500-342-23. Mark these points with chalk provided.

c. Measure horizontal distance from each support to reference datum on a line parallel to aircraft longitudinal axis. Use 50-foot steel tape (13, figs, 4-26 or 4-27) provided, which is marked in inches and tenths of inches. Enter these measurements on weighing form in space provided.

d. At this point, determine whether zero set on cells has been altered by following procedure:

(1) Remove all load from cells.

(2) Set INITIAL LOAD knob (7, figs. 1-2 or 1-3) to zero.

(3) Press CELL BALANCE switch (1) and adjust WEIGHT knob (8) until meter pointer is on zero. If a small plus reading is obtained, divide value by 2 and subtract from total weight reading for that cell. If there is a small minus reading, add amount indicated on zero shift scale to reading obtained for that cell. If there is an appreciable difference (greater than 25 pounds), repeat entire weighing procedure.

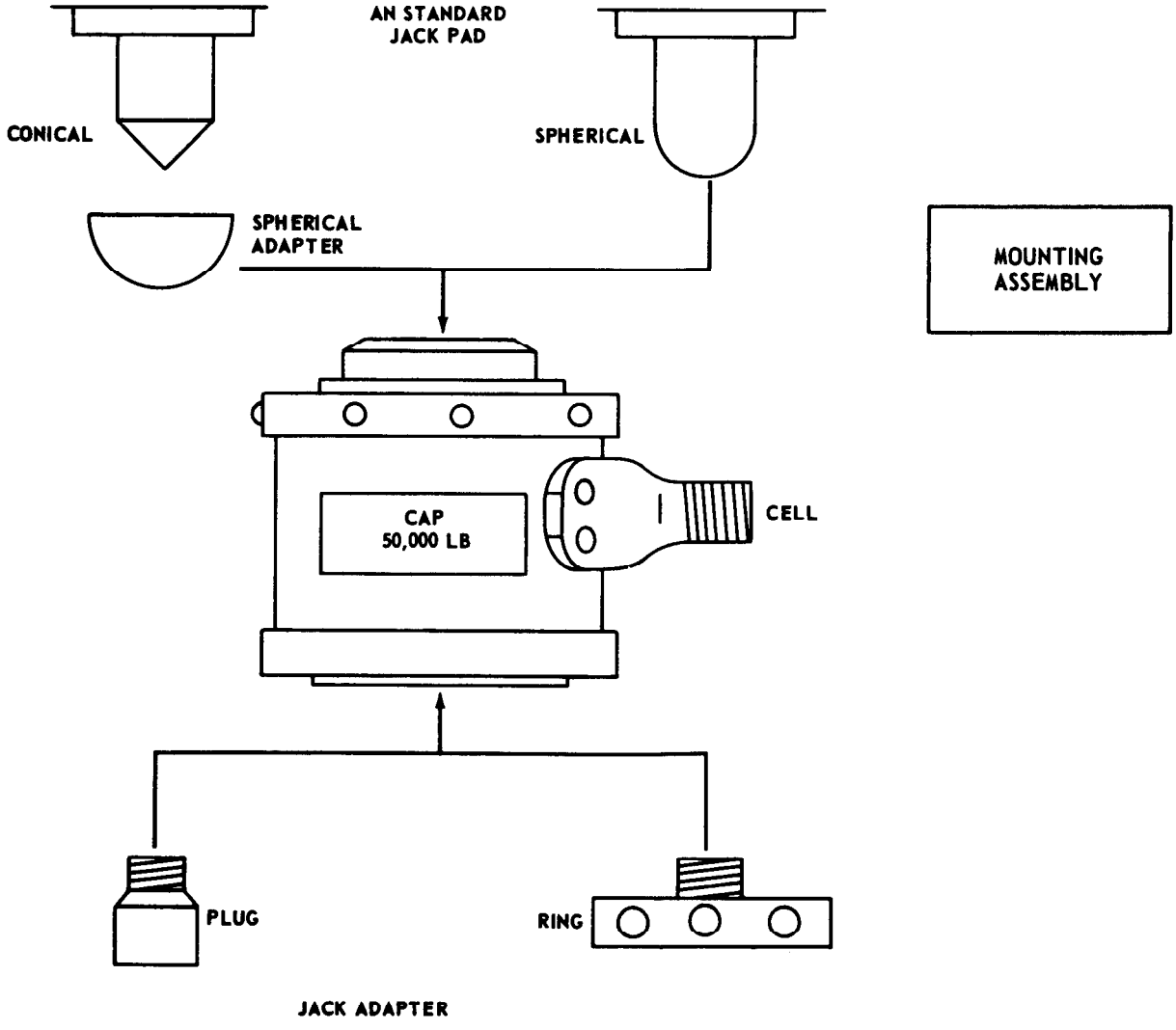


Figure 2-1. Adapter Applications.

e. With weight of fuel known, proceed to correct basic weight of aircraft. First, obtain correct fuel moment arm. No exact data is available for aircraft that have a moment arm varying with quantity of fuel. Arm may be determined by referring to Weight and Balance data in TM 55-1500-342-23. To compute moment arm, divide moment by weight of fuel quantity. Multiply fuel weight previously determined by arm to obtain the fuel moment. Constant fuel arms (those which do not vary with a fuel quantity) are shown in Weight and Balance data on aircraft involved.

f. Determine moments of all equipment not shown on basic weight breakdown schedule.

g. Proceed as outlined in Weight and Balante data in TM 55-1500-342-23 determine the distance of center of gravity of aircraft from reference datum.

h. Enter values for basic weight and center of gravity on applicable chart of Weight and Balante data.

i. With completion of weighing operations, turn off all switches, disconnect cables, and replace all components in their proper place in case.

CAUTION

Prolonged contact between the slide wire and the slide wire arm may result in flat spots, pitting, and discontinuity of the electrical resistance of the slide wire. Position the slide wire dial so the arm rests on the inactive portion of the slide wire when the scales are not in use. This may be accomplished by rotating the WEIGHT knob in a counterclockwise direction until it rests against the mechanical stop.

CHAPTER 3
ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. PREPARATION FOR INSTALLATION, STORAGE AND SHIPMENT

3-1. Unpacking.

No special unpacking is required as the weighing kit is a selfcontained assembly within the carrying case. Normal precautions should be exercised in handling this type of equipment.

3-2. Inspection.

Visually check equipment for any damage, such as broken knobs and dials, dents or cracks, and mutilated case.

3-3. Storage.

Normal storage procedures will apply as the contents are mounted in the carrying case which assures a moisture- and dust-proof seal when the case lid is closed and locked. For general technical information on preparation for storage and shipment refer to TM 55-1500-204-25/1. For regulatory requirements pertaining to equipment placed in administrative storage refer to AR- 750-1.

3-4. Shipment.

Normal shipping instructions for electronic equipment will apply.

3-5. Demolition to Prevent Enemy Use.

Refer to TM 750-244-1-5

Section II. INSTALLATION AND PREVENTIVE MAINTENANCE

3-6. Installation.

Place kit in any convenient location within the length of the 50-foot cell cables, but clear of aircraft being weighed. A 110-volt ac or 24-volt dc power source must be available.

NOTE

If kit has been moved to an area having an appreciable difference in temperature, wait 2 hours before using.

3-7. Inspection.

a. The kit should be inspected prior to each use for loose connections, damage, ruptured cables, or defective tubes.

b. Inspect helipots and slide wires. The zero set potentiometers may become dirty, causing jittery pointer action on CELL BALANCE meter. Contacts will be cleaned by working ZERO SET knobs (9, figs. 1-2 or 1-3) back and forth. If this does not eliminate jittery pointer movement, return kit to depot for overhaul. The same applies to slide wire of WEIGHT knob (8).

3-8. Cleaning.

a. Equipment should be kept free of dirt and grease. Dust caps should be kept on electrical receptacles when not in use.

b. The weighing kit should be cleaned periodically with dry compressed air to prevent any loose particles from accumulating on back of indicator assembly and power supply assembly.

c. Wipe cells clean before use. Cells may become coated with a light film of oil due to internal leakage.

3-9. Troubleshooting.

NOTE

Repairs may be made by direct and general support maintenance personnel only as indicated.

Table 3-1 provides information useful in locating and correcting unsatisfactory operation or failure of the weighing kit. Before looking for trouble, check the operating procedures to be sure trouble is not due to incorrect operation or use.

Table 3-1. Troubleshooting Chart.

Malfunction	Probable Cause	Corrective Action
Malfunction	Probable Cause	Corrective Action
Malfunction	Probable Cause	Corrective Action
Kit inoperative for dc use (ac functional).	DC fuse blown.	Replace dc fuse in indicator.
	Defective AC or DC selector switch on power supply assembly.	Return to depot.
Kit inoperative for ac use (dc functional).	AC LINE fuse blown.	Replace ac fuse in power supply assembly.
	Power supply failure.	Repair or replace power source.
Kit inoperative (power sufficient).	Tube failure.	Replace failed or doubtful tubes with spare tubes supplied in kit. Make sure all tubes are secure.
	Milliammeter failure.	Replace milliammeter.
One or two cells cannot be zeroed at NO LOAD condition.	Cell failure.	Cross cells (red cell in blue circuit) to determine whether trouble is in cable or cell. If cell is defective, return kit to depot.
	Cable short (or open).	Check continuity. Check phasing. Replace cable in field only in emergency.
Cell reads too high.	Open cell shunt resistor..	Return kit to depot for recalibration and repair.
Cell erratic or intermittent under load.	Cell damage.	
	Cable damage.	Return kit to depot.
Sensitivity bad on one or two cells should be approximately 200 pounds to deflect needle from zero to beginning of green area on scale.		Refer to d above.
	Capacitance change in cell cable circuit.	Return kit to depot for recalibration and repair.
	Improper cable ground.	Check ground continuity on cables.

Table 3-1. Troubleshooting Chart (continued).

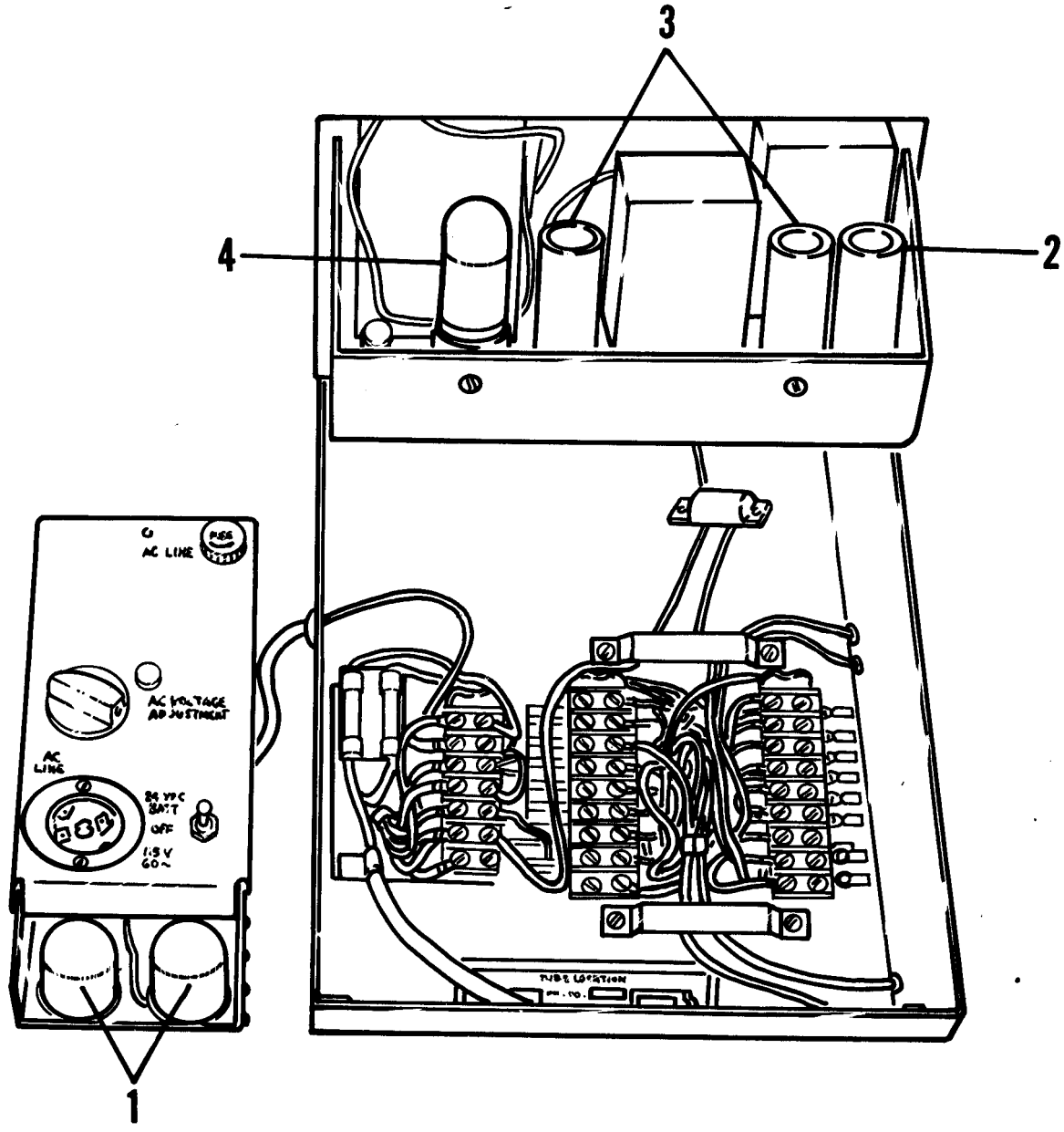
Sensitivity bad on all cells.	Low voltage level.	Increase voltage if ac; replace battery if dc. NOTE: If voltage does not increase when turning AC VOLTAGE ADJUSTMENT knob on power supply panel, replace 1H20 tubes in power supply.
	Weak 12AU7 or 6072 (12AX7) tube.	Replace weak tubes with spare tubes supplied with kit.
Excessive drift of milliammeter.	Oscillator transformer malfunction in all cells.	Return kit to depot.
	Cell malfunction in one cell.	Return kit to depot.
Erratic needle when ZERO SET knob is turned.	Dirty or worn potentiometer.	Turn knob back and forth a few times. If trouble does not clear, return kit to depot.
Milliam meter jitter (continuous).	Open ground.	Ground cell and cable to locate open ground. If trouble lies within cell, return kit to depot.
	Dirty dc or ac power cable plugs or loose connections.	Clean and tighten plugs.
Milliammeter jitter (intermittent and excessive).	External interference.	Relocate welding power supplies, and the like that cause interference.
Slide wire inoperative.	Slide wire arm contact broken or not making contact.	Return kit to depot.
Slide wire erratic.	Dirt on wire.	Wipe wire with lint free cloth containing several drops of alcohol, while rotating WEIGHT knob.
	Loose slide wire contact arm.	Return kit to depot.
Slide wire jumps at one point on scale.	Flat region on wire.	Rotate WEIGHT knob across erratic point several times. If condition is not remedied, return kit to depot.
	Slide wire dial warped.	Return kit to depot.
Jumpy cell balance needle on all cells.	Defective CELL BALANCE switch.	Return kit to depot.
	Faulty oscillator-amplifier phasing.	Return kit to depot.
	Faulty power pack filter.	Return kit to depot.
Milliammeter pegs as amplifier cover is secured.	Short occurs on terminal strip.	Secure wires properly on terminal strip.
	Defective harness.	Return kit to depot.

3-10. Replacement of Tubes.

Defective tubes may be removed by pulling them straight out, rocking the tube slightly at the same time. Refer to figure 3-1.

NOTE

Spare tubes are matched to amplifier and are not to be replaced from general stores.



KEY to fig. 3-1:

1. 1H20 tube
2. 6072 tube
3. 12AU7 tube
4. 28D7 tube

Figure 3-1. Location of Tubes.

CHAPTER 4
DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

Section I. DISASSEMBLY

4-1. General.

Instructions for disassembly of the kit are in sequence of disassembly. However, disassembly should be accomplished only enough to replace any defective part, which is standard procedure for electronic equipment.

4-2. Indicator Assembly.

a. Remove screws located at lower end of panel (1, fig. 4-14 or 1A, fig. 4-15).

b. Lift hinged cover assembly (2, fig. 4-14 or 2A, fig. 4-15).

c. Remove roundhead screws on bottom of case assembly (fig. C-3).

d. Disconnect cable assemblies (19 and 21) and lift indicator assembly from kit.

4-3. Cover Assembly.

a. Remove knobs (3, 3A, 4, 5, 6, and 7, figs. 4-14 or 4-15).

b. Remove nuts holding BATTERY VOLTAGE switch (3, figs. 1-2 or 1-3) and CELL BALANCE switch (1).

c. Remove panel (1, fig. 4-14 or 1A, fig. 4-15).

d. Remove cover from board and switch assembly (1, fig. 4-1). Remove screws holding spacers (2), and remove entire assembly.

NOTE

Defective parts of the board and switch assembly (1) may be replaced without removing the entire assembly. However, if parts of the disc, dial and drive assembly (3) are defective, remove the board and switch assembly (l).

NOTE

The board and switch assembly (1) includes harness assembly (4) and switch (5).

e. Remove box (6) and bearing assembly.

f. Remove disc, dial, drive assembly (3), and insulator.

4-4. Helipots.

a. Remove helipot locknuts on panel (5, 6, and 7, fig. 4-14).

b. Disengage helipots and pull out until restrained by cable harness. Unsolder three leads from helipot and label with tags marked TOP TERMINAL, MID TERMINAL and BOTTOM TERMINAL (figs. 4-2 or 4-3).

4-5. Oscillator-Amplifier Assembly.

Remove flathead screws securing oscillator-amplifier assembly to cover assembly and remove oscillator-amplifier assembly.

4-6. Milliammeter.

Remove oscillator-amplifier assembly (para. 4-8).

b. Remove screws and nuts holding milliammeter to cover assembly and remove milliammeter.

4-7. Power Supply Assembly.

a. Remove screws on bottom of carrying case that attach power supply bracket to case.

b. Disconnect wires where applicable.

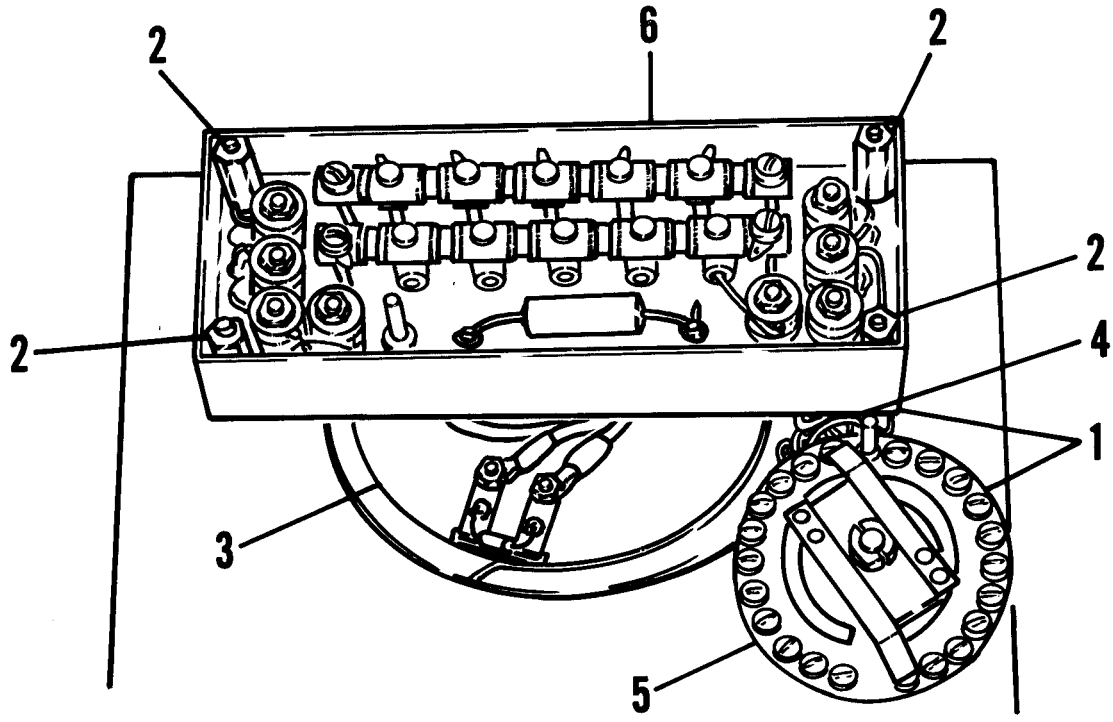
c. Remove front of cover assembly to expose tubes.

NOTE

Defective tubes are to be replaced from spare tube kit.

d. Remove screws holding cover and component assembly to case assembly.

e. Remove any defective part.



KEY to fig. 4-1:

1. Board and switch assembly
2. Spacers
3. Disc, dial, and drive assembly
4. Harness assembly
5. Switch
6. Box

Figure 4-1. Cover Assembly, Board and Switch Assembly Removal.

Section II. CLEANING AND INSPECTION

4-8. Cleaning.

a. Clean exterior of carrying case with soap and water.

b. Clean all electrical parts by blowing out with dry compressed air to remove dust particles.

c. Wipe all components and accessories with a soft, clean, lint free cloth.

4-9. Inspection.

a. Carefully inspect cells for dents, scraps, and loose electrical receptacles.

b. Check cell action by connecting cell to kit. Press hand on top of cell while watching milli-ammeter for a slight positive needle deflection.

c. Inspect all parts for physical damage.

d. Check electrical parts, referring to figures 4-2 through 4-9 and table 4-1.

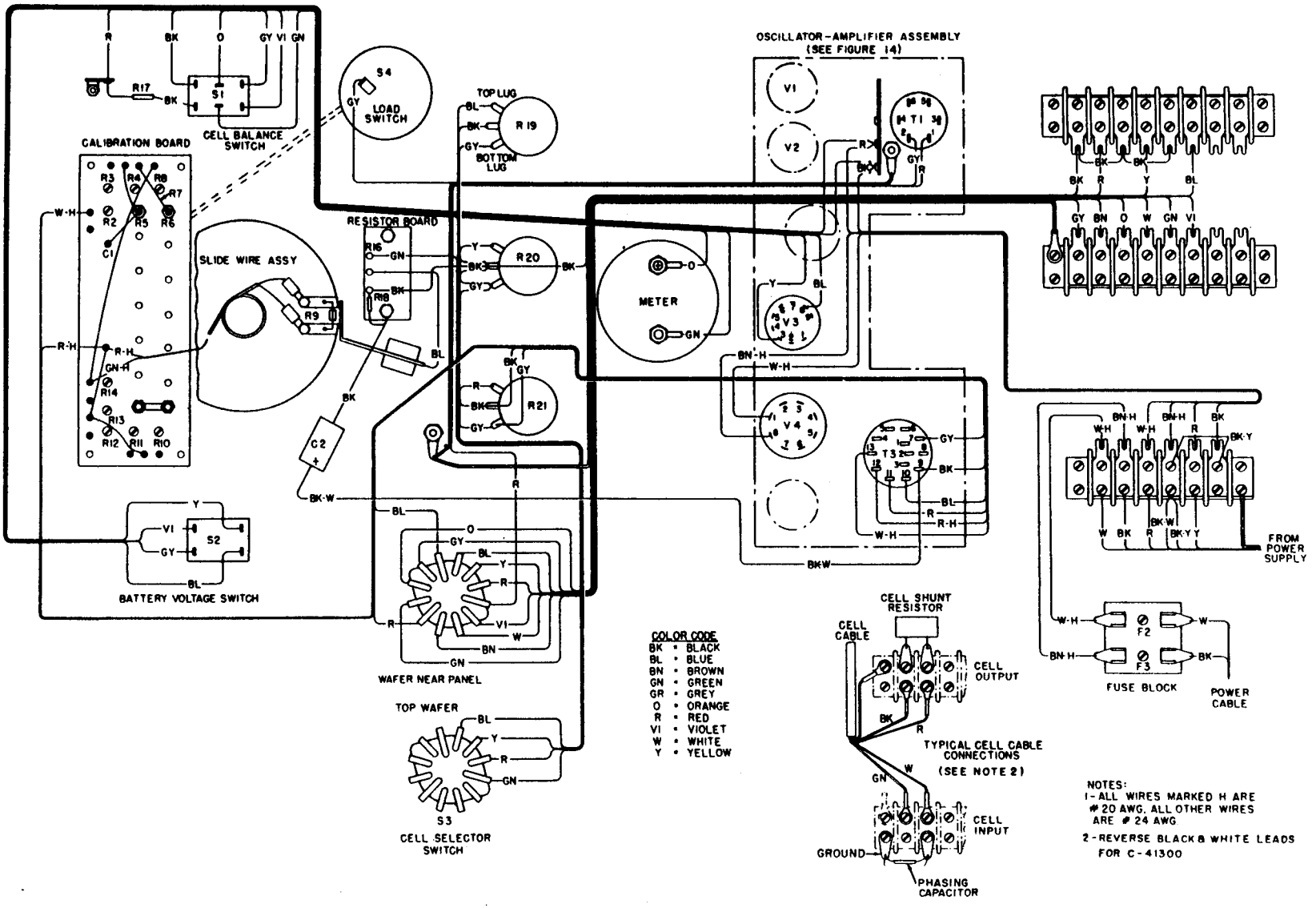


Figure 4-2. Indicator Assembly Wiring Diagram (Model C-1).

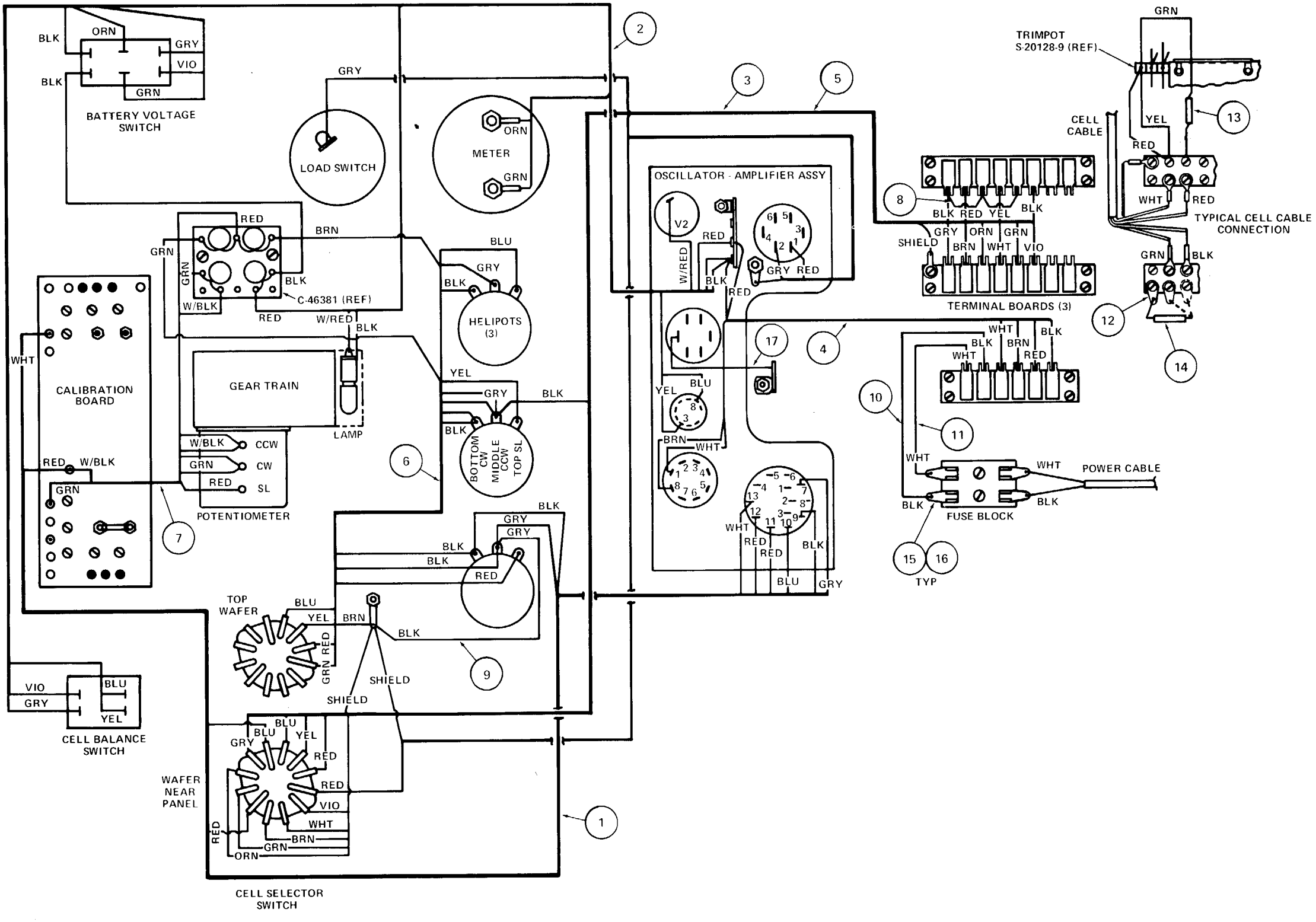


Figure 4-3. Indicator Assembly Wiring Diagram (Model M-1)

Section III. REPAIR AND REPLACEMENT

4-10. Repair.

No repair of component parts is recommended.

4-11. Replacement.

a. Replace any defective part.

b. Replace all defective tubes with one from the spare tube kit furnished with the equipment.

c. Replace resistance wire on board assembly to conform with specified resistance.

4-12. Testing Oscillator-Amplifier Assembly.

Refer to figures 4-4, 4-5 and 4-10.

NOTE

Before proceeding with testing of oscillator-amplifier assembly, refer to note in figure 4-10 for explanation of C & R components.

a. The plate-tuned oscillator (approximately 400 cycles) provides voltage through T3 to the cells, zero set (R19, R20, and R21), and the complex calibration circuit. A reference signal is also carried on the grey lead to the phase-sensitive detector circuit of the amplifier between R112 and R113.

b. The 80-db amplifier is fed the algebraic sum of the voltages from the cell, calibration circuit, and zero set through input transformer T1. (Voltage of the calibration circuit is 180° out of phase with that of the cell and zero set circuit.) This voltage is amplified through the four stages and the output transformer. The meter is in turn driven by phase detector V3 and its direction is determined by the sign of the difference in voltages between the opposing cathodes and the reference voltage. Gain is controlled through the feedback circuit consisting of potentiometer R117 and 1st cathode of V2.

c. Incidental phase shift is reduced by the selection of C107.

d. Complete failure of the oscillator-amplifier assembly should first necessitate replacement of all tubes. Oscillator failure may be spotted quickly with the oscilloscope. Tube failure, an open C105 capacitor (which primarily controls the frequency), or an open winding in T3, as well as too low a voltage (red lead), may cause a dead oscillator. A continuous jitter with an apparent constant frequency usually signifies a beating of the oscillator with the sixth or seventh line power harmonic and may be rectified by varying capacitor C105 between 0.4 and 0.6 mfd. A variable capacitance box should be used to determine a new value.

e. Operation of amplifier may be easily checked by observing the signal with an oscilloscope on plates of V1, V2 and V3. Serious distortion usually indicates a failure in T1. Excessive noise may be indicative of improper shielding of C1, the critical capacitor leading into the first stage with its relatively low signal level.

f. It should be pointed out that inaccuracies of the system cannot ordinarily be traced to the oscillator-amplifier since it is a null balance circuit, with the exception of errors induced by an insensitive system.

g. The meter may be a cause of error or REPEATABILITY discrepancies. It may easily be checked by tare zeroing at 500 pounds and then pegging the meter left, returning the dial to 500, and noting if any needle displacement persists. Repeat by pegging meter right. This error could be caused by damaged bearings.

h. A variable reading induced by cycling the load dial with a cell under a constant load may be caused by improper connections in the calibration circuit or by load switch S4.

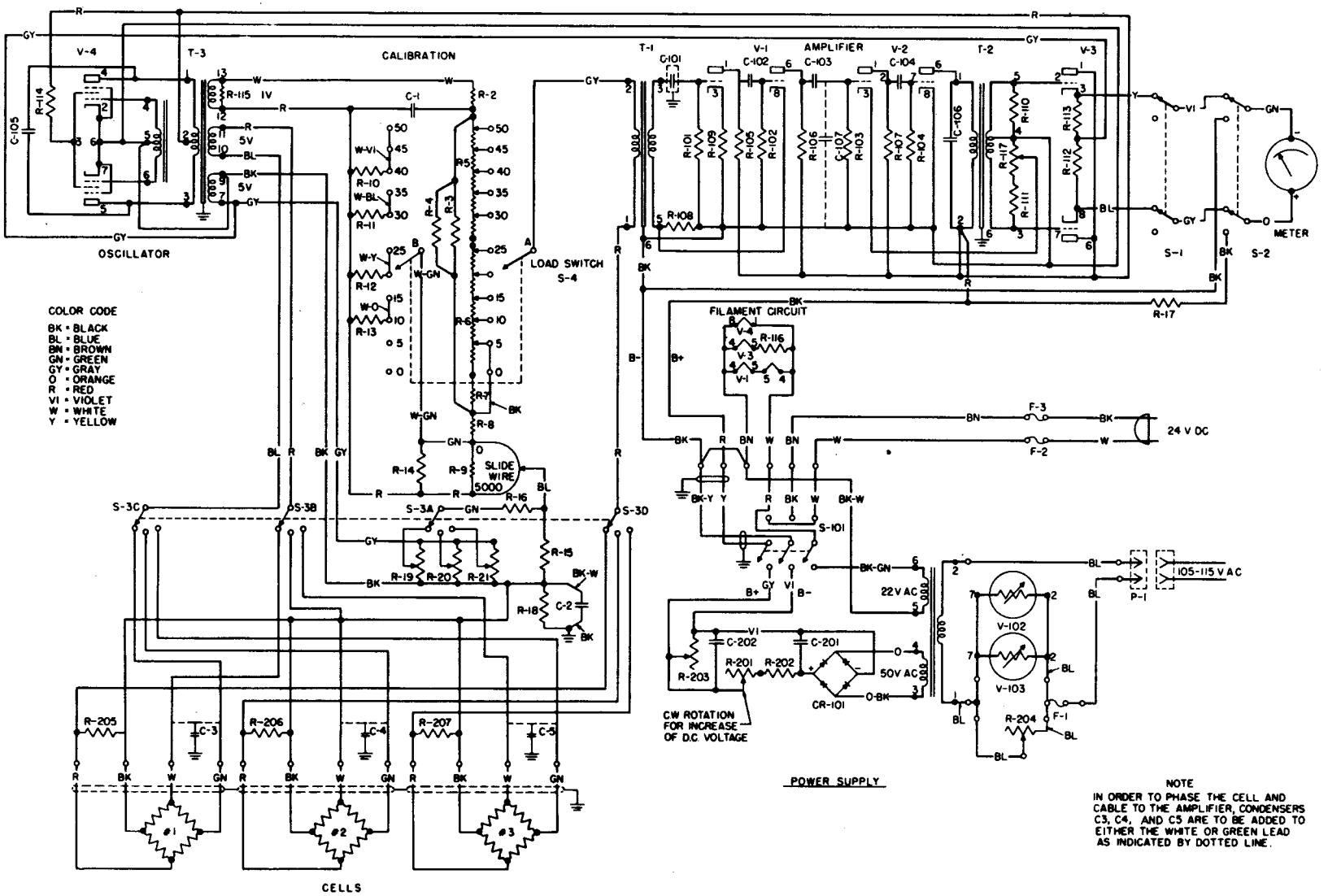


Figure 4-4. Schematic Diagram (Model C-1).

KEY to fig. 4-4:

S1	DPDT bat. handle
S2	DP momentary on bat.
S3	3 pole, 3 position wafer
S4	Load switch, 2 pole, 11 position
S101	3 PDT ball handle
P1	Receptacle
F1	Fuse, 1/2 amp
F2	Fuse, 2 amp
F3	Fuse, 2 amp
CR101	Rectifier
T1	L-918 input transformer
T2	L-920 output transformer
T3	SD-474 osc transformer
T101	1087 power transformer
V1	6072 (12AX7)
V2	12AU7)
V3	12AU7
V4	28D7
V102	1 H20 amperite
V103	1 H20 amperite
C1	0.33 mfd, 100 v
C2	25 mfd, 50 v
C3	Select on test
C4	Select on test
C5	Select on test
C101	0.01 mfd, 200 v
C102	0.01 mfd, 200 v
C103	0.01 mfd, 200 v
C104	0.01 mfd, 200 v
C105	0.5 mfd, 200 v
C106	0.001 mfd, 5%
C107	Select on test
C201	10 mfd, 300 v
C202	500 mfd, 50 v
R2	Select on test, 1/2 w, 1%
R3	Select on test, 1/2 w, 1%
R4	12 ohms, 1/2 w
R5	7.5 ohms tapped spool
R6	7.5 ohms tapped spool
R7	0.07 ohm advance wire
R8	0.2 ohm, 1/2 w, 1%
R9	12 ohms, 1/2 w
R10	91 ohms, 1/2 w, 1%
R11	120 ohms, 1/2 w, 1%
R12	180 ohms, 1/2 w, 1%
R13	300 ohms, 1/2 w, 1%
R14	Select on test, 1/2 w, 1%
R15	1 ohm, 1/2 w +0.2 ohm
R16	10,000 ohms, 1/2 w, 1%
R17	240,000 ohms, 5%
R18	2,000 ohms, 1/2 w
R19	2,000 ohms potentiometer
R20	2,000 ohms potentiometer
R21	2,000 ohms potentiometer
R101	2.2 meg, 1/2 w, 10%
R102	2.2 meg, 1/2 w, 10%
R103	2.2 meg, 1/2 w, 10%
R104	2.2 meg, 1/2 w, 10%
R105	0.47 meg, 1/2 w, 10%
R106	0.47 meg, 1/2 w, 10%
R107	0.22 meg, 1/2 w, 10%
R108	4,700 ohms, 1/2 w, 10%
R109	1,200 ohms, 1/2 w, 10%
R110	22,000 ohms, 1/2 w, 10%
R111	15,000 ohms, 1/2 w, 10%
R112	4,700 ohms. 1/2 w, 10%
R113	4,700 ohms, 1/2 w, 10%
R114	2,200 ohms, 1/2 w, 10%
R115	100 ohms, 1/2 w, 1%
R116	75 ohms, 5 w
R117	3,000 ohms potentiometer
R201	400 ohms, 10 w
R202	500 ohms, potentiometer
R203	2,000 ohms, 10 w
R204	3,500 ohms, 10 w
R205	Select on test, 1/2 w, 1%
R206	Select on test, 1/2 w, 1%
R207	Select on test, 1/2 w, 1%

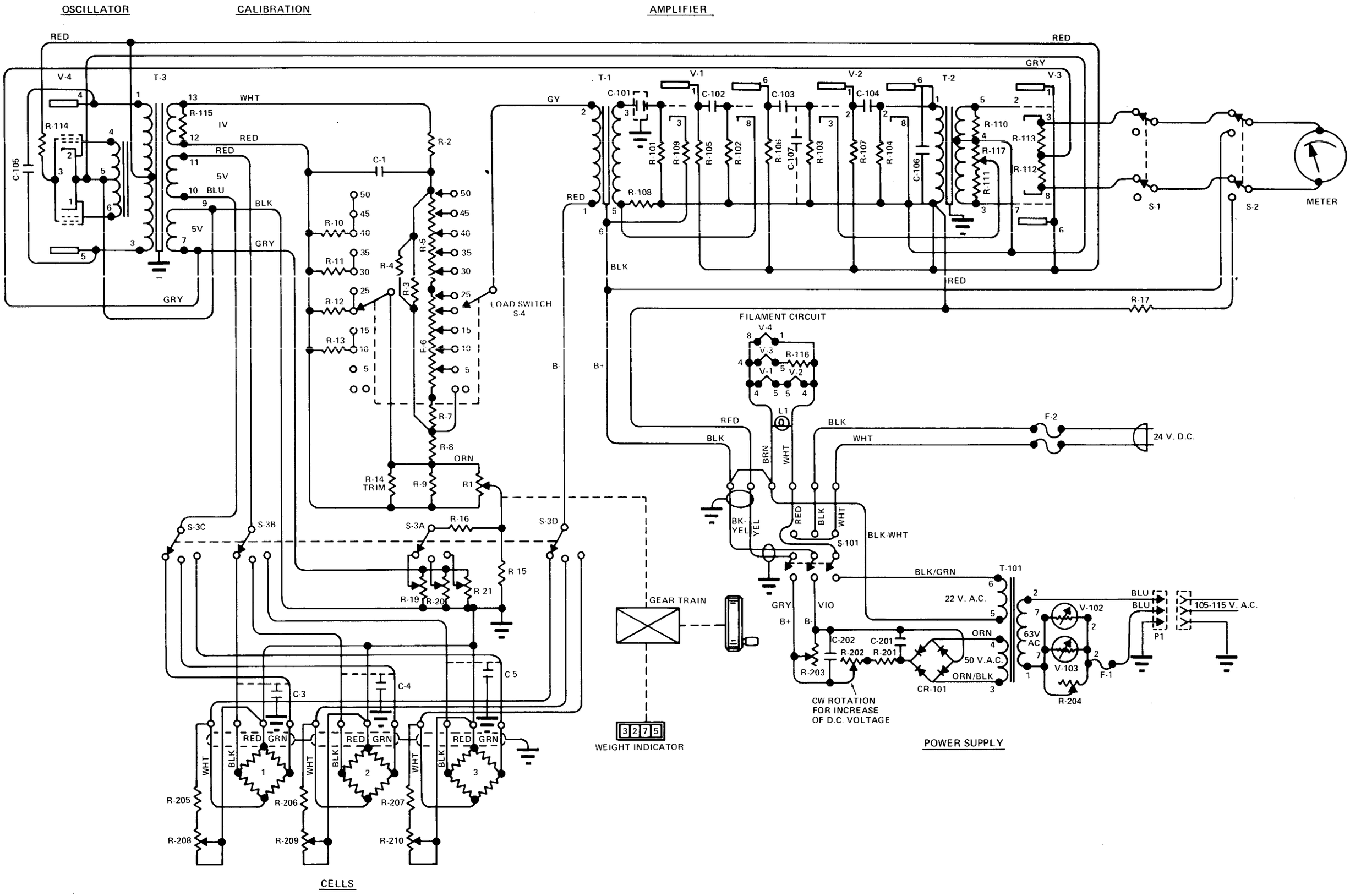


Figure 4-5. Schematic Diagram (Model M-1)

KEY to fig. 4-5:

S1	DPDT
S2	DP momentary on bat.
S3	3 pole switch
S4	Load switch, 2 pole, 11 position
S101	3 PDT ball handle
L1	Lamp
P1	Receptacle
F1	Fuse, 1/2 amp
F2	Fuse, 2 amp
CR101	Rectifier
T1	L-918 input
T2	L-920 output
T3	DS-474 osc
T101	1087 power
V1	6072 (12AX7)
V2	12AU7
V3	12AU7
V4	28D7
V102	1H20 amperite
V103	1H20 amperite
C1	.33 mfd, 100 v
C3	Select on test
C4	Select on test
C5	Select on test
C101	.01 mfd, 200 v
C102	.01 mfd, 200 v
C103	.01 mfd, 200 v
C104	.01 mfd, 200 v
C105	.5 mfd, 200 v, select on test
C106	.001 mfd, .5%, select on test
C107	Select on test
C201	10 mfd, 300 v
C202	500 mfd, 50 v
R1	Potentiometer
R2	Select on test, 1/2 w, 1%
R3	Select on test, 1/2 w, 1%
R4	12 ohms, 1/2 w
R5	7.5 ohms tapped spool
R6	7.5 ohms tapped spool
R7	.07 ohms advance wire
R8	.2 ohms, 1/2 w, 1%
R9	.65 ohms, 1/2 w
R10	91 ohms, 1/2 w, 1%
R11	120 ohms, 1/2 w, 1%
R12	180 ohms, 1/2 w, 1%
R13	350 ohms, 1/2 w, 1%
R15	1 ohms, 1/2 w, +.2 ohm
R16	10,000 ohms, 1/2 w, 1%
R17	260,000 ohms, 1/2 w, 1%
R19	2,000 ohms potentiometer
R20	2,000 ohms potentiometer
R21	2,000 ohms potentiometer
R101	2.2 meg, 1/2 w, 10%
R102	2.2 meg, 1/2 w, 10%
R103	2.2 meg, 1/2 w, 10%
R104	2.2 meg, 1/2 w, 10%
R105	.47 meg, 1/2 w, 10%
R106	.47 meg, 1/2 w, 10%
R107	.22 meg, 1/2 w, 10%
R108	4,700 ohms, 1/2 w, 10%
R109	1,200 ohms, 1/2 w, 10%
R110	22,000 ohms, 1/2 w, 10%
R111	15,000 ohms, 1/2 w, 10%
R112	4,700 ohms, 1/2 w, 10%
R113	4,700 ohms, 1/2 w, 10%
R114	2,200 ohms, 1/2 w, 10%
R115	100 ohms, 1/2 w, 1%
R116	75 ohms, 5 w
R117	3,000 ohms potentiometer
R201	400 ohms, 10 w
R202	500 ohms potentiometer
R203	2,000 ohms, 10 w
R204	1,000 ohms, 10 w
R205	Resistor
R206	Resistor
R207	Resistor
R208	Trimpot
R209	Trimpot
R210	Trimpot

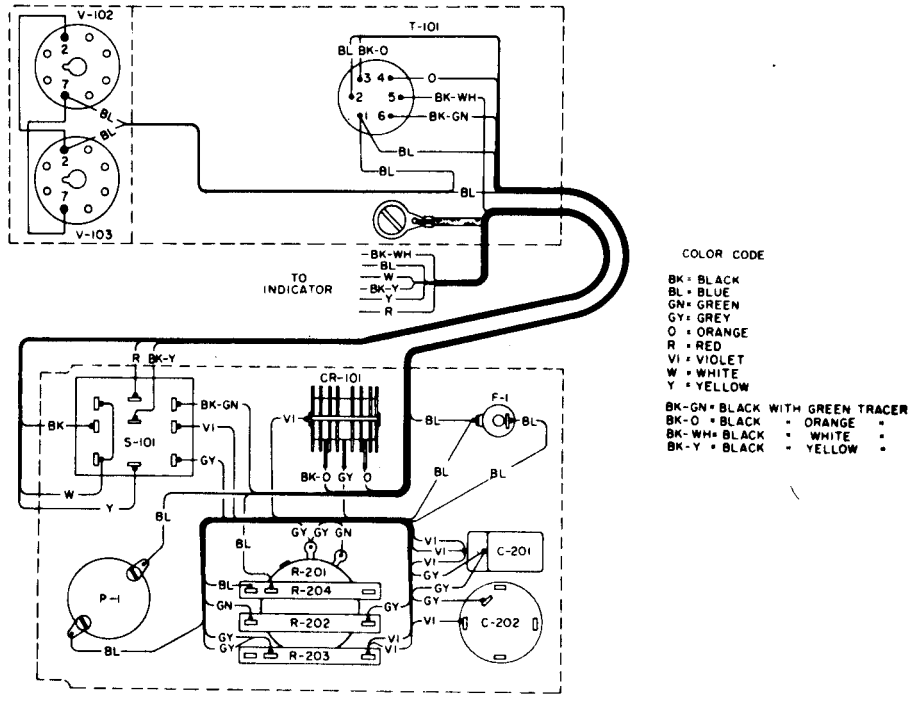


Figure 4-6. Power Supply Wiring Diagram (Model C-1).

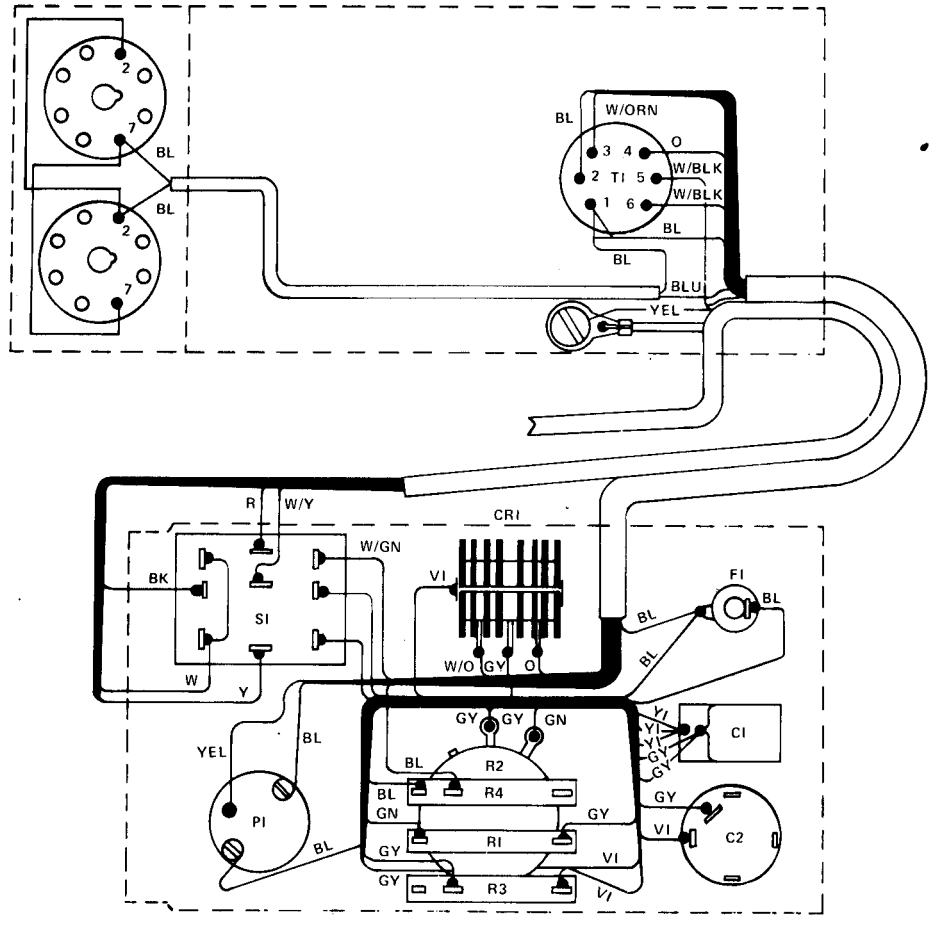


Figure 4-7. Power Supply Wiring Diagram (Model M-1).

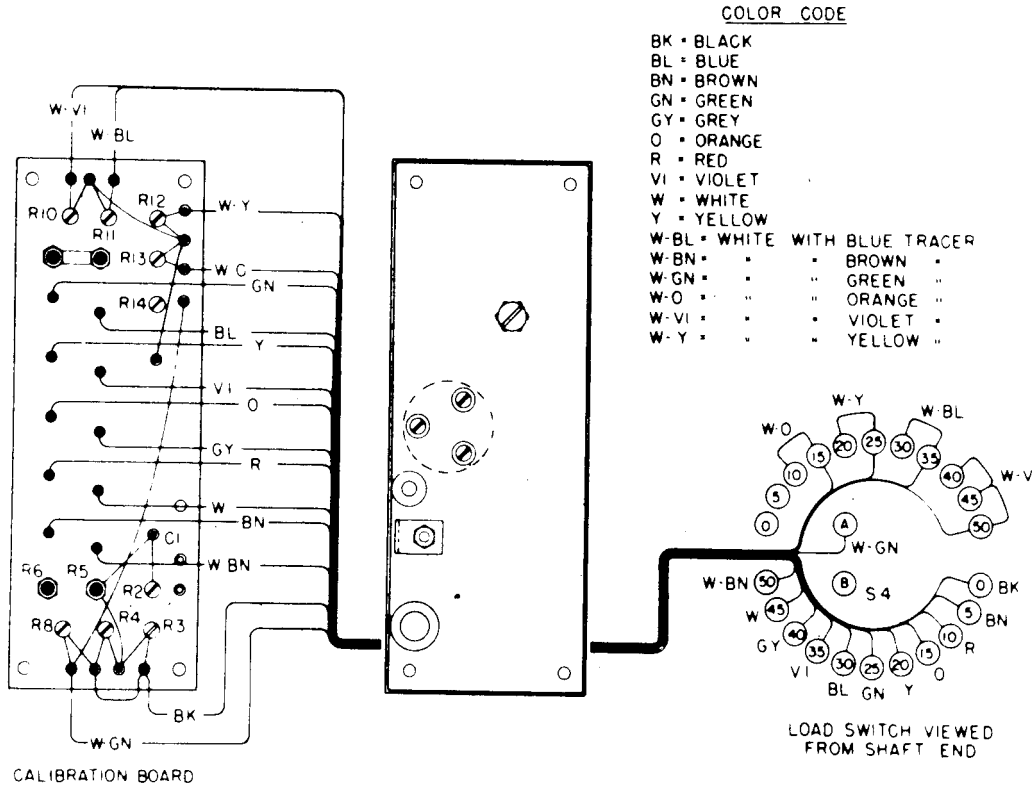


Figure 4-8. Calibration Board and Load Switch Wiring Diagram (Model C-1).

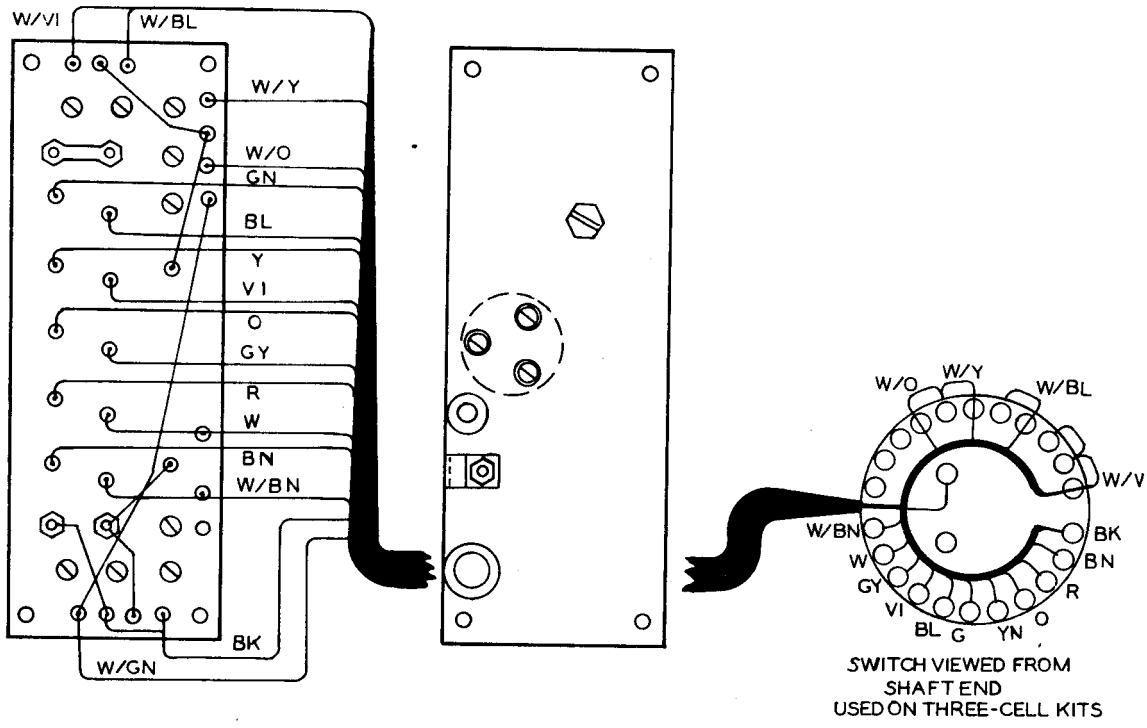


Figure 4-9. Calibration Board and Load Switch Wiring Diagram (Model M-1)

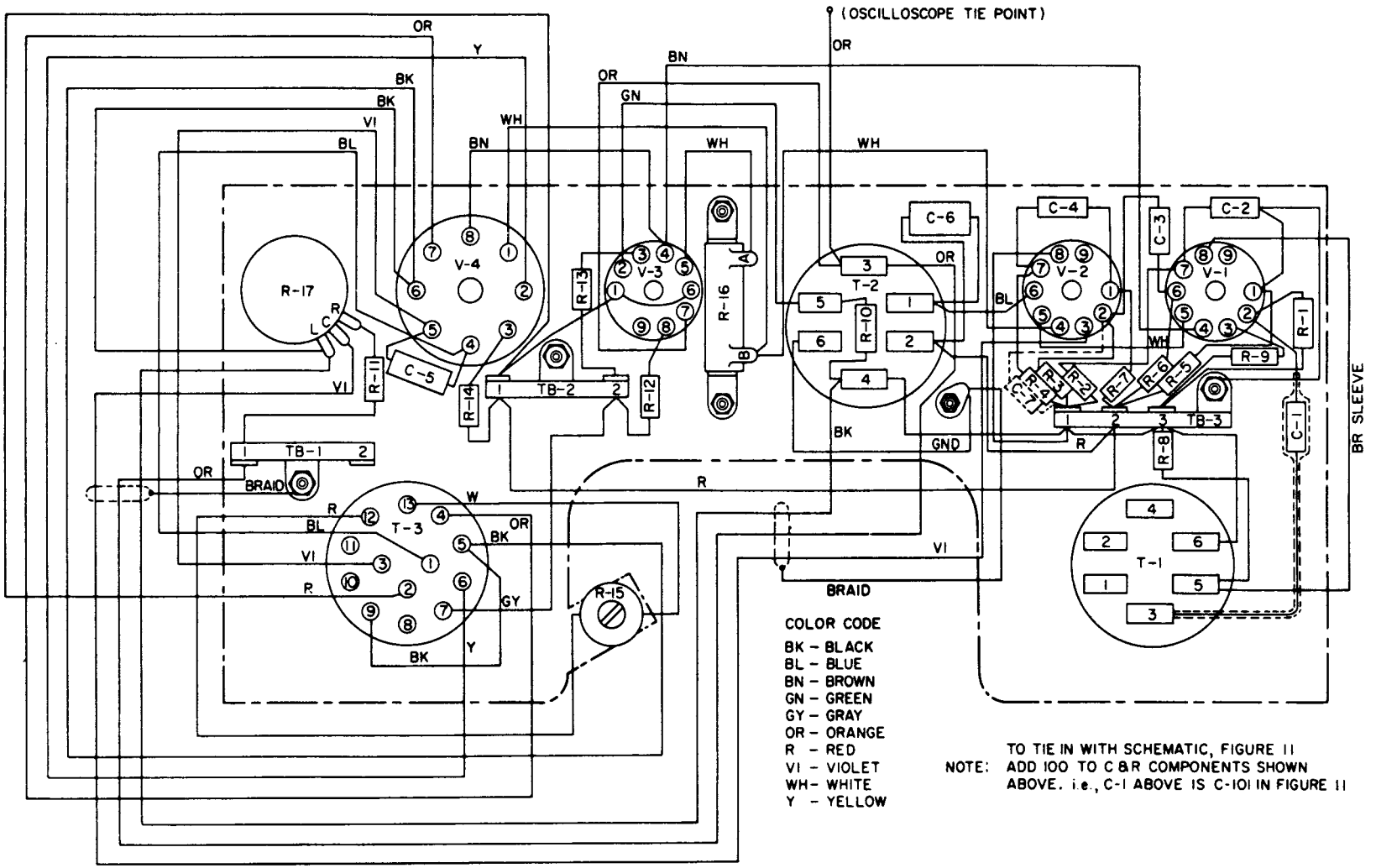


Figure 4-10. Oscillator-Amplifier Assembly Wiring Diagram.

Section IV. REASSEMBLY

4-13. General.

Reassembly procedures will be in accordance with standard practices for replacement of electronic parts.

NOTE

Reference should be made to the wiring diagrams (figs. 4-2 through 4-9) during reassembly.

4-14. Power Supply Assembly.

a. Assemble cover and component assembly and secure with screw.

b. Connect any wires that were disconnetted.

c. Install power supply assembly into case and secure with screws on bottom of carrying case.

4-15. Milliammeter.

a. Install milliammeter in cover assembly and secure with screws and nuts.

b. Connect wires to milliammeter.

4-16. Oscillator-Amplifier Assembly.

Install oscillator-amplifier assembly into cover assembly with flathead screws.

4-17. Helipots.

a. Place into position in bottom of cover assembly and solder three leads as marked TOP TERMINAL, MID TERMINAL, and BOTTOM TERMINAL.

b. Press down and secure on panel with locknuts.

4-18. Cover Assembly.

a. Install disc, dial, drive assembly (3, fig. 4-1) and insulator.

b. Install bearing assembly and box (6).

c. Install board and switch assembly (1).

NOTE

The board and switch assembly (1) includes harness assembly (4) and switch (5).

d. Install spacers (2) and secure with screws.

e. Install panel (1, figs. 4-14 or 4-15).

f. Install BATTERY VOLTAGE and CELL BALANCE switches (3 and 1, figs. 1-2 or 1-3).

g. Install knobs (3, 4, 5, 6 and 7, figs. 4-14 or 4-15).

4-19. Indicator Assembly.

Connect cable assemblies (19 and 21, fig. 4-13.

b. Place indicator assembly in kit and secure with roundhead screws on bottom of case assembly.

c. Close hinged cover assembly (2, figs. 4-14 or 4-15) and secure with screws at lower end of panel (1).

NOTE

After all cables are connected, plug kit into appicable power source and press hand down on cell while checking needle on milliammeter scale. A slight positive movement of needle should be indicated when cell is pressed.

4-20. Calibration.

Refer to TB 43-180.

FUNCTIONAL GROUP 1. CASE ASSEMBLY

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-11		C-7500	X		WEIGHING KIT, ELECTRONIC AIRCRAFT	1
4-11		C-46500		X	WEIGHING KIT, ELECTRONIC AIRCRAFT	1
-1		C-41150-3	X		INDICATOR ASSEMBLY	1
					(SEE FIG. 4-14 FOR DETAIL BREAKDOWN)	
-1		C-46380		X	INDICATOR ASSEMBLY	1
					(SEE FIG. 4-15 FOR DETAIL BREAKDOWN)	
		AN520-10-6	X	X	ATTACHING PARTS	
					SCREW, ROUNDHEAD	4
-2		C-2658	X		POWER SUPPLY ASSY	1
					(SEE FIG. 4-18 FOR DETAIL BREAKDOWN)	
-2		C-46373		X	POWER SUPPLY ASSY	1
					(SEE FIG. 4-18 FOR DETAIL BREAKDOWN)	
					ATTACHING PARTS	
4-11		C-40387	X	X	BRACKET	2
		AN505-8-8	X	X	SCREW, FLATHEAD	2
		AN515-6-6	X	X	SCREW, ROUNDHEAD	2
-3		C-4926-2	X		CABLE ASSY	1
					(SEE FIG. 4-19 FOR DETAIL BREAKDOWN)	
-3		C-42117-3		X	CABLE ASSY	1
					(SEE FIG. 4-20 FOR DETAIL BREAKDOWN)	
-4		C-2498-1	X	X	CABLE ASSY, EXTENSION	1
					(SEE FIG. 4-21 FOR DETAIL BREAKDOWN)	
-5		C-2499-1	X	X	CABLE ASSY, BATTERY	1
					(SEE FIG. 4-22 FOR DETAIL BREAKDOWN)	
4-11		C-40910	X		CELL, LOAD	3
-6		C-46170		X	CELL, LOAD	3
-7		C-5832	X	X	ADAPTER, SPHERICAL	3
-8		C-2106	X	X	ADAPTER ASSY, RING	3
-9		C-2108	X	X	ADAPTER, PLUG	3
-10		C-40430	X	X	KIT ASSY, ACCESSORY	1
					(SEE FIG. 4-26 FOR DETAIL BREAKDOWN)	
-11		C-40138	X	X	REEL ASSY	3
-12		C-40059	X	X	KIT, SPARE TUBE	1
					ATTACHING PARTS	
	V4	S-4000-19			TUBE, 28D7	1
	V-102,V-103	S-4000-32			TUBE, 1H20	1

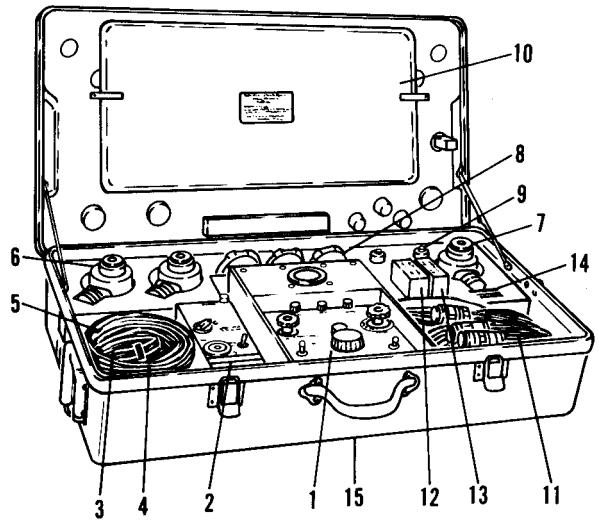


Figure 4-11. Weighing Kit, Electronic

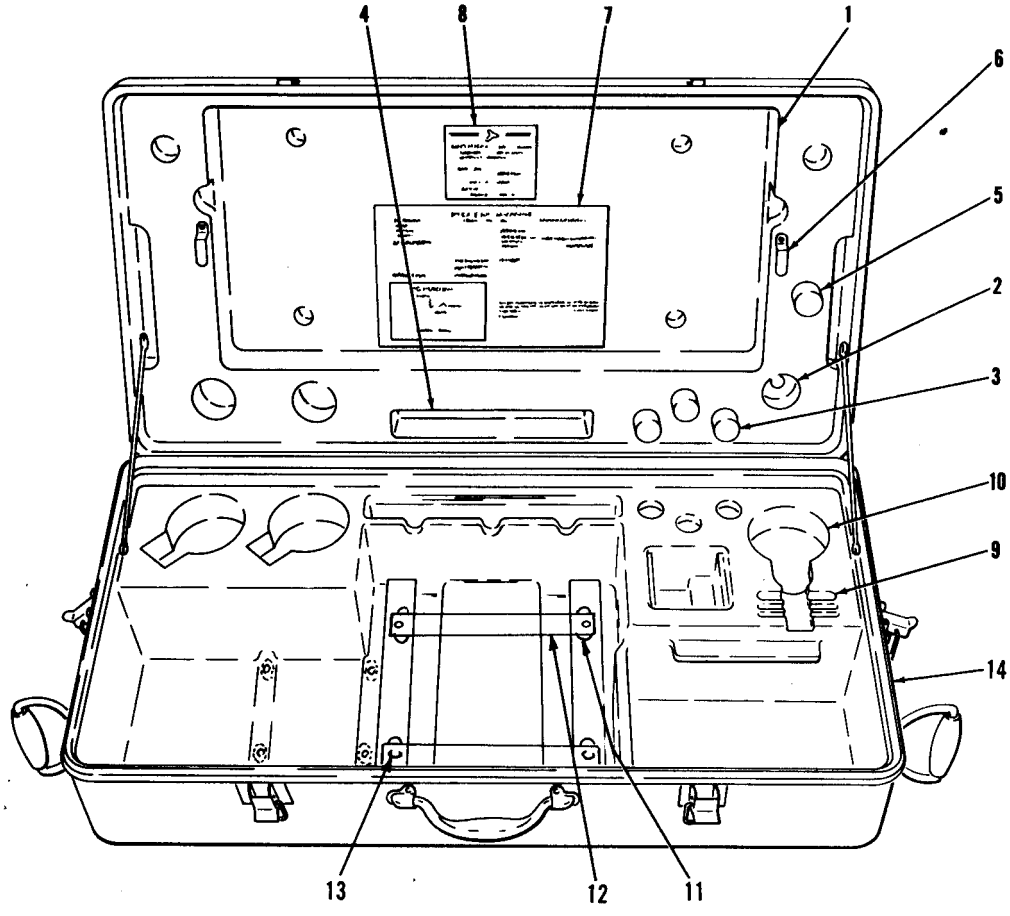


Figure 4-12. Carrying Case Assembly.

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTIONAL GROUP 1 - CONTINUED

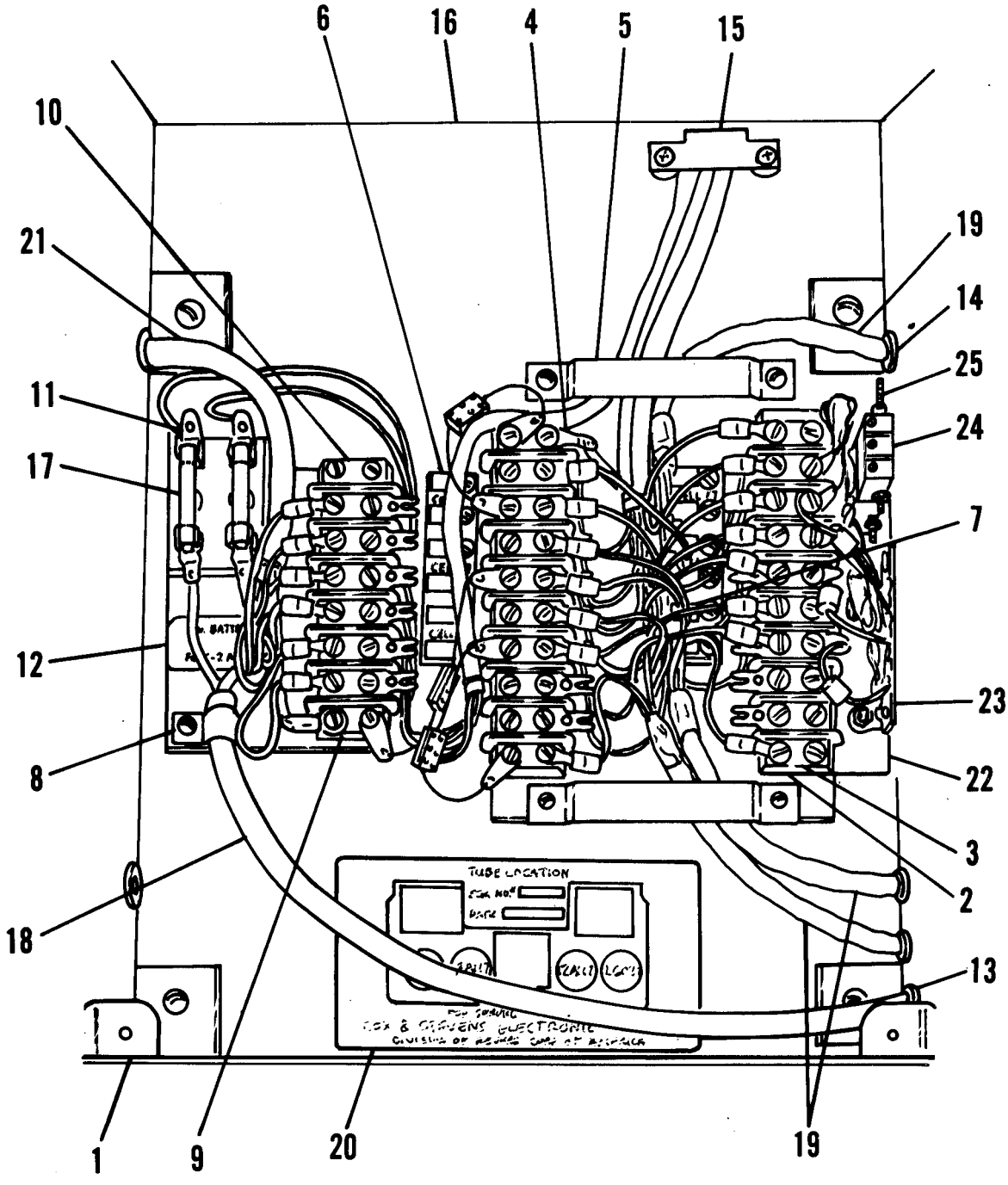
FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-11-13		C-40062	X	X	KIT, SPARE TUBE	1
					ATTACHING PARTS	
	V2,V3	S-4000-14			TUBE, 12AU7	2
	V1	S-4000-15	TUBE,			
6072				1		
-14		S-2115	X	X	KEY, SCREW, HEX, SOCKET	1
					ATTACHING PARTS	
		S-2115-1	X	X	KEY, SCREW, HEX, SOCKET	1
		S-2115-3	X	X	KEY, SCREW, HEX, SOCKET	1
-15		C-41347	X	X	CARRYING CASE ASSY	1
					(SEE FIG. 4-12 FOR DETAIL BREAKDOWN)	
4-12		C-41347	X	X	CARRYING CASE ASSY	REF
					(SEE FIG. 4-11 FOR NHA)	
-1		C-40314	X	X	INSERT, TOP	1
-2		C-40427	X	X	SNUBBER, CELL	3
-3		C-40424	X	X	SNUBBER, PLUG ADAPTER	3
-4		C-40426	X	X	SNUBBER, RING ADAPTER	1
-5		C-40425	X	X	SNUBBER, ALLEN WRENCH	1
-6		C-40487	X	X	BUTTON, TURN	2
					ATTACHING PARTS	
		C-40488	X	X	SPACER	1
		C-20221-5	X	X	RIVNUT	1
		AN526-632-10	X	X	SCREW, TRUSS HEAD	1
					---*---	
4-12-7		C-41352	X	X	INSTRUCTION CARD	1
					ATTACHING PARTS	
		S-20086-2-5	X	X	RIVET, SPLIT	4
					---*---	
-8		C-41349	X		NAMEPLATE	1
					ATTACHING PARTS	
		S-20585	X		RIVET, BLIND EXPANSION BRAZIER HEAD	4
					---*---	
-8		C-46353		X	NAMEPLATE	1
-9		C-40316	X	X	INSERT, BOTTOM	1
-10		C-40429	X	X	CUSHION, CELL	3
-11		S-20884	X	X	SHOCK, MOUNT	4
					ATTACHING PARTS	
4-12-11		MS20470AD4-			---*---	
		6	X	X	RIVET	4
		AN960-4	X	X	WASHER	4
					---*---	
-12		C-41716	X	X	PLATE, INDICATOR MTG	2
					ATTACHING PARTS	
		AN510C10-6	X	X	SCREW, FLATHEAD	2
					---*---	
-13		AN366F632	X	X	NUT, ANCHOR	4
					ATTACHING PARTS	
		S-20195AD3-5	X	X	RIVET	2
					---*---	

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTIONAL GROUP 1 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-12-14		C-41348	X	X	CASE, CARRYING	1
4-13		C-40192-2	X	X	INDICATOR CASE ASSY (SEE FIG. 4-14 FOR NHA)	REF
-1		C-5690	X	X	SUPPORT	2
					ATTACHING PARTS	
		AN505-6-6	X	X	SCREW, FLATHEAD	2
		AN340-6	X	X	NUT	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
					---*---	
-2		S-4038-8X	X	X	STRIP, TERMINAL	2
					ATTACHING PARTS	
		AN526-632R10	X	X	SCREW, TRUSS HEAD	4
		AN936A6	X	X	WASHER, TOOTH LOCK	20
					---*---	
4-13-3		S-20117-3	X	X	PLATE, STRADDLE	4
-4		I-486-6	X	X	TERMINAL	1
-5		C-40191	X	X	CLAMP	2
					ATTACHING PARTS	
		AN500-6-3	X	X	SCREW, FILLISTER HEAD	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
-6		C-7794-1	X	X	LABEL, CELL CONNECTION	1
-7		C-7794-2	X	X	LABEL, CELL CONNECTION	1
-8		S-4082-4	X	X	CLAMP	1
					ATTACHING PARTS	
		AN500-6-3	X	X	SCREW, FILLISTER HEAD	1
		AN936A6	X	X	WASHER, TOOTH LOCK	1
					---*---	
4-13-9		S-4038-6X	X	X	STRIP, TERMINAL	1
					ATTACHING PARTS	
		AN526-632R10	X	X	SCREW, TRUSS HEAD	4
		AN936A6	X	X	WASHER, TOOTH LOCK	16
					---*---	
-10		S-20117-3	X	X	PLATE, STRADDLE	2
-11		S-4080-2	X	X	HOLDER, FUSE	1
					ATTACHING PARTS	
		AN515-6-5	X	X	SCREW, ROUNDHEAD	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
					---*---	
-12		C-7793	X	X	LABEL, POWER CONNECTION	1
-13		S-6248-4	X	X	GROMMET	3

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTIONAL GROUP 1 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-13-14		S-6248-3	X	X	GROMMET	4
-15		C-40193	X	X	CLAMP	1
					ATTACHING PARTS	
		AN515-4-3	X	X	SCREW, ROUNDHEAD	2
		AN936A4	X	X	WASHER, TOOTH LOCK	2
					---*---	
-16		C-40179	X	X	WELD ASSY, LOWER	1
-17	F2,F3	S20055-5	X	X	FUSE	2
-18		C-2497-3	X	X	CABLE ASSY, POWER	1
					(SEE FIG. 4-13 FOR DETAIL BREAKDOWN)	
-19		C-41048-1	X	X	CABLE ASSY, CELL	3
					(SEE FIG. 4-14 FOR DETAIL BREAKDOWN)	
-20		C-5830	X	X	LABEL, TUBE LOCATION	1
4-13-21		C-5732	X	X	CABLE ASSY	1
-22		C-43442	X	X	BRACKET, MOUNTING	1
-23		S-4065-4	X	X	STRIP, TERMINAL	1
					ATTACHING PARTS	
		AN505-6R4	X	X	SCREW, FLATHEAD	2
		AN340-6	X	X	NUT, HEX	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
					---*---	
-24		S-20128-9	X	X	TRIMPOT	3
-25		C-42311	X	X	STUD, RESISTOR MTG	2
					ATTACHING PARTS	
		S-7826-3	X	X	NUT, HEX	2



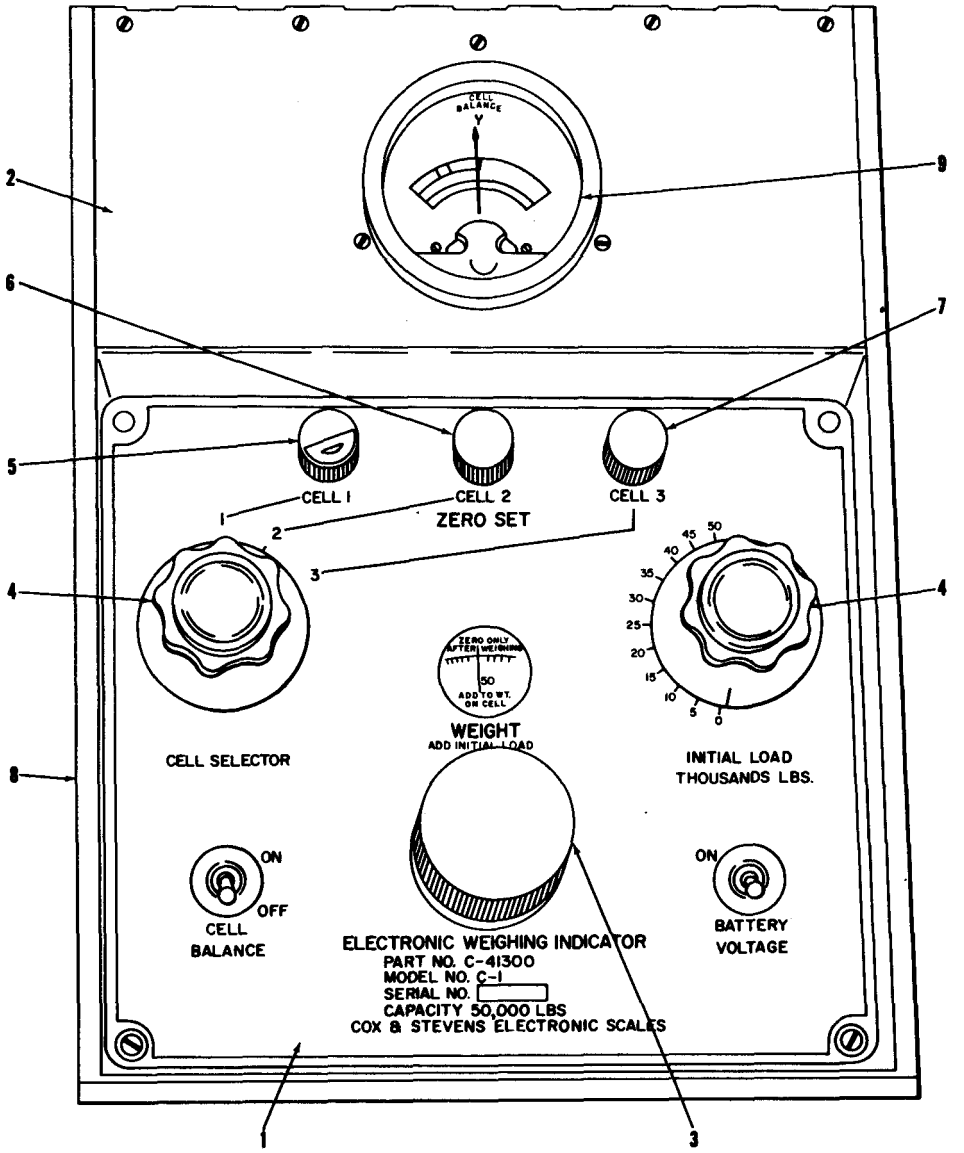
KEY to fig. 4-3:

1. Support
2. Terminal strip
3. Straddle plate
4. Terminal
5. Clamp
6. Label
7. Label
8. Clamp
9. Terminal Strip
10. Straddle Plate
11. Fuse Holder
12. Label
13. Grommet
14. Grommet
15. Clamp
16. Lower weld assembly
17. Fuse
18. Cable (power)
19. Cable assembly
20. Label
21. Cable assembly

Figure 4-13. Indicator Case Assembly.

FUNCTIONAL GROUP 2. INDICATOR ASSEMBLY

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-14		C-41150-3	X		INDICATOR ASSY (SEE FIG. 4-11 FOR NHA)	REF
4-15		C-46380		X	INDICATOR ASSY (SEE FIG. 4-11 FOR NHA)	REF
-1		C-41356-3	X		PANEL, CONTROL	1
-1A		C-46348		X	PANEL, CONTROL ATTACHING PARTS	1
		AN515B6-6	X	X	SCREW, ROUNDHEAD	1
		AN340-6	X	X	NUT	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
		AN515B6-8	X	X	SCREW, ROUNDHEAD	1
		AN505-6-12	X	X	WASHER, FINISHING	2
		S-4057-6	X	X	WASHER, FINISHING ---*---	2
4-14,4-15-2		C-40104-2	X		COVER ASSY (SEE FIG. 4-16 FOR DETAIL BREAKDOWN)	1
-2A		C-46390		X	COVER ASSY (SEE FIG. 4-17 FOR DETAIL BREAKDOWN)	1
-3		S-4081-2	X		KNOB, SLIDE WIRE (WEIGHT)	1
-3A		S-25529		X	KNOB, SLIP CLUTCH (WEIGHT)	1
-4		S-4041-3	X	X	KNOB (CELL SELECTOR AND INITIAL LOAD)	2
-5		S-20026-6RE	X	X	KNOB, HELIPOT	1
-6		S-20026-6YE	X	X	KNOB, HELIPOT	1
4-14, 4-15-7		S-20026-6BL	X	X	KNOB, HELIPOT	1
-8		C-40192-2	X	X	CASE ASSY, INDICATOR (SEE FIG. 4-13 FOR DETAIL BREAKDOWN)	1
-9		S-4090-3	X	X	MILLIAMMETER ATTACHING PARTS	1
		AN515B6-8	X	X	SCREW, ROUNDHEAD	2
		AN515B6-12	X	X	SCREW, ROUNDHEAD	1
		AN936A6	X	X	WASHER, TOOTH LOCK	3
		S-20553-6	X	X	NUT, HEX, SMALL PATTERN ---*---A114-14	3



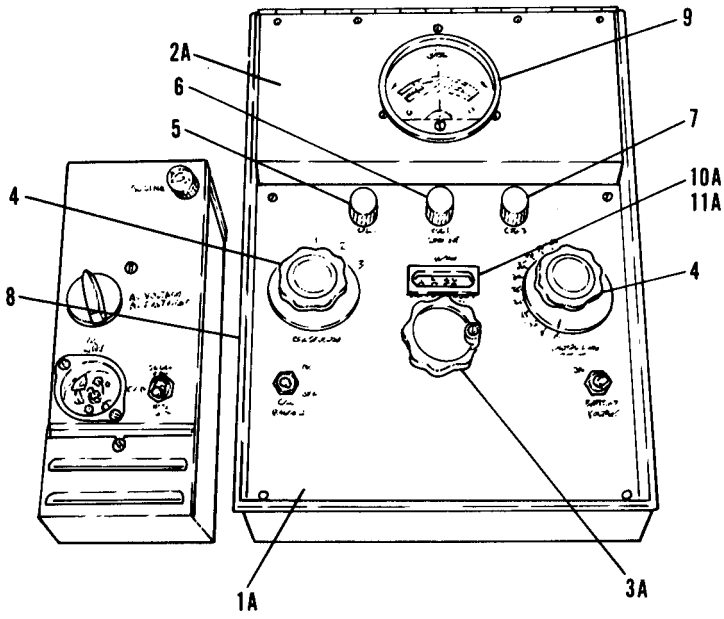
KEY to fig. 4-14:

1. Panel
2. Cover assembly
3. Weight knob
4. Initial load and cell selector knobs
5. Helipot knob (cell 1)
6. Helipot knob (cell 2)
7. Helipot knob (cell 3)
8. Case assembly
9. Milliammeter

Figure 4-14. Indicator Assembly (Model C-1).

Illustrated Group Assembly Parts List, Function Group 2 - Continued

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
-10A		C-46388		X	Window	1
-11A		C-46389		X	Frame	1
4-16		C-40104-2	X		Cover assy (See fig. 4-14 for NHA)	REF
4-17		C-46390		X	Cover assy (See fig. 4-15 for NHA)	REF
-1		C-5689	X	X	Cover	1
					Attaching parts	
		AN500A6-6	X	X	Screw, fillister head	4
					---*---	
-2		C-5691-1	X	X	Spacer	4
-3		C-5692	X		Stud	4
-3A		C-46492		X	Stud	4
-4		AN936A6	X	X	Washer, tooth lock	8



KEY to fig. 4-15:

1A. Panel
2A. Cover assembly
3A. Weight knob
4. Initial load and cell selector knobs
5. Helipot knob (cell 1)
6. Helipot knob (cell 2)
7. Helipot knob (cell 3)
8. Case assembly
9. Milliammeter
10A. Window
11A. Frame

Figure 4-15. Indicator Assembly (Model M-1).

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTION GROUP 2 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-16-5		C-5691-2	X		SPACER	4
4-17-5A		C-46368-2		X	BRACKET, R.H.	1
					ATTACHING PARTS	
		AN935-6		X	WASHER, LOCK	2
		AN515-6R5		X	SCREW, ROUNDHEAD	2
-5B		C-46368-1		X	BRACKET, L.H.	1
					ATTACHING PARTS	
		AN935-6		X	WASHER, LOCK	2
		AN515-6R5		X	SCREW, ROUNDHEAD	2
					---*---	
-6		C-5697	X		BOARD AND SWITCH ASSY	1
-6A		C-5697-4		X	BOARD AND SWITCH ASSY	1
4-16-7	S-4	S-4083	X	X	SWITCH	1
					ATTACHING PARTS	
4-17		AN505-8-6	X	X	SCREW, FLATHEAD	2
		AN960-416	X	X	WASHER, FLAT	2
					---*---	
-8		C-5694	X		BOARD AND COMPONENT ASSY	1
-8A		C-5694-4		X	BOARD AND COMPONENT ASSY	1
-9		C-5666	X	X	CARD ASSY	2
					ATTACHING PARTS	
		S-20553-6	X	X	NUT, SMALL PATTERN	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
					---*---	
4-16, 4-17-10	R-8	S-4100-2	X	X	RESISTOR	1
-11	R-4	S-4102-120	X		RESISTOR	1
-11A	R-18	S-4102-010		X	RESISTOR	1
-12	R-10	S-4102-910	X	X	RESISTOR	1
-13	R-11	S-4102-121	X	X	RESISTOR	1
-14	R-12	S-4102-181	X	X	RESISTOR	1
-15	R-13	S-4102-301	X	X	RESISTOR	1
-16	R-2,R-14	S-4102	X	X	RESISTOR	2
					ATTACHING PARTS	
	R-3	C-40188	X	X	RESISTOR	1
		AN515-6-16	X	X	SCREW, ROUNDHEAD	1
		AN340-6	X	X	NUT, HEX	2
4-16-16		AN936A6	X	X	WASHER, TOOTH LOCK	2
4-17		S-4040-2	X	X	WASHER, FIBER	2
-17	C-1	S-20092-344	X	X	CAPACITOR	1
-18	R-7	S-4031-24-1.50	X	X	WIRE, BARE	1
-19		S-6859-20A1-35438	X	X	SLEEVING	1
-20		S-20923-20-.87	X	X	WIRE	1
-21		S-6859-20A-35493	X	X	SLEEVING	1
-22		S-20923-20-2.5	X	X	WIRE	1

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTION GROUP 2 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-16, 4-17-23		S-6859-20A1	X	X	SLEEVING	2
-24		S-20034-5-5.00	X	X	WIRE	1
-25		S-20923-20-3.50	X	X	WIRE	1
-26		S-6859-20A1-1/2	X	X	SLEEVING	1
-27		S-6859-20A1-1/4	X	X	SLEEVING	1
-27A		S-4031-20-2.00	X	X	WIRE	1
-28		C-5688	X	X	BOX	1
4-16-29		C-5597	X		HARNESS ASSY	1
4-17-29A		C-46397		X	HARNESS ASSY	1
-30		S-4082-1	X		CLAMP, CABLE	1
					ATTACHING PARTS	
		AN515-4-3	X		SCREW, ROUNDHEAD	1
		AN936A4	X		WASHER, TOOTH LOCK	1
		AN340-4	X		NUT, HEX	1
-31		S-6248-2	X	X	GROMMET	1
-32		S-6248-4	X	X	GROMMET	1
-33		C-5705	X		BEARING ASSY	1
					ATTACHING PARTS	
4-16-33		AN515-4-3	X		SCREW, ROUNDHEAD	3
4-17		AN960-4	X		WASHER, FLAT	3
		AN936A4	X		WASHER, TOOTH LOCK	3
-34		AN520-10-4	X		SCREW, ROUNDHEAD	1
-35		AN364D1032	X		NUT, LOCKING	1
-36		C-5696	X		BOARD ASSY	1
					ATTACHING PARTS	
		AN505-6-24	X		SCREW, FLATHEAD	2
		AN936A6	X		WASHER, TOOTH LOCK	2
		AN340-6	X		NUT	2
4-16-36A		C-46381		X	BOARD ASSY	1
4-17					ATTACHING PARTS	
		AN505-6-4		X	SCREW, FLATHEAD	2
-37	R-16	S-4102-103	X	X	RESISTOR	1
-38	R-18	S-4102-010	X	X	RESISTOR	1
-38A	R-18	S-4102-010		X	RESISTOR	1
-38B		S-4102-264		X	RESISTOR	1
					ATTACHING PARTS	
		AN500-6-16	X		SCREW, FILLISTER HEAD	1
		AN340-6	X	X	NUT	2
		AN960-6	X		WASHER, PLAIN	

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTION GROUP 2 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-16-						
38B		AN936-6L	X		WASHER, TOOTH LOCK	1
4-17		S-4040-2	X	X	WASHER, FIBER	2
		AN936-A6		X	WASHER, TOOTH LOCK	2
		AN515-6-16		X	SCREW, ROUNDHEAD	1
					---*---	
-39		C-40194	X		BOARD ASSY	1
-39A		C-46382		X	BOARD ASSY	1
-40		S-4099-10	X		STANDOFF	2
-40A		C-42037-9		X	STANDOFF	2
-41		I-486-6	X		TERMINAL	1
-42	R-15,R-114	S-4013-222	X		RESISTOR	1
-43		C-5637	X		BRUSH ASSY	1
					ATTACHING PARTS	
4-16-43		AN505-6-24	X		SCREW, FLATHEAD	2
4-17		AN960A6L	X		WASHER, FLAT	2
		AN936A6	X		WASHER, TOOTH LOCK	2
		AN340-6	X		NUT	2
					---*---	
-44		S-4082-8-2	X	X	CLAMP	1
-45		I-486-6	X	X	TERMINAL	1
					ATTACHING PARTS	
		AN505-6-6	X	X	SCREW, FLATHEAD	1
		AN960-8	X	X	WASHER, FLAT	1
		AN936A6	X	X	WASHER, TOOTH LOCK	1
4-16-45		AN340-6	X	X	NUT, HEX	1
4-17					---*---	
-46	C-2	C-5708	X		CAPACITOR ASSY	1
					ATTACHING PARTS	
		S-6859-20A3	X		SLEEVING	2
		S-4103-29	X		CLIP, TUBE	1
		AN960PB6	X		WASHER, FLAT	1
-47		C-5607	X		DISC ASSY	1
					ATTACHING PARTS	
		AN515-4-8	X		SCREW, ROUNDHEAD	3
					---*---	
-48		C-5726	X		INSULATOR	1
4-16-49		C-2407	X		DIAL, LOAD	1
-50		C-5630	X		DRIVE ASSY	1
					ATTACHING PARTS	
		S-20553-6	X		NUT, HEX, SMALL PATTERN	4
		AN936A6	X		WASHER, TOOTH LOCK	4
		C-4927	X		CLAMP	2
		AN505-6-6	X		SCREW, FLATHEAD	4
-53		S-4102-264	X		RESISTOR	1
					ATTACHING PARTS	
		AN505-6-18	X		SCREW, FLATHEAD	1
		AN936A6	X		WASHER, LOCK	1

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTION GROUP 2 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-16-53		AN960-10	X		WASHER, FLAT	1
4-17		S-4040-2	X		WASHER, FIBER	2
		AN340-6	X		NUT, HEX	2
-54	S-1	S-20106-1	X	X	SWITCH	1
					ATTACHING PARTS	
		AN960-816	X	X	WASHER, FLAT	1
					---*---	
-55	S-2	S-20106-2	X	X	SWITCH	1
					ATTACHING PARTS	
		AN960-816	X	X	WASHER, FLAT	1
					---*---	
-56	S-3	C-5729	X	X	SWITCH ASSY, CELL SELECTOR	1
					ATTACHING PARTS	
4-16, 4-17-56		AN960A716	X	X	WASHER, FLAT	1
					---*---	
-57	R-19,R-20, R-21	S-25377-3	X	X	HELIPOT	3
					ATTACHING PARTS	
		AN960A716	X	X	WASHER, FLAT	1
-58		C-5704	X		HOLDER, LENS	1
					ATTACHING PARTS	
		AN505-6-6	X		SCREW, FLATHEAD	2
					---*---	
-59		C-4089	X		LENS	1
					ATTACHING PARTS	
4-16-59	S-20763-					
4-17		6CSC16	X		SCREW, CAP	1
-60		C-5609	X	X	OSCILLATOR-AMPLIFIER ASSY	1
					(SEE FIG. 4-25 FOR DETAIL BREAKDOWN)	
					ATTACHING PARTS	
		AN505-6-6	X	X	SCREW, FLATHEAD	4
-61		C-5671	X	X	HINGE	1
					ATTACHING PARTS	
		AN515B6-4	X	X	SCREW, ROUNDHEAD	4
		AN340-6	X	X	NUT, HEX	4
		AN936A6	X	X	WASHER, TOOTH LOCK	4
					---*---	
4-16-62		C-5615	X		COVER	1

4-17-

Illustrated Group Assembly Parts List, Function Group 2 - Continued

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
62A		C-46349		X	Cover	1
-63		C-46378		X	Gear train assy	1
					Attaching parts	
		AN505-6R4		X	Screw, flathead	4
-64		S-25043		X	Potentiometer	1
					Attaching parts	
		S-20471-7		X	Cleat, mounting	3
		AN515-4R6		X	Screw, roundhead	3
		AN935-4		X	Washer, lock	3
-65		S-4013-23		X	Clamp, cable	1
					Attaching parts	
		AN515-6R5		X	Screw, roundhead	1
4-16-65		AN960-6		X	Washer, flat	1
4-17						

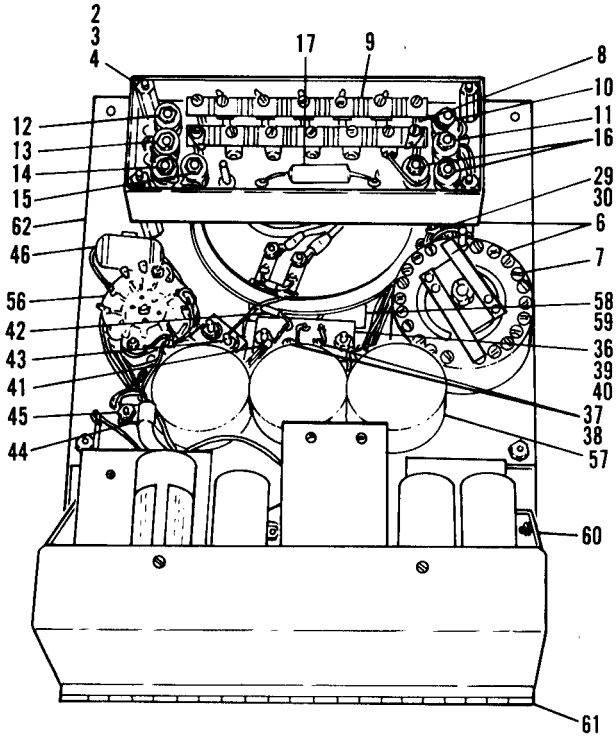


Figure 4-16. Cover Assembly (Model C-1).

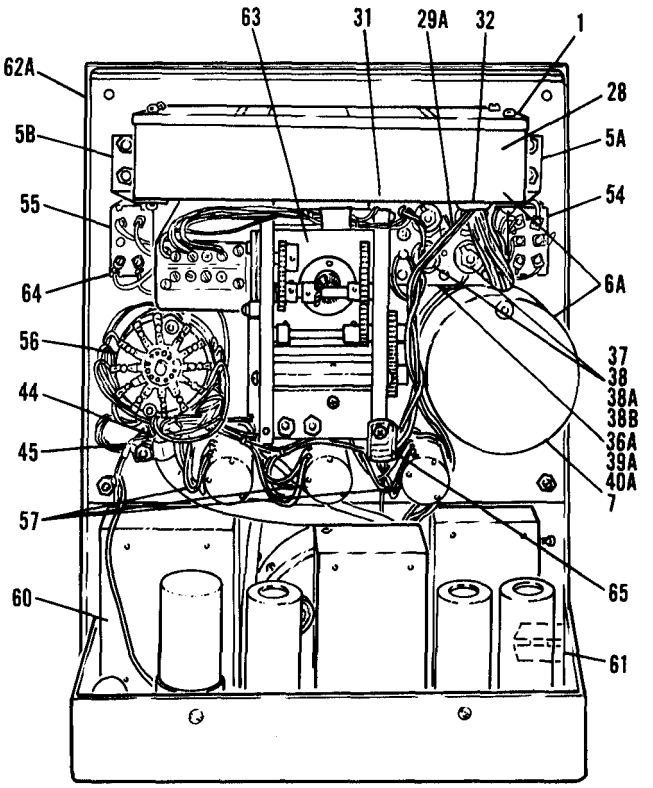


Figure 4-17. Cover Assembly (Model M-1).

FUNCTIONAL GROUP 3. POWER SUPPLY ASSEMBLY

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-18		C-2658	X		POWER SUPPLY ASSY (SEE FIG. 4-11 FOR NHA)	REF
4-18		C-46373		X	POWER SUPPLY ASSY (SEE FIG. 4-11 FOR NHA)	REF
-1		C-2655	X		COVER ASSY, FRONT	1
-1A		C-46374		X	COVER ASSY, FRONT	1
					ATTACHING PARTS	
		AN526-632-8	X	X	SCREW, TRUSS HEAD	1
		S-4040-2	X	X	WASHER, FIBER	1
-2		C-4919	X		COVER AND COMPONENT ASSY	1
-2A		C-46369		X	COVER AND COMPONENT ASSY	1
					ATTACHING PARTS	
4-18-2A		AN526-632-4	X	X	SCREW, TRUSS HEAD	1
		AN936A6	X	X	WASHER, TOOTH LOCK	1
					---*---	
4-18-3		S-4037-2	X	X	HOLDER, FUSE	1
					ATTACHING PARTS	
		AN936A616	X	X	WASHER, TOOTH LOCK	1
					---*---	
4-18-4	S-101	S-20099	X	X	SWITCH	1
					ATTACHING PARTS	
		AN936A616	X	X	WASHER, TOOTH LOCK	1
					---*---	
4-18-5		S-20013	X		BASE, MIDGET	1
-5A		S-25068		X	BASE, MIDGET	1
					ATTACHING PARTS	
		S-20553-6	X	X	NUT	2
		AN936A6	X	X	WASHER, TOOTH LOCK	2
					---*---	
-7		S-4041-5	X	X	KNOB	1
-8	R-201	C-40948	X	X	POTENTIOMETER	1
					ATTACHING PARTS	
		AN936A616	X	X	WASHER, TOOTH LOCK	2
		S-20554-1	X	X	NUT, JAM	1
					---*---	
4-18-9		C-2651	X	X	BRACKET	1
-10		C-4928	X	X	INSULATOR	1
-11	R-204	S-4042-102	X	X	RESISTOR	1
-12	R-202	S-4016-401	X	X	RESISTOR	1
-13	R-203	S-4042-202	X	X	RESISTOR	1
					ATTACHING PARTS	
		S-20767	X	X	SCREW	1
		AN340-6	X	X	NUT	1
		AN936A6	X	X	WASHER, TOOTH LOCK	1
		S-4040-2	X	X	WASHER, FIBER	2
					---*---	
-14	C-201	S-4044-7	X	X	CAPACITOR	1

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTIONAL GROUP 3 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
					ATTACHING PARTS	
4-18-14		AN515-4-5	X	X	SCREW, ROUNDHEAD	2
		AN340-4	X	X	NUT	2
		AN936A4	X	X	WASHER, TOOTH LOCK	2
					---*---	
-15	C-202	S-20097	X	X	CAPACITOR	1
-15A		S-20292	X	X	SLEEVING CAPACITOR	1
					ATTACHING PARTS	
		AN515-4-5	X	X	SCREW, ROUNDHEAD	2
		AN340-4	X	X	NUT	2
		AN936A4	X	X	WASHER, TOOTH LOCK	2
					---*---	
4-18-16	CR-101	S-4036	X	X	RECTIFIER	1
-17		C-4929	X	X	INSULATOR	1
-18	C-102,C-103	S-4000-32	X	X	TUBE	2
-19	F-1	S-20055-3	X	X	FUSE	1
-20		C-2656	X		COVER AND BRACKET ASSY, REAR	1
-20A		C-46371		X	COVER AND BRACKET ASSY, REAR	1
-21		C-4918	X	X	CASE AND COMPONENT ASSY	1
-22		C-2654	X	X	CHASSIS, TUBE	1
					ATTACHING PARTS	
		AN515-4-4	X	X	SCREW, ROUNDHEAD	4
		AN936A4	X	X	WASHER, TOOTH LOCK	4
		AN340-4	X	X	NUT	4
					---*---	
4-18-23	S-4047	X	X		SOCKET, TUBE	2
-24	T-101	S-20098	X	X	TRANSFORMER	1
					ATTACHING PARTS	
		AN526-832-6	X	X	SCREW, TRUSS HEAD	4
		AN936A8	X	X	WASHER, TOOTH LOCK	4
					---*---	
-25		S-4096-5	X	X	SPACER	1
					ATTACHING PARTS	
		AN526-632-4	X	X	SCREW, TRUSS HEAD	1
		AN936A6	X	X	WASHER, TOOTH LOCK	1
					---*---	
-26		C-2652	X	X	SUPPORT, COVER	1
					ATTACHING PARTS	
4-18-26		AN526-832-6	X	X	SCREW, TRUSS HEAD	2
		AN936A8	X	X	WASHER, TOOTH LOCK	2
					---*---	
-27		3332-99	X	X	CLAMP	1
-28		S-20457-8	X	X	TERMINAL	1
-29		S-6248-1	X	X	GROMMET	2
-30		S-6248-3	X	X	GROMMET	1
-31		C-2657	X	X	CASE ASSY	1

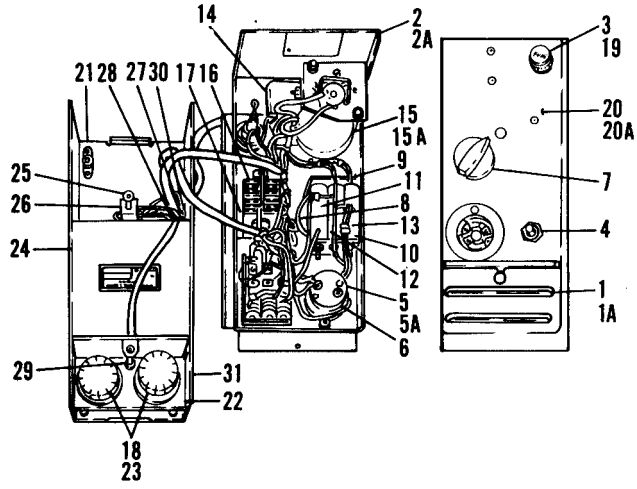


Figure 4-18. Power Supply Assembly.

ILLUSTRATED GROUP ASSEMBLY PARTS LIST
FUNCTIONAL GROUP 4. CABLE ASSEMBLIES

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-19		C-4926-2	X		CABLE ASSY	REF
					(SEE FIG. 4-11 FOR NHA)	
-1		S-20014	X		RECEPTACLE	1
-2		S-20015	X		PLUG, MALE	1
-3		C-40053-10	X		CORD, S.J. NEOPRENE COVERED	1
4-20		C-42117-3		X	CABLE ASSY	REF
					(SEE FIG. 4-11 FOR NHA)	
-1		S-25067		X	RECEPTACLE	1
-2		C-46547-1		X	CORD	1
4-21		C-2498-1	X	X	CABLE ASSY, EXTENSION	REF
					(SEE FIG. 4-11 FOR NHA)	
-1		S-20052	X	X	RECEPTACLE, CORD GRIP CONNECTOR	1
-2		S-20651	X	X	PLUG, ARMORED	1
-3		C-40053-5	X	X	CORD, S.J. NEOPRENE COVERED	1
4-22		C-2499-1	X	X	CABLE ASSY, BATTERY	REF
					(SEE FIG. 4-11 FOR NHA)	
-1		S-20052	X	X	RECEPTACLE, CORD GRIP CONNECTOR	1
-2		S-20044-1	X	X	CLIP, BATTERY POSITIVE	1
-3		S-20044-2	X	X	CLIP, BATTERY	1
-4		S-20105-1	X	X	INSULATOR, BLACK	1
-5		S-20105-2	X	X	INSULATOR, RED	1
-6		C-40053-7	X	X	CORD, S.J. NEOPRENE COVERED	2
4-23		C-2497-3	X	X	CABLE ASSY, POWER SUPPLY	REF
					(SEE FIG. 4-13 FOR NHA)	
-1		S-20651	X	X	PLUG, ARMORED	1
-2		C-40053-3	X	X	CORD, S.J. NEOPRENE COVERED	1
4-24		C-41048-1	X	X	CABLE ASSY, CELL	REF
					(SEE FIG. 4-13 FOR NHA)	
-1		10-130055-55	X	X	PLUG	1
-2		AN3420-4A	X	X	BUSHING, CABLE CLAMP, TEL	1
-3		AN3420-6A	X	X	BUSHING, CABLE CLAMP, TEL	1
-4		C-41353-1	X	X	CABLE	1
-5		S-5579	X	X	TERMINAL	4
-6		S-7785	X	X	TERMINAL	1
-7		S-5682-4H1	X	X	TUBING, VINYL	1
-8		S-20231-7A-.75	X	X	TUBING, NATVAR	1
4-24-9		C-40272-1	X	X	LEAD, WIRE	1
-10		S-20923-24.50	X	X	WIRE, SOLID COPPER, TINNED	5

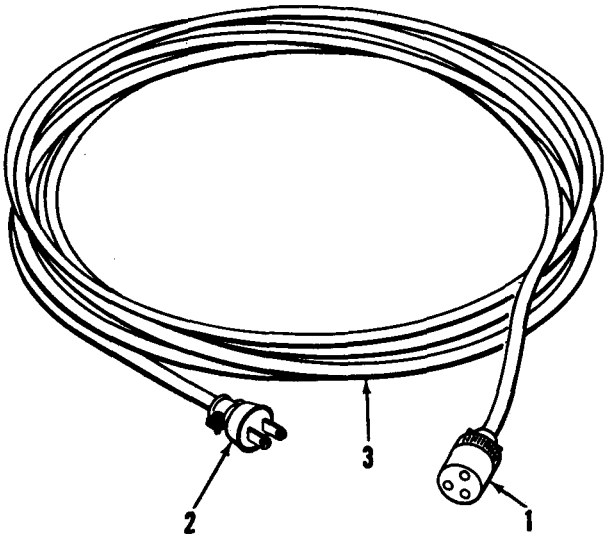


Figure 4-19. Cable Assembly.

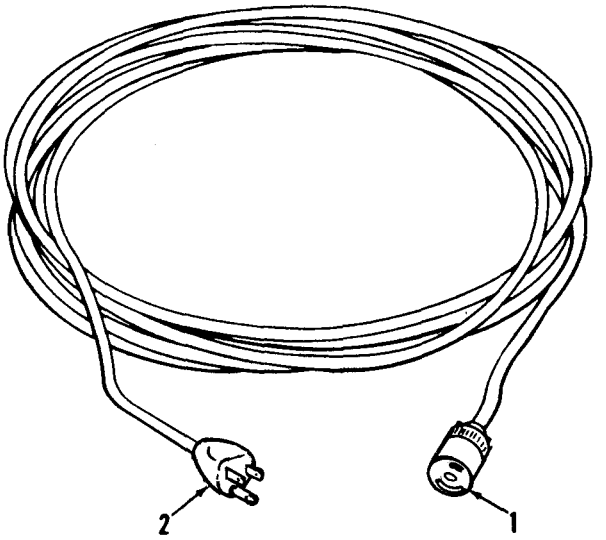


Figure 4-20. Cable Assembly.

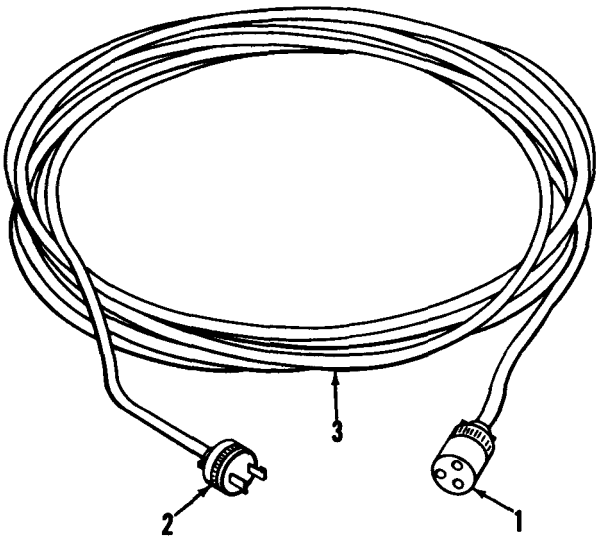


Figure 4-21. Cable Assembly, Extension.

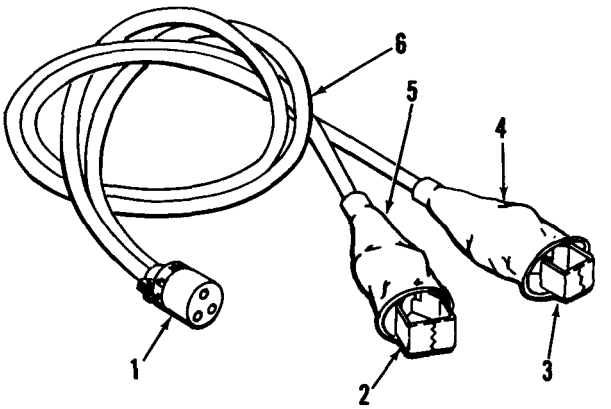


Figure 4-22. Cab/e Assemb/y, Battery.

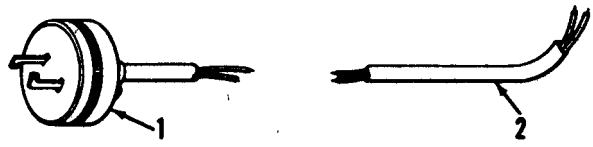


Figure 4-23. Cable Assembly, Power Supply.

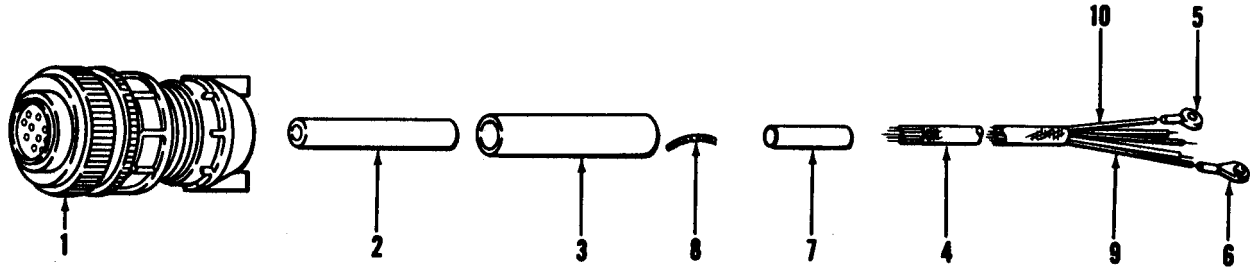


Figure 4-24. Cable Assembly, Cell.

FUNCTIONAL GROUP 5. OSCILLATOR-AMPLIFIER ASSEMBLY

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-25		C-5609	X	X	OSCILLATOR-AMPLIFIER ASSY (SEE FIG. 4-16 FOR NHA)	REF
-1		C-5611	X	X	CHASSIS ASSY	1
-2		C-5612	X	X	COVER, CHASSIS	1
					ATTACHING PARTS	
-3		F-1709	X	X	SEAL, LEAD	1
-4		F-1708-2	X	X	WIRE, LOCK	1
-5		AN505-4-4	X	X	SCREW, FLATHEAD	4
					---*---	
-6		C-5706	X	X	INSULATOR	1
-7	R-115	70W	X	X	RESISTOR, 100 OHMS	1
					ATTACHING PARTS	
4-25-8		AN515-6-14	X	X	SCREW, ROUNDHEAD	1
-9		S-4040-2	X	X	WASHER, FIBER	2
-10		AN936A6	X	X	WASHER, TOOTH LOCK	1
-11		AN340-6	X	X	NUT, HEX	1
					---*---	
-12	T-1	M-1359	X	X	TRANSFORMER	1
					ATTACHING PARTS	
-13		AN340-6	X	X	NUT, HEX	4
-14		AN935-6	X	X	WASHER, LOCK	4
-15		AN960-6	X	X	WASHER, FLAT	4
					---*---	
4-25-16		2435	X	X	STRIP, TERMINAL	1
-17		3332-99	X	X	CLAMP, CABLE	2
-18		C-5711	X	X	BRACKET	1
-19		2435	X	X	STRIP, TERMINAL	1
					ATTACHING PARTS	
-20		AN340-4	X	X	NUT, HEX	1
-21		AN936A4	X	X	WASHER, TOOTH LOCK	1
-22		AN515-4-4	X	X	SCREW, ROUNDHEAD	1
					---*---	
-23		C-40207	X	X	STRIP, TERMINAL	1
					ATTACHING PARTS	
-24		AN340-4	X	X	NUT, HEX	1
4-25-25		AN936A4	X	X	WASHER, TOOTH LOCK	1
-26		AN515-4-4	X	X	SCREW, ROUNDHEAD	1
					---*---	
-27	R-117	RQ11-112	X	X	POTENTIOMETER	1
					ATTACHING PARTS	
-28		S-20073	X	X	NUT, ACORN	1
-29		AN936A616	X	X	WASHER, TOOTH LOCK	1
					---*---	
-30	R-116	5F	X	X	RESISTOR	1
					ATTACHING PARTS	
-31		AN340-4	X	X	NUT, HEX	2
-32		AN936A4	X	X	WASHER, TOOTH LOCK	2

ILLUSTRATED GROUP ASSEMBLY PARTS LIST, FUNCTIONAL GROUP 5 - CONTINUED

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-25-33		5	X	X	BRACKET	2
-34		S-4040-4	X	X	WASHER, FIBER	2
-35		AN515-4-4	X	X	SCREW, ROUNDHEAD	2
					---*---	
-36	V-4	S-4000-19	X	X	TUBE	1
-37		78-S8L	X	X	SOCKET	1
-38	T-2	M-1358	X	X	TRANSFORMER	1
					ATTACHING PARTS	
-39		AN340-6	X	X	NUT, HEX	4
-40		AN935-6	X	X	WASHER, LOCK	4
-41		AN960-6	X	X	WASHER, FLAT	4
					---*---	
4-25-42		I-486-6	X	X	TERMINAL	1
-43	T-3	M-1357	X	X	TRANSFORMER	1
					ATTACHING PARTS	
-44		AN340-6	X	X	NUT, HEX	4
-45		AN935-6	X	X	WASHER, LOCK	4
-46		AN960-6	X	X	WASHER, FLAT	4
					---*---	
-47		3332-99	X	X	CLAMP, CABLE	1
-48		I-486-6	X	X	TERMINAL	1
-49		952	X	X	SHIELD	3
-50	V-2,V-3	S-4000-14	X	X	TUBE	2
-51	V-1	S-4000-15	X	X	TUBE	1
4-25-52		9XM	X	X	SOCKET	3
					ATTACHING PARTS	
-53		AN515-2-4	X	X	SCREW, ROUNDHEAD	2
-54		AN340-2	X	X	NUT, HEX	2
-55		AN935-2	X	X	WASHER, LOCK	2
					---*---	
-56	R-101,R-102 R-103,R-104	S-4013-225	X	X	RESISTOR	4
-57	R-105,R-106	S-4013-474	X	X	RESISTOR	2
-58	R-107	S-4013-224	X	X	RESISTOR	1
-59	R-108,R-112 R-113	BTS	X	X	RESISTOR	3
-60	R-109	S-4013-122	X	X	RESISTOR	1
4-25-61	R-110	S-4013-223	X	X	RESISTOR	1
-62	R-111	S-4013-183	X	X	RESISTOR	1
-63	R-15,R-114	S-4013-222	X	X	RESISTOR	1
-64	C-101	C-41379	X	X	CAPACITOR	1
-65	C-102,C-103 C-104	S-20595	X	X	CAPACITOR	3
-66	C-105	S-20376	X	X	CAPACITOR	1
-67	C-106	CM-15	X	X	CAPACITOR	1
-68	C-107	S-4002	X	X	CAPACITOR	1

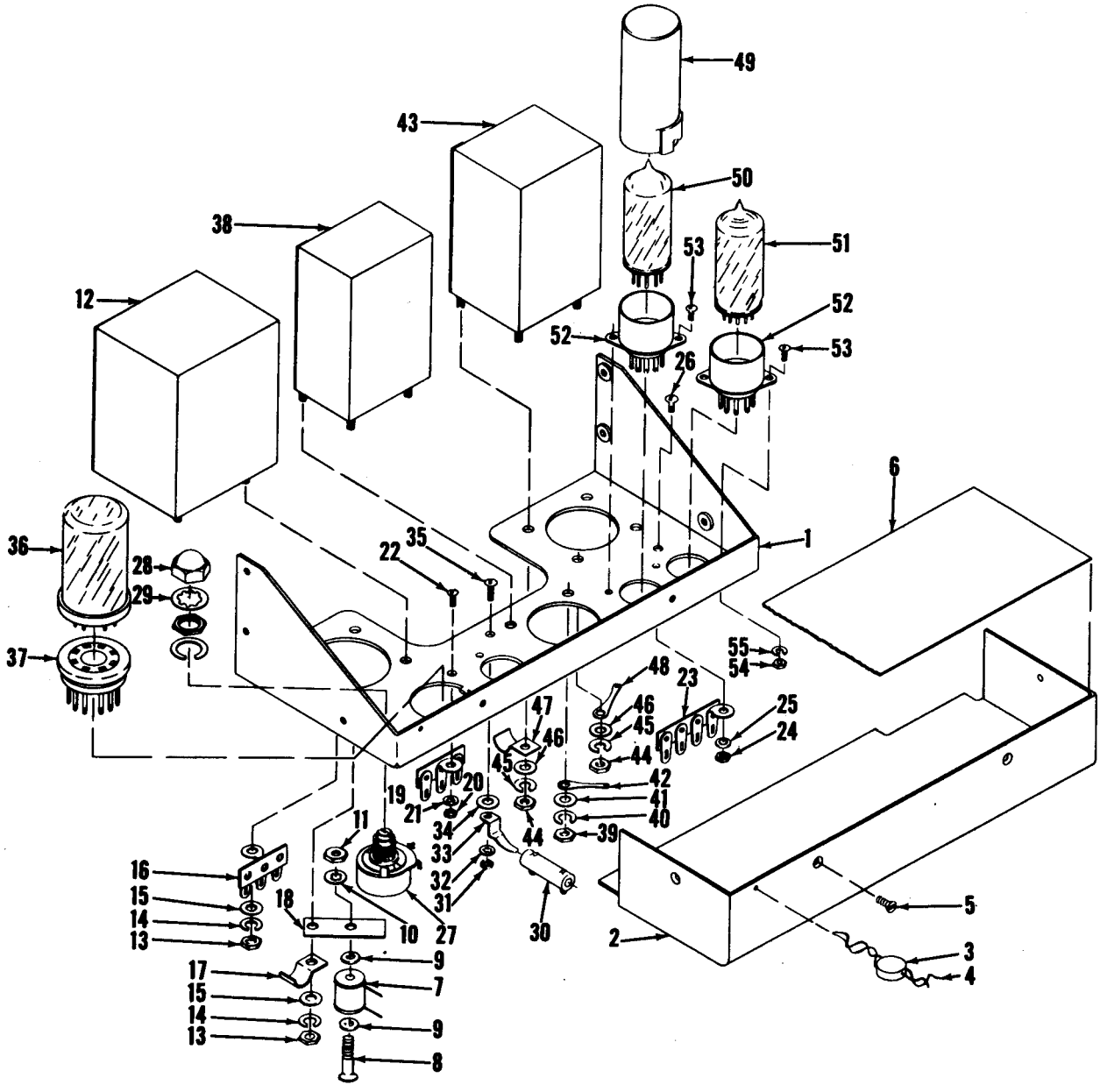


Figure 4-25. Oscillator Amplifier Assembly (Sheet 1 of 2)

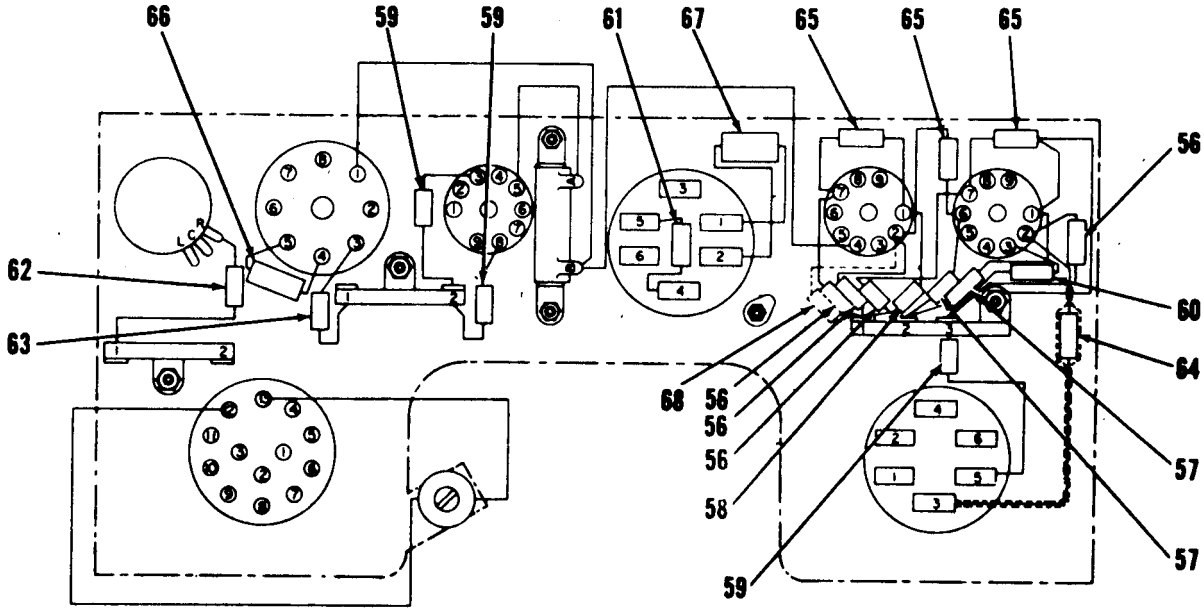


Figure 4-25. Oscillator Amplifier Assembly (Sheet 2 of 2).

ILLUSTRATED GROUP ASSEMBLY PARTS LIST
FUNCTIONAL GROUP 6. ACCESSORY KIT

FIG AND INDEX NO.	REF DESIG-NATOR	PART NO.	MODELS USABLE ON C-1	M-1	NOMENCLATURE	QTY PER ASSY
4-26		C-40430	X	X	KIT ASSY, ACCESSORY (SEE FIG. 4-11 FOR NHA)	REF
-1		C-2104	X	X	DIPPER ASSY, FUEL	1
-2		C-2113-1	X	X	HYDROMETER	2
-3		S-2112	X	X	JAR, HYDROMETER	1
-5		S-20050-100	X	X	LINE, CHALK	1
-6		S-20051	X	X	BAG, CLOTH	1
-7		S-20049	X	X	CHALK	1
-8		S-20134	X	X	SCREWDRIVER, STANDARD	1
-9		S-20069	X	X	RULE, 12-INCH	1
-10		C-45997	X	X	BAR ASSY, LEVELING	1
-11		C-2102	X	X	BOB ASSY, PLUMB	2
4-26-12		S-20131	X	X	LEVEL, 12-INCH	1
-13		C-40363	X	X	TAPE ASSY, STEEL	1
-14		C-40439	X	X	CASE, ACCESSORY KIT	1
-15		C-40484	X	X	CUSHION, ACCESSORY KIT	1
-16		C-41343	X	X	LATCH	1
-17		C-40488	X	X	SPACER	1
-18		AN526-632-5	X	X	SCREW, TRUSS HEAD	1
-19		C-46029	X	X	NAMEPLATE	1
-20		S-2117	X	X	SCREWDRIVER, PHILIPS	1

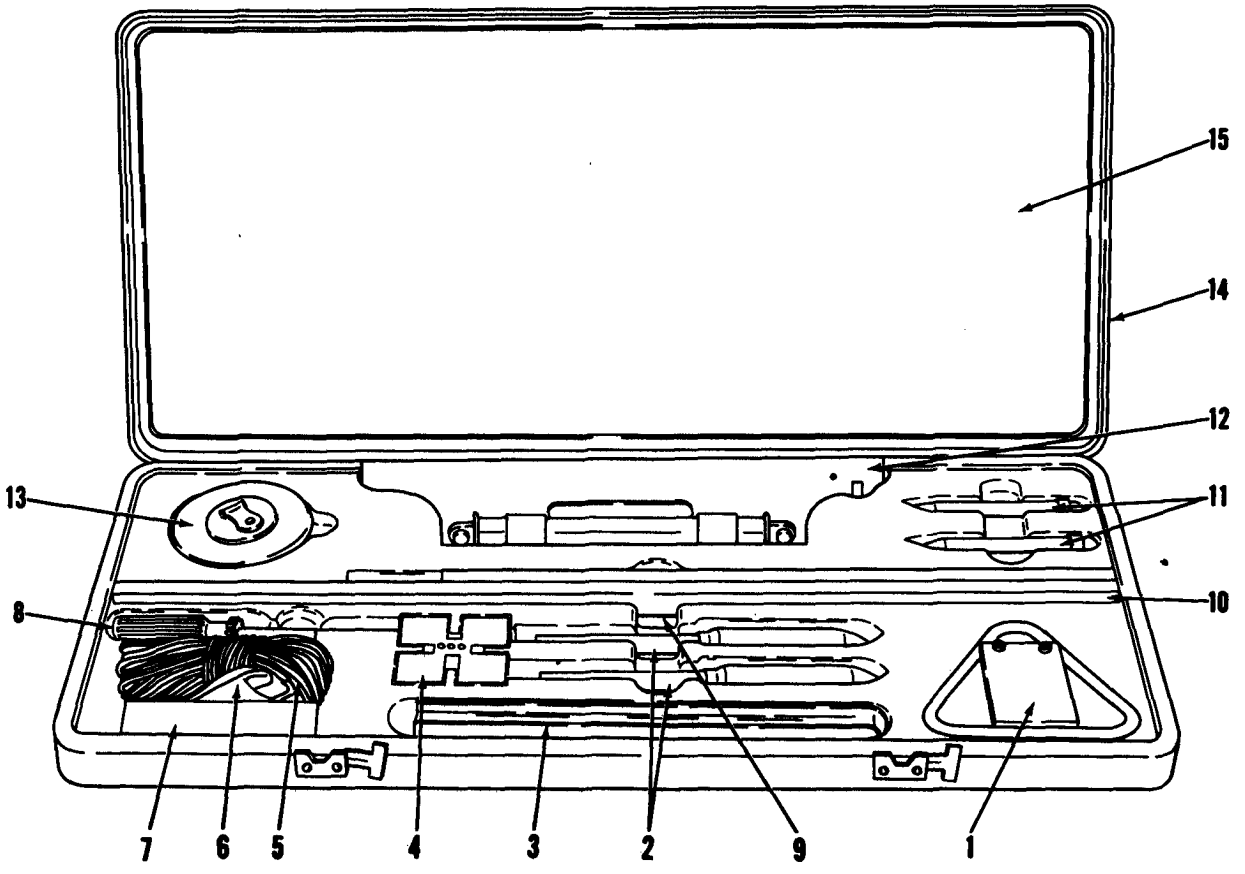
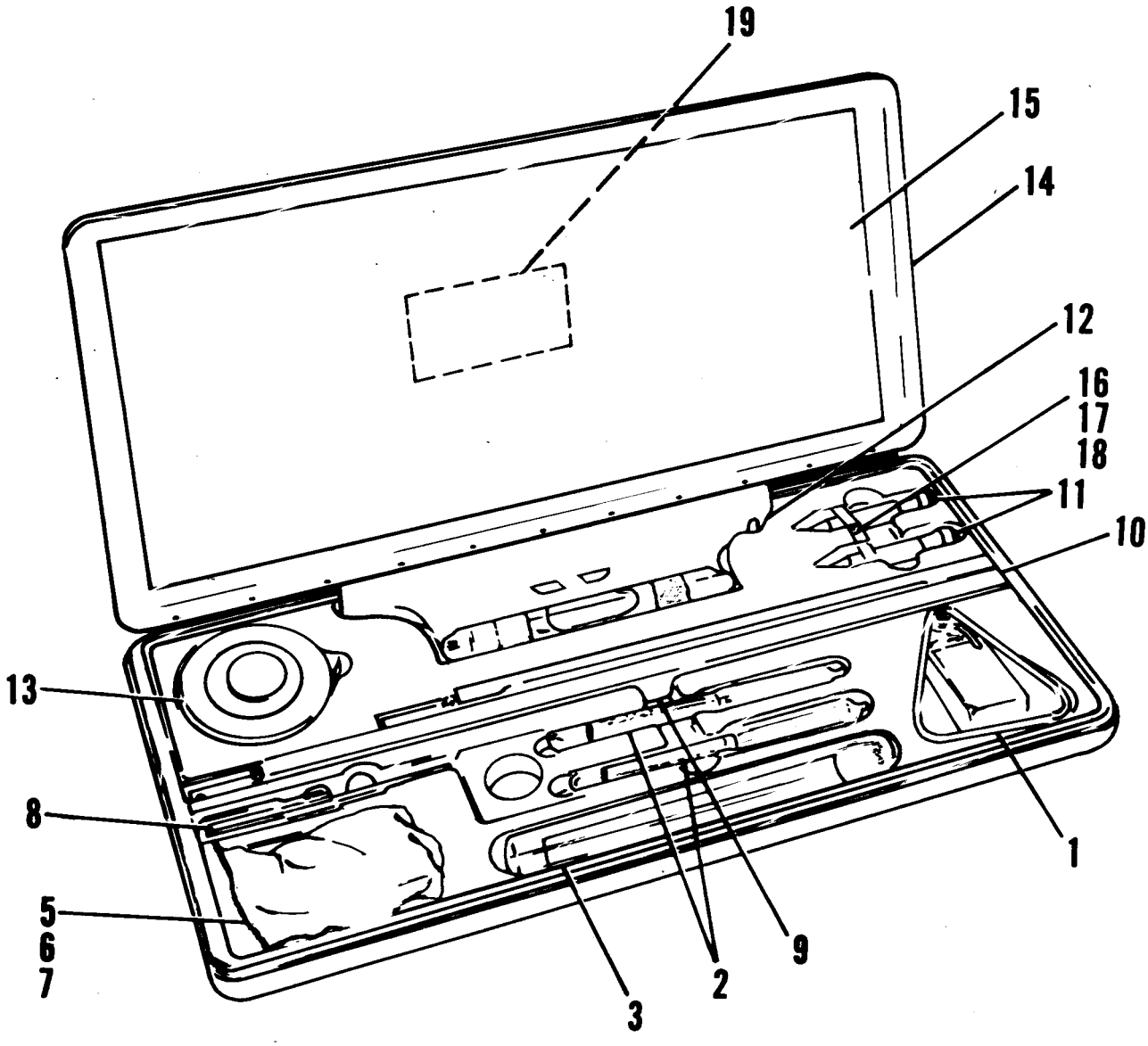


Figure 4-26. Accessory Kit (Model C-1).

KEY to fig. 4-26:

1. Fuel dipper
2. Hydrometers
3. Hydrometer jar
4. Hydrometer base
5. Chalk line
6. Cloth bag
7. Chalk
8. Standard screwdriver
9. 12-inch rule
10. Leveling bar
11. Plumb bob assembly
12. 12-inch level
13. Steel tape
14. Carrying case
15. Cushion



KEY to fig. 4-27:

1. Fuel dipper
2. Hydrometers
3. Hydrometer jar
4. Hydrometer base
5. Chalk line
6. Cloth bag
7. Chalk
8. Standard screwdriver
9. 12-inch rule
10. Leveling bar
11. Plumb bob assembly
12. 12-inch level
13. Steel tape
14. Carrying case
15. Cushion
16. Latch
17. Spacer
18. Screw
19. Nameplate

Figure 4-27. Accessory Kit (Model M-1).

APPENDIX A
REFERENCES

A-1. Army Regulations.

AR 310-25	Dictionary of United States Army Terms
AR 310-50	Authorized Abbreviations and Brevity Codes
AR 700-17	Component Items of Equipment Assemblage
AR 700-18	Repair Parts, Special Tools and Test Equipment Allocation and Allowances
AR 700-70	Distribution of Support Items for New Equipment
AR 711-16	DSU/Installation Stock Control and Supply Procedures (Army Field Stock Control System)
AR 725-50	Requisitioning, Receipt, and Issue System
AR 735-35	Supply Procedure for TOE and TDA Units or Activities

A-2. DA Pamphlets.

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms.
DA PAM 738-751	Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A)

A-3. Technical Manuals.

TM 55-1500-342-23	Army Aviation Maintenance Engineering Manual: Weight and Balance
TM 55-1500-204-25/1	General Aircraft Maintenance Manual

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APPENDIX B
MAINTENANCE ALLOCATION CHART

B-1. Purpose.

The purpose of the Maintenance Allocation Chart is to provide all activities with maintenance functions to be performed at each level of maintenance.

B-2. Definitions.

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

b. Column 2. *Functional Group.* Column 2 lists the noun names of components, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Column 3. *Maintenance Functions.* Maintenance functions will be limited to and defined as follows:

(1) *Inspect.* To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

(2) *Test.* To verify serviceability and to detect electrical or mechanical failure by use of test equipment.

(3) *Service.* To clean, to preserve, to charge, and to add fuel, lubricants, cooling agents and air. If it is desired that elements, such as painting and lubricating, be defined separately, they may be so listed.

(4) *Adjust.* To rectify to the extent necessary to bring into proper operating range.

(5) *Align.* To adjust specified variable elements of an item to bring to optimum performance.

(6) *Calibrate.* To determine the corrections to be made in the readings of instruments or test equipment used in precise measurement. Consists of the comparison 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 with the certified standard.

(7) *Install.* To set up for use in an operational environment such as an emplacement, site, or vehicle.

(8) *Replace.* To replace unserviceable items with serviceable assemblies, subassemblies, or parts.

(9) *Repair.* To restore an item to serviceable condition. This includes, but is not limited to, inspection, cleaning, preserving, adjusting, replacing, welding, riveting, and strengthening.

(10) *Overhaul.* To restore an item to a completely serviceable condition as prescribed by maintenance serviceability standards prepared and published for the specified item to be overhauled.

(11) *Rebuild.* To restore an item to a standard as nearly as possible to original or new condition in appearance, performance, and life expectancy. This is accomplished through complete disassembly of the item, inspection of all parts or components, repair or replacement of worn or unserviceable elements (items) using original manufacturing tolerances and specifications and subsequent reassembly of the item.

(12) Symbols. The symbol "%%", which applies to organizational maintenance, indicates that particular maintenance function may be performed provided it is specifically authorized by the direct support maintenance officer. Use of the symbol will apply only to replacement of major assemblies and time-consuming operations which are within the capabilities of organization, but over which control by the commodity commands is considered essential. In no case will the direct support maintenance officer require the accomplishment of a "%%" maintenance function by an organization or unit, and in no case will a "%%" function authorize stockage of parts at organizational level.

d. Column 4, Tools and Equipment. This column will be used to specify, by code, those tools and test equipment required to perform the designated function.

e. Column 5, Remarks. Self-explanatory.

B-3. General.

a. A maintenance function assigned to a maintenance level which, for any reason, is beyond its capability, becomes the responsibility of the next higher maintenance level.

b. The authority to perform a maintenance function does not constitute authority to requisition or otherwise secure necessary repair parts as specified in current supply directives.

B-4. Deviations.

a. Normally, there will be no deviations from the assigned maintenance level. In cases of operational necessity, a maintenance function assigned to a maintenance level may, on a onetime basis and at the request of the lower maintenance level, be authorized to the lower maintenance level by the maintenance officer of the level to which the function is assigned. The higher level of maintenance has the authority to determine:

(1) If the lower level is capable of performing the work.

(2) If the lower level will require assistance or technical supervision and on-site inspection.

(3) If the authorization will be granted.

b. The furnishing of special tools, equipment, and the like, required by the lower maintenance level to perform this function, will be the responsibility of the level to which the function is assigned.

B-5. Additional Information.

a. Changes in the Maintenance Allocation Chart will be based on continuing evaluation and analysis by responsible personnel and on Maintenance Request DA Forms 2407 received from field activities.

b. All maintenance prescribed herein will be performed in accordance with applicable publications.

c. In any instance of conflict with current tool and equipment lists or current supply manuals, this Maintenance Allocation Chart will be the final authority, Each such instance should be promptly reported by Maintenance Request DA Form 2407.

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MAINTENANCE ALLOCATION CHART
FOR
AIRCRAFT ELECTRONIC WEIGHING KIT

(AR 310-3)

(1) GROUP NO	(2) FUNCTIONAL GROUP	(3) MAINTENANCE FUNCTION											(4) TOOLS AND EQUIPMENT	(5) REMARKS
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL	REBUILD		
4011	Aircraft Electronic Weighing	0 0.2	0 0.5							F 4.0	D 16.0			
	Kit													
0801	Case Assy	0 0.2		0 0.3					F 2.0	F 5.0				
0308	Electronic Weighing Indicator	0 0.3							F 2.0	F 5.0				
0805	Cable Assy(s)													
	Cables, Cell	0 0.2	0 0.5						F 0.2	F 0.5				
	Cables, Power (AC or DC)													
	and Extension Cable	0 0.2	0 0.5						F 0.2	F 0.5				
	*Refer to TB 43-180													

APPENDIX C

REPAIR PARTS AND SPECIAL TOOLS LIST
(Current as of 10 July 1975)

Section I. INTRODUCTION

C-1. Scope.

This appendix lists repair parts required for operation and performance of direct support and depot maintenance of the Electronic Aircraft Weighing Scale, P/N C7500 and C46500.

C-2. General.

This Repair Parts and Special Tools List is divided into the following sections:

a. Section Il. Repair Parts List. A list of repair parts authorized for use in the performance of maintenance. Parts are listed in figure and item number sequence.

b. Section III. Special Tools List. (Not Applicable)

c. *Section IV. National Stock Number and Part Number Index.* A list, in ascending numerical sequence, of all National stock numbers appearing in the listings, followed by a list, in alphanumeric sequence, of all part 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.

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

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

(2) *Itern Number.* The number used to identify each item called out in the illustration.

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

(1) *Source Code.* Source codes are assigned to support items to 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.
PB ---	Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply systems.
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 source coded above except 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*
F	Support item is removed, replaced, used at the direct support level.
D ——	Support items that are removed, replaced, used at depot, mobile depot, specialized repair activity only.

(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*
D	- - -	The lowest maintenance level capable of complete repair of the support item is the depot 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:

Code		*Definition*
Z	- - -	Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
D	- - -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.

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

d. 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 repair part received may have a different part number than the part being replaced.

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.

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

g. Unit of Measure (U/M). 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.

Usable on codes are shown in the description column. Uncoded items are applicable to all models. Identification of the usable on codes used in this appendix are:

Code	Used On
A	P/N C7500
B	P/N C46500

C-5. How to Locate Repair Parts.

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

(1) *First.* Find the illustration covering the assembly to which the repair part belongs.

(2) *Second.* Identify the repair part on the illustration and note the illustration figure and item number of the repair part.

(3) *Third.* 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 ascending NSN sequence followed by a list of part numbers in ascending alphanumeric 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. (Not applicable.)

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
1-1			6670-00-526-8498	C7500	50625	SCALE,AIRCRAFT WEIGHTING: ELECTRONIC	A		
1-1			6670-00-999-1195	C46500	50625	SCALE,AIRCRAFT WEIGHING: ELECTRONIC	B		
						SECTION II. REPAIR PARTS LIST GROUP 01 WEIGHING KIT AND CASE ASSEMBLY			
4-11	6	PBFZZ	6670-00-653-9329	C40910	50625	CELL,LOAD		EA	3
4-11	7	PBFZZ	6670-00-898-5367	C5832	50625	ADAPTER,SPHERICAL		EA	3
4-11	8	PBFZZ	6670-00-833-2767	C2106	50625	ADAPTER,RING		EA	3
4-11	9	PBFZZ	6670-00-998-3501	C2108	50625	ADAPTER,PLUG		EA	3
4-11	12	PBFZZ	5960-00-617-9053	28D7	80131	ELECTRON TUBE: SPARE		EA	1
4-11	12	PBFZZ	5905-00-243-5090	1H20	70563	RESISTOR,CURRENT REGULATOR: TUBE TYPE,SPARE		EA	1
4-11	13	XBFZZ		C40062	50625	KIT,SPARE ELECTRON TUBE		EA	1
4-11	14	XBFZZ		S2115-3	50625	KEY,SOCKET HEAD		EA	1
4-12				C41347	50625	CASE ASSEMBLY,CARRYING		EA	1
4-12	2	PBFZZ	6670-00-179-2246	C40427	50625	.SNUBBER,LOAD CELL		EA	3
4-12	9	PBFZZ	6670-00-490-5832	C40316	50625	.INSERT,BOTTOM,CASE		EA	1
4-12	10	PBFZZ	6670-00-197-1778	C40429	50625	.CUSHION,LOAD CELL,CASE		EA	1
						GROUP 02 INDICATOR ASSEMBLY			
4-14				C41150-3	50625	INDICATOR ASSEMBLY,ELECTRONIC	A	EA	1
4-14	4	XBFZZ		C4041-3	50625	.KNOB: CELL SELECTOR & INITIAL LOAD	A	EA	2
4-14	9	PBFZZ	6625-00-810-5693	S4090-3	50625	.AMMETER	A	EA	1
4-15				C46380	50625	INDICATOR ASSEMBLY,ELECTRONIC	B	EA	1
4-15	4	XBFZZ		C4041-3	50625	.KNOB: CELL SELECTOR & INITIAL LOAD	B	EA	2
4-15	9	PBFZZ	6625-00-810-5693	S4090-3	50625	.AMMETER	B	EA	1
4-16	6	PBDDD	6670-00-181-2292	C5697	50625	.ELECTRONIC BOARD AND SWITCH	A	EA	1
4-16	7	XBDZZ		BT710	83332	..SWITCH,ROTARY	A	EA	1
4-16	11	PBDZZ	5905-00-134-0451	S4102-120	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	12	PBDZZ	5905-00-134-0453	S4102-910	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	13	PBDZZ	5905-00-134-0452	S4102-121	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	14	PBDZZ	5905-00-134-0449	S4102-181	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	15	PBDZZ	5905-00-134-0461	S4102-301	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	37	PBDZZ	5905-00-134-0463	S4102-103	50625	..RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	38	PBDZZ	5905-00-134-0450	S4102-010	50625	.RESISTOR,FIXED,WIRE WOUND	A	EA	1
4-16	42	PBDZZ	5905-00-134-0456	S4013-222	50625	.RESISTOR,FIXED,COMPOSITION	A	EA	1
4-16	43	PBDZZ	5999-00-134-5805	C5637	50625	.CONTACT,SUPPORT,ELECTRICAL	A	EA	1
4-16	47	XBDZZ		C5607	50625	.DISC ASSEMBLY	A	EA	1
4-16	56	PBDZZ	5930-00-177-3246	C5729	50625	.SWITCH,ROTARY	A	EA	1
4-17	6A			C5697-4	50625	.ELECTRONIC BOARD AND SWITCH	B	EA	1
4-17	7	XBDZZ		BT710	83332	..SWITCH,ROTARY	B	EA	1
4-17	11A	PBDZZ	5905-00-134-0450	S4102-010	50625	..RESISTOR,FIXED,WIRE WOUND	B	EA	1

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	DESCRIPTION	USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
4-17	12	PBDZZ	5905-00-134-0453	S4102-910	50625	..RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	13	PBDZZ	5905-00-134-0452	S4102-121	50625	..RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	14	PBDZZ	5905-00-134-0449	S4102-181	50625	..RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	15	PBDZZ	5905-00-134-0461	S4102-301	50625	..RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	37	PBDZZ	5905-00-134-0463	S4102-103	50625	.RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	38	PBDZZ	5905-00-134-0450	S4102-010	50625	.RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	38A	PBDZZ	5905-00-134-0450	S4102-010	50625	.RESISTOR,FIXED,WIRE WOUND	B	EA	1
4-17	56	PBDZZ	5930-00-177-3246	C5729	50625	.SWITCH,ROTARY	B	EA	1
4-17	64	XBDZZ		S25043	50625	.RESISTOR,VARIABLE,WIRE,WOUND	B	EA	1
						GROUP 03 POWER SUPPLY ASSEMBLY			
4-18		PBFDD	6110-00-115-0379	C2658	50625	POWER SUPPLY ASSEMBLY	A	EA	1
4-18				C46373	50625	POWER SUPPLY ASSEMBLY	B	EA	1
4-18	4	XBDZZ		7613K2	27191	.SWITCH,TOGGLE		EA	1
4-18	8	PBDZZ	5905-00-134-0448	S4039-501	50625	.RESISTOR,ELECTRICAL		EA	1
4-18	11	PBDZZ	5905-00-892-6352	S4042-102	50625	.RESISTOR,ADJUSTABLE		EA	1
4-18	12	PBDZZ	5905-00-134-0460	S4042-401	50625	.RESISTOR,ADJUSTABLE		EA	1
4-18	13	PBDZZ	5905-00-299-7979	RW29V202	81349	.RESISTOR,FIXED,WIRE WOUND		EA	1
4-18	14	PBDZZ	5910-00-112-7839	CE63C100N	81349	.CAPACITOR,FIXED,ELECTROLYTIC		EA	1
4-18	15	PBDZZ	5910-00-532-1024	S20097	50625	.CAPACITOR,FIXED,ELECTROLYTIC		EA	1
4-18	18	PBFZZ	5905-00-243-5090	1H20	70563	.RESISTOR,CURRENT REGULATOR: TUBE TYPE		EA	2
4-18	19	PBFZZ	5905-00-280-8344	F02A250V1-2A	81349	.FUSE,CARTRIDGE		EA	1
4-18	24	PBDZZ	5950-00-134-5808	S20098	50625	.TRANSFORMER,POWER		EA	1
						GROUP 04 CABLE ASSEMBLIES			
4-19		PBDZZ	6150-00-815-4755	C4926-2	50625	CABLE ASSEMBLY,POWER,ELECTRICAL: DC	A	EA	1
4-19	1	PBFZZ	5935-00-149-3628	S20014	50625	.CONNECTOR,RECEPTACLE,ELECTRICAL	A	EA	1
4-19	2	PBFZZ	5935-00-769-0639	WC00596A26	81348	.CONNECTOR,PLUG,ELECTRICAL	A	EA	1
4-21		PBFZZ	6670-00-064-4489	C2498-1	50625	CABLE ASSEMBLY,POWER,ELECTRICAL: AC		EA	1
4-21	2	XBFZZ		S20651	50625	.CONNECTOR,PLUG,ELECTRICAL		EA	1
4-22		PBFZZ	6150-00-134-6597	C2499-1	50625	CABLE ASSEMBLY,ELECTRICAL: BATTERY		EA	1
4-23		PBFZZ	6150-00-134-5598	C2497-3	50625	CABLE ASSEMBLY,ELECTRICAL: POWER SUPPLY		EA	1
4-23	1	XBFZZ		S20651	50625	.CONNECTOR,PLUG,ELECTRICAL		EA	1
4-24		PBDZZ	6670-00-064-4534	C41048-1	50625	CABLE ASSEMBLY,ELECTRICAL: LOAD CELL		EA	3
						GROUP 05 OSCILLATOR-AMPLIFIER ASSEMBLY			
4-25		PBDDD	6670-00-653-9328	C5609	50625	OSCILLATOR-AMPLIFIER ASSEMBLY		EA	1
4-25	38	XBDZZ		M1358	98170	.TRANSFORMER,ELECTRICAL		EA	1
4-25	39	PADZZ	5310-00-934-9747	MS35649-262	96906	.NUT,PLAIN,HEXAGON		EA	4

(1) ILLUSTRATION (A) FIG NO	(B) ITEM NO	(2) SMR CODE	(3) NATIONAL STOCK NUMBER	(4) PART NUMBER	(5) FSCM	DESCRIPTION USABLE ON CODE	(7) U/M	(8) QTY INC IN UNIT
4-25	40	PADZZ	5310-00-045-4007	MS35338-41	96906	.WASHER,LOCK	EA	4
4-25	41	PADZZ	5310-00-167-0816	AN960-6	88044	.WASHER,FLAT	EA	4
4-25	43	XBDZZ		S4022-11	50625	.TRANSFORMER,ELECTRICAL	EA	1
4-25	44	PADZZ	5310-00-934-9747	MS35649-262	96906	.NUT,PLAIN,HEXAGON	EA	4
4-25	45	PADZZ	5310-00-045-4007	MS35338-41	96906	.WASHER,LOCK	EA	4
4-25	46	PADZZ	5310-00-167-0816	AN960-6	88044	.WASHER,FLAT	EA	4
4-25	56	PBDZZ	5905-00-134-0455	S4013-225	50625	.RESISTOR,FIXED,COMPOSITION	EA	4
4-25	60	PBDZZ	5905-00-134-0459	S4013-122	50625	.RESISTOR,FIXED,COMPOSITION	EA	1
4-25	62	PBDZZ	5905-00-134-0454	S4013-183	50625	.RESISTOR,FIXED,COMPOSITION	EA	1
4-25	63	PBDZZ	5905-00-134-0456	S4013-222	50625	.RESISTOR,FIXED,COMPOSITION	EA	1
4-25	64	XBDZZ		C41379	50625	.CAPACITOR,COUPLING	EA	1
						GROUP 06 ACCESSORY KIT		
4-26				C40430	50625	ACCESSORY KIT	EA	1
4-26	1	PBFZZ	6670-00-833-2774	C2104	50625	.DIPPER ASSEMBLY,FUEL	EA	1
4-26	2	PBFZZ	6630-00-657-0018	C2113-1	50625	.HYDROMETER,GRADUATED SCALE	EA	2
4-26	3	PBFZZ	6670-00-182-7942	C2112	50625	.JAR,HYDROMETER	EA	1
4-26	5	PBFZZ	4020-00-133-6526	S20050-100	50625	.CHALK LINE	EA	1
4-26	9	PBFZZ	6670-00-890-2478	S20069	50625	.RULE: 12 IN	EA	1
4-26	11	XBFZZ		C2102	50625	.PLUMB BOB ASSEMBLY	EA	2
4-26	12	PBFZZ	5210-00-223-9607	98	57163	.LEVEL AND PLUMB: 12 IN. LG	EA	1
4-26	13	XBFZZ		C40363	50625	.TAPE,MEASURING	EA	1
						SECTION III. SPECIAL TOOLS LIST (NOT APPLICABLE)		

STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER	STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER
4020-00-133-6526	4-26	5	5905-00-892-6352	4-18	11
5210-00-223-9607	4-26	12	5910-00-112-7839	4-18	14
5310-00-045-4007	4-25	40	5910-00-532-1024	4-18	15
5310-00-045-4007	4-25	45	5920-00-280-8344	4-18	19
5310-00-167-0816	4-25	41	5930-00-177-3246	4-16	56
5310-00-167-0816	4-25	46	5930-00-177-3246	4-17	56
5310-00-934-9747	4-25	39	5935-00-149-3628	4-19	1
5310-00-934-9747	4-25	44	5935-00-769-0639	4-19	2
5905-00-134-0448	4-18	8	5950-00-134-5808	4-18	24
5905-00-134-0449	4-16	14	5960-00-617-9053	4-11	12
5905-00-134-0449	4-17	14	5960-00-938-5233	4-11	13
5905-00-134-0450	4-16	38	5999-00-134-5805	4-16	43
5905-00-134-0450	4-17	11A	6110-00-115-0379	4-18	
5905-00-134-0450	4-17	38	6150-00-134-5598	4-23	
5905-00-134-0450	4-17	38A	6150-00-134-6597	4-22	
5905-00-134-0451	4-16	11	6150-00-815-4755	4-19	
5905-00-134-0452	4-16	13	6625-00-810-5693	4-14	9
5905-00-134-0452	4-17	13	6625-00-810-5693	4-15	9
5905-00-134-0453	4-16	12	6630-00-657-0018	4-26	2
5905-00-134-0453	4-17	12	6670-00-064-4489	4-21	
5905-00-134-0454	4-25	62	6670-00-064-4534	4-24	
5905-00-134-0455	4-25	56	6670-00-179-2246	4-12	2
5905-00-134-0456	4-16	42	6670-00-181-2292	4-16	6
5905-00-134-0456	4-25	63	6670-00-182-7942	4-26	3
5905-00-134-0459	4-25	60	6670-00-197-1778	4-12	10
5905-00-134-0460	4-18	12	6670-00-490-5832	4-12	9
5905-00-134-0461	4-16	15	6670-00-653-9328	4-25	
5905-00-134-0461	4-17	15	6670-00-653-9329	4-11	6
5905-00-134-0463	4-16	37	6670-00-833-2767	4-11	8
5905-00-134-0463	4-17	37	6670-00-833-2774	4-26	1
5905-00-243-5090	4-11	12	6670-00-898-5367	4-11	7
5905-00-243-5090	4-18	18	6670-00-890-2478	4-26	9
5905-00-299-7979	4-18	13	6670-00-998-3501	4-11	9

PART NUMBER	FSCM	FIG NUMBER	ITEM NUMBER
AN960-6	88044	4-25	41
AN960-6	88044	4-25	46
BI710	83332	4-16	7
BI710	83332	4-17	7
CE63C100N	81349	4-18	14
C2102	50625	4-26	11
C2104	50625	4-26	1
C2106	50625	4-11	8
C2108	50625	4-11	9
C2112	50625	4-26	3
C2113-1	50625	4-26	2
C2497-3	50625	4-23	
C2498-1	50625	4-21	
C2499-1	50625	4-22	
C2658	50625	4-18	
C40062	50625	4-11	13
C40316	50625	4-12	9
C40363	50625	4-26	13
C40427	50625	4-12	2
C40429	50625	4-12	10
C40430	50625	4-26	
C40910	50625	4-11	6
C41048-1	50625	4-24	
C41150-3	50625	4-14	
C41347	50625	4-12	
C41379	50625	4-25	64
C46373	50625	4-18	
C46380	50625	4-15	
C4926-2	50625	4-19	
C5607	50625	4-16	47
C5609	50625	4-25	
C5637	50625	4-16	43
C5697	50625	4-16	6
C5697-4	50625	4-17	6A
C5729	50625	4-16	56
C5729	50625	4-17	56
C5832	50625	4-11	7
F02A250V1-2A	81349	4-18	19
MS35338-41	96906	4-25	40
MS35338-41	96906	4-25	45
MS35649-262	96906	4-25	39
MS35649-262	96906	4-25	44
M1358	98170	4-25	38
RW29V202	81349	4-18	13
S20014	50625	4-19	1
S20050-100	50625	4-26	5
S20069	50625	4-26	9
S20097	50625	4-18	15
S20098	50625	4-18	24
S20651	50625	4-21	2
S20651	50625	4-23	1
S2115-3	50625	4-11	14
S25043	50625	4-17	64
S4013-122	50625	4-25	60
S4013-183	50625	4-25	62
S4013-222	50625	4-16	42
S4013-222	50625	4-25	63
S4013-225	50625	4-25	56
S4022-11	50625	4-25	43
S4039-501	50625	4-18	8
S4041-3	50625	4-14	4
S4041-3	50625	4-15	4
S4042-102	50625	4-18	11
S4042-401	50625	4-18	12
S4090-3	50625	4-14	9
S4090-3	50625	4-15	9
S4102-010	50625	4-16	38
S4102-010	50625	4-17	11A
S4102-010	50625	4-17	38
S4102-010	50625	4-17	38A
S4102-103	50625	4-16	37
S4102-103	50625	4-17	37
S4102-120	50625	4-16	11
S4102-121	50625	4-16	13
S4102-121	50625	4-17	13
S4102-181	50625	4-16	14
S4102-181	50625	4-17	14
S4102-301	50625	4-16	15
S4102-301	50625	4-17	15
S4102-910	50625	4-16	12
S4102-910	50625	4-17	12
WC00596A26	81349	4-19	2
1H20	70563	4-11	12
1H20	70563	4-18	18
28D7	80131	4-11	12
7613K2	27191	4-18	4
98	57163	4-26	12

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