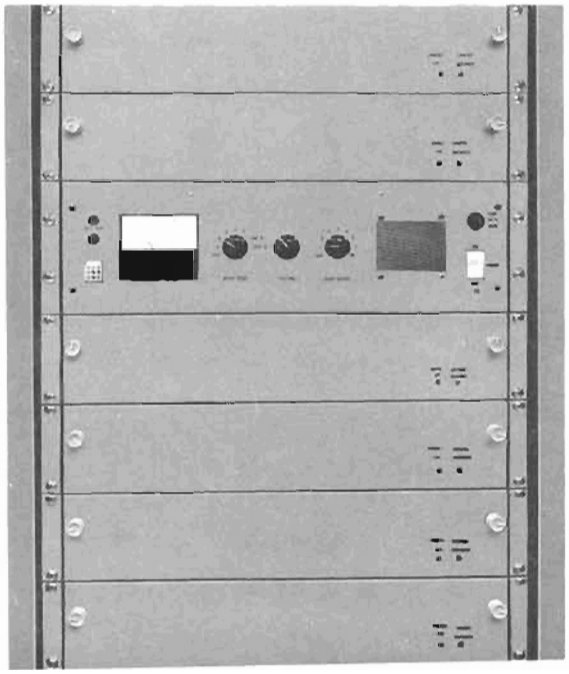
MOBILE RADIO

MASTR® II

MAINTENANCE MANUAL

MULTIPLE RECEIVER STATIONS



Maintenance Manual LBI-4916A

DATAFILE FOLDER - DF-9034

MULTIPLE RECEIVER STATIONS

*These specifications are intended primarily for the use of the serviceman. Refer to the appropriate Specification Sheet for the complete specifications.

GENERAL ELECTRIC

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WARNING

No one should be permitted to handle any portion of the equipment that is supplied with high voltage; or to connect any external apparatus to the units while the units are supplied with power. KEEP AWAY FROM LIVE CIRCUITS.

High-level RF energy in the transmitter Power Amplifier assembly can cause RF burns. KEEP AWAY FROM THESE CIRCUITS WHEN THE TRANSMITTER IS ENERGIZED!

COMBINATION NOMENCLATURE

1st Digit	2nd Digit	3rd Digit	4th Digit
Package	Cabinet	Power Supply	No. of Frequencies
S Satellite Receiver	**D** 30-Inch Desk-Mate	**1** 60 Hz Power Supply	**1** One Receiver
	S 44-Inch Desk Mate	**2** 50 Hz Power Supply	**2** Two Receivers
	P Pole Mount Cabinet		**3** Three Receivers
	V Floor Mount Cabinet		**4** Four Receivers
			5 Five Receivers
			6 Six Receivers
			7 Seven Receivers
			8 Eight Receivers

OPTIONS

9700 - Battery Standby Kit
9701 - Battery Standby/Charger Kit (121 VAC)
9702 - Battery Standby/Charger Kit (242 VAC)

9703 - 25-174 MHz Antenna Matching Unit
9704 - 406-512 MHz Antenna Matching Unit

DESCRIPTION

The General Electric MASTR®II Multiple Receiver Station is designed to accommodate a maximum of eight MASTR II Auxiliary Receivers. A maximum of five receivers can be mounted in the 30-inch Desk Mate Cabinet. The Auxiliary Receivers are supplied separately from the station and are described in LBI-4915.

A Receiver Power Supply is provided with each station. The supply will operate at 60 Hertz (Model 19E501707G1) or 50 Hertz (Model 19E501707G2). A metering circuit and meter mounted on the front panel of the supply allows functional checks of up to eight receivers. The metering points are the same as in the MASTR II Station Receivers. An audio power amplifier is included in the supply along with a speaker mounted on the front panel. A switch is also provided for connecting each receiver line audio output to the amplifier and speaker. The receiver audio PA is not used in Multiple Receiver Stations.

A total of four Auxiliary Receivers may be coupled by means of Antenna Matching Units (AMU) to a single receiving antenna. Each General Electric 19C321150 AMU results in a loss of approximately 3.5 dB for each power splitter in series with the receiver input. If Antenna Matching Units are not used in the station, a 19A129312G4 coaxial cable (equipped with an Auxiliary Antenna UHF Connector) is supplied with each receiver.

INSTALLATION

Three cabinet styles (Desk-Mate, Pole-Mount and Floor Mount) are available to meet different system requirements. The following paragraphs list the characteristic of the individual style of cabinet.

Desk-Mate -- The Desk Mate station cabinet can be conveniently located on either side of a desk to provide additional working area or in some other suitable location as required. Two Desk-Mate cabinets are available: the 30-inch cabinet contains 14 EIA rack units of space (24-1/2 inches); the 44-inch cabinet contains 22 EIA rack units of space (34-1/2 inches).

The cabinets have removable front and rear doors secured with individual locks. 3/4-inch holes are provided for cable entry.

Pole Mount -- The Pole Mount Station Cabinet is a weather-proof cabinet designed for indoor or outdoor use. The cabinet can be mounted on a pole or a wall. The brackets supplied with the cabinet (19C320924P1) permit mounting on the crossarm of a single pole, on the crossarms between two poles, on a wall (inside or outside) or some other vertical surface. The cabinet may also be mounted on a pedestal or platform. Optional brackets (19B226279P1) are available for mounting the cabinet to a pole. The front and rear doors may be locked by a customer supplied padlock. The cabinet contains 22 EIA rack units of space (38-1/2 inches).

Floor-Mount -- The Floor-Mount Station Cabinet can be located in the building adjacent to the antenna installation or in some other convenient area as required. The cabinet contains 33 EIA rack units of space (57-3/4 inches).

Desk-Mate Cabinet Installation

The two Desk-Mate Cabinets with their dimensions are illustrated in Figure 1.

The Desk Mate cabinet can be placed adjacent to either side of a desk. A typical installation is shown in Figure 2. The front and rear of the station should be kept clear of obstructions so that the serviceman can easily gain access to the transmitter, receiver and power supply compartments and to avoid obstructing the front and rear vents.

Pole-Mount Cabinet Installation

Make certain the selected mount for the Pole-Mount cabinet will bear the weight of the station.

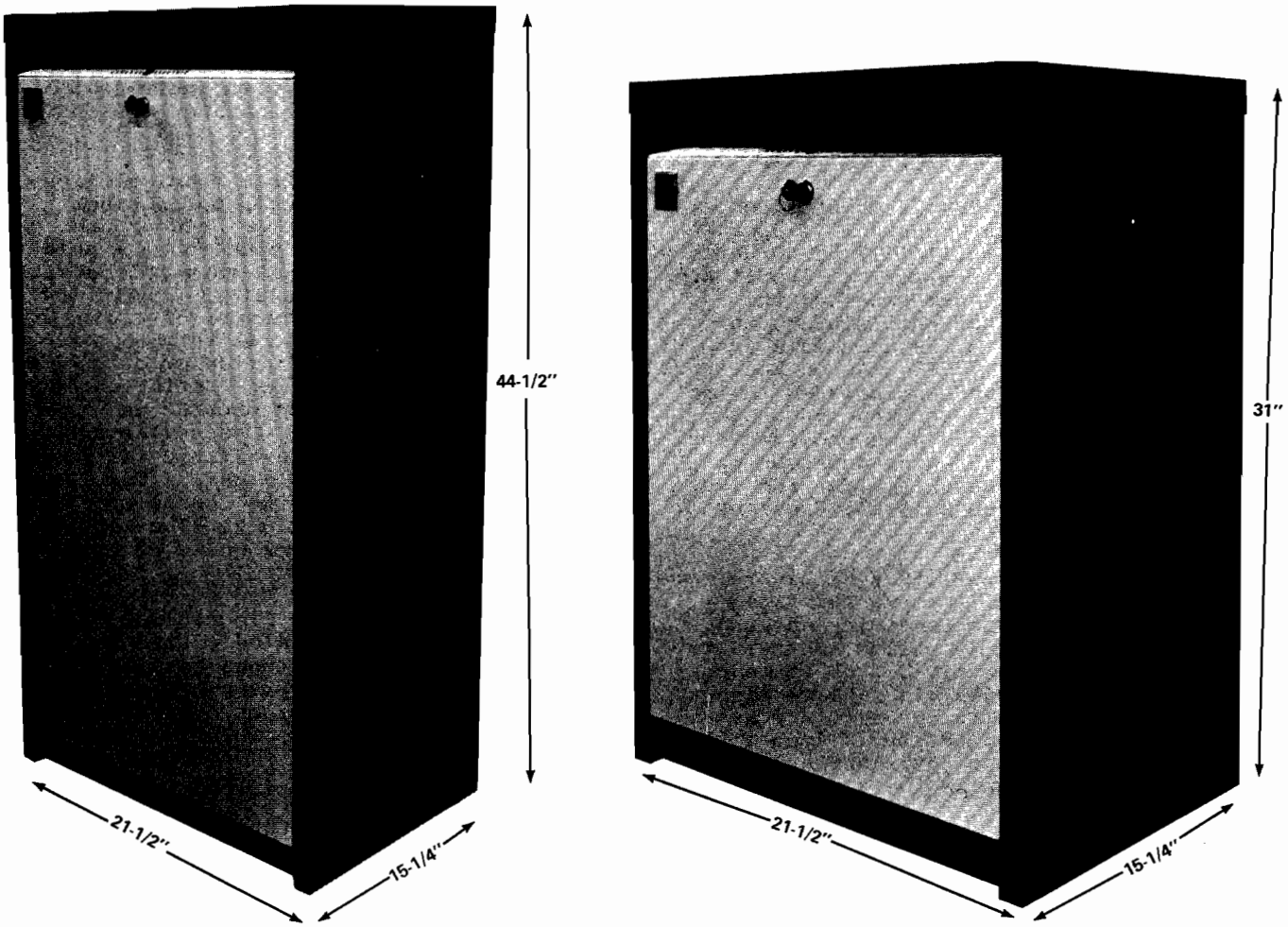


Figure 1 - Desk Mate Station Cabinets

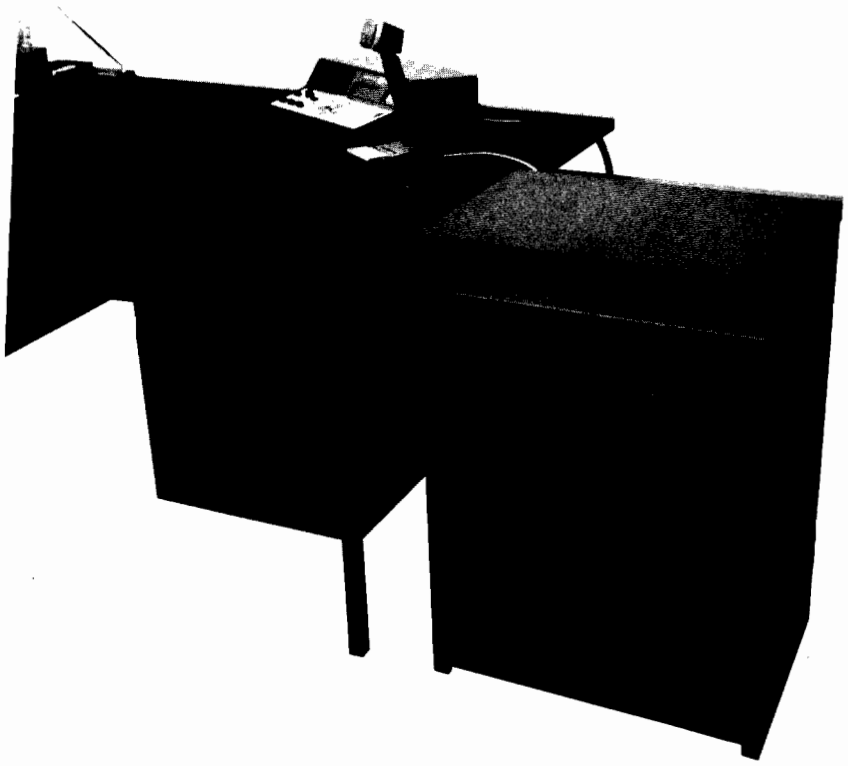


Figure 2 - Typical Desk-Mate Station Installation

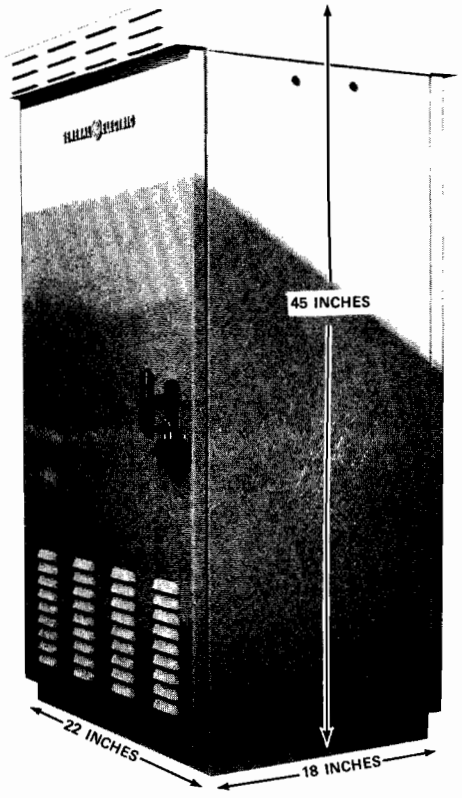


Figure 3 - Pole Mount Cabinet

MOUNTING CABINET TO POLE

Determine which side of cabinet is to mount to pole. Minimum pole diameter is 12 inches. Remove four plastic plugs from cabinet mounting holes.

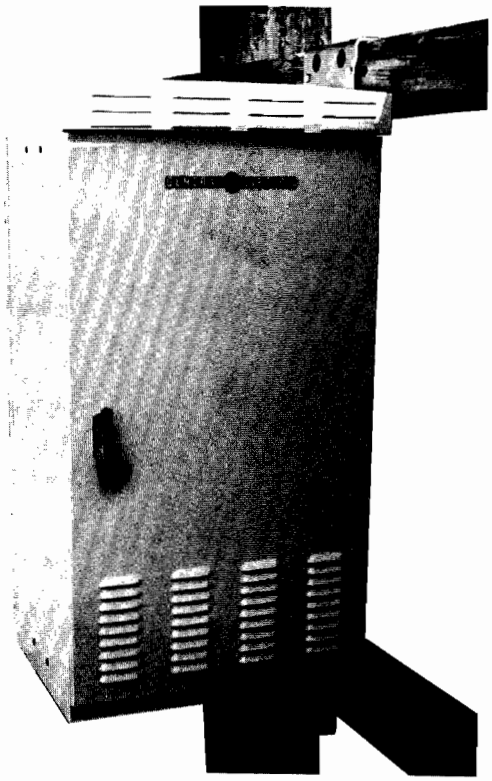
1. MOUNT THE TOP 19B226279P1 BRACKET TO THE POLE. BRACKET WILL ACCEPT 1/2-INCH HARDWARE.

2. SCREW TWO 3/8 - 16 x 7/8 INCH LONG BOLTS AND LOCKWASHERS (PART OF 19A130145G1 KIT) PART WAY INTO TOP MOUNTING HOLES.

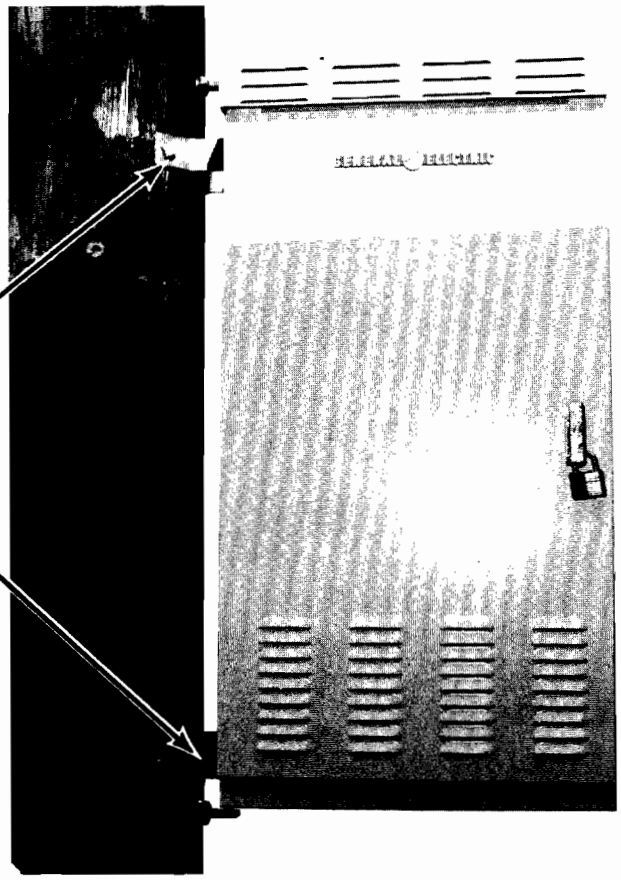
3. MOUNT THE BOTTOM 19B226279P1 BRACKET TO THE BOTTOM MOUNTING HOLES IN THE CABINET USING TWO 3/8 - 16 x 7/8 INCH LONG BOLTS AND LOCK WASHERS. INSTALL SO THAT CABINET WILL BE SUPPORTED BY BRACKET.

4. MOUNT CABINET TO POLE BY PASSING HEAD OF 3/8 - 16 BOLT THROUGH HOLE IN TOP BRACKET.

5. TIGHTEN 3/8 - 16 BOLTS IN TOP BRACKET. INSTALL LAG SCREWS IN BOTTOM BRACKET AND SECURE TO POLE.



REAR VIEW OF CABINET



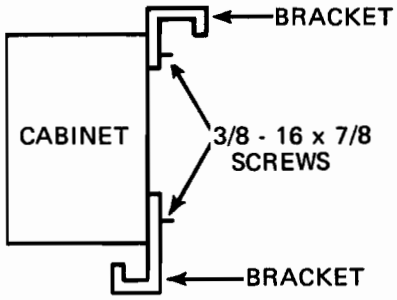
FRONT VIEW OF CABINET

Figure 4 - Mounting Pole Mount Cabinet to Pole

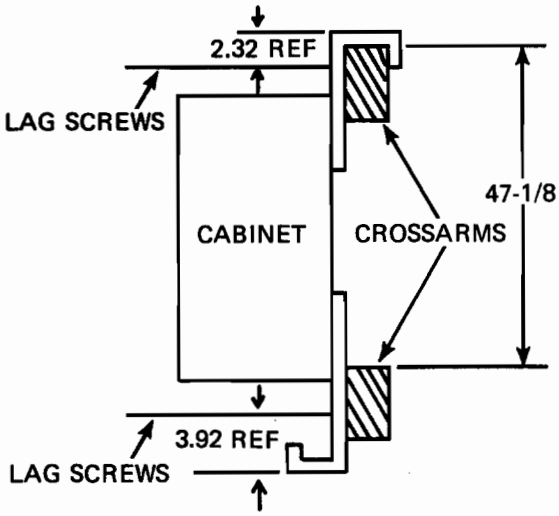
MOUNTING CABINET TO CROSSARMS

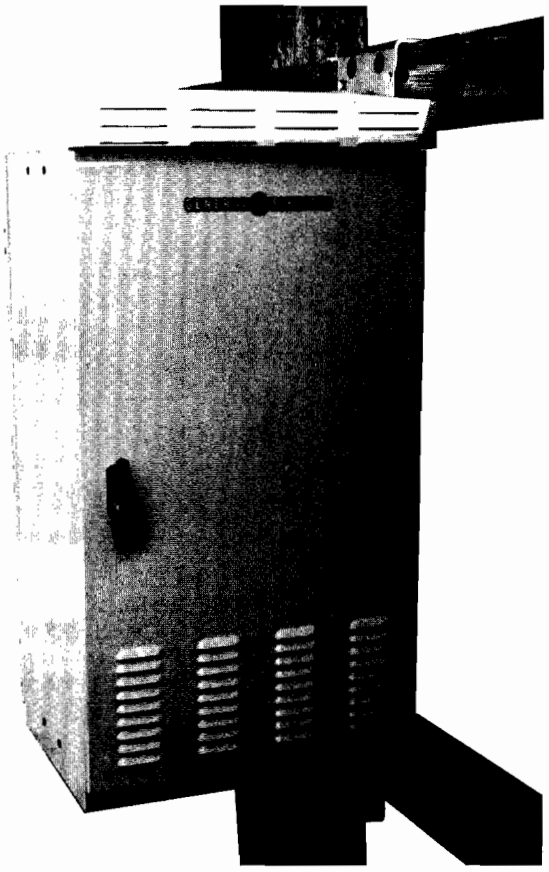
Determine which side of cabinet is to mount to crossarms. Remove four plastic plugs from cabinet mounting holes. 19C320924P1 brackets are supplied with cabinet.

1. ATTACH TWO 19C320924P1 MOUNTING BRACKETS TO CABINET USING 4-3/8 - 16 x 7/8 INCH LONG BOLTS AND LOCK-WASHERS SUPPLIED IN 19A130145G1 HARDWARE KIT. INSTALL BRACKETS AS SHOWN AT RIGHT.



2. INSTALL CROSSARMS WITH VERTICAL SPACING AS SHOWN BELOW. DIMENSIONS GIVEN WILL ALLOW MOUNTING LAG SCREW TO BE APPROXIMATELY CENTERED IN CROSSARMS IF STANDARD CROSSARM (3-4/16 x 4-7/8 INCHES, FINISHED SIZE) IS USED.





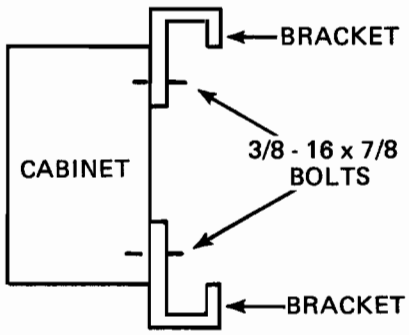
4. MOUNT CABINET OVER TOP CROSSARM AND INSTALL TWO LAG SCREWS IN EACH BRACKET IN LOCATION SHOWN. USE 3/8-INCH DIAMETER SCREWS. CENTER LINE TO CENTER LINE OF LAG SCREWS IS 47.51 INCHES. CAUTION MUST BE USED IF CROSSARM SIZE IS LARGER THAN 4-7/8 INCHES OR SPACING IS GREATER THAN 47-1/8 INCHES BECAUSE OPENING OF CABINET DOOR MAY BE BLOCKED.

Figure 5 - Mounting Pole Mount Cabinet to Crossarms

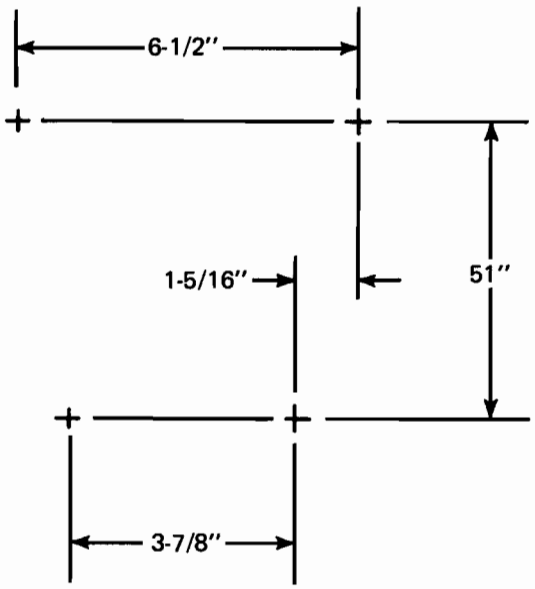
MOUNTING CABINET TO WALL

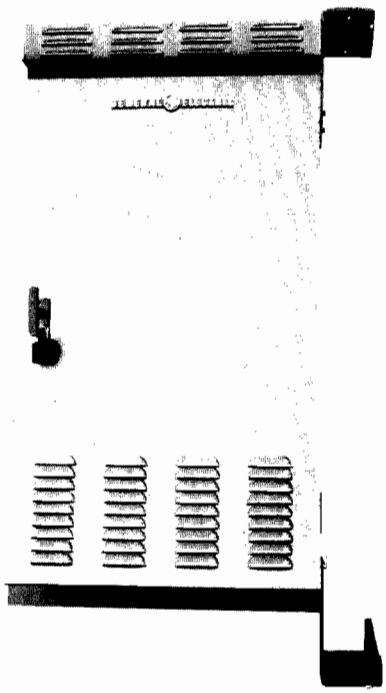
Determine which side of cabinet is to mount to wall. Remove four plastic plugs from cabinet mounting holes.

1. ATTACH TWO 19C320942P1 MOUNTING BRACKETS TO CABINET USING 4-3/8-16 x 7/8 LONG BOLTS AND LOCKWASHERS (SUPPLIED IN HARDWARE KIT 19A130145G1) AS SHOWN AT RIGHT.



2. LAYOUT THE FOLLOWING HOLE PATTERN ON THE WALL.





3. DRILL AND INSTALL ANCHORS IF REQUIRED. BRACKETS WILL ACCEPT 3/8 INCH BOLTS OR SCREWS. INSTALL BOLTS AND WASHERS IN TOP MOUNTING HOLES. ALLOW 3/8-INCH TO 1/2-INCH TO PROTRUDE FROM WALL.

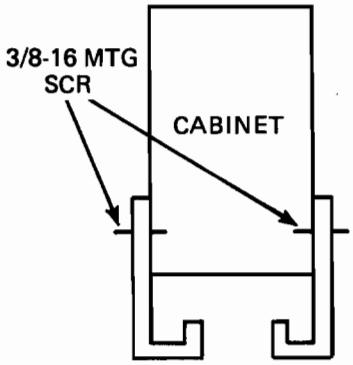
4. MOUNT CABINET TO WALL. TOP BRACKET SCREWS WILL ACCEPT SLOTS IN TOP BRACKET. INSTALL SCREWS AND WASHERS IN WALL TO SECURE LOWER BRACKET. LARGE HOLES IN BRACKET FACILITATE ASSEMBLY. TIGHTEN ALL WALL MOUNTINGS.

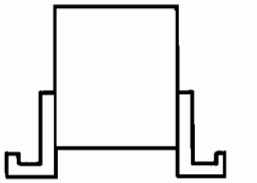
Figure 6 - Mounting Pole Mount Cabinet to Wall

MOUNTING CABINET TO PLATFORM OR PEDESTAL

Remove four plastic plugs from bottom of cabinet, two from each side.

1. ATTACH TWO 19C320942P1 MOUNTING BRACKETS TO CABINET USING 4-3/8-16 x 7/8 LONG BOLTS AND LOCK WASHERS (SUPPLIED IN HARDWARE KIT 19A130145G1) AS SHOWN BELOW.





2. LAYOUT MOUNTING HOLES FOR BRACKETS BY PLACING CABINET IN POSITION AND MARKING HOLES. 3/8-INCH HARDWARE IS USED IN BRACKETS. PLACE CABINET IN POSITION AND BOLT DOWN.

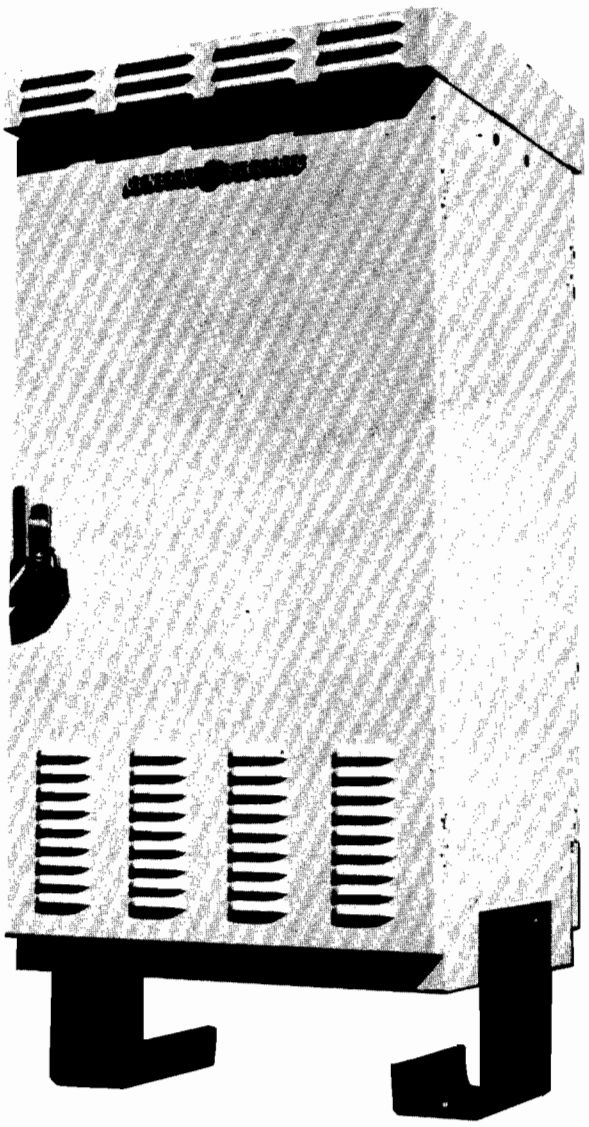


Figure 7 - Mounting Pole Mount Cabinet to Platform

Floor-Mount Cabinet Installation

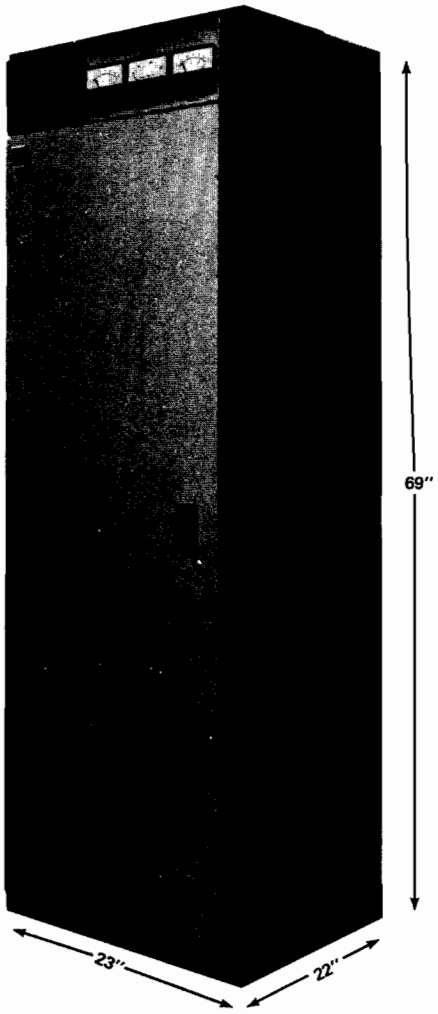


Figure 8 - Floor Mount Cabinet

Your station cabinet occupies a floor area of 22 inches by 23 inches. Be sure to allow sufficient space in front of -- and behind -- the cabinet to permit front and rear doors to open completely. Either door may be removed, inverted, and hinged on the opposite side if desired.

Three knockouts are located along the rear bottom edge of the cabinet for cable entry. If it is desirable to bring the cables up through the floor, the cabinet can be situated over the power receptacle or cable hole on the floor. Conduit may be extended into the cabinet through one of the two 7-inch by 17-inch baseplate openings in the cabinet bottom. A cable entry hole (2" x 1") is located in the top rear of the cabinet to bring in the antenna cables or conduit from above the station. The front and back sides of the station must always be accessible for the serviceman.

Holes are located on the bottom for bolting the cabinet securely to the floor with 1/2" bolts. An FCC license holder (19A130126G1) is provided with the Floor Mount cabinet. This holder may be attached to the cabinet where desired using the adhesive backing on the holder.

Power and Ground Connections

A 15 or 20 ampere, 121 VAC, 60 Hertz electrical circuit must be provided for the station. The power cable from the station is provided with a standard 3-prong plug. One of the prongs grounds the station to protect personnel. Check the electrical code to be sure the power outlet complies with local ordinances.

If a 242 VAC source is to be used for the station, jumper connections on TB801 of the power supply must be changed. Refer to the Schematic Diagram of the Power Supply. The plug on the power cable must also be changed to mate with the 242 VAC outlet. The station should be connected to a good earth ground using No. 14 or larger wire. A ground stud is provided on all cabinets for a separate cabinet ground. Use No. 14 or larger wire for grounding the cabinet.

Antenna Requirements

The antenna should be located as close as possible to the station so that the transmission line can be kept as short as possible. Receiving efficiency decreases as the length of the transmission line increases.

Station Cable Connections

1. Route the antenna transmission line through hole in cabinet and connect to Auxiliary Receiver Antenna Connector located on the rear bracket of the receiver (if no Antenna Matching Unit is used), or connect the transmission line to antenna Connector J1 on AMU if used.

2. Route telephone pair through hole in cabinet and make connection to TB1 (part of station harness) mounted to rear panel of receiver.

3. Connect power cable to the 121 VAC receptacle.

ADJUSTMENT

The initial adjustments for the receiver are provided in the receiver MAINTENANCE MANUAL. Adjustments for the Auxiliary Receiver System Board are provided in LBI-4915. Select the desired receiver to be monitored by means of switch S803 on the front panel of the Power Supply and then adjust the VOLUME control (R802) for the desired listening level.

MAINTENANCE

To insure high operating efficiency and to prevent mechanical and electrical failures from interrupting system operations, routine checks should be made of all mechanical and electrical parts at regular intervals. To check the Auxiliary Receiver functions, refer to the Test Procedure (see Table of Contents).

CIRCUIT ANALYSIS

Multiple Receiver Station Power Supply

When the power supply ON-OFF switch S801 is in the ON position, 121 VAC is connected across the primary of T801 (T802 in the 50 Hz model). The power transformer is a ferro-resonant type which has inherent good line regulation. C801 serves as a resonating capacitor across the secondary taps of the transformer.

The transformer steps the input voltage down to 12 Volts and this lower voltage is applied to the bridge rectifier composed of CR1-CR4 mounted on heat sink A802. The rectified output of the bridge is fed to the filter composed of C1 and C2 (mounted on A802) and L801.

The output of the filter is connected through P802 to the printed board A801 which, in turn, connects the A+ to the receiver power jacks J3-J10. Fuse F1 serves to protect the A+ circuit.

Multiple Receiver Audio Circuits

The audio from the Auxiliary Receiver line driver is connected through J2402-20 (LINE DRIVER MON) on the Auxiliary Receiver to pin 3 of each power plug (P2) on the station harness. The audio is then coupled through the receiver jacks (J3-J10) on the Power Supply to switch S803. The position of S803 (RCVR AUDIO) determines which receiver audio is selected.

The selected audio is then passed to VOLUME control R802 and the properly adjusted audio is then connected to the input (pin 7) of the monolithic audio amplifier IC, AR1. This amplifier delivers 1.25 Watts to the station speaker LS801. The discrete resistors and capacitors connected to AR1 insure the proper roll-off characteristic of 300 to 3000 Hertz. The audio power amplifier in the MASTR II Auxiliary Receiver is disabled in this application.

Battery Standby (Option 9700)

The Battery Standby Option provides a means for automatic transferring the system power supply to a customer furnished standby battery when the primary AC power fails.

The station is automatically transferred back to primary AC power when power is restored. The MASTR II Receiver Battery Standby Kit 19C320677G5 (Option 9700) consists of Battery Standby printed board 19C320677G4 and a pair of connectors (P1 & P2) for connecting the board into the power supply circuit. Refer to the Installation Instructions (see Table of Contents).

When the station power supply is operating properly, approximately +15 Volts appears at P1-2. This voltage is rectified at CR3 and CR4 to energize relay K1. When the power supply is off, K1 is de-energized and the relay switches in the battery as the power source.

121 VAC Battery Standby/Charger (Option 9701)

The MASTR II Receiver Battery Standby/Charger Kit for 121 VAC operation (19C320677G3) consists of Battery Standby/Charger printed board 19C320677G2, connectors P1 and P2 and 121 VAC transformer T1. The same transfer function as in Option 9700 is performed, along with a battery charging function that keeps the battery charged as long as the station is on primary AC power (121 VAC, 60 Hz). The charging current decreases as the standby battery reaches full charge. The maximum charge rate is 2 amperes DC.

Transformer T1 supplies +15 Volts to P1-2. This voltage is rectified by CR1 and CR2 and applied to the current regulator Q1 (pass transistor) and Q2 (driver transistor). R2 is a current sensing resistor which limits the battery charging current to a maximum of 2 amperes. A voltage divider, consisting of R3, R4 and R5, allows a variable voltage (adjusted by R4) to set the base bias of Q2. This in turn controls the conduction of Q1. C1 provides filtering for the input voltage. The regulator output is fused by F1, providing overload protection.

242 VAC Battery Standby/Charger (Option 9702)

The MASTR II Receiver Battery Standby/Charger Kit for 242 VAC operation (19C320677G6) consists of Battery Standby/Charger printed board 19C320677G2, connectors P1 and P2 and 242 VAC transformer T2. The transfer circuit and charger circuit operate in the same manner as described for Options 9700 and 9701.

Antenna Matching Units (Options 9703 & 9704)

The Antenna Matching Units are designed to match two or more (up to a total of four) auxiliary receivers to a single antenna. The Antenna Matching Units may be operated with any receiver having an input impedance of approximately 50 ohms. The Antenna Matching Units are described in LBI-4915. Installation of the AMU in the Multiple Receiver Station is provided in the Interconnection Diagram. Refer to the Table of Contents.

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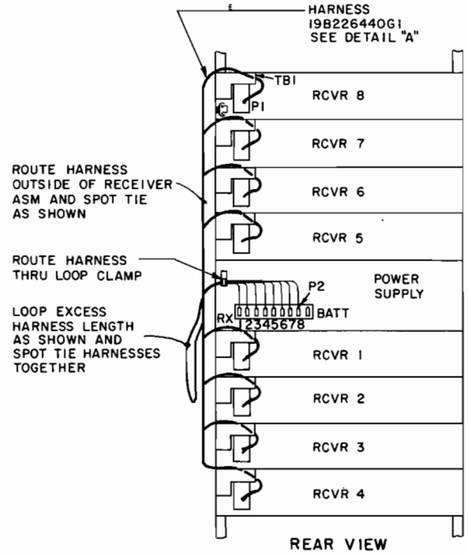
PARTS LIST

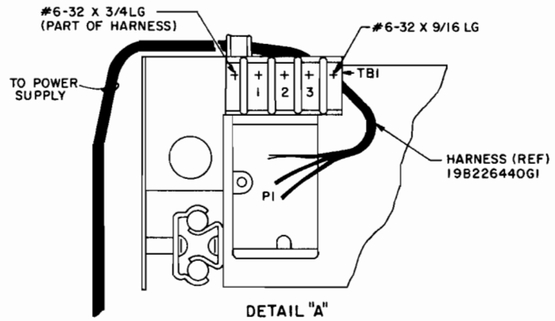
LBI-4927A

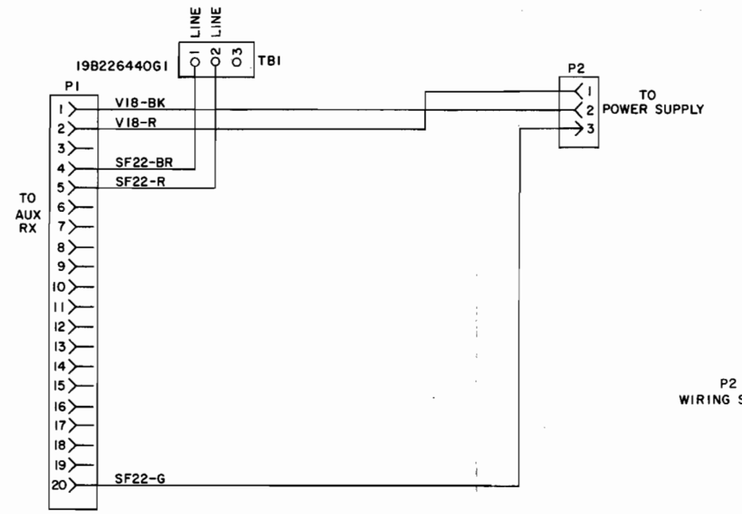
MULTIPLE RECEIVER
HARNESS AND CABLE

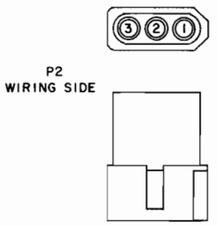
SYMBOL	GE PART NO.	DESCRIPTION
		MULTIPLE RECEIVER POWER HARNESS 19B226440G1
		- - - - - - - - - - - PLUGS - - - - - - - - - -
P1	19C303506P1	Connector, phen: 20 contacts.
P2		Includes:
	19B209288P10	Shell.
	5496809P18	Contact, pin: male; sim to Molex Products 1380-T. (Quantity 1).
	5496809P17	Contact, pin: female; sim to Molex Products 1381-T. (Quantity 2).
		- - - - - - - - - TERMINAL BOARDS - - - - - - -
TB1	19C301086P1	Feed-thru, phen: 3 terminals; sim to GE CR151D.
		- - - - - - - - - MISCELLANEOUS - - - - - - - -
	4029851P13	Cable clip, nylon: sim to Weckesser 3/16-4-140. (Located on TB1).
	19A121589P1	Cover. (Used with P1).
		ANTENNA MATCHING UNIT CABLE 5491689P126 (RF coaxial, approx 36 inches long).

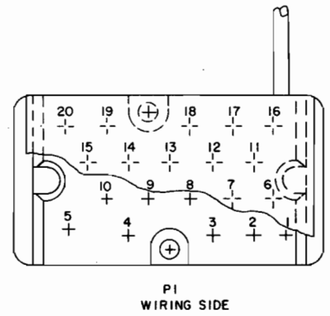
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

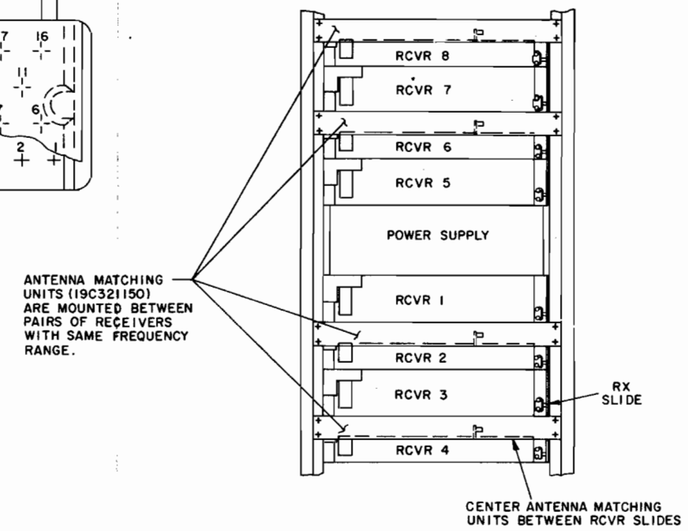












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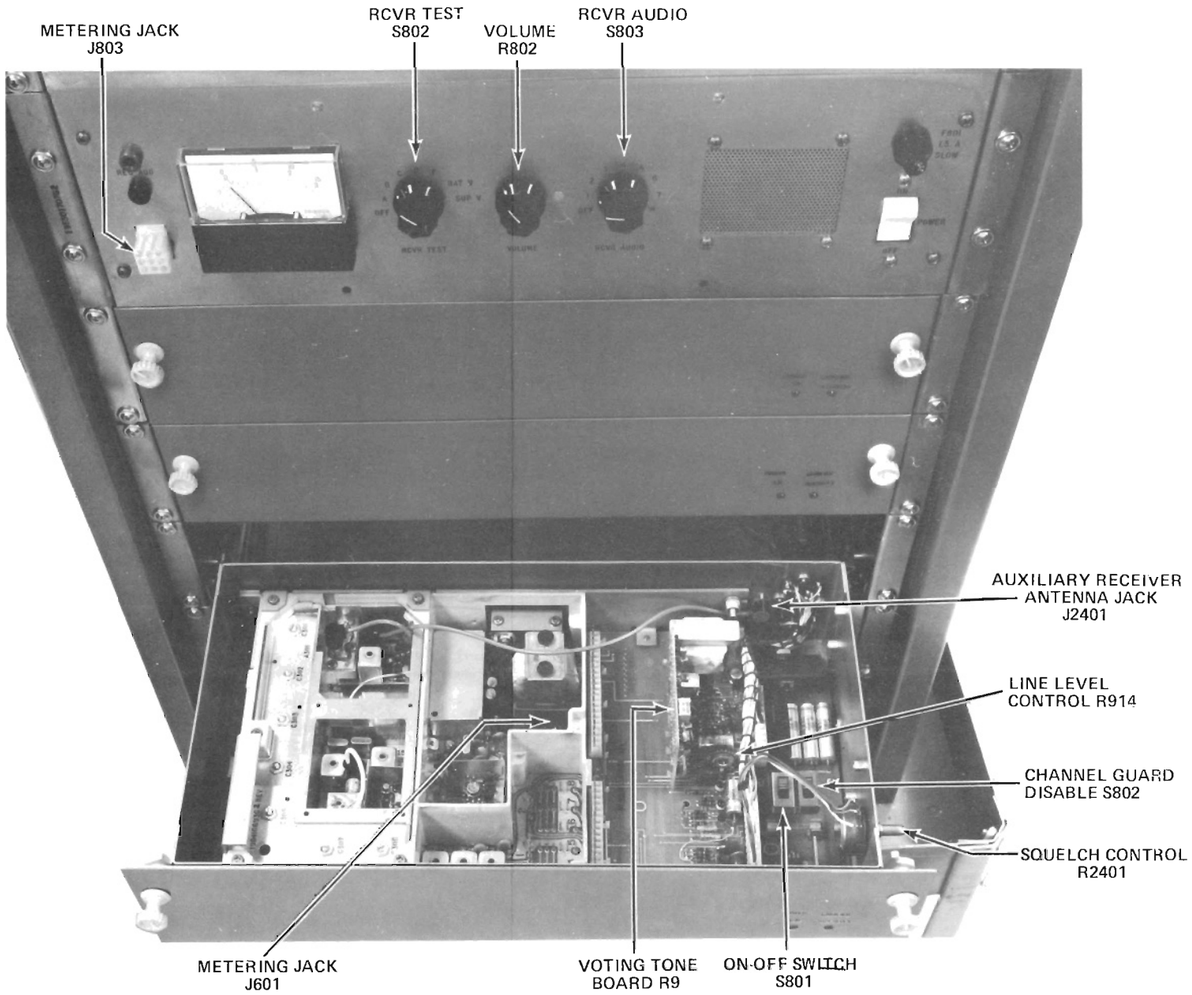
INTERCONNECTION DIAGRAM

MULTIPLE RECEIVER STATION



AUXILIARY RECEIVER

1. SLIDE OUT RECEIVER TO BE TESTED.

2. APPLY A 1000 MICROVOLT ON-FREQUENCY SIGNAL MODULATED BY 1,000 HERTZ WITH ±3 kHz DEVIATION TO THE AUXILIARY RECEIVER ANTENNA JACK J2402.

3. SELECT THE RECEIVER AUDIO WITH SWITCH S803 ON THE POWER SUPPLY. DISABLE CHANNEL GUARD WITH S802 (ON THE RECEIVER SYSTEM BOARD) IF PRESENT.

4. ADJUST VOLUME CONTROL (R802 ON POWER SUPPLY) FOR DESIRED AUDIO LEVEL.

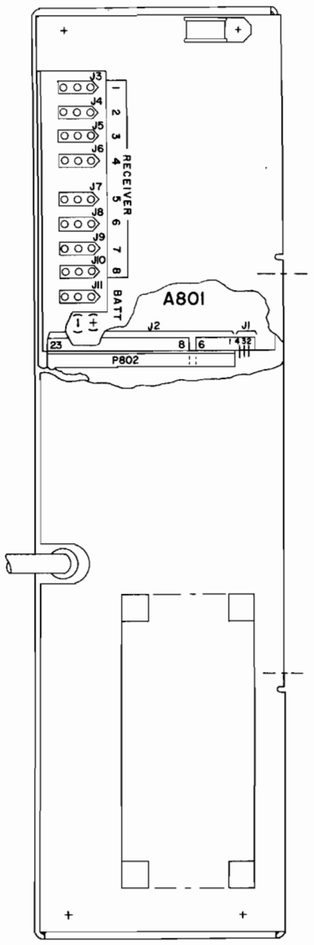
5. CONNECT METERING CABLE 19C321099G1 BETWEEN J803 (ON POWER SUPPLY) AND J601 (ON RECEIVER CHASSIS).

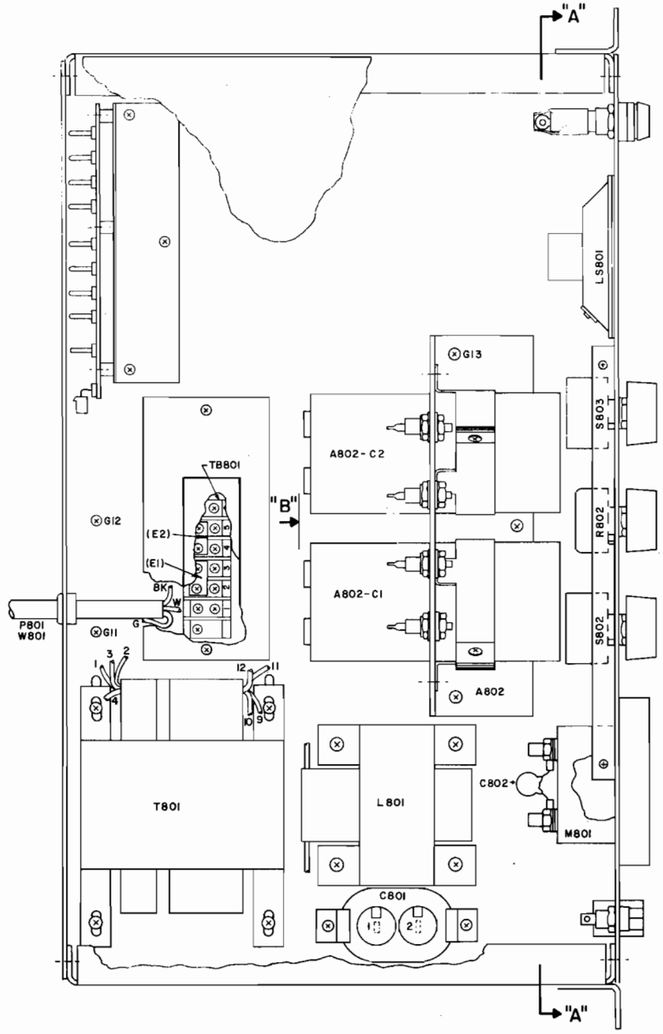
6. SWITCH S802 (ON POWER SUPPLY) THROUGH THE METERING POSITIONS AND OBSERVE TYPICAL READINGS ON METER.

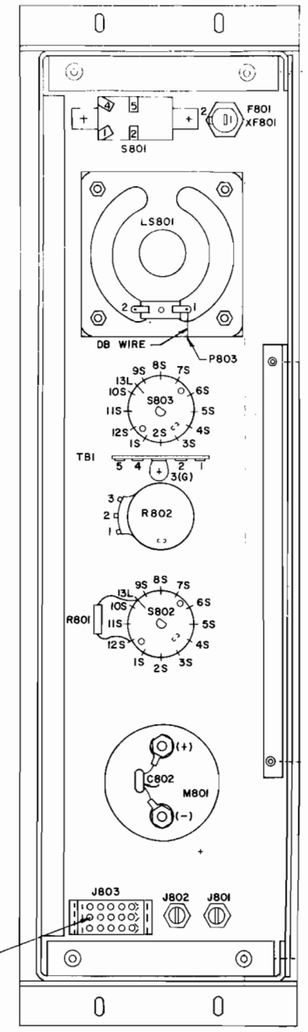
7. WITH SWITCH S802 IN SUP V POSITION, METER SHOULD READ SUPPLY VOLTAGE OUTPUT ±0.5 VOLTS.

8. IF STANDBY BATTERY IS USED, CHECK FOR 12 VOLT BATTERY CONDITION BY PLACING RCVR TEST SWITCH S802 IN BAT V POSITION.

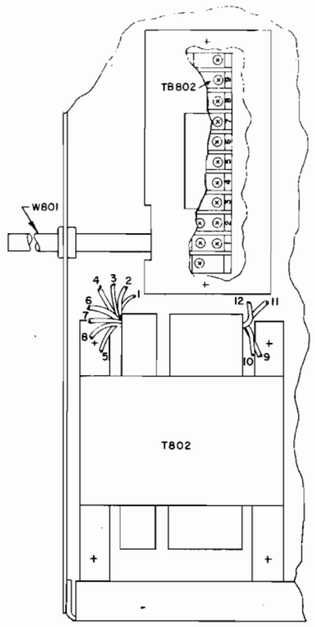
9. FOLLOW STEPS 1 THROUGH 8 FOR ALL OTHER RECEIVERS IN STATION.



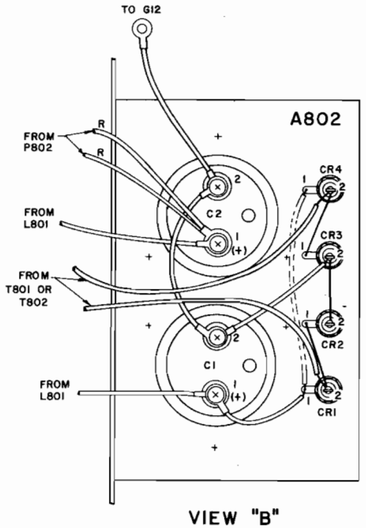




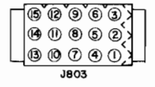
SECTION "A-A"



VIEW OF G2 ONLY



VIEW "B"

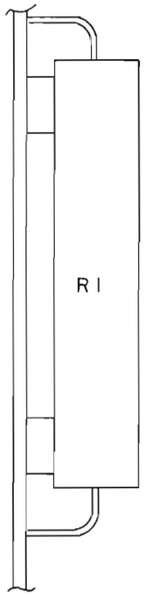


DETAIL "D"
(ENLARGED)

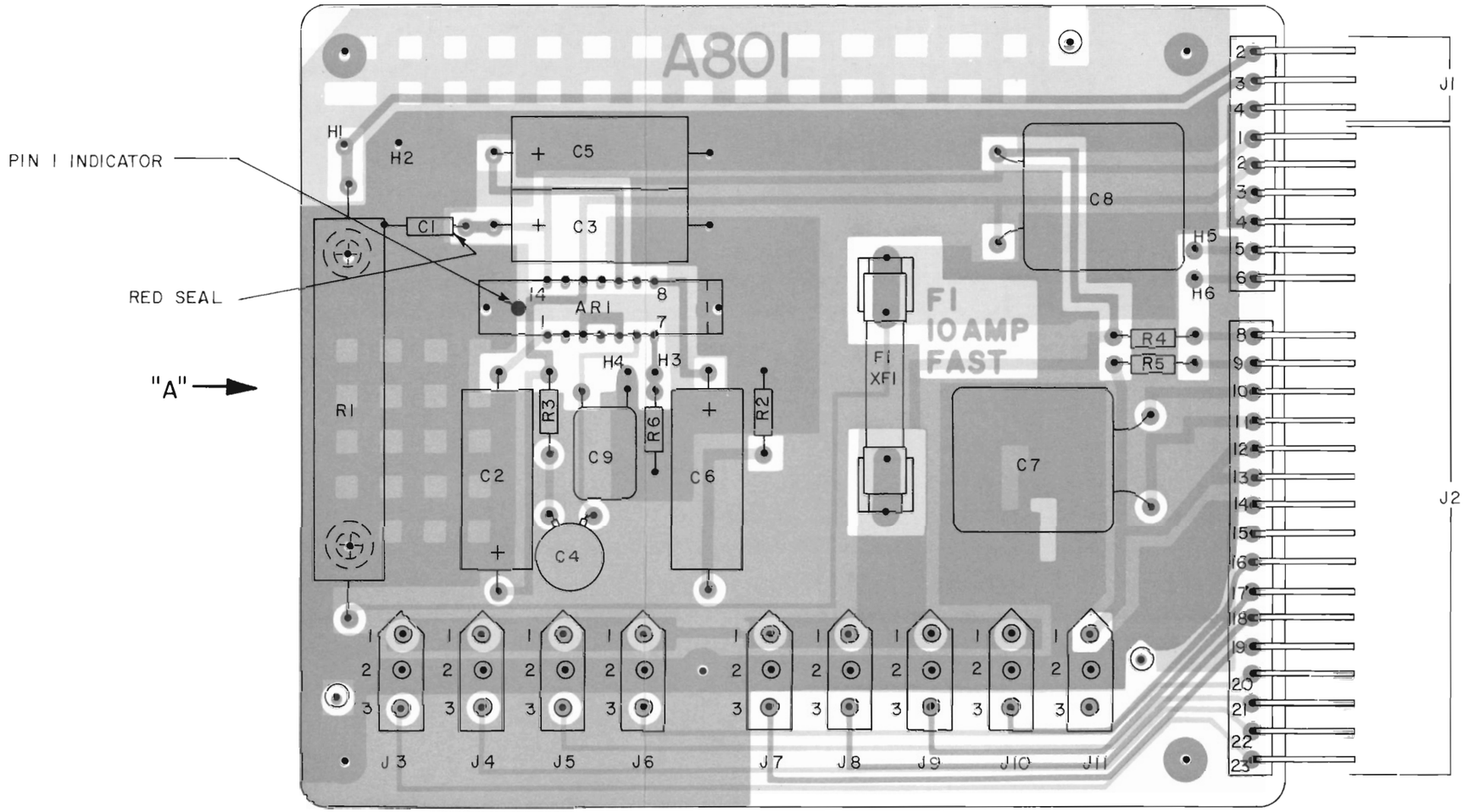
(19E501726, Rev. 0)

OUTLINE DIAGRAM

MULTIPLE RECEIVER STATION POWER SUPPLY 19E501707G1 & G2

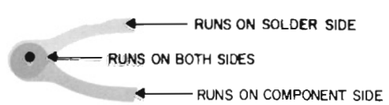


VIEW "A"
(PARTIAL)



(19D423416, Rev. 4)
(19D417724, Sh. 2, Rev. 1)
(19D417724, Sh. 3, Rev. 1)

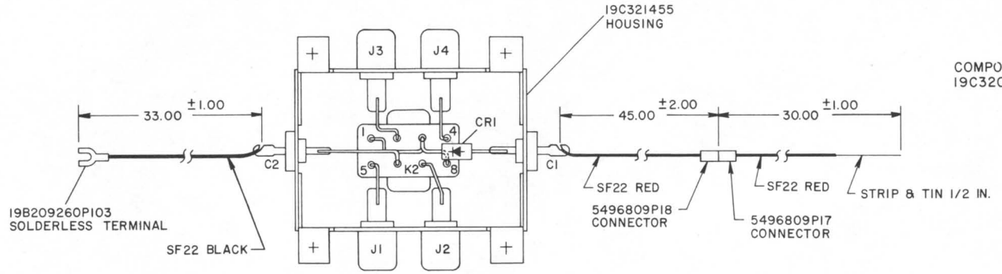
REFER TO WIRING DIAGRAM FOR THE FOLLOWING CONNECTIONS	
FROM	TO
H1	H2
H3	H5
H4	H6

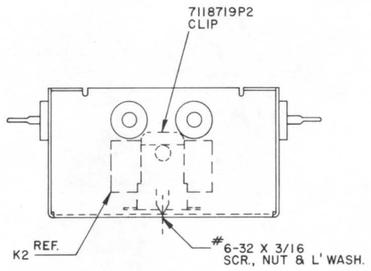


OUTLINE DIAGRAM

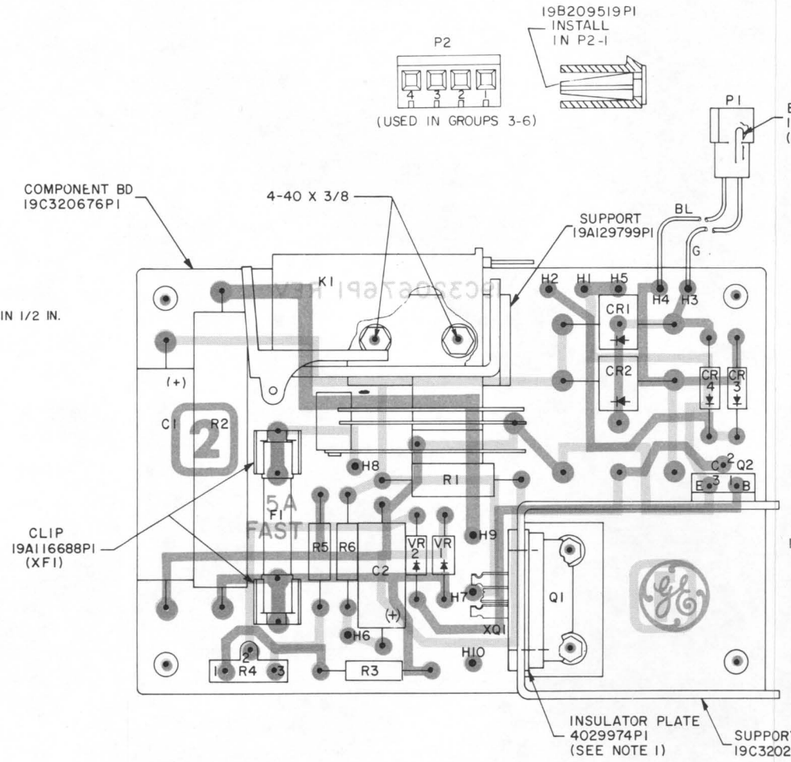
AMPLIFIER BOARD A801

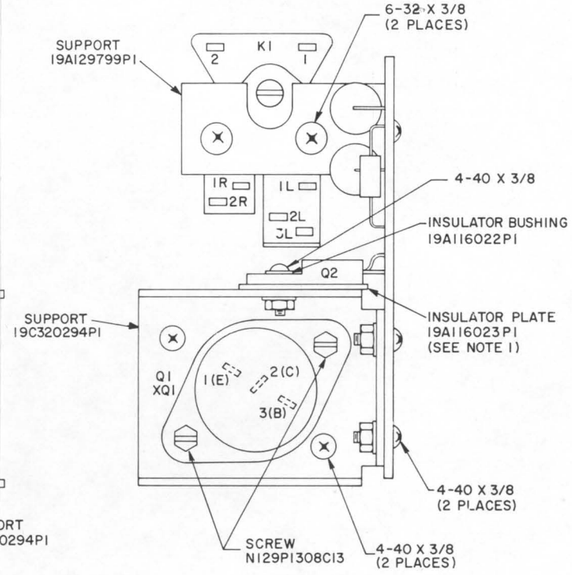
14 Issue 1





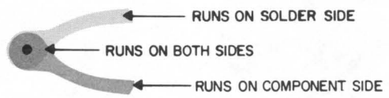
(19C321634, Rev. 0)





(19C321445, Rev. 2)
(19C320676, Sh. 2, Rev. 2)
(19C320676, Sh. 3, Rev. 1)

NOTE:
1. APPLY SILICON GREASE TO BOTH SIDES OF INSULATOR FOR Q1 AND Q2.



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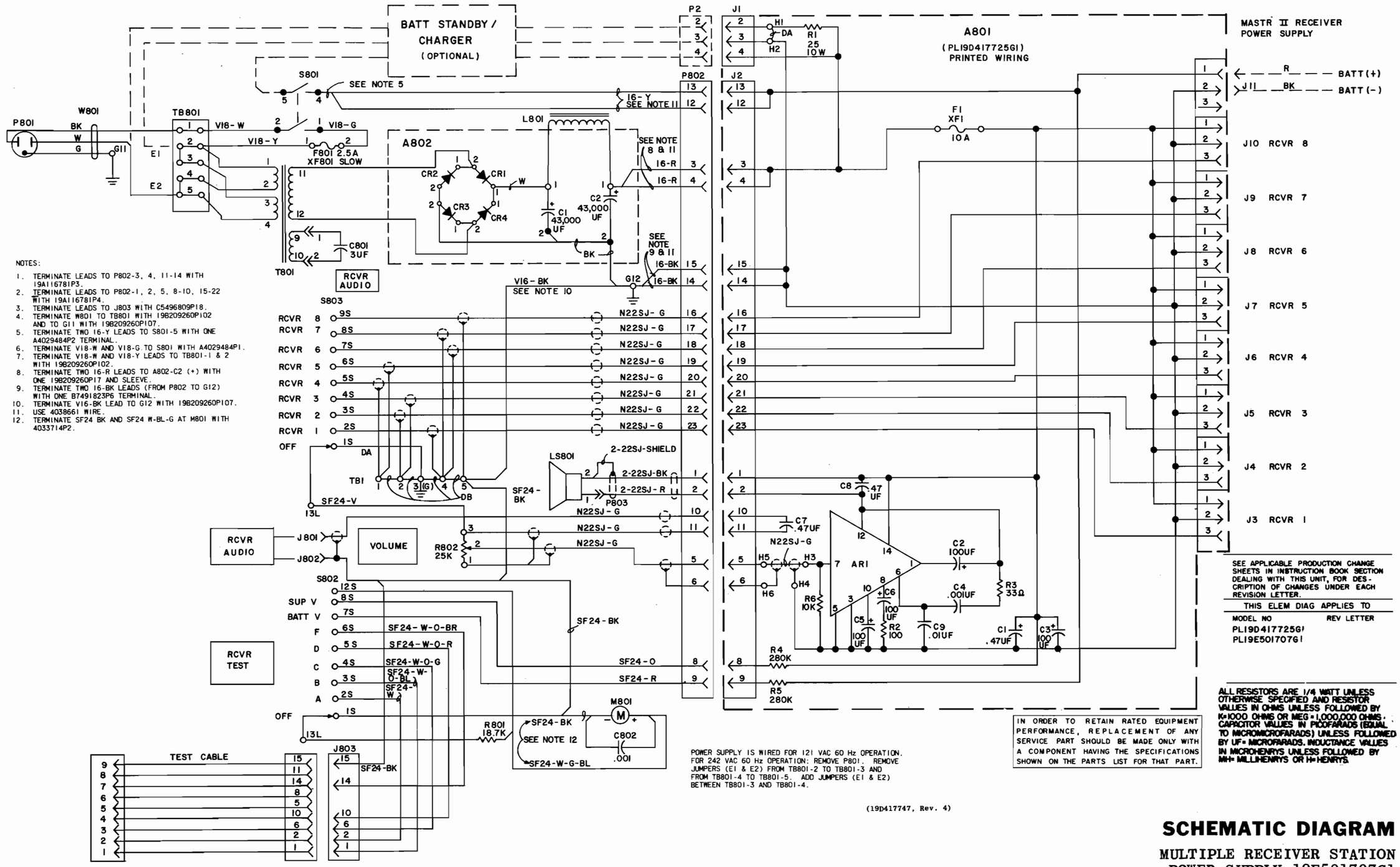
OUTLINE DIAGRAM

BATTERY STANDBY/CHARGER 19C320677



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 11-14 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1, 2, 5, 8-10, 15-22 WITH 19A116781P4.
3. TERMINATE LEADS TO J803 WITH C5496809P18.
4. TERMINATE W801 TO TB801 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-5 WITH ONE A4029484P2 TERMINAL.
6. TERMINATE V18-W AND V18-G TO S801 WITH A4029484P1.
7. TERMINATE V18-W AND V18-Y LEADS TO TB801-1 & 2 WITH 19B209260P102.
8. TERMINATE TWO 16-R LEADS TO A802-C2 (+) WITH ONE 19B209260P17 AND SLEEVE.
9. TERMINATE TWO 16-BK LEADS (FROM P802 TO G12) WITH ONE B7491823P6 TERMINAL.
10. TERMINATE V16-BK LEAD TO G12 WITH 19B209260P107.
11. USE 4038661 WIRE.
12. TERMINATE SF24 BK AND SF24 W-BL-G AT M801 WITH 4033714P2.

POWER SUPPLY IS WIRED FOR 121 VAC 60 Hz OPERATION. FOR 242 VAC 60 Hz OPERATION: REMOVE P801. REMOVE JUMPERS (E1 & E2) FROM TB801-2 TO TB801-3 AND FROM TB801-4 TO TB801-5. ADD JUMPERS (E1 & E2) BETWEEN TB801-3 AND TB801-4.

SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI9D417725G1	
PLI9E501707G1	

ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

(19D417747, Rev. 4)

SCHEMATIC DIAGRAM

MULTIPLE RECEIVER STATION
POWER SUPPLY 19E501707G1

PARTS LIST

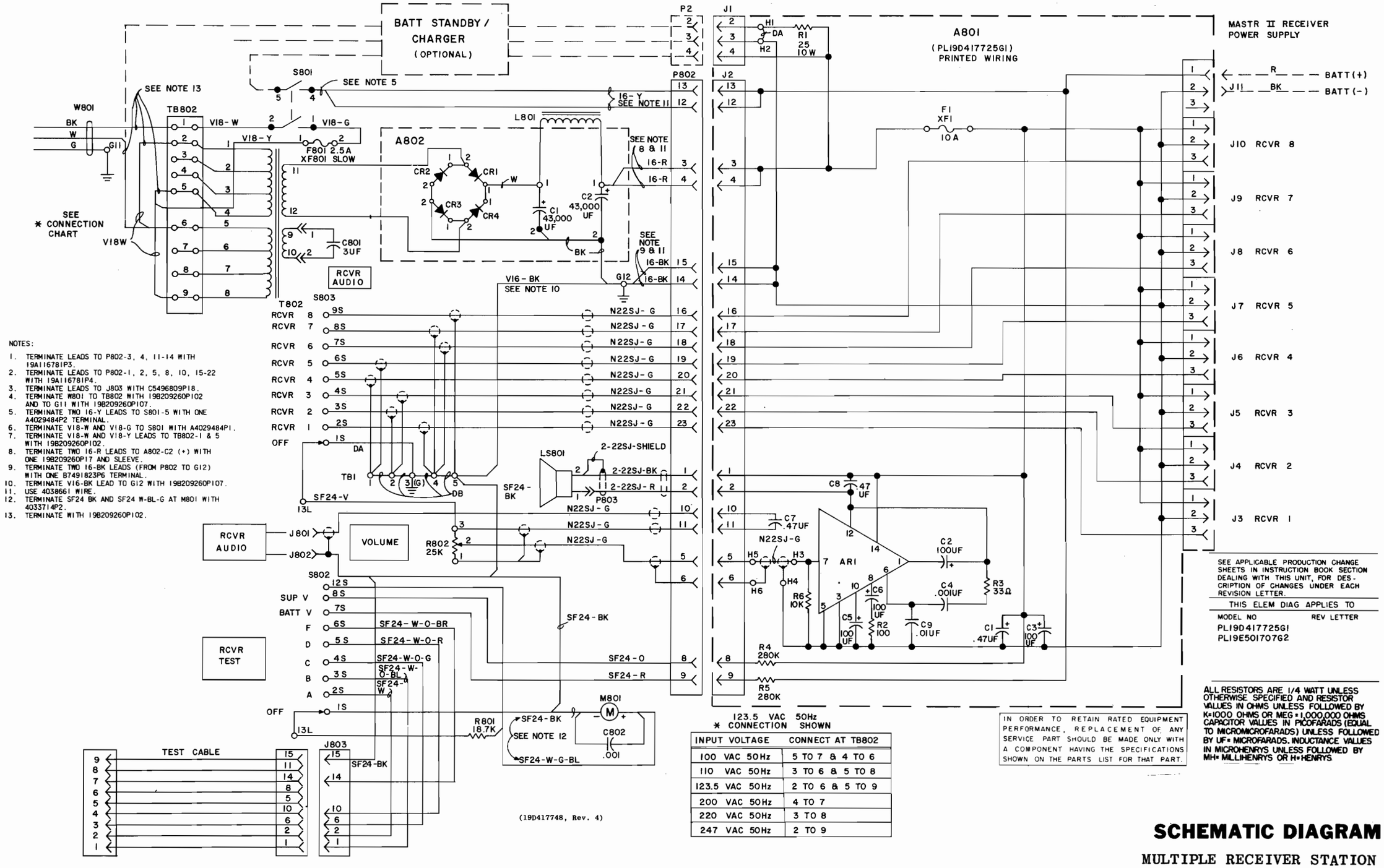
LBI-4925

MULTIPLE RECEIVER 60 Hz POWER SUPPLY
19E501707G1

SYMBOL	GE PART NO.	DESCRIPTION
A801		COMPONENT BOARD 19D417725G1
		- - - - - - - - - INTEGRATED CIRCUITS - - - - - - - -
AR1	19A134064P1	Linear, 4.5 Watt Audio Amplifier: sim to Fairchild µA706.
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C1	5491674P27	Tantalum: .47 µf ±20%, 35 VDCW; sim to Sprague Type 162D.
C2 and C3	5491674P16	Tantalum: 2.2 µf +50% -20%, 20 VDCW; sim to Sprague Type 162D.
C4	5494481P11	Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap.
C5 and C6	5496267P16	Tantalum: 100 µf ±20%, 20 VDCW; sim to Sprague Type 150D.
C7 and C8	19A116080P111	Polyester: 0.47 µf ±10%, 50 VDCW.
C9	19A116080P101	Polyester: 0.01 µf ±10%, 50 VDCW.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Quick blowing: 10 amp 250 v; sim to Littelfuse 314010 or Bussmann ABC-10.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - - -
J1	19A116659P31	Connector, printed wiring: sim to Molex 2373-9A. (J1 uses only 3 contacts, the other 6 contacts on part of J2).
J2	19A116659P30	Connector, printed wiring: sim to Molex 2373-8A. (Quantity 2- J2 uses all 16 contacts plus 6 contacts of J1).
J3 thru J11	19A116647P7	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5038.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	5493035P44	Wirewound: 25 ohms ±5%, 10 w; sim to Hamilton Hall Type HR.
R2	3R152P101J	Composition: 100 ohms ±5%, 1/4 w.
R3	3R152P330J	Composition: 33 ohms ±5%, 1/4 w.
R4 and R5	19C314256P22803	Metal film: 280,000 ohms ±1%, 1/4 w.
R6	3R152P103J	Composition: 10,000 ohms ±5%, 1/4 w.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip. (Quantity 2).
A802		RECTIFIER ASSEMBLY 19C321095G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 µf +75% -10%, 20 VDCW; sim to Sprague Type 602D433-G0CDCD.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR1 thru CR4	5495922P1	Silicon; sim to Type 1N1200A.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C801	19B209391P6	Paper-askarel: 3 µf ±6%, 660 VRMS; sim to GE 45F605.
C802	5494481P11	Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap.
		- - - - - - - - - - TERMINALS - - - - - - - - - -
E1 and E2	7143961P1	Jumper: sim to Kulka 600.
		- - - - - - - - - - FUSES - - - - - - - - - -
F801	7487942P28	Slow blowing: 2.5 amp at 125 v; sim to Bussmann MDL-2.5.
		- - - - - - - - JACKS AND RECEPTACLES - - - - -
J801	19B209152P2	Nylon: red, sim to E.F. Johnson 108-902.
J802	19B209152P3	Nylon: black, sim to E.F. Johnson 108-903.
J803		Includes:
	19B209288P5	Shell.
	19A116781P5	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0106.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108.
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L801	19A130204G1	Reactor.
		- - - - - - - - - LOUDSPEAKERS - - - - - - - - -
LS801	19A116701P1	Permanent magnet: 3 inch, 3.2 ohms ±10% imp, freq range to 1000 Hz; sim to Oaktron 3A3C.
		- - - - - - - - - - METERS - - - - - - - - - -
M801	19A134076P1	Panel, DC: -10/0/50 µa movement; sim to GE 50-251200CMCM1JAF.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P801		(Part of W801).
P802	19A116659P23	Connector, printed wiring: sim to Molex 09-50-3241.
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R801	19C314256P21872	Metal film: 18,700 ohms ±1%, 1/4 w.
R802	5496870P32	Variable, carbon film: 25,000 ohms ±20%; sim to Mallory LC(25K).
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B209498P1	Push: DPST, 20 amps and 220 VRMS; sim to McGill 0811-0188.
S802 and S803	5495454P29	Rotary: 1 section, 1 pole, 2 to 12 position (adj stop), non-shorting contacts, 2 amps at 25 VDC or 1 amp at 110 VAC; sim to Oak Type A.
		- - - - - - - - - - TRANSFORMERS - - - - - - - - -
T801	19A130205G1	Transformer.
		- - - - - - - - - - TERMINAL BOARDS - - - - - - -
TB1	7775500P11	Phen: 5 terminals.
TB801	19C301087P15	Phen: 5 terminals; sim to GE CR151D.
		- - - - - - - - - - CABLES - - - - - - - - - -
W801	19A116740P1	Power: approx 8 feet long; sim to Belden 17238. (Includes P801).
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF801	4037402P2	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342001.

SYMBOL	GE PART NO.	DESCRIPTION
		HARNESS ASSEMBLY 19E501707G3 (Includes J803, P802, P803, R801, R802, S802, S803, TB1).
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19D417192P2	Cover.
	7776855P36	Retainer strap: sim to G. E. Hudson Falls 302C920P178. (Used with C801).
	19A134022P1	Protective cap. (Used with C801).
	19B226217P2	Grille. (Used with LS801).
	19A116768P8	Strain relief. (Uses with W801).
	19B226436P1	Cover. (Used with TB801).
	19B226434G1	Support. (Mounts J3-J11).
	7165075P2	Hex nut, brass: No. 3/8-32. (Used with R802).
	7115130P9	Lockwasher: No. 3/8; sim to Shakeproof 1220-2. (Used with R802).
	4031543P2	Knob. (Used with R802, S802, S803).
	4033714P2	Solderless terminal: sim to Zierick 110. (Used with M801 posts).
	19B209519P1	Polarity tab. (Used with P802).
	4029851P21	Cable clamp.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 11-14 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1, 2, 5, 8, 10, 15-22 WITH 19A116781P4.
3. TERMINATE LEADS TO J803 WITH C5496809P18.
4. TERMINATE W801 TO TB802 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-5 WITH ONE A4029484P2 TERMINAL.
6. TERMINATE V18-W AND V18-G TO S801 WITH A4029484P1.
7. TERMINATE V18-W AND V18-Y LEADS TO TB802-1 & 5 WITH 19B209260P102.
8. TERMINATE TWO 16-R LEADS TO A802-C2 (+) WITH ONE 19B209260P17 AND SLEEVE.
9. TERMINATE TWO 16-BK LEADS (FROM P802 TO G12) WITH ONE B7491823P6 TERMINAL.
10. TERMINATE V16-BK LEAD TO G12 WITH 19B209260P107.
11. USE 4038661 WIRE.
12. TERMINATE SF24 BK AND SF24 W-BL-G AT M801 WITH 4033714P2.
13. TERMINATE WITH 19B209260P102.

123.5 VAC 50Hz
* CONNECTION SHOWN

INPUT VOLTAGE	CONNECT AT TB802
100 VAC 50Hz	5 TO 7 & 4 TO 6
110 VAC 50Hz	3 TO 6 & 5 TO 8
123.5 VAC 50Hz	2 TO 6 & 5 TO 9
200 VAC 50Hz	4 TO 7
220 VAC 50Hz	3 TO 8
247 VAC 50Hz	2 TO 9

(19D417748, Rev. 4)

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PLI9D417725G1	
PLI9E501707G2	

ALL RESISTORS ARE 1/4 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS

SCHEMATIC DIAGRAM

MULTIPLE RECEIVER STATION
POWER SUPPLY 19E501707G2

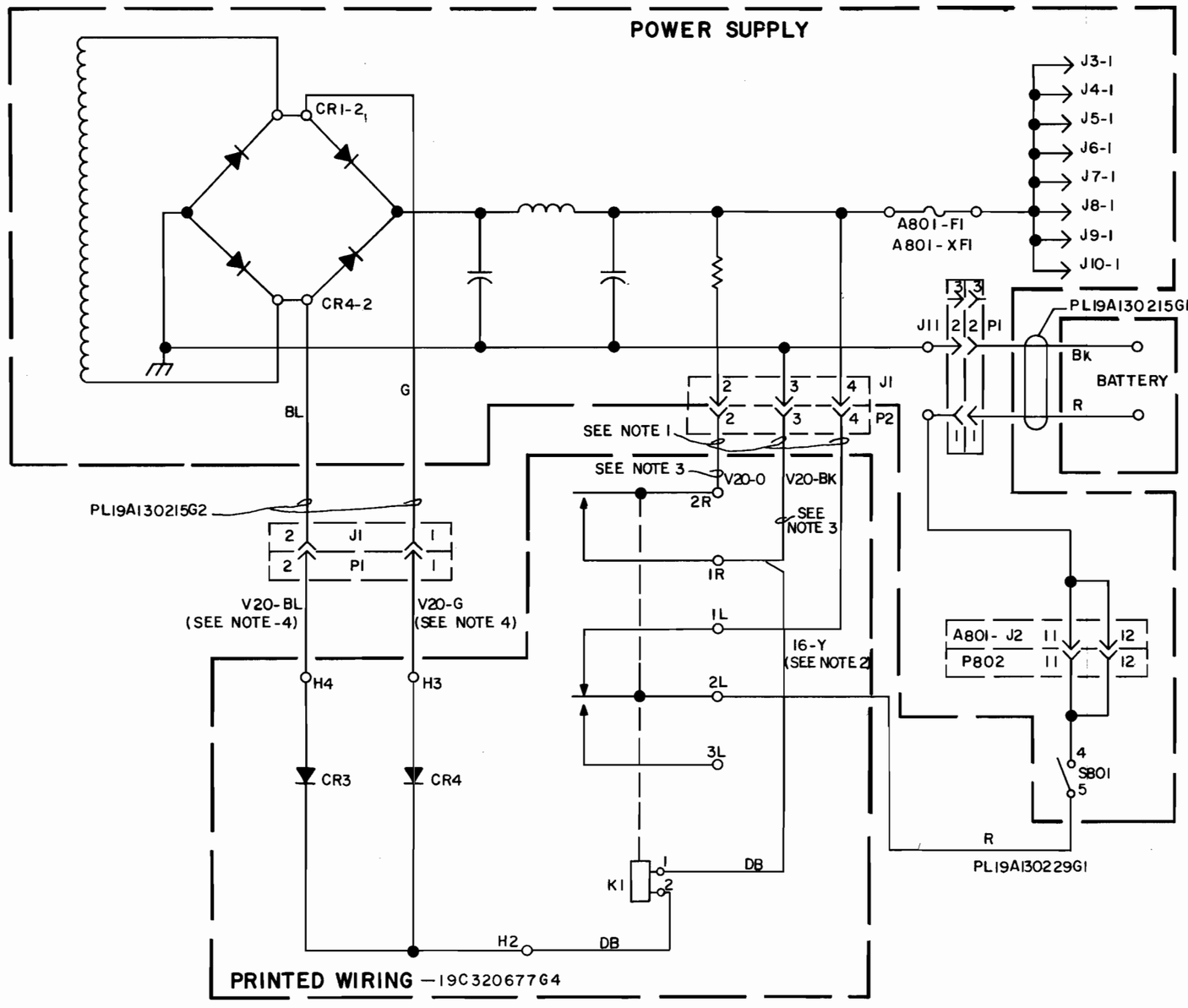
PARTS LIST

LBI-4926

MULTIPLE RECEIVER 50 Hz POWER SUPPLY
19E501707G2

SYMBOL	GE PART NO.	DESCRIPTION
A801		COMPONENT BOARD 19D417725G1
		- - - - - - - - - INTEGRATED CIRCUITS - - - - - - - -
AR1	19A134064P1	Linear, 4.5 Watt Audio Amplifier: sim to Fairchild μA706.
		- - - - - - - - - - CAPACITORS - - - - - - - -
C1	5491674P27	Tantalum: .47 μf ±20%, 35 VDCW; sim to Sprague Type 162D.
C2 and C3	5491674P16	Tantalum: 2.2 μf +50% -20%, 20 VDCW; sim to Sprague Type 162D.
C4	5494481P11	Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap.
C5 and C6	5496267P16	Tantalum: 100 μf ±20%, 20 VDCW; sim to Sprague Type 150D.
C7 and C8	19A116080P111	Polyester: 0.47 μf ±10%, 50 VDCW.
C9	19A116080P101	Polyester: 0.01 μf ±10%, 50 VDCW.
		- - - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Quick blowing: 10 amp 250 v; sim to Littelfuse 314010 or Bussmann ABC-10.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - -
J1	19A116659P31	Connector, printed wiring: sim to Molex 2373-9A. (J1 uses only 3 contacts, the other 6 contacts on part of J2).
J2	19A116659P30	Connector, printed wiring: sim to Molex 2373-8A. (Quantity 2- J2 uses all 16 contacts plus 6 contacts of J1).
J3 thru J11	19A116647P7	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5038.
		- - - - - - - - - - RESISTORS - - - - - - - - -
R1	5493035P44	Wirewound: 25 ohms ±5%, 10 w; sim to Hamilton Hall Type HR.
R2	3R152P101J	Composition: 100 ohms ±5%, 1/4 w.
R3	3R152P330J	Composition: 33 ohms ±5%, 1/4 w.
R4 and R5	19C314256P22803	Metal film: 280,000 ohms ±1%, 1/4 w.
R6	3R152P103J	Composition: 10,000 ohms ±5%, 1/4 w.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip. (Quantity 2).
A802		RECTIFIER ASSEMBLY 19C321095G1
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 μf +75% -10%, 20 VDCW; sim to Sprague Type 602D433-G0CDCD.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - -
CR1 thru CR4	5495922P1	Silicon; sim to Type 1N1200A.
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C801	19B209391P6	Paper-askarel: 3 μf ±6%, 660 VRMS; sim to GE 45F605.
C802	5494481P11	Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap.
		- - - - - - - - - - - FUSES - - - - - - - - - -
F801	7487942P28	Slow blowing: 2.5 amp at 125 v; sim to Bussmann MDL-2.5.
		- - - - - - - - JACKS AND RECEPTACLES - - - - -
J801	19B209152P2	Nylon: red, sim to E.F. Johnson 108-902.
J802	19B209152P3	Nylon: black, sim to E.F. Johnson 108-903.
J803		Includes:
	19B209288P5	Shell.
	19A116781P5	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0106.
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108.
		- - - - - - - - - - INDUCTORS - - - - - - - - -
L801	19A130204G1	Reactor.
		- - - - - - - - - LOUDSPEAKERS - - - - - - - - -
LS801	19A116701P1	Permanent magnet: 3 inch, 3.2 ohms ±10% imp, freq range to 1000 Hz; sim to Oaktron 3A3C.
		- - - - - - - - - - METERS - - - - - - - - - -
M801	19A134076P1	Panel, DC: -10/0/50 μa movement; sim to GE 50-251200CMCM1JAF.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P801		(Part of W801).
P802	19A116659P23	Connector, printed wiring: sim to Molex 09-50-3241.
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - - RESISTORS - - - - - - - - -
R801	19C314256P21872	Metal film: 18,700 ohms ±1%, 1/4 w.
R802	5496870P32	Variable, carbon film: 25,000 ohms ±20%; sim to Mallory LC(25K).
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B209498P1	Push: DPST, 20 amps and 220 VRMS; sim to McGill 0811-0188.
S802 and S803	5495454P29	Rotary: 1 section, 1 pole, 2 to 12 position (adj stop), non-shorting contacts, 2 amps at 25 VDC or 1 amp at 110 VAC; sim to Oak Type A.
		- - - - - - - - - - TRANSFORMERS - - - - - - - -
T802	19A130205G2	Transformer.
		- - - - - - - - - TERMINAL BOARDS - - - - - - -
TB1	7775500P11	Phen: 5 terminals.
TB802	19C301087P11	Phen: 9 terminals; sim to GE CR151D.
		- - - - - - - - - - CABLES - - - - - - - - - -
W801	19A116740P1	Power: approx 8 feet long; sim to Belden 17238. (Includes P801).
		- - - - - - - - - - SOCKETS - - - - - - - - -
XF801	4037402P2	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342001.
		HARNESS ASSEMBLY 19E501707G3 (Includes J803, P802, P803, R801, R802, S802, S803, TB1).
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19D417192P2	Cover.
	7776855P36	Retainer strap: sim to G. E. Hudson Falls 302C920P178. (Used with C801).
	19A134022P1	Protective cap. (Used with C801).
	19B226217P2	Grille. (Used with LS801).
	19A116768P8	Strain relief. (Uses with W801).
	19B226436P1	Cover. (Used with TB801).
	19B226434G1	Support. (Mounts J3-J11).
	7165075P2	Hex nut, brass: No. 3/8-32. (Used with R802).
	7115130P9	Lockwasher: No. 3/8; sim to Shakeproof 1220-2. (Used with R802).
	4031543P2	Knob. (Used with R802, S802, S803).
	4033714P2	Solderless terminal: sim to Zierick 110. (Used with M801 posts).
	19B209519P1	Polarity tab. (Used with P802).
	4029851P21	Cable clamp.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19C320677G4	

NOTES:

1. TERMINATE V-20-Y, V16-O & V20-BK TO P2 WITH 19A116781P3.
2. TERMINATE 16-Y WIRE AT K1-1L WITH A4029484P1 AND SLEEVE CRIMPED PORTION OF TERMINAL WITH HEAT SHRINKABLE SLEEVING USE 4038661P7 WIRE.
3. TERMINATE V20-O AT K1-2R & V20-BK AT K1-1R WITH SOLDER CONN.
4. TERMINATE V20-G & V20-BL WIRES WITH 19B209505P20.

NOTE: CHANGES TO THIS DIAGRAM MAY AFFECT 19D417739 AND 19D417267.

ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

(19C321114, Rev. 2)

SCHEMATIC DIAGRAM

BATTERY STANDBY KIT 19C320677G4 & G5

PARTS LIST

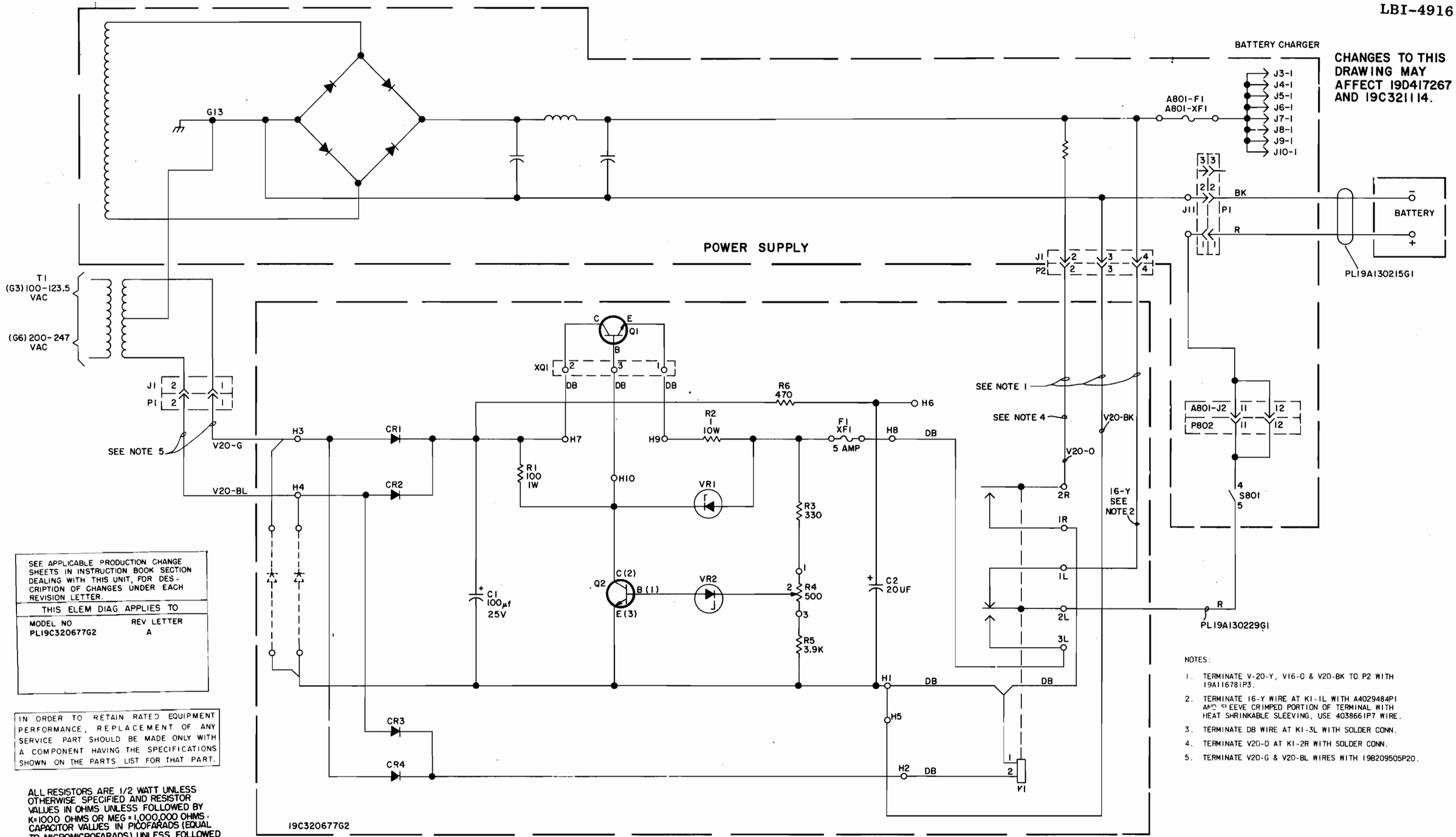
LBI-4928

BATTERY STANDBY KIT
19C320677G5

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - - PLUGS - - - - - - - - - - -
P1		Includes:
	19B209505P102	Shell.
	19B209505P20	Contact, male: wire range No. 18-24.
P2	19A116659P17	Connector, printed wiring: sim to Molex 09-50-3-41.
		COMPONENT BOARD 19C320677G4
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR3 and CR4	4037822P1	Silicon.
		- - - - - - - - - - - RELAYS - - - - - - - - - -
K1	19B209492P1	Open: 80 ohms ±10% coil res, 12.6 VDC nominal, 1 form A, 1 form C contacts; sim to Magnecraft 22RX134A.
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19A129799P1	Support. (Mounts K1).
	19B209519P1	Polarity tab. (Used with P2).
	19A130215G1	Cable. (Connects to J11 of A801).
	19A130215G2	Cable, 2 wire. (Connects between P1 and CR1 and CR4).
	19A130229G1	Cable: red, approx 14 inches long. (Connects between S801 and K1).
	4029851P13	Cable clamp. (Used with 19A130215P1 cable).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.

CHANGES TO THIS DRAWING MAY AFFECT 19D417267 AND 19C321114.



NOTES:

1. TERMINATE V-20-Y, V16-O & V20-BK TO P2 WITH 19A116781P3.
2. TERMINATE 16-Y WIRE AT K1-1L WITH A4029484P1 AND SLEEVE CRIMPED PORTION OF TERMINAL WITH HEAT SHRINKABLE SLEEVING, USE 4038661P7 WIRE.
3. TERMINATE DB WIRE AT K1-3L WITH SOLDER CONN.
4. TERMINATE V20-O AT K1-2R WITH SOLDER CONN.
5. TERMINATE V20-G & V20-BL WIRES WITH 19B209505P20.

SEE APPLICABLE PRODUCTION CHANGE SHEETS IN INSTRUCTION BOOK SECTION DEALING WITH THIS UNIT, FOR DESCRIPTION OF CHANGES UNDER EACH REVISION LETTER.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19C320677G2	A

IN ORDER TO RETAIN RATED EQUIPMENT PERFORMANCE, REPLACEMENT OF ANY SERVICE PART SHOULD BE MADE ONLY WITH A COMPONENT HAVING THE SPECIFICATIONS SHOWN ON THE PARTS LIST FOR THAT PART.

ALL RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED AND RESISTOR VALUES IN OHMS UNLESS FOLLOWED BY K=1000 OHMS OR MEG=1,000,000 OHMS. CAPACITOR VALUES IN PICOFARADS (EQUAL TO MICROMICROFARADS) UNLESS FOLLOWED BY UF=MICROFARADS. INDUCTANCE VALUES IN MICROHENRYS UNLESS FOLLOWED BY MH=MILLIHENRYS OR H=HENRYS.

(19D417739, Rev. 4)

SCHEMATIC DIAGRAM

BATTERY STANDBY/CHARGER KITS
19C320677G3 & G6

PARTS LIST

LBI-4929A

BATTERY STANDBY/CHARGER KITS
19C320677G3 121 VAC
19C320677G6 242 VAC

SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - - - PLUGS - - - - - - - - - - -
P1		Includes:
	19B209505P102	Shell.
	19B209505P20	Contact, male: wire range No. 18-24.
P2	19A116659P17	Connector, printed wiring: sim to Molex 09-50-3-41.
		- - - - - - - - - - TRANSFORMERS - - - - - - - - -
T1	19B226448G1	Transformer.
T2	19B226448G2	Transformer.
		COMPONENT BOARD 19C320677G2
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	19A115680P5	Electrolytic: 100 µf +150% -10%, 25 VDCW; sim to Mallory Type TTX.
C2*	19A115680P3	Electrolytic: 20 µf +150% -10%, 25 VDCW; sim to Mallory Type TTX. Added by REV A.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR1 and CR2	19A116783P1	Silicon.
CR3 and CR4	4037822P1	Silicon.
		- - - - - - - - - - - FUSES - - - - - - - - - -
F1	1R16P8	Quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
		- - - - - - - - - - - RELAYS - - - - - - - - -
K1	19B209492P1	Open: 80 ohms ±10% coil res, 12.6 VDC nominal, 1 form A, 1 form C contacts; sim to Magnecraft 22RX134A.
		- - - - - - - - - - TRANSISTORS - - - - - - - - -
Q1	19A116753P1	Silicon, NPN.
Q2	19A116118P1	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	3R78P101J	Composition: 100 ohms ±5%, 1 w.
R2	5493035P28	Wirewound: 1 ohms ±10%, 10 w; sim to Hamilton Hall Type HR.
R3	3R77P331K	Composition: 330 ohms ±10%, 1/2 w.
R4	19B209358P102	Variable, carbon film: approx 25 to 500 ohms ±10%, 0.2 w; sim to CTS Type X-201.
R5	3R77P392K	Composition: 3900 ohms ±10%, 1/2 w.
R6	3R77P471K	Composition: 470 ohms ±10%, 1/2 w.
		- - - - - - - VOLTAGE REGULATORS - - - - - - -
VR1	4036887P3	Silicon, Zener.
VR2	4036887P8	Silicon, Zener.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip: sim to Littlefuse 102068.
XQ1	5491888P1	Transistor, power, phen: sim to Cinch 133-92-10-034.

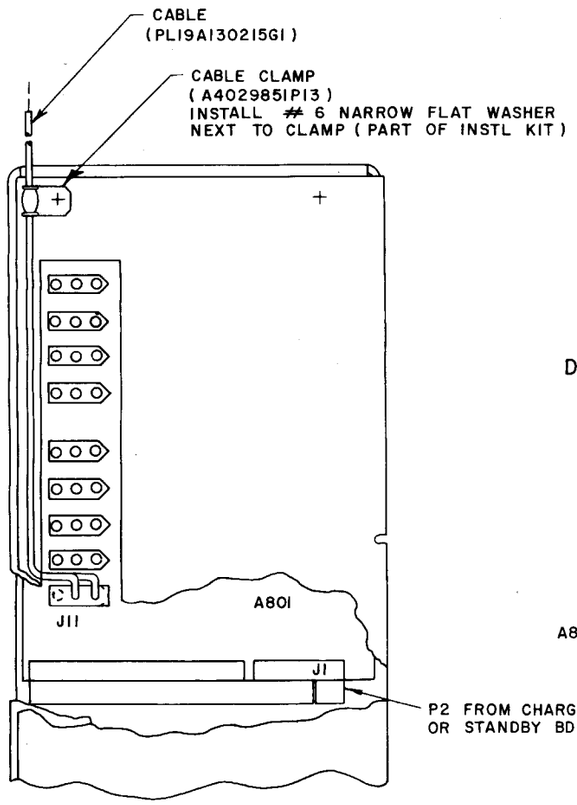
SYMBOL	GE PART NO.	DESCRIPTION
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19C320294P1	Support. (Mounts Q1).
	19A129799P1	Support. (Mounts K1).
	N130P1208C6	Tap, screw: No. 6 x 1/2. (Secures Q1).
	19A116022P1	Insulator, bushing. (Used with Q2).
	19A116023P1	Insulator, plate. (Used with Q2).
	4029974P1	Insulator, plate. (Used with Q1).
	19B209519P1	Polarity tab. (Used with P2).
	19A130215G1	Cable. (Connects to J11 of A801).
	19A130229G1	Cable: red, approx 14 inches long. (Connects between S801 and K1).
	4029851P13	Cable clamp. (Used with 19A130215P1 cable).

PRODUCTION CHANGES

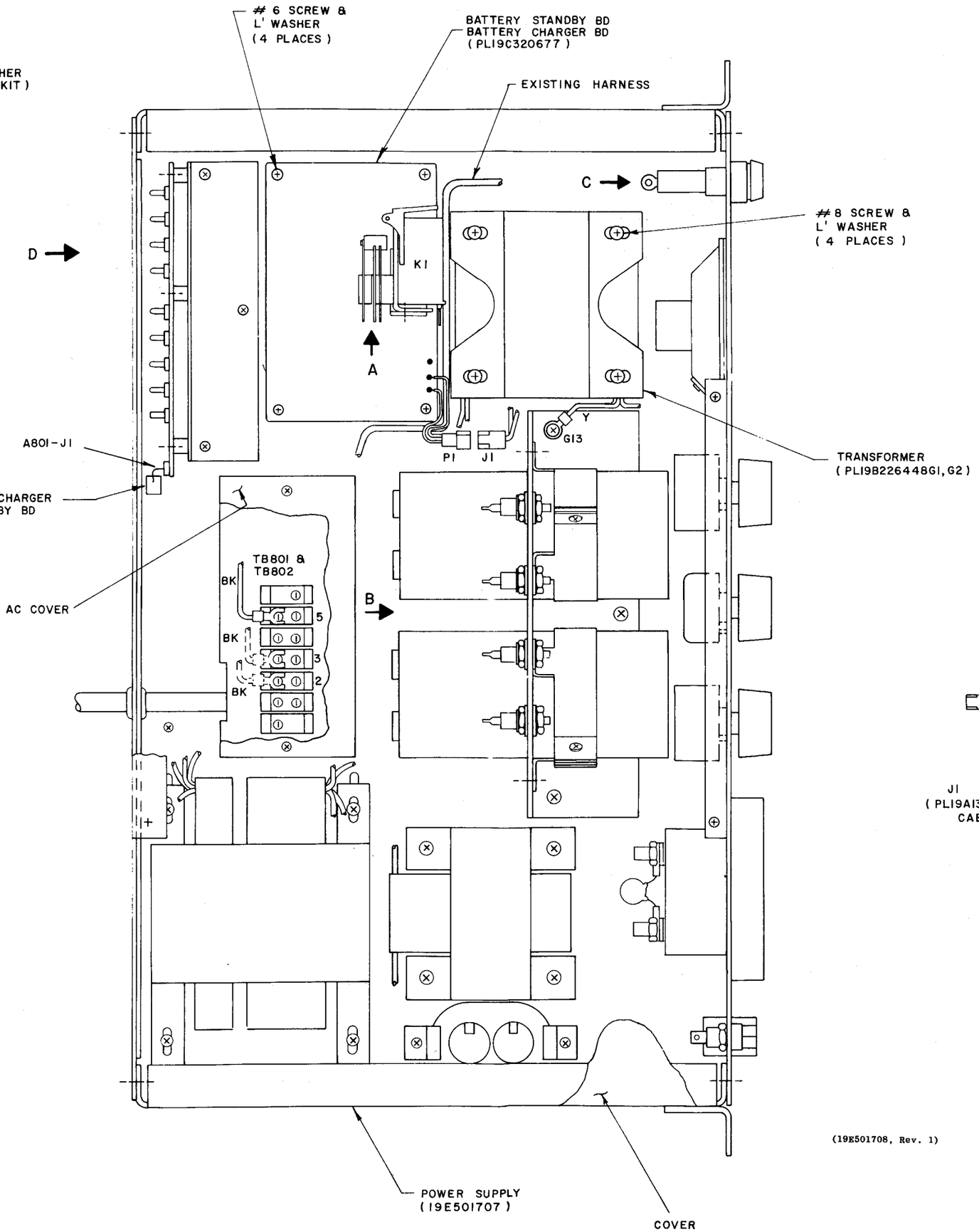
Changes in the equipment to improve performance or to simplify circuits are identified by a "Revision Letter", which is stamped after the model number of the unit. The revision stamped on the unit includes all previous revisions. Refer to the Parts List for descriptions of parts affected by these revisions.

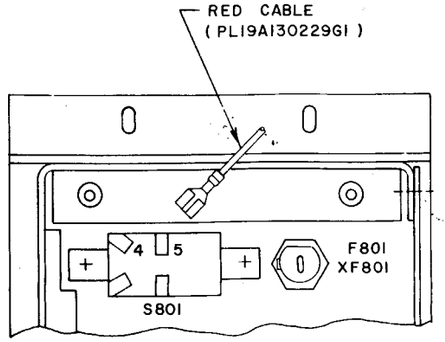
REV. A - Component Board 19C320677G2
To remove hum from the phone line when battery charger is operating. Added C2.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

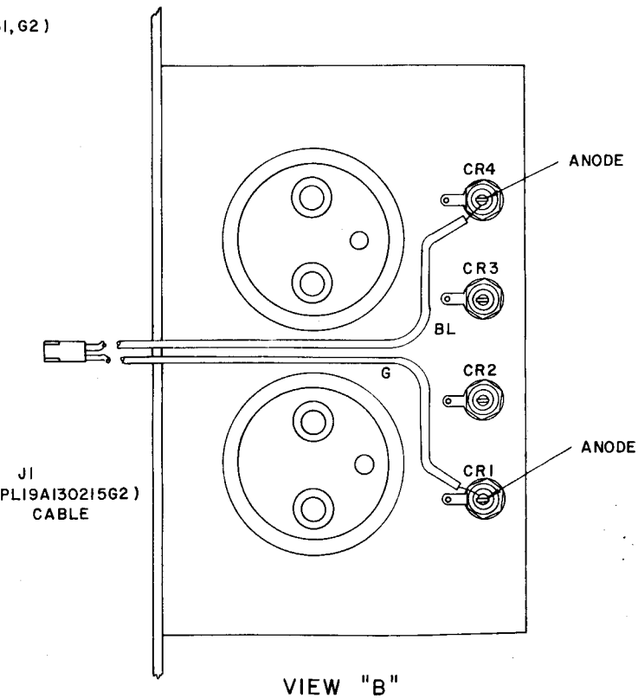


VIEW "D"
(PARTIAL)





VIEW "C"
(PARTIAL)



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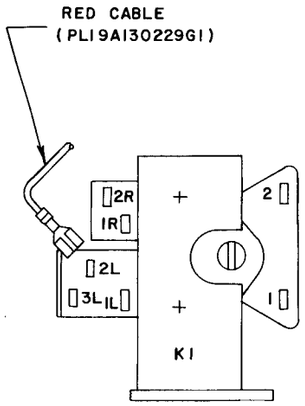

VIEW "A"
(ENLARGED)

(19E501708, Rev. 1)

THESE INSTRUCTIONS COVER THE INSTALLATION OF THE BATTERY CHARGER (19C320677G3 & G6) AND THE BATTERY STANDBY KIT (19C320677G5) IN THE POWER SUPPLY (19E501707G1 & G2).

(1) INSTRUCTIONS FOR INSTALLING BATTERY CHARGER (19C320677G3).

1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY CHARGER BOARD AS SHOWN USING #6 SCREWS AND LOCKWASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (PL19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VIEW A).
5. MOUNT TRANSFORMER (19B226448G1) AS SHOWN USING #8 SCREWS AND LOCKWASHERS.
6. CONNECT YELLOW TRANSFORMER LEAD AT G13 USING #8 LOCKWASHER ABOVE AND BELOW TERMINAL. ADDITIONAL LOCKWASHER SUPPLIED WITH KIT.
7. REMOVE 2 #6 SCREWS SECURING AC COVER AND REMOVE THE COVER.
8. CONNECT BLACK TRANSFORMER LEADS TO TB801-3 AND TB801-5 IN G1 SUPPLY (OR TB802-2 AND TB802-5 IN G2 SUPPLY) AS SHOWN. REASM AC COVER.
9. CONNECT P1 OF BATTERY CHARGER BOARD TO J1 OF TRANSFORMER.
10. CONNECT P2 OF BATTERY CHARGER BOARD TO A801-J1 AS SHOWN IN VIEW D.
11. REASSEMBLE POWER SUPPLY.
12. PLUG P1 OF CABLE (19A130215G1) INTO J11 OF A801, ROUTE CABLE AS SHOWN IN VIEW D AND SECURE WITH CABLE CLAMP (402985IP13) MOUNTED WITH EXISTING #6 SCREW.
13. MAKE CONNECTION TO CUSTOMER FURNISHED BATTERY. RED TO (+) POSITIVE AND BLACK TO (-) NEGATIVE.

(2) INSTRUCTIONS FOR INSTALLING BATTERY STANDBY KIT (19C320677G5).

1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY STANDBY BOARD AS SHOWN USING #6 SCREWS AND LOCKWASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VIEW A).
5. SOLDER BLUE WIRE OF CABLE (PL19A130215G2) TO ANODE OF CR4 AND GREEN WIRE TO ANODE OF CR1 AS SHOWN IN VIEW B.
6. CONNECT J1 OF CABLE (PL19A130215G2) TO P1 OF BATTERY STANDBY BOARD.
7. CONNECT P2 OF BATTERY STANDBY BOARD TO A801-J1 AS SHOWN IN VIEW D.
8. REASSEMBLE POWER SUPPLY.
9. PLUG P1 OF CABLE (19A130215G1) INTO J11 OF A801, ROUTE CABLE AS SHOWN IN VIEW D AND SECURE WITH CABLE CLAMP (402985IP13) MOUNTED WITH EXISTING #6 SCREW.
10. MAKE CONNECTION TO CUSTOMER FURNISHED BATTERY. RED TO (+) POSITIVE AND BLACK TO (-) NEGATIVE.

(3) INSTRUCTIONS FOR INSTALLING BATTERY CHARGER (19C320677G6).

1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY CHARGER BOARD AS SHOWN USING #6 SCREWS AND LOCKWASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (PL19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VIEW A).
5. MOUNT TRANSFORMER (19B226448G2) AS SHOWN USING #8 SCREWS AND LOCKWASHERS.
6. CONNECT YELLOW TRANSFORMER LEAD AT G13 USING #8 LOCKWASHER ABOVE AND BELOW TERMINAL. ADDITIONAL LOCKWASHER SUPPLIED WITH KIT.
7. CONNECT P1 OF BATTERY CHARGER BOARD TO J1 OF TRANSFORMER.
8. CONNECT P2 OF BATTERY CHARGER BOARD TO A801-J1 AS SHOWN IN VIEW D.
9. INSULATE TERMINALS ON TWO BLACK TRANSFORMER LEADS AND LEAVE LOOSE INSIDE SUPPLY. (TWO BLACK TRANSFORMER LEADS ARE CUSTOMER CONNECTIONS).
10. REASSEMBLE POWER SUPPLY.
11. PLUG P1 OF CABLE (19A130215G1) INTO J11 OF A801, ROUTE CABLE AS SHOWN IN VIEW D AND SECURE WITH CABLE CLAMP (402985IP13) MOUNTED WITH EXISTING #6 SCREW.
12. MAKE CONNECTION TO CUSTOMER FURNISHED BATTERY. RED TO (+) POSITIVE AND BLACK TO (-) NEGATIVE.

INSTALLATION INSTRUCTION

BATTERY STANDBY/CHARGER KITS 19C320677G3-G6