ERICSSON

INSTRUCTIONS
FOR
MULTIPLE RECEIVER POWER SUPPLY 19E501707G4 & G5

TABLE OF CONTENTS

DESCRIPTION

The MASTR® II Multiple Receiver Power Supply is designed for supplying a maximum of eight MASTR II auxiliary receivers. The supply will operate at 60 Hertz (Model 19E501707G4) or 50 Hertz (Model 19E501707G5). An audio power amplifier is included in the supply along with a speaker mounted on the front panel. A switch is provided for connecting each receiver line audio output to the amplifier and speaker. The receiver audio PA is not used in multiple auxiliary receiver applications.

Modification Kit 19A137630G1 (Option 9707) provides a metering circuit and meter mounted to the front panel of the supply. This kit allows functional checks of up to eight receivers. The metering points are the same as in the MASTR II station receivers.

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 SupplyWhen 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.

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Printed in U.S.A.

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

The supply 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.

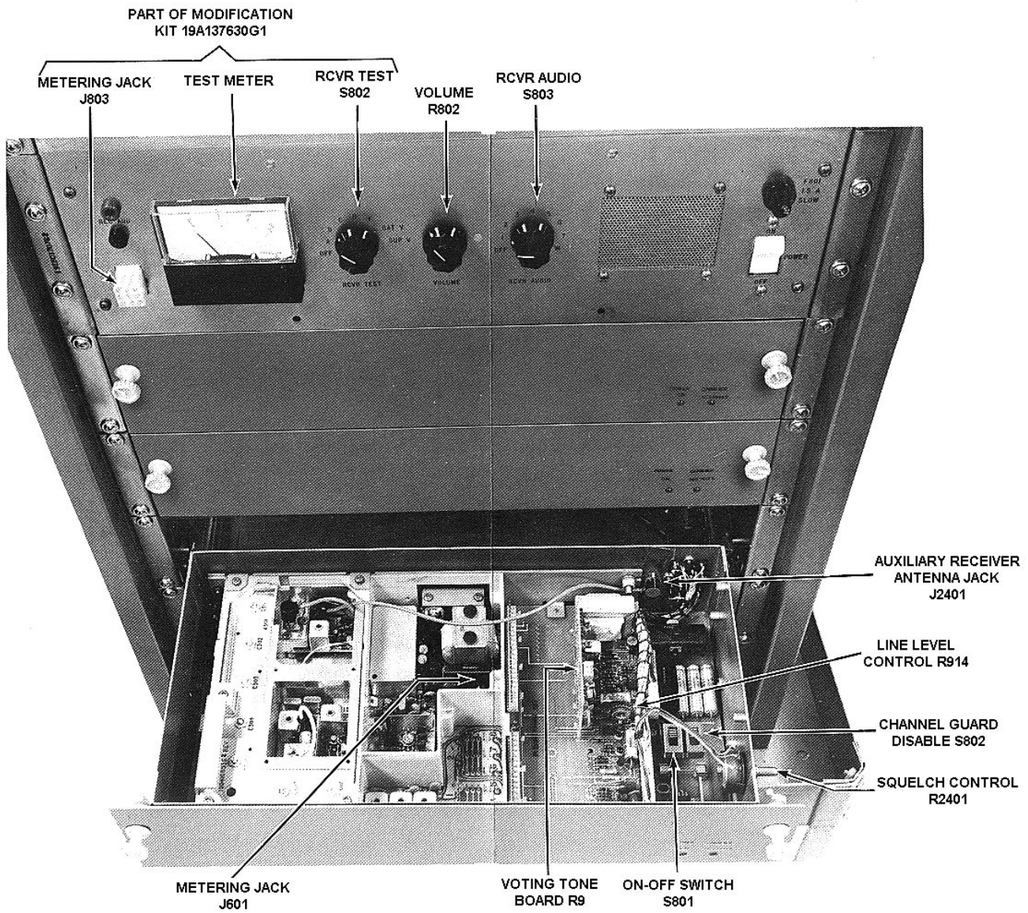
121 VAC Battery Standby/Charger (Option 9701)

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 protections.

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.



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.

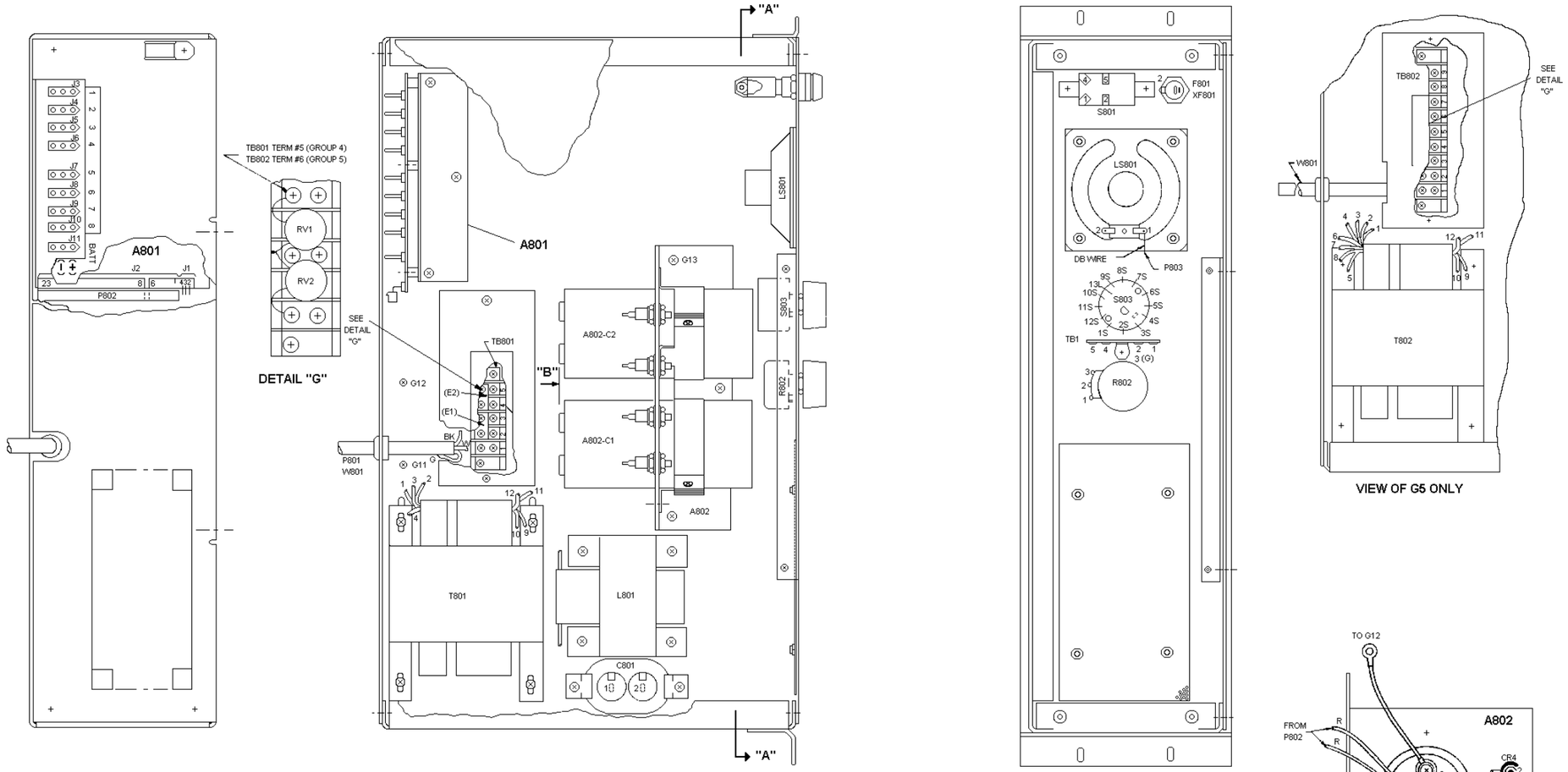
5. CONNECT METERING CABLE 19C321099G1 BETWEEN J803 (PART OF 19A137630G1 KIT ON POWER SUPPLY) AND J601 (ON RECEIVER CHASSIS).

6. SWITCH S802 (PART OF 19A137630G1 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 ±.05 VOLTS.

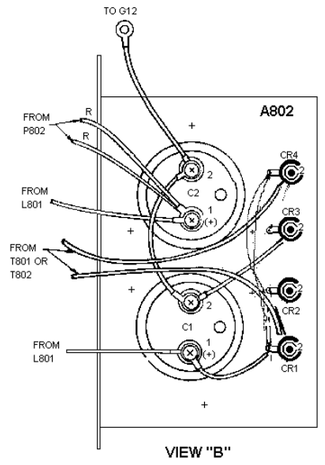
8. IF STANDBY BATTERY IS USED, CHECK FOR 12 VOLT BATTERY CONDITION BY PLACING RCVR TEST SWITCH S802 IN BAT V POSITION.

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



SECTION "A - A"

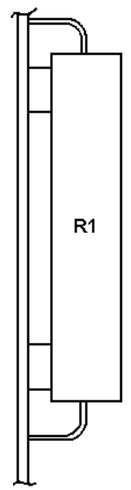
VIEW OF G5 ONLY



VIEW "B"

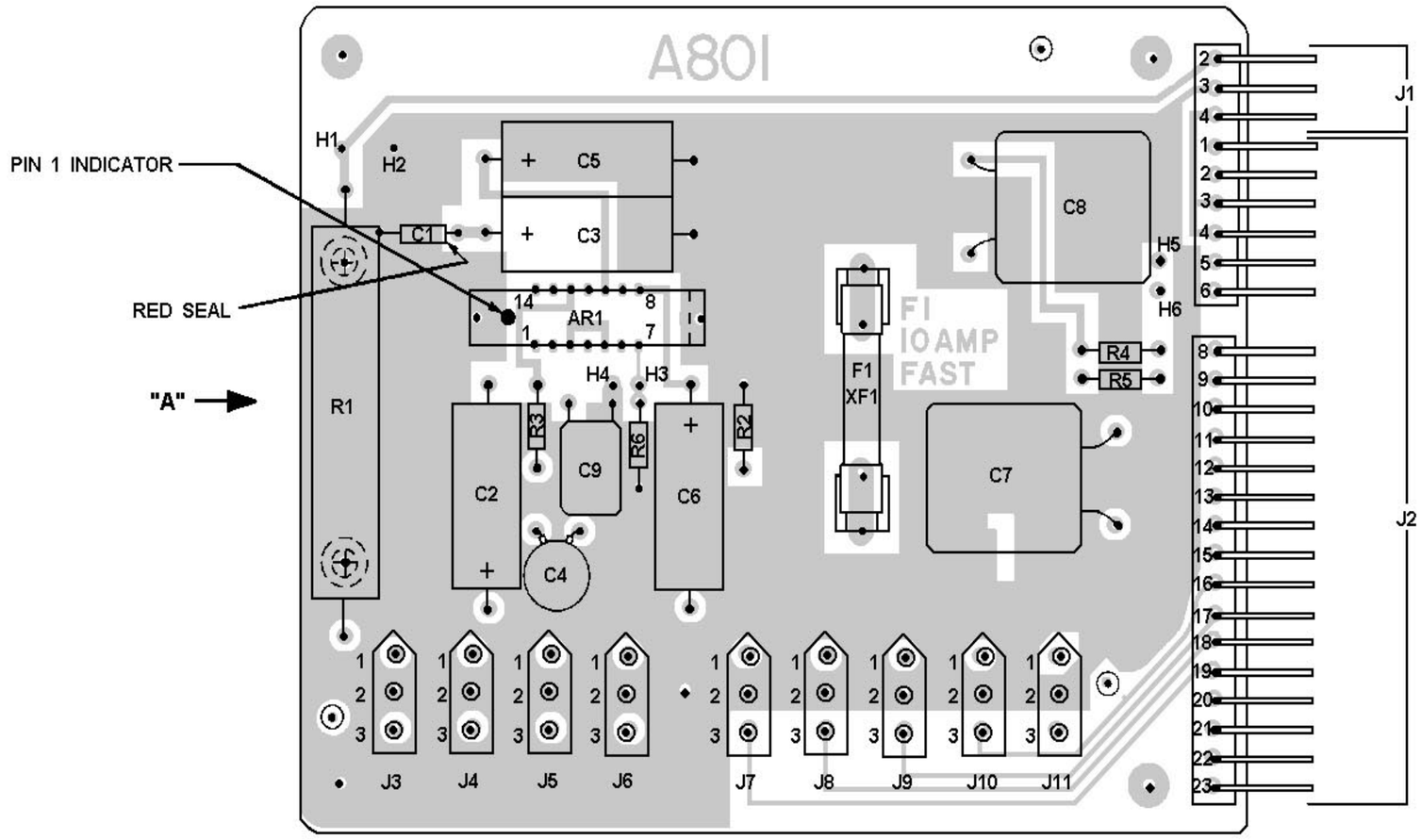
(19E501726, Sh. 2, Rev. 3)

MULTIPLE RECEIVER POWER SUPPLY
19E501707G4 & G5



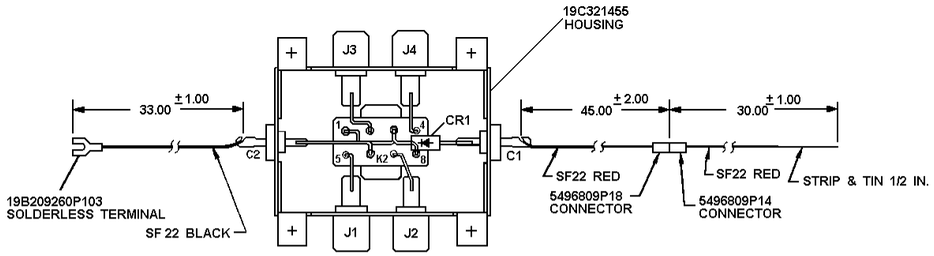
VIEW "A"
(PARTIAL)

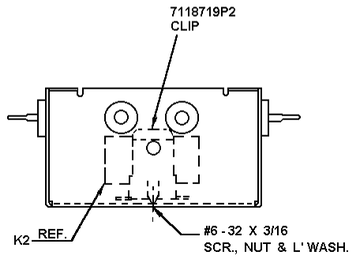
REFER TO WIRING DIAGRAM FOR THE FOLLOWING CONNECTIONS	
FROM	TO
H1	H2
H3	H5
H4	H6



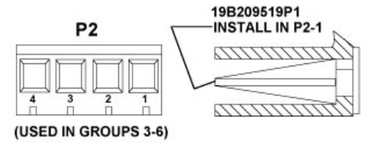
(19D423418, Rev. 0)
(19D417724, Sh. 2, Rev. 1)

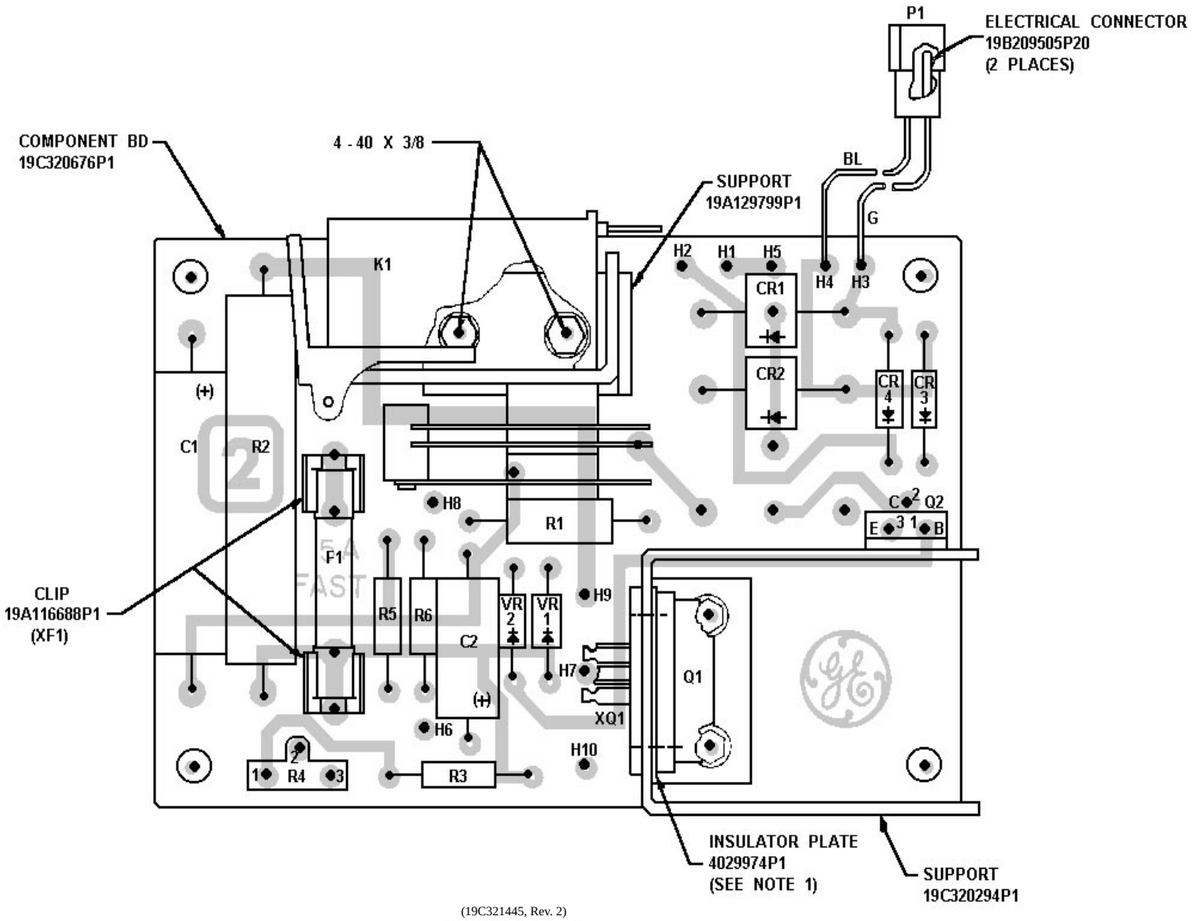
AMPLIFIER BOARD A801



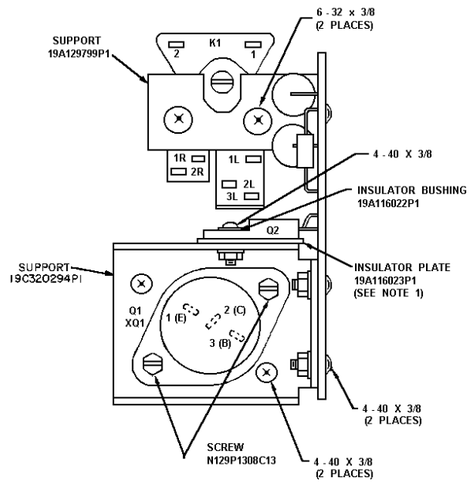


(19C321634, Rev. 0)



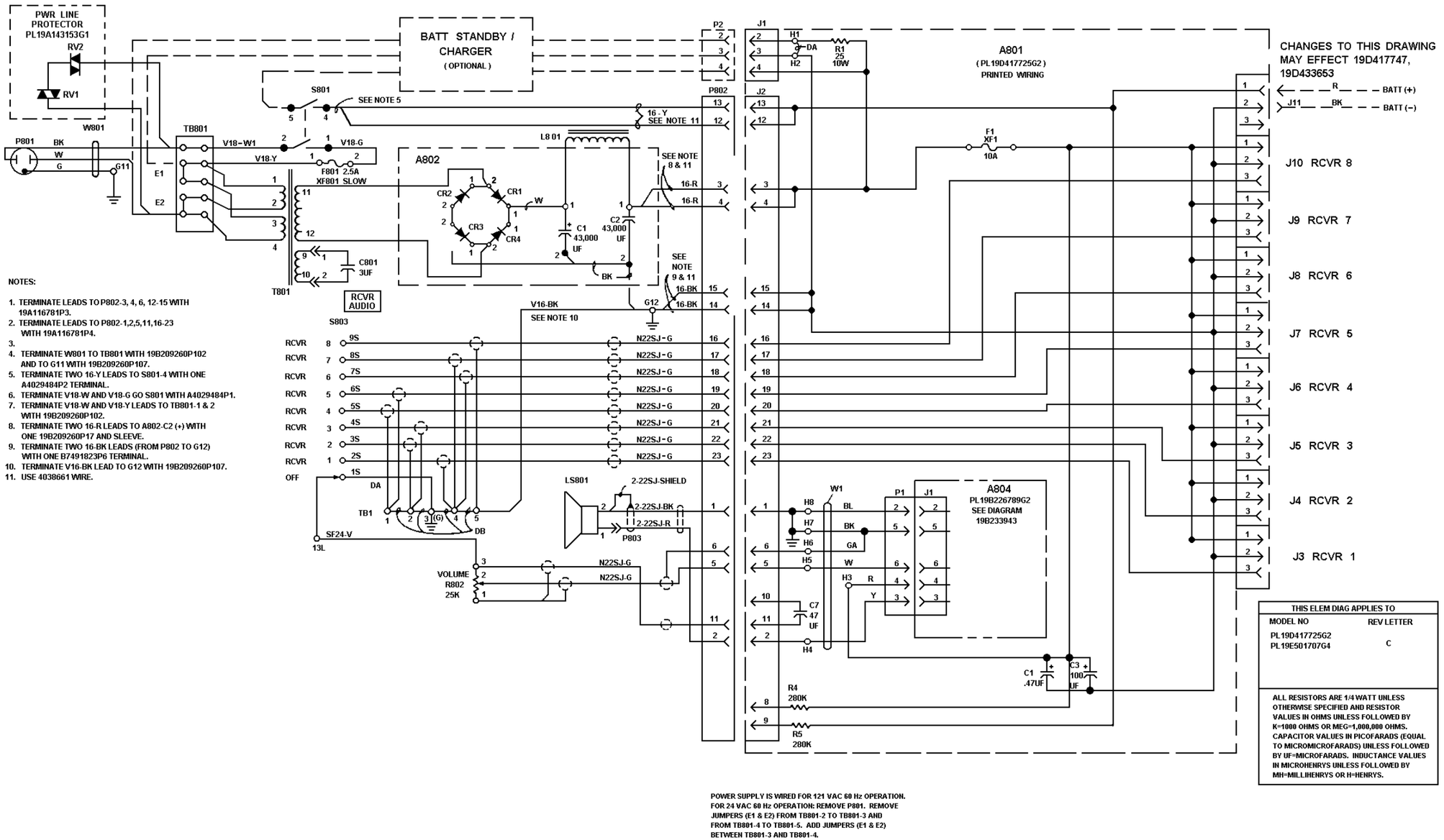


(19C321445, Rev. 2)
(19C320676, Sh. 2, Rev. 2)



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

BATTERY STANDBY/CHARGER
19C320677



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 6, 12-15 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1,2,5,11,16-23 WITH 19A116781P4.
3.
4. TERMINATE W801 TO TB801 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-4 WITH ONE A4029484P2 TERMINAL.
6. TERMINATE V18-W AND V18-G GO 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.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19D417725G2 PL19E501707G4	C

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.

POWER SUPPLY IS WIRED FOR 121 VAC 60 Hz OPERATION. FOR 24 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.

(19D433655 Sh. 1, Rev. 2)

MULTIPLE RECEIVER POWER SUPPLY

19E501707G4, Rev. A

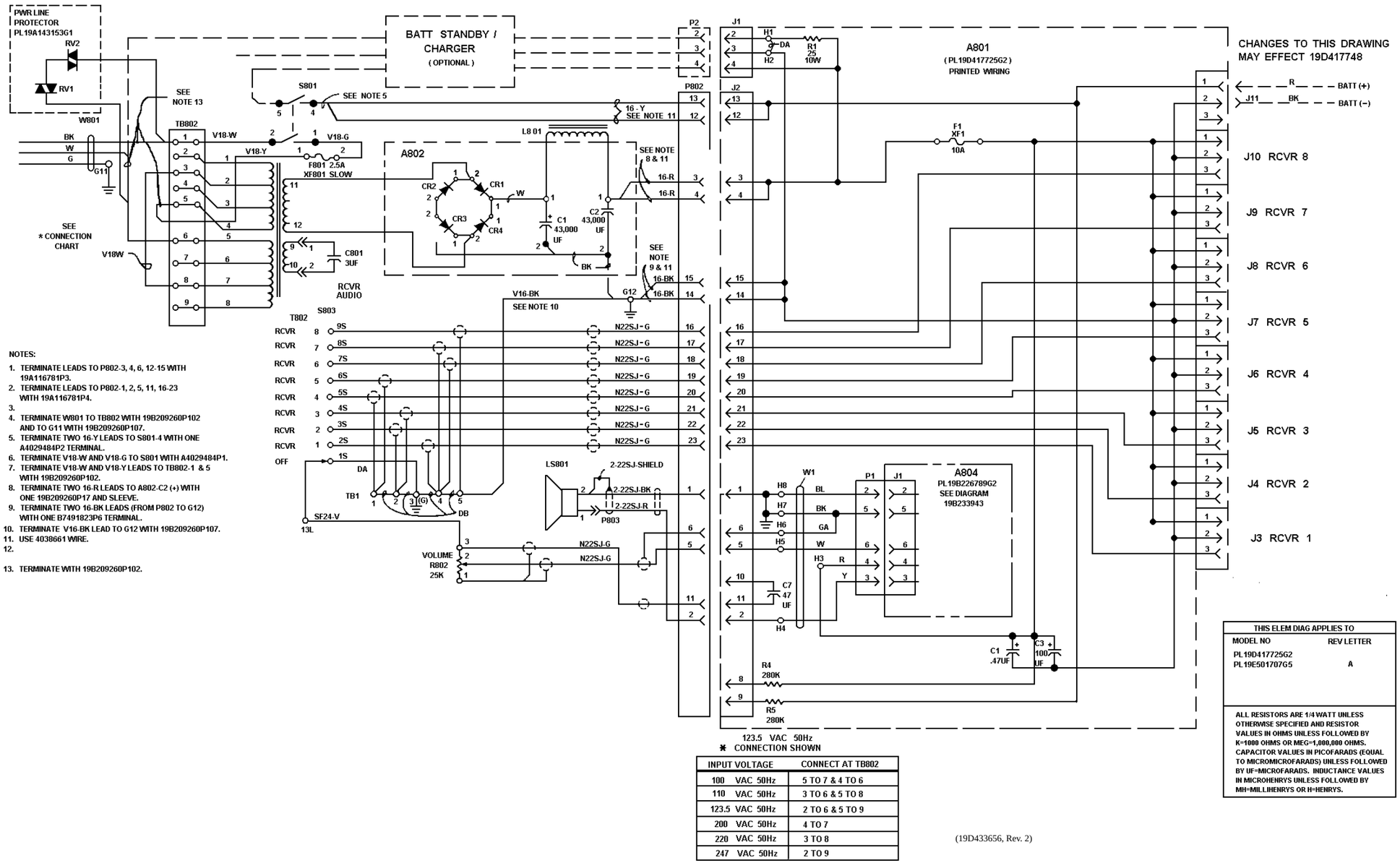
MULTIPLE RECEIVER POWER SUPPLY (60 HZ)
19E501707G4
ISSUE 2

SYMBOL	PART NO.	DESCRIPTION
A801		AMPLIFIER BOARD 19D417725G2
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	5491674P27	Tantalum: 0.47 uF + or - 20%, 35 VDCW; sim to Sprague Type 162D.
C3	5496267P16	Tantalum: 100 uF + or - 20%, 20 VDCW; sim to Sprague Type 150D.
C7	19A116080P111	Polyester: 0.47 uF + or - 10%, 50 VDCW.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Cartridge, quick blow: 15 amps at 250 v; sim to Bussmann ABC10.
		- - - - - - - - - - JACKS - - - - - - - - - -
J1 and J2		Connector. Includes:
	19A116659P31	Connector, printed wiring: 9 contacts rated at 5 amps; sim to Molex 09-66-1091. (J1-2 thru J1-4, J2-1 thru J2-6).
	19A116659P30	Connector, printed wiring: 8 contacts rated at 5 amps; sim to Molex 09-66-1081. (J2-8 thru J2-15 and J2-16 thru J2-23).
J3 thru J10	19A116647P7	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5038.
J11	19A116647P1	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5031.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	5493035P44	Wirewound: 25 ohms + or - 5%, 10 w; sim to Hamilton Hall Type HR.
R4 and R5	19A701250P444	Metal film: 280K ohms + or - 1%, 1/4 w.
		- - - - - - - - - - CABLES - - - - - - - - - -
W1	19A144562G1	Cable.
		- - - - - - - - - - FUSE SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip: sim to Littelfuse, Inc. 102071. (Quantity 2).
A802		RECTIFIER ASSEMBLY 19C321095G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 uf + 75% -10%, 20 VDCW; sim. to Sprague Type 602D.
		- - - - - - - - - - DIODES - - - - - - - - - -
CR1 thru CR4	5495922P1	Silicon: sim to Type 1N456.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C801	19A134574P3	Quick disconnect: 3 uf + 6%, 660 VRMS, sim. to GE 26F6620FB.
		- - - - - - - - - - JUMPERS - - - - - - - - - -
E1 and E2	7143961P1	Bus bar: sim to Kulka No. 600. (Located between TB801-2 and TB801-3, TB801-4 and TB801-5).

SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - - - FUSES - - - - - - - - - -
F801	19B800912P27	Fuse, slow blow: 2.5 amps at 125V.
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L801	19A130204G1	Reactor: 6 mh min., 0.1 ohms DC res max, 48 VDC operating.
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - - -
LS801	19A116701P1	Permanent magnet: 3" square, 2 watt, 3.2 ohm + or -10% imp. @ 1000 Hz.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P801		Part of W801.
P802		Connector. Includes:
	19A116659P23	Shell.
	19A116781P3	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0105.
	19A116781P4	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0107.
	19B209519P1	Polarity tab.
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R802	5496870P32	Variable, carbon film: 25K ohms + or -20%, sim to Mallory LC(25K).
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B209498P1	Push: DPST, 20 amps at 220 VRMS; sim. to Mo6dil 0811-0188.
S803	5495454P29	Rotary: 1 to 12 positions with adjustable stops, contacts rated 2 amps @ 25 VDC.
		- - - - - - - - - - TRANSFORMERS - - - - - - - - - -
T801	19A130205G1	Transformer.
		- - - - - - - - - - TERMINAL BOARDS - - - - - - - - - -
TB801	19C301087P15	Phen: 5 terminals; 15 amps at 1200 VRMS, sim to GE CR151D.
		- - - - - - - - - - CABLES - - - - - - - - - -
W801	19A134567P1	Power, 3 wire, 13 amps at 125 VAC, approx. 6 ft. long.
		- - - - - - - - - - FUSE SOCKETS - - - - - - - - - -
XF801	4037402P2	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342001.
		POWER LINE PROTECTION 19A143153G1
		- - - - - - - - - - VARISTORS - - - - - - - - - -
RV1 and RV2	19A134142P1	Arrestor, electrical surge: sim to V130LAX576.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	19B209260P103	Solderless terminal. (Used with Power Line Protection).
	7776855P18	Retainer strap. (Secures C801).
	19A134022P1	Protective cap. (Located on terminals of C801).
	19B226217P2	Grille. (Used with LS801).
	19A702464P4	Bushing, strain relief.
	19B209260P107	Terminal, solderless: wire No. 22-16 AWG; sim to AMP 34107. (Used on loose end of C2 on A802).
	4031543P2	Knob. (Used with R802, S803).
	7775500P11	Phen: 5 terminals.
	7165075P2	Hex nut, brass: thd. size No. 3/8-32.
	7115130P9	Lockwasher, interal tooth: No. 3/8.

SYMBOL	PART NO.	DESCRIPTION
	4029484P11	Terminal, quick disconnect: 22-18 AWG, sim to AMP 41772.
	19B209260P102	Solderless terminal. (Used with W801 at TB801).
	19B800629P6	Solderless terminal: wire range No. 14-16 AWG; sim to AMP 42751-2.
	7491823P6	Solderless terminal: wire size No. 16-14 AWG; sim to AMP 32188.
	4029484P1	Terminal, quick disconnect: sim to AMP 41772.
	19B232695P1	Grille. (Located over optional meter cutout).
	19E501707G6	Harness Assembly. (Includes P802, P803, R802, and S803).
	N80P13008B6	Machine screw, panhead: No. 6-32 x 1/2.
	N402P37B6	Flatwasher: No. 6.
	N80P13007B6	Machine screw, panhead: No. 6-32 x 7/16.
	N80P13005B6	Machine screw, panhead: No. 6-32 x 5/16.
	N80P13004B6	Machine screw: No. 6-32 x 1/4.
	N404P13B6	Lockwasher, internal tooth: No. 6.
	7141225P3	Hex Nut: No. 6-32.
	N80P13006B6	Machine screw, phillips head: No. 6-32 x 3/8.
	N403P16B6	Lockwasher, internal tooth: No. 8.
	N80P15006B6	Machine screw, panhead: No. 8-32 x 3/8.
	7479571P13	Retainer. (Secures C1, C2 on A802).
	N402P39B6	Flatwasher: No. 10.
	N402P8B6	Flatwasher, steel: No. 8.
	N210P15B6	Nut, hex: No. 8-32.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 6, 12-15 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1, 2, 5, 11, 16-23 WITH 19A116781P4.
3.
4. TERMINATE W801 TO TB802 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-4 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.
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

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19D417725G2	
PL19E501707G5	A

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.

(19D433656, Rev. 2)

MULTIPLE RECEIVER POWER SUPPLY
19E501707G5, Rev. A

MULTIPLE RECEIVER POWER SUPPLY (50 Hz)
19E501707G5
ISSUE 2

SYMBOL	PART NO.	DESCRIPTION
A801		AMPLIFIER BOARD 19D417725G2
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	5491674P27	Tantalum: 0.47 uF + or - 20%, 35 VDCW; sim to Sprague Type 162D.
C3	5496267P16	Tantalum: 100 uF + or - 20%, 20 VDCW; sim to Sprague Type 150D.
C7	19A116080P111	Polyester: 0.47 uF + or - 10%, 50 VDCW.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Cartridge, quick blow: 15 amps at 250 v; sim to Bussmann ABC10.
		- - - - - - - - - - JACKS - - - - - - - - - -
J1 and J2		Connector. Includes:
	19A116659P31	Connector, printed wiring: 9 contacts rated at 5 amps; sim to Molex 09-66-1091. (J1-2 thru J1-4, J2-1 thru J2-6).
	19A116659P30	Connector, printed wiring: 8 contacts rated at 5 amps; sim to Molex 09-66-1081. (J2-8 thru J2-23).
J3 thru J10	19A116647P7	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5038.
J11	19A116647P1	Connector, printed wiring: 3 terminals; sim to Molex 09-18-5031.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	5493035P44	Wirewound: 25 ohms + or - 5%, 10 w; sim to Hamilton Hall Type HR.
R4 and R5	19A701250P444	Metal film: 280K ohms + or - 1%, 1/4 w.
		- - - - - - - - - - CABLES - - - - - - - - - -
W1	19A144562G1	Cable.
		- - - - - - - - - - FUSE SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip: sim to Littelfuse, Inc. 102071.
A802		RECTIFIER ASSEMBLY 19C321095G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 uf + 75% -10%, 20 VDCW; sim. to Sprague Type 602D.
		- - - - - - - - - - DIODES - - - - - - - - - -
CR1 thru CR4	5495922P1	Silicon; sim to Type 1N456.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C801	19A134574P3	Quick disconnect: 3 uf + 6%, 660 VRMS, sim. to GE 26F6620PB.
		- - - - - - - - - - FUSES - - - - - - - - - -
F801	19B800912P27	Fuse, slow blow: 2.5 amps at 125V.
		- - - - - - - - - - INDUCTORS - - - - - - - - - -
L801	19A130204G1	Reactor: 6 mh min., 0.1 ohms DC res max, 48 VDC operating.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

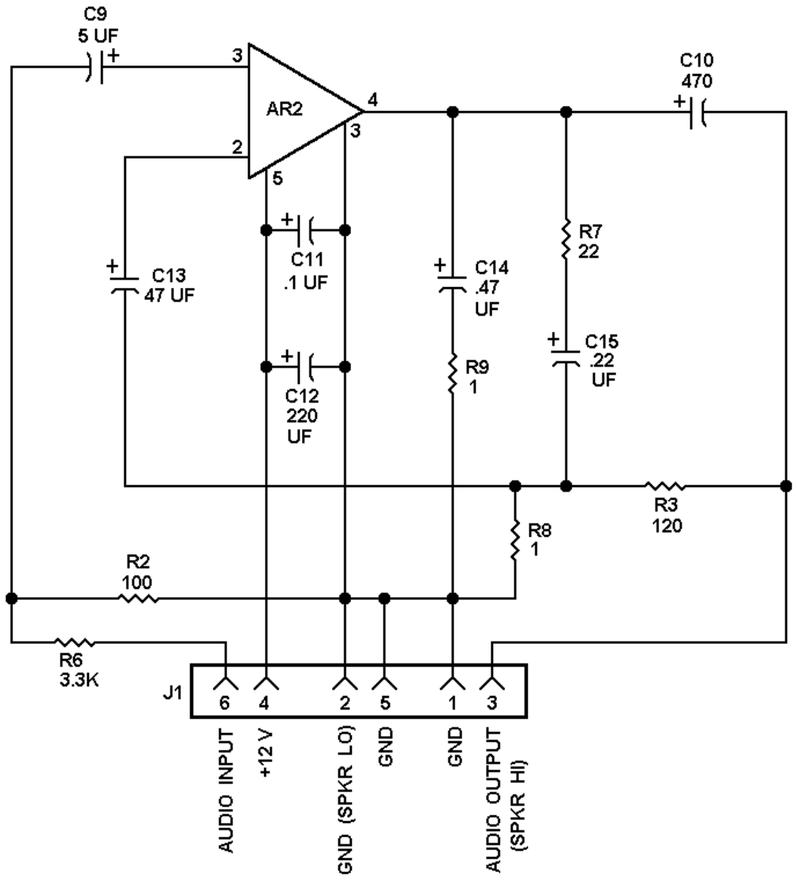
SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - - -
LS801	19A116701P1	Permanent magnet: 3" square, 2 watt, 3.2 ohm + or -10% imp. @ 1000 Hz.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P802		Connector. Includes:
	19A116659P23	Shell.
	19A116781P3	Contact, electrical: wire range No. 16-20 AWG; sim to Molex 08-50-0105.
	19A116781P4	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0107.
	19B209519P1	Polarity tab.
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R802	5496870P32	Variable, carbon film: 25K ohms + or -20%, sim to Mallory LC(25K).
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B209498P1	Push: DPST, 20 amps at 220 VRMS; sim. to McGill 0811-0188.
S803	5495454P29	Rotary: 1 to 12 positions with adjustable stops, contacts rated 2 amps @ 25 VDC.
		- - - - - - - - - - TRANSFORMERS - - - - - - - - - -
T802	19A130205G2	Power, voltage regulating: 50 Hz, 100/110/123.5/200/220/247 + or -20% input voltage.
		- - - - - - - - - - TERMINAL BOARDS - - - - - - - - - -
TB802	19C301087P11	Phen: 9 terminals; sim to GE CR151D.
		- - - - - - - - - - CABLES - - - - - - - - - -
W801	19A134567P1	Power, 3 wire, 13 amps at 125 VAC, approx. 6 ft. long.
		- - - - - - - - - - FUSE SOCKETS - - - - - - - - - -
XF801	4037402P2	Fuseholder: 15 amps at 250 v; sim to Littelfuse 342001.
		POWER LINE PROTECTION 19A143153G1
		- - - - - - - - - - VARISTORS - - - - - - - - - -
RV1 and RV2	19A134142P1	Arrestor, electrical surge: sim to V130LAX576.
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	7479571P13	Retainer. (Secures C1, C2 on A802).
	19B209260P107	Terminal, solderless: wire No. 22-16 AWG; sim to AMP 34107. (Hanging on loose end from C2 on A802).
	MS402P39B6	Flatwasher: No. 10.
	MS402P8B6	Flatwasher, steel: No. 8
	MS0P13006B6	Machine screw, phillips head: No. 6-32 x 3/8.
	MS210P15B6	Nut, hex: No. 8-32.
	19B226434G1	Support. (J3-J11).
	7776855P18	Retainer strap. (Secures C801).
	19A134022P1	Protective cap. (Located on terminals of C801).
	19B226217P2	Grille. (Used with LS801).
	4031543P2	Knob. (Used with R802, S803).
	7165075P2	Hex nut, brass: thd. size No. 3/8-32.
	7115130P9	Lockwasher, interal tooth: No. 3/8.
	4029484P11	Terminal, quick disconnect: 22-18 AWG, sim to AMP 41772.
	19B209260P102	Solderless terminal. (Used with W801 at TB801).

SYMBOL	PART NO.	DESCRIPTION
	19B800629P6	Solderless terminal: wire range No. 14-16 AWG; sim to AMP 42751-2.
	7491823P6	Solderless terminal: wire size No. 16-14 AWG; sim to AMP 32188.
	4029484P1	Terminal, quick disconnect: sim to AMP 41772.
	19B232695P1	Grille. (Located over optional meter cutout).
	19E501707G6	Harness Assembly. (Includes P802, P803, R802, and S803).
	MS0P13008B6	Machine screw, panhead: No. 6-32 x 1/2.
	MS402P37B6	Flatwasher: No. 6.
	MS0P13007B6	Machine screw, panhead: No. 6-32 x 7/16.
	MS0P13005B6	Machine screw, panhead: No. 6-32 x 5/16.
	MS0P13004B6	Machine screw: No. 6-32 x 1/4.
	MS404P13B6	Lockwasher, internal tooth: No. 6.
	7141225P3	Hex Nut: No. 6-32.
	MS403P16B6	Lockwasher, internal tooth: No. 8.
	MS0P15006B6	Machine screw, panhead: No. 8-32 x 3/8.

SUPPORT HARDWARE
FOR
STATION POWER SUPPLY
19A130031G18

SYMBOL	PART NO.	DESCRIPTION
	7160861P33	Nut, sheet spring: sim to Tinnerman C19640-19AB-600.
	19A134011P1	Tap screw: No. 10-16 x 3/4.
	MS403P19B6	Lockwasher: No. 10.
	19A143291P1	Support.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES



(19B233943, Sh. 1, Rev. 2)

THIS DIAGRAM IS FOR
PL19B226789 GROUP 2 ONLY

NOTES:

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

PARTS LIST

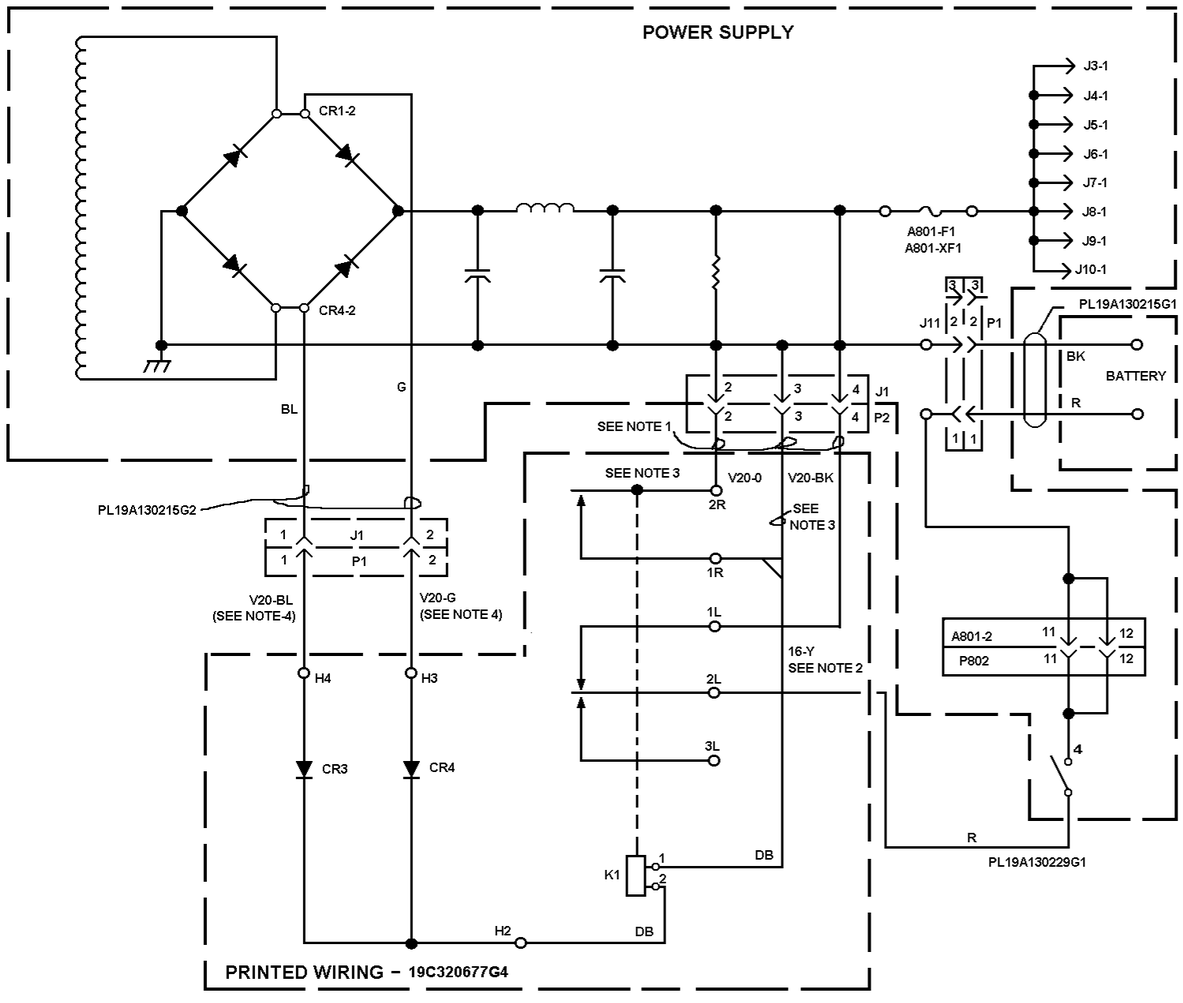
2-1/2 WATT AUDIO AMPLIFIER
19B226789G2

ISSUE 1

SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - INTEGRATED CIRCUITS - - - - - - -
AR2	19A701830P1	Linear, Audio AMPLIFIER: sim to TDA 2003.
		- - - - - - - - - - CAPACITORS - - - - - - - - -
C9	19A115680P2	Electrolytic: 5 uF +150-10%, 25 VDCW; sim to Mallory Type TTX.
C10	19A701225P8	Electrolytic: 470 uF -10+75%, 16 VDCW; sim to Sprague 5002D477-G016DGIC.
C11	19A701534P1	Tantalum: 0.1 uF + or - 20%, 35 VDCW.
C12	19A700064P5	Electrolytic: 220 uF -10+150%, 18 VDCW.
C13	19A700064P3	Electrolytic: 47 uF + or -10%, 25 VDCW.
C14	19A701534P3	Tantalum: 0.47 uF + or - 20%, 35 VDCW.
C15	19A701534P2	Tantalum: 0.22 uF + or -20%, 35 VDCW.
		- - - - - - - - - - - JACKS - - - - - - - - - - -
J1	19A700041P80	Printed wire: 6 contacts rated @ 2.5 amps each; sim to Molex 22-15-2066.
		- - - - - - - - - RESISTORS - - - - - - - - -
R2	19A700106P39	Composition: 100 ohms + or - 5%, 1/4 w.
R3	19A700106P41	Composition: 120 ohms + or - 5%, 1/4 w.
R6	19A700106P75	Composition: 3.3K ohms + or - 5%, 1/4 w.
R7	19A700106P23	Composition: 22 ohms + or - 5%, 1/4 w.
R8 and R9	H212CRP910C	Deposited carbon: 1 ohm + or -5%, 1/4 w.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

AUDIO AMPLIFIER A804



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. 3)

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 AND V20-BK TO P2 WITH 19A115781P3.
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.

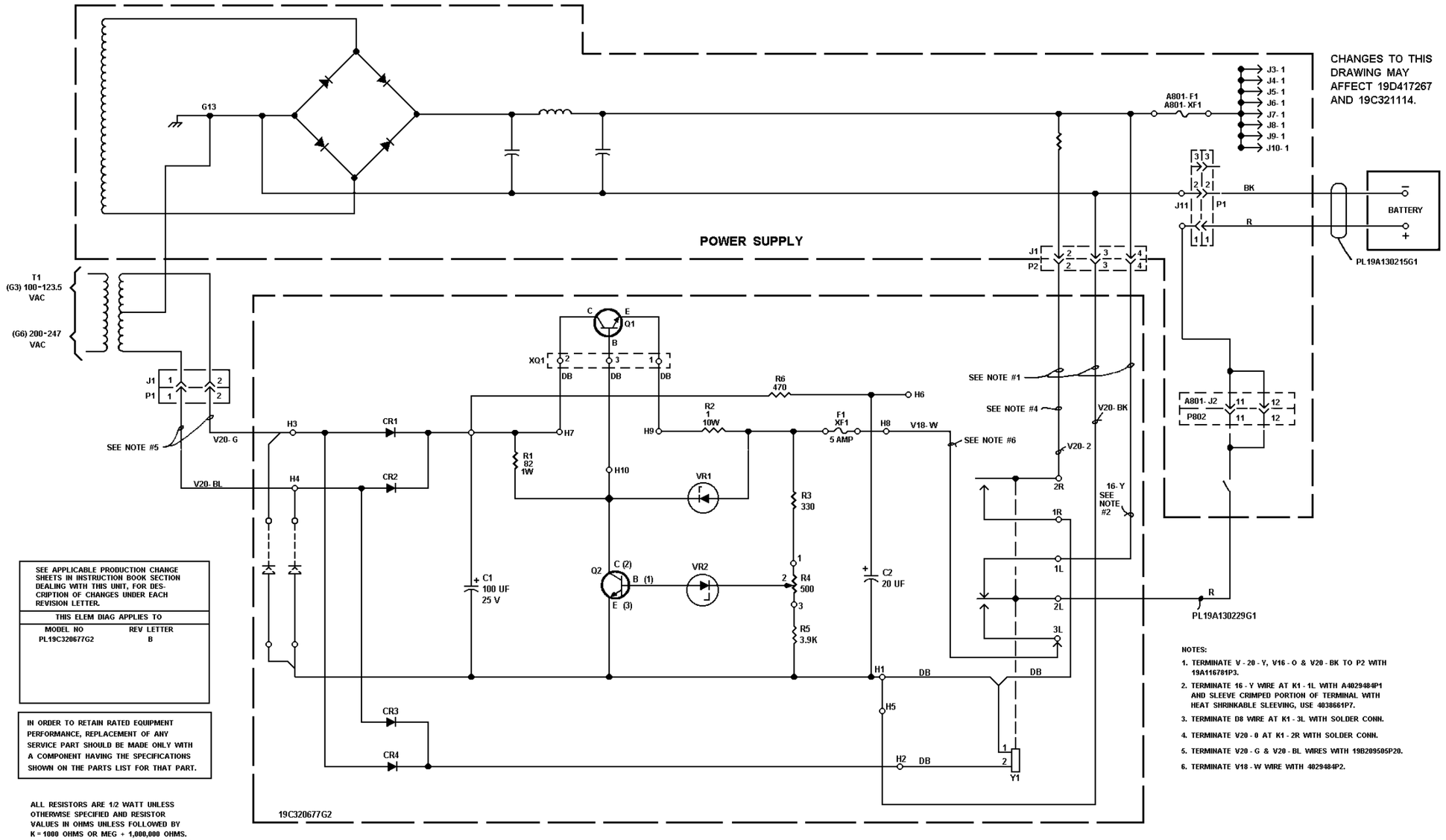
LBI-4928

BATTERY STANDBY KIT
19C320677G5

SYMBOL	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 282RX134A.
		- - - - - - - - - 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

BATTERY STANDBY KIT
19C320667G4 & G5



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	B

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.

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.
3. TERMINATE D8 WIRE AT K1-3L WITH SOLDER CONN.
4. TERMINATE V20-0 AT K1-2R WITH SOLDER CONN.
5. TERMINATE V20-G & V20-BL WIRES WITH 19B209505P20.
6. TERMINATE V18-W WIRE WITH 4029484P2.

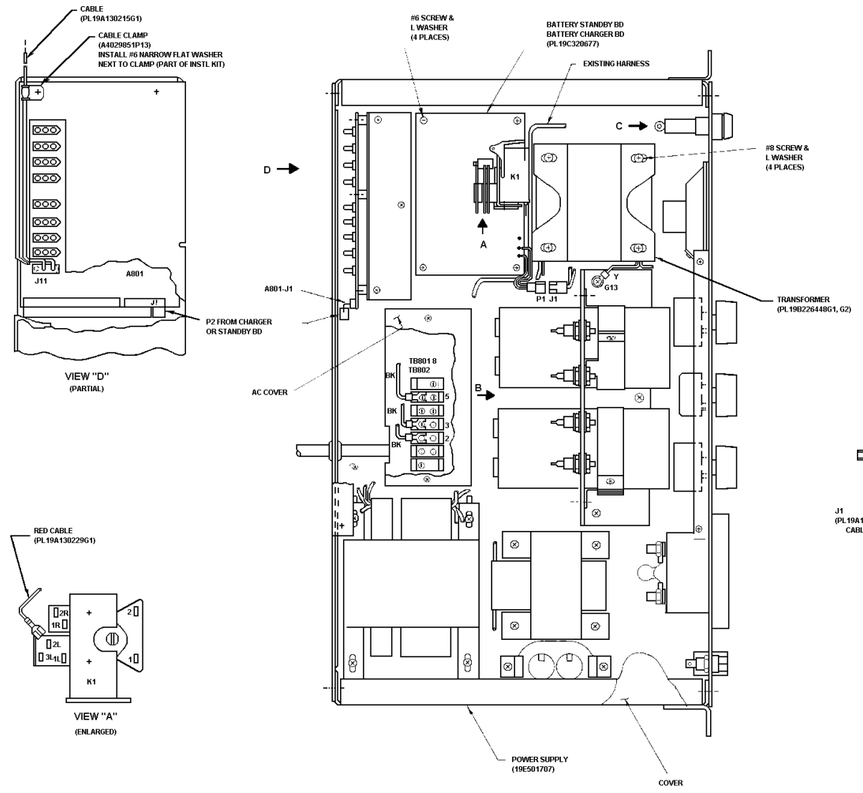
(19D417739, Rev. 7)

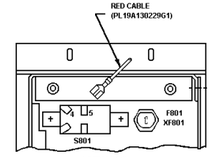
BATTERY STANDBY/CHARGER KITS
19C320677G3 & G6

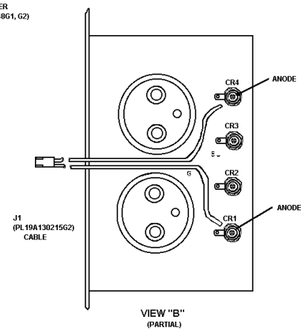
LBI 4929B
BATTERY STANDBY/CHARGER KITS
19C320677G3 121 VAC
19C320677G6 242 VAC

SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - - - - - PLUGS - - - - - - - - - - - -
P1		Includes:
	19B209505P102	Shell.
	19B209505P20	Contact, electrical: 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 uF +150 -10%, 25 VDCW; sim to Mallory Type TTX.
C2	19A115680P3	Electrolytic: 20 uF +150-10%, 25 VDCW; sim to Mallory Type TTX.
		- - - - - - - - - - RECTIFIERS - - - - - - - - - -
CR1 and CR2	19A116783P1	Rectifier, silicon: 100 VDC blocking, 6 amp; sim to MR751.
CR3 and CR4	T324ADP1041	Rectifier, silicon: general purpose.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	1R16P8	Cartridge, quick blowing: 5 amps at 250 v; sim to Littelfuse 312005 or Bussmann MTH-5.
		- - - - - - - - - - RELAYS - - - - - - - - - -
K1	19B209492P1	Open: 12.6 VDC, 80 amps + or - 10%, coil res, 1 form C contact, 15 amps @ 28 VDC; sim to Magnecraft 22RX134A.
		- - - - - - - - - - TRANSISTORS - - - - - - - - - -
Q1	19A116753P1	Silicon, NPN.
Q2	19A116118P1	Silicon, NPN.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R1	19A700112P37	Composition: 82 ohms + or - 5%, 1 w.
R2	5493035P28	Wirewound: 1 ohm + or -10%, 10 watts.
R3	19A700113P51	Composition: 330 ohms + or - 5%, 1/2 w.
R4	19B209358P102	Variable, linear taper: 25-500 ohms + or -20%, .2 w; sim to CTS X-201.
R5	3R77P392K	Composition: 3900 ohms + or - 10%, 1/2 w.
R6	19A700113P55	Composition: 470 ohms + or - 5%, 1/2 w.
		- - - - - - - - VOLTAGE REGULATORS - - - - - - - -
VR1	4036887P3	Silicon, zener diode; sim to 1N5228B.
VR2	4036887P8	Zener: 500 mW, 11 v. nominal.
		- - - - - - - - - - FUSE SOCKETS - - - - - - - - - -
XF1	19A116688P1	Fuse clip: sim to Littelfuse, Inc. 102071.
XQ1	5491888P1	Transistor, power, phen: sim to Cinch 133-92-10-034.
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	19C320294P1	Support. (Mounts Q8).
	19A129799P1	Support. (Mounts K1).
	19A116022P1	Insulator, bushing. (Used with Q2).
	19A116023P1	Insulator, plate. (Used with Q2).
	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).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES







(19E501708, Rev. 2)

BATTERY STANDBY/CHARGER KITS
19C320677

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).

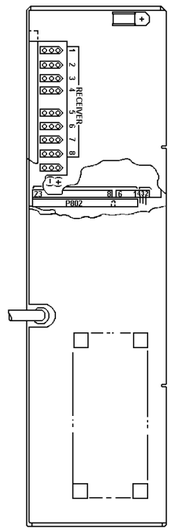
1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY CHARGER BOARD AS SHOWN USING #6 SCREWS AND LOCKWASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (PL19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VIEW 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 G4 SUPPLY (OR TB802-2 AND TB802-5 IN G5 SUPPLY) AS SHOWN. REASM AC COVER.
9. CONNECT P1 OF BATTERY CHARGER BOARD TO J1 OF TRANSFORMER.
10. CONNECT P2 OF BATTER 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 (4029851P13) 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).

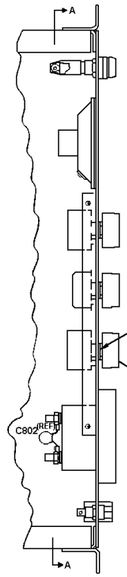
1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY STANDBY BOARD AS SHOWN USING #6 SCREWS AND LOCK - WASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VIEW 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 (4029851P13) MOUNTED WITH EXISTING #6 SCREWS.
10. MAKE CONNECTION TO CUSTOMER FURNISHED BATTERY. RED TO (+) POSITIVE AND BLACK TO (-) NEGATIVE.

3 INSTRUCTIONS FOR INSTALLING BATTERY CHARGER (19C320677G6).

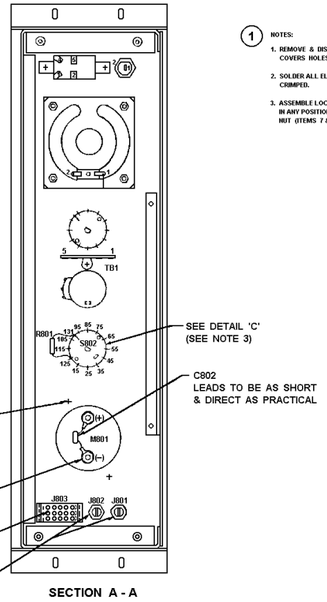
1. UNPLUG THE POWER SUPPLY.
2. REMOVE 4 #6 SCREWS AND REMOVE TOP COVER.
3. MOUNT BATTERY CHARGER BOARD AS SHOWN USING #6 SCREWS AND LOCK - WASHERS. ROUTE EXISTING HARNESS AS SHOWN.
4. CONNECT ONE END OF RED CABLE (PL19A130229G1) TO TERMINAL 5 OF S801 (VIEW C) AND OTHER END TO TERMINAL 2L OF RELAY (VEW A).
5. MOUNT TRANSFORMER (19B225448G2) 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 (4029851P13) MOUNTED WITH EXISTING #6 SCREW.
12. MAKE CONNECTION TO CUSTOMER FURNISHED BATTERY. RED TO (+) POSITIVE AND BLACK TO (-) NEGATIVE.



REAR VIEW
(REAR PLATE)

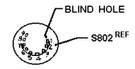


TOP VIEW
(FRONT PLATE)

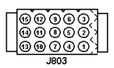


SECTION A - A

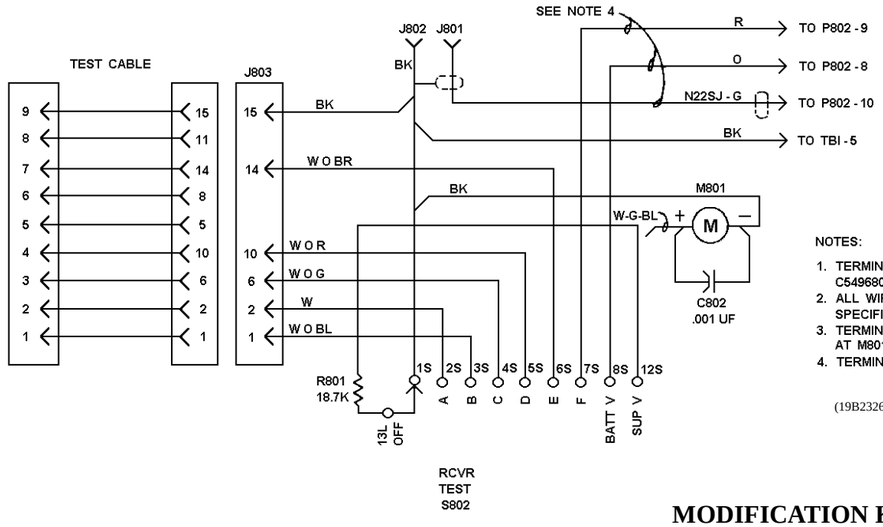
1. NOTES:
   1. REMOVE & DISCARD GRILL BEHIND FRONT PANEL WHICH COVERS HOLES FOR METERING OPTION.
   2. SOLDER ALL ELECTRICAL CONNECTIONS THAT ARE NOT CRIMPED.
   3. ASSEMBLE LOCKING WASHER (SUPPLIED WITH SWITCH) IN ANY POSITION. THEN SECURE WITH LOCKWASHER AND NUT (ITEMS 7 & 8) FINGER TIGHT.



DETAIL 'C'
(VIEWED FROM KNOB END)
ASM LOCKING WASHER IN
POSITION B



DETAIL 'B'
(ENLARGED)



NOTES:

1. TERMINATE LEADS TO J803 WITH C5496809P18.
2. ALL WIRE SF24 UNLESS OTHERWISE SPECIFIED.
3. TERMINATED SF24 BK AND SF24 W-BL-G AT M801 WITH 4033714P2.
4. TERMINATE WITH 19A116781P4.

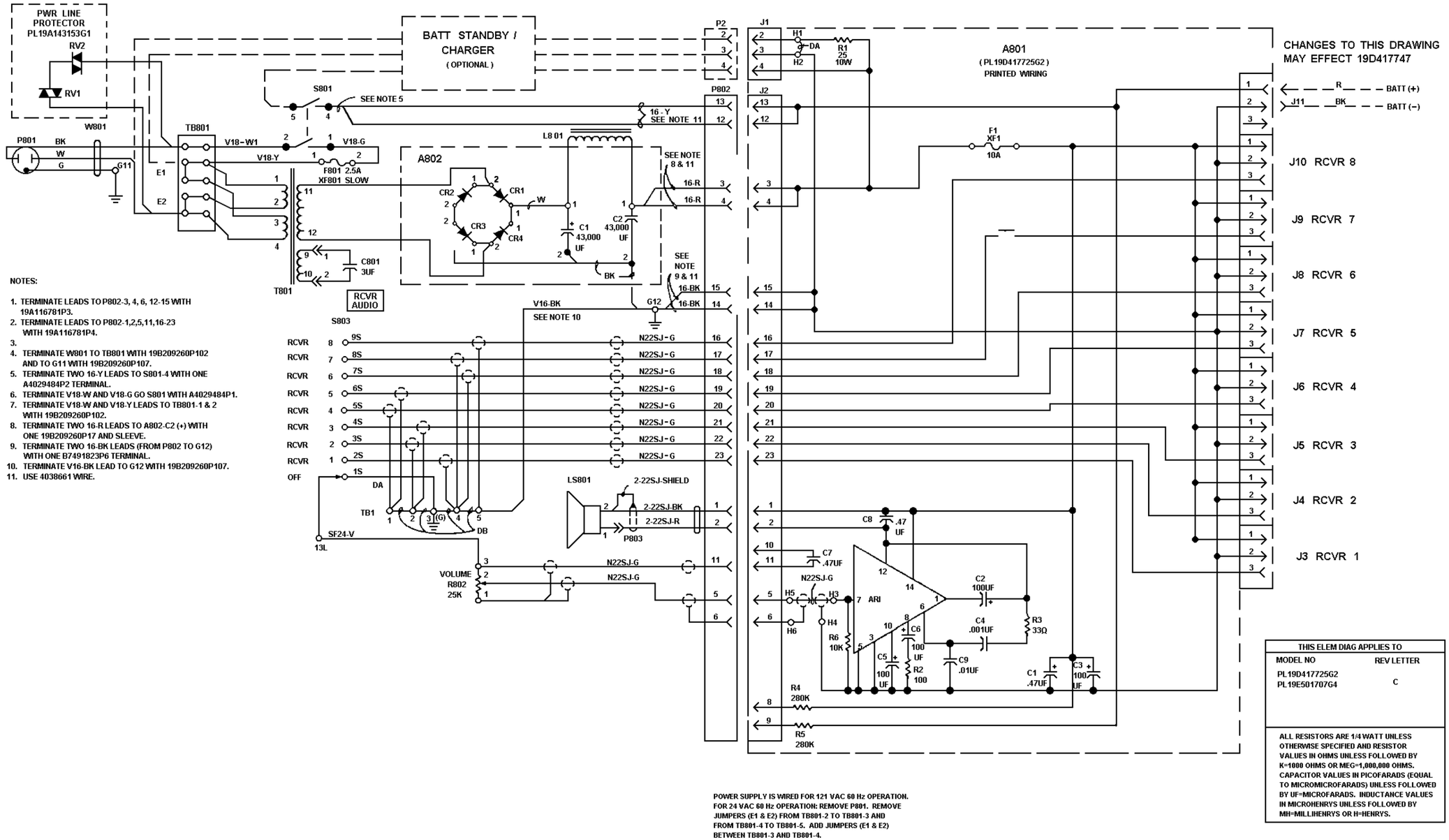
(19B232690, Rev. 1)

MODIFICATION KIT 19A137630G1

POWER SUPPLY MODIFICATION KIT
19A137630G1

SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C802	5494481P11	Ceramic disc: 1000 pf ±20%, 1000 VDCW; sim to RMC Type JF Discap.
		- - - - - - - - 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		Connector. Includes:
	19B209288P5	Shell.
	5496809P18	Contact, electrical, pin: male, brass; sim to Molex Products 1380-T. (Quantity 6).
		- - - - - - - - - - - METERS - - - - - - - - - - -
M801	19A134076P1	Panel: -10/0/50 µa DC movement, sim to GE No. 50-251200CMCM1JAF.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R801	19C314256P21872	Metal film: 18.7K ohms ±1%, 1/4 w.
		- - - - - - - - - - SWITCHES - - - - - - - - - - -
S802	5495454P29	Rotary: 12 position w adjustable stop, not shorting contacts, 2 amps at 25 VDC, 1 amp at 110 VAC; sim to Oak Type A.
		HARNESS ASSEMBLY 19A137630G2 (Includes C802, M801, R801, S802)
		- - - - - - - - - - MISCELLANEOUS - - - - - - - - - -
	4033714P2	Terminal, solderless: sim to Zierick 110. (Used with M801).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P802-8 thru P802-10).
	19C321099G1	Test cable. Includes 19B209288P6 shell and (9) 5496809P17 electrical contacts.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 6, 12-15 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1,2,5,11,16-23 WITH 19A116781P4.
3.
4. TERMINATE W801 TO TB801 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-4 WITH ONE A4029484P2 TERMINAL.
6. TERMINATE V18-W AND V18-G GO 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.

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19D417725G2 PL19E501707G4	C

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.

POWER SUPPLY IS WIRED FOR 121 VAC 60 Hz OPERATION. FOR 24 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.

(19D429560, Rev. 2)

MULTIPLE RECEIVER POWER SUPPLY

19E501707G4

MULTIPLE RECEIVER POWER SUPPLY (60Hz)
19E501707G4

SYMBOL	PART NO.	DESCRIPTION
A801		AMPLIFIER BOARD 19D417725G1
		- - - - - - - - INTEGRATED CIRCUITS - - - - - - - -
AR1	19A134064P1	Linear: 4.5 watt audio amplifier.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	5491674P27	Tantalum: .47 µF ±20%, 4 VDCW; sim to Sprague Type 162D.
C2 and C3	5496267P16	Tantalum: 100 µF ±20%, 20 VDCW; sim to Sprague Type 150D.
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: 0.01 µF ±10%, 50 VDCW.
C9	19A116080P101	Polyester: 0.01 µF ±10%, 50 VDCW.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Quick blowing: 10 amp at 250 v; sim to Littelfuse 314010 or Bussmann ABC-10.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - - -
J1 and J2		Connector. Includes:
	19A116659P31	Connector, printed wiring: 9 contacts; sim to Molex 09-2373-9A. (J1-2 thru J1-4, J2-1 thru J2-6
	19A116659P30	Connector, printed wiring: 8 contacts; sim to Molex 90-2373-8A. (J2-8 thru J2-15).
	19A116659P30	Connector, printed wiring: 8 contacts; sim to Molex 90-2373-8A. (J2-16 thru J2-23).
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: 330 ohms ±5%, 1/4 w.
R4 and R5	19C314256P22803	Metal film: 28K ohms ±1%, 1/4 w.
R6	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19A116688P1	Clip, electrical. (Quantity 2).
A802		RECTIFIER ASSEMBLY 19C321095G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 µF +75% -10%, 20 VDCW; sim to Sprague Type 602D.
		- - - - - - - DIODES AND RECTIFIERS - - - - - - -
CR1 thru CR4	5495922P1	Silicon; sim to Type 1N1200A.
C801	19A134574P3	- - - - - - - - - - CAPACITORS - - - - - - - - - - Paper-liquid, quick disconnect: 3µF ±6%, 60 VDCW, sim to GE 26F6620FB.
E1 and E2	7143961P1	- - - - - - - - - - JUMPERS - - - - - - - - - - Jumper. (Located between TB801-2 and TB801-3, TB801-4 and TB801-5).
F801	7487942P28	- - - - - - - - - - FUSES - - - - - - - - - - Slow blowing: 2.5 amp at 125 v; sim to Bussmann MDL-2.2.
L801	19A130204G1	- - - - - - - - COILS AND INDUCTOR - - - - - - - - Reactor: 6 mh min., 0.1 ohms DC res max, 48 VDC operating.
LS801	19A116701P1	- - - - - - - - - - LOUDSPEAKERS - - - - - - - - - - Permanent magnet: 3 inch square, 2 watt, 3.2 ohms ±10%, imp. at 1000 Hz - 0.5 v.
P801		- - - - - - - - - - PLUGS - - - - - - - - - - Part of W801.
P802		Connector. Includes:
	19A116659P23	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P802-3, 11-14).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P802-1, 2, 5, 15-22).
	19B208519P1	Polarity tab. (Located in pin 7 position).
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
R802	5496870P32	- - - - - - - - - - RESISTORS - - - - - - - - - - Variable, carbon film: 25K ohms ±20%; sim to Mallory LC(25K).
S801	19B209498P1	- - - - - - - - - - SWITCHES - - - - - - - - - - Push: DPST, 20 amps and 220 VRMS; sim to McGill 0811-0188.
S803	5495454P29	Rotary: 1 section, 1 pole, 2 to 6 position (adj stop), non-shorting contacts, 2 amps at at VDC or 1 amp at 110 VAC; sim to Oak Type A.
T801	19A130205G1	- - - - - - - - - TRANSFORMERS - - - - - - - - - Power, voltage regulating: 60 Hz, 121/242 ±20% input voltage.
TB801	19C301087P15	- - - - - - - - TERMINAL BOARDS - - - - - - - - Phen: 5 terminals; 15 amp at 1200 VRMS, sim to GE CR151D.
W801	19A116740P1	- - - - - - - - - - CABLES - - - - - - - - - - Power: 2 pole, 3 conductor, approx 8 feet long; sim to Belden 17238.
XF801	4037402P2	- - - - - - - - - - SOCKETS - - - - - - - - - - Fuseholder: 15 amps at 250 V, sim to Littelfuse 342001.
		HARNESS ASSEMBLY 19E501707G6 (Includes P802, P803, R802, S803)
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	7776855P18	Retainer strap. (Secures C801).
	19A134022P1	Protective cap. (Located on terminals of C801).
	19B226217P2	Grille. (Used with LS801).
	19B223269SP1	Grille. (Located over optional meter cutout).
	19A116768P8	Bushing, strain relief. (Used with W801).
	19B226436P1	Plate. (Located under TB801).
	19B226434G1	Support. (J3-J11).
	4031543P2	Knob. (Used with S802, S803).
	4029851P21	Clip loop. (Secures harness at J3-J11).
	7165075P2	Hex nut, brass: thd. size No. 3/8-32.
	7115130P9	Lockwasher: uses 3/8 inch screw, sim to Shakeproof 1220-2.
	19B209260P102	Terminal, solderless: wire range No. 20-16, sim to AMP 40763. (Used with W801 at TB801).
	19B209260P17	Terminal, solderless: wire range No. 16-14, sim to AMP 42751-2. (C2 + terminal).
	7491823P6	Terminal, solderless: wire range No. 16-14, sim to AMP 32188. (Located at G12 from P802).
	4029484P1	Contact electrical: wire range 22-18 AWG, sim to AMP 41772. (Used at S801-1,2).
	4035656P3	Spacer, threaded. (Used with R1 on A801, Quantity 2).
	7479571P13	Retainer. (Secures C1, C2 on A802).
	19B209260P17	Terminal, solderless: wire range No. 16-14, sim to AMP 42751-2. (Located at terminals of C1, C2 on A802, Quantity 5).
	19B209260P107	Terminal, solderless: wire range No. 22-16, sim to AMP 34107. (Hanging on loose end from C2 on A802).

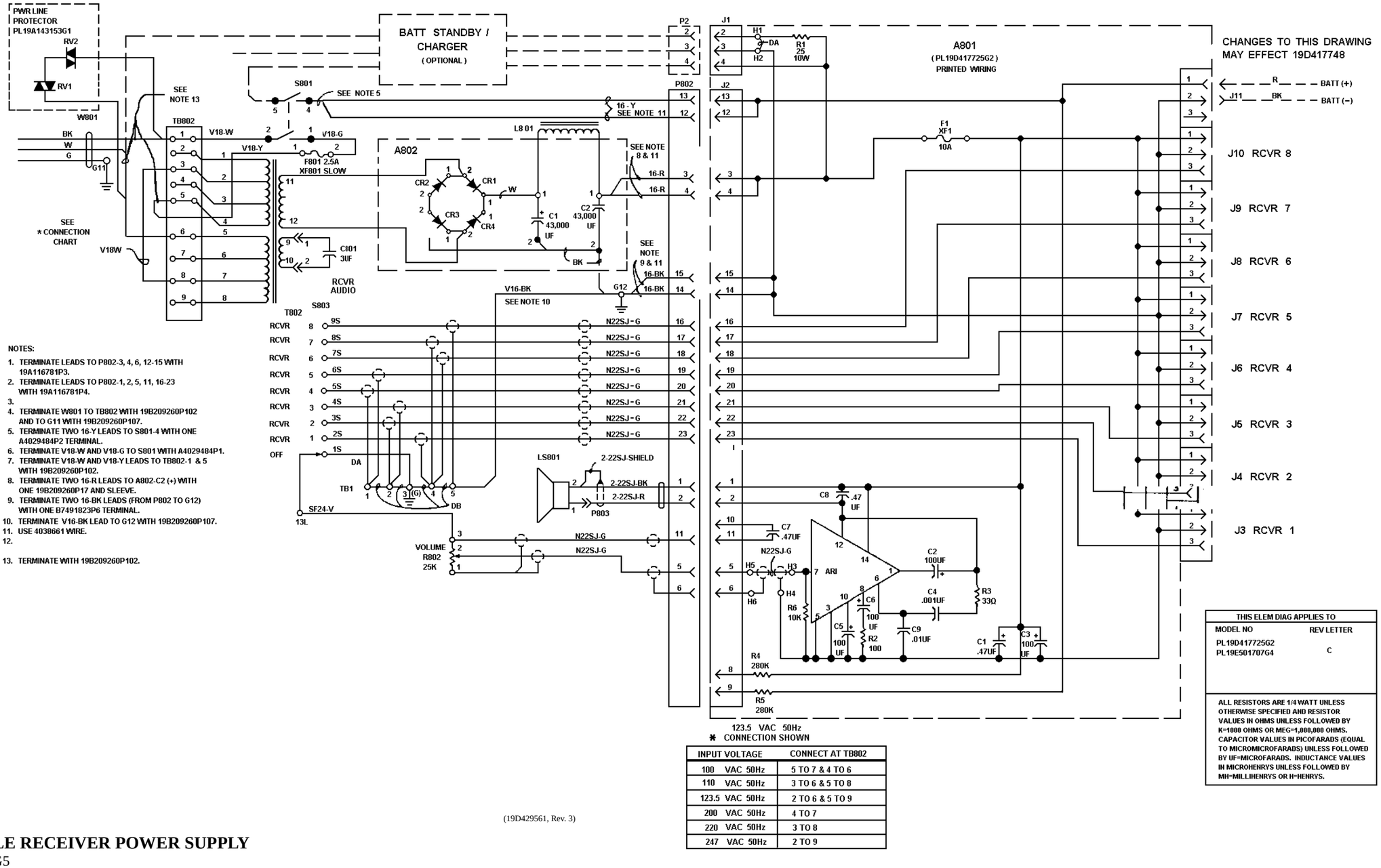
*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES

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 - Added 19A143153G1 Power Line Surge Protector.

REV B. - Multiple Receiver Power Supply 19E501707G4 Changed C801. New part number is:
C801 - 344A3297P2: Polypropylene; paper-liquid, quick disconnect,
3uF + or - 6%, 660 Vdcw.



NOTES:

1. TERMINATE LEADS TO P802-3, 4, 6, 12-15 WITH 19A116781P3.
2. TERMINATE LEADS TO P802-1, 2, 5, 11, 16-23 WITH 19A116781P4.
3.
4. TERMINATE W801 TO TB802 WITH 19B209260P102 AND TO G11 WITH 19B209260P107.
5. TERMINATE TWO 16-Y LEADS TO S801-4 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.
13. TERMINATE WITH 19B209260P102.

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

THIS ELEM DIAG APPLIES TO	
MODEL NO	REV LETTER
PL19D417725G2 PL19E501707G4	C

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.

(19D429561, Rev. 3)

MULTIPLE RECEIVER POWER SUPPLY

19E501707G5

MULTIPLE RECEIVER POWER SUPPLY (50 Hz)
19E501707G5

SYMBOL	PART NO.	DESCRIPTION
A801		AMPLIFIER BOARD 19D417725G1
		- - - - - - - - INTEGRATED CIRCUITS - - - - - - - -
AR1	19A134064P1	Linear: 4.5 watt audio amplifier.
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1	5491674P27	Tantalum: .47 µF ±20%, 4 VDCW; sim to Sprague Type 162D.
C2 and C3	5496267P16	Tantalum: 100 µF ±20%, 20 VDCW; sim to Sprague Type 150D.
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: 0.01 µF ±10%, 50 VDCW.
C9	19A116080P101	Polyester: 0.01 µF ±10%, 50 VDCW.
		- - - - - - - - - - FUSES - - - - - - - - - -
F1	7484390P1	Quick blowing: 10 amp at 250 v; sim to Littelfuse 314010 or Bussmann ABC-10.
		- - - - - - - - JACKS AND RECEPTACLES - - - - - - - -
J1 and J2		Connector. Includes:
	19A116659P31	Connector, printed wiring: 9 contacts; sim to Molex 09-2373-9A. (J1-2 thru J1-4, J2-1 thru J2-6)
	19A116659P30	Connector, printed wiring: 8 contacts; sim to Molex 90-2373-8A. (J2-8 thru J2-15).
	19A116659P30	Connector, printed wiring: 8 contacts; sim to Molex 90-2373-8A. (J2-16 thru J2-23).
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: 330 ohms ±5%, 1/4 w.
R4 and R5	19C314256P2280	Metal film: 28K ohms ±1%, 1/4 w.
R6	3R152P103J	Composition: 10K ohms ±5%, 1/4 w.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF1	19A116688P1	Clip, electrical. (Quantity 2).
A802		RECTIFIER ASSEMBLY 19C321085G1
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C1 and C2	19B209545P1	Electrolytic: 43,000 µF +75% -10%, 20 VDCW; sim to Sprague Type 602D.
		- - - - - - - - DIODES AND RECTIFIERS - - - - - - - -
CR1 thru CR4	5495922P1	Silicon; sim to Type 1N1200A.

SYMBOL	PART NO.	DESCRIPTION
		- - - - - - - - - - CAPACITORS - - - - - - - - - -
C801	19A134574P3	Paper-liquid, quick disconnect: 3µF ±6%, 60 VDCW, sim to GE 26F6620FB.
		- - - - - - - - - - FUSES - - - - - - - - - -
F801	7487942P28	Slow blowing: 2.5 amp at 125 v; sim to Bussmann MDL-2.2.
		- - - - - - - - COILS AND INDUCTOR - - - - - - - -
L801	19A130204G1	Reactor: 6 mh min., 0.1 ohms DC res max, 48 VDC operating.
		- - - - - - - - - - LOUDSPEAKERS - - - - - - - - - -
LS801	19A116701P1	Permanent magnet: 3 inch square, 2 watt, 3.2 ohms ±10%, imp. at 1000 Hz = 0.5 V.
		- - - - - - - - - - PLUGS - - - - - - - - - -
P802		Connector. Includes:
	19A116659P23	Shell.
	19A116781P5	Contact, electrical: wire range No. 18-24 AWG; sim to Molex 08-50-0106. (P802-3, 11-14).
	19A116781P6	Contact, electrical: wire range No. 22-26 AWG; sim to Molex 08-50-0108. (P802-1, 2, 5, 15-22).
	19B208519P1	Polarity tab. (Located in pin 7 position).
P803	4036634P1	Contact, electrical; sim to AMP 42428-2.
		- - - - - - - - - - RESISTORS - - - - - - - - - -
R802	5496870P32	Variable, carbon film: 25K ohms ±20%; sim to Mallory LC(25K).
		- - - - - - - - - - SWITCHES - - - - - - - - - -
S801	19B203498P1	Push: DPST, 20 amps and 220 VRMS; sim to McGill 0811-0188.
S803	5495454P29	Rotary: 1 section, 1 pole, 2 to 6 position (adj stop), non-shorting contacts, 2 amps at at VDC or 1 amp at 110 VAC; sim to Oak Type A.
		- - - - - - - - - TRANSFORMERS - - - - - - - - -
T802	19A130205G2	Power, voltage regulating: 50Hz, 100/110/123.5/ 200/220/247 ±20% input voltage.
		- - - - - - - - TERMINAL BOARDS - - - - - - - -
TB802	19C301087P11	Phen: 9 terminals; sim to GE CR151D.
		- - - - - - - - - - CABLES - - - - - - - - - -
W801	19A116740P1	Power: 3 wire, approx. 8 ft long.
		- - - - - - - - - - SOCKETS - - - - - - - - - -
XF801	4037402P2	Fuseholder: 15 amps at 250 V, sim to Littelfuse 342001.
		HARNESS ASSEMBLY 19E501707G6 (Includes P802, P803, R802, S803)
		- - - - - - - - - MISCELLANEOUS - - - - - - - - -
	7776855P18	Retainer strap. (Secures C801).
	19A134022P1	Protective cap. (Located on terminals of C801).
	19B226217P2	Grille. (Used with LS801).
	19B232695P1	Grille. (Located over optional meter cutout).
	19A116768P8	Bushing, strain relief. (Used with W801).
	19B226436P1	Plate. (Located under TB801).
	19B226434G1	Support. (J3-J11).
	4031543P2	Knob. (Used with R802, S803).
	4029851P21	Clip loop. (Secures harness at J3-J11).
	716507SP2	Hex nut, brass: thd. size No. 3/8-32.
	7115130P9	Lockwasher: uses 3/8 inch screw, sim to Shakeproof 1220-2.

SYMBOL	PART NO.	DESCRIPTION
	19B209260P102	Terminal, solderless: wire range No. 20-16, sim to AMP 40763. (Used with W801 at TB801).
	19B209260P17	Terminal, solderless: wire range No. 16-14, sim to AMP 42751-2. (C2 + terminal).
	7491823P6	Terminal, solderless: wire range No. 16-14, sim to AMP 32188. (Located at C12 from P802).
	4029484P1	Contact electrical: wire range 22-18 AWG, sim to AMP 41772. (Used at 3801-1,2).
	4035656P3	Spacer, threaded. (Used with R1 on A801, Quantity 2).
	7479571P13	Retainer. (Secures C1, C2 on A802).
	19B209260P17	Terminal, solderless: wire range No. 16-14, sim to AMP 42751-2. (Located at terminals of C1, C2 on A802, Quantity 5).
	19B209260P107	Terminal, solderless: wire range No. 22-16, sim to AMP 34107. (Hanging on loose end from C2 on A802).

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 the descriptions of parts affected by these revisions.

REV A - Added 19A143153G1 Power Line Surge Protector.

REV A - COMPONENT BOARD 19C320677G2
To remove hum from the phone line when battery charger is operating, added C2.

REV B - COMPONENT BOARD 19C320677G2
To improve operation, changed R1.

R1 was: 19A700112P39 Composition 100 ohms + or - 5%, 1 w.

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES