
Service Manual

6301B

Personal Monitor Self-Powered

Fostex[®]



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,

DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

SAFETY INSTRUCTIONS

1. Read instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions - The safety and operating instructions should be retained for future reference.
3. Heed warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

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NOTES

- Adjustment procedures, parts list, pattern drawing and circuit diagrams are given in this manual to assist the service technician in maintaining the 6301B.
- For your information, this service manual complies to the 6301B with the followings are the serial number of 6301B.

USA/CND	: 0260001 and onwards
EUR	: 0660001 and onwards
UK	: 0760001 and onwards
JPN	: 1060001 and onwards

1. SPECIFICATIONS

SPEAKER (Internal)

Type	10cm Full Range Single Cone
Impedance	4 Ω
Efficiency	84 dB/W (1m)

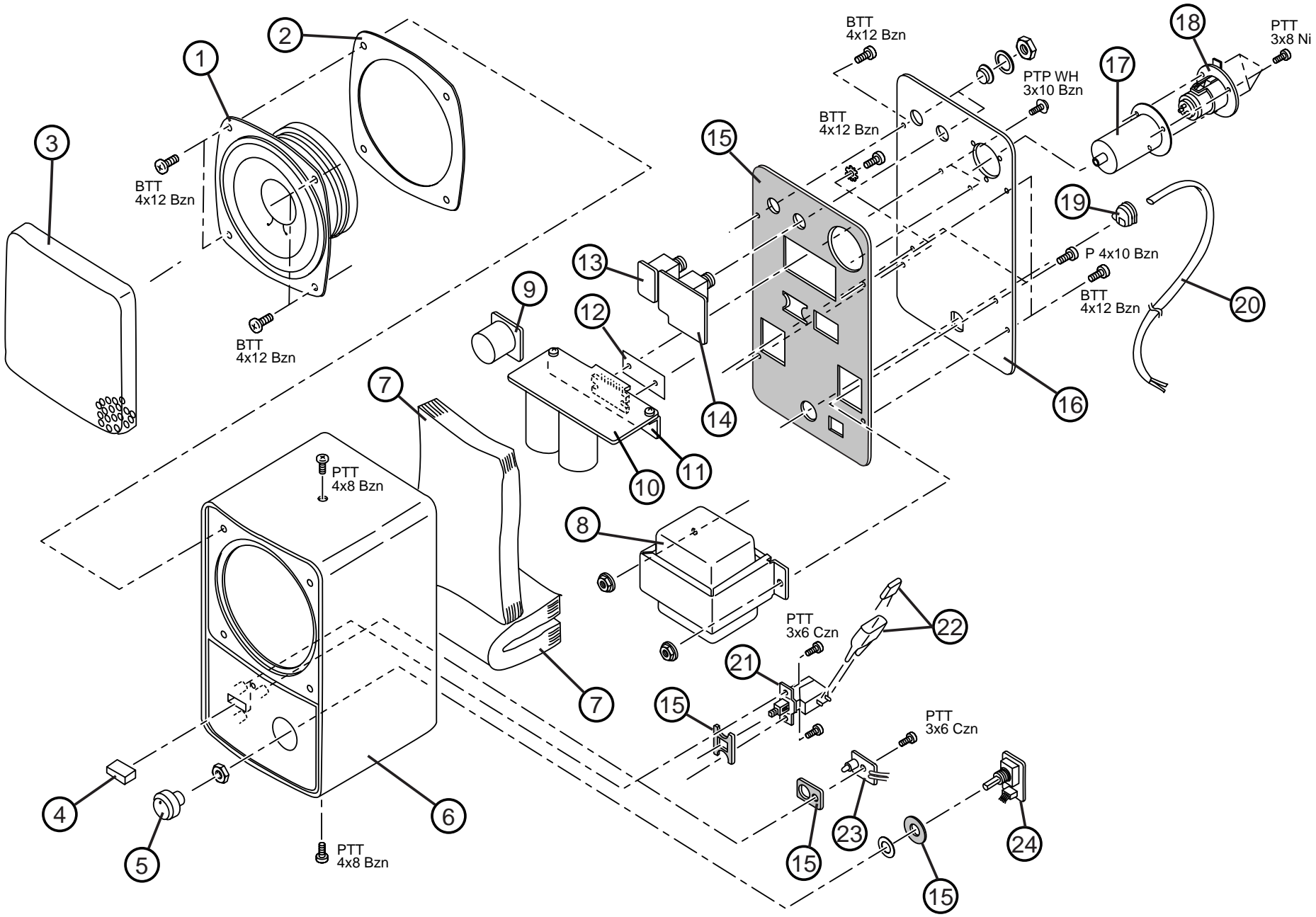
AMPLIFIER

Normal Input Level	-10dBV
Output	more than 10Wrms (8 Ω load)
Frequency Response	20 ~ 50 kHz +0dB-3dB
Distortion	0.05 % or less (at 1W output)
Residual Noise	-70dBV (0.3mV)
Input Sensitivity	Unbalanced type : -6dBV (0.5Vrms) Balanced type : +4dBm (1.2Vrms)
Input Impedance	Unbalanced type : Higher than 20k Ω Balanced type : Higher than 10k Ω

GENERAL

Dimensions	120 (W) \times 188 (H) \times 118 (D) mm
Weight	3.0 kg
Power supply	
JPN	100 VAC, 50/60 Hz
USA/CND	120 VAC, 60 Hz
EUR/UK	230 VAC, 50/60 Hz
Power consumption	33 W

2. OVERALL EXPLODED VIEW



<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>
1	8278001000	Speaker, 10F05AV
2	8216034000	Packing, Speaker
3	8220462100	Cover, Speaker, B3/X/E
4	8226050000	Button, Push, Power, B3/X/E
5	8226067000	Knob, Pot, B3/X/E
6	8210020100	Box, Speaker, B3/X/E (192631)
7	8216213002	Sound Absorbent, B3/X/E
8	8242041200	Trans, Power, 120V, B3/X/E
	8242042001	Trans, Power, 220V/240V, B3/X/E
	8242040200	Trans, Power, 100V, B3/X/E
9	8274209000	PCB Assy, Trans, B3X
10	8274216000	PCB Assy, PowerAmp, B3/X/E
11	8220464000	Bracket, PCB, B3/X/E
12	8239002000	Insulator, IC, B3/X/E
13	8274210000	PCB Assy, JK2, B3/X/E
14	8274211000	PCB Assy, LineAmp, B3
	8274212000	PCB Assy, LineAmp, B3X
	8274213000	PCB Assy, LineAmp, B3E
15	8216198100	Gasket, Rear, B3/X/E
16	8220463201	Panel, Rear, B3 (192630)
	8220463202	Panel, Rear, B3X/E (192629)
17	8216196000	Cover, XLR, B3X/E
18	8245392000	Conn, XLR, B3X/E
19	8207000209	Bushing, B3/X/E
20	8276217000	Cord, Power, B3/X/E, CSA
	8276215000	Cord, Power, B3/X/E, CND
	8276216000	Cord, Power, B3/X/E, EUR
	8276879000	Cord, Power, B3/X/E, UK
	8276003000	Cord, Power, B3/X/E, JPN
21	8253014008	SW, Power, B3/X/E
22	8256075005	Spark-Killer, 0.0047 μ F
23	8274214000	PCB Assy, LED, B3/X/E
24	8274215000	PCB Assy, VR, B3/X/E

3. PCB ASSY AND PARTS LIST

PCB Assy PowerAmp 8274216000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
C001	8232050471	CAP, CER, 50V, 470pF, 5%	*	*	*
C002	8232098105	CAP, ALU, 50V, 1μF, 20%	*	*	*
C003, 004	8232097227	CAP, ALU, 35V, 220μF, 20%	*	*	*
C005	8232095476	CAP, ALU, 16V, 47μF, 20%	*	*	*
C006	8232026123	CAP, PES, 50V, 0.012μF, 5%	*	*	*
C007	8232026104	CAP, PES, 50V, 0.1μF, 5%	*	*	*
C008, 009	8232074000	CAP, CER, 50V, 0.1μF, 20%	*	*	*
C010	8232026103	CAP, PES, 50V, 0.01μF, 5%	*	*	*
C011, 012	8232133478	CAP, ALU, 35V, 4700μF, 20%	*	*	*
D001	8234001607	D, STACK, 2W02G	*	*	*
R001	8230004102	RES, CARBON, 1/4W, 1K, 5%	*	*	*
R002	8230004563	RES, CARBON, 1/4W, 56K, 5%	*	*	*
R004	8230004122	RES, CARBON, 1/4W, 1.2K, 5%	*	*	*
R005	8230004563	RES, CARBON, 1/4W, 56K, 5%	*	*	*
R006	8230004153	RES, CARBON, 1/4W, 15K, 5%	*	*	*
R007	8230004102	RES, CARBON, 1/4W, 1K, 5%	*	*	*
R008	8230004100	RES, CARBON, 1/4W, 10, 5%	*	*	*
R010	8230004222	RES, CARBON, 1/4W, 2.2K, 5%	*	*	*
U001	8234045600	IC, PowerAmp, TDA2050	*	*	*

PCB Assy LineAmp 8274211000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
C021, 022	8232095106	CAP, ALU, 16V, 10μF, 20%			*
C021, 022		Jumper		*	
C023	8232095106	CAP, ALU, 16V, 10μF, 20%		*	*
C024, 025	8232096476	CAP, ALU, 25V, 47μF, 20%		*	*
R021	8230004103	RES, CARBON, 1/4W, 10K, 5%			*
R022	8230004103	RES, CARBON, 1/4W, 10K, 5%			*
R022	8230004102	RES, CARBON, 1/4W, 1K, 5%		*	
R023	8230004392	RES, CARBON, 1/4W, 3.9K, 5%		*	*
R024	8230004103	RES, CARBON, 1/4W, 10K, 5%		*	
R024		Jumper			*
R025	8230004392	RES, CARBON, 1/4W, 3.9K, 5%		*	*
R026	8230004103	RES, CARBON, 1/4W, 10K, 5%			*
R027	8230004392	RES, CARBON, 1/4W, 3.9K, 5%		*	*
R028, 029	8230004102	RES, CARBON, 1/4W, 1K, 5%		*	*
U002	82360212000	IC, Analog, NJM4560DX		*	*
DZ001, 002	8234503959	D, ZENER, MTZ J 15C		*	*
CN002	8245053003	Conn, JACK, 8263, 3P, WHT		*	*
JK001	8245103000	Conn, Phone, B/BX/BE		*	
JP006, 007		Jumper		*	

PCB Assy JK2 8274210000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
JK002	8245103000	Conn, Phone, B/BX/BE	*	*	*

PCB Assy VR 8274215000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
VR001	8240212002	POT, 50KA, B/BX/BE	*	*	*

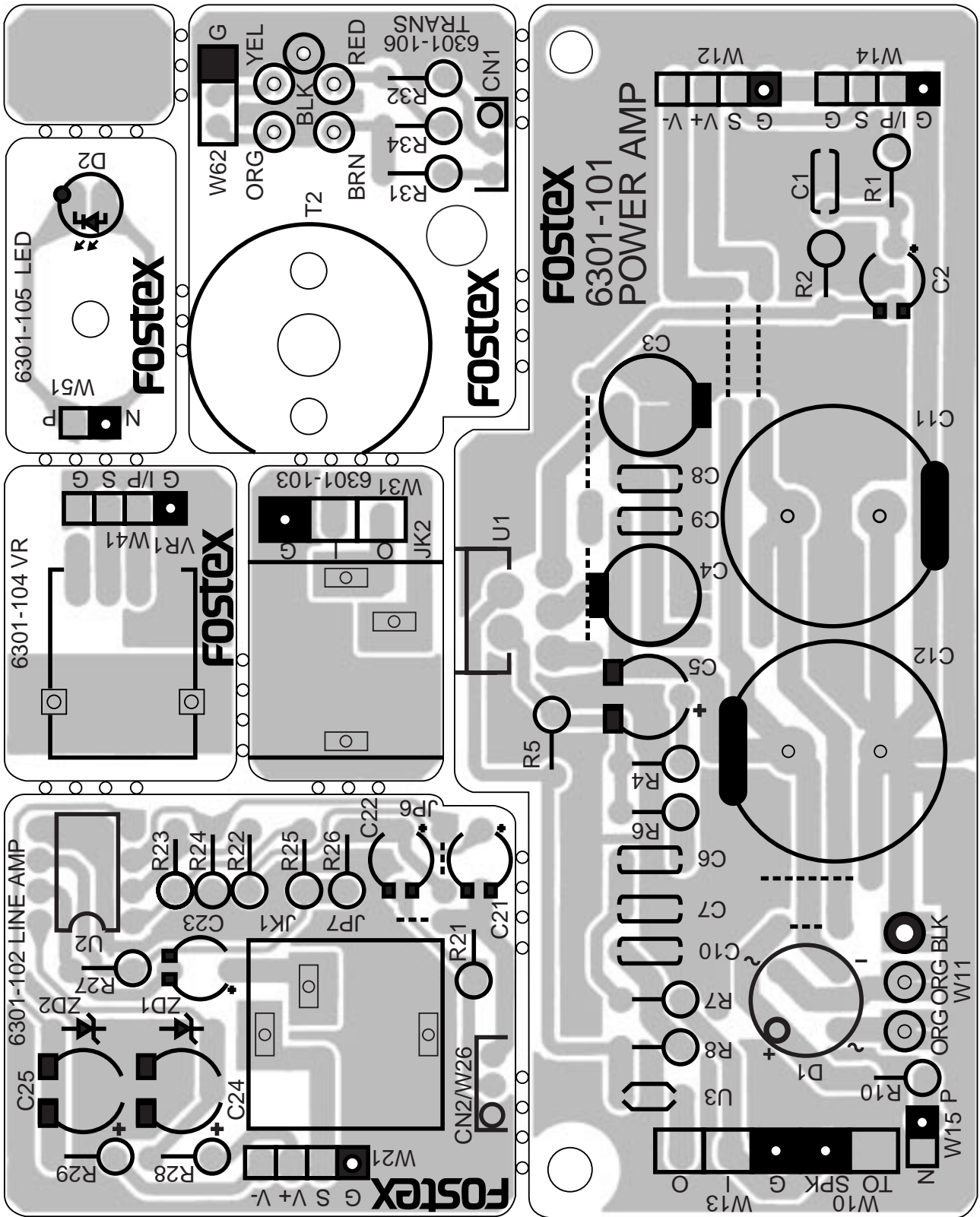
PCB Assy LED 8274214000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
D002	8234006400	OPT, LED, RED, GL-3PR8	*	*	*

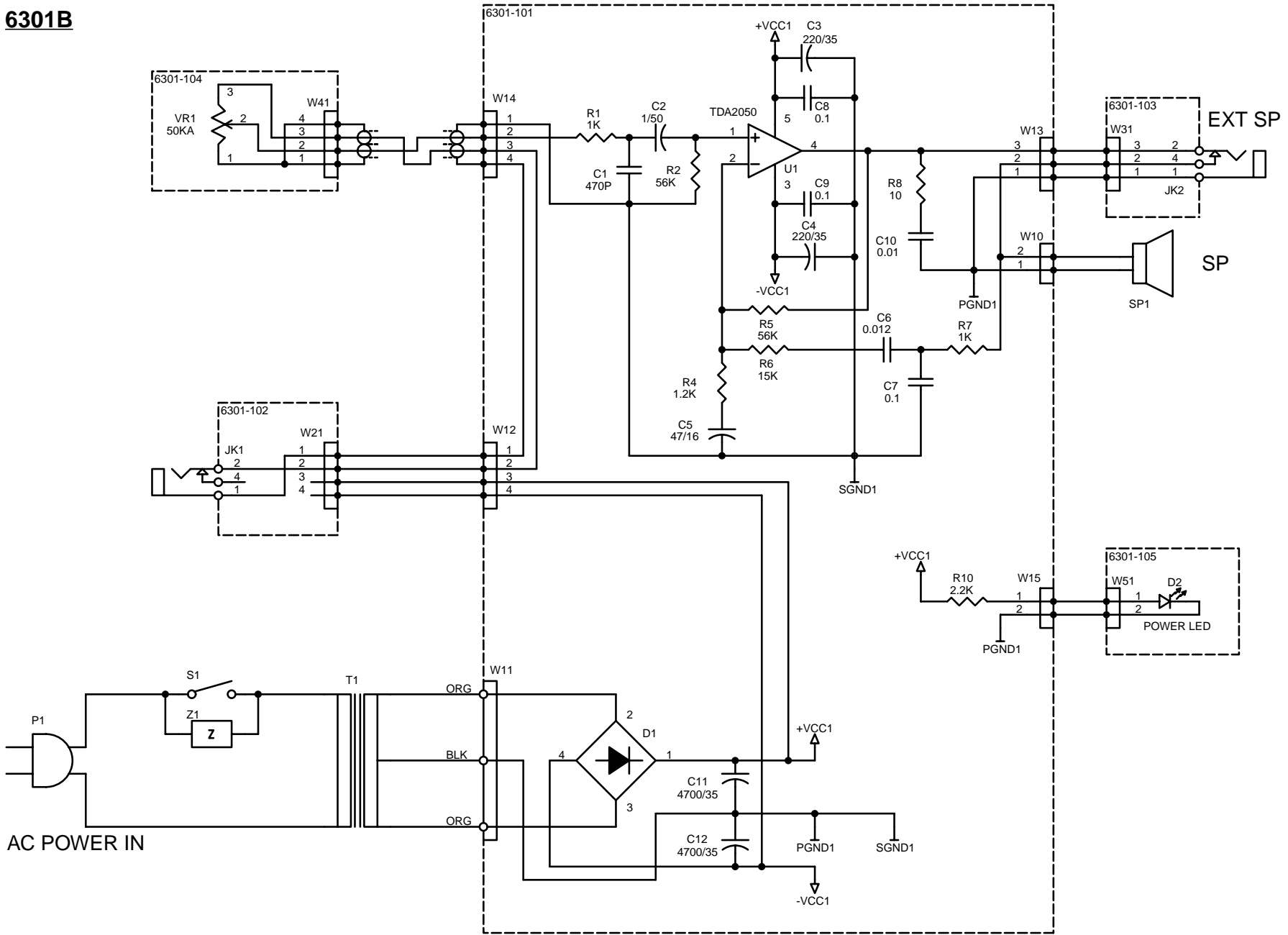
PCB Assy TRANS 8274209000

<i>Ref. No.</i>	<i>Part No.</i>	<i>Description</i>	<i>B</i>	<i>BX</i>	<i>BE</i>
R031, 032	8230004512	RES, CARBON, 1/4W, 5.1K, 5%		*	
R034	8230004102	RES, CARBON, 1/4W, 1K, 5%		*	
T002	8242099000	TRANS, LINE, BX		*	
CN002	8245053003	Conn, JACK, 8263, 3P, WHT		*	

4. PATTERN DRAWING

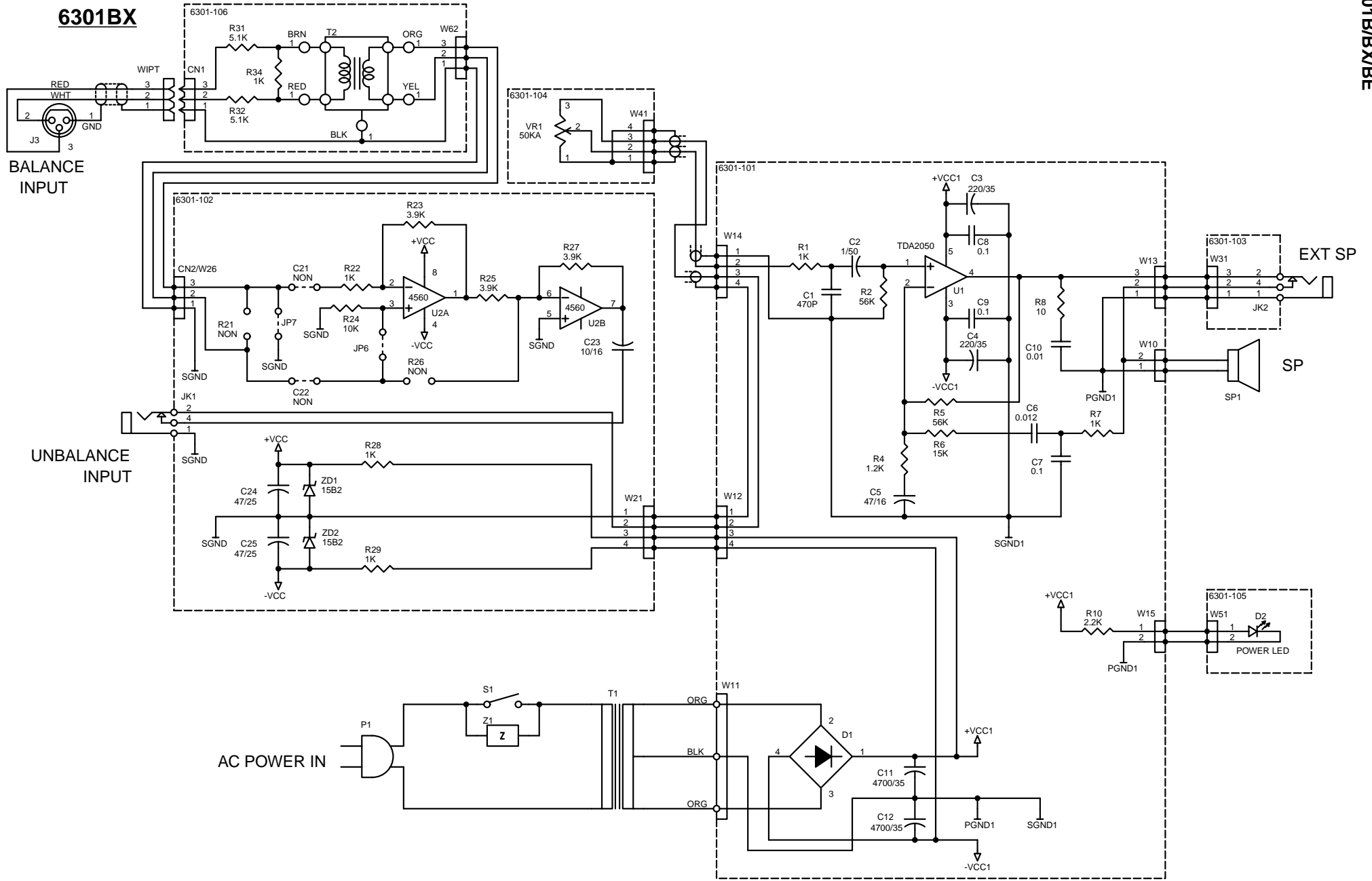


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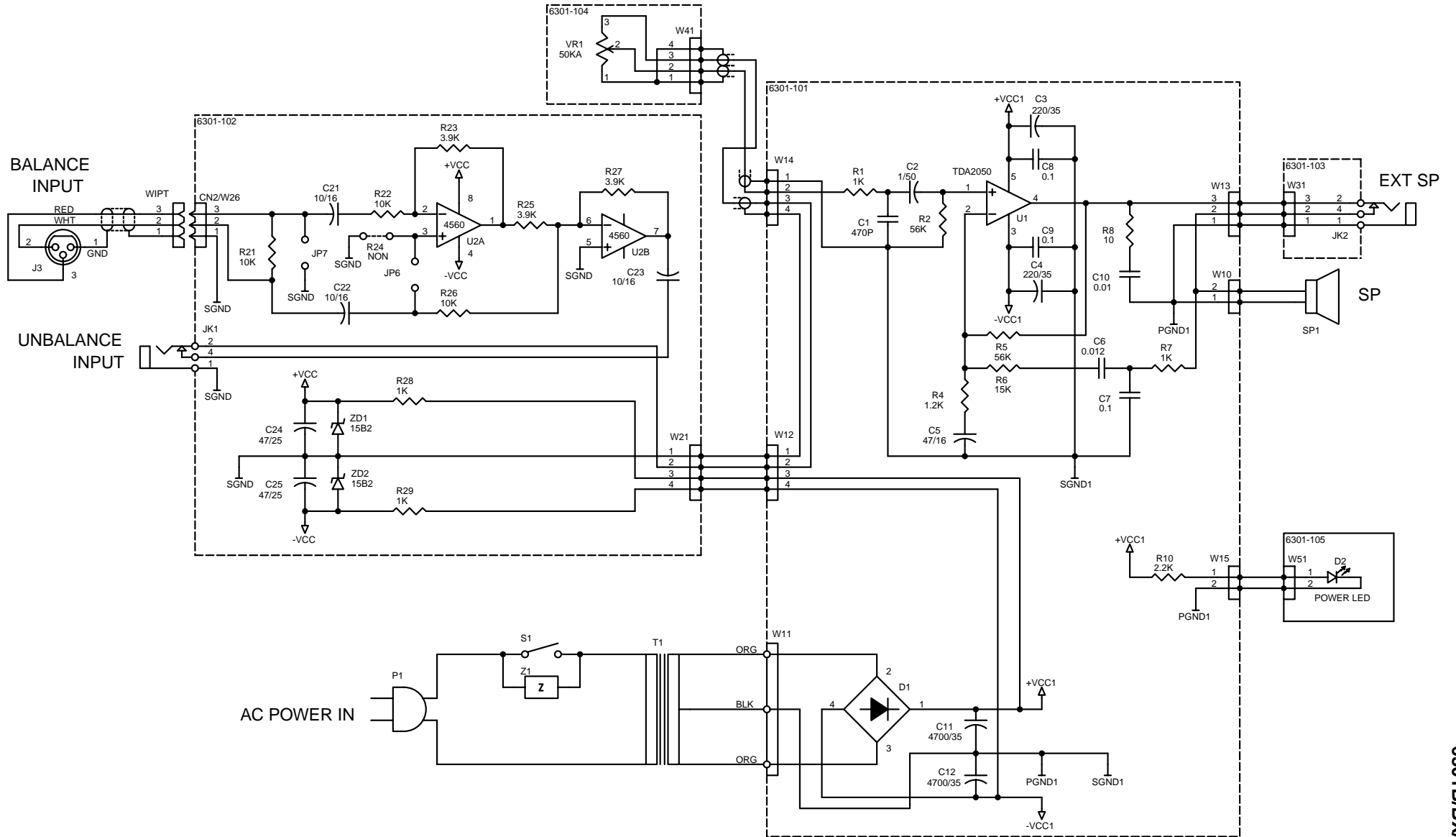


5. CIRCUIT DIAGRAMS

6301BX



6301BE



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