Service Manual

Model PM0.5

PROFESSIONAL STUDIO MONITOR

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 lightening 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 changed 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

* Exploded view, PCB assembly, parts list and circuit diagrams are given in this manual to assist the service technician in maintaining the Model PM0.5.

* The following accessories are supplied with PM0.5 as the standard accessories.

PM0.5 owner's manual, English	: 8588028000 (376988)

* Following is the packing material for the Model PM0.5.

INNER CARTON, BOX, PM0.5	: 8528040000 (376336)
CARTON, BOX, PM0.5	: 8528041000 (380217)
POLY FOAM, BOTTOM, PM0.5	: 8528042000 (372960)
POLY FOAM, TOP, PM0.5	: 8528043000 (381526)

CAUTION

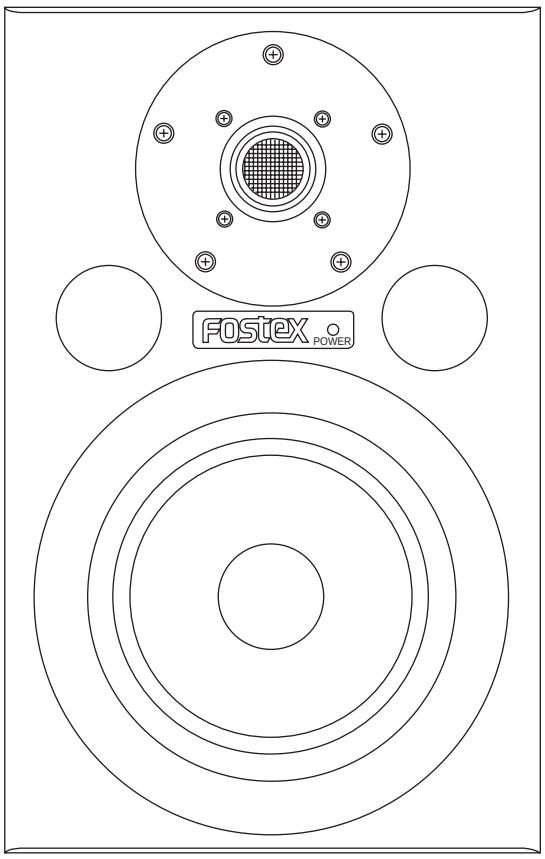
⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components. Refer to the Fostex Parts List and ensure exact replacement.

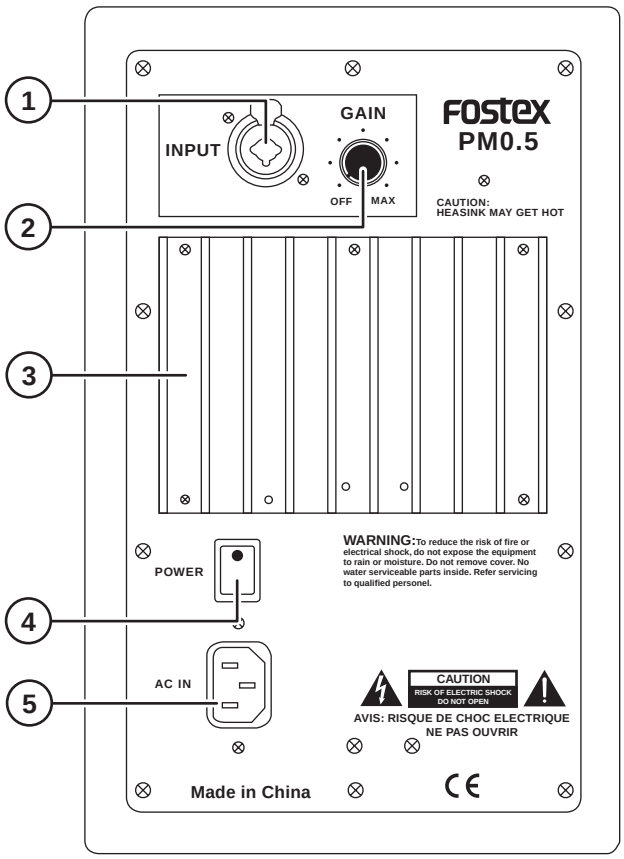
1. SPECIFICATIONS

PIN ASSIGNMENTS	
XLR Connector	Hot (+): Pin 2, Cold (-): Pin 3, GND: Pin 1
TRS Connector	Hot (+): Tip, Cold (-): Ring, GND: Sleeve
CABINET DIMENSIONS	
Including heatsink	181 (W) x 280 (H) x 260 (D) mm 7 1/8 (W) x 11 (H) x 10 1/4 (D) inch
Not Including heatsink (cabinet only)	181 (W) x 280 (H) x 230 (D) mm 7 1/8 (W) x 11 (H) x 9 (D) inch
NET WEIGHT (per unit)	6.5 kg 14.3 pounds
GROSS WEIGHT (per unit) (including all packing material)	16 kg 35.2 pounds
FREQUENCY RESPONSE	
Free-Field Frequency Response	± 2 dB at 50 Hz ~ 20 kHz
Low Frequency Cutoff	40 Hz (- 10 dB)
High Frequency Cutoff	22 kHz (- 10 dB)
AMPLIFIER POWER	
High Frequency	35 Watts
Low Frequency	35 Watts
AMPLIFIER DISTORTION	Less than 0.01 % THD at 25 Watts / 8 Ω, 20 Hz ~ 20 kHz
AMPLIFIER SIGNAL TO NOISE RATIO	More than 84 dB at 20 Hz ~ 30 kHz (not weighted)
AMPLIFIER SLEW RATE	15 V/μsec
POWER REQUIREMENT	
EUR / UK	230 VAC ~ 50 / 60 Hz
USA	120 VAC ~ 60 Hz
POWER CONSUMPTION	
EUR / UK	40 Watts
USA	35 Watts

Specifications and physical appearance are subject to change without notice for product improvement.

2. CONTROLS, INDICATORS & CONNECTORS





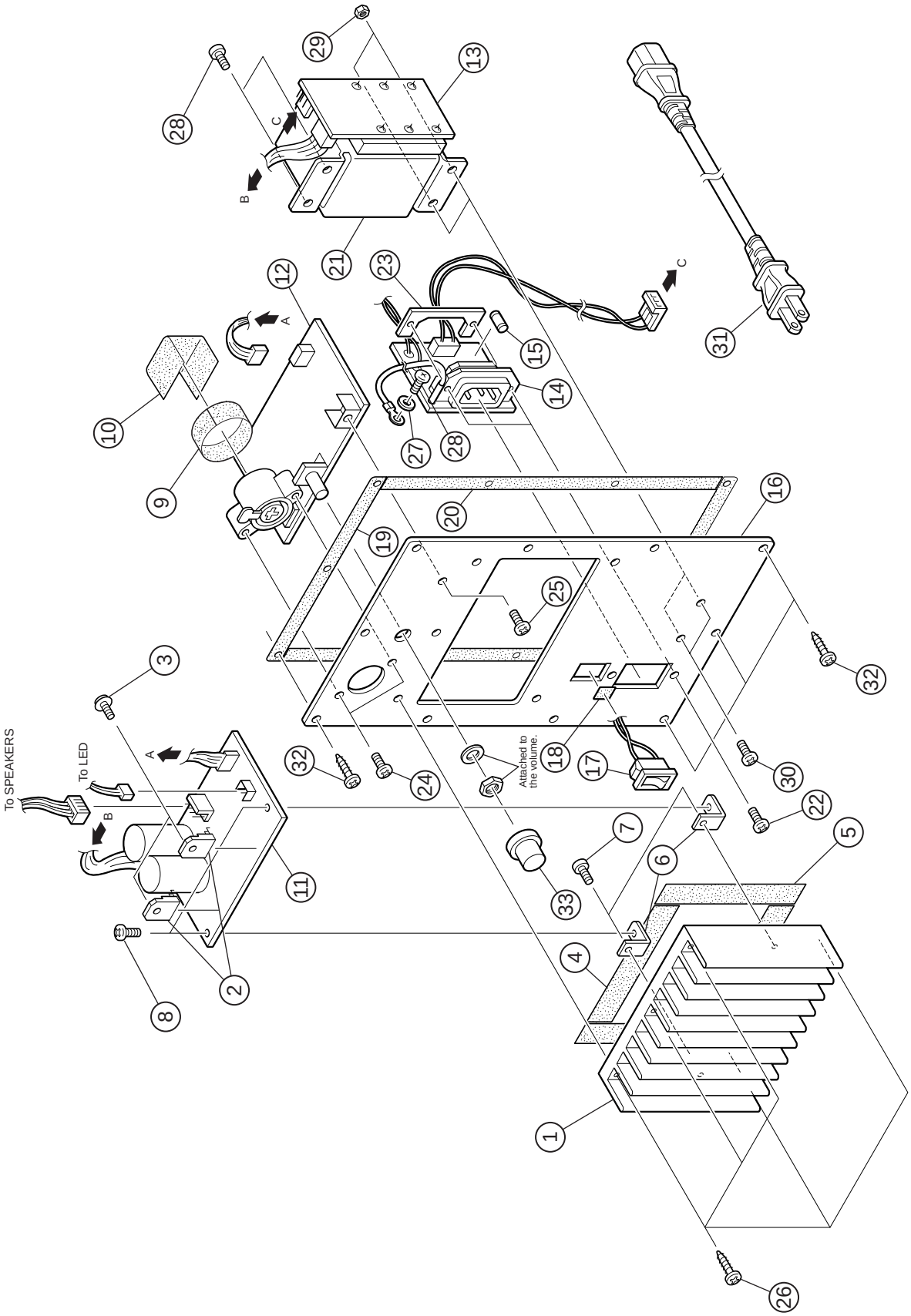
1. XLR & TRS Combination Input
2. Continuously variable gain control
3. Heatsink
4. Power Switch
5. Standard IEC Power Input

3. EXPLODED VIEW, PCB ASSEMBLY & PARTS LIST

● PM0.5 AMPLIFIER SECTION EXPLODED VIEW

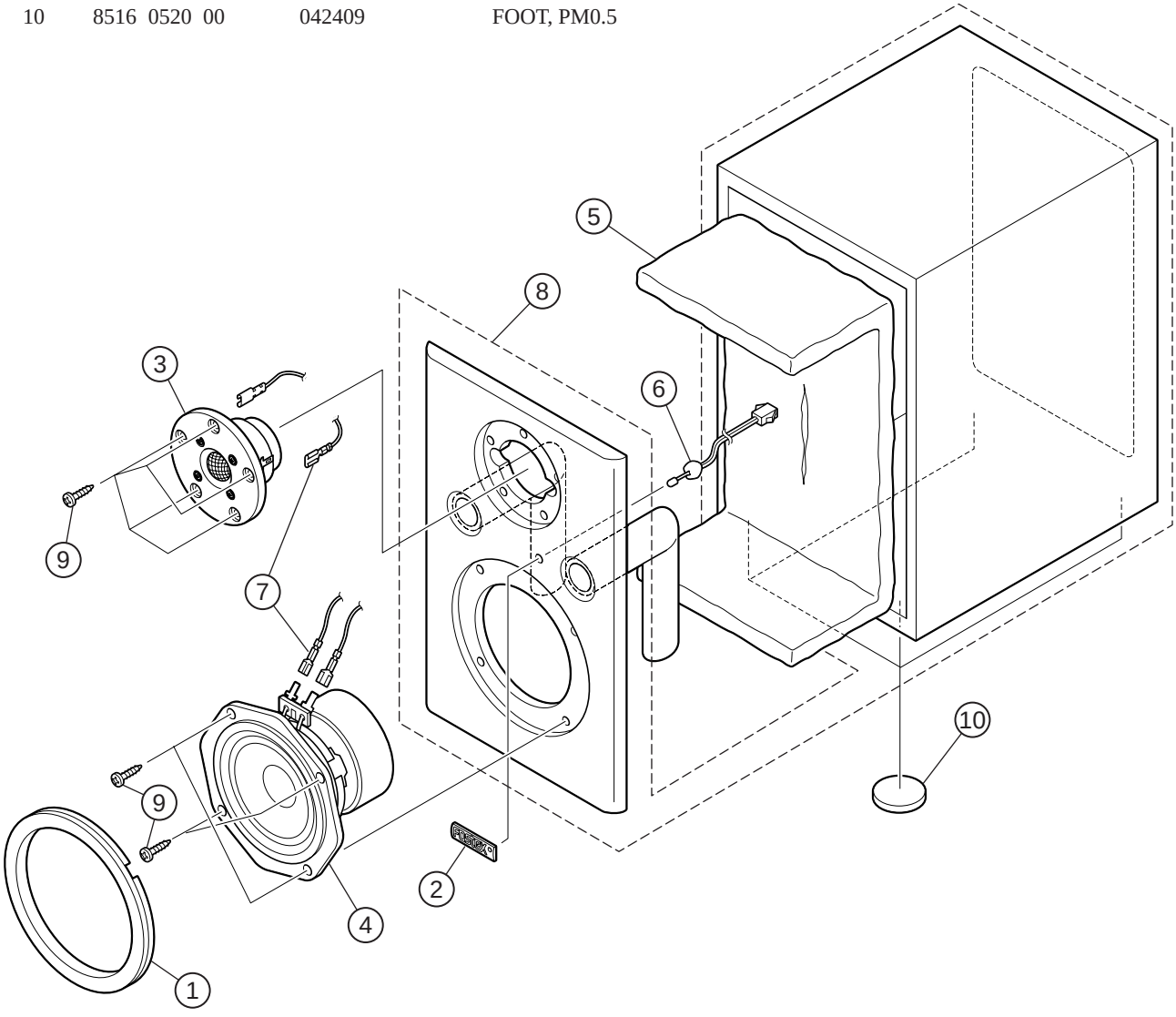
	Ref. No.	Part No.	Manufacturer's Part No.	Description
	1	8507 0060 00	378482	HEATSINK, PY012A0, PM0.5
	2	8236 0466 00	070286	IC, LM3886TF
	3	8204 2491 22	075349	SC, PN, S-B, M3*12, BL
	4	8516 0560 00	377407	CUSHION, 119*10*1
⚠	5	8516 0570 00	377408	CUSHION, 69*10*1
	6	8520 0720 00	077876	BRACKET, PCB, C, A3B1A0
	7	8204 2040 82	075638	SC, BD, T-B, 3*8, BL
	8	8204 2040 61	075633	SC, BD, T-B, 3*6, ZC
	9	8516 0580 00	376869	CUSHION, 110*38*1
	10	8516 0590 00	376868	CUSHION, 55*25*1
	11	8274 4400 00		PCB ASSY, POWER AMP, PM0.5
	12	8274 4410 00		PCB ASSY, INPUT, PM0.5
	13	8274 4420 00		PCB ASSY, TRANSFORMER, PM0.5
	14	8274 4430 00		PCB ASSY, AC IN, PM0.5
⚠	15	8539 0020 00	335595	FUSE, S/BS, 218.500, 250V, T 0.5A (EUR/UK)
		8539 0010 00	058323	FUSE, S/BS, 218001, 250V, T 1A (USA)
⚠	16	8520 0730 00	379876	PANEL, REAR, PRINT, PM0.5
	17	8553 0040 00	367591	SW, POWER, SL6A-5
	18	8516 0440 00	367991	CUSHION, 15*25*1, PM1
	19	8516 0600 00	378341	CUSHION, 140*11*1, PM0.5
	20	8516 0610 00	378342	CUSHION, 219*11*1, PM0.5
⚠	21	8542 0100 00	376355	TRANSFORMER, POWER, 230V, PM0.5
		8542 0110 00	376356	TRANSFORMER, POWER, 120V, PM0.5
	22	8204 2010 82	075573	SC, BD, M3*8, BL
	23	8220 0370 00	360455	BRACKET, AC-IN, NF-01A
	24	8204 2041 02	075640	SC, BD, T-B, 3*10, BL
	25	8204 2040 62	075635	SC, BD, T-B, 3*6, BL
	26	8204 2041 02	075640	SC, BD, T-B, 3*10, BL
	27	8204 2210 04	075759	WS, SP, M4, ZMC3
	28	8204 2051 22	075661	SC, BD, T-B, 4*12, BL
	29	8204 2480 00	075725	NUT, HEX, 2, M4-ZMC3
	30	8204 2020 82	075586	SC, BD, M4*8, BL
	31	8576 0230 00	369531	CORD, AC, E, PG8JC6CA0A-082, EUR
		8576 0240 00	369533	CORD, AC, BS, PY8B1UKCC0A-082, UK
	32			
	33	8526 0280 00	330507	KNOB, VR, A181B0, PM0.5

● PM0.5 AMPLIFIER SECTION EXPLODED VIEW



● PM0.5 SPEAKER SECTION EXPLODED VIEW

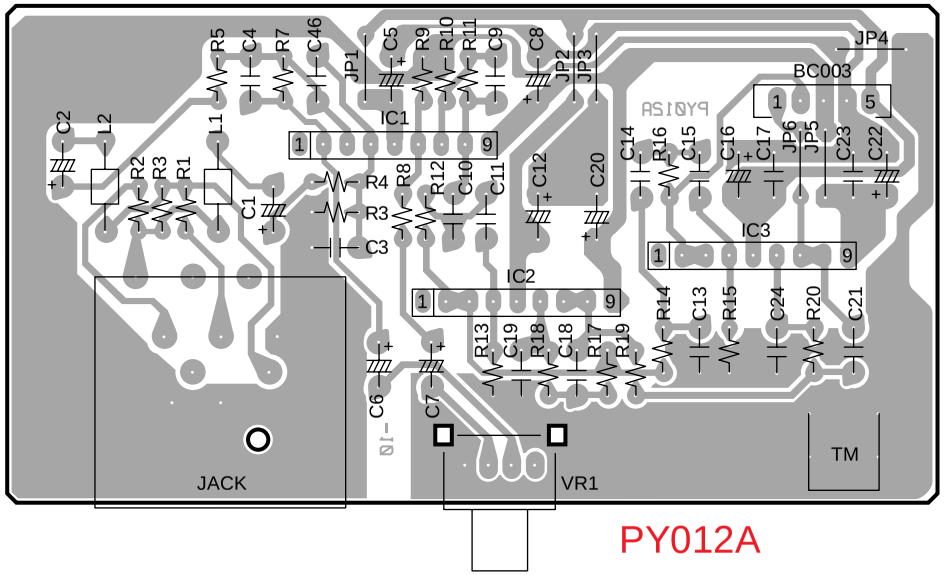
Ref. No.	Part No.	Manufacturer's Part No.	Description
1	8516 0530 00	372935	WF RING, PM0.5
2	8512 0320 00	358584	NAME, PLATE, (FOSTEX)
3	8578 0040 00	376446	DOME, SPEAKER, D020, PM0.5
4	8578 0030 00	376445	CONE, SPEAKER, D130, PM0.5
5	8516 0540 00	375964	DAMPING, MATERIAL, PM0.5
6	8576 0270 00	376967	LED CORD, PM0.5
7	8576 0260 00	378011	CORD ASSY, TO SPEAKER, PY012A0-2, PM0.5
8	8560 0040 00	372940	ENCLOSURE, PM0.5, E1
9			
10	8516 0520 00	042409	FOOT, PM0.5



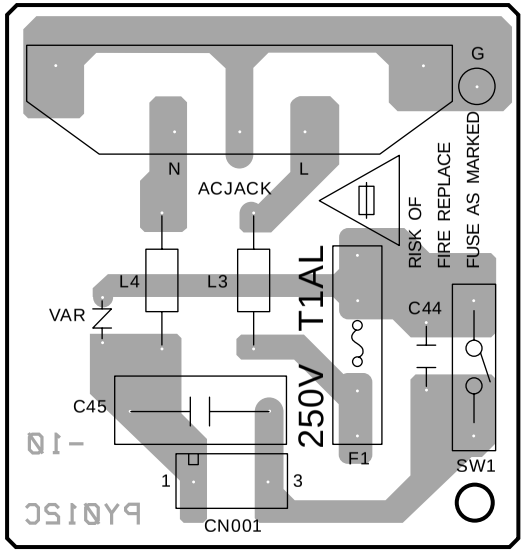
● PM0.5 OTHER COMPONENTS PART NUMBER

Ref. No.	Part No.	Manufacturer's Part No.	Description
IC1~3	8536 0010 00	070150	IC, NJM4558L
TR1	8534 0080 00	068925	TR, 2SD1200F, QR
TR2	8534 0090 00	068618	TR, 2SA1220A, PQ
TR3	8534 0100 00	068744	TR, 2SC1841, T
Z1, 2	8534 0110 00	359937	ZD, 15BSCST T
	8234 1103 02	340410	D, VT, VARISTOR, ERZVA7D431
JACK	8545 0100 00	362465	JACK, CAN, NCJ6FI-H
VR1	8540 0020 00	364878	VR, RV0902N-20KA1-10K-P, 10KA

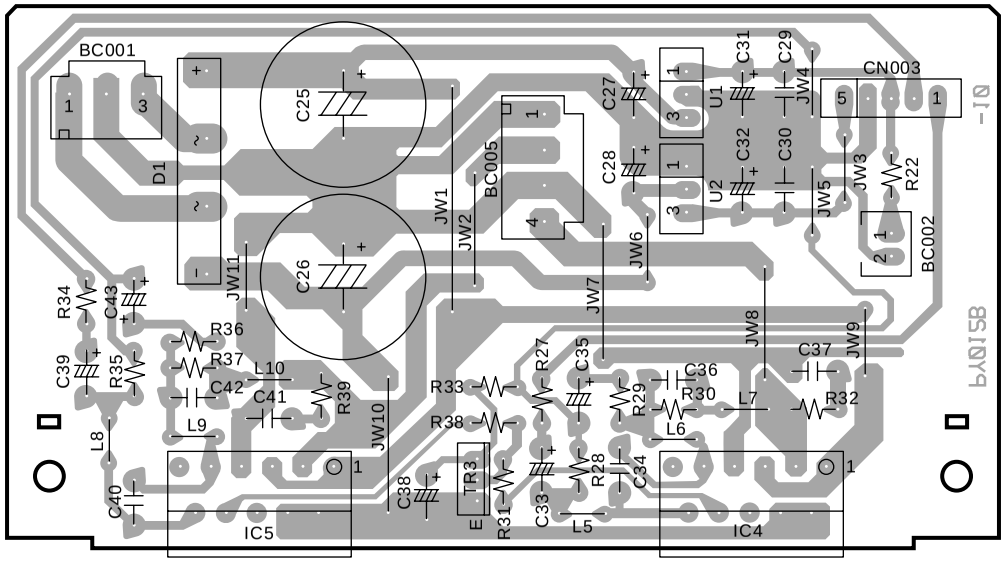
● POWER AMP PCB



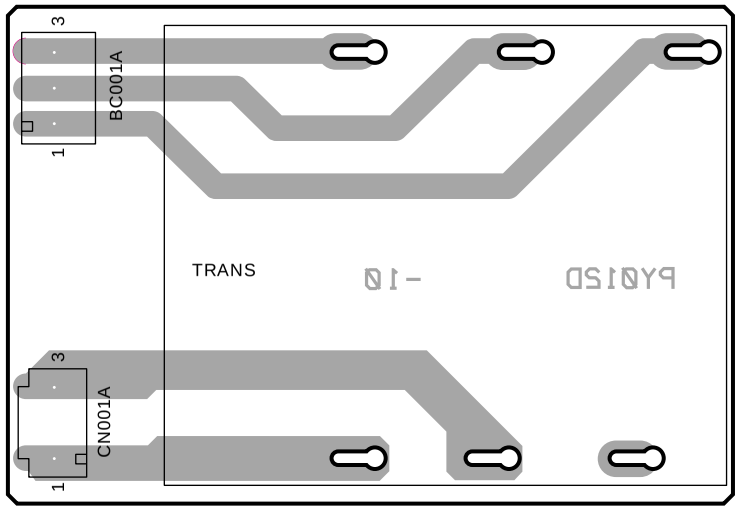
● AC IN PCB



● INPUT PCB

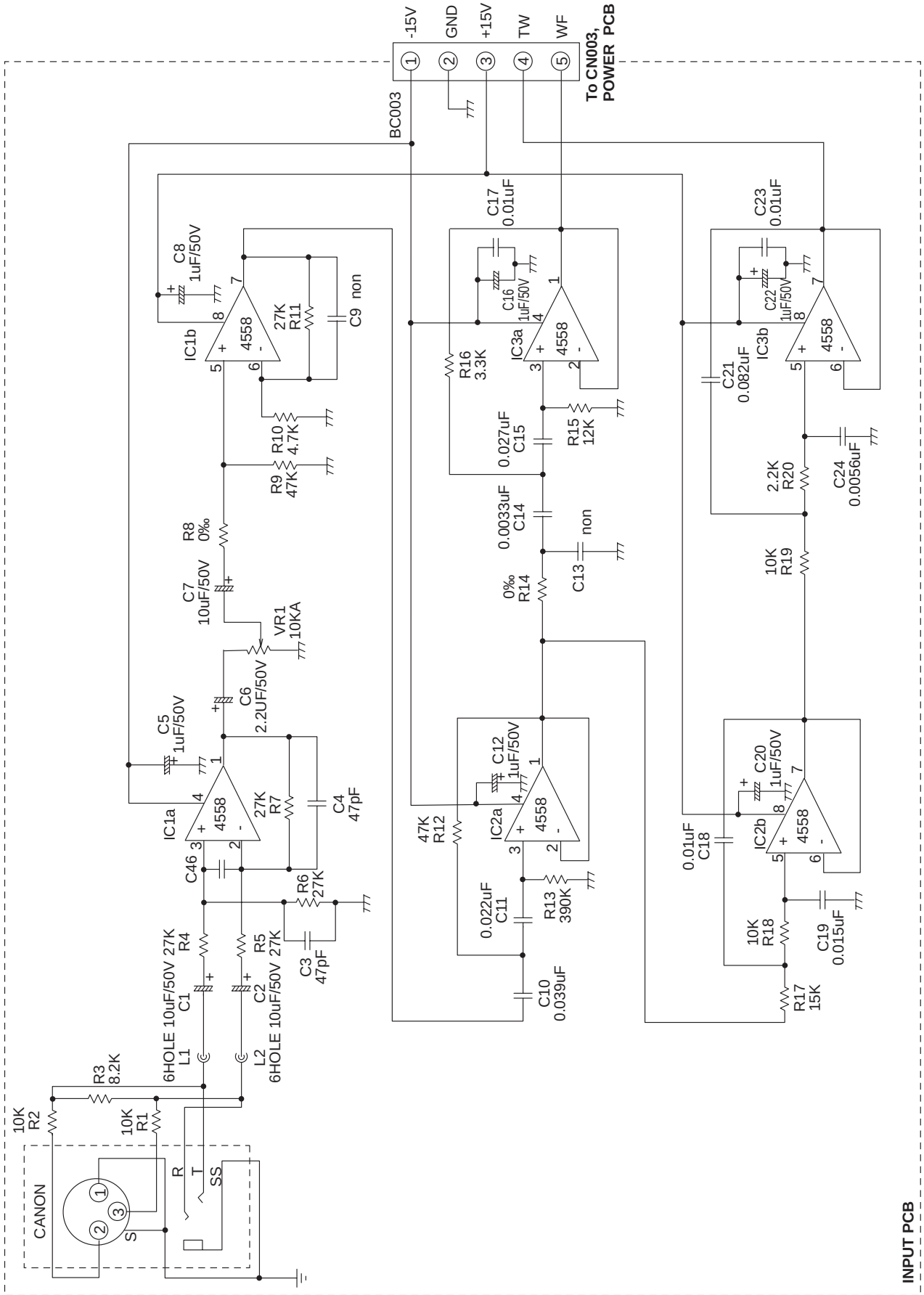


● TRANSFORMER PCB

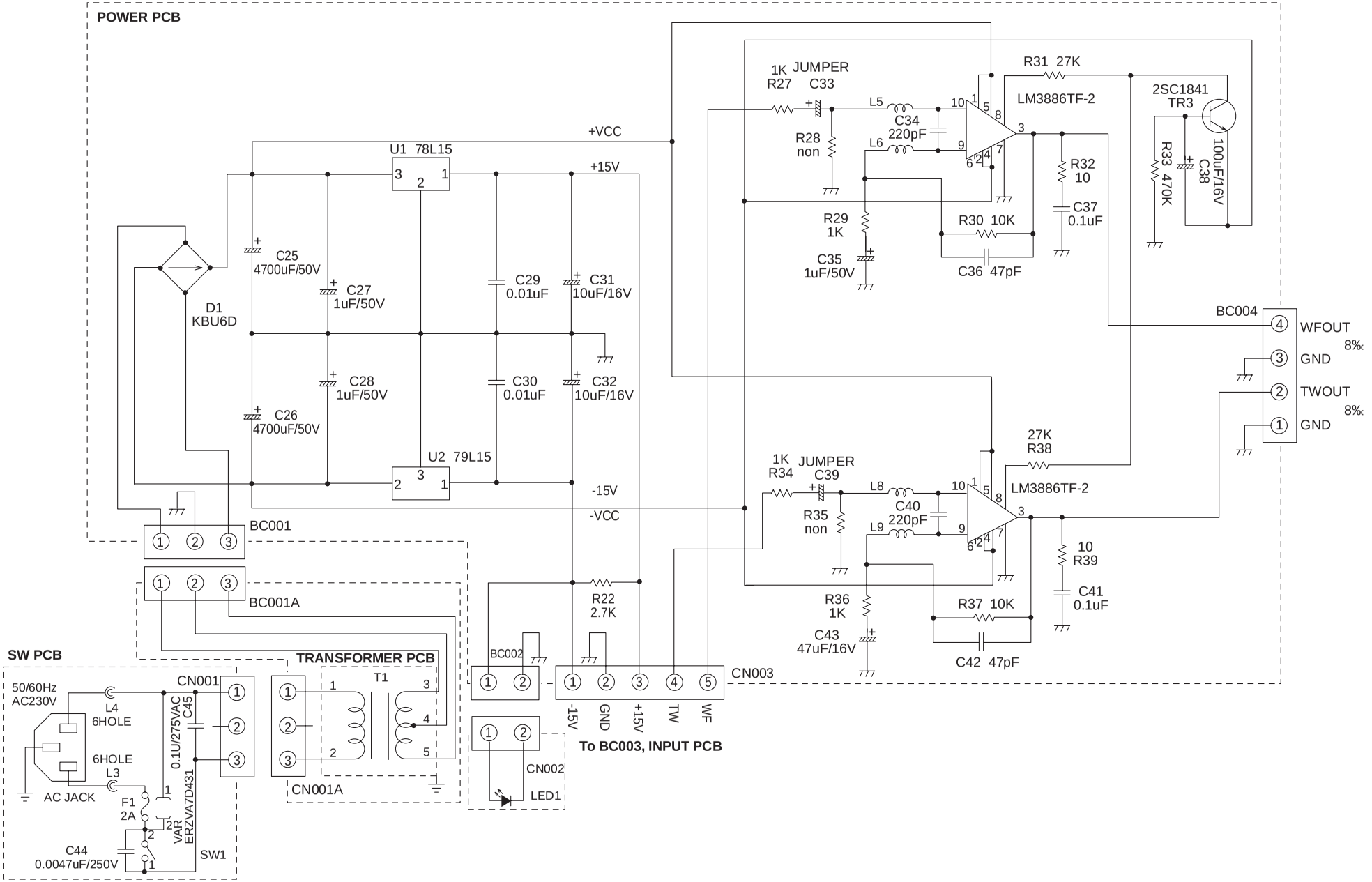


4. CIRCUIT DIAGRAMS

●INPUT PCB



●POWER / TRANSFORMER / SW PCB



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