

MODEL **AF-5080A** EE, UK

This AF-5080A EE, UK service manual is basically the same as that for the AF-5080EE, UK.

The following sections are added with respect to the AF-5080.

1. Loudness circuit
2. Tuning meter
3. Bias cut circuit

Please file together with the AF-5080 service manual.

AIWA®

[SERVICE MANUAL]



Set using ISO screws

DATE OF ISSUE 15/5/1976

SPECIFICATIONS

Model Type:	Stereo cassette music system
Semiconductors:	7 IC, 54 transistors, 22 diodes, 1 FET, 3 LED
Power Supply:	AC 110—120 V/220—240 V switchable 50/60 Hz
Power Consumption:	130 W (8 ohms), 180 W (4 ohms)
Dimensions:	148 (H) x 590 (W) x 382 (D) mm (w/o dust cover)
Weight:	17.5 kg (w/ dust cover)
Accessories:	Indoor FM antenna 1 Head cleaning stick 1 Tape Cassette 1 Motor pulley (for 60 Hz) 1

« Tuner Section »

Frequency Range:	FM: 87.5 MHz — 108 MHz (3.43 ~ 2.87 m) MW: 525 kHz — 1,605 kHz (571 ~ 187 m) SW: 5.9 — 16 MHz (50.9 — 18.7 m) LW: 150 — 340 kHz (2000 — 882 m)
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Effective Sensitivity:	FM: 2.5 μ V (IHF) MW: 300 μ V/m (IHF) SW: 40 μ V (IHF) LW: 550 μ V (IHF)
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FM Frequency Response:	20 Hz — 15,000 Hz
FM S N Ratio:	62 dB
FM Distortion:	0.5%
Muting Level:	18 dB
Antennas:	FM: 300 ohms (balanced), 75 ohms (unbalanced) AM: built-in antenna, terminal for external antenna

« FM Multiplex Section »

Separation:	More than 38 dB (1 kHz)
Distortion:	0.7%

« Turntable Section »

Model Type:	Belt driven automatic turntable
Motor:	4-pole synchronous motor
Speeds:	33-1/3 and 45 rpm
S N Ratio:	45 dB
Wow and Flutter:	0.1% (WRMS)
Cartridge Type:	Moving magnet (MM)
Separation:	18 dB (33-1/3 rpm 1 kHz)
Tracking Force:	2 — 2.5 grams

« Cassette Tape Deck Section »

Track Format:	4 tracks, 2 channels
Tape Speed:	4.8 cm/sec.
Recording Time:	60 minutes (C-60)

Wow and Flutter:	0.1% (WRMS) according to DIN 45 500 Blatt 8 0.2%
Frequency Response:	Normal tape: 30 Hz — 12,000 Hz Fe-Cr tape: 30 Hz — 17,000 Hz CrO ₂ tape: 30 Hz — 16,000 Hz according to DIN 45 500 Blatt 8 Normal tape: 30 Hz — 11,000 Hz Fe-Cr tape: 30 Hz — 15,000 Hz CrO ₂ tape: 30 Hz — 15,000 Hz
S N Ratio:	58 dB (DOLBY ON CrO ₂ tape) according to DIN 45 500 Blatt 8 50 dB
Bias Frequency:	61 kHz
Erase Method:	AC erase
Motor:	DC servo motor

« Audio Section »

Circuitry:	Pure complementary SEPP OTL
Output Power:	Music power: 30 W + 30 W (8 ohms) 55 W + 55 W (4 ohms) Continuous Power: 24 W + 24 W (8 ohms) 28 W + 28 W (4 ohms) 20 — 20 kHz (0.3% distortion)
Power Bandwidth:	
Loudness Response:	(with volume at -40 dB) +6 dB (100 Hz) +4 dB (10 kHz)
Gain and Input Impedance:	MIC: 1 mV (200 ohms — 10 k-ohms) DIN IN (TAPE PLAY): $\leq$ 500 mV ($\geq$ 470 k-ohms)
Output Level and Impedance:	DIN OUT (TAPE REC): 1 mV/k-ohm SPEAKERS: 4 ~ 8 ohms PHONES: 4 ~ 8 ohms BASS: 100 Hz $\pm$ 10 dB TREBLE: 10 kHz $\pm$ 10 dB
Tone Controls:	

- Specifications and design are subject to change without notice due to product improvements.
- Dolby Noise Reduction Circuit under License from Dolby Laboratories Incorporated.
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MECHANICAL PARTS

EXPLODED VIEW-1

Additional Parts

Part No.	Description	Common Model	Q'ty	Part No.	Description	Common Model	Q'ty
82-475-030-01	Loudness knob ass'y	AF-3060A	1	82-475-032-01	Balance knob ass'y	AF-3060A	1

Altered Parts

Ref. No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
1~17	80-004-710-4A	80-004-710-41	Cabinet Assembly-"AEE" model (Main case ass'y + Panel ass'y)	1
1~17	80-004-710-0A	80-004-710-01	Cabinet Assembly-"AUK" model (Main case ass'y + Panel ass'y)	
1~9	80-004-711-4A	80-004-711-41	Main case ass'y-"AEE" model	
1~9	80-004-711-0A	80-004-711-01	Main case ass'y-"AUK" model	
1-9	82-471-058-01	82-471-019-01	Back board	
10~17	80-004-714-4A	80-004-714-41	Panel ass'y-"AEE" model	1
10~17	80-004-714-0A	80-004-714-01	Panel ass'y-"AUK" model	
1-10	82-471-054-01	82-471-032-01	Front sash	

Discontinued Part

Ref. No.	Part No.	Description	Q'ty
1-25	82-471-051-01	Volume knob, Upper	1

EXPLODED VIEW-2

Altered Parts

Ref. No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
2-12	82-471-055-01	82-471-033-01	Dial plate	1
2-23	82-471-260-01	82-471-201-01	Chassis, Sub-front	1
2-24	82-471-259-01	82-470-212-01	Reflector board, Meter	1

Discontinued Parts

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
2-14	82-471-213-01	Lamp collar	1	2-25	82-471-205-01	Illumination window, Meter	1

EXPLODED VIEW-5

Altered Part

Ref. No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
5-41	09-047-650-00	09-043-950-00	Chassis, ass'y	1

EXPLODED VIEW-6

Additional Part

Part No.	Description	Common Model	Q'ty
82-385-314-01	Belt, Worm	AD-6300	1

Altered Parts

Ref. No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
6-1	82-385-261-01	82-470-218-01	Holder, Motor	1
6-2	82-385-311-01	82-331-107-01	Screw for thrust	1
6-11	82-385-307-01	82-470-255-01	Flywheel ass'y	1
6-12	82-385-313-01	82-470-225-01	Belt, Main	1
6-37	82-385-309-01	82-439-296-01	Worm gear ass'y	1
6-40	82-439-408-01	82-439-346-01	Worm wheel ass'y	1

ELECTRICAL PARTS

TUNER CIRCUIT BOARD SECTION

Additional Parts

Symbol No.	Part No.	Description	Q'ty
D113	88-052-188-11	Diode, 1S-188 (FM)	1
R171	88-181-152-01	Resistor, 1.5k Ω 1/4W $\pm$ 5% ELR	1
R172	88-181-330-01	Resistor, 33 Ω 1/4W $\pm$ 5% ELR	1
R173	88-181-151-01	Resistor, 150 Ω 1/4W $\pm$ 5% ELR	1
R170	88-181-273-01	Resistor, 27k Ω 1/4W $\pm$ 5% ELR	1
C160	88-214-810-01	Ceramic capacitor, 0.01 μ F	1

Altered Parts

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
TR207	89-313-832-01	89-313-172-01	Transistor, 2SC-1317R $\Rightarrow$ 2SC-1383R	1
CF101,102	87-008-169-01	87-008-158-01	FM ceramic filter, 10.7MHz (EE model only)	2
R238	87-025-062-01	88-152-151-01	Resistor, 150 Ω 1W $\Rightarrow$ 56 Ω 2W	1

Discontinued Part

Symbol No.	Part No.	Description	Q'ty
R234	88-131-392-01	Resistor, 3.9k Ω 1/4W $\pm$ 5%	1

PRE AMP/SELECTOR SWITCH-1 CIRCUIT BOARD SECTION

Altered Part

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-E	82-471-699-21	82-471-699-01	PRE AMP/SELECTOR SWITCH-1 circuit board	1

«REC/PB CIRCUIT BOARD SECTION»

• Additional Parts

Symbol No.	Part No.	Description	Q'ty	Symbol No.	Part No.	Description	Q'ty
TR416	89-313-647-01	Transistor, 2SC-1364 (7)	1	D305	87-027-097-01	Diode, 1S-1555	1

• Altered Parts

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-G	82-470-652-01	82-470-631-11	REC/PB circuit board	1
R497	88-181-823-01	88-181-101-01	Resistor, 100Ω ⇒ 82kΩ	1

«CONTROL CIRCUIT BOARD SECTION»

• Additional Parts

Symbol No.	Part No.	Description	Q'ty
R513,514	88-130-123-41	Resistor, 12kΩ 1/4W ±5%	2
C503,504	88-707-980-01	Mylar capacitor, 0.056μF	2

• Altered Parts

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-M	82-475-603-01	82-471-673-11	CONTROL circuit board	1
VR503,504,505	82-475-604-01	82-471-672-01	Volume w/switch (VOLUME, BALANCE, LOUDNESS)	1
R503,504,515, 516,517,518, 523,524,525, 526	88-130-102-41	88-131-102-01	Resistor, 1kΩ 1/4W ±5%	10
R512	88-130-682-41	88-131-682-01	Resistor, 6.8kΩ 1/4W ±5%	1
R505,506,519, 520	88-130-103-41	88-131-103-01	Resistor, 10kΩ 1/4W ±5%	4
R501,502	88-130-153-41	88-131-153-01	Resistor, 15kΩ 1/4W ±5%	2
R527,528	88-130-124-41	88-131-124-01	Resistor, 120kΩ 1/4W ±5%	2
R511	88-130-682-41	88-181-682-01	Resistor, 6.8kΩ 1/4W ±5%	1
R507,508	88-130-271-41	88-181-271-01	Resistor, 270Ω 1/4W ±5%	2
R509,510	88-130-225-41	88-176-225-01	Resistor, 2.2MΩ 1/4W ±5%	2
R521,522	88-130-332-01	88-181-332-01	Resistor, 3.3kΩ 1/4W ±5%	2
C507,508	88-336-510-01	88-336-310-01	Electrolytic capacitor, 33μF/25V ⇒ 47μF/25V	2

«METER LAMP CIRCUIT BOARD SECTION»

• Discontinued Parts

Symbol No.	Part No.	Description	Q'ty
PCB-0	82-471-606-01	Meter lamp circuit board	1
PL7,8	82-471-660-01	Pilot lamp (GRN)	2
	87-032-527-01	Pilot lamp clamp	4

◀REC LED CIRCUIT BOARD SECTION▶

● Altered Part

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-P	82-475-629-01	82-471-608-01	REC LED circuit board	1

◀STEREO LED CIRCUIT BOARD SECTION▶

● Altered Part

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-Q	82-475-629-01	82-471-608-01	STEREO LED circuit board	1

◀FUSE CIRCUIT BOARD SECTION▶

● Altered Part

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
PCB-T	82-470-656-01	82-470-605-11	Fuse circuit board	1

◀MISCELLANEOUS▶

● Additional Parts

Symbol No.	Part No.	Description	Q'ty
PL7,8,10	82-471-707-01	Pilot lamp (METER LAMP)	3
LM-3	82-471-705-01	Level meter (TUNING)	1
S17	87-031-361-01	Leaf switch (AUTO-STOP)	1

● Altered Parts

Symbol No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
LM-1,2	82-471-706-01	82-471-682-01	Level meter	2
M-1	82-470-616-31	82-470-616-11	Motor	1

● Discontinued Parts

Symbol No.	Part No.	Description	Q'ty
D703	87-027-083-01	Diode, 1S-1885	1
C709	88-336-130-01	Electrolytic capacitor, 1000 μ F/25V	1
C710	88-215-850-01	Ceramic capacitor, 0.047 μ F	1
	87-033-040-01	Lug plate, 1L-3P	1

■ ACCESSORIES / PACKAGE

● Altered Parts

Ref. No.	Part No. (Altered)	Part No. (Used)	Description	Q'ty
1	82-471-880-01	82-471-871-01	Printed indiv., Packing	1
3	82-471-882-01	82-471-864-01	Cushion R, Printed indiv.	1
4	82-471-881-01	82-471-863-01	Cushion L, Printed indiv.	1
18(a)	82-471-909-01	82-471-907-01	Instruction booklet – "AEE" model	1
18(b)	82-471-910-01	82-471-906-01	Instruction booklet – "AUK" model	1

AC Cord Replacement

When replacing AC cord due to open wiring or other reason, note that when AC cord is connected as

shown in Fig. A, connect replacement cord directly to the switch as shown in Fig. B.

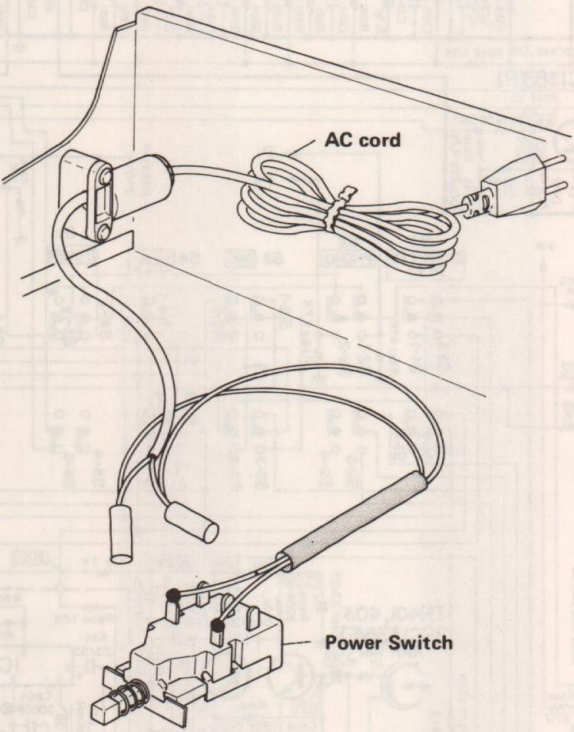


Fig. A

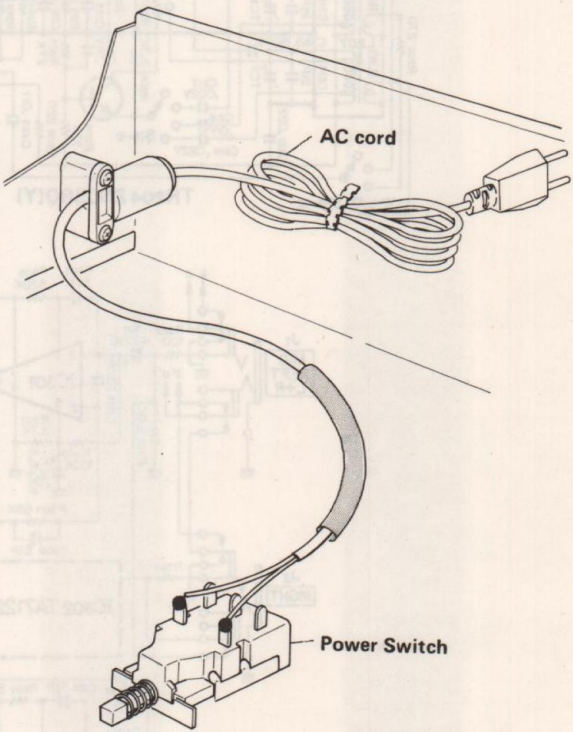
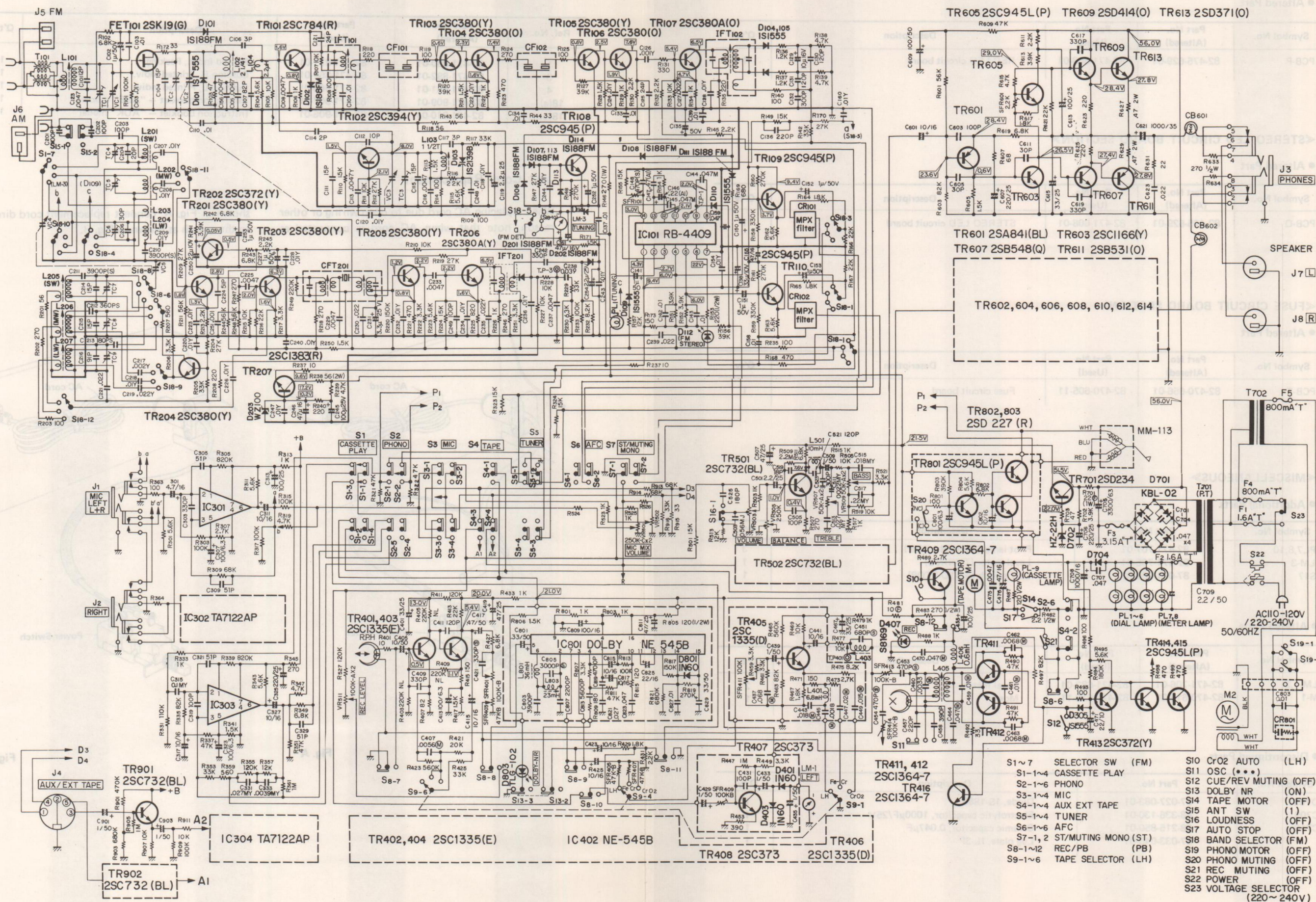
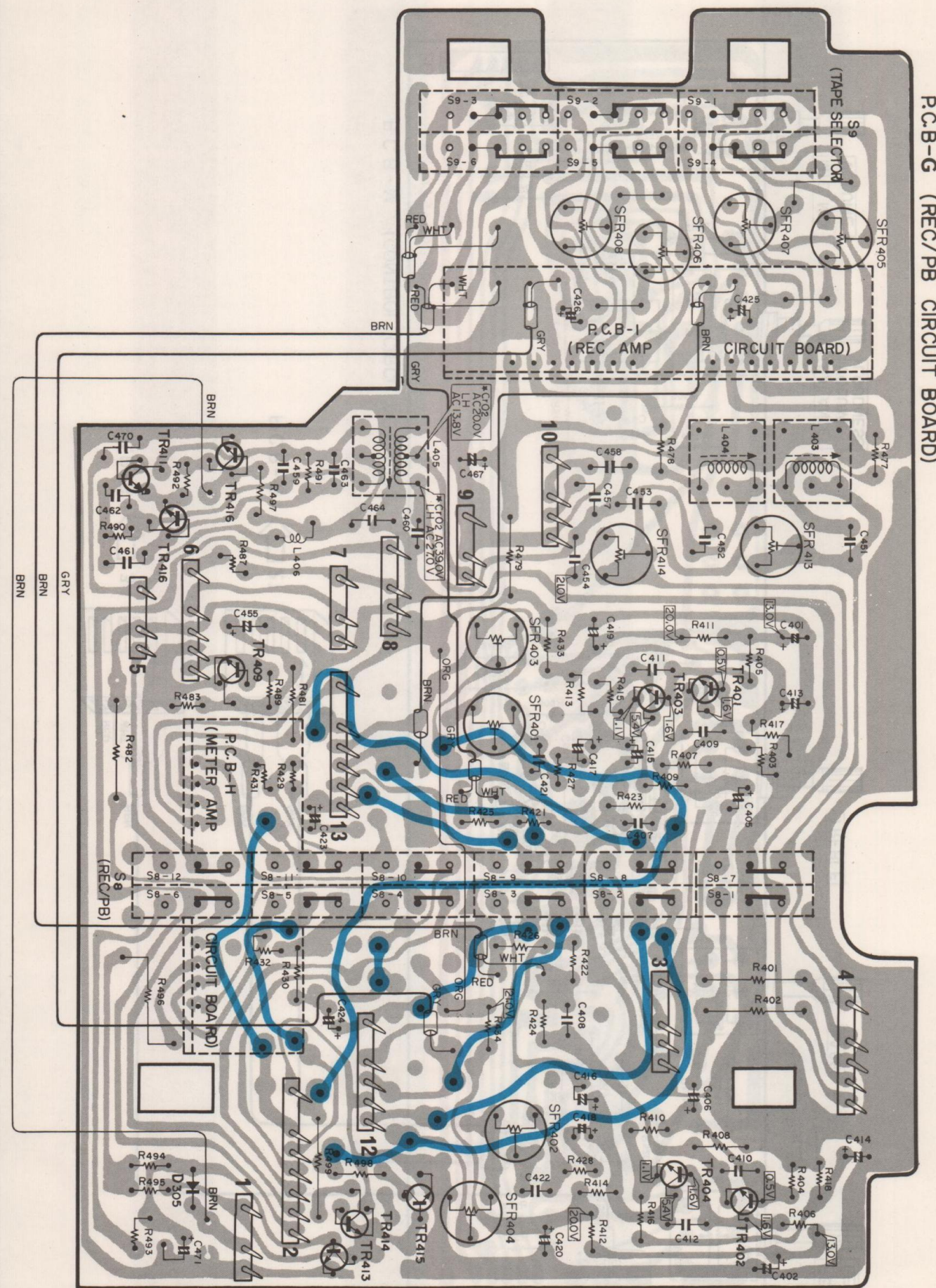


Fig. B

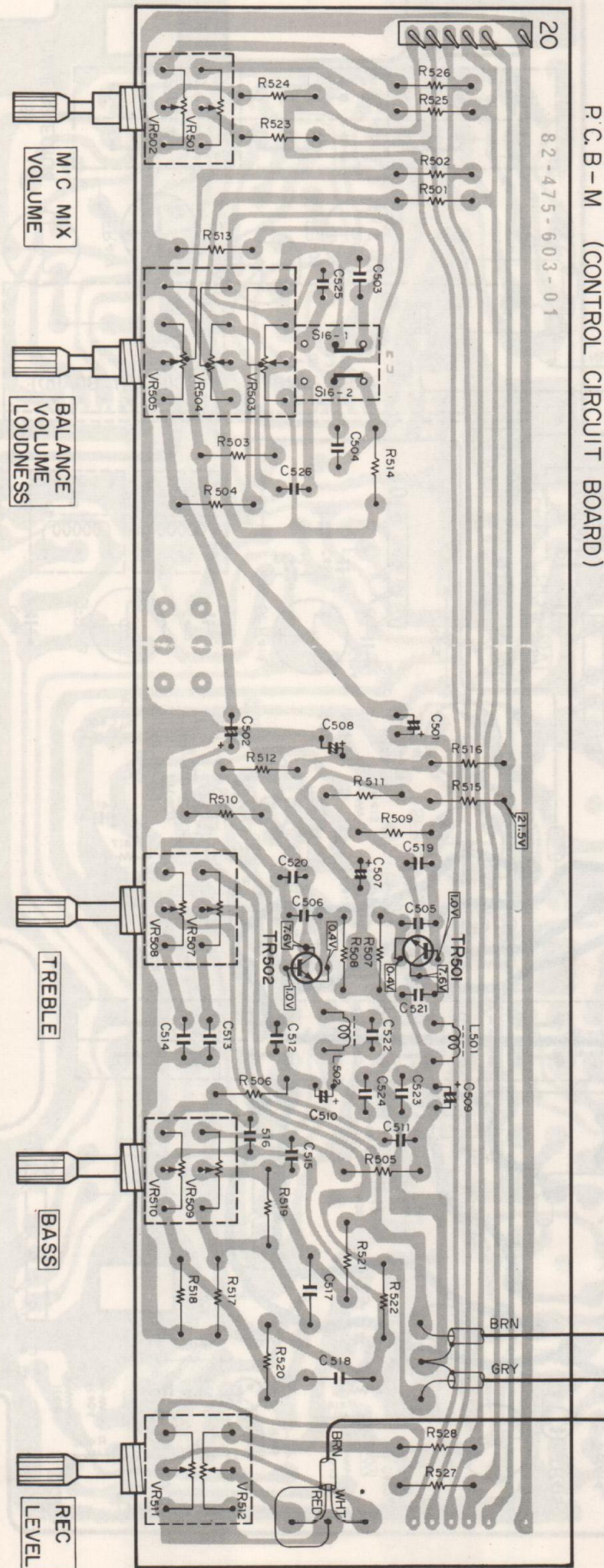
SCHEMATIC DIAGRAM



REC/PB CIRCUIT BOARD

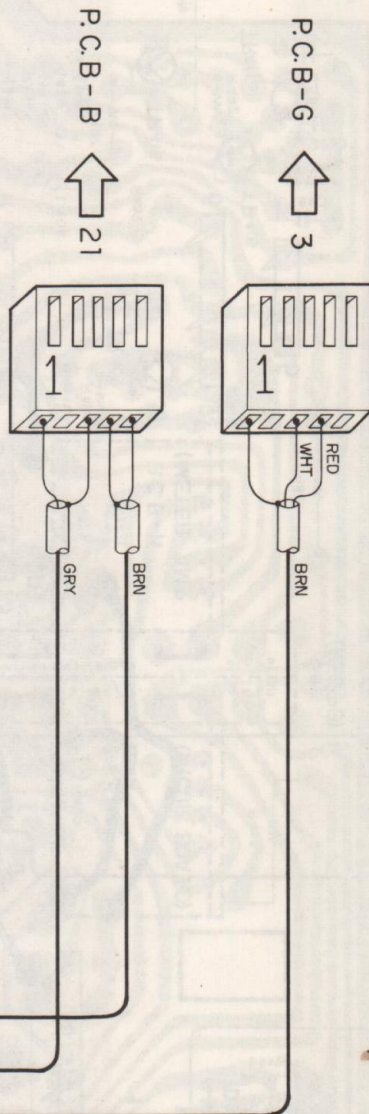


CONTROL CIRCUIT BOARD



P.C.B.-M (CONTROL CIRCUIT BOARD)

82-475-603-01



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