▲ MITSUBISHI
AUDIO SYSTEMS

SERVICE MANUAL
PRE AMPLIFIER
MODEL   DA-P600

CONTENTS

▲ MITSUBISHI ELECTRIC CORPORATION

SPECIFICATIONS

Input sensitivity/impedance (at 1 kHz, PRE OUT: 1 V)	PHONO 1, 2	$2,5mV/50k\Omega$
	TUNER, AUX, PLAY 1, 2	$150mV/30k\Omega$
Output level/impedance	PRE OUT 1, 2	$1V/600\Omega$
	REC 1, 2 (PIN)	$150mV/600\Omega$
	REC 1, 2 (DIN)	$50mV/100k\Omega$
Phono overload level (at 1 kHz, with 0,1% THD)	PHONO 1, 2	220 mV
PRE OUT maximum output level (20 Hz to 20 kHz, 0,1% THD)		10 V
Frequency response (TONE DEFEAT switch set at ON position)	PHONO 1, 2	±0,5 dB from 20 Hz to 20 kHz (RIAA STD)
	TUNER, AUX, PLAY 1, 2	+0, -0,5 dB from 10 Hz to 70 kHz
Tone control	BASS	±10 dB at 100 Hz
	TREBLE	±10 dB at 10 kHz
Subsonic filter		20 Hz (-6 dB/oct)
Loudness (volume control set at -30 dB position)		+7 dB at 100 Hz
		+5 dB at 10 kHz
Muting		-20 dB
Total harmonic distortion (volume control set at -20 dB position, PRE OUT: 1 V, from 20 Hz to 20 kHz)	PHONO 1, 2	0,05%
	TUNER, AUX, PLAY 1, 2	0,02%
Hum and noise (IHF A network closed circuit)	PHONO 1, 2	74 dB
	TUNER, AUX, PLAY 1, 2	98 dB
Hum and noise (DIN: at rated output level)	PHONO 1, 2	68 dB
	TUNER, AUX, PLAY 1, 2	80 dB
Power consumption		3 W (IEC nominal)
Dimensions (W x H x D)		480 x 139 x 324 mm (18-7/8 x 5-½ x 12-3/4")
Weight		3,8 kg (8-2/5 lb)

Design and specifications are subject to change without notice for improvements.

PANEL

FRONT PANEL

TONE (R & L) (Tone Defeat Switches)

These switches are used for cancelling the TREBLE and BASS controls on the right and left channels.

ON   Both TREBLE and BASS controls can be adjusted.

DEFEAT In this position, TREBLE and BASS controls are removed from the signal path and a flat frequency response is obtained.
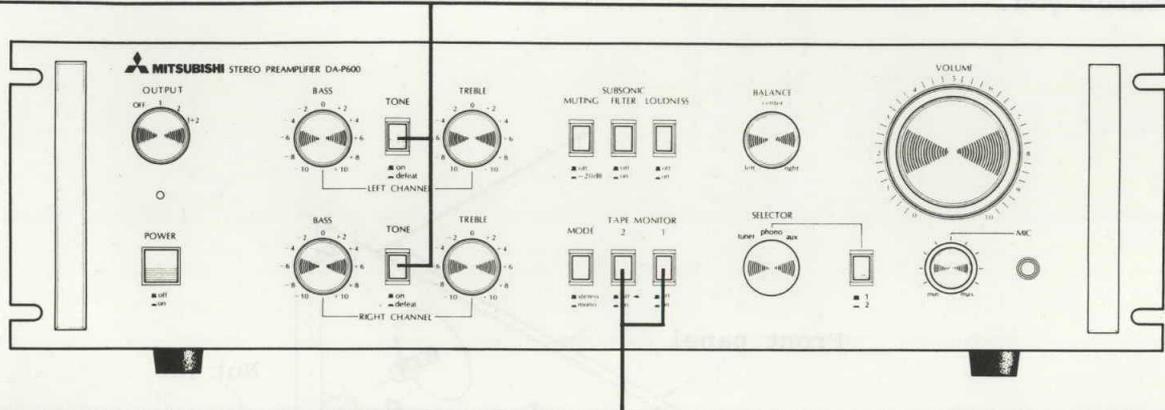
TAPE MONITOR (Tape Monitor and Duplicate Switches)

This switch is used for monitoring either the program source being recorded or the playback from the tape deck, and duplicating from tape to tape.

2. 1.

■   ■   In this position, you can reproduce the program sources set by the SELECTOR switch and record them with tape deck connected to REC 1 and REC 2 outputs.

■   ▬   For playing or record monitoring of the tape deck connected to PLAY 1 inputs, and duplicating from the tape deck connected to PLAY 1 inputs to the tape deck connected to REC 2 outputs.

▬   ■   For playing or record monitoring of the tape deck connected to PLAY 2 inputs.

REAR PANEL
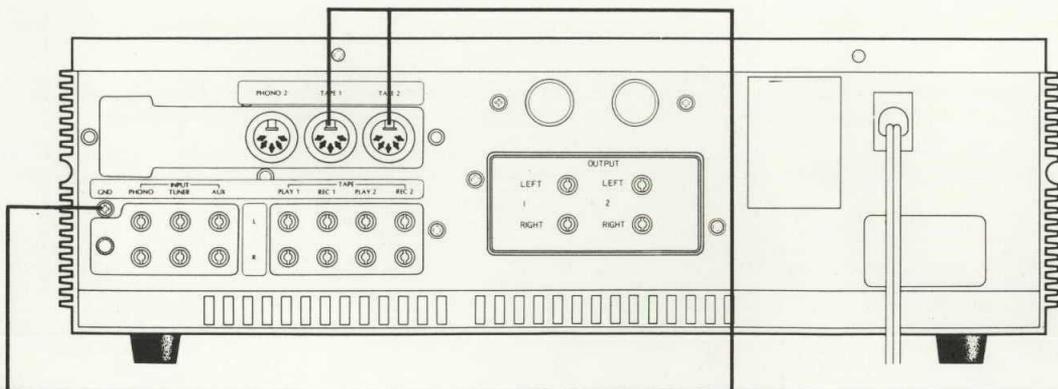
GND (Ground Terminal)

Sometimes, hum or other noise may develop when a turntable is connected to this unit. In such a case, connect the ground wire of a turntable to this terminal.

TAPE 1, TAPE 2 (Tape Playback & Recording DIN Sockets)

These sockets are for tape playback and recording. Connect the tape deck DIN plugs here.

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DISASSEMBLY

1. Disassembling the Front Panel
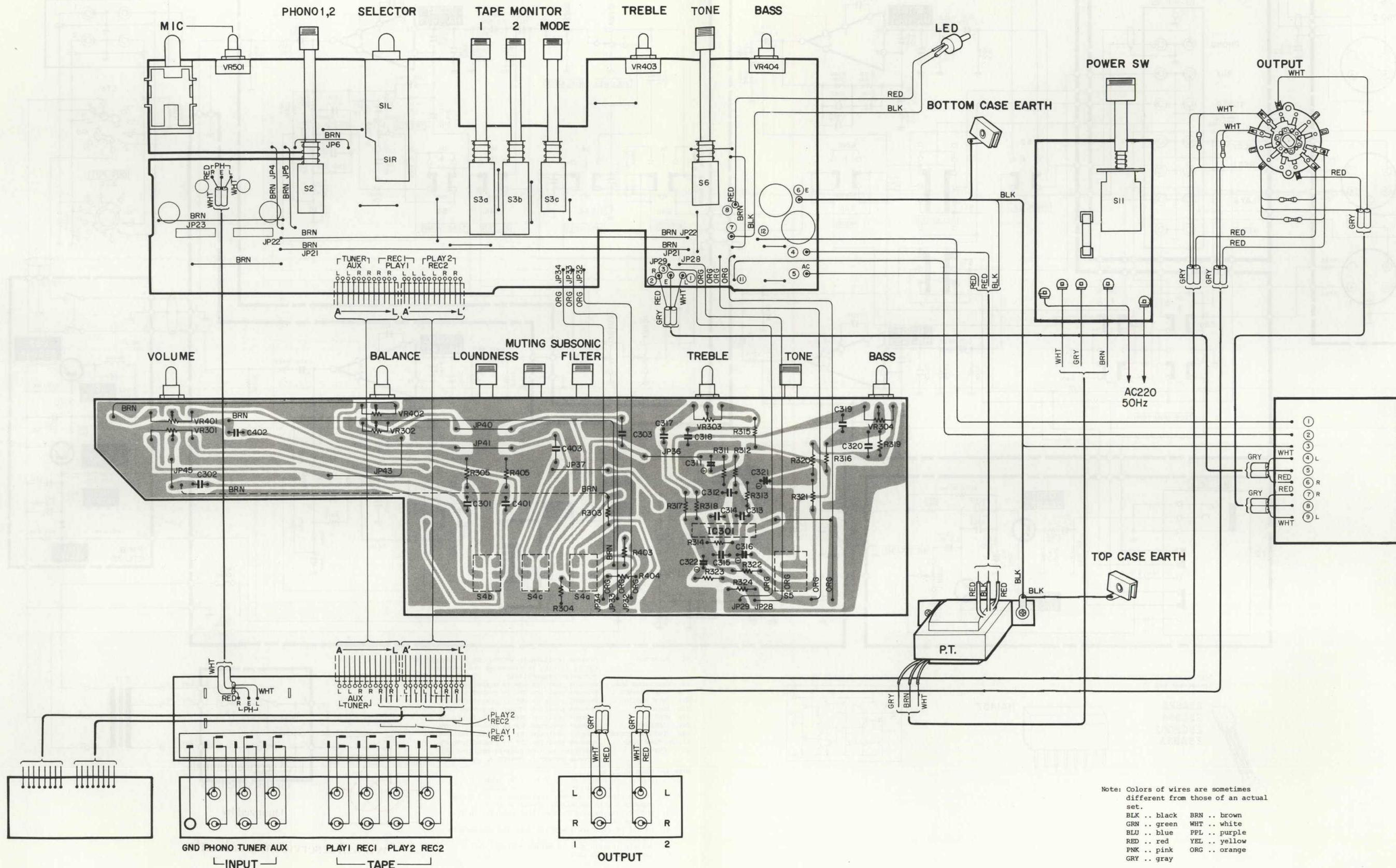
    (1) Remove screws from the top metal cover.
    (2) Pull out the front panel knob.
    (3) Remove the front panel set-screws.
    (4) Remove the volume fixing nuts (Fig. 1).
    (5) Thus the front panel can be taken out
        towards you.
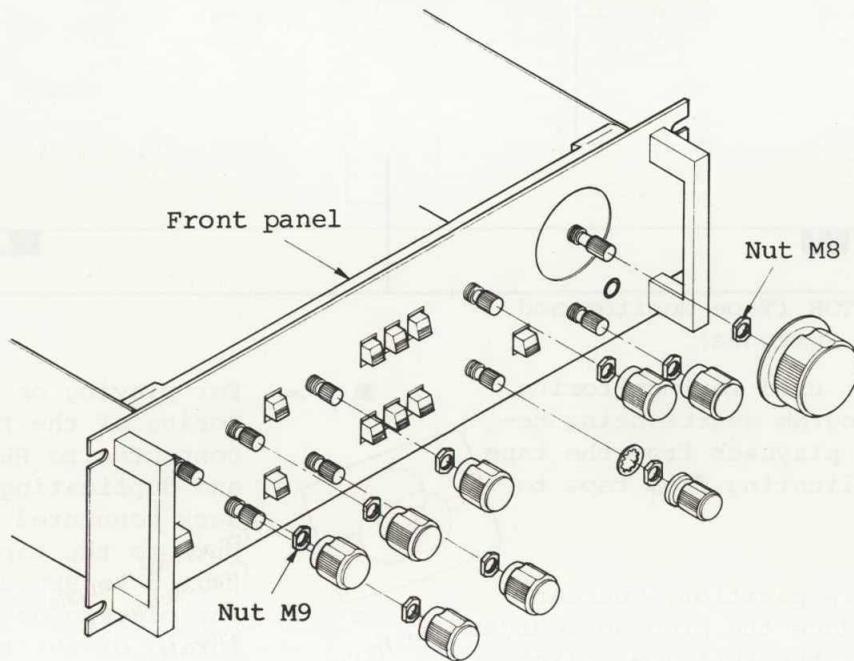
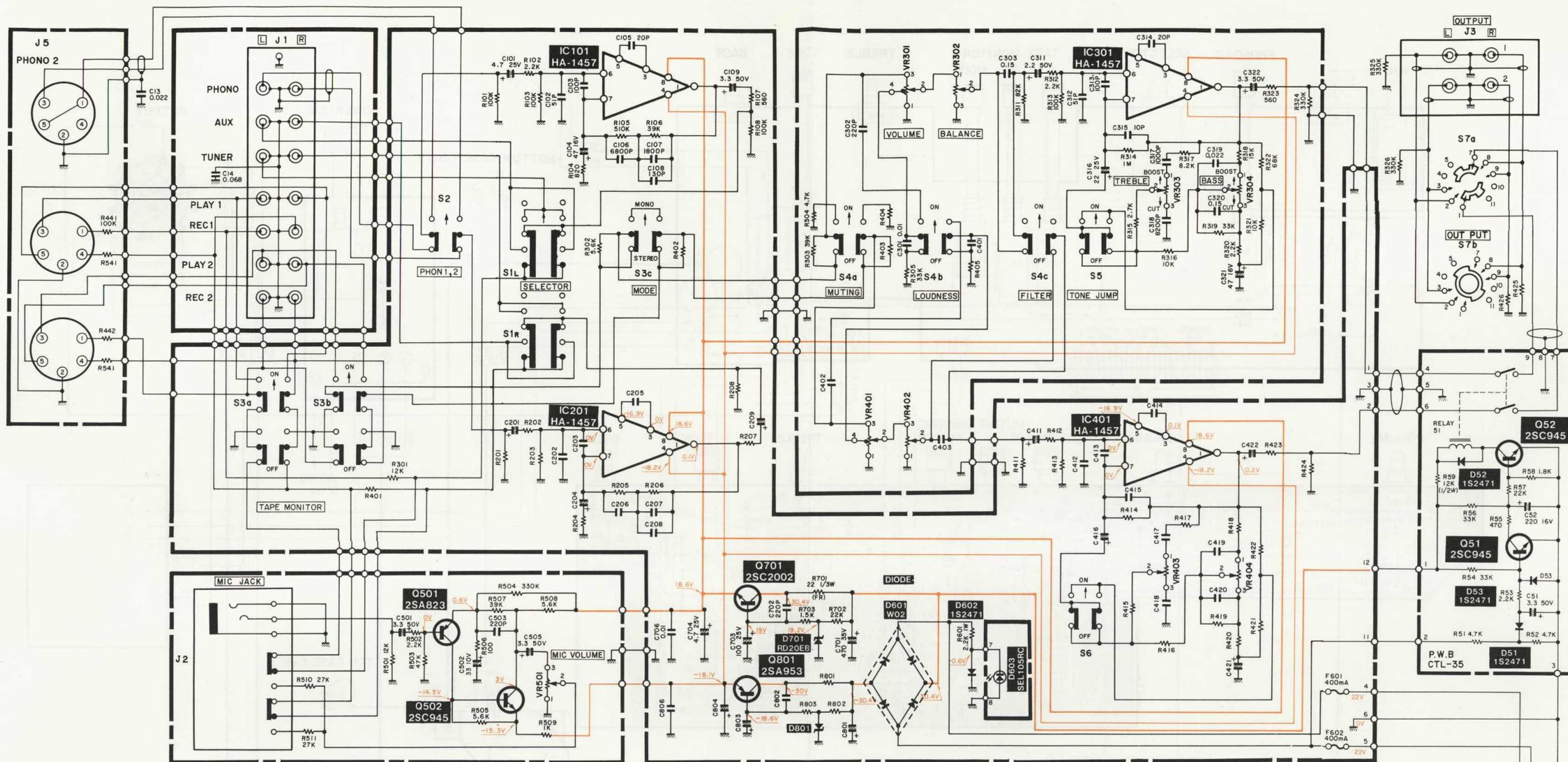Note: The nut having no mention of nut size refer to M7.
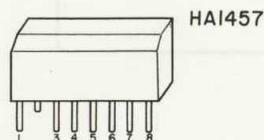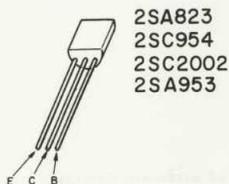
Fig. 1

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Note: Colors of wires are sometimes
different from those of an actual
set.
BLK .. black   BRN .. brown
GRN .. green   WHT .. white
BLU .. blue   PPL .. purple
RED .. red   YEL .. yellow
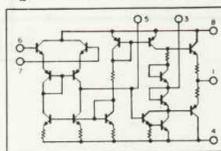PNK .. pink   ORG .. orange
GRY .. gray
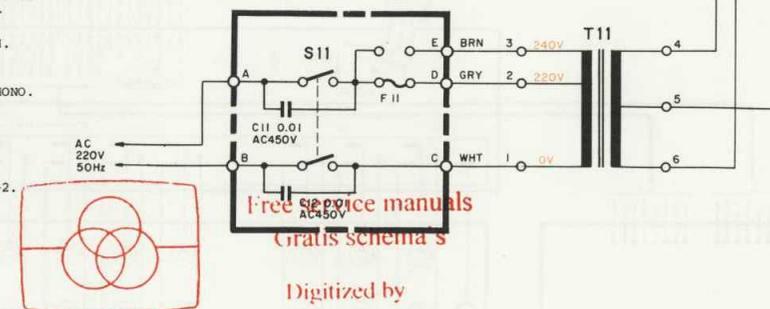
CIRCUIT DIAGRAM

S1 SELECTOR   Present position is PHONE. Can be changed to AUX by turning it clockwise and counter-clockwise respectively.
S2 CARTRIDGE ROAD   Present position LOW is pushed into HIGH.
S3a TAPE MONITOR 1   Present position OFF is pushed into ON.
S3b TAPE MONITOR 2   Present position OFF is pushed into ON.
S3c MODE   Present position STEREO is pushed into MONO.
S4a MUTING   Present position OFF is pushed into ON.
S4b LOUDNESS   Present position OFF is pushed into ON.
S4c SUBSONIC FILTER   Present position OFF is pushed into ON.
S5,S6 TONE JUMP   Present position OFF is pushed into ON.
S7 OUTPUT   Clockwise turn of present position OFF becomes OUTPUT 1, OUTPUT 2, and OUTPUT +2.

Note 1: Unit of C, R
    1 C ... No symbol µF   2 R ... No symbol Ω
      P symbol PF   K symbol kΩ
2: Unless otherwise stated, resistance is 1/4 W and capacitor with no voltage specified is 50 V.
3: Specifications with no specified constant is the rame as ch.
4: LN and FR indicate low noise type and inflammable resistance respectively.
5: Voltage in each part is values measured with a tester of DC 20 kΩ/V.

This circuit diagram is subject to change without notice for improvements.

Appearances and polarities of transistor and IC

2SA823
2SC954
2SC2002
2SA953

HA1457

EQUIVALENT CIRCUIT DIAGRAM

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PRINTED CIRCUIT BOARD DIAGRAM

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PARTS LIST

SYMBOL NO.	PART NO.	DESCRIPTION
D51, 52, 53, 602	M07113321	Diode (1S2471)
D601	M07231320	" (W02)
D701, 702	M07229320	" (RD-20EB)
Q51, 52, 502	M07229304	Transistor (2SC945)
Q501	M05104312	" (2SA823)
Q701	M07229305	" (2SC2002)
Q801	M07229303	" (2SA953)
IC101, 201, 301, 401	M07229343	IC (HA1457)
	M07228211	Knob (PUSH TYPE)
	M07228212	" (POWER)
	M07229212	" (BASS, TREBLE, BALANCE, SELECTOR)
	M07229211	" (MIC)
	M07229210	" (VOLUME)
T11	M07326549	Trans Power
	M07215195	Leg
F601, 602	M07325490	Fuse (400MA-SEMKO)
F11	M05110472	" (1A-SEMKO)
	M07235203	Handle
	M07228778	Screw-P for Handle
J2	M07229475	Jack
VR501	M07229400	VR-STD-A20K20 (MIC)
S1	M07229450	SW-Rotary (SELECTOR)
VR-301, 401	M07229402	VR-W-B250K25 (VOLUME)
S7	M07229453	SW-Rotary (OUTPUT)
VR302, 402	M07231400	VR-W-HB250K20 (BALANCE)
S4	M07231450	SW-Push (SUBSONIC FILTER, MUTING, LOUDNESS)
VR303, 304, 403, 404	M07231401	VR-STD-C100K20 (BASS, TREBLE)
S5, 6	M07229452	SW-Push (TONE JUMP)
S3	M07229451	" (MODE, TAPE MONITOR)
S11	M05113430	" (POWER)
S2	M07231451	"
RELAY51	M07236465	Relay

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