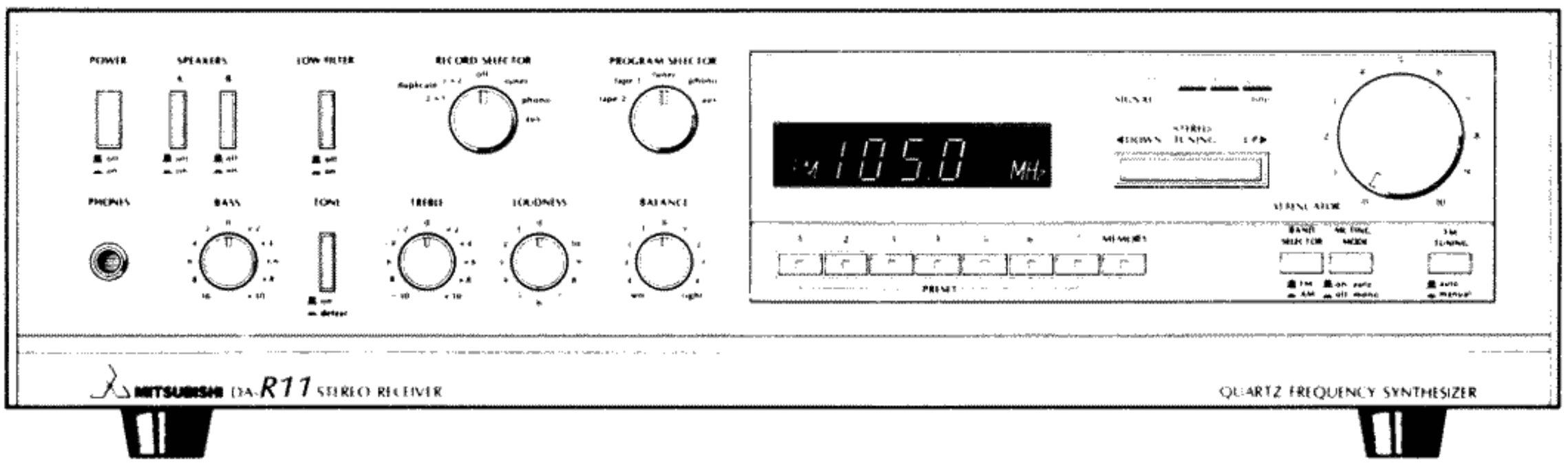
MITSUBISHI
AUDIO SYSTEMS

SERVICE MANUAL

STEREO RECEIVER

MODEL DA-R11



CONTENTS

MITSUBISHI ELECTRIC SALES AMERICA, INC.
3030 East Victoria Street Rancho Dominguez , California 90221

SPECIFICATIONS

NOTE: All measurements are for 8 ohms output unless otherwise stated.

AMPLIFIER SECTION

35 watts per channel, min. RMS, at 8 ohms from 20Hz to 20kHz with no more than 0.015% total hermonic distortion.
45 watts per channel, min. RMS, at 4 ohms from 20Hz to 20kHz with no more than 0.05% total hermonic distortion.

38 watts per channel, min. RMS, into 8 ohms at 1kHz with 0.015% total hermonic distortion.
50 watts per channel, min. RMS, into 4 ohms at 1kHz with 0.015% total hermonic distortion.

Input sensitivity/impedance
PHONO . . . . . 2.25mV/50k ohms, 100PF
AUX, PLAY . . . . . 150mV/50k ohms
Maximum input level
PHONO 140mV
Output level/impedance
REC OUT1, 2 . . . . . 150mV/220 ohms
Frequency response
PHONO . . . . . ±0.3dB, 20Hz – 20kHz, RIAA
AUX, PLAY . . . . . ±0.2dB, 20Hz – 20kHz
Total hermonic distortion (20Hz – 20kHz)
PHONO 0.01%
AUX, PLAY 0.01%
Signal to noise ratio
PHONO (10mV) 94dB
PHONO (new IHF) 78dB
AUX, PLAY (150mV) 106dB
AUX, PLAY (new IHF) . . . 87dB
Residual noise
(IHF A-weighted) 0.1mV
Tone control
BASS (boost/cut) . . . . . ±10dB at 100Hz
TREBLE (boost/cut) . . . . . ±10dB at 10kHz
Loudness control (Level-related equalization)
(attenuation) . . . . . –30dB
Filter characteristics
Low filter 18Hz, 12dB/oct

FM SECTION

Tuning range . . . . . 87.9 – 107.9MHz (200kHz step)
Usable sensitivity (IHF)
75 ohms 0.9μV (10.8dBf)
300 ohms 1.9μV (10.8dBf)
50dB quieting sensitivity
MONO 3.6μV (16.4dBf)
STEREO 41μV (37.3dBf)
Image response ratio 45dB
IF response ratio 80dB
Spurious response ratio 70dB
AM suppression ratio 50dB
Capture ratio 1.5dB
Alternate channel selectivity
(IHF ±400kHz) 60dB
Signal to noise ratio (IHF)
MONO (65dBf) 82dB . . . . (85dBf) 82 dB
STEREO (65dBf) 74dB . . . (85dBf) 76dB
Total harmonic distortion (75kHz deviation)
MONO 0.2%
STEREO 0.3%
Subcarrier product ratio
(IHF) 35dB
Stereo separation
1kHz 40dB
10kHz 35dB
Frequency response
30Hz to 15kHz . . . . . ±1dB

AM SECTION

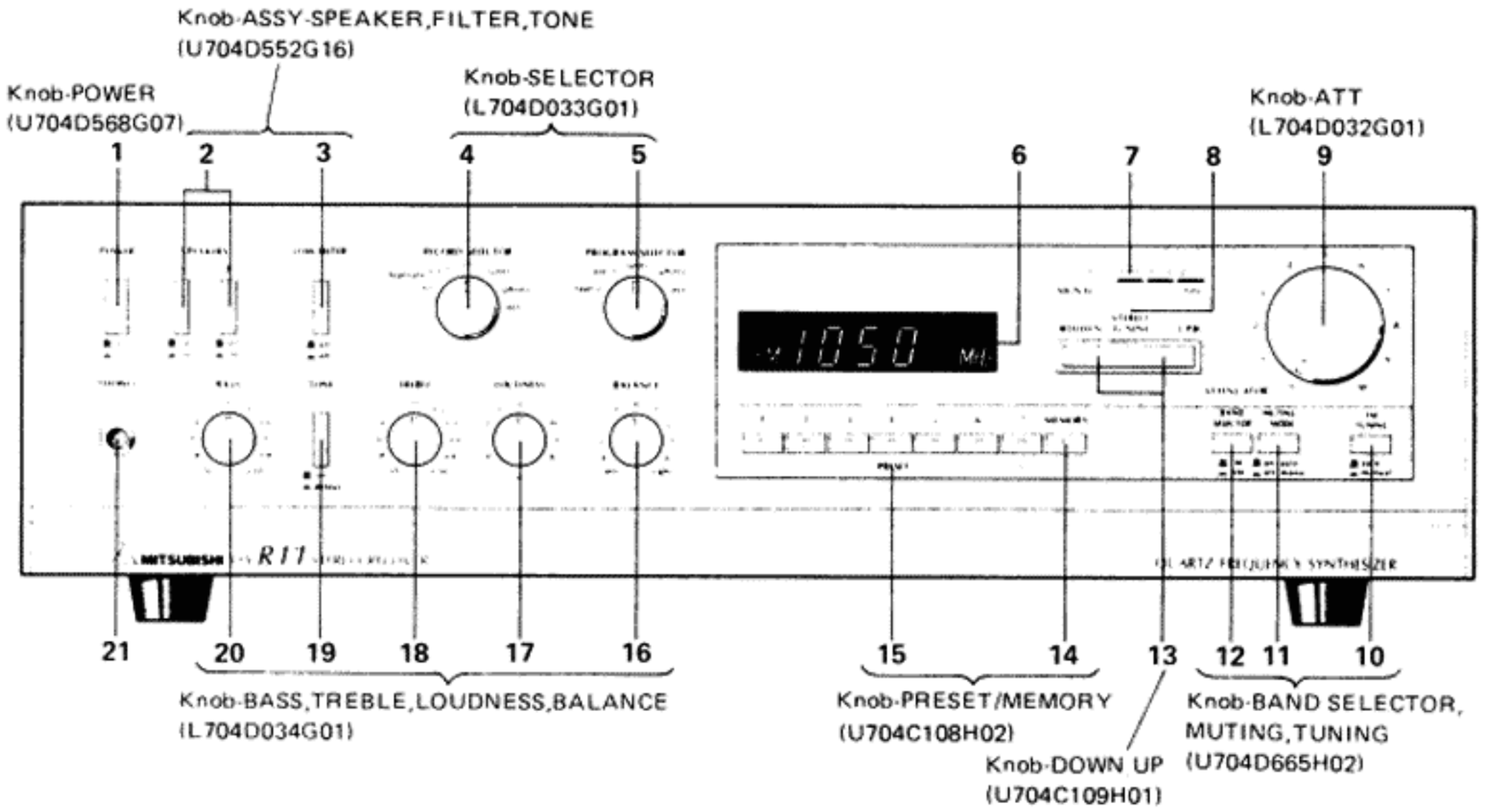
Tuning range . . . . . 522 – 1611kHz
Usable sensitivity 300μV/m
Selectivity 35dB
Signal to noise ratio 50dB
Image response ratio 30dB
IF response ratio 40dB
Total harmonic distortion . . . 0.8%

GENERAL

Power consumption 120W
Dimensions (W x H x D) . . . . 470 x 135 x 436mm (18-1/2 x 5-3/8 x 17-1/5")
Weight . . . . . 9.5kg (21 lbs)

* Design and specifications are subject to change without notice for improvement.

FRONT PANEL TERMINOLOGY AND FUNCTIONS



1. POWER (Power Switch)
This switch is for turning this unit on and off. When in the ON position, the digital frequency display is illuninated.

2. SPEAKERS (Speaker Selection Switches)
These switches control speaker selection.

A	B	
▮	▮	For listening with headphones. The speakers are disconnected.
▬	▮	For listening to the speakers connected to terminals A.
▮	▬	For listening to the speakers connected to terminals B.
▬	▬	For listening to the speakers connected to terminals A and B.

3. LOW FILTER (Low Frequency Filter Switch)
This filter attenuates the frequencies below 18Hz by 12dB/octave. It is normally used only when reproducing discs, where it eliminates unwanted low frequency noise and helps to prevent acoustic feedback.

4. RECORD SELECTOR (Selection Switch for Recording)
This switch selects which program can be recorded by the tape decks connected to the TAPE 1 and TAPE 2 terminals. It can also be used when duplicating is performed independently of the program selected for audition by the PROGRAM SELECTOR switch.

DUPLICATE 1 → 2 This position is used to duplicate from the tape deck connected to the PLAY 1 inputs to the tape deck connected to the REC 2 outputs.

DUPLICATE 2 → 1 This position is used to duplicate from the tape deck connected to the PLAY 2 inputs to the tape deck connected to the REC 1 outputs.

5. PROGRAM SELECTOR (Program Audition Selection Switch)
This switch selects the desired program source for audition. It operates independently of the source selected for recording, but can be used for monitoring.

tape 2 This position is used to playback or monitor the recording of a tape deck connected to the PLAY 2 inputs.

tape 1 This position is used to playback or monitor the recording of a tape deck connected to the PLAY 1 inputs.

tuner This position is for listening to programs on the AM/FM tuner section.

phono This position is for listening to a turntable unit connected to the PHONO inputs.

aux This position is for listening to a second tuner, a turntable with a high output ceramic cartridge, an 8-track tape cartridge player, television audio, or any suitable high output sources connected to the AUX inputs.

6. DIGITAL FREQUENCY DISPLAY
The digits displayed here show the frequency to which the unit is tuned. If you know the frequency of a station you want to hear, just press the tuning control until that frequency is displayed.

7. SIGNAL (Signal Strength Indicator)
This indicator shows the signal strength level of AM and FM broadcasts. For AM broadcasts, the best position for reception is obtained when the maximum number of indicator lamps are illuminated. For FM broadcasts, the best position for reception is obtained when the muximum number of indicator lamps are illuminated and the center indicator of the tuning indicator is illuminated.

8. STEREO (Stereo Indicator)
This indicator is illuminated when an FM stereo broadcast is being received in the stereo mode. If the MUTING/MODE switch is in the OFF/MONO position, this indicator will not light.
NOTE: The FM stereo program will not be heard in stereo unless the MODE switch is also in the ON/AUTO position.

9. ATTENUATOR (Volume Control)
This control adjusts the sound volume from the speakers and the headphones. The volume is increased by rotating clockwise, and decreased by rotating counterclockwise.

10. FM TUNING
▀ auto For automatic tuning operations.
▁ manual For manual tuning operations.

11. MUTING/MODE (Muting Mode Selection Switch)
This switch is for selecting the mode of FM reception required.
on/auto For FM stereo broadcast reception. In this position both interstation noise
▀ and stations too weak for good stereo reception are muted while tuning.
off/mono For receiving FM broadcasts (including stereo broadcasts) monaurally.
▁ Muting is off, and both the interstation noise and the weaker stations will be heard.

12. BAND SELECTOR (Band Selection Switch)
This switch is for selecting FM or AM band reception.
FM ▀ For receiving FM broadcasts.
AM ▁ For receiving AM broadcasts.

13. TUNING CONTROL
When the UP or DOWN button is pressed with the FM TUNING switch in the AUTO position (only FM), the reception frequency will change continuously until a broadcasting frequency is reached. If then pressed again, the reception frequency will continue to change until the next broadcasting frequency is reached. when the UP or DOWN button is pressed with the TUNING switch in the MANUAL position, however, the reception frequency will be increased or decreased by a 0.2MHz (FM) 10kHz (AM) step. Keeping the UP or DOWN button depressed, will cause the frequency to be changed continuously until the button is released.

14. MEMORY
When this button is pressed, the MEMORY indicator illuminates for about 5 seconds. To preset a particular broadcasting station in the memory, first tune to the desired frequency by operating the TUNING buttons, press this MEMORY button, and then while the MEMORY indicator remains on, press a suitable PRESET button. In order to remember the frequencies of preset stations even when the unit is switched off, this receiver has dry-cell batteries (provided in the accessories envelope) for back up memory. Please replace the same types of dry-cell batteries about every 3 years.

15. PRESET
When any of these buttons is pressed, the frequency already preset in memory will be tuned automatically.(The indicator in the button does not illuminate.)

16. BALANCE (Balance Control)
This control adjusts the balance between the two channels. There is a click-stop at the center position. Rotate clockwise to move the sound image to the right, and counterclockwise to move it to the left. Adjust the control to match any imbalance between the channels of the program sources, or to compensate for listening positions that are nearer one speaker than the other.

17. LOUDNESS (Loudness Compensation Control)
This control compensates for our ears reduced sensitivity to high and low frequencies at low listenning volumes. First, rotate this control fully clockwise (to the zero position). Then turn up the volume to the highest level at which you will normally be listening, and adjust the bass and treble tone controls suitably. To listen at lower levels, use the LOUDNESS control, leaving the ATTENUATOR position unchanged. This will preserve the same tonal balance at all listening levels.

18. TREBLE (Treble Tone Control)
This control boosts or reduces the level of the response in the high frequency region. The zero position is off or flat: rotate it clockwise to increase the treble and counterclockwise to reduce the treble. The best setting will depend upon the characteristics of your speakers, your listening room, and your personal preferences.

19. TONE ON/DEFEAT (Tone Defeat Switch)
on In this position, both treble and bass
▀ tone controls are operative and may be adjusted.
defeat In this position the signal bypasses the treble and bass tone controls, and a
▁ completely flat frequency response is obtained.

20. BASS (Bass Tone Control)
This control boosts or reduces the level of the response in the low frequency region. The zero position is off or flat: rotate it clockwise to increase the bass and counterclockwise to reduce it. The best setting will depend upon the characteristics of your speakers, your listening room and your personal preferences.

21. PHONES (Headphone Output)
For stereo listening with headphones, plug the headphones into this output socket. Listening with headphones is possible at all positions of the SPEAKERS switches.

DISASSEMBLY INSTRUCTIONS

1. **Removal of Case (Top)**
   Remove four screws from both sides of the case.
2. **Removal of Base (Bottom)**
   Remove screws as shown in Figure 1.

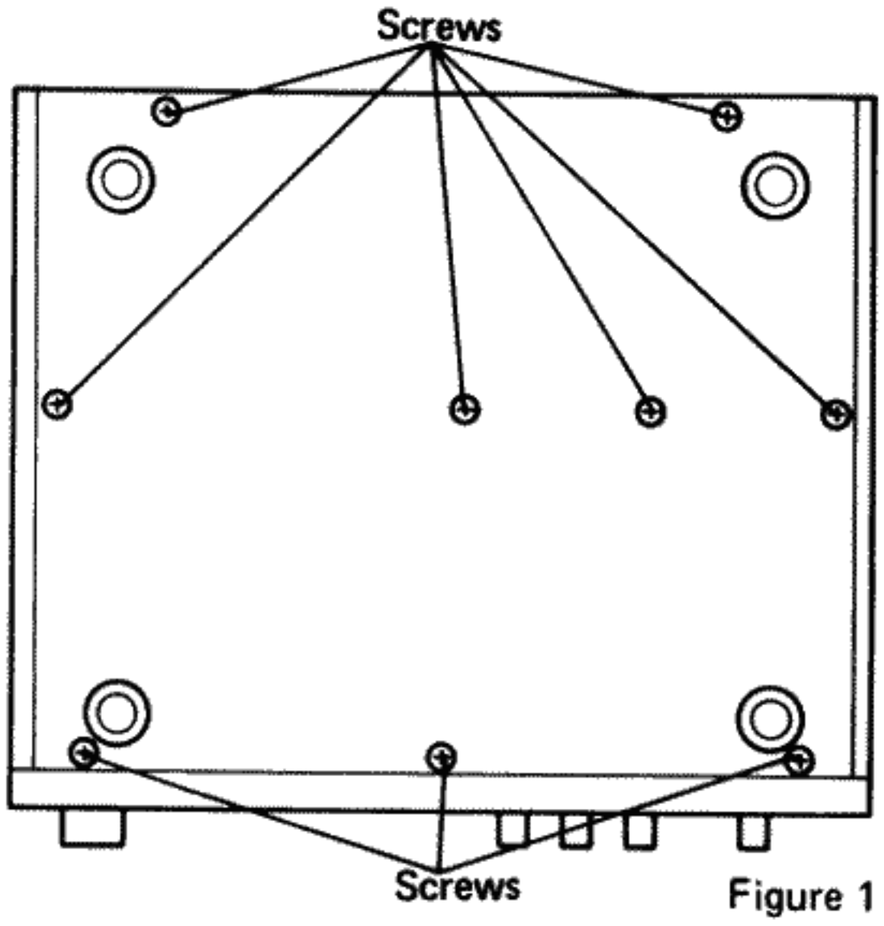


Figure 1

3. **Removal of Panel Assembly**
   Remove two screws from top face of the panel.
4. **Removal of Front P.C. Board**

1) Remove a knob and two screws as shown in Figure2.

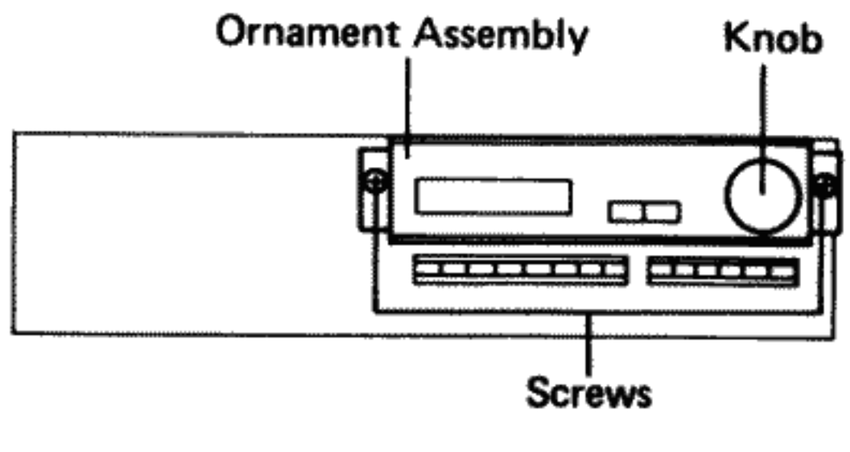


Figure 2

2) Remove knobs and screws as shown in Figure 3.

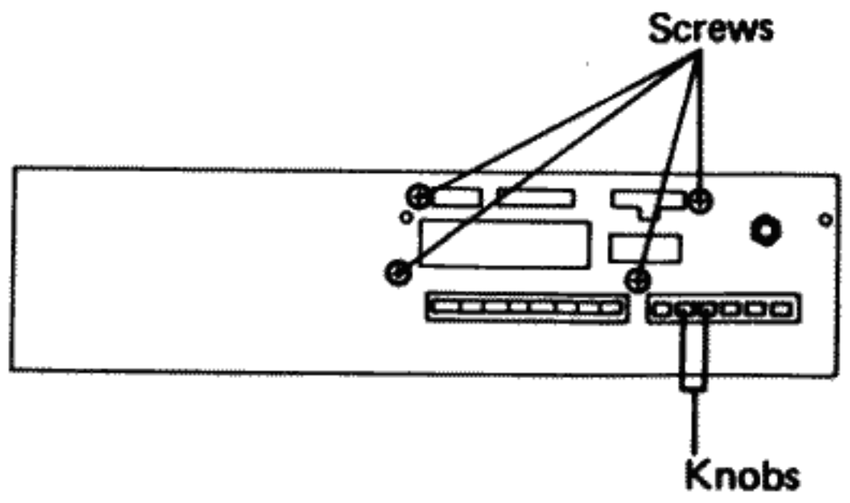


Figure 3

5. **Removal of Connecting Parts of Switch**
   To remove part C, insert — driver in slot A and push part B out with the tip of the driver as shown in Figure 4.

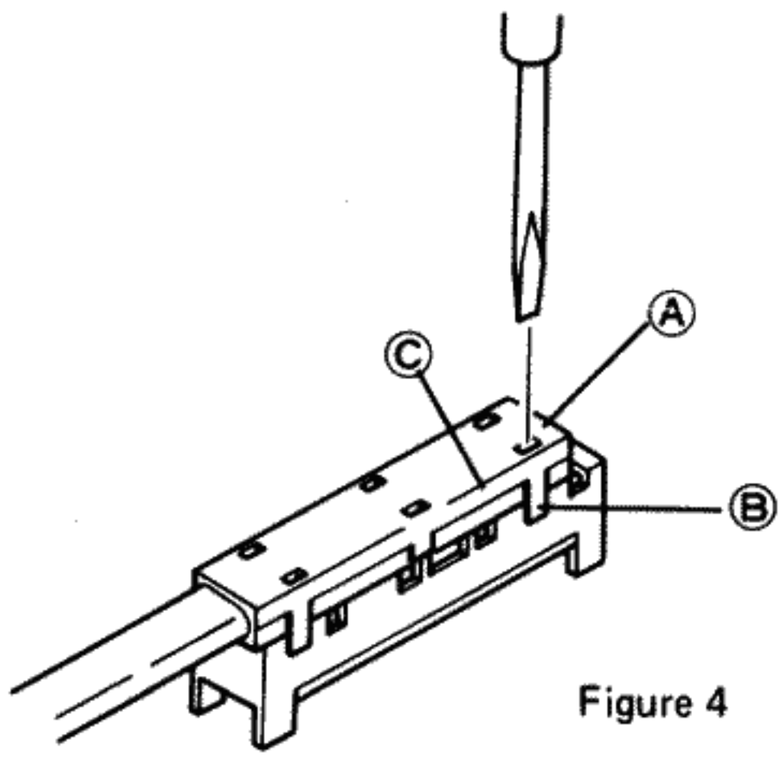


Figure 4

FM ADJUSTMENT

1. Adjustment of FM Front End

1) Set trimmers TC101 – TC103 to center, as shown below.

2) Set the frequency indicator to 87.9MHz. Measure a voltage on both ends of C812 and adjust it to 8V ± 1.0V by turning L103.
3) Set the frequency indicator to 107.9MHz. Measure the voltage on both ends of C812 and adjust it to 22V ± 1.0V by turning TC103.
4) Repeat steps 2) and 3) until the specified voltage is obtained for each frequency.
5) Adjust L101, L102 and T101, so that the U-curve of Q105 collector becomes maximum at a frequency in the above 2). (Refer to Fig. 5)
6) Adjust TC101 and TC102, so that the U-curve of Q105 collector becomes maximum at a frequency in the above 3). (Refer to Fig. 5)
7) Repeat steps 5) and 6). Note that the adjustment of T101 needs be made only once.

2. Adjustment of FM-IF

1) Allow the tuner to receive a 65dBf signal, with 100% modulation, at 98.1MHz and 1kHz, and measure a voltage on both ends of R125. Adjust primary core (on the side of IC101) of T102 to adjust the voltage to 0V ± 50mV.
2) Allow the tuner to receive a signal of 87.9MHz and adjust secondary core of T102 for minimum distortion factor.
   For the substandard distortion, adjust T101 within a range of ± 90°.
3) When a voltage obtained in step 1) exceeds the specified voltage, repeat Step 1).

3. Adjustment of FM-MPX

1) Allow the tuner to receive a 65dBf signal, without modulation, at 98.1MHz. Turn VR101 till the frequency at TP1 becomes 19kHz ± 0.05kHz.
   NOTE: SSG frequency accuracy of FM is ± 5kHz.

AM ADJUSTMENT

1) Set TC201 and TC202 to center, as in the case of 1 – 1) of the FM Adjustment.
2) Set the frequency indicator to 530kHz, measure a voltage on both ends of C812, and adjust T201 for the voltage within 1V ± 0.1V.
3) Set the frequency indicator to 1620kHz, measure the voltage on both ends of C812, and adjust TC201 for the voltage within 21V ± 0.1V.
4) Repeat Steps 2) and 3).
5) Allow the tuner to receive a 600kHz signal, and adjust T202 for maximum output.
6) Allow the tuner to recieve a 1400kHz signal, and adjust TC202 for maximum output.
7) Repeat Steps 5) and 6).
8) Allow the tuner to receive the signal as in step 5), and adjust T203 for maximum output.

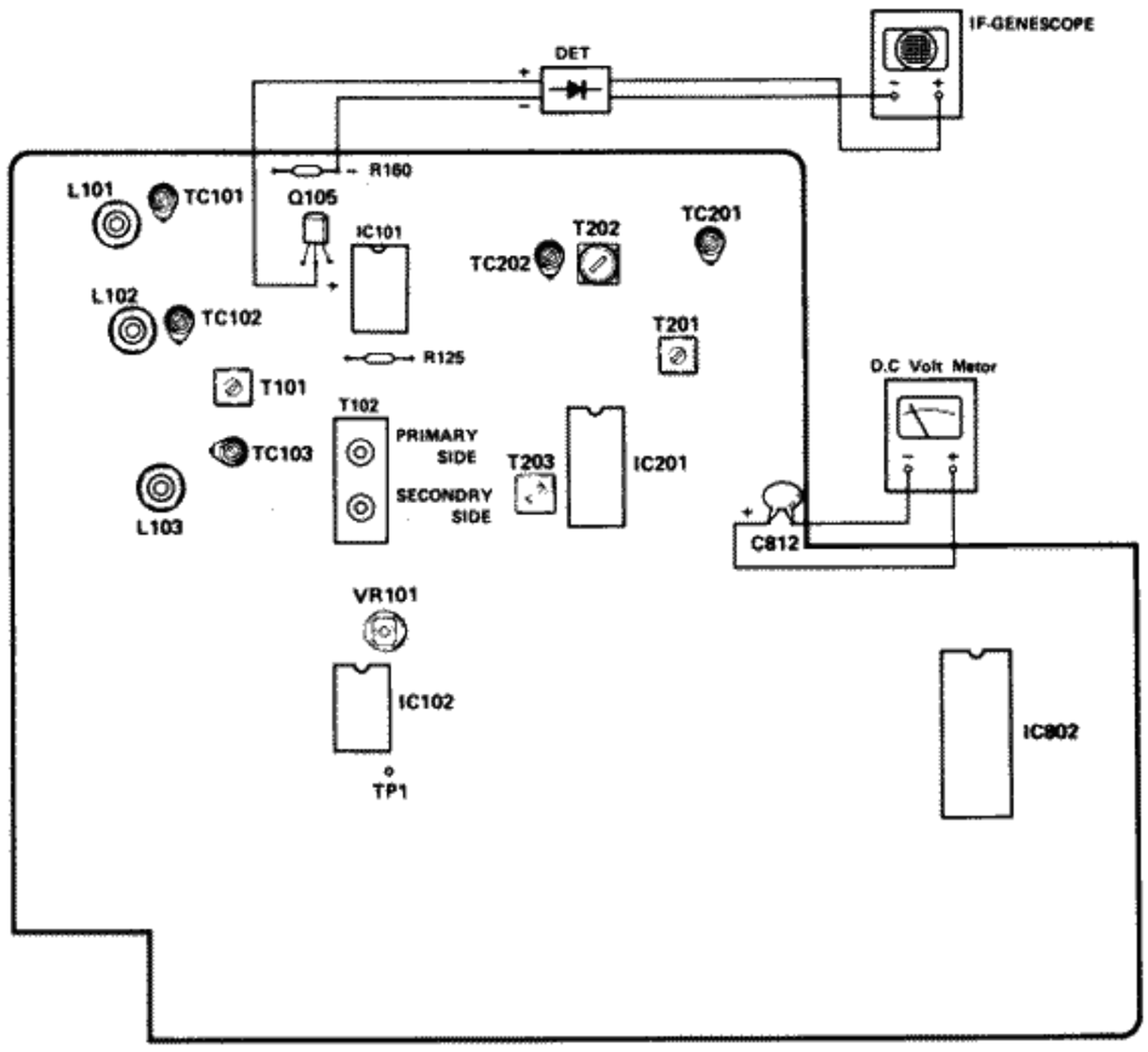
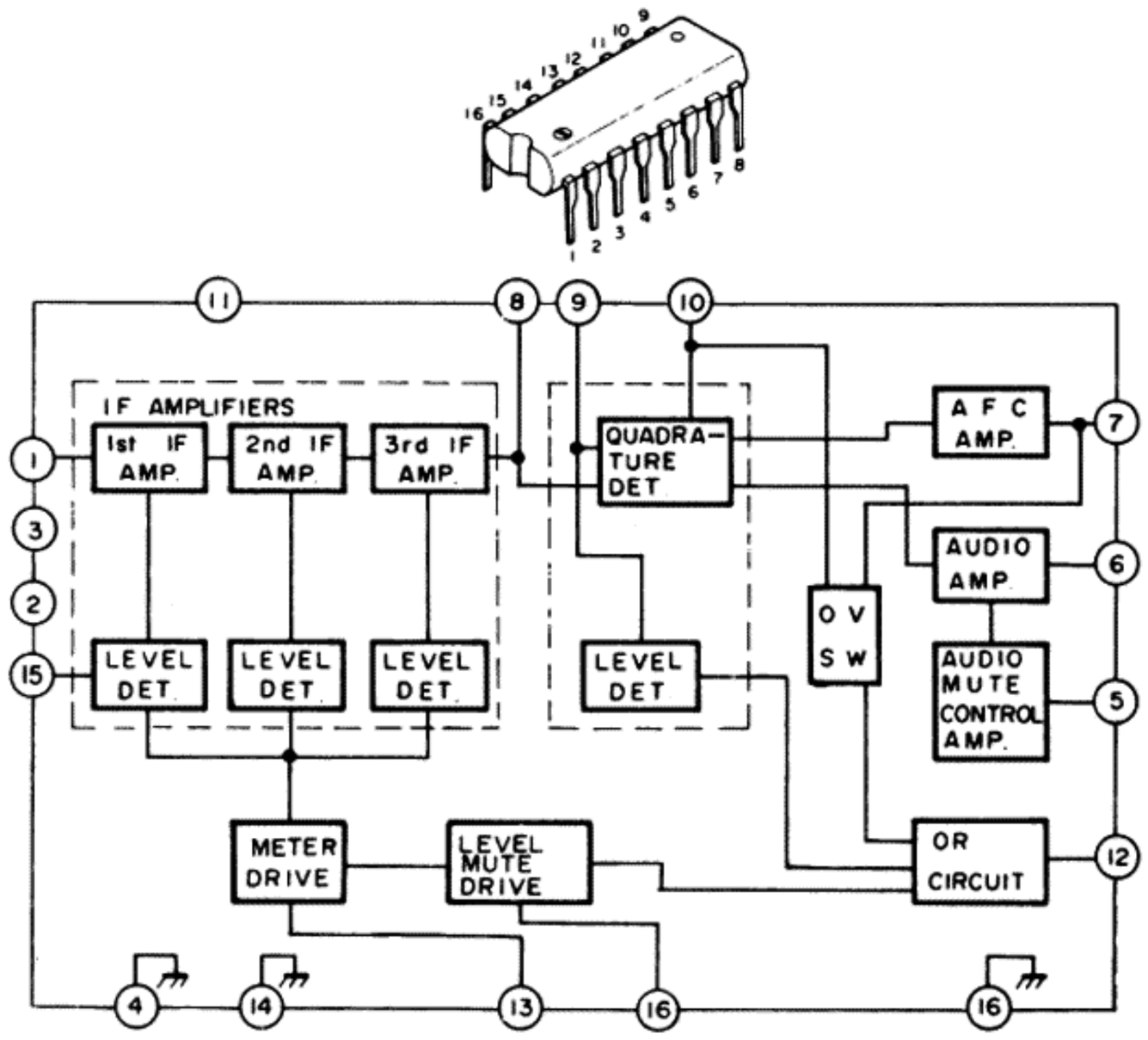


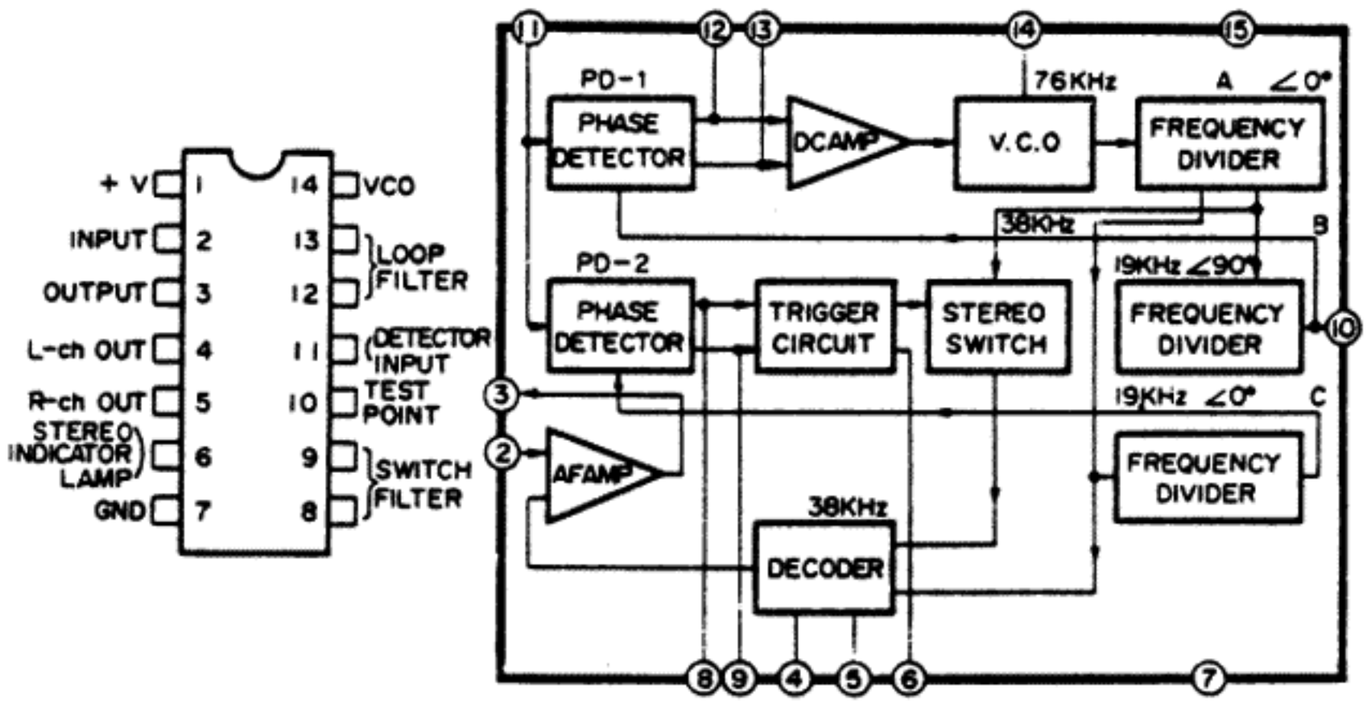
Figure 5

INTERNAL DIAGRAMS AND PINOUT OF INTEGRATED CIRCUIT

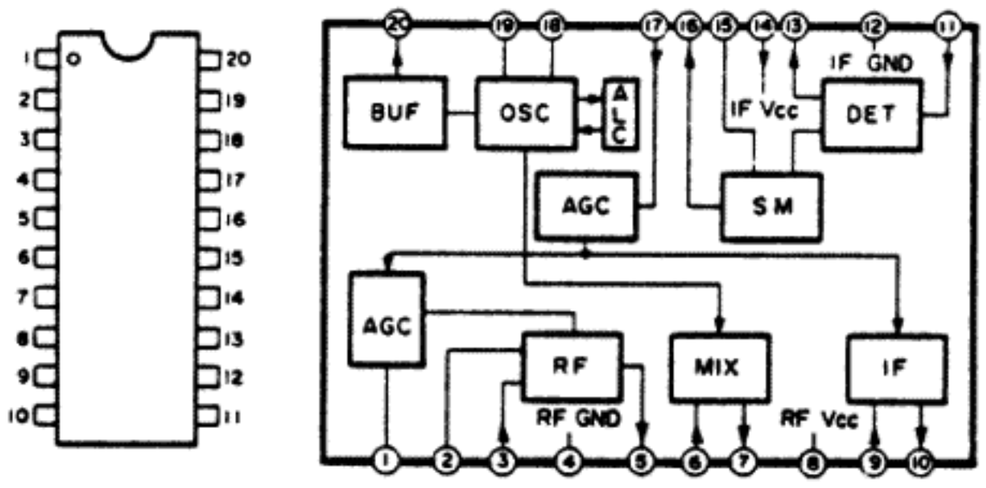
IC 101 (FM-IF AMP)
HA11225



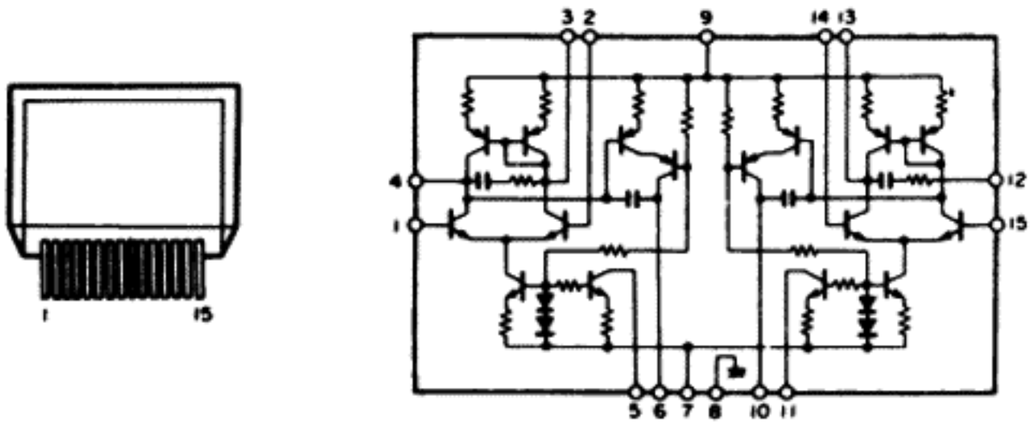
IC 102 (FM-MPX)
μPC587C2



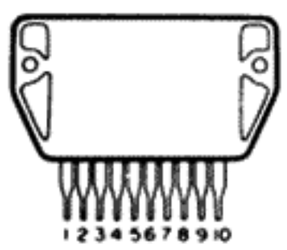
IC 201 (AM RF/OSC/MIX/IF/DET)
LA1245

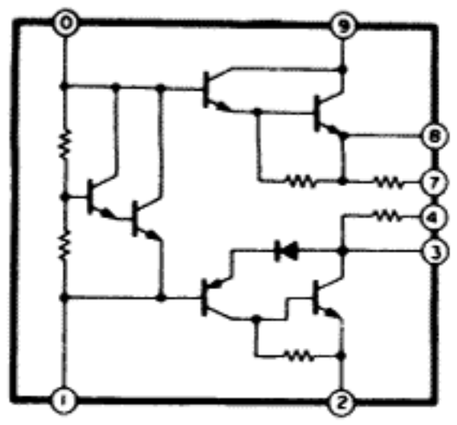


IC 501 (VOLTAGE AMP)
STK-3042 (Mk2)

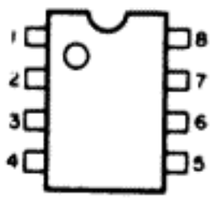


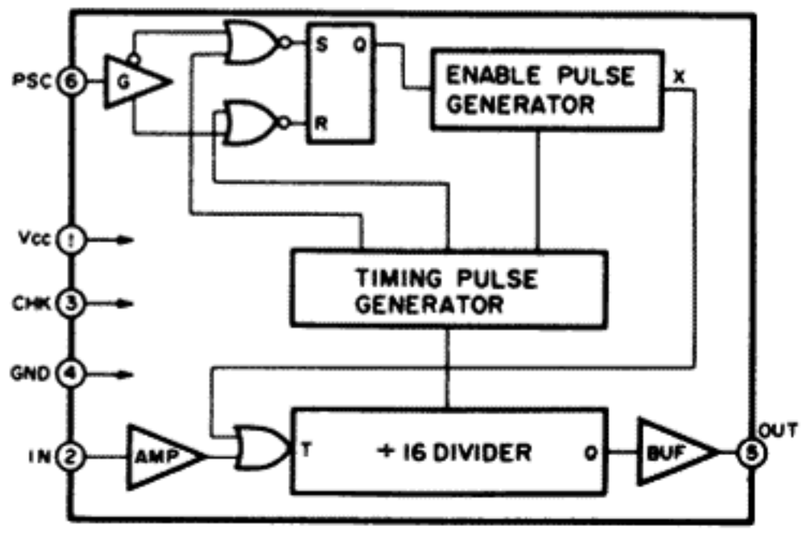
IC 502, IC 602 (POWER AMP)
STK-1039



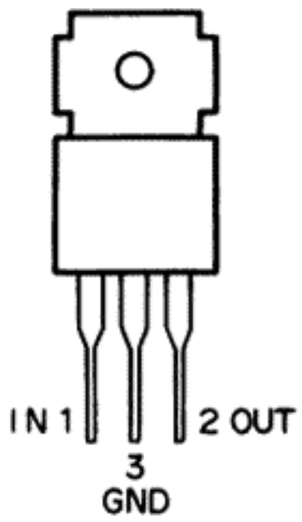


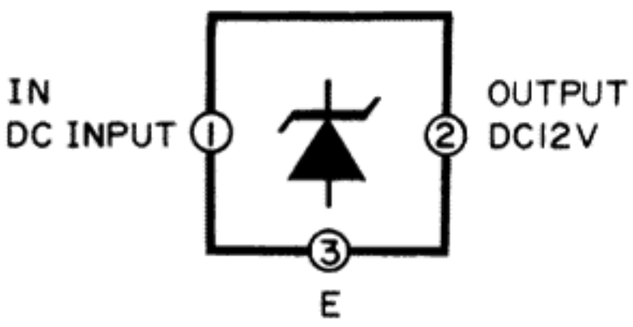
IC 801 (PRESCALER)
μPB553



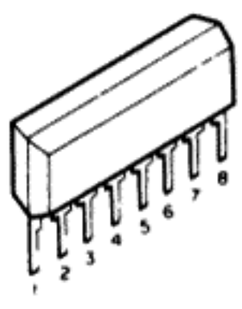


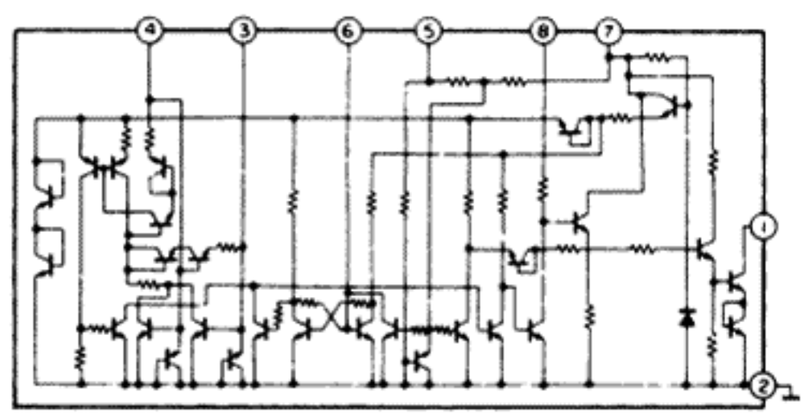
IC 881 (+12v. REGULATOR)
μPC78M12H



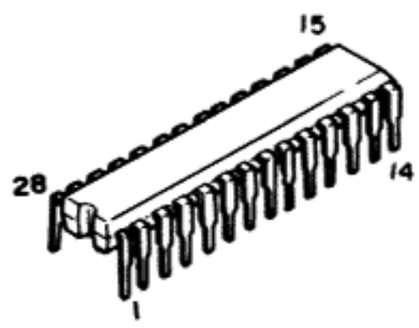


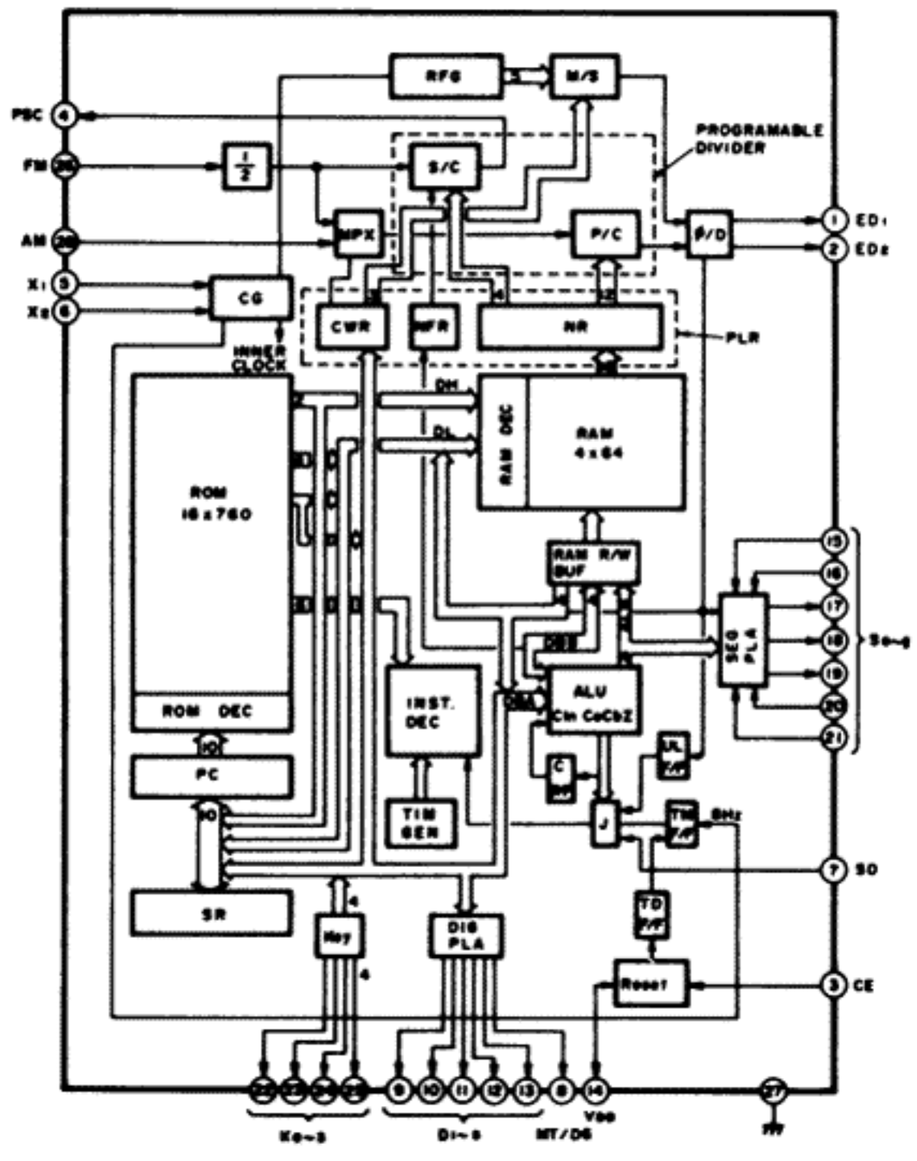
IC 701 (PROTECTOR)
HA12002



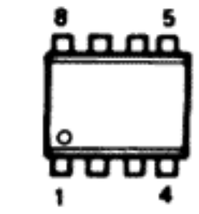


IC 802 (PLL-SYNTHESIZER CONTROL)
μPD1073

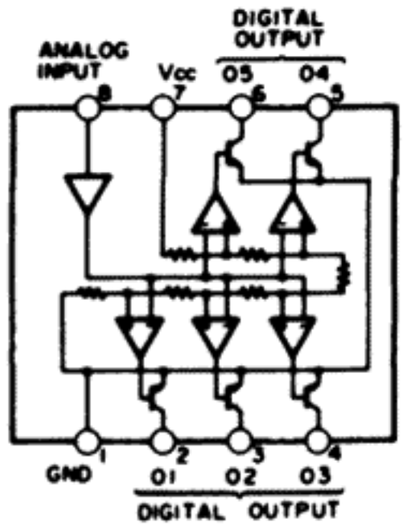




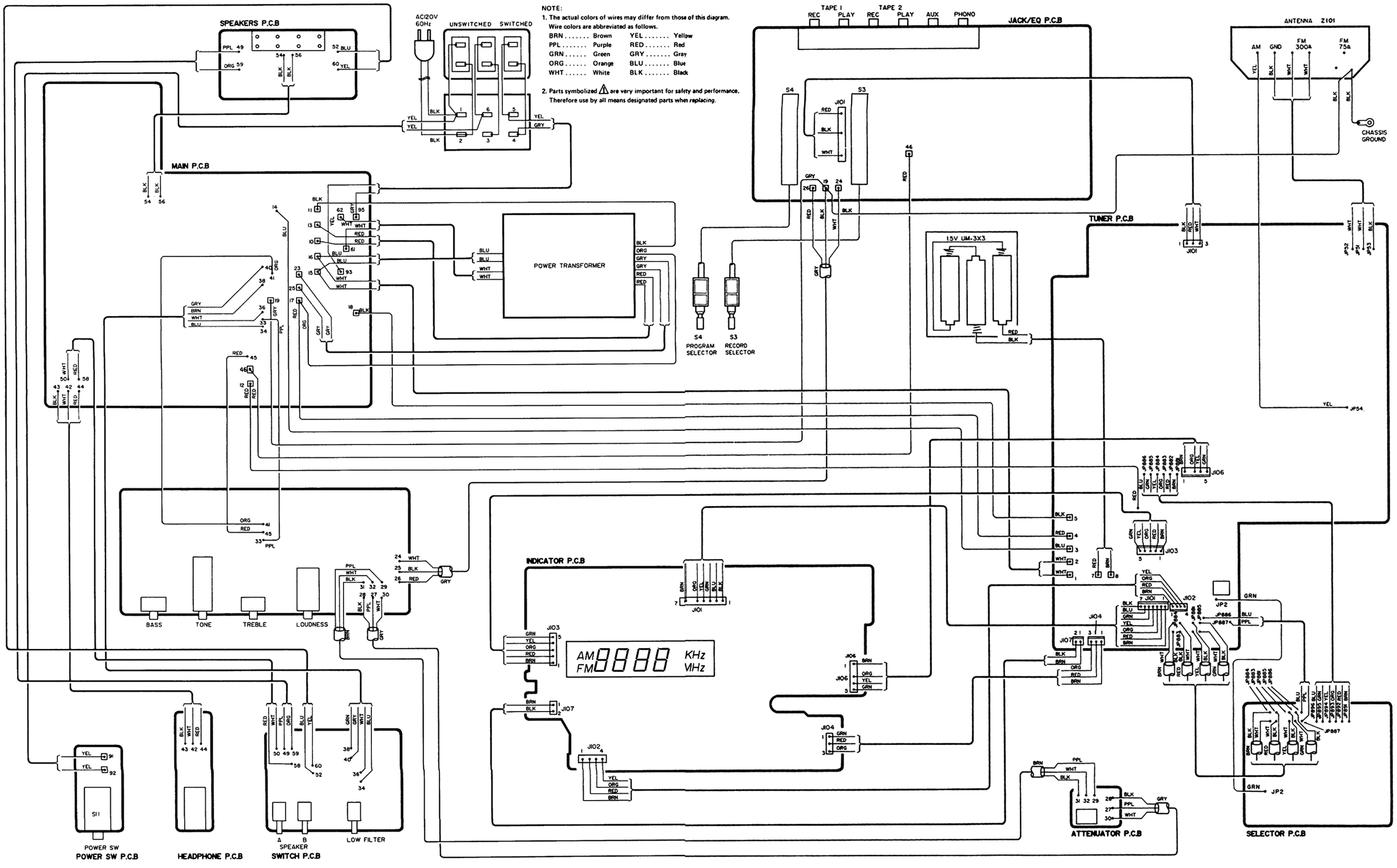
IC 903 (LED DRIVE)
SN16889P



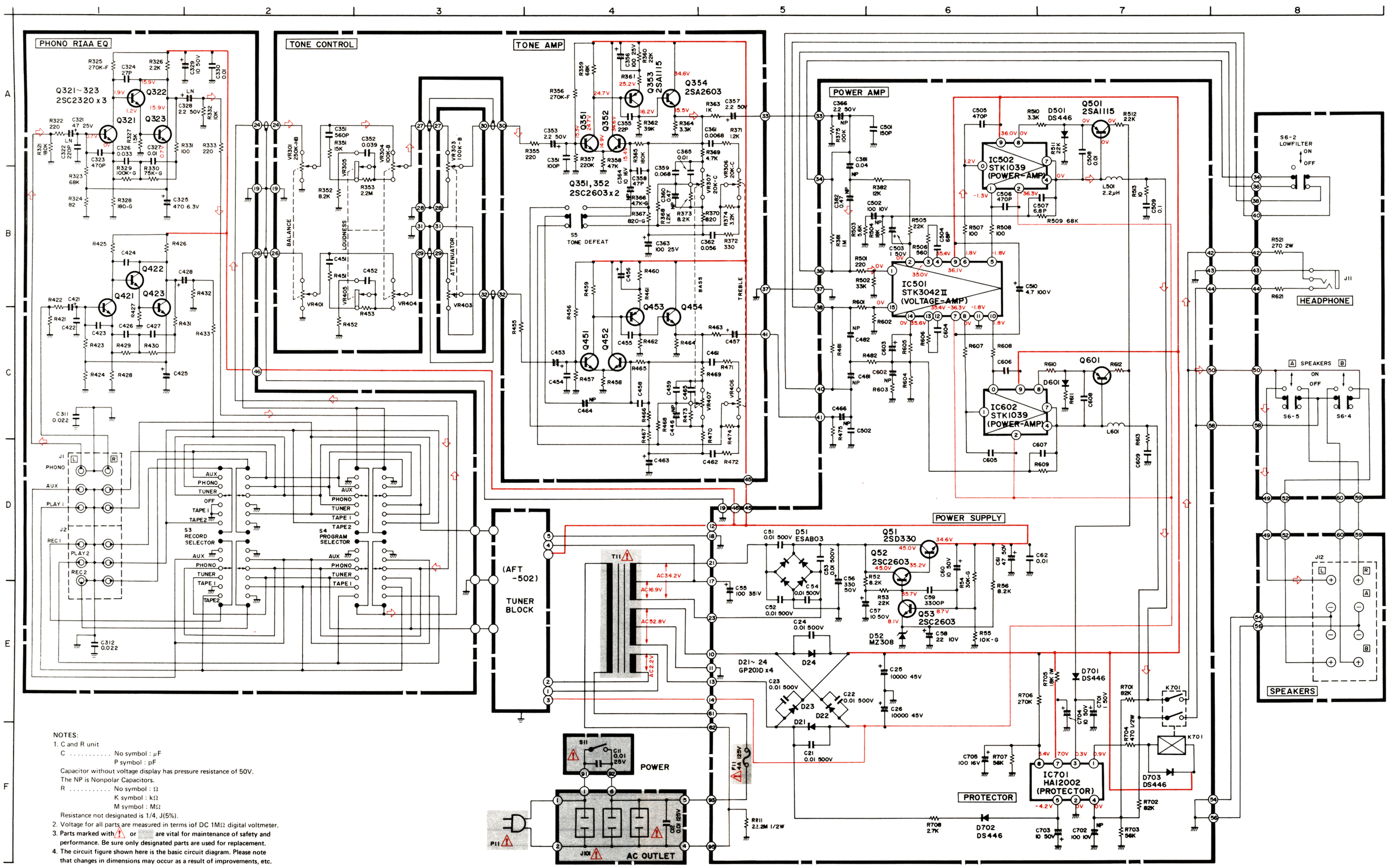
INPUT	OUTPUT				
A	01	02	03	04	05
< 200mV	H	H	H	H	H
≥ 200mV	L	H	H	H	H
≥ 400mV	L	L	H	H	H
≥ 600mV	L	L	L	H	H
≥ 800mV	L	L	L	L	H
≥ 1000mV	L	L	L	L	L



WIRING DIAGRAM

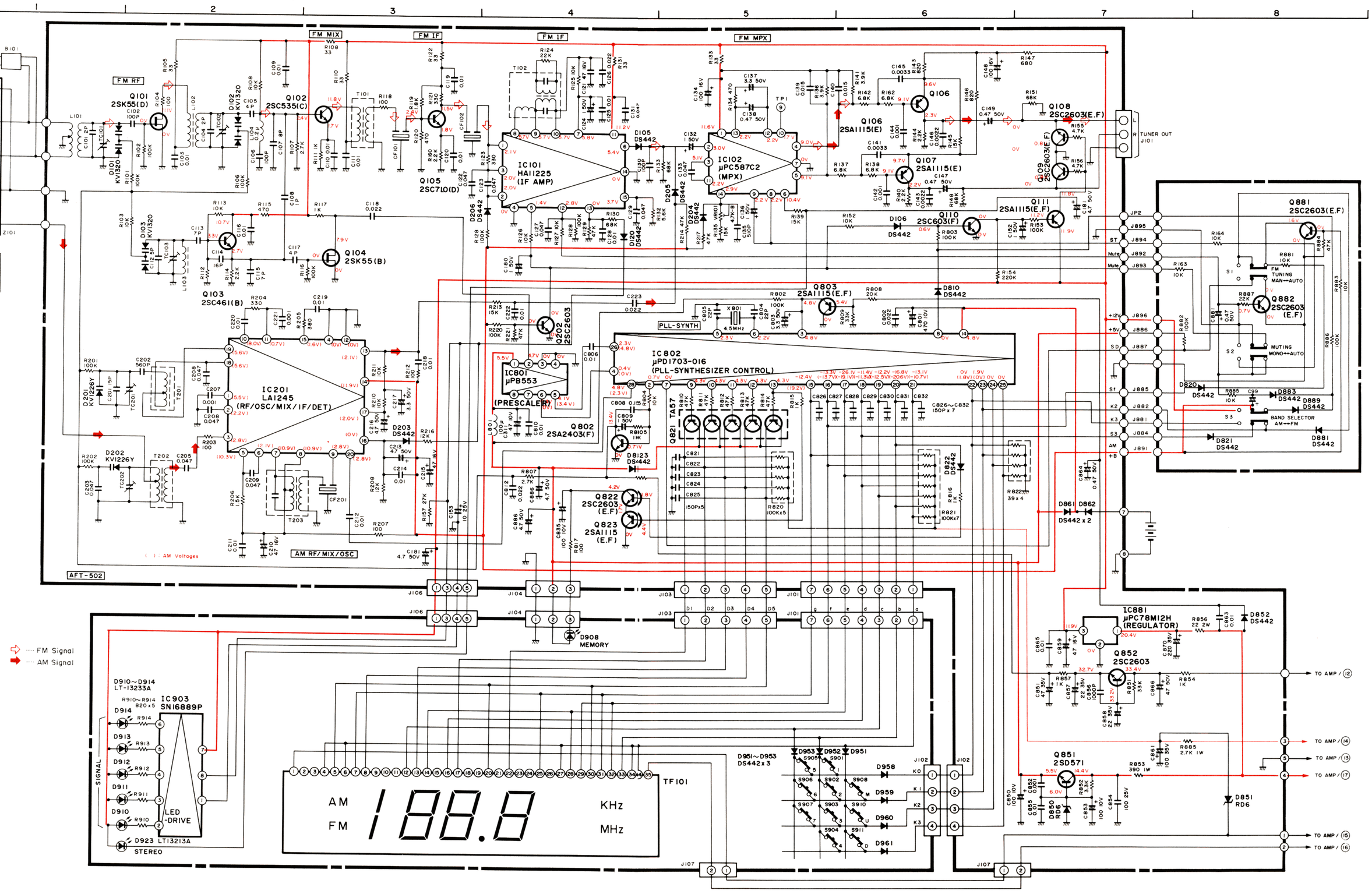


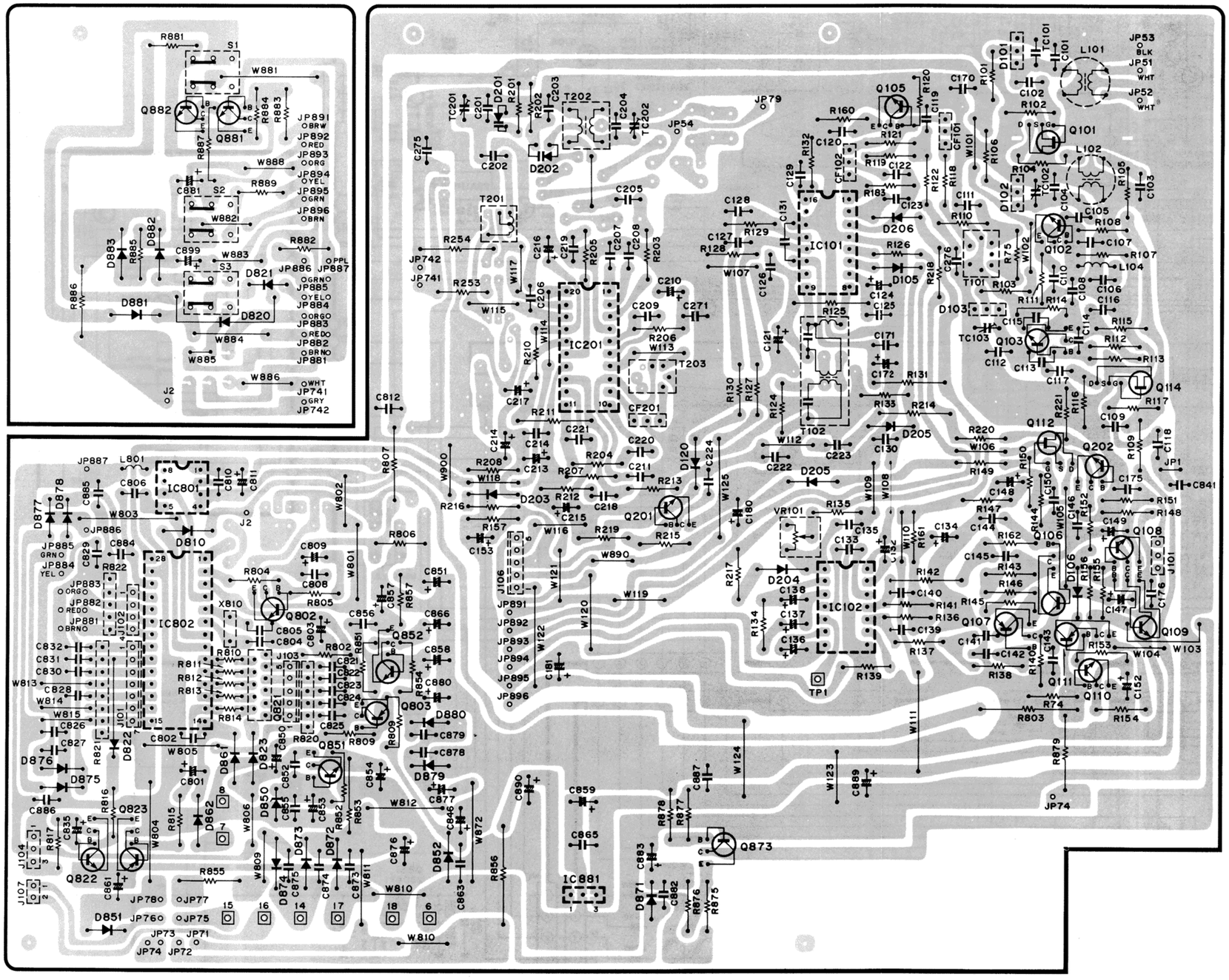
SCHEMATIC DIAGRAM



NOTES:

1. C and R unit
   C ..... No symbol : μF
   P symbol : pF
   Capacitor without voltage display has pressure resistance of 50V.
   The NP is Nonpolar Capacitors.
   R ..... No symbol : Ω
   K symbol : kΩ
   M symbol : MΩ
   Resistance not designated is 1/4, J(5%).
2. Voltage for all parts are measured in terms iof DC 1MΩ digital voltmeter.
3. Parts marked with ⚠ or [redacted] are vital for maintenance of safety and performance. Be sure only designated parts are used for replacement.
4. The circuit figure shown here is the basic circuit diagram. Please note that changes in dimensions may occur as a result of improvements, etc.


FM RF
FM MIX
FM IF
FM IF
FM MPX
Q101 2SK55(D)
Q102 2SC535(C)
IC101 HAI1225 (IF AMP)
Q105 2SC710(D)
IC102 μPC587C2 (MPX)
Q106 2SA1115(E)
Q107 2SA1115(E)
Q108 2SC2603(E.F)
Q109 2SC2603(E.F)
Q110 2SC603(F)
Q111 2SA1115(E.F)
Q103 2SC461(B)
Q104 2SK55(B)
IC201 LAI245 (RF/OSC/MIX/IF/DET)
Q202 2SC2603
IC801 μPB553 (PRESCALER)
Q802 2SA2403(F)
IC802 μPD1703-016 (PLL-SYNTHESIZER CONTROL)
Q803 2SA1115(E.F)
PLL-SYNTH
Q822 2SC2603 (E.F)
Q823 2SA1115 (E.F)
AM RF/MIX/OSC
AFT-502
( ) : AM Voltages
TUNER OUT J101
Q881 2SC2603(E.F)
Q882 2SC2603 (E.F)
FM TUNING MAN↔AUTO
MUTING MONO↔AUTO
BAND SELECTOR AM↔FM
D820 DS442
D821 DS442
D881 DS442
D883 DS442
D889 DS442
D861 D862 DS442 x 2
IC881 μPC78M12H (REGULATOR)
Q852 2SC2603
Q851 2SD571
D851 RD6
D850 RD6
D852 DS442
TO AMP / (12)
TO AMP / (14)
TO AMP / (13)
TO AMP / (17)
TO AMP / (15)
TO AMP / (16)
D908 MEMORY
D910~D914 LT-13233A
IC903 SN16889P
LED -DRIVE
D923 LT13213A
STEREO
SIGNAL
D951~D953 DS442x3
TF101
AM
FM
188.8
KHz
MHz
FM Signal
AM Signal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W888
C881
S2
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W883
S3
JP886
JP887 OPPL
JP885 OGRNO
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JP883 ORGO
JP882 OREDO
JP881 OBRNO
D883
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OWHT JP741
OGRY JP742
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JP884 YELO
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JP882 REDO
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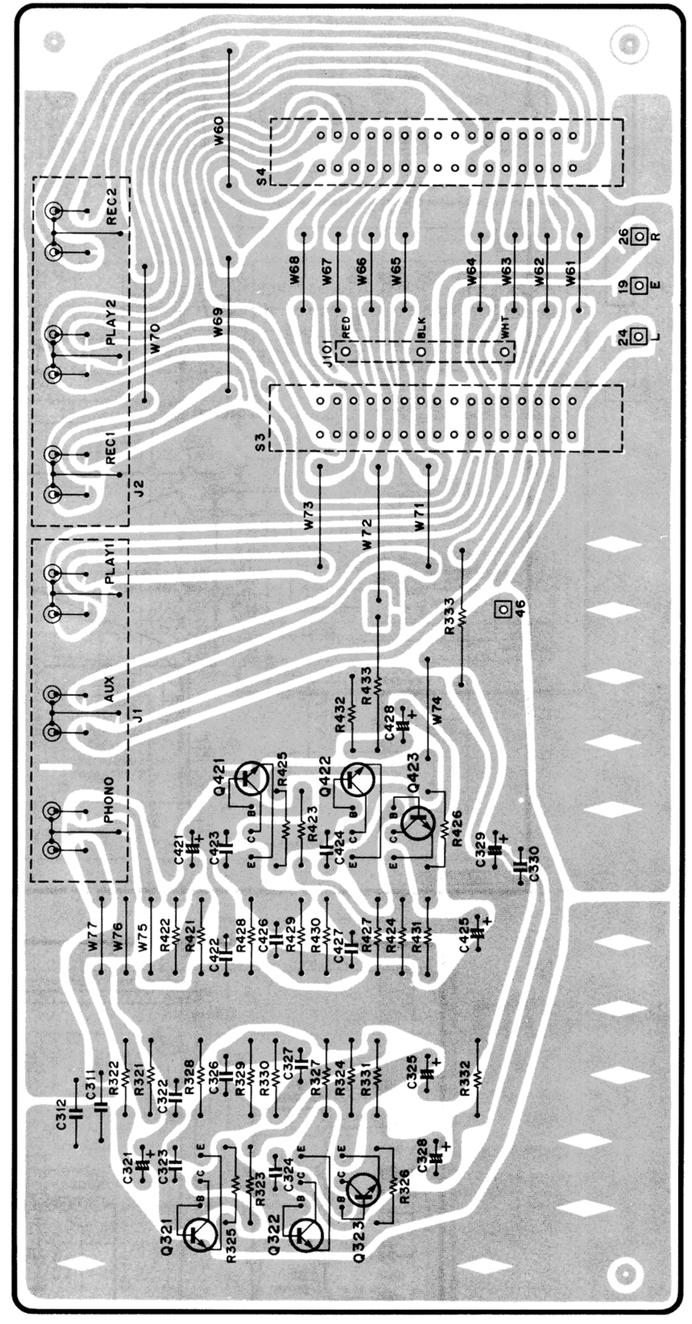
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PLAY1
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J101
RED
BLK
WHT
26 R
19 E
24 L
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R333
R332
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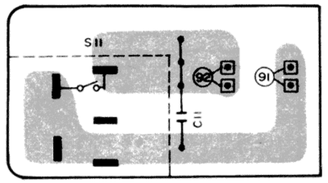
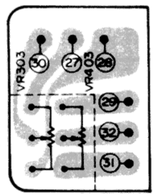
R431

POWER



ATTENUATOR



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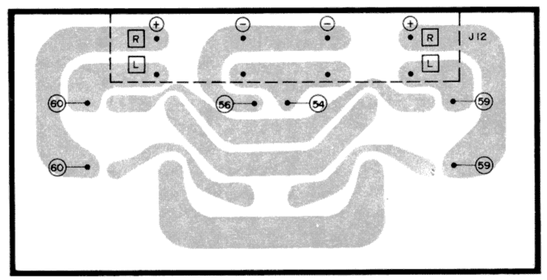
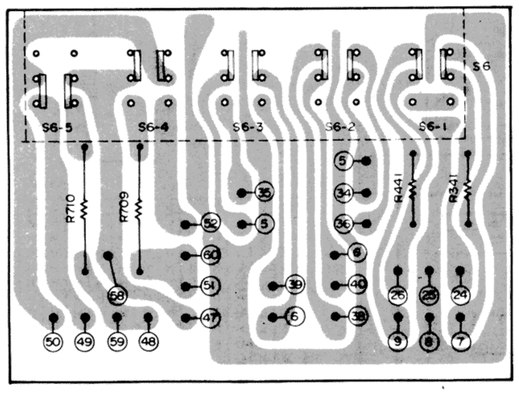


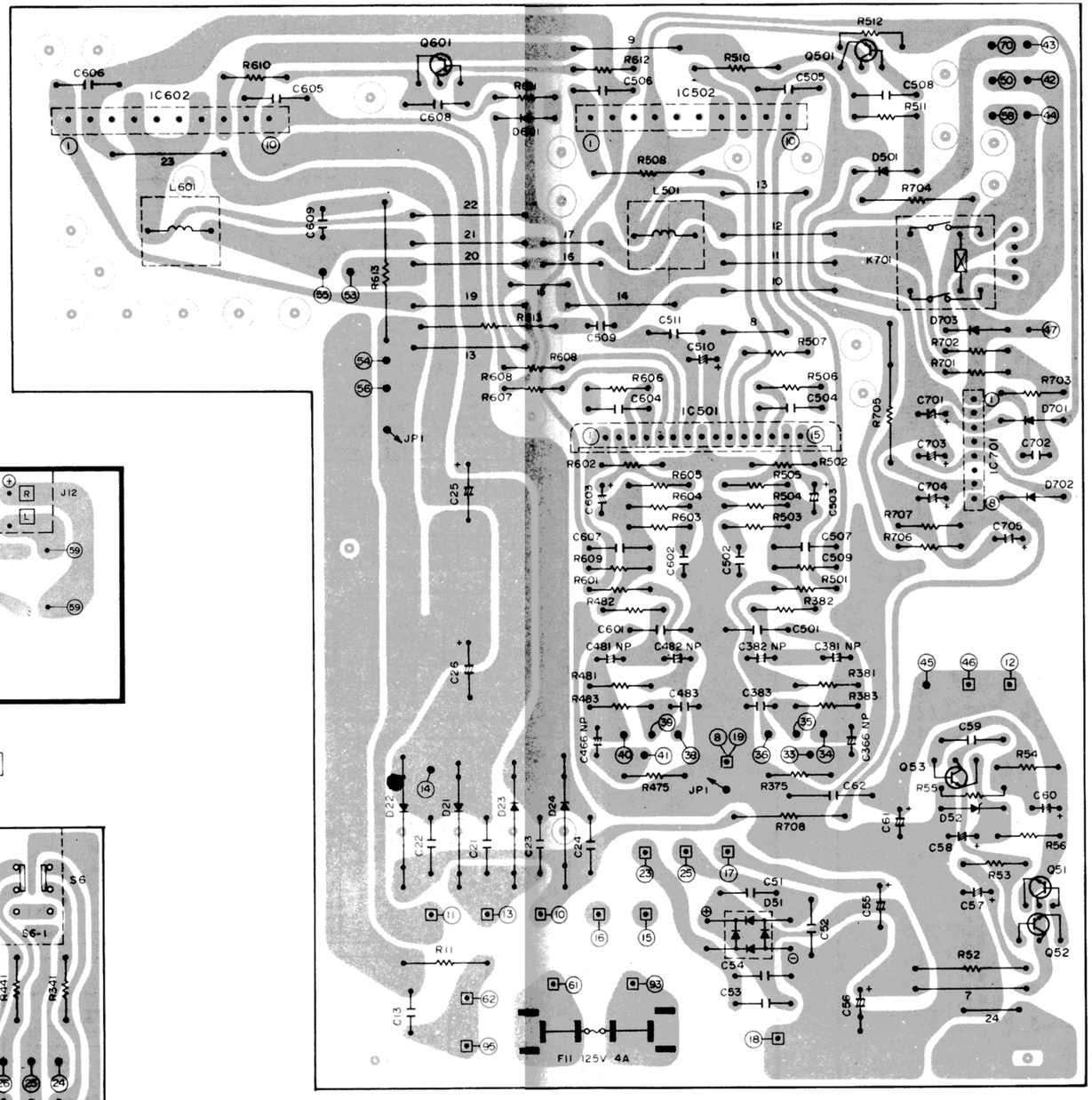
SPEAKERS

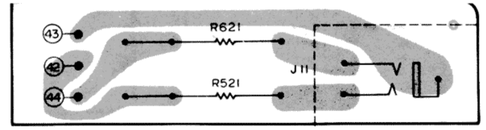
off
A on B

LOW FILTER

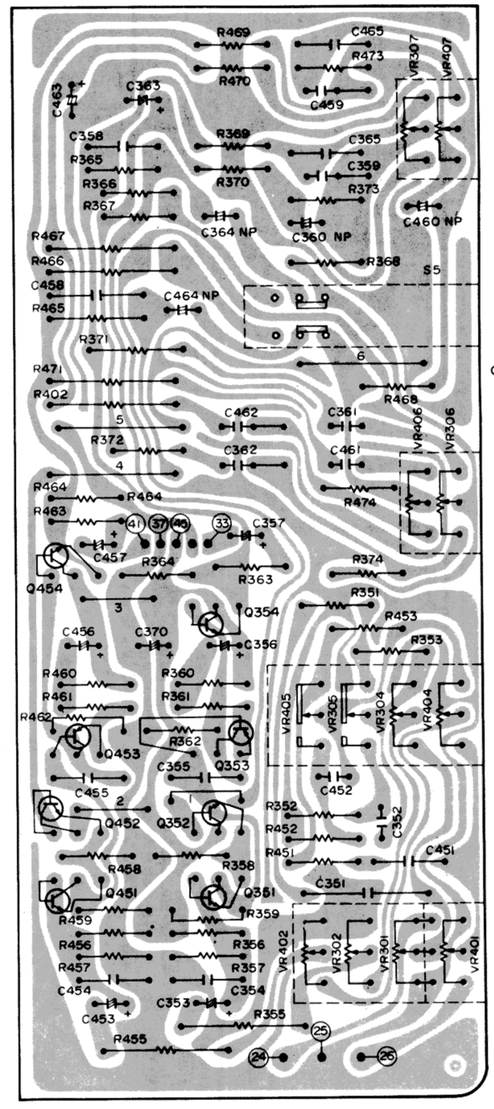
off
on







HEADPHONE JACK



BASS

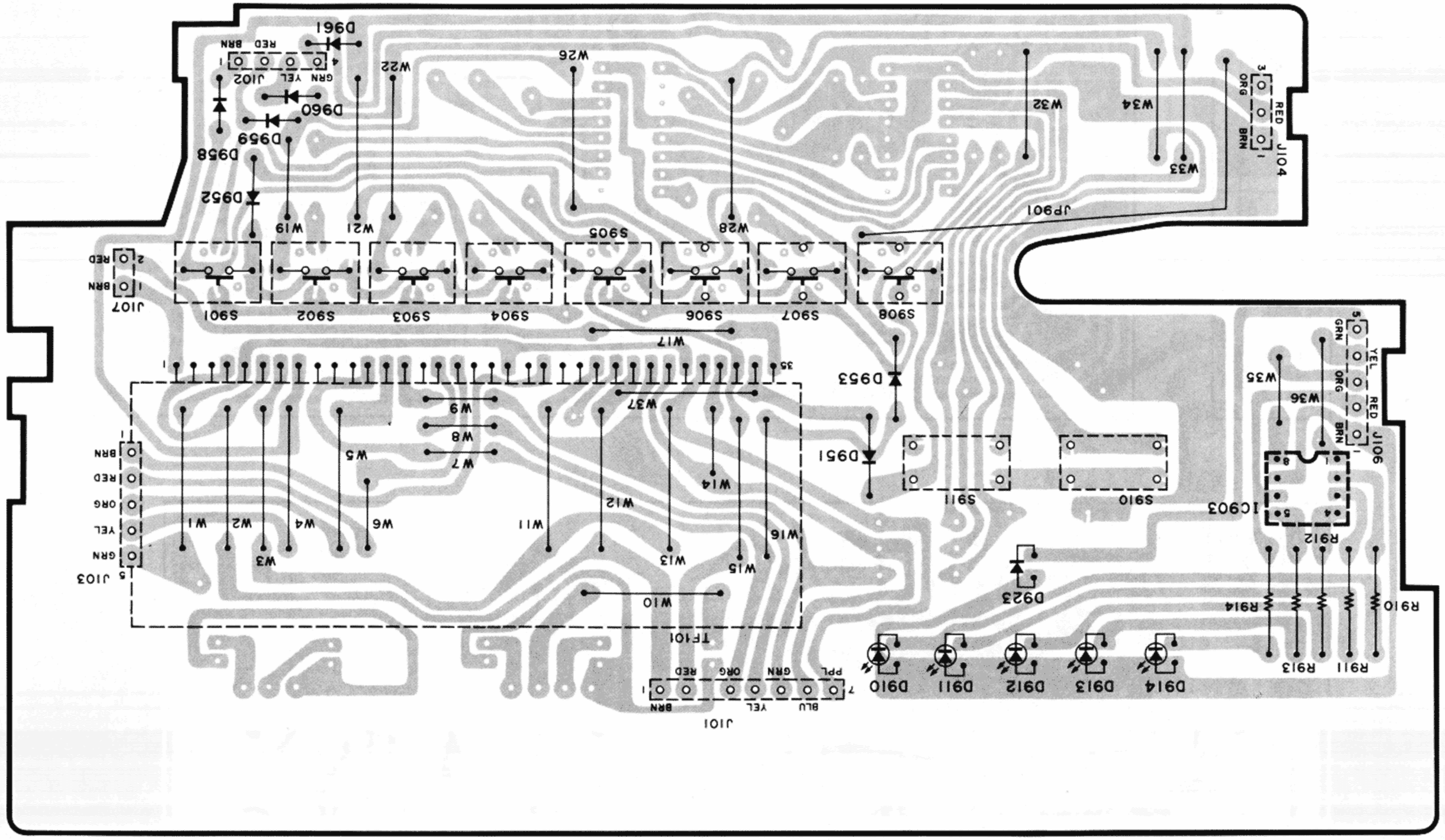
TONE

defeat on

TREBLE

LOUDNESS

BALANCE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RED
ORG
BRN
J107
S901
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IC903
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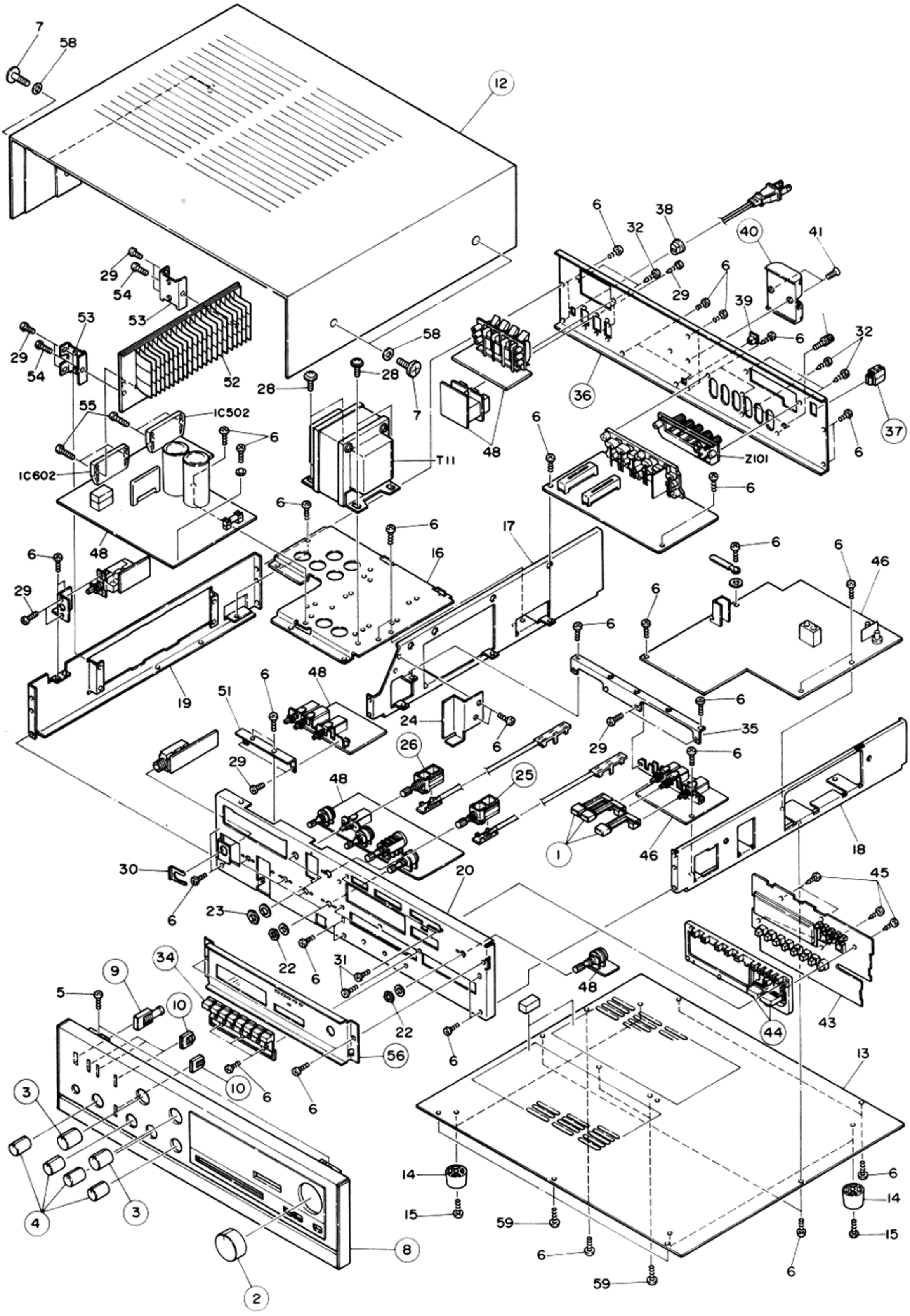
RED
BRN

EXPLODED VIEW OF CABINET



PARTS LIST

NOTE: ⚠ and [redacted] marks components on Parts list have special characteristics to maintain the safety performance of this unit. When replacing any of these parts, be sure to use only those specified parts.

Symbol No.	Part No.	Description
	Cabinet Parts	
1	U704D665H02	Knob (Band Selector, Muting, Tuning)
2	L704D032G01	Knob-Assy (Att)
3	L704D033G01	Knob-Assy (Selector)
4	L704D034G01	Knob-Assy (Bass, Treble, Balance, Loudness)
5	*	Screw B-TITE L=10
6	*	Screw M3x6
7	*	Bolt M6x18
8	L712C501G01	Panel-Assy Front
9	U704D568G07	Knob-Assy (Power)
10	U704D552G16	Knob-Assy (Speakers, Filter, Tone)
12	U720B241H02	Cabinet-Amp
13	*	Base
14	*	Leg
15	*	Screw-Metal 3x12
16	*	Holder
17	*	Holder-U
18	*	Holder-U
19	*	Holder-U
20	*	Panel-Front
22	*	Nut M7
23	*	Nut M9
24	*	Shield
25	U430Y014H01	SW-Rotary (S4) (Program Selector)
26	U430Y015H01	SW-Rotary (S3) (Record Selector)
28	*	Screw-B M5x8
29	*	Screw-B
30	*	Holder
31	*	T-Screw 1-3x8
32	*	T-Screw 1-3x10
34	U704C108H02	Knob (Preset)
35	*	Holder-L
36	U582B134H05	Panel-Back
37	U542C217H01	Holder-Ant
38	*	Clamper
39	*	Bush-Mold
40	U561C066H01	Battery-Case
41	*	Screw-F M2.6x6
43	*	P.C.B.-Assy (FC-502)
44	U704C109H01	Knob (Down, Up)
45	*	T Screw 1-3x8
46	*	P.C.B.-Assy (AFT-502)
47	*	T. Screw 2-3x6
48	*	P.C.B.-Assy (PMA-22)
51	*	Holder-U
52	*	Radiator
53	*	Holder
54	*	Screw-B M4x8
55	*	Screw-B M3x14
56	U713D385G03	Ornament-Assy
57	*	Cover
58	*	Washer
59	*	T-Screw 2-3x8

Symbol No.	Part No.	Description
	Diode	
D21	U264C025H03	GP20D
D22	U264C025H03	GP20D
D23	U264C025H03	GP20D
D24	U264C025H03	GP20D
D51	U264S005H01	ESAB03
D52	U264C012H03	MZ308B
D101	U264Y009H01	KV1320
D102	U264Y009H01	KV1320
D103	U264Y009H01	KV1320
D105	U264S011H01	DS442
D106	U264S011H01	DS442
D120	U264S011H01	DS442
D191	U264S013H30	RD6,2E-B2
D201	U264Y002H01	KV1226Y
D202	U264Y002H01	KV1226Y
D203	U264S011H01	DS442
D204	U264S011H01	DS442
D205	U264S011H01	DS442
D206	U264S011H01	DS442
D501	U264S012H01	DS446
D601	U264S012H01	DS446
D701	U264S012H01	DS446
D702	U264S012H01	DS446
D703	U264S012H01	DS446
D810	U264S011H01	DS442
D820	U264S011H01	DS442
D821	U264S011H01	DS442
D822	U264S011H01	DS442
D823	U264S011H01	DS442
D850	U264S013H30	RD-6, 2E-B2
D851	U264S013H30	RD-6, 2E-B2
D852	U264S012H01	DS446
D861	U264S011H01	DS442
D862	U264S011H01	DS442
D881	U264S011H01	DS442
D882	U264S011H01	DS442
D883	U264S011H01	DS442
D910	L268Y003H01	LT-13233A (SIGNAL)
D911	L268Y003H01	LT-13233A (SIGNAL)
D912	L268Y003H01	LT-13233A (SIGNAL)
D913	L268Y003H01	LT-13233A (SIGNAL)
D914	L268Y003H01	LT-13233A (SIGNAL)
D923	L268Y004H01	LT-13213A (FM STEREO)
D951	U264S011H01	DS442
D952	U264S011H01	DS442
D953	U264S011H01	DS442
D958	U264S011H01	DS442
D959	U264S011H01	DS442
D960	U264S011H01	DS442
D961	U264S011H01	DS442
	Transistor	
Q51	U260P049H20	2SD330 (E)
Q52	U260S021H03	2SC2603 (F)
Q53	U260S021H03	2SC2603 (F)

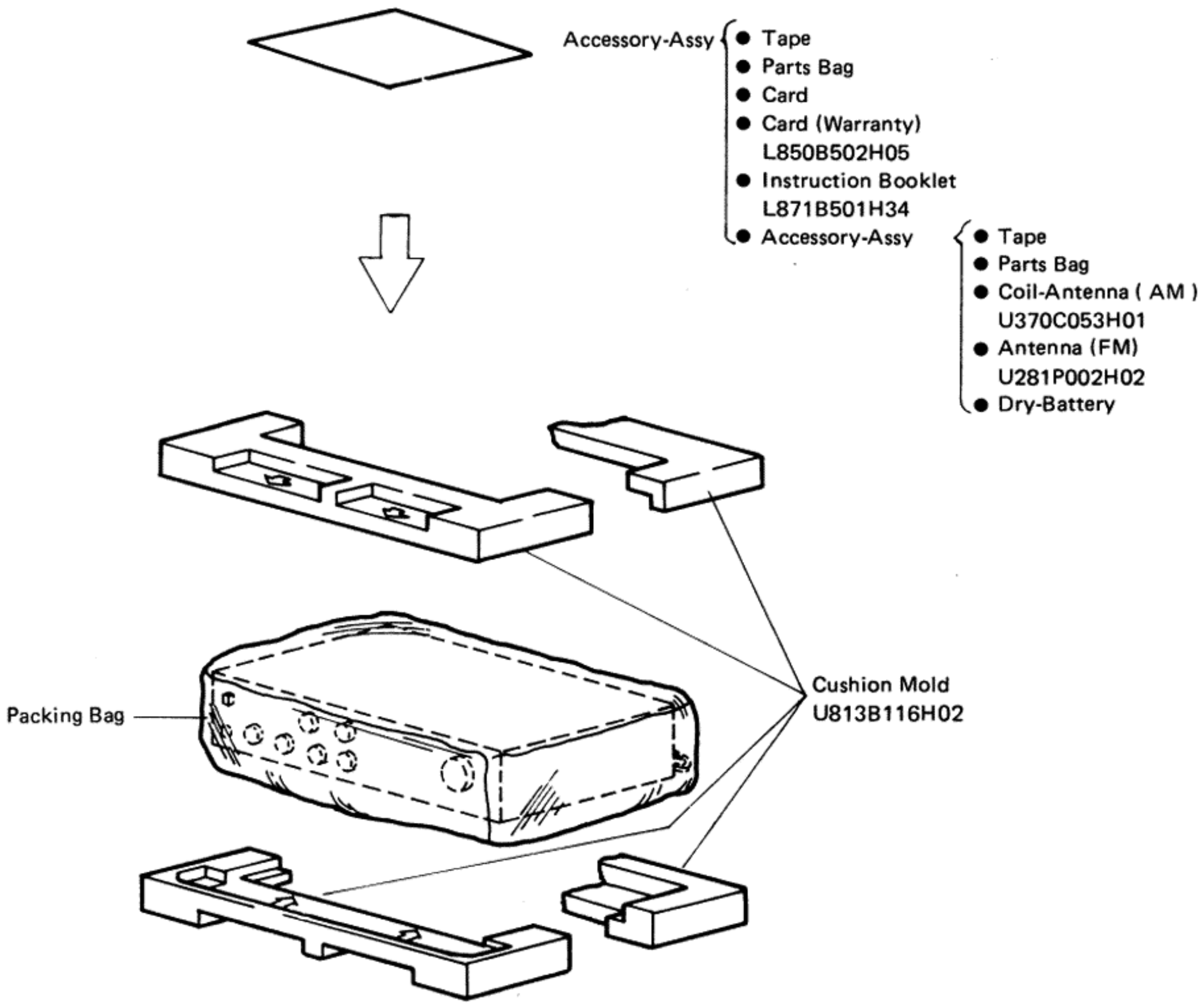
* ----- Not a stocked pert.

Symbol No.	Part No.	Description
Q101	U260C151H01	2SK55 (D)
Q102	U260P034H03	2SC535 (C)
Q103	U260P027H02	2SC461 (B)
Q104	U260C151H01	2SK55 (D)
Q105	U260D080H13	2SC710 (D)
Q106	U260S022H02	2SA1115 (E)
Q107	U260S022H02	2SA1115 (E)
Q108	U260S021H06	2SC2603 (E, F)
Q109	U260S021H06	2SC2603 (E, F)
Q110	U260S021H03	2SC2603 (F)
Q111	U260S022H06	2SA1115 (E, F)
Q202	U260S021H06	2SC2603 (E, F)
Q321	U260S043H03	2SC2320L
Q322	U260S043H03	2SC2320L
Q323	U260S021H03	2SC2603 (F)
Q351	U260S021H03	2SC2603 (F)
Q352	U260S021H03	2SC2603 (F)
Q353	U260S022H03	2SA1115 (F)
Q354	U260S021H03	2SC2603 (F)
Q421	U260S043H03	2SC2320L
Q422	U260S043H03	2SC2320L
Q423	U260S021H03	2SC2603 (F)
Q451	U260S021H03	2SC2603 (F)
Q452	U260S021H03	2SC2603 (F)
Q453	U260S022H03	2SA1115 (F)
Q454	U260S021H03	2SC2603 (F)
Q501	U260S022H03	2SA1115 (F)
Q601	U260S022H03	2SA1115 (F)
Q802	U260S021H03	2SC2603 (F)
Q803	U260S022H06	2SA1115 (E, F)
Q821	U260S042H01	TA57
Q822	U260S021H06	2SC2603 (E, F)
Q823	U260S022H06	2SA1115 (E, F)
Q851	U260C164H04	2SD571 (L.K)
Q852	U260S021H03	2SC2603 (F)
Q881	U260S021H06	2SC2603 (E, F)
Q882	U260S021H06	2SC2603 (E, F)
IC's		
IC101	U262Y026H01	HA11225 (FM-IF AMP)
IC102	U262Y039H01	μPC587C2 (FM-MPX)
IC201	U262Y034H01	LA1245 (AM RF/OSC/MIX/IF/DET)
IC501	U262S079H01	STK-3042 MK2 (VOLTAGE AMP)
IC502	U262S049H01	STK-1039 (POWER AMP)
IC602	U262S049H01	STK-1039 (POWER AMP)
IC701	U262S037H01	HA12002 (PROTECTOR)
IC801	U262Y030H01	μPB553 (PRESCALER)
IC802	U262Y038H01	μPD1703 (PLL-SYNTHESIZER CONTROL)
IC881	U262S096H12	μPD78M12H (+12v. REGULATER)
IC903	U262P031H01	SN16889P (LED DRIVE)
Electrical Parts		
C21	U140S005H60	C-Caramic-500 V 103P
C22	U140S005H60	C-Caramic-500 V 103P
C23	U140S005H60	C-Caramic-500 V 103P

Symbol No.	Part No.	Description
C24	U140S005H60	C-Caramic-500 V 103P
C25	U180S014H01	C-Elect-45V 10000
C26	U180S014H01	C-Elect-45V 10000
C51	U140S005H60	C-Ceramic-500V 103P
C52	U140S005H60	C-Ceramic-500V 103P
C53	U140S005H60	C-Ceramic-500V 103P
C54	U140S005H60	C-Ceramic-500V 103P
C55	U182S022H53	C-Elect-35V 1000
C56	U182S022H70	C-Elect-50V 330
CF101	U365Y009H01	Ceramic-Filter
CF102	U365Y009H01	Ceramic-Filter
CF201	U365Y016H01	Ceramic-Filter
F11	**U283S015H16**	**Fuse-4A-UL** ⚠
J1	U451S013H01	Pin Jack
J2	U451S013H01	Pin Jack
J11	U451S022H01	Jack (Phones)
J12	U442S066H01	Terminal Board (SP)
J101	**L449Y003H01**	**Socket** ⚠
K701	U287S007H01	Relay (Phones/Speaker)
L101	U360C007H01	Coil (ANT)
L102	U361C030H02	Coil (RF)
L103	U361C013H01	Coil (RF-OSC)
L104	U351D031H11	Coil 2.2M
L501	U351D038H11	Coil
L601	U351D038H11	Coil
L801	U361S031H51	Coil
P11	**U242C777H09**	**Power Cord** ⚠
S1	L432D502H01	SW-Push (Band Selector, Muting, Tuning)
S3	U430S105H03	SW-Rotary (Record Selector)
S4	U430S105H03	SW-Rotary (Program Selector)
S5	U432S028H02	SW-Push (Tone Defeat)
S6	U432S096H01	SW-Push (Filter)
S11	**U432D002H01**	**SW-Push (power)** ⚠
S901	L432D501H01	SW-Push (Preset)
S902	L432D501H01	SW-Push (Preset)
S903	L432D501H01	SW-Push (Preset)
S904	L432D501H01	SW-Push (Preset)
S905	L432D501H01	SW-Push (Preset)
S906	L432D501H01	SW-Push (Preset)
S907	L432D501H01	SW-Push (Preset)
S908	U432S093H02	SW-Push (Memory) (D908)
S910	U432S066H01	SW-Push (Up)
S911	U432S066H01	SW-Push (Down)
T11	**L350Y501H01**	**Trans-Power** ⚠
T101	U364C032H01	Trans-IF
T102	U364C034H01	Trans-IF
T201	U373Y004H01	Coil-Ant
T202	U370C054H01	Coil-Osc
T203	U374Y020H01	Trans-IF
TC101	U202S002H01	VC-TRZM-7MP0 (BLU)
TC102	U202S002H01	VC-TRZM-7MP0 (BLU)
TC103	U202S002H01	VC-TRZM-7MP0 (BLU)
TC201	U202S002H04	VC-TRZM-30N750 (GRN)
TC202	U202S002H04	VC-TRZM-30N750 (GRN)
TF101	U251Y014H01	Tube-Fluor FIP7A 13A
VR101	U127P001H08	VR-Semi-B4.7k
VR301	U121D031H02	VR-WHB250k 25 (Balance)
VR303	U121S031H03	VR-W-B100k 25 (ATT)

Symbol No.	Part No.	Description
VR304	U122S032H01	VR-Quatre-B100k 25 (Loudness)
VR305	U122S032H01	VR-Quatre-B100k 25 (Loudness)
VR306	U121S032H02	VR-W-C20k 25 (Treble)
VR307	U121S032H02	VR-W-C20k 25 (Bass)
VR401	U121D031H02	VR-WHB250k 25 (Balance)
VR403	U121S031H03	VR-W-B100k 25 (ATT)
VR404	U122S032H01	VR-Quatre-B100k 25 (Loudness)
VR405	U122S032H01	VR-Quatre-B100k 25 (Loudness)
VR406	U121S032H02	VR-W-C20k 25 (Treble)
VR407	U121S032H02	VR-W-C20k 25 (Bass)
X801	U285D007H01	Crystal
Z101	U440S012H01	Terminal-Board
B101	U360C004H11	Trans-Balun

PACKING INSTRUCTIONS



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