JVC

NO. 2341

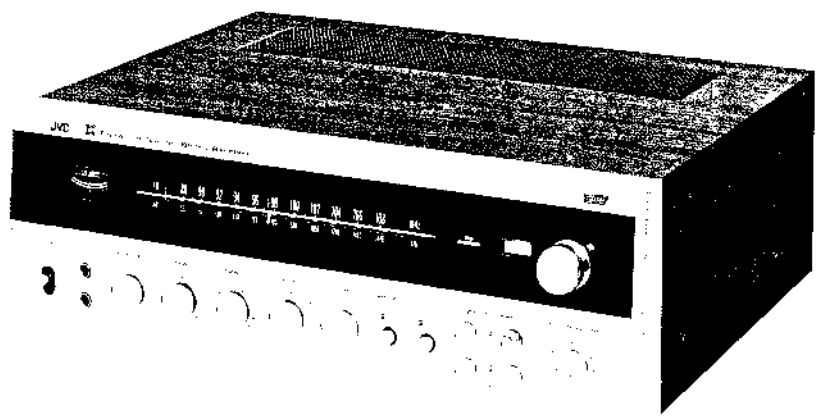
SERVICE MANUAL

MODEL

4VR-5426X

CD-4
ORIGINATED BY JVC

FM/AM 4-CHANNEL RECEIVER
WITH CD-4 DEMODULATOR



95

INDEX

SPECIFICATION

FEATURES:

* CD-4 demodulator built-in
* Matrix-1 and matrix-2 decoders built-in
* Direct coupled pure complementary OCL power amplifier
* Speaker selector switch including BTL switch
* Independent 4channel level controls
* External noise reduction unit is able to be connected for FM broadcasting
* FET equipped sensitive FM front-end
* 2 Mechanical filters and IC for FM IF stages
* Mechanical filter and IC for AM IF stages
* PLL IC equipped FM multiplex
* Dual purpose tuning meter (AM signal strength, FM center tuning)
* FM detector output for future FM discrete 4channel broadcast
* Built-in FM line antenna
* Others: Bass, treble tone controls for front and rear, Loudness control, 4channel tape monitor switch

DIMENSIONS:

Hight:	6-3/8 inch	(16.3 cm)
Width:	18-3/4 inch	(47.6 cm)

WEIGHT:

Net:	29.8 Lbs.	(12.2 kg)
Gross:	29.6 Lbs.	(13.9 kg)

AMPLIFIER SECTION

RMS Power:	13W per channel at 8Ω
All channels driven,	13W per channel at 4Ω
20Hz~20kHz power	30W per channel at 8Ω
bandwidth	(BTL)
RMS Power:	68W (17W x 4) at 8Ω
All channels driven,	72W (18W x 4) at 4Ω
at 1kHz	68W (34W x 2) at 8Ω (BTL)
Total Dynamic Power (IHF):	112W (28W x 4) at 8Ω
	148W (37W x 4) at 4Ω
IHF Power Bandwidth:	10Hz~40kHz
Total Hamonic Distortion:	1.0% at rated output
	0.1% at half rated output
Intermodulation Distortion:	1.0% at rated output
	0.2% at half rated output
Load Impedance:	4Ω~16Ω (8Ω~16Ω: for BTL)
Damping Factor:	30 at 8Ω
Input Sensitivity, Impedance	Phono 1.5mV/100kΩ, 65dB
and S/N Ratio:	Aux 200mV/50kΩ, 75dB
	Tape Play 200mV/50kΩ, 75dB
Recording Output Level:	Tape Rec. 200mV
Frequency Response:	20Hz~30kHz, ±1dB
Bass Control:	±10dB at 100Hz
Treble Control:	±10dB at 10kHz
Loudness Control:	+12dB at 50Hz
	+6dB at 10kHz
Crosstalk:	50dB at 1kHz
Note:	
RMS Power:	15W per channel at 8Ω
All channel driven,	15W per channel at 4Ω
40Hz~20kHz power	
bandwidth	

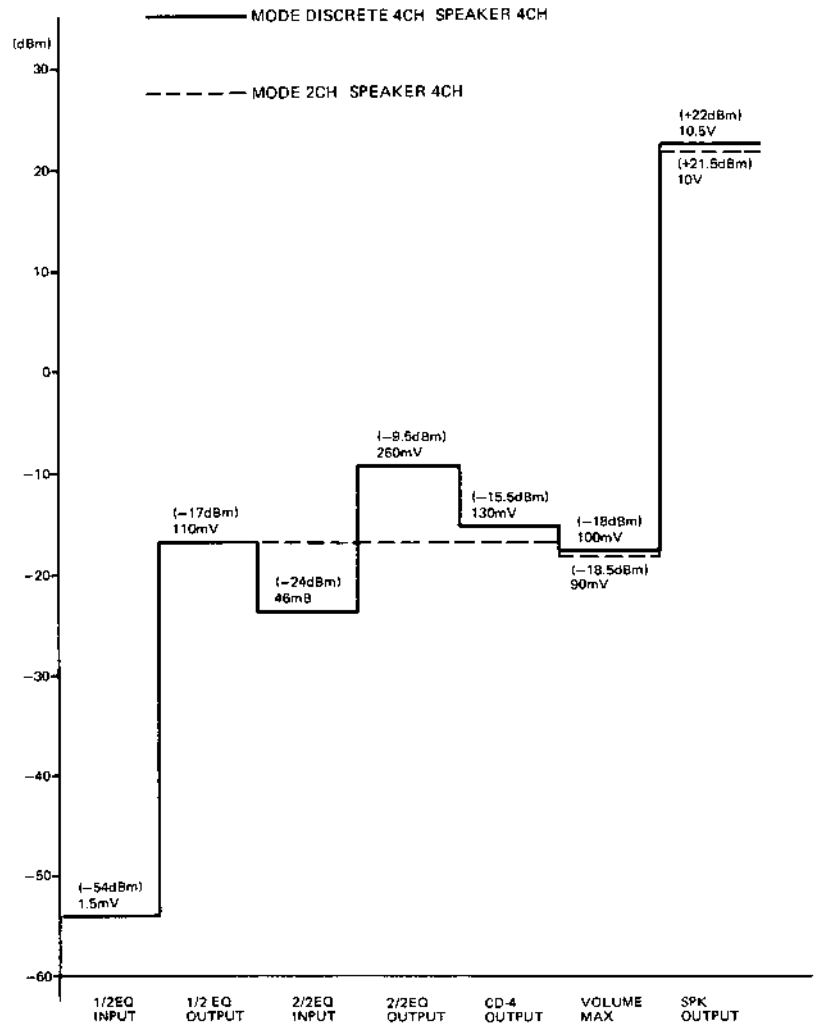
FM TUNER SECTION

Tuning Range:	88MHz~108MHz	
Usable Sensitivity:	2.2μV (IHF)	
50dB Quietting Sensitivity:	3.0μV	
Total Harmonic Distortion at	Mono	0.5%
1kHz, 100% modulation:	Stereo	0.8%
Signal to Noise Ratio:	68dB at 1mV	
Selectivity:	60dB (IHF, alternate channel)	
Capture Ratio:	2.0dB	
Image Rejection:	55dB	
IF Rejection:	80dB	
Spurious Signal Rejection:	80dB	
Stereo Separation:	40dB at 1kHz	
AM Suppression:	50dB	
Sub Carrier	Suppression:	
SCA carrier	Suppression:	
Stereo Auto Switching Level:	2.2μV	
Muting Level:	2.2μV	
Frequency Response:	20Hz~15kHz, ±1dB	
FM Detector Output:	100mV/33kΩ (100% modulation)	

AM TUNER SECTION

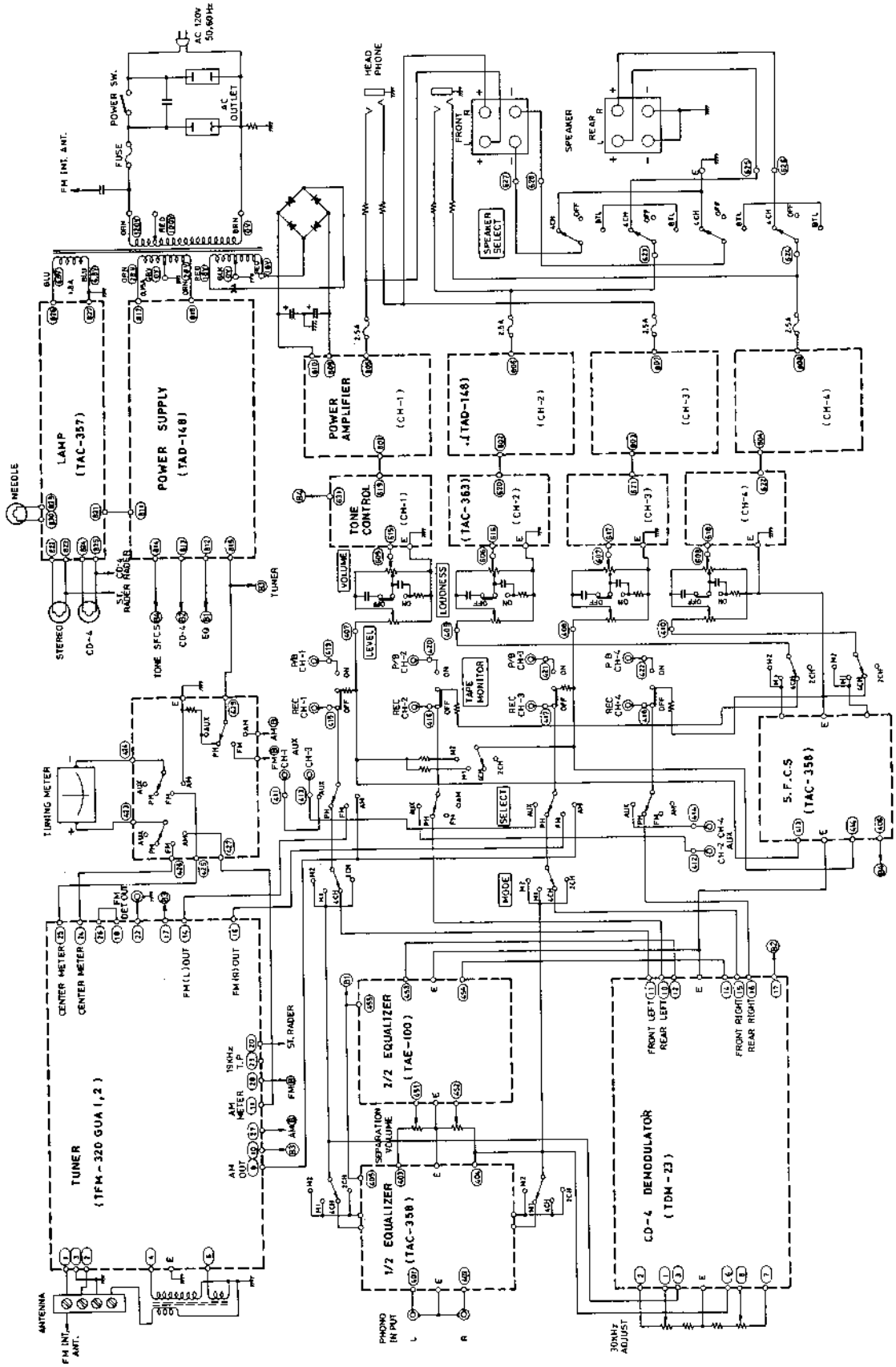
Tuning Range:	525kHz~1605kHz
Usable Sensitivity:	30μV, 200μV/m
Signal to Noise Ratio:	55dB
Selectivity:	30dB
Image Rejection:	45dB
IF Rejection:	50dB

LEVEL DIAGRAM



MEMO

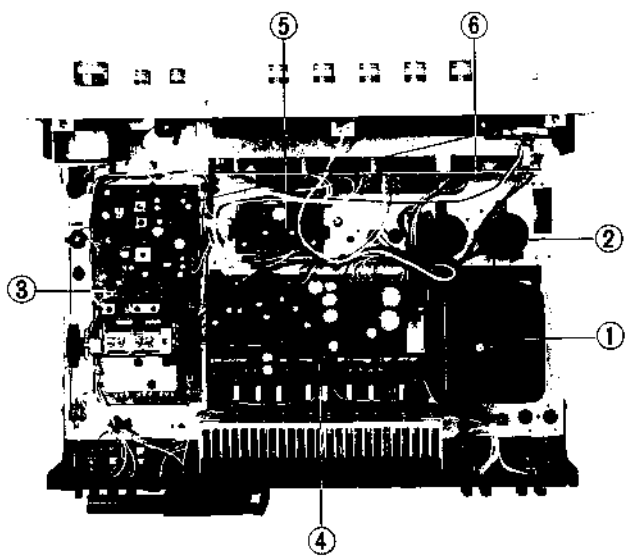
BLOCK DIAGRAM



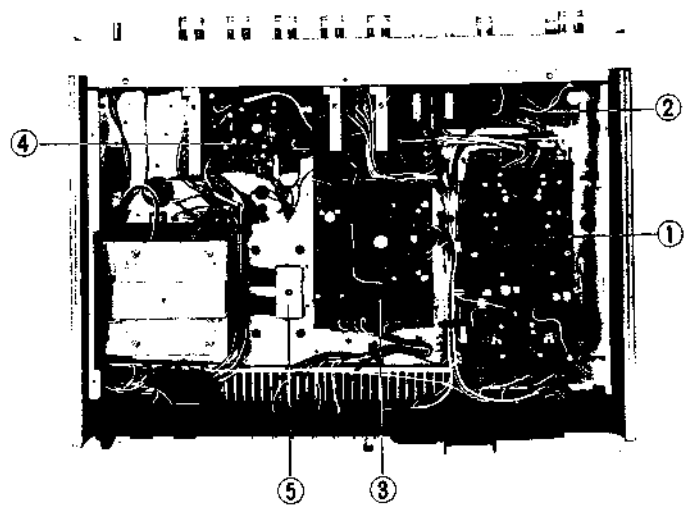
MAIN PARTS LOCATION

	Ref. No.	Parts No.	Parts Name	Description
TOP VIEW	1	E03611-1 or	Power Transformer	for USA. Canada
		E03611-1B	Power Transformer	for other area.
	2	QEY3512-121	Electrolytic capacitor	6800μ / 35V
	3	TFM-320 GUA1 or	FM/AM Tuner Ass'y	75μsec
		TFM-320 GUA2	FM/AM Tuner Ass'y	50μsec
	4	TAD-148 or	Power Amp C.B. Ass'y	All other area except Europe
		TAD-148B	Power Amp C.B. Ass'y	Europe
	5	TAE-100	Equalizer C.B. Ass'y	
	6	TAC-357	Lamp C.B. Ass'y	
BOTTOM VIEW	1	TDM-23	C-D-4 Demodulator Ass'y	
	2	TAC-362	Volume C.B. Ass'y	
	3	TAC-358	Switch C.B. Ass'y	
	4	TAC-363	Tone Control C.B. Ass'y	
	5	ESAC02-03C	Si Diode (Foward)	
		ESAC02-03N	Si Diode (Reverse)	

TOP VIEW



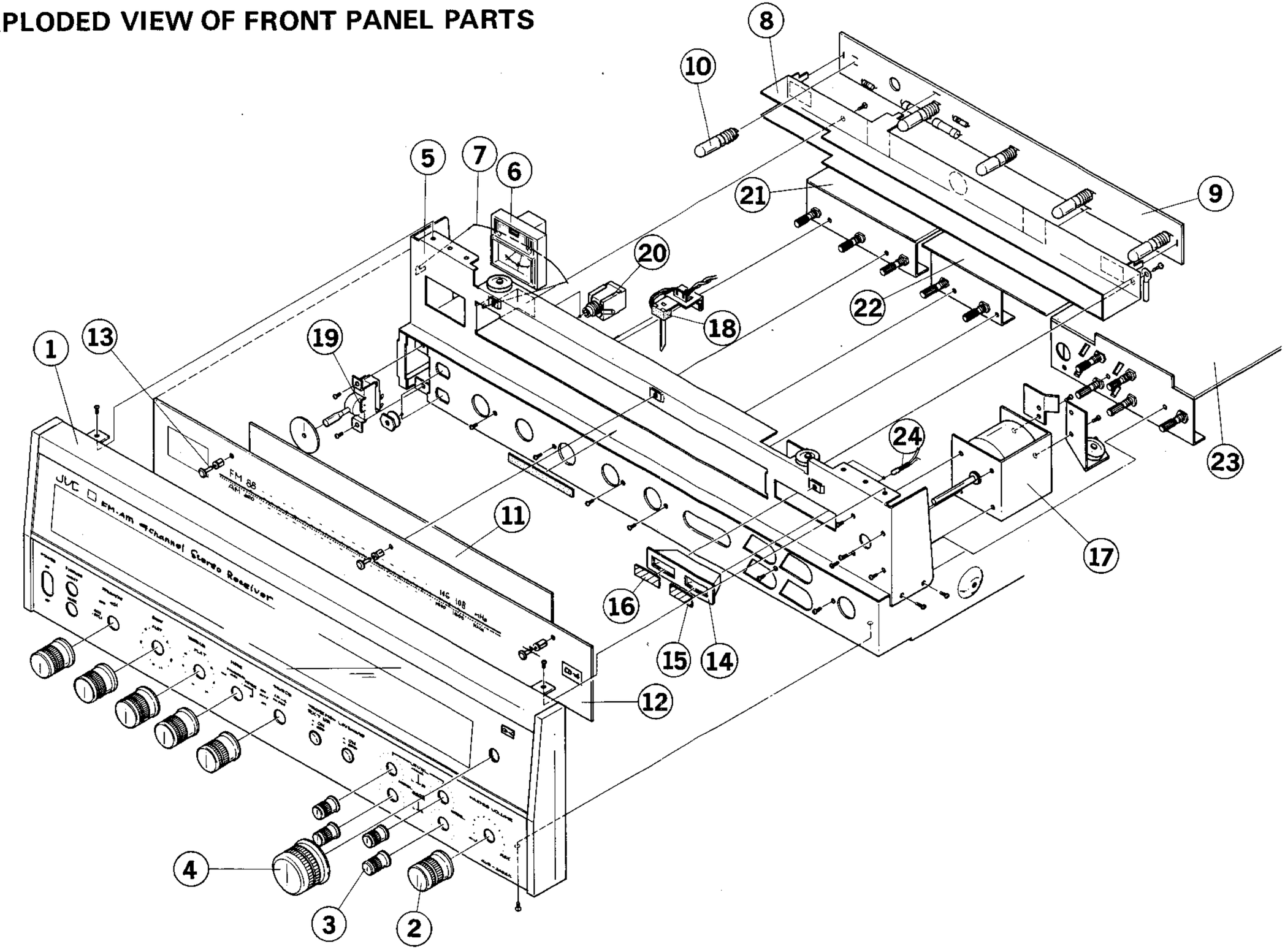
BOTTOM VIEW



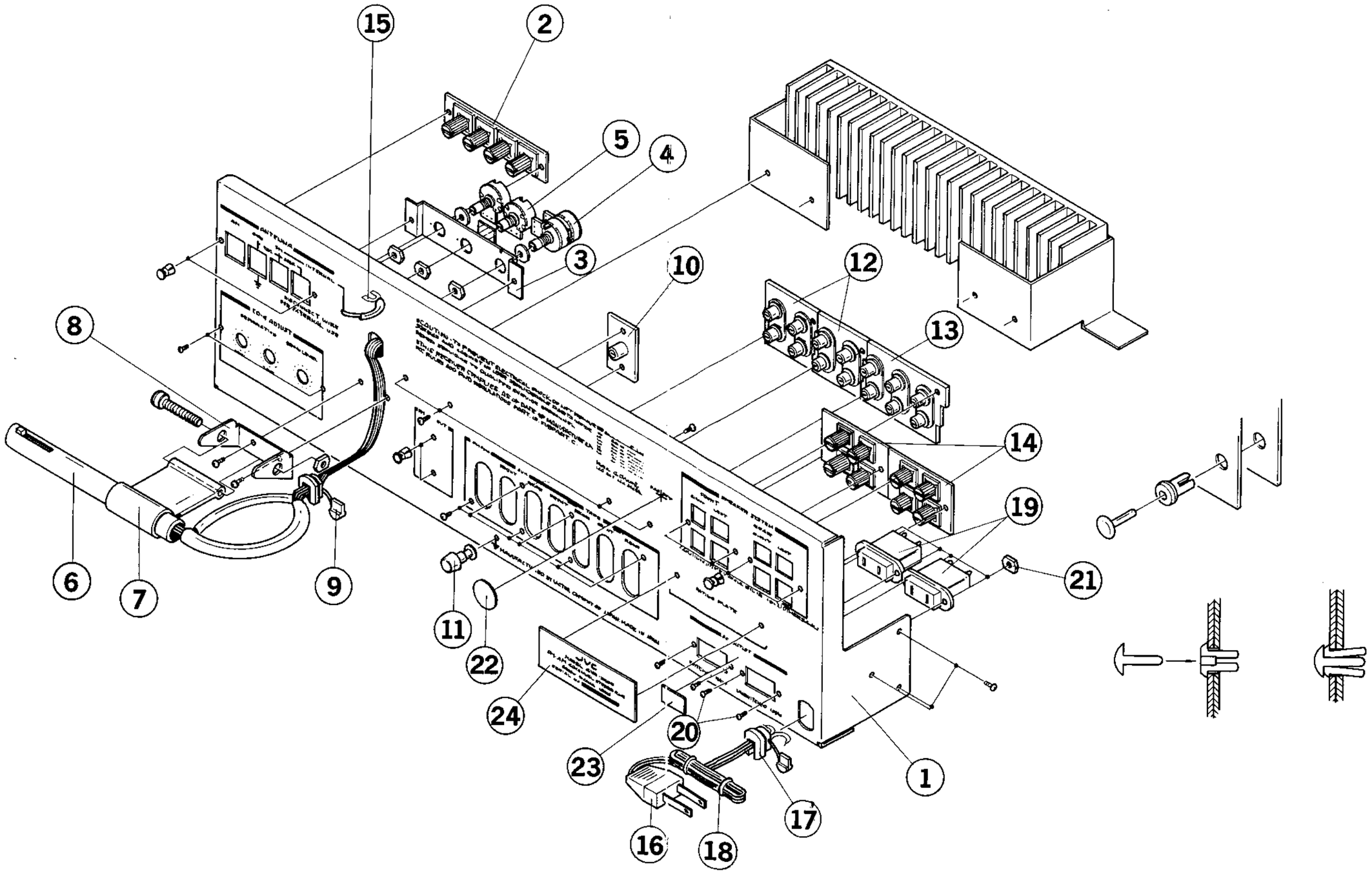
LIST OF FRONT PANEL PARTS FOR REPLACEMENT

Ref. No.	Parts No.	Parts Name	Description
1	E21580-001	Front Panel Ass'y	
2	E48542-002	Knob	for Volume, SPK, Tone Select mode
3	E48810-002	Knob	for Level
4	E49368-001	Tuning Knob	
5	E21583-001	Front Bracket Ass'y	
6	E03369-012	Tuning Meter	
7	E48962-002	Spring	
8	E21585-001	Reflector	
9	TAC-357	Lamp C.B. Ass'y	
10	QLP1001-009	Pilot lamp	8V, 300mA
11	E33511-005	Color Screen	
12	E33776-001	Dial Scale	
13	E48729-001	Plastic Rivet	
14	E49364-001	Reflector	for Stereo, CD-4, Radar
15	E48587-004	Mini Screen	Orange
16	E48587-007	Mini Screen	Red
17	E32704-007	Tuning Shaft Ass'y	
18	E33777-001	Needle Ass'y	with Lamp
19	QSU1221-001	Lever Switch	Power
20	E03468-002	Head Phone Jack	
21	TAC-363	Tone C.B. Ass'y	
22	TAC-358	Switch C.B. Ass'y	
23	TAC-362	Volume C.B. Ass'y	
24	QLP3104-106	Mini Lamp	6V 35mA

EXPLODED VIEW OF FRONT PANEL PARTS



EXPLODED VIEW OF REAR PANEL PARTS



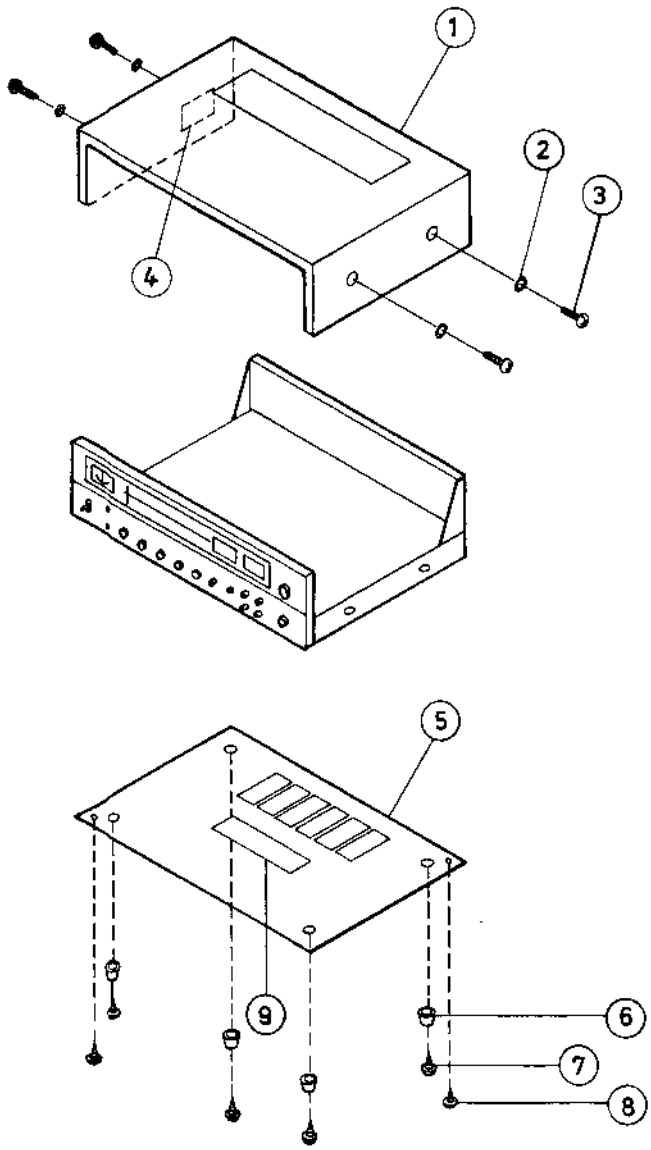
LIST OF REAR PANEL PARTS FOR PEPLACEMENT

Ref. No.	Parts No.	Parts Name	Description
1	E1868-001	Rear Panel	
2	E03572-102	Terminal Ass'y	ANTENNA
3	E48598-002	Separation Bracket	
4	E03504-004	V. Resistor	50KB. 30kHz LEVEL
5	E03415-003	V. Resistor	10KB Separation
6	E03037-22UD	Bar Ant. Coil	
7	E41021-003	Bar Ant. Holder	
8	E50634-001	Bar Ant. Bracket	
9	E31704-003	Power Cord Stopper	
10	E03043-10	Pin Jack Ass'y	FM DET OUT
11	E04069	Push Terminal	
12	E03591-40	Pin Jack Ass'y	
13	E03591-60	Pin Jack Ass'y	
14	E03572-101	Terminal Ass'y	Speaker
15	41037-2	Y-Lug.	INT ANT
16	QMP1200-244	Power Cord with Plug	
17	E31704-003	Power Cord Stopper	
18	E04194-001	Free up Belt	
19	QMC0234-001	AC Socket	
20	SPKP3010S	Screw	
21	NNZ3000NS	Nut	
22	E42803-003	PASS Mark	
23	E45861-001	Rating Label	for AC outlet 120V 50/60Hz
24	E47330-124	Rating Plate	

REMOVAL OF THE TOP COVER AND BOTTOM PLATE

1. Remove 4 screws through the both sides of the cover
2. Remove the top cover
3. Remove screws from bottom plate and remove the bottom plate from the chassis.

Ref. No.	Parts No.	Parts Name
1	ED92471	Wooden Case Ass'y
2	E48193-002	Washer
3	SDSP4012MS	Screw
4	E48725-001	Caution Label
5	E21586-002	Bottom Plate
6	E48599-001	Foot
7	SBSB3012Z	Tapping Screw
8	SBSB3000Z	Tapping Screw
9	E48199-002	Caution Label

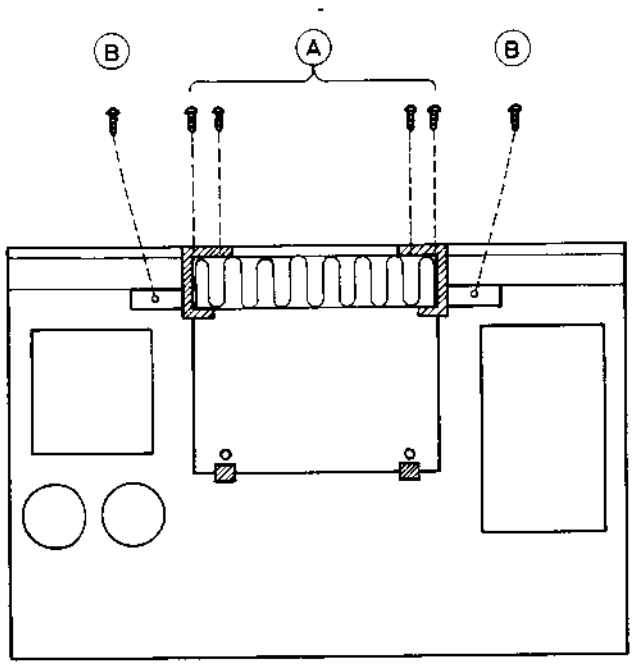


PACKING CASE ASS'Y

Parts No.	Parts Name
E33433-004	Envelope
4VR-5426X-PK	Carton Case
4VR-5426X-NZ	Packing Materials

HOW TO REPAIR OF THE POWER AMP. CIRCUIT BOARD AND POWER TRANSISTOR

1. Remove 4 screws Ⓐ fixed rear panel.
2. Remove 2 screws Ⓑ fixed chassis.
3. Loosen the fastener at the front edge of the board, and stand the board upright.

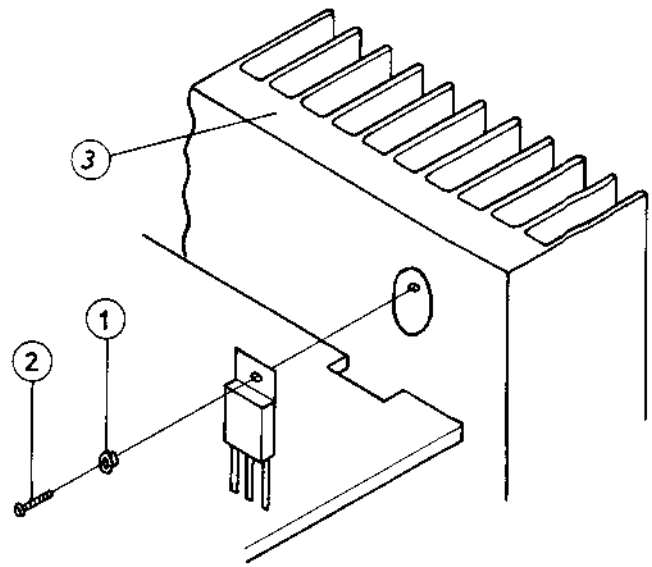


Ref. No.	Parts No.	Parts Name
1	E41541-19	Bushing
2	LPSP3010NS	Ass'y Screw
3	E33778-001	Heat Sink

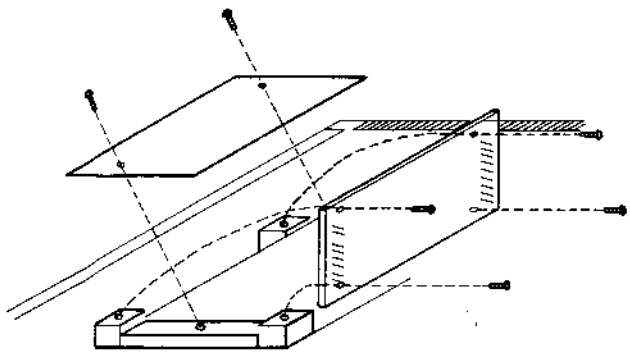
NOTE

When replace power transistor please check the insulator bushing (Fig. ①). If it is damaged, please replace for new one.

Idling current adjusting, see page 14.

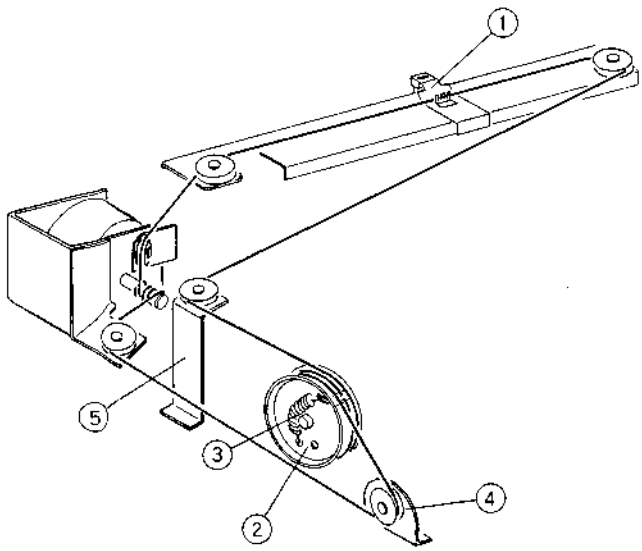


HOW TO REPAIR AND CHECK CD-4 CIRCUIT BOARD AND TUNER CIRCUIT BOARD ASS'Y



1. Remove 4 screws fixed CD-4 circuit Board and remove 2 screw fixed shield plate.

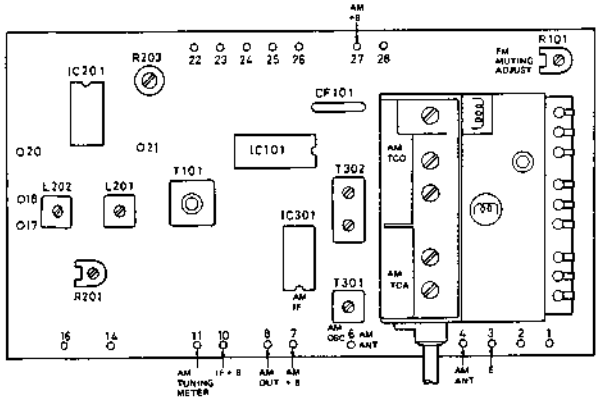
HOW TO FIT THE DIAL CORD



1. Set the variable capacitor to min.
2. check that the dial drum is firmly fixed to the shaft.
3. Fit the dial cord as shown in the diagram.
4. Wind 3 turns of the cord round the tuning shaft and 2 turns round the dial drum.
5. Put the needle rail.
6. Position the needle to zero point on the dial scale and fix to the dial cord.

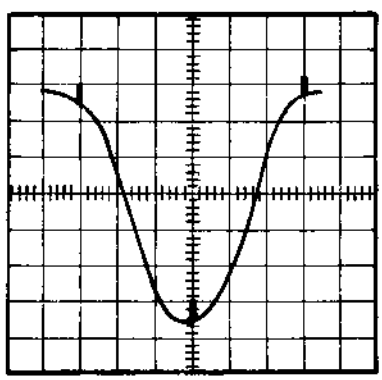
Ref. No.	Parts No.	Parts Name
1	E33777-001	Needle Ass'y
2	QZD1205-002	Dial Drum Ass'y
3	E45679-001	Spring
4	E48597-003	Tension Control
5	E47838-001	Roller Bracket Ass'y

AM ADJUSTMENT



Adjusting IF Stage

1. Connect the output of a sweep generator to the AM input (Tab No. 6) of the Tuner Circuit Board Ass'y (TFM320GUA 1). Set the signal to 455kHz.
2. Connect the input of the sweep generator to the AM out terminal (Tab No. 8)
3. Adjust the core of IFT. T302 so that the output is maximized and the waveform is symmetrical as shown in Ordinally T302 is adjusted to 455kHz.



Adjusting Tracking & Sensitivity

Low Frequency

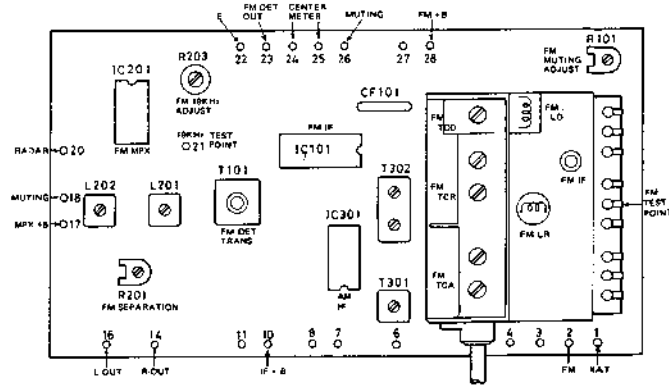
1. Connect an RF. generator to the antenna terminal on the rear panel. Set this to 600kHz with 30% modulation at 400Hz.
2. Connect a VTVM to the REC jacks or speaker terminals.
3. Tune to 600kHz.
4. Adjust OSC transformer T301 and the ferrite bar-antenna to maximize the output signal.

High Frequency

1. Connect an RF. generator to the antenna terminal on the rear panel. Set this to 1400kHz with 30% modulation at 400Hz.
2. Connect a VTVM to the REC jacks or speaker terminals.
3. Set the dial pointer to 1400kHz.
4. Adjust trimmers TCO and TCA in the AM FRONT-END so that the output signal is maximized.

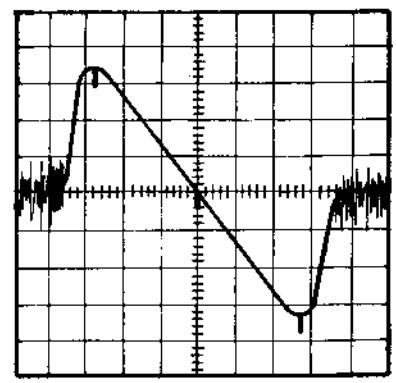
*Repeat these steps until maximum sensitivity is obtained.

FM ADJUSTMENT



Adjusting Discriminator

1. Connect a sweep generator to the FM test point (FM FRONT-END (TEST POINT) through a 4.7kΩ resistor. Set this generator to 10.7MHz.
2. Connect an oscilloscope to the FM DET.OUT (Tab No. 23).
3. Adjust the primary and secondary cores of T101 to obtain an "S" shaped waveform as shown in and maximum gain.



Adjusting Center Meter & Distortion

1. Connect an RF. generator with 1kHz modulation and 75kHz deviation to the antenna terminals on the rear panel through a dummy antenna.
2. Connect an oscilloscope, distortion meter and VTVM to the REC jacks or speaker terminals.
3. Tune to a frequency where there is no broadcast.
4. Adjust the lower core of T101 so that the center meter indicates "0".
5. Set the generator to 98MHz.
6. Tune to 98MHz.
7. Adjust the upper core of T101 so that the distortion is minimized at a value less than 0.4%.

Adjusting Tracking & Sensitivity

Low Frequency

1. Connect an RF. generator to the antenna terminals on the rear panel through a dummy antenna.
2. Set the RF. generator to 88MHz, a modulation of 1kHz and a deviation of 75kHz to provide an input of 10μV.
3. Connect a VTVM and an oscilloscope to the REC jacks or speaker terminals.
4. Tune to 88MHz.
5. Adjust coils LO and LA in the FRONT-END to maximize the output.

High Frequency

1. Set the RF. generator to 108MHz, a modulation of 1kHz, and a deviation of 75kHz to provide an input of 10μV.
2. Tune to 108MHz.
3. Adjust FM trimmers TCO and TCA in the FRONT-END to maximize the output.

*Repeat these steps until maximum sensitivity is obtained.

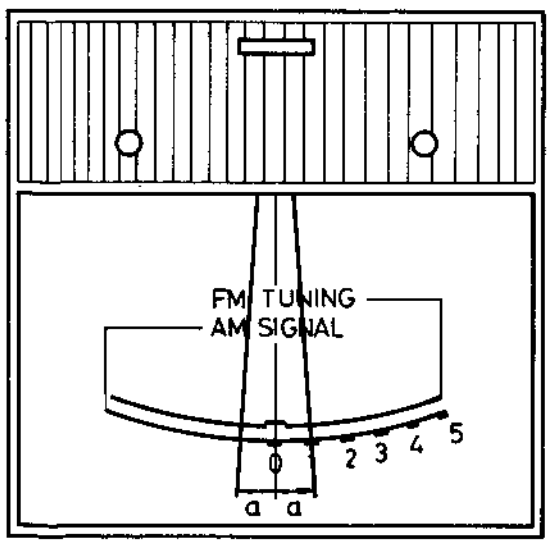
Adjusting Muting Level

1. Connect a VTVM and an oscilloscope to the REC jacks or speaker terminals.
2. Set the RF. generator to 98MHz with 1kHz modulation, and 75kHz deviation to provide an input of 2.2μV.
3. Turn R101 counterclockwise and remember the point at which the muting ceases to operate.
4. Turn R101 clockwise slightly so that the output level drops by 1dB.
5. Reset the RF. generator to 2μV output and check that muting still operates.

Balancing Center Meter Deflection

Tune to a signal from a standard signal oscillator or an FM station. Optimize reception and adjust so that when detuned by 70kHz in either direction the deflections to the left and right are symmetrical.

Make sure that the sound is not vanish in the zone a-a.



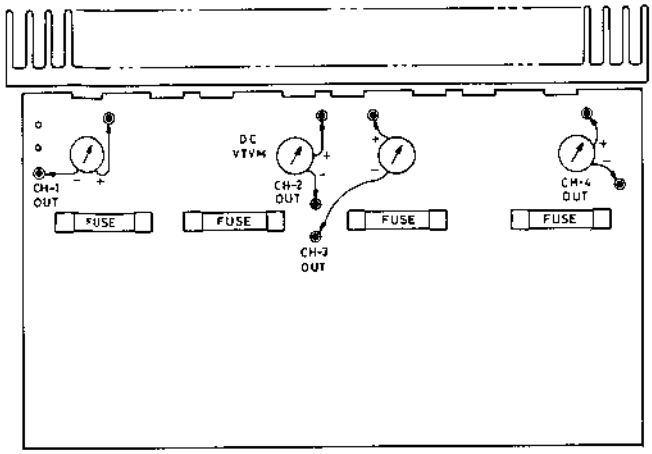
Adjusting MPX

1. Set a stereo signal generator as follows; Modulation frequency 1000Hz, Deviation pilot 7.5kHz, Main and Sub. 67.5kHz. Connect its output to the EXT input of an RF. signal generator.
2. Connect the RF. generator to the antenna terminals through a dummy antenna.
3. Connect a VTVM, oscilloscope and distortion meter to the REC jacks or speaker terminals.
4. Set the RF. generator to 98MHz and an output of 1mV.
5. Tune to 98MHz.
6. Connect oscilloscope to Tab No. 14 and 16.
7. Connect the frequency counter to Tab No. 21.
8. Switch off the pilot signal of the stereo demodulator.
9. Adjust R203 so that the counter indicates 19kHz.

Adjusting Separation

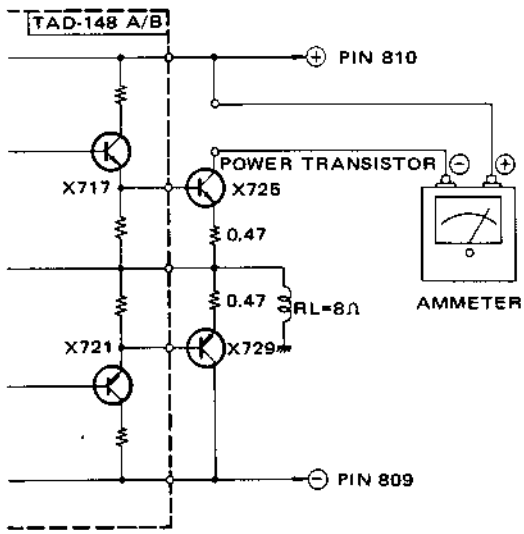
10. Switch stereo modulator's selector to left.
11. Adjust R201 so that right channel output is minimized.
12. Switch stereo modulator's selector to right.
13. Adjust R201 so that left channel output is minimized.
14. If the separation of right and left are different,set R201 to average.

ADJUSTING IDLING CURRENT



(Adjusting with Milivoltmeter)

1. Connect DC milivoltmeter across emitter resistor R761 (that is; to the test point of TAD-148A/B)
2. Adjust semi-fixed resistor VR701 so that the milivoltmeter reading is 10mV.
3. Repeat the procedure for the other channels.



(Adjusting with Ammeter)

1. Connect a DC ammeter between the collector of power transistor X725 and B+
2. Adjust VR701 semi-fixed resistor so that ammeter reading is 20mA.
3. Repeat the procedure for the other channels.

CD-4 ADJUSTMENT

CD-4 adjustment is to match cartridge and stylus with built-in demodulator. Once it has been done it need not be done again until cartridge or stylus is changed.

1. Set source select to CD-4/PHONO.
2. Set mode select to DISCRETE 4CH.

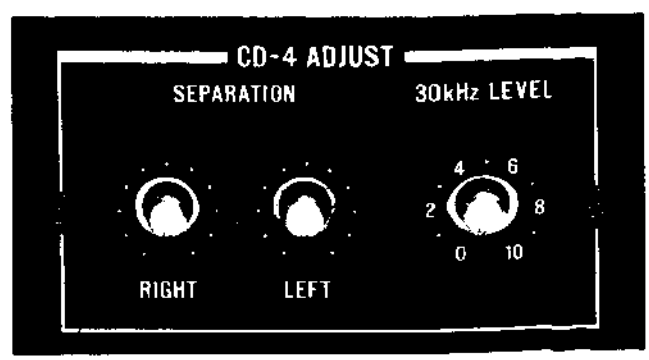
30kHz Level Adjustment

The 30kHz sub-channel carrier output differs between cartridges and this screw on the rear panel is to adjust the level.

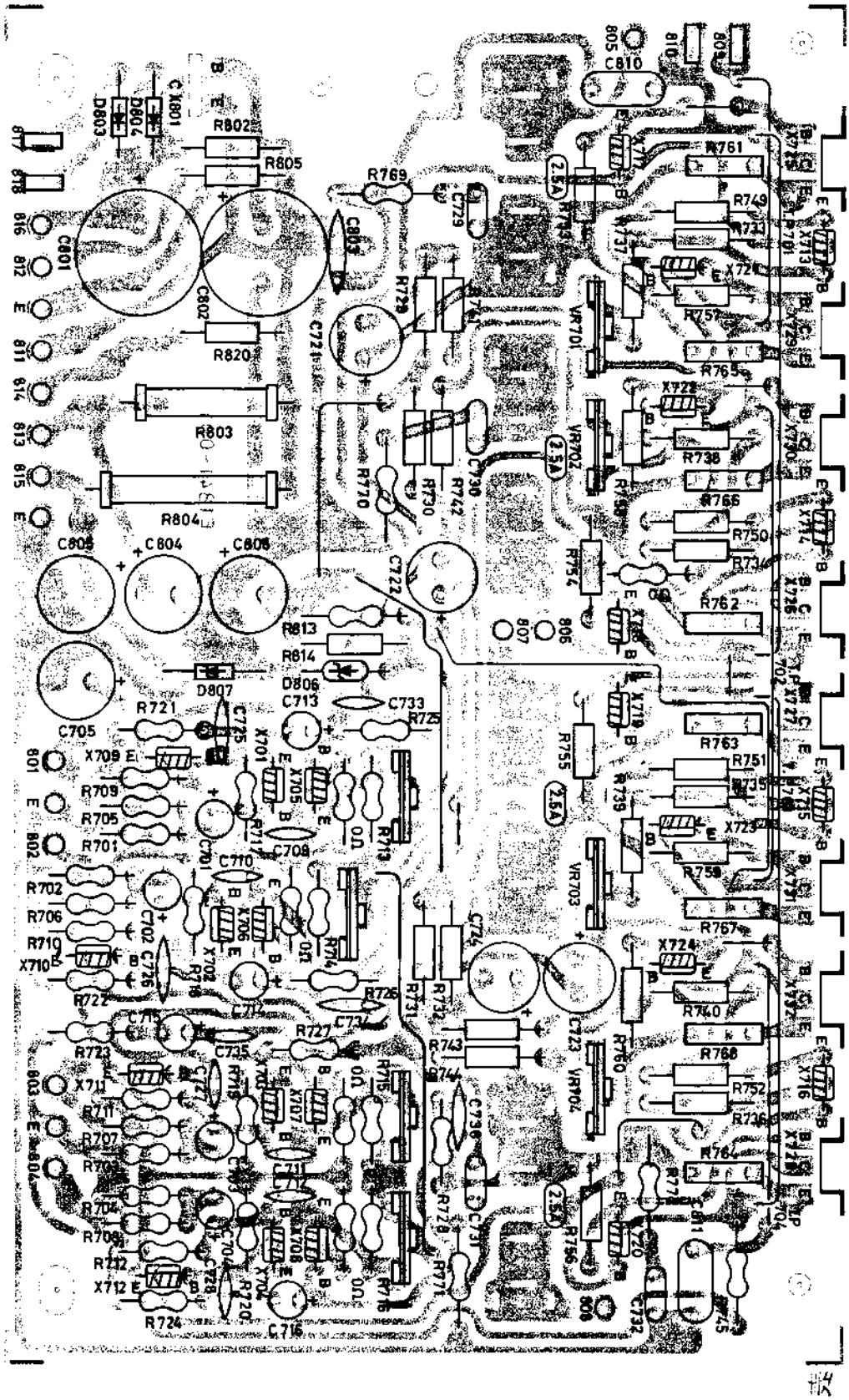
1. Turn the 30kHz level screw clockwise until the stop position.
2. On BAND 2 of CD-4 adjustment record there is a 400Hz sub channel signal (4kHz deviation). If the signal is distorted play BAND 2 on adjustment record and turn the screw counterclockwise until a position is reached where distorted sound is not heard. Although distorted sound may still be heard when the screw is fully counterclockwise, it might be acceptable in sound quality when playing CD-4 music records with the screw in this position. If the sound is still unsatisfactory with CD-4 music record, the cartridge is then considered inadequate for CD-4 record reproduction.

Separation Adjustment

1. Lower the volume of front speakers so that sound is only heard from the rear speakers.
2. Left channel (CH1, CH2) adjust: Turning the left control of separation adjust so that the volume of rear left (CH-2) is as low as possible while playing BAND 3 of CD-4 demodulator adjustment record (4DE-205).
3. Right channel (CH3, CH4) adjust: Adjust the right channel in the same way, by turning right control to minimize the volume of rear right while playing BAND 3.
4. When these operations have been completed, the adjustment is over and the volume of the front speakers should be turned up.



TAD-148/B POWER AMP. C.B.ASS'Y



Transistors

Ref. No.	Parts No.	Description	PC	fT
X801	2SD325E	Silicon, Sanyo	10W	8MHz
X725~728	2SC789Y	Silicon, Toshiba	30W	3MHz
X717~724	2SC1213ACS	Silicon, Hitachi	400mW	150MHz
X701~708	2SC1345D	"	200mW	230MHz
X713~716	2SC458C	"	200mW	230MHz
X729~716	2SA489Y	Silicon, Toshiba	30W	3MHz
X721~724	2SA673ACS	Silicon, Hitachi	400mW	150MHz
X709~712	2SA673ACS	"	400mW	150MHz

Diodes

Ref. No.	Parts No.	Parts Name	Description	PC
12V Zener D807	E0771–7	Zener	FUJI	1W
9V Zener D806	E0771–10	Zener	JRC	500mW
D803,804	S1B01–02	Silicon	FUJI	

Resistors

Ref. No.	Parts No.	Parts Name	Description
R701~704	QRD141J-124	Carbon	120KΩ 1/4W
R705~708	QRD141J-102	"	1KΩ "
R725~728	QRD141J-823	"	82KΩ "
R709~712			
R713~716	QRD144J-103	"	10KΩ "
R717~720	QRD141J-152	"	1.5KΩ "
R721~724	QRD141J-681	"	680Ω "
	QRD141J-0R0	Jumping	0Ω
R745	QRD126J-470	Unflamable Carbon	47Ω 1/2W
R769~772	QRD126J-100	"	10Ω "
R813	QRD126J-470	"	47Ω "
R729~732	QRC121K-122	Composition	1.2KΩ "
R733~736	QRC121K-222	"	2.2KΩ "
R737~740	QRC121K-681	"	680Ω "
R741~744	QRC121K-392	"	3.9KΩ "
R749~752	QRC121K-3R3	"	3.3Ω "
R753~760	QRC121K-271	"	270Ω "
R820	QRC121K-102	"	1KΩ "
R805	QRC121K-820	"	82Ω "
R802	QRC121K-682	"	6.8KΩ "
R814	QRC121K-102	"	1KΩ "
R761~768	QRM015K-R47	Metal Plate	0.47Ω 1W
R803	QRG021J-560	Oxid Metal	56Ω 2W
R804	QRG031J-221	"	220Ω 3W

Variable Resistors

Ref. No.	Parts No.	Parts Name	Description
VR701,704	QVP2AOB-052	Semi Fixed Resistor	500Ω (B)

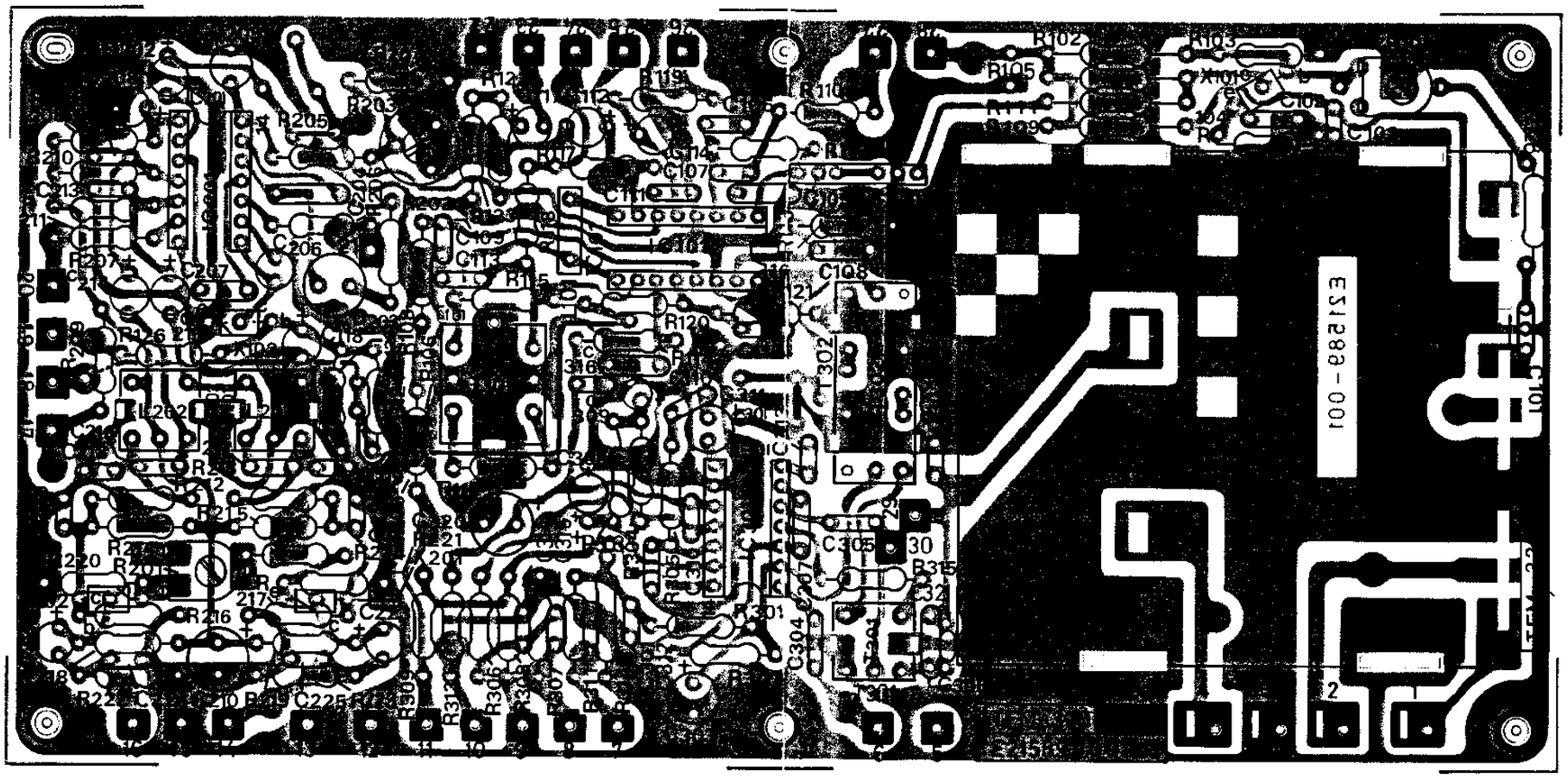
Capacitor

Ref. No.	Parts No.	Parts Name	Descritpion
C701~704	QEB41EM-105	Low Leak Current Electrolytic	1μ/25V
C721~724	QEW41HA-476	Electrolytic	47μ/50V
C713~716	QEW41AA-476	"	47μ/10V
C705	QEW41VA-227	"	220μ/35V
C802	QEW41HA-477N	"	470μ/50V
C801	QEW41HZ-477N	"	470μ/50V
C804	QEW41VA-227	"	220μ/35V
C805	QEW41VA-227	"	220μ/35V
C808	QEW41VA-227	"	220μ/35V
C709~712	QCS11HJ-471	Ceramic	470PF50V
C725~728	QCS11HJ-220	"	22PF50V
C733~736	QCS11HJ-270	"	27PF50V
C803	QCF11HP-473	"	0.047μF50V
C729~732	QFM41HK-473	Mylar	0.047μF50V
C810~811	QFM41HK-224	"	0.22μF50V

Others

Ref. No.	Parts No.	Parts Name	Description
For X801	NNZ3000Z	Nut	
	E33778-001	Heat Sink	
	E33779-001	Heat Sink Holder	
	E33779-002	Heat Sink Holder	
	E41541-19	Bushing	for Power Tr.
	E45524-001	Contact Clip	for Fuse
For X801	E47918-003	Heat Sink	Power Supply
For X801	E47919-002	Spacer	

TFM-320 GUA1/2 TUNER C.B.ASS'Y



Transistors

Ref. No.	Parts No.	Description	PC	Ft
X102	2SC458C	Silicon, Hitachi	200mW	230MHz
X201,202	2SC458LGC	"	200mW	230MHz
	2SC710B	Silicon, Mitsubishi	200mW	200MHz

ICs

Ref. No.	Parts No.	Parts Name	Description
IC101	HA1137W	FM-1F I.C.	FM IF, Hitachi
IC301	HA1151	AM Tuner I.C.	AM, Hitachi
IC201	HA1156	FM-MPX I.C. (rank Aor BorC)	FM MPX, Hitachi

Others

Ref. No.	Parts No.	Parts Name	Description
T301	E03079-13	AM Osc. Coil	
T101	E03134-020	FM Det. Trans	
L201,202	E03407-005	Choke Coil ($10mm^2 \times 43m$)	43mH
L301	E03520-391	Choke Coil	390μH
L101	E03522-180J	Choke Coil	18μH
CF101	E03609-001	Ceramic Filter	CF107K14
T302	E03613-001	AM I.F. Transformer	
	E03546-003	Front End Ass'y	

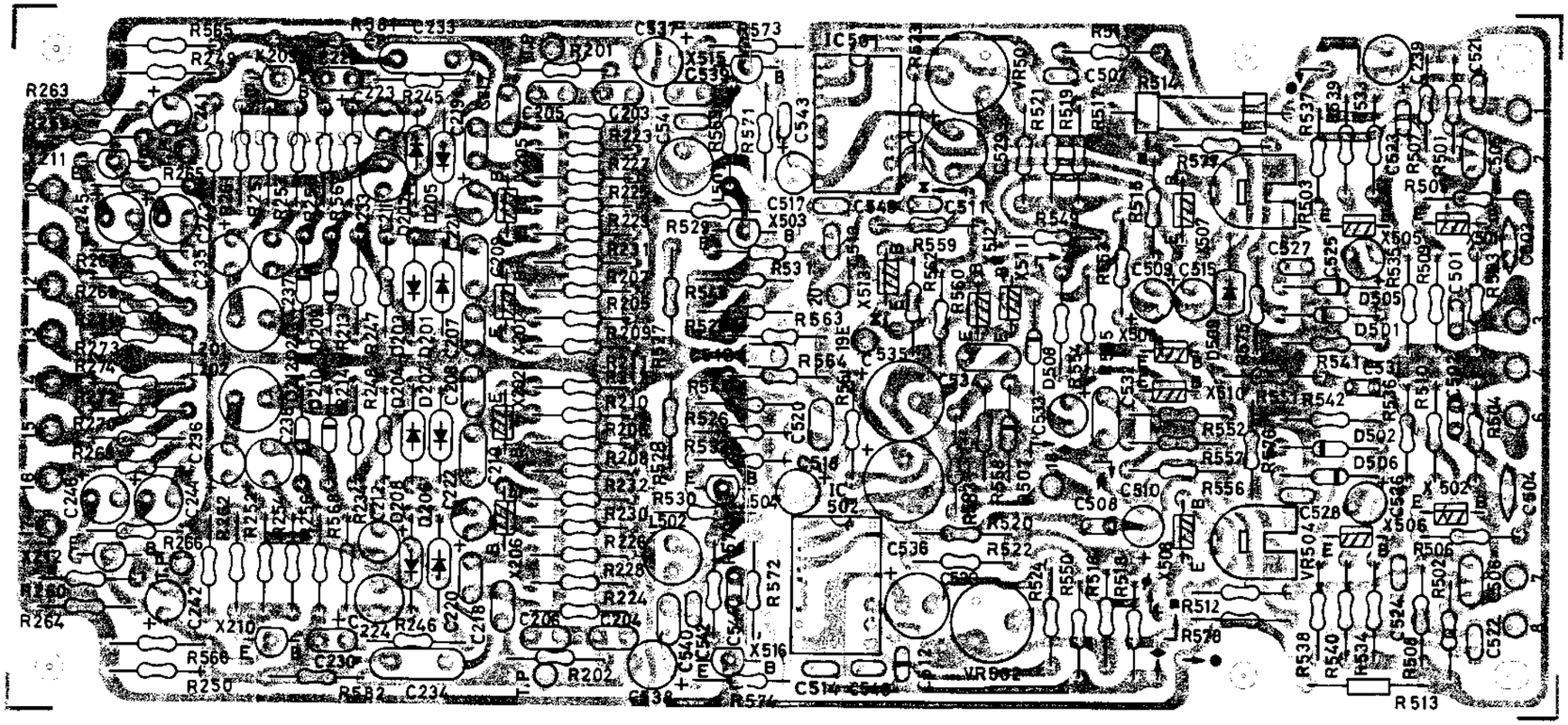
Resistors

Ref. No.	Parts No.	Parts Name	Description
R101	QVP8A0B-053	Semi Fixed Variable	5KΩ Muting
R203	QVP4A0B-472	"	4.7KΩ Vco
R201	QVP8A0B-054	"	50KΩ Separation
R109,114	QRD141J-100	Carbon	10Ω 1/4W
R111	QRD141J-271	"	270Ω "
R117	QRD141J-221	"	220Ω "
R112,105,128	QRD141J-331	"	330Ω "
R104	QRD141J-102	"	1K "
R116,120	QRD141J-222	"	2.2K "
R103	QRD141J-472	"	4.7K "
R115	QRD141J-562	"	5.6K "
R118,124,125	QRD141J-103	"	10K "
R102,119	QRD141J-123	"	12K "
R108,121	QRD141J-473	"	47K "
R122	QRD141J-563	"	56K "
R113,123	QRD141J-104	"	100K "
R110	QRD144J-474	"	470K "
R207,225	QRD141J-0R0	Jumping	0Ω "
R209	QRD141J-100	Carbon	10Ω "
R208	QRD141J-101	Carbon	100Ω "
R202	QRD141J-102	"	1K "
R220,221	QRD141J-152	"	1.5K "
R212,213	QRD141J-222	"	2.2K "
R210,211	QRD141J-392	"	3.9K "
R218,219,224	QRD141J-822	"	8.2K "
R204	QRD141J-153	"	15K "
R205	QRD141J-183	"	18K "
R216,217	QRD141J-393	"	39K "
R222,223	QRD141J-104	"	100K "
R214,215	QRD141J-224	"	220K "
R206	QRD141J-105	"	1M "
R315	QRD141J-0R0	Jumping	0Ω "
R311,313	QRD141J-100	Carbon	10Ω "
R311	QRD141J-151	"	150Ω "
R305	QRD141J-331	"	330Ω "
R306	QRD141J-332	"	3.3K "
R308	QRD141J-332	"	3.3K "
R302,309	QRD141J-472	"	4.7K "
R303,304	QRD141J-103	"	10K "
R307	QRD141J-104	"	100K "
R314	QRC121K-122	Composition	1.2K 1/2W

Capacitor

Ref. No.	Parts No.	Parts Name	Description
C112	QEW41HA-105	Electrolytic	1μ/50V
C117	QEW41CA-106	"	10μF 16V
C114	QEW41EA-475	"	4.7μF 25V
C202,	QEW41VA-475	"	47μF 25V
C214,215,204	QEW41EM-224	L.L.C.E. Capacitor	0.22μF 25V
C210	QEW41VA-476	Electrolytic	47μF 16V
C208,222,223	QEW41HA-105	"	1μF 50V
C320	QEW41CA-476	"	47μF 16V
C309	QEW41EA-475	"	4.7μF 25V
C308	QEW41HA-105	"	1μF 50V
C303	QEW41CA-106	Ceramic	10μF 16V
C111	QCS11HJ-151(u)	"	150pF 50V
C302	QCS11HJ-150(u)	"	15pF 50V
C311	QCS11HJ-331(u)	"	330pF 50V
C306	QCS11HJ-331(u)	"	330pF 50V
C101,103,107 108,109,110 113,115,104	QCF11HP-223(A)	"	0.022μF 50V
C302,307,310 313,316	QCF11HP-223(A)	"	0.022μF 50V
C102,105,106	QCZ0107-473(A)	"	0.047μF 50V
C304	QCZ0107-473(A)	"	0.047μF 50V
C203	QEB41EM-106	L.L.C.E. Capacitor	10μ/25V
C206	QEB41EM-105	L.L.C.E. Capacitor	1μ/25V
C218,219	QFM41HK-102	Mylar	0.001μF 50V
C216,217	QFM41HK-182	"	0.0018μF 50V
C224,225	QFM41HK-272	"	0.0027μF 50V
C220,221	QFM41HK-392	"	0.0039μ F 50V
C212,213	QFM41HK-153	"	0.015μF 50V
C207	QFM41HK-473	"	0.047μF 50V
C312	QFM41HK-102	"	0.001μF 50V
C305	QFM41HK-103	"	0.01μF 50V
C314	QFM41HK-153	"	0.022μF 50V
C315	QFM41HK-223	"	0.022μF 50V
C205	QFS42BJ-471M	Polystyrol	470pF

TDM-23 CD-4 DEMODULATOR C.B.ASS'Y



Transistor

Ref. No.	Parts No.	Description	PC	fT
X209,210 X205,206 X201,206 X515,516 X503,504 X509~513 X501,502	2SC1312G 2SC458D 2SC1312G 2SC458D 2SC458D	Silicon, Mitsubishi Silicon, Hitachi Silicon, Mitsubishi Silicon, Hitachi "	200mW " " " "	150MHz 230MHz 150MHz 230MHz 230MHz
X507,508 X505,506	2SC458D 2SC1312G	" Silicon, Mitsubishi	" "	" 150MHz

Voriable Resistor

Ref. No.	Parts No.	Parts Name	Description
V501,502 VR503,504	QVP4AOB-222 QVP8AOB-024	Semi Fixed Volume "	2.2K 20K

Diodes

Ref. No.	Parts No.	Parts Name	Description	PC
D509	E0771-7	Zener Diode	Fuji	1W
D201~208	1N60	Ge Diode	Hitachi	
D209~212	1S2473	Si Diode	Toyo Dengu	
D507,508	1S990	"	JRC	
D501,502	1S990	"	JRC	
D505,506	1S990	"	JRC	

ICs

Ref. No.	Parts No.	Description
IC501,502	CD894	Segnetics

Resistor

Ref. No.	Parts No.	Parts Name	Description
R211,212 R231,232	QRD141J-121	Carbon	120Ω 1/4W
R253,254	QRD141J-681	"	680Ω "
R251,252	QRD141J-332	"	3.3K "
R209,210	QRD141J-562	"	5.6K "
R245,246	QRD141J-153	"	15K "
R201,202	QRD141J-822	"	8.2K "
R247,248	QRD141J-223	"	22K "
R223,224	QRD141J-682	"	6.8K "
R225,226	QRD141J-153	"	15K "
R223,224	QRD141J-684	"	680K "
R229,230	QRD141J-472	"	4.7K "
R233,234 R213,214	QRD141J-273	"	27K "
R255,256	QRD141J-331	"	330Ω "
R205,206	QRD141J-824	"	820K "
R227,228 R207,208	QRD141J-473	"	47K "
R527,528	QRD141J-683	Carbon	68K "
R543,544 R573,574	QRD141J-123	"	12K "
R525,526	QRD141J-182	"	1.8K "
R529,530	QRD141J-822	"	8.2K "
R569,570	QRD141J-682	"	6.8K "
R531,532	QRD141J-152	"	1.5K "
R571,572	QRD141J-102	"	1K "
R257,258	QRD141J-473	"	47K "
R565,566	QRD141J-474	"	470K "
R581,582	QRD141J-104	"	100K "
R554	QRD141J-331	Carbon	330Ω "
R556	QRD141J-681	"	680Ω "
R555	QRD141J-472	"	4.7K "
R553	QRD141J-123	"	12K "
R558	QRD141J-183	"	18K "
R559,560	QRD141J-273	"	27K "
R557	QRD141J-273	"	27K "
R562	QRD141J-153	"	15K "
R551	QRD141J-563	"	56K "
R563,564	QRD141J-124	"	120K "
R561	QRD141J-102	"	1K "
R509,510	QRD141J-181	"	180Ω "
R519,522	QRD141J-561	"	560Ω "
R523,524	QRD141J-272	"	2.7K "
R507,508	QRD141J-472	"	4.7K "
R505,506	QRD141J-392	"	3.9K "
R515,518	QRD141J-103	"	10K "
R511,512	QRD141J-153	"	15K "
R503,504	QRD141J-223	"	22K "
R501,502	QRD141J-334	"	330K "
R541,542	QRD141J-151	"	150Ω "
R537,538	QRD141J-682	"	6.8K "
R539,540	QRD141J-822	"	8.2K "
R549,550 R577,578	QRD141J-472	"	4.7K "
R575,576	QRD141J-821	"	820Ω "
R535,536	QRD141J-183	"	18K "
R533,534	QRD141J-334	"	330K "
R263,266	QRD141J-102	"	1K "
R267,274	QRD141J-103	"	10K "
R261,262	QRD141J-224	"	220K "
R259,260	QRD141J-474	"	470K "
R514	QRD021J-391	Oxide Metal	390Ω 2W
R513	QRC121K-681	Composition	680Ω 1/2W

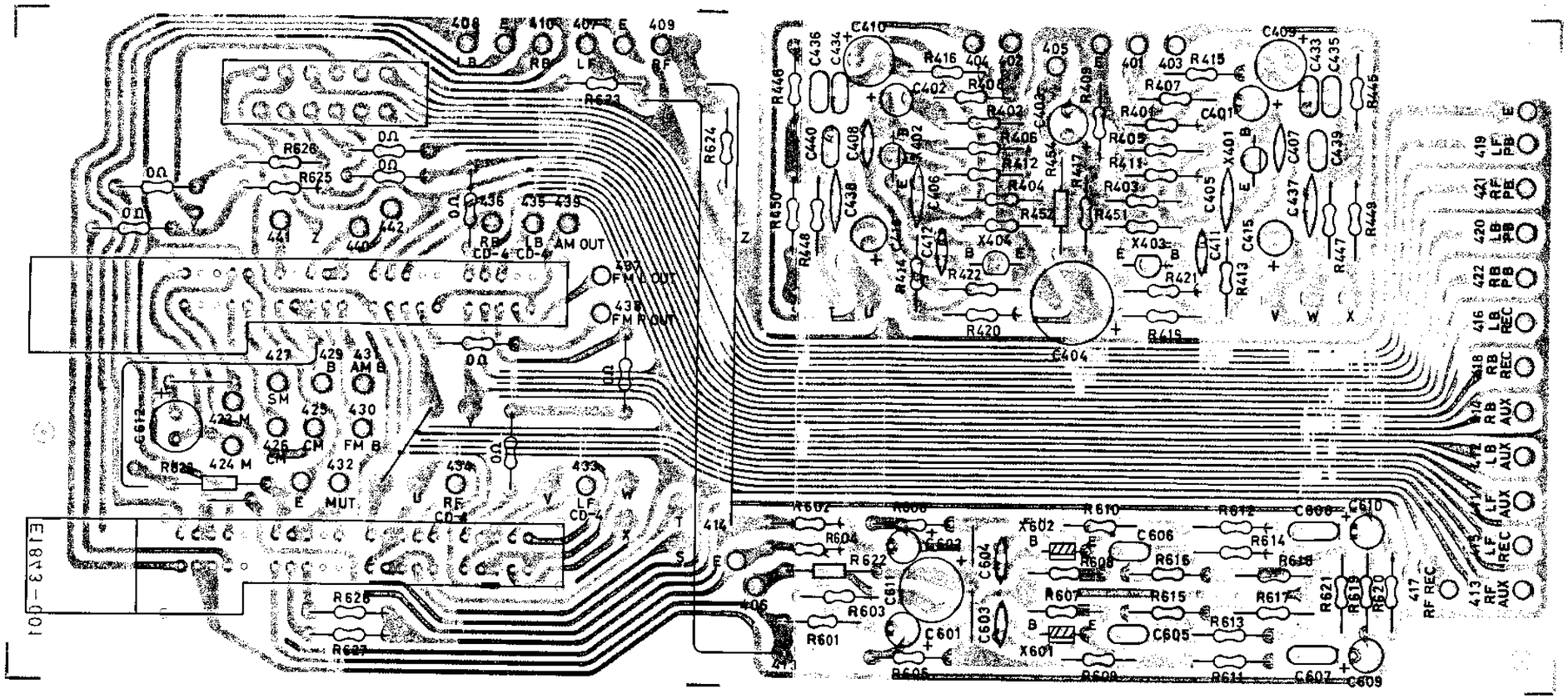
Capacitor

Ref. No.	Parts No.	Parts Name	Description
C235,236	QEB41EM-684	L.L.C. Electrolytic	0.68μF 25V
C237,238	QEB41EM-224	"	0.22μF 25V
C221,222	QEW41HA-474	Electrolytic	0.47μF 50V
C223,224	QEW41HA-105	"	1μF 50V
C211,212	QEW41HA-475	"	4.7μF 50V
C537,538	QEW41HA-475	"	4.7μF 50V
C533	QEW41HA-474	"	0.47μF 50V
C536	QEW41CA-227	"	220μF 16V
C536	QEW41CA-336	"	33μF 16V
C515	QEW41CA-106	"	10μF 16V
C529,530	QEW41CA-336	"	33μF 16V
C517,518 C509,510	QEW41HA-105	"	1μF 50V
C239	QEW41EA-106	"	10μF 25V
C525,526	QEW41HA-474	"	0.47μF 50V
C243,246	QEW41HA-475	"	4.7μF 50V
C241,242	QEW41HA-105	"	1μF 50V
C233,234	QFM41HK-823	Mylar	0.082μF 50V
C217,218	QFM41HK-822	"	0.0082μF 50V
C209,210	QFM41HK-683	"	0.068μF 50V
C219,220	QFM41HK-392	"	0.0039μF 50V
C229,230	QFM41HK-332	"	0.0033μF 50V
C207,208 C203,204	QFM41HK-223	"	0.022μF 50V
C205,206	QFM41HK-273	"	0.027μF 50V
C519,520 C539,540	QFM41HK-153	"	0.015μF 50V
C541,542	QFM41HK-122	"	0.0012μF 50V
C543,544	QFM41HK-182	"	0.0018μF 50V
C531	QFM41HK-222	"	0.0022μF 50V
C532	QFM41HK-333	"	0.033μF 50V
C534	QFM41HK-473	"	0.047μF 50V
C545,546 C501,502	QFM41HK-102	"	0.001μF 50V
C507,508	QFM41HK-222	"	0.0022μF 50V
C511,514	QFM41HK-272	"	0.0027μF 50V
C505,506	QFM41HK-153	"	0.015μF 50V
C523,524	QFM41HK-102	"	0.001μF 50V
C521,522	QFM41HK-122	"	0.0012μF 50V
C527,528	QFM41HK-332	"	0.0033μF 50V
C503,504	QCS11HJ-471	Ceramic	470pF 50V

Others

Ref. No.	Parts No.	Parts Name	Description
L201,202	E0747-17	Ferri Inductor	100mH
L501,502	E03566-103	Ferri Inductor	10mH

TAC-358 SWITCH C.B.ASS'Y



Transistor

Ref.	Parts No.	Parts Name	Description	PC	fT
	E49362-001	Volume Bracket	Tape Mon.		
X401,402	2SA493GR	Transistor	Silicon Toshiba	200mW	
X403,404	2SC1312G	"	Silicon Mitsubishi	"	150MHz
X601,602	2SC458LGC	"	Silicon Hitachi	"	230MHz

Capacitor

Ref.	Parts No.	Parts Name	Description
C401,401	QEB41EM-335	L.L.C.E.	3.3μ F 25V
C601,602	QEB41EM-105	"	1μF 25V
C404	QEW41VA-227	Electrolytic	220μF 35V
C415,416	QEW41HA-335	"	3.3μF 50V
C409,410	QEW41EA-336	"	33μ F 25V
C403	QEW41AA-107	"	100μ F 10V
C609,610	QEW41HA-105	"	1μF 50V
C611	QEW41EA-476	"	47μF 25V
C405,406	QCS11HJ-471	Ceramic	470pF 50V
C407,408	QCS11HJ-270	"	27pF 50V
C437,438	QCS11HJ-471	"	470pF 50V
C411,412	QCS11HJ-100	"	10pF 50V
C603,604	QCS11HJ-470	"	47pF 50V
C433,434	QFM41HK-332	Mylar	0.0033μF 50V
C439,440	QFM41HK-392	"	0.0039μF 50V
C435,436	QFM41HK-103	"	0.01μF 50V
C605,606	QFM41HK-102	"	0.001μF 50V
C607	QFM41HK-683	"	0.068μF 50V
C608	QFM41HK-103	"	0.01μF 50V

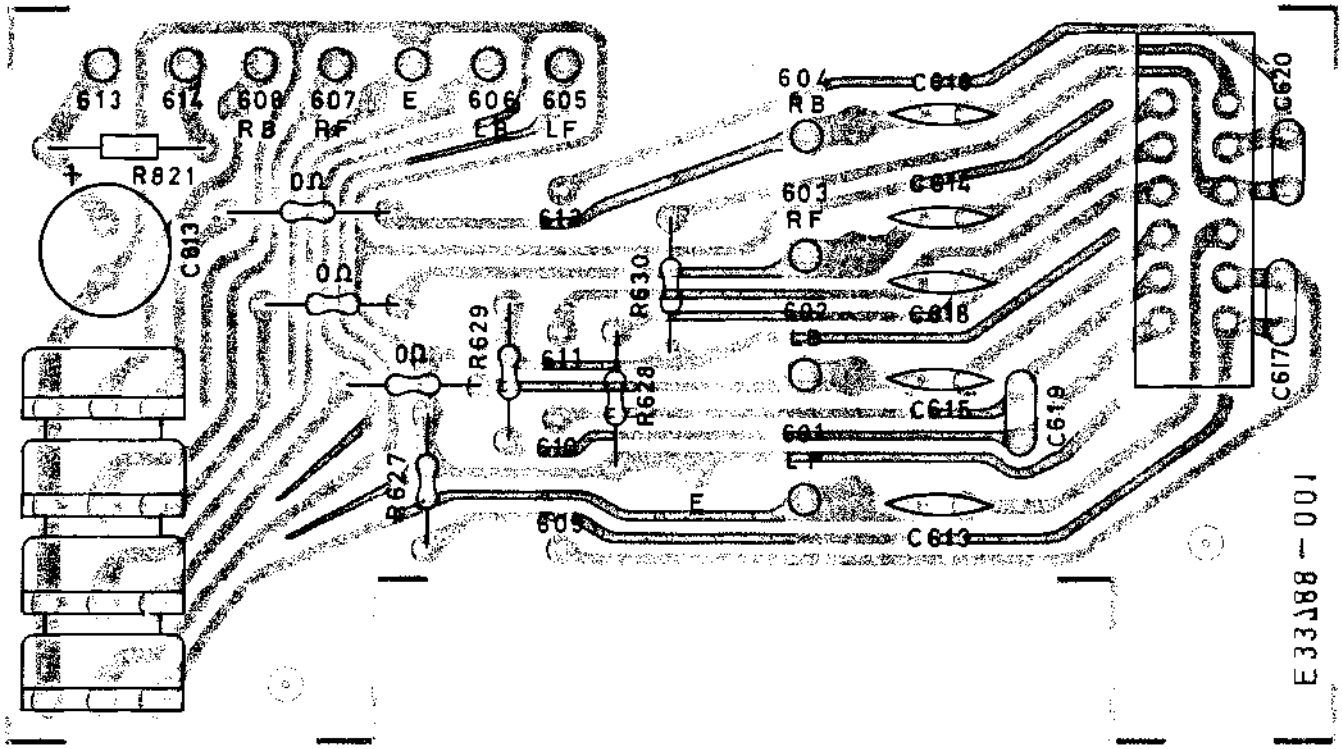
Resistor

Ref. No.	Parts No.	Parts Name	Description
R451,452	QRZ0019-154	Carbon	150KΩ 1/4W
R405,406	QRD141J-474	"	470KΩ "
R401,402	QRD141J-224	"	220KΩ "
R403,404	QRD141J-394	"	390KΩ "
R449,450,R409	QRD141J-223	"	22KΩ "
R407,408	QRD141J-102	"	1KΩ "
R445,446	QRD141J-684	"	680KΩ "
R441,412	QRD141J-223	"	22KΩ "
R415,416	QRD141J-331	"	330Ω "
R413,414	QRD141J-474	"	470KΩ "
R417	QRD141J-473	"	47KΩ "
R447,448	QRD141J-183	"	18KΩ "
R419,420	QRD141J-562	"	5.6KΩ "
R611,622	QRD141J-222	"	2.2KΩ "
R601,602			
R603,604	QRD141J-224	"	220KΩ "
R605,606	QRD141J-684	"	680KΩ "
R607,608	QRD141J-474	"	470KΩ "
R621,R609,610	QRD141J-472	"	4.7KΩ "
R613,614	QRD141J-153	"	15KΩ "
R615,616	QRD141J-821	"	820Ω "
R617,618	QRD141J-392	"	3.9KΩ "
R619,620	QRD141J-683	"	68KΩ "
R627	QRD141J-472	"	4.7KΩ 1/2W
R628	QRD141J-105	"	1MΩ "
R625,626	QRD141J-472	"	4.7KΩ "
R623,624			
	QRD141J-0R0	Jumping	0Ω "
R622	QRC121K-182	Composition	1.8KΩ "
R454	QRC121K-100	"	10Ω "
R822	QRC121K-821	"	820Ω "

Others

Ref. No.	Parts No.	Parts Name	Description
	QSR6084-202	Slide Rotary Switch	Select
	QSR6084-201	"	Mode
	QSP0219-001	Push Switch	Tape Mon

TAC-362 VOLUME C.B. ASS'Y



Resistor

Ref. No.	Parts No.	Parts Name	Description
R627~630	QRD141J-0R0	Jumping Resistor	0Ω
	QRD141J-223	Carbon Resistor	22K 1/4W
250KB	AVF1A2B-0F5	V. Resistor	Level Control

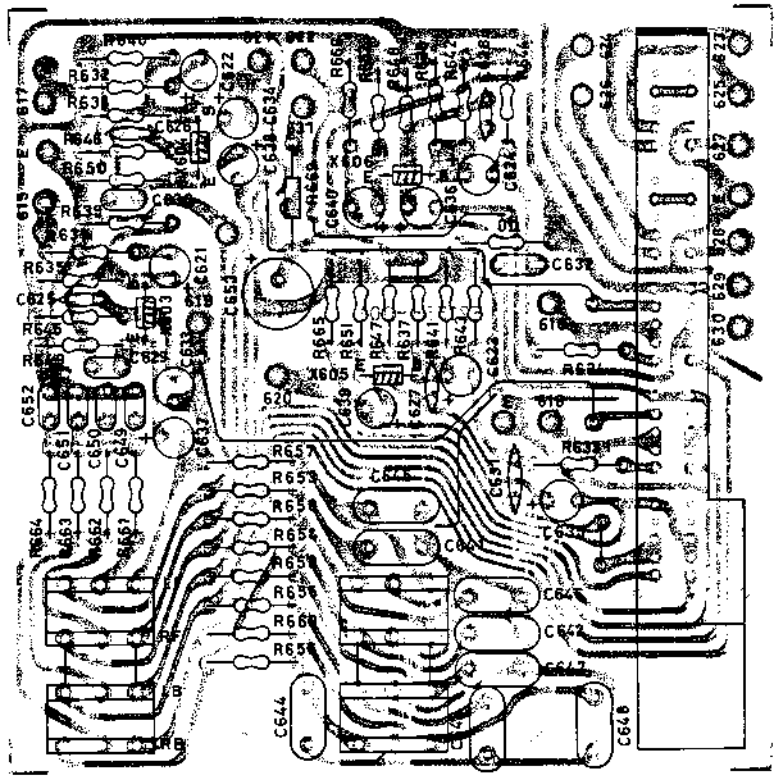
Capacitor

Ref. No.	Parts No.	Parts Name	Descritpion
C613,616	QCS11HJ-331	Ceramic	330pF 50V
C617,610	QFM41HK-103	Mylar	0.01μF 50V

Others

Ref. No.	Parts No.	Parts Name	Description
	E33775-001	Volume Bracket	
Loudness	QSP0219-001	Push Switch	Loudness
250KB	QVN4A2B-5F5	Volume	Master Volume

TAC-363 TONE CONTROL C.B. ASS'Y



Transistor

Ref. No.	Parts No.	Parts Name	Description	PC	fT
X603~606	E49363-001 2SC458 LGC	Volume Bracket Transistor	Silicon Hitachi	200mW	230MHz

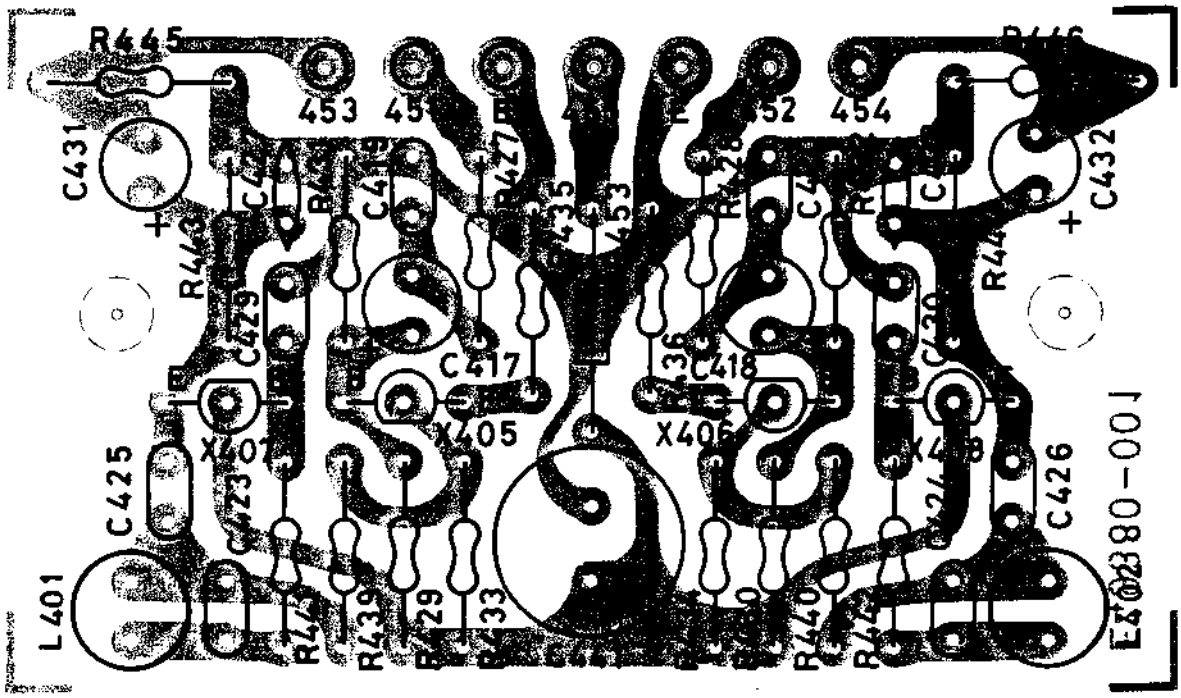
Others

Ref. No.	Parts No.	Parts Name	Description
C625~628	QCS11HJ-470	Ceramic Capacitor	47pF 50V
C621~624	QEB41EM-105	L.L.C.E. Capacitor	1μF 25V
50KW	QVN7A2W-554	V. Resistor	Tone 50KW
	OSR60A3-202	Slide Rotary Switch	Speaker
C637~640	QEW41EA-106	Electrolytic	10μF 25V
C633~636	QEW41HA-335	"	3.3μF 50V
C653	QEW41EA-107	"	100μF 25V
C629~632	QFM41HK-102	Mylar Capacitor	0.001μF 1/2W

Resistor

Ref. No.	Parts No.	Parts Name	Description
R669	QRC121K-222	Composition	2.2KΩ 1/2W
R649~652	QRD141J-153	Carbon	15KΩ 1/4W
R645~648	QRD141J-223	"	22KΩ "
R643~644	QRD141J-224	"	220KΩ "
R653~660	QRD141J-332	"	3.3KΩ "
R639~606	QRD141J-394	"	390KΩ "
R635~638 R665~666	QRD141J-564	"	560KΩ "

TAE-100 EQUALIZER C.B.ASS'Y



Transistor

Ref. No.	Parts No.	Parts Name	Description	PC	fT
X405~408	2SC1312G	TRansistor	Mitsubishi	200mW	150MHz

Resistor

Ref. No.	Parts No.	Parts Name	Description
R453	QRC121K-100	Composition	10Ω 1/2W
R441,442	QRD141J-222	Carbon	2.2K 1/4W
R431,432	QRD141J-473	"	47KΩ "
R435,436	QRD141J-561	"	560Ω "
R439,440	QRD141J-562	"	5.6K "
R445,446 R427,428	QRD141J-563	"	56KΩ "
R443,444	QRD141J-682	"	6.8K "
R433,434	QRD141J-822	"	8.2K "
R429,430	QRD141J-824	"	820K "

Capacitor

Ref. No.	Parts No.	Parts Name	Description
C427,428	QCS11HJ-101	Ceramic	100pF 50V
C417,418	QEB41EM-335	L.L.C. Electrolytic	3.3μF 25V
C431,432	QEW41HA-335	Electrolytic	3.3μF 50V
C441	QEW41VA-227	"	220μF 35V
C429,430	QFM41HK-102	Mylar	0.001μF 50V
C423,424	QFM41HK-272	"	0.0027μF 50V
C419,420	QFM41HK-332	"	0.0033μF 50V
C425,426	QFM41HK-392	"	0.0039μF 50V

Others

Ref. No.	Parts No.	Parts Name	Description
L401~402	E03566-103	Ferri Inductor	10mH

TAC-357 LAMP C.B.ASS'Y

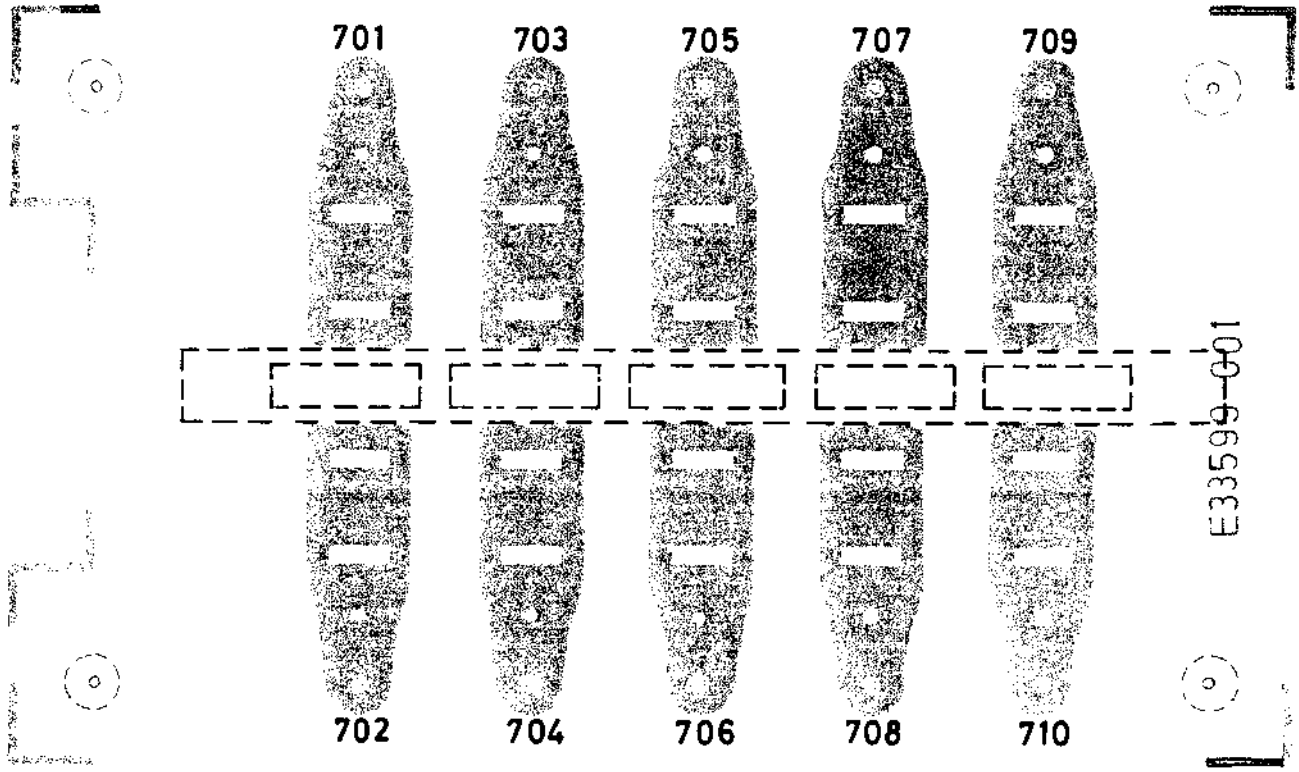
Resistor

Ref. No.	Parts No.	Parts Name	Description
R816	QRC121K-101	Comp. Resistor	100Ω 1/2W
R817	QRC121K-270	"	27Ω "
R821	QRC121K-681	"	680Ω "
R818,819	QRG021J-561	Oxide Metel Resistor	560Ω 2W

Others

Ref. No.	Parts No.	Parts Name	Description
	QLP3104-106	Mini Lamp	Stereo CD-4
	50689 UD	Pilot Lamp Socket	6V 35mA

TPS-4/4B FUSE C.B.ASS'Y



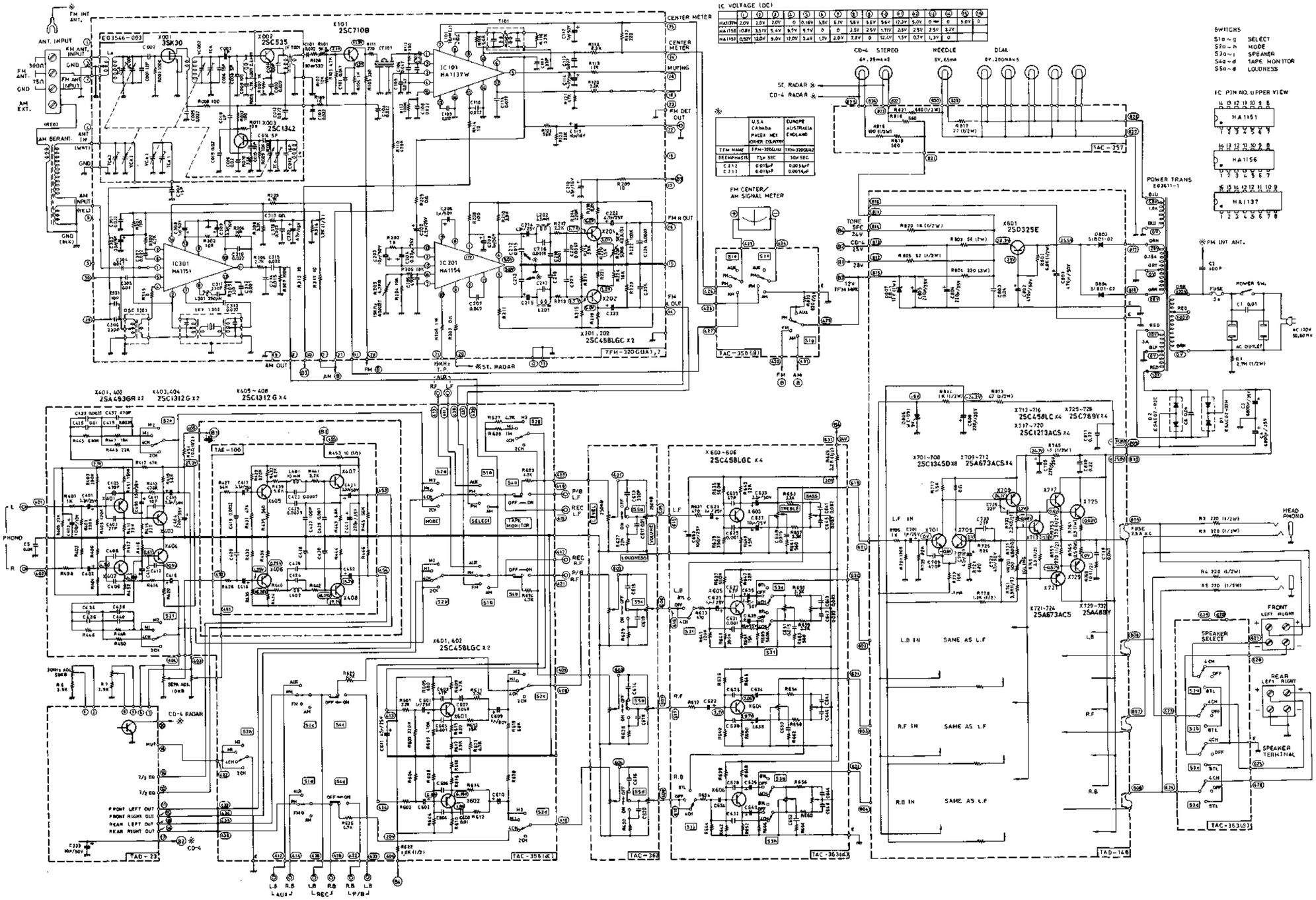
TPS-4

Ref. No.	Parts No.	Parts Name	Description
	E49035-011 QMF63R1-2R3 QMF63R1-R50	Fuse Label Fuse Fuse	 Pig tail "

TPS-4B

Ref. No.	Parts No.	Parts Name	Description
	E48965-002 E49035-012	Fuse Clip Fuse Label	

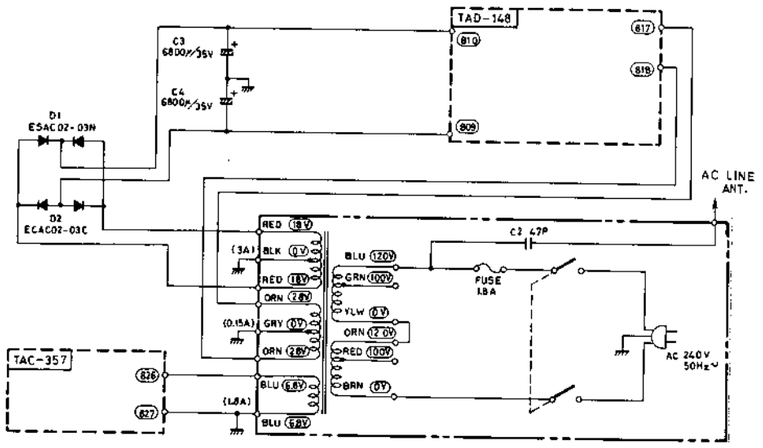
MODEL 4VR-5426X SCHEMATIC DIAGRAM



MODEL 4VR-5426X SCHEMATIC DIAGRAM

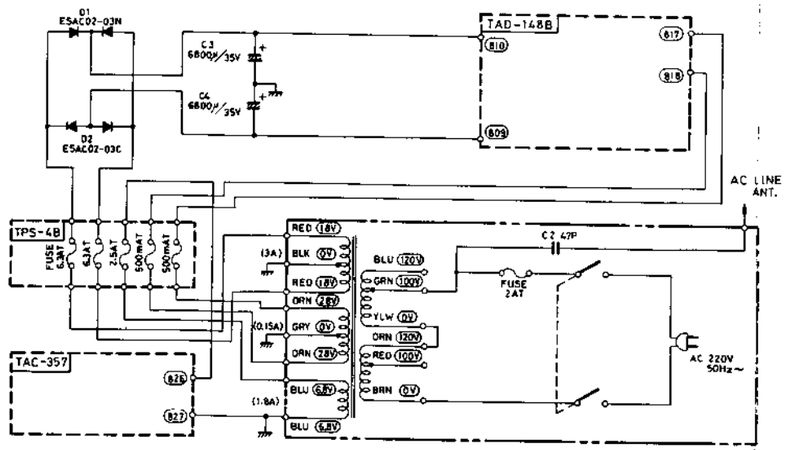
(A) FOR AUSTRALIA AND ENGLAND

- TUNER C.B ASS'Y TFM-320GUA2 50μSEC
- PRIMARY CIRCUIT



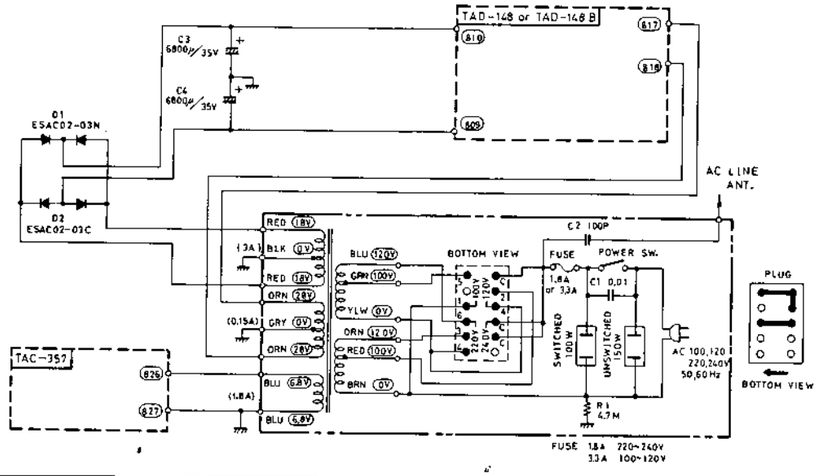
(E) FOR EUROPE

- TUNER C.B ASS'Y TFM-320GUA2 50μSEC
- PRIMARY CIRCUIT AND SECONDARY FUSES



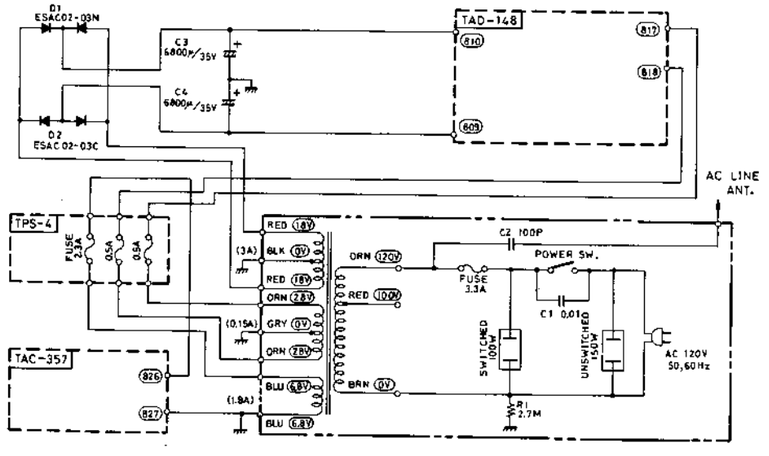
(F) FOR EUROPE
(P) FOR PACEX, NEX,
(U) FOR OTHER COUNTRIES

- TUNER C.B ASS'Y (P)(U) TFM-320GUA1 75μSEC
  (F) TFM-320GUA2 50μSEC
- PRIMARY CIRCUIT



(M) FOR CANADA

- TUNER C.B ASS'Y TFM-320GUA1 75μSEC
- PRIMARY CIRCUIT AND SECONDARY FUSES



PARTS LIST OF SPECIFIED NUMBERS FOR DESIGNATED AREAS

PARTS NAME	ORIGINAL (U.S.A.)	CANADA	EUROPE SEMKO, SEV	EUROPE EXCEPT SEMKO, SEV	AUSTRALIA and U.K.	PACEX, NEX	ALL OTHER COUNTRIES
POWER SWITCH	QSU1221-001	*	QSY2220-004	QSL1135-007	QSY2220-004	QSL1135-007	QSL1135-007
POWER TRANSF.	E03611-1	*	E03611-1B	E03611-1B	E03611-1B	E03611-1B	E03611-1B
VOLT SELECT SOCKET	–	–	–	QMC9004-001	–	QMC9004-001	QMC9004-001
VOLT SELECT PLUG	–	–	–	QMC9005-001	–	QMC9005-001	QMC9005-001
TUNER C.B. ASS'Y	TFM-320GUA1	*	TFM-320GUA2	TFM-320GUA2	TFM-320GUA2	*	*
POWER CORD	QMP1200-244	*	QMP3800-244 EO3544-001	QMP1200-244 EO3329-001	EO3551-002	*	*
POWER CORD STOPPER	E31704-003	*	*	*	E31704-002	*	*
CORD COVER	–	–	(SEMKO) E48663-001	–	E48251-001	–	–
ENVELOPE	–	–	E64203-073	–	–	–	–
POWER AMP C.B. ASSY	TAD-148	*	TAD-148B	*	*	*	*
FUSE HOLDER BOARD	–	–	QMG1321-002	QMG1121-001	–	QMG1121-001	QMG1121-001
FUSE	QMF66U1-3R0	QMF63R1-3R3	QMF51A2-2R0	QMF60R1-3R3 -1R8	QMF63R1-1R8	QMF60R1-3R3 QMF60R1-1R8	QMF60R1-3R3 QMF60R1-1R8
FUSE LABEL	E44777-002	E48200-005	E46264-006	E45314-004	E43716-005	E45314-004	E45314-004
TERMINAL LUG	–	–	E46310-003	–	E46310-003	–	–
FUSE C.B. ASS'Y	–	TPS-4	TPS-4B	–	–	–	–
FUSE Secondary	–	QMF63R1-2R3	QMF51A2-2R5	–	–	–	–
	–	QMF63R1-R50	QMF51A2-R50	–	–	–	–
	–		QMF51A2-6R3	–	–	–	–
FASTENER	–	E49414-001	E49414-001	–	–	–	–
WARNING LABEL	–	–	–	–	QZL1002-002	–	–
EARTH LABEL	–	–	–	–	E45358-001	–	–
CERAMIC CAPACITOR	QCZ9008-101	*	QCZ9003-007	*	*	*	*
RATING PLATE	E47330-124	E48761-045	E47330-128	E47330-126	E47330-129	E47330-127	E47330-126
FUSE SPEAKER	QMF60S1-2R5	*	QMF51A2-2R5	*	*	*	*
ACCESORIES							
CAUTION TAG	V40962-3	*	*	*	*	*	*
MATRIX TAG	E49036-002	*	*	*	*	*	*
RECORD	4DE-205	*	*	*	*	*	*
INSTRUCTION BOOK	E30580-464A –	* E30580-465A	* –	* –	* –	* –	* –
WARRANTY CARD	BT-20002C	BT-20008	–	–	–	E32980-002	–
FUSE	–	–	–	QMF60R1-3R3	–	QMF60R1-3R3	QMF60R1-3R3
	–	–	–	QMF60R1-1R8	–	QMF60R1-1R8	QMF60R1-1R8
FUSE LABEL	–	–	–	E7958-D	–	E7958-D	E7958-D
ENVELOPE (FUSE)	–	–	–	E64208-001	–	E64208-001	E64208-001

* Same as original (USA)
– Not used

JVC

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN

Pirnted in Japan