

SPECIFICATIONS

Whole specs are measured under the following conditions:

1. The supply voltage is 120 volts AC, 60Hz for USA & Canada; 240 volts AC, 50Hz for Australia from a regulated power supply.
2. All measurements shall be taken under IHF measurement method unless otherwise specified.
3. The power source must be insulated from other equipment, connected to antenna or output.
4. The room temperature is 77°F(25°C).

A. AM Section

- NOTES: 1. Output readings are taken across a non-reactive 47k ohm load termination.
 2. Output is measured at TAPE OUT terminals.
 3. The generator output shall terminate in an IRE loop antenna.
 4. Standard Modulation : 400 Hz, 30% modulation.

I t e m	Measured at (kHz)	Unit	Nominal	Limit
Frequency Coverage		kHz	510 - 1,650	520 - 1,620
Intermediate Frequency		kHz	455	
20dB Quieting Sensitivity	600/1000/1400	μV/m	250	500
S/N Ratio at 5mV/m input	1000	dB	43	37
Selectivity at S/N 20dB input, + 10kHz	1000	dB	28	22
Band width at 6dB down	1000	kHz	6	4.5 - 9
A.G.C. Figure of Merit	1000	dB	50	42
IF Rejection Ratio	600	dB	35	28
Image Rejection Ratio	1400	dB	45	38
T.H.D. at 5mV/m input 30% mod	1000	%	0.8	2.0
Overload Distortion at 100 mV/m input 80% mod	1000	%	4	8
Overload Capacity at 80% mod	1000	mV/m	200	100
Overload Capacity at 30% mod	1000	mV/m	200	100
Electrical Audio Fidelity				
Ref. freq. = 1kHz, -6dB down, 5mV/m input	1000	Hz	50 - 3K	80 - 2.5K
Whistle Modulation (2nd) at 1 mV/m	910	%	5	10
Whistle Modulation (2nd) at 5 mV/m	910	%	5	10
Whistle Modulation (2nd) at 50 mV/m	910	%	5	15
Whistle Modulation (2nd) at 100 mV/m	910	%	5	15
Whistle Modulation (3rd) at 1 mV/m	1365	%	5	10
Whistle Modulation (3rd) at 5 mV/m	1365	%	5	10
Whistle Modulation (3rd) at 50 mV/m	1365	%	5	10
Whistle Modulation (3rd) at 100 mV/m	1365	%	5	10
Frequency Calibration	600	kHz	---	+ 25
Frequency Calibration	1400	kHz	---	+ 50
Spurious Response from 1,650 - 30,000 kHz	1000	dB	50	44
Tapeout level, 5mV/m, RCA Jack at 1kHz	1000	mV	165	165 ± 2.5dB

The oscillator shall not drift more than 10kHz starting at 77 degrees F(25 degrees C), and through ranges up to 122 degrees F(50 degrees C), at 1000 kHz.
 Signal Meter Sens.

1st	1000	μV/m	400
3rd	1000	μV/m	1.1K
5th	1000	μV/m	25.1K

B. FM Section

- NOTES: 1. All items are measured at Tapeout terminals with 47 kohms terminated.
 2. The signal voltage in this specification is the voltage appearing across the tuner input terminals (IHF).
 3. Standard Modulation : 1000Hz, 75kHz deviation.

I t e m	Measured at (MHz)	Unit	Nominal	Limit
Frequency Coverage		MHz	87.4 - 108.3	87.4 - 108 ± 0.5 +0.9 -0
Intermediate Frequency		MHz	10.7	---
IHF (Useable) Sensitivity	90/98/106	µV	1.9	3.8
	90/98/106	dBf	10.8	16.82
50dB Quieting Sensitivity for USA and Canadian models	90/98/106	µV	3.0	4.5
	90/98/106	dBf	14.77	18.29
for Australian models	90/98/106	µV	3.5	5.6
	90/98/106	dBf	16.1	20.2
Limiting Sensitivity (-3dB)	98	µV	1.5	3.0
S/N Ratio at 1mV input "A"	98	dB	72	66
S/Hum, Noise Ratio at 1mV input	98	Hz	70	64
Muting Threshold	98	µV	5.5	3.5 - 9.0
Frequency Response + 2.5 dB Range, at 1mV input	98	Hz	30 - 12K	40 - 10K
Distortion at 1000 Hz at Quieting Sens.	98	%	0.5	
Distortion at 100 Hz at 1 mV input	98	%	0.25	
	98	%	0.1	0.4
	98	%	0.3	
Capture Ratio	98	dB	1.5	3.0
Alternate Channel Selectivity at input 100 µV	98	dB	53	45
Spurious Response Ratio	98	dB	65	55
Image Response Ratio	106	dB	60	50
IF Response Ratio	90	dB	90	70
AM Suppression at 100µV input	98	dB	58	52
AFC Hold Range at 100µV input	98	kHz		+ 300
Calibration Accuracy	90	kHz		+ 250
	98	kHz		+ 250
	106	kHz		+ 250
Tapeout Level, at RCA, 75K dev. 1mV input	98	mV	500	500 ± 2.5dB
Meter Sensitivity at 1st	98	µV	7.0	
	98	µV	35.5	
	98	µV	225.0	
Max Signal Handling	98	µV	200 K	
Temperature Range for satisfactory operation		degrees F	32 - 133	
		degrees C	0 - 45	
Frequency Range for Australia		MHz	87.4 - 109	87.4 - 108 ± 0.2
I.M.R. Ratio	98	dB	60	50
FM Auto Magic Range at 1mV	98	MHz	± 1.2	± 800K

C. FM MPX Section

- NOTES: 1. All items are measured at Tapeout terminals with 47 kohms terminated.
 2. The signal voltage in this specification is the voltage appearing across the tuner input terminals (IHF).
 3. Standard Modulation : Main carrier (L+R) 33.75 kHz (45%) dev.
 Sub carrier (L-R) 33.75 kHz (45%) dev.
 Pilot 6 kHz (8%) dev.
 Mod. Frequency 1000 Hz

I t e m	Measured at (MHz)	Unit	Nominal	Limit
Stereo Switch/Beacon (Muting)	98	μV	5.5	3.5 - 9.0
Threshold	98	dBf	20.0	16.1 - 24.3
Stereo 50dB Quieting	90/98/106	μV	42	
Sensitivity	90/98/106	dBf	37.7	
S/N Ratio, at 1mV input "A"	98	dB	65	55
Freq. Response	50 - 10,000 Hz	98 dB	+ 0	+ 2.5
at 1mV input	30 - 15,000 Hz	98 dB		
Stereo Distortion	at 100 Hz	98 %	0.4	
at 50dB Quieting Sens.	at 1 kHz	98 %	0.3	
	at 6 kHz	98 %	0.8	
Stereo Distortion	at 100 Hz	98 %	0.3	
at 1mV input	at 1 kHz	98 %	0.2	1.5
	at 6 kHz	98 %	0.6	
Stereo Separation	at 100 Hz	98 dB	38	28
at 1mV input	at 1 kHz	98 dB	48	33
	at 10 kHz	98 dB	32	25
Sub Carrier Product Rejection	98	dB	59	45
SCA Rejection	98	dB	50	45
Tapeout Level,	98	mV	450	450 ± 2.5dB
at 1 kHz, at 1mV input				

D. Audio Section

NOTE: All items are measured at Speaker terminals with non-reactive rated load (8 ohms) unless otherwise indicated. * Rated Power 60 W * Rated THD 0.08%

I t e m	Unit	Nominal	Limit
Power Output, from 20Hz to 20 kHz under Rated THD. Both channels driven 8 ohms load.	W	64	60
Input Impedance at 1kHz	PHONO CD/AUX TV/AUX TAPE IN	kohm kohm kohm kohm	50 50 50 50
Sensitivity for Rated Power	PHONO CD/AUX TV/AUX TAPE	mV mV mV mV	2.2 150 150 150
			2.2 ± 2.5dB 150 ± 2.5dB 150 ± 2.5dB 150 ± 2.5dB
Total Harmonic Distortion	at 20 Hz	%	0.05
from 20 Hz to 20 kHz,	at 1 kHz	%	0.04
at Rated Power	at 20 kHz	%	0.05
			0.08

Item	Unit	Nominal	Limit	
Max. Input Signal at Rated THD	PHONO	mV	160	130
(measured at Tapeout)	CD/AUX	mV	Infinite	
	TV/AUX	mV	Infinite	
	TAPE	mV	Infinite	
Frequency Response from 20 Hz to 20 kHz		+dB	0	2
S/N Ratio	PHONO	dB	70	
A-weighted	CD/AUX	dB	75	
1W Reference	TV/AUX	dB	75	
(IHF)	TAPE	dB	75	
A-weighted, Rated Power Reference				
PHONO 1 (10mV Input & Shorted)		dB	86	74
CD/AUX (Input Shorted)		dB	92	80
TV/AUX (Input Shorted)		dB	92	80
TAPE 1 (Input Shorted)		dB	92	80
Dynamic Headroom		dB	1.0	
Clipping Headroom		dB	2.5	
Damping Factor			45	
Loudness Control ch.	at 100 Hz	dB	+ 6	+6 + 2.5dB
	at 10 kHz	dB	+ 4.5	+4.5 + 2.5dB
Tone Control Response				
Bass Control Action	at 100 Hz	dB	+ 10	+ 10 + 2.5dB
Treble Control Action	at 10 kHz	dB	+ 10	+ 10 + 2.5dB
*Filter Subsonic	at 10 Hz, BASS MAX	dB	7	---
	ON/OFF difference			
High Filter at -3dB point		Hz	6K	6 ± 1.5K
*Filter Slope	High Filter	dB/oct	6.0	
Cross-talk at AUX	at 100 Hz	dB	68	
	at 1 kHz	dB	62	45
	at 10 kHz	dB	45	
A-weighted Cross-talk	at 100 Hz	dB	55	
at AUX	at 1 kHz	dB	55	
	at 10 kHz	dB	45	
IM Distortion (SMPTE) at rated Power		%	0.12	0.2
	at 1/2 rated Power	%	0.08	0.15
Transient Overload Recovery Time		msec.	5	
Slew Factor			3.5	
Channel Balance at VR Max.		dB	0	+ 1.5
DC Balance at No Signal and Output		mV	0	+ 50
Tapeout Level at RCA Jacks (47k ohms terminated)	PHONO (Input=2.35mV)	mV	140	140 + 3dB
	CD/AUX (Input=160 mV)	mV	140	140 + 3dB
	TV/AUX (Input=160 mV)	mV	140	140 + 3dB
Hum and Noise at VR Min.		mV	0.8	1.5
Phono Eq. (RIAA) ch. from 20 Hz to 20kHz		dB	+0.5	+2.0
(measured at Tapeout)				
LED Power Meter	at 1st LED	W	0.5	
	at 3rd LED	W	7.0	
	at 5th LED	W	80	
Power output, from 20Hz to 20kHz, under 0.15% T.H.D. Both channels driven 4 ohm load		W	65	60

* Refer to CHARACTERISTIC CURVES on page 9.

I t e m		Unit	Nominal	Limit
*Level Ratio at Main ch.				
at Expander VR Max.	L ch	dB	7.0	7.0 + 2.5 dB
(Ref. 1kHz=0dB at Expander off)	R ch	dB	8.2	8.2 + 2.5 dB
at Expander VR Min.	L ch	dB	3.2	3.2 + 2.5 dB
(Ref. 1kHz=0dB at Expander off)	R ch	dB	4.5	4.5 + 2.5 dB
*Level Ratio at opposite ch.				
at Expander VR Max.	L ch	dB	5.0	5.0 + 2.5 dB
(Ref. 1kHz=0dB at Expander off)	R ch	dB	6.0	6.0 + 2.5 dB
at Expander VR Min.	L ch	dB	1.0	1.0 + 2.5 dB
(Ref. 1kHz=0dB at Expander off)	R ch	dB	0	0 + 2.5 dB
Expander Noise Level				
Expander VR Max. Main VR Min.		mV	2	

* Refer to CHARACTERISTIC CURVES on next page.

Nominal specs represent the design specs; all units should be able to approximate these - some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; in no case should a unit perform to less than within any limit spec.

DISASSEMBLY INSTRUCTIONS

Please refer to the EXPLODED VIEW on pages 43 and 44.

A. To disassemble the top cabinet

Remove 2 screws **S1** each from the both sides of the cabinet.

Remove 3 screws **S2** from the upper back panel.

B. To disassemble the bottom cabinet

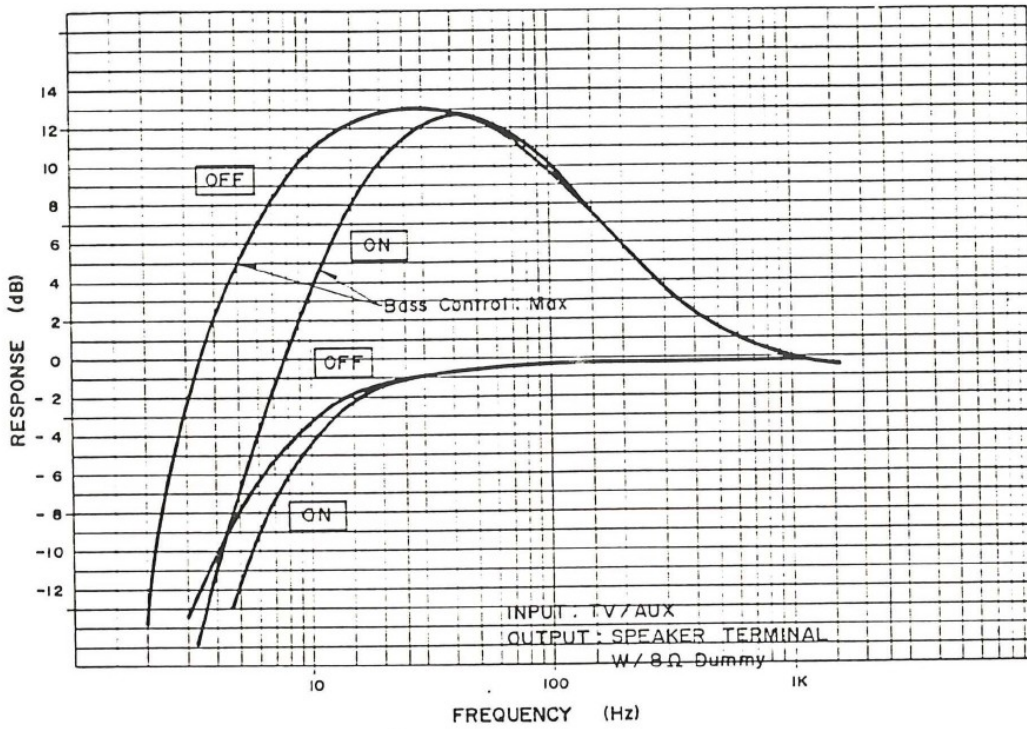
Turn the receiver upside down and remove 11 screws **S3** from the bottom cabinet.

C. To disassemble the front panel

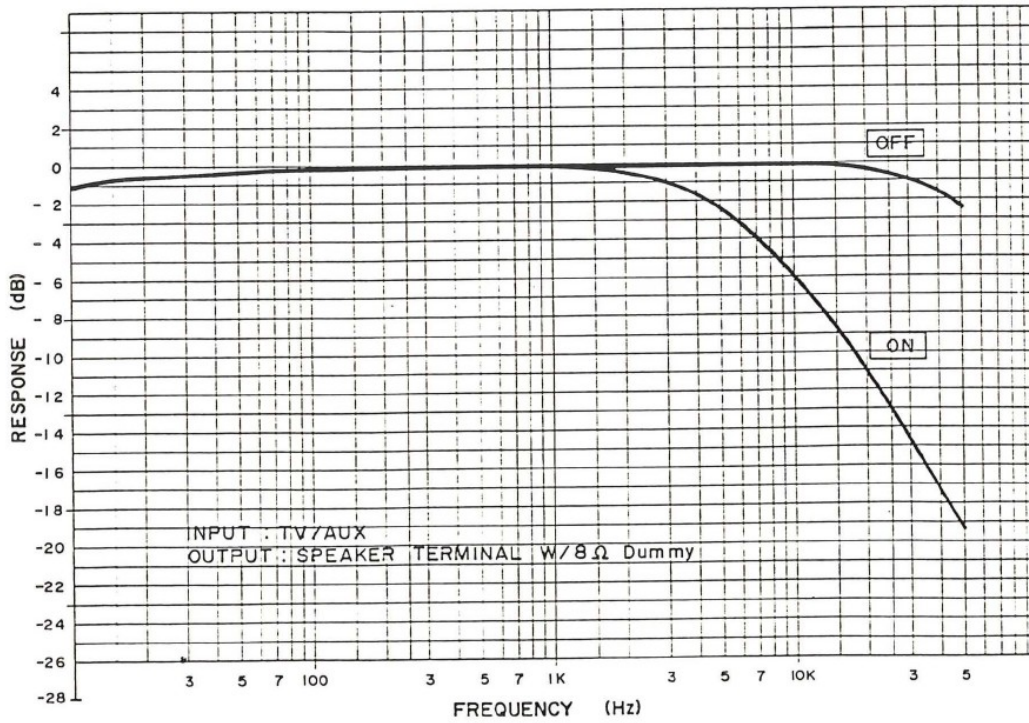
Remove 4 screws **S7** from the top and 3 screws **S3** from the bottom of the unit.

CHARACTERISTIC CURVES

A. Subsonic Filter (L ch.)

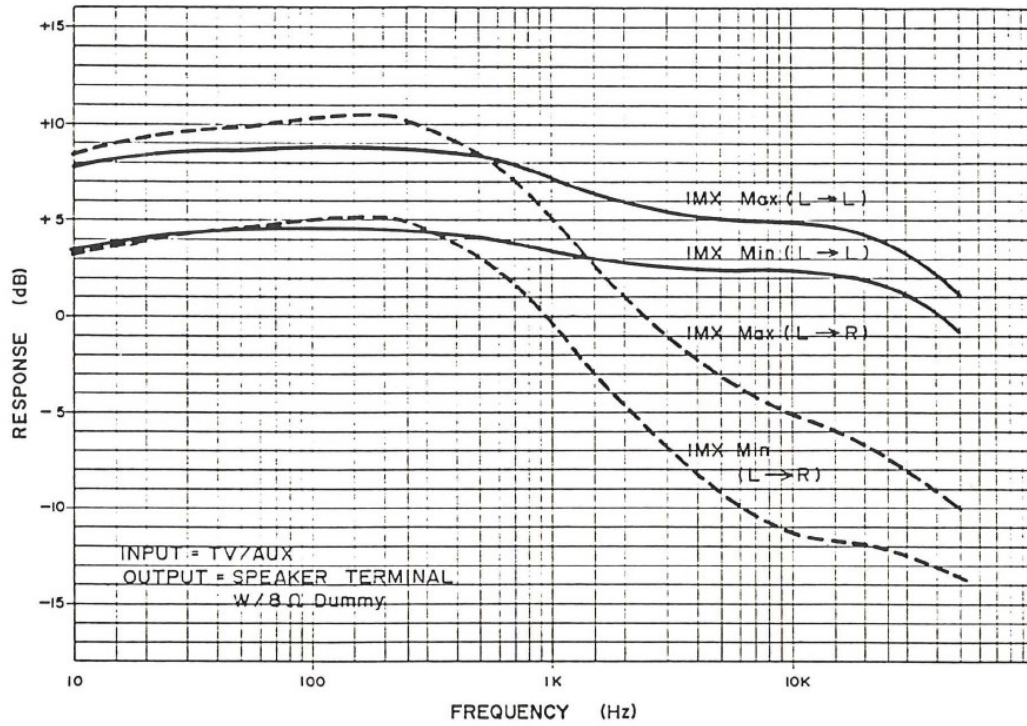


B. High Filter (L ch.)

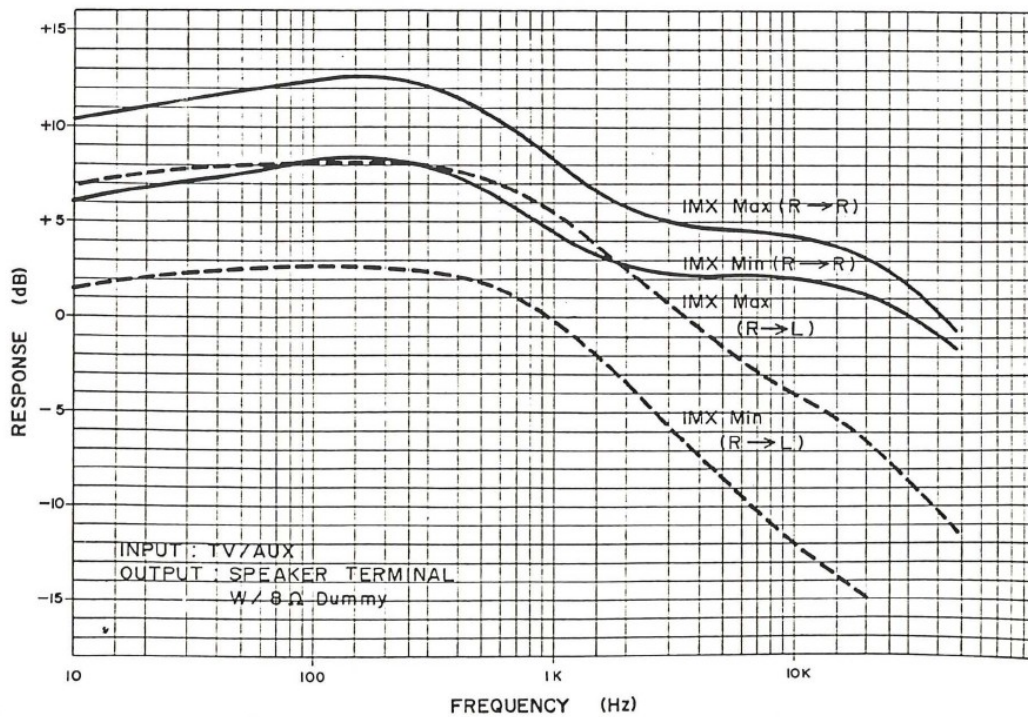


C. IMX Stereo Expander

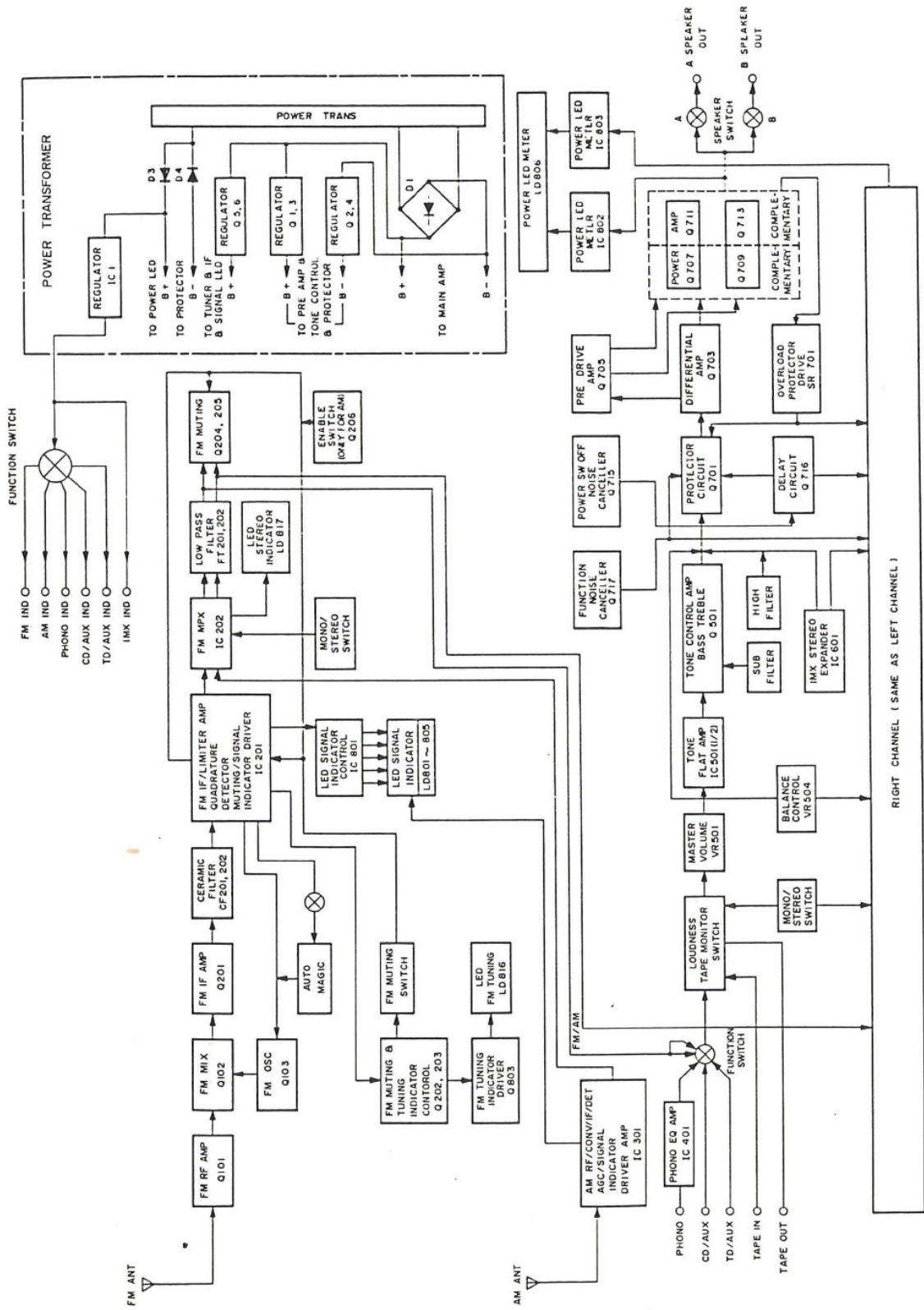
L ch



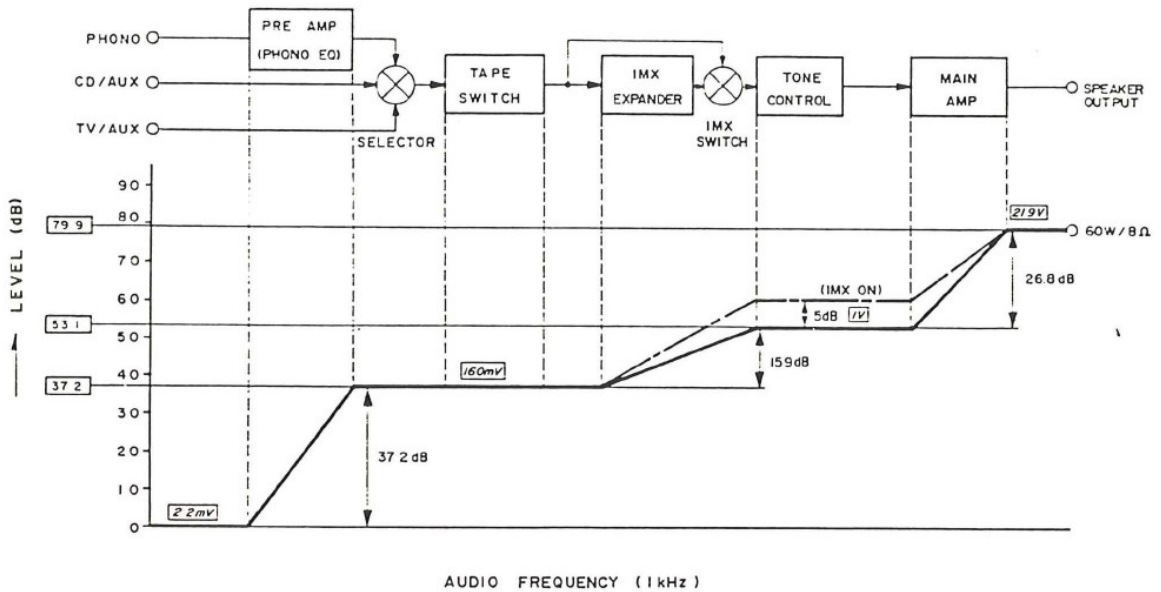
R ch



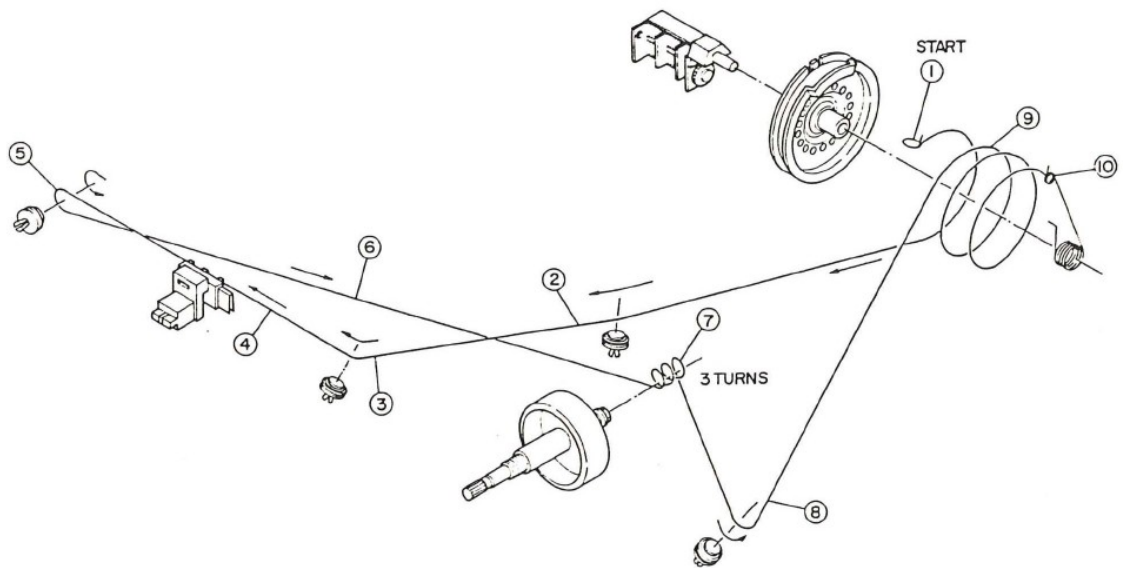
BLOCK DIAGRAM



LEVEL DIAGRAM



DIAL STRINGING DIAGRAM



When Stringing Dial:

- Start with capacitor set at maximum (plates fully closed).
- Pointer positions should be at low end.
- Start at dial drum (position ①).
- Finish at dial spring drum (position ⑩).

CIRCUIT DESCRIPTION

1) Speaker Protective Circuit

The Speaker Protective Circuit protects the Speakers from switching transients.

- The signal is provided to the Speaker Output Terminals by the functioning FETs Q701 (Left), and Q702 (Right) after a 5-second delay when the power switch is turned on.

With POWER Switch on, Transistor Q716 and FETs Q701, Q702 will turn on through a Time Constant circuit consisting of R752 and C723. (Refer to Figure 1.)

- When POWER Switch is off, C723 will be discharged by Q715 as it turns on; then Q716, Q701 and Q702 will turn off. (Refer to Figure 2.)

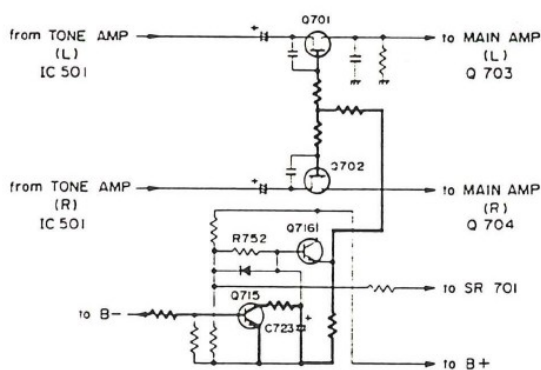


Figure 1

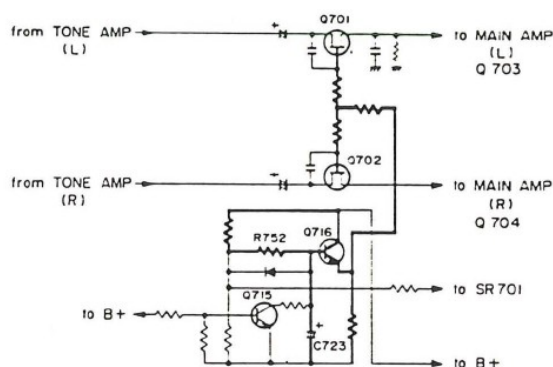


Figure 2

2) Muting Circuit

Together with Function Noise Canceller Q717 and Protector FETs Q701 (Lch)/Q702(Rch), a muting switch inside the Function Selector P.C.Board eliminates any switching noise when one of the Selector switches is pressed in.

For example, when the AM Selector Switch is pressed, the muting switch will make a momentary short circuit and turn Q717 on. This turns Q701 and Q702 off and the signal from the tone amp is shut-off and eliminates any switching noise. The Time Constant Circuit (C725 and R759) allows the cut-off condition to last for about 0.2-0.5 seconds.

Then C724 charges up and turns Q701, Q702 on again.

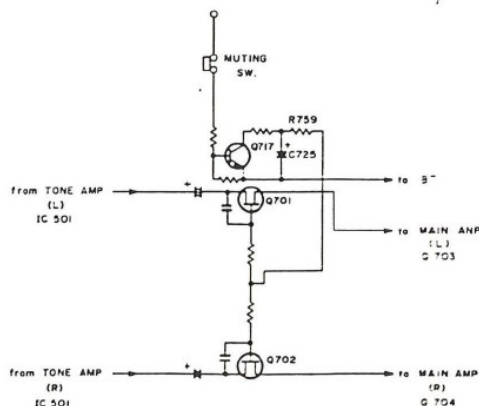


Figure 3

3) Main Amp Protective Circuit

The main Amp Protective Circuit protects the Main Amp Transistor circuit from excessively high current.

o If the speaker terminals are shorted, or the load impedance of one channel (Left or Right) is less than 4 ohms, an excessively high current flows from the emitter to the collector of Q713(L) (and Q714,R) and a voltage appears across R737(L) (and R736, R). This voltage goes to the gate of SR701 after being rectified by D705(L) (and D706, R). When the voltage between gate and cathode increases to about 0.7V, SR701 will be turned on. Then transistor Q716 and FETs Q701(L), Q702(R) will turn off and the signal will be shut off.

o Turn the unit off to reset the Protective Circuit and wait approximately 30 seconds. After the problem is corrected turn the Receiver on again.

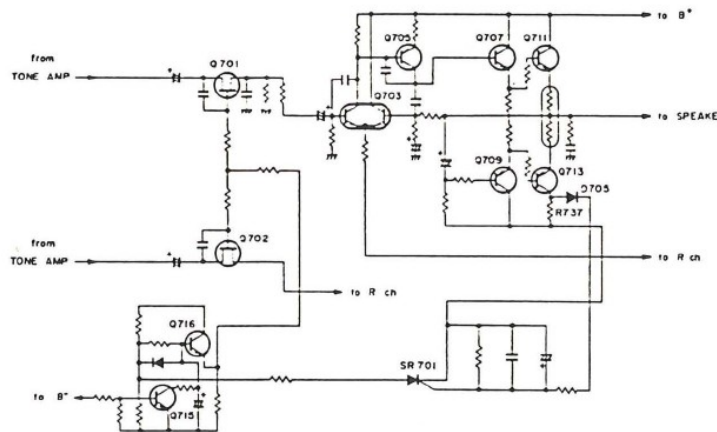


Figure 4

4) Abnormal Temperature Rise Protection

The STA-870 has two thermal protectors. If the temperature of the Main Amp Heat Sink rises to 239°F/115°C, or Power Transformer temperature rises to 212°F/100°C, the thermal protector switch makes an open circuit and the POWER SUPPLY will be cut off. This protects the Main Amp and Power Transformer. In this case, the amplifier automatically shuts down and output will drop to 0 V.

If this should occur, turn the unit off. When the temperature of the Main Amp Heat Sink falls to within the operating limits of the unit, the Thermal Protector switch will reset itself. When the problem cause is corrected, turn the Receiver on again. (Refer to Figure 5.)

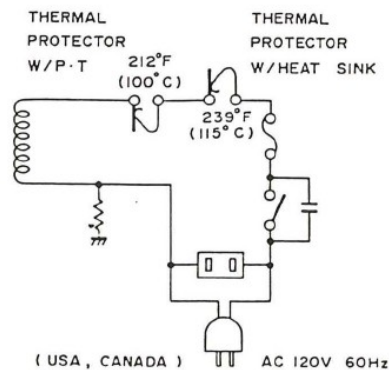


Figure 5

5) IMX Stereo Expander Circuit

The equivalent circuit block diagram Figure 6 shows you how the IMX Stereo Expander works and Figure 7 shows the components of each block.

The Low Frequency Phase Adjuster(A) is built out of IC601-a, C603, C605 and R601-R606. The L channel input signal to (A) is compensated for flat frequency response; and the lower the frequency is, the more the phase is shifted toward plus. The other Low Frequency Phase Adjuster (D), consisting of IC601-d, C606, C608, R610, and R617-R621, has the same characteristics as (A).

The output signal from (A) is provided to the Analysis and Image Enhancement Generator (C) which consists of IC601-c, C607, C617, R613 and R614. The generators (B) and (C) have slightly raised-up middle, lower frequency response and flat phase (0°).

Some portion of the output signal from (C) is provided to (B) in the R channel through VR505, Enhancement Control (signal L').

Some of the R channel input is provided to C in the L channel (signal R') and is output with the main channel signal (signal L). The rest of the R input is provided to (D) after it is mixed with signal L' at (B) -- signal R. The amount of the signals L' and R' are decided by VR505.

As a result, a different channel input signal R' (L') is provided to L (R) channel output with the main channel input signal L (R). These different channel signals create IMX Expander effect.

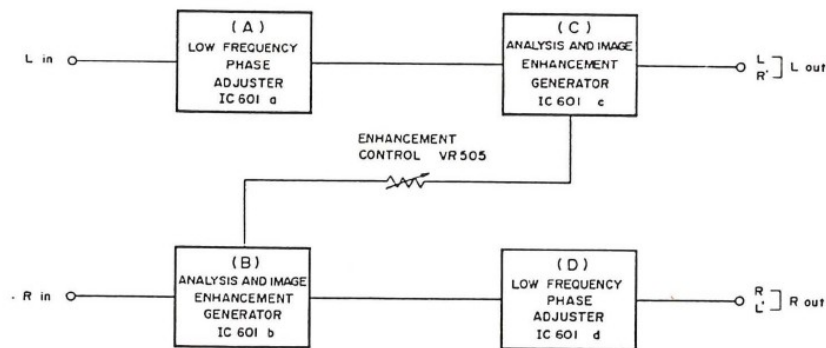


Figure 6

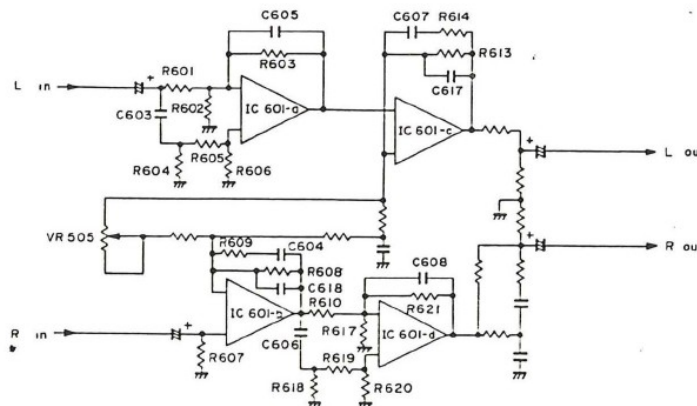


Figure 7

ALIGNMENT INSTRUCTIONS

A. AUDIO SECTION

<LIST OF TEST EQUIPMENT>

- Oscilloscope
- Audio oscillator
- AC Voltmeter (SSVM)
- DC Voltmeter

<GENERAL OPERATION>

- Maintain voltage at 120 volts AC, 60 Hz (U.S.A., Canada), 240 volts AC, 50 Hz (Australia).
- Refer to PCB illustration on page 22 for Adjustment/check points.
- Make aging for about 10 minutes before Alignment.
- Press CD/AUX selector switch.

No.	Alignment	Connection	Step	Gen. Freq.	Indicator	Adjustment
1	IDLING CURRENT	Figure 8	-	-	DC volt-meter	Check for 1.5-7mV reading with no input
2	CENTER	Figure 9	-	-	DC volt-meter	Check for ± 50 mV reading with no input
3	PROTECTOR CIRCUIT	Figure 10	a	1 kHz, 150 mV input	Oscilloscope	Adjust for 2W output at 4 and 8ohm load.
			b	Make short at SPEAKER terminal and check if protector circuit works properly.		
4	AUDIO MUTE	Check for speaker output 4-7 seconds after power switched on. Then check for no output just after power switched off.				



Figure 8

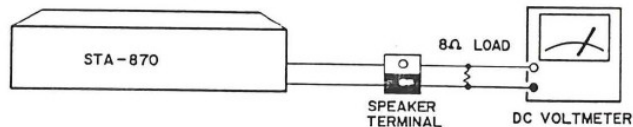


Figure 9

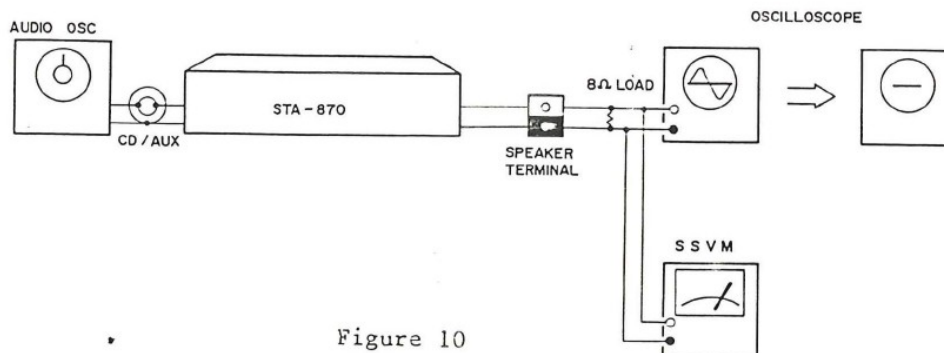


Figure 10

B. AM SECTION

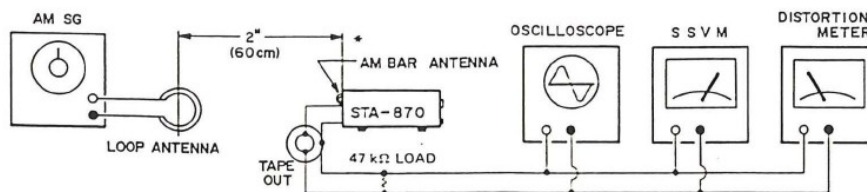
<LIST OF TEST EQUIPMENT>

- AM Standard Signal Generator (AM SG)
- AC Voltmeter (SSVM)
- Oscilloscope
- Loop Antenna
- Distortion Meter

<GENERAL PREPARATION>

- Connect standard loop antenna to AM standard signal generator (400 Hz, 30% mod.) and radiate signal into AM ferrite antenna L301. Connect oscilloscope, distortion meter and SSVM to TAPE OUT jack (47 kohm terminated).
- Press in AM selector switch.
- Rotate VOLUME to minimum.
- Set TONE and BALANCE controls at center.

No.	Alignment	Connection	Step	Gen. Freq.	Indicator	Adjustment	For	
1	IF	Figure 11	-	455 kHz	Oscilloscope	T302, T303 T304	Maximum symmetrical waveform in Figure 11.	
2	COVERAGE	Figure 11	a	510 kHz	SSVM	T301	Maximum reading	
			b	1650 kHz	SSVM	TC302	Maximum reading	
			c	Repeat steps 2-a and 2-b until no further improvement is noticed.				
			d	Check the coverage of at least 518 - 1630 kHz.				
3	TRACKING	Figure 11	a	600 kHz	DC voltmeter	L301 (AM ANT)	Maximum reading	
			b	1400 kHz	DC voltmeter	TC301	Maximum reading	
			c	Repeat steps 3-a and 3-b until no further improvement is noticed.				
4	TRACKING ERROR	Figure 11	a	1000 kHz (999 kHz)	SSVM	Check for tracking error at 1000 kHz--should be within 3 dB.		
5	SIGNAL METER	Figure 11	a	1000 kHz, 25.1 mV input	LED meter on set	VR301	5th LED should light.	
			b	1000 kHz, 400 μ V input	LED meter on set	—	1st LED should light.	



* Pull out the AM Bar Antenna, and adjust it to fit the polarization of the Loop Antenna.

Figure 11

C. FM SECTION

<LIST OF TEST EQUIPMENT>

- FM Standard Signal Generator
- AC Voltmeter (SSVM)
- Oscilloscope
- Distortion Meter

<GENERAL PREPARATION>

- Connect FM standard SG (1000 Hz, 75 kHz dev. Distortion should be less than 0.1%) to FM 300 ohm antenna terminal. Connect oscilloscope, distortion meter and SSVM to TAPE OUT jack (47 kohm terminated).
- Press in FM selector switch.
- Set VOLUME to minimum, TONE and BALANCE controls at center.

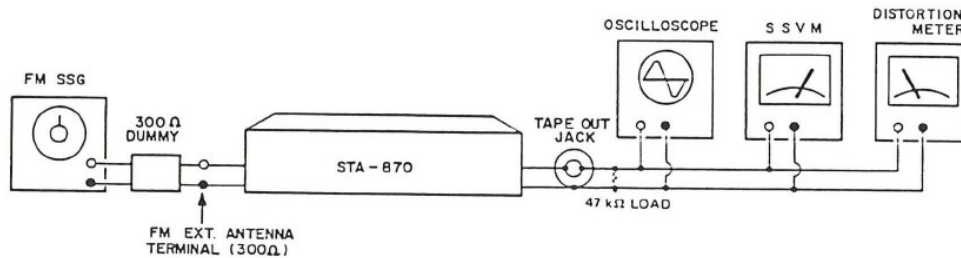


Figure 12

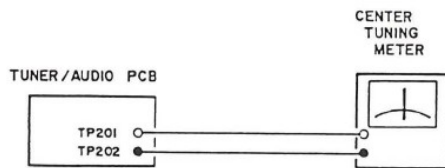


Figure 13

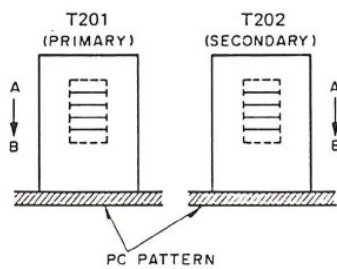


Figure 14

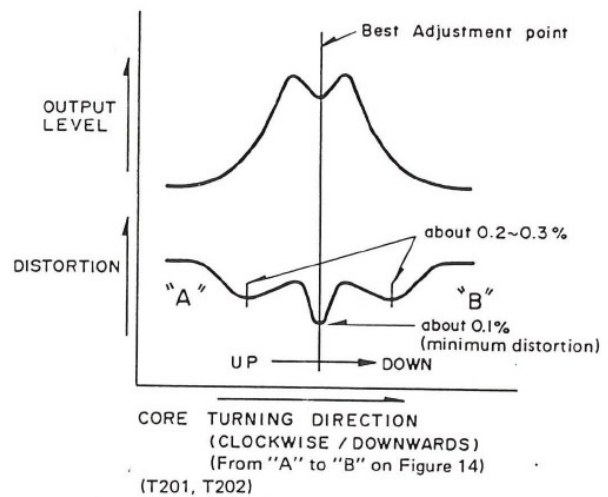


Figure 15

No.	Alignment	Connection	Step	Gen. Freq.	Indicator	Adjustment	For	
1	IF	Figure 12	a	98MHz, 2-4 μ V input	SSVM	T101	Maximum reading	
			b	98MHz, no input	Center Tuning meter	T201 (Primary)	Maximum point "0"	
		Figures 12/13	c	98 MHz, 1mV input	Distortion meter	T202 (Secondary)	Minimum distortion (less than 0.1%)	
			d	Repeat steps 1-a and 1-b until no further improvement is noticed. Refer to Figures 14 and 15.				
2	COVERAGE	Figure 12	a	87.4MHz, 1mV input	SSVM	L105	Maximum reading	
			b	108.3MHz, 1mV input	SSVM	VC103 (TC103)	Maximum reading	
			c	Repeat steps 2-a and 2-b until no further improvement is noticed.				
3	TRACKING	Figure 12	a	90 MHz, 2-4 μ V input	SSVM	L101, L103	Maximum reading	
			b	106 MHz, 2-4 μ V input	SSVM	TC101, TC102	Maximum reading	
			c	Repeat steps 3-a and 3-b until no further improvement is noticed.				
			d	Readjust IF (steps 1-a and 1-c).				
4	FM MUTE	Figure 12	a	After pressing in the FM MUTE switch, adjust VR201 to open the FM Mute Circuit (sound alive) with 6.3 μ V input.				
			b	With 4 μ V - 9 μ V input, check MUTE on - off condition.				
5	SIGNAL LED METER	Figure 12	a	98 MHz, 225 μ V input	LED meter on set	VR202	5th LED should light	
			b	98 MHz, 5.6-17.8 μ V input	LED meter on set	—	1st LED should light	

D. FM MPX SECTION

<LIST OF TEST EQUIPMENT>

- FM Stereo SG
Modulation Level of 19 kHz
Pilot Signal..8%
- FM Signal Generator
Output Level..1 mV
Frequency.....Approx. 98 MHz
Deviation.....67.5 kHz, 90%
- AC Voltmeter (SSVM)
- Oscilloscope
- Distortion Meter
- Frequency Counter

<GENERAL PREPARATION>

- Connect FM stereo SG (1000 Hz, 67.5 kHz dev., 8% Pilot) through FM standard SG to 300 ohm antenna terminal.
- Connect oscilloscope, distortion meter and SSVM to TAPE OUT jack (47 kohm terminated).
- Press in FM selection switch.
- Press out MONO switch (stereo position).
- Rotate VOLUME to minimum.

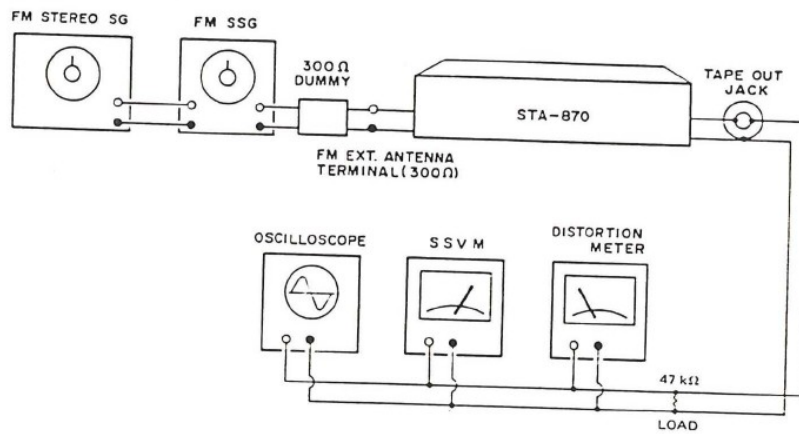


Figure 16

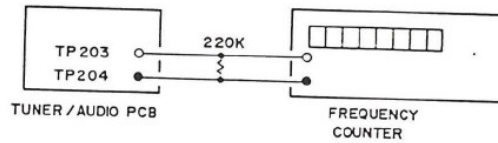
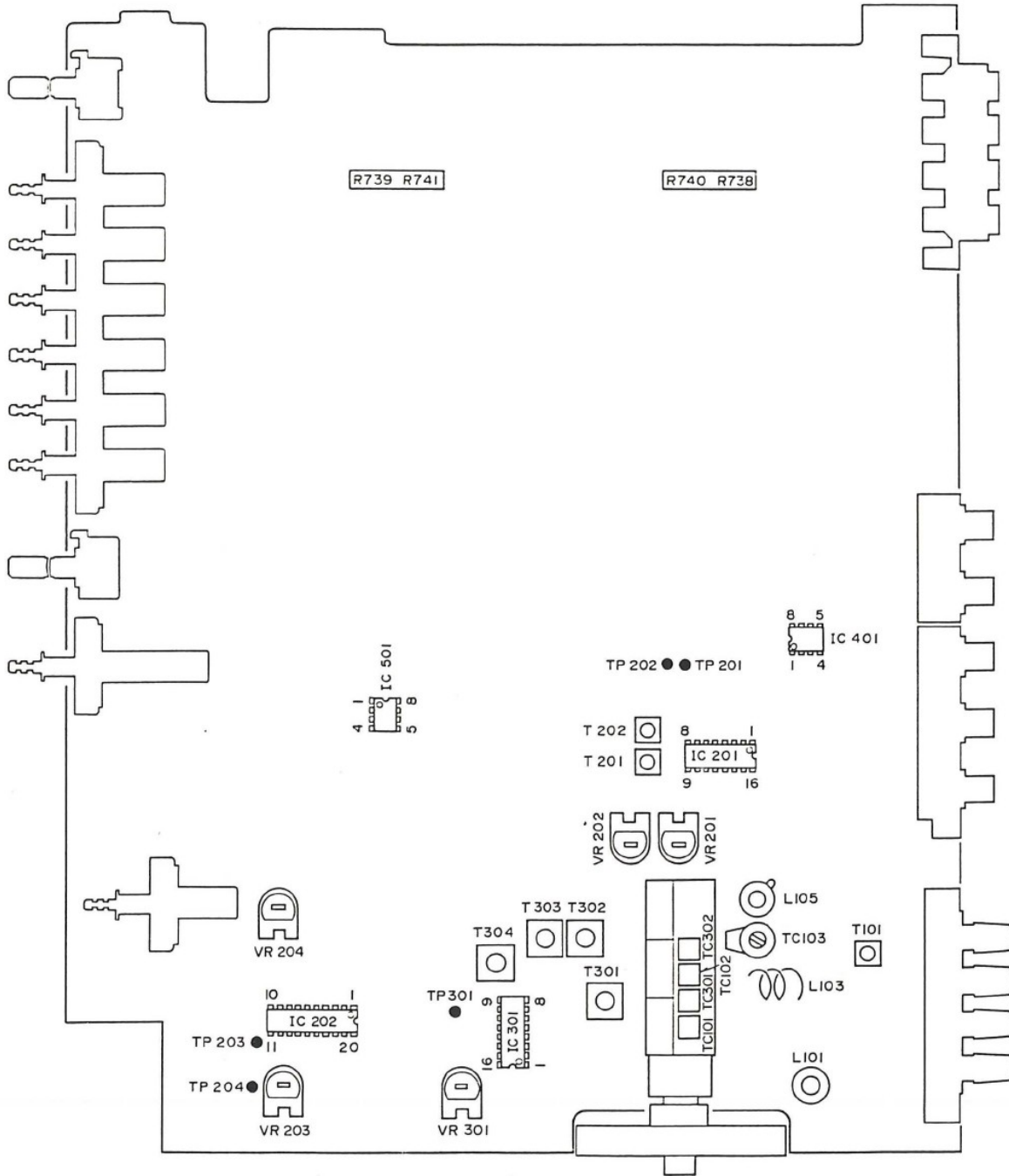


Figure 17

No.	Alignment	Connection	Step	Stereo Modulation	Indicator	Adjustment	For
1	MPX	Figures 16/17	a	Set FM SG to MONO mode. Input 1 mV at 98 MHz, then cut the deviation.			
			b	MONO 1 kHz (1000 Hz, No Mod) 1 mV input	Frequency Counter	VR203	19 kHz + 50 Hz - 50 Hz
			c	Disconnect counter and 220K resistor and get PILOT on STEREO SG to "ON" -- the STEREO LED on unit should light.			
2	SEPARATION	Figure 16	a	Composite MPX Signal 1 kHz on LEFT channel only	SSVM (connected to TAPE OUT jack of R ch)	VR204	Minimum reading
			b	Composite MPX Signal 1 kHz on RIGHT channel only	SSVM (connected to TAPE OUT jack of L ch)	VR204	Minimum reading
			c	Repeat steps 2-a and 2-b until AC voltmeter reading is at least -33 dB (i.e. 33 dB separation).			
3	DISTORTION	Figure 16	—	Composite MPX Signal 1 kHz	Distortion Meter	With 1 mV antenna input, stereo distortion should be less than 1.0%.	
4	STEREO LED	Figure 16	—	Composite MPX Signal 1 kHz	STEREO LED on unit	With 4 - 8 μ V input, the LED should light.	

E. PCB ILLUSTRATION for Adjustment/Check point



TUNER/AUDIO PCB

TROUBLESHOOTING

SYMPTOM	CAUSE/REMEDY
1) No output	(1) Faulty AC power cord. Replace. (2) Defective POWER switch. Replace. (3) Broken wire in the power transformer. Replace. (4) Blown primary fuse (F1) or F2. Replace. (5) Defective component(s) in the power supply circuit. Replace the defective component(s).
2) Blow fuse	(1) Defective rectifier D1. Replace. (2) Short-circuit in the rectifier circuit. Remove the short. (3) Short-circuit in the power transistor circuitry. Remove the short.
3) Speakers do not work	(1) A/B Speaker switches defective. Replace. (2) Poor contact in speaker output terminals. Repair or replace.
4) No output from one channel, with VOLUME at maximum and BALANCE at center, when a test signal is applied to the terminal of the non-operating channel of the BALANCE control VR504	(1) Defective IC or transistor(s) in TONE and MAIN AMP circuit. Replace the defective part(s). (2) Defective resistor or capacitor of TONE and MAIN AMP circuits. Replace the defective part(s).
5) No output when a test signal is applied to the input terminals except PHONO input	(1) Defective SELECTOR push switches. Repair or replace. (2) Defective MONO-Stereo switch. Repair or replace.
6) No output when a test signal is applied to the PHONO input terminals	(1) Defective resistor or capacitor of PRE AMP circuit. Replace the defective part(s). (2) Defective SELECTOR push switches. Repair or replace. (3) Defective IC401. Replace. (4) Defective MONO-Stereo switch. Repair or replace.

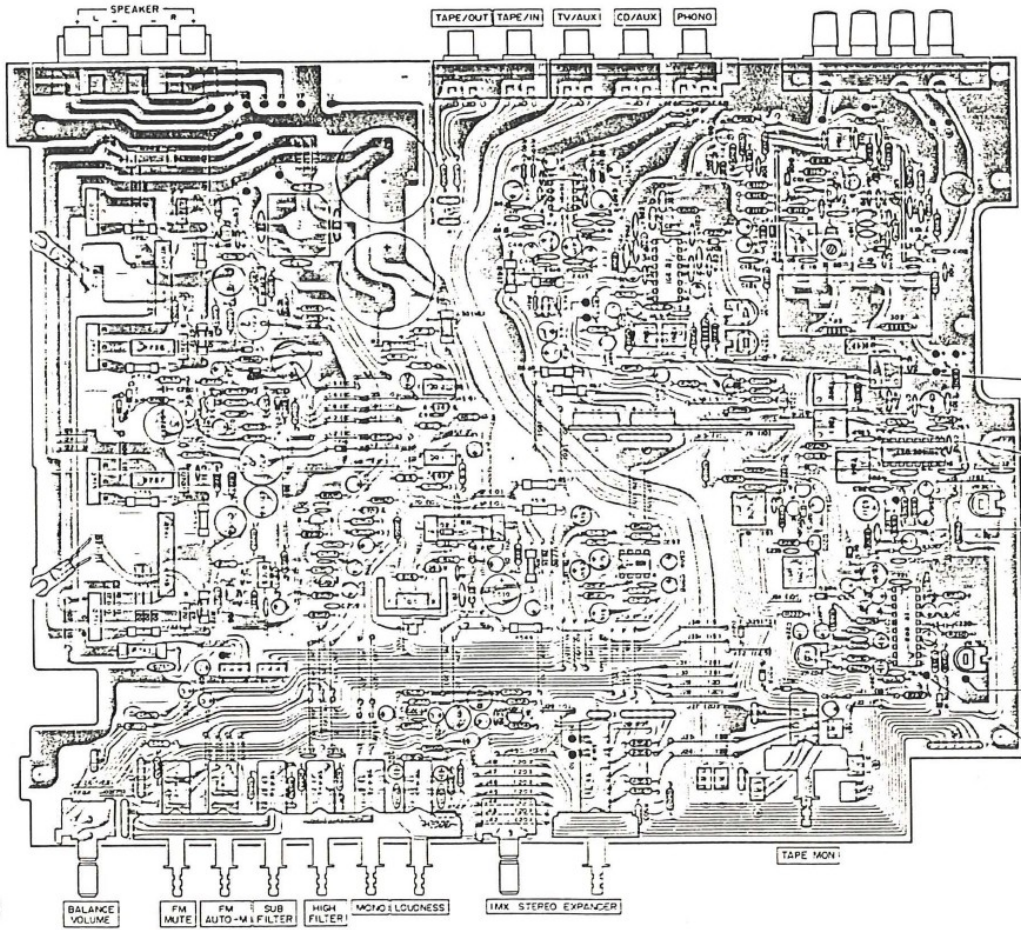
SYMPTOM	CAUSE/REMEDY
7) DC not balanced within +50mV at output of L/R channel	(1) Defective Q703, Q705 (L) or Q704, Q706 (R). Replace the defective transistor(s). (2) Improper value for R713, R719 (L) or R712, R718 (R). Select suitable value resistors.
8) Speaker works normally but headphones do not work	(1) Defective R761 (L) or R760 (R). Replace the defective resistor(s). (2) Headphone plug does not mate with jack. Replace the plug.
9) All the inputs work normally except TV/AUX input	(1) Poor contact in TV/AUX input jack. Repair or replace. (2) Poor contact in TV/AUX selector switch. Repair or replace.
10) All the inputs work normally except CD/AUX input	(1) Poor contact in CD/AUX input jack. Repair or replace. (2) Poor contact in CD/AUX selector switch. Repair or replace.
11) PHONO input inoperative	(1) Poor contact in PHONO input jack. Repair or replace. (2) Poor contact in PHONO selector switch. Repair or replace.
12) No AM or FM (Tuner B+ voltage is not 13 V)	(1) Broken secondary winding in the power transformer. Replace. (2) Defective D1. Replace. (3) Faulty Decoupling capacitor C5 or C6. Replace. (4) Faulty resistor R11 or R12. Replace. (5) Defective Q5 or Q6. Replace. (6) Short-circuit in tuner B+ circuit. Repair the short. (7) Poor contact in SELECTOR push switch. Repair or replace.

SYMPTOM	CAUSE/REMEDY
13) No FM	(1) Poor contact in SELECTOR push switch. Repair or replace. (2) Defective component(s) in FM IF circuit. Replace the defective component(s). (3) FM front end defective. Replace. (4) Faulty FM antenna lead-in/circuitry. Replace the defective component(s).
14) No AM	(1) Poor contact in SELECTOR push switch. Repair or replace. (2) IC301 defective. Replace. (3) Bar-antenna coil defective. Repair or replace. (4) Defective AM RF/IF Circuit component(s). Replace the defective component(s).
15) No FM MPX separation	(1) Improper adjustment in VR203, VR204. Readjust. (2) IC202 defective. Replace. (3) VR203, VR204 defective. Replace.
16) FM MUTE not effective	(1) Defective FM MUTE switch. Repair or replace. (2) Defective Q202 or Q203. Replace. (3) Defective Trimmer resistor VR201. Replace. (4) Defective IC201. Replace.
17) IMX Stereo Expander has no effect	(1) Defective IMX Stereo Expander switch. Repair or replace. (2) Defective IC601. Replace. (3) Defective component(s) in Expander circuit. Replace the defective component(s).
18) POWER LED Meter does not work	(1) Defective POWER LED Meter L and/or R. Replace. (2) Defective component(s) in meter circuit. Replace the defective component(s). (3) Defective IC802 or IC803. Replace the defective IC(s).

SYMPTOM	CAUSE/REMEDY
19) AM/FM signal meter not functioning	(1) Defective LED(s) in signal meter. Replace the defective part(s). (2) In FM reception, IC201, D201, D202, VR202 defective. Replace the defective part(s). (3) In AM reception, IC301, VR301 defective. Replace the defective part(s).
20) TAPE OUT inoperative	Poor contact in TAPE OUT jack. Repair or replace.
21) TAPE IN inoperative	Poor contact in TAPE IN jack. Repair or replace.
22) Protector circuit does not work	(1) Defective Q701, Q702, Q715, Q716 or SR701. Replace the defective part(s). (2) Defective D705 (R), D706 (L). Replace.
23) No STEREO light or FM stereo does not work	(1) Broken STEREO indicator LED LD817. Replace. (2) Defective IC202 of FM MPX circuit. Replace. (3) VR203 defective or misadjusted. Readjust or replace.
24) TUNED LED not functioning	(1) Defective LD816. Replace. (2) Improper adjustment of T201, T202. Readjust.
25) LOUDNESS has no effect	(1) Defective LOUDNESS switch. Repair or replace. (2) Defective LOUDNESS circuit component. Replace the defective component(s).
26) TAPE MONitor does not operate	(1) Defective TAPE MONitor switch. Repair or replace.
27) BASS has no effect	(1) Faulty VR503. Replace. (2) Defective BASS circuit component. Replace the defective component(s).
28) TREBLE has no effect	(1) Faulty VR502. Replace. (2) Defective TREBLE circuit component. Replace the defective component(s).

SYMPTOM	CAUSE/REMEDY
29) SUB FILTER has no effect	(1) Defective SUB FILTER switch. Repair or replace. (2) Defective C517, C518 in Sub Filter circuit. Replace.
30) HIGH FILTER has no effect	(1) Defective HIGH FILTER switch. Repair or replace. (2) Defective C537, C538, R551 or R552 in High Filter circuit. Replace the defective part(s).
31) Function Mute has no effect	(1) Defective function switch. Repair or replace. (2) Defective Q701, Q702 or Q717. Replace the defective part(s).
32) Power On/Off Mute has no effect	(1) Defective Q703, Q704, Q705, Q706. Replace the defective part(s). (2) Defective Q701, Q706. Replace. (3) Defective capacitor(s), resistor(s) in power On/Off mute circuit. Replace the defective part(s).

MEMO



TOP VIEW

PCB VIEWS (Top & Bottom Views)

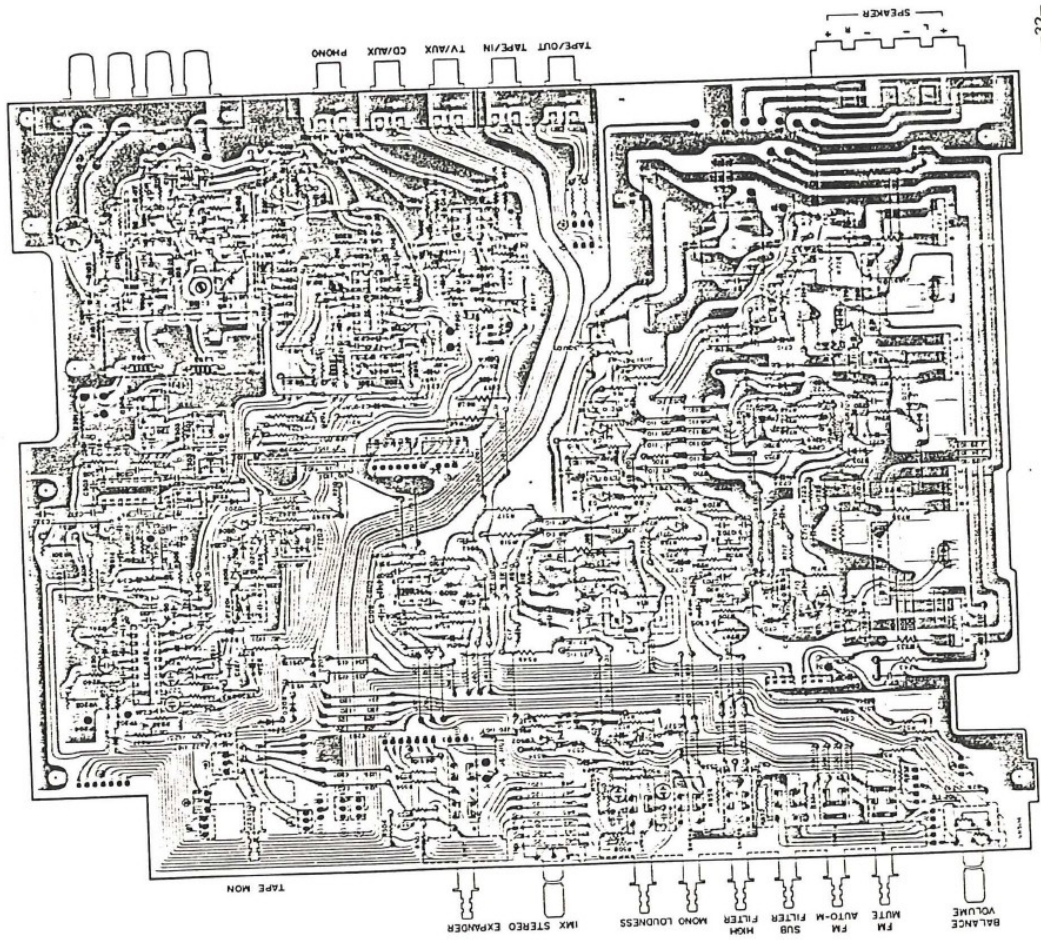
TUNER/AUDIO PCB

[1P202] [1P201] [1P200]

[1P203] [1P204] [1P205]

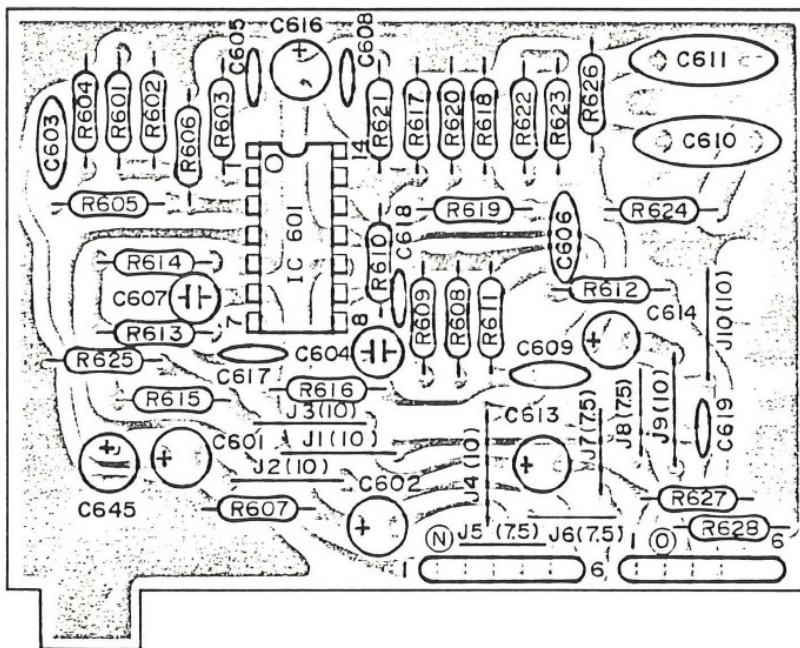
TUNER/AUDIO PCB

BOTTOM VIEW

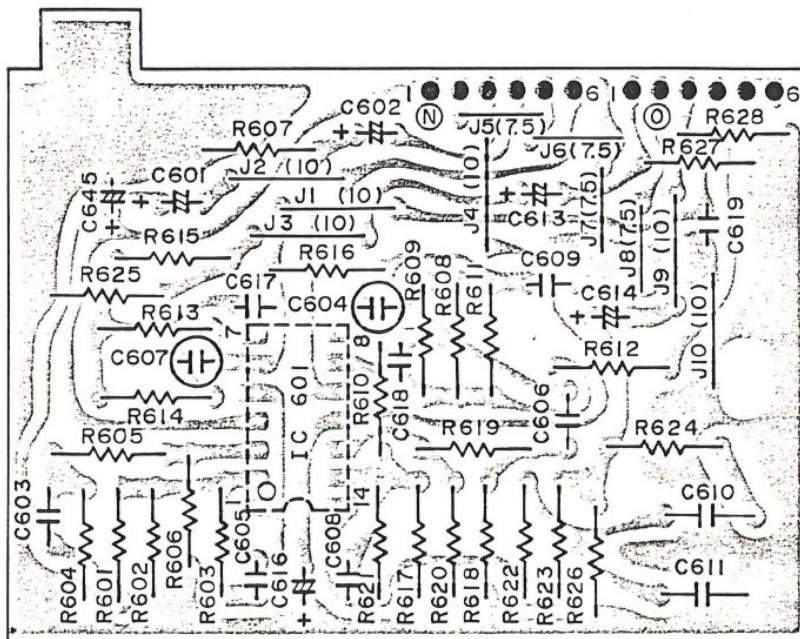


EXPANDER PCB

TOP VIEW

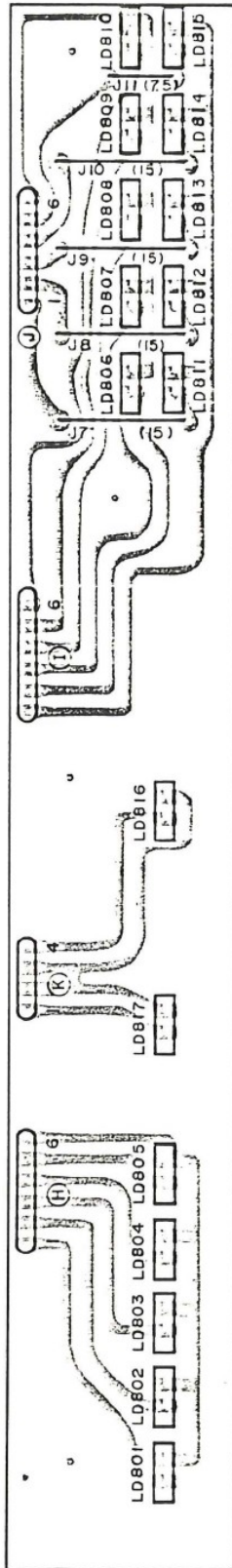


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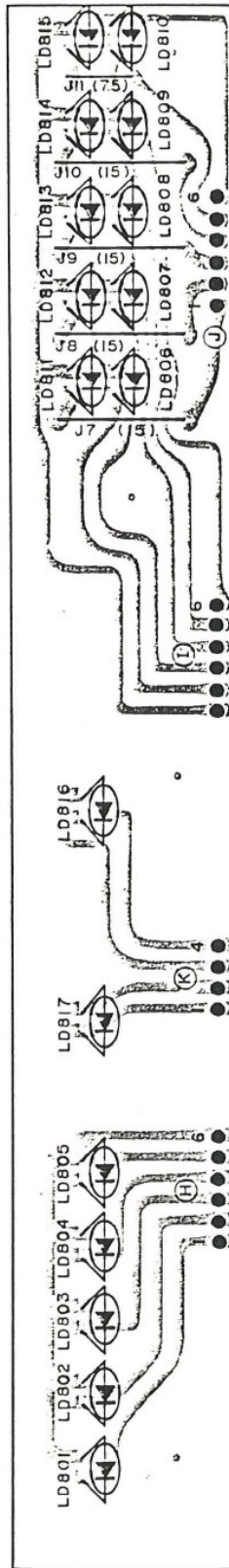


LED PCB (A)

TOP VIEW

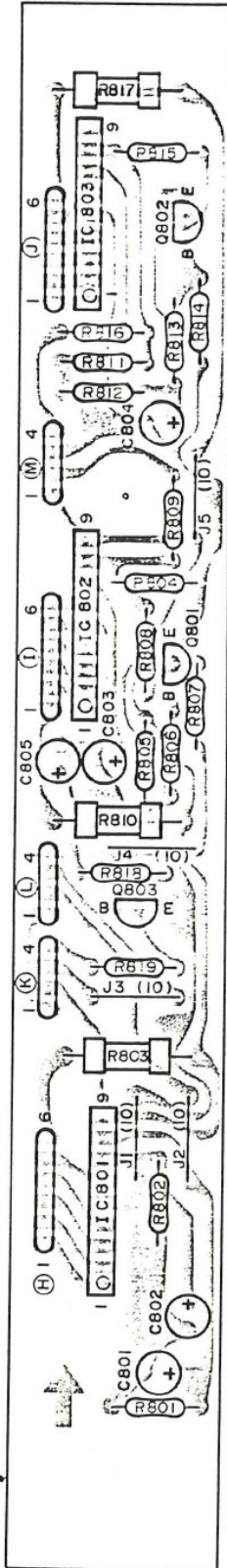


BOTTOM VIEW

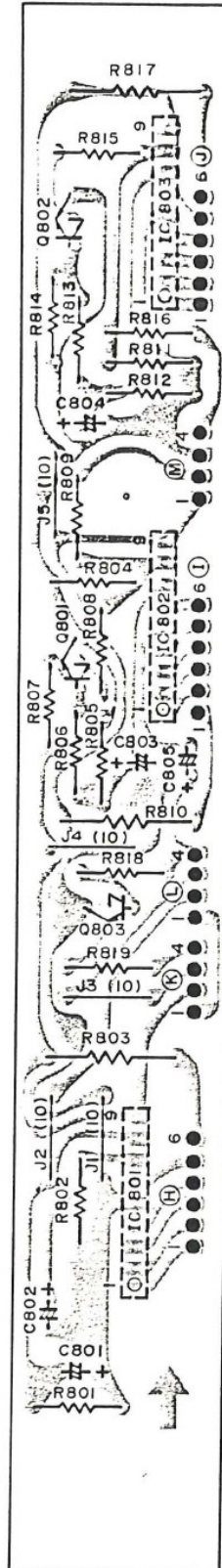


LED PCB (B)

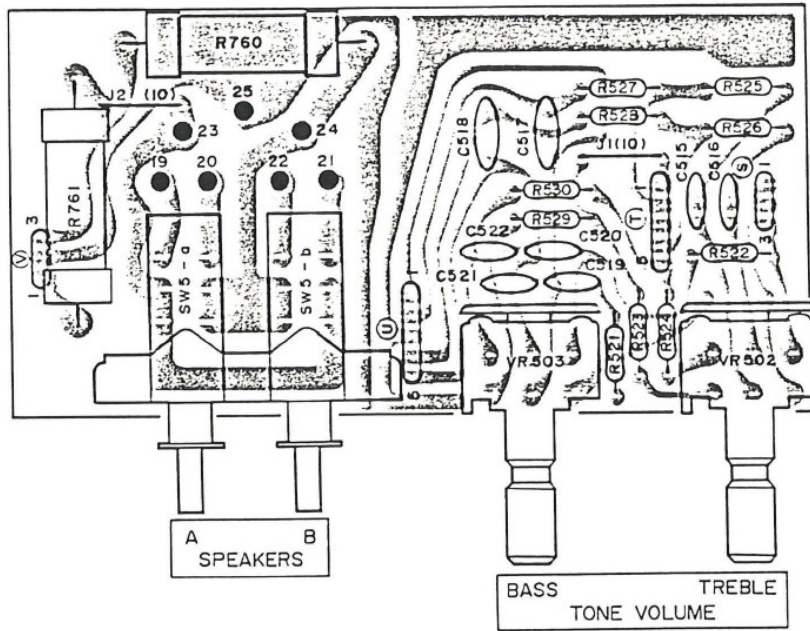
TOP VIEW



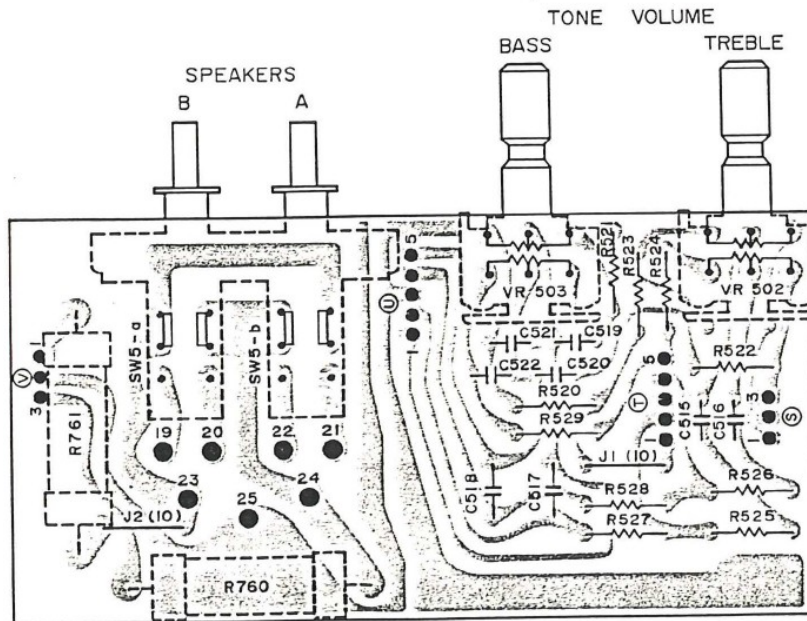
BOTTOM VIEW



TONE SW PCB
TOP VIEW

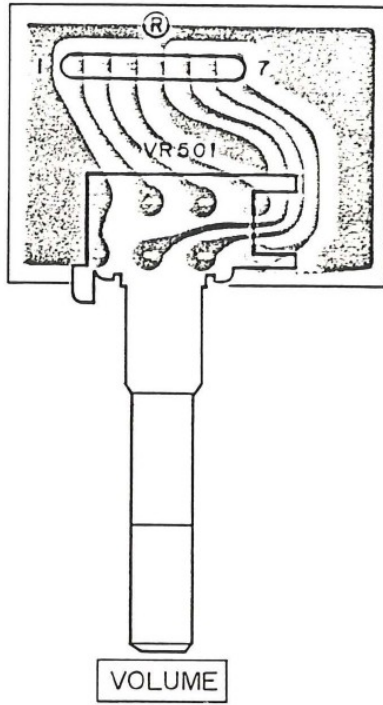


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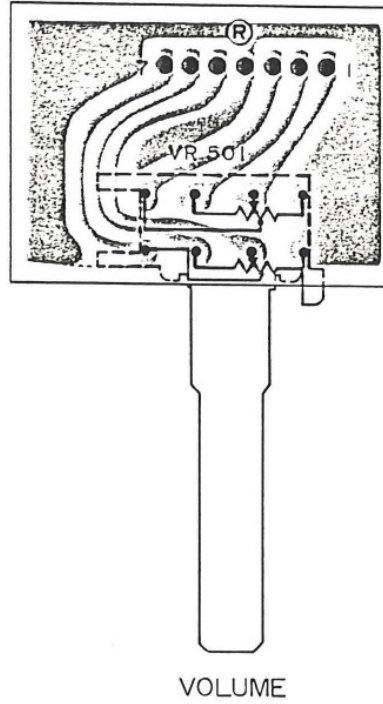


VOLUME PCB

TOP VIEW

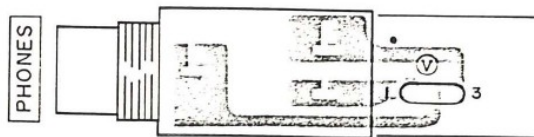


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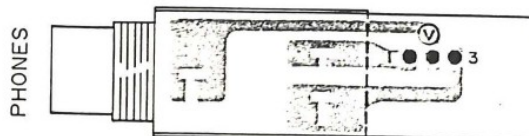


PHONE PCB

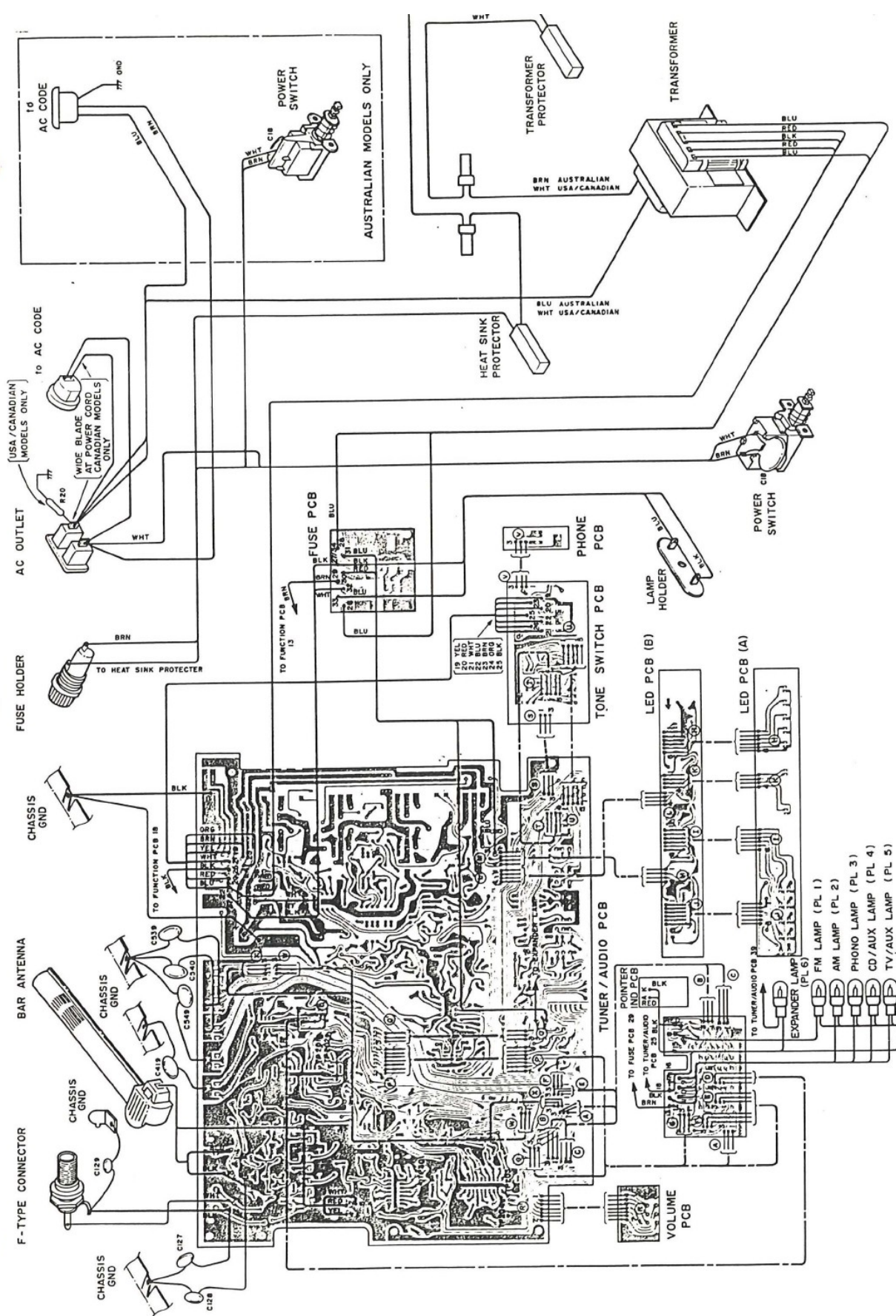
TOP VIEW

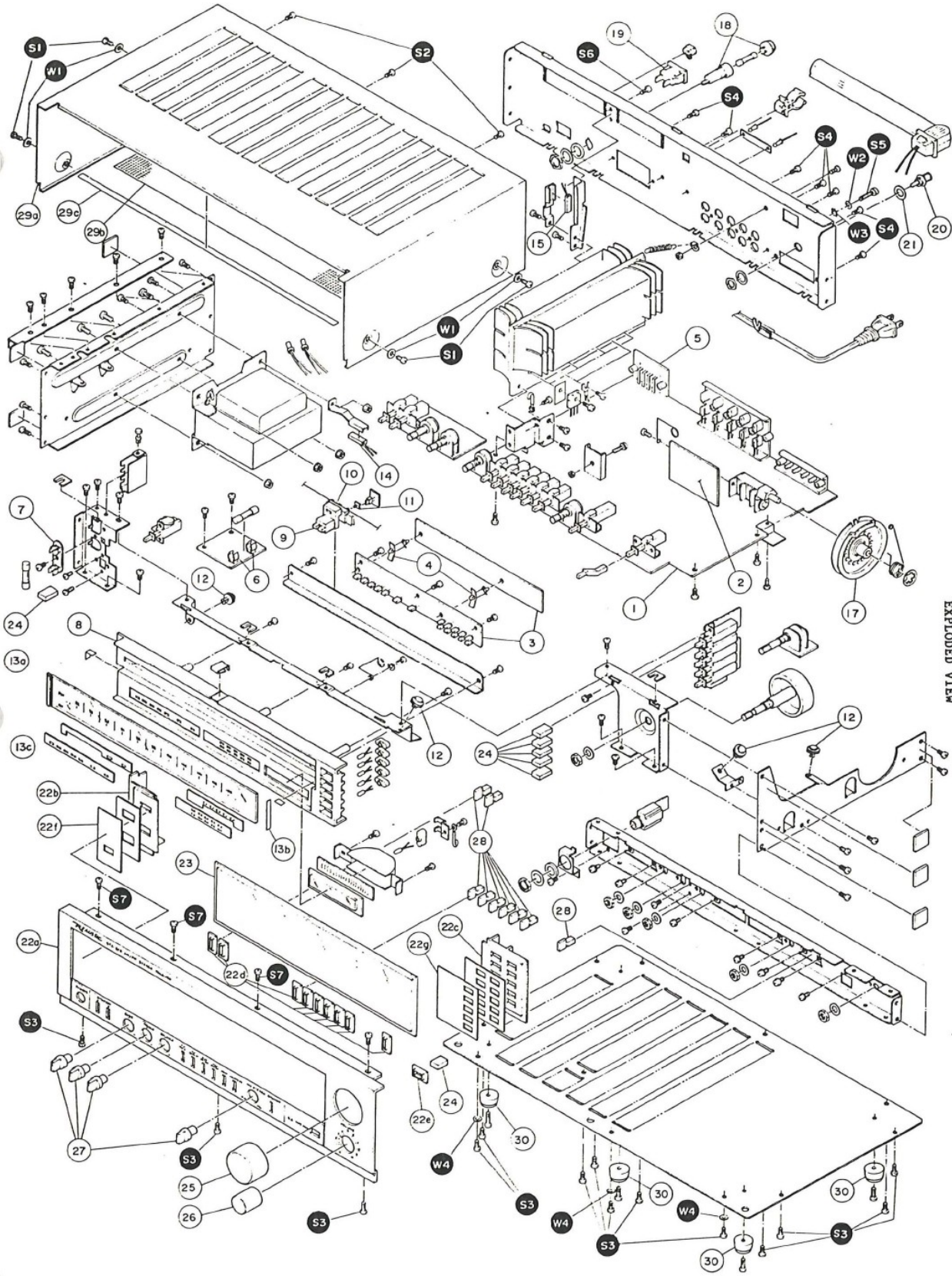


BOTTOM VIEW



WIRING DIAGRAM





EXPLODED VIEW

TRANSISTOR LEAD IDENTIFICATION

Note: The reference numbers without parentheses are used principally. Those with parentheses are used supplementary.

	2SD325 (Q1)
	2SB511 (Q2)

	3SK74 (Q101)
--	--------------

	2SC2258 (Q703, 704)
--	---------------------

	2SA473 (Q2)
	2SA985 (Q2)
	KTC1173 (Q1)
	2SC2275 (Q1, (6))
	2SD313 (Q5)
	2SD526 (Q5)

	2SC2786 (Q102), (103)
--	-----------------------

	2SA1145 (Q705, 706)
--	---------------------

	2SC2787 (Q201)
--	----------------

	2SC3182 (Q711, 712)
	2SA1265 (Q713, 714)

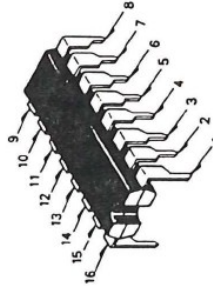
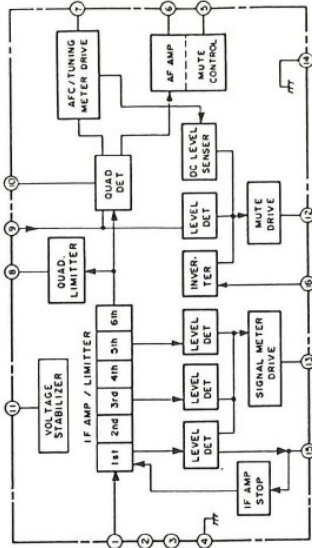
	2SA659 (Q4)
	2SA991 (Q4)
	KTA1015 (Q4)
	2SC536 (Q202-206)
	2SC930 (Q201)
	2SC1175 (Q3, 6)
	2SC1674 (Q102, 103)
	2SC1675 (Q201)
	2SC1840 (Q202-206)
	KTK246 (Q701), (702)
	2SC1844 (Q3), (6)
	2SC1845 (Q501, 502, 715, 717)
	2SC2362 (Q715-717)
	KTC1815 (Q3), (6), 801-803)

	KTK30ATM (Q701, 702)
	KTK246 (Q701), (702)
	2SK105 (Q701), (702)
	2SK246 (Q701), (702)

	2SC3421 (Q707, 708)
	2SA1358 (Q709, 710)

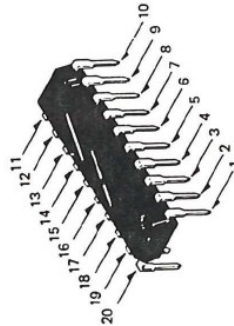
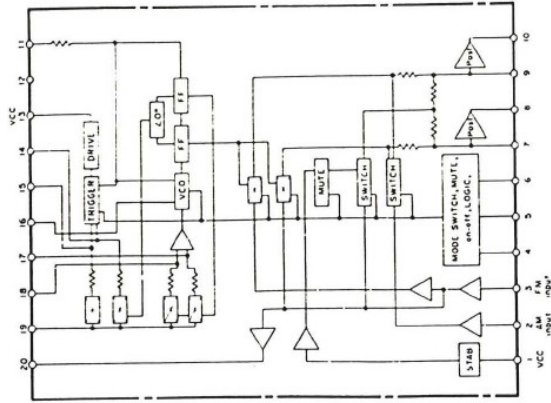
IC LEAD IDENTIFICATION & INTERNAL DIAGRAM

IC201...LA1232

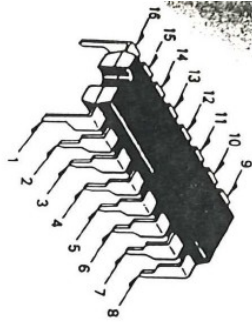


IC202...LA3390

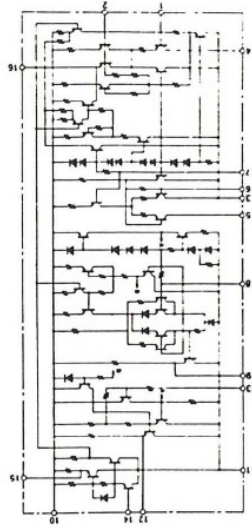
Block Diagram



IC301...LA1240



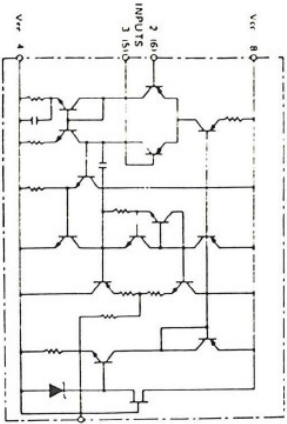
Equivalent Circuit Diagram



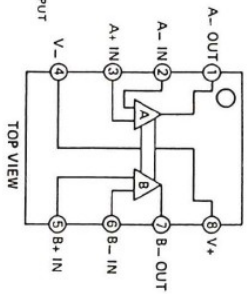
IC401, IC501...LA6458D(X) or NJM4558D(X) or TL4558P(B)



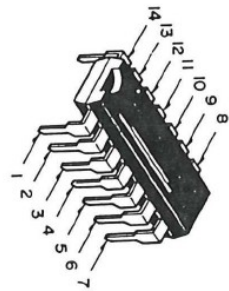
Equivalent Circuit Diagram



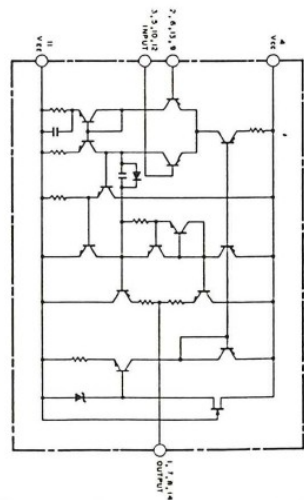
Pin Configuration



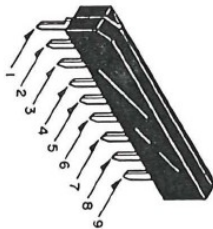
IC601...NJM2060D



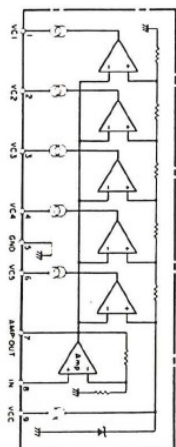
Equivalent Circuit Diagram



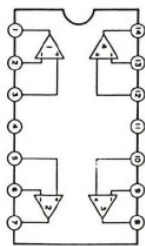
IC801...LB1423
IC802, IC803...LB1443



Equivalent Circuit Diagram



Block Diagram



ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a Δ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice of this service manual. Don't degrade the safety of the product through improper servicing.

Capacitors					
Ref. No.	Description			RS Part No.	Mfr's Part No.
C1	Ceramic	0.047 μ F	100V+80-20%	CC-473ZLCP	CKJPN473Z*
C2	Ceramic	0.047 μ F	100V+80-20%	CC-473ZLCP	CKJPN473Z*
C3	Ceramic	0.047 μ F	100V+80-20%	CC-473ZLCP	CKJPN473Z*
C4	Ceramic	0.047 μ F	100V+80-20%	CC-473ZLCP	CKJPN473Z*
Δ C5	Electrolytic	10000 μ F	50V +-20%	CC-109MJAP	CEA3KA01ME or CEA3KA02MT
Δ C6	Electrolytic	10000 μ F	50V +-20%	CC-109MJAP	CEA3KA01ME or CEA3KA02MT
C7	Electrolytic	10 μ F	35V +-20%	CC-106MGAP	CEACJ106M*
C8	Electrolytic	10 μ F	35V +-20%	CC-106MGAP	CEACJ106M*
C9	Ceramic SL	22pF	50V +-5%	CF-1878	CCJVK220J**
C10	Electrolytic	10 μ F	35V +-20%	CC-106MGAP	CEACJ106M*
C11	Electrolytic	10 μ F	25V +-20%	CC-106MFAP	CEACI106M*
C12	Ceramic	1000pF	50V+80-20%	CC-102ZJCP	CKJPK102Z*
C13	Electrolytic	470 μ F	16V +-20%	CC-477MDAP	CEACG477M*
C14	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C15	Ceramic	0.047 μ F	50V+80-20%	CC-473ZJCP	CKJPK473Z*
C16	Not used				
C17	Electrolytic	100 μ F	16V +-20%		CEACG107M*
Δ C18	Line Pass	0.01 μ F	AC400V	CF-1358	CLUCE10090
C19	Ceramic	0.022 μ F	50V+80-20%		CKJPK223Z*
C101	Ceramic NPO	12pF	50V +-5%	CF-1180	CCJBK120J*
C102	Ceramic SL	100pF	50V +-5%	CF-2426	CCJVK101J*
C103	Ceramic SL	100pF	50V +-5%	CF-2426	CCJVK101J*
C104	Ceramic	1000pF	50V+80-20%	CC-102ZJCP	CKJPK102Z*
C105	Ceramic	0.01 μ F	50V+80-20%	CC-103ZJCP	CKJPK103Z*
C106	Ceramic	0.01 μ F	50V+80-20%	CC-103ZJCP	CKJPK103Z*
C107	Ceramic SL	15pF	50V +-5%	CF-1189	CCJVK150J*
C108	Ceramic SL	10pF	50V+-0.5pF	CF-1141	CCJVK100D*
C109	Ceramic SL	8pF	50V+-0.25pF		CCJVK8R0C*
C110	Ceramic NPO	18pF	50V +-5%		CCJBK180J*
C111	Ceramic	150pF	50V +-5%		CCJVK151J*
C112	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C113	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C114	Ceramic	0.01 μ F	50V+80-20%	CC-103ZJCP	CKJPK103Z*
C115	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C116	Ceramic	15pF	50V +-5%	CC-150JJCP	CCJPK150J*
C117	Ceramic NPO	1pF	50V+-0.25pF	CF-1010	CCJBK1R0C*
C118	Ceramic NPO	12pF	50V +-5%	CF-1180	CCJBK120J*
C119	Ceramic NPO	10pF	50V+-0.5pF	CF-7006	CCJBK100D*
C120	Ceramic NPO	15pF	50V +-5%	CF-1188	CCJBK150J*
C121	Ceramic NPO	18pF	50V +-5%	CF-1853	CCJBK180J*
C122	Ceramic	3300pF	50V+80-20%		CKJPK332Z*
C123	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C124	Electrolytic	0.47 μ F	50V +-20%	CC-474MJAP	CEACK474M*

Ref. No.	Description			RS Part No.	Mfr's Part No.
C125	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C126	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C127	Ceramic	4700pF	50V+80-20%		CKJPK472Z*
C128	Ceramic	4700pF	50V+80-20%		CKJPK472Z*
C129	Ceramic	2200pF	50V+80-20%		CCJPK222Z*
C130	Ceramic	47pF	50V +-5%		CCJVK470J*
C201	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C202	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C203	Ceramic	0.047 μ F	50V+80-20%	CC-474ZJCP	CKJPK473Z*
C204	Ceramic	0.047 μ F	50V+80-20%	CC-474ZJCP	CKJPK473Z*
C205	Ceramic	0.047 μ F	50V+80-20%	CC-474ZJCP	CKJPK473Z*
C206	Electrolytic	2.2 μ F	50V +-20%	CC-225MJAP	CEACK225M*
C207	Ceramic SL	100pF	50V +-5%	CF-1858	CCJVK101J*
C208	Ceramic	0.047 μ F	50V+80-20%	CC-474ZJCP	CKJPK473Z*
C209	Electrolytic	0.47 μ F	50V +-20%	CC-474MJAP	CEACK474M*
C210	Elec Non-P	4.7 μ F	35V. +-20%	CC-475MGBP	CENCJ475M*
C211	Elec Non-P	0.47 μ F	50V +-20%	CC-474MJBP	CENCK474M*
C212	Elec Non-P	33 μ F	10V +-20%	CC-336MCBP	CENCE336M*
C213	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C214	Electrolytic	10 μ F	16V +-20%	CC-106MDAP	CEACG106M*
C215	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C216	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C217	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C218	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C219	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C220	Electrolytic	100 μ F	16V +-20%	CC-107MDAP	CEACG107M*
C221	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C222	Electrolytic	4.7 μ F	50V +-20%	CC-475MJAP	CEACK475M*
C223	Styrene	470pF	50V +-5%	AU	CNEHK471J*
	Styrene	680pF	50V +-5%	US	CNEHK681J*
	Styrene	680pF	50V +-5%	CA	CNEHK681J*
C224	Styrene	470pF	50V +-5%	AU	CNEHK471J*
	Styrene	680pF	50V +-5%	US	CNEHK681J*
	Styrene	680pF	50V +-5%	CA	CNEHK681J*
C225	Mylar*	0.01 μ F	50V +-5%	CC-103JJMP	CQOMK103J*
C226	Mylar	0.01 μ F	50V +-5%	CC-103JJMP	CQOMK103J*
C227	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C228	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C229	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C230	Styrene	1000pF	50V +-5%	CC-102JJEP	CNEHK102J*
C231	Electrolytic	2.2 μ F	50V +-20%	CC-225MJAP	CEACK225M*
C232	Electrolytic	3.3 μ F	50V +-20%	CC-335MJAP	CEACK335M*
C233	Ceramic	0.047 μ F	50V+80-20%	CC-474ZJCP	CKJPK473Z*
C234	Electrolytic	1.0 μ F	50V +-20%	CC-105MJAP	CEACK105M*
C235	Mylar	2200pF	50V +-5%	CC-222JJMP	CQOMK222J*
C236	Mylar	2200pF	50V +-5%	CC-222JJMP	CQOMK222J*
C237	Electrolytic	33 μ F	16V +-20%		CEACG336M*
C301	Ceramic	0.047 μ F	50V+80-20%	CC-473ZJCP	CKJPK473Z*
C302	Ceramic	1000pF	50V +-10%	CC-102KJCP	CKJEK102K*
C303	Ceramic	0.022 μ F	50V+80-20%	CC-223ZJCP	CKJPK223Z*
C304	Electrolytic	100 μ F	16V +-20%	CC-107MDAP	CEACG107M*
C305	Ceramic NPO	8pF	50V+-0.5pF		CCJBK3R0D*
C306	Ceramic NPO	20pF	50V +-5%		CCJBK200J*

*NOTE: Mylar is a registered trademark of E. I. Du Pont de Nemours and Company.

Ref. No.	Description	RS Part No.	Mfr's Part No.
C307	Styrene 360pF 50V +-5%		CNEHK361J*
C308	Ceramic 0.022uF 50V+80-20%	CC-223ZJCP	CKJPK223Z*
C309	Ceramic 0.022uF 50V+80-20%	CC-223ZJCP	CKJPK223Z*
C310	Ceramic SL 200pF 50V +-5%	CF-1971	CCJVK201J*
C311	Electrolytic 100uF 16V +-20%	CC-107MDAP	CEACG107M*
C312	Ceramic 0.022uF 50V+80-20%	CC-223ZJCP	CKJPK223Z*
C313	Mylar 0.01uF 50V +-5%	CC-103JJMP	CQOMK103J*
C314	Electrolytic 3.3uF 50V +-20%	CC-335MJAP	CEACK335M*
C315	Electrolytic 4.7uF 50V +-20%	CC-475MJAP	CEACK475M*
C316	Ceramic 1000pF 50V +-10%	CC-102KJCP	CKJEK102K*
C317	Ceramic 0.047uF 50V+80-20%	CC-473ZJCP	CKJPK473Z*
C318	Mylar 0.018uF 50V +-5%		CQOMK183J*
C319	Electrolytic 0.22uF 50V +-20%		CEACK224M*
C320	Mylar 5600pF 50V +-5%	CC-562JJMP	CQOMK562J*
C321	Electrolytic 0.22uF 50V +-20%	CC-224MJAP	CEACK224M*
C322	Ceramic 0.022uF 50V+80-20%	CC-223ZJCP	CKJPK223Z*
C323	Ceramic 0.022uF 50V+80-20%	CC-223ZJCP	CKJPK223Z*
C401	Elec Low-N 0.47uF 50V +-20%	CF-1069	CEKCK474M*
C402	Elec Low-N 0.47uF 50V +-20%	CF-1069	CEKCK474M*
C403	Ceramic SL 82pF 50V +-5%	CF-1396	CCJVK820J*
C404	Ceramic SL 82pF 50V +-5%	CF-1396	CCJVK820J*
C405	Mylar 1000pF 50V +-5%	CC-102JJMP	CQOMK102J*
C406	Mylar 1000pF 50V +-5%	CC-102JJMP	CQOMK102J*
C407	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C408	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C409	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C410	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C411	Mylar 4700pF 50V +-5%	CC-472JJMP	CQOMK472J*
C412	Mylar 4700pF 50V +-5%	CC-472JJMP	CQOMK472J*
C413	Mylar 0.018uF 50V +-5%	CC-183JJMP	CQOMK183J*
C414	Mylar 0.018uF 50V +-5%	CC-183JJMP	CQOMK183J*
C415	Elec Low-N 0.47uF 50V +-20%	CF-1069	CEKCK474M*
C416	Elec Low-N 0.47uF 50V +-20%	CF-1069	CEKCK474M*
C417	Ceramic SL 470pF 50V +-5%	CF-1828	CCJVK471J*
C418	Ceramic SL 470pF 50V +-5%	CF-1828	CCJVK471J*
C419	Ceramic 0.022uF 50V+80-20%		CKJPK223Z*
C420	Ceramic SL 220pF 50V +-5%	CF-1071	CCJVK221J*
C421	Ceramic SL 220pF 50V +-5%	CF-1071	CCJVK221J*
C501	Styrene 180pF 50V +-5%	CC-181JJEP	CNEHK181J*
C502	Styrene 180pF 50V +-5%	CC-181JJEP	CNEHK181J*
C503	Mylar 0.082uF 50V +-5%	CC-823JJMP	CQOMK823J*
C504	Mylar 0.082uF 50V +-5%	CC-823JJMP	CQOMK823J*
C505	Electrolytic 1.0uF 50V +-20%	CC-105MJAP	CEACK105M*
C506	Electrolytic 1.0uF 50V +-20%	CC-105MJAP	CEACK105M*
C507	Ceramic SL 220pF 50V +-5%	CF-1071	CCJVK221J*
C508	Ceramic SL 220pF 50V +-5%	CF-1071	CCJVK221J*
C509	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C510	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C511	Electrolytic 10uF 25V +-20%	CC-106MFAP	CEACI106M*
C512	Electrolytic 10uF 25V +-20%	CC-106MFAP	CEACI106M*
C513	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C514	Electrolytic 47uF 25V +-20%	CC-476MFAP	CEACI476M*
C515	Mylar 1500pF 50V +-5%	CC-152JJMP	CQOMK152J*
C516	Mylar 1500pF 50V +-5%	CC-152JJMP	CQOMK152J*

Ref. No.	Description				RS Part No.	Mfr's Part No.
C517	Mylar	0.056 μ F	50V	+ -5%	CC-563JJMP	CQQMK563J*
C518	Mylar	0.056 μ F	50V	+ -5%	CC-563JJMP	CQQMK563J*
C519	Mylar	0.039 μ F	50V	+ -5%	CC-393JJMP	CQQMK393J*
C520	Mylar	0.039 μ F	50V	+ -5%	CC-393JJMP	CQQMK393J*
C521	Mylar	0.039 μ F	50V	+ -5%	CC-393JJMP	CQQMK393J*
C522	Mylar	0.039 μ F	50V	+ -5%	CC-393JJMP	CQQMK393J*
C523	Electrolytic	1.0 μ F	50V	+ -20%	CC-105MJAP	CEACK105M*
C524	Electrolytic	1.0 μ F	50V	+ -20%	CC-105MJAP	CEACK105M*
C525	Ceramic SL	22pF	50V	+ -5%	CF-1878	CCJVK220J*
C526	Ceramic SL	22pF	50V	+ -5%	CF-1878	CCJVK220J*
C527	Electrolytic	2.2 μ F	50V	+ -20%	CC-225MJAP	CEACK225M*
C528	Electrolytic	2.2 μ F	50V	+ -20%	CC-225MJAP	CEACK225M*
C529	Not used					
C530	Electrolytic	1000 μ F	25V	+ -20%		CECCI108M*
C531- C534	Not used					
C535	Electrolytic	100 μ F	25V	+ -20%	CC-107MFAP	CEACI107M*
C536	Electrolytic	100 μ F	25V	+ -20%	CC-107MFAP	CEACI107M*
C537	Mylar	0.018 μ F	50V	+ -5%	CC-183JJMP	CQQMK183J*
C538	Mylar	0.018 μ F	50V	+ -5%	CC-183JJMP	CQQMK183J*
C539	Ceramic	0.022 μ F	50V+80-20%			CKJPK223Z*
C540	Ceramic	0.022 μ F	50V+80-20%			CKJPK223Z*
C541- C548	Not used					
C549	Ceramic	0.022 μ F	50V+80-20%			CKJPK223Z*
C601	Electrolytic	0.1 μ F	50V	+ -20%	CC-104MJAP	CEACK104M*
C602	Electrolytic	0.1 μ F	50V	+ -20%	CC-104MJAP	CEACK104M*
C603	Mylar	0.047 μ F	50V	+ -5%	CC-473JJMP	CQQMK473J*
C604	Styrene	220pF	50V	+ -5%	CC-221JJEP	CNEHK221J*
C605	Ceramic SL	22pF	50V	+ -5%	CF-1878	CCJVK220J*
C606	Mylar	0.047 μ F	50V	+ -5%	CC-473JJMP	CQQMK473J*
C607	Styrene	220pF	50V	+ -5%	CC-221JJEP	CNEHK221J*
C608	Ceramic SL	22pF	50V	+ -5%	CF-1878	CCJVK220J*
C609	Mylar	1000pF	50V	+ -5%	CC-102JJMP	CQQMK102J*
C610	Mylar	0.47 μ F	50V	+ -5%		CQQSK474J*
C611	Mylar	0.47 μ F	50V	+ -5%		CQQSK474J*
C612	Ceramic	47pF	50V	+ -5%	CF-7333	CCJVK470J*
C613	Electrolytic	47 μ F	25V	+ -20%		CEACI476M*
C614	Electrolytic	47 μ F	25V	+ -20%		CEACI476M*
C615	Electrolytic	1.0 μ F	50V	+ -20%	CC-105MJAP	CEACK105M*
C616	Electrolytic	1.0 μ F	50V	+ -20%	CC-105MJAP	CEACK105M*
C617	Ceramic SL	8pF	50V+ -0.5pF		CF-1074	CCJVK8ROD*
C618	Ceramic SL	8pF	50V+ -0.5pF		CF-1074	CCJVK8ROD*
C619	Electrolytic	4.7 μ F	50V	+ -20%		CEACK475M*
C620	Electrolytic	4.7 μ F	50V	+ -20%		CEACK475M*
C701	Electrolytic	4.7 μ F	50V	+ -20%	CC-475MJAP	CEACK475M*
C702	Electrolytic	4.7 μ F	50V	+ -20%	CC-475MJAP	CEACK475M*
C703	Ceramic SL	100pF	50V	+ -5%	CF-1850	CCJVK101J*
C704	Ceramic SL	100pF	50V	+ -5%	CF-1850	CCJVK101J*
C705	Mylar	1000pF	50V	+ -5%	CC-102JJMP	CQQMK102J*
C706	Mylar	1000pF	50V	+ -5%	CC-102JJMP	CQQMK102J*
C707	Electrolytic	2.2 μ F	50V	+ -20%	CC-225MJAP	CEACK225M*
C708	Electrolytic	2.2 μ F	50V	+ -20%	CC-225MJAP	CEACK225M*
C709	Electrolytic	100 μ F	35V	+ -20%	CC-107MGAP	CEACJ107M*

Ref. No.	Description	RS Part No.	Mfr's Part No.
C710	Electrolytic 100 μ F 35V +-20%	CC-107MGAP	CEACJ107M*
C711	Ceramic SL 5pF 50V+-0.25pF	CF-1072	CCJVK5R0C*
C712	Ceramic SL 5pF 50V+-0.25pF	CF-1072	CCJVK5R0C*
C713	Ceramic SL 5pF 50V+-0.25pF	CF-1072	CCJVK5R0C*
C714	Ceramic SL 5pF 50V+-0.25pF	CF-1072	CCJVK5R0C*
C715	Electrolytic 100 μ F 35V +-20%	CC-107MGAP	CEACJ107M*
C716	Electrolytic 100 μ F 35V +-20%	CC-107MGAP	CEACJ107M*
C717	Mylar 0.056 μ F 50V +-5%	CC-563JJMP	CQQMK563J*
C718	Mylar 0.056 μ F 50V +-5%	CC-563JJMP	CQQMK563J*
C719	Electrolytic 220 μ F 50V +-20%	CC-227MJAP	CEACK227M*
C720	Mylar 0.047 μ F 50V +-5%	CC-473JJMP	CQQMK473J*
C721	Electrolytic 220 μ F 50V +-20%	CC-227MJAP	CEACK227M*
C722	Electrolytic 22 μ F 16V +-20%	CC-226MJAP	CEACG226M*
C723	Electrolytic 10 μ F 50V +-20%	CC-106MJAP	CEACK106M*
C724	Electrolytic 470 μ F 25V +-20%	CC-477MFAP	CEACT477M*
C725	Electrolytic 0.22 μ F 50V +-20%		CEACK224M*
C726	Not used		
C727	Ceramic SL 2pF 50V+-0.25pF	CF-1025	CCJVK2R0C*
C728	Ceramic SL 2pF 50V+-0.25pF	CF-1025	CCJVK2R0C*
C729	Ceramic SL 22pF 50V +-5%	CF-1878	CCJVK220J*
C730	Ceramic SL 22pF 50V +-5%	CF-1878	CCJVK220J*
C731	Ceramic SL 22pF 50V +-5%	CF-1878	CCJVK220J*
C732	Ceramic SL 22pF 50V +-5%	CF-1878	CCJVK220J*
C801	Electrolytic 1.0 μ F 50V +-20%	CC-105MJAP	CEACK105M*
C802	Electrolytic 10 μ F 16V +-20%	CC-106MDAP	CEACG106M*
C803	Electrolytic 2.2 μ F 50V +-20%	CC-225MJAP	CEACK225M*
C804	Electrolytic 2.2 μ F 50V +-20%	CC-225MJAP	CEACK225M*
C805	Electrolytic 4.7 μ F 50V +-20%		CEACK475M*
C806	Electrolytic 1 μ F 50V +-20%	CC-105MJAP	CEACK105M*
C807	Electrolytic 100 μ F 16V +-20%		CEACG107M*

Variable Capacitor

Ref. No.	Description	RS Part No.	Mfr's Part No.
VC101	Air CR52J528 (VC101, VC102, VC103, VC301, VC302, TC101, TC102, TC301 and TC302 are inte- grated in one unit.)	C-4817	151010020A

Trimmer Capacitor

Ref. No.	Description	RS Part No.	Mfr's Part No.
TC103	Trimmer ECV-1ZW10X32E	C-1609	154000160A

Diodes					
Ref. No.	Description			RS Part No.	Mfr's Part No.
△D1	Rectifier	S10VB20		DX-0229	SDRE00026-
D2	Zener	RD5.6E-B(2)Regulator	or	DX-0735	SZRD5.6EB2 or
		GZA5.6(Y)	or	DX-1787	SZGA5.6--Y
△D3	Silicon	SR1K-2	Regulator or	DX-0475	SDSI00026- or
		10E1	or	DX-1039	SDSI00003- or
		1N4002	or	DX-0206	SDSI00008-
△D4	Silicon	SR1K-2	Regulator or	DX-0475	SDSI00026- or
		10E1	or	DX-1039	SDSI00003- or
		1N4002		DX-0206	SDSI00008-
D101	Silicon	ITT73N	Limiter	DX-1008	SDSI00021-
D102	Zener	GZA11(Y)	Regulator or	-	SZGA11---Y or
		RD11E-B		DX-1606	SZRD11E-B-
D103	Varicap	ITT410		DX-0307	SDVC00006-
D201	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D202	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D203	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D204	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D205	Zener	RD5.6E-B(2)Regulator	or	DX-0735	SZRD5.6EB2 or
		GZA5.6(Y)	or	DX-1787	SZGA5.6--Y
D206-	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D209					
D701	Varister	MV-11Y		DX-1226	SDVR00005Y
D702	Varister	MV-11Y		DX-1226	SDVR00005Y
D703	Varister	VD1221		DX-0517	SDVR00012-
D704	Varister	VD1221		DX-0517	SDVR00012-
D705	Silicon	ITT73N	Rectifier		SDSI00021-
D706	Silicon	ITT73N	Rectifier		SDSI00021-
D707	Zener	GZA13(Y)	Regulator or	DX-2363	SZGA13---Y or
		RD13E-B(2)	or	DX-1335	SZRD13E-B2 or
		RD13E-B(3)		DX-2396	SZRD13E-B3
D708	Silicon	ITT73N	Rectifier		SDSI00021-
D709	Silicon	ITT73N	Rectifier		SDSI00021-
D710	Silicon	ITT73N	Anti-Reverse	DX-1008	SDSI00021-
D819	Silicon	ITT73N	Switching	DX-1008	SDSI00021-
D820	Silicon	ITT73N	Switching	DX-1008	SDSI00021-
D821	Silicon	ITT73N	Switching	DX-1008	SDSI00021-

LEDs				
Ref. No.	Description		RS Part No.	Mfr's Part No.
LD801- LD805	PR7851K		L-1761	SL-R00048-
LD806- LD816	BG7851K		L-0042	SL-G00026-
LD817- LD818	PR7851K		L-1761	SL-R00048-

SCR			
Ref. No.	Description	RS Part No.	Mfr's Part No.
SR701	O3P1M or O3P2M	DX-1839	SDSC00001- or SDSC00007-

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Ceramic Filters			
Ref. No.	Description	RS Part No.	Mfr's Part No.
CF201	Ceramic	C-1610	392300301A
CF202	Ceramic	C-1610	392300301A

Filters			
Ref. No.	Description	RS Part No.	Mfr's Part No.
FT201	Low Pass	C-1228	524010030A
FT202	Low Pass	C-1228	524010030A

Fuses				
Ref. No.	Description	RS Part No.	Mfr's Part No.	
△F1	125V 5A	US	HF-1175	
	125V 5A	CA		
	250V 2.5A	AU		
△F2	250V 1.5A	CA	251000390A	
	250V 1.5A	AU	251000390A	
	250V 1.5A	US	HF-1237	251001290A or 251000070A

ICs			
Ref. No.	Description	RS Part No.	Mfr's Part No.
IC1	L78M07 Linear Regulator	MX-3409	SIL-78M07-
IC201	LA1232 Linear FM-IF	MX-3158	SILA1232--
IC202	LA3390 Linear MPX	MX-5667	SILA3390--

Ref. No.	Description	RS Part No.	Mfr's Part No.
IC301	LA1240 Linear AM Amp	MX-4367	SILA1240--
IC401	LA6458D(X) Linear Amp or NJM4558D(X) or TL4558P(B)	MX-5459	SILA6458DX or SINM4558DX or SITL4558PB
IC501	LA6458D(X) Linear Amp or NJM4558D(X) or TL4558P(B)	MX-5459	SILA6458DX or SINM4558DX or SITL4558PB
IC601	NJM2060D Linear IMX-Expander	MX-3408	SINM2060D-
IC801	LBI423 Digital Signal	MX-6215	SILBI423--
IC802	LBI443 Digital Power LED	MX-5673	SILBI443--
IC803	LBI443 Digital Power LED		SILBI443--

Jacks

Ref. No.	Description	RS Part No.	Mfr's Part No.
JK1	RCA 6P	J-1189	192010270A
JK2	RCA 4P	J-1129	192010260A
JK3	6.3mm	J-1423 J-1397	191010090A

Coils

Ref. No.	Description	RS Part No.	Mfr's Part No.
L1	Inductor 18 μ H	CA-5613	142000710A
L101	Antenna	CA-8677	143310110A
L102	Air Trap	CA-5819 CA-5819	141100031A
L103	Air RF	CA-5818 CA-5818	141200330A
L104	Air Trap	CA-5819 CA-5819	141100031A
L105	VHF OSC	CA-5816 CA-5816	121300860A or
		CA-9014	121301140A
L201	Inductor 2.2 μ H	CA-5813 CA-5813	142000340A
L301	Bar 250 μ H L120		111110120B
L302	Inductor 2.2 μ H	CA-5813 CA-5813	142000340A
L303	Inductor 2.2 μ H	CA-5813 CA-5813	142000340A

Lamps			
Ref. No.	Description	RS Part No.	Mfr's Part No.
PL1- PL5	Sub Mini. 6V 0.06A	L-0045	242210070A
PL6	Sub Mini. 6V 0.1A	L-0046	242210080A
PL7	Tubular 12V 0.15A	L-0978	243000890A

Transistors						
Ref. No.	Description	RS Part No.	Mfr's Part No.			
△Q1	2SD325(F) NPN Regulator	or	2SD-325	ST2D325--F	or	
	2SC2275(Q) <i>2SD-313 2SD-325 2SD-600</i>	or	2SC-2275	ST2C2275-Q	or	
	2SC1173(O)	or	2SC-11730	ST2C1173-O	or	
	2SC1173(Y)		2SC-1173	ST2C1173-Y		
△Q2	2SB511(F) PNP Regulator	or	2SB-511	ST2B511--F	or	
	2SA985(Q) <i>2SB-511 2SB-601</i>	or	2SA-985	ST2A985--Q	or	
	2SA473(O)	or	2SA-473	ST2A473--O	or	
	2SA473(Y)			ST2A473--Y		
Q3	2SC1175(F) NPN Regulator	or	2SC-1175	ST2C1175-F	or	
	2SC1844(E) <i>2SC-1175 2SC-536</i>	or	2SC-1844	ST2C1844-E	or	
	KTC1815(GR) <i>MY-5211, 2SC-1815, 2SC-945, 2SC-1175, 2SC-536</i>		2SC-1815GR	STKC1815-G		
Q4	2SA659(F) PNP Regulator	or	2SA-659	ST2A659--F	or	
	2SA991(E)	or		ST2A991--E	or	
	KTA1015(GR)			STKA1015-G		
Q5	2SD313(E) NPN Regulator	or	2SD-313E	ST2D313--E	or	
	2SD313(F)	or	2SD-313	ST2D313--F	or	
	2SC2275(Q) <i>2SD-313 2SD-275 2SD-600</i>	or	2SC-2275	ST2C2275-Q	or	
	2SD526(O)	or	2SD-526	ST2D526--O	or	
	2SD526(Y)			ST2D526--Y		
Q6	2SC1175(F) NPN Regulator	or	2SC-1175	ST2C1175-F	or	
	2SC1844(E) <i>2SC-1175 2SC-536</i>	or	2SC-1844	ST2C1844-E	or	
	KTC1815(GR) <i>MY-5211, 2SC-1815, 2SC-945, 2SC-1175, 2SC-536</i>		2SC-1815GR	STKC1815-G		
Q101	3SK74(L)			SF3K74---	L	
Q102/ Q103	2SC1674(L) NPN Mixer/OSC	or	2SC-1674	ST2C1674-L	or	
	2SC1674(K)	or	2SC-1674	ST2C1674-K	or	
	2SC2786(L)		2SC-2786	ST2C2786-L		
Q201	2SC1675(L) NPN Amp	or	2SC-1675	ST2C1675-L	or	
	2SC1675(K)	or	2SC-1675	ST2C1675-K	or	
	2SC930(E) <i>2SC-1675</i>	or	2SC-930	ST2C930--E	or	
	2SC930(D)	or	2SC-930	ST2C930--D	or	
	2SC2787(L)		2SC-2787	ST2C2787-L		
Q202- Q206	2SC536(G) NPN Mute/SW	or	2SC-536	ST2C536--G	or	
	2SC536(H)	or	2SC-536	ST2C536--H	or	
	2SC1840(E)	or		ST2C1840-E	or	
	2SC1840(F)			ST2C1840-F		
Q501	2SC1845(F) NPN Amp		2SC-1845	ST2C1845-F		
Q502	2SC1845(F) NPN Amp		2SC-1845	ST2C1845-F		

Ref. No.	Description	RS Part No.	Mfr's Part No.
Q701/	KTK30ATM(GR)	or	MX-3406
Q702	KTK246(GR)	or	SFKK30ATMG or
	2SK246(GR)	or	SFKK246--G or
	2SK105(H)		SF2K246--G or
			SF2K105--H
*Q703/	2SC2259(G) NPN	Amp or	2SC-2259
*Q704	2SC2259(F)		ST2C2259-G or
			ST2C2259-F
*Q705/	2SA1145(Y) PNP	Amp or	2SC-1145
*Q706	2SA1145(O)		ST2A1145-Y or
			ST2A1145-O
△*Q707/	2SC3421(Y) NPN	Amp or	2SC-3421
*Q708	2SC3421(O)		ST2C3421-Y or
			ST2C3421-O
△*Q709/	2SA1358(Y) PNP	Amp or	2SA-1358Y
*Q710	2SA1358(O)		ST2A1358-Y or
			ST2A1358-O
△*Q711/	2SC3182(O) NPN	Amp or	2SC-3182
*Q712	2SC3182(R)		ST2C3182-O or
			ST2C3182-R
△*Q713/	2SA1265(O) PNP	Amp or	2SA-1265
*Q714	2SA1265(R)		ST2A1265-O or
			ST2A1265-R
Q715-	2SC1845(E) NPN	Muting or	
Q717	2SC1845(U)		ST2C1845-E or
	2SC2362(H)	or	2SC-1845
	KTC2240(BL)		2SC-2362
			ST2C2362-H or
			STKC2240-B
Q801- Q803	KTC1815(GR) NPN	Switching	STKC1815-G

* The reference No. with asterisk should be used in pair per each lot. Refer to page 65 "SPECIAL PAIRED PARTS".

Resistors						
Ref. No.	Description	RS Part No.	Mfr's Part No.			
△R1	M-Oxide 220 ohm 1W +-5%	N-0149EGD	RX01H221J*			
△R2	M-Oxide 220 ohm 1W +-5%	N-0149EGD	RX01H221J*			
R3	Carbon 22kohm 1/4W +-5%	N-0311EEC	RCSQP223J*			
R4	Carbon 22kohm 1/4W +-5%	N-0311EEC	RCSQP223J*			
R5	Carbon 4.7kohm 1/4W +-5%	N-0247EEC	RCSQP472J*			
R6	Carbon 4.7kohm 1/4W +-5%	N-0247EEC	RCSQP472J*			
R7	Carbon 15kohm 1/4W +-5%	N-0297EEC	RCSQP153J*			
R8	Carbon 16kohm 1/4W +-5%	N-0544EEC	RCSQP163J*			
R9	Carbon 18kohm 1/4W +-5%	N-0303EEC	RCSQP183J*			
R10	Carbon 5.6kohm 1/4W +-5%	N-0257EEC	RCSQP562J*			
△R11	M-Oxide 100 ohm 3W +-5%	N-0132EJD	RX03H101J*			
R12	Carbon 22kohm 1/4W +-5%	N-0311EEC	RCSQP223J*			
△R13	Carbon 4.7kohm 1/4W +-5%	N-0247EEC	RCSQP472J*			
R14	Carbon 3.3kohm 1/4W +-5%	N-0230EEC	RCSQP332J*			
R15	Carbon 16kohm 1/4W +-5%	N-0544EEC	RCSQP163J*			
R16	Carbon 15kohm 1/4W +-5%	N-0297EEC	RCSQP153J*			
R17	M-Oxide 22 ohm 1W +-5%	N-0078EGD	RX01H220J*			
R18	M-Oxide 12 ohm 1W +-5%	N-0067EGD	RX01H120J*			
R19	M-Oxide 22 ohm 2W +-5%	N-0078EHD	RX02H220J*			
△R20	Carbon 2.2Mohm 1/2W +-5%	N-0454EFC	RCSHP225J*	US		
	Carbon 2.2Mohm 1/2W +-5%		RCSHP225J*	CA		

Ref. No.	Description	RS Part No.	Mfr's Part No.
R101	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R102	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R103	Carbon 47kohm 1/4W +-5%	N-0340EEC	RCSQP473J*
R104	Carbon 47 ohm 1/4W +-5%	N-0099EEC	RCSQP470J*
R105	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R106	Carbon 330 ohm 1/4W +-5%	N-0159EEC	RCSQP331J*
R107	Carbon 18kohm 1/4W +-5%	N-0303EEC	RCSQP183J*
R108	Carbon 5.6kohm 1/4W +-5%	N-0257EEC	RCSQP562J*
R109	Carbon 1.5kohm 1/4W +-5%	N-0206EEC	RCSQP152J*
R110	Carbon 330 ohm 1/4W +-5%	N-0159EEC	RCSQP331J*
R111	Carbon 22kohm 1/4W +-5%	N-0311EEC	RCSQP223J*
R112	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R113	Carbon 2.2kohm 1/4W +-5%	N-0216EEC	RCSQP222J*
R114	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R115	Carbon 240kohm 1/4W +-5%	N-0398EEC	RCSQP244J*
R116	Carbon 220kohm 1/4W +-5%	N-0396EEC	RCSQP224J*
R117	Carbon 470 ohm 1/4W +-5%	N-0169EEC	RCSQP471J*
R118	Carbon 390kohm 1/4W +-5%	N-0414EEC	RCSQP394J*
R119	Carbon 3.3kohm 1/4W +-5%	N-0230EEC	RCSQP332J*
R201	Carbon 3.3kohm 1/4W +-5%	N-0230EEC	RCSQP332J*
R202	Carbon 470 ohm 1/4W +-5%	N-0169EEC	RCSQP471J*
R203	Carbon 1kohm 1/4W +-5%		RCSQP102J*
R204	Carbon 330 ohm 1/4W +-5%	N-0159EEC	RCSQP331J*
R205	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R206	Carbon 82 ohm 1/4W +-5%	N-0122EEC	RCSQP820J*
R207	Carbon 82 ohm 1/4W +-5%	N-0122EEC	RCSQP820J*
R208	Carbon 330 ohm 1/4W +-5%	N-0159EEC	RCSQP331J*
R209	Carbon 56kohm 1/4W +-5%	N-0345EEC	RCSQP563J*
R210	Carbon 120kohm 1/4W +-5%	N-0375EEC	RCSQP124J*
R211	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R212	Not used		
R213	Carbon 2.7kohm 1/4W +-5%	N-0224EEC	RCSQP272J*
R214	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R215	Carbon 5.6kohm 1/4W +-5%	N-0257EEC	RCSQP562J*
R216	Carbon 180kohm 1/4W +-5%	N-0387EEC	RCSQP184J*
R217	Carbon 27kohm 1/4W +-5%		RCSQP273J*
R218	Carbon 6.8kohm 1/4W +-5%		RCSQP682J*
R219	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R220	Carbon 47kohm 1/4W +-5%	N-0340EEC	RCSQP473J*
R221	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R222	Carbon 27kohm 1/4W +-5%	N-0316EEC	RCSQP273J*
R223	Carbon 10kohm 1/4W +-5%		RCSQP103J*
R224	Carbon 1.8kohm 1/4W +-5%	N-0210EEC	RCSQP182J*
R225	Carbon 56 ohm 1/4W +-5%	N-0107EEC	RCSQP560J*
R226	Carbon 100 ohm 1/4W +-5%	N-0132EEC	RCSQP101J*
R227	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R228	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R229	Carbon 110kohm 1/4W +-5%		RCSQP114J*
R230	Carbon 110kohm 1/4W +-5%		RCSQP114J*
R231	Carbon 10 ohm 1/4W +-5%	N-0063EEC	RCSQP100J*
R232	Carbon 10 ohm 1/4W +-5%	N-0063EEC	RCSQP100J*
R233	Carbon 1.1kohm 1/4W +-5%	N-0198EEC	RCSQP112J*
R234	Carbon 1.1kohm 1/4W +-5%	N-0198EEC	RCSQP112J*
R235	Carbon 3.3kohm 1/4W +-5%	N-0230EEC	RCSQP332J*
R236	Carbon 3.3kohm 1/4W +-5%	N-0230EEC	RCSQP332J*

Ref. No.	Description				RS Part No.	Mfr's Part No.
R237	Carbon	3.3kohm	1/4W	+5%	N-0230EEC	RCSQP332J*
R238	Carbon	1.1kohm	1/4W	+5%		RCSQP112J*
R239	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R240	Carbon	15kohm	1/4W	+5%		RCSQP153J*
R241	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R242	Carbon	22kohm	1/4W	+5%	N-0311EEC	RCSQP223J*
R243	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R244	Carbon	2.2kohm	1/4W	+5%		RCSQP222J*
R245	Carbon	2.2kohm	1/4W	+5%		RCSQP222J*
R301	Carbon	22 ohm	1/4W	+5%	N-0078EEC	RCSQP220J*
R302	Carbon	2.7kohm	1/4W	+5%	N-0224EEC	RCSQP272J*
R303	Carbon	220kohm	1/4W	+5%	N-0396EEC	RCSQP224J*
R304	Carbon	150 ohm	1/4W	+5%	N-0142EEC	RCSQP151J*
R305	Carbon	150 ohm	1/4W	+5%	N-0142EEC	RCSQP151J*
R306	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R307	Carbon	12kohm	1/4W	+5%	N-0288EEC	RCSQP123J*
R308	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R309	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R310	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R401	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R402	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R403	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R404	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R405	Carbon	2.2kohm	1/6W	+5%	N-0216EEC	RCOXP222J*
R406	Carbon	2.2kohm	1/6W	+5%	N-0216EEC	RCOXP222J*
R407	Carbon	270 ohm	1/6W	+5%	N-0155EEC	RCOXP271J*
R408	Carbon	270 ohm	1/6W	+5%	N-0155EEC	RCOXP271J*
R409	Carbon	15kohm	1/6W	+5%	N-0297EEC	RCOXP153J*
R410	Carbon	15kohm	1/6W	+5%	N-0297EEC	RCOXP153J*
R411	Carbon	220kohm	1/6W	+5%	N-0396ECC	RCOXP224J*
R412	Carbon	220kohm	1/6W	+5%	N-0396ECC	RCOXP224J*
R413	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R414	Carbon	100kohm	1/6W	+5%	N-0371ECC	RCOXP104J*
R415	Carbon	1.0kohm	1/6W	+5%	N-0196EEC	RCOXP102J*
R416	Carbon	1.0kohm	1/6W	+5%	N-0196EEC	RCOXP102J*
R417	M-Oxide	470 ohm	1W	+5%	N-0169EGD	RX01H471J*
R418	M-Oxide	470 ohm	1W	+5%	N-0169EGD	RX01H471J*
R501	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R502	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R503	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R504	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R505	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R506	Carbon	4.7kohm	1/4W	+5%	N-0247EEC	RCSQP472J*
R507	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R508	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R509	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R510	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R511	Carbon	220kohm	1/4W	+5%	N-0396EEC	RCSQP224J*
R512	Carbon	220kohm	1/4W	+5%	N-0396EEC	RCSQP224J*
R513	Carbon	2.0kohm	1/4W	+5%	N-0213EEC	RCSQP202J*
R514	Carbon	2.0kohm	1/4W	+5%	N-0213EEC	RCSQP202J*
R515	Carbon	18kohm	1/4W	+5%	N-0303EEC	RCSQP183J*
R516	Carbon	18kohm	1/4W	+5%	N-0303EEC	RCSQP183J*

Ref. No.	Description	RS Part No.	Mfr's Part No.
R517	M-Oxide 100 ohm 1W +-5%	N-0132EGD	RX01H101J*
R518	M-Oxide 100 ohm 1W +-5%	N-0132EGD	RX01H101J*
R519	Carbon 1.5kohm 1/4W +-5%	N-0206EEC	RCSQP152J*
R520	Carbon 1.5kohm 1/4W +-5%	N-0206EEC	RCSQP152J*
R521	Carbon 11kohm 1/4W +-5%	N-0285EEC	RCSQP113J*
R522	Carbon 11kohm 1/4W +-5%	N-0285EEC	RCSQP113J*
R523	Carbon 4.7kohm 1/4W +-5%	N-0247EEC	RCSQP472J*
R524	Carbon 4.7kohm 1/4W +-5%	N-0247EEC	RCSQP472J*
R525	Carbon 560 ohm 1/4W +-5%	N-0176EEC	RCSQP561J*
R526	Carbon 560 ohm 1/4W +-5%	N-0176EEC	RCSQP561J*
R527	Carbon 13kohm 1/4W +-5%	N-0289EEC	RCSQP133J*
R528	Carbon 13kohm 1/4W +-5%	N-0289EEC	RCSQP133J*
R529	Carbon 12kohm 1/4W +-5%	N-0288EEC	RCSQP123J*
R530	Carbon 12kohm 1/4W +-5%	N-0288EEC	RCSQP123J*
R531	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R532	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R533	Carbon 1.5Mohm 1/4W +-5%	N-0450EEC	RCSQP155J*
R534	Carbon 1.5Mohm 1/4W +-5%	N-0450EEC	RCSQP155J*
R535	Carbon 5.6kohm 1/4W +-5%	N-0257EEC	RCSQP562J*
R536	Carbon 5.6kohm 1/4W +-5%	N-0257EEC	RCSQP562J*
R537	Carbon 220 ohm 1/4W +-5%	N-0149EEC	RCSQP221J*
R538	Carbon 220 ohm 1/4W +-5%	N-0149EEC	RCSQP221J*
R549	M-Oxide 220 ohm 1W +-5%	N-0149EGD	RX01H221J*
R550	M-Oxide 220 ohm 1W +-5%	N-0149EGD	RX01H221J*
R551	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R552	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R553	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R554	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R555	Carbon 1.5kohm 1/4W +-5%	N-0206EEC	RCSQP152J*
R556	Carbon 1.5kohm 1/4W +-5%	N-0206EEC	RCSQP152J*
R557	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R558	Carbon 10kohm 1/4W +-5%	N-0281EEC	RCSQP103J*
R559	Carbon 1Mohm 1/4W +-5%		RCSQP105J*
R560	Carbon 1Mohm 1/4W +-5%		RCSQP105J*
R601	Carbon 100kohm 1/4W +-5%	N-0281EEC	RCSQP104J*
R602	Carbon 100kohm 1/4W +-5%	N-0281EEC	RCSQP104J*
R603	Carbon 100kohm 1/4W +-5%	N-0281EEC	RCSQP104J*
R604	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R605	Carbon 510kohm 1/4W +-5%	N-0428EEC	RCSQP514J*
R606	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R607	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R608	Carbon 510kohm 1/4W +-5%	N-0428EEC	RCSQP514J*
R609	Carbon 300kohm 1/4W +-5%	N-0405EEC	RCSQP304J*
R610	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R611	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R612	Carbon 160kohm 1/4W +-5%	N-0385EEC	RCSQP164J*
R613	Carbon 510kohm 1/4W +-5%	N-0428EEC	RCSQP514J*
R614	Carbon 300kohm 1/4W +-5%	N-0405EEC	RCSQP304J*
R615	Carbon 1.0kohm 1/4W +-5%	N-0196EEC	RCSQP102J*
R616	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R617	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R618	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R619	Carbon 510kohm 1/4W +-5%	N-0428EEC	RCSQP514J*
R620	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R621	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*

Ref. No.	Description				RS Part No.	Mfr's Part No.
R622	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R623	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R624	Carbon	1.5kohm	1/4W	+5%	N-0206EEC	RCSQP152J*
R625	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R626	Carbon	2.0kohm	1/4W	+5%	N-0213EEC	RCSQP202J*
R627	M-Oxide	220 ohm	1W	+5%		RX01H221J*
R628	M-Oxide	220 ohm	1W	+5%		RX01H221J*
R629	Carbon	100kohm	1/4W	+5%		RCSQP104J*
R630	Carbon	100kohm	1/4W	+5%		RCSQP104J*
R701	Carbon	100kohm	1/4W	+5%	N-0371EEC	RCSQP104J*
R702	Carbon	100kohm	1/4W	+5%	N-0371EEC	RCSQP104J*
R703	Carbon	3.3Mohm	1/4W	+5%	N-0458EEC	RCSQP335J*
R704	Carbon	3.3Mohm	1/4W	+5%	N-0458EEC	RCSQP335J*
R705	Carbon	3.3Mohm	1/4W	+5%	N-0458EEC	RCSQP335J*
R706	Carbon	220kohm	1/4W	+5%	N-0396EEC	RCSQP224J*
R707	Carbon	220kohm	1/4W	+5%	N-0396EEC	RCSQP224J*
R708	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R709	Carbon	1.0kohm	1/4W	+5%	N-0196EEC	RCSQP102J*
R710	Carbon	33kohm	1/4W	+5%	N-0324EEC	RCSQP333J*
R711	Carbon	33kohm	1/4W	+5%	N-0324EEC	RCSQP333J*
R712	Carbon	1.8kohm	1/4W	+5%	N-0210EEC	RCSQP182J*
R713	Carbon	1.8kohm	1/4W	+5%	N-0210EEC	RCSQP182J*
R714	Carbon	15kohm	1/4W	+5%	N-0297EEC	RCSQP153J*
R715	Carbon	15kohm	1/4W	+5%	N-0297EEC	RCSQP153J*
R716	Carbon	1.5kohm	1/4W	+5%	N-0206EEC	RCSQP152J*
R717	Carbon	1.5kohm	1/4W	+5%	N-0206EEC	RCSQP152J*
R718	Carbon	27 ohm	1/4W	+5%	N-0082EEC	RCSQP270J*
R719	Carbon	27 ohm	1/4W	+5%	N-0082EEC	RCSQP270J*
R720	Carbon	30kohm	1/4W	+5%	N-0321EEC	RCSQP303J*
R721	Carbon	30kohm	1/4W	+5%	N-0321EEC	RCSQP303J*
R722	Carbon	2.2kohm	1/4W	+5%	N-0216EEC	RCSQP222J*
R723	Carbon	2.2kohm	1/4W	+5%	N-0216EEC	RCSQP222J*
R724	Carbon	3.3kohm	1/4W	+5%	N-0230EEC	RCSQP332J*
R725	Carbon	3.3kohm	1/4W	+5%	N-0230EEC	RCSQP332J*
R726	Carbon	91 ohm	1/4W	+5%	N-0129EEC	RCSQP910J*
R727	Carbon	91 ohm	1/4W	+5%	N-0129EEC	RCSQP910J*
△R728	M-Oxide	100 ohm	1W	+5%	N-0132EGD	RX01H101J*
△R729	M-Oxide	100 ohm	1W	+5%	N-0132EGD	RX01H101J*
△R730	M-Oxide	100 ohm	1W	+5%	N-0132EGD	RX01H101J*
△R731	M-Oxide	100 ohm	1W	+5%	N-0132EGD	RX01H101J*
△R732	M-Film	4.7 ohm	1W	+5%	N-0047EGD	RM01H4R7J*
△R733	M-Film	4.7 ohm	1W	+5%	N-0047EGD	RM01H4R7J*
△R734	M-Film	4.7 ohm	1W	+5%	N-0047EGD	RM01H4R7J*
△R735	M-Film	4.7 ohm	1W	+5%	N-0047EGD	RM01H4R7J*
△R736	Cement	0.22 ohm	5W	+5%	N-0003EKF	RT05YR22JT
△R737	Cement	0.22 ohm	5W	+5%	N-0003EKF	RT05YR22JT
△R738	Cement	0.47 ohm	5W	+10%	N-0008FKF	RT05YA01KT
△R739	Cement	0.47 ohm	5W	+10%	N-0008FKF	RT05YA01KT
△R740	Cement	0.47 ohm	5W	+10%	N-0008FKF	RT05YA01KT
△R741	Cement	0.47 ohm	5W	+10%	N-0008FKF	RT05YA01KT
△R742	M-Oxide	10 ohm	2W	+5%	N-0063EHD	RX02H100J*
△R743	M-Oxide	10 ohm	2W	+5%	N-0063EHD	RX02H100J*
R744	Carbon	10kohm	1/4W	+5%	N-0281EEC	RCSQP103J*
R745	Carbon	1.0kohm	1/4W	+5%		RCSQP102J*
R746	Carbon	750 ohm	1/4W	+5%		RCSQP751J*

Ref. No.	Description	RS Part No.	Mfr's Part No.
R747	Carbon 2.2kohm 1/4W +-5%	N-0216EEC	RCSQP222J*
R748	Carbon 220kohm 1/4W +-5%	N-0396EEC	RCSQP224J*
R749	Carbon 8.2kohm 1/4W +-5%	N-0271EEC	RCSQP822J*
R750	Carbon 56kohm 1/4W +-5%	N-0345EEC	RCSQP563J*
R751	Carbon 15kohm 1/4W +-5%	N-0297EEC	RCSQP153J*
R752	Carbon 390kohm 1/4W +-5%	N-0414EEC	RCSQP394J*
R753	Carbon 10 ohm 1/4W +-5%	N-0063EEC	RCSQP100J*
R754	Carbon 47kohm 1/4W +-5%	N-0340EEC	RCSQP473J*
R755	Carbon 6.8kohm 1/4W +-5%	N-0262EEC	RCSQP682J*
R756	Carbon 100kohm 1/4W +-5%	N-0371EEC	RCSQP104J*
R757	Carbon 22kohm 1/4W +-5%	N-0311EEC	RCSQP223J*
R758	Carbon 10 ohm 1/4W +-5%	N-0063EEC	RCSQP100J*
R759	Carbon 1.0Mohm 1/4W +-5%	N-0445EEC	RCSQP105J*
R760	M-Oxide 270 ohm 3W +-5%	N-0155EJD	RX03H271J*
R761	M-Oxide 270 ohm 3W +-5%	N-0155EJD	RX03H271J*
R801	Carbon 100kohm 1/4W +-5%		RCSQP104J*
R802	Carbon 10kohm 1/4W +-5%		RCSQP103J*
R803	M-Oxide 100 ohm 1W +-5%	N-0312EGD	RX01H101J*
R804	Carbon 1.1kohm 1/4W +-5%		RCSQP112J*
R805	Carbon 10kohm 1/4W +-5%		RCSQP103J*
R806	Carbon 56kohm 1/4W +-5%		RCSQP563J*
R807	Carbon 39kohm 1/4W +-5%		RCSQP393J*
R808	Carbon 1.5kohm 1/4W +-5%		RCSQP152J*
R809	Carbon 82kohm 1/4W +-5%		RCSQP823J*
R810	M-Oxide 68 ohm 1W +-5%	N-0111EGD	RX01H680J*
R811	Carbon 1.1kohm 1/4W +-5%		RCSQP112J*
R812	Carbon 10kohm 1/4W +-5%		RCSQP103J*
R813	Carbon 56kohm 1/4W +-5%		RCSQP563J*
R814	Carbon 39kohm 1/4W +-5%		RCSQP393J*
R815	Carbon 1.5kohm 1/4W +-5%		RCSQP152J*
R816	Carbon 82kohm 1/4W +-5%		RCSQP823J*
R817	M-Oxide 68 ohm 1W +-5%	N-0111EGD	RX01H680J*
R818	Carbon 22kohm 1/4W +-5%		RCSQP223J*
R819	Carbon 820 ohm 1/4W +-5%	N-0187EEC	RCSQP821J*
R820	Not used		
R821	Carbon 820 ohm 1/4W +-5%	N-0187EEC	RCSQP821J*

Potentiometers

Ref. No.	Description	RS Part No.	Mfr's Part No.
VR201	Semi-fixed 50KB	<i>P6753</i>	<i>P6786</i> 175206212A
VR202	Semi-fixed 100KB	<i>P6867</i>	<i>P6784</i> 175206222A
VR203	Semi-fixed 10KB	<i>P6877</i>	<i>P6866</i> 175206192A
VR204	Semi-fixed 20KB	<i>P6887</i>	<i>P6704</i> 175206202A
VR301	Semi-fixed 20KB		175206202A
VR501	Rotary 200KBx2 VOLUME	P-7161	171610540A
VR502	Rotary 100KBx2 TONE	P-2006	171610520A
VR503	Rotary 100KBx2 TONE	P-2006	171610520A

Ref. No.	Description	RS Part No.	Mfr's Part No.
VR504	Rotary 100KMx2 BALANCE	P-3007	171610530A
VR505	Rotary 1MC IMX	P-3008	171210640A

Switches			
Ref. No.	Description	RS Part No.	Mfr's Part No.
SW1	Push Tape Monitor	S-7003	182110500A
SW2	Push Expander	S-7004	182110510A
SW3	Push Function	S-7006	182510030A
SW4	Push Mode	S-7005	182610060A
SW5	Push S.P. Select	S-7007	182205850A
△SW6	Push Power	US S-7542	182110200A or
		CA S-0068	182110530A
		AU	182110200A or
			182110530A
			182110530A

Transformers			
Ref. No.	Description	RS Part No.	Mfr's Part No.
△T1	Power 120V	US TA-0024	10101237SA
	120V	CA	10101237SA
	240V	AU	10101240SA
T101	IFT 10.7MHz	CA-8206	133000700A or 133000600A
T201	IFT 10.7MHz	CA-9346	133010060A
T202	IFT 10.7MHz	CA-9347	133010070A
T301	MW OSC	CA-8537	121100770A or 121101120A
T302	IFT 455kHz	CA-8204	131000640A or 131000980A
T303	IFT 455kHz	CA-8205	131000650A or 131010021A
T304	IFT 455kHz	CA-8540	131000480A or 131000970A

Reference No. with asterisk should be replaced in pairs. Do not replace one part only.

SPECIAL PAIRED PARTS			
Ref. No.	Description	RS Part No.	Mfr's Part No.
Q703/ Q704	2SC2259(G)		ST2C2259-G
Q703/ Q704	2SC2259(F)		ST2C2259-F
Q705/ Q706	2SA1145(Y)		ST2A1145-Y
Q705/ Q706	2SA1145(O)		ST2A1145-O
Q707/ Q708	2SC3421(Y)		ST2C3421-Y
Q709/ Q710	2SA1358(Y)		ST2C1358-Y
Q707/ Q708	2SC3421(O)		ST2C3421-O
Q709/ Q710	2SA1358(O)		ST2A1358-Y
Q711/ Q712	2SC3182(O)		ST2C3182-O
Q713/ Q714	2SA1265(O)		ST2A1265-O
Q711/ Q712	2SC3182(R)		ST2C3182-R
Q713/ Q714	2SA1265(R)		ST2A1265-R

EXPLODED VIEW PARTS LIST

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	PCB Unit, Main	XB-0808	U-22069
2	PCB Unit, Expander	XB-0817	U-25456
3	PCB Unit, LED	XB-0809	U-23320
4	Holder, LED PCB		413100950A
5	Terminal, Nip SP	J-5108	192310100A
6	Clip, Fuse	F-1208	197303080A
7	Holder, Fuse	F-1209	197100120A
8	Back Board Dial	D-5020	416510140A
9	Pointer	D-1013	435210080A
10	Base, Pointer w/Sheet	HC-0543	435110020A
11	Lens	G-0022	715110080A
12	Pulley, Guide	D-0538	433100420A
13	Dial Scale Ass'y	D-5017	M00506
a	Scale, Dial		717010240A
b	Reflector		417010120A
c	Blind		851212010A
△ 14	Protector, Thermal 125V 12A 100°C	S-1009	253000250A
△ 15	Protector, Thermal 125V 6A 115°C	S-1618	253010010A
16	Not used		
17	Pulley, Dial	D-0561	433006340A
18	Holder, Fuse	US F-1225	197000110A
△ 19	Outlet, AC	CA	197000130A
		AU	197000150A
		US J-5395	196010070A or
		J-5395	196010020A
		AU	196010070A or
20	Connector, F-Type	CA	196010020A
		CA	196010060A or
		US J-5356	196010040A 193210010A
21	Grommet	CA	193210010A
		AU	193210010A
		US	481110100A
		CA	481110100A
		AU	481110100A
22	Panel Ass'y, Front	Z-0226	M00507
a	Panel, Front		701010210A
b	Guide, Knob Power		716010190A
c	Guide, Knob Function		716010200A
d	Guide, Knob Push		716010210A
e	Guide, Knob Tape Mon		716010220A
f	Plate, Control Power w/Adhesive (852510010A)		711310260A
g	Plate, Control Function w/Adhesive (852510020A)		711310270A
23	Window, Dial	G-0019	713610110A
24	Knob, Power/Function	K-0206	655010330A
25	Knob, Tuning	K-0207	652510550A
26	Knob, Volume	K-0208	652510560A
27	Knob, Rotary	K-6202	652510450A
28	Knob, Push	K-6244	655010280A

Ref. No.	Description	RS Part No.	Mfr's Part No.
29	Cabinet Ass'y, Top	Z-0227	M00508
a	Cabinet, Top		601211130A
b	Net		851310110A
c	Spacer		852002481A
30	Foot	F-0423	608010160A
	Hardware Kit	HW-3103001	HW3103001
	Screw, Taptite 3x8BT-B		HCBB3008SY
	Screw, Tapping 3x6BT-2		HTB53006SY
	Screw, S3x16FF		HMWOA002SN
	Washer, Toothed 3TW-A		HAWA30SSSN
	Washer, 3W		HAWP30SSSN
	Screw, Deltite 4x8BT-3		HDB34008SN
	Washer, 4W		HAWP40SSSN
	Screw, Tapping 3x8BT-2		HTB53008SY
	Washer, 4W		HAWP40SSSY

Miscellaneous

Ref. No.	Description	RS Part No.	Mfr's Part No.
	Connector, Wire 4P	J-4745	193903390A
	Connector, Wire 3P		193903380A
	Connector, Wire 2P		193903370A
	Connector, Pin 6-Pin	J-4021	194111680A

Hardware

Ref. No.	Description	RS Part No.	Mfr's Part No.
S1	Screw, Deltite 4x8BT-3		HDB34008SN
S2	Screw, Tapping 3x6BT-2		HTB53006SN
S3	Screw, Tapping 3x8BT-2		HTB53008SY
S4	Screw, Taptite 3x8BT-B		HCBB3008SY
S5	Screw S3x16FF		HMWOA002SN
S6	Screw, Tapping 3x6BT-2		HTB53006SY
S7	Screw, Tapping 3x8RFT-2		HTG53008SY
W1	Washer 4W		HAWP40SSSN
W2	Washer 3W		HAWP30SSSN
W3	Washer, Toothed 3TW-A		HAWA30SSSN
W4	Washer 4W		HAWP40SSSY