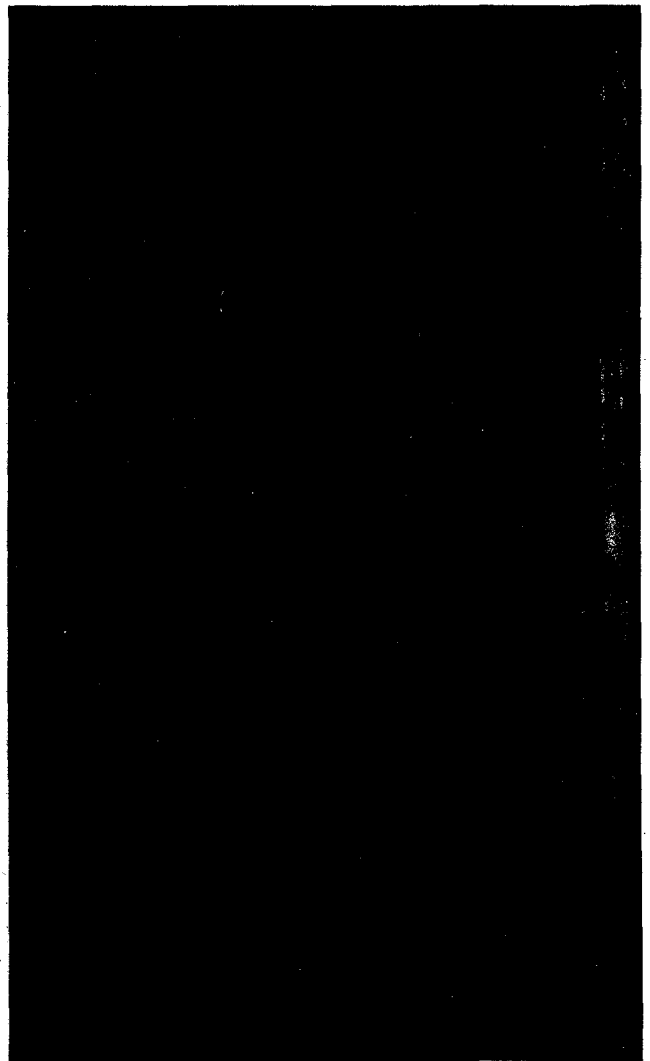
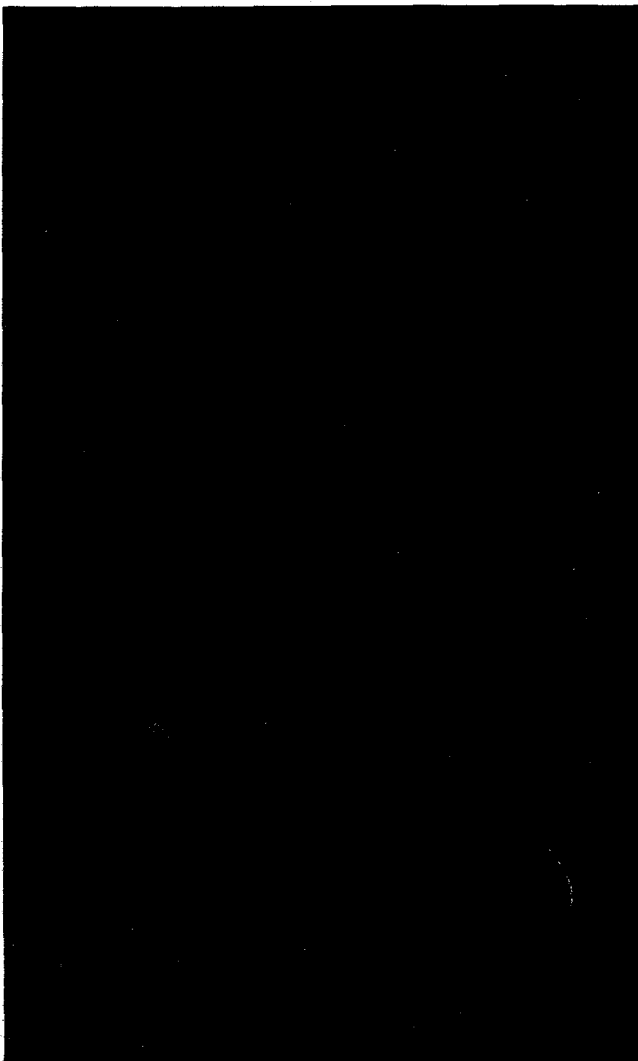


Price \$6.00

Service Manual
AM/FM Stereo Receivers

380R/390R



 **SCOTT**[®]
The Name to listen to.

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CAUTION NOTICE

The following safety precautions must be followed to assure continued reliability and safety against fire and shock hazard:

1. Replacement parts used during servicing of this appliance must have identical characteristics as those offered and recommended by H. H. Scott, Inc.
2. A dielectric test is to be performed on each appliance following the re-assembly and before returning the unit to the customer.
3. The dielectric test to be performed on H. H. Scott, Inc. electric components serviced in the United States and Canada for use in these countries shall consist of not less than the following: *
 - 1) A dielectric tester designed to supply not less than 1100 volts at 60 Hz and employing leakage current indicator(s), is to be used.
 - 2) The tester is to be connected per the instructions enclosed with the instrument, or as follows:
 - a. The tester is connected to the power line receptacle and the power switch is turned on.
 - b. Sufficient time is allowed for the tester supply to stabilize and then the output voltage is adjusted for 1080V.
 - c. Leads of the tester, usually marked GND and HV, are connected between chassis ground and both blades of the male plug of the power cord.
 - d. Switch tester to "test" and observe leakage indicator. Leakage current must not exceed 0.5 mA.

* Dielectric tests made by service personnel in countries other than USA and Canada must use test equipment and procedures specified by the safety agency serving that country.

SPECIFICATIONS

FM Section

Tuning Range

87.5 to 108 MHz

IHF Sensitivity

9.8 dBf/1.7 μ V

50 dB Quieting Sensitivity

Mono: 15.6 dBf/3.3 μ V

Stereo: 35.6 dBf/33 μ V

S/N Ratio at 65 dBf

Mono: 80 dB

Stereo: 75 dB

Distortion at 65 dBf

Mono: 0.1%

Stereo: 0.2%

Frequency Response \pm 2 dB

25 Hz – 15 kHz

Capture Ratio

1.0 dB

Alternate Channel Selectivity

80 dB

Image Rejection

90 dB

Stereo Separation at 1 kHz

50 dB

Spurious Response Rejection

100 dB

Subcarrier Rejection

74 dB

IF Rejection (98 MHz)

100 dB

AM Section

Tuning Range

515 to 1620 kHz

Usable Sensitivity (bar ant.)

150 μ V/m

S/N Ratio

55 dB

Selectivity (1 MHz)

50 dB

Image Rejection

60 dB

Amplifier Section

Minimum continuous RMS output power per channel, both channels driven into 8 ohms from 20 Hz – 20 kHz with no more than rated THD

85 watts (120 watts)

THD at Rated Output

0.03%

THD at 10 Watts, 20 Hz – 20 kHz

0.015%

IMD at Rated Output

0.03%

Input Sensitivity

Phono 1: 2.5 mV/5 mV

Phono 2: 2.5 mV/5 mV

Others: 150 mV

S/N Ratio Weighted, Input Shorted

Phono (re: 10 mV RIAA 1 kHz): 90 dB

Others: 95 dB

Frequency Response

Phono RIAA 20 Hz – 20 kHz: \pm 0.5 dB

Others at 1 watt 20 Hz – 20 kHz: \pm 0.5 dB

Phono Overload

300/600 mV

Tone Control Range

Bass: \pm 10 dB at 100 Hz

Mid: \pm 6 dB at 1 kHz

Treble: \pm 10 dB at 10 kHz

Filters

High: 8 kHz 12 dB/oct./12 kHz* 12 dB/oct. (*390R only)

Subsonic: 18 Hz 12 dB/oct./40 Hz* 12 dB/oct. (*390R only)

Loudness Compensation at –30 dB

+3.5 dB at 10 kHz

+7 dB at 100 Hz

Channel Separation

(Phono) 1 kHz: 70 dB

(Others) 1 kHz: 75 dB

Crosstalk (1 kHz)

75 dB

Damping Factor (1 kHz) 8 Ω

>100

General Specifications

Line Voltage and Frequency

US/Canada: 117V AC 60 Hz

Europe: 100V/117V/220V/240V switchable, 50/60 Hz

Power Consumption

US/Canada: 240 Watts (320 Watts)

Europe: 630 Watts (800 Watts)

Dimensions – H/W/D

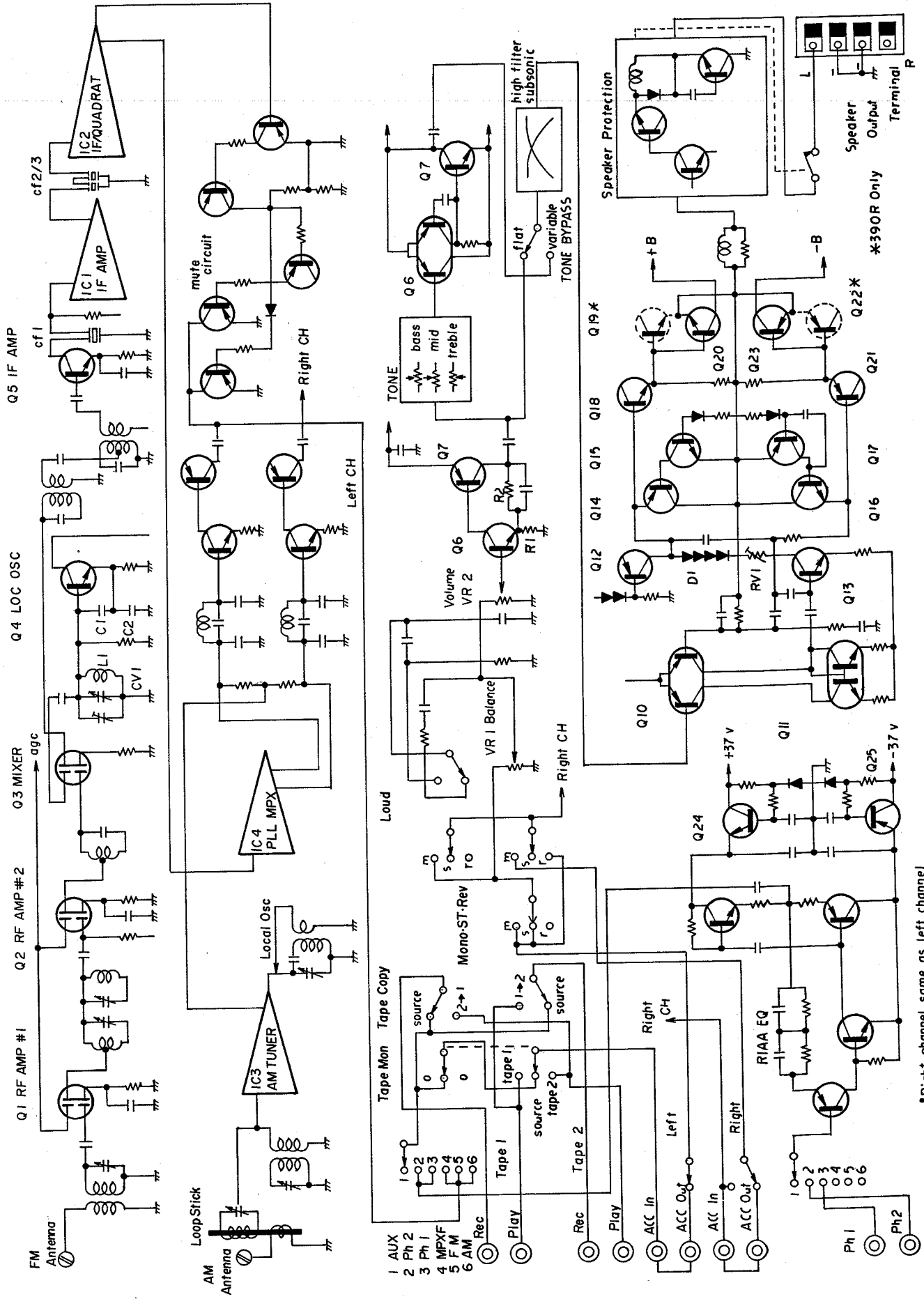
6"/20-3/4"/13-3/4"/152 mm/530 mm/330 mm

(6-1/2"/22-7/8"/15-3/4"/165 mm/580 mm/400 mm)

Net Weight

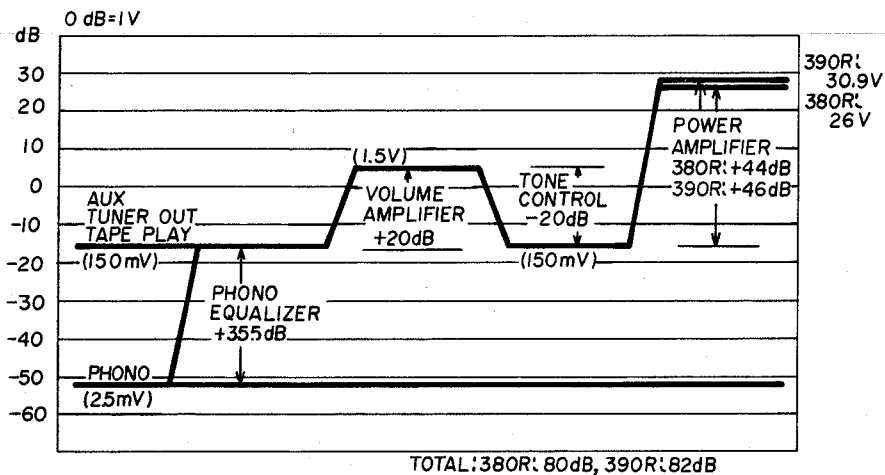
38.6 lbs/17.3 kgs (49.0 lbs/22.3 kgs)

BLOCK DIAGRAM



*Right channel same as left channel

AUDIO LEVEL DIAGRAM



CIRCUIT DESCRIPTION

FM Front End (Refer to Block Diagram)

The FM front end consists of a tuning circuit using a five gang variable capacitor, two tuned RF amplifier stages, (Q1 and Q2), a converter stage (Q3) and a local oscillator (Q4). The tuned RF amplifiers provide optimum gain and selectivity characteristics to gate 2 of the converter stage. Gate 1 of the converter stage is used for injection of the local oscillator

signal for the desired conversion gain with good linearity. Output of the converter stage is connected to the first IF transformer (T6). The local oscillator operating at 10.7 MHz above the incoming signal is connected in a Colpitts configuration in which the resonant frequency is determined by the tank circuit consisting of CV8, CT8 and T5.

FM IF Section

The FM IF stage is composed of a transistor amplifier Q1, 3 dual element ceramic filters, and 2 integrated circuits. IC1, μ PC555H a differential amplifier to provide an extra stage of gain. IC2, HA11225 containing the IF limiter amplifiers, meter drive and muting circuits, and a quadrature detector (see block diagram, page 6). The IF amplifier is composed of three direct-coupled amplifier/limiter stages. The limiter output, which is fed directly to a quadrature input, also appears at pin 8, where it is phase shifted through L2 and reapplied to the other quadrature input at pin 9. Two audio signals opposite in phase are obtained from the quadrature

detector. These signals are converted to single ended outputs by two separate amplifiers. The output of the first amplifier (pin 7) is a DC level which varies with detuning and used as the drive for the center tune meter. The output from the second amplifier (pin 6) is the composite audio signal which is fed directly to pin 2 of multiplex IC. The drive for muting appears at pin 12, and provides a positive voltage in the event of low IF input level or detuning greater than ± 70 kHz. Signal strength meter drive at pin 13 is derived from 3 peak detectors which sense and sum the signal levels of the three IF amplifiers.

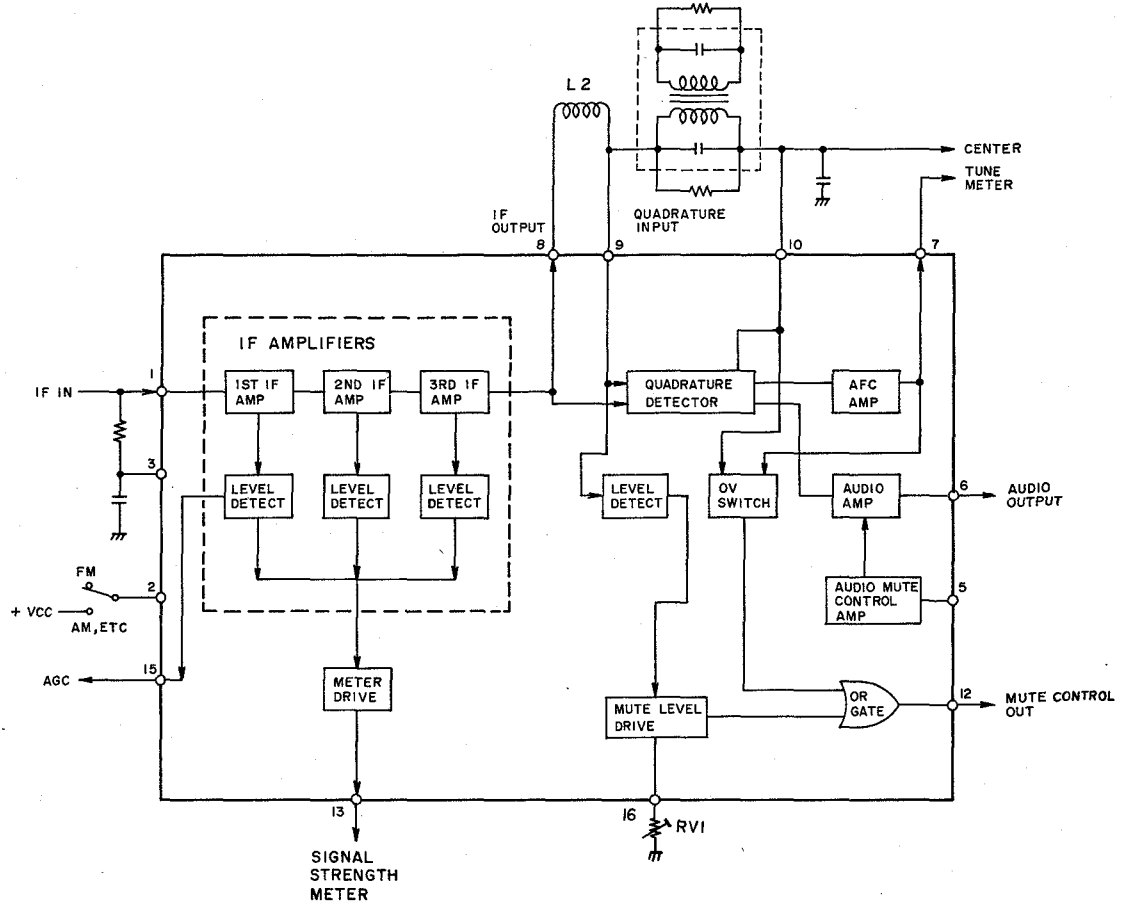
Multiplex Decoder

The multiplex decoder IC (HA1196) is functionally divided into 2 sections: The phase locked loop (PLL) signal generator, and the stereo demodulator. The PLL consists of a 76 kHz voltage controlled oscillator (VCO) followed by two frequency dividers, producing 38 kHz and 19 kHz. The phase of this signal is compared with the phase of the incoming pilot signal and a difference signal is created which corrects the VCO and synchronizes the VCO signal to the pilot signal. Since higher order harmonics are contained in the phase difference signal, a low pass filter is used to eliminate these harmonics. A

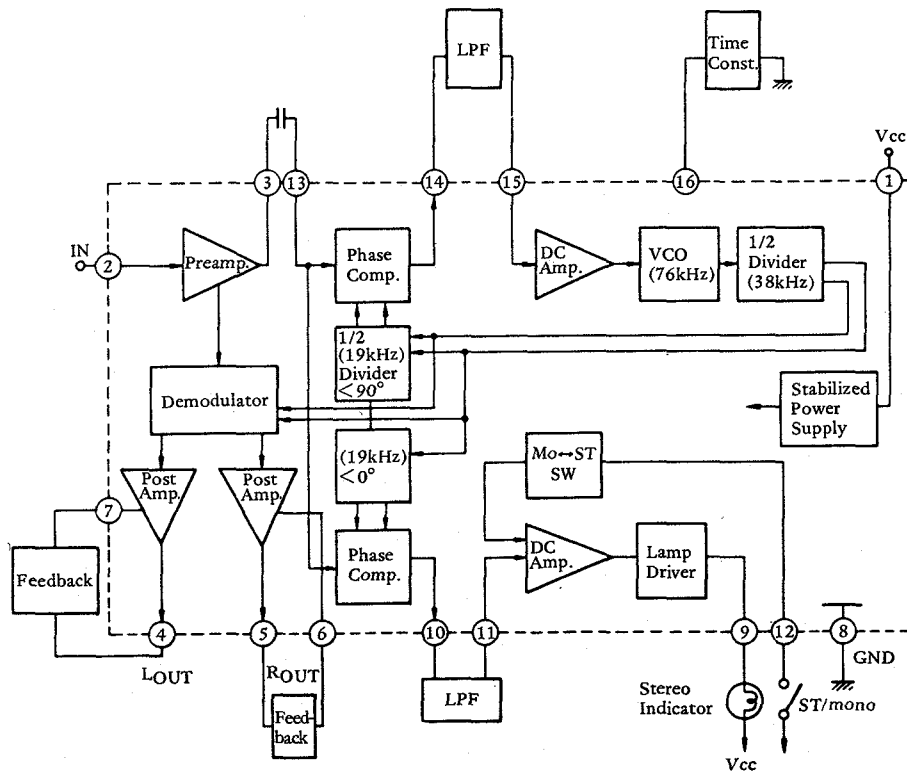
second phase comparator is used to sense when the PLL is locked to a pilot signal. The output of this comparator triggers the stereo indicator and connects the 38 kHz switching signal to the demodulator. This control circuit will be blocked when a positive voltage appears on pin 12 since it is connected to the muting signal of the FM IF. Thus, when the conditions for muting exist, pin 12 is positive and the unit is locked in mono operation.

The demodulator circuit consists of two differential amplifiers operating in a switching mode controlled by the phase

Block Diagram of IC2



Block Diagram of IC4

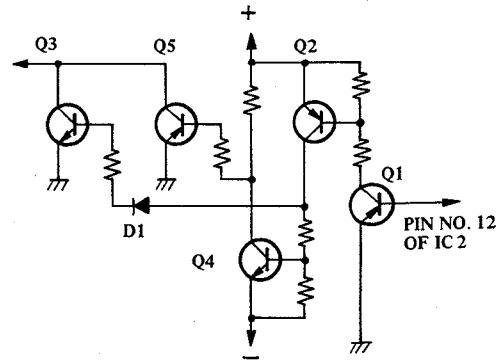


locked 38 kHz signal which demodulate the composite incoming signal into left and right outputs. These signals are connected to negative feedback audio amplifiers in which the gain

is set by external resistors. From the IC, the signal is fed to the 19 kHz filters, then to the discrete mute circuit and the output jacks.

Mute Circuit

The mute drive block integrated into IC2 provides a control voltage at pin 12 for the external mute circuit comprised of Q7, 8, 9, 10, 11, 12 and 13. With reference to the simple schematic shown, when a plus DC appears at the base of Q1, Q1 will conduct, this in turn activates Q2 and, through diode D1, Q3 will conduct, shorting the audio output of the tuner section to ground. An additional feature of this mute circuit is the use of Q4 and Q5 to eliminate impulse type noise when the unit is switched on or off. Under normal operating conditions Q5 is not conducting, however if the plus or minus supply voltages are upset Q5 will conduct muting the audio output.



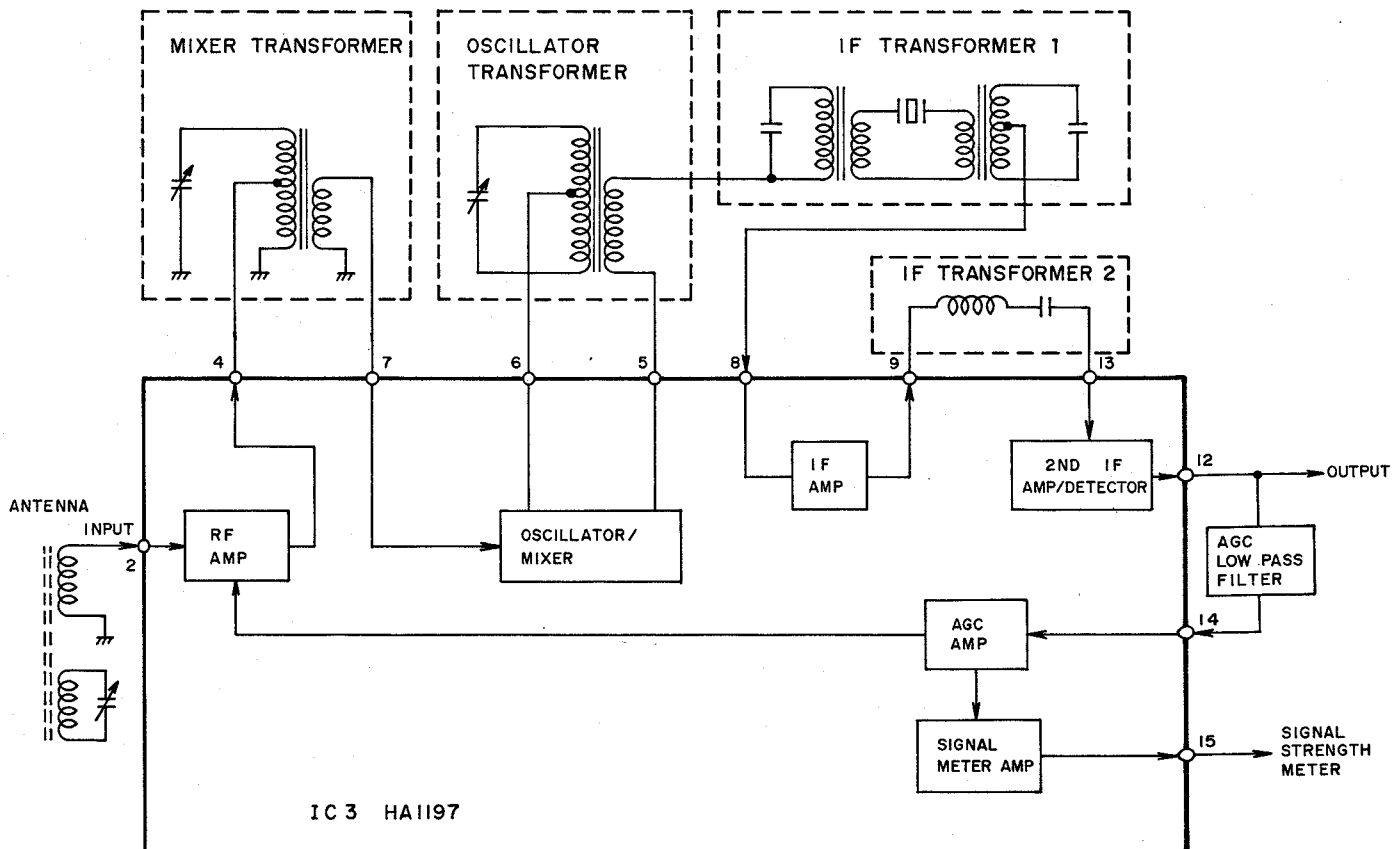
AM Tuner Section

The AM incoming signal received at the AM antenna enters the RF section of IC3, is amplified and coupled to the converter stage, here the signal is changed to the universal 455 kHz intermediate frequency.

The local oscillator operating 455 kHz above the incoming tuned signal is achieved in the converter block in the IC with

externally connected T6.

The 455 kHz signal is coupled, through two stages of IF amplification, and to the detector, the detector output then appears at pin 12 as audio information. The signal is then conducted through the low pass filter to further remove the 455 kHz component.

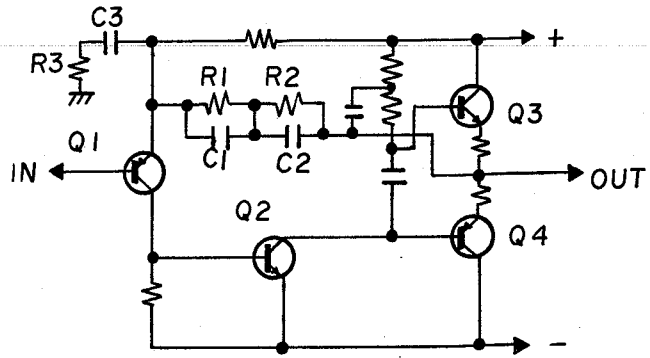


Phono Preamplifier

This is a negative feedback type of phono equalizer, it consists of four low noise transistors per channel. Open loop gain of the circuit is 100 dB. Negative feedback for gain adjustment and equalization is provided by resistors R1, and R2 and capacitors C1 and C2 connected between the complementary amplifier output and emitter of Q1 giving a gain of 35.5 dB @ 1 kHz.

Units produced for use in Europe include circuitry to provide playback equalization conforming to IEC standards publication 98 amended September 1976 ie: +16.3 dB @ 50 Hz, -13.7 dB @ 10 kHz. Units produced for North America provide playback equalization conforming to RIAA standards ie: +16.9 dB @ 50 Hz, -13.7 dB @ 10 kHz.

Additional rolloff below 30 Hz required by IEC standard is provided by C3. The circuit is powered by a split power supply of $\pm 37V$ to provide an over load capability of greater than 300 mV at 1.0 kHz.



Volume Amplifier

The signal from the Volume control, VR2, is amplified 20 dB by the directly connected amplifier stage consisting of Q6 and

Q7 (refer to the block diagram, page 4). Gain is set by the ratio of R1 to R2.

Tone Control

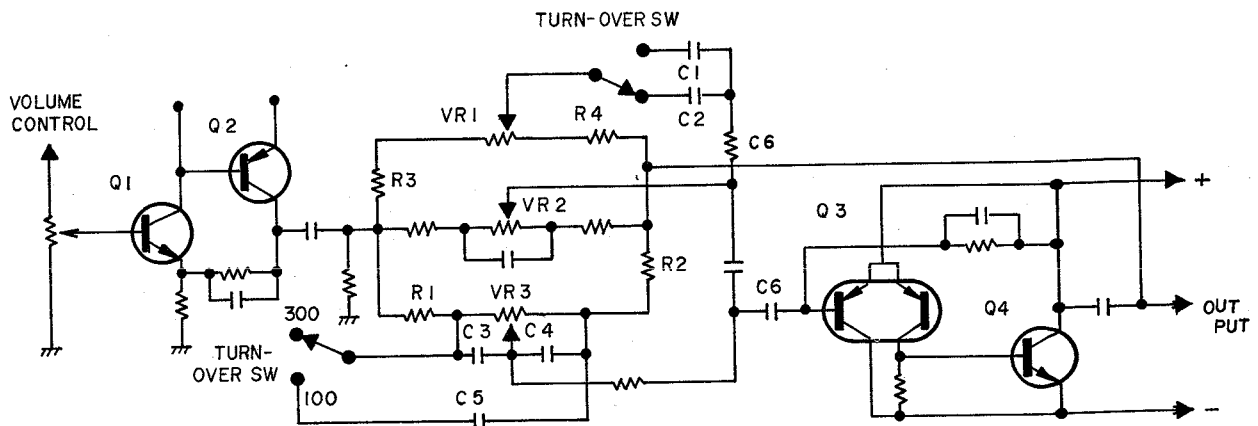
The tone control is a negative feedback type which utilizes common emitter amplifier Q3 and emitter follower Q2 as the active elements. That is, the gain of Q3 is controlled by the tone control circuitry.

Mid Tone Control: At 1 kHz the bass and treble controls have little effect on the gain since the impedance of capacitor C1 or C2, is high which effectively removes VR1 from the circuit. Impedance of capacitors C3 and C4 is low, effectively shorting VR3 thus at mid range frequencies near 1 kHz the gain is mainly determined by the position of VR2.

Bass Tone Control: As the frequency decreases below 1 kHz, the impedance of C3 and C4 increases proportionally. At very low frequencies, C1 or C2, and C6 are effectively open, removing VR1 and VR2 from the circuit. Thus at low frequencies, the gain is mainly determined by the position of

the Bass tone control VR3. Rotating towards R1 will boost the low frequencies, while turning it towards R2 will cut the bass. The frequency band over which the Bass tone control operates is selectable by adding C5 in parallel with VR3 (with C5: 20 - 100 Hz; without C5: 20 - 300 Hz).

Treble Tone Control: At high frequencies, VR2 and VR3 are effectively short circuited. At these frequencies, however, C1 or C2 impedance decreases, so that VR1 becomes the main control of the circuit gain. Rotating VR1 towards R3 will boost the treble, while turning it towards R4 will cut the treble response. The frequency band over which the Treble tone control operates is selectable by changing C1 or C2, alternatively. (with C1, 1200 pF: 8000 - 20000 Hz; with C2, 3900 pF: 3000 - 20000 Hz).



Power Amplifier (See Block Diagram, page 4)

This circuit is an OCL, fully complementary amplifier. The input stage consists of a differential amplifier (Q10 + 11) and a voltage amplifier (Q13). The voltage amplifier provides voltage swing to nearly full plus and minus supply. Current gain is then provided by the fully complementary Darlington sets of Q18 + Q19 (390R only) + Q20 for the positive swing, Q21 + Q22 (390R only) + Q23 for the negative swing. The output stage bias is set by D1 and RV1.

The output stage is protected from short circuit and overload by transistors Q14 through 17, which short out the driving signal when current through the output transistors reaches an excessive level.

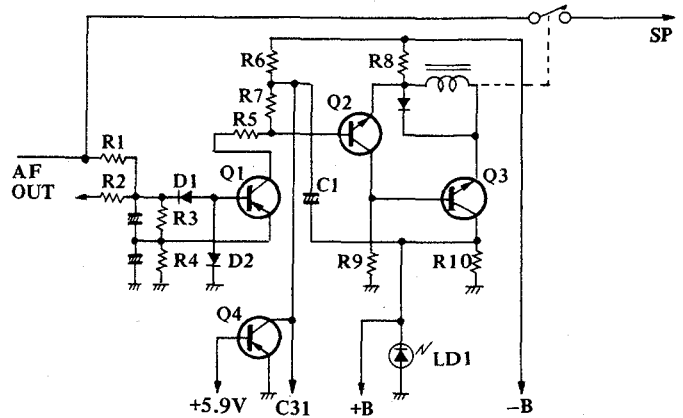
The models 380A and 390A are designed using a differential current mirror loaded low noise input stage, where a transistor pair (Q11) are connected to provide an active load to the differential amplifier to further minimize distortion products.

Relay Protection Circuit

This circuit protects the speakers from the possibility of DC potential at the amplifier outputs, as well as eliminating transients during turn on or turn off.

Turn On/Off: When the unit is first switched on, Q2 quickly turns on, holding Q3 off. After several seconds, determined by the charging time of C1 through R6, Q2 turns off, thus turning on Q3 and activating the relay which connects the audio output to the speakers. At turn off, Q4 immediately turns on, which turns Q2 on and Q3 off, instantly opening the speaker relay.

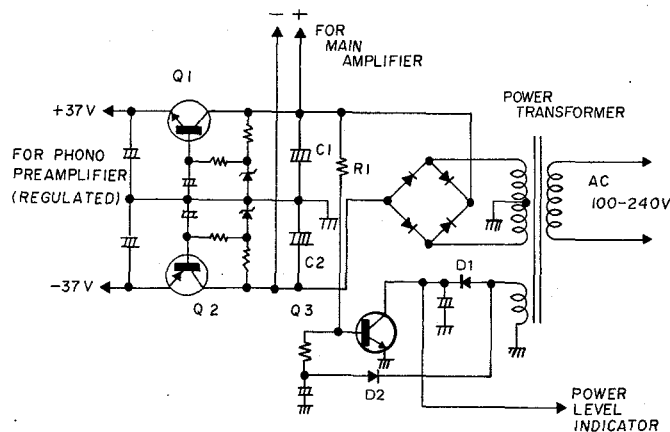
Center Point Potential Detect: This circuit, composed primarily of Q1, D1 and D2, protects the loudspeakers from DC at the amplifier output. When excessive plus or minus DC appears at R1 or R2, Q1 turns on, which activates Q2 and opens the speaker relay. At the same time, LD1, the front panel protection indicator, is activated.



Power Supply (Refer to Block Diagram)

The main power supply consists of a full wave bridge rectifier and two capacitors (10,000 μ F for 380R; 15,000 μ F for 390R). The B+ and B- regulators (Q24 + Q25) supply \pm 37V for the phono preamplifiers. For model 390R, a provision has been made, utilizing Q3, D1 and D2, which deacti-

vates the power level LEDs in a moment. With respect to a simple schematic shown below, at turn off, a plus dc applied to the base of Q3 from +67V main supply overcomes the minus bias fed through D2, Q3 will conduct, shorting plus low level power supply from D1 to ground.

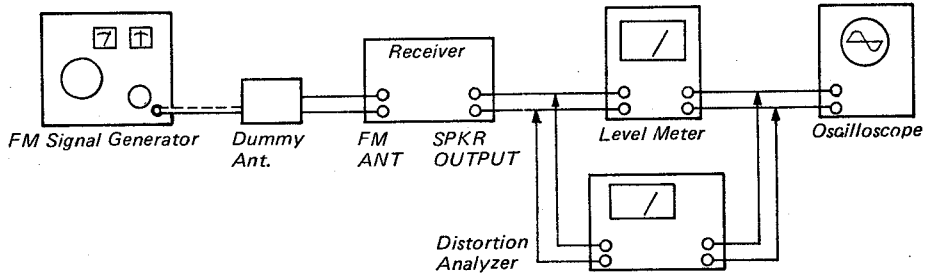


ADJUSTMENT

Equipment Required

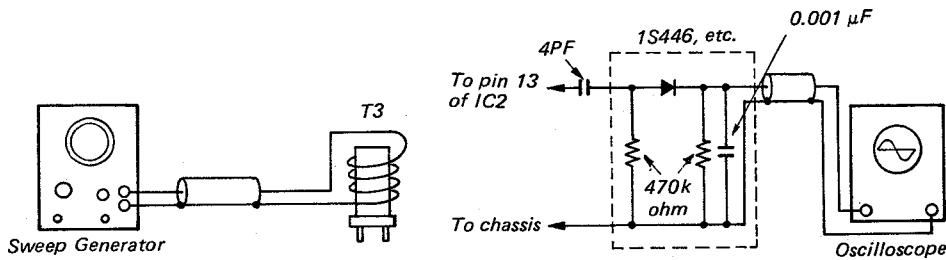
Audio signal generator.
 Level meter.
 Oscilloscope.
 Digital frequency counter, 0 – 100 kHz.
 FM multiplex signal generator.
 Circuit tester.

FM RF Tracking (PSTU031COX)

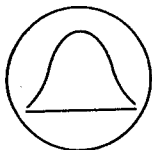


- 1) Apply 90 MHz, 1 kHz and 100% modulated, 65 dBf signal with 76 kHz deviation to the FM antenna terminal.
- 2) Tune the unit to 90 MHz.
- 3) Observe the oscilloscope connected to the Speaker output terminal for symmetrical sine wave. If failed, adjust T5.
- 4) Adjust T1 through T4 for maximum level meter reading (connected in parallel with the scope).
- 5) Adjust the signal generator for 106 MHz, and retune the unit. Adjust CT8 to tune in.
- 6) Adjust CT1, CT2, CT4 and CT6 for maximum level meter reading.
- 7) Repeat above procedure again until no further improvement is obtained.

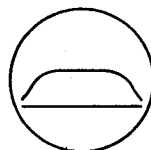
FM IF Amplifier (PSTU041COX)



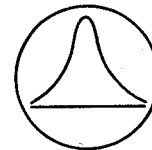
- 1) Mute the FM local oscillator by shorting CV8.
- 2) Apply 10.7 MHz signal from the sweep generator to T3 in the manner shown as above.
- 3) Adjust T6 and T7 for correct figure as provided below. It may be necessary to increase or decrease the sweep generator output for adjustment convenience.



Correct



Incorrect,
as too low



Incorrect,
as too narrow

Pilot Signal (76 kHz) (PSTU032COX – 380R/PSTU038COX – 390R)

- 1) Apply 98 MHz, 65 dBf signal to the unit with no modulation.
- 2) Adjust RV4 for 76 kHz ± 200 Hz reading on the frequency

counter connected between TP (test point) and chassis ground. The deviation within ± 200 Hz is acceptable.

Stereo Separation

- 1) Apply 98 MHz, 65 dBf left channel composite signal to the unit modulated with 1 kHz, 9% pilot signal with 6.75 kHz deviation.
- 2) Connect a digital voltmeter to the right channel speaker output terminal.
- 3) Adjust RV5 for minimum leakage (minimum level) on the voltmeter.

- 4) Apply 98 MHz, 65 dBf right channel composite signal to the unit modulated same as step 1).
- 5) Move digital voltmeter to the left channel speaker output terminal.
- 6) Observe the right channel leakage appeared on the left channel output. If necessary, readjust RV5 for equal and minimum level at both channels.

FM Center-Tuning Meter

- 1) Remove the signal generator output from the unit.
- 2) With no signal supplied to the unit, verify that the FM

Center-tuning meter reads exact center of the scale. If necessary, adjust T1.

FM Distortion

- 1) Apply 98 MHz, 65 dBf, 1 kHz and 100% modulated signal to the unit, using same manner as in the FM Front-End set-up.

- 2) Adjust T2 for minimum distortion on the distortion analyzer. Readjust T1 if necessary, as turning T2 core may upset the center-tuning meter balance.

Signal Strength Meter

- 1) Apply 98 MHz, 90 dBf signal to the unit.
- 2) Tune the unit to 98 MHz.

- 3) Adjust RV2 for about 90% reading on the signal-strength meter.

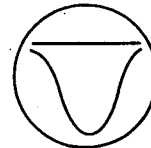
FM Mute Circuit

- 1) Apply 98 MHz, 20 dBf signal to the unit.
- 2) Tune the unit to 98 MHz.

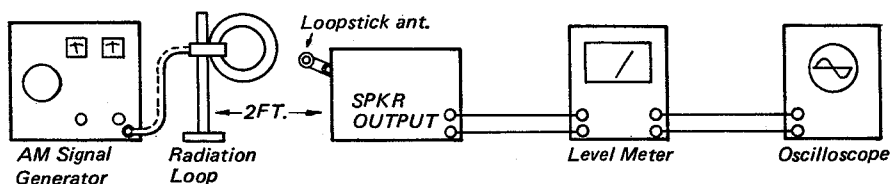
- 3) Place the Mute switch in on.
- 4) Adjust RV1, turning slowly until the signal is muted.

AM IF Amplifier

- 1) Apply 455 kHz sweep generator output to the unit's AM Antenna terminal.
- 2) Connect the scope to the pin No. 12 of IC3 and the chassis ground.
- 3) Adjust T4 for maximum and symmetrical scope display as shown below.



AM Tracking

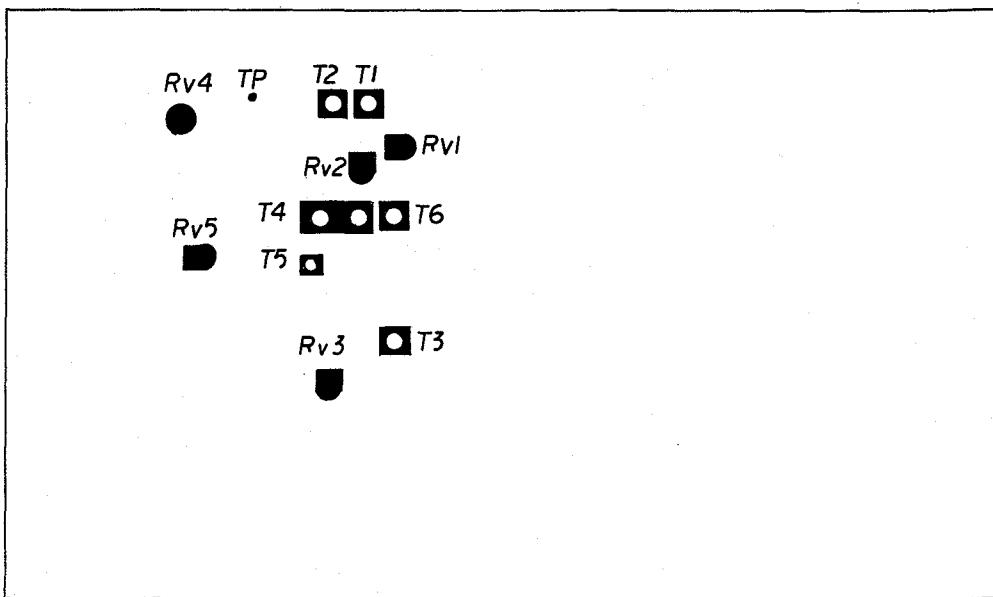


- 1) Apply 600 kHz, 30% modulated with 1 kHz to the AM bar antenna, as shown above. (Distance between the AM bar antenna and emitting loop should be about 2 feet).
- 2) Adjust the signal generator output so that a sine wave appears on the scope.
- 3) Adjust T6 for maximum audio output on the digital voltmeter connected parallel with the scope. When turning the core it may be necessary to reduce the signal generator output so that signal strength is only slightly above the noise level. This minimizes AGC action and will provide

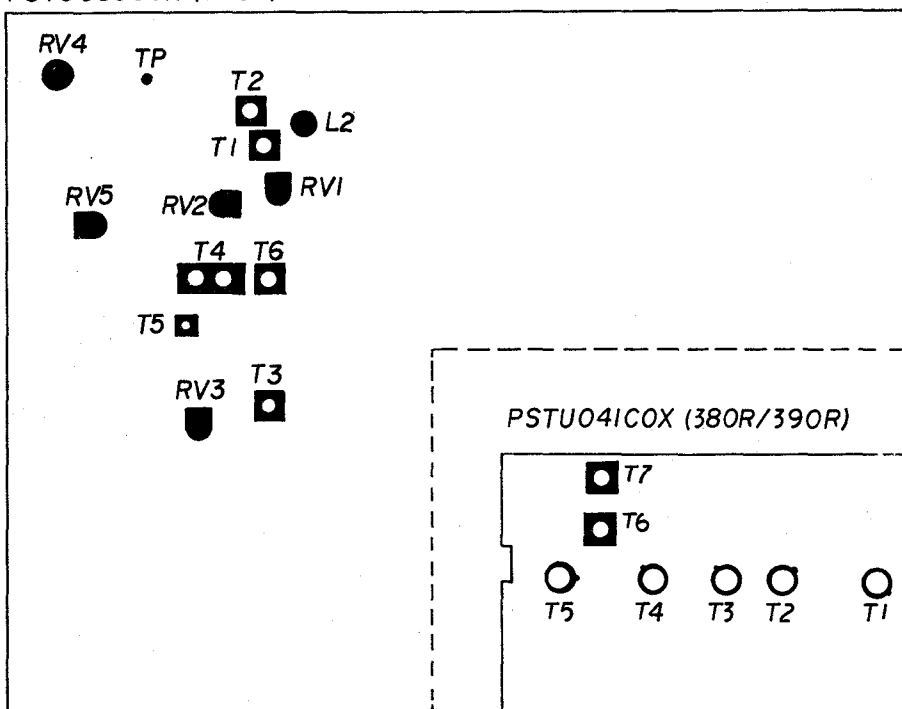
- maximum alignment accuracy.
- 4) Adjust the AM loopstick antenna core for maximum output on the voltmeter.
- 5) Shift the generator frequency to 1400 kHz with same modulation condition. Retune the unit.
- 6) Adjust CT5 (dial frequency adjustment) + CT3 + CT7 (tracking) for maximum audio output.
- 7) Repeat above procedure at both frequencies, until no further improvement is obtained.
- 8) Verify the dial frequency indication on 1000 kHz.

Adjustment Location (RF Section)

PSTU032C0X (380R)



PSTU038C0X (390R)



Audio Adjustment (PSMA030COX)

Equipment Required

- Audio signal generator.
- DC voltmeter.
- Speaker load resistor, 8 ohm, 200W, noninductive.
- Digital voltmeter or milliammeter.

Bias Adjustment

The following adjustments are the same for both the left and right channels.

- 1) Connect 8 Ohm resistors to the speaker A terminals, and set the Speaker Mode switch to A position.
- 2) Turn the Volume control fully counterclockwise.
- 3) Turn RV1 fully counterclockwise.
- 4) Depending on available equipment, use A or B.
 - A. Set digital voltmeter to most sensitive range. Connect probes, for 390R across Q1 emitter to Q7 emitter on PC board PTZQ008COX, for 380R across R37 and R39 (voltmeter bias test point, left channel). Turn unit on. Let it idle at least one minute. Adjust RV1 for 30 mV across the resistors.
 - B. With unit off, remove jumper between PC board terminals E and E, and connect ammeter, set to 100 mA range.

Turn unit on and let it idle for at least one minute. Adjust RV1 for 60 mA.

- 5) Perform the same procedure for the right channel, except measure voltage across Q2 emitter to Q8 emitter on PC board PTZQ008COX for 390R, and across R38 and R40 for 380R (voltmeter bias test point, right channel) or replace jumper from D to D with ammeter. Adjustment is made with RV2.
- 6) Leave the receiver on for about 30 minutes, then recheck measurement. A tolerance of $\pm 25\%$ is acceptable. Readjust if necessary.

Power Meter Calibration

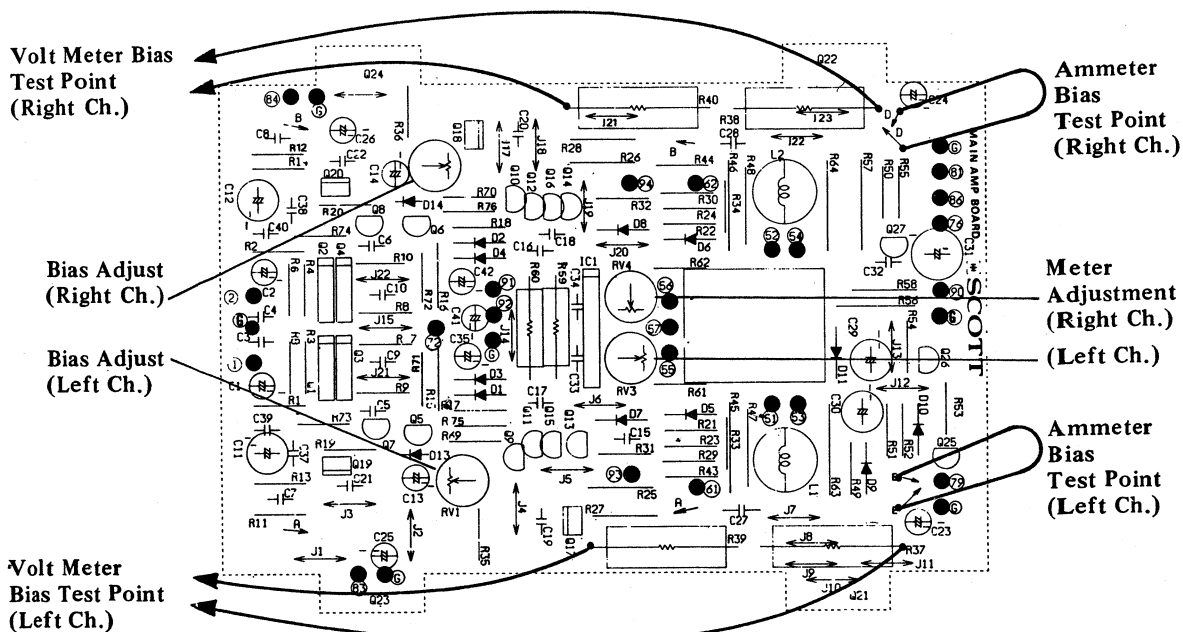
- 1) Connect the audio signal generator to the receiver and apply 1 kHz signal to Aux input, left channel.
- 2) Connect voltmeter across the left channel load resistor.
- 3) Turn power on.
- 4) Adjust the signal generator output so as to obtain 2.83 volts on the voltmeter.
- 5) 380R: Check that the left channel meter indicates 1 watt.

If not, adjust RV3.

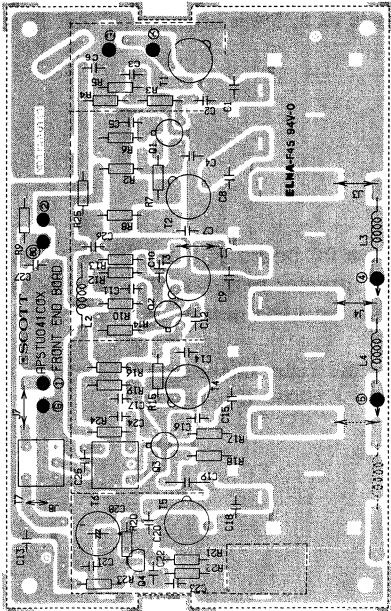
390R: a. Adjust RV1 on PC board PSLD025COX to obtain 2.05V, connecting voltmeter between TP1 and TP2 on the board. b. Check that the LED indicating 1 watt turns on. If not, adjust RV3.

- 6) Perform above steps on the right channel, adjusting RV4 for 380R, RV2 and RV4 for 390R, if necessary.

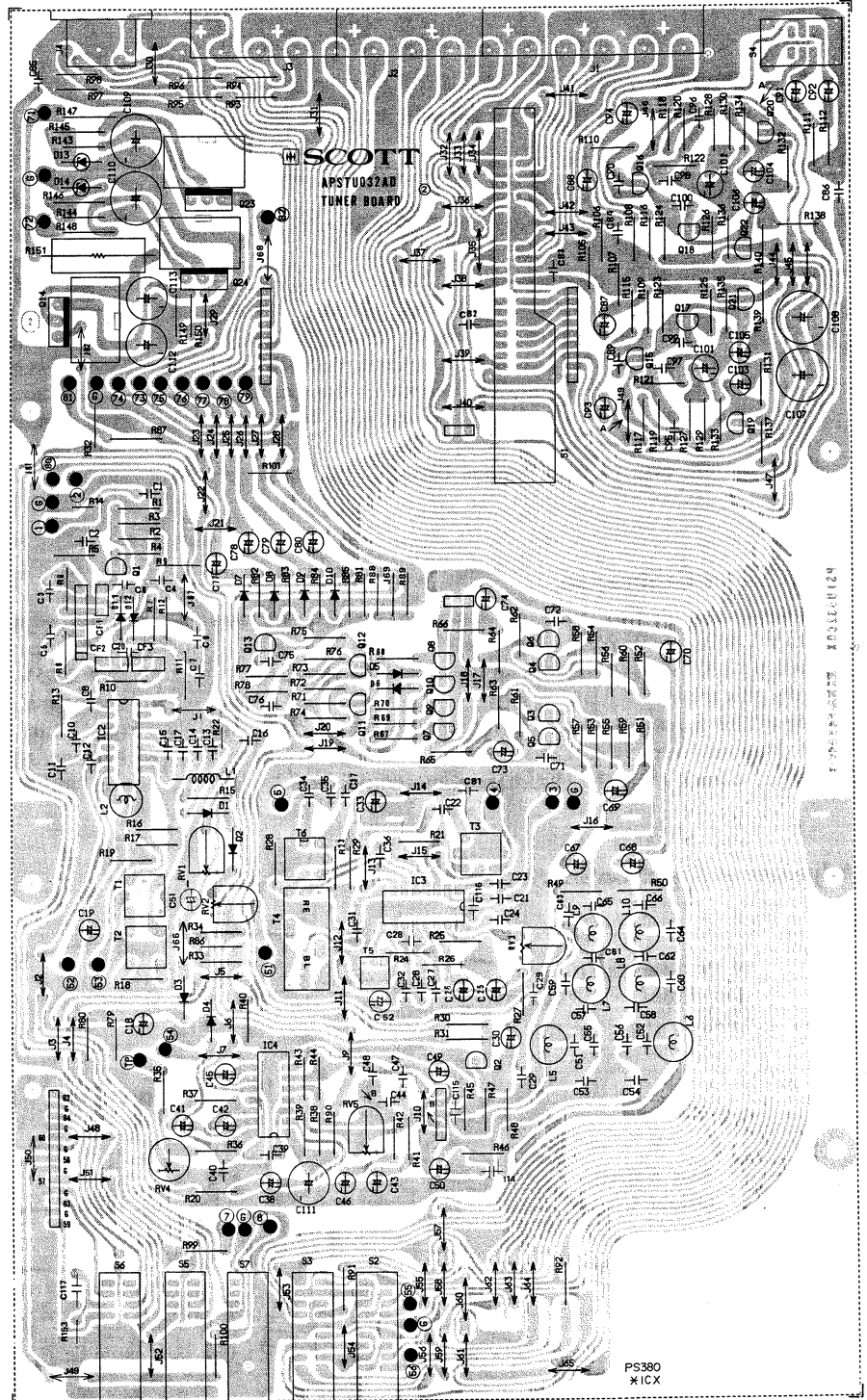
Adjustment Location (Audio Section)



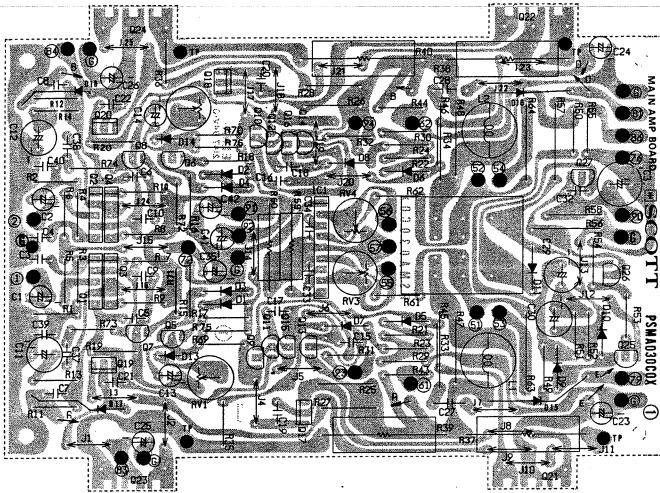
PARTS LOCATION DIAGRAM



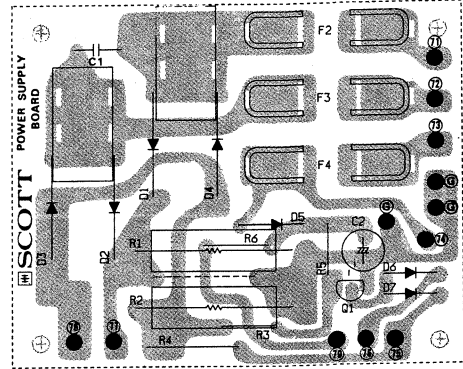
FM Front-End [PSTU041COX]
(380R/390R)



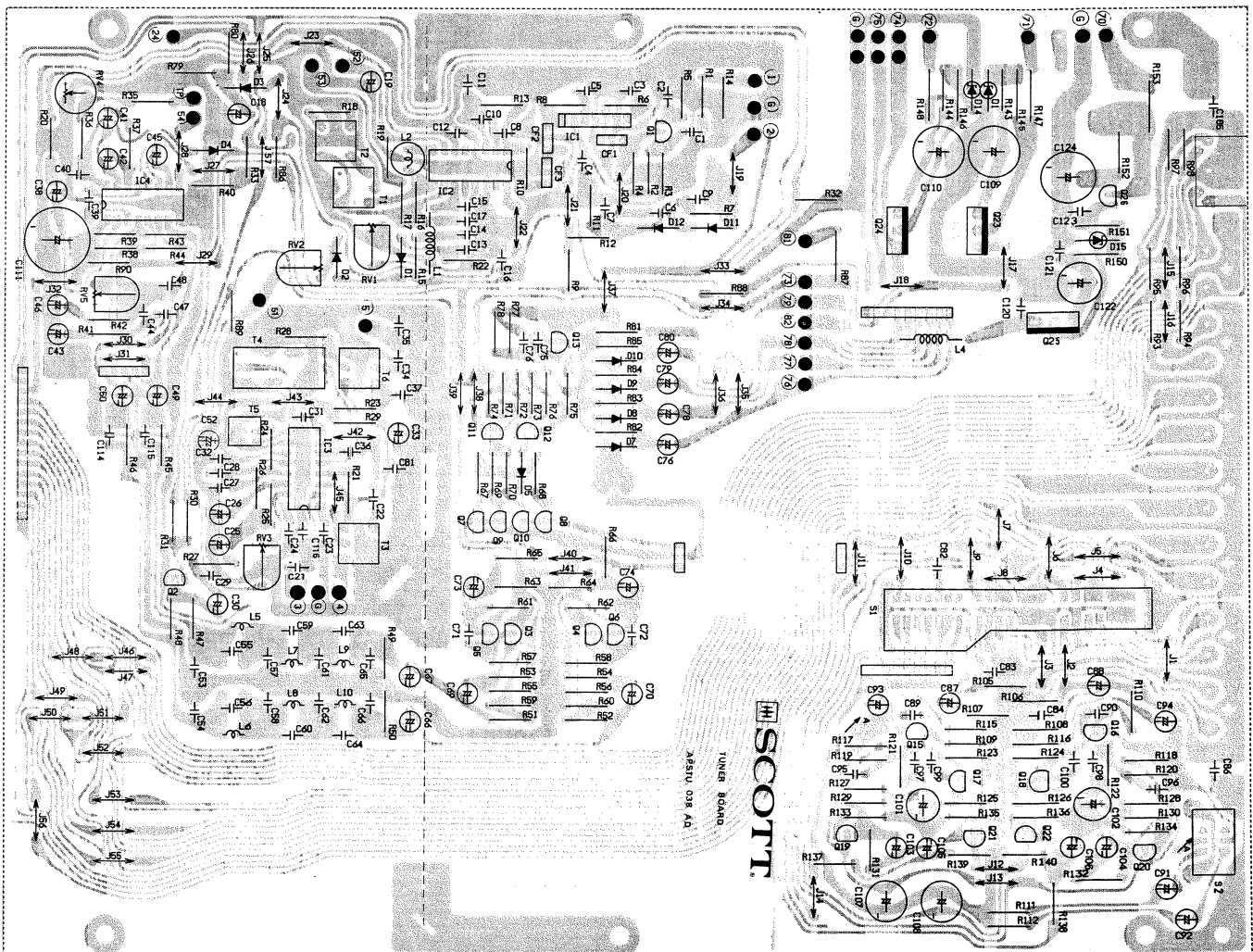
FM IF/Det-AM Tuner/Preamplifier [PSTU032COX] (380R)



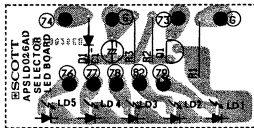
Power Amplifier [PSMA030COX] (380R/390R)



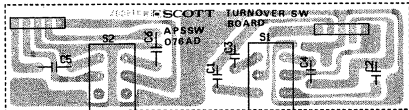
Power Supply [PSPW033COX] (380R)



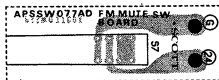
FM IF/Det-AM Tuner/Preamplifier [PSTU038COX] (390R)



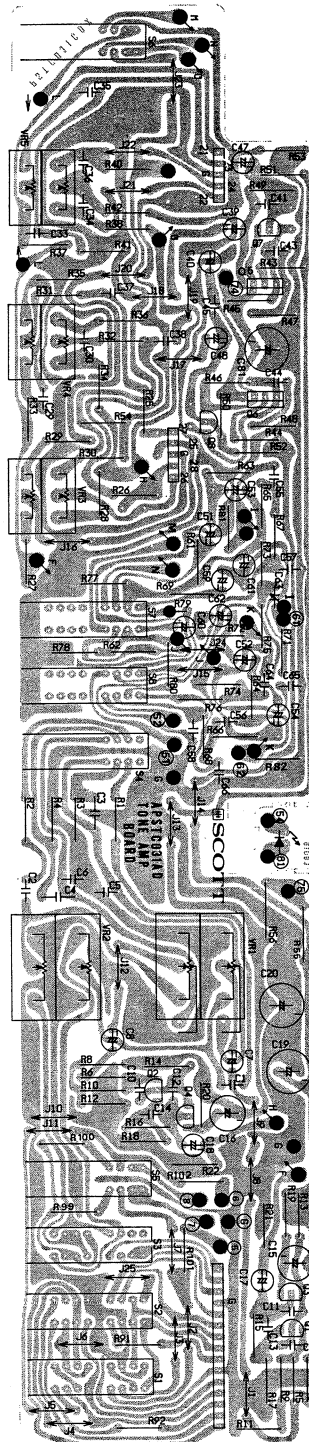
Program LED
[PSLD026COX]
(390R)



Turn-over
[PSSW076COX]
(390R)



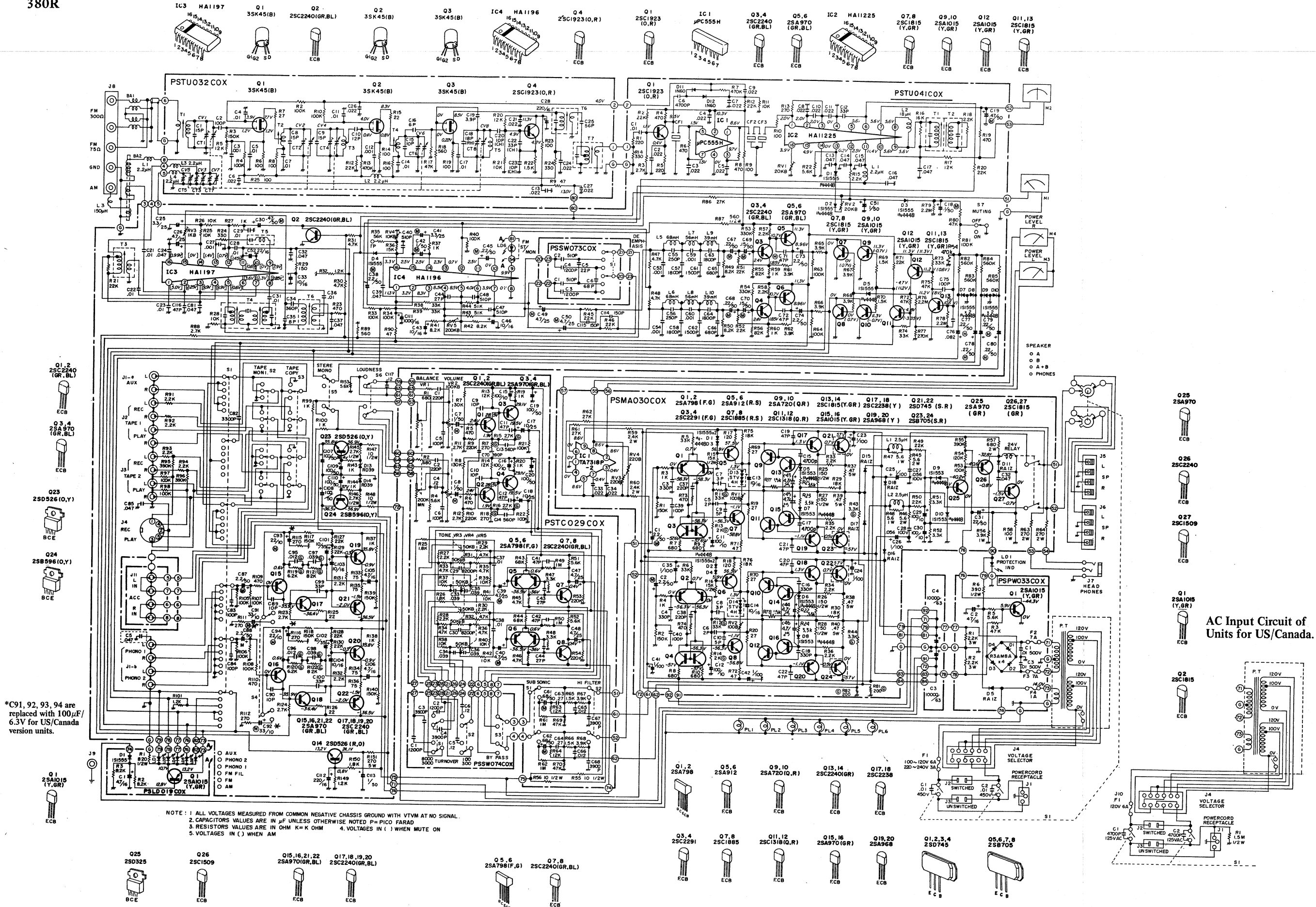
FM Mute SW
[PSSW077COX]
(390R)

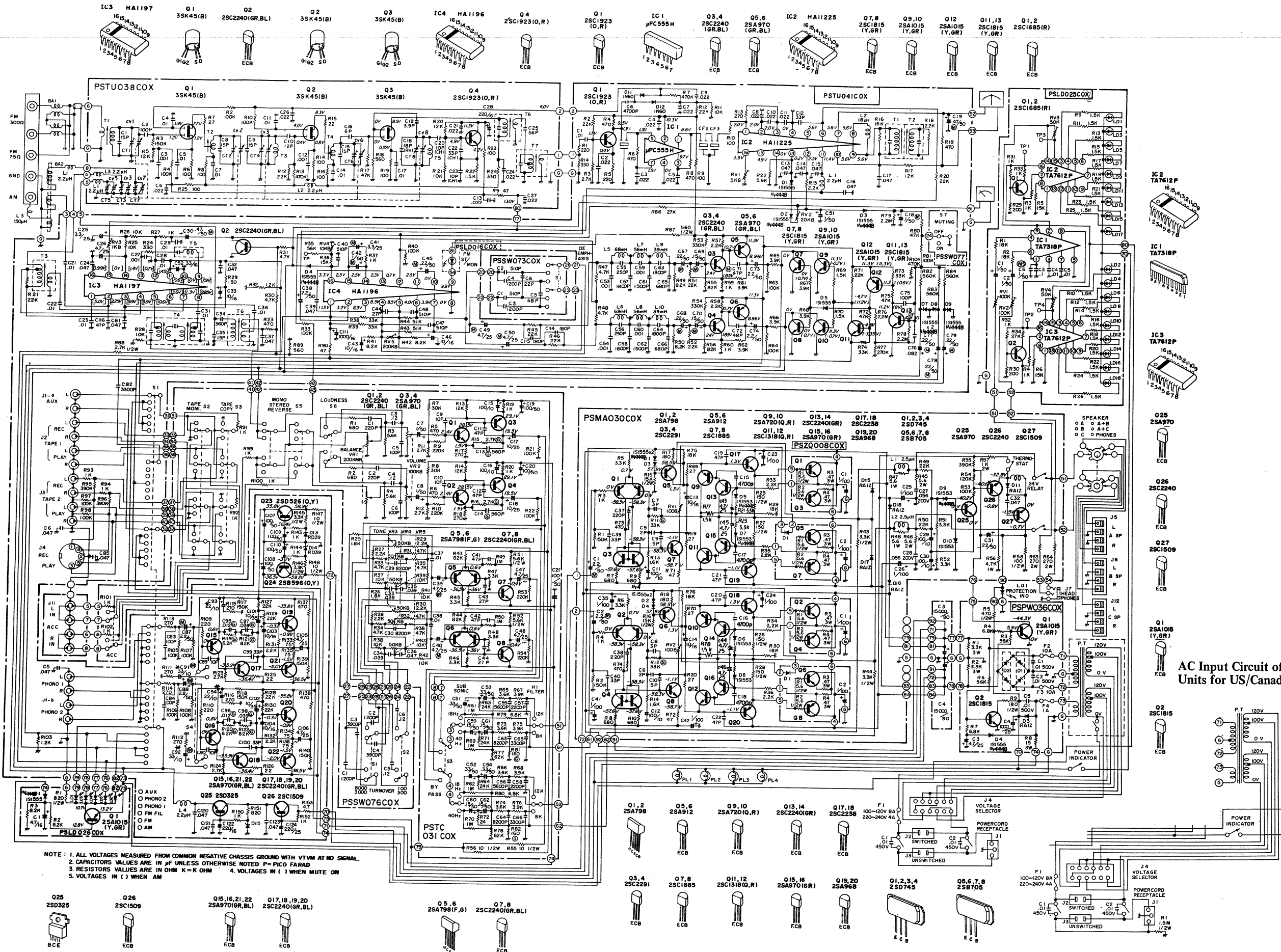


Control Amplifier
[PSTC031COX]
(390R)

SCHEMATIC DIAGRAM

380R





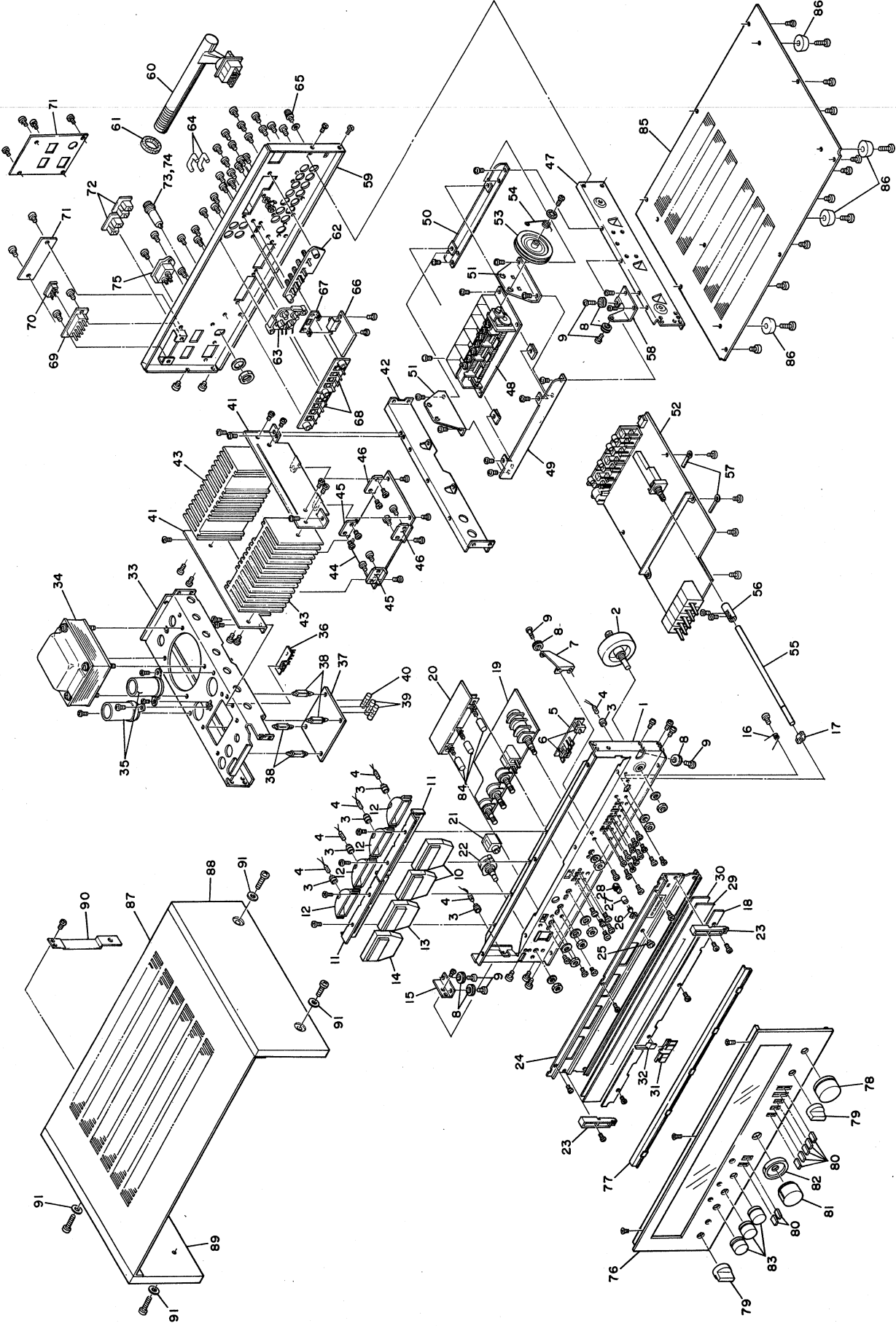
*C91, 92, 93, 94 are replaced with 100µF/6.3V for US/Canada version units.

NOTE: 1. ALL VOLTAGES MEASURED FROM COMMON NEGATIVE CHASSIS GROUND WITH VTVM AT NO SIGNAL.
 2. CAPACITORS VALUES ARE IN µF UNLESS OTHERWISE NOTED P= PICO FARAD
 3. RESISTORS VALUES ARE IN OHM K=K OHM 4. VOLTAGES IN () WHEN MUTE ON

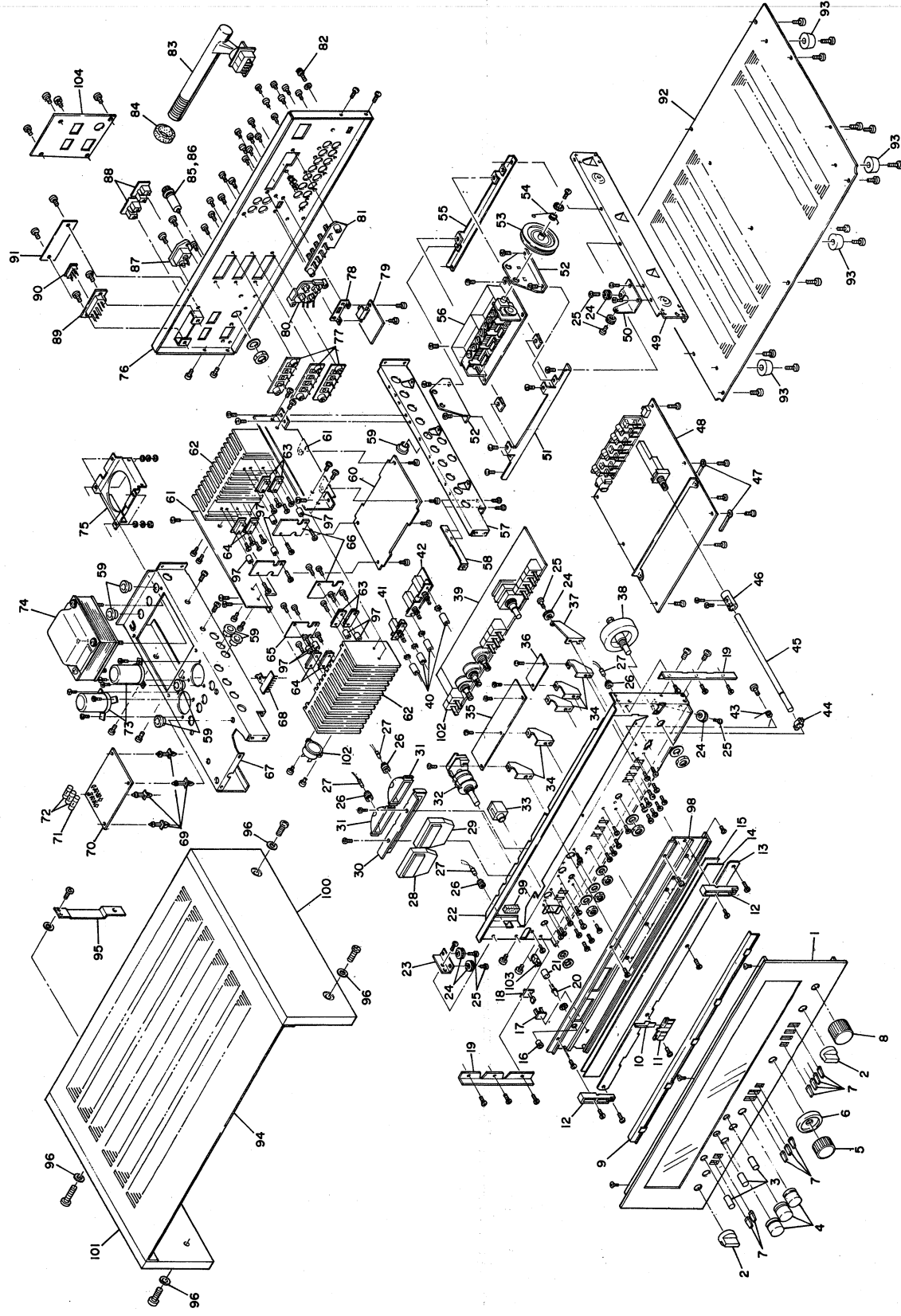
AC Input Circuit of Units for US/Canada.

EXPLODED VIEW

380R



390R



REPLACEMENT PARTS LIST

Mechanical: 380R

Exploded View No.	Description	Part Code
1	Front panel	MB974SZ004
2	Tuning flywheel	AVFLYWL009
3	Bulbe relief	VM165RX001
4 (PL1-6)	Bulbe, 14V/80 mA	ZPA148103U
5	LED indicator board	PSLD019COX
6	LED housing	VK226SB001
7	Stringing bracket	ML154SZ001
8	Stringing pulley	VM173DN001
9	Screw	MT142SN001
10 (M3, 4)	Power meter, 250 μ A	ZMD2052K01
11	Meter mount bridge	ML742SZ011
12	Meter housing	VB632SW001
13 (M2)	Center tune meter, $\pm 250 \mu$ A	ZMF4052K02
14 (M1)	Signal strength meter, 500 μ A	ZMG2052N02
15	Stringing bracket	ML241SZ003
16	Coil spring	MW141LY002
17	Bearing	VF221DN001
18	Pointer guide	MS926SZ001
19	Control amplifier board	PSTC029COX
20	Turn-over switch board	PSLD019COX
21 (J7)	Headphone jack	YJS03S016Z
22 (S1)	Power/Speaker switch, UL listed	SU025108VA
23	Shade	VK261SB001
24	Tuning escutcheon	ME96EAA005
25	LED relief	MT165BC001
26 (LD1)	Protection LED	QLAGD4505R
27	LED isolation	VM162RX001
28	LED socket	YSZ020002U
29	Tuning scale	VS943AC001
30	Tuning scale support	VS945VM001
31	Dial pointer bracket	VK131NB001
32	Dial pointer	MJ311Bc002
33	Power supply chassis	MU865SZ003
34 (PT)	Power transformer	TPAA5A004Y
35 (C3, 4)	Electrolytic capacitor, 10,000 μ F/63WV	CEJ1H10306
36	Wiring bridge	MP363SS001
37	Power supply board	PSPW033COX
38	PC board mounting piece	VX311NN001
39 (F2, 3)	Fuse, 7A	ZFBQ70201Z
40 (F4)	" 1A	ZFBQ10203Z
41	Heatsink mount bracket	MS867SZ003
42	Chassis bridge, left	MU853SZ001
43	Heatsink	MH776AA001
44	Power amplifier board	PSMA030COX

Exploded View No.	Description	Part Code
45 (Q21, 22)	Transistor, 2SD745	QTD0745XAA
46 (Q23, 24)	" 2SB705	QTB0705XAA
47	Chassis bridge, left	MU852SZ005
48	Front end board	PSTU031COX
49	#48 board mounting bracket	ML721SZ010
50	"	ML721SZ011
51	VC bracket	ML662SZ003
52	Tuner board	PSTU032COX
53	VC pulley	VM297SB003
54	Coil spring	MW362LY004
55	Remote shaft	MT865AD016
56	Shaft coupling	VM460DN001
57	Clamp	MX315SZ001
58	Stringing bracket	ML554SZ001
59	Rear panel	MB972SM017
60 (BA2)	Ferrite antenna	TEAR155E01
61	Rubber sponge	VM230MB001
62 (J8)	Antenna terminal	YTD05D001U
63 (J11)	Accessory in/out RCA jacks	YJP04S011U
64	Shorting bar	MU132BN001
65 (J9)	Ground thumb screw	YTD01S001U
66	De-emphasiss board	PSSW073COX
67	#66 mounting bracket	ML322SZ006
68 (J5, 6)	Speaker output terminal	YTS04U007U
69 (J4)	Voltage selector receptacle	YJZ10S001U
70 (P1)	" plug	YPZ06S004U
71	Voltage identification, Europe: US/Canada:	MS636SE001 MS766SE001
72 (J2, 3)	AC accessory outlet	YJA020005U
73 (J10)	Fuse holder	YHF1S3001U
74 (F1)	Fuse, US/Canada: 6A Europe: 3A	ZFBQ60202U ZFBQ30202Z
75 (J1)	AC power receptacle	YJA03S002U
76	Front escutcheon	AM380R**01
77	Shade	MZ191SM001
78	Knob, Tuning	MN386AA026
79	" Power/Speaker	MN376AA019
80	" levers	VN360SX001
81	" Volume	MN296XA003
82	" Balance	MN296XA002
83	" Tone	MN276XA020
84	" Turn-over	VN265SP004
85	Bottom plate	MS986SZ016
86	Foot	VM280EB001
87	Cabinet cover top	MB983SX002

Exploded View No.	Description	Part Code
88	Cabinet board side, right	VS879WT003
89	" left	VS879WT004
90	Cabinet grounding piece	MS723SS002
91	Washer	MS707SB001

Electrical Parts on Main Chassis: 380R

Symbol No.	Description	Part Code
BA1	300 ohm balance coil	TV750301A2
C1, 2	US/Canada: Ceramic capacitor, 4,700p*, 125V AC Europe: Oil-paper capacitor, 0.01*, 450V AC	CKDX472PMM CNST103MAN
C5	Ceramic capacitor, 0.047	CKDB473ZFM
L1, 2	RFC, 2.2 μ H	LCADA3038A
L3	" 150 μ H	LF151KA01T
D13, 14	Quadruple diode block, STV-4H	QVFSTV4HXD

Miscellaneous: 380R

Description	Part Code
Operation manual, US/Canada:	KT380R**AX
Europe:	KT380R**AE
Carton	KP380R**01
Cushoning	KN380R**01
Accessory dipole	ZAT0015002

PSTU041COX [Tuner Front-End] : 380R/390R

Symbol No.	Description	Part Code
L2-4	RFC, 2.2 μ H	LCADA3038A
CV1-8	VC, 5-gang/3-gang	CVA3533G01
T1	RFT, RF input	TRA7JZO10S
T2, 3	" 2nd RF input	TR10MQ003M
T4	" Mixer input	TR10MQ002M
T5	" FM local osc	TR10MQ005M
T6, 7	" 10.7 MHz	TR10MA013S
Q1-3	FET, 3SK45	QTL0045XAB
Q4	Transistor, 2SC1923	QTC1923XAT
C1, 8, 9	Ceramic capacitor, 15p	CCDB150KOM
C2	" 100p	CCDB101KOM
C3, 12	" 0.001	CKDB102KBM
C4, 5, 11, 17, 7	" 0.01	CKFB103ZFT

* Capacitors listed are in micro-farad with voltage handling capability of 50V, unless otherwise specified.

Symbol No.	Description	Part Code
C6, 13, 21, 24, 26, 27	Ceramic capacitor, 0.022	CKFB223ZFT
C10	" 12p	CCDB120KOM
C15, 20, 23	" 10p	CCDB100DCM
C16	" 6p	CCDB060COM
C18	" 18p	CCDB180KPM
C19	Minic capacitor, 3.9p	CG2H3R9KNN
C22	Ceramic capacitor, 33p	CCDB330KCM
C25	" 56p	CCDB560KOM
C28	Electrolytic capacitor, 220/16	CEED221ALX

PSTU032COX [Tuner] : 380R

Symbol No.	Description	Part Code
J1	Phono 1/2, Aux input RCA jack, 6P	YJP06S007U
J2, 3	Tape 1/2 in/out RCA jack	YJP04S016U
J4	Tape in/out receptacle, DIN-standardized	YJD05S011Z
S1	Function rotary switch	SH060606ZA
S2, 3	Tape Mon/Copy lever switch	SL040304ZB
S4	Phono Sens switch	SS020233ZA
S5-7	St/Mono lever switch	SL020215ZB
RV1	Trimming VR, 10k (B)	RPGNB10301
RV2	" 20k (B)	RPGNB20301
RV3	" 1k (B)	RPGNB10201
RV4	" 10k (B), dust-proof	RPJNB10302
RV5	" 200k (B)	RPGNB20401
IC1	IC, mu-PC555H, IF amp	QQM00555BA
IC2	" HA11225, IF/Quadrature	QQM11225AB
IC3	" HA1197, mpx demodulator	QQMA1197AB
IC4	" HA1196, AM tuner	QQMA1196AB
Q1	Transistor, 2SC1923	QTC1923XAT
Q2-4, 17-20	" 2SC2240	QTC2240XAT
Q5, 6, 15, 16, 21, 22	" 2SA970	QTA0970XAT
Q7, 8, 11, 13	" 2SC1815	QTC1815XAT
Q9, 10, 12	" 2SA1015	QTA1015XAT
Q14, 23	" 2SD526	QTD0526XAT
Q24	" 2SB596	QTB0596XAT
D1-5, 7-10	Silicon diode, 1N4448	QDSN4448XZ
D11, 12	Germanium diode, 1N60	QDG1N60XXT
D13, 14	Zenner diode, RD39EB4	QDZRD39EDA
L1	RFC, 2.2 μ H	LCADA3038A
L2	" 18 μ H	LF180JC01K
L5, 6	" 68 mH	LF683JC01K
L7, 8	" 56 mH	LF563JC01K

Symbol No.	Description	Part Code
L9, 10	RFC, 39 mH	LF393JC01K
CF1	Ceramic filter, 2-element, 10.7 MHz	FB10R7F14M
CF2, 3	"	FB10R7F15M
T1	RFT, quadrature	TR10MM013M
T2	" "	TR10MM014M
T3	" AM tuner	TR10MN006M
T4	RFT+ filter, AM IF, 455 kHz	FBR455A18Q
T5	RFT	TR07BM001M
T6	" AM local osc	TR10MZ002M
R87	M-oxide film resistor, 560**, 1/2W	RGHANJ561N
R145, 146	" 2.7k, 1/2W	RGHANJ272N
R147, 148	" 10, 1/2W	RXHANJ100N
R151	Cement resistor, 270, 5W	RF05SK27KB
C1, 21-23, 31, 36	Ceramic capacitor, 0.01	CKFB103ZFT
C2-5, 7-11	" 0.022	CKFB223ZFT
C6	" 4,700p	CKGB472ZFT
C12, 99, 100	" 33p	CCGB330KOT
C13-17, 24, 32, 37, 39, 81, 85	" 0.047	CKFB473ZFT
C18	Electrolytic capacitor, 0.1	CEEGR10ZMN
C19, 30	" 0.47	CEEGR47ZMN
C20	Ceramic capacitor, 47p	CCDB470KOM
C25	Electrolytic capacitor, 3-3/25	CEVE3R3ALX
C26	" 4.7/25	CEVE4R7ALX
C27	Ceramic capacitor, 0.001	CKGB102KBT
C28, 29	Mylar capacitor, 0.01	CQMB103KEH
C33, 43, 46, 103, 104	Electrolytic capacitor, 10/16	CEVD100ALX
C34	Styroflex capacitor, 360p	CQSC361JCF
C35	Ceramic capacitor, 8p	CCGB080DOT
C38	Electrolytic capacitor, 2.2 (non-pol.)	CEEG2R2NLX
C40, 47, 48	Styroflex capacitor, 510p	CQSC511JCF
C41	Electrolytic capacitor, 3.3/25	CEEE3R3ZMN
C42	" 1	CEEG010ZMN
C44	Ceramic capacitor, 27p	CCGB270KOT
C45, 73, 74	Electrolytic capacitor, 2.2	CEEGR22ZMN
C49, 50	" 4.7/25	CEEE4R7ZMN
C51, 113	" 1	CEAG010ALX
C52	" 3.3/16	CEAD330ALX
C53, 54	Ceramic capacitor, 1,000p	CKGB102KBT
C55, 56	Styroflex capacitor, 250p	CQSC251JCF
C57, 58	Mylar capacitor, 0.0018	CQMB182KEH
C59, 60	Styroflex capacitor, 1,000p	CQSC102JCF
C61, 62	Mylar capacitor, 1,500p	CQMB152KEH
C63, 64	Styroflex capacitor, 1,800p	CQSC182JCF

Symbol No.	Description	Part Code
C65, 66	Styroflex capacitor, 680p	CQSC681JCF
C67, 68, 77-80	Electrolytic capacitor, 0.22	CEEGR22ZMN
C69, 70	" 0.15	CEEGR15ZMN
C71, 72, 116	Ceramic capacitor, 47p	CCGB470KOT
C75	" 100p	CCGB101KOT
C76	Mylar capacitor, 0.082	CQMB823KEH
C82	" 3,300p	CQMB332KEH
C83, 84	Ceramic capacitor, 100p	CCGB101KOT
C87, 88	Electrolytic capacitor, 2.2	CEEG2R2ZMN
C89, 90	Ceramic capacitor, 10p	CCGB100DOT
C92, 92	Electrolytic capacitor, 33/10	CEEC330ZMN
C93, 94	" 22/10	CEEC220ZMN
C95, 96	Mylar capacitor, 0.012	CQMB123GEH
C97, 98	" 0.039	CQMB393GEH
C101, 102	Electrolytic capacitor, 10/35	CEVF100ALX
C105, 106	" 4.7/16	CEAD4R7NLC
C107-110	" 100	CEEG101ALX
C111	" 1,000/16	CEED102ALX
C112	" 220/16	CEED221ALX
C115	Ceramic capacitor, 150p	CCDB151KOM
C117	Mylar capacitor, 0.12	CQMB124KEH

PSSW073COX [De-emphasis] : 380R/390R

Symbol No.	Description	Part Code
S1	Slide switch	SS040305ZL
C1, 2	Styroflex capacitor, 510p ±5%	CQSC511JCF
C3, 4	Mylar capacitor, 1,200p ±5%	CQMB122JEH
C5	Ceramic capacitor, 68p	CCGB680KOT
C6	" 22p	CCGB220KOT

PSTC029COX [Control Amplifier] : 380R

Symbol No.	Description	Part Code
VR1, 2	VR, 200k (MN) + 100k (B), Volume/Balance	RVGA204X07
VR3-5	" 50k (B), Tone	RVQA503B05
S1	Slide switch, Sub-sonic	SL020215ZB
S2	" Hi-Filter	SL020218ZB
Q1, 2, 8	Transistor, 2SC2240	QTC2240XAT
Q3, 4	" 2SA970	QTA0970XAT
Q5, 6	" 2SA798	QTA0798XEE
R55	M-oxide film resistor, 10**, 1/2W	RXHANJ100N

** Resistors listed are in Ohm.

Symbol No.	Description	Part Code
C1, 2	Ceramic capacitor, 220p	CCFB221KOT
C4	Mylar capacitor, 0.12	CQMB124KEH
C5, 6	Ceramic capacitor, 100p	CCGB101KOT
C7, 8	Electrolytic capacitor, 1	CEEG010ZMN
C9, 10	Ceramic capacitor, 10p	CCGB100DOT
C11, 12, 41, 42	" 47p	CCGB470KOT
C13, 14	" 560p	CCFB561KOT
C15, 16	Electrolytic capacitor, 100/10	CEVC101ALX
C17, 18	" 10/25	CEVE100ALX
C19, 20	" 100	CEEG101ALX
C29, 30	Mylar capacitor, 0.0082	CQMB822KEH
C33-36	" 0.039	CQMB393KEH
C37, 38	" 0.01	CQMB103KEH
C39, 40, 47, 48	Electrolytic capacitor, 4.7/25	CEEE4R7ZMN
C43, 44	Ceramic capacitor, 27p	CCGB270KOT
C61, 62	Electrolytic capacitor, 0.68	CEEGR68ZMN
C63, 64	Mylar capacitor, 0.27	CQMB274KEH
C65, 66	" 0.012	CQMB123KEH
C67, 68	" 0.0039	CQMB392KEH
C70	Ceramic capacitor, 390p	CCDB391KOM

PSLD19COX [LED Indicator] ; 380R

Symbol No.	Description	Part Code
Q1	Transistor, 2SA1015	QTA1015XAT
D1	Silicon diode, 1N4448	QDSN4448XZ
LD1-6	LED, Aux	QLAR5531KR
R1	M-Oxide film resistor, 820, 1/2W	RGHANJ821N
C1	Electrolytic capacitor, 4.7/16	CEEE4R7ALX

PSSW074COX [Turn-over Control] : 380R

Symbol No.	Description	Part Code
C1, 2	Push switch, 3-gang	SP03DAX10A
C3, 4	Mylar capacitor, 1,200p	CQMB122KEH
C5, 6	" 3,900p	CQMB392KEH
	" 0.12	CQMB124KEH

PSMA030COX [Power Amplifier] : 380R

Symbol No.	Description	Part Code
IC1	IC, TA7318P-2	QQM07318AT
Q1, 2	Transistor, 2SA798	QTA0798XEE
Q3, 4	" 2SC2291	QTC2291XAE
Q5, 6	" 2SA912	QTA0912XAN
Q7, 8	" 2SC1885	QTC1885XAN
Q9, 10	" 2SA720	QTA0720XBN
Q11, 12	" 2SC1318	QTC1318XDN
Q13, 14, 26, 27	" 2SC1815	QTC1815XAT
Q15, 16	" 2SA1015	QTA1015XAT
Q17, 18	" 2SC2238	QTC2238XBT
Q19, 20	" 2SA968	QTA0968XBT
Q25	" 2SA970	QTA0970XBT
D1-10	Silicon diode, 1N4448	QDSN4448XZ
D11, 15-18	" RA-1Z	QDSRA1ZXXD
L1, 2	RFC, 2.5 μ H	LA3QH1323B
RY1	Relay, speaker protection	ZRA444103U
RV-1, 2	Trimming resistor, 100 (B)	RPJNB10103
RV-3, 4	" 220 (B)	RPJNB22101
R37-40	Cement resistor, 0.47, 5W	RF05SKR47B
R48	M-oxide film resistor, 5.6, 1W	RX1ANJ5R6N
R56	" 3.9k, 1W	RG1ANJ392N
R57	" 680, 2W	RG2ANJ681N
R58	" 100, 1/2W	RGHANJ101N
R59, 60	" 2.4k, 2W	RG2ANJ242N
R63	" 270, 2W	RG2ANJ271N
C1, 2	Electrolytic capacitor, 2.2	CEAG2R2ZMN
C3, 4	Ceramic capacitor, 330p	CCFB331KOT
C5, 6	" 2p	CCGB020COT
C7, 8	" 3p	CCGB030DOT
C9, 10	Ceramic capacitor, 5p	CCGB050COT
C11, 12	Electrolytic capacitor, 100/10	CEWC101ALX
C13, 14	" 10/16	CEWD100ALX
C15-18	Ceramic capacitor, 4,700p	CKGB472ZFT
C19-22	" 47p	CCGB470KOT
C23-26, 35, 41, 42	Electrolytic capacitor, 1/100	CEWK010ALX
C27, 28	Mylar capacitor, 0.056/100	CQMC563KEH
C29, 30	Electrolytic capacitor, 100/10	CEWC101ALX
C31	" 22	CEAG220AMN
C32	Mylar capacitor, 0.047	CQMB473KTH
C33, 34	" 0.022	CQMB223KTH
C37, 38	Ceramic capacitor, 220p	CCFB221KOT
C39, 40	" 100p	CCGB101KOT
C43-46	Electrolytic capacitor, 4.7/25	CEAE4R7ALX

PSPW033COX [Power Supply] : 380R

Symbol No.	Description	Part Code
R1, 2	M-oxide film resistor, 2.2k, 3W	RG3ANJ222N
R6	" 390, 1/2W	RGHANJ391N
C1	Ceramic capacitor, 0.01, 500V	CKDE103PEM
C2	Electrolytic capacitor, 47/16	CEED470ALX
C3	Ceramic capacitor, 0.01, 500V	CKDE103PEM
Q1	Transistor, 2SA1015	QTA1015XAT
D1-4	Silicon diode, SR3AM-8A	QDSR3AM8AE
D5	" RA-1Z	QDSRA1ZXXD
	Fuse housing	YHF0P0003Z

390R Mechanical

Exploded View No.	Description	Part Code
1	Escutcheon	AM390R**01
2	Knob, Power/Speaker Mode	MN376AA019
3	" Turn-over	VN265SPO04
4	" Volume	MN276XA020
5	" Balance	MN296XA003
6	" "	MN296XA002
7	" lever switches	VN360SX001
8	" Tuning	MN386AA026
9	Shade	MZ191SM002
10	Dial pointer	MJ311BCO02
11	Pointer bracket	VK131NB001
12	Shade	VK261SB002
13	Pointer rail	MS926SZO02
14	Dial scale	VS948ACO01
15	Plate at dial back	VS945VM002
16	LED bezel	MT165BCO01
17	LED holder	VK226SB001

Exploded View No.	Description	Part Code
18	Stereo indicator board	PSLD026COX
19	L-bracket	ML721SZ014
20	Protection LED (LD1)	QLAGD4505R
21	LED relief	VM162RX001
22	Front panel	MB974SZ006
23	Stringing pulley	ML241SZ003
24	"	VM173DN001
25	Pulley shaft	MT142SN001
26	Bulbe relief	VM165RX001
27	Bulbe, 14V/80 mA (PL1-4)	ZPA148103U
28	Signal meter (M1), 500 μ A	ZMG2052N02
29	Center-tune meter (M2), $\pm 250 \mu$ A	ZMF4052K02
30	Meter bracket	ML742SZ011
31	Meter housing	VB632SW001
32	AC Power switch (S1)	SU027201AB
33	Headphone jack (J7)	YJS03S016Z
34	PC board bracket	ML331SZ005
35	Power level LED board	PSLD025COX
36	Program LED board	PSLD026COX
37	Stringing pulley	ML154SZ001
38	Tuning flywheel	AVFLYWL009
39	Control amplifier board	PSTC031COX
40	Spacer	MT163BD012
41	Push switch (S2), Power LED	SP01AAX26A
42	Turn-over board	PSSW076COX
43	Coil spring	MW141LY002
44	Shaft relief	VF221DN001
45	Remote shaft	MT865AD017
46	Coupler	VM460DN001
47	Clamp	MX315SZ001
48	Input terminal board	PSSW077COX
49	Chassis bridge	MU863SZ003
50	Stringing pulley	ML554SZ001
51	VC board bracket	ML821SZ005
52	Bracket	ML662SZ003
53	Dial drum	VM297SB004
54	Coil spring	MW362LY005
55	VC board bracket	ML821SZ006
56	Tuner board	PSTU031COX
57	Chassis bridge	MU863SZ002
58	Bracket	ML261SZ002
59	Strain relief	VF177EB001
60	Power amplifier board	PSMA030COX
61	Heatsink bracket	MS867SZ003

Exploded View No.	Description	Part Code
62	Heatsink	MH776AA007
63	Transistor (Q5-8), 2SB705	QTB0705XAA
64	" (Q1-4), 2SD745	QTD0745XAA
65	Power transistor board	PSZD008COX
66	"	PSZD008COX
67	Power supply chassis	MU876SZ001
68	Grounding block	ML642BD001
69	PC board spacer	VX311NN001
70	Power supply board	PSPW036COX
71	Fuse (F4), 1A	ZFBQ10202U
72	" (F2, 3), 10A	ZFBQ10303U
73	Electrolytic capacitor (C3, 4) 15,000/80	CEJ1J15301
74	Power transformer (PT)	TPAB1A001Y
75	PT bracket	MB774SZ005
76	Rear panel	MB974SE001
77	Speaker output terminal (J5, 6, 12)	YTS04S007U
78	Switch bracket	ML322SZ006
79	De-emphasis board	PSSW073COX
80	Accessory in/out RCA jack (J11)	YJP04S007U
81	Antenna terminal (J8)	YTD05D001U
82	Ground terminal (J9)	YTD01S002U
83	Loopstick antenna (BA2)	TEAR155E01
84	Rubber sponge	VM230MB001
85	Fuse holder (J10)	YHF1S3001U
86	Fuse (F1), 100-120V: 8A 220-240V: 4A	ZFBQ80202U ZFBQ40205V
87	AC power receptacle (J1)	YJA03S002U
88	Accessory AC outlet	YJA020005U
89	Main selector jack (J4)	YJZ10S001U
90	" plug (P1)	YPZ06S004U
91	AC main identification plate (Europe)	MS636SE001
92	Bottom plate	MS986SZ018
93	Rubber leg	VM283NB001
94	Cabinet top	MB983SX005
95	Cabinet grounding bracket	MS723SS003
96	Washer	MS707SB001
97	Spacer	MT164SZ005
98	Dial escutcheon	ME96EAA009
99	Rubber sponge	VQ211MB001
100	Cabinet side, right	VS879WT007
101	" left	VS879WT008
102	Thermostat (Europe only)	ZFFP15301A
103	LED socket (LD1)	YSZ020002U
104	AC main identification plate (US/Canada)	MS766SE017

Electrical Parts on Main Chassis: 390R

Symbol No.	Description	Part Code
Q1-4	Transistor, 2SD745	QTD0745XAA
Q5-8	" 2SB705	QTB0705XAA
BA1	300 Ohm balance coil	TV750301A2
C1, 2	US/Canada: Ceramic capacitor, 0.047, 125VAC Europe: Oil-paper capacitor, 0.01, 450VAC	CKDX472PMM CKDB473ZFM
C5, 6	Ceramic capacitor, 0.047	CKDB473ZFM
C7	Electrolytic capacitor, 47/16	CEAD470ALX
L1, 2	RFC, 2.2 μ H	LCADA3038A
L3	" 150 μ H	LF151KA01T

Miscellaneous Parts: 390R

Description	Part Code
Operation manual, US/Canada: Europe:	KT390R**XX KT390R**XE
Carton	KP390R**01
Cushoning	KN390R**02
Accessory dipole	ZAT0015002
AC cord set	ACAC034ULA

PSMA030COX [Power Amplifier] : 390R

Symbol No.	Description	Part Code
Q1, 2	Transistor, 2SA798	QTA0798XEE
Q3, 4	" 2SC2291	QTC2291XAE
Q5, 6	" 2SA912	QTA0912XAN
Q7, 8	" 2SC1885	QTC1885XAN
Q9, 10	" 2SA720	QTA0720XBN
Q11, 12	" 2SC1318	QTC1318XDN
Q13, 14, 26	" 2SC2240	QTC2240XCT
Q15, 16, 25	" 2SA970	QTA0970XBT
Q17, 18	" 2SC2238	QTC2238XBT
Q19, 20	" 2SA968	QTA0968XBT
Q27	" 2SC1509	QTC1509XBN
D1-10	Silicon diode, 1N4448	QDSN4448XZ
D11, 15-18	RA-1Z	QDSRA1ZXXD
L1, 2	RFC, 2.5 μ H	LA3QH1323B
RY1	Relay, speaker protection	ZRA444103U
RV1, 2	Trimming resistor, 100 (B)	RPJNB10103
R15, 16	M-oxide film resistor, 15k, 1/2W	RGHANJ153N
R25-28	" 150, 1/2W	RGHANJ151N
R43, 44	" 3.3k, 1/2W	RXHANJ332N

Symbol No.	Description	Part Code
R45, 46	M-oxide film resistor, 5.6, 2W	RX2ANJ5R6N
R47, 48	" 5.6, 1W	RX1ANJ5R6N
R63, 64	" 270, 2W	RG2ANJ271N
R57	" 1k, 2W	RG2ANJ102N
R56	" 4.7k, 1W	RG1ANJ472N
C1, 2	Electrolytic capacitor, 2.2	CEAG2R2ZMN
C5, 6	Ceramic capacitor, 2p	CCGB020COT
C7, 8	" 3p	CCGB030DOT
C9, 10	" 5p	CCGB050COT
C11, 12	Electrolytic capacitor, 100/10	CEWC101ALX
C13, 14	" 10/16	CEWD100ALX
C15-18	Ceramic capacitor, 4,700p	CKGB472ZFT
C22	" 47p	CCGB470KOT
C23-26, 35, 41, 42	Electrolytic capacitor, 1/100	CEWK010ALX
C29, 30	" 100/10	CEWC101ALX
C31	" 22	CEAG220AMN
C32	Mylar capacitor, 0.047	CQMB473KTH
C27, 28	" 0.056	CQMD563KEH
C3, 4, 39, 40	Ceramic capacitor, 33p	CCGB330KOT
C37, 38	" 220p	CCFB221KOT
C43-46	Electrolytic capacitor, 4.7/25	CEAE4R7ALX

PSTU038COX [Control Amplifier] : 390R

Symbol No.	Description	Part Code
J1	Phono 1/2, Aux input RCA jack	YJP06S007U
J2, 3	Tape 1/2 RCA jack	YJP04S016U
J4	Tape in/out receptacle, DIN-standardized	YJD05S011Z
S-1	Function select, rotary switch	SH060606ZA
S-2	Phono Sens switch	SS020233ZA
RV-1	Trimming resistor, 5k (B)	RPGNB50201
RV-2	" 20k (B)	RPGNB20301
RV-3	" 1k (B)	RPGNB10201
RV-4	" 10k (B), dust-proof	RPJNB10302
RV-5	" 200k (B)	RPGNB20401
IC-1	IC, mu-PC555H, IF amp	QQM00555BA
IC-2	" HA11225, FM IF, quadrature	QQM11225AB
IC-3	" HA1197, mpx demodulate	QQMA1197AB
IC-4	" HA1196, AM tuner	QQMA1196AB
Q-1	Transistor, 2SC1923	QTC1923XAT
Q-2-4, 17-20	" 2SC2240	QTC2240XAT
Q5, 6, 15, 16	" 2SA970	QTA0970XAT
Q7, 8, 11, 13	" 2SC1815	QTC1815XAT

Symbol No.	Description	Part Code
Q9, 10, 12	Transistor, 2SC1015	QTC1015XAT
Q23	" 2SD526	QTD0526XAT
Q24	" 2SB596	QTB0596XAT
Q25	" 2SD325	QTD0325XAC
D-1-9	Silicon diode, 1N4448	QDSN4448XZ
D-10, 12	Germanium diode, 1N60	QDG1N60XXT
D-13, 14	Zenner diode, RD39EB4	QDZRD39EDA
D-15	" RD-13E	QDZRD13EXA
L-1, 4	RFC, 2.2 μ H	LCADA3038A
L-2	" 18 μ H	LF180JC01K
L-5, 6	" 68 mH	LF683JC01K
L-7, 8	" 56 mH	LF563JC01K
L-9, 10	" 39 mH	LF393JC01K
CF-1	Ceramic filter, SFE10.7MA, 10.7 MHz	FB10R7F14M
CF-2, 3	" SFE10.7MU, "	FB10R7F15M
T-1	RFT, FM detect	TR10MM013M
T-2	" "	TR10MM014M
T-3	" AM RF	TR10MN006M
T-4	RFT + filter, AM IF, 455 kHz	FBR455A18Q
T-5	RFT, AM IF, 455 kHz	TR07BM001M
T-6	" AM local osc	TR10MZ002M
R87	M-oxide film resistor, 560, 1/2W	RGHANJ561N
R88	" 2.7k, 1/2W	RGHANJ272N
R145, 146	" 3.3k, 1/2W	RGHANJ332N
R147, 148	" 10, 1/2W	RGHANJ100N
C1, 21-23, 28, 29, 31, 36	Ceramic capacitor, 0.01	CKFB103ZFT
C2-5, 7-11	" 0.022	CKFB223ZFT
C6	" 4,700p	CKGB4727FT
C12, 20, 99, 100	" 33p	CCGB330KOT
C13-17, 24, 32, 37, 39, 81, 85, 120, 121, 123	" 0.047	CKFB473ZFT
C18	Electrolytic capacitor, 0.1	CEEGR10ZMN
C25, 41	" 3.3/25	CEVE3R3ALX
C26, 49, 50,	" 4.7/25	CEVE4R7ALX
C27	Ceramic capacitor, 0.001	CKGB102KBT
C28	Mylar capacitor, 0.01	CQMB103KEH
C30	Electrolytic capacitor, 4.7	CEEGR47ZMN
C33, 43, 46, 103, 104	" 10/16	CEVD100ALX
C34	Styroflex capacitor, 360p	CQSC361JCF
C35	Ceramic capacitor, 5p	CCGB050DOT
C38	Electrolytic capacitor, 2.2 (non-pol.)	CEEGR22NLX
C40, 47, 48	Styroflex capacitor, 510p	CQSC511JCF
C42	Electrolytic capacitor, 1	CEEGR10ZMN
C44	Ceramic capacitor, 47p	CCGB270KOT

Symbol No.	Description	Part Code
C45	Electrolytic capacitor, 0.22	CEEGR22ZMN
C51	" 1	CEAG010ALX
C52	" 33/16	CEED330ALX
C53, 54	Ceramic capacitor, 1,000p	CKGB102KBT
C55, 56	Styroflex capacitor, 250p	CQSC251JCF
C57, 58	Mylar capacitor, 0.0018	CQMB182KEH
C59, 60	Styroflex capacitor, 1,000p	CQSC102JCF
C61, 62	Mylar capacitor, 1,500p	CQMB152KEH
C63, 64	Styroflex capacitor, 1,800p	CQSC182JCF
C65, 66	" 680p	CQSC681JCF
C67, 68, 77-79	Electrolytic capacitor, 0.22	CEEGR22ZMN
C69, 70	" 0.15	CEEGR15ZMN
C71, 72	Ceramic capacitor, 47p	CCGB470KOT
C73, 74	Electrolytic capacitor, 2.2	CEEG2R2ZMN
C75	Ceramic capacitor, 100p	CCGB101KOT
C76	Mylar capacitor, 0.082	CQMB823KEH
C82	Mylar capacitor, 3,300p	CQMB332KEH
C83, 84	Ceramic capacitor, 100p	CCGB101KOT
C87, 88	Electrolytic capacitor, 2.2	CEEG2R2ZMN
C89, 90	Ceramic capacitor, 10p	CCGB100DOT
C91, 92	Electrolytic capacitor, 33/10	CEEC330ZMN
C93, 94	" 22/10	CEEC220ZMN
C95, 96	Mylar capacitor, 0.012	CQMB123GEH
C97, 98	" 0.039	CQMB393CEH
C101, 102	Electrolytic capacitor, 10/35	CEVF100ALX
C105, 106	" 4.7/25 (non-pol.)	CEAE4R7NLX
C107-110	" 100	CEAG101ALX
C114, 115	Ceramic capacitor, 180p	CCDB181KOM
C116	" 47p	CCGB470KOT
C121	Electrolytic capacitor, 220/16	CEED221ALX
C124	" 220/25	CEEE221ALX
C127, 128	Mylar capacitor, 0.01	CQMB103KEH

PSLD026COX [Program LED] : 390R

Symbol No.	Description	Part Code
Q1	Transistor, 2SA1015	QTA1015XAT
D1	Silicon diode, 1N4448	QDSN4448XZ
LD1-5	LED, Aux/Phono-1, 2, etc.	QLALP137BC
R1	M-oxide film resistor, 820, 1/2W	RGHANJ821N
C1	Electrolytic capacitor, 4.7/25	CEVE4R7ALX

PSSW076COX [Turn-Over] : 390R

Symbol No.	Description	Part Code
C1, 2	Pushing switch	SP02YAX10A
C3, 4	Mylar capacitor, 0.0039	CQMB392KEH
C5, 6	Mylar capacitor, 0.0012	CQMB122KEH
	" 0.012	CQMB124KEH

PSSW077COX [Mute] : 390R

Symbol No.	Description	Part Code
S1	Lever switch, 2-p/2-t	SL020215ZB

PSTC031COX [Tuner] : 390R

Symbol No.	Description	Part Code
VR1, 2	VR, 100k x 4, Volume/Balance	RVZA104X01
VR3-5	" 50k (B), Tone	RVQA503B05
S1-3	Slide switch, 4p-3t, Tape Mon, etc.	SL040304ZB
S4-6	" 2p-3t, Loudness, etc.	SL020215ZB
S7, 8	" 2p-3t, Sub-Sonic, etc.	SL020306ZB
Q1, 2, 7, 8	Transistor, 2SC2240	QTC2240XAT
Q3, 4	" 2SA970	QTA0970XAT
Q5, 6	" 2SA798	QTA0798XEE
R51, 52	M-oxide film resistor, 5.6k, 1/2W	RGHANJ562N
R55, 56	" 10, 1/2W	RXHANJ100N
C1, 2	Ceramic capacitor, 220p	CCFB221KOT
C3, 4	Mylar capacitor, 0.12	CQMB124KEH
C5, 6	Ceramic capacitor, 100p	CCGB101KOT
C7, 8	Electrolytic capacitor, 1	CEEG010ZMN
C9, 10	Ceramic capacitor, 10p	CCGB100DOT
C11, 12, 41, 45	" 47p	CCGB470KOT
C13, 14	" 560p	CCFB561KOT
C15, 16	Electrolytic capacitor, 100/10	CEVC101ALX
C17, 18	" 10/25	CEVE100ALX
C19, 20, 81	" 100	CEEG101ALX
C29, 30, 63, 64	Mylar capacitor, 0.0082	CQMB822KEH
C33, 36	" 0.039	CQMB393KEH
C37, 38	" 0.01	CQMB103KEH
C39, 40	Electrolytic capacitor, 4.7/25	CEEE4R7ZMN
C43, 44	Ceramic capacitor, 27p	CCGB270KOT
C47, 48	Electrolytic capacitor, 4.7/25 (non-pol.)	CEAE4R7NLX
C51-54	" 0.33	CEEGR33ZMN
C55, 56	Mylar capacitor, 0.0056	CQMB562KEH
C57, 58	" 0.0022	CQMB222KEH

Symbol No.	Description	Part Code
C59-62	Electrolytic capacitor, 0.15	CEEGR15ZMN
C65, 66	Mylar capacitor, 0.0033	CQMB332KEH

PSLD025COX [Power Level LED] : 390R

Symbol No.	Description	Part Code
IC1	IC, TA7318P-2	QQM07318AT
IC2, 3	" TA7612P	QQM07612AT
RV1, 2	Trimming resistor, 100	RPGNB10402
LD1-18	LED, SLP137B	QLALP137BC
Q1, 2	Transistor, 2SC1685	QTC1685XAN
RV3, 4	Trimming resistor, 50k	RPGNB50302
C1, 2	Electrolytic capacitor, 1	CEEC010ALX
C3	Mylar capacitor, 0.1	CQMB104KEH
C4, 5	" 0.01	CQMB103KEH
C6	Electrolytic capacitor, 1	CEEG010ALX

PSPW036COX [Power Supply] : 390R

Symbol No.	Description	Part Code
Q1	Transistor, 2SA1015	QTA1015XAT
Q2	" 2SC1815	QTC1815XAT
D1	Silicon diode, SS-7	QDSSS7XXXD
D2	" SS-7R	QDSSS7RXXD
D3	" RA-1Z	QDSRA1ZXXD
D4	" 1N4448	QDSN4448XZ
R1, 2	M-oxide film resistor, 3.3k, 3W	RG3ANJ332N
R5	" 470, 1/2W	RGHANJ471N
R8	" 15, 3W	RX3ANJ150N
R9	" 180, 1/2W	RGHANJ181N
C1, 2	Ceramic capacitor, 0.01, 500V	CKDE103PEM
C3	Electrolytic capacitor, 4.7/25	CEEE4R7ALX
C4	" 1,000/25	CEAE102ALX
C5	Fuse housing	YHFOP0003Z

PSLD016COX [FM Stereo LED] : 390R

Symbol No.	Description	Part Code
LD1	LED, SLP137B	QLALP137BC

PSZQ008COX [Final Power TR] : 390R

Symbol No.	Description	Part Code
R1, 2	M-oxide film resistor, 5.6, 1/2W	RXHANJ5R6N
R3, 4	Cement resistor, 0.47, 3W	RF03SKR478
C1, 2	Electrolytic capacitor, 1/100	CEAK010ALX
D1	Quadruple diode array, STV-4H	QVFSTV4HXD