

44

# CARVER

## Model CT-17 SERVICE MANUAL

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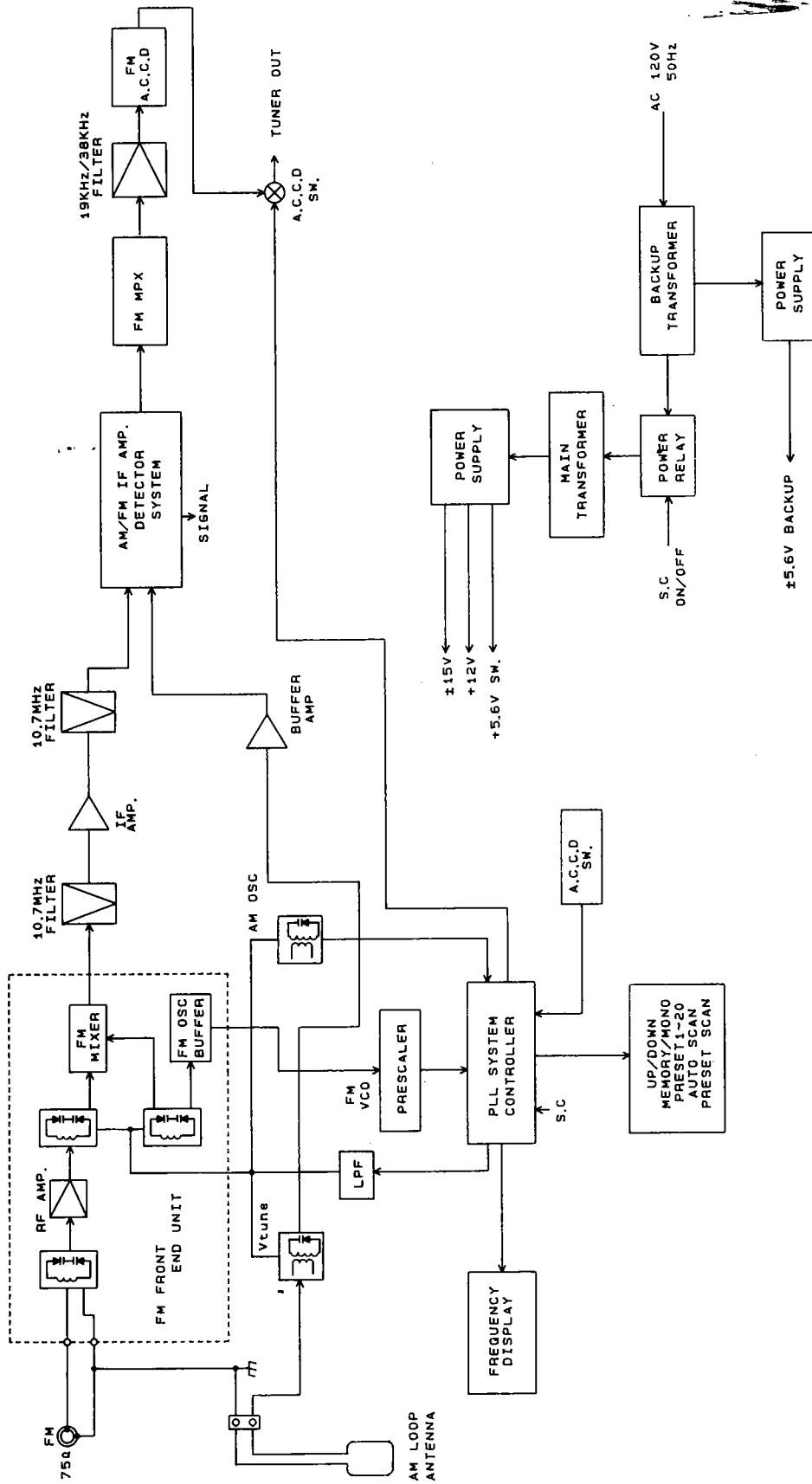
### SPECIFICATIONS

<b>PHONO:</b>	
RIAA+1.0 dB "extended" RIAA curve Overload:	150 mV at 1 kHz
Frequency Response:	20 Hz-20 kHz $\pm 0.5$ dB (High Cut Filter, Tone, Hologram OUT)
<b>SENSITIVITY:</b>	
Phono:	2.7 mV
CD/Tape/AUX:	180 mV
<b>NOISE:</b>	
Phono:	84 dB, IHF A-weighted, below 5 Vrms at 1 kHz
Line Level:	98 dB, IHF A-weighted, below 2 Vrms
<b>DISTORTION:</b>	
THD:	0.01% or less, below 3 Vrms
IM (CCIR or SMPTE):	0.05% or less
TIM:	unmeasurable
<b>RATED OUTPUT:</b>	6V
<b>SONIC HOLOGRAM GENERATOR:</b>	
Image Resolution:	5 horizontal, 20 vertical
S/N ratio at rated reference:	greater than 85 dB
<b>TONE CONTROLS:</b>	
Turnover:	100 Hz, 1 kHz, 10 kHz
Boost/Cut:	$\pm 8$ dB for bass and treble, $\pm 6$ dB for midrange
Loudness:	+3 dB at 100 Hz
<b>MUTE EFFECT:</b>	-20 dB
<b>HEADPHONE:</b>	
Sensitivity at preout 1 V:	125 mV
Maximum output at preout 1 V:	400 dB
<b>TUNER SECTION:</b>	
FM IHF Usable Sensitivity:	14.3 dBf
FM Sensitivity for 50 dB quieting (mono):	18.3 dBf
FM S/N:	78 dB
FM IF Rejection:	82 dB
FM Capture Ratio:	3.0 dB
FM Harmonic Distortion:	0.10%
FM Alternate Channel Selectivity:	72 dB
AM Suppression:	62 dB
FM Stereo Separation:	46 dB
AM THD (2 mV) 30% Modulation:	1.2%
AM Selectivity at S/N 20 dB $\pm 10$ kHz:	38 dB
AM Image Rejection:	46 dB
AM IF Rejection:	65 dB
<b>VIDEO SECTION:</b>	
Frequency Response:	10 Hz-5 MHz $\pm 1.5$ dB
Input Impedance:	75 ohms
Video Input and Output:	1.0 Vp-p
<b>SIZE:</b>	19" $\times$ 3-1/2" $\times$ 12.25"
<b>WEIGHT:</b>	12 lbs (5.4 kg)

CT17 Carver



# Tuner/Power Supply



# ALIGNMENT PROCEDURES

## Tuner (AM)

### Condition

1. Tuning method: LOCKED indicator, ON
2. Modulation: 400 Hz, 30 %
3. TAPE OUT load: A 100 k $\Omega$  resistor shunted by a 1000 pF capacitor
4. Input level: 74 dB/m (5 mV/m) unless otherwise noted
5. Generator output: IRE loop antenna 24" (60cm) spacing or through IHF dummy (200 pF capacitor).
6. CH.STEP switch (SW459): US position (EX version only)
7. Preheat: More than 1 minute

### TUNING VOLTAGE

1. Set the tuner frequency to 520 kHz.
2. No input.
3. Connect the DC digital volt meter to the test point TP1.
4. The voltage of AM Low end changes for the color of D1 and D2. (See Fig.2)
5. Adjust T4 until the voltage is  $1.00 \pm 0.05$  V or  $0.95 \pm 0.05$  V, depending on the color of D1 and D2.
6. Change the tuner frequency to 1710 kHz.
7. Adjust TC1 until the voltage is nearly 8 V.

### IF

1. Set the tuner frequency to the point of non-interference.
2. Connect the output of IF sweep generator to AM antenna terminal through IHF dummy and set the frequency to  $450 \pm 0.5$  kHz.
3. Connect the input of IF sweep generator to the test point TP3 through a 10  $\mu$ F cap.
4. Adjust T3 until the output waveform is flat and maximum.

### TRACKING

1. Set the tuner frequency to 600 kHz.
2. Connect the output of signal generator to AM antenna terminal through IHF dummy and set the frequency to 600 kHz.
3. Connect the ACVM to TAPE OUT jacks.
4. Adjust T1 until the ACVM is maximum.
5. Change the tuner frequency from 600 kHz to 1400 kHz.
6. Change the frequency from 600 kHz to 1400 kHz.
7. Adjust TC1 until the ACVM is maximum.

### SCAN STOP LEVEL

1. Set the tuner frequency to 1000 kHz.
2. Connect the DC digital volt meter to the test point TP4.
3. Set the input level to 54 dB/m.
4. Connect the output of signal generator to IRE loop antenna and set the frequency to 1000 kHz.
5. Adjust SVR1 until the voltage changes 12 V from 0 V at the test point TP4.

## Tuner (FM)

### Condition

1. Tuning method: Adjust desired signal frequency.  
Reception frequency, 98.00 MHz
2. Generator: Mono.....Mod. 1 kHz, 75 kHz dev.  
Stereo...Mod. 1 kHz, 68.25 kHz +6.75 kHz dev.
3. TAPE OUT load: A 100 k $\Omega$  resistor shunted by a 1000 pF capacitor
4. Input level: 65.2 dBf (500  $\mu$ V) unless otherwise noted
5. De-Emphasis switch (SW51): 75  $\mu$ s position (EX version only)
6. AUTO SCAN switch: OFF position
7. Preheat: More than 1 minute

### TUNING VOLTAGE

1. Set the tuner frequency to 87.50 MHz.
2. No input.
3. Connect the DC digital volt meter to the test point TP1.
4. Adjust OSC-L(Front-end) until the voltage is  $1.6 \pm 0.3$  V.
5. Change the tuner frequency from 87.50 MHz to 108.00 MHz.
6. Check that the voltage is between  $8.0 + 2.1$  V and  $8.0 - 1.0$  V.

### IF

1. Set the input level to ~~12.2~14.2 dBf~~ (1.12~1.41  $\mu$ V).
2. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and set the frequency to 98.00 MHz.
3. Connect the ACVM and the distortion meter to TAPE OUT jacks.
4. Connect the DC digital volt meter to the test point TP2.
5. Adjust IFT (Front-end) until the ACVM is maximum or the distortion meter is minimum.
6. Change the input level from 12.2~14.2 dBf (1.12~1.41  $\mu$ V) to 65.2 dBf (500  $\mu$ V).
7. Adjust T2 (a) until the voltage is less than 1 mV.
8. Adjust T2 (b) until the distortion meter is less than 0.3%.

### TRACKING

1. Set the input level to 12.2~14.2 dBf (1.12~1.41  $\mu$ V).
2. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and set the frequency to 98.00 MHz.
3. Connect the ACVM to TAPE OUT jacks.
4. Adjust ANT-L and RF1-L (Front-end) until the ACVM is maximum.

### MUTING LEVEL

1. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and set the frequency to 98.00 MHz.
2. Connect the DC digital volt meter to the test point TP4.
3. Set the input level to 33.2 dBf (12.5  $\mu$ V).
4. Adjust SVR2 until the voltage changes 12 V from 0 V at the test point TP4.

### SIGNAL LEVEL

1. Set the input level to 65.2 dBf (500  $\mu$ V).
2. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and set the frequency to 98.00 MHz.
3. Adjust SVR60 until the SIGNAL indicators fully light up.

### SEPARATION

1. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and set the frequency to 98.00 MHz in separate R ch or L ch.
2. Connect the ACVM to TAPE OUT jacks.
3. Adjust SVR51 until both channels have maximum but equal separation.

### FM A.C.C.D SWITCHING LEVEL

1. Set the input level to 55.2 dBf (158  $\mu$ V).
2. Connect the DC digital volt meter to the test point TP101.
3. Adjust SVR101 the moment the voltage at TP101 change from +8 V to -8 V. Rotate SVR101 slowly. Perform this adjustment after MUTING LEVEL adjustment.

### FM A.C.C.D SEPARATION

1. Set the input level to 37.5 dBf (75  $\mu$ V).
2. Set generator Mod. 6.3 kHz, 49.5 kHz +6.75 kHz dev.
3. L ch only driven.
4. Connect the ACVM to TAPE OUT jacks.
5. A.C.C.D switch on.
6. Adjust SVR117 to 8 dB separation.

## ALIGNMENT POINTS

### TIM-812A Tuner P.C.Board

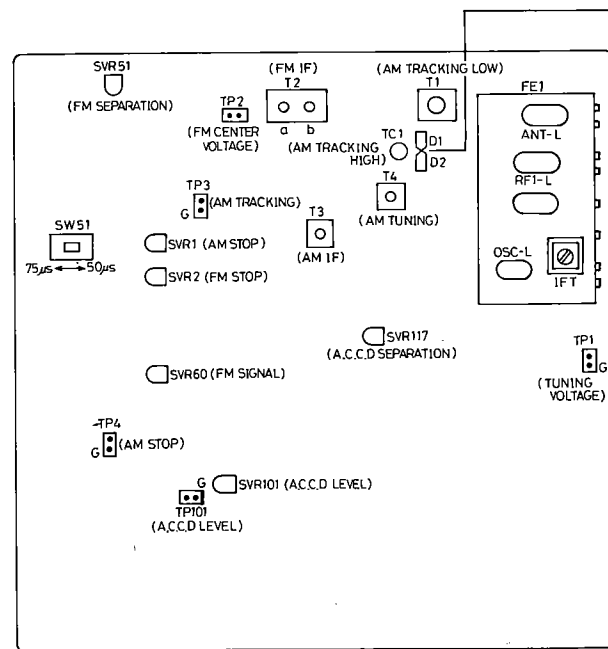


Fig.1

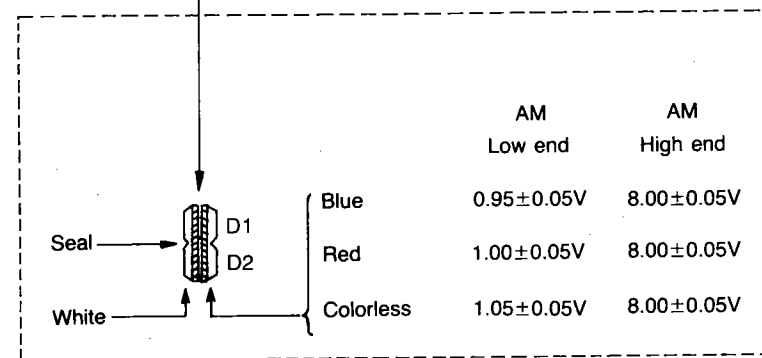


Fig.2

### FL-828B Display & DTS P.C.Board

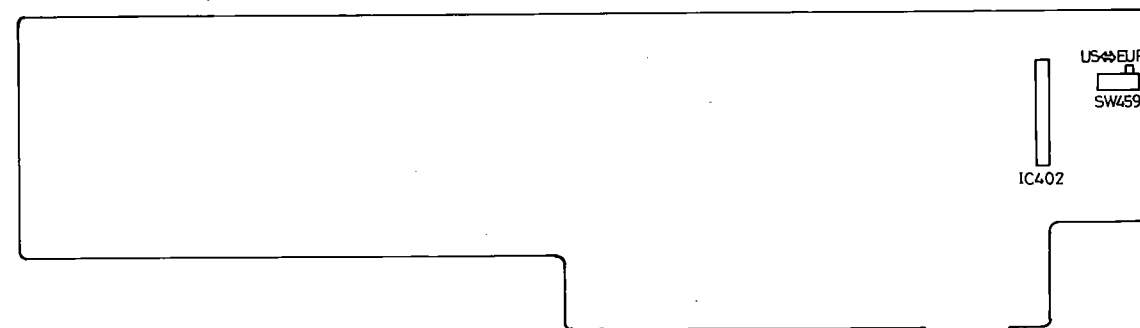


Fig.3

## Amplifier

### Condition

Surround mode : DOLBY PROLOGIC

### VCA

1. Apply a 1 kHz 200 mV signal equally to the left and right of AUX input terminal, CT-17.
2. Shorting jumper across pin 1 and pin 2 of the test point TP201.
3. Connect the ACVM to the PREOUT left and right jacks.
4. Set the VOLUME control to the suitable position.
5. Adjust SVR204 until the output is minimum at L and R.

### DC OFFSET

1. Apply a 1 kHz 200 mV signal equally to the left and right of AUX input terminal, CT-17.
2. Shorting jumper across pin 1 and pin 2 of the test point TP201.
3. Connect the DC digital volt meter between shorting jumper (tentative GND) and pin 3 of the test point TP201.
4. Adjust SVR203 for minimum DC offset.

## ALIGNMENT POINTS

### MS-827B Micon Surround P.C.Board

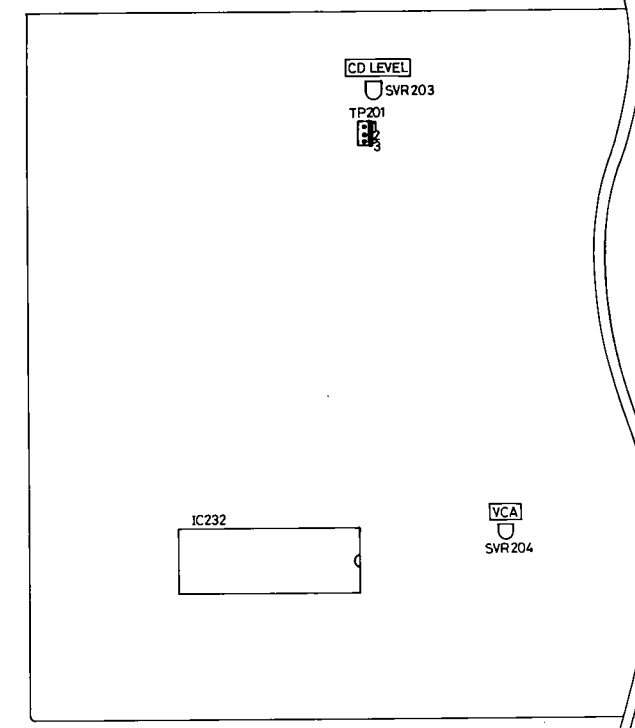


Fig.4

### \*VDN-829A Video P.C.Board

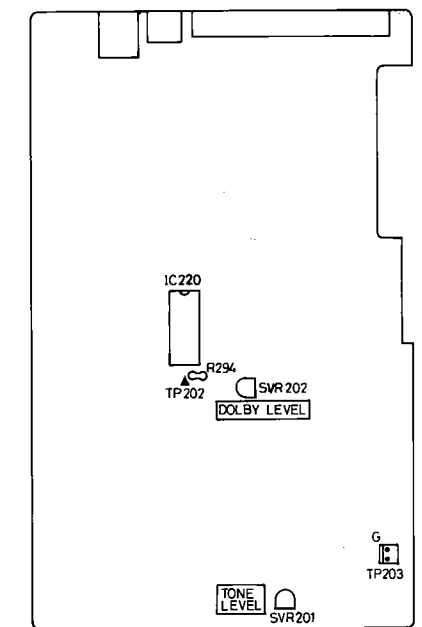


Fig.5

## Dolby Pro-Logic Test Input Circuit

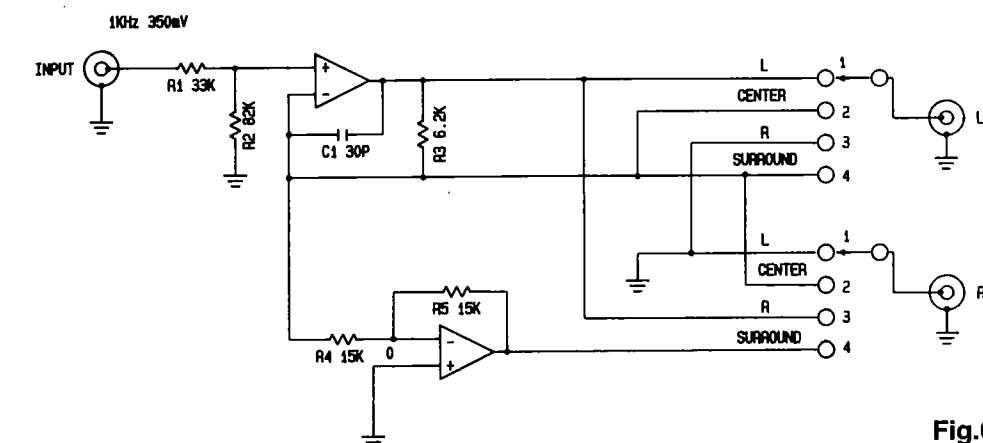
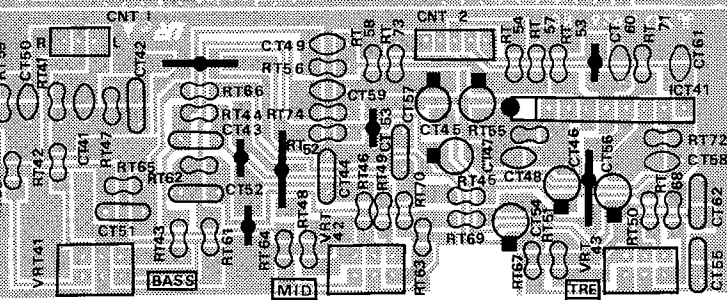
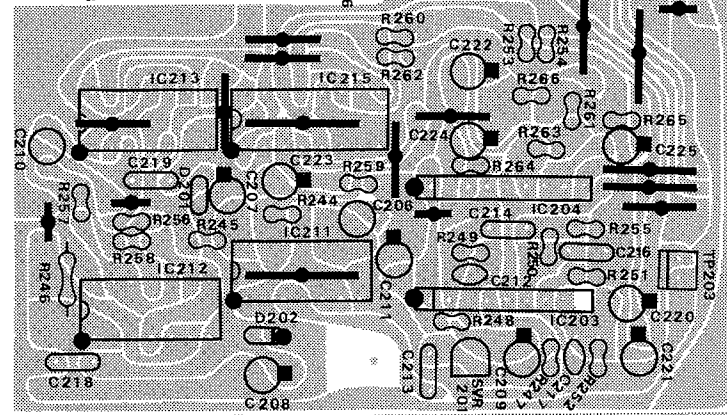
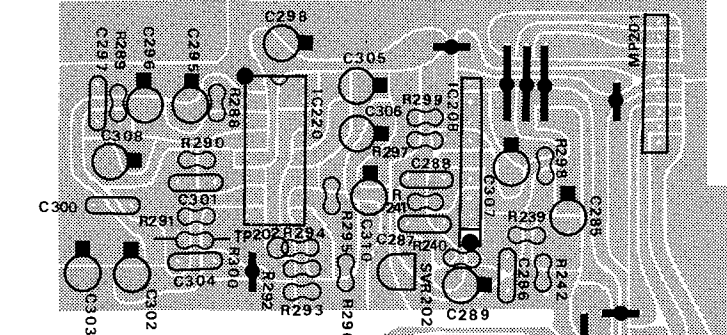
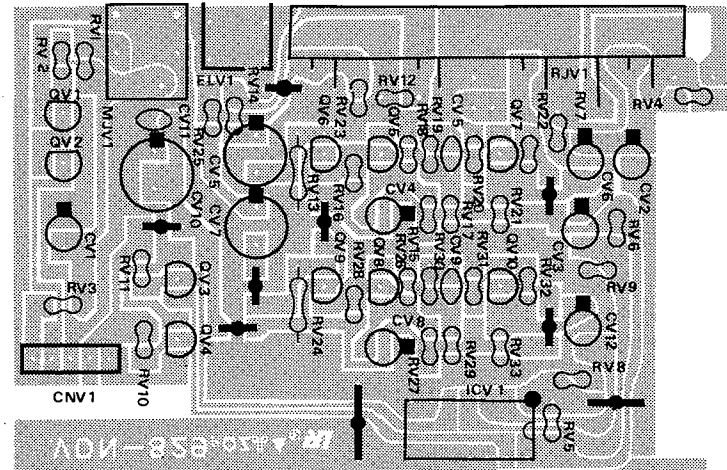
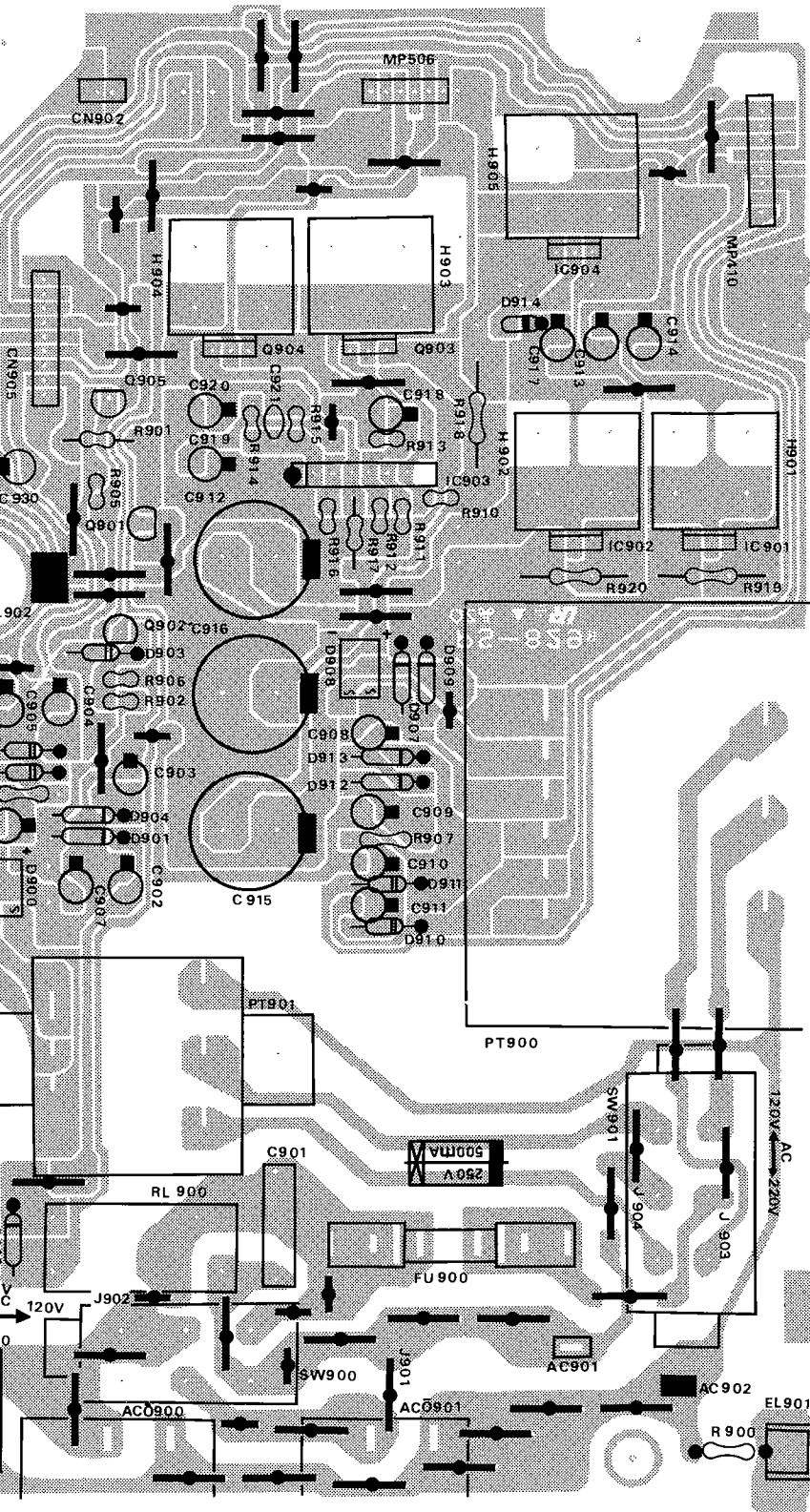


Fig.6

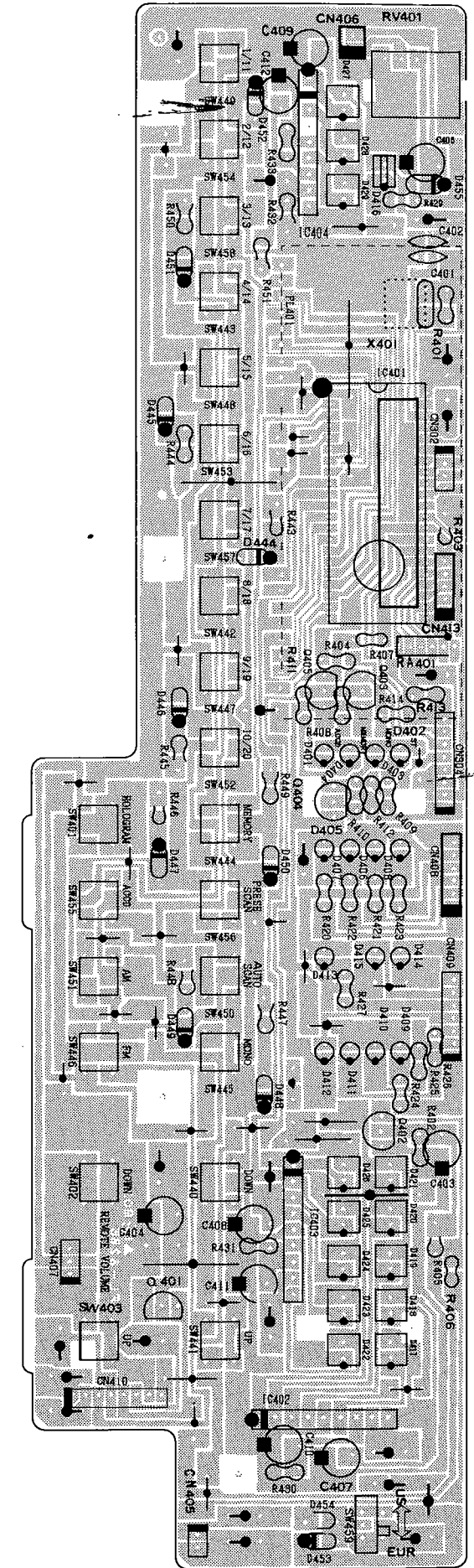
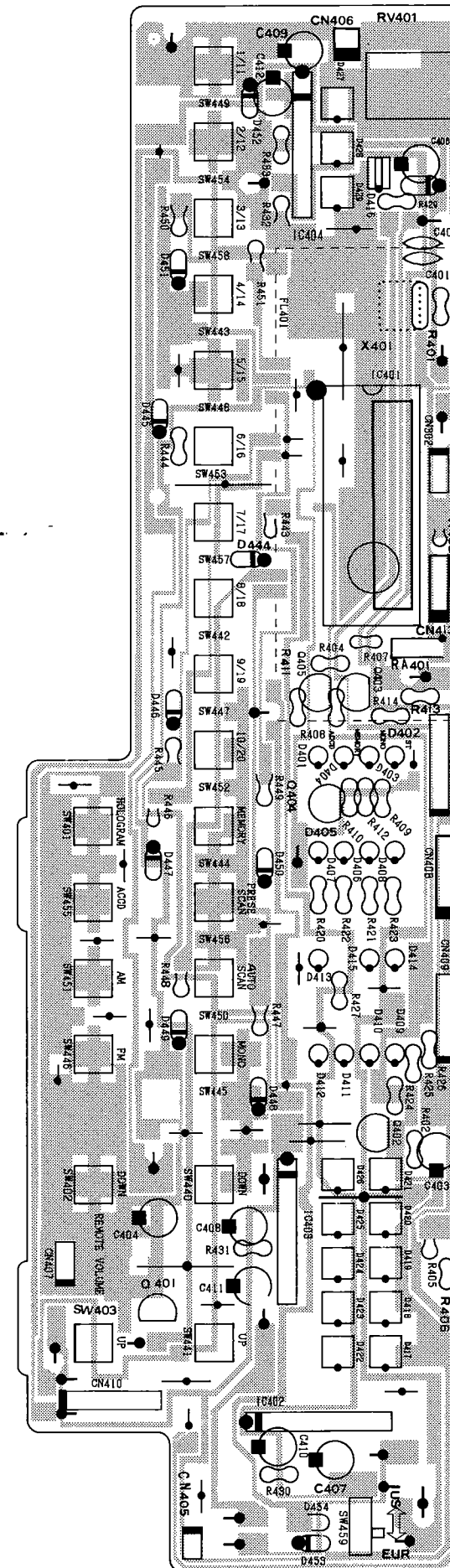




VDN-829A Video P.C.Board



PS-829A Power Supply P.C.Board







## VOLTAGE CONVERSION (EX Version only)

220 V/50 Hz Version

### Bill of Materials

Q'ty	Part No.	Description
1	315-15005-00	FUSE 250 V 315 mA
1	530-10128-00	FUSE LABEL 250 V 315 mA
1	530-10088-00	LABEL 220 V AC 50 HZ
1	530-10130-00	LABEL VOLTAGE CONVERSION
1	530-10013-00	LABEL MILITARY CONVERSION

### Direction for Change

1. Locate Power Supply P.C.Board on the left of front panel side. (See Fig.7 and Fig.8.).
  - A. Set slide switches SW900 and SW901 to 220 V.
  - B. Change fuse FU900 from 250 V 500 mA to 315-15005-00 (250 V 315 mA).
  - C. Put the label 530-10128-00 (220 V 315 mA) on printed in 250 V/500 mA.

### PS-829A Power Supply P.C.Board

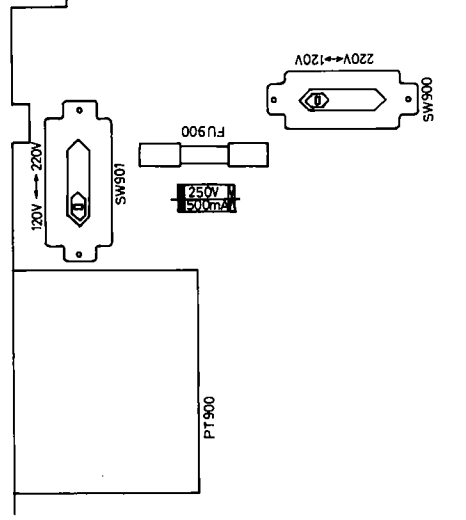


Fig.7

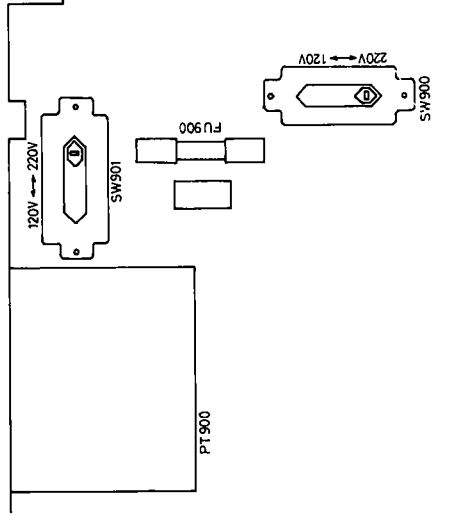


Fig.8

### FL-828B Display & DTS P.C.Board

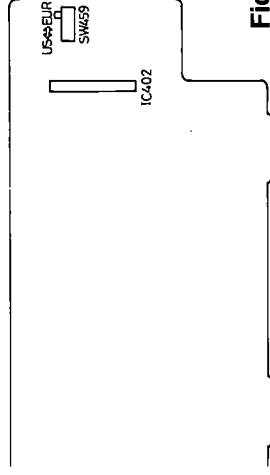


Fig.9

2. Locate CH.STEP SW459 on Display & DTS P.C.Board and set it to "EUR" for 220 V Europe frequency stepping. (See Fig.9)
3. Locate de-emphasis switch SW51 on Tuner P.C.Board and set it to "50  $\mu$ s" for 220 V Europe de-emphasis. (See Fig.10)
4. Apply label 530-10088-00 (220 V AC 50 Hz) in place of existing label 120 V AC 60 Hz.
5. Using spray adhesive, mount label 530-10130-00 (VOLTAGE CONVERSION) to inside top cover.
6. Apply label 530-10013-00 (MILITARY CONVERSION) to bottom of unit.

### TIM-812A Tuner P.C.Board

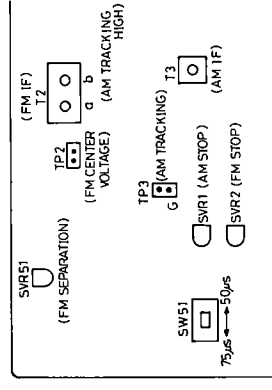
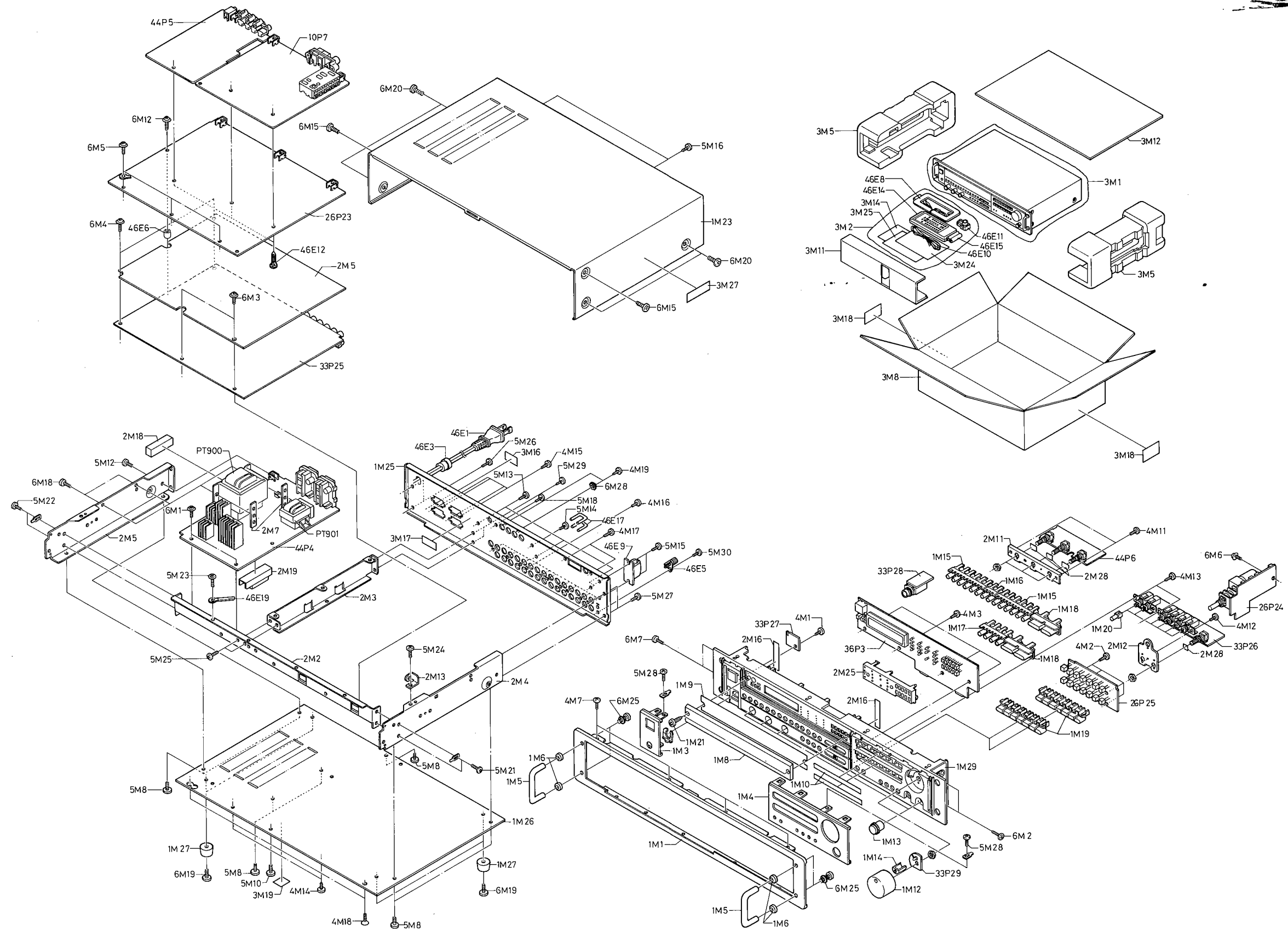


Fig.10

# EXPLODED VIEWS

## Main Unit and Packing



# PARTS LIST

TUNER P.C. BOARD

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
19E 7	1	TIM-812A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
0001-002	2	KV1236Z-Z1	DIODE
0051-013	15	1SS176	DIODE
055-058			
101-178			
0109-116	2	ZD50-090	ZENER DIODE, 1/2W, 9.0V
0001	1	2SC2668-D,Y	TRANSISTOR
0002	1	2SK161-Y,GR	TRANSISTOR
0003	1	RN-2204	TRANSISTOR
0007	1	2SC1815-Y,GR	TRANSISTOR
0051	1	RN-2204	TRANSISTOR
0052	1	2SC1815-Y,GR	TRANSISTOR
0053-055	3	RN-1204	TRANSISTOR
0056	1	2SA966-D,Y	TRANSISTOR
0057	1	2SC1815-Y,GR	TRANSISTOR
0058	1	RN-2204	TRANSISTOR
0059	1	2SC1815-Y,GR	TRANSISTOR
0060-061	2	RN-1204	TRANSISTOR
0101-103	3	2SC1815-GR	TRANSISTOR
0104	1	2SA1015-GR	TRANSISTOR
0111	1	RN-1204	TRANSISTOR
0112	1	2SK246-Y,GR	TRANSISTOR
0120-121	2	2SC2878-A,B	TRANSISTOR
<b>IC</b>			
IC001	1	LA1266	IC
IC051	1	LA3401	IC
IC052	1	TC9172AP	IC
IC053	1	NJM2904S	IC
IC101-105	5	NJM4565SB	IC
IC106	1	TC9215P	IC
<b>CAPACITORS</b>			
C001	1	N5-16TW101M	ELECTROLYTIC CAPACITOR
C002-006	5	HE905JYF223Z	CERAMIC CAPACITOR
C007	1	N5-16TW221M	ELECTROLYTIC CAPACITOR
C008	1	N5-50TKR10H	ELECTROLYTIC CAPACITOR
C009	1	HE405JSL330K	CERAMIC CAPACITOR
C010	1	N5-50TW1R0H	ELECTROLYTIC CAPACITOR
C012	1	N5-50TW2R2M	ELECTROLYTIC CAPACITOR
C013	1	HY-50VU162J	MYLAR CAPACITOR
C014-015	2	N5-16TW100H	ELECTROLYTIC CAPACITOR
C017	1	N5-50TW1R0H	ELECTROLYTIC CAPACITOR
C018	1	HE905JYF223Z	CERAMIC CAPACITOR
C019	1	N5-16TW100H	ELECTROLYTIC CAPACITOR
C020	1	HE405JSL100D	CERAMIC CAPACITOR
C021-022	2	HE905JYF223Z	CERAMIC CAPACITOR
C023	1	N5-25TW4R7M	ELECTROLYTIC CAPACITOR
C024	1	HE905JYF223Z	CERAMIC CAPACITOR
C025	1	HE405JSL110K	CERAMIC CAPACITOR
C026	1	ST-50V5451J	STYROL CAPACITOR
C027	1	HE905JYF223Z	CERAMIC CAPACITOR
C030	1	N5-50TW1R0H	ELECTROLYTIC CAPACITOR
C051	1	N5-16TW470H	ELECTROLYTIC CAPACITOR
C052	1	MY-50VU473J	MYLAR CAPACITOR
C053	1	N5-16TW100M	ELECTROLYTIC CAPACITOR
C054	1	HE905JYF223Z	CERAMIC CAPACITOR
C055-056	2	HY-50VU102J	MYLAR CAPACITOR
C057-058	2	N5-16TW100H	ELECTROLYTIC CAPACITOR
C059	1	HE905JYF223Z	CERAMIC CAPACITOR
C060	1	N5-25TW4R7M	ELECTROLYTIC CAPACITOR
C061	1	N5-50TKR22M	ELECTROLYTIC CAPACITOR
C062-064	2	N5-50TKR10H	ELECTROLYTIC CAPACITOR
C065	1	N5-16TW101M	ELECTROLYTIC CAPACITOR
C066	1	LL-50TW1R0M	LOW LEAK. ELECTROLYTIC CAP.
C067	1	LL-50TW1R7M	LOW LEAK. ELECTROLYTIC CAP.
C068	1	N5-16TW100M	ELECTROLYTIC CAPACITOR
C069	1	N5-16TW470M	ELECTROLYTIC CAPACITOR
C070	1	N5-25TW4R7M	ELECTROLYTIC CAPACITOR
C072	1	HE405JYB471K	CERAMIC CAPACITOR
C101-102	2	MY-50VU562J	MYLAR CAPACITOR
C103-104	2	HE505JSL101K	CERAMIC CAPACITOR
C105-106	2	N5-25TW4R7M	ELECTROLYTIC CAPACITOR
C107	1	MY-50VU103J	MYLAR CAPACITOR
C109	1	MY-50VU223J	MYLAR CAPACITOR
C109-112	4	MY-50VU104J	MYLAR CAPACITOR
C113	1	HE955JSL561J	CERAMIC CAPACITOR
C114	1	HE405JSL680K	CERAMIC CAPACITOR
C115	1	HE405JSL470K	CERAMIC CAPACITOR
C116	1	MY-50VU162J	MYLAR CAPACITOR
C117	1	HE955JSL561J	CERAMIC CAPACITOR
C118	1	HE405JSL680K	CERAMIC CAPACITOR
C119	1	HE405JSL560K	CERAMIC CAPACITOR
C120	1	MY-50VU182J	MYLAR CAPACITOR
C121-122	2	MY-50VU104J	MYLAR CAPACITOR
C123	1	N5-50TW3R3M	ELECTROLYTIC CAPACITOR
C124	1	N5-16TW100M	ELECTROLYTIC CAPACITOR
C125-126	2	N5-16TW101M	ELECTROLYTIC CAPACITOR
TC001	1	CT251C135	TRIMMER CAPACITOR
<b>RESISTORS</b>			
R001	1	KA16ST330J	CARBON RESISTOR
R002	1	KA16ST361J	CARBON RESISTOR
R003	1	KA16ST103J	CARBON RESISTOR
R004	1	KA16ST133J	CARBON RESISTOR
R005	1	KA16ST151J	CARBON RESISTOR
R006	1	KA16ST331J	CARBON RESISTOR
R007	1	KA16ST102J	CARBON RESISTOR
R008	1	KA16ST103J	CARBON RESISTOR
R009	1	KA16ST101J	CARBON RESISTOR
R013	1	KA16ST331J	CARBON RESISTOR
R014	1	KA16ST273J	CARBON RESISTOR
R019	1	KA16ST820J	CARBON RESISTOR
R020	1	KA16ST102J	CARBON RESISTOR
R021	1	KA16ST474J	CARBON RESISTOR
R022	1	KA16ST152J	CARBON RESISTOR
R023	1	KA16ST203J	CARBON RESISTOR
R024	1	KA16ST151J	CARBON RESISTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
R025	1	KA16ST221J	CARBON RESISTOR
R026-027	2	KA16ST104J	CARBON RESISTOR
R028	1	KA16ST102J	CARBON RESISTOR
R029	1	KA16ST685J	CARBON RESISTOR
R035	1	KA16ST332J	CARBON RESISTOR
R040	1	KA16ST103J	CARBON RESISTOR
R041	1	KA16ST473J	CARBON RESISTOR
R042	1	KA16ST105J	CARBON RESISTOR
R043	1	KA16ST473J	CARBON RESISTOR
R046	1	KA16ST123J	CARBON RESISTOR
R047	1	KA16ST223J	CARBON RESISTOR
R050	1	KA16ST123J	CARBON RESISTOR
R051	1	KA16ST223J	CARBON RESISTOR
R052	1	KA16ST473J	CARBON RESISTOR
R053-054	2	KA16ST753J	CARBON RESISTOR
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R065	1	KA16ST562J	CARBON RESISTOR
R066	1	KA16ST192J	CARBON RESISTOR
R067	1	KA16ST473J	CARBON RESISTOR
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R070	1	KA16ST194J	CARBON RESISTOR
R071	1	KA16ST151J	CARBON RESISTOR
R072	1	KA16ST101J	CARBON RESISTOR
R073	1	KA16ST104J	CARBON RESISTOR
R074-075	2	KA16ST103J	CARBON RESISTOR
R076	1	KA16ST221J	CARBON RESISTOR
R077	1	KA16ST331J	CARBON RESISTOR
R078	1	KA16ST124J	CARBON RESISTOR
R079	1	KA16ST473J	CARBON RESISTOR
R080	1	KA16ST822J	CARBON RESISTOR
R081	1	KA16ST183J	CARBON RESISTOR
R082	1	KA16ST103J	CARBON RESISTOR
R084	1	KA16ST101J	CARBON RESISTOR
R085	1	KA16ST223J	CARBON RESISTOR
R090	1	KA16ST332J	CARBON RESISTOR
R101-102	2	KA16ST513J	CARBON RESISTOR
R103-104	2	KA16ST685J	CARBON RESISTOR
R105-106	2	KA16ST193J	CARBON RESISTOR
R107-108	2	KA16ST685J	CARBON RESISTOR
R109-110	2	KA16ST102J	CARBON RESISTOR
R111-112	2	KA16ST332J	CARBON RESISTOR
R113-114	2	KA16ST194J	CARBON RESISTOR
R115-116	2	KA16ST204J	CARBON RESISTOR
R117	1	KA16ST333J	CARBON RESISTOR
R118-119	2	KA25S5106J	CARBON RESISTOR
R120	1	KA16ST113J	CARBON RESISTOR
R121	1	KA16ST184J	CARBON RESISTOR
R122	1	KA16ST153J	CARBON RESISTOR
R123	1	KA16ST154J	CARBON RESISTOR
R124	1	KA16ST333J	CARBON RESISTOR
R125-126	2	KA16ST105J	CARBON RESISTOR
R127-128	2	KA16ST472J	CARBON RESISTOR
R129	1	KA16ST103J	CARBON RESISTOR
R130	1	KA16ST512J	CARBON RESISTOR
R131	1	KA16ST513J	CARBON RESISTOR
R132	1	KA16ST433J	CARBON RESISTOR
R133	1	KA16ST152J	CARBON RESISTOR
R134	1	KA16ST512J	CARBON RESISTOR
R135	1	KA16ST513J	CARBON RESISTOR
R136	1	KA16ST273J	CARBON RESISTOR
R137	1	KA16ST152J	CARBON RESISTOR
R138	1	KA16ST132J	CARBON RESISTOR
R139	1	KA16ST103J	CARBON RESISTOR
R140	1	KA25S5475J	CARBON RESISTOR
R141	1	KA16ST164J	CARBON RESISTOR
R142	1	KA16ST225J	CARBON RESISTOR
R143	1	KA16ST621J	CARBON RESISTOR
R144	1	KA16ST514J	CARBON RESISTOR
R145	1	KA16ST224J	CARBON RESISTOR
R146	1	KA16ST222J	CARBON RESISTOR
R147	1	KA16ST472J	CARBON RESISTOR
R148	1	KA16ST514J	CARBON RESISTOR
R149	1	KA16ST394J	CARBON RESISTOR
R150	1	KA16ST334J	CARBON RESISTOR
R151	1	KA16ST303J	CARBON RESISTOR
R152	1	KA16ST102J	CARBON RESISTOR
R153-154	2	KA16ST333J	CARBON RESISTOR
R155-156	2	KA16ST103J	CARBON RESISTOR
R157-158	2	KA25ST181J	CARBON RESISTOR
R159	1	KA16ST912J	CARBON RESISTOR
R160	1	KA16ST632J	CARBON RESISTOR
R161-162	2	KA16ST102J	CARBON RESISTOR
<b>SVR</b>			
SVR001-072	2	SVR-06T3B303	SEMI-VARIABLE RESISTOR
SVR051	1	SVR-06T3B104	SEMI-VARIABLE RESISTOR
SVR060	1	SVR-06T3B204	SEMI-VARIABLE RESISTOR
SVR101	1	SVR-06T3B163	SEMI-VARIABLE RESISTOR
SVR117	1	SVR-06T3B104	SEMI-VARIABLE RESISTOR
<b>COILS</b>			
L001	1	LAL03102K	INDUCTOR
T001	1	126044	MW ANT COIL
T002	1	141039	FM DET COIL
T003	1	140053	MW IFT
T004	1	135023	MW OSC COIL
T052-053	2	184013	FILTER BLOCK
<b>MISCELLANEOUS</b>			
F001-002	2	SFE10.7M21K-A	CERAMIC FILTER
F003	1	SFP450F	CERAMIC FILTER
F004	1	8FU450C4N	CERAMIC FILTER
F051	1	C5E455F11	CERAMIC FILTER
AT001	1	YK031-0319	ANT. TERMINAL
CN302	1	P125C-04M	MICRO PLUG
CN304	1	P125C-08M	MICRO PLUG
CN307	1	171825-6	MICRO PLUG

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
EL001-002	2	M1698	GND LUG
FE001	1	FE497-A16	FM FRONTEND
TP001-004	5	1MSA-1066-02A	MINI TERMINAL PLATE
10E 4	1	5E-T03-05	JUMP WIRE
10E10	34	E95C	JUMP WIRE
10E11	33	E10C	JUMP WIRE

FUNCTION & EG P.C. BOARD

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
33E25	1	FE4-826A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
0501-510	10	GMA01	DIODE
0701-704	4	1SS176	DIODE
9501-504	4	RN-1207	TRANSISTOR
9505-506	2	RN-2207	TRANSISTOR
9507-508	13	2SC2878-A,B	TRANSISTOR
651-656			
701-705			
9706-707	2	RN-2207	TRANSISTOR
<b>IC</b>			
IC501-502	2	UPC45704A	IC
IC503-508	6	NJM4555DB	IC
IC509-512	4	NJM4565SB	IC
IC513	1	TC9163N	IC
IC514	1	TC9164N	IC
IC515	1	TC9153AP	IC
IC516	1	TC9215P	IC
IC518	1	TC9215P	IC
IC601-610	11	UPC45704A	IC
651			
IC652	1	NJM4565SB	IC
IC653	1	H5216L	IC
IC654	1	TC9215P	IC
IC701-703	3	NJM4565SB	IC
IC704	1	TC9215P	IC
<b>CAPACITORS</b>			
C501-502	2	LL-16TW100M	LOW LEAK. ELECTROLYTIC CAP.
C503-504	2	HE405JYB101K	CERAMIC CAP

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
8757	1	K165T12J	CARBON RESISTOR
8758,759	2	K165T752J	CARBON RESISTOR
8760	1	K165T122J	CARBON RESISTOR
8761	1	K165T752J	CARBON RESISTOR
8762	1	K165T103J	CARBON RESISTOR
8763	1	K165T752J	CARBON RESISTOR
8764,765	2	K165T103J	CARBON RESISTOR
8766	1	K165T752J	CARBON RESISTOR
8767	1	K165T103J	CARBON RESISTOR
8768	1	K165T203J	CARBON RESISTOR
8769	1	K165T361J	CARBON RESISTOR
8770	1	K165T512J	CARBON RESISTOR
8771	1	K165T752J	CARBON RESISTOR
8772	1	K165T361J	CARBON RESISTOR
8773,774	2	K165T122J	CARBON RESISTOR
8775,776,773	3	K165T752J	CARBON RESISTOR
8779	1	K165T122J	CARBON RESISTOR
8780	1	K165T512J	CARBON RESISTOR
8781	1	K165T361J	CARBON RESISTOR
8782	1	K165T752J	CARBON RESISTOR
8783,784	2	K165T203J	CARBON RESISTOR
8785	1	K165T512J	CARBON RESISTOR
8786,787	2	K165T122J	CARBON RESISTOR
8788	1	K165T512J	CARBON RESISTOR
8789	1	K165T752J	CARBON RESISTOR
8790,791	2	K165T301J	CARBON RESISTOR
8792	1	K165T752J	CARBON RESISTOR
8793	1	K165T122J	CARBON RESISTOR
8794	1	K165T361J	CARBON RESISTOR
8795-799	5	K165T752J	CARBON RESISTOR
8800,801	2	K165T512J	CARBON RESISTOR
8802,803	2	K165T203J	CARBON RESISTOR
8804	1	K165T122J	CARBON RESISTOR
8805	1	K165T361J	CARBON RESISTOR
8831	1	K165T102J	CARBON RESISTOR
8833,836	4	K165T303J	CARBON RESISTOR
8837,838	2	K165T133J	CARBON RESISTOR
8839,840	2	K165T153J	CARBON RESISTOR
8841,842	2	K165T102J	CARBON RESISTOR
8843,844	2	K165T311J	CARBON RESISTOR
8845,846	2	K165T561J	CARBON RESISTOR
8851,852	2	K165T471J	CARBON RESISTOR
8853,854	2	K165T224J	CARBON RESISTOR
8855,856	2	K165T223J	CARBON RESISTOR
8857,858	2	K165T202J	CARBON RESISTOR
8859,860	2	K165T153J	CARBON RESISTOR
8861,862	2	K165T561J	CARBON RESISTOR
8863,864	2	K165T103J	CARBON RESISTOR
8865,866	2	K165T471J	CARBON RESISTOR
8867,868	2	K165T104J	CARBON RESISTOR
8869,870	2	K165T153J	CARBON RESISTOR
8871,874	4	K165T102J	CARBON RESISTOR
8875	1	K165T471J	CARBON RESISTOR
8876	1	K165T104J	CARBON RESISTOR
8877,876	2	K165T103J	CARBON RESISTOR
8879	1	K165T153J	CARBON RESISTOR
8880,881	2	K165T102J	CARBON RESISTOR
8882,885	4	K165T103J	CARBON RESISTOR
8886	1	K165T101J	CARBON RESISTOR
8887	1	K165T103J	CARBON RESISTOR
8888,889	2	K165T60J	CARBON RESISTOR
<b>MISCELLANEOUS</b>			
C4501	1	M203-809	MICRO SOCKET ASS'Y
C4502	1	M203-812	MICRO SOCKET ASS'Y
C4505	1	M209-816	MICRO SOCKET ASS'Y
C4506	1	M206-815	MICRO SOCKET ASS'Y
C4507	1	M206-832	MICRO SOCKET ASS'Y
C4701	1	M203-811A	MICRO SOCKET ASS'Y
C4801	1	M203-829	MICRO SOCKET ASS'Y
C4802	1	M203-810A	MICRO SOCKET ASS'Y
J4501	1	M203-968	MICRO SOCKET ASS'Y
M001	1	173981-3	MICRO PLUG
M002,474	2	173981-3	MICRO PLUG
M001	1	M203-814	MICRO SOCKET ASS'Y
M004	1	173981-4	MICRO PLUG
RJ501-505	5	YK21-3051	RCA JACK 0P
RJ506	1	YK21-3048	RCA JACK 1P
T0501,502	2	MSA106802Z211	MINI TERMINAL PLATE
30E24	85	E050	JUMP WIRE
30E26	10	E075	JUMP WIRE
30E27	100	E100	JUMP WIRE
30E28	10	E125	JUMP WIRE
30E29	17	E150	JUMP WIRE
30E30	9	E175	JUMP WIRE

**AUDIO SWITCH P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
33E26	1	ASW-826A	PRINTED CIRCUIT BOARD
<b>CAPACITORS</b>			
C413,414	2	MY-50VU104J	MYLAR CAPACITOR
<b>RESISTORS</b>			
R453,454	2	K165T133J	CARBON RESISTOR
V4402	1	V8609-154MNK4	ROTARY POTENTIOMETER
<b>SWITCHES</b>			
S4410	1	SW-1201289	PUSH SWITCH
S4411	1	SW-1401288	PUSH SWITCH

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>MISCELLANEOUS</b>			
C4403	1	M205-819A	MICRO SOCKET ASS'Y
C4404	1	M203-817	MICRO SOCKET ASS'Y
C4421	1	M203-813	MICRO SOCKET ASS'Y
C4422	1	M205-831	MICRO SOCKET ASS'Y
30E22	3	E100	JUMP WIRE

**HEADPHONE P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
33E25	1	HP-826A	PRINTED CIRCUIT BOARD
<b>CAPACITORS</b>			
C951	1	HE125JYF473Z	CERAMIC CAPACITOR
<b>MISCELLANEOUS</b>			
CV604	1	M204-321A	MICRO SOCKET ASS'Y
HJ600	1	YK821-5008	MICK JACK
46E29	2	U9-#138025	UL TYPE TUBE
46E30	1	2AE-05	LUG

**POWER SWITCH P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
33E27	1	PSW-820A	PRINTED CIRCUIT BOARD
<b>SWITCHES</b>			
SW801	1	SOA-12445	TACT SWITCH
<b>MISCELLANEOUS</b>			
C4800	1	M202-824	MICRO SOCKET ASS'Y

**VOLUME LED P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
33E29	1	VLD-826A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
0800	1	SPR-54MVWF	LED
<b>MISCELLANEOUS</b>			
C4454	1	M203-320	MICRO SOCKET ASS'Y

**POWER SUPPLY P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
44E 4	1	PS-829A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
0900	1	184842	DIODE
0901,902	2	1N4002	DIODE
0903	1	Z050-057	ZENER DIODE,1/2W,5.7V
0904	1	1N4002	DIODE
0905	1	Z050-057	ZENER DIODE,1/2W,5.7V
0906	1	Z050-062	ZENER DIODE,1/2W,6.2V
0907	1	1N4002	DIODE
0908	1	184842	DIODE
0909	1	1N4002	DIODE
0910	1	Z050-040	ZENER DIODE,1/2W,4V
0911	1	Z050-215	ZENER DIODE,1/2W,21.5V
0912,913	2	1N4002	DIODE
0914	1	1SS176	DIODE
0901	1	2SC1815-Y,GR	TRANSISTOR
0902	1	2SA1015-Y,GR	TRANSISTOR
0903	1	2SB1274-R,S	TRANSISTOR
0904	1	2SD1913-R,S	TRANSISTOR
0905	1	2SD400-E,F	TRANSISTOR
IC901,902	2	NJM78M12A	IC
IC903	1	M5230L	IC
IC904	1	NJM78M05A	IC
<b>CAPACITORS</b>			
C900,901	2	YE103	METALLIZED FILM CAPACITOR
C902	1	NS-16TW470M	ELECTROLYTIC CAPACITOR
C903	1	NS-16TW221M	ELECTROLYTIC CAPACITOR
C904,905	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C906	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C907	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C908	1	NS-25TW470M	ELECTROLYTIC CAPACITOR
C909	1	NS-50TW220M	ELECTROLYTIC CAPACITOR
C910	1	NS-50TW100M	ELECTROLYTIC CAPACITOR
C911	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C912	1	NS-35TW222M-KF	ELECTROLYTIC CAPACITOR
C913,914	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C915,916	2	NS-35TW222M-KF	ELECTROLYTIC CAPACITOR
C917	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C918	1	NS-50TW1R0M	ELECTROLYTIC CAPACITOR
C919,920	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C921	1	HE40SJS100K	CERAMIC CAPACITOR
C920	1	NS-16TW470M	ELECTROLYTIC CAPACITOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>RESISTORS</b>			
R900	1	KA50XT335J	CARBON RESISTOR
R901	1	KA16ST102J	CARBON RESISTOR
R902	1	KA16ST103J	CARBON RESISTOR
R904	1	KA16ST391J	CARBON RESISTOR
R905	1	KA16ST102J	CARBON RESISTOR
R916	1	KA16ST223J	CARBON RESISTOR
R907	1	KA16ST182J	CARBON RESISTOR
R910	1	KA16ST151J	CARBON RESISTOR
R911	1	KA16ST561J	CARBON RESISTOR
R912	1	MF16ST332F	METAL FILM RESISTOR
R913	1	MF16ST243F	METAL FILM RESISTOR
R914+915	2	KA16ST153J	CARBON RESISTOR
R916	1	KA16ST561J	CARBON RESISTOR
R917	1	KA16ST151J	CARBON RESISTOR
R915	1	SA-1WT68CJ-LP	METAL OXIDE RESISTOR
R919+920	2	SA-1WT191J-LP	METAL OXIDE RESISTOR
<b>MISCELLANEOUS</b>			
H9C1	1	05H-1625-MP	HEAT SINK
H9C2-994	3	05H-1640-MP	HEAT SINK
H9C5	1	05H-1625-MP	HEAT SINK
AC901+902	2	59S4795	GND LUG
C4902	1	MZ62-325	MICRO SOCKET ASS'Y
C4905	1	HZ09-826	MICRO SOCKET ASS'Y
EL901	1	M1698	GND LUG
EL902	1	59S4795	GND LUG
FU900	1	FU-625014-SM	FUSE
MP410	1	173981-8	MICRO PLUG
MP506	1	173981-6	MICRO PLUG
RL900	1	OMIT-SS-112LM	RELAY
43E28	13	E050	JUMP WIRE
43E29	33	E100	JUMP WIRE
44E13	2	CNT41-0013	FUSE HOLDER
AC0900+901	2	M7037	AC OUTLET

**VIDEO P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
44E 5	1	V0N-829A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
D201,202	2	1SS176	DIODE
IC203,204,208	3	NJM4565SB	IC
IC211	1	TC4011U9P	IC
IC212	1	TC40118P	IC
IC213	1	TC40138P	IC
IC215	1	TC40528P	IC
IC220	1	LA2730	IC
QV001	1	RN-1297	TRANSISTOR
QV002	1	2SC1815-Y,6R	TRANSISTOR
QV003+004	2	RN-1297	TRANSISTOR
QV005+010	6	2SC1815-Y,6R	TRANSISTOR
ICV001	1	TC40668P	IC
<b>CAPACITORS</b>			
C206	1	NP-50TW180M	ELECTROLYTIC CAPACITOR
C207	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C208	1	NS-50TW383M	ELECTROLYTIC CAPACITOR
C209	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C210	1	NP-50TW2R2M	ELECTROLYTIC CAPACITOR
C211	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C212	1	HE40SJSL470K	CERAMIC CAPACITOR
C213,214,216	3	MY-50VU103J	MYLAR CAPACITOR
C217	1	HE40SJSL470K	CERAMIC CAPACITOR
C218+219	2	MY-50VU104J	MYLAR CAPACITOR
C220,221	2	NS-50TW180M	ELECTROLYTIC CAPACITOR
C222+225,285	5	NS-16TW100M	ELECTROLYTIC CAPACITOR
C286	1	MY-50VU182J	MYLAR CAPACITOR
C289	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C295	1	LL-50TW833M	LOW LEAK. ELECTROLYTIC CAP.
C296	1	LL-50TW810M	LOW LEAK. ELECTROLYTIC CAP.
C297	1	MY-50VU333J	MYLAR CAPACITOR
C298	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C300	1	MY-50VU273J	MYLAR CAPACITOR
C301	1	MY-50VU472J	MYLAR CAPACITOR
C302	1	NS-16TW220M	ELECTROLYTIC CAPACITOR
C303	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C304	1	MY-50VU822J	MYLAR CAPACITOR
C305+307	3	NS-16TW100M	ELECTROLYTIC CAPACITOR
C308+310	2	NS-50TW180M	ELECTROLYTIC CAPACITOR
CV001+004	4	NS-16TW101M	ELECTROLYTIC CAPACITOR
CV005	1	NS-16TW331M	ELECTROLYTIC CAPACITOR
CV005	1	HE40SJSL470K	CERAMIC CAPACITOR
CV006	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
CV007	1	NS-16TW331M	ELECTROLYTIC CAPACITOR
CV008	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
CV009	1	HE40SJSL470K	CERAMIC CAPACITOR
CV010	1	NS-16TW102M-KF	ELECTROLYTIC CAPACITOR
CV011	1	HE90SJYF223Z	CERAMIC CAPACITOR
CV012	1	NS-16TW101M	ELECTROLYTIC CAPACITOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>RESISTORS</b>			
R241	1	KA16ST132J	CARBON RESISTOR
R242	1	KA16ST104J	CARBON RESISTOR
R244	1	KA16ST105J	CARBON RESISTOR
R245	1	KA16ST102J	CARBON RESISTOR
R246	1	KA16ST104J	CARBON RESISTOR
R247	1	KA16ST473J	CARBON RESISTOR
R248	1	KA16ST221J	CARBON RESISTOR
R249+250	2	KA16ST473J	CARBON RESISTOR
R251	1	KA16ST153J	CARBON RESISTOR
R252	1	KA16ST622J	CARBON RESISTOR
R253+255	3	KA16ST104J	CARBON RESISTOR
R256	1	KA16ST191J	CARBON RESISTOR
R257+258	2	KA16ST474J	CARBON RESISTOR
R259+262	4	KA16ST194J	CARBON RESISTOR
R263	1	KA16ST101J	CARBON RESISTOR
R264+266	3	KA16ST104J	CARBON RESISTOR
R265	1	KA16ST274J	CARBON RESISTOR
R267	1	KA16ST622J	CARBON RESISTOR
R268	1	KA16ST473J	CARBON RESISTOR
R269	1	KA16ST332J	CARBON RESISTOR
R270	1	KA16ST123J	CARBON RESISTOR
R271	1	KA16ST181J	CARBON RESISTOR
R272	1	KA16ST153J	CARBON RESISTOR
R273	1	KA16ST103J	CARBON RESISTOR
R274	1	KA16ST273J	CARBON RESISTOR
R275	1	KA16ST471J	CARBON RESISTOR
R276+299	2	KA16ST473J	CARBON RESISTOR
R306	1	KA16ST274J	CARBON RESISTOR
RV001	1	KA16ST473J	CARBON RESISTOR
RV002	1	KA16ST104J	CARBON RESISTOR
RV003	1	KA16ST100J	CARBON RESISTOR
RV004	1	KA16ST750J	CARBON RESISTOR
RV005+006	2	KA16ST104J	CARBON RESISTOR
RV007	1	KA16ST756J	CARBON RESISTOR
RV008+009	2	KA16ST194J	CARBON RESISTOR
RV010	1	KA16ST472J	CARBON RESISTOR
RV011	1	KA16ST104J	CARBON RESISTOR
RV012	1	KA16ST103J	CARBON RESISTOR
RV013	1	KA25ST391J	CARBON RESISTOR
RV014	1	KA16ST680J	CARBON RESISTOR
RV015	1	KA16ST223J	CARBON RESISTOR
RV016	1	KA16ST102J	CARBON RESISTOR
RV017	1	KA16ST471J	CARBON RESISTOR
RV018	1	KA16ST472J	CARBON RESISTOR
RV019+020	2	KA16ST471J	CARBON RESISTOR
RV021	1	KA16ST472J	CARBON RESISTOR
RV022	1	KA16ST223J	CARBON RESISTOR
RV023	1	KA16ST103J	CARBON RESISTOR
RV024	1	KA25ST391J	CARBON RESISTOR
RV025	1	KA16ST680J	CARBON RESISTOR
RV026	1	KA16ST472J	CARBON RESISTOR
RV027	1	KA16ST223J	CARBON RESISTOR
RV028	1	KA16ST102J	CARBON RESISTOR
RV029+031	3	KA16ST471J	CARBON RESISTOR
RV032	1	KA16ST223J	CARBON RESISTOR
RV033	1	KA16ST472J	CARBON RESISTOR
SVR201+202	2	SVR-06T36503	SEMI-VARIABLE RESISTOR
<b>MISCELLANEOUS</b>			
CN300	1	52007-0910	CONNECTOR
TP203	1	171825-2	MICRO PLUG
43E14	6	E050	JUMP WIRE
43E15	1	E075	JUMP WIRE
43E17	1	E100	JUMP WIRE
CWJ001	1	171825-5	MICRO PLUG
ELV001	1	M1698	GND LUG
QJV001	1	YK221-5130	IC JACK
QJV001	1	T6226-8AAA	RCA JACK 4P

**PHONE CONTROL P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
44E 6	1	TON-829A	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
ICV001	1	NJM4565SB	IC
<b>CAPACITORS</b>			
CT041	1	ECGV14334JZ	METALLIZED FILM CAPACITOR
CT042+043	2	MY-50VU123J	MYLAR CAPACITOR
CT044	1	MY-50VU323J	MYLAR CAPACITOR
CT045+046	2	NS-25TW487M	ELECTROLYTIC CAPACITOR
CT047	1	NS-25TW220M	ELECTROLYTIC CAPACITOR
CT048	1	HE40SJYB101K	CERAMIC CAPACITOR
CT049+050	2	ECGV14334JZ	METALLIZED FILM CAPACITOR
CT051+052	2	MY-50VU123J	MYLAR CAPACITOR
CT053	1	MY-50VU323J	MYLAR CAPACITOR
CT054	1	NS-25TW487M	ELECTROLYTIC CAPACITOR
CT055	1	MY-50VU502J	MYLAR CAPACITOR
CT056	1	NS-25TW487M	ELECTROLYTIC CAPACITOR
CT057	1	NS-25TW220M	ELECTROLYTIC CAPACITOR
CT058	1	HE40SJYB101K	CERAMIC CAPACITOR
CT059	1	ECGV14334JZ	METALLIZED FILM CAPACITOR
CT060+061	2	HE70SJYF103Z	CERAMIC CAPACITOR
CT062	1	MY-50VU502J	MYLAR CAPACITOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>RESISTORS</b>			
RT041	1	KA16ST562J	CARBON RESISTOR
RT042	1	KA16ST182J	CARBON RESISTOR
RT043	1	KA16ST152J	CARBON RESISTOR
RT044	1	KA16ST562J	CARBON RESISTOR
RT045	1	KA16ST682J	CARBON RESISTOR
RT046	1	KA16ST222J	CARBON RESISTOR
RT047	1	KA16ST562J	CARBON RESISTOR
RT048-051	4	KA16ST152J	CARBON RESISTOR
RT052	1	KA16ST682J	CARBON RESISTOR
RT053	1	KA16ST474J	CARBON RESISTOR
RT054	1	KA16ST561J	CARBON RESISTOR
RT055	1	KA16ST274J	CARBON RESISTOR
RT056	1	KA16ST562J	CARBON RESISTOR
RT057-C58	2	KA16ST153J	CARBON RESISTOR
RT059	1	KA16ST562J	CARBON RESISTOR
RT060	1	KA16ST182J	CARBON RESISTOR
RT061	1	KA16ST152J	CARBON RESISTOR
RT062	1	KA16ST562J	CARBON RESISTOR
RT063-064	2	KA16ST152J	CARBON RESISTOR
RT065	1	KA16ST562J	CARBON RESISTOR
RT066	1	KA16ST682J	CARBON RESISTOR
RT067-068	2	KA16ST152J	CARBON RESISTOR
RT069	1	KA16ST682J	CARBON RESISTOR
RT070	1	KA16ST222J	CARBON RESISTOR
RT071	1	KA16ST474J	CARBON RESISTOR
RT072	1	KA16ST274J	CARBON RESISTOR
RT073	1	KA16ST561J	CARBON RESISTOR
RT074	1	KA16ST562J	CARBON RESISTOR
VRT041-043	3	V8T09-203821K4	ROTARY POTENTIOMETER
<b>MISCELLANEOUS</b>			
45E20	12	E050	JUMP WIRE
45E21	13	E100	JUMP WIRE
45E23	4	E125	JUMP WIRE
45E24	2	E150	JUMP WIRE
CNT001	1	MZ05-827	MICRO SOCKET ASS'Y
CNT002	1	MZ03-928	MICRO SOCKET ASS'Y

**DISPLAY & DTS P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
36E 3	1	FL-8298	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
D401	1	SLR-37VR3F	LED
D402	1	SLK-37M63F	LED
D403-415	13	SLR-37VR3F	LED
D416	1	SLB-15VR3F	LED
D417-426	10	SLB-55DU3F	LED
D427-429	3	SLB-55M63F	LED
D444-452, 455	10	GMA01	DIODE
Q401-405	5	2SC3330-S,T	TRANSISTOR
IC401	1	TC9303AN-014	IC
IC402, 403	2	L91433N	IC
IC404	1	L91423N	IC
<b>CAPACITORS</b>			
C401, 402	2	HE50SJCH270J	CERAMIC CAPACITOR
C403	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C404	1	NS6R3TH471M	ELECTROLYTIC CAPACITOR
C406	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C407-409	3	NS-16TW101M	ELECTROLYTIC CAPACITOR
C410, 411	2	NS-16TW100M	ELECTROLYTIC CAPACITOR
C412	1	NS-25TW4R7M	ELECTROLYTIC CAPACITOR
<b>RESISTORS</b>			
R401	1	KA16ST153J	CARBON RESISTOR
R402	1	KA16ST194J	CARBON RESISTOR
R403	1	KA16ST622J	CARBON RESISTOR
R404	1	KA16ST123J	CARBON RESISTOR
R405	1	KA16ST103J	CARBON RESISTOR
R406	1	KA16ST473J	CARBON RESISTOR
R407	1	KA16ST393J	CARBON RESISTOR
R408	1	KA16ST681J	CARBON RESISTOR
R409	1	KA16ST391J	CARBON RESISTOR
R410, 411	2	KA16ST681J	CARBON RESISTOR
R412	1	KA16ST393J	CARBON RESISTOR
R413	1	KA16ST822J	CARBON RESISTOR
R414	1	KA16ST393J	CARBON RESISTOR
R420-427	8	KA16ST681J	CARBON RESISTOR
R429	1	KA16ST102J	CARBON RESISTOR
R430, 431	2	KA16ST105J	CARBON RESISTOR
R432, 433	2	KA16ST473J	CARBON RESISTOR
R443-451	9	KA16ST102J	CARBON RESISTOR
R4401	1	RA-SP-C5473J	BLOCK RESISTOR
<b>SWITCHES</b>			
SW401-403, 440-458	22	S0A-124H5	TACT SWITCH
<b>MISCELLANEOUS</b>			
X401	1	HC18/U7-20.0MHZ	QUARTZ OSCILLATOR UNIT
CN302	1	MZ04-803	MICRO SOCKET ASS'Y
CN304	1	MZ08-301	MICRO SOCKET ASS'Y
CN405	1	MZ02-807	MICRO SOCKET ASS'Y
CN406	1	MZ02-806	MICRO SOCKET ASS'Y
CN407	1	MZ03-905	MICRO SOCKET ASS'Y
CN408	1	MZ06-800	MICRO SOCKET ASS'Y
CN409	1	MZ07-799	MICRO SOCKET ASS'Y
CN410	1	MZ08-804	MICRO SOCKET ASS'Y
CN413	1	MZ05-802	MICRO SOCKET ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
FL401	1	FG710F1	DISPLAY
RV401	1	S3X1483-11	REMOTE SIGNAL RECEIVING UNIT
35E13	46	E050	JUMP WIRE
35E19	1	E075	JUMP WIRE
35E20	3	E100	JUMP WIRE
35E21	4	E150	JUMP WIRE

**MICRN SURROUND P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
25E23	1	MS-827b	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
2200, 203, 232, 234, 237, 240, 245	37	1SS176	DIODE
2201-204	4	RN-1207	TRANSISTOR
2205	1	2SK363-9L	TRANSISTOR
2205, 207	2	RN-2207	TRANSISTOR
2208, 209	2	RN-1207	TRANSISTOR
2210, 211	2	RN-2207	TRANSISTOR
2212, 213	2	RN-1207	TRANSISTOR
2214-217	4	RN-2207	TRANSISTOR
2219-221	3	RN-1207	TRANSISTOR
2222	1	RN-2207	TRANSISTOR
2223	1	RN-1207	TRANSISTOR
2224	1	RN-2207	TRANSISTOR
2225	1	RN-1207	TRANSISTOR
2227	1	RN-1211	TRANSISTOR
2228-230	3	RN-2207	TRANSISTOR
2231-236	6	RN-1207	TRANSISTOR
2237	1	RN-2207	TRANSISTOR
2238	1	RN-1207	TRANSISTOR
2239, 240	2	RN-2207	TRANSISTOR
2241	1	RN-1207	TRANSISTOR
2242	1	RN-1211	TRANSISTOR
2245	1	2SA1015-Y,GR	TRANSISTOR
IC201, 202, 205-207, 209	6	NJM4565SB	IC
IC214	1	TC9215F	IC
IC216	1	LA2770	IC
IC217	1	YH3423	IC
IC218	1	TC9214P	IC
IC219	1	TC9215P	IC
IC221	1	TC9214P	IC
IC222	1	NJM4565SB	IC
IC223	1	NJM72B5	IC
IC224, 225	2	NJM4565SB	IC
IC226, 227	2	TC9153AP	IC
IC228, 229	2	NJM4565SB	IC
IC230	1	TC4013BP	IC
IC231	1	MS1523AL	IC
IC232	1	LC6544H-4298	IC
IC233, 234	2	SA6250	IC
<b>CAPACITORS</b>			
C201-205	5	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C224	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C227	1	MY-50VU183J	MYLAR CAPACITOR
C228	1	MY-50VU683J	MYLAR CAPACITOR
C229	1	MY-50VU392J	MYLAR CAPACITOR
C230, 231	2	MY-50VU104J	MYLAR CAPACITOR
C232, 233	2	S7-16TW100M	ELECTROLYTIC CAPACITOR
C234, 235	2	MY-50VU104J	MYLAR CAPACITOR
C236, 237	2	ECGV1134JZ	METALLIZED FILM CAPACITOR
C239, 239	2	SL-35TW4R7M-RT	ELECTROLYTIC CAPACITOR
C240	1	MY-50VU682J	MYLAR CAPACITOR
C241	1	SL-50TW2R2M-RT	ELECTROLYTIC CAPACITOR
C242	1	SL-35TW4R7M-RT	ELECTROLYTIC CAPACITOR
C243	1	S7-50TW2R2M-RT	ELECTROLYTIC CAPACITOR
C244	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C245, 246	2	ECGV1H334JZ	METALLIZED FILM CAPACITOR
C247	1	HE405JYB681K	CERAMIC CAPACITOR
C248	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C249	1	SL-35TW4R7M-RT	ELECTROLYTIC CAPACITOR
C250	1	SL-50TW2R2M-RT	ELECTROLYTIC CAPACITOR
C251	1	MY-50VU682J	MYLAR CAPACITOR
C252	1	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C253	1	SL-35TW4R7M-RT	ELECTROLYTIC CAPACITOR
C254	1	ECGV1H224JZ	METALLIZED FILM CAPACITOR
C255	1	S7-16TW470M	ELECTROLYTIC CAPACITOR
C256, 257	2	S7-16TW100M	ELECTROLYTIC CAPACITOR
C258	1	S7-16TW470M	ELECTROLYTIC CAPACITOR
C259	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C260	1	ECGV1H474JZ	METALLIZED FILM CAPACITOR
C261, 262	2	S7-16TW100M	ELECTROLYTIC CAPACITOR
C263	1	MY-50VU163J	MYLAR CAPACITOR
C264	1	MY-50VU663J	MYLAR CAPACITOR
C265	1	MY-50VU392J	MYLAR CAPACITOR
C266	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C267	1	S76R3TH101M	ELECTROLYTIC CAPACITOR
C268	1	HC105JZF473Z	CERAMIC CAPACITOR
C269	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C270	1	MY-50VU332J	MYLAR CAPACITOR
C271, 272	2	HE405JCH220K	CERAMIC CAPACITOR
C273, 274	2	HE405JSL100K	CERAMIC CAPACITOR
C275, 276	2	S7-50TW2R2M	ELECTROLYTIC CAPACITOR
C277, 278	2	MY-50VU273J	MYLAR CAPACITOR
C279, 280	2	MY-50VU683J	MYLAR CAPACITOR
C281, 282	2	MY-50VU392J	MYLAR CAPACITOR
C283, 284	2	S7-16TW100M	ELECTROLYTIC CAPACITOR
C290	1	HE405JYB681K	CERAMIC CAPACITOR
C291, 292	2	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C293, 294	2	S7-16TW100M	ELECTROLYTIC CAPACITOR
C299	1	SL-35TW4R7M-RT	ELECTROLYTIC CAPACITOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
C311	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C312	1	S76R3TW221M-RT	ELECTROLYTIC CAPACITOR
C313	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C314	1	SL-16TW100M	LOW LEAK, ELECTROLYTIC CAP
C315	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C316	1	S7-16TW220M	ELECTROLYTIC CAPACITOR
C317	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C318,319	2	S7-16TW220M	ELECTROLYTIC CAPACITOR
C321	1	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C322	1	S7-50TW1R0M	ELECTROLYTIC CAPACITOR
C324,325	2	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C326	1	S7-16TW220M	ELECTROLYTIC CAPACITOR
C327-329	3	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C331	1	S7-16TW220M	ELECTROLYTIC CAPACITOR
C331	1	S7-50TW1R0M	ELECTROLYTIC CAPACITOR
C332,333	2	S7-25TW4R7M	ELECTROLYTIC CAPACITOR
C334,335	2	HE705JYF103Z	CERAMIC CAPACITOR
C336,337	2	HE505JCH300J	CERAMIC CAPACITOR
C338	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C339	1	S7-50TW1R0M	ELECTROLYTIC CAPACITOR
C340-342	3	MY-50VU104J	MYLAR CAPACITOR
C343	1	S7-50TW1R0M	ELECTROLYTIC CAPACITOR
C351,352	2	HE705JYF103Z	CERAMIC CAPACITOR
C356	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
C357	1	S76R3TW101M-LC	ELECTROLYTIC CAPACITOR
C360	1	S7-16TW100M	ELECTROLYTIC CAPACITOR
<b>RESISTORS</b>			
R201,202	2	KAI65T471J	CARBON RESISTOR
R203,204	2	KAI65T224J	CARBON RESISTOR
R205,206	2	KAI65T194J	CARBON RESISTOR
R207,208	2	KAI65T472J	CARBON RESISTOR
R209	1	KAI65T203J	CARBON RESISTOR
R210	1	KAI65T103J	CARBON RESISTOR
R211	1	KAI65T203J	CARBON RESISTOR
R212	1	KAI65T472J	CARBON RESISTOR
R213,214	2	KAI65T103J	CARBON RESISTOR
R215	1	KAI65T194J	CARBON RESISTOR
R216,217	2	KAI65T103J	CARBON RESISTOR
R218	1	KAI65T153J	CARBON RESISTOR
R219	1	KAI65T104J	CARBON RESISTOR
R220-222	3	KAI65T821J	CARBON RESISTOR
R223,224	2	KAI65T104J	CARBON RESISTOR
R225	1	KAI65T821J	CARBON RESISTOR
R226	1	KAI65T153J	CARBON RESISTOR
R227	1	KAI65T473J	CARBON RESISTOR
R228	1	KAI65T752J	CARBON RESISTOR
R229	1	KAI65T103J	CARBON RESISTOR
R230	1	KAI65T752J	CARBON RESISTOR
R231	1	KAI65T153J	CARBON RESISTOR
R232	1	KAI65T473J	CARBON RESISTOR
R233-235	3	KAI65T103J	CARBON RESISTOR
R236,237	2	KAI65T474J	CARBON RESISTOR
R238	1	KAI65T821J	CARBON RESISTOR
R243	1	KAI65T104J	CARBON RESISTOR
R267	1	KAI65T473J	CARBON RESISTOR
R268	1	KAI65T472J	CARBON RESISTOR
R269	1	KAI65T105J	CARBON RESISTOR
R270,271	2	KAI65T104J	CARBON RESISTOR
R272,273	2	KAI65T112J	CARBON RESISTOR
R274-277	4	KAI65T821J	CARBON RESISTOR
R278-281	4	KAI65T104J	CARBON RESISTOR
R282,283	2	KAI65T224J	CARBON RESISTOR
R284,285	2	KAI65T471J	CARBON RESISTOR
R286,287	2	KAI65T104J	CARBON RESISTOR
R302	1	KAI65T473J	CARBON RESISTOR
R303	1	KAI65T332J	CARBON RESISTOR
R304	1	KAI65T222J	CARBON RESISTOR
R305,306	2	KAI65T104J	CARBON RESISTOR
R307	1	KAI65T103J	CARBON RESISTOR
R308	1	KAI65T104J	CARBON RESISTOR
R309	1	KAI65T106J	CARBON RESISTOR
R310	1	KAI65T474J	CARBON RESISTOR
R311	1	KAI65T103J	CARBON RESISTOR
R312	1	KAI65T183J	CARBON RESISTOR
R313-315	3	KAI65T103J	CARBON RESISTOR
R316	1	KAI65T203J	CARBON RESISTOR
R317	1	KAI65T223J	CARBON RESISTOR
R318	1	KAI65T333J	CARBON RESISTOR
R319	1	KAI65T223J	CARBON RESISTOR
R320	1	KAI65T333J	CARBON RESISTOR
R321,322	2	KAI65T103J	CARBON RESISTOR
R323	1	KAI65T224J	CARBON RESISTOR
R324	1	KAI65T471J	CARBON RESISTOR
R325	1	KAI65T473J	CARBON RESISTOR
R326	1	KAI65T224J	CARBON RESISTOR
R327	1	KAI65T471J	CARBON RESISTOR
R328	1	KAI65T473J	CARBON RESISTOR
R329	1	KAI65T273J	CARBON RESISTOR
R330	1	KAI65T104J	CARBON RESISTOR
R331,332	2	KAI65T103J	CARBON RESISTOR
R333	1	KAI65T471J	CARBON RESISTOR
R334	1	KAI65T473J	CARBON RESISTOR
R335	1	KAI65T224J	CARBON RESISTOR
R336	1	KAI65T473J	CARBON RESISTOR
R337	1	KAI65T331J	CARBON RESISTOR
R338	1	KAI65T271J	CARBON RESISTOR
R339	1	KAI65T273J	CARBON RESISTOR
R340-342	3	KAI65T104J	CARBON RESISTOR
R343	1	KAI65T203J	CARBON RESISTOR
R344	1	KAI65T224J	CARBON RESISTOR
R345	1	KAI65T471J	CARBON RESISTOR
R347	1	KAI65T681J	CARBON RESISTOR
R348	1	KAI65T122J	CARBON RESISTOR
R350-352	3	KAI65T561J	CARBON RESISTOR
R354	1	KAI65T472J	CARBON RESISTOR
R355-357	3	KAI65T332J	CARBON RESISTOR
R353,359	2	KAI65T473J	CARBON RESISTOR
R362	1	KAI65T222J	CARBON RESISTOR
R363	1	KAI65T473J	CARBON RESISTOR
R364	1	KAI65T474J	CARBON RESISTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
R365-368	4	KAI65T104J	CARBON RESISTOR
R369	1	KAI65T223J	CARBON RESISTOR
R370,371	2	KAI65T104J	CARBON RESISTOR
R372	1	KAI65T422J	CARBON RESISTOR
R374	1	KAI65T104J	CARBON RESISTOR
R375	1	KAI65T821J	CARBON RESISTOR
R380	1	KAI65T104J	CARBON RESISTOR
R381,382,383	3	KAI65T103J	CARBON RESISTOR
RA301	1	RA-SP-08104J	BLOCK RESISTOR
SVR203	1	SVR-66T361G3	SEMI-VARIABLE RESISTOR
SVR204	1	SVR-06T361C4	SEMI-VARIABLE RESISTOR
<b>CJILS</b>			
L301	1	LAL03471K	INDUCTOR
<b>MISCELLANEOUS</b>			
F201	1	CSA3-66M6	CERAMIC OSCILLATOR UNIT
F202	1	CSA4-19M6	CERAMIC OSCILLATOR UNIT
1W3	1	2HJ26309J-J-J	3-LEAD, FLAT CABLE
1W8	1	2HJ265816-J-J	5-LEAD, FLAT CABLE
1W13	1	2HJ267221-J-J	7-LEAD, FLAT CABLE
1W17	1	2HJ26981C-J-Z	9-LEAD, FLAT CABLE
1W19	1	007S220A17-J-J	SOLDER PLATED WIRE
1W20	1	007S220A05-J-J	SOLDER PLATED WIRE
EL201-203	3	M1698	GND LUG
MP401	1	1-173981-0	MICRO PLUG
MP402	1	173981-8	MICRO PLUG
MP403	1	173981-5	MICRO PLUG
MP405,406	2	173981-2	MICRO PLUG
MP407	1	173981-3	MICRO PLUG
MP408	1	173981-6	MICRO PLUG
MP409	1	173981-7	MICRO PLUG
MP413	1	173981-5	MICRO PLUG
MP421	1	173981-3	MICRO PLUG
MP451	1	173981-2	MICRO PLUG
MP453	1	173981-3	MICRO PLUG
MP454	1	PI25C-03M	MICRO PLUG
MP501,502	2	173981-3	MICRO PLUG
MP505	1	173981-9	MICRO PLUG
MP701	1	173981-3	MICRO PLUG
MP800	1	173981-2	MICRO PLUG
MP802	1	173981-3	MICRO PLUG
MP905	1	173981-9	MICRO PLUG
TP201	1	171825-3	MICRO PLUG
26E26	65	E050	JUMP WIRE
26E27	5	E075	JUMP WIRE
26E28	146	E100	JUMP WIRE
26E29	17	E125	JUMP WIRE
26E30	20	E150	JUMP WIRE

**MOTOR VOLUME P.C. BOARD**

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<b>P.C. BOARD</b>			
26E24	1	MVR-8273	PRINTED CIRCUIT BOARD
<b>SEMICONDUCTORS</b>			
IC405	1	L31641	IC
ZD401	1	Z050-062	ZENER DIODE, 1/2W, 6.2V
<b>CAPACITORS</b>			
C420	1	HC105JZF473Z	CERAMIC CAPACITOR
C421	1	HE705JYF103Z	CERAMIC CAPACITOR
C422	1	M5-16TW470M	ELECTROLYTIC CAPACITOR
<b>RESISTORS</b>			
R437,438	2	KAI65T133J	CARBON RESISTOR
R445	1	KAI65T100J	CARBON RESISTOR
VR401	1	V3V16-10484MF5	ROTARY POTENTIOMETER
<b>MISCELLANEOUS</b>			
CN451	1	MZ02-919	MICRO SOCKET ASS'Y
CN453	1	MZ03-930	MICRO SOCKET ASS'Y
EL451	1	59851692	GND LUG
MP422	1	171825-5	MICRO PLUG
MP601,601	2	173981-3	MICRO PLUG
MP902	1	173981-2	MICRO PLUG
26E1	2	E050	JUMP WIRE
26E2	4	E075	JUMP WIRE
26E3	1	E100	JUMP WIRE
CNV001	1	MZ05-833	MICRO SOCKET ASS'Y



T SWITCH P.C. BOARD

F. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
BOARD E25	1	FSW-8278	PRINTED CIRCUIT BOARD
CONDUCTORS 430-435	6	SLB-55DU5F	LED
436	1	SLB-55VR5F	LED
437-442	6	SLB-55DU5F	LED
443	1	SLB-55VR5F	LED
STORS 441	1	KA16ST551J	CARBON RESISTOR
442	1	KA16ST681J	CARBON RESISTOR
452-463	12	KA16ST331J	CARBON RESISTOR
CHES 420-433	14	S9A-124HS	TACT SWITCH
ELLANEODUS 401	1	M210-923A	MICRO SOCKET ASS'Y
402	1	M208-922	MICRO SOCKET ASS'Y
E18	3	E050	JUMP WIRE

R PARTS

F. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
ELLANEODUS W21	1	007S220B18-D-J	SOLDER PLATED WIRE
E17	2	CNT31-0074	SHORT PIN
E19	1	VJR-3	SNAKE LUG
E25+E26	12	BK-1	CORD CLAMP
E27	1	NO.5167	CORD CLAMP

ODED VIEWS

F. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
S 900	1	NPT-2304	POWER TRANSFORMER
901	1	NPT-2314	POWER TRANSFORMER
E 8	1	171003	LOOP ANT
E 9	1	LA-75	ANT. HOLDER
ELLANEODUS M 1	1	N21803-1	FRONT PANEL
M 3	1	N45714-1	SUB PANEL(L)
M 4	1	N31115-1	SUB PANEL(R)
M 5	2	EK4065A-BK1	HANDLE
M 6	4	N44092-BK1	HANDLE SPACER
M 8	1	N31117	FRONT GLASS
M 9	1	N31113-1	DISPLAY GLASS
M10	2	N45710-1	FUNCTION GLASS
M12	1	N31111-T-BK1	KN05 33
M13	4	N44260-T-BK1	KN05 12
M14	1	N45522	LED CHIP
M15	2	N45668	TACT BUTTON
M16	1	N45663-2	TACT BUTTON
M17	1	N45663-4	TACT BUTTON
M18	2	N45686	TACT BUTTON
M19	2	N31116	TACT BUTTON*7
M20	6	N45646A	PUSH BUTTON
M21	2	N42797-9K1	DECORATION SCREW
M23	1	N21817	CABINET
M25	1	N21819A-18	REAR PANEL
M26	1	N21818	3GITOM BOARD
M27	4	NO.7134	FJDT
M29	1	N10565-1	FRONT BASE
M 2	1	N21803	CENTER METAL*1
M 3	1	N31125	CENTER METAL*2
M 4	1	N31124	SIDE METAL*R
M 5	1	N31123	SIDE METAL*L
M 7	2	N42722A	FITTINGS (P.T.)
M11	1	N45711	VR METAL*1
M12	1	N45713	VR METAL*2
M13	1	N45712	PCB METAL*2
M15	1	N31133	INSULATION SHEET
M16	2	N45813	SHEET,SHIELD
M18	1	N45811	RT CUSHION
M19	1	N457896	RT CUSHION
M20	1	N45797	SPACER
M21	1	N45774	CUSHION
M24	4	SPS-32V	LED SPACER
M25	1	N21802	LED HOLDER
M28	4	N408496	SHAFT TAPE
M 1	1	N41313-1	POLYETHYLENE BAG
M 2	1	N40487	POLYETHYLENE BAG (ACCESSORIES)
M 3	2	N21375A-1	PACKING PAD
M 8	1	N21844-2A	INNER CARTON
M11	1	N31068	PACKING PAD(FRONT)
M12	1	N44675	PACKING PAD(TOP)
M14	1	OM-966A	INSTRUCTION MANUAL
M16+M17	2	N45335	LABEL,SERIAL NO.
M18	2	N42235	SHEET, SERIAL NUMBER
M19	1	N44043	LABEL, SA1905(LIGHTNING FLASH)
M22	1	N41939	LABEL, FUSE
M24	1	N31136	WARRANTY R
M25	1	N31137	LIMITED WARRANTY
M27	1	N45775	LABEL,PKO-LOGIC
M29	1	N45487	LABEL, UL
M 1~M 3	2	T3P+20X06-Y	TAP SCREW B, PAN HEAD, Y
M 7	4	T8S+30X06-Y	TAP SCREW B, FLAT HEAD, Y
M11~M19	27	T8S+30X06-B	TAP SCREW B, BIND HEAD, B

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
5M 8-M10, M12-M10, M16	23	TSB+30X08-B	TAP SCREW S, BIND HEAD, B
5M21-M30	17	TSP+30X06-B	TAP SCREW S,PAN HEAD,B
5M 1~M 7	14	TSC+30X08-Y	TAP SCREW S, WASHER FACED, Y
5M12	1	TSC+30X18-Y	TAP SCREW S,WASHER FACED,Y
5M15	2	T8S+40X10-B	TAP SCREW B,BIND HEAD,B
5M18-M20	10	TSB+40X10-B	TAP SCREW S, BIND HEAD, B
5M25	4	SSPS2+40X10-B	SCREW-SP ASSY, PAN HEAD,B
5M28	1	2TWX50-Y	TOOTHED LOCK WACHER
37E17	1	NET41-0105	SNAP PLATE
45E 1	1	ACC-02204-4EE1	LINE CORD
46E 3	1	SR-4N-4	CORD STOPPER
46E 5	1	YKD41-C004	GROUND TERMINAL
46E 6	1	TA-307	JME TOUCH COLLAR
46E10	1	TANT-264	FM ANTENNA (CORD)
46E11	1	YAE21-0001D	MATCHING ADAPTOR
46E12	3	KGLS-16RT	LOCKING SUPPORT
46E14	1	RC-CT17	REMOTE CONTROL TRANSMITTER
46E15	1	UM-3-2	BATTERY
46E20+E21	2	R-024-12	CABLE ASS'Y

P.C. BOARD ASS'Y

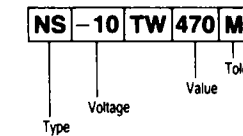
REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
10P 7	1		TUNER P.C. BOARD
25P23	1		MICRO SURROUND P.C. BOARD
25P24	1		MOTOR VOLUME P.C. BOARD
25P25	1		FRONT SWITCH P.C. BOARD
33P25	1		FUNCTION & EQ P.C. BOARD
33P26	1		AUDIO SWITCH P.C. BOARD
33P27	1		POWER SWITCH P.C. BOARD
33P28	1		HEADPHONE P.C. BOARD
33P29	1		VOLUME LED P.C. BOARD
35P 3	1		DISPLAY & DTS P.C. BOARD
44P 4	1		POWER SUPPLY P.C. BOARD
44P 5	1		VIDEO P.C. BOARD
44P 6	1		TONE CONTROL P.C. BOARD

DIFFERENT PARTS LIST

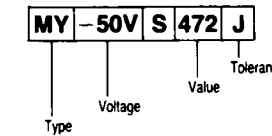
Ref.No.	Description	CT-17(UL)	CT-17(EX)
TUNER P.C. BOARD			
C055,056	MYLAR CAPACITOR	MY-50VU102J	-
C055,056	CERAMIC CAPACITOR	-	HE11SJS1681J
C073,074	CERAMIC CAPACITOR	-	HE80SJS1331J
SW051	SLIDE SWITCH	-	SW-5220157
POWER SUPPLY P.C. BOARD			
SW900,901	SWITCH	-	SW-5220218
DISPLAY & DTS P.C. BOARD			
D453,454	DIODE	-	GMA01
SW459	SLIDE SWITCH	-	SW-5121298

Capacitors Description

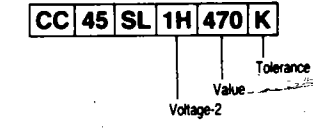
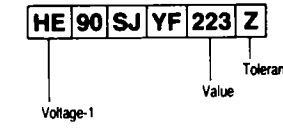
Electrolytic



Mylar - Styrol



Ceramic

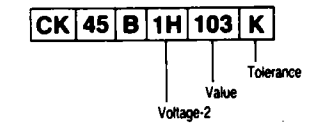


Electrolytic

Type	Voltage	Value	Tolerance
LL: Low Leak	-10: 10V	R47: 0.47μF	K: ±10%
NP: Non-Pole	-50: 50V	4R7: 4.7μF	M: ±20%
NS: Standard	6R3: 6.3V	470: 47μF	
		471: 470μF	
		472: 4700μF	

Mylar - Styrol

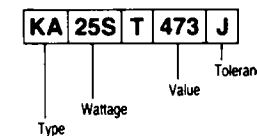
Type	Voltage	Value	Tolerance
MY: Mylar	-25V: 25V	4R7: 4.7pF	G: ±2%
ST: Styrol	125V: 125V	470: 47pF	J: ±5%
	-63T: 63V	471: 470pF	K: ±10%
		472: 4700pF	M: ±20%
		473: 0.047μF	
		474: 0.47μF	
		(1000pF=0.001μF)	



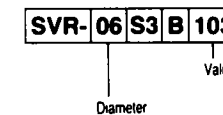
Voltage-1	Voltage-2	Value	Tolerance
HC: 25V	1E: 25V	4R7: 4.7pF	C: ±0.25pF
HE: 50V	1H: 50V	470: 47pF	D: ±0.5pF
H: 100V	2H: 500V	471: 470pF	F: ±1pF
HK: 250V		472: 4700pF	J: ±5%
HM: 500V		473: 0.047μF	K: ±10%
		474: 0.47μF	M: ±20%
		(1000pF=0.001μF)	Z: +80--20%

Resistors Description

Fixed

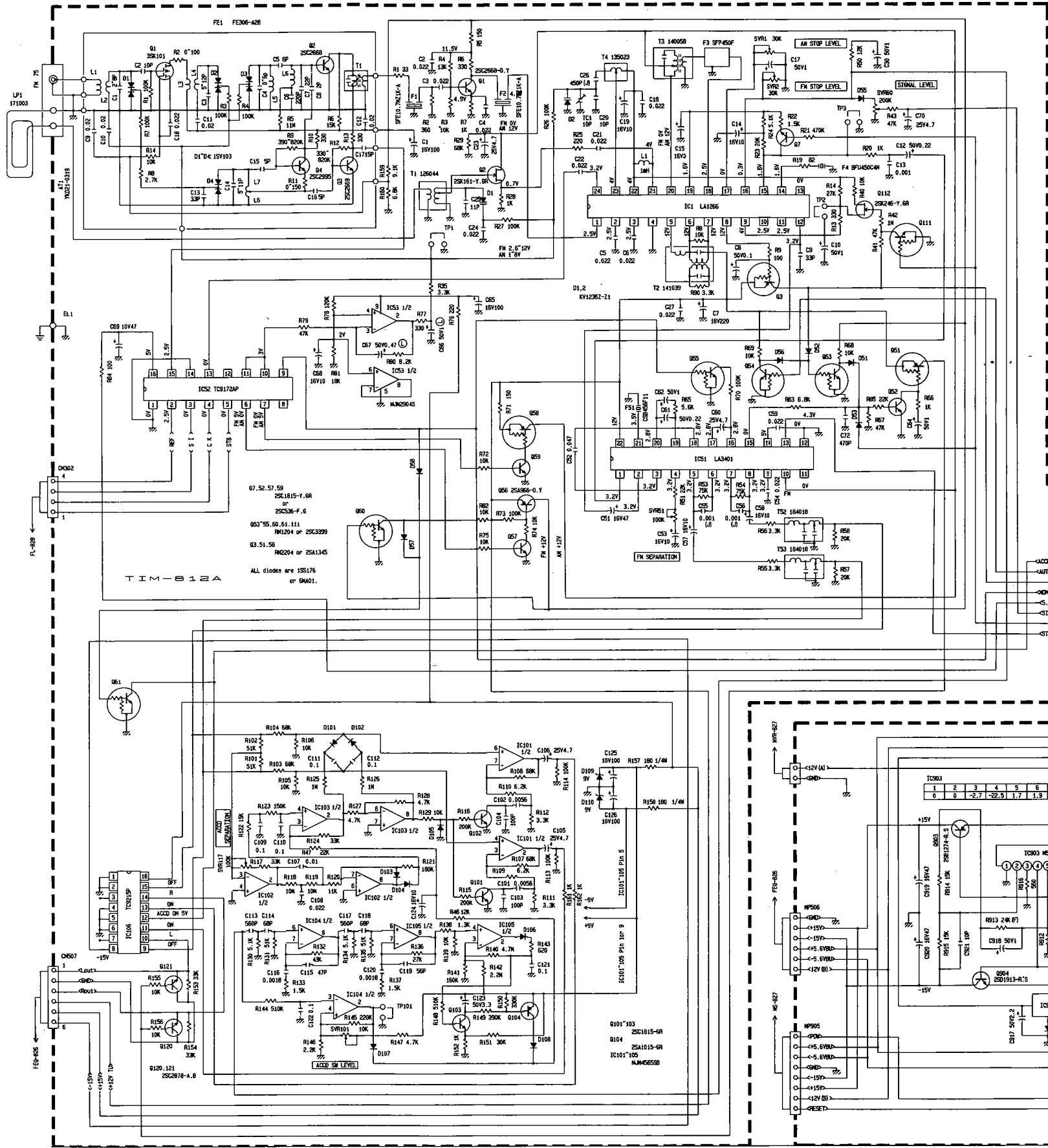


Semi-Variable



Type	Wattage	Value	Tolerance	Diameter
CE: Cement Case	-2W: 2W	R47: 0.47Ω	M: ±20%	08: 8φ
FR: Flame Proof	10W: 10W	4R7: 4.7Ω	K: ±10%	10: 10φ
KA: Carbon	16S: 1/6W	470: 47Ω	J: ±5%	06: 6φ
MF: Metal Film	20S: 1/5W	471: 470Ω	G: ±2%	
RF: Fusible	25S: 1/4W	472: 4.7kΩ	F: ±1%	
SA: Metal Oxide	50S: 1/2W	473: 47kΩ	D: ±0.5%	
	50X: 1/2W	474: 470kΩ		
	S3W: 3W	475: 4.7MΩ		

**SCHEMATIC DIAGRAMS**  
(UL Version only)

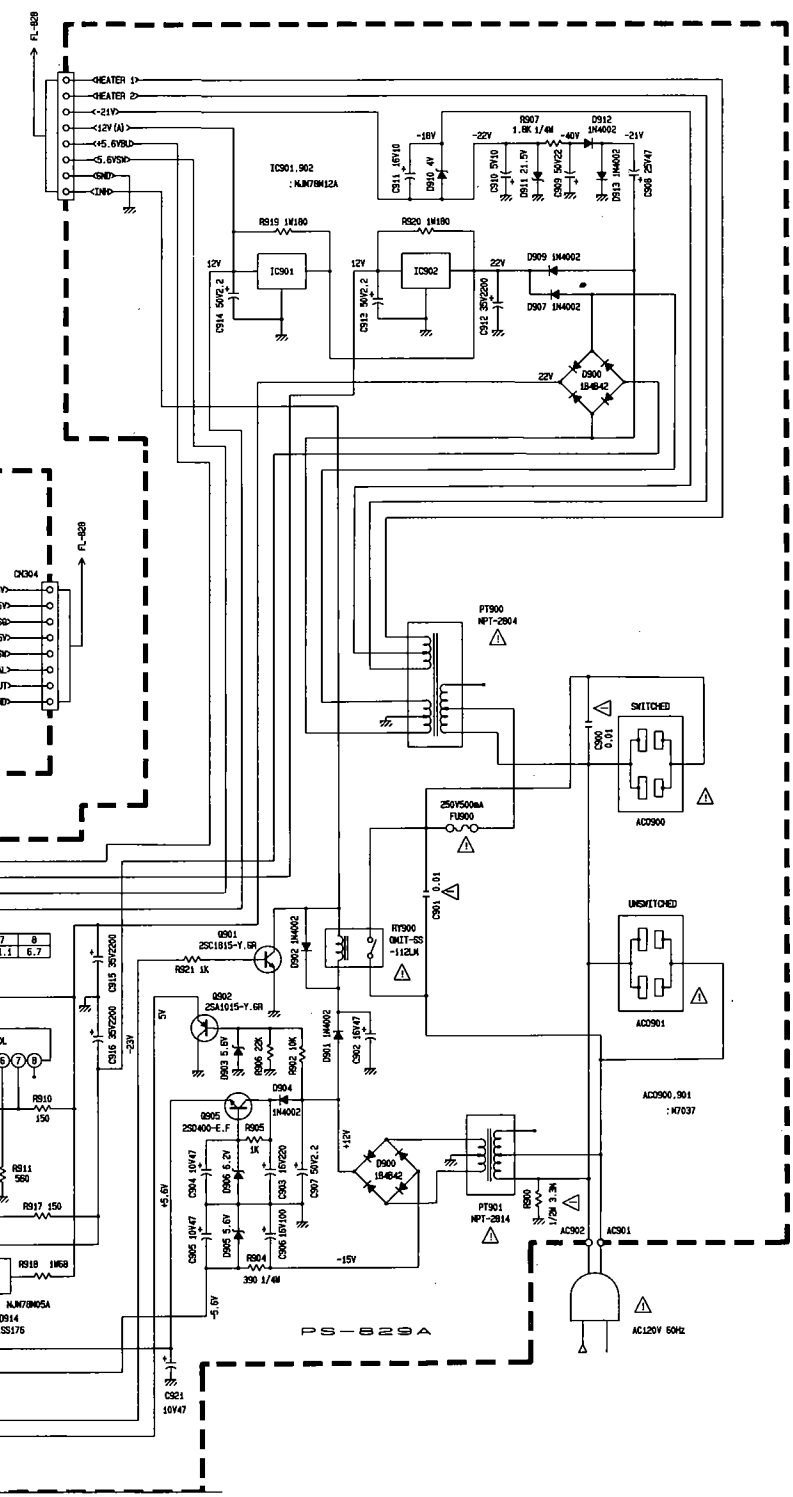


**NOTES**

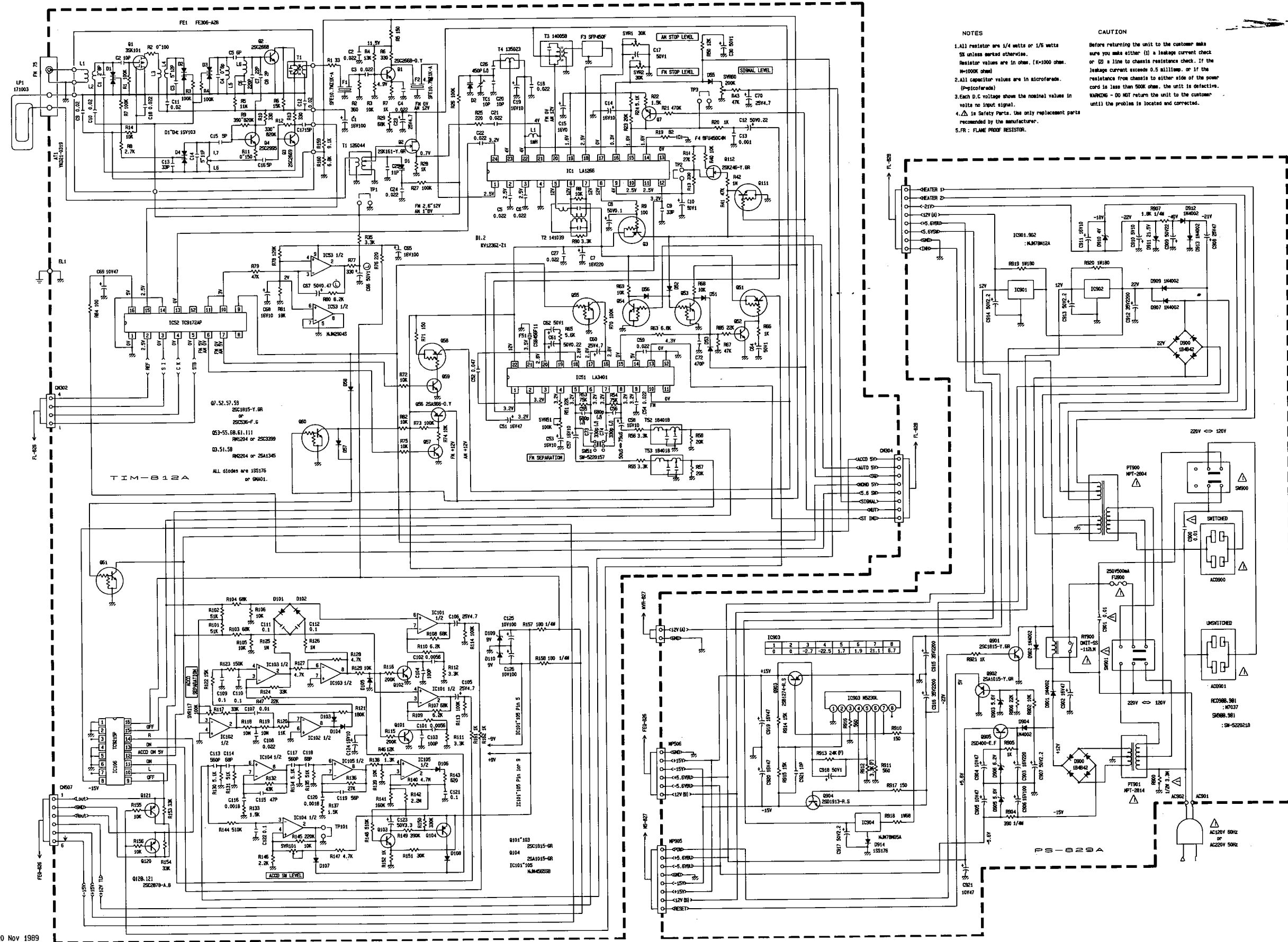
1. All resistors are 1/4 watt or 1/6 watt  
5% unless marked otherwise.  
Resistor values are in ohms. (K=1000 ohms,  
M=100K ohms)
2. All capacitor values are in microfarads.  
(P=picofarads)
3. Each D.C. voltage shows the nominal values in  
volts no input signal.
4. ⚠ is Safety Parts. Use only replacement parts  
recommended by the manufacturer.
5. FR: FLAME PROOF RESISTOR.

**CAUTION**

Before returning the unit to the customer make  
sure you make either (1) a leakage current check  
or (2) a line to chassis resistance check. If the  
leakage current exceeds 0.5 milliamperes, or if the  
resistance from chassis to either side of the power  
cord is less than 500K ohms, the unit is defective.  
WARNING - DO NOT return the unit to the customer  
until the problem is located and corrected.



(EX Version only)

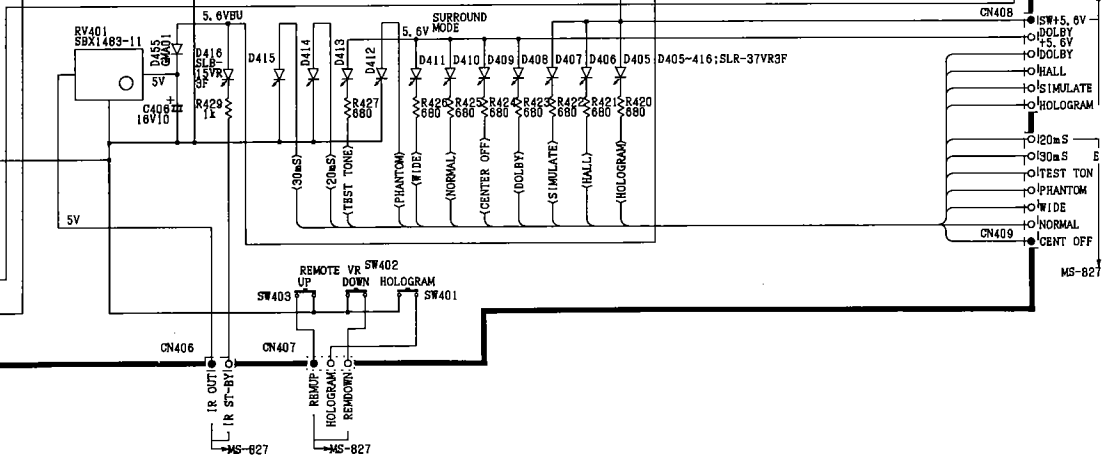
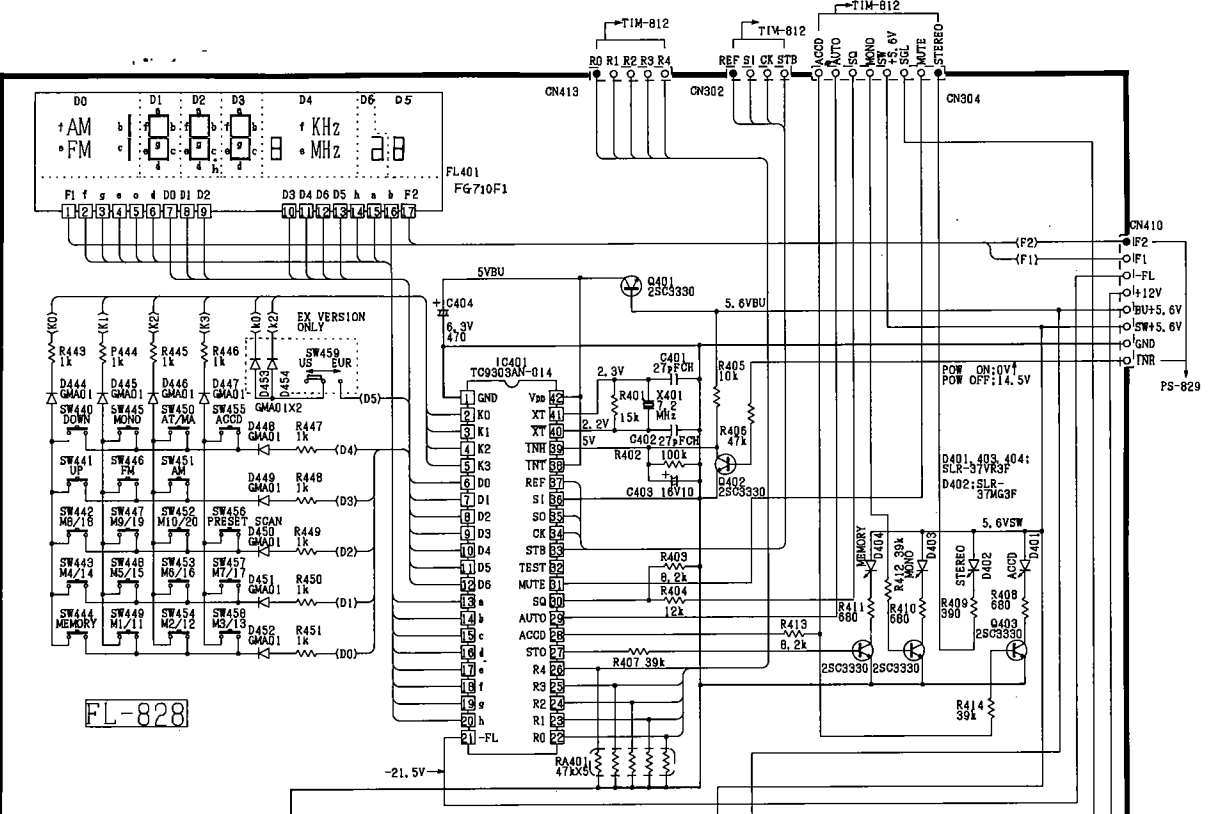
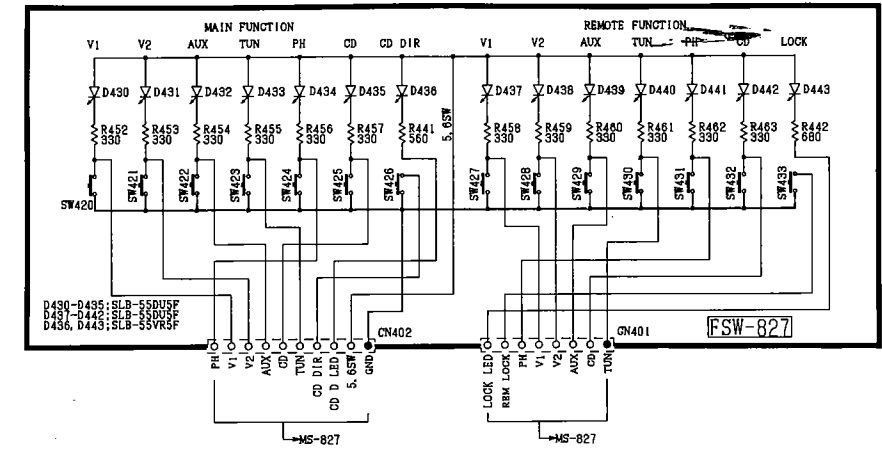
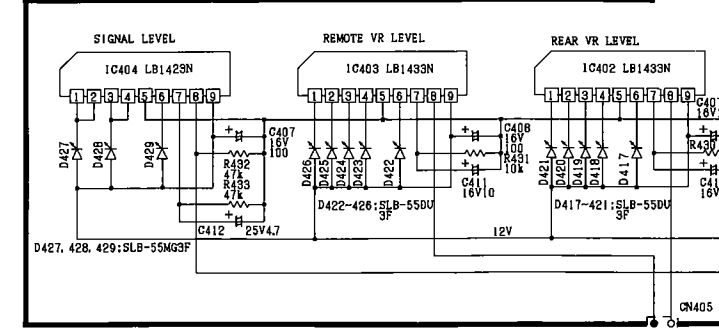
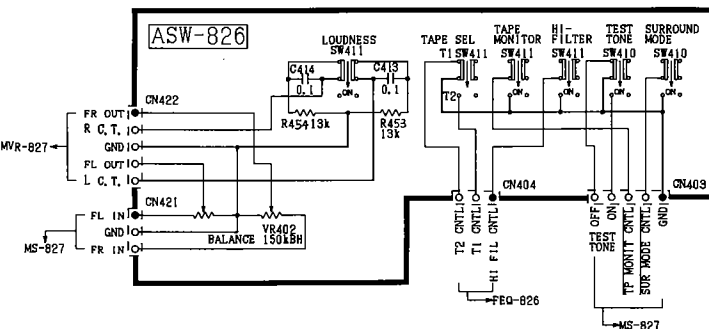
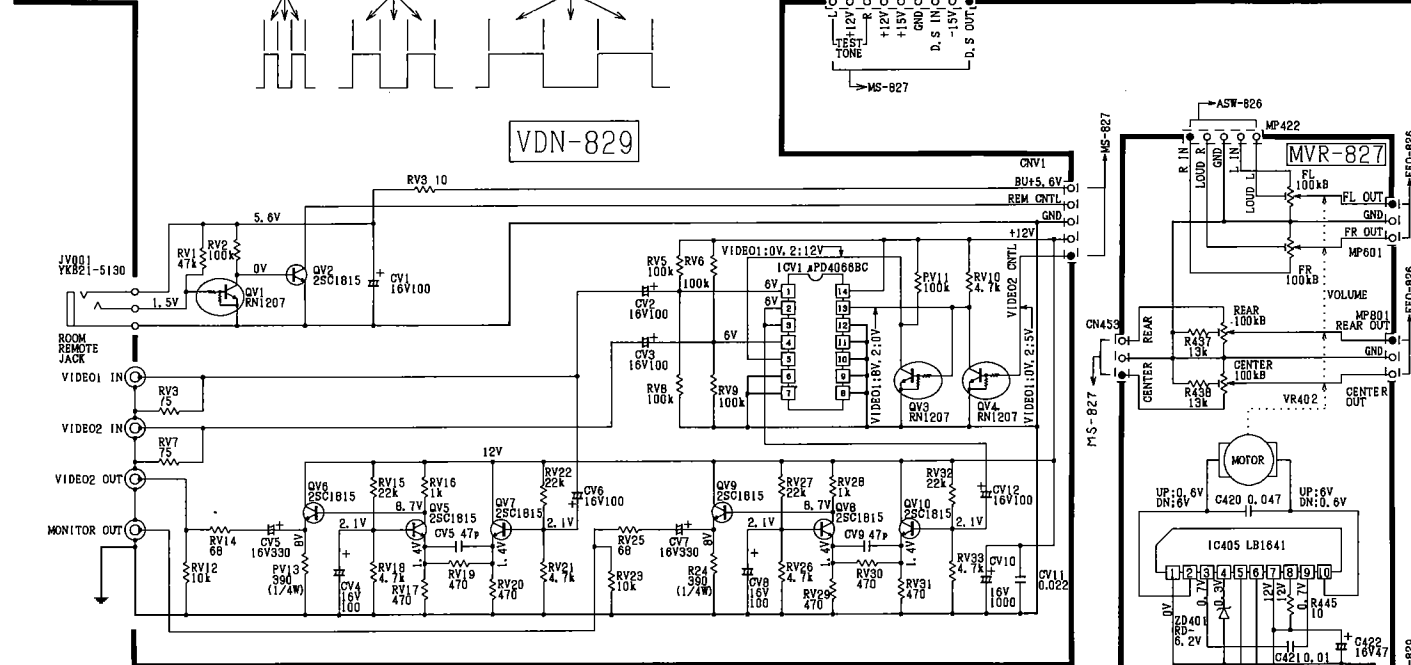
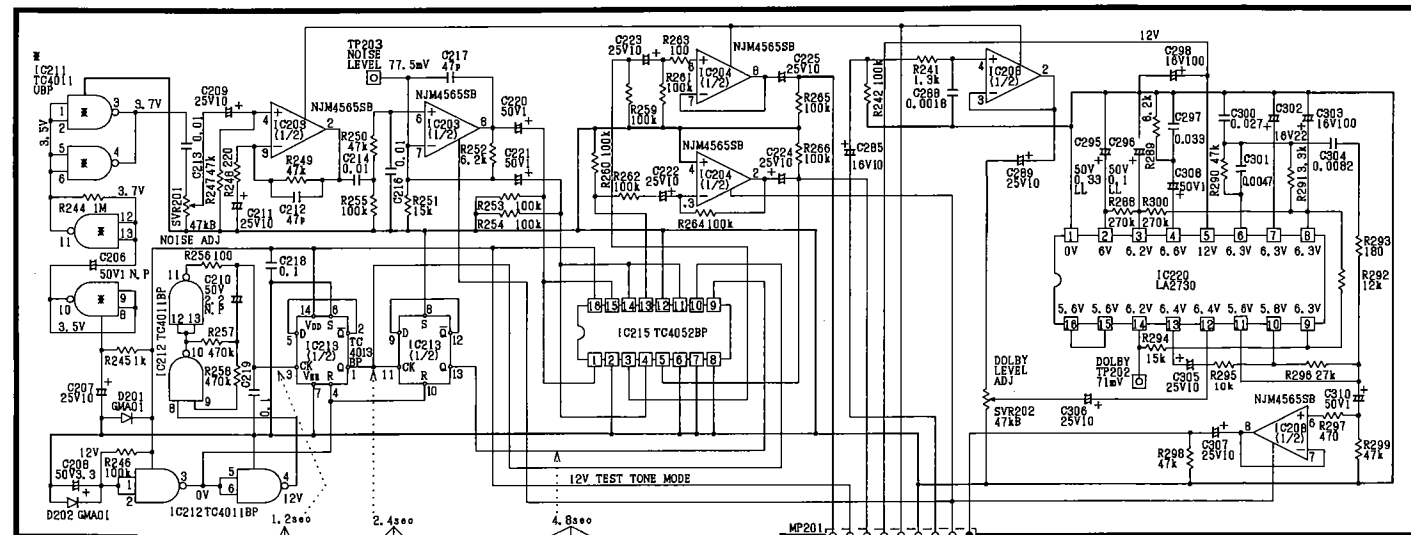


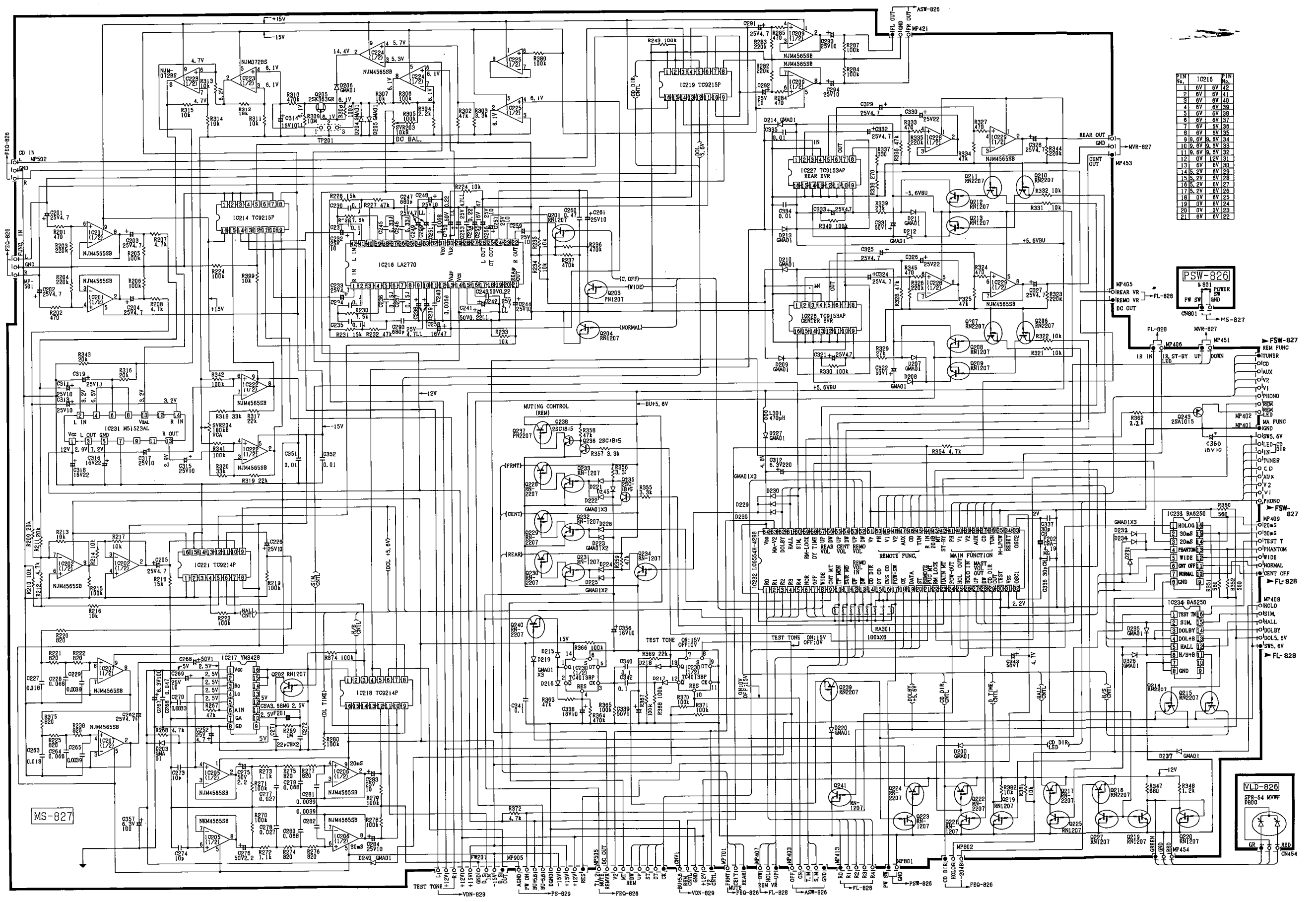
NOTES

1. All resistors are 1/4 watts or 1/2 watts unless marked otherwise. Resistor values are in ohms, (K=1000 ohms, M=1000000 ohms).
2. All capacitor values are in microfarads (μ=picofarads).
3. Each D.C. voltage shows the nominal value in volts no input signal.
4. Δ is Safety Parts. Use only replacement parts recommended by the manufacturer.
5. FR: FLAME PROOF RESISTOR.

CAUTION

Before returning the unit to the customer make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamperes, or if the resistance from chassis to either side of the power cord is less than 500K ohms, the unit is defective. **WARNING - DO NOT** return the unit to the customer until the problem is located and corrected.





PIN No.	IC216	PIN No.
1	6V	6V 42
2	6V	6V 41
3	6V	6V 40
4	6V	6V 38
5	6V	6V 38
6	6V	6V 37
7	6V	6V 38
8	6V	6V 38
9	6V	6V 34
10	6V	6V 33
11	6V	6V 32
12	0V	12V 31
13	6V	6V 30
14	5.2V	6V 29
15	5.2V	6V 28
16	5.2V	6V 27
17	5.2V	6V 26
18	0V	6V 25
19	0V	6V 24
20	0V	6V 23
21	6V	6V 22

