

thecarversite.com

This manual is either an original scan from tech's who worked at Carver corp, donated by forum members, or both. These manuals are NOT intended for re-sale. If you purchased a 'Carver Manuals' disc on ebay or another auction site, and it has this material on it, you were ripped off!

Please report any resale of this material to us at thecarversite.com

thecarversite.com

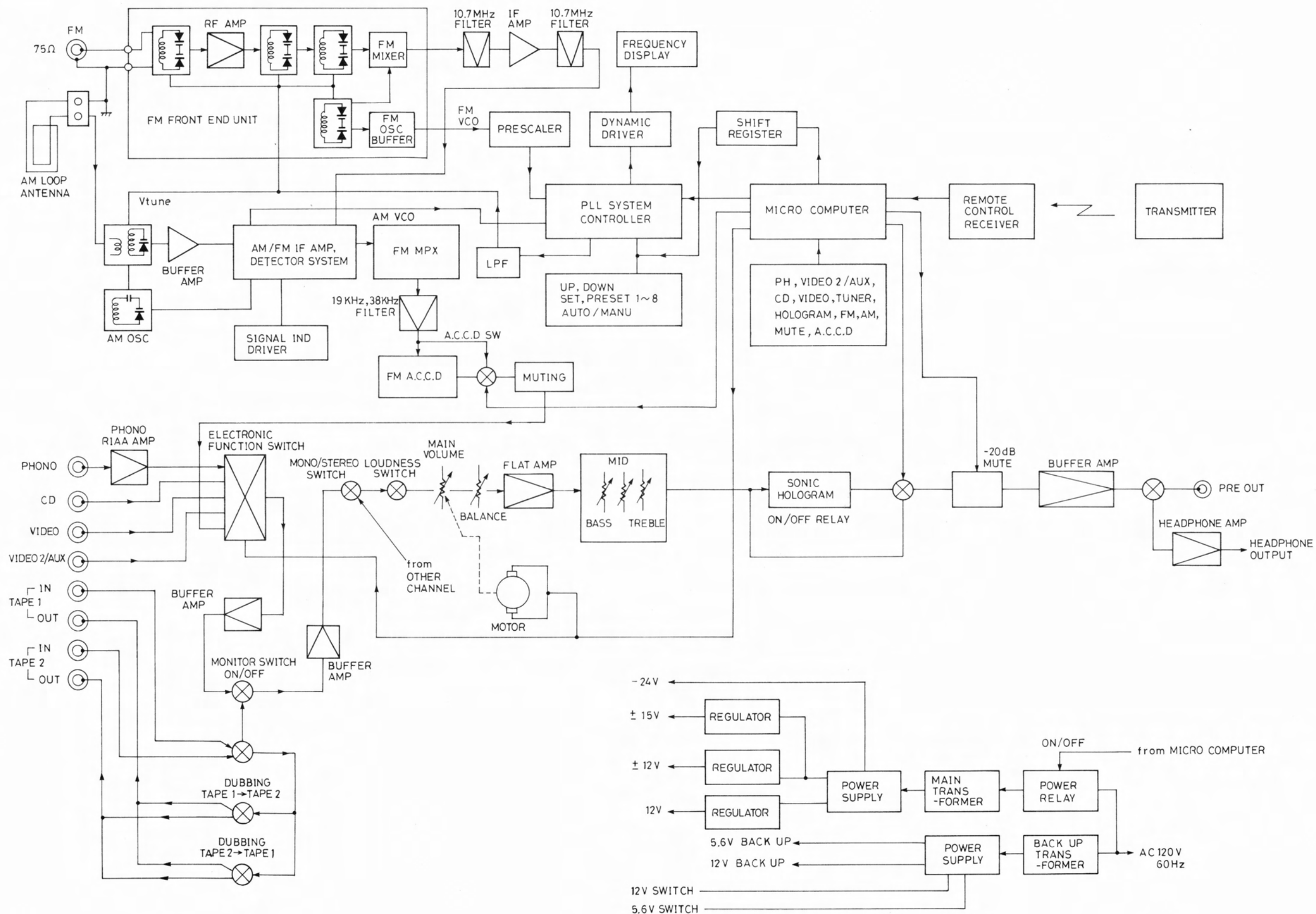
CARVER

CT-Seven **SERVICE MANUAL**

CONTENTS

	Page
SPECIFICATIONS	2
BLOCK DIAGRAM	3
ALIGNMENT PROCEDURES	5
ALIGNMENT POINTS	6
VOLTAGE CONVERSION	7
PCB FOIL SIDE VIEWS	8
EXPLODED VIEWS	13
PARTS LIST	16
SCHEMATIC DIAGRAMS	23

BLOCK DIAGRAM



ALIGNMENT PROCEDURES

Tuner (AM)

Condition

1. Tuning method: LOCKED indicator, ON
2. Modulation: 400 Hz, 30 %
3. TAPE OUT load: A 100 k Ω 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 (SW201): US position
7. MANUAL TUNING switch: ON position
8. 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 TP001.
4. The voltage of AM Low end changes for the color of VD001 and VD002. (See Fig. 2)
5. Adjust T002 until the voltage is 1.00 ± 0.05 V or 0.95 ± 0.05 V, depending on the color of VD001, VD002.
6. Change the tuner frequency to 1710 kHz.
7. Adjust TC002 until the voltage is 8.00 ± 0.05 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 ± 0.5 kHz.
3. Connect the input of IF sweep generator to the test point TP003 through a 1 μ F cap.
4. Adjust T003 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 T001 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 TC001 until the ACVM is maximum.

MUTING LEVEL

1. Set the tuner frequency to 1000 kHz.
2. Set the input level to 58 dB/m.
3. Connect the output of signal generator to IRE loop antenna and set the frequency to 1000 kHz.
4. Set the function except TUNER.
5. Adjust SVR001 until the LOCKED indicator lights up.

Tuner (FM)

Condition

1. Tuning method: LOCKED indicator, ON
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 Ω resistor shunted by a 1000 pF capacitor
4. Input level: 65.2 dBf (500 μ V) unless otherwise noted
5. CH.STEP switch (SW201): US position
6. De-Emphasis switch (SW051): 75 μ s position
7. MANUAL TUNING switch: ON position
8. 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 TP001.
4. Adjust OSC-L(Front-end) until the voltage is 1.6 ± 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/PLL REFERENCE FREQUENCY

1. Set the input level to 12.2~14.2 dBf (1.12~1.41 μ V).
2. Connect the output of signal generator to 75 ohm antenna terminal through a matching dummy and 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 TP002.
5. Adjust TC201 until the distortion meter is minimum.
6. Adjust IFT(Front-end) until the ACVM is maximum or the distortion meter is minimum.
7. Change the input level from 12.2~14.2 dBf (1.12~1.41 μ V) to 65.2 dBf (500 μ V).
8. Adjust T004(PRI) until the voltage is less than 1 mV.
9. Adjust T004(SEC) 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 μ 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, RF1-L and RF2-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. Set the input level to 33.2 dBf (12.6 μ V).
3. Connect the oscilloscope to TAPE OUT jacks.
4. Adjust SVR002 until the output is developed.

SIGNAL LEVEL

1. Set the input level to 77.2 dBf (1995 μ 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 SVR004 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 SVR051 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 μ 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 μ 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-770 Tuner P.C.Board

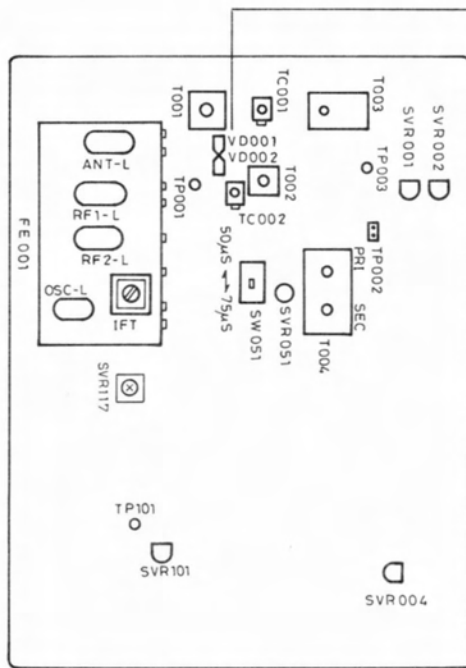


Fig. 1

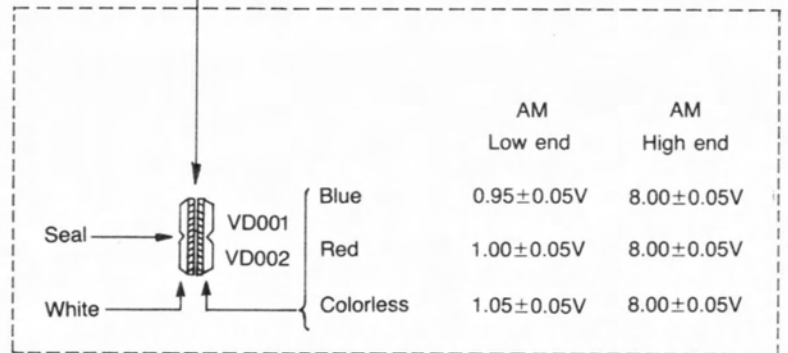


Fig. 2

PLL-779 PLL P.C.Board

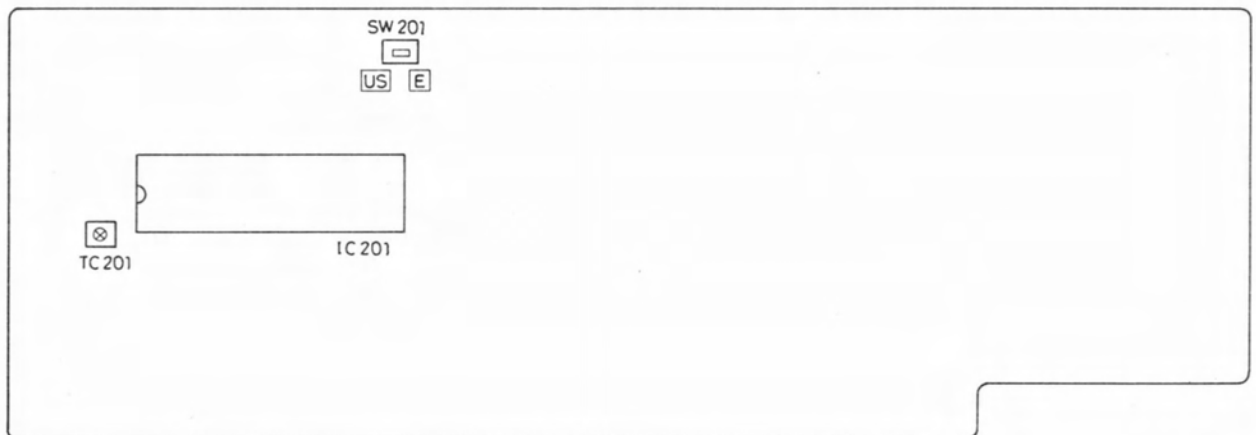


Fig. 3

VOLTAGE CONVERSION

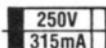
220 V/50 Hz Version

Bill of Materials

Q'ty	Part No.	Description
1	3537	CT-Seven FINISHED GOODS
1	315-15000-00	FUSE 250V 150mA
1	530-10100-00	FUSE LABEL 250V 150mA
1	530-10088-00	LABEL 220V AC 50 Hz
1	530-10058-00	LABEL VOLTAGE CONVERSION
1	530-10013-00	LABEL MILITARY CONVERSION

Direction for Change

1. Locate AC outlet P.C. Board on the left of front panel side. (See Fig. 4 and 5)
 - A. Set slide switches SW901 and SW902 to 220V.
 - B. Change fuse FU901 from 250V 315mA to 315-15000-00 (250V 150mA).
 - C. Put the label 530-10100-00 (250V 150mA) on printed in



ACO-781 AC Outlet P.C.Board

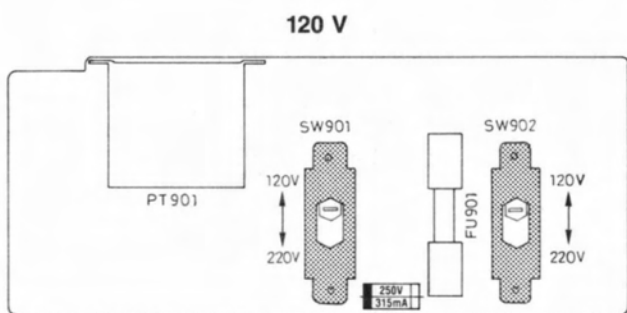


Fig. 4

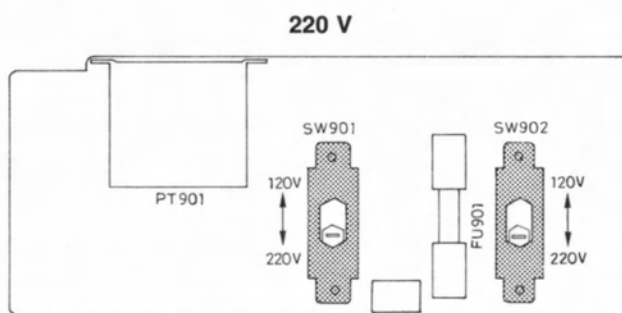


Fig. 5

2. Locate CH.STEP SW201 on PLL P.C. Board and set it to "E" for 220V Europe frequency stepping. (See Fig. 6)
3. Locate de-emphasis switch SW051 on Tuner P.C. Board and set it to "50μs" for 220V Europe de-emphasis. (See Fig. 7)
4. Apply label 530-10088-00 (220V AC 50Hz) in place of existing label 120V AC 60Hz.
5. Using spray adhesive, mount label 530-10058-00 (VOLTAGE CONVERSION) to inside top cover.
6. Apply label 530-10013-00 (MILITARY CONVERSION) to bottom of unit.

PLL-779 PLL P.C.Board

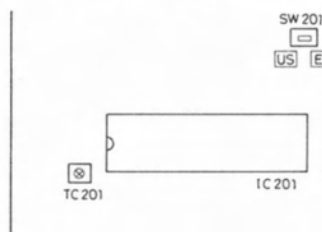


Fig. 6

TIM-770 Tuner P.C.Board

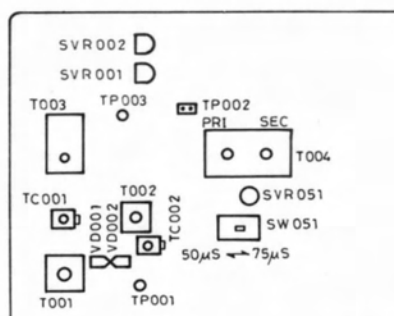
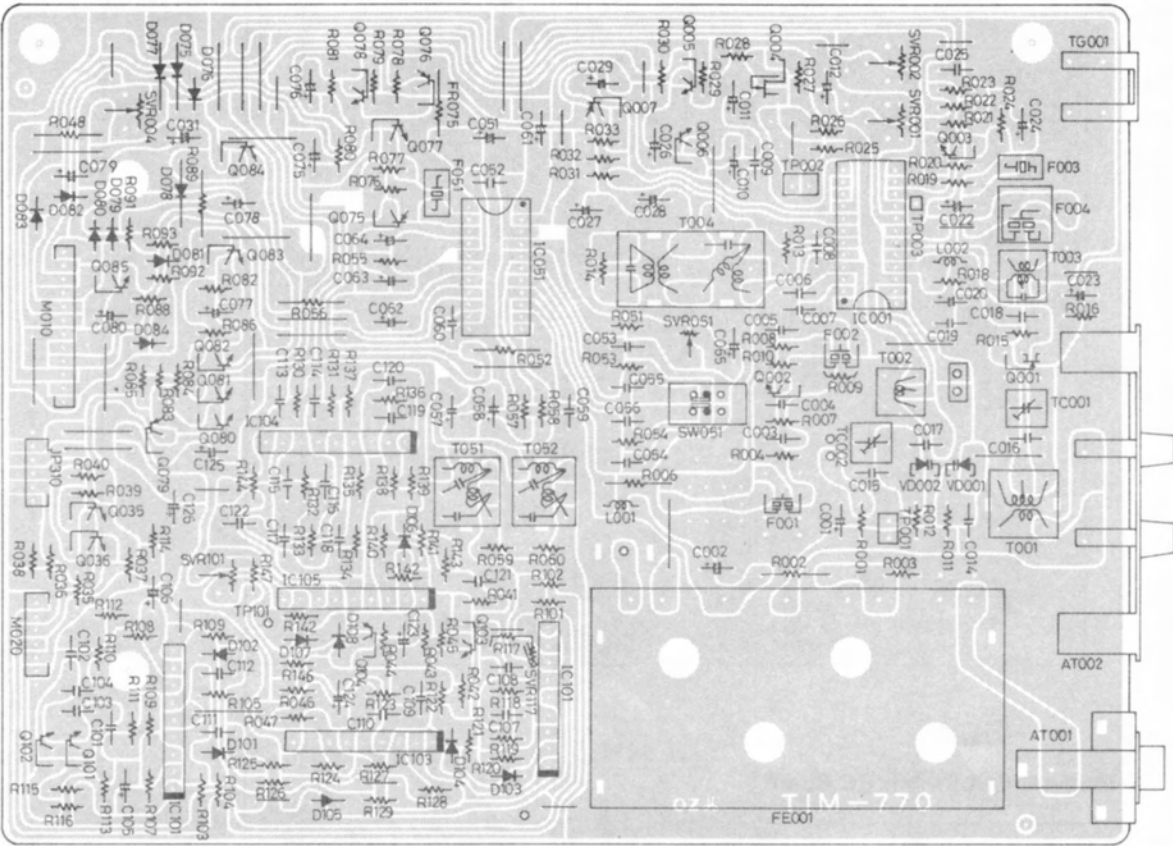
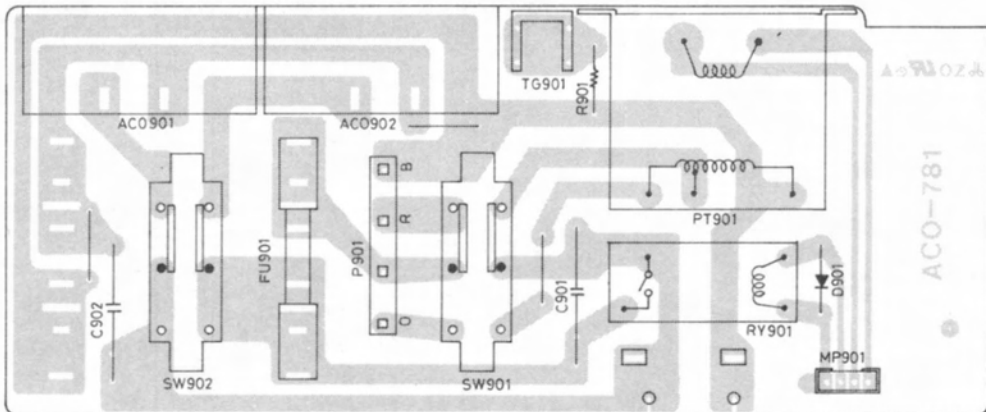


Fig. 7

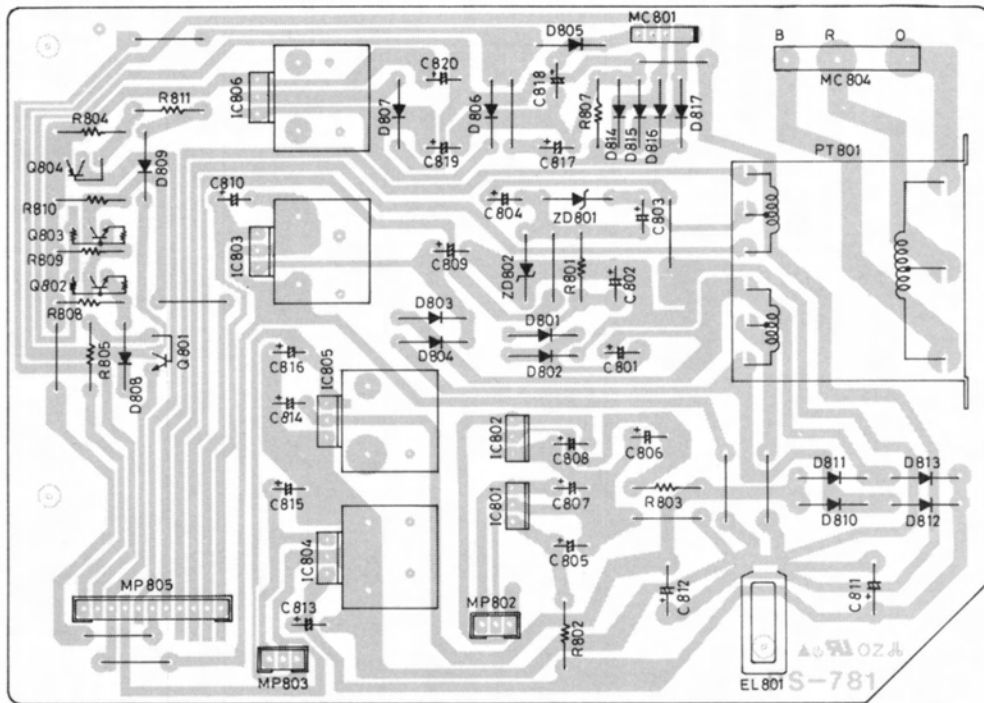
TIM-770 Tuner P.C.Board



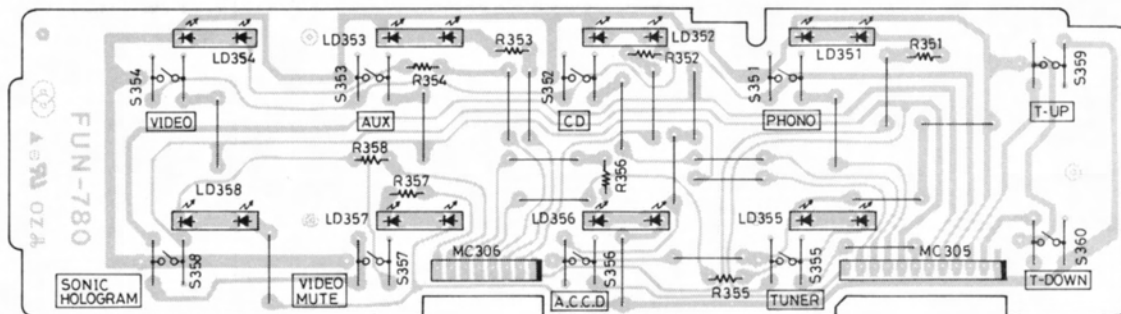
ACO-781 AC Outlet P.C.Board



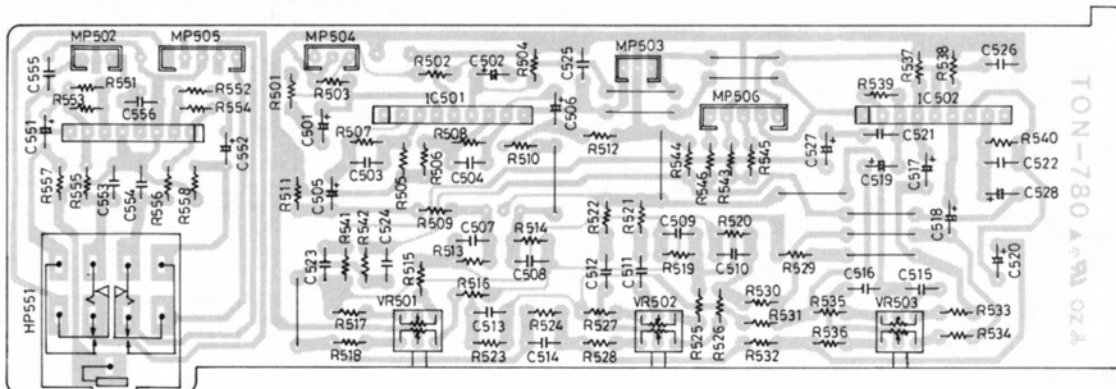
PS-781 Power Supply P.C.Board



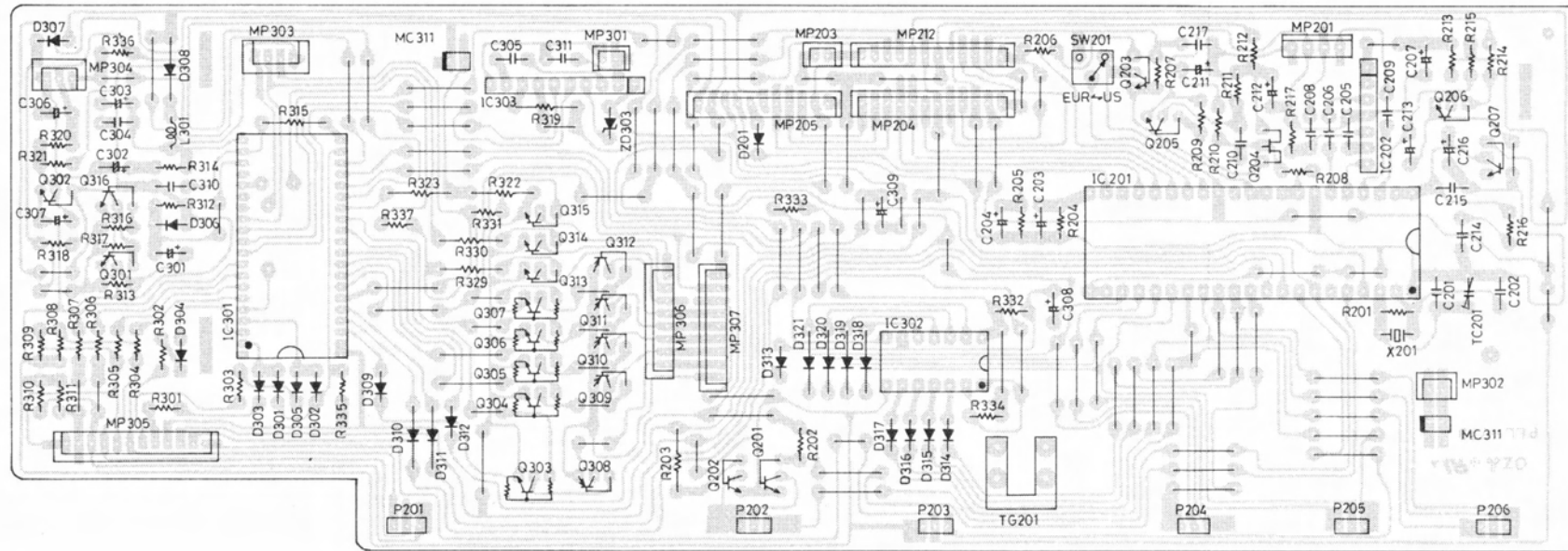
FUN-780 Function Switch P.C.Board



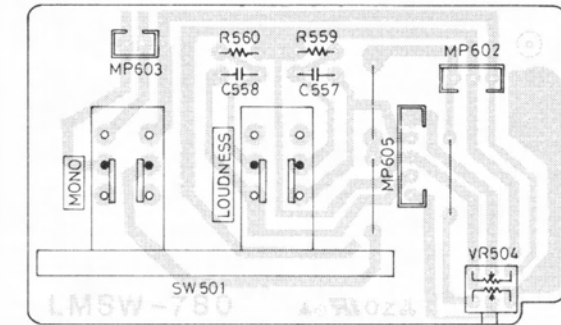
TON-780 Tone Control P.C.Board



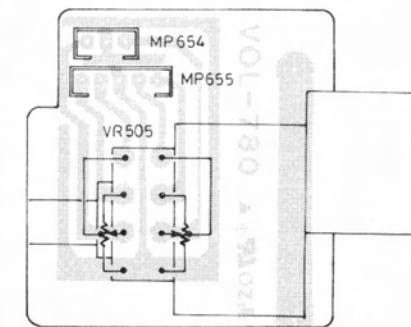
PLL-779 PLL P.C.Board



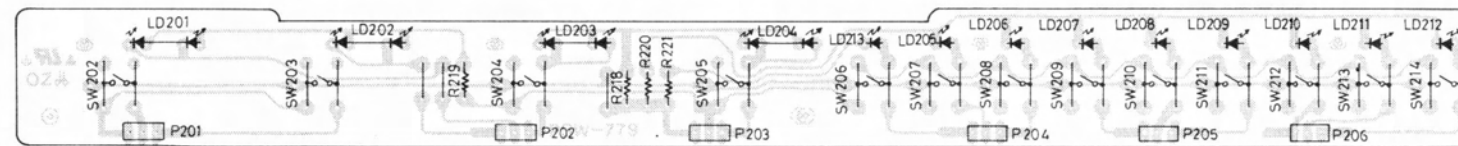
LMSW-780 Loudness Mono Switch P.C.Board



VOL-780 Volume Control P.C.Board



PSW-779 Power Switch P.C.Board



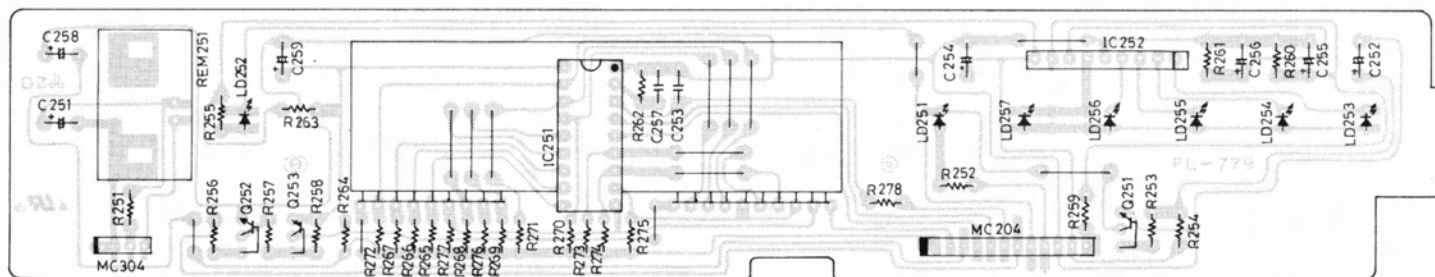
SV-779 Semi-Variable VR P.C.Board



VM-779 Volume Motor P.C.Board

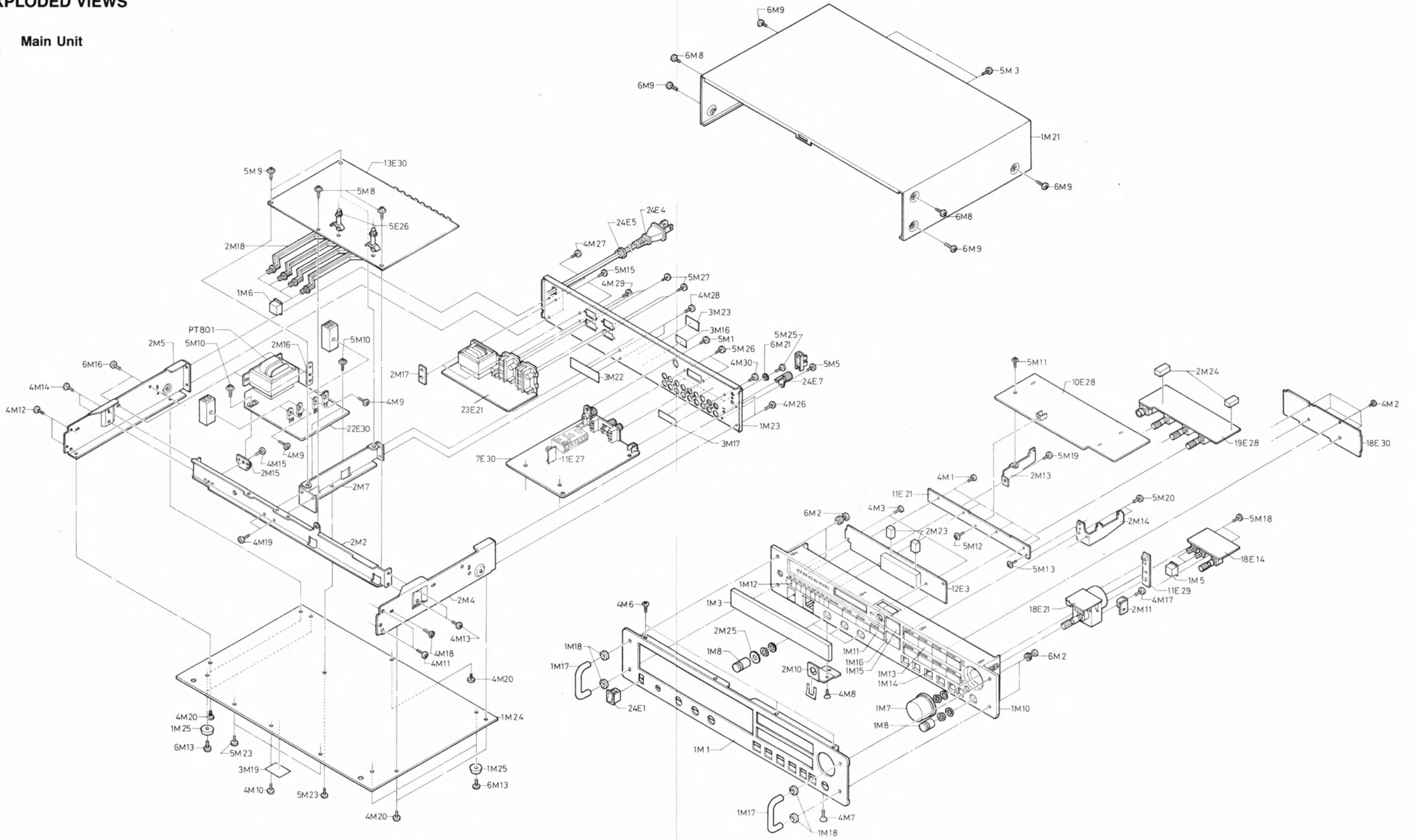


FL-779 FL Display P.C.Board

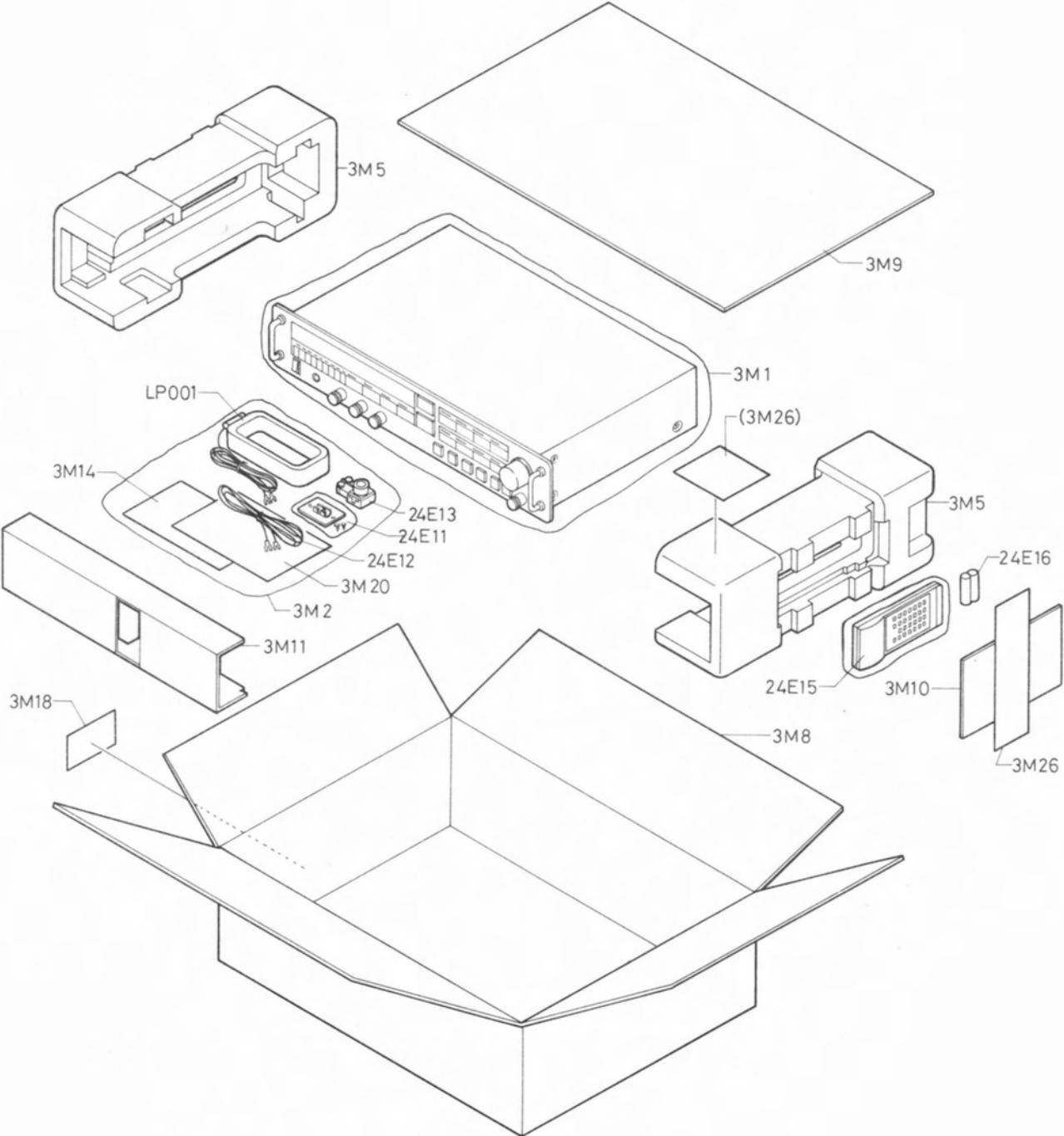


EXPLODED VIEWS

Main Unit



Packing



PARTS LIST

TUNER PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
7E30	1	TIM-770	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
D075-084, 101-108	18	GMA01	DIODE
Q001	1	2SK161-GR	TRANSISTOR
Q002	1	2SC2668-0+Y	TRANSISTOR
Q003	1	2SC3330-S+T	TRANSISTOR
Q004	1	2SK381-0	TRANSISTOR
Q005	1	2SC3899	TRANSISTOR
Q006	1	2SC3330-S+T	TRANSISTOR
Q007	1	2SA1317-S+T	TRANSISTOR
Q035+036	2	2SC2878-A+B	TRANSISTOR
Q075+076	2	2SA966-0+Y	TRANSISTOR
Q077+078	2	2SC3330-S+T	TRANSISTOR
Q079	1	2SA1345	TRANSISTOR
Q080+081	2	2SC3899	TRANSISTOR
Q082	1	2SC3330-S+T	TRANSISTOR
Q083	1	2SC3899	TRANSISTOR
Q084	1	2SC3399	TRANSISTOR
Q085	1	2SC3899	TRANSISTOR
Q101+103	3	2SC3330-S	TRANSISTOR
Q104	1	2SA1317-S	TRANSISTOR
IC001	1	LA1266	IC
IC051	1	LA3401	IC
IC101+105	5	UPC4570HA-1	IC
VD001+002	2	KV1236Z-Z1	DIODE
<u>CAPACITORS</u>			
C001	1	LL-50TW1R0M	LOW LEAK. ELECTROLYTIC CAP.
C002	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C003+008	6	TP050F223Z	CERAMIC CAPACITOR
C009	1	UP050SL330J	CERAMIC CAPACITOR
C010	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C011	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C012	1	NS-50TW4R7M	ELECTROLYTIC CAPACITOR
C014	1	HC75SJZF223Z	CERAMIC CAPACITOR
C015	1	UP050SL100J	CERAMIC CAPACITOR
C016	1	UP050SL4R7K	CERAMIC CAPACITOR
C017	1	ST-50V5451J	STYROL CAPACITOR
C018+019	2	TP050F223Z	CERAMIC CAPACITOR
C020+022+ 024	4	NS-16TW160M	ELECTROLYTIC CAPACITOR
C025	1	UP050B102K	CERAMIC CAPACITOR
C026	1	NS-10TW101M	ELECTROLYTIC CAPACITOR
C027	1	NS-50TW4R7M	ELECTROLYTIC CAPACITOR
C028	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C029	1	NS-16TW220M	ELECTROLYTIC CAPACITOR
C031	1	NS-50TW4R7M	ELECTROLYTIC CAPACITOR
C051	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C052	1	MY-50VU473J	MYLAR CAPACITOR
C053+054	2	HE115JSL681J	CERAMIC CONDENSER
C055+056	2	HE125JSL102J	CERAMIC CAPACITOR
C057+058	2	NS-16TW100M	ELECTROLYTIC CAPACITOR
C059+060	2	TP050F223Z	CERAMIC CAPACITOR
C061	1	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
C062	1	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C063	1	LL-50TW1R0M	LOW LEAK. ELECTROLYTIC CAP.
C064	1	LL-50TW2R2M	LOW LEAK. ELECTROLYTIC CAP.
C065	1	LL-16TW100M	LOW LEAK. ELECTROLYTIC CAP.
C075+076	2	NS-16TW100M	ELECTROLYTIC CAPACITOR
C077	1	NS-10TW470M	ELECTROLYTIC CAPACITOR
C078	1	NS-50TW1R0M	ELECTROLYTIC CAPACITOR
C079	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C080	1	NS-25TW4R7M	ELECTROLYTIC CAPACITOR
C101+102	2	MY-50VU562J	MYLAR CAPACITOR
C103+104	2	UP050B101K	CERAMIC CAPACITOR
C105+106	2	NS-25TW4R7M	ELECTROLYTIC CAPACITOR
C107	1	MY-50VU103J	MYLAR CAPACITOR
C108	1	MY-50VU223J	MYLAR CAPACITOR
C109+112	4	ECQV1H104JZ	METALLIZED FILM CAPACITOR
C113	1	UP050B561K	CERAMIC CAPACITOR
C114	1	UP050SL680J	CERAMIC CAPACITOR
C115	1	UP050SL470J	CERAMIC CAPACITOR
C116	1	MY-50VU182J	MYLAR CAPACITOR
C117	1	UP050B561K	CERAMIC CAPACITOR
C118	1	UP050SL680J	CERAMIC CAPACITOR
C119	1	UP050SL560J	CERAMIC CAPACITOR
C120	1	MY-50VU182J	MYLAR CAPACITOR
C121+122	2	ECQV1H104JZ	METALLIZED FILM CAPACITOR
C123	1	NS-50TW3R3M	ELECTROLYTIC CAPACITOR
C124	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C125+126	2	NS-50TW2R2M	ELECTROLYTIC CAPACITOR
TC001+002	2	CTC-6U-010	TRIMMER CAPACITOR
<u>RESISTORS</u>			
R001	1	KA16ST151J	CARBON RESISTOR
R002	1	KA16ST104J	CARBON RESISTOR
R003	1	KA16ST683J	CARBON RESISTOR
R004	1	KA16ST361J	CARBON RESISTOR
R006	1	KA25ST151J	CARBON RESISTOR
R007	1	KA16ST102J	CARBON RESISTOR
R008	1	KA16ST331J	CARBON RESISTOR
R009	1	KA16ST103J	CARBON RESISTOR
R010	1	KA16ST133J	CARBON RESISTOR
R011+012	2	KA16ST104J	CARBON RESISTOR
R013	1	KA16ST153J	CARBON RESISTOR
R014	1	KA16ST332J	CARBON RESISTOR
R015	1	KA16ST222J	CARBON RESISTOR
R016	1	KA16ST683J	CARBON RESISTOR
R018	1	KA16ST221J	CARBON RESISTOR
R019	1	KA16ST820J	CARBON RESISTOR
R020	1	KA16ST152J	CARBON RESISTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
R021	1	KA16ST203J	CARBON RESISTOR
R022	1	KA16ST474J	CARBON RESISTOR
R023	1	KA16ST102J	CARBON RESISTOR
R024	1	KA16ST512J	CARBON RESISTOR
R025	1	KA16ST361J	CARBON RESISTOR
R026	1	KA16ST243J	CARBON RESISTOR
R027	1	KA16ST103J	CARBON RESISTOR
R028	1	KA16ST105J	CARBON RESISTOR
R029	1	KA16ST473J	CARBON RESISTOR
R030	1	KA16ST104J	CARBON RESISTOR
R031	1	KA16ST101J	CARBON RESISTOR
R032+033	2	KA16ST104J	CARBON RESISTOR
R035+036	2	KA16ST333J	CARBON RESISTOR
R037+040	4	KA16ST103J	CARBON RESISTOR
R041	1	KA16ST514J	CARBON RESISTOR
R042	1	KA16ST102J	CARBON RESISTOR
R043	1	KA16ST394J	CARBON RESISTOR
R044	1	KA16ST334J	CARBON RESISTOR
R045	1	KA16ST303J	CARBON RESISTOR
R046	1	KA16ST123J	CARBON RESISTOR
R047	1	KA16ST223J	CARBON RESISTOR
R048	1	KA16ST473J	CARBON RESISTOR
R051	1	KA16ST223J	CARBON RESISTOR
R052	1	KA16ST473J	CARBON RESISTOR
R053+054	2	KA16ST753J	CARBON RESISTOR
R055	1	KA16ST562J	CARBON RESISTOR
R056	1	KA16ST273J	CARBON RESISTOR
R057+058	2	KA16ST332J	CARBON RESISTOR
R059+060	2	KA16ST203J	CARBON RESISTOR
R076	1	KA16ST104J	CARBON RESISTOR
R077	1	KA16ST103J	CARBON RESISTOR
R078	1	KA16ST104J	CARBON RESISTOR
R079+081	3	KA16ST103J	CARBON RESISTOR
R082	1	KA16ST220J	CARBON RESISTOR
R083	1	KA16ST472J	CARBON RESISTOR
R084+085	2	KA16ST103J	CARBON RESISTOR
R086	1	KA16ST334J	CARBON RESISTOR
R088	1	KA16ST473J	CARBON RESISTOR
R089	1	KA16ST103J	CARBON RESISTOR
R091	1	KA16ST563J	CARBON RESISTOR
R092	1	KA16ST103J	CARBON RESISTOR
R093	1	KA16ST473J	CARBON RESISTOR
R101+102	2	KA16ST513J	CARBON RESISTOR
R103+104	2	KA16ST683J	CARBON RESISTOR
R105+106	2	KA16ST103J	CARBON RESISTOR
R107+108	2	KA16ST683J	CARBON RESISTOR
R109+110	2	KA16ST622J	CARBON RESISTOR
R111+112	2	KA16ST332J	CARBON RESISTOR
R113+114	2	KA16ST104J	CARBON RESISTOR
R115+116	2	KA16ST204J	CARBON RESISTOR
R118+119	2	KA255S106J	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	KA255S475J	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
FR075	1	RF25SX220J	FUSIBLE RESISTOR
SVR001+002	2	SVR-06T3B303	SEMI-VARIABLE
SVR004	1	SVR-06T3B204	SEMI-VARIABLE
SVR051	1	SVR-06T3B104CM	SEMI-VARIABLE RESISTOR
SVR101	1	SVR-06T3B103	SEMI-VARIABLE
<u>COILS</u>			
L001	1	LAL022R2M	INDUCTOR
L002	1	LAL03102K	INDUCTOR
T001	1	126044	MW ANT COIL
T002	1	135023	MW OSC COIL
T003	1	140058	MW IFT
T004	1	141036	FM DET COIL
T051+052	2	184018	FILTER BLOCK
<u>SWITCHES</u>			
SW051	1	SW-5220157	SLIDE SWITCH
<u>MISCELLANEOUS</u>			
F001+002	2	SFE10.7M21-A	CERAMIC FILTER
F003	1	KBR-450AH8	CERAMIC FILTER 450KHZ
F004	1	SFP450F	CERAMIC FILTER
F051	1	KBR-457H5	CERAMIC FILTER 457KHZ
M010	1	PI22A12M	CONNECTOR
M020	1	PI22A06M-BL	CONNECTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
5E14	22	E100	JUMP WIRE
5E15	15	E050	JUMP WIRE
5E30	1	BK-1	CORD CLAMP
AT001	1	T5945-B	ANT. TERMINAL
AT002	1	YKD31-0098	SCREW TERMINAL BOARD (ANT.)
FE001	1	FE407-A18	FM FRONTEND
JP310	1	P122A05M	CONNECTOR
MC201	1	M204-722	MICRO SOCKET ASS'Y
TG001	1	M1698	GND LUG
TP001+002	2	IMS1-1068-02A	MINI TERMINAL PLATE
TP003+101	2	MK-10160	TERMINAL PIN

PLL PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
10E28	1	PLL-779	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
Q201+301-321	22	GMA01	DIODE
Q201-203	3	2SC3330-S,T	TRANSISTOR
Q204	1	2SK222-E	TRANSISTOR
Q205-207, 301+302	5	2SC3330-S,T	TRANSISTOR
Q303-307	5	2SC3399	TRANSISTOR
Q308-312	5	2SA1345	TRANSISTOR
Q313-315	3	2SC3330-S,T	TRANSISTOR
Q316	1	2SC3330-T	TRANSISTOR
IC201	1	TC9147BP	IC
IC202	1	TD6104P	IC
IC301	1	UPD7507CU-244	IC
IC302	1	UPD74HC164C	IC
IC303	1	LB1645N	IC
Z0303	1	ZD40-057	ZENER DIODE, 2/5W, 5.7V
<u>CAPACITORS</u>			
C201	1	UP050CH2R2K	CERAMIC CAPACITOR
C202	1	UP050CH120J	CERAMIC CAPACITOR
C203+204	2	NS-50TW10M	ELECTROLYTIC CAPACITOR
C205	1	TP050F2232	CERAMIC CAPACITOR
C206	1	EP050Y103N	CERAMIC CAPACITOR
C207	1	NS-10TW470M	ELECTROLYTIC CAPACITOR
C208	1	UP050B102K	CERAMIC CAPACITOR
C209	1	EP050Y103N	CERAMIC CAPACITOR
C210	1	ECQV1H104-JZ	METALLIZED FILM CAPACITOR
C211	1	LL-50TW47M	LOW LEAK. ELECTROLYTIC CAP.
C212	1	NS-16TW221M	ELECTROLYTIC CAPACITOR
C213	1	NS-25TW477M	ELECTROLYTIC CAPACITOR
C214	1	NS6R3TW102M-KF	ELECTROLYTIC CAPACITOR
C215	1	TP050F2232	CERAMIC CAPACITOR
C216	1	NS-10TW101M	ELECTROLYTIC CAPACITOR
C217	1	TP050F2232	CERAMIC CAPACITOR
C301	1	NS-25TW477M	ELECTROLYTIC CAPACITOR
C302	1	TP050F2232	CERAMIC CAPACITOR
C303	1	NS-10TW101M	ELECTROLYTIC CAPACITOR
C304	1	NS6R3TW102M-KF	ELECTROLYTIC CAPACITOR
C305	1	EP050Y103N	CERAMIC CAPACITOR
C306	1	NS-10TW101M	ELECTROLYTIC CAPACITOR
C307-309	3	NS-50TW10M	ELECTROLYTIC CAPACITOR
C310	1	HE505JCH300E	CERAMIC CAPACITOR
C311	1	UP050F4732-AT	CERAMIC CAPACITOR
TC201	1	CTC-6U-050	TRIMER CAPACITOR
<u>RESISTORS</u>			
R201	1	KA165T153J	CARBON RESISTOR
R202+203	2	KA165T103J	CARBON RESISTOR
R204	1	KA165T753J	CARBON RESISTOR
R205	1	KA165T473J	CARBON RESISTOR
R206	1	KA165T104J	CARBON RESISTOR
R207+208	2	KA165T103J	CARBON RESISTOR
R209	1	KA165T102J	CARBON RESISTOR
R210+211	2	KA165T103J	CARBON RESISTOR
R212	1	KA165T151J	CARBON RESISTOR
R213	1	KA165T470J	CARBON RESISTOR
R214	1	KA165T104J	CARBON RESISTOR
R215	1	KA165T472J	CARBON RESISTOR
R216	1	KA165T471J	CARBON RESISTOR
R217	1	KA165T333J	CARBON RESISTOR
R301-307	7	KA165T220J	CARBON RESISTOR
R308-311	4	KA165T104J	CARBON RESISTOR
R312	1	KA165T473J	CARBON RESISTOR
R313	1	KA165T472J	CARBON RESISTOR
R314	1	KA165T471J	CARBON RESISTOR
R315	1	MF255B23F	METAL FILM RESISTOR
R316-318	3	KA165T103J	CARBON RESISTOR
R319	1	KA255T100J	CARBON RESISTOR
R320	1	KA165T104J	CARBON RESISTOR
R321	1	KA165T103J	CARBON RESISTOR
R322	1	KA165T563J	CARBON RESISTOR
R323	1	KA165T562J	CARBON RESISTOR
R329-331	3	KA165T103J	CARBON RESISTOR
R332-336	5	KA165T104J	CARBON RESISTOR
R337	1	KA165T102J	CARBON RESISTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>COILS</u>			
L301	1	LAL03102K	INDUCTOR
<u>SWITCHES</u>			
SW201	1	ESD-1131233	SLIDE SWITCH
<u>MISCELLANEOUS</u>			
X201	1	HC18/U7-200MHZ	QUARTZ OSCILLATOR UNIT
MC311	1	MT02-714	MICRO SOCKET ASS'Y
MP201	1	171825-4	MICRO PLUG
MP203	1	P122A02M-BK	CONNECTOR
MP204	1	P122A12M-BL	CONNECTOR
MP205	1	P122A11M-RE	CONNECTOR
MP212	1	P122A12M	CONNECTOR
MP301+302	2	P122A02M	CONNECTOR
MP303	1	P122A04M-RE	CONNECTOR
MP304	1	P122A03M-OR	CONNECTOR
MP305	1	P122A12M	CONNECTOR
MP306	1	P122A08M-RE	CONNECTOR
MP307	1	P122A09M	CONNECTOR
TG201	1	M1698	GND LUG
10E22	60	E100	JUMP WIRE
10E23	32	E050	JUMP WIRE
10E24	1	IPS-1041-3	JUMP WIRE

FL DISPLAY PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
12E 3	1	FL-779	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
Q251+252	2	2SC3330-T	TRANSISTOR
Q253	1	2SA1317-S,T	TRANSISTOR
IC251	1	TC9158P	IC
IC252	1	LB1423	IC
L0251	1	LN216RP	LED
L0252-257	6	LN416YP	LED
<u>CAPACITORS</u>			
C251	1	S7-25TW477M	ELECTROLYTIC CAPACITOR
C252	1	S76R3TW101M	ELECTROLYTIC CAPACITOR
C253	1	UP050B102K	CERAMIC CAPACITOR
C254	1	S76R3TW470M	ELECTROLYTIC CAPACITOR
C255+256	2	S7-25TW477M	ELECTROLYTIC CAPACITOR
C257	1	EP050X332M	CERAMIC CAPACITOR
C258	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C259	1	NS-10TW221M	ELECTROLYTIC CAPACITOR
<u>RESISTORS</u>			
R251	1	KA165T470J	CARBON RESISTOR
R252	1	KA165T222J	CARBON RESISTOR
R253	1	KA165T103J	CARBON RESISTOR
R254	1	KA165T104J	CARBON RESISTOR
R255	1	KA165T221J	CARBON RESISTOR
R256+257	2	KA165T473J	CARBON RESISTOR
R258	1	KA165T104J	CARBON RESISTOR
R259-261	3	KA165T473J	CARBON RESISTOR
R262	1	KA165T223J	CARBON RESISTOR
R263	1	KA165T470J	CARBON RESISTOR
R264-277	14	KA165T104J	CARBON RESISTOR
R278	1	KA165T332J	CARBON RESISTOR
<u>MISCELLANEOUS</u>			
FL251	1	FG710E1	FLUORESCENCE LAMP
MC204	1	MT12-709	MICRO SOCKET ASS'Y
MC304	1	MT03-705	MICRO SOCKET ASS'Y
12E13	4	E050	JUMP WIRE
12E15	10	E160	JUMP WIRE
REM251	1	SBX1483-51	REMOTE SIGNAL RECEIVING UNIT

POWER SWITCH PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
11E21	1	PSW-779	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
L0201-204	4	SLP171D	LED
L0205-213	9	SLP155B	LED
<u>RESISTORS</u>			
R218-221	4	KA165T391J	CARBON RESISTOR
<u>SWITCHES</u>			
SW202-214	13	50A-222HS	TACT SWITCH
<u>MISCELLANEOUS</u>			
P201-206	6	6029B1032001-T	MINI TERMINAL PLATE
11E15	3	E050	JUMP WIRE

FUNCTION & EQ PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
13E30	1	FE0-778	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
0451,601	2	1N4002	DIODE
0751,752	2	GMA01	DIODE
Q451	1	2SC3330-S+T	TRANSISTOR
Q452,601	2	2SC3330-T	TRANSISTOR
Q751-754	4	2SC2878-A+B	TRANSISTOR
Q755,756	2	2SC3399	TRANSISTOR
Q757	1	2SA1345	TRANSISTOR
Q758	1	2SC3399	TRANSISTOR
IC401,402	2	UPC4570HA-1	IC
IC451	1	TC9152P	IC
IC452,453,601-610	12	UPC4570HA-1	IC
IC751	1	UPD6360C	IC
IC752	1	UPC4570HA-1	IC
Z9451,452	2	Z040-090	ZENER DIODE,2/5W,9.0V
Z0751-754	4	Z040-147	ZENER DIODE, 2/5W
Z0755	1	Z040-055	ZENER DIODE,1/2W
<u>CAPACITORS</u>			
C401,402	2	LL-16TW100M	LOW LEAK. ELECTROLYTIC CAP.
C403,406	4	HE90SJS1101K	CERAMIC CAPACITOR
C407,408	2	NS-10TW221M	ELECTROLYTIC CAPACITOR
C409,410	2	MY-50VU562J	MYLAR CAPACITOR
C411,412	2	MY-50VU182J	MYLAR CAPACITOR
C413,416	4	ECQV1H473JZ	METALLIZED FILM CAPACITOR
C417,418	2	LL-16TW220M	LOW LEAK. ELECTROLYTIC CAP.
C451	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C452,453	2	NS-50TW180M	ELECTROLYTIC CAPACITOR
C454	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C455,456	2	LL-50TW180M	LOW LEAK. ELECTROLYTIC CAP.
C457,458	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C459,460	2	LL-50TW180M	LOW LEAK. ELECTROLYTIC CAP.
C461,462	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C463,464	2	ECQV1H104JZ	METALLIZED FILM CAPACITOR
C465,466	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C467,469	3	HCI05JZF473Z	CERAMIC CAPACITOR
C601,602	2	MY-50VU332J	MYLAR CAPACITOR
C603,604	2	ECQV1H473JZ	METALLIZED FILM CAPACITOR
C605	1	ECQV1H823JZ	METALLIZED FILM CAPACITOR
C606	1	MY-50VU272J	MYLAR CAPACITOR
C607	1	MY-50VU562J	MYLAR CAPACITOR
C608	1	MY-50VU122J	MYLAR CAPACITOR
C610	1	HE40SJB681K	CERAMIC CAPACITOR
C612	1	MY-50VU122J	MYLAR CAPACITOR
C613	1	MY-50VU562J	MYLAR CAPACITOR
C614-629	16	MY-50VU102J	MYLAR CAPACITOR
C630,631	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C632	1	ECQV1H683JZ	METALLIZED FILM CAPACITOR
C634,636	2	MY-50VU182J	MYLAR CAPACITOR
C637,638	2	MY-50VU222J	MYLAR CAPACITOR
C639,640	2	HE70SJS1201K	CERAMIC CAPACITOR
C642	1	ECQV1H124JZ	METALLIZED FILM CAPACITOR
C735,735	2	MY-50VU182J	MYLAR CAPACITOR
C751,752	2	LL-50TW180M	LOW LEAK. ELECTROLYTIC CAP.
C753,754	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C755,756	2	ECQV1H104JZ	METALLIZED FILM CAPACITOR
<u>RESISTORS</u>			
R401,402	2	KA16ST220J	CARBON RESISTOR
R403,404	2	KA16ST473J	CARBON RESISTOR
R405,406	2	KA16ST751J	CARBON RESISTOR
R407,408	2	KA16ST514J	CARBON RESISTOR
R409,410	2	KA16ST393J	CARBON RESISTOR
R411,412	2	KA16ST391J	CARBON RESISTOR
R413,414	2	KA16ST513J	CARBON RESISTOR
R415,416	2	KA16ST104J	CARBON RESISTOR
R417,418	2	KA16ST334J	CARBON RESISTOR
R419,420	2	KA16ST223J	CARBON RESISTOR
R421,422	2	KA16ST271J	CARBON RESISTOR
R451,452	2	KA16ST104J	CARBON RESISTOR
R453,454	2	KA16ST102J	CARBON RESISTOR
R455,456	2	KA16ST104J	CARBON RESISTOR
R457,458	2	KA16ST102J	CARBON RESISTOR
R459,460	2	KA16ST104J	CARBON RESISTOR
R461,462	2	KA16ST102J	CARBON RESISTOR
R463,466	4	KA16ST104J	CARBON RESISTOR
R467,471	5	KA16ST471J	CARBON RESISTOR
R472,473	2	KA16ST104J	CARBON RESISTOR
R474	1	KA16ST103J	CARBON RESISTOR
R475,478	4	KA16ST474J	CARBON RESISTOR
R479,480	2	KA16ST102J	CARBON RESISTOR
R481,482	2	KA16ST104J	CARBON RESISTOR
R483,486	4	KA16ST224J	CARBON RESISTOR
R487,488	2	KA16ST102J	CARBON RESISTOR
R489,490	2	KA16ST104J	CARBON RESISTOR
R491,492	2	KA25ST151J	CARBON RESISTOR
R493	1	KA25ST103J	CARBON RESISTOR
R494	1	KA25ST181J	CARBON RESISTOR
R601,602	2	KA16ST203J	CARBON RESISTOR
R603,604	2	KA16ST362J	CARBON RESISTOR
R605,606	2	KA16ST332J	CARBON RESISTOR
R607,608	2	KA16ST392J	CARBON RESISTOR
R609,610	2	KA16ST243J	CARBON RESISTOR
R611,612	2	KA16ST822J	CARBON RESISTOR
R613	1	KA16ST392J	CARBON RESISTOR
R614	1	KA16ST102J	CARBON RESISTOR
R615	1	KA16ST392J	CARBON RESISTOR
R616	1	KA16ST912J	CARBON RESISTOR
R617	1	KA16ST183J	CARBON RESISTOR
R618	1	KA16ST103J	CARBON RESISTOR

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
R619	1	KA16ST362J	CARBON RESISTOR
R620	1	KA16ST203J	CARBON RESISTOR
R621	1	KA16ST392J	CARBON RESISTOR
R622	1	KA16ST203J	CARBON RESISTOR
R623	1	KA16ST392J	CARBON RESISTOR
R624	1	KA16ST112J	CARBON RESISTOR
R625,627,628	3	KA16ST392J	CARBON RESISTOR
R629	1	KA16ST302J	CARBON RESISTOR
R631	1	KA16ST392J	CARBON RESISTOR
R632	1	KA16ST273J	CARBON RESISTOR
R633	1	KA16ST392J	CARBON RESISTOR
R635	1	KA16ST302J	CARBON RESISTOR
R636	1	KA16ST183J	CARBON RESISTOR
R637	1	KA16ST682J	CARBON RESISTOR
R638	1	KA16ST392J	CARBON RESISTOR
R639	1	KA16ST162J	CARBON RESISTOR
R641	1	KA16ST273J	CARBON RESISTOR
R642	1	KA16ST392J	CARBON RESISTOR
R643,644	2	KA16ST473J	CARBON RESISTOR
R645	1	KA16ST162J	CARBON RESISTOR
R646	1	KA16ST682J	CARBON RESISTOR
R651	1	KA16ST203J	CARBON RESISTOR
R652	1	KA16ST361J	CARBON RESISTOR
R653	1	KA16ST512J	CARBON RESISTOR
R654	1	KA16ST752J	CARBON RESISTOR
R655,656	2	KA16ST203J	CARBON RESISTOR
R657	1	KA16ST512J	CARBON RESISTOR
R658,659	2	KA16ST752J	CARBON RESISTOR
R660	1	KA16ST122J	CARBON RESISTOR
R661	1	KA16ST752J	CARBON RESISTOR
R662	1	KA16ST103J	CARBON RESISTOR
R663	1	KA16ST752J	CARBON RESISTOR
R664,665	2	KA16ST103J	CARBON RESISTOR
R666	1	KA16ST752J	CARBON RESISTOR
R667	1	KA16ST103J	CARBON RESISTOR
R668	1	KA16ST203J	CARBON RESISTOR
R669	1	KA16ST361J	CARBON RESISTOR
R670	1	KA16ST512J	CARBON RESISTOR
R671	1	KA16ST752J	CARBON RESISTOR
R672	1	KA16ST361J	CARBON RESISTOR
R673,674	2	KA16ST122J	CARBON RESISTOR
R675,676,678	3	KA16ST752J	CARBON RESISTOR
R679	1	KA16ST122J	CARBON RESISTOR
R680	1	KA16ST512J	CARBON RESISTOR
R681	1	KA16ST361J	CARBON RESISTOR
R682	1	KA16ST752J	CARBON RESISTOR
R683,684	2	KA16ST203J	CARBON RESISTOR
R685	1	KA16ST512J	CARBON RESISTOR
R686,687	2	KA16ST122J	CARBON RESISTOR
R688	1	KA16ST512J	CARBON RESISTOR
R689	1	KA16ST752J	CARBON RESISTOR
R690,691	2	KA16ST301J	CARBON RESISTOR
R692	1	KA16ST752J	CARBON RESISTOR
R693	1	KA16ST122J	CARBON RESISTOR
R694	1	KA16ST361J	CARBON RESISTOR
R695-699	5	KA16ST752J	CARBON RESISTOR
R700,701	2	KA16ST512J	CARBON RESISTOR
R702,703	2	KA16ST203J	CARBON RESISTOR
R704	1	KA16ST122J	CARBON RESISTOR
R705	1	KA16ST361J	CARBON RESISTOR
R731	1	KA16ST102J	CARBON RESISTOR
R733-736	4	KA16ST303J	CARBON RESISTOR
R737,738	2	KA16ST133J	CARBON RESISTOR
R739,740	2	KA16ST153J	CARBON RESISTOR
R741,742	2	KA16ST102J	CARBON RESISTOR
R743,744	2	KA16ST511J	CARBON RESISTOR
R745,746	2	KA16ST470J	CARBON RESISTOR
R748	1	KA25ST181J	CARBON RESISTOR
R749,751	2	KA16ST103J	CARBON RESISTOR
R752	1	KA16ST104J	CARBON RESISTOR
R753,754	2	KA16ST103J	CARBON RESISTOR
R755,756	2	KA16ST102J	CARBON RESISTOR
R757-760	4	KA16ST104J	CARBON RESISTOR
R761,762	2	KA16ST471J	CARBON RESISTOR
R763,764	2	KA16ST104J	CARBON RESISTOR
R765,766	2	KA16ST471J	CARBON RESISTOR
R767,768	2	KA16ST331J	CARBON RESISTOR
R769-773	5	KA16ST103J	CARBON RESISTOR
R774	1	KA16ST102J	CARBON RESISTOR
R775	1	KA16ST105J	CARBON RESISTOR
R776	1	KA25ST222J	CARBON RESISTOR
R777	1	KA16ST104J	CARBON RESISTOR
<u>SWITCHES</u>			
SW451	1	SW-1401223	PUSH SWITCH
<u>MISCELLANEOUS</u>			
MP402	1	P125C03M	CONNECTOR
MP403	1	P122A04M-RE	CONNECTOR
MP405	1	P125C05M-BL	CONNECTOR
MP406	1	P125C05M	CONNECTOR
MP407	1	P122A09M	CONNECTOR
MP413	1	P122A06M-BL	CONNECTOR
MP414	1	P122A05M	CONNECTOR
RJ451-453	3	T6001-AAAA	RCA JACK 6P
RY451,601	2	AG80239	RELAY
TP401,402	2	IMSA1068022211	MINI TERMINAL PLATE
17E28	63	E100	JUMP WIRE
17E29	36	E050	JUMP WIRE

TONE CONTROL PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
19E28	1	TON-780	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
IC501,502	2	UPC4570HA-1	IC
IC551	1	M5216L	IC
<u>CAPACITORS</u>			
C501,502	2	LL-25TW1R0M	LOW LEAK. ELECTROLYTIC CAP.
C503,504	2	HE40SJS1100D	CERAMIC CAPACITOR
C505,506	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C507,508	2	ECQV1H334J2	METALLIZED FILM CAPACITOR
C509,510	2	ECQ81H123J2	METALLIZED FILM CAPACITOR
C511,512	2	ECQV1H823J2	METALLIZED FILM CAPACITOR
C513,514	2	ECQ81H123J2	METALLIZED FILM CAPACITOR
C515,516	2	MY-50VU272J	MYLAR CAPACITOR
C517,520	4	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C521,522	2	HE70SJS1221K	CERAMIC CAPACITOR
C523,524	2	ECQV1H334J2	METALLIZED FILM CAPACITOR
C525,526	2	ECQV1H104J2	METALLIZED FILM CAPACITOR
C527,528	2	LL-25TW4R7M	LOW LEAK. ELECTROLYTIC CAP.
C551,552	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C553,554	2	ECQV1H223J2	METALLIZED FILM CAPACITOR
C555,556	2	ECQV1H104J2	METALLIZED FILM CAPACITOR
<u>RESISTORS</u>			
R501,502	2	KA165T101J	CARBON RESISTOR
R503,504	2	KA165T104J	CARBON RESISTOR
R505,506	2	KA165T123J	CARBON RESISTOR
R507,508	2	KA165T753J	CARBON RESISTOR
R509,510	2	KA165T471J	CARBON RESISTOR
R511,512	2	KA165T104J	CARBON RESISTOR
R513,514	2	KA165T562J	CARBON RESISTOR
R515,518	4	KA165T152J	CARBON RESISTOR
R519,520	2	KA165T562J	CARBON RESISTOR
R521,522	2	KA165T222J	CARBON RESISTOR
R523,524	2	KA165T562J	CARBON RESISTOR
R525,528	4	KA165T152J	CARBON RESISTOR
R529,532	4	KA165T103J	CARBON RESISTOR
R533,536	4	KA165T152J	CARBON RESISTOR
R537,538	2	KA165T474J	CARBON RESISTOR
R539,540	2	KA165T274J	CARBON RESISTOR
R541,542	2	KA165T562J	CARBON RESISTOR
R545,546	2	KA165T471J	CARBON RESISTOR
R551,552	2	KA165T104J	CARBON RESISTOR
R553,554	2	KA165T224J	CARBON RESISTOR
R555,556	2	KA165T151J	CARBON RESISTOR
R557,558	2	KA165T224J	CARBON RESISTOR
VR501-503	3	EVU-50A325B24	ROTARY POTENTIOMETER
<u>MISCELLANEOUS</u>			
HP551	1	YKB24-5007	MIC JACK
MP502	1	P122A03M-BL	CONNECTOR
MP503	1	P122A03M-BK	CONNECTOR
MP504	1	P125C03M	CONNECTOR
MP505	1	P125C05M-BL	CONNECTOR
MP506	1	P125C05M	CONNECTOR
18E27	11	E100	JUMP WIRE

FUNCTION SWITCH PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
18E30	1	FUN-780	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
LD351-358	8	SLP171D	LED
<u>RESISTORS</u>			
R351-355	5	KA165T152J	CARBON RESISTOR
R356-358	3	KA165T221J	CARBON RESISTOR
<u>SWITCHES</u>			
SW351-360	10	SOA-222HS	TACT SWITCH
<u>MISCELLANEOUS</u>			
MC305	1	MT12-704	MICRO SOCKET ASS'Y
MC306	1	MT08-703	MICRO SOCKET ASS'Y
19E29	20	E100	JUMP WIRE

LOUDNESS MONO SWITCH PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
18E14	1	LMSW-780	PRINTED CIRCUIT BOARD
<u>CAPACITORS</u>			
C557,558	2	ECQV1H104J2	METALLIZED FILM CAPACITOR
<u>RESISTORS</u>			
R559,560	2	KA165T153J	CARBON RESISTOR
VR504	1	EVU-50A325252	ROTARY POTENTIOMETER
<u>SWITCHES</u>			
SW501	1	SW-1201224	PUSH SWITCH
<u>MISCELLANEOUS</u>			
MP602	1	P125C03M	CONNECTOR
MP603	1	P122A02M-BK	CONNECTOR
MP605	1	P125C05M	CONNECTOR
19E30	3	E100	JUMP WIRE

VOLUME CONTROL PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
18E21	1	VOL-780	PRINTED CIRCUIT BOARD
<u>RESISTORS</u>			
VR505	1	EUW-MLN337BC5	ROTARY POTENTIOMETER
<u>MISCELLANEOUS</u>			
MC655	1	MT05-719	MICRO SOCKET ASS'Y
MP654	1	P125C03M	CONNECTOR
MP655	1	P125C05M	CONNECTOR

POWER SUPPLY PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u>			
22E30	1	PS-781	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u>			
D801-806	6	1N4002	DIODE
D807-809	3	GMA01	DIODE
D810-817	8	1N4002	DIODE
Q801	1	2SC3330-T	TRANSISTOR
Q802,803	2	2SC3399	TRANSISTOR
Q804	1	2SA966-0,Y	TRANSISTOR
IC801	1	UPC78M12HF	IC
IC802	1	UPC79M12HF	IC
IC803	1	UPC78M12HF	IC
IC804	1	UPC78M15HF	IC
IC805	1	UPC79M15HF	IC
IC806	1	UPC78M05HF	IC
ZD801	1	ZD50-045	ZENER DIODE
ZD802	1	ZD50-245	ZENER DIODE,1/2W,24.5V
<u>CAPACITORS</u>			
C801	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C802	1	NS-50TW101M	ELECTROLYTIC CAPACITOR
C803	1	NS-16TW100M	ELECTROLYTIC CAPACITOR
C804	1	NS-25TW101M	ELECTROLYTIC CAPACITOR
C805,806	2	NS-35TW470M	ELECTROLYTIC CAPACITOR
C807,808	2	NS-16TW101M	ELECTROLYTIC CAPACITOR
C809	1	NS-35TW102M-KF	ELECTROLYTIC CAPACITOR
C810	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
C811,812	2	NS-35TW222M-KF	ELECTROLYTIC CAPACITOR
C813,814	2	SS-50TW2R2M	ELECTROLYTIC CAPACITOR
C815,816	2	NS-16TW470M	ELECTROLYTIC CAPACITOR
C817	1	SS-50TW2R2M	ELECTROLYTIC CAPACITOR
C818	1	NS-16TW470M	ELECTROLYTIC CAPACITOR
C819	1	NS-16TW102M-KF	ELECTROLYTIC CAPACITOR
C820	1	NS-16TW101M	ELECTROLYTIC CAPACITOR
<u>RESISTORS</u>			
R801	1	KA25ST272J	CARBON RESISTOR
R802,803	2	KA25ST151J	CARBON RESISTOR
R804	1	KA165T104J	CARBON RESISTOR
R805,807-809	4	KA165T103J	CARBON RESISTOR
R810	1	KA165T472J	CARBON RESISTOR
R811	1	KA165T152J	CARBON RESISTOR
<u>MISCELLANEOUS</u>			
EL801	1	59BS1692	GND LUG
MC801	1	MT04-711	MICRO SOCKET ASS'Y
MC804	1	MT03-718	MICRO SOCKET ASS'Y
MP802	1	P122A03M-BL	CONNECTOR
MP803	1	P122A03M-BK	CONNECTOR
MP805	1	P122A11M-RE	CONNECTOR
22E14	12	E100	JUMP WIRE
22E16	4	OSH-1640-MP	HEAT SINK

AC OUTLET PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u> 23E21	1	AC0-781	PRINTED CIRCUIT BOARD
<u>SEMICONDUCTORS</u> 0901	1	1N4002	DIODE
<u>CAPACITORS</u> C901*902	2	ECQU2A103MF	METALLIZED FILM CAPACITOR
<u>RESISTORS</u> R901	1	KA50XT335J	CARBON RESISTOR
<u>COILS</u> PT901	1	NPT-2574	POWER TRANSFORMER
<u>SWITCHES</u> SW901*902	2	SW-5220218	SWITCH
<u>MISCELLANEOUS</u> P901	1	WE-4	TERMINAL PIN
FU901	1	FU-623114-SM	FUSE
MP901	1	PI22A04M	CONNECTOR
RY901	1	AJW2511G02	RELAY
TG901	1	M1698	GND LUG
23E15	2	S-N5051	FUSE HOLDER
23E19	3	E100	JUMP WIRE
AC0901*902	2	M7C37	AC OUTLET

SEMI-VARIABLE VR PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u> 11E27	1	SV-779	PRINTED CIRCUIT BOARD
<u>RESISTORS</u> R117	1	KA16ST333J	CARBON RESISTOR
SVR117	1	SVR-06S3B503	SEMI-VARIABLE RESISTOR
<u>MISCELLANEOUS</u> P117	1	1MSA1068-02DD	MINI TERMINAL PLATE

VOLUME MOTOR PCB ASS'Y

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>P.C. BOARD</u> 11E29	1	VM-779	PRINTED CIRCUIT BOARD
<u>MISCELLANEOUS</u> MP651	1	PI22A02M	CONNECTOR

EXPLODED VIEW

REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>COILS</u> LP001	1	171001	LOOP ANTENNA
PT801	1	NPT-2564	POWER TRANSFORMER
24E11	1	N1-461	ANT. HOLDER KIT
<u>SWITCHES</u> 24E 1	1	SW-6100217	POWER SWITCH
<u>MISCELLANEOUS</u>			
1M 1	1	N21645A-1A	FRONT PANEL
1M 3	1	N31036-1	FRONT GLASS
1M 5*6	6	N44713A-T-BR	PUSH BUTTON
1M 7	1	N45448	KNOB 38
1M 8	4	N44260	KNOB 12
1M10	1	N10489-1	FRONT BASE
1M11	1	N44002A	PUSH BUTTON
1M12	1	N44003A	PUSH BUTTON
1M13	1	N44002A-1	PUSH BUTTON
1M14	1	N44002A-2	PUSH BUTTON
1M15	1	N45310-T-BR-5	BUTTON CAP
1M16	1	N45310-T-BR-6	BUTTON CAP
1M17	2	BK4006A	HANDLE
1M18	4	N44092-GY3	HANDLE SPACER
1M21		N21673	CABINET
1M23	1	N21646-1A	REAR PANEL
1M24	1	N21647A	BOTTOM BOARD
1M25	4	NO.7102	FOOT

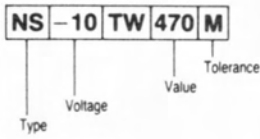
REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
2M 2	1	N21164-1	CENTER CHASSIS
2M 4	1	N31038	SIDE CHASSIS R
2M 5	1	N31039	SIDE CHASSIS L
2M 7	1	N31037	CENTER CHASSIS
2M10	1	N45437	FITTINGS(HEADPHONE JACK)
2M11	1	N45340A	FITTINGS
2M13	1	N45377A	FITTINGS(P.C.B.)
2M14	1	N45380A	FITTINGS(P.C.B.)
2M15	1	N45442	FITTINGS P.C.B
2M16	2	N42722A	FITTINGS (P.T.)
2M17	2	N45454	FITTINGS (P.T.)
2M18	4	N42856A	KNOB SHAFT
2M23	2	N45457	SPACER
2M24	2	N45457-1	SPACER
2M25	4	N45480	CLOTH(VR)
3M 1	1	N41318-1	POLYETHYLENE BAG
3M 2	1	N40487	POLYETHYLENE BAG (ACCESSORIES)
3M 5	2	N21375A-1	PACKING PAD
3M 8	1	N45393-1A	INNER CARTON
3M 9	1	N44675	PACKING PAD(TOP)
3M10	1	N45394	PACKING PAD
3M11	1	N31068	PACKING PAD(FRONT)
3M14	1	OM-865	INSTRUCTION MANUAL
3M16,M17	2	N45335	LABEL,SERIAL NO.
3M18	1	N42235	SHEET, SERIAL NUMBER
3M19	1	N44043	LABEL, SA1965(LIGHTNING FLASH)
3M20	1	CARVER-WC	CARD,WARRANTY REGISTRATION
3M22	1	N41939	LABEL, FUSE
3M23	1	N45482	LABEL, CSA FILE NO.
3M26	1	N44894	TAPE,PACKING MATERIAL
4M 1~M 3	12	TBP+26X06-Y	TAP SCREW B, PAN HEAD, Y
4M 6~M 8	5	T9S+30X08-Y	TAP SCREW B, FLAT HEAD, Y
4M 9,M10	5	TSB+30X08-Y	TAP SCREW S, BIND HEAD, Y
4M11~M15, M17~M19	13	TSB+30X06-Y	TAP SCREW S, BIND HEAD, Y
4M20	7	TSB+30X08-Y	TAP SCREW S, BIND HEAD, Y
4M26~M30	8	TSB+30X06-B	TAP SCREW S, BIND HEAD, B
5E26	2	KGL5-85	SPACER
5M 1,M 3	3	TSB+30X06-B	TAP SCREW S, BIND HEAD, B
5M 5	1	TSB+30X08-N	TAP SCREW S, BIND HEAD, N
5M 8~M13	10	TSC+30X06-Y	TAP SCREW S, WASHER FACED, Y
5M15	2	SSC+30X08-B	SCREW, WASHER FACED, B
5M18~M20	4	TPM+30X08-Y	TAP SCREW P, ROUND HEAD, Y
5M23	2	TBB+30X08-Y	TAP SCREW B, BIND HEAD, Y
5M25~M27	12	TBM+30X10-B	TAP SCREW B, ROUND HEAD, B
6M 2	4	S5310+40X14-B	SCREW-SP ASSY,P HEAD B
6M 8	2	TBB+40X10-B	TAP SCREW B,BIND HEAD,B
6M 9	4	TSB+40X10-B	TAP SCREW S, BIND HEAD, B
6M13	4	TSE+40X10-Y	TAP SCREW S, BIND HEAD, Y
6M16	2	SST+40X08-Y	SCREW,TRUSS Y
6M21	3	2TWX30-B	TOOTHED WASHER (B-BLACK)
24E 4	1	ACC-022D4-4EE1	LINE CORD
24E 5	1	SR-4N-4	CORD STOPPER
24E 7	1	YKD41-0004	GROUND TERMINAL
24E12	1	TANT-031	FM ANTENNA (CORD)
24E13	1	YAE21-0001C	MATCHING ADAPTOR
24E15	1	HTR0001-0190	REMOTE CONTROL TRANSMITTER
24E16	1	UM-3-2	BATTERY

OTHER PARTS

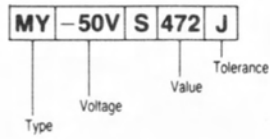
REF. NO.	Q'TY	CARVER PART NO.	DESCRIPTION
<u>MISCELLANEOUS</u>			
MC012	1	MT12-698	MICRO SOCKET ASS'Y
MC013	1	MT06-699	MICRO SOCKET ASS'Y
MC014	1	PT05-700	MICRO SOCKET ASS'Y
MC301	1	KT02-712	MICRO SOCKET ASS'Y
MC302	1	MT02-713	MICRO SOCKET ASS'Y
MC403	1	PT04-706	MICRO SOCKET ASS'Y
MC405	1	KT05-720	MICRO SOCKET ASS'Y
MC406	1	PT05-721	MICRO SOCKET ASS'Y
MC407	1	PT09-701	MICRO SOCKET ASS'Y
MC602	1	PT03-716	MICRO SOCKET ASS'Y
MC603	1	MTG2-702	MICRO SOCKET ASS'Y
MC654	1	MTG3-717	MICRO SOCKET ASS'Y
MC802	1	PT03-707	MICRO SOCKET ASS'Y
MC803	1	PT03-708	MICRO SOCKET ASS'Y
MC805	1	MT11-710	MICRO SOCKET ASS'Y
24E18	10	BK-1	CORD CLAMP
24E19,E20	2	NO.5167	CORD CLAMP

Capacitors Description

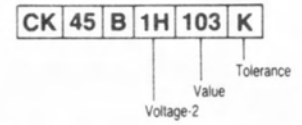
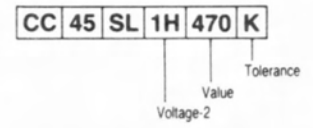
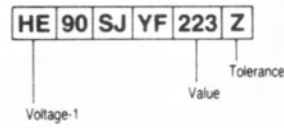
• Electrolytic



• Mylar · Styrol



• Ceramic



• Electrolytic

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

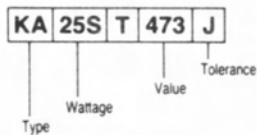
• Mylar · Styrol

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

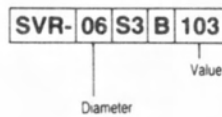
Voltage-1	Voltage-2	Value	Tolerance
HC: 25V	1E: 25V	4R7: 4.7pF	C: \pm 0.25pF
HE: 50V	1H: 50V	470: 47pF	D: \pm 0.5pF
H: 100V	2H: 500V	471: 470pF	F: \pm 1pF
HK: 250V		472: 4700pF	J: \pm 5%
HM: 500V		473: 0.047 μ F	K: \pm 10%
		474: 0.47 μ F	M: \pm 20%
		(1000pF=0.001 μ F)	Z: +80~-20%

Resistors Description

• Fixed



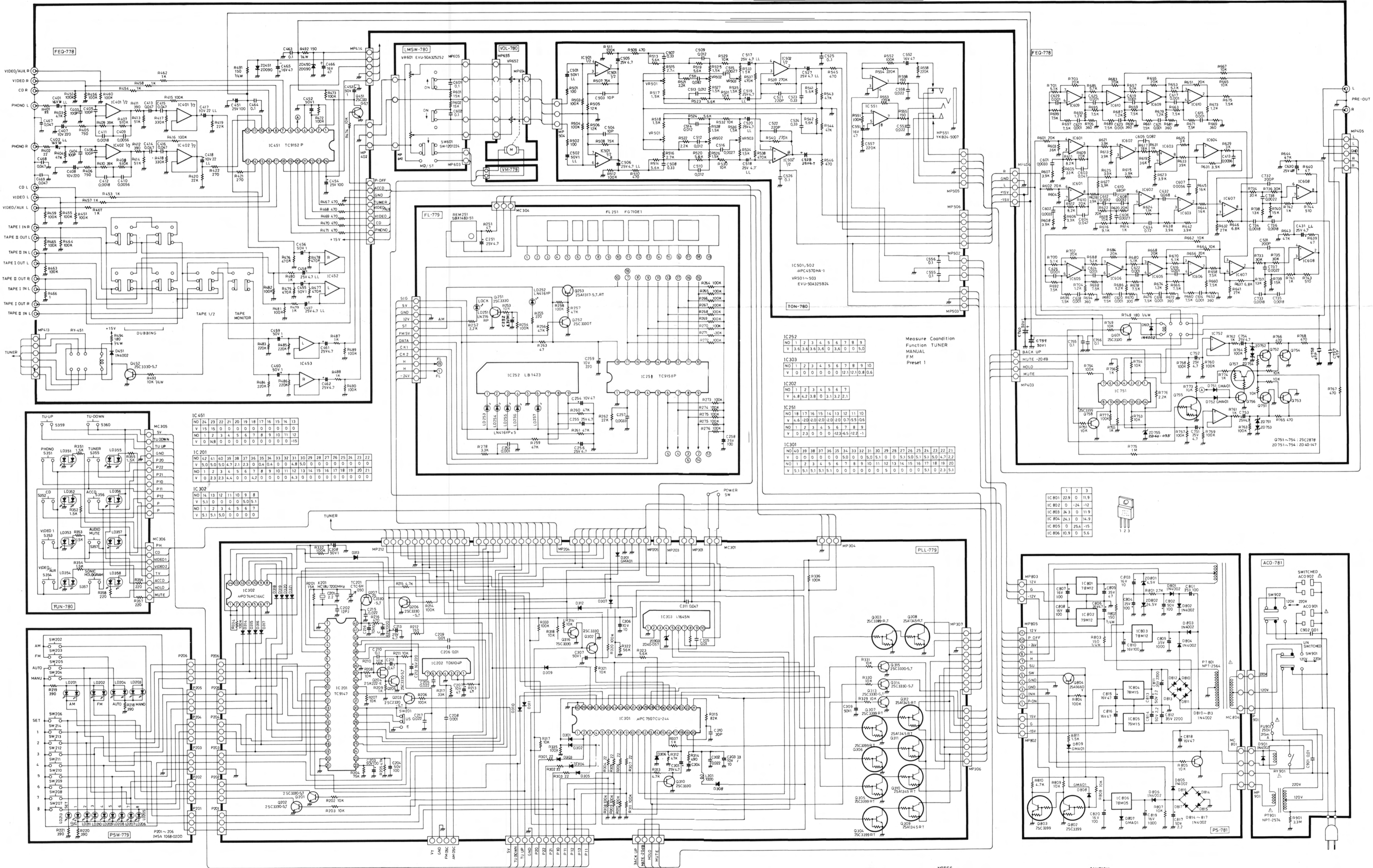
• Semi-Variable



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

Note:

SCHEMATIC DIAGRAM



IC 451

NO	24	23	22	21	20	19	18	17	16	15	14	13
V	15	15	0	0	0	0	0	0	0	0	0	0
NO	1	2	3	4	5	6	7	8	9	10	11	12
V	0	14	8	0	0	0	0	0	0	0	0	-15

IC 201

NO	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22
V	5.0	5.0	5.0	4.7	2.1	2.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
V	0	2.3	2.3	4.4	0	0	4.2	0	0	0	0	4.3	0	0	0	0	0	0	0	0	0

IC 302

NO	14	13	12	11	10	9	8
V	5.1	0	0	0	0	0	5.1
NO	1	2	3	4	5	6	7
V	5.1	5.1	5.0	0	0	0	0

IC 252

NO	1	2	3	4	5	6	7	8	9
V	3.6	3.6	3.6	3.6	3.6	0	0	0	5.0

IC 303

NO	1	2	3	4	5	6	7	8	9	10
V	0	0	0	0	0	12.1	12.1	0	8	5.6

IC 202

NO	1	2	3	4	5	6	7
V	4.8	4.2	3.8	0	3.1	3.2	2.1

IC 251

NO	18	17	16	15	14	13	12	11	10
V	4.4	-20	-20	-20	0	5.0	5.1	5.1	5.0
NO	1	2	3	4	5	6	7	8	9
V	0	2.3	0	0	0	12.3	4.5	12.2	-1

IC 301

NO	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21
V	0	0	0	0	0	0	0	0	0	5.1	5.0	5.1	5.1	5.0	4.7	2.2				
NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
V	5.1	5.1	5.1	5.1	5.1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0

CAUTION : THIS FUSE WITH SYMBOL MARK $\frac{250V}{315mA}$ IS FAST-BLOW TYPE. REPLACE WITH SAME TYPE 315mA 250V FUSE.
 ATTENTION : LE FUSIBLE MARQUE $\frac{250V}{315mA}$ EST DE TYPE A. FUSION RAPIDE. UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE DE 315mA 250V.

NOTES
 1. All resistors are 1/4 watt or 1/2 watt 5% unless marked otherwise. Resistor values are in ohms (R=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. Δ is Safety Part. Use only replacement parts recommended by the manufacturer.

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 milliamp, 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.

