

SERVICE MANUAL

**AUTOREVERSE CASSETTE STEREO PLAYER
& ELECTRONIC SEEK TUNE AM / FM STEREO RADIO**

6315V

GENERAL INFORMATION

SEMICONDUCTORS: 6 ICs, 2 FETs, 28 Transistors, 34 Diodes, 1 LED

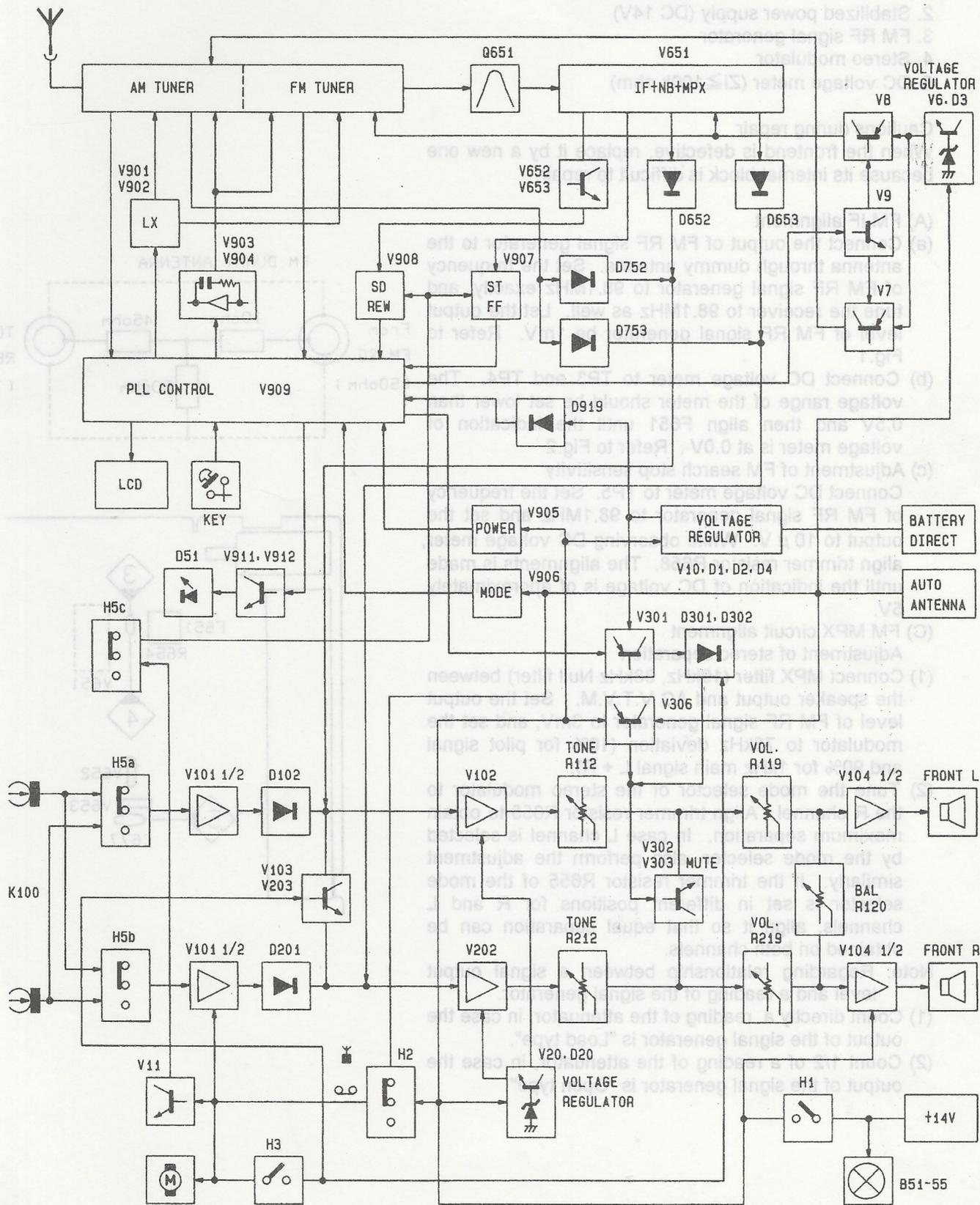
DESCRIPTION	REF. NO.	Q'TY	EQUIVALENT
(AM radio)			
AM IC LA1135	V701	1	
RF amplifier 2SK494	V702	1	2SK715
Switching transistor 2SD601	V703	1	2SC2812
Varactor diode SVC354	D701	1	
Switching diode HSM123	D702	1	
Switching diode MA165	D751,752,753,754	4	
(FM radio)			
FM frontend IC LA1175M	V601	1	
IF+NB+MPX IC LA1862M	V651	1	
RF amplifier FET 3SK195	V602	1	
Switching transistor DTC125TS	V652	1	
Switching transistor UN4212	V653	1	DTC124ES
OSC buffer transistor 2SC2786(L)	V654	1	
Varactor diode SVC212	D601,602,604	3	1SV225
Switching diode 1SV172	D603	1	HVM14S
Switching diode MA165	D651,652,653	3	
(Pre amplifier)			
Pre amplifier IC LA3161	V101	1	
Switching transistor UN4212	V11	1	DTC124ES
Switching transistor DTC114TS	V304,305	2	
Switching diode MA165	D101,201	2	
(Amplifier)			
Amplifier transistor 2SC3330(S)	V102,202	2	
(Power amplifier)			
Power amplifier IC LA4445	V104	1	
(Control)			
PLL IC μ PD1708AG-338	V909	1	
Switching transistor UN4115(R)	V7	1	DTA114TS
Switching transistor 2SA1524	V8	1	
Switching transistor UN4212	V9,901,902,911	4	
Low pass filter transistor 2SC2458L(BL)	V903,904	2	
Switching transistor DTC125TS	V905,906	2	
Switching transistor DTA125TS	V907,908	2	
Switching transistor UN4112	V912	1	
Switching diode MA165	D901,902,903,904, 905,906,907,908, 909,910,919	11	
(Muting)			
Muting transistor UN411D	V301,306	2	
Muting transistor 2SD1021(E)	V302,303	2	
Switching diode MA165	D301,302	2	

GENERAL INFORMATION

SEMICONDUCTORS: 6 Ics, 2 FETs, 28 Transistors, 34 Diodes, 1 LED

DESCRIPTION	REF. NO.	Q'TY	EQUIVALENT
(Regulator)			
Regulator transistor 2SD1994A(R)	V6	1	2SD973(R)
Regulator transistor 2SC3330(S)	V20	1	
Switching diode MA165	D1,2	2	
Zener diode HZS10N(B1)	D3,20	2	
Zener diode HZS5.6N(B2)	D4	1	
Protector diode DSA3A4	D5	1	
(Indicator)			
LED TLR206	D51	1	

CIRCUIT FUNCTION DIAGRAM



SERVICE ALIGNMENT PROCEDURE

FM circuit

Equipment required

1. AC V.T.V.M.
2. Stabilized power supply (DC 14V)
3. FM RF signal generator
4. Stereo modulator
5. DC voltage meter ($Z_i \geq 100k \text{ ohm}$)

Cautions during repair

When the frontend is defective, replace it by a new one because its internal block is difficult to repair.

(A) FM IF alignment

(a) Connect the output of FM RF signal generator to the antenna through dummy antenna. Set the frequency of FM RF signal generator to 98.1MHz exactly, and tune the receiver to 98.1MHz as well. Let the output level of FM RF signal generator be 1mV. Refer to Fig.1

(b) Connect DC voltage meter to TP3 and TP4. The voltage range of the meter should be set lower than 0.5V and then align F651 until the indication of voltage meter is at 0.0V. Refer to Fig.2

(c) Adjustment of FM search stop sensitivity

Connect DC voltage meter to TP5. Set the frequency of FM RF signal generator to 98.1MHz and set the output to $10 \mu\text{V}$. While observing DC voltage meter, align trimmer resistor R658. The alignments is made until the indication of DC voltage is of approximately 5V.

(C) FM MPX circuit alignment

Adjustment of stereo separation

(1) Connect MPX filter (19kHz, 38kHz Null filter) between the speaker output and AC V.T.V.M. Set the output level of FM RF signal generator to 3mV, and set the modulator to 75kHz deviation (10% for pilot signal and 90% for 1kHz main signal L + R).

(2) Tune the mode selector of the stereo modulator to the R channel. Align trimmer resistor R655 to obtain maximum separation. In case L channel is selected by the mode selector, also perform the adjustment similarly. If the trimmer resistor R655 of the mode selector is set in different positions for R and L channels, align it so that equal separation can be obtained on both channels.

Note: Regarding relationship between a signal output level and a reading of the signal generator.

- (1) Count directly a reading of the attenuator, in case the output of the signal generator is "Load type".
- (2) Count 1/2 of a reading of the attenuator, in case the output of the signal generator is "Open type".

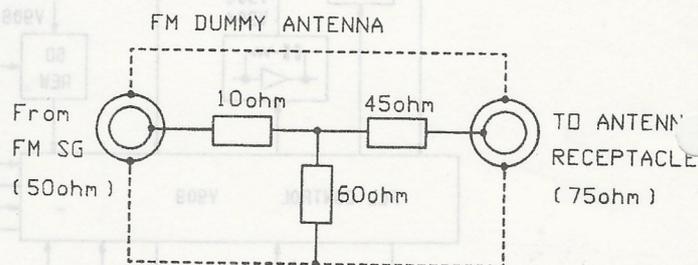


Fig.1

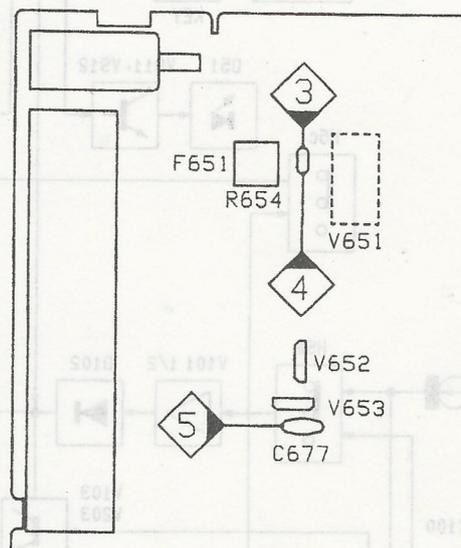


Fig.2

TROUBLESHOOTING

RADIO SECTION			DEFECTIVE POINT AND CAUSE
SYMPTOM	DEFECTIVE CIRCUIT	DEFECTIVE POINT AND CAUSE	DEFECTIVE POINT AND CAUSE
	AM/FM SECTION	Antenna input circuit	* Antenna input circuit defective. Check wiring.
		Power supply circuit	* Poor antenna contact. Due to lower sensitivity, it does search scanning but not search stop.
		Switching circuit	* Power supply circuit defective. V6 or D3 defective.
		Muting circuit	* Diode D652, D653, D752 or D753 defective.
		Muting circuit	* Transistor V301, V302, V303, V304 or V305 defective.
NO SOUND	AM SECTION	Antenna input circuit	* Antenna input circuit defective.
		RF, OSC, IF circuit	* AM IC V701 defective. Check pin voltage of V701. * Semiconductor defective. Check voltage of V702.
		Power supply circuit	* V702, L701, L702, L703, F701 or F702 open. * Q702 defective.
	Power supply circuit	* Power supply circuit defective.	
	Connection of AM board	* Insufficient soldering at the terminal of AM board. * Cracked pattern at the terminal of AM board.	
	Power supply circuit	* Power supply circuit defective. Check voltage V8.	
	FM SECTION	RF, OSC circuit	* Semiconductor defective. Check voltage of V601 and V602. * Diode D601, D602, D603 or D604 defective. * L601, L602, L604 or F601 open or insufficient soldering.
	IF circuit	* Semiconductor defective. Check pin voltage of IF IC V651. * F651, Q601 or Q651 defective.	
INSUFFICIENT SOUND	AM/FM SECTION	Antenna input circuit	* Poor antenna contact.
		MPX circuit	* MPX circuit defective. Check pin voltage of IC V651.
	AM SECTION	RF, IF circuit	* Deviation in tracking alignment (L702, L703). * Deviation in IF transformer F701 or F702. * FET V702 defective. * Diode D701 defective.
	FM SECTION	RF, IF circuit	* Deviation in tracking alignment (L602, L604). * RF amplifier V602 defective. * Diode D602 or D604 defective. * IF transformer F601 defective.

TROUBLESHOOTING

SYMPTOM	DEFECTIVE CIRCUIT		DEFECTIVE POINT AND CAUSE
INSUFFICIENT SOUND	FM SECTION	RF,IF circuit	* Front end IC V601 or V651 defective. Check for voltage of V601 and V651. * F601 misalignment.
	AM SECTION	IF circuit	* Q702 defective. * AM IC V701 defective. * F701 or F702 misalignment.
OSCILLATION	FM SECTION	IF circuit	* Misalignment or defective of F651. * Q601 or Q651 defective.
	AM/FM SECTION	Power supply circuit	* Capacitor C7 defective.
	AM SECTION	RF,IF circuit	* Capacitor C706,C708,C709 or C711 defective.
POOR NB	FM SECTION	RF,IF circuit	* RF circuit defective. Capacitor C601,C602,C604,C606,C618 or C619 defective.
	FM SECTION	RF,IF circuit	* IF circuit defective. Capacitor C651 or C662 defective.
POOR MUTE IN SEARCH SCANNING AND AM/FM SWITCH POP NOISE	FM SECTION	NB circuit	* V651 defective. Check pin voltage of V651. * Capacitor C666,C667 or C668 defective.
POOR STEREO EFFECT	MUTE SECTION		* Semiconductor defective. Transistor V301,V302 or V303 defective. Diode D301 defective. * Capacitor C301 open.
		NB circuit	* V651 defective. Check pin voltage of V651.
INDICATOR DOES NOT LIGHT		MPX circuit	* V651 defective. Diode D651 defective. Check pin voltage of V651. * R655 misalignment.
	LCD SECTION		* Insufficient soldering at the terminal of PLL IC V909. * Zener diode D4 defective. * Insufficient soldering at the terminal of LCD panel. * PLL IC V909 defective. * LCD panel defective.
ENGINE NOISE IS EXTREME	STEREO INDICATOR		* Check the wiring of stereo indicator circuit. * Transistor V907 or diode D905 defective. * V651 defective. * PLL IC V909 defective.
	ANTENNA GROUND CIRCUIT		* Missing or poor connection of grounding wire for antenna to grounding point of the car chassis.

TROUBLESHOOTING

RADIO AND TAPE SECTION

CONTROL SECTION

SYMPTOM	DEFECTIVE CIRCUIT	DEFECTIVE POINT AND CAUSE
NO SOUND	Power supply circuit	* Fuse open. * Faulty connection between battery. * Switch H1 defective. * Choke transformer L1 lead wire cold soldered.
	Output circuit	* Speaker voice coil open. * Faulty connection between speaker and connection core. * Power amplifier IC V104 defective. Check each pin voltage of IC V104.
	Control circuit	* Variable resistor R112, R119, R120, R212 or R219 defective.
	Flat amplifier circuit	* Flat amplifier circuit defective. Check voltage of transistor V102 and V202.
	Switching circuit	* Diode D101, D201, D652, D653, D752 or D753 defective.
DISTORTED SOUND OR INSUFFICIENT SOUND	Muting circuit	* Transistor V301, V302, V303, V304 or V305 defective.
	Output circuit	* Power amplifier circuit defective. Check each pin voltage of V104. * Capacitor C117 or C217 defective.
	Control circuit	* Variable resistor R112, R119, R120, R212 or R219 defective.
	Flat amplifier circuit	* Flat amplifier circuit defective. Check voltage of transistor V102 and V202.
OSCILLATION	Output circuit	* C9 or C220 capacitor insufficient or open. C118 or C218 capacity insufficient. R124 or R224 resistance insufficient.
ENGINE NOISE IS EXTREME	Power supply circuit	* Missing or poor connection of ground wire. * C1, C9, C12, C13, C120 or C220 capacity insufficient. * R12 resistance insufficient. * Transistor V20 or zener diode D20 defective. Check voltage of transistor V20.

TROUBLESHOOTING

CONTROL SECTION

SYMPTOM	DEFECTIVE CIRCUIT	DEFECTIVE POINT AND CAUSE
CONTENTS OF THE MEMORY IS LOST		<ul style="list-style-type: none"> * Disconnection of back-up wire. * PLL IC V909 defective.
DISPLAY NEITHER TIME NOR FREQUENCY	Power supply circuit or battery back-up circuit	<ul style="list-style-type: none"> * Diode D919 defective. * Zener diode D4 defective. * Faulty connection to the 14-pin socket.
DISPLAY DOES NOT CHANGE		<ul style="list-style-type: none"> * H2 defective. * Insufficient soldering at the 7P flat cable or 6P flat cable. * Transistor V903, V905 or V906 defective.
MANUAL TUNING INOPERATIVE		<ul style="list-style-type: none"> * Insufficient soldering at the 7P flat cable. * Faulty connection to the 7-pin socket (N4). * H901 or H907 defective.
PRESETTING OR SELECTION OF PRESET STATIONS INOPERATIVE		<ul style="list-style-type: none"> * Diode D907, D908, D909, D910 defective. * Switch defective (H902, H903, H904, H908, H909, H910). * Insufficient soldering at the 7P flat cable or 6P flat cable. * PLL IC V909 defective.
NO SEARCH SEEKING	AM/FM SECTION	<ul style="list-style-type: none"> * Transistor V903 or V904 defective. * PLL IC V909 defective.
THE UNIT SEARCH SEEKS BUT DOES NOT STOP	PLL circuit	<ul style="list-style-type: none"> * Transistor V653 or V908 defective. * Diode D906 defective. * PLL IC V909 defective.
	AM/FM SECTION	<ul style="list-style-type: none"> * C751, D751 or D754 defective. * AM IC V701 defective. * Ceramic filter Q701 defective.
	AM SECTION	<ul style="list-style-type: none"> * Transistor V652 defective. * V651 defective.
	FM SECTION	

REF. NO.23 AR-0231 AM/FM CIRCUIT BOARD ASSEMBLY PARTS LIST

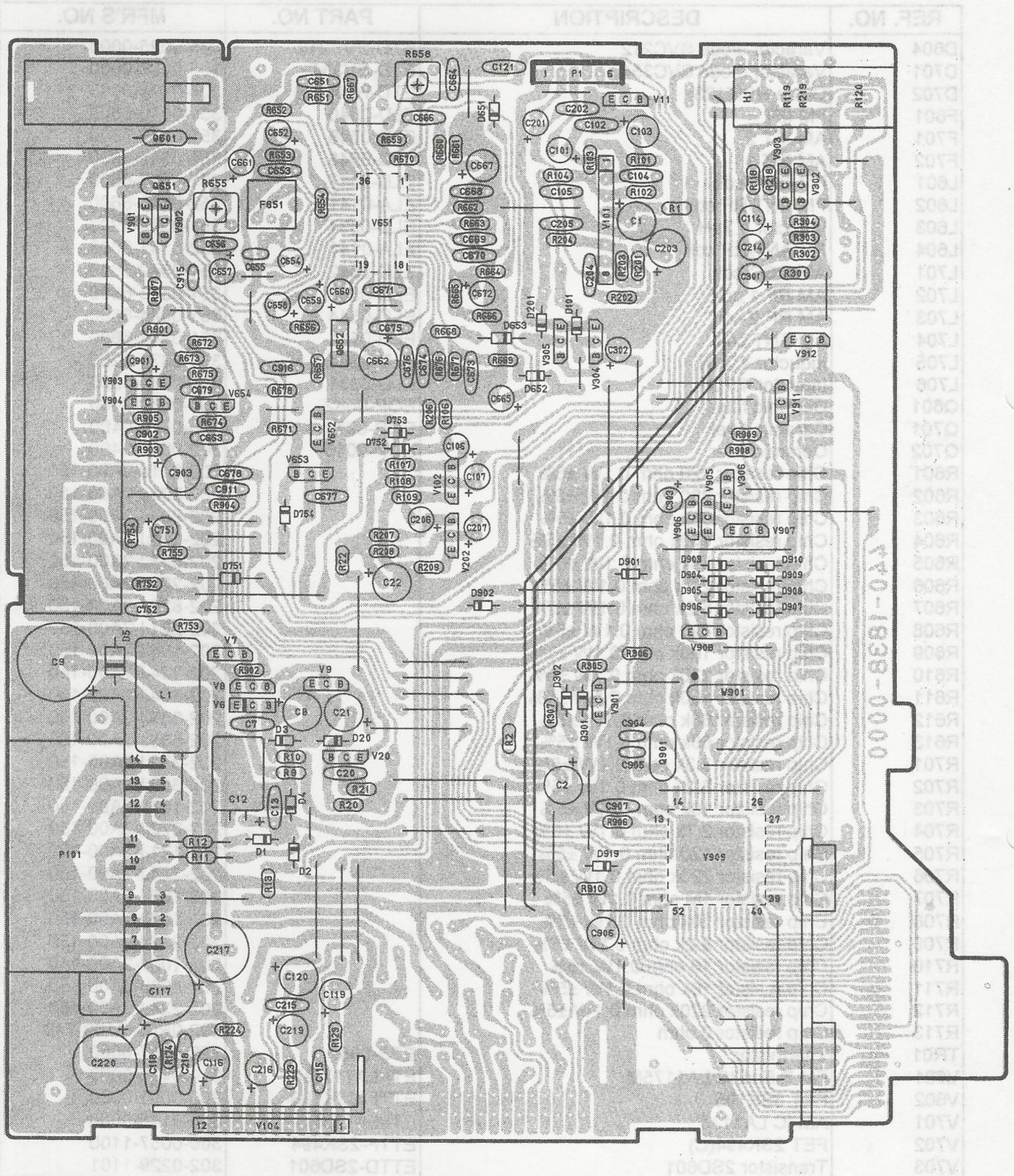
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
C452	Chip capacitor 0.001 μ F 50V		263-102M-1HJB-300
C601	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C602	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C603	Electrolytic capacitor 10 μ F 16V		250-100M-1C00-114
C604	Chip capacitor 0.047 μ F 25V		263-473M-1EJB-301
C605	Chip capacitor 10pF 50V		260-100J-1H00-300
C606	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C607	Chip capacitor 100pF 50V		260-101J-1H00-300
C608	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C609	Chip capacitor 4pF 50V		265-4R0J-1H0J-300
C610	Chip capacitor 12pF 50V		265-120J-1H0J-300
C611	Chip capacitor 33pF 50V		265-330J-1H0J-300
C612	Chip capacitor 15pF 50V		265-150J-1H0J-300
C613	Chip capacitor 18pF 50V		265-180J-1H0J-300
C614	Chip capacitor 2pF 50V		265-2R0J-1H0J-300
C615	Chip capacitor 12pF 50V		265-120J-1H0J-300
C616	Chip capacitor 8pF 50V		265-8R0J-1H0J-300
C617	Chip capacitor 10pF 50V		265-100J-1H0J-300
C618	Chip capacitor 0.1 μ F 50V		263-104M-1HJB-302
C619	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C620	Chip capacitor 150pF 50V		260-151J-1H00-300
C621	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C622	Chip capacitor 6pF 50V		265-6R0J-1H0J-300
C623	Chip capacitor 2pF 50V		265-2R0J-1H0J-300
C624	Chip capacitor 4pF 50V		265-4R0J-1H0J-300
C625	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C701	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C702	Chip capacitor 0.047 μ F 25V		263-473M-1EJB-301
C703	Chip capacitor 10pF 50V		265-100J-1H0J-300
C704	Chip capacitor 470pF 50V		265-471K-1H0J-300
C705	Electrolytic capacitor 4.7 μ F 25V		250-4R7M-1E00-114
C706	Chip capacitor 0.022 μ F 25V		263-223M-1EJB-300
C707	Electrolytic capacitor 3.3 μ F 50V		250-3R3M-1H00-114
C708	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C709	Chip capacitor 0.022 μ F 25V		263-223M-1EJB-300
C710	Electrolytic capacitor 0.47 μ F 50V		250-R47M-1H00-114
C711	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C712	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C713	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C714	Electrolytic capacitor 22 μ F 16V		250-220M-1C00-122
C715	Chip capacitor 0.001 μ F 50V		263-102M-1HJB-300
C716	Chip capacitor 0.022 μ F 25V		263-223M-1EJB-300
C717	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C718	Electrolytic capacitor 3.3 μ F 50V		250-3R3M-1H00-114
C719	Chip capacitor 4pF 50V		265-4R0J-1H0J-300
C720	Chip capacitor 5pF 50V		265-5R0J-1H0J-300
C721	Chip capacitor 0.01 μ F 50V		263-103M-1HJB-300
C722	Chip capacitor 0.022 μ F 25V		263-223M-1EJB-300
C723	Chip capacitor 0.047 μ F 25V		263-473M-1EJB-301
C724	Electrolytic capacitor 100 μ F 16V		250-101M-1C00-133
C725	Chip capacitor 0.1 μ F 25V		263-104M-1EJB-312
C726	Chip capacitor 0.047 μ F 25V		263-473M-1EJB-301
C727	Chip capacitor 0.1 μ F 25V		263-104M-1EJB-312
D601	Varactor diode SVC212	ETD-SVC212	305-0025-0000
D602	Varactor diode SVC212	ETD-SVC212	305-0025-0000
D603	Diode 1SV172	ETD-1SV172	304-0101-0000

MAIN CIRCUIT BOARD COMPONENT LOCATION GUIDE

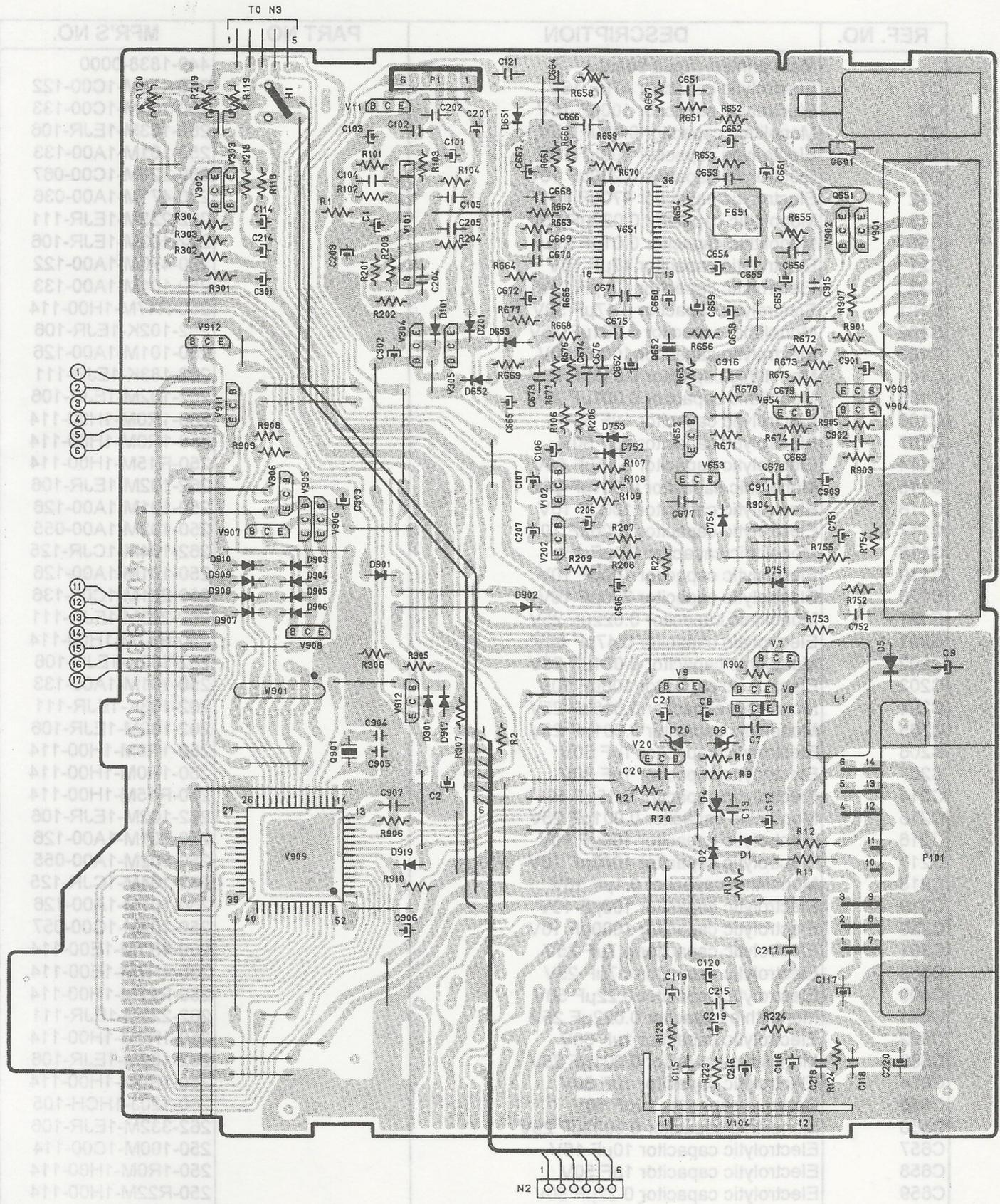
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
D604	Varactor diode SVC212	ETD-SVC212	305-0025-0000
D701	Varactor diode SVC354	ETD-SV354	305-0027-0000
D702	Diode HSM123	ETD-HSM123	304-0125-0000
F601	FM IFT	ELD-0540	351-0540-6600
F701	AM IFT 2	ELD-0546	351-0546-6600
F702	AM IFT 1	ELD-0545	351-0545-6600
L601	FM OSC coil	ELD-0547	351-0547-6600
L602	FM ANT/RF coil	ELA-0141	352-0141-6600
L603	Inductor 4.7 μ H	ELD-0334	351-0334-1200
L604	FM ANT/RF coil	ELA-0141	352-0141-6600
L701	AM OSC coil	ELD-0542	351-0542-6600
L702	AM RF 1 coil	ELD-0543	351-0543-6600
L703	AM RF 2 coil	ELD-0544	351-0544-6600
L704	AM ANT coil	ELD-0541	351-0541-6600
L705	Inductor 4.7 μ H	ELD-0334	351-0334-1200
L706	Inductor 4.7 μ H	ELD-0334	351-0334-1200
Q601	Ceramic filter	EOP-0082	360-0082-0400
Q701	Ceramic filter	EOP-0074	360-0074-0400
Q702	Ceramic filter	EOP-0016	360-0016-0400
R601	Chip resistor 220 ohm 0.1W \pm 5%		202-221J-2A00-150
R602	Chip resistor 330 ohm 0.1W \pm 5%		202-331J-2A00-150
R603	Chip resistor 68k ohm 0.1W \pm 5%		202-683J-2A00-150
R604	Chip resistor 100k ohm 0.1W \pm 5%		202-104J-2A00-150
R605	Chip resistor 68k ohm 0.1W \pm 5%		202-683J-2A00-150
R606	Chip resistor 2.2k ohm 0.1W \pm 5%		202-222J-2A00-150
R607	Chip resistor 8.2k ohm 0.1W \pm 5%		202-822J-2A00-150
R608	Chip resistor 220 ohm 0.1W \pm 5%		202-221J-2A00-150
R609	Chip resistor 100k ohm 0.1W \pm 5%		202-104J-2A00-150
R610	Chip resistor 120k ohm 0.1W \pm 5%		202-124J-2A00-140
R611	Chip resistor 100k ohm 0.1W \pm 5%		202-104J-2A00-150
R612	Chip resistor 68k ohm 0.1W \pm 5%		202-683J-2A00-150
R613	Chip resistor 68k ohm 0.1W \pm 5%		202-683J-2A00-150
R701	Chip resistor 3.3k ohm 0.1W \pm 5%		202-332J-2A00-150
R702	Chip resistor 8.2k ohm 0.1W \pm 5%		202-822J-2A00-150
R703	Chip resistor 10k ohm 0.1W \pm 5%		202-103J-2A00-150
R704	Chip resistor 2.7k ohm 0.1W \pm 5%		202-272J-2A00-150
R705	Chip resistor 120 ohm 0.1W \pm 5%		202-121J-2A00-150
R706	Chip resistor 220k ohm 0.1W \pm 5%		202-224J-2A00-150
R707	Chip resistor 1M ohm 0.1W \pm 5%		202-105J-2A00-150
R708	Chip resistor 10k ohm 0.1W \pm 5%		202-103J-2A00-150
R709	Chip resistor 2.2k ohm 0.1W \pm 5%		202-222J-2A00-150
R710	Chip resistor 10 ohm 0.1W \pm 5%		202-100J-2A00-140
R711	Chip resistor 10k ohm 0.1W \pm 5%		202-103J-2A00-150
R712	Chip resistor 220k ohm 0.1W \pm 5%		202-224J-2A00-150
R713	Chip resistor 0 ohm		202-0R00-2A00-140
TR01	Thermistor	ETS-0067	326-0067-0000
V601	FM F.End IC LA1175M	ETI-LA1175M	310-0415-0000
V602	FET 3SK195	ETTF-3SK195	300-0051-0000
V701	AM IC LA1135	ETI-LA1135	310-0148-0000
V702	FET 2SK494(C)	ETTF-2SK494	300-0057-1100
V703	Transistor 2SD601	ETTD-2SD601	302-0229-1101

TOP VIEW

MAIN CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW



BOTTOM VIEW

REF. NO.29 CTP-1985 MAIN CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
	Main printed circuit board		440-1838-0000
C1	Electrolytic capacitor 47 μ F 16V		250-470M-1C00-122
C2	Electrolytic capacitor 100 μ F 16V		250-101M-1C00-133
C7	Monolithic capacitor 0.01 μ F 25V		262-103M-1EJR-106
C8	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-133
C9	Electrolytic capacitor 2200 μ F 16V		250-222M-1C00-067
C12	Electrolytic capacitor 470 μ F 10V		250-471M-1A00-036
C13	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C20	Monolithic capacitor 0.01 μ F 25V		262-103M-1EJR-106
C21	Electrolytic capacitor 47 μ F 10V		250-470M-1A00-122
C22	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-133
C101	Electrolytic capacitor 0.47 μ F 50V		250-R47M-1H00-114
C102	Monolithic capacitor 0.001 μ F 25V		262-102K-1EJR-106
C103	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-126
C104	Monolithic capacitor 0.018 μ F 25V		262-183K-1EJR-111
C105	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C106	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C107	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C114	Electrolytic capacitor 0.15 μ F 50V		250-R15M-1H00-114
C115	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C116	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-126
C117	Electrolytic capacitor 1000 μ F 10V		250-102M-1A00-055
C118	Monolithic capacitor 0.1 μ F 16V		262-104M-1CJR-125
C119	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-126
C120	Electrolytic capacitor 220 μ F 16V		250-221M-1C00-136
C121	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C201	Electrolytic capacitor 0.47 μ F 50V		250-R47M-1H00-114
C202	Monolithic capacitor 0.001 μ F 25V		262-102K-1EJR-106
C203	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-133
C204	Monolithic capacitor 0.018 μ F 25V		262-183K-1EJR-111
C205	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C206	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C207	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C214	Electrolytic capacitor 0.15 μ F 50V		250-R15M-1H00-114
C215	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C216	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-126
C217	Electrolytic capacitor 1000 μ F 10V		250-102M-1A00-055
C218	Monolithic capacitor 0.1 μ F 16V		262-104M-1CJR-125
C219	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-126
C220	Electrolytic capacitor 1000 μ F 16V		250-102M-1C00-057
C301	Electrolytic capacitor 4.7 μ F 25V		250-4R7M-1E00-114
C302	Electrolytic capacitor 4.7 μ F 25V		250-4R7M-1E00-114
C303	Electrolytic capacitor 0.22 μ F 50V		250-R22M-1H00-114
C651	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C652	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C653	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C654	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C655	Ceramic capacitor 12pF 50V		260-120J-1HCH-105
C656	Monolithic capacitor 0.0033 μ F 25V		262-332M-1EJR-106
C657	Electrolytic capacitor 10 μ F 16V		250-100M-1C00-114
C658	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C659	Electrolytic capacitor 0.22 μ F 50V		250-R22M-1H00-114
C660	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C661	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C662	Electrolytic capacitor 100 μ F 10V		250-101M-1A00-133

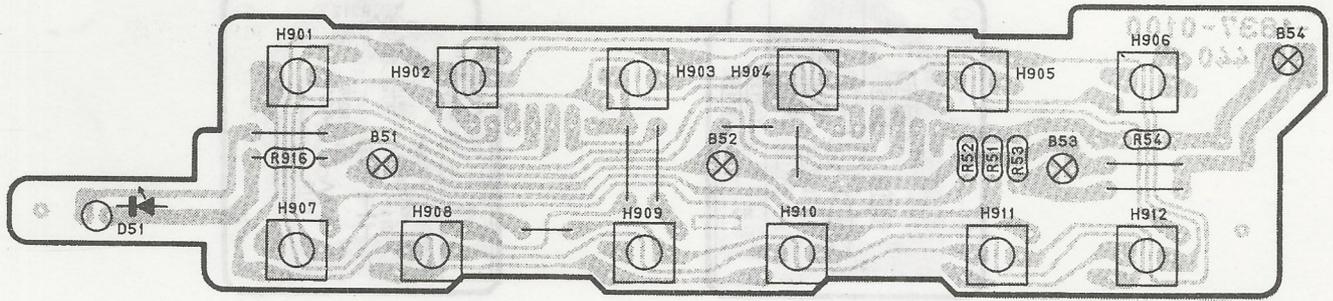
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
C663	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C664	Monolithic capacitor 0.047 μ F 25V		262-473M-1EJR-120
C665	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C666	Monolithic capacitor 0.01 μ F 25V		250-103M-1EJR-106
C667	Electrolytic capacitor 22 μ F 10V		250-220M-1A00-114
C668	Monolithic capacitor 0.0033 μ F 25V		262-332M-1EJR-106
C669	Monolithic capacitor 0.0068 μ F 25V		262-682K-1EJR-106
C670	Monolithic capacitor 0.0047 μ F 25V		262-472K-1EJR-106
C671	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C672	Electrolytic capacitor 4.7 μ F 25V		250-4R7M-1E00-114
C673	Monolithic capacitor 0.022 μ F 25V		262-223K-1EJR-111
C674	Monolithic capacitor 0.022 μ F 25V		262-223K-1EJR-111
C675	Monolithic capacitor 0.01 μ F 25V		250-103M-1EJR-106
C676	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C677	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C678	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C679	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C751	Electrolytic capacitor 1 μ F 50V		250-1R0M-1H00-114
C901	Electrolytic capacitor 2.2 μ F 50V		252-2R2M-1H00-114
C902	Monolithic capacitor 0.022 μ F 25V		262-223M-1EJR-111
C903	Electrolytic capacitor 220 μ F 16V		250-221M-1C00-136
C904	Ceramic capacitor 15pF 50V		260-150J-1HCH-106
C905	Ceramic capacitor 15pF 50V		260-150J-1HCH-106
C906	Electrolytic capacitor 22 μ F 6.3V		250-220M-0J00-114
C907	Monolithic capacitor 0.01 μ F 25V		250-103M-1EJR-106
C908	Ceramic capacitor 0.001 μ F 50V		261-102K-1HJB-105
C909	Monolithic capacitor 0.01 μ F 25V		250-103M-1EJR-106
C910	Ceramic capacitor 0.001 μ F 50V		261-102K-1HJB-105
C911	Monolithic capacitor 0.001 μ F 25V		262-102M-1EJR-106
C915	Ceramic capacitor 680pF 50V		261-681K-1HJB-105
C916	Monolithic capacitor 0.01 μ F 25V		250-103M-1EJR-106
D1	Diode MA165	ETD-MA165	304-0037-0001
D2	Diode MA165	ETD-MA165	304-0037-0001
D3	Zener diode HZS10N(B1)	ETD-HZS10N	306-0101-1001
D4	Zener diode HZS5.6N(B2)	ETD-HZS5.6N	306-0095-1101
D5	Diode DSA3A(4)	ETD-DSA3A	304-0100-1200
D20	Zener diode HZS10N(B1)	ETD-HZS10N	306-0101-1001
D101	Diode MA165	ETD-MA165	304-0037-0001
D201	Diode MA165	ETD-MA165	304-0037-0001
D301	Diode MA165	ETD-MA165	304-0037-0001
D302	Diode MA165	ETD-MA165	304-0037-0001
D651	Diode MA165	ETD-MA165	304-0037-0001
D652	Diode MA165	ETD-MA165	304-0037-0001
D653	Diode MA165	ETD-MA165	304-0037-0001
D751	Diode MA165	ETD-MA165	304-0037-0001
D752	Diode MA165	ETD-MA165	304-0037-0001
D753	Diode MA165	ETD-MA165	304-0037-0001
D754	Diode MA165	ETD-MA165	304-0037-0001
D901	Diode MA165	ETD-MA165	304-0037-0001
D902	Diode MA165	ETD-MA165	304-0037-0001
D903	Diode MA165	ETD-MA165	304-0037-0001
D904	Diode MA165	ETD-MA165	304-0037-0001
D905	Diode MA165	ETD-MA165	304-0037-0001
D906	Diode MA165	ETD-MA165	304-0037-0001
D907	Diode MA165	ETD-MA165	304-0037-0001

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
D908	Diode MA165	ETD-MA165	304-0037-0001
D909	Diode MA165	ETD-MA165	304-0037-0001
D910	Diode MA165	ETD-MA165	304-0037-0001
D919	Diode MA165	ETD-MA165	304-0037-0001
F651	Detector coil	ELD-0533	351-0533-1300
G601	Surge protector	EIN-0005	431-0005-0000
L1	Toroidal coil	ELD-0213	351-0213-5700
P1	6P plug	ESC-0231	412-0231-0000
P101	14P plug	ESC-0578	412-0578-0000
Q651	Ceramic filter	EOP-0010	360-0010-0401
Q652	Ceramic resonator	EOC-0051	361-0051-0400
Q901	Crystal 4.5MHz	EOC-0022	361-0022-4600
R1	Carbon film resistor 150 ohm 1/6W ±5%		200-151J-2C00-110
R2	Carbon film resistor 3.3 ohm 1/6W ±5%		200-3R3J-2C00-110
R9	Carbon film resistor 2.2 ohm 1/6W ±5%		200-2R2J-2C00-110
R10	Carbon film resistor 1k ohm 1/6W ±5%		200-102J-2C00-110
R11	Carbon film resistor 2.2 ohm 1/6W ±5%		200-2R2J-2C00-110
R12	Carbon film resistor 2.2k ohm 1/6W ±5%		200-222J-2C00-110
R13	Carbon film resistor 330 ohm 1/6W ±5%		200-331J-2C00-110
R20	Carbon film resistor 2.2 ohm 1/6W ±5%		200-2R2J-2C00-110
R21	Carbon film resistor 1k ohm 1/6W ±5%		200-102J-2C00-110
R22	Carbon film resistor 100 ohm 1/6W ±5%		200-101J-2C00-110
R101	Carbon film resistor 100 ohm 1/6W ±5%		200-101J-2C00-110
R102	Carbon film resistor 8.2k ohm 1/6W ±5%		200-822J-2C00-110
R103	Carbon film resistor 120k ohm 1/6W ±5%		200-124J-2C00-110
R104	Carbon film resistor 2.2k ohm 1/6W ±5%		200-222J-2C00-110
R106	Carbon film resistor 10k ohm 1/6W ±5%		200-103J-2C00-110
R107	Carbon film resistor 680k ohm 1/6W ±5%		200-684J-2C00-110
R108	Carbon film resistor 1k ohm 1/6W ±5%		200-102J-2C00-110
R109	Carbon film resistor 150 ohm 1/6W ±5%		200-151J-2C00-110
R118	Carbon film resistor 1.5k ohm 1/6W ±5%		200-152J-2C00-110
R119	Variable resistor with switch	ECRV-0102	341-0102-0101
R123	Carbon film resistor 47 ohm 1/6W ±5%		200-470J-2C00-110
R124	Carbon film resistor 4.7 ohm 1/6W ±5%		200-4R7J-2C00-110
R201	Carbon film resistor 100 ohm 1/6W ±5%		200-101J-2C00-110
R202	Carbon film resistor 8.2k ohm 1/6W ±5%		200-822J-2C00-110
R203	Carbon film resistor 120k ohm 1/6W ±5%		200-124J-2C00-110
R204	Carbon film resistor 2.2k ohm 1/6W ±5%		200-222J-2C00-110
R206	Carbon film resistor 10k ohm 1/6W ±5%		200-103J-2C00-110
R207	Carbon film resistor 680k ohm 1/6W ±5%		200-684J-2C00-110
R208	Carbon film resistor 1k ohm 1/6W ±5%		200-102J-2C00-110
R209	Carbon film resistor 150 ohm 1/6W ±5%		200-151J-2C00-110
R218	Carbon film resistor 1.5k ohm 1/6W ±5%		200-152J-2C00-110
R223	Carbon film resistor 47 ohm 1/6W ±5%		200-470J-2C00-110
R224	Carbon film resistor 4.7 ohm 1/6W ±5%		200-4R7J-2C00-110
R301	Carbon film resistor 4.7k ohm 1/6W ±5%		200-472J-2C00-110
R302	Carbon film resistor 47k ohm 1/6W ±5%		200-473J-2C00-110
R303	Carbon film resistor 15k ohm 1/6W ±5%		200-153J-2C00-110
R304	Carbon film resistor 15k ohm 1/6W ±5%		200-153J-2C00-110
R305	Carbon film resistor 8.2k ohm 1/6W ±5%		200-822J-2C00-110
R306	Carbon film resistor 4.7k ohm 1/6W ±5%		200-472J-2C00-110
R307	Carbon film resistor 2.2k ohm 1/6W ±5%		200-222J-2C00-110
R651	Carbon film resistor 3.9k ohm 1/6W ±5%		200-392J-2C00-110
R652	Carbon film resistor 390 ohm 1/6W ±5%		200-391J-2C00-110
R653	Carbon film resistor 8.2k ohm 1/6W ±5%		200-822J-2C00-110

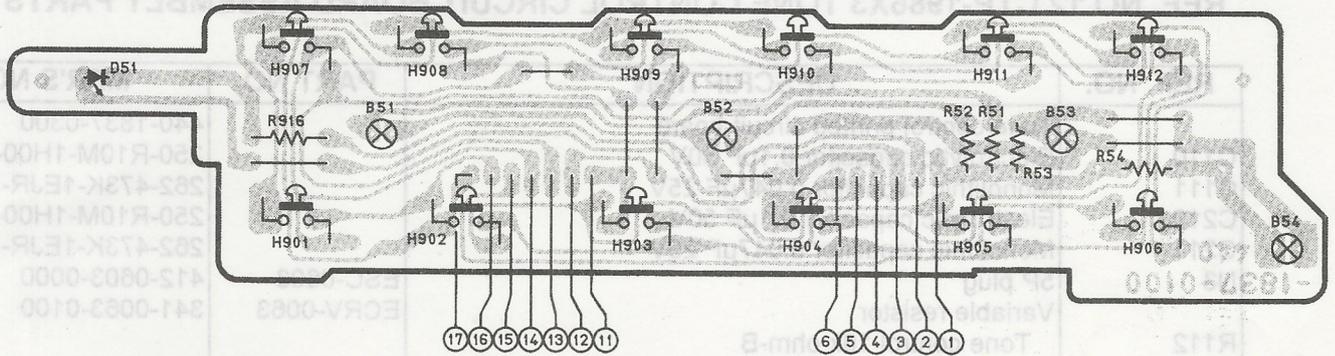
REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
R654	Carbon film resistor 15k ohm 1/6W ±5%	ECRV-0403	200-153J-2C00-110
R655	Trimmer resistor 47k ohm-B		340-0403-0100
R656	Carbon film resistor 5.6k ohm 1/6W ±5%	ECRV-0397	200-562J-2C00-110
R657	Carbon film resistor 4.7 ohm 1/6W ±5%		200-4R7J-2C00-110
R658	Trimmer resistor 10k ohm-B	340-0397-0100	
R659	Carbon film resistor 3.9k ohm 1/6W ±5%	200-392J-2C00-110	
R660	Carbon film resistor 27k ohm 1/6W ±5%	200-273J-2C00-110	
R661	Carbon film resistor 47k ohm 1/6W ±5%	200-473J-2C00-110	
R662	Carbon film resistor 6.8k ohm 1/6W ±5%	200-682J-2C00-110	
R663	Carbon film resistor 6.8k ohm 1/6W ±5%	200-682J-2C00-110	
R664	Carbon film resistor 82k ohm 1/6W ±5%	200-823J-2C00-110	
R665	Carbon film resistor 2.7k ohm 1/6W ±5%	200-272J-2C00-110	
R666	Carbon film resistor 27k ohm 1/6W ±5%	200-273J-2C00-110	
R667	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R668	Carbon film resistor 27k ohm 1/6W ±5%	200-273J-2C00-110	
R669	Carbon film resistor 27k ohm 1/6W ±5%	200-273J-2C00-110	
R670	Carbon film resistor 47k ohm 1/6W ±5%	200-473J-2C00-110	
R671	Carbon film resistor 22k ohm 1/6W ±5%	200-223J-2C00-110	
R672	Carbon film resistor 3.3k ohm 1/6W ±5%	200-332J-2C00-110	
R673	Carbon film resistor 3.3k ohm 1/6W ±5%	200-332J-2C00-110	
R674	Carbon film resistor 330 ohm 1/6W ±5%	200-331J-2C00-110	
R675	Carbon film resistor 1k ohm 1/6W ±5%	200-102J-2C00-110	
R676	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R677	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R678	Carbon film resistor 10 ohm 1/6W ±5%	200-100J-2C00-110	
R679	Carbon film resistor 1.5k ohm 1/6W ±5%	200-152J-2C00-110	
R680	Carbon film resistor 1M ohm 1/6W ±5%	200-105M-2C00-110	
R752	Carbon film resistor 27k ohm 1/6W ±5%	200-273J-2C00-110	
R753	Carbon film resistor 10 ohm 1/6W ±5%	200-100J-2C00-110	
R754	Carbon film resistor 10k ohm 1/6W ±5%	200-103J-2C00-110	
R755	Carbon film resistor 47k ohm 1/6W ±5%	200-473J-2C00-110	
R901	Carbon film resistor 100 ohm 1/6W ±5%	200-101J-2C00-110	
R902	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R903	Carbon film resistor 10k ohm 1/6W ±5%	200-103J-2C00-110	
R904	Carbon film resistor 1k ohm 1/6W ±5%	200-102J-2C00-110	
R905	Carbon film resistor 1k ohm 1/6W ±5%	200-102J-2C00-110	
R906	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R907	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R908	Carbon film resistor 4.7k ohm 1/6W ±5%	200-472J-2C00-110	
R909	Carbon film resistor 22k ohm 1/6W ±5%	200-223J-2C00-110	
R910	Carbon film resistor 3.3M ohm 1/6W ±5%	200-335J-2C00-110	
V6	Transistor 2SD1994A(R)	ETTD-2SD1994A	302-0207-1101-006
V7	Transistor UN4115(R)	ETTA-UN4115	301-0116-1101-006
V8	Transistor 2SA1524	ETTA-2SA1524	301-0119-0001
V9	Transistor UN4212	ETTC-UN4212	302-0216-0001
V11	Transistor UN4212	ETTC-UN4212	302-0216-0001
V20	Transistor 2SC3330(S)	ETTC-2SC3330	302-0231-1201-006
V101	Pre amplifier IC LA3161	ETI-LA3161	310-0071-0000
V102	Transistor 2SC3330(S)	ETTC-2SC3330	302-0231-1201-006
V104	Power amplifier IC LA4445	ETI-LA4445	310-0317-0000
V202	Transistor 2SC3330(S)	ETTC-2SC3330	302-0231-1201-006
V301	Transistor UN411D	ETTA-UN411D	301-0095-0001
V302	Transistor 2SD1021(E)	ETTD-2SD1021	302-0097-1401-028
V303	Transistor 2SD1021(E)	ETTD-2SD1021	302-0097-1401-028
V304	Transistor DTC114TS	ETTC-DTC114TS	302-0134-0001

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
V305	Transistor DTC114TS	ETTC-DTC114TS	302-0134-0001
V306	Transistor UN411D	ETTA-UN411D	301-0095-0001
V651	IC LA1862M	ETI-LA1862M	310-0490-0000
V652	Transistor DTC125TS	ETTC-DTC125TS	302-0206-0001
V653	Transistor UN4212	ETTC-UN4212	302-0216-0001
V654	Transistor 2SC2786(L)	ETTC-2SC2786	302-0069-1101-006
V901	Transistor UN4212	ETTC-UN4212	302-0216-0001
V902	Transistor UN4212	ETTC-UN4212	302-0216-0001
V903	Transistor 2SC2458L(BL)	ETTC-2SC2458L	302-0078-1401
V904	Transistor 2SC2458L(BL)	ETTC-2SC2458L	302-0078-1401
V905	Transistor DTC125TS	ETTC-DTC125TS	302-0206-0001
V906	Transistor DTC125TS	ETTC-DTC125TS	302-0206-0001
V907	Transistor DTA125TS	ETTA-DTA125TS	301-0101-0001
V908	Transistor DTA125TS	ETTA-DTA125TS	301-0101-0001
V909	IC μ PD1708AG-338-00	ETI- μ PD1708AG	310-0491-0000
V911	Transistor UN4212	ETTC-UN4212	302-0216-0001
V912	Transistor UN4112	ETTA-UN4112	301-0100-0001
W901	Resistor array 33k ohm x 6 6P plug Holder - IC Aerial socket Bind head tapping screw 3 x 8	ECX-0065 ESC-0628 PL-7404 ESJ-0338 088308	370-0065-0100 412-0628-0000 100-7404-0000 411-0338-0000 014-0300-0800-227

SWITCH CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW

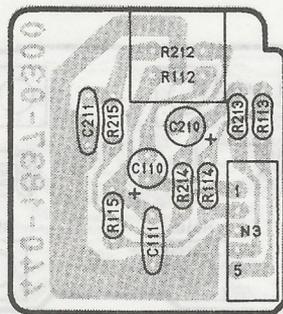


BOTTOM VIEW

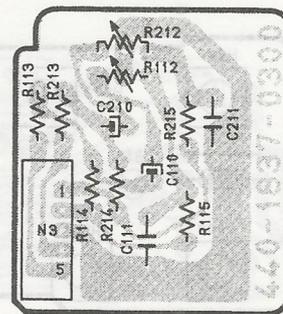
REF. NO.9 CTP-1986X1 SWITCH CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
	Switch printed circuit board		440-1837-0100
B51	Pilot lamp	EIL-0252	430-0252-0000
B52	Pilot lamp	EIL-0252	430-0252-0000
B53	Pilot lamp	EIL-0252	430-0252-0000
B54	Pilot lamp	EIL-0252	430-0252-0000
D51	LED TLR206	ETD-TLR206	320-0120-0000
H901	Tact switch	ESS-0611	400-0611-0201
H902	Tact switch	ESS-0611	400-0611-0201
H903	Tact switch	ESS-0611	400-0611-0201
H904	Tact switch	ESS-0611	400-0611-0201
H905	Tact switch	ESS-0611	400-0611-0201
H906	Tact switch	ESS-0611	400-0611-0201
H907	Tact switch	ESS-0611	400-0611-0201
H908	Tact switch	ESS-0611	400-0611-0201
H909	Tact switch	ESS-0611	400-0611-0201
H910	Tact switch	ESS-0611	400-0611-0201
H911	Tact switch	ESS-0611	400-0611-0201
H912	Tact switch	ESS-0611	400-0611-0201
R51	Carbon film resistor 10 ohm 1/6W ±5%		200-100J-2C00-110
R52	Carbon film resistor 10 ohm 1/6W ±5%		200-100J-2C00-110
R53	Carbon film resistor 10 ohm 1/6W ±5%		200-100J-2C00-110
R54	Carbon film resistor 10 ohm 1/6W ±5%		200-100J-2C00-110
R916	Carbon film resistor 1.2k ohm 1/6W ±5%		200-122J-2C00-110
	LED spacer LH-5-6	MP-4805	131-4805-0000

TONE CONTROL CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW

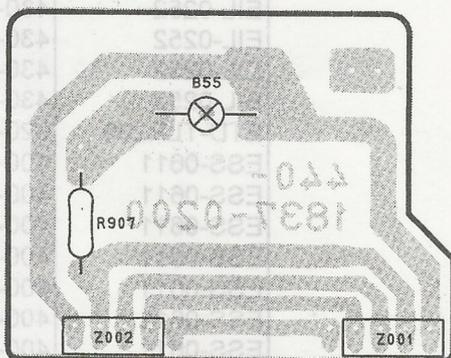


BOTTOM VIEW

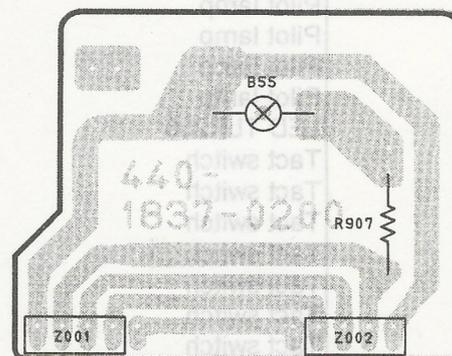
REF. NO.12 CTP-1986X3 TONE CONTROL CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
C110	Tone control printed circuit board		440-1837-0300
C110	Electrolytic capacitor 0.1 μ F 50V		250-R10M-1H00-114
C111	Monolithic capacitor 0.047 μ F 25V		262-473K-1EJR-120
C210	Electrolytic capacitor 0.1 μ F 50V		250-R10M-1H00-114
C211	Monolithic capacitor 0.047 μ F 25V		262-473K-1EJR-120
N3	5P plug	ESC-0603	412-0603-0000
	Variable resistor	ECRV-0063	341-0063-0100
R112	Tone control 10k ohm-B		
R212	Tone control 10k ohm-B		
R113	Carbon film resistor 1k ohm 1/6W \pm 5%		200-102J-2C00-110
R114	Carbon film resistor 1.5k ohm 1/6W \pm 5%		200-152J-2C00-110
R115	Carbon film resistor 2.2k ohm 1/6W \pm 5%		200-222J-2C00-110
R213	Carbon film resistor 1k ohm 1/6W \pm 5%		200-102J-2C00-110
R214	Carbon film resistor 1.5k ohm 1/6W \pm 5%		200-152J-2C00-110
R215	Carbon film resistor 2.2k ohm 1/6W \pm 5%		200-222J-2C00-110

LAMP CIRCUIT BOARD COMPONENT LOCATION GUIDE



TOP VIEW

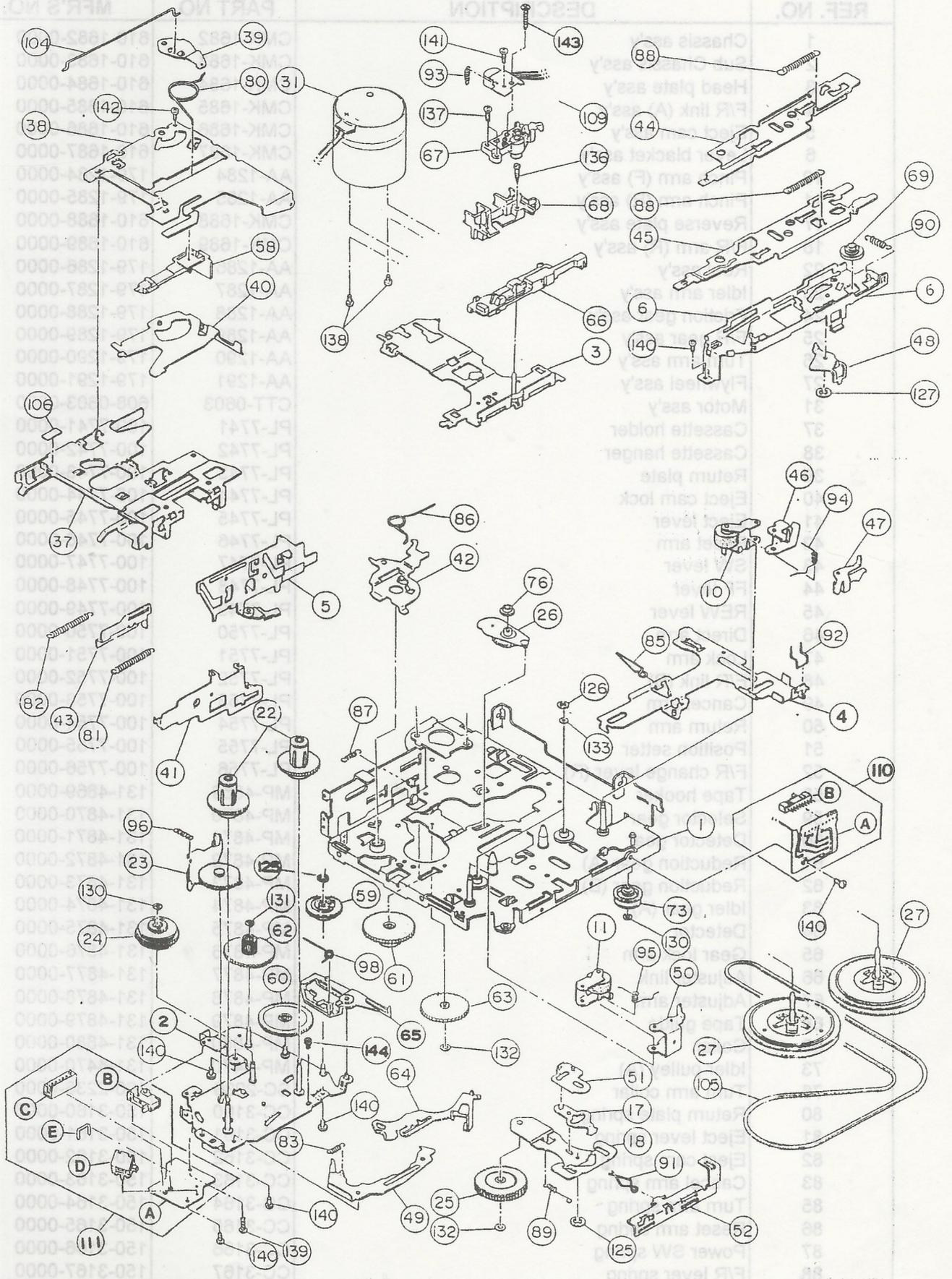


BOTTOM VIEW

REF. NO.30 CTP-1986X2 LAMP CIRCUIT BOARD ASSEMBLY PARTS LIST

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
	Lamp printed circuit board		440-1837-0200
B55	Pilot lamp	EIL-0255	430-0255-0000
R907	Carbon film resistor 10 ohm 1/6W \pm 5%	ESC-0096	200-100J-2C00-110
	4P L angle plug		410-0096-0000

EXPLODED VIEW - MECHANISM

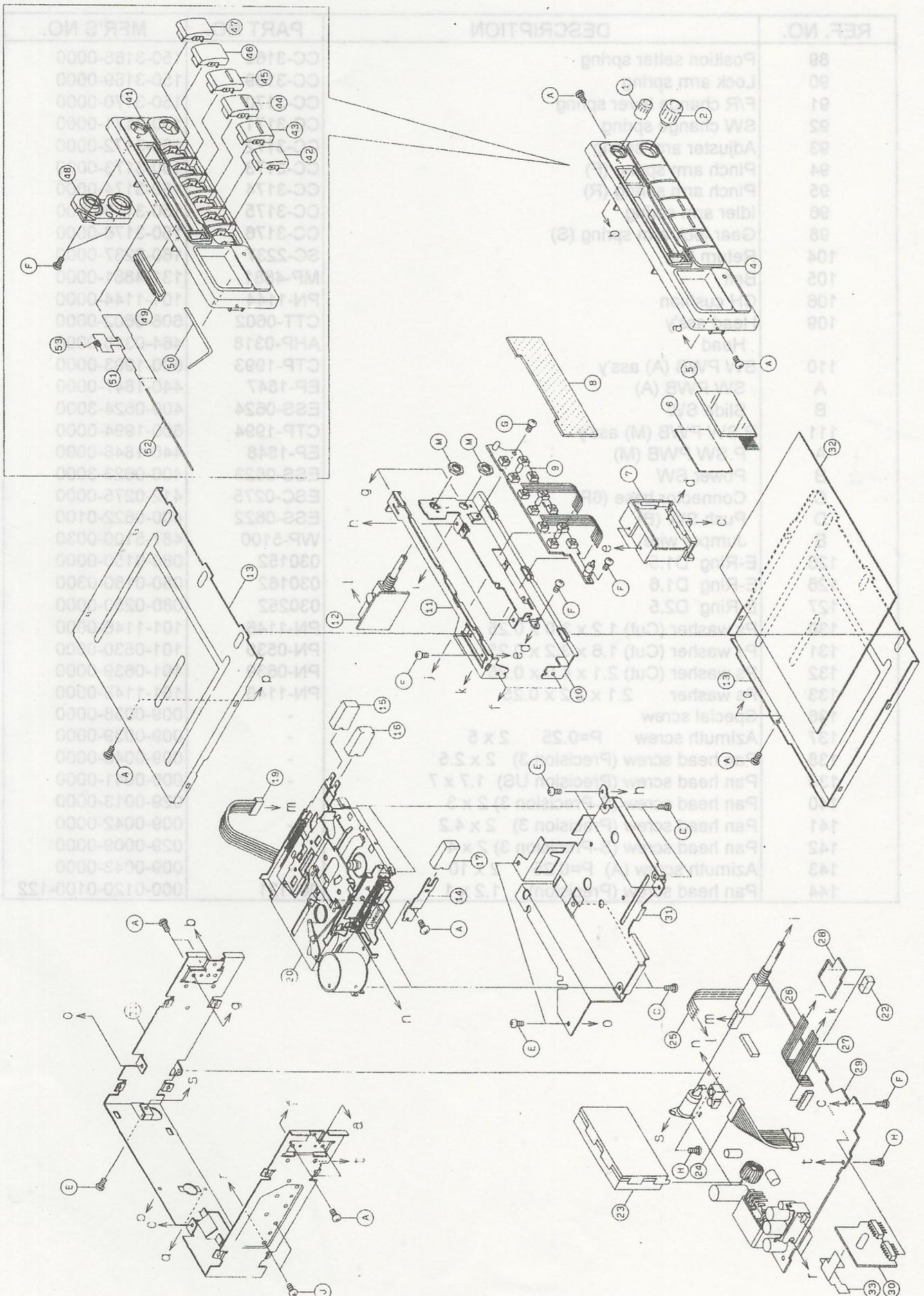


MECHANICAL PARTS LIST - MECHANISM

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
1	Chassis ass'y	CMK-1682	610-1682-0000
2	Sub Chassis ass'y	CMK-1683	610-1683-0000
3	Head plate ass'y	CMK-1684	610-1684-0000
4	F/R link (A) ass'y	CMK-1685	610-1685-0000
5	Eject cam ass'y	CMK-1686	610-1686-0000
6	Lever bracket ass'y	CMK-1687	610-1687-0000
10	Pinch arm (F) ass'y	AA-1284	179-1284-0000
11	Pinch arm (R) ass'y	AA-1285	179-1285-0000
17	Reverse plate ass'y	CMK-1688	610-1688-0000
18	F/R arm (R) ass'y	CMK-1689	610-1689-0000
22	Reel ass'y	AA-1286	179-1286-0000
23	Idler arm ass'y	AA-1287	179-1287-0000
24	Friction gear ass'y	AA-1288	179-1288-0000
25	F/R gear ass'y	AA-1289	179-1289-0000
26	Turn arm ass'y	AA-1290	179-1290-0000
27	Flywheel ass'y	AA-1291	179-1291-0000
31	Motor ass'y	CTT-0603	608-0603-0000
37	Cassette holder	PL-7741	100-7741-0000
38	Cassette hanger	PL-7742	100-7742-0000
39	Return plate	PL-7743	100-7743-0000
40	Eject cam lock	PL-7744	100-7744-0000
41	Eject lever	PL-7745	100-7745-0000
42	Reset arm	PL-7746	100-7746-0000
43	SW lever	PL-7747	100-7747-0000
44	FF lever	PL-7748	100-7748-0000
45	REW lever	PL-7749	100-7749-0000
46	Direct arm	PL-7750	100-7750-0000
47	Lock arm	PL-7751	100-7751-0000
48	F/R link (B)	PL-7752	100-7752-0000
49	Cancel arm	PL-7753	100-7753-0000
50	Return arm	PL-7754	100-7754-0000
51	Position setter	PL-7755	100-7755-0000
52	F/R change lever (R)	PL-7756	100-7756-0000
58	Tape hooker	MP-4869	131-4869-0000
59	Selector gear	MP-4870	131-4870-0000
60	Detector gear	MP-4871	131-4871-0000
61	Reduction gear (A)	MP-4872	131-4872-0000
62	Reduction gear (B)	MP-4873	131-4873-0000
63	Idler gear (A)	MP-4874	131-4874-0000
64	Detector	MP-4875	131-4875-0000
65	Gear lock arm	MP-4876	131-4876-0000
66	Adjuster link	MP-4877	131-4877-0000
67	Adjuster arm	MP-4878	131-4878-0000
68	Tape guide	MP-4879	131-4879-0000
69	Collar	MP-4880	131-4880-0000
73	Idler pulley (A)	MP-4470	131-4470-0000
76	Turn arm collar	SC-2236	160-2236-0000
80	Return plate spring	CC-3160	150-3160-0000
81	Eject lever spring	CC-3161	150-3161-0000
82	Eject cam spring	CC-3162	150-3162-0000
83	Cancel arm spring	CC-3163	150-3163-0000
85	Turn arm spring	CC-3164	150-3164-0000
86	Reset arm spring	CC-3165	150-3165-0000
87	Power SW spring	CC-3166	150-3166-0000
88	F/R lever spring	CC-3167	150-3167-0000

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
89	Position setter spring	CC-3168	150-3168-0000
90	Lock arm spring	CC-3169	150-3169-0000
91	F/R change lever spring	CC-3170	150-3170-0000
92	SW change spring	CC-3171	150-3171-0000
93	Adjuster arm spring	CC-3172	150-3172-0000
94	Pinch arm spring (F)	CC-3173	150-3173-0000
95	Pinch arm spring (R)	CC-3174	150-3174-0000
96	Idler arm spring	CC-3175	150-3175-0000
98	Gear lock arm spring (S)	CC-3176	150-3176-0000
104	Return link	SC-2237	160-2237-0000
105	Belt	MP-4881	131-4881-0000
106	CH cushion	PN-1144	101-1144-0000
109	Head ass'y	CTT-0602	608-0602-0000
	Head	AHP-0318	464-0318-0000
110	SW PWB (A) ass'y	CTP-1993	600-1993-0000
A	SW PWB (A)	EP-1847	440-1847-0000
B	Slide SW	ESS-0624	400-0624-3000
111	P.SW PWB (M) ass'y	CTP-1994	600-1994-0000
A	P.SW PWB (M)	EP-1848	440-1848-0000
B	Power SW	ESS-0623	400-0623-3000
C	Connector base (6P)	ESC-0275	412-0275-0000
D	Push SW (B)	ESS-0622	400-0622-0100
E	Jumper wire	WP-5100	487-5100-0030
125	E-Ring D1.5	030152	080-0150-0000
126	E-Ring D1.6	030162	080-0160-0300
127	E-Ring D2.5	030252	080-0250-0000
130	Ps washer (Cut) 1.2 x 3.0 x 0.25	PN-1146	101-1146-0000
131	Ps washer (Cut) 1.6 x 3.2 x 0.25	PN-0530	101-0530-0000
132	Ps washer (Cut) 2.1 x 4.0 x 0.25	PN-0639	101-0639-0000
133	Ps washer 2.1 x 3.2 x 0.25	PN-1148	101-1148-0000
136	Special screw	-	009-0038-0000
137	Azimuth screw P=0.25 2 x 5	-	009-0039-0000
138	Pan head screw (Precision 3) 2 x 2.5	-	009-0040-0000
139	Pan head screw (Precision US) 1.7 x 7	-	009-0041-0000
140	Pan head screw (S-Precision 3) 2 x 3	-	029-0013-0000
141	Pan head screw (Precision 3) 2 x 4.2	-	009-0042-0000
142	Pan head screw (S-Precision 3) 2 x 4	-	029-0009-0000
143	Azimuth screw (A) P=0.25 2 x 10	-	009-0043-0000
144	Pan head screw (Precision) 1.2 x 1	006121	000-0120-0100-122

EXPLODED VIEW - CABINET



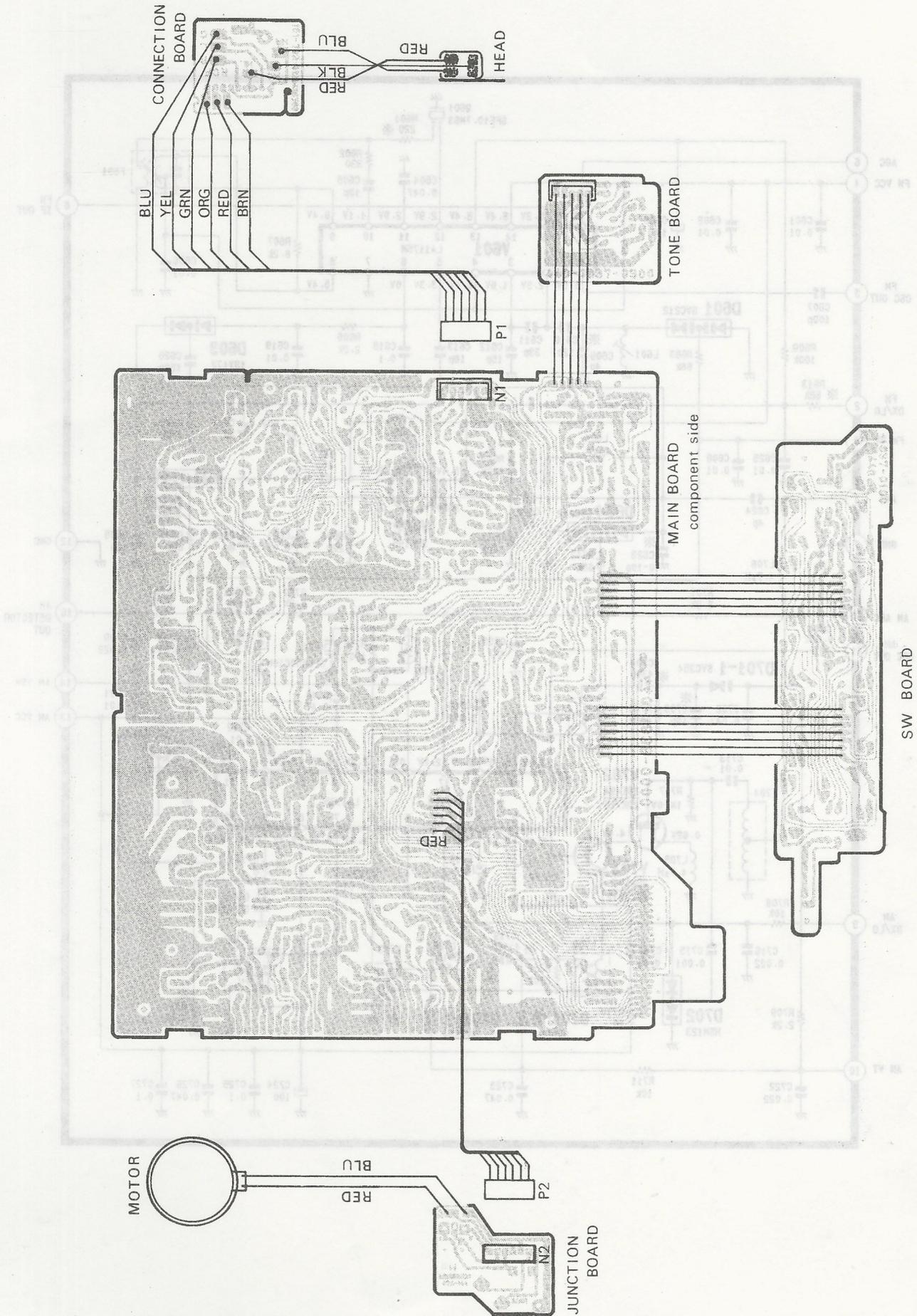
MECHANICAL PARTS LIST - CABINET

REF. NO.	DESCRIPTION	PART NO.	MFR'S NO.
1	Control knob	MP-4806	131-4806-0000
2	Volume knob	MP-4807	131-4807-0000
4	Escutcheon ass'y	CMM-0777	613-0777-0003
5	LCD panel	EIX-0042	333-0042-0000
6	Reflection plate - LCD	HPN-1607	181-1607-0000
7	Holder - LCD	MP-4802	131-4802-0001
8	Cushion	PN-1267	101-1267-0000
9	Switch PC board ass'y	CTP-1986X1	600-1986-0101
10	Front chassis	PL-7672	100-7672-0001
11	Sub front chassis	PL-7673	100-7673-0000
12	Tone control PC board ass'y	CTP-1986X3	600-1986-0300
13	Lid	PL-7724	100-7724-0000
14	Eject lever	PL-7403	100-7403-0002
15	Button - FF	MP-4857X2	131-4857-0200
16	Button - FR	MP-4857X1	131-4857-0100
17	Button - Eject	MP-4857	131-4857-0000
19	6P socket with wires	AH-0327	421-0327-0001
20	Autoreverse cassette mechanism	CDS-101 RM	626-0023-0000
21	Side chassis	PL-7723	100-7723-0001
22	Spacer	PN-1306	101-1306-0000
23	AM/FM tuner	AR-0231	625-0231-0000
24	6P socket with wires	AH-0256	421-0256-0000
25	5P flat cable	WX-0312	471-0312-0000
26	6P flat cable	WX-0313	471-0313-0000
27	7P flat cable	WX-0314	471-0314-0000
28	Interface PC board ass'y	CTP-1964	600-1964-0000
	Interface printed circuit board	EP-1789	440-1789-0000
	Diode MA165	ETD-MA165	304-0037-0001
29	Main PC board ass'y	CTP-1985	600-1985-0001
30	Lamp PC board ass'y	CTP-1986X2	600-1986-0200
31	Holder - Mechanism	PL-7676	100-7676-0001
32	Insulation paper	PN-1268	101-1268-0000
33	Fixing plate	PN-1312	101-1312-0100
41	Escutcheon	MP-4794X3	131-4794-0302
42	Button - Tune	MP-4796X1	131-4796-0100
43	Button - 1, 4	MP-4797X1	131-4797-0100
44	Button - 2, 5	MP-4798X1	131-4798-0100
45	Button - 3, 6	MP-4799X1	131-4799-0100
46	Button - LOCAL, AUTO STORE	MP-4800X1	131-4800-0100
47	Button - AM/FM, TIME, FREQ	MP-4801X1	131-4801-0100
48	Light guide - Volume	MP-4804	131-4804-0000
49	Light guide - Cassette door	MP-4803	131-4803-0001
50	Electrostatic eraser	HPP-1719	800-1719-0000
51	Cassette door	PL-7397X9	100-7397-0904
52	Door shaft	CC-3132	150-3132-0000
53	Door spring	SC-2186	160-2186-0000
A	Pan head screw 2.6 x 3	006263	000-0260-0300-021
C	Pan head screw 3 x 4	006304	000-0300-0400-020
E	Pan head screw 2.6 x 5 (S-tight)	006265ST	020-0260-0500-121
F	Pan head screw 2 x 6 (P-tight)	006206PT	020-0200-0600-420
G	SEMS screw 2 x 4	093204	050-0200-0400-120
H	SEMS screw 2.6 x 5	093265	050-0260-0500-120
J	Pan head screw 2.6 x 8 (S-tight)	006268ST	020-0260-0800-121
M	Hexagon nut D7	020720	069-0003-0000

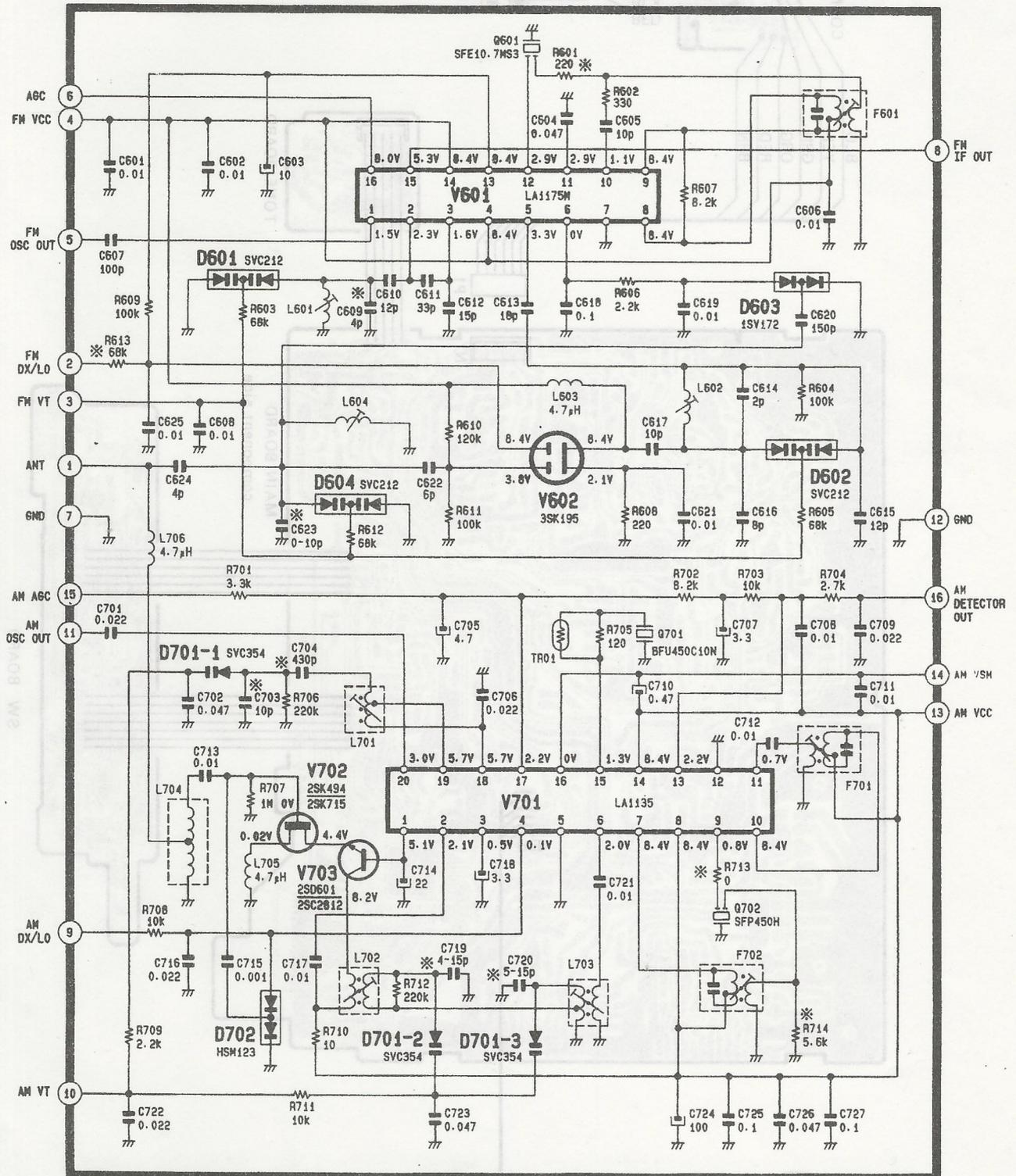
MECHANICAL CABINET
ACCESSORY LIST

DESCRIPTION	PART NO.	MFR'S NO.	Q'TY
Pan head screw 3 x 4	006304	000-0300-0400-020	6
Hexagon nut D7	020720		M
Pan head screw 2.8 x 8 (S-tight)	008288T		J
SEMS screw 2.8 x 8	008288		H
SEMS screw 2 x 4	008304		G
Pan head screw 2 x 8 (P-tight)	008288PT		F
Pan head screw 2.8 x 5 (S-tight)	008288T		E
Pan head screw 3 x 4	008304		C
Pan head screw 2.8 x 3	008288		A
Door spring	SC-2188		23
Door shaft	CC-3132		22
Cassette door	PL-7387X9		21
Electrostatic eraser	HPP-1719		20
Light guide - Cassette door	MP-4803		19
Light guide - Volume	MP-4804		18
Button - AMFM, TIME, FREQ	MP-4801X1		17
Button - LOCAL, AUTO STORE	MP-4800X1		16
Button - 3, 6	MP-4788X1		15
Button - 2, 5	MP-4788X1		14
Button - 1, 4	MP-4787X1		13
Button - Tune	MP-4786X1		12
Escutcheon	MP-4784X3		11
Fixing plate	PN-1312		10
Insulation paper	PN-1288		9
Holder - Mechanism	PL-7878		8
Lamp PC board ass'y	CTP-1988X2		7
Main PC board ass'y	CTP-1988		6
Diode MA185	ETD-MA185		5
Interface printed circuit board	EP-1789		4
Interface PC board ass'y	CTP-1984		3
TP flat cable	WX-0314		27
8P flat cable	WX-0313		28
5P flat cable	WX-0312		25
8P socket with wires	AH-0258		24
AMFM tuner	AR-0281		23
Spacer	PN-1308		22
Side chassis	PL-7723		21
Autoreverse cassette mechanism	CGS-101 RM		20
6P socket with wires	AH-0327		19
Button - Eject	MP-4857		17
Button - FR	MP-4857X1		18
Button - FF	MP-4857X2		15
Eject lever	PL-7403		14
Lid	PL-7724		13
Tone control PC board ass'y	CTP-1988X3		12
Sub front chassis	PL-7873		11
Front chassis	PL-7872		10
Switch PC board ass'y	CTP-1988X1		9
Cushion	PN-1287		8
Holder - LCD	MP-4802		7
Reflection plate - LCD	HPN-1807		6
LCD panel	EX-0042		5
Escutcheon ass'y	GMM-0777		4
Volume knob	MP-4807		2

WIRING LAYOUT



SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM

