

EXR-10/XR-2300

SERVICE MANUAL

US Model

EXR-10

US Model

Canadian Model

XR-2300



Photo: XR-2300 model

Model Name Using Similar Mechanism	EXR-12, XR-6077
Tape Transport Mechanism Type	MG-36SHJ-32

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

4 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 150 to 20,000 Hz with no more than 1.5% total harmonic distortion.

Tuner section

FM	
Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector/Power antenna relay control lead
Usable sensitivity	13 dBf (75 ohms)
Selectivity	more than 70 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (monaural)
Harmonic distortion at 1 kHz	0.9% (stereo), 0.5% (monaural)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz (± 3 dB)
Capture ratio	2.0 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector/Power antenna relay control lead
Sensitivity	32 μ V

Cassette player section

Tape track	4-track 2-channel stereo
Frequency response	30 – 15,000 Hz
Signal-to-noise ratio	55 dB with TYPE I cassettes
Wow and flutter	0.15%

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	7.5 W \times 2 (at 4 ohms) 4 W \times 4 (at 4 ohms)

General

Tone controls	Bass ± 8 dB at 100 Hz Treble ± 8 dB at 10 kHz
Loudness	+10 dB at 100 Hz
Power requirements	12 V DC car battery (negative ground)
Mounting dimensions	Approx. 178 \times 50 \times 134 mm (w/h/d) (7 1/8 \times 2 \times 5 3/8 in.)
Mass	Approx. 1.2 kg (2 lb, 10 oz.)
Accessories supplied	Mounting hardware (1 set) Power connecting cord (1)

Design and specifications subject to change without notice.

FM/AM CASSETTE CAR STEREO
SONY®



Features

Tuner section

- SSIR (Sony Super Interference Rejection) PLL Synthesizer tuner.
- The quartz-locked digital synthesizer system enables easy and accurate tuning.
- Up to 12 FM and 6 AM stations can be preset.
- Automatic memory function allows you to store a total of 18 stations in the memory quickly and easily.

Cassette player section

The auto-reverse function changes the tape direction automatically.

Power amplifier section

- Fader control for playback with a 4-speaker system.
- Maximum power output of 4 watts over 4 channels or 7.5 watts over 2 channels.

General

The quartz controlled digital clock.

SERVICING NOTE

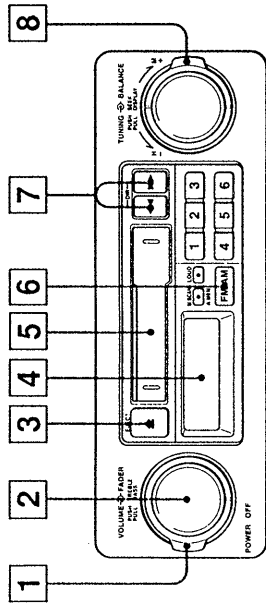
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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Location and Function of Controls



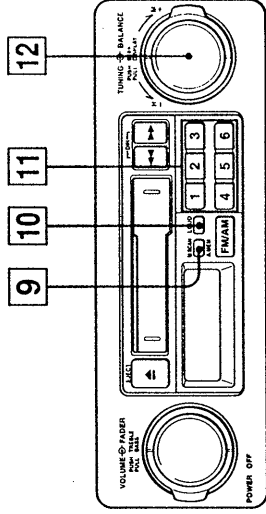
- 1 FADER control**
Turn clockwise to decrease the volume of the rear speakers or counterclockwise to decrease the volume of the front speakers.
- 2 POWER OFF (power on/off) switch/VOLUME/PUSH TREBLE/PULL BASS control**

POWER OFF switch	Turn clockwise to turn on the unit and counterclockwise to turn off.
VOLUME control	Turn clockwise to increase volume and counterclockwise to decrease.
PUSH TREBLE control	Turn to adjust treble while pressing.
PULL BASS control	Turn to adjust bass while pulling.
- 3 EJECT button**
Press to stop the tape and take out the cassette.
- 4 Display window**
- 5 Cassette insertion door**
- 6 FM/AM (band select) button**
Each pressing on the button changes the band cyclically as follows:
FM1 → FM2 → AM → FM1...
- 7 ◀◀ / ▶▶ (fast winding)/DIR (tape transport direction change) buttons**

To listen to the other side of the cassette	Press ◀◀ and ▶▶ simultaneously.
To wind the tape rapidly	
Direction indicator	To advance Press ▶▶ Press ◀◀
	To rewind Press ◀◀ Press ▶▶
- 8 BALANCE control**
To resume playback, press ◀◀ or ▶▶ lightly, which is not depressed.
Turn to adjust the balance of the left and right speakers.

SECTION 1 GENERAL

This section is extracted from XR-2300 instruction manual.



- 9 M.SCAN (memory scan)/A.MEM (automatic memory) button**

M.SCAN button	Press for a moment to scan the preset stations automatically.
A.MEM button	Press for more than two seconds to memorize the stations automatically.
 - 10 LOUD (loudness) button**
Press to reinforce bass especially when listening at low volume. To disengage the button, press it again.
 - 11 Preset number buttons**
 - 12 TUNING/PUSH SEEK/PULL DISPLAY knob**

TUNING knob	Turn to manually tune in the desired station.
PUSH SEEK knob	Press for automatic tuning.
PULL DISPLAY knob	Pull to display the time indication during radio reception.
- Use this knob also for clock setting.

Installation

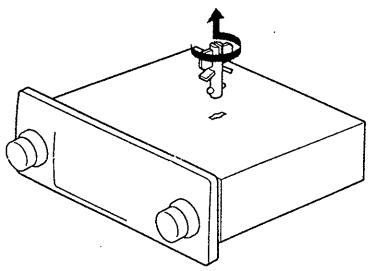
Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Basic Installation

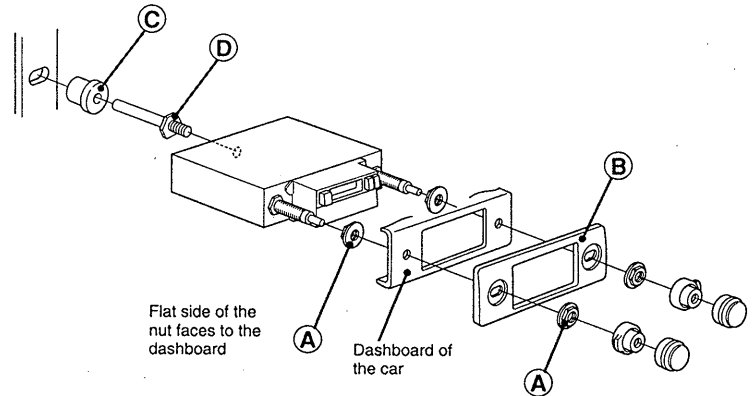
Use the mounting hardware supplied with the unit.

Remove the transit lock.



Turn 90° and then pull it out.

Mount the unit.



Flat side of the nut faces to the dashboard

Dashboard of the car

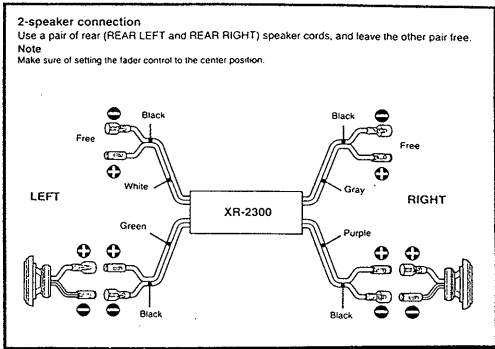
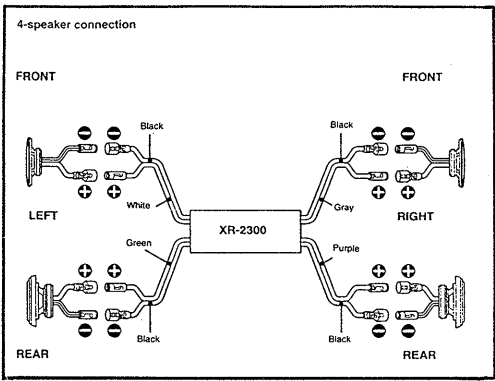
Connections

Caution

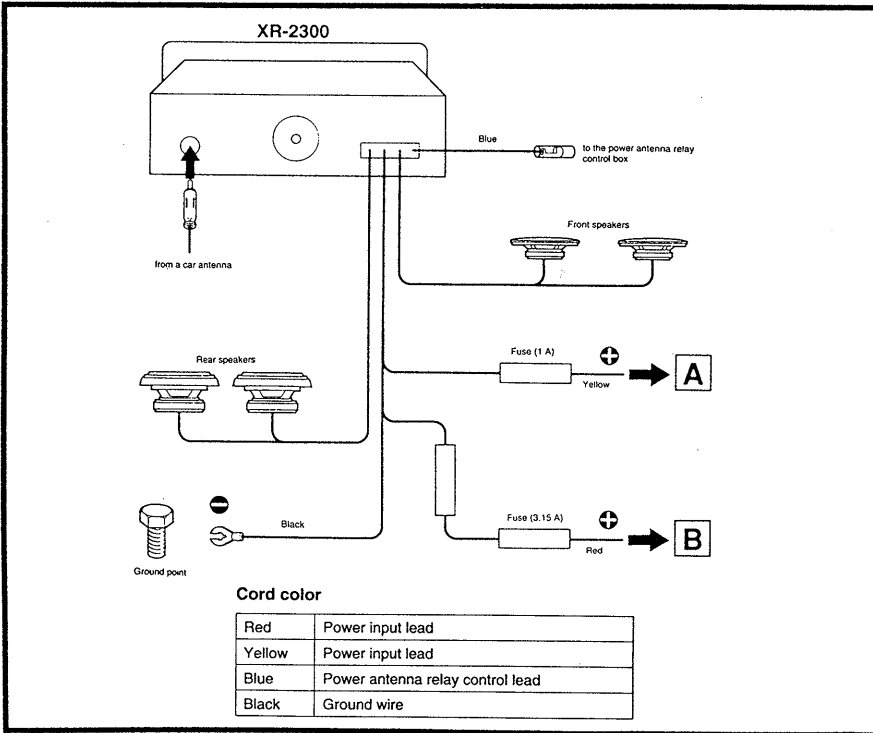
- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the red power input lead only after all other leads are connected. Be sure to connect it to the positive 12 V power terminal which will be energized when the ignition key is set to the accessory position.
- Run all ground wires to a common ground point.

Speaker Connection

- Notes on speaker connection**
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
 - Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
 - Do not attempt to connect the speakers in parallel.



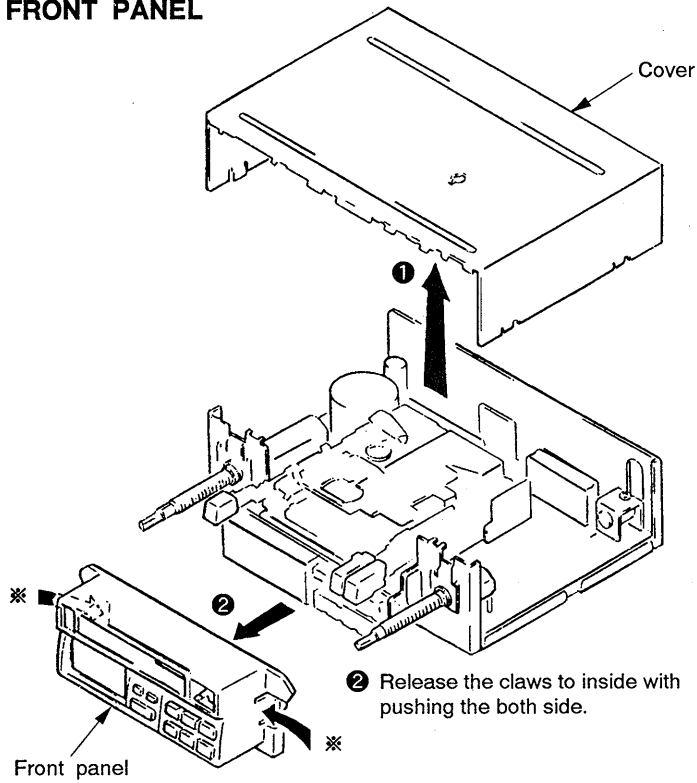
Connection Diagram



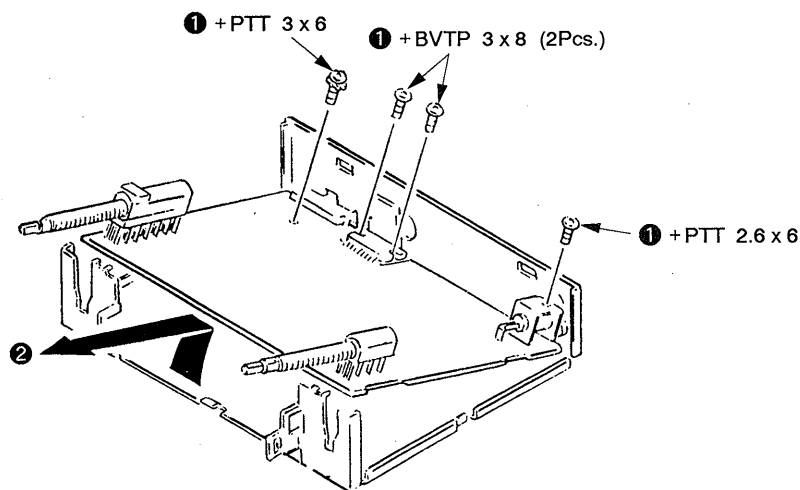
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

FRONT PANEL

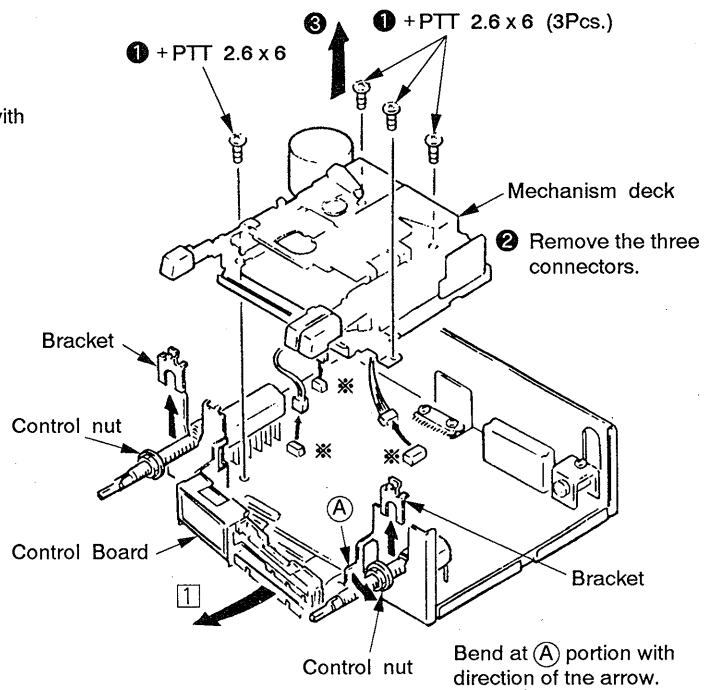


MAIN BOARD



MECHANISM DECK/CONTROL BOARD

- 1 - 3 Mechanism deck
- 1 SWITCH BOARD



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

No mechanical adjustments applied to this unit.

• Torque Measurement

Mode	Torque Meter	Torque
FWD	CQ-102B	40 to 75 g · cm
REV	CQ-102RB	(0.56 to 1.05 oz · inch)
FF	CQ-201A	45 to 150 g · cm
REW		(0.62 to 2.08 oz · inch)

3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

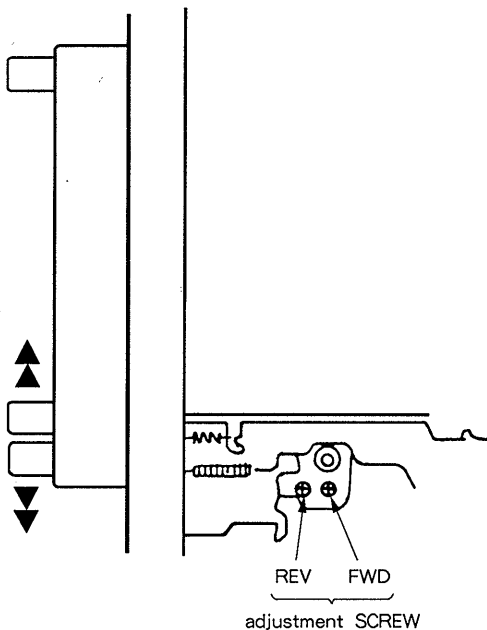
- Power-supply voltage is +14.4V DC as per Ad Hoc recommendation.
- Switches and controls should be set as follows unless otherwise specified.

PUSH RADIO switch : RADIO

PULL BALANCE control : center click

TAPE SECTION

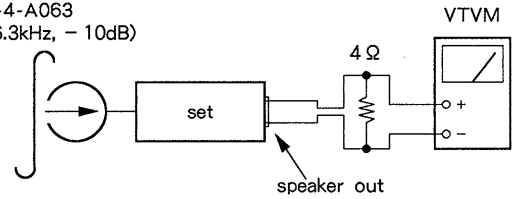
Adjustment Location:



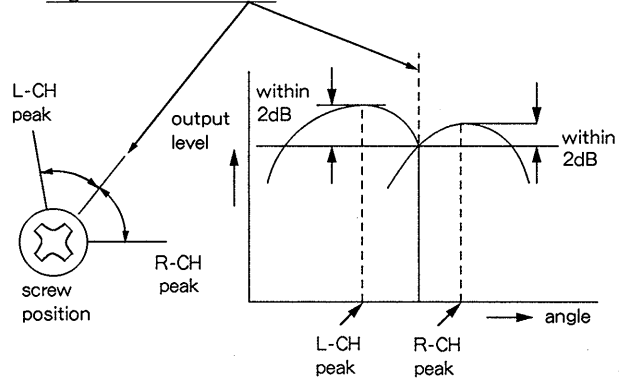
Playback Head Azimuth Adjustment

Procedure:

test tape
P-4-A063
(6.3kHz, -10dB)

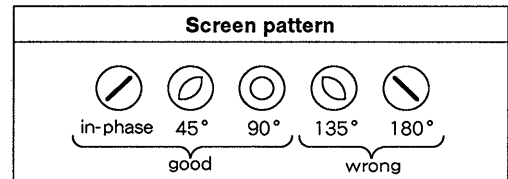
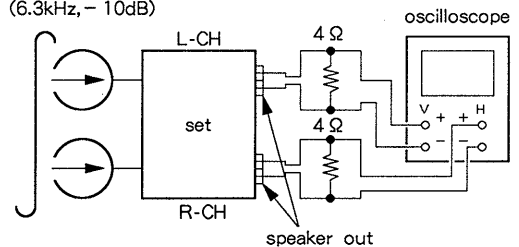


1. Mode : playback
Adjust for forward (▶) direction and reverse (◀) direction.
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2dB.



3. Phase Check
Confirm that phase difference between L-channel and R-channel is within 90° .

test tape
P-4-A063
(6.3kHz, -10dB)



4. Repeat the above adjustment for reverse playback mode.
5. After the adjustment, lock the screw with locking compound.

FM SECTION

(The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.)

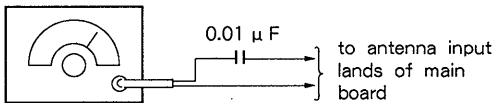
FM IF Adjustment

Setup:

Note: center-zero meter should be of high input impedance type.

BAND : FM MONO
Frequency : 98.1MHz

FM rf signal generator



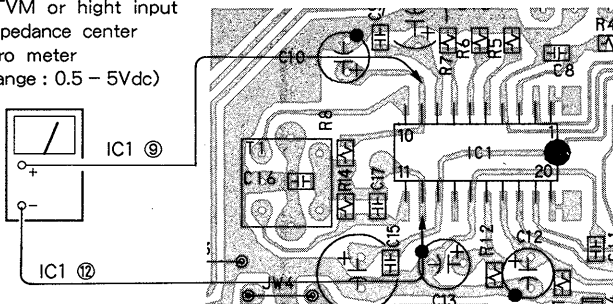
Carrier frequency : 98.1MHz
Modulation : 1kHz, 75kHz deviation (100%)
Output level : 1mV (60dB)
Mode : monaural

Procedure:

Slowly adjust the core of T1 to obtain a zero (0) V reading on VTVM or zero-center DC voltmeter.

Adjustment Location: main board

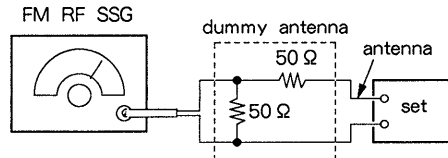
VTVM or high input impedance center zero meter
(range : 0.5 - 5Vdc)



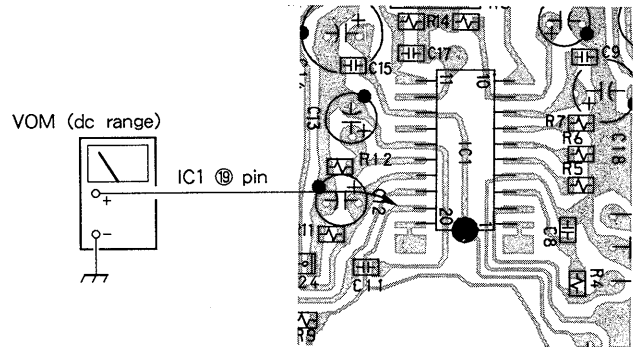
FM Auto-scan Stop Level Adjustment

Setup:

BAND : FM MONO
Frequency : 98.1MHz



Carrier frequency : 98.1MHz
Modulation : no modulation
Output level : 25dB (17.8 μ V)



Procedure:

1. Adjust RV1 at the point where the VOM reading changes from low to high.
2. Confirm that the set stops auto-scanning with FM RF SSG output level set at 25 ± 2 dB.

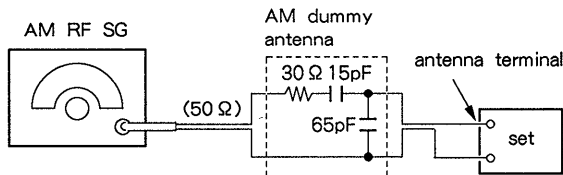
AM SECTION

AM Auto-scan Stop Level Adjustment

Note: Be sure to perform this adjustment after "FM Auto-scan Stop Adjustment".

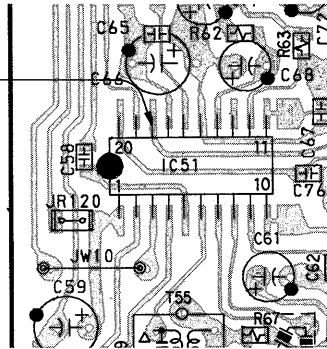
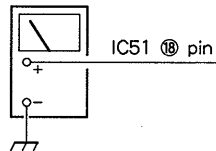
Setup:

Band : AM
Frequency : 600kHz



Carrier frequency : 600kHz
Output level : 30dB
Modulation : no modulation

VOM (dc range)

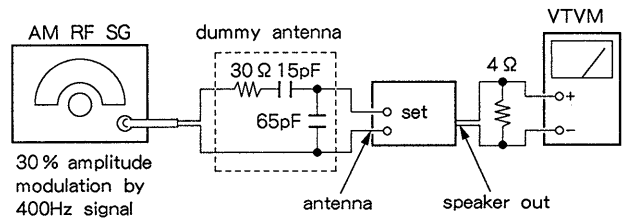


Procedure:

1. Adjust RV51 at the point where the VOM reading changes from low to high.
2. Confirm that the set stops auto-scanning with AM RF SG output level set at 30 ± 2 dB.

AM IF Tracking Adjustment

Setup:

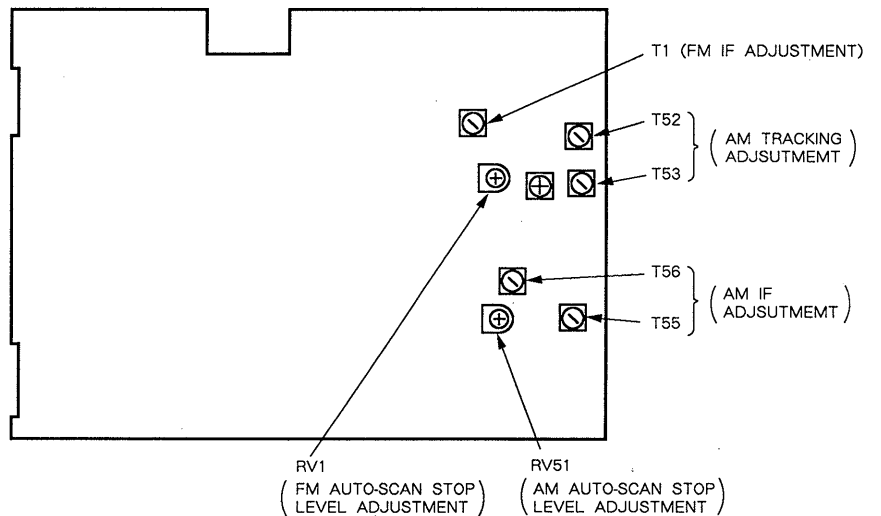


AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T55, 56	

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T52, 53	600kHz

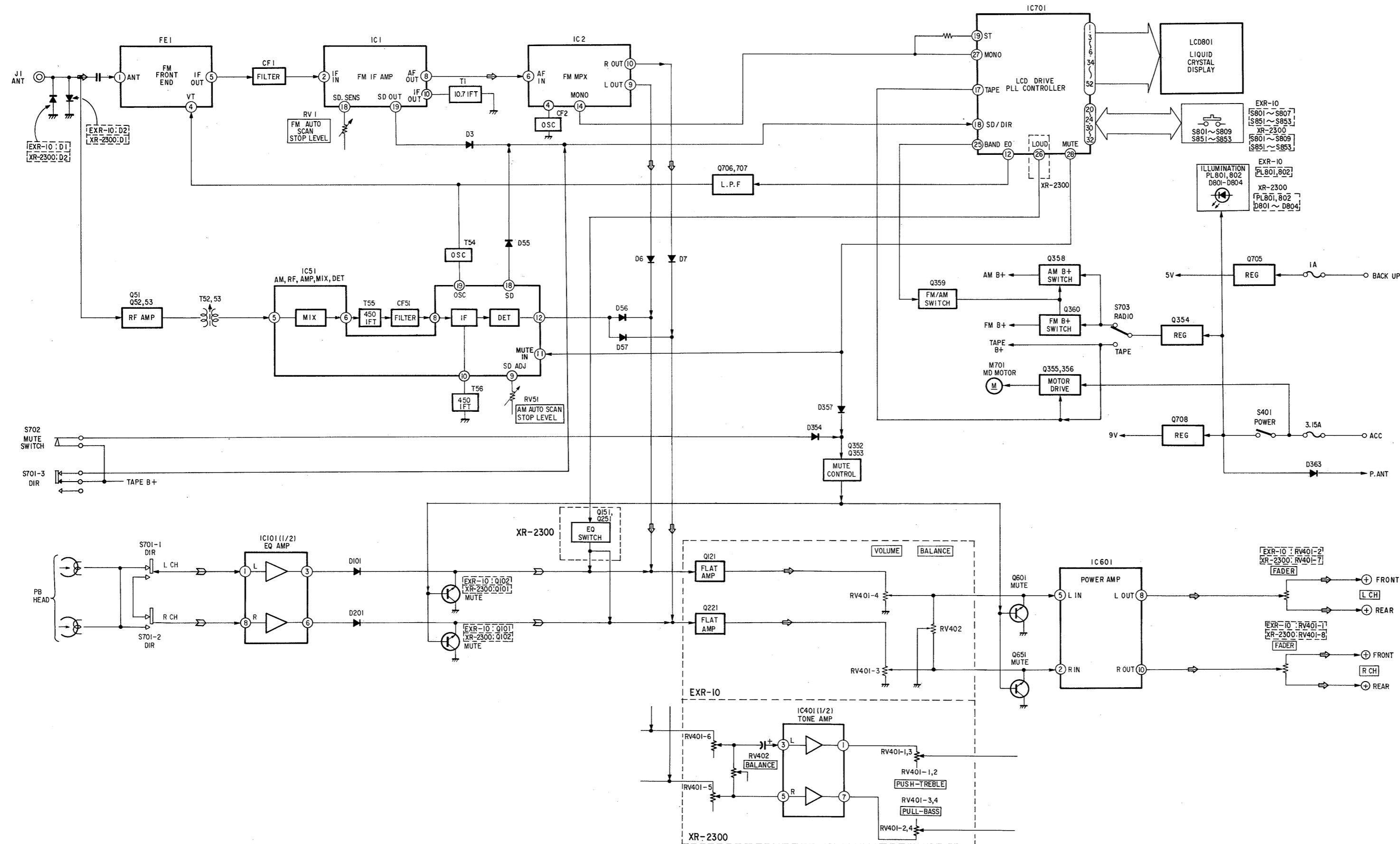
Adjustment Location:

[MAIN BOARD] – Component side –



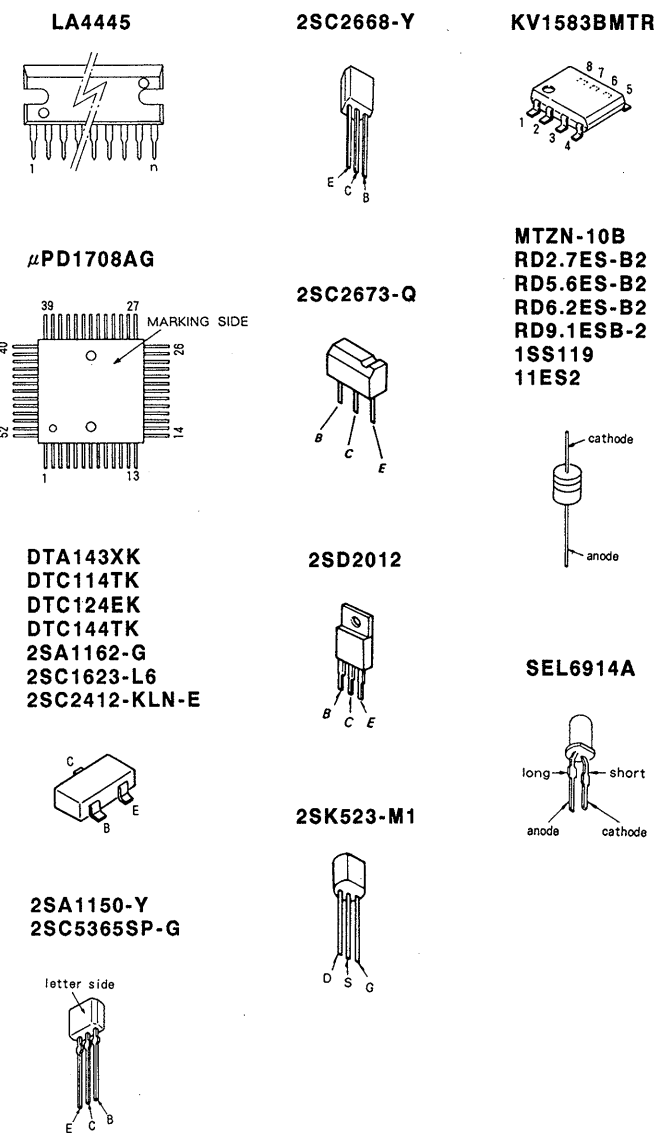
SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM



4-3. PRINTED WIRING BOARDS (EXR-10 model)

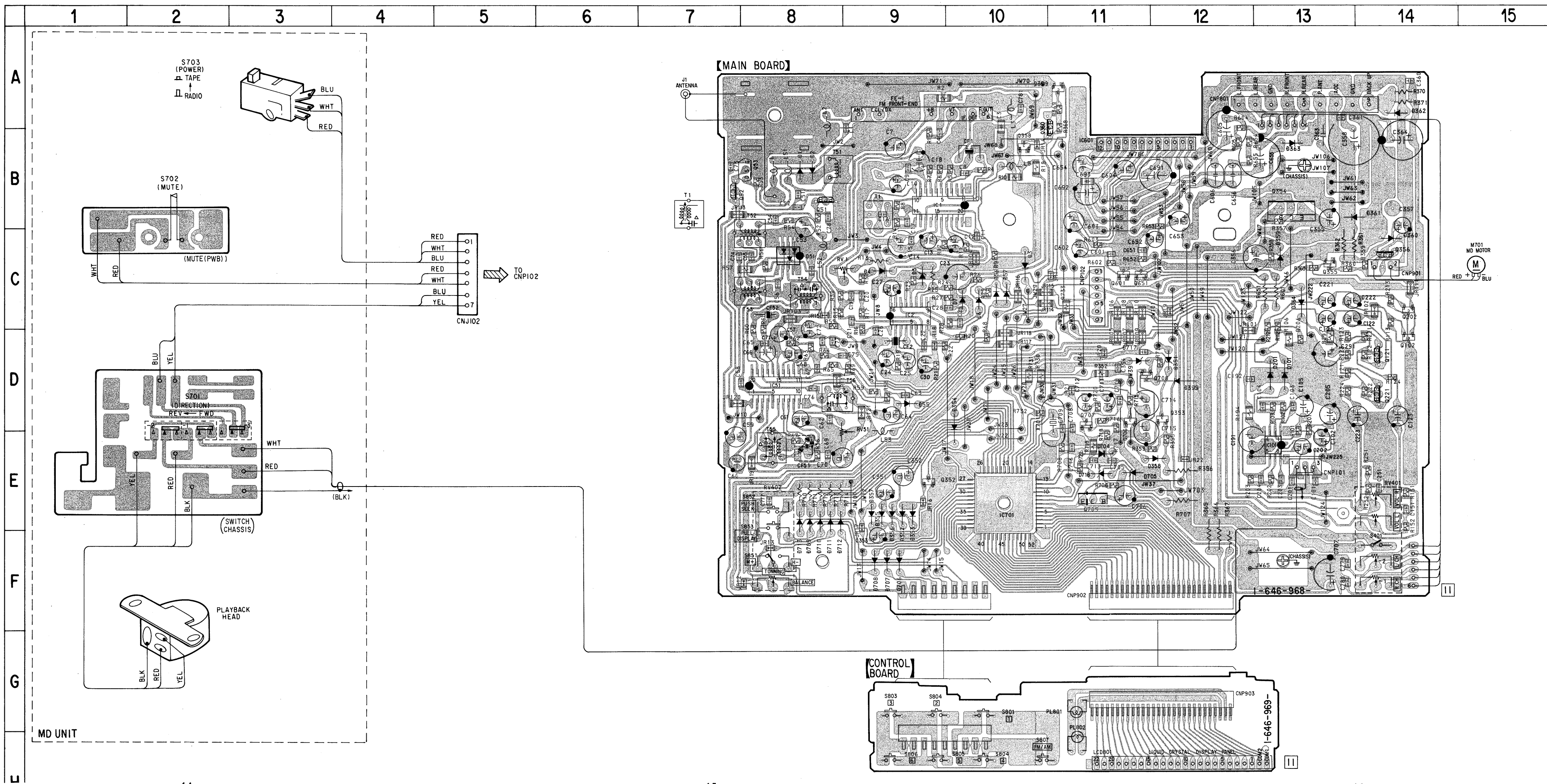
4-2. SEMICONDUCTOR LEAD LAYOUTS



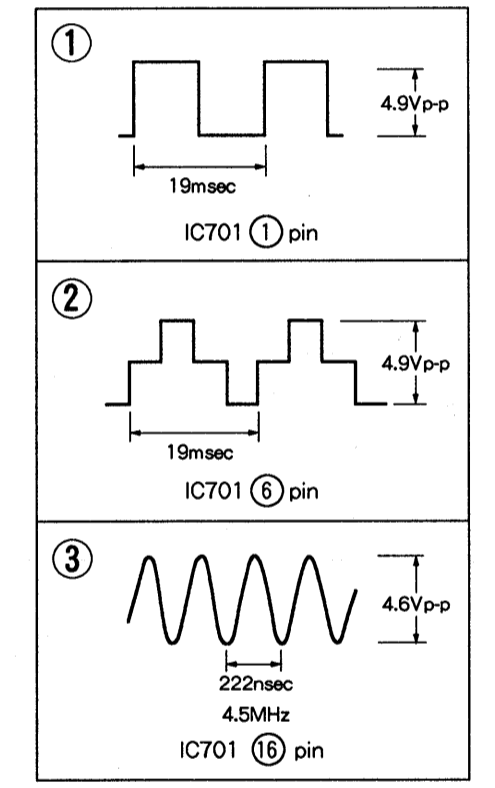
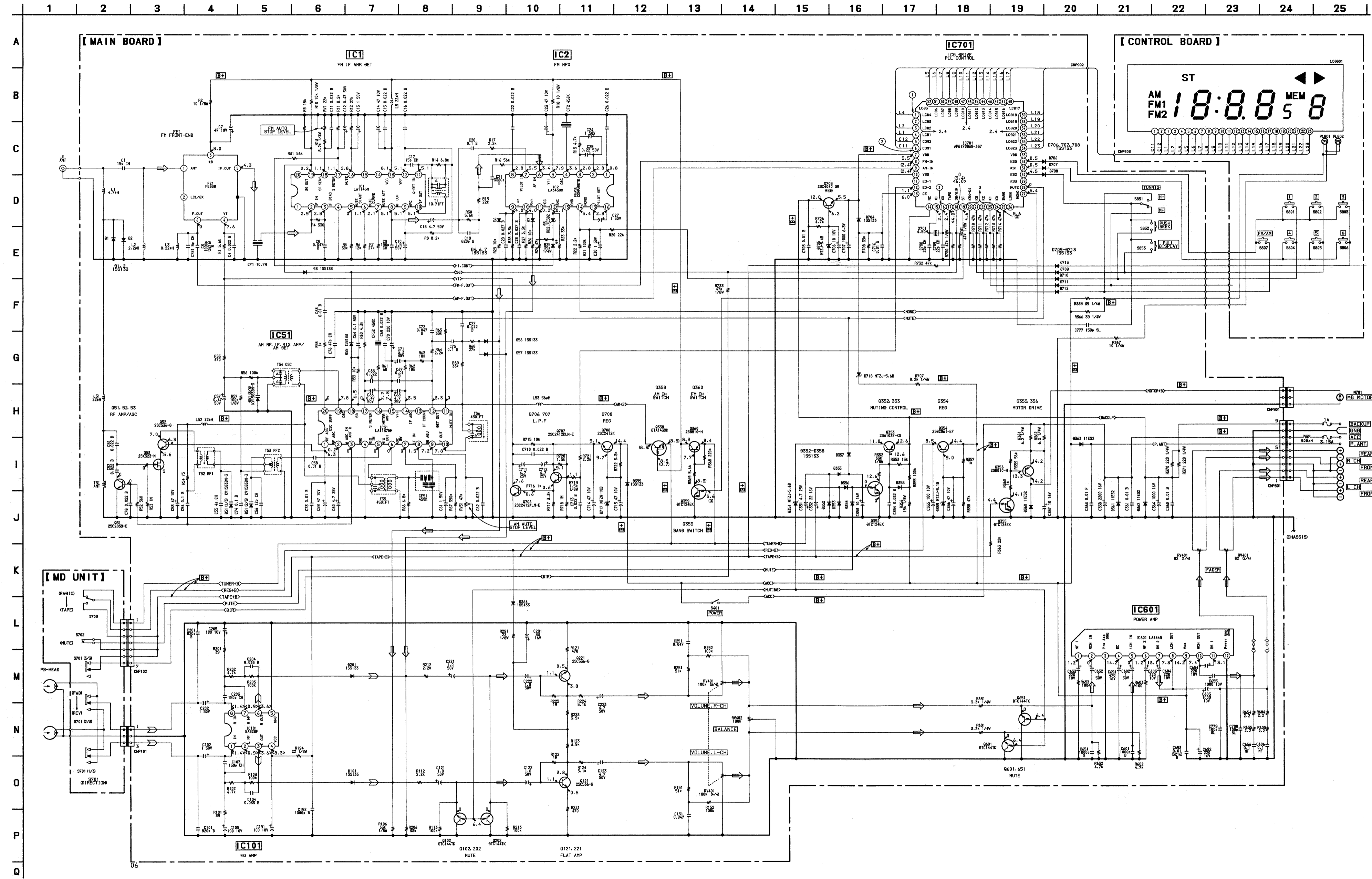
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	B-8	D711	E-8
D2	B-8	D712	E-9
D3	C-10	D713	E-8
D4	C-9	D717	D-11
D5	C-9	D718	E-11
D6	C-10		
D7	C-10	IC1	B-9
D51	C-8	IC2	C-9
D55	D-9	IC51	D-8
D56	C-10	IC101	E-13
D57	C-10	IC601	B-11
D101	D-13	IC701	E-10
D201	D-13		
D351	D-12	Q51	B-8
D352	E-9	Q52	B-8
D353	E-9	Q53	B-8
D354	D-10	Q102	D-14
D355	E-9	Q121	D-14
D356	E-9	Q202	C-14
D357	E-9	Q221	D-14
D358	E-12	Q352	E-9
D359	C-13	Q353	D-12
D360	C-14	Q354	B-13
D361	B-14	Q355	C-13
D362	A-14	Q356	C-14
D363	B-13	Q358	B-10
D364	C-13	Q359	A-11
D399	D-12	Q360	A-11
D704	E-11	Q601	C-11
D705	E-11	Q651	C-11
D706	F-9	Q705	E-11
D707	F-9	Q706	D-11
D708	F-9	Q707	D-11
D709	E-8	Q708	D-12
D710	E-8		

Note:
 • ○ : parts extracted from the component side.
 • — : parts extracted from the conductor side.

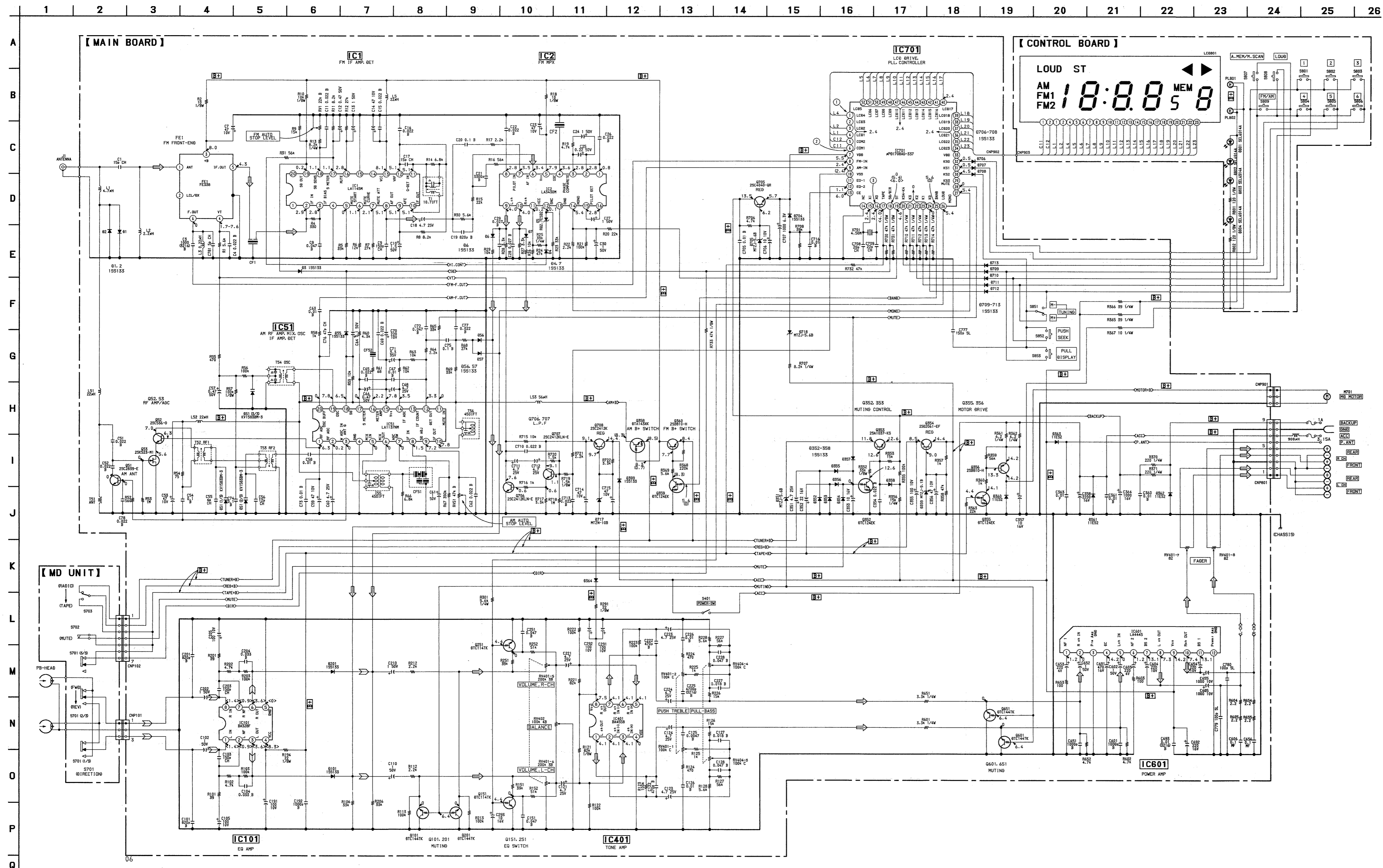


4-4. SCHEMATIC DIAGRAM (EXR-10 model) • See page 29 for IC Block Diagrams.

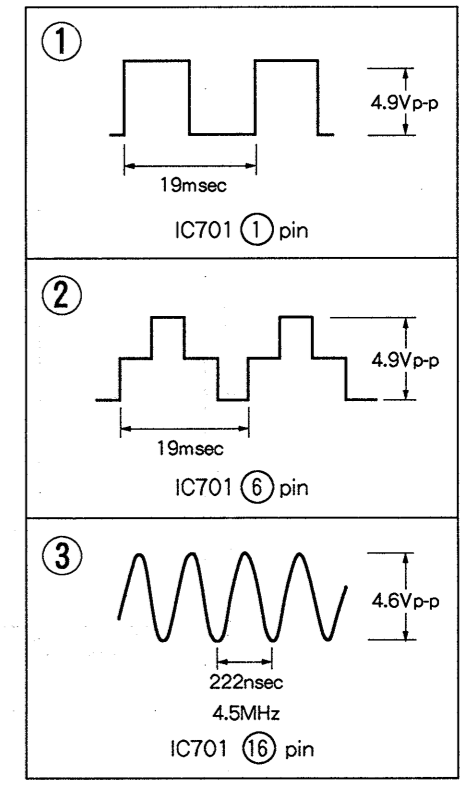
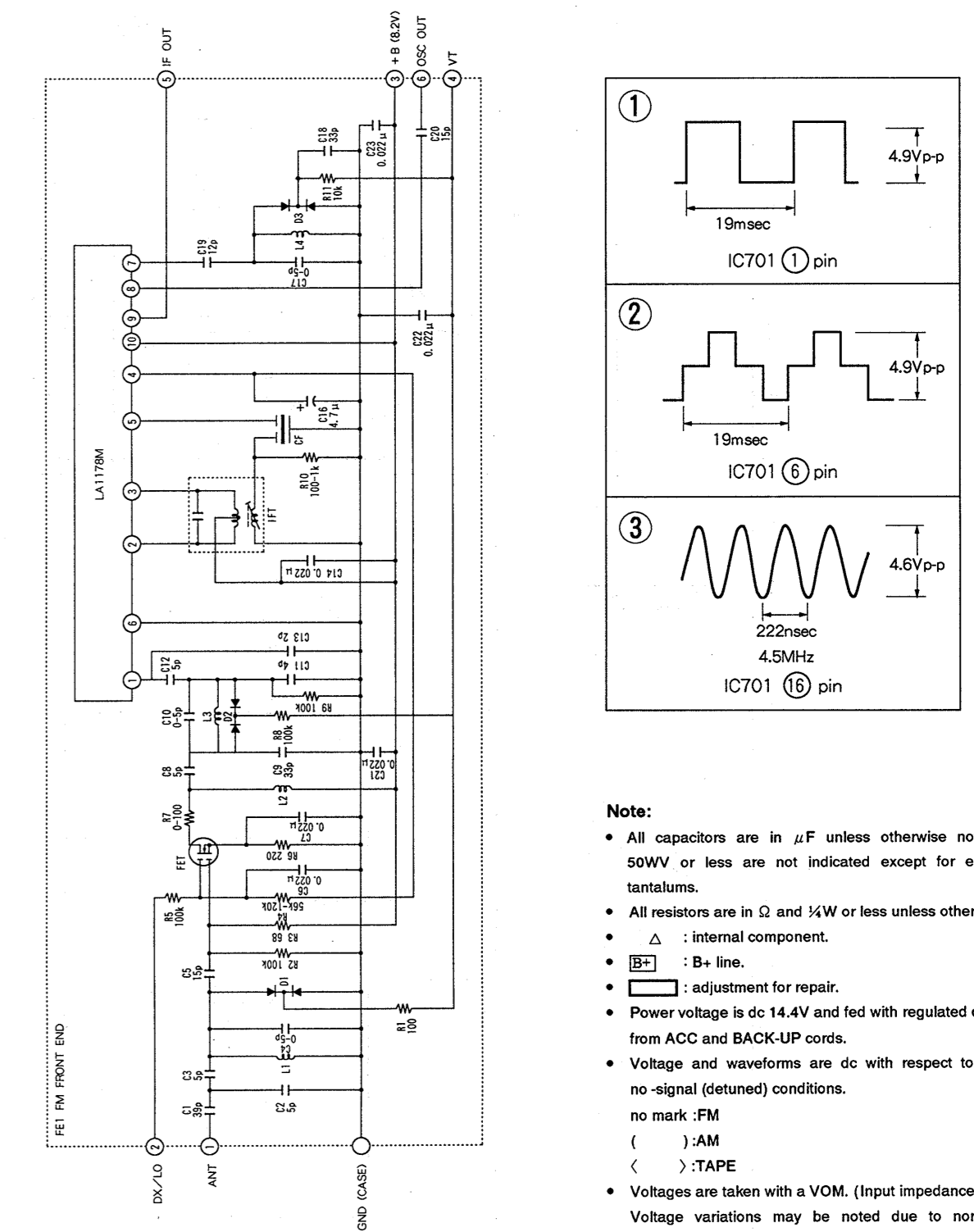


- Note:**
- All capacitors are in μ F unless otherwise noted. pF: μ F
 - 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
 - Δ : internal component.
 - \square : B+ line.
 - \square : adjustment for repair.
 - Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
 - Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - no mark : FM
() : AM
< > : TAPE
 - Voltages are taken with a VOM. (Input impedance 10M Ω)
Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope.
Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Signal path.
⇒ : FM
⇨ : PB

4-5. SCHEMATIC DIAGRAM (XR-2300 model) • See page 29 for IC Block Diagrams.



4-6. FE1 FM FRONT END SCHEMATIC DIAGRAM



- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - Δ : internal component.
 - \square : B+ line.
 - \square : adjustment for repair.
 - Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
 - Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - no mark: FM
(): AM
<): TAPE
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 - Circled numbers refer to waveforms.
 - Signal path:
⇒ : FM
⇨ : PB

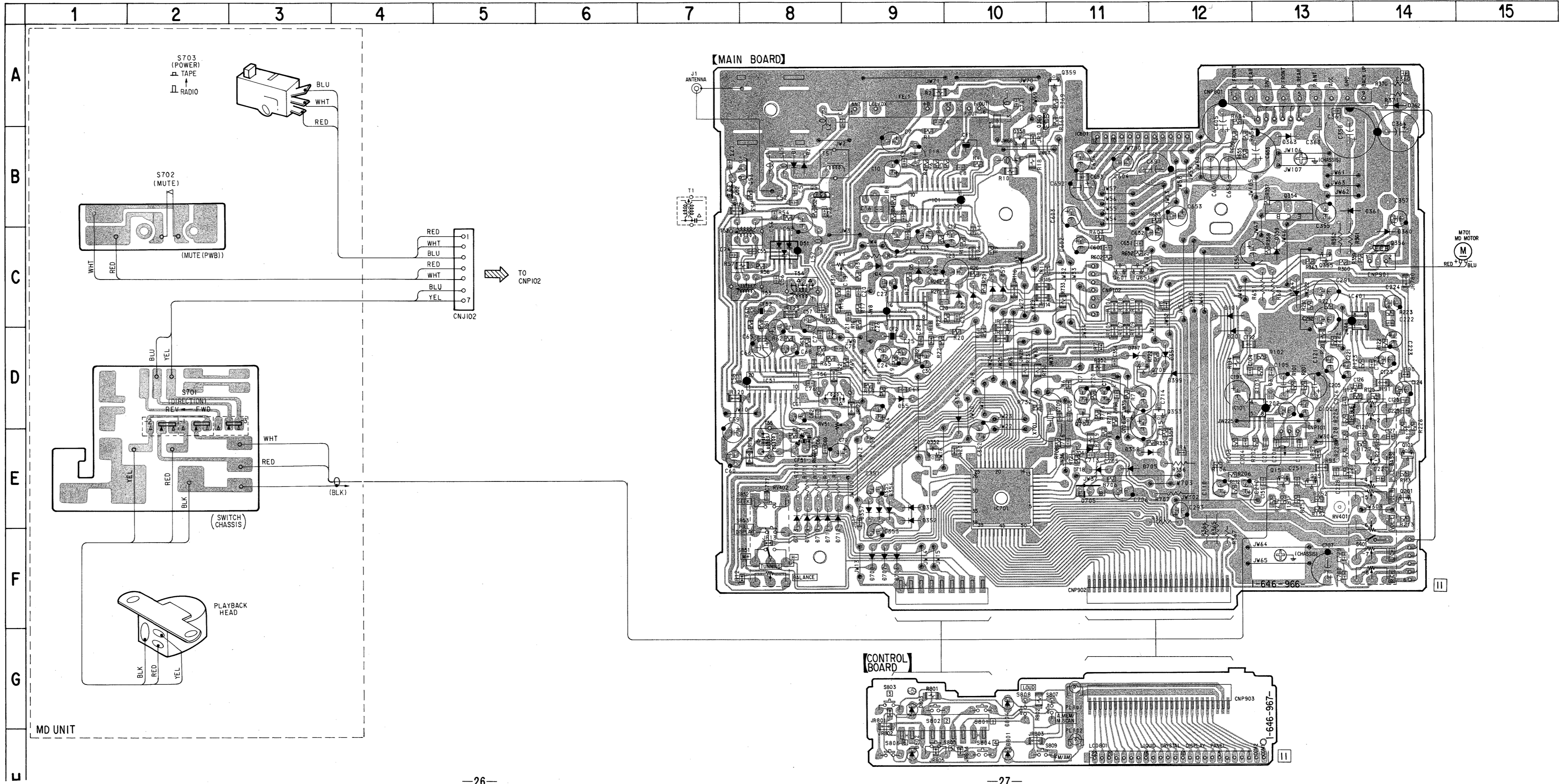
4-7. PRINTED WIRING BOARDS (XR-2300 model)

• See Page 13 for semiconductor lead layouts.

• Semiconductor Location

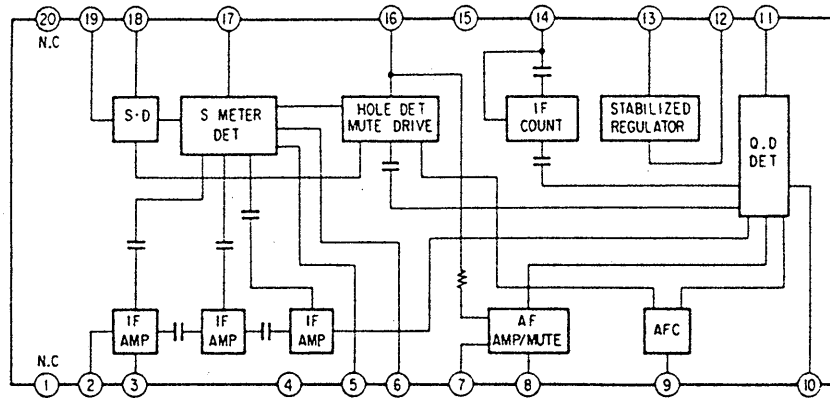
Ref. No.	Location	Ref. No.	Location
D1	B-8	D713	E-8
D2	B-8	D717	D-11
D3	C-10	D718	E-11
D4	C-9	D801	H-10
D5	C-9	D802	H-9
D6	C-10	D803	G-9
D7	C-10	D804	G-10
D51	C-8		
D55	D-9	IC1	B-9
D56	C-10	IC2	C-9
D57	C-10	IC51	D-8
D101	C-12	IC101	D-12
D201	D-12	IC401	C-14
D351	D-12	IC601	B-11
D352	E-9	IC701	E-10
D353	E-9		
D354	D-10	Q51	B-8
D355	E-9	Q52	B-8
D356	E-9	Q53	B-8
D357	E-9	Q101	E-14
D358	E-11	Q151	E-13
D359	C-13	Q201	E-14
D360	C-14	Q251	E-13
D361	B-14	Q352	E-9
D362	A-14	Q353	D-12
D363	B-13	Q354	B-13
D364	C-13	Q355	C-13
D399	D-12	Q356	C-14
D704	E-11	Q358	B-10
D705	E-11	Q359	A-11
D706	F-9	Q360	A-11
D707	F-9	Q601	C-11
D708	F-9	Q651	C-11
D709	E-8	Q705	E-11
D710	E-8	Q706	D-11
D711	E-8	Q707	D-11
D712	E-9	Q708	D-12

Note:
 ○ : parts extracted from the component side.
 ● : parts extracted from the conductor side.

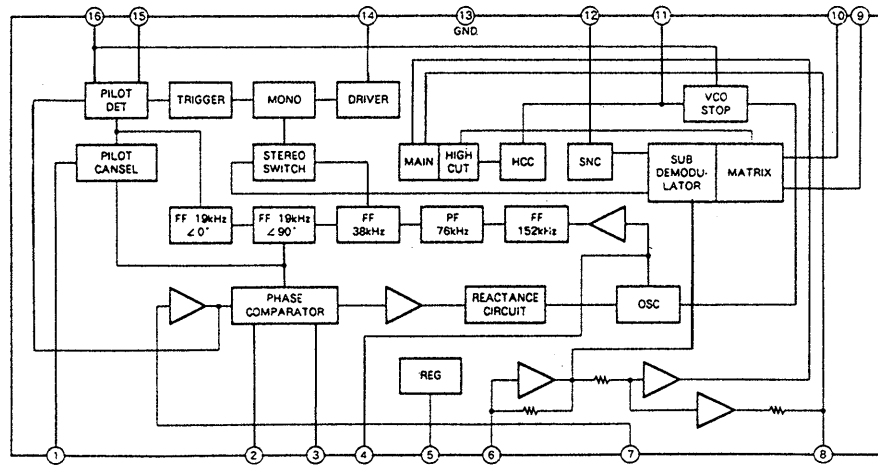


4-8. IC BLOCK DIAGRAMS

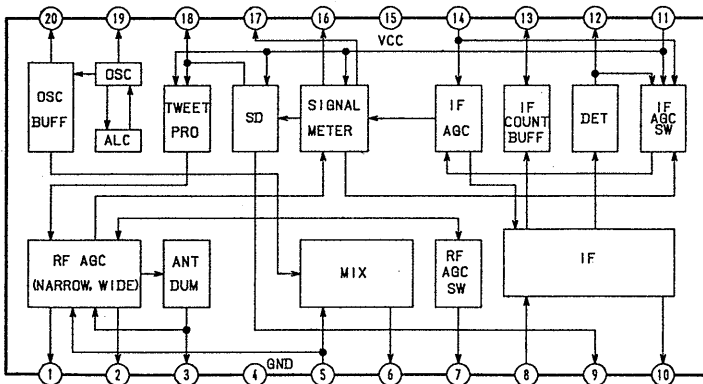
IC1 LA1145MF2



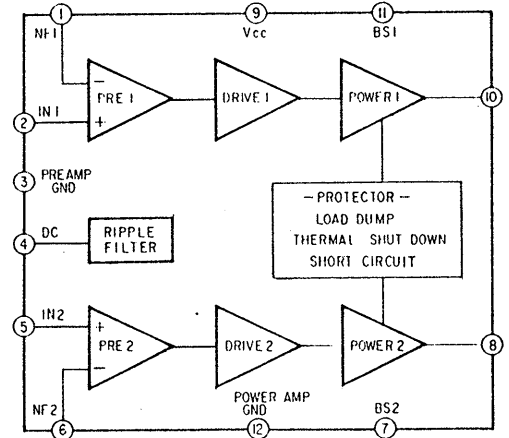
IC2 LA3430M



IC51 LA1137NM



IC601 LA4445



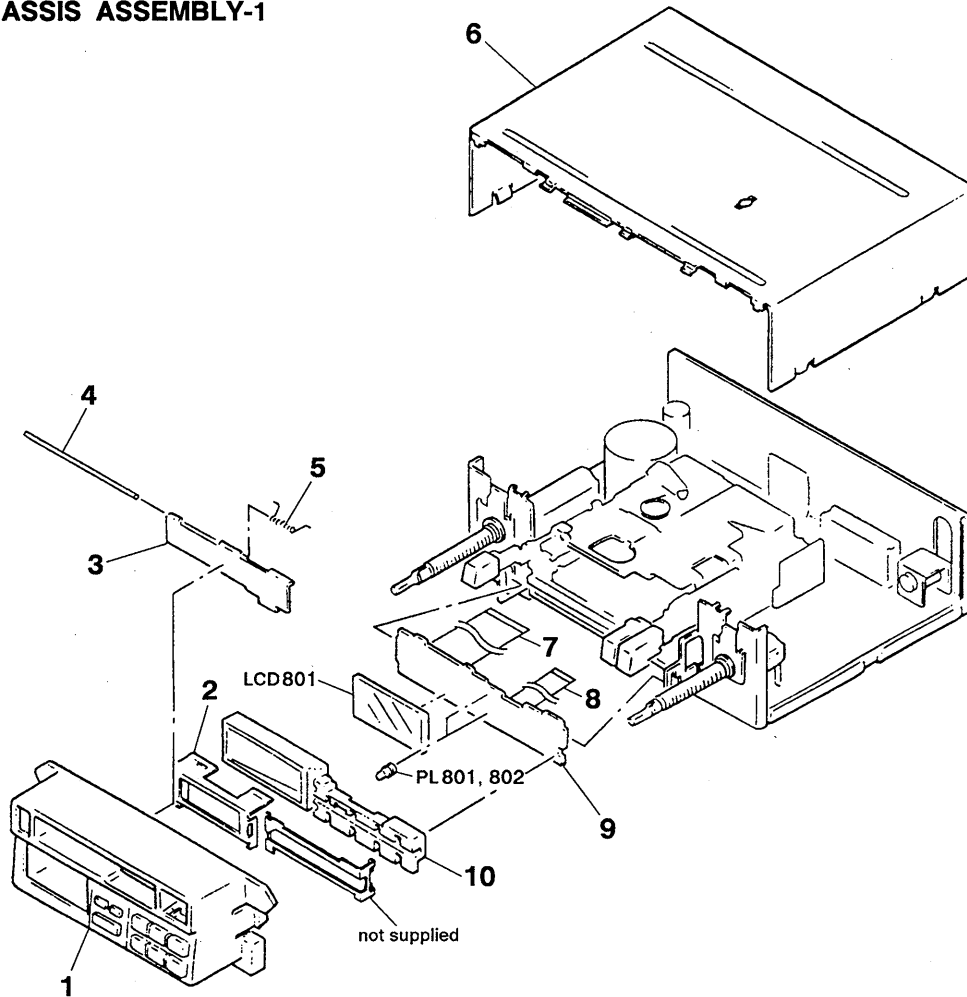
SECTION 5 EXPLODED VIEWS

NOTE:

- -XX,-X mean standardized parts, so they may have some difference from the original one.
- Color indication of Appearance Parts.
Example:
KNOB,BALANCE (WHITE) ... (RED)

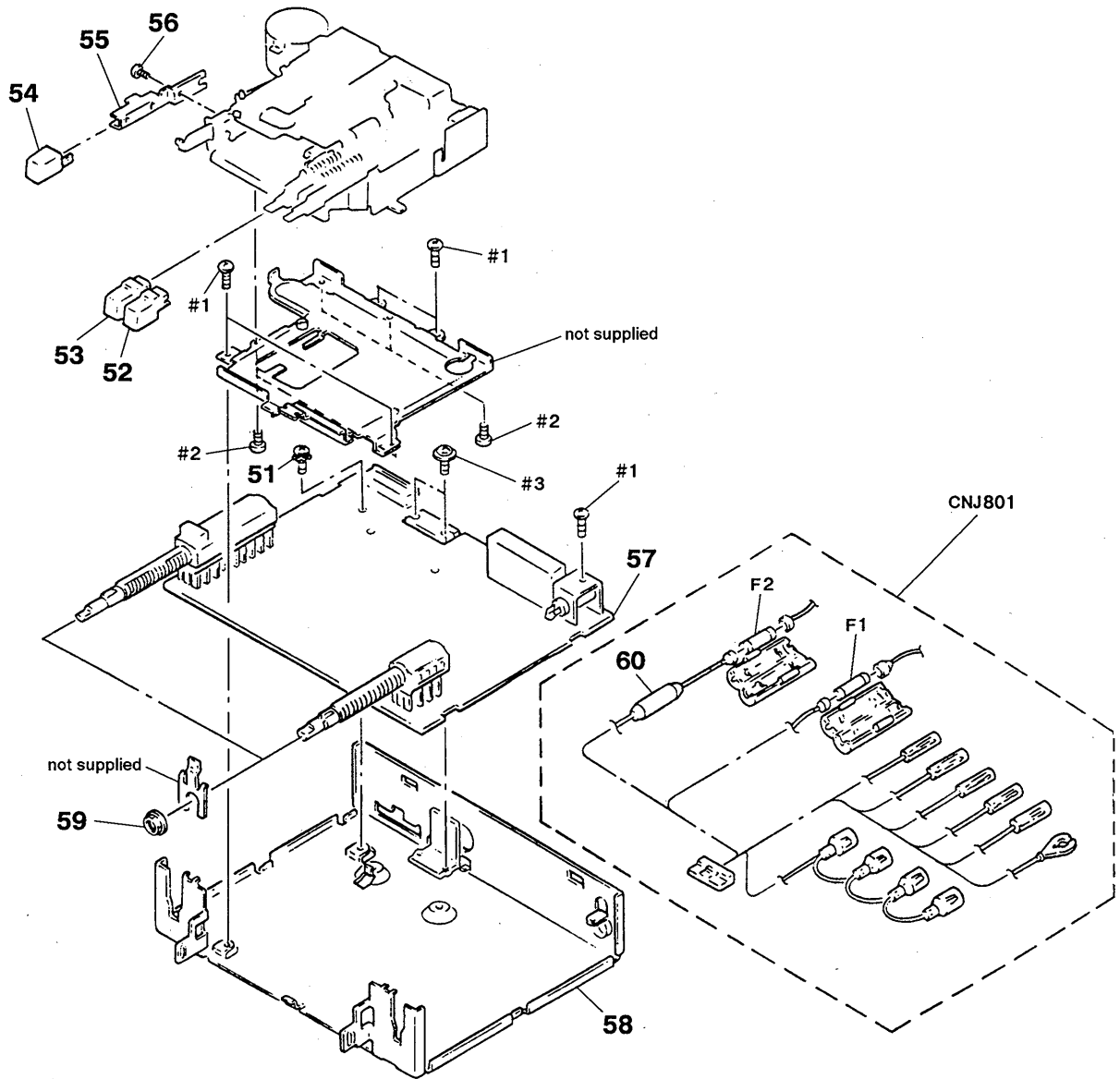
↑ ↑
 Parts Cabinet's
 Color Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

(1) CHASSIS ASSEMBLY-1



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3366-098-1	PANEL SUB ASSY, FRONT	(EXR-10)	7	1-751-021-11	CABLE, FLAT (28 CORE)	
1	X-3366-099-1	PANEL SUB ASSY, FRONT	(XR-2300)	8	1-535-667-81	WIRE (FLAT TYPE) (9 CORE)	
2	3-373-623-01	BRACKET (LCD)		* 9	1-646-967-11	CONTROL BOARD	
3	3-387-119-01	LID, CASSETTE	(EXR-10)	* 10	3-373-630-01	PLATE, LIGHT GUIDE	
3	3-387-119-21	LID, CASSETTE	(XR-2300)				
4	3-332-130-01	SHAFT, C DOOR		LCD801	1-809-532-11	DISPLAY PANEL, LIQUID CRISTAL	
5	3-559-944-00	SPRING		PL801	1-518-615-21	LAMP, PILOT	
6	3-373-620-01	COVER		PL802	1-518-615-21	LAMP, PILOT	

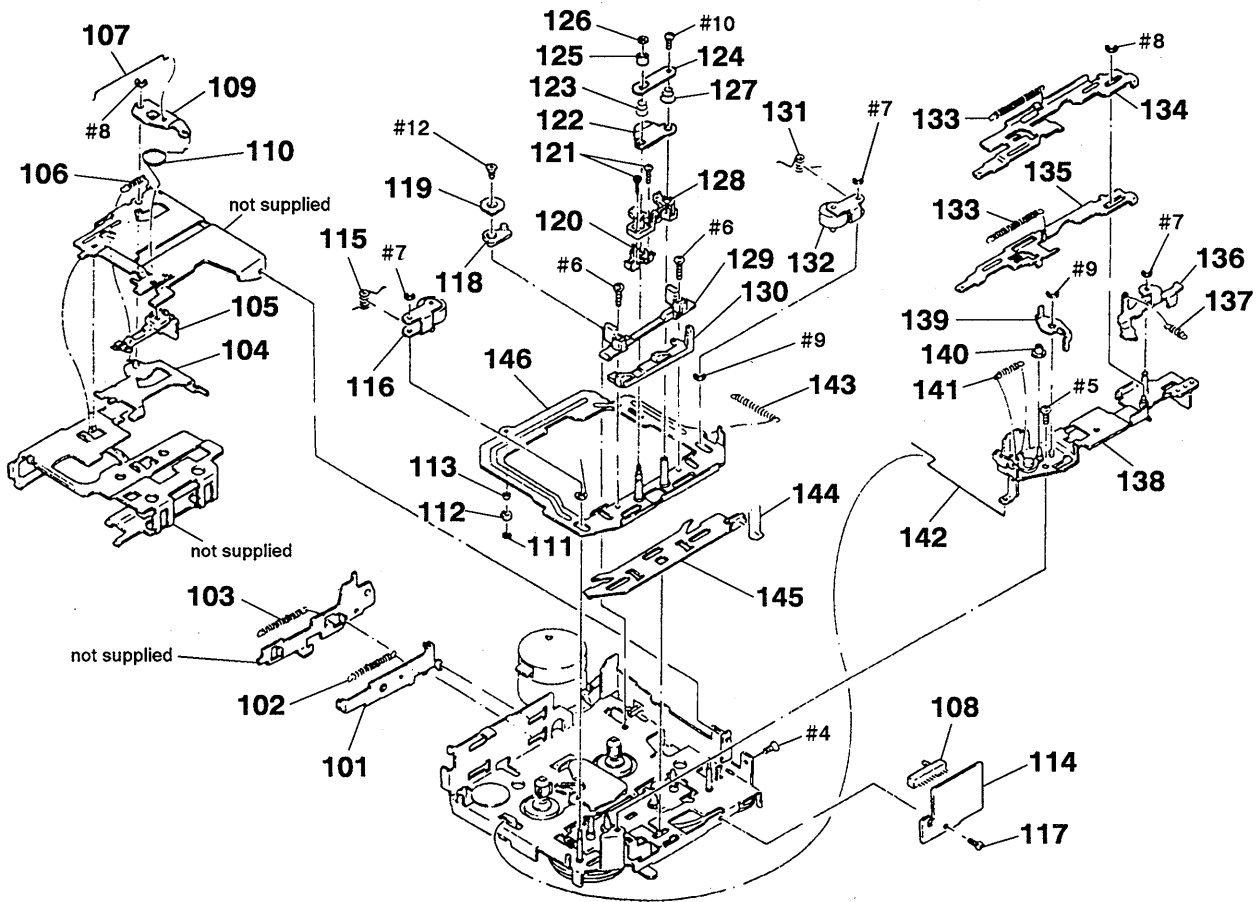
(2) CHASSIS ASSEMBLY-2



Ref. No.	Part No.	Description	Remark
51	3-344-501-01	SCREW (+PTT 3X6), GROUND POINT	
52	3-373-633-01	BUTTON (FF)	
53	3-373-632-01	BUTTON (REW)	
54	3-373-631-01	BUTTON (EJECT)	
55	3-392-429-01	LEVER (EJECT)	
56	3-372-033-11	SCREW (2. 6X3), +P	
* 57	A-3295-339-A	MAIN BOARD, COMPLETE	(EXR-10)
* 57	A-3295-344-A	MAIN BOARD, COMPLETE	(XR-2300)

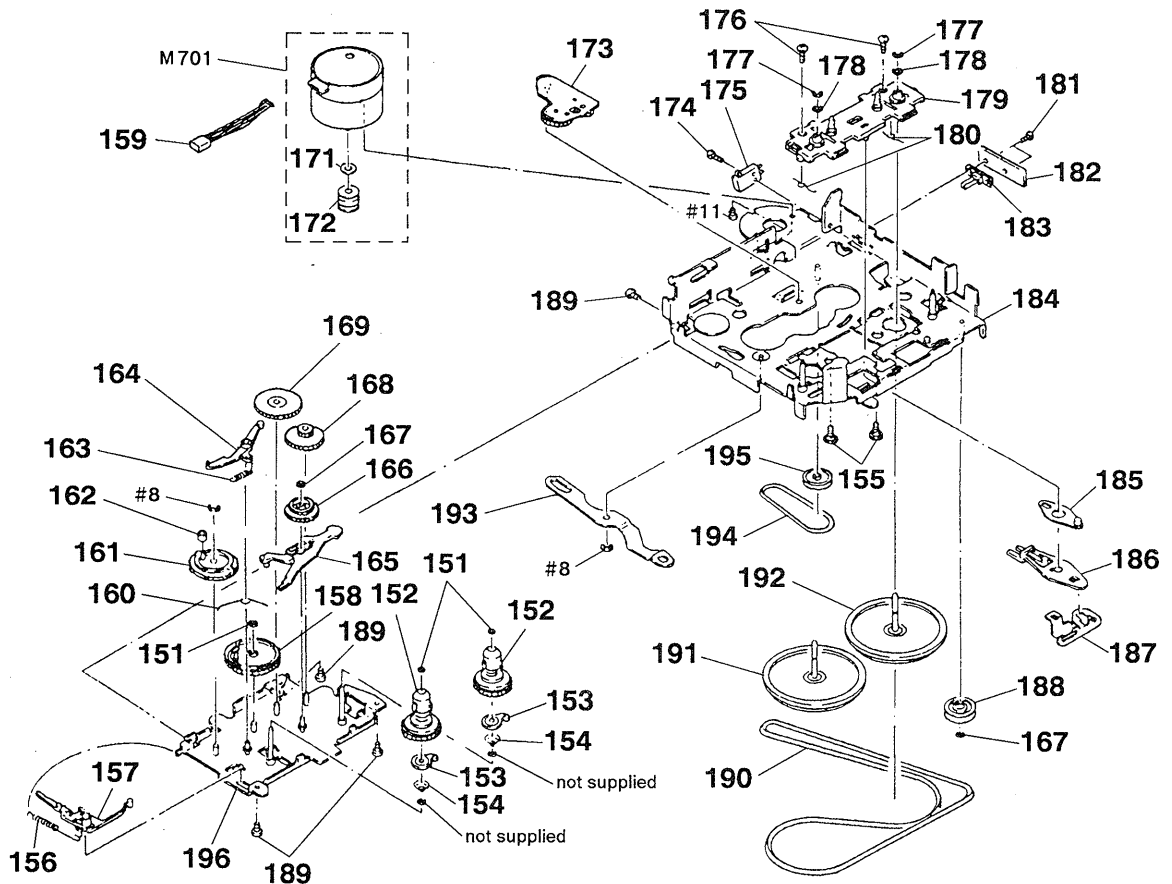
Ref. No.	Part No.	Description	Remark
58	X-3363-800-1	CHASSIS ASSY	
59	3-575-039-00	NUT, CONTROL	
60	1-424-267-21	COIL, CHOKE 900UH	
CNJ801	1-690-329-31	CORD (WITH CONNECTOR)	
F1	1-532-360-XX	FUSE (1A)	
F2	1-532-419-00	FUSE (3. 15A)	

(3) MD ASSEMBLY-1 (MG-36SHJ-32)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	3-392-978-01	LEVER, EJECT		* 124	3-392-930-01	RETAINER, SPRING	
102	3-392-950-01	SPRING		125	3-392-943-01	ROLLER, FF	
103	3-392-951-01	SPRING		126	3-676-387-00	POLY-SLIDER (DIA. 1.6)	
* 104	3-392-921-01	LOCK ASSY, EJECT CAM		127	3-392-955-01	SPRING (A)	
105	3-392-972-01	HOOVER, TAPE		* 128	3-379-142-01	ARM (B), ADJUSTOR	
106	3-392-953-01	SPRING		129	3-392-984-02	GUIDE, TAPE	
107	3-392-969-01	LINK, RETURN		130	3-377-909-02	LINK (X), ADJUSTOR	
108	1-692-036-11	SWITCH, SLIDE		131	3-392-957-01	SPRING (F)	
* 109	3-392-932-01	PLATE, CENTER		132	3-375-377-01	ARM (F) ASSY, PINCH	
110	3-392-961-01	SPRING (B)		133	3-392-948-01	SPRING	
111	3-570-615-00	POLY-WASHER (DIA. 1.2)		* 134	3-392-980-01	LEVER, FF	
112	3-392-945-01	ROLLER (A), H. P		* 135	3-392-981-01	LEVER, REW	
113	3-392-942-01	ROLLER (B), H. P		* 136	3-392-935-01	ARM, LOCK	
114	3-392-970-01	CHASSIS, SWITCH		137	3-392-917-01	SPRING	
115	3-392-958-01	SPRING (R)		* 138	3-372-242-01	BRACKET ASSY (D), LEVER	
116	3-375-378-01	ARM (R) ASSY, PINCH		* 139	3-392-933-01	LEVER (B), CHANGE	
* 117	4-908-792-11	SCREW (B2X3), TAPPING, P1		140	3-392-994-01	ROLLER, PROGRAM	
118	3-372-244-01	ARM (N), MUTE		141	3-392-954-01	SPRING	
* 119	3-397-427-01	COLLAR, MUTE ARM		142	3-372-243-01	LINK (B), SELECTOR	
120	3-377-908-01	SHIM (X), ADJUSTOR		143	3-392-952-01	SPRING	
121	3-375-379-01	SCREW, AZIMUTH		144	3-392-962-01	SPRING	
122	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)		* 145	3-392-919-01	ARM ASSY, F, R SELECTION	
123	3-392-956-01	SPRING (A)		* 146	3-392-975-05	PLATE ASSY (S), HEAD	

(4) MD ASSEMBLY-2 (MG-36SHJ-32)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-676-387-00	POLY-SLIDER (DIA. 1.6)		175	1-554-790-21	SWITCH, POWER	
152	3-376-196-01	SPINDLE ASSY (S), REEL		176	3-318-204-81	SCREW (M1.7X3), TAPPING	
153	3-375-380-01	CAM ASSY, DETECTION		177	3-590-768-00	RING (A), E	
154	3-370-619-01	SPRING, BACK TENSION		178	3-701-437-11	POLY-SLIDER (A)	
155	3-392-918-01	SCREW, EJECT HOOK		* 179	3-375-381-01	BRACKET ASSY (X), CM	
156	3-392-959-01	SPRING		180	3-392-963-01	SPRING (R)	
157	3-392-985-02	RATCHET		181	3-318-204-91	SCREW (M1.7X4), TAPPING	
158	3-392-990-01	GEAR, DETECTION		182	3-375-376-01	MUTE (PWB)	
* 159	3-376-195-01	CONNECTOR ASSY (3P)		183	1-692-065-11	SWITCH, LEAF	
160	3-392-960-01	SPRING		* 184	3-392-974-01	CHASSIS ASSY, MAIN	
161	3-392-987-01	GEAR, SELECTOR		* 185	3-392-925-01	ARM (A) ASSY, F.R	
162	3-392-944-01	COLLAR (CELECTER GEAR)		* 186	3-392-939-01	ARM, FF	
163	3-375-131-01	SPRING, GEAR LOCK ARM		* 187	3-392-934-01	ARM (B), F.R	
164	3-392-989-02	ARM, GEAR LOCK		188	3-392-941-01	PULLEY (A), IDLE	
165	3-392-986-01	ARM, SENSOR		* 189	4-908-792-11	SCREW (B2X3), TAPPING, P1	
166	3-392-915-01	GEAR, IDLE		190	3-392-967-01	BELT, MAIN	
167	3-570-615-00	POLY-WASHER (DIA. 1.2)		191	3-392-995-02	FLYWHEEL ASSY (BR)	
168	3-392-936-01	GEAR (A)		192	3-392-926-02	FLYWHEEL ASSY (BF)	
169	3-392-937-01	GEAR (B)		* 193	3-392-979-01	LEVER, REVERSE	
* 171	3-392-912-01	WASHER, MYLAR		194	3-375-375-02	BELT (C), SUB	
* 172	3-392-913-01	PULLEY, MOTOR		195	3-392-938-01	GEAR, PULLY	
173	3-392-916-01	ARM ASSY, TU GEAR		* 196	3-392-976-01	BASE ASSY, REEL	
174	3-318-203-11	SCREW (B1.7X6), TAPPING		M701	X-3364-496-1	MOTOR ASSY	

**SECTION 6
ELECTRICAL PARTS LIST**

NOTE:

- Due to standardization, replacements in the parts list may be different from the part specified in the diagrams or the components used on the set.
- -XX,-X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked " *" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ ,for example :
uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC...,
uPD... : μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

When indicating parts by reference number, please include the board name.

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
*	1-646-967-11	CONTROL BOARD (XR-2300) *****	
*	1-646-969-11	CONTROL BOARD (EXR-10) *****	
	3-373-630-01	PLATE, LIGHT GUIDE	
		< DIODE >	
D801	8-719-025-98	DIODE SEL6914A	(XR-2300)
D802	8-719-025-98	DIODE SEL6914A	(XR-2300)
D803	8-719-025-98	DIODE SEL6914A	(XR-2300)
D804	8-719-025-98	DIODE SEL6914A	(XR-2300)
		< JUMPER RESISTOR >	
JR801	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR802	1-216-296-00	METAL CHIP 0 5% 1/8W	(XR-2300)
JR803	1-216-296-00	METAL CHIP 0 5% 1/8W	(XR-2300)
JR804	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR805	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-809-532-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< PILOT LAMP >	
PL801	1-518-615-21	LAMP, PILOT	
PL802	1-518-615-21	LAMP, PILOT	
		< RESISTOR >	
R801	1-216-176-00	METAL GLAZE 120 5% 1/8W	(XR-2300)
R802	1-216-176-00	METAL GLAZE 120 5% 1/8W	(XR-2300)
		< SWITCH >	
S801	1-572-704-21	SWITCH, KEY BOARD (1)	
S802	1-572-704-21	SWITCH, KEY BOARD (2)	

<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
S803	1-572-704-21	SWITCH, KEY BOARD (3)	
S804	1-572-704-21	SWITCH, KEY BOARD (4)	
S805	1-572-704-21	SWITCH, KEY BOARD (5)	
S806	1-572-704-21	SWITCH, KEY BOARD (6)	
S807	1-572-704-21	SWITCH, KEY BOARD (M. SCAN/A. MEM)	(XR-2300)
S807	1-572-704-21	SWITCH, KEY BOARD (FM/AM)	(EXR-10)
S808	1-572-704-21	SWITCH, KEY BOARD (LOUD)	(XR-2300)
S809	1-572-704-21	SWITCH, KEY BOARD (FM/AM)	(XR-2300)

*	A-3295-339-A	MAIN BOARD, COMPLETE (EXR-10)	

*	A-3295-344-A	MAIN BOARD, COMPLETE (XR-2300)	

		< CAPACITOR >	
C1	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C3	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
C4	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C7	1-124-126-00	ELECT 47uF 20% 10V	
C8	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C9	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C10	1-124-256-00	ELECT 1.5uF 20% 50V	
C11	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C12	1-124-465-00	ELECT 0.47uF 20% 50V	
C13	1-126-160-11	ELECT 1uF 20% 50V	
C14	1-124-589-11	ELECT 47uF 20% 16V	
C15	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C16	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C17	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C18	1-124-927-11	ELECT 4.7uF 20% 100V	
C19	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
C20	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C21	1-164-182-11	CERAMIC CHIP 0.0033uF 10% 50V	
C22	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C23	1-124-589-11	ELECT	47uF 20% 16V	C126	1-164-232-11	CERAMIC CHIP	0.01uF 50V (XR-2300)
C24	1-126-160-11	ELECT	1uF 20% 50V	C127	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V (XR-2300)
C25	1-124-464-11	ELECT	0.22uF 20% 50V	C128	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V (XR-2300)
C26	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C151	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C27	1-126-160-11	ELECT	1uF 20% 50V	C191	1-124-584-00	ELECT	100uF 20% 10V
C28	1-163-986-00	CERAMIC CHIP	0.027uF 10% 25V	C192	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V (EXR-10)
C29	1-163-986-00	CERAMIC CHIP	0.027uF 10% 25V	C192	1-163-205-00	CERAMIC CHIP	0.001uF 5% 50V (XR-2300)
C30	1-126-160-11	ELECT	1uF 20% 50V	C201	1-163-139-00	CERAMIC CHIP	820PF 5% 50V
C51	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C202	1-126-301-11	ELECT	1uF 20% 50V
C52	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C203	1-163-121-00	CERAMIC CHIP	150PF 5% 50V
C53	1-124-126-00	ELECT	47uF 20% 10V	C204	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V
C54	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C205	1-124-443-00	ELECT	100uF 20% 10V
C55	1-163-087-00	CERAMIC CHIP	4PF 50V	C210	1-126-160-11	ELECT	1uF 20% 50V (XR-2300)
C56	1-163-229-11	CERAMIC CHIP	12PF 5% 50V	C221	1-126-160-11	ELECT	1uF 20% 50V (EXR-10)
C57	1-124-465-00	ELECT	0.47uF 20% 50V	C221	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)
C58	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C222	1-163-005-11	CERAMIC CHIP	470PF 10% 50V (XR-2300)
C59	1-124-126-00	ELECT	47uF 20% 10V	C222	1-126-160-11	ELECT	1uF 20% 50V (EXR-10)
C60	1-126-163-11	ELECT	4.7uF 20% 50V	C223	1-124-927-11	ELECT	4.7uF 20% 100V (XR-10)
C61	1-126-301-11	ELECT	1uF 20% 50V	C223	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)
C62	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C224	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)
C63	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C225	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V (XR-2300)
C64	1-124-463-00	ELECT	0.1uF 20% 50V	C226	1-164-232-11	CERAMIC CHIP	0.01uF 50V (XR-2300)
C65	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C227	1-163-024-00	CERAMIC CHIP	0.018uF 10% 50V (XR-2300)
C66	1-124-902-00	ELECT	0.47uF 20% 50V	C228	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V (XR-2300)
C67	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C251	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C68	1-126-163-11	ELECT	4.7uF 20% 50V	C291	1-124-242-00	ELECT	33uF 20% 25V (EXR-10)
C69	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C291	1-124-584-00	ELECT	100uF 20% 10V (XR-2300)
C70	1-126-923-11	ELECT	220uF 20% 10V	C292	1-124-584-00	ELECT	100uF 20% 10V (XR-2300)
C71	1-126-162-11	ELECT	3.3uF 20% 50V	C293	1-126-157-11	ELECT	10uF 20% 16V (XR-2300)
C72	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V	C351	1-126-163-11	ELECT	4.7uF 20% 50V
C73	1-164-232-11	CERAMIC CHIP	0.01uF 50V	C352	1-124-234-00	ELECT	22uF 20% 16V
C74	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C353	1-126-157-11	ELECT	10uF 20% 16V
C75	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	C354	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C76	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	C355	1-124-443-00	ELECT	100uF 20% 10V
C77	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C356	1-124-589-11	ELECT	47uF 20% 16V
C78	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	C357	1-126-157-11	ELECT	10uF 20% 16V
C101	1-163-139-00	CERAMIC CHIP	820PF 5% 50V	C358	1-124-556-11	ELECT	2200uF 20% 16V
C102	1-126-301-11	ELECT	1uF 20% 50V	C360	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C103	1-163-121-00	CERAMIC CHIP	150PF 5% 50V	C361	1-164-232-11	CERAMIC CHIP	0.01uF 50V
C104	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	C363	1-101-004-00	CERAMIC	0.01uF 50V
C105	1-124-443-00	ELECT	100uF 20% 10V	C364	1-124-360-00	ELECT	1000uF 20% 16V
C110	1-126-160-11	ELECT	1uF 20% 50V (XR-2300)	C601	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C121	1-126-160-11	ELECT	1uF 20% 50V (EXR-10)	C602	1-126-160-11	ELECT	1uF 20% 50V
C121	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)	C603	1-126-923-11	ELECT	220uF 20% 10V
C122	1-126-160-11	ELECT	1uF 20% 50V (EXR-10)	C604	1-126-923-11	ELECT	220uF 20% 10V
C122	1-163-005-11	CERAMIC CHIP	470PF 10% 50V (XR-2300)	C605	1-124-473-11	ELECT	1000uF 20% 10V
C123	1-124-927-11	ELECT	4.7uF 20% 100V (EXR-10)	C606	1-136-165-00	FILM	0.1uF 5% 50V
C123	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)	C651	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C124	1-126-163-11	ELECT	4.7uF 20% 50V (XR-2300)	C652	1-126-160-11	ELECT	1uF 20% 50V
C125	1-163-017-00	CERAMIC CHIP	0.0047uF 5% 50V (XR-2300)	C653	1-126-923-11	ELECT	220uF 20% 10V

MAIN

Ref. No.	Part No.	Description	Remark
C654	1-126-923-11	ELECT 220uF 20% 10V	
C655	1-124-473-11	ELECT 1000uF 20% 10V	
C656	1-136-165-00	FILM 0.1uF 5% 50V	
C691	1-126-935-11	ELECT 470uF 20% 16V	
C692	1-126-934-11	ELECT 220uF 20% 16V	
C693	1-163-059-00	CERAMIC CHIP 0.01uF 10% 50V	
C705	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C706	1-126-157-11	ELECT 10uF 20% 16V	
C707	1-126-916-11	ELECT 1000uF 20% 6.3V	
C708	1-163-234-11	CERAMIC CHIP 20PF 5% 50V	
C709	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C710	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C711	1-126-163-11	ELECT 4.7uF 20% 50V	
C712	1-126-163-11	ELECT 4.7uF 20% 50V	
C713	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C714	1-124-589-11	ELECT 47uF 20% 16V	
C715	1-124-589-11	ELECT 47uF 20% 16V	
C716	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C777	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C779	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C780	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C781	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
< FILTER >			
CF1	1-567-107-00	FILTER, CERAMIC	
CF2	1-567-250-11	OSCILLATOR, CERAMIC	
CF51	1-577-644-11	FILTER, CERAMIC	
CF52	1-527-981-00	FILTER, CERAMIC	
< CONNECTOR >			
* CNP101	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
* CNP102	1-566-004-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP801	1-564-932-11	PIN, CONNECTOR 9P	
* CNP901	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
< DIODE >			
D1	8-719-911-19	DIODE 1SS119	
D2	8-719-911-19	DIODE 1SS119	
D3	8-719-911-19	DIODE 1SS119	
D4	8-719-911-19	DIODE 1SS119	
D5	8-719-109-60	DIODE RD2.7ESB2	
D6	8-719-911-19	DIODE 1SS119	
D7	8-719-911-19	DIODE 1SS119	
D51	8-719-033-70	DIODE KV1583BMTR	
D55	8-719-911-19	DIODE 1SS119	
D56	8-719-911-19	DIODE 1SS119	
D57	8-719-911-19	DIODE 1SS119	
D101	8-719-911-19	DIODE 1SS119	
D201	8-719-911-19	DIODE 1SS119	
D351	8-719-109-89	DIODE RD5.6ES-B2	

Ref. No.	Part No.	Description	Remark
D352	8-719-911-19	DIODE 1SS119	
D353	8-719-911-19	DIODE 1SS119	
D354	8-719-911-19	DIODE 1SS119	
D355	8-719-911-19	DIODE 1SS119	
D356	8-719-911-19	DIODE 1SS119	
D357	8-719-911-19	DIODE 1SS119	
D358	8-719-911-19	DIODE 1SS119	
D359	8-719-110-13	DIODE RD9.1ES-B2	
D360	8-719-200-82	DIODE 11ES2	
D361	8-719-200-82	DIODE 11ES2	
D362	8-719-200-82	DIODE 11ES2	
D363	8-719-200-82	DIODE 11ES2	
D364	8-719-911-19	DIODE 1SS119	
D399	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-109-89	DIODE RD5.6ES-B2	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-911-19	DIODE 1SS119	
D711	8-719-911-19	DIODE 1SS119	
D712	8-719-911-19	DIODE 1SS119	
D713	8-719-911-19	DIODE 1SS119	
D717	8-719-921-75	DIODE MTZN-10B	
D718	8-719-109-89	DIODE RD5.6ES-B2	
< FRONTEND >			
FE1	1-465-919-11	FRONT END	
< IC >			
IC1	8-759-822-57	IC LA1145MF2	
IC2	8-759-821-70	IC LA3430M	
IC51	8-759-821-95	IC LA1137NM	
IC101	8-759-046-31	IC BA328F	
IC401	8-759-909-71	IC BA4558F	(XR-2300)
IC601	8-759-804-75	IC LA4445	
IC701	8-759-163-44	IC uPD1708AG-337-00	
< JACK >			
J1	1-573-995-11	JACK (ANT)	
< JUMPER RESISTOR >			
JR4	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR6	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR7	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR8	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)
JR9	1-216-295-00	METAL CHIP 0 5% 1/10W	(XR-2300)

Ref.No.	Part No.	Description	Remark
JR10	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR11	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR12	1-216-295-00	METAL CHIP	0 5% 1/10W
JR13	1-216-295-00	METAL CHIP	0 5% 1/10W
JR14	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR15	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR16	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR17	1-216-295-00	METAL CHIP	0 5% 1/10W
JR18	1-216-295-00	METAL CHIP	0 5% 1/10W
JR19	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR20	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR21	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR22	1-216-295-00	METAL CHIP	0 5% 1/10W (EXR-10)
JR90	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR91	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR92	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR93	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
JR99	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR101	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR102	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR103	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR104	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR105	1-216-296-00	METAL CHIP	0 5% 1/8W
JR106	1-216-296-00	METAL CHIP	0 5% 1/8W
JR107	1-216-296-00	METAL CHIP	0 5% 1/8W
JR108	1-216-296-00	METAL CHIP	0 5% 1/8W
JR109	1-216-296-00	METAL CHIP	0 5% 1/8W
JR110	1-216-296-00	METAL CHIP	0 5% 1/8W
JR111	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR112	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR113	1-216-296-00	METAL CHIP	0 5% 1/8W (EXR-10)
JR114	1-216-296-00	METAL CHIP	0 5% 1/8W
JR115	1-216-296-00	METAL CHIP	0 5% 1/8W
JR116	1-216-296-00	METAL CHIP	0 5% 1/8W
JR117	1-216-296-00	METAL CHIP	0 5% 1/8W
JR118	1-216-296-00	METAL CHIP	0 5% 1/8W
JR119	1-216-296-00	METAL CHIP	0 5% 1/8W
JR120	1-216-296-00	METAL CHIP	0 5% 1/8W
JR121	1-216-296-00	METAL CHIP	0 5% 1/8W
JR122	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
JR123	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
JR124	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
JR126	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
JR201	1-216-295-00	METAL CHIP	0 5% 1/10W (XR-2300)
JR780	1-216-296-00	METAL CHIP	0 5% 1/8W (XR-2300)
< COIL >			
L1	1-410-324-11	INDUCTOR	4. 7uH
L2	1-410-501-11	INDUCTOR	2. 2uH
L3	1-410-312-11	INDUCTOR	0. 22uH

Ref.No.	Part No.	Description	Remark
L5	1-410-513-11	INDUCTOR	22uH
L51	1-410-513-11	INDUCTOR	22uH
L52	1-410-513-11	INDUCTOR	22uH
L53	1-408-418-00	INDUCTOR	56uH
< TRANSISTOR >			
Q51	8-729-266-83	TRANSISTOR	2SC2668-Y
Q52	8-729-853-64	TRANSISTOR	2SC536SP-G
Q53	8-729-105-74	TRANSISTOR	2SK523-M1
Q101	8-729-903-30	TRANSISTOR	DTC144TK (XR-2300)
Q102	8-729-903-30	TRANSISTOR	DTC144TK (EXR-10)
Q121	8-729-853-64	TRANSISTOR	2SC536SP-G (EXR-10)
Q151	8-729-902-XX	TRANSISTOR	DTC114TK (XR-2300)
Q201	8-729-903-30	TRANSISTOR	DTC144TK (XR-2300)
Q202	8-729-903-30	TRANSISTOR	DTC144TK (EXR-10)
Q221	8-729-853-64	TRANSISTOR	2SC536SP-G (EXR-10)
Q251	8-729-902-XX	TRANSISTOR	DTC114TK (XR-2300)
Q352	8-729-901-00	TRANSISTOR	DTC124EK
Q353	8-729-216-22	TRANSISTOR	2SA1162-G
Q354	8-729-209-15	TRANSISTOR	2SD2012
Q355	8-729-901-00	TRANSISTOR	DTC124EK
Q356	8-729-205-02	TRANSISTOR	2SA1150-Y
Q358	8-729-906-45	TRANSISTOR	DTA143XK
Q359	8-729-901-00	TRANSISTOR	DTC124EK
Q360	8-729-205-02	TRANSISTOR	2SA1150-Y
Q601	8-729-903-30	TRANSISTOR	DTC144TK
Q651	8-729-903-30	TRANSISTOR	DTC144TK
Q705	8-729-967-32	TRANSISTOR	2SC2673-Q
Q706	8-729-016-76	TRANSISTOR	2SC2412KLN-E
Q707	8-729-016-76	TRANSISTOR	2SC2412KLN-E
Q708	8-729-100-66	TRANSISTOR	2SC1623-L6
< RESISTOR >			
R1	1-216-067-00	METAL CHIP	5. 6K 5% 1/10W
R2	1-216-150-00	METAL GLAZE	10 5% 1/8W
R4	1-216-037-00	METAL CHIP	330 5% 1/10W
R5	1-216-689-11	METAL CHIP	39K 0. 5% 1/10W
R6	1-216-075-00	METAL CHIP	12K 5% 1/10W
R7	1-216-083-00	METAL CHIP	27K 5% 1/10W
R8	1-216-071-00	METAL CHIP	8. 2K 5% 1/10W
R9	1-216-077-00	METAL CHIP	15K 5% 1/10W
R10	1-216-222-00	METAL GLAZE	10K 5% 1/8W
R11	1-216-071-00	METAL CHIP	8. 2K 5% 1/10W
R12	1-216-083-00	METAL CHIP	27K 5% 1/10W
R13	1-249-428-11	CARBON	8. 2K 5% 1/4W F
R14	1-216-069-00	METAL CHIP	6. 8K 5% 1/10W
R15	1-216-081-00	METAL CHIP	22K 5% 1/10W
R16	1-216-091-00	METAL CHIP	56K 5% 1/10W
R17	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
R18	1-216-150-00	METAL GLAZE	10 5% 1/8W

MAIN

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>				<u>Remark</u>
R19	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R151	1-216-090-00	METAL CHIP	51K	5%	1/10W	(EXR-10)
R20	1-216-081-00	METAL CHIP	22K	5%	1/10W		R151	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	(XR-2300)
R21	1-216-097-00	METAL CHIP	100K	5%	1/10W		R152	1-216-090-00	METAL CHIP	51K	5%	1/10W	(XR-2300)
R22	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R152	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-10)
R23	1-216-085-00	METAL CHIP	33K	5%	1/10W		R194	1-216-158-00	METAL GLAZE	22	5%	1/8W	
R24	1-216-089-00	METAL GLAZE	47K	5%	1/10W		R201	1-216-015-00	METAL CHIP	39	5%	1/10W	
R25	1-249-436-11	CARBON	39K	5%	1/4W		R202	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R26	1-216-073-00	METAL CHIP	10K	5%	1/10W		R203	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R27	1-216-061-00	METAL CHIP	3.3K	5%	1/10W		R206	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R28	1-216-061-00	METAL CHIP	3.3K	5%	1/10W		R212	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R29	1-216-073-00	METAL CHIP	10K	5%	1/10W		R213	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R30	1-216-067-00	METAL CHIP	5.6K	5%	1/10W		R221	1-216-041-00	METAL CHIP	470	5%	1/10W	(EXR-10)
R31	1-216-091-00	METAL CHIP	56K	5%	1/10W		R221	1-216-095-00	METAL CHIP	82K	5%	1/10W	(XR-2300)
R52	1-216-043-00	METAL CHIP	560	5%	1/10W		R222	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2300)
R53	1-216-121-00	METAL CHIP	1M	5%	1/10W		R222	1-216-121-00	METAL CHIP	1M	5%	1/10W	(EXR-10)
R54	1-216-022-00	METAL CHIP	75	5%	1/10W		R223	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	(EXR-10)
R55	1-216-041-00	METAL CHIP	470	5%	1/10W		R223	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2300)
R56	1-216-097-00	METAL CHIP	100K	5%	1/10W		R224	1-216-041-00	METAL CHIP	470	5%	1/10W	(XR-2300)
R57	1-216-246-00	METAL GLAZE	100K	5%	1/8W		R224	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	(EXR-10)
R58	1-216-049-00	METAL CHIP	1K	5%	1/10W		R225	1-216-049-00	METAL CHIP	1K	5%	1/10W	(XR-2300)
R59	1-216-073-00	METAL CHIP	10K	5%	1/10W		R226	1-216-077-00	METAL CHIP	15K	5%	1/10W	(XR-2300)
R60	1-216-064-00	METAL CHIP	4.3K	5%	1/10W		R227	1-216-091-00	METAL CHIP	56K	5%	1/10W	(XR-2300)
R61	1-216-021-00	METAL CHIP	68	5%	1/10W		R228	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	(XR-2300)
R62	1-216-073-00	METAL CHIP	10K	5%	1/10W		R251	1-216-090-00	METAL CHIP	51K	5%	1/10W	(EXR-10)
R63	1-216-073-00	METAL CHIP	10K	5%	1/10W		R251	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	(XR-2300)
R64	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R252	1-216-090-00	METAL CHIP	51K	5%	1/10W	(XR-2300)
R65	1-216-085-00	METAL CHIP	33K	5%	1/10W		R252	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-10)
R66	1-216-069-00	METAL CHIP	6.8K	5%	1/10W		R291	1-216-009-00	METAL CHIP	22	5%	1/10W	(XR-2300)
R67	1-216-111-00	METAL CHIP	390K	5%	1/10W		R291	1-216-158-00	METAL GLAZE	22	5%	1/8W	(EXR-10)
R68	1-216-083-00	METAL CHIP	27K	5%	1/10W		R352	1-216-234-00	METAL GLAZE	33K	5%	1/8W	
R69	1-216-085-00	METAL CHIP	33K	5%	1/10W		R353	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R101	1-216-015-00	METAL CHIP	39	5%	1/10W		R355	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R102	1-216-065-00	METAL CHIP	4.7K	5%	1/10W		R356	1-249-431-11	CARBON	15K	5%	1/4W	
R103	1-216-097-00	METAL CHIP	100K	5%	1/10W		R357	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R106	1-216-085-00	METAL CHIP	33K	5%	1/10W	(XR-2300)	R358	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R106	1-216-234-00	METAL GLAZE	33K	5%	1/8W	(EXR-10)	R359	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R112	1-216-057-00	METAL CHIP	2.2K	5%	1/10W		R360	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R113	1-216-097-00	METAL CHIP	100K	5%	1/10W		R361	1-247-778-00	CARBON	6.2	5%	1/4W	
R121	1-216-041-00	METAL CHIP	470	5%	1/10W	(EXR-10)	R362	1-247-778-00	CARBON	6.2	5%	1/4W	
R121	1-216-244-00	METAL GLAZE	82K	5%	1/8W	(XR-2300)	R363	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R122	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2300)	R365	1-249-400-11	CARBON	39	5%	1/4W	F
R122	1-216-121-00	METAL CHIP	1M	5%	1/10W	(EXR-10)	R366	1-249-400-11	CARBON	39	5%	1/4W	F
R123	1-216-063-00	METAL CHIP	3.9K	5%	1/10W	(EXR-10)	R367	1-249-393-11	CARBON	10	5%	1/4W	F
R123	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2300)	R368	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R124	1-216-041-00	METAL CHIP	470	5%	1/10W	(XR-2300)	R369	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R124	1-216-066-00	METAL CHIP	5.1K	5%	1/10W	(EXR-10)	R370	1-249-409-11	CARBON	220	5%	1/4W	F
R125	1-216-049-00	METAL CHIP	1K	5%	1/10W	(XR-2300)	R371	1-249-409-11	CARBON	220	5%	1/4W	F
R126	1-216-077-00	METAL CHIP	15K	5%	1/10W	(XR-2300)	R601	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R127	1-216-091-00	METAL CHIP	56K	5%	1/10W	(XR-2300)	R602	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R128	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	(XR-2300)	R603	1-216-025-00	METAL CHIP	100	5%	1/10W	

Ref. No.	Part No.	Description	Remark
R604	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R605	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R651	1-249-423-11	CARBON	3.3K 5% 1/4W F
R652	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R653	1-216-025-00	METAL CHIP	100 5% 1/10W
R654	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R655	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R706	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R707	1-249-428-11	CARBON	8.2K 5% 1/4W F
R708	1-216-689-11	METAL CHIP	39K 0.5% 1/10W
R710	1-249-437-11	CARBON	47K 5% 1/4W
R711	1-249-437-11	CARBON	47K 5% 1/4W
R712	1-249-437-11	CARBON	47K 5% 1/4W
R713	1-249-437-11	CARBON	47K 5% 1/4W
R714	1-249-437-11	CARBON	47K 5% 1/4W
R715	1-216-073-00	METAL CHIP	10K 5% 1/10W
R716	1-216-049-00	METAL CHIP	1K 5% 1/10W
R717	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R718	1-216-121-00	METAL CHIP	1M 5% 1/10W
R719	1-216-202-00	METAL GLAZE	1.5K 5% 1/8W
R720	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R721	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R722	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R730	1-216-238-00	METAL GLAZE	47K 5% 1/8W
R731	1-216-238-00	METAL GLAZE	47K 5% 1/8W
R732	1-216-089-00	METAL CHIP	47K 5% 1/10W
R733	1-216-238-00	METAL GLAZE	47K 5% 1/8W
< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K	
RV51	1-238-602-11	RES, ADJ, CARBON 47K	
RV401 } S401 }	1-223-318-11	RES, VAR (WITH SWITCH) (VOLUME/FADER/TREBLE/BASS/POWER)	(XR-2300)
RV401 } S401 }	1-223-320-11	RES, VAR (WITH SWITCH) (VOLUME/FADER/POWER)	(EXR-10)
RV402 } S851 } S852 } S853 }	1-241-680-11	RES, VAR, CARBON 100K (SW) (TUNING/BALANCE/SEEK/DISPLAY)	
< TRANSFORMER >			
T1	1-404-856-11	COIL, DISCRIMINATOR	
T51	1-402-552-11	COIL (ANT)	
T52	1-426-547-11	COIL (RF)	
T53	1-426-548-21	COIL (RF)	
T54	1-406-379-11	COIL (OSC)	
T55	1-404-958-11	TRANSFORMER, IF	
T56	1-404-959-11	TRANSFORMER, IF	

Ref. No.	Part No.	Description	Remark
< VIBRATOR >			
X701	1-567-713-11	VIBRATOR, CRYSTAL (4.5MHz)	

MISCELLANEOUS			

7	1-751-021-11	CABLE, FLAT (28 CORE)	
8	1-535-667-81	WIRE (FLAT TYPE) (9 CORE)	
60	1-424-267-21	COIL, CHOKE 900UH	
108	1-692-036-11	SWITCH, SLIDE	
122	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
175	1-554-790-21	SWITCH, POWER	
183	1-692-065-11	SWITCH, LEAF	
F1	1-532-360-XX	FUSE (1A)	
F2	1-532-419-00	FUSE (3.15A)	

ACCESSORIES & PACKING MATERIALS			

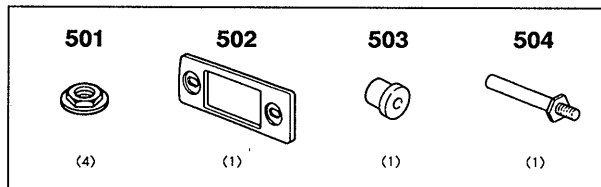
	1-690-329-31	CORD (WITH CONNECTOR)	
	3-373-625-01	KNOB (B) (VOLUME/TUNING)	(XR-2300)
	3-373-625-21	KNOB (B) (VOLUME/TUNING)	(EXR-10)
*	3-375-632-11	CUSHION (UPPER)	
*	3-375-633-12	CUSHION (LOWER)	
*	3-387-765-01	INDIVIDUAL CARTON	(EXR-10)
*	3-387-767-01	INDIVIDUAL CARTON	(XR-2300)
	3-756-548-21	MANUAL, INSTRUCTION	(XR-2300)
		(ENGLISH, FRENCH, SPANISH)	
	3-756-549-21	MANUAL, INSTRUCTION, INSTALL	(XR-2300)
		(ENGLISH, FRENCH, SPANISH)	
	3-756-550-21	MANUAL, INSTRUCTION	(EXR-10)
		(ENGLISH)	
	3-756-551-21	MANUAL, INSTRUCTION, INSTALL	(EXR-10)
		(ENGLISH)	
	X-3363-799-1	KNOB (A) ASSY (FADER/BALANCE)	(XR-2300)
	X-3364-774-1	KNOB (2) ASSY (FADER/BALANCE)	(EXR-10)

Ref.No. Part No. Description Remark

HARDWARE LIST

#1	7-621-770-67	SCREW +PTT 2.6X6 (S)	
#2	7-621-773-86	SCREW +PTT 2.6X4 (S)	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-621-555-10	SCREW +K 2X3	
#5	7-621-255-25	SCREW +PTT 2X4 (S)	
#6	7-627-553-88	SCREW,PRECISION +P 2X7	
#7	7-624-102-04	STOP RING 1.5, TYPE -E	
#8	7-624-104-04	STOP RING 2.0, TYPE -E	
#9	7-624-118-01	RING, RETAINING E-2.5	
#10	7-627-553-48	SCREW,PRECISION +P 2X4	
#11	7-621-255-15	SCREW +P 2X3	
#12	7-621-591-00	SCREW +K 2X4	

MOUNTING HARDWARE



501	3-575-039-00	NUT, CONTROL	
502	3-373-626-01	PLATE, TRIM (XR-2300)	
502	3-383-094-31	PLATE, TRIM (EXR-10)	
503	3-349-410-01	BUSHING	
504	3-386-828-01	SCREW, FITTING	

EXR-10/XR-2300

SONY[®] SERVICE MANUAL

*US Model
Canadian Model*

SUPPLEMENT-1

File this Supplement with the Service Manual.

A Canadian Model has been added for EXR-10.
The main unit is almost identical to the EXR-10 (US Model).
Therefore, only parts that differ from the EXR-10 (US Model) are
described in this manual.

PARTS LIST (Service Manual see page 30 – 40.)

Ref. No.	Former Parts		New Parts				Remark	
	Description	(Parts No.)	Parts No.	Description				
g (Page 30)	* 1-646-967-11		* 1-646-967-11	CONTROL BOARD	(XR-2300)		Correct	
			* 1-646-969-11	CONTROL BOARD	(EXR-10)		Added	
C55 (Page 35)	1-163-087-00	4PF	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V	Changed
C56 (Page 35)	1-163-229-11	12P	1-163-096-00	CERAMIC CHIP	13PF	5%	50V	Changed
RV51 (Page 39)	1-238-602-11	47K	1-238-600-11	RES, ADJ, CARBON	10K			Changed
ACC (Page 39)	_____		3-756-550-31	MANUAL, INSTRUCTION	(EXR-10 : Canadian)			Added

EXR-10/XR-2300

SONY® SERVICE MANUAL

*US Model
Canadian Model*

SUPPLEMENT-2

File this supplement with the service manual.

Subject: Add the Green Illumination Model for XR-2300

(ENG-94011)

Difference of Part List

Page	Amber illumination model				Green illumination model		
	Ref. No.	Part No.	Description	Remark	Part No.	Description	Remark
24	PL801	1-518-615-21	LAMP, PILOT		1-517-156-51	LAMP, PILOT	
	PL802	1-518-615-21	LAMP, PILOT		1-517-156-51	LAMP, PILOT	
34	PL801	1-518-615-21	LAMP, PILOT		1-517-156-51	LAMP, PILOT	
	PL802	1-518-615-21	LAMP, PILOT		1-517-156-51	LAMP, PILOT	