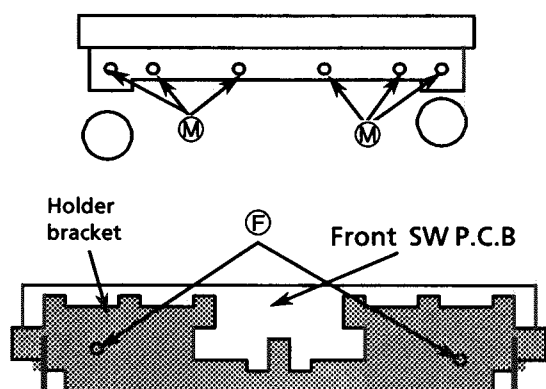


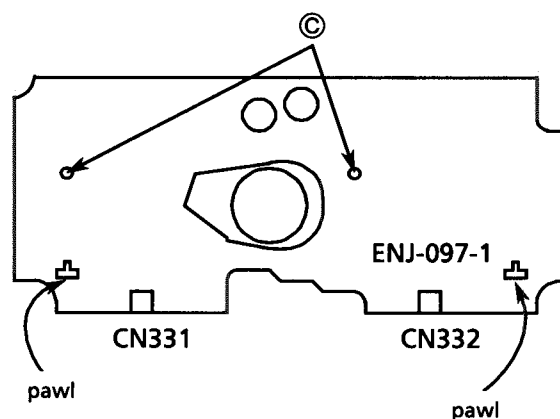
(9) Removing the Front SW circuit board (ENJ-097-3)

1. Remove the mechanism assembly and cassette holder.
2. Remove the 6 screws (M) to remove the holder bracket fixing the SW circuit board.
3. Remove 2 screws (F) to remove the circuit board.



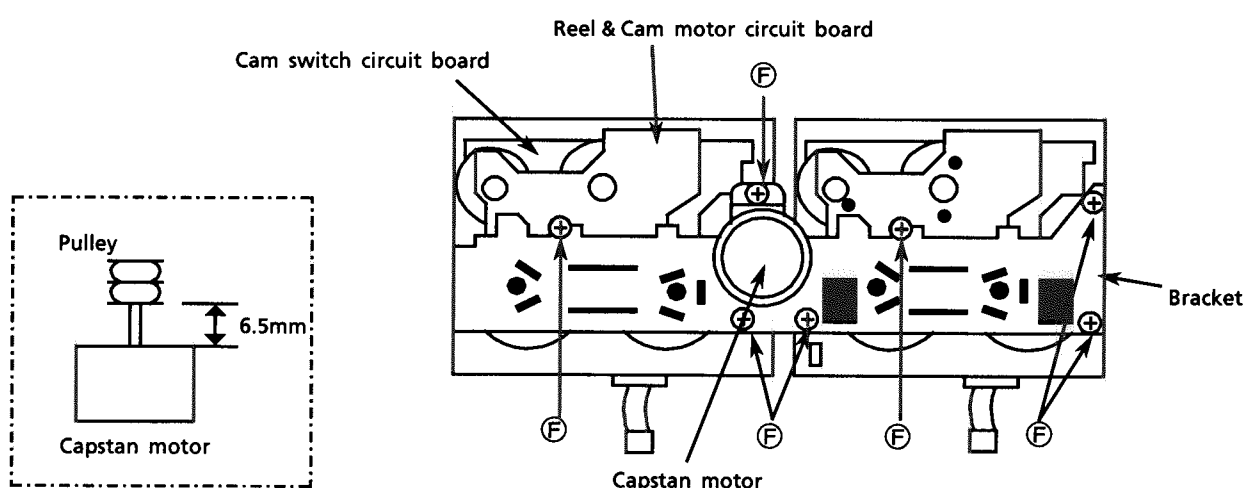
(10) Removing the deck audio circuit board (ENJ-097-1)

1. Remove the front panel assembly and Deck control circuit board (ENJ-097-2).
2. Disconnect CN331 and CN332.
3. Remove the 2 screws (C) to remove the circuit board. (Pay attention to the pawls.)



(11) Removing the capstan motor

1. Remove the deck audio circuit board.
2. Remove the 7 screws (F) fixing the bracket.
3. Release the hooks holding the bracket to remove the bracket with the capstan motor.
4. Remove the 2 screws fixing the motor to remove it.



Behind of the mechanism

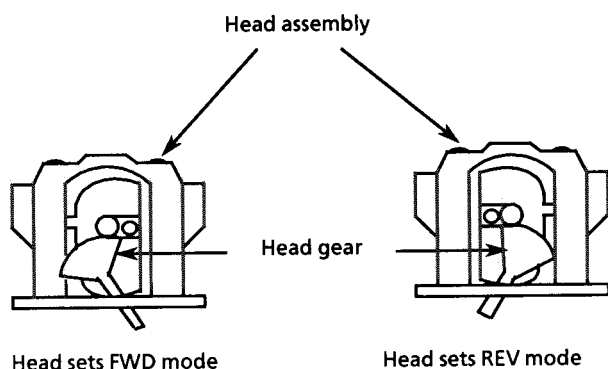
© .. SBST3006Z

(F) ... SDSF2608Z

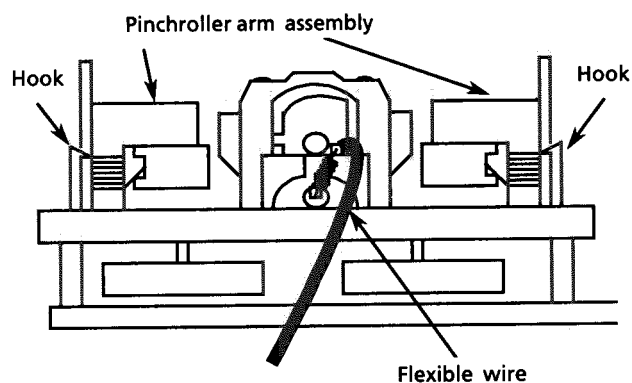
(M) ... SDST3008CC

**(12) Installing the head assembly**

The direction of the head is changed with the head gear. When servicing, install the head gear according to the direction of the head.

**(13) Removing the pinchroller arm assembly**

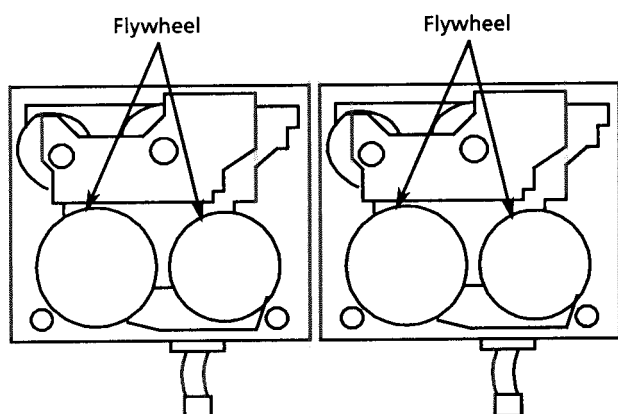
1. Remove the mechanism assembly.
2. Release the hook holding the assembly to remove it.



Bottom view of the mechanism

**(14) Removing the Flywheels**

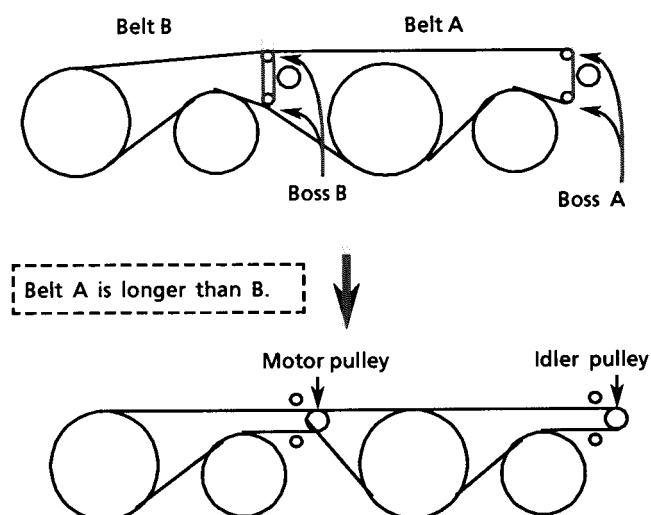
1. Remove the deck audio circuit board.
2. Remove the 7 screws ⑤ and release the hooks holding the bracket to remove the bracket with the capstan motor.
3. Remove the flywheel.



Behind of the mechanism

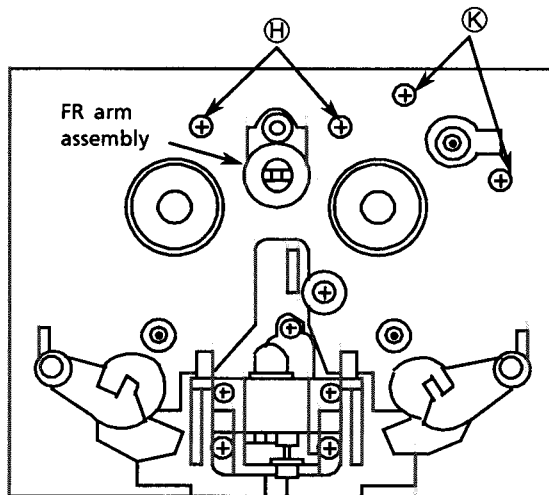
**(15) How to install the belts**

1. Install the belts as shown in the figure below.  
When putting the belts, put the belt B first.
2. Install the bracket with the capstan motor to put the belts on the pulleys.



(16) Removing the reel & cam motor

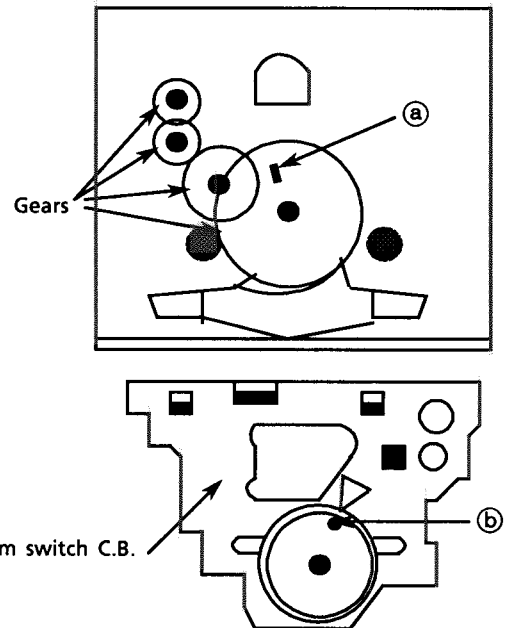
1. Remove the flywheel.
2. Remove the screws ㊦ and ㊧ fixing the motors to remove the reel & cam motor circuit board.
3. Unsolder the motors to remove them.



Front view of the mechanism

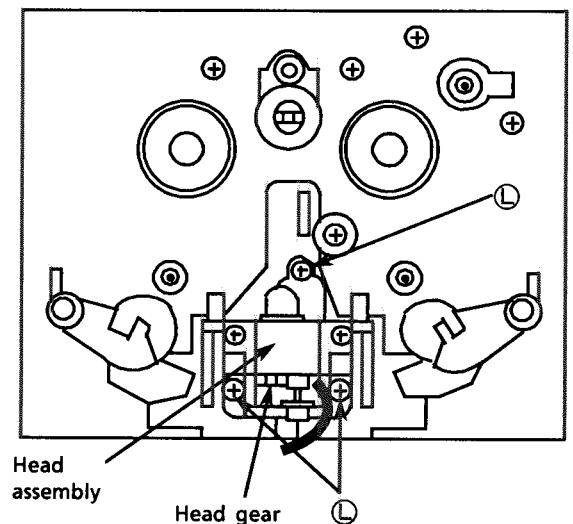
(17) Removing the cam switch circuit board

1. Remove the flywheel.
  2. Remove the reel & cam motor circuit board.
  3. Release the hook holding the cam switch circuit board and remove the screw to remove it.
- ※ When installing the cam switch circuit board, assemble the circuit board so that the part ㊱ meets part ㊲.



(18) Removing the head assembly

1. Remove the mechanism assembly. (Refer to Item 8)
2. Disconnect the connector CN331 or CN332 on the deck audio circuit board.
3. Remove the 3 screws ㊬ fixing the head assembly to remove it.



Front view of the mechanism

㊦ .... VKZ4705-001

㊧ .... VKZ4705-002

㊬ .... SDST2004Z

## Adjustment Procedures (Cassette Deck)

### 1. Measuring instruments

Audio frequency signal generator ( 0dbS output at the 600 ohm output terminal from 50Hz to 20KHz)

Electronic voltmeter

Frequency counter

Wow & Flutter meter

Distortion Meter with band pass filter

Attenuator (600 ohm impedance)

A resistor with 600Ω

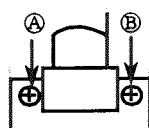
#### Standard Tape

0dbS = 0.775V

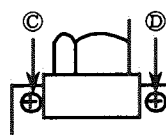
Tape No.	Frequency	Level (Wow & Fkutter)	Purpose
VTT-703L	10kHz	-10dBs	Head azimuth , Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed , Wow & Flutter
VTT-724	1kHz	-4dBs	Standard Level
TMT-6447	—	—	Blunk Skip
TMT-6247 , TMT-6237	—	—	Music Scan
TMT-7046	—	—	Recording standard Normal : UR
AC-712	—	—	Recording standard METAL : MA
AC-513	—	—	Recording standard CrO <sub>2</sub> : SA
TW-2111, TW-2121	—	—	Forward / reverse play torque measuring
TW-2231	—	—	Feed forward / rewind torque measuring
C-120 Tape	—	—	Confirming the tape running

### 2. Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	<p>Deck A</p> <ol style="list-style-type: none"> <li>1. Connect an electronic voltmeter to the DOLBY TP (figure 3) to playback VTT-703L.</li> <li>2. Adjust screw ① so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>3. Adjust screw ② so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed.</li> </ol> <p>Deck B</p> <ol style="list-style-type: none"> <li>4. Adjust screw ③ so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed.</li> <li>5. Adjust screw ④ so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed.</li> <li>6. After making the adjustment, apply screw lock to prevent screws ①, ②, ③ and ④ coming loose.</li> </ol>	Maximum	<ol style="list-style-type: none"> <li>1. Refer to figure 1.</li> <li>2. When the specified characteristic cannot be obtained because of head wear, excessive magnetization, etc., replace the head assembly and adjust the head azimuth. Also, perform the electric adjustment.</li> <li>3. When there is the difference of more than 3 ~ 4 dB between left and right output levels, replace the head assembly to avoid complaints.</li> </ol>
Playback torque	1. Measure the torque in the playback mode by the torqu meter.	26 ~ 62 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Fast forward torque	1. Measure the torque in the fast forward mode by the torqu meter.	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Rewind torque	1. Measure the torque in the rewind mode by the torqu meter.	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Wow & flutter	<ol style="list-style-type: none"> <li>1. Connect the wow &amp; flutter meter to the DOLBY TP (figure 3) and play back VTT-712.</li> <li>2. Its reading should be within 0.2% (WTD).</li> </ol>	—	As a complaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard, repairing is required.



Deck A



Deck B

Figure 1



### 3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.

Set the NR switch to OFF and the BEAT CUT switch to "1".

Adjustments marked with an asterisk (\*) should always be made after the head is replaced

0dBs=0.775V.

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Tape Speed	1. Connect a frequency counter to the DOLBY TP (figure 3) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor VR201 on ENJ-086-2. 2) Mechanism A Play back deck A to confirm that the difference between deck A and deck B is within $\pm 51\text{Hz}$ .	VR201  Check	3,000 Hz $\pm 10\text{Hz}$	1) Adjust the normal speed first, and perform the high speed adjustment.
* Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.	Deck A L: VR301 R: VR302 Deck B L: VR303 R: VR304	-5.5dBs (411mV) $\pm 1\text{dB}$	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 k $\Omega$ or more.
* Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). 2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.	Deck A L: VR305 R: VR306 Deck B L: VR307 R: VR308	-11.5dBs (206mV) $\pm 3\text{dB}$	—
* Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP (figure 3), and perform a recording to adjust bias frequency.	L301	100 kHz $\pm 6\text{ kHz}$	Set the BEAT CUT SWITCH to "1".
* Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to AUX (AX-F3000) terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 3) and confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L: VR513 R: VR514	0 $\pm 2\text{ dB}$ for 12.5 kHz with 1 kHz as the standard.	<b>Refer to figure 2 below.</b> 1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.
* Adjustment HX PRO	1. Connect an electronic voltmeter to the R504(L), R503(R) at either end, and record the no signal Metal tape. 2. Adjust to the liast volues.	L501(L) L502(R)		

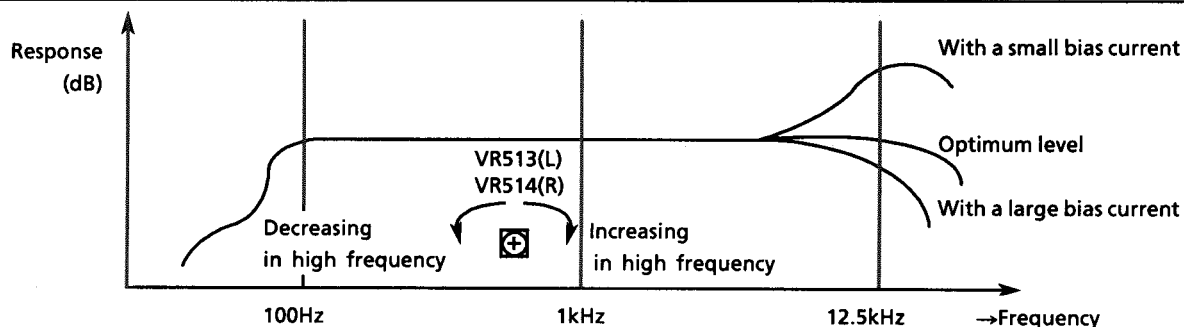


Figure 2

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
* Record / Playback Sensitivity	1. Input a 1 kHz ( -8.2dBs: 300mV) signal to PHONO / VCR terminals and record it on the left and right channels . 2. Connect an electronic voltmeter to the DOLBY TP (figure3) to confirm the values . 3. If the values are not satisfied , adjust the semi-fixed resistors and record the signals again to confirm the values.	L : VR311 R : VR312	- 5.5dBs (411mV)	Adjust with normal tape and make sure that the left / right level difference is 1.0dB or less
* Erase ratio check	1. Record a music source using metal tape. 2. Rewind and erase the recorded section. 3. Comfirm nothing can be heard.	-	-	-
Auto-stop check	Make sure to operate AUTO STOP at the end of tape running and not to operate on the way of the playing.	-	-	-
Music Scan	1. Make sure not to work the music scanning operation at the start of tape wind using TMT-6237. 2. Make sure to work the music scanning operation at the end of tape wind using TMT-6247.	-	-	-

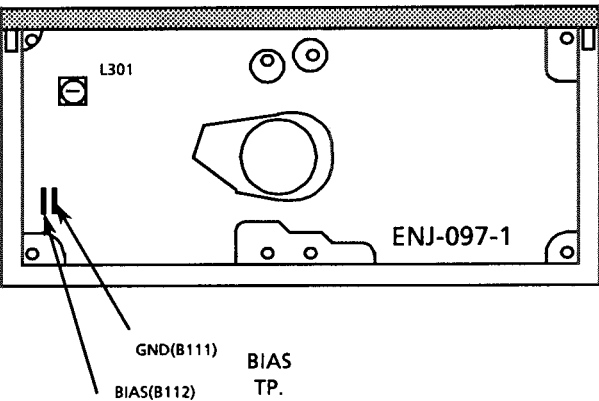


FIG.3

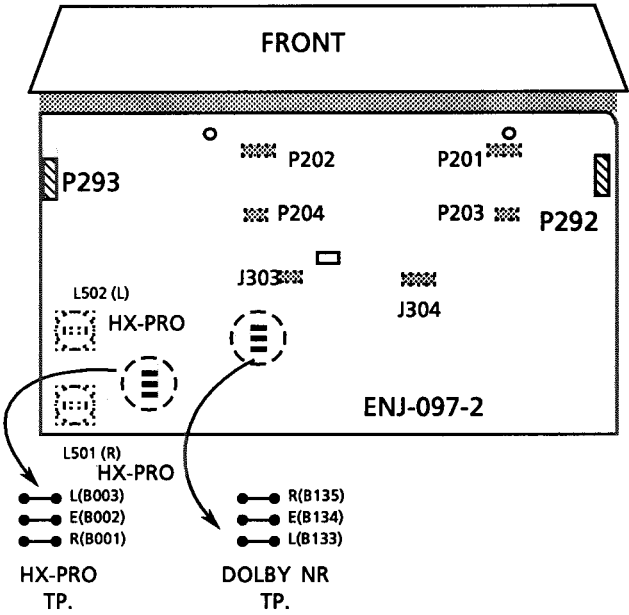


FIG.4

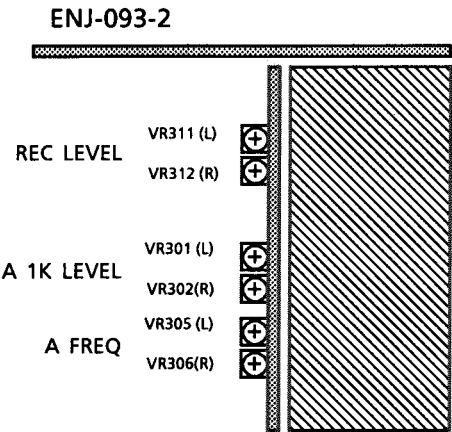


FIG.5 LEFT SIDE

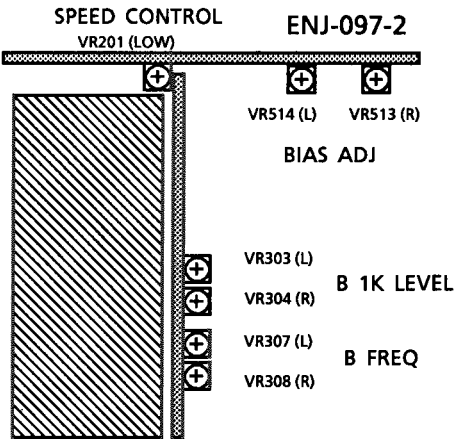
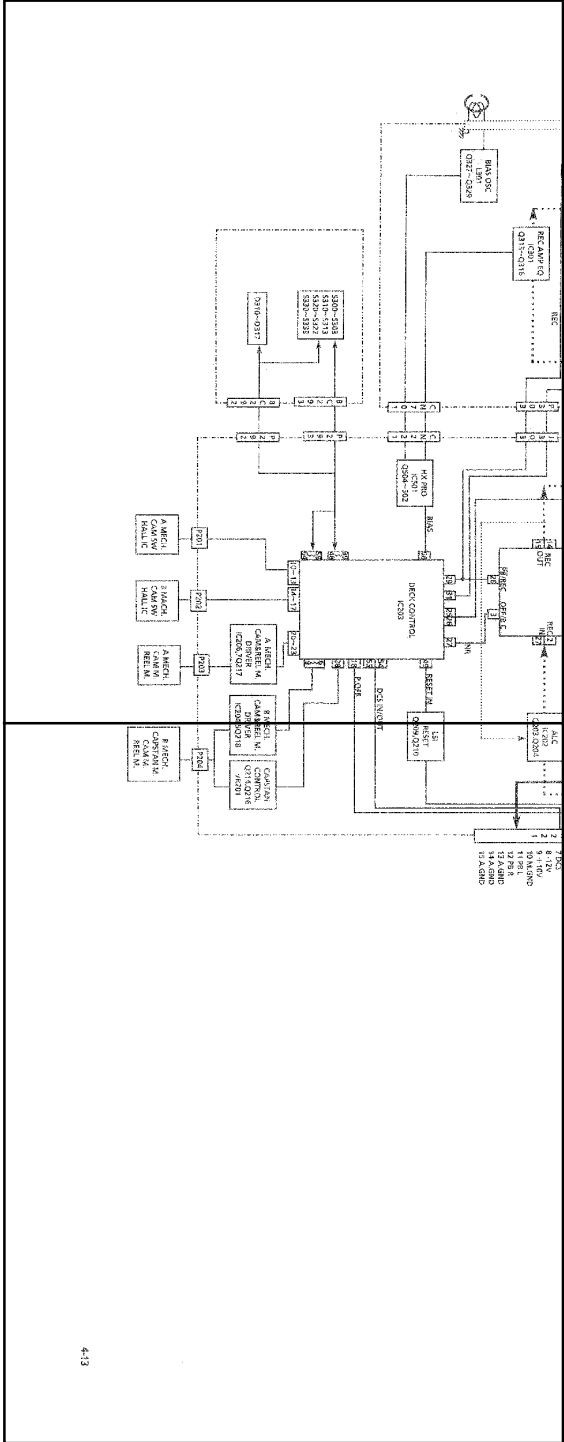
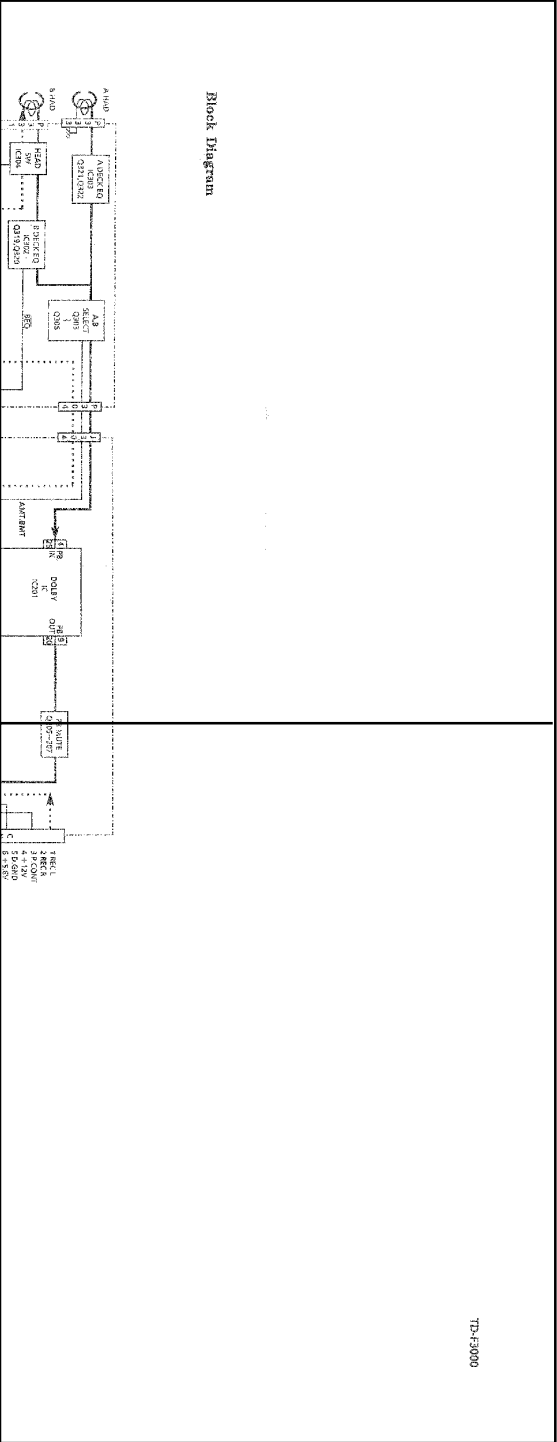


FIG.6 RIGHT SIDE

P4-13-a



P4-13-b

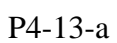


P4-13-c

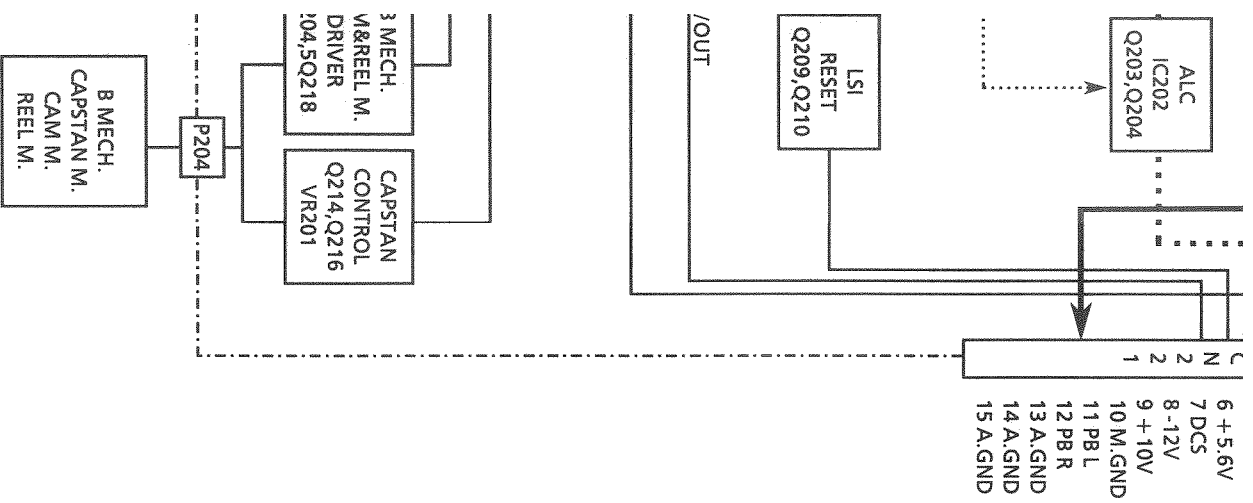


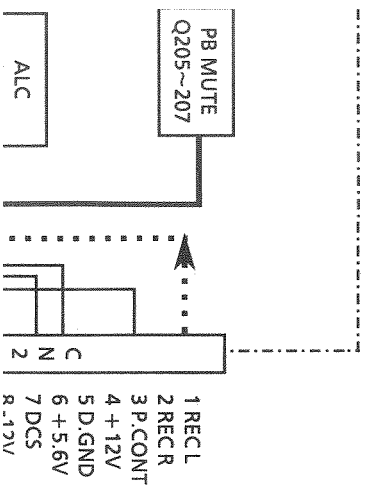
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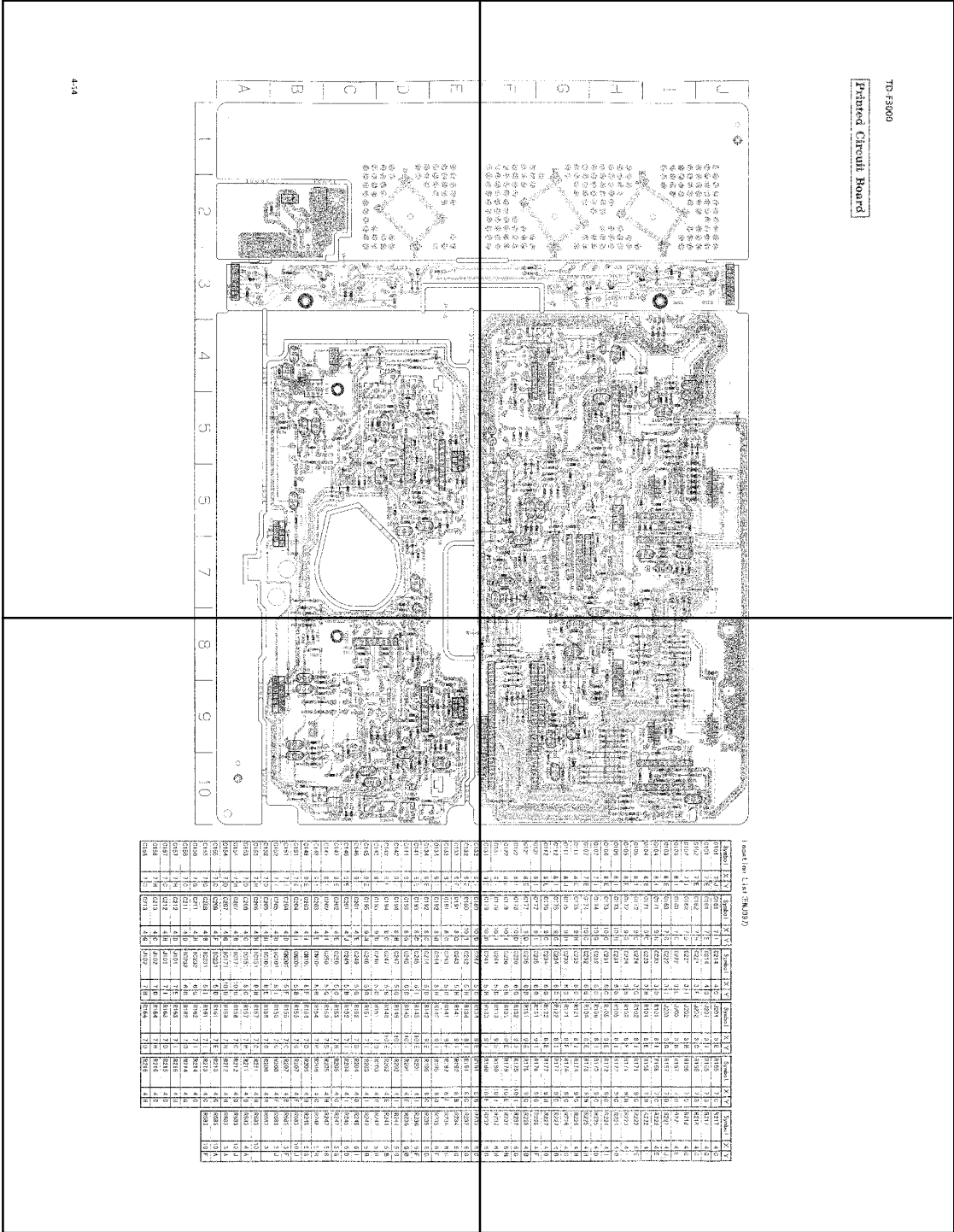








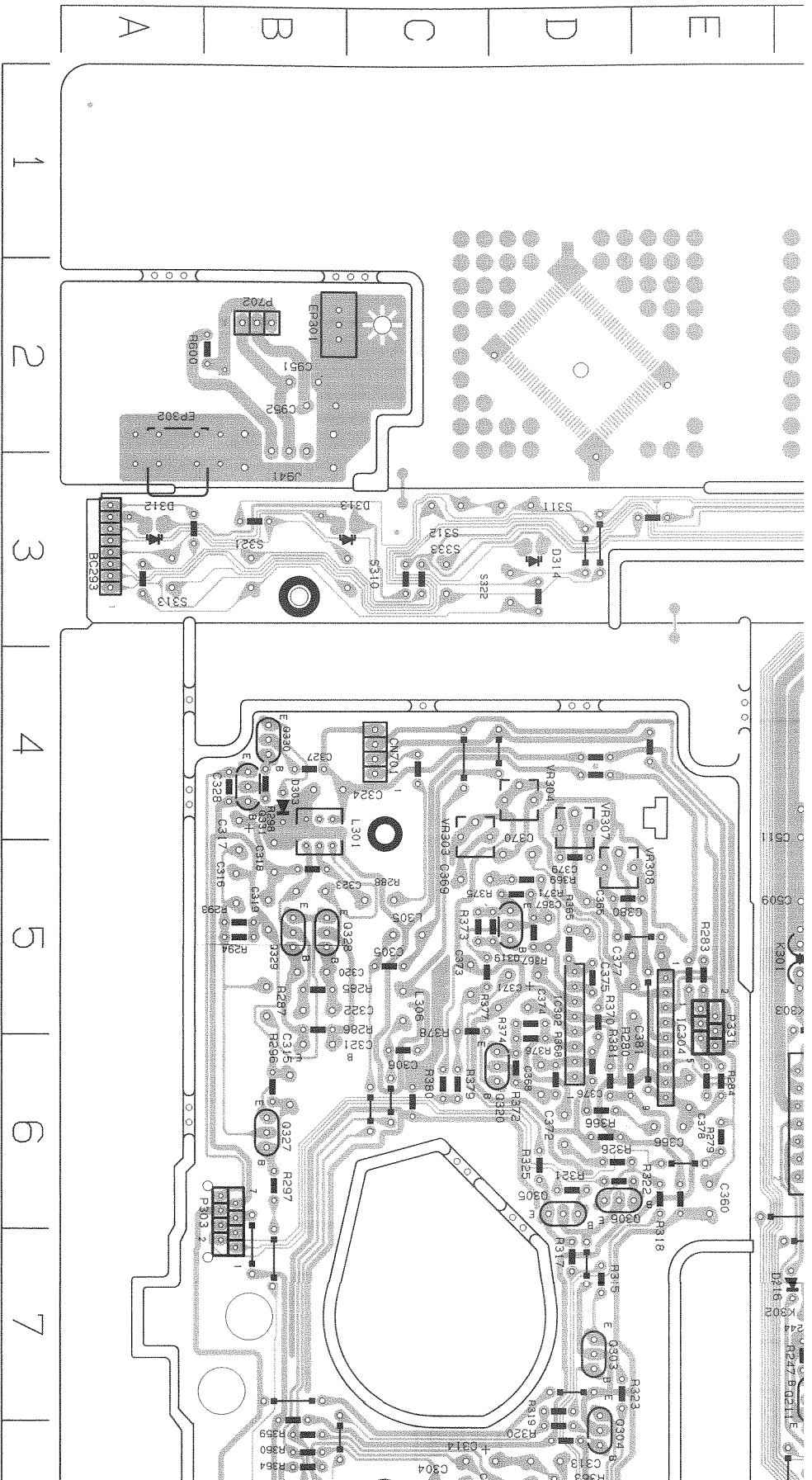
P4-14-a

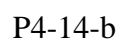


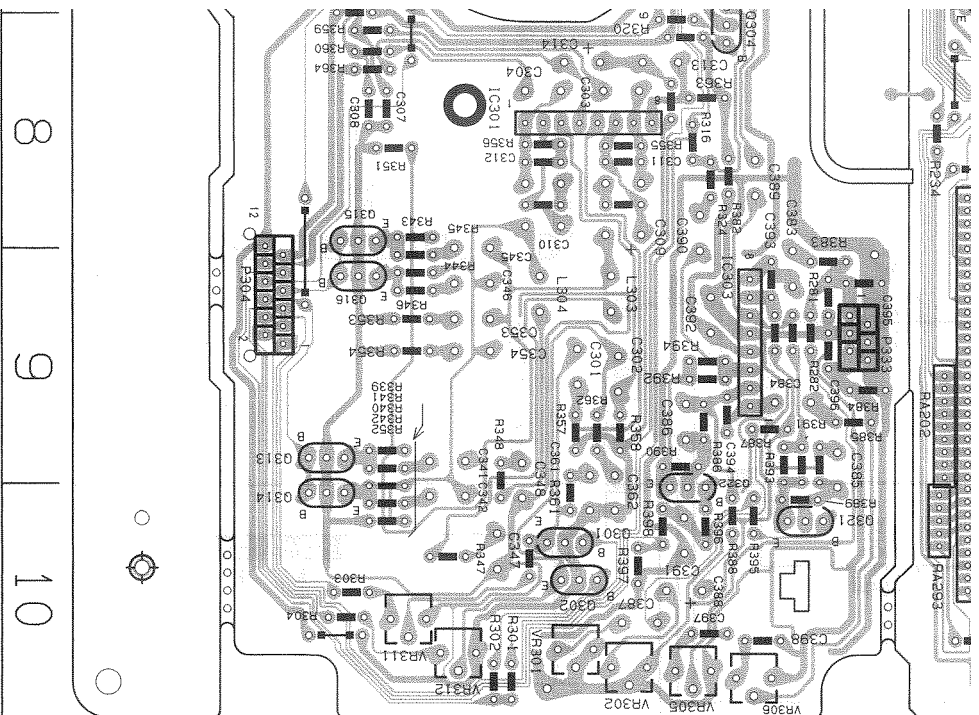
P4-14-b

P4-14-c

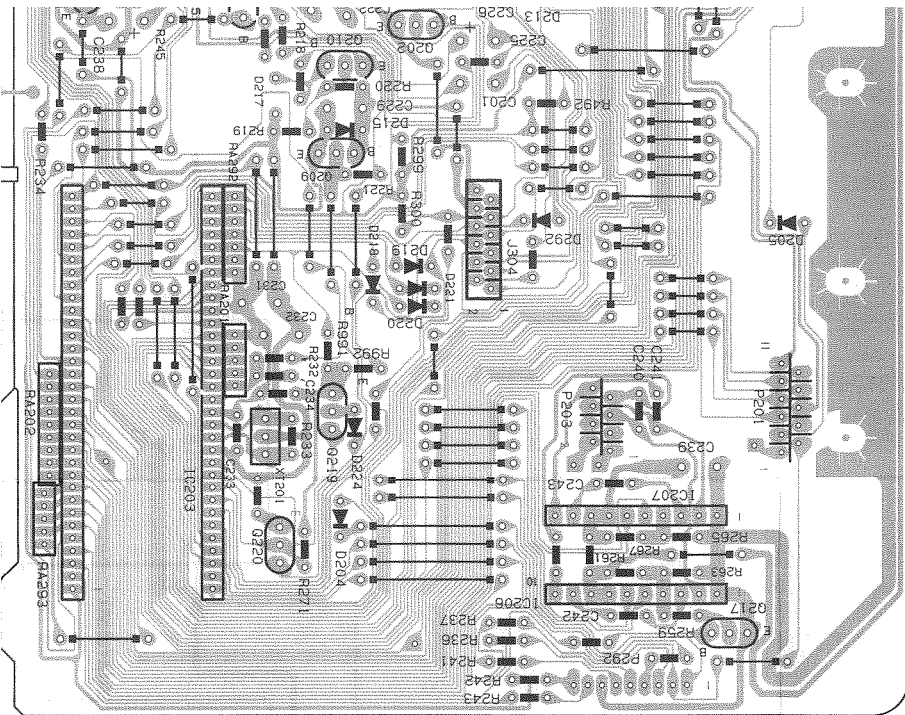
P4-14-d







C131	9 E	C179	10 D	C241	5 H	R133	9 I	R180	10 E	R232	6 C
C132	9 I	C180	10 D	C242	5 D	R134	9 E	R191	8 B	R233	6 C
C132	9 E	C180	10 I	C242	5 H	R134	9 I	R191	8 G	R233	6 G
C133	9 E	C191	8 G	C243	5 H	R141	9 I	R192	8 B	R234	6 G
C133	9 I	C191	8 C	C243	5 D	R141	9 E	R192	8 F	R234	6 C
C134	9 I	C192	8 H	C244	5 H	R142	9 I	R195	9 G	R235	6 F
C134	9 E	C192	8 C	C244	5 D	R142	9 E	R195	9 C	R235	6 B
C141	9 E	C193	8 C	C245	6 I	R145	10 E	R201	4 I	R236	6 F
C141	9 I	C193	8 G	C245	6 D	R145	10 I	R201	4 E	R236	6 B
C142	9 I	C194	8 H	C247	5 G	R146	10 I	R202	4 I	R241	5 G
C142	9 E	C194	8 C	C247	5 B	R146	10 E	R202	4 E	R241	5 B
C145	9 I	C195	9 D	C248	5 C	R151	7 D	R203	4 D	R242	5 G
C145	9 E	C195	9 H	C248	5 G	R151	7 I	R203	4 I	R242	5 B
C146	9 I	C201	4 E	C249	5 G	R152	7 D	R204	4 D	R245	6 I
C146	9 E	C201	4 J	C249	5 B	R152	7 I	R204	4 I	R245	6 D
C147	9 E	C202	4 E	C250	5 C	R153	7 H	R205	4 C	R247	5 G
C147	9 I	C202	4 I	C250	5 G	R153	7 D	R205	4 H	R247	5 B
C148	9 I	C203	4 E	CN101	8 B	R154	7 H	R206	4 C	R248	5 B
C148	9 E	C203	4 I	CN101	8 F	R154	7 D	R206	4 H	R248	5 G
C151	7 E	C204	4 I	CN201	5 B	R155	7 G	R207	4 F	R683	10 J
C151	7 I	C204	4 D	CN201	5 F	R155	7 C	R207	4 B	R683	3 F
C152	7 I	C205	4 D	IC101	8 I	R156	7 C	R208	4 F	R683	3 J
C152	7 D	C205	4 H	IC101	8 E	R156	7 G	R208	4 B	R683	3
C153	7 H	C206	4 H	IC151	8 H	R157	7 C	R211	4 H	R683	10
C153	7 D	C206	4 C	IC151	8 C	R157	7 H	R211	4 D	R683	4 A
C154	7 H	C207	4 B	IC171	10 D	R158	7 C	R212	4 D	R683	10 J
C154	7 D	C207	4 G	IC171	10 H	R158	7 H	R212	4 H	R683	3 A
C155	7 C	C208	4 F	IC231	5 D	R161	7 E	R213	4 G	R683	10 A
C155	7 G	C208	4 B	IC231	5 I	R161	7 I	R213	4 C	R683	10 F
C156	7 G	C211	4 H	IC232	6 G	R162	7 I	R214	4 C		
C156	7 C	C211	4 D	IC232	6 C	R162	7 D	R214	4 G		
C157	7 H	C212	4 D	J101	7 E	R163	7 I	R215	4 H		
C157	7 C	C212	4 H	J101	7 I	R163	7 D	R215	4 D		
C158	7 H	C213	4 C	J102	7 D	R164	7 H	R216	4 D		
C158	7 C	C213	4 G	J102	7 H	R164	7 D	R216	4 H		



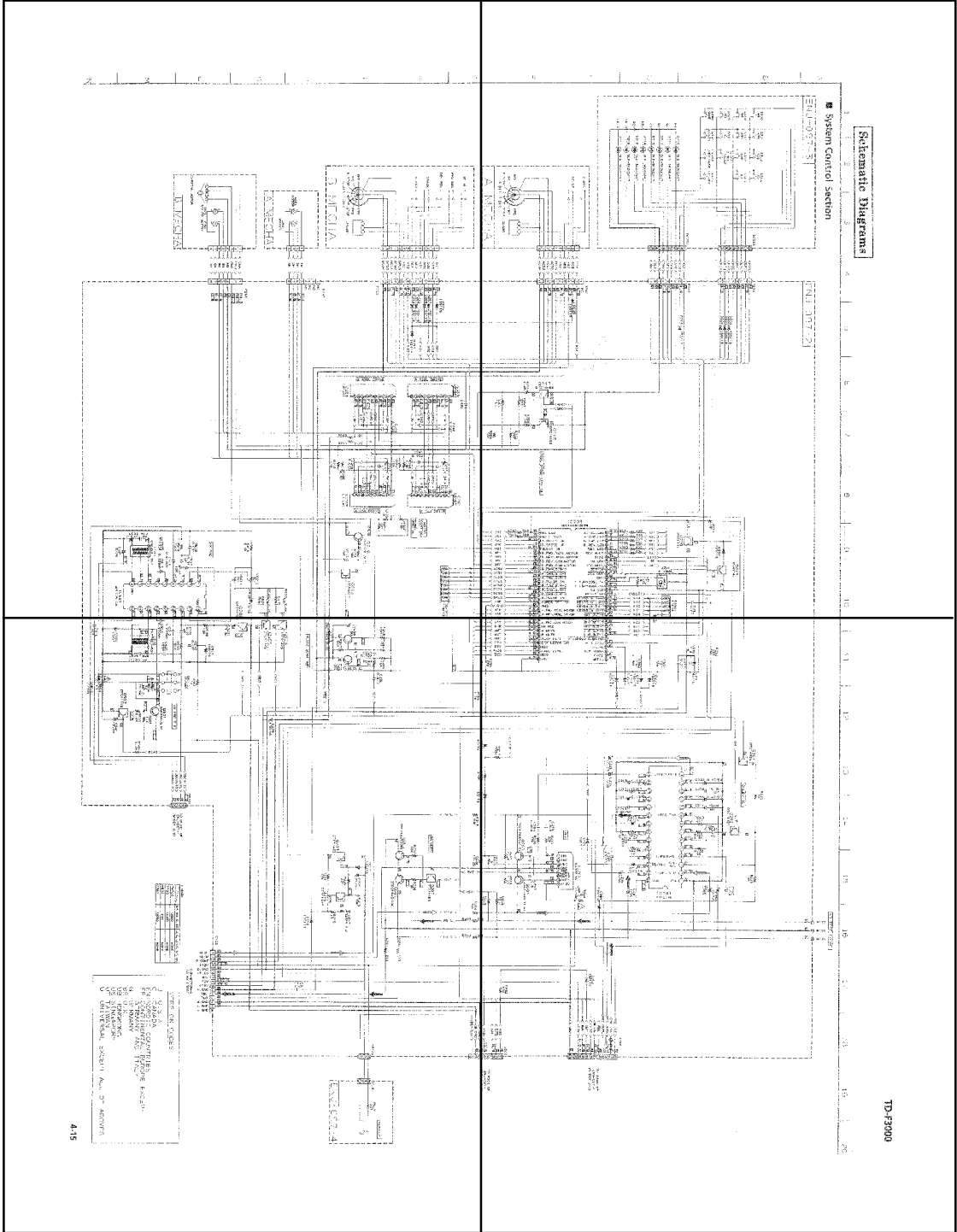
Location List (ENU097)

Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y	Symbol	X	Y
C101	7	J	C161	7	I	C214	4	C	J201	3	E	R165	7	C	R217	4	C
C101	7	E	C161	7	E	C214	4	G	J201	3	I	R165	7	G	R217	4	G
C102	7	E	C162	7	H	C221	3	E	J202	3	C	R166	7	G	R218	4	C
C102	7	I	C162	7	D	C221	3	I	J202	3	H	R166	7	C	R218	4	G
C103	8	I	C163	7	C	C222	3	E	J203	3	B	R167	7	H	R221	4	E
C103	8	E	C163	7	G	C222	3	I	J203	3	G	R167	7	D	R221	4	J
C104	8	I	C171	9	H	C223	3	D	R101	8	I	R168	7	C	R222	4	E
C104	8	E	C171	9	C	C223	3	H	R101	8	E	R168	7	H	R222	4	I
C105	8	I	C172	9	C	C224	3	G	R102	8	I	R171	9	C	R223	4	E
C105	8	E	C172	9	G	C224	3	B	R102	8	E	R171	9	H	R223	4	I
C106	8	I	C173	10	H	C231	6	G	R105	8	I	R172	9	C	R224	4	D
C106	8	E	C173	10	C	C231	6	C	R105	8	E	R172	9	G	R224	4	I
C107	7	I	C174	10	G	C232	6	C	R106	8	I	R173	9	C	R225	4	D
C107	7	E	C174	10	C	C232	6	G	R106	8	E	R173	9	H	R225	4	H
C111	8	E	C175	9	H	C233	6	C	R121	8	I	R174	9	C	R226	4	H
C111	8	J	C175	9	D	C233	6	G	R121	8	E	R174	9	G	R226	4	C
C112	8	I	C176	9	G	C234	6	C	R122	8	I	R177	9	C	R227	4	B
C112	8	E	C176	9	C	C234	6	G	R122	8	E	R177	9	H	R227	4	G
C121	8	I	C177	9	I	C235	6	G	R131	9	I	R178	9	G	R228	4	F
C121	8	E	C177	9	D	C235	6	B	R131	9	E	R178	9	C	R228	4	B
C122	8	I	C178	10	D	C236	6	G	R132	9	I	R179	10	I	R231	6	C
C122	8	E	C178	10	I	C236	6	B	R132	9	E	R179	10	E	R231	6	H
C131	9	I	C179	10	I	C241	5	D	R133	9	E	R180	10	I	R232	6	H
C131	9	E	C179	10	D	C241	5	H	R133	9	I	R180	10	E	R232	6	C
C132	9	I	C180	10	D	C242	5	D	R134	9	E	R191	8	B	R233	6	C



P4-15-a

P4-15-b



P4-15-c

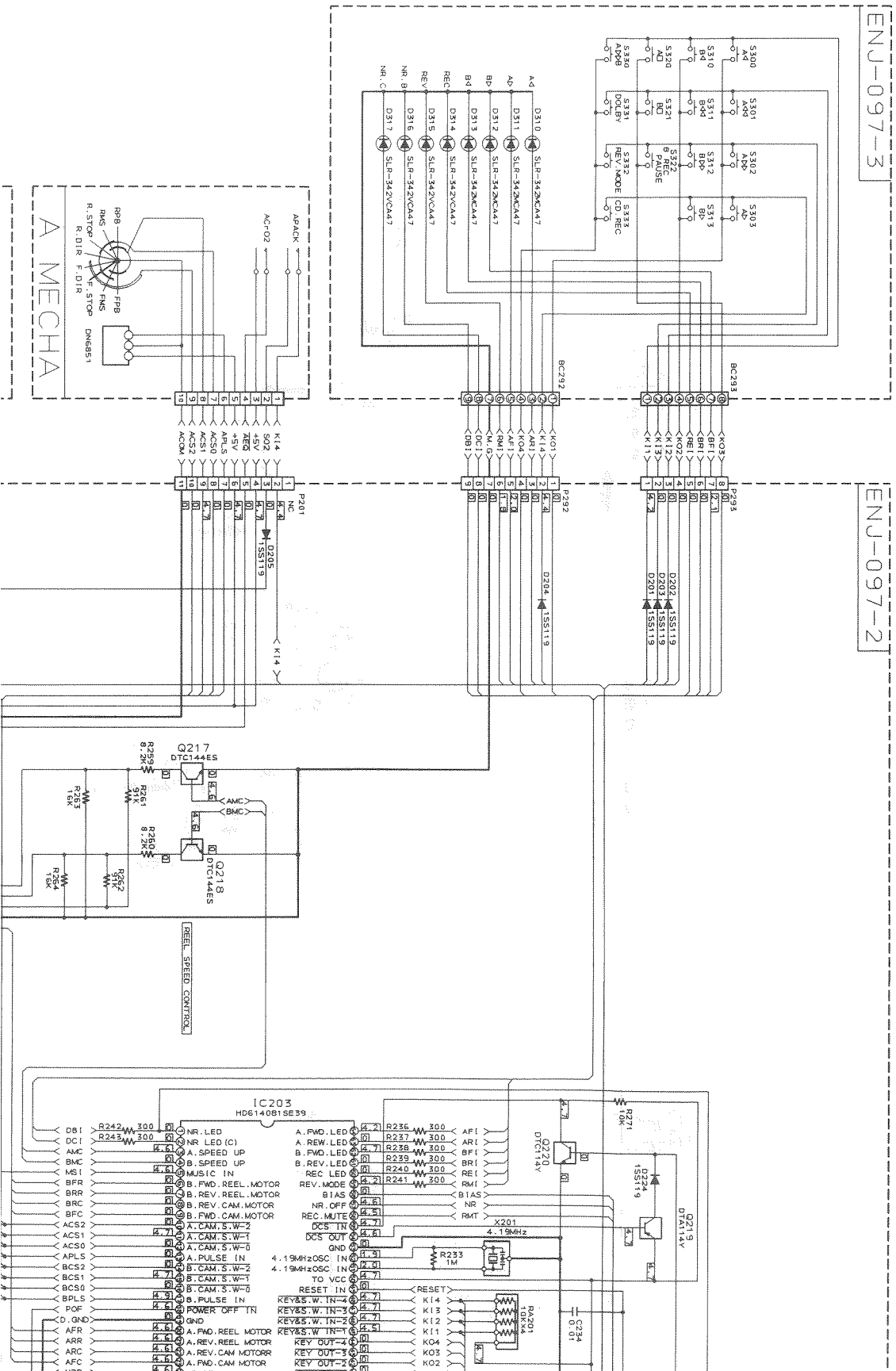
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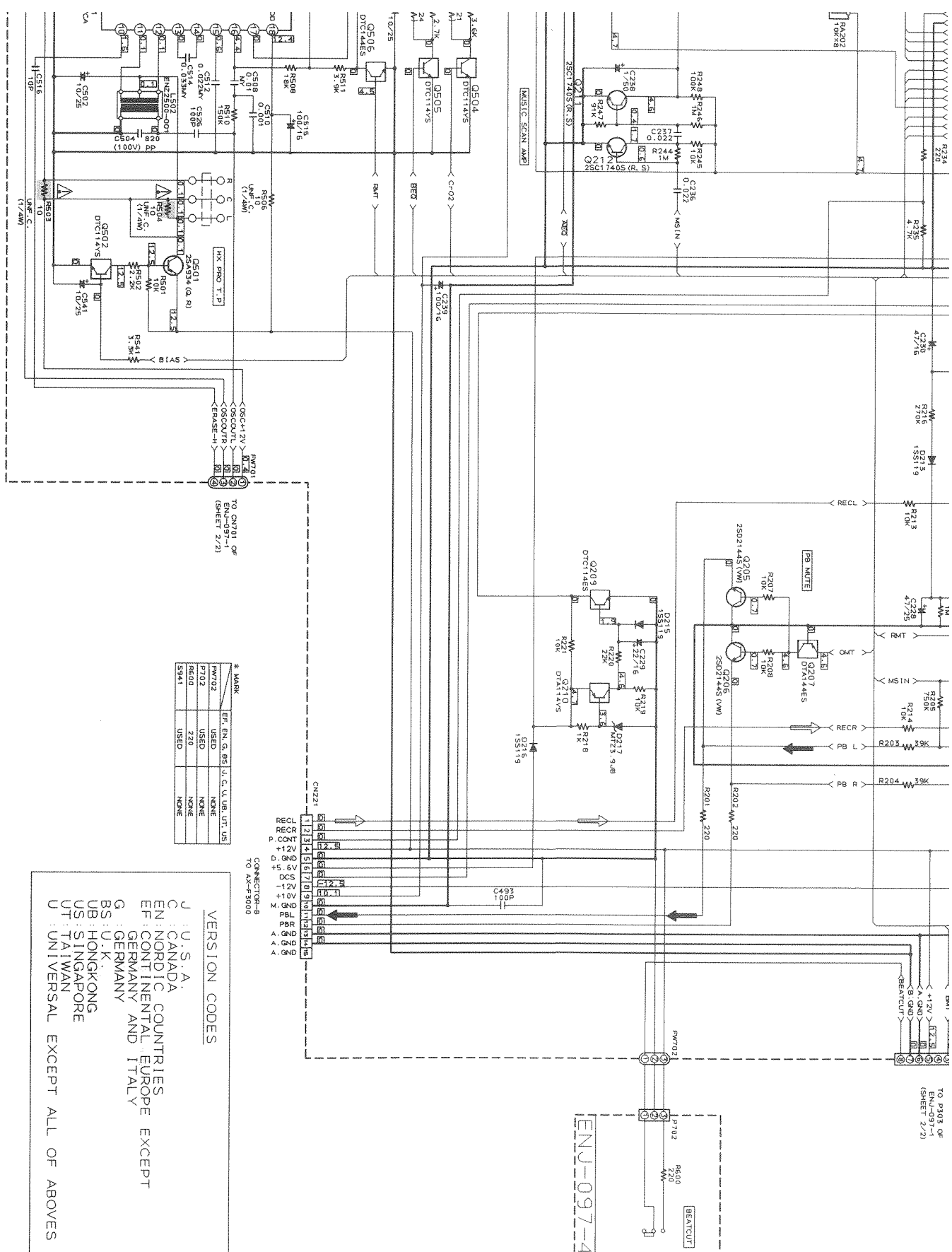




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## System Control Section

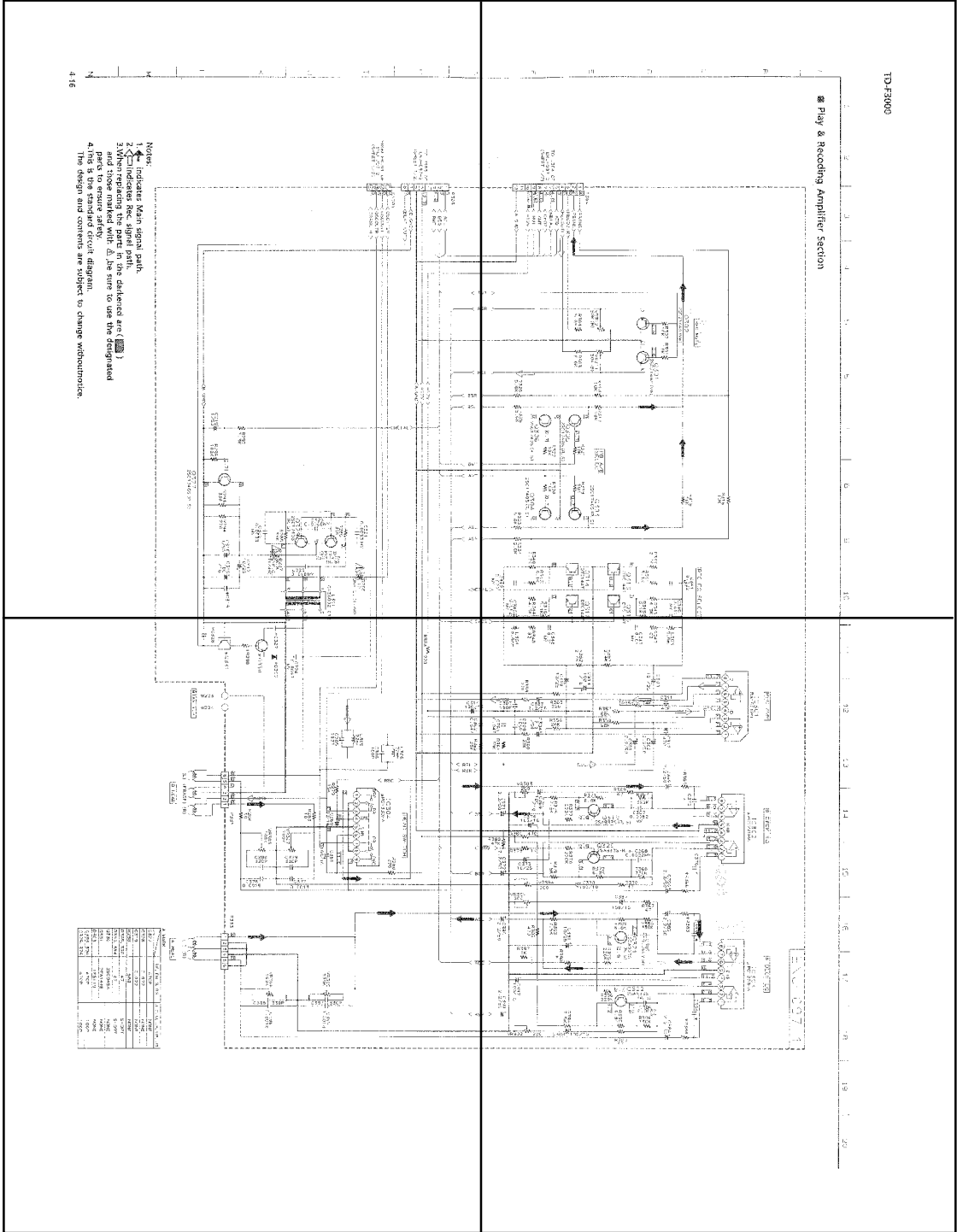








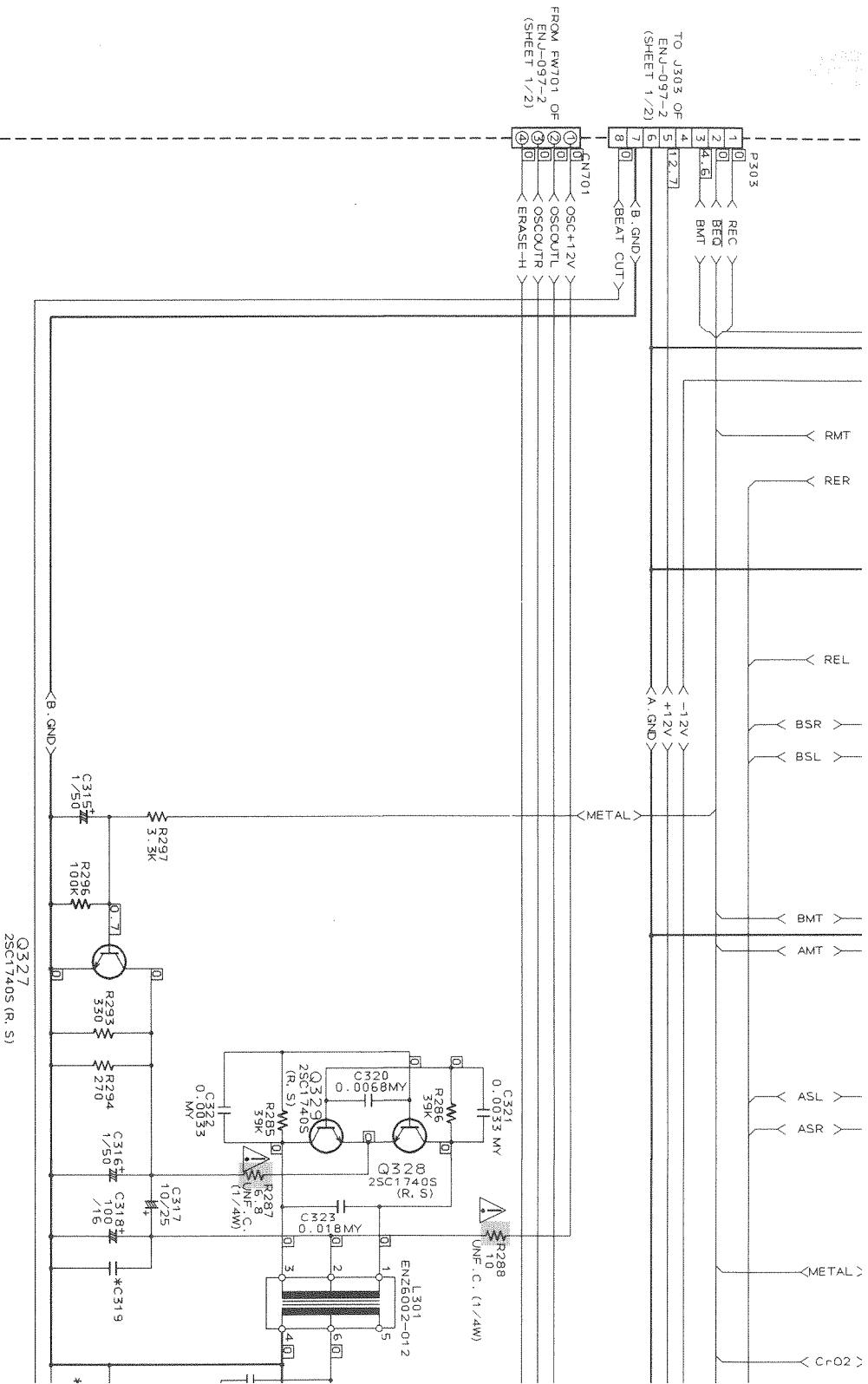
P4-16-a



P4-16-c

P4-16-b

P4-16-d



Notes:

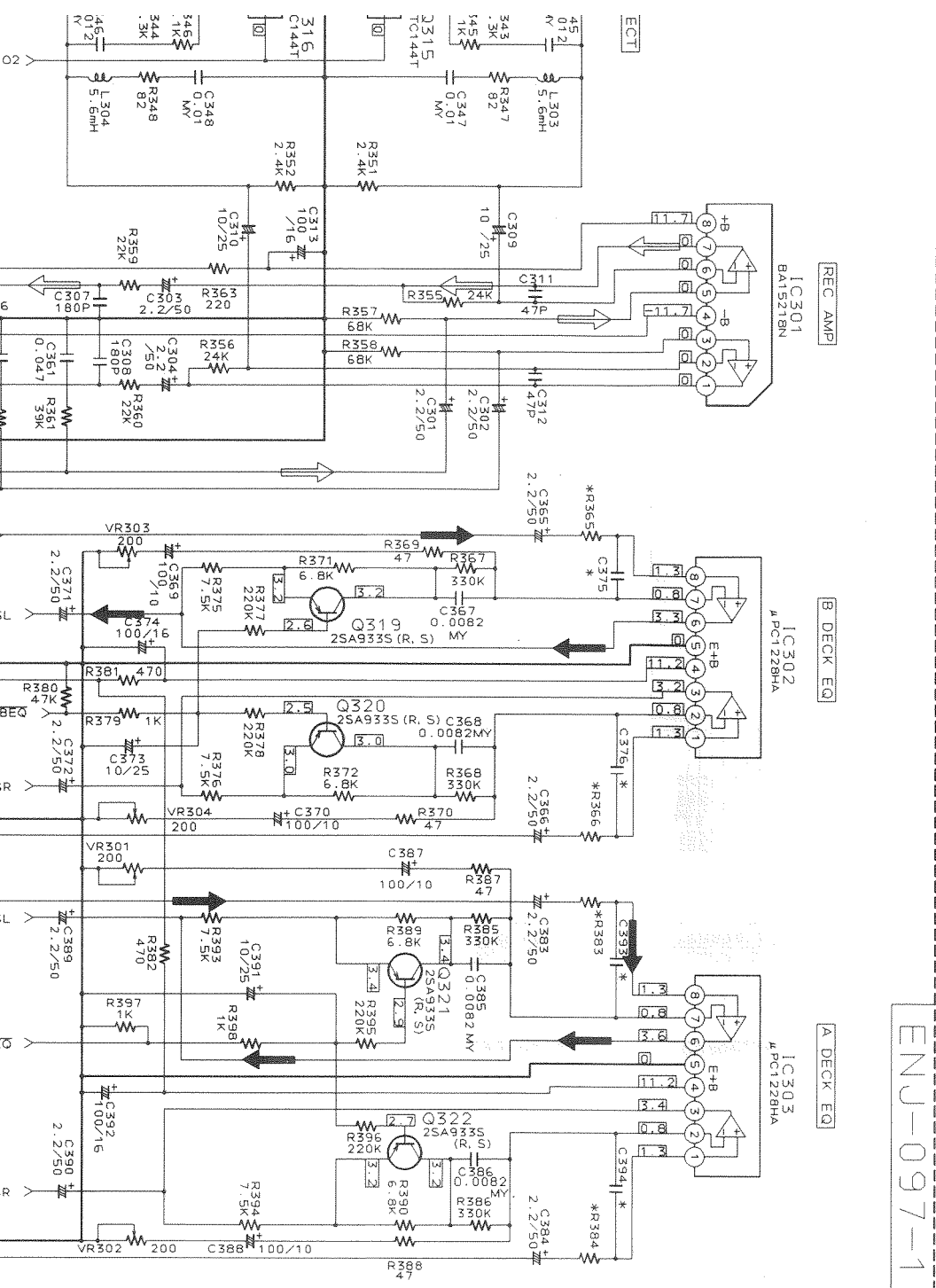
1. indicates Main signal path.
2. indicates Rec. signal path.
3. When replacing the parts in the darkened are ( ) and those marked with ,be sure to use the designated parts to ensure safety.
4. This is the standard circuit diagram.  
The design and contents are subject to change withoutnotice.

Δ	Β	Γ	Δ	Ε	Ζ	Η
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11 12 13 14 15 16 17 18 19 20



# FX-F3000 FX-F3000R

## Contents

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## Description of Major LSIs

### ■ MN172124J6E (IC201) : SYSTEM CONTROLLER

#### 1. Terminal Layout

63	~	43
64		42
}		}
84		22
1	~	21

#### 2. Key Matrix

※ :FX-F3000R

	KEY IN 0 (PIN56)	KEY IN 1 (PIN57)	KEY IN2 (PIN58)	KEY IN3 (PIN59)
KEY OUT 0 (PIN60)	MEMORY (S201)	CLOCK ADJ (S202)	REC (S203)	DAILY (S204)
KEY OUT 1 (PIN61)	TUNING/TIMER DOWN (S205)	TUNING/TIMER UP (S206)	P R E S E T / P T Y DOWN (S207)	PRESET /PTY UP (S208)
KEY OUT 2 (PIN62)			FM (S209)	AM (S210)
KEY OUT 3 (PIN63)	※ DISPLAY (S211)	※ EON ON/OFF (S212)	※ EON MODE (S213)	※ PTY SEARCH (S214)

#### 3. Description

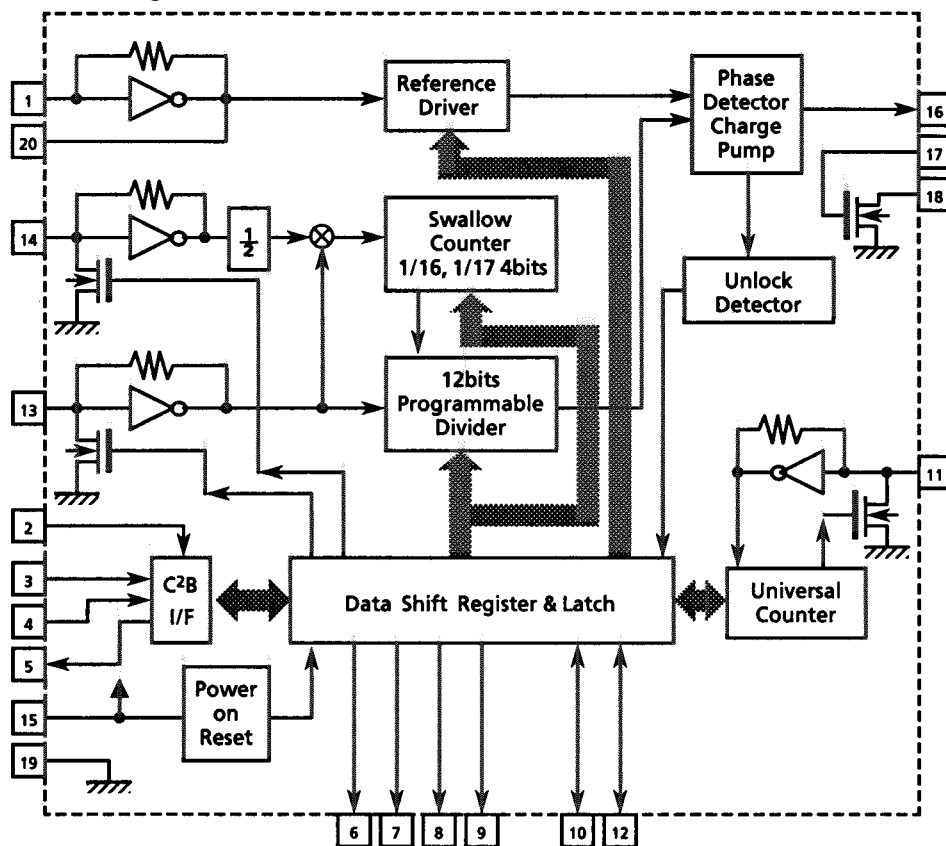
Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	7G	O	FL grid control	43	TUDATA	O	Data for PLL synthesizer
2	6G	O	FL grid control	44	fout	O	Clock frequency
3	5G	O	FL grid control	45	RDS CLK	I	Clock input from IC191
4	4G	O	FL grid control	46	RDS DATA	I	Data signal from IC191
5	3G	O	FL grid control	47	RDS RST	O	Reset signal for IC191
6	2G	O	FL grid control	48	INH	I	Inhibit signal input
7	1G	O	FL grid control	49	RDS D.ST	I	D.Start signal from IC191
8	P1	O	FL anode control	50	TUNED	I	TUNED indication control
9	P2	O	FL anode control	51	STEREO	I	STEREO indication control
10	P3	O	FL anode control	52	MUTE	O	Muting tuner sound
11	P4	O	FL anode control	53		--	Not used
12	P5	O	FL anode control	54	DCS OUT	O	Compulink signal output
13	P6	O	FL anode control	55	DCS IN	I	Compulink signal input
14	P7	O	FL anode control	56	KI0	I	Key matrix input
15	P8	O	FL anode control	57	KI1	I	Key matrix input
16	P9	O	FL anode control	58	KI2	I	Key matrix input
17	P10	O	FL anode control	59	KI3	I	Key matrix input
18	P11	O	FL anode control	60	KO0	O	Key matrix output
19	P12	O	FL anode control	61	KO1	O	Key matrix output
20	P13	O	FL anode control	62	KO2	O	Key matrix output
21	P14	O	FL anode control	63	KO3	O	Key matrix output
22	P15	O	FL anode control	64	KO4	O	Key matrix output
23	VP	--	Power supply for FL display	65	KO5	O	Key matrix output
24	P16	O	FL anode control	66	KO6	O	Key matrix output
25	P17	O	FL anode control	67	KO7	O	Key matrix output
26	P18	O	FL anode control	68	RST	I	Reset signal input
27	P19	O	FL anode control	69		--	GND
28	P20	O	FL anode control	70		--	Not used
29	P21	O	FL anode control	71		--	GND
30	P22	O	FL anode control	72	OSC2	I/O	Clock oscillation terminal
31	P23	O	FL anode control	73	OSC1	I/O	Clock oscillation terminal
32	P24	O	FL anode control	74	VDD	--	Power supply
33	P25	O	FL anode control	75	TEST	I	TEST mode
34	P26	O	FL anode control	76	FM IND.	O	FM indication control
35	P27	O	FL anode control	77	AM IND.	O	AM indication control
36	P28	O	FL anode control	78	P35	O	FL anode control
37	P29	O	FL anode control	79	P34	O	FL anode control
38	P30	O	FL anode control	80	P33	O	FL anode control
39	P36	O	FL anode control	81	P32	O	FL anode control
40	CE	O	Chip enable signal for PLL synthesizer	82	P31	O	FL anode control
41	CLK	O	Clock for PLL synthesizer	83	9G	O	FL grid control
42	IFDATA	I	Data from PLL synthesizer	84	8G	O	FL grid control

## ■ LC72131M (IC121) : PLL Synthesizer

### 1. Terminal Layout

XIN	1	20	XOUT
CE	2	19	VSS
TDATA	3	18	LPF OUT
CK	4	17	LPF IN
IFDATA	5	16	PD
FM	6	15	VDD
MW	7	14	FM OSC
LW	8	13	AM OSC
AUTO/MONO	9	12	IF REQ
POWER	10	11	FM/AM IF

### 2. Block Diagram



### 3. Pin Functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	X in	I	Crystal oscillator (7.2MHz).	11	FM/AM IF	I	Universal counter input
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.	12	IF REQ	O	Output the "IF-signal request" to IC102
3	TDATA	I	Receive the control data from the controller (IC201).	13	AM IN	I	Input the local oscillator signal of AM.
4	CK	I	This clock is used to synchronize data when transmitting the data of DI and DO.	14	FM IN	I	Input the local oscillator signal of FM.
5	IFDATA	O	Transmit the data from LC72131M to the controller which is synchronized with CK.	15	VDD	—	This is a terminal of power supply.
6	FM	O	It is "L" on FM mode.	16	PD	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
7	MW	O	It is "L" on MW mode.	17	LPF IN	I	Transistor used for the PLL active low-pass filter
8	LW	O	It is "L" on LW mode.	18	LPF OUT	O	Transistor used for the PLL active low-pass filter
9	AUTO/MONO	O	It is "L" on monaural, "H" on auto.	19	VSS	—	Connected to GND
10	POWER	O	Regulator control signal PON "H", STANDBY "L"	20	X out	O	Crystal oscillator (7.2MHz).

■ SAA6579T (IC192) : Radio data system demodulator (Used for FX-F3000R)

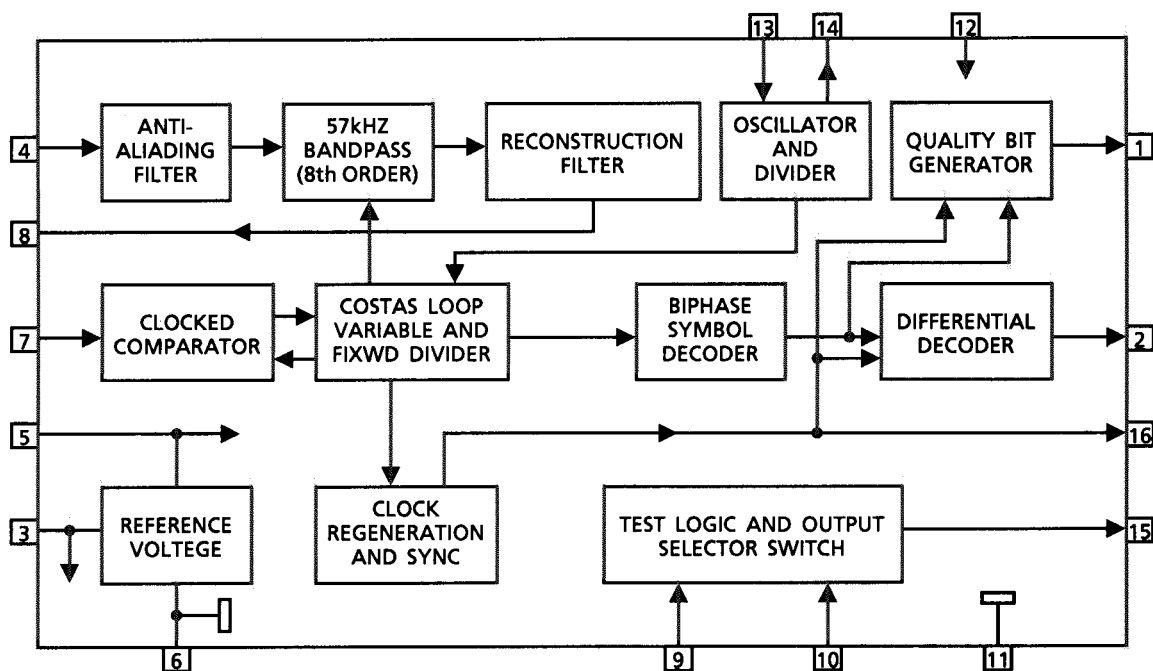
## 1. Terminal Layout

QUAL	1	16	RDCL
RDDA	2	15	T57
Vref	3	14	OSCO
MUX	4	13	OSCI
VDDA	5	12	VDD
GND	6	11	GND
CIN	7	10	GND
SCOUT	8	9	GND

## 2. Pin Function

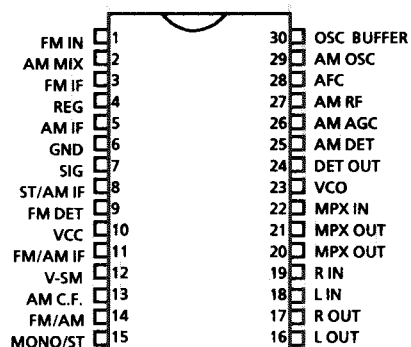
Pin No.	Symbol	I/O	Function
1	QUAL	—	Non connection
2	RDDA	O	RDS data output
3	Vref	O	Reference voltage output
4	MUX	I	Multiplex signal input
5	VDDA	—	+5V supply voltage for analog part
6	GND	—	Ground for analog part (0V)
7	CIN	I	Subcarrier input to comparator
8	SCOUT	O	Subcarrier output of reconstruction filter
9	GND	—	Ground for digital part (0V)
10	GND	—	Ground for digital part (0V)
11	GND	—	Ground for digital part (0V)
12	VDD	—	+5V supply voltage for digital part
13	OSCI	I	Oscillator input
14	OSCO	O	Oscillator output
15	T57	—	Non connection
16	RDCL	O	RDS clock output

## 3. Block Diagram



# ■ LA1836M (IC102) : FM AM IF AMP & detector, FM MPX Decoder

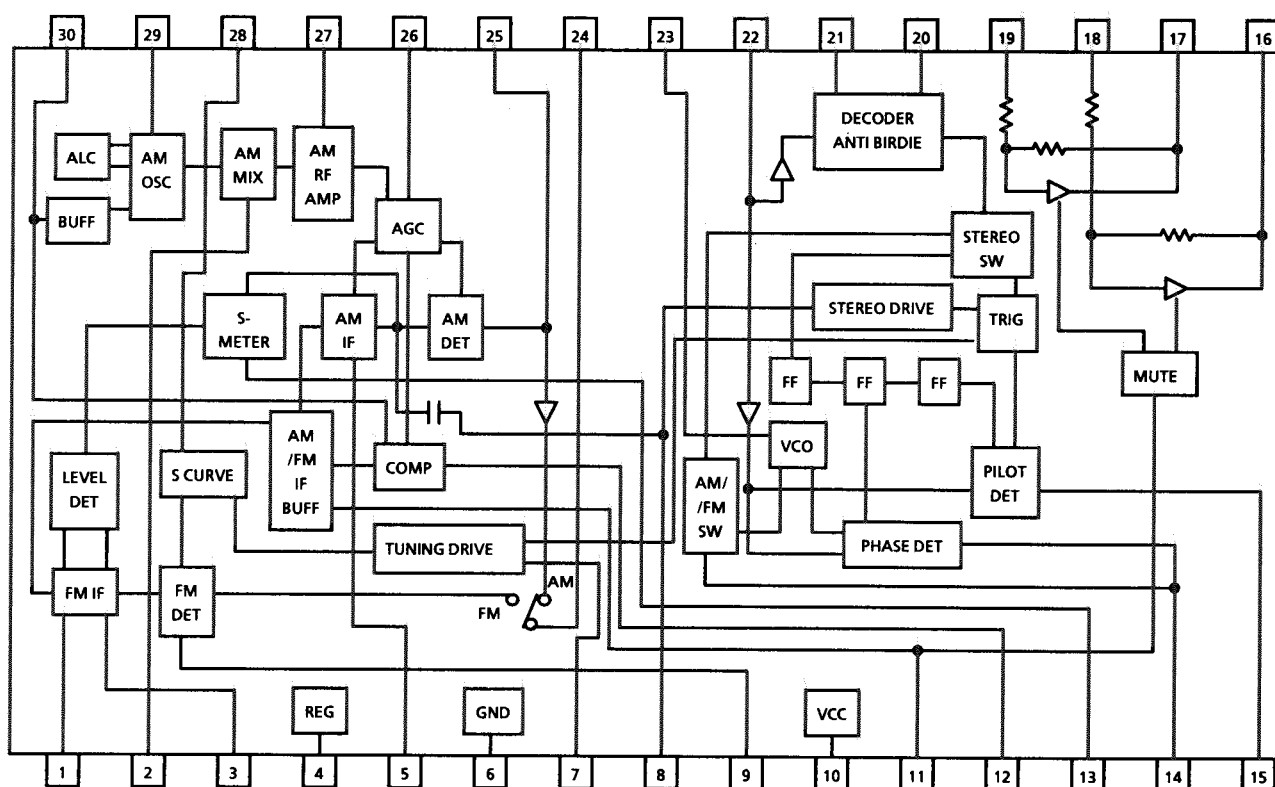
## 1. Terminal Layout



## 3. Pin Function

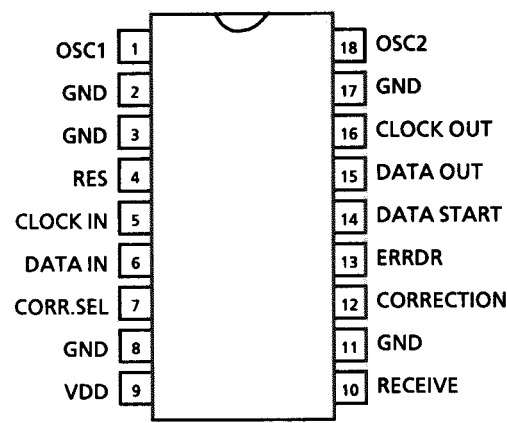
Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF Signal.
2	AM MIX	O	This is an output terminal for AM mixer.
3	FM IF	I	Bypass of FM IF
4	REG	—	Register value between pin4 and pin28 desides the frequency width of the input signal.
5	AM IF	I	Input of AM IF Signal.
6	GND	—	This is the device ground terminal.
7	SIG	O	When the set is tunnig ,this terminal becomes "L".
8	ST/AM IF	O	Stereo indicator output. Stereo : "L", Mono : "H"
9	FM DET	—	FM detect transformer.
10	VCC	—	This is the power supply terminal.
11	FM/AM IF //MUTE	O/I	When the signal of IF REQ of IC121(LC72131M) appear, the signal of FM/AM IF output. //Muting control input.
12	VSM	O	S Meter output and adjust AM SD sensitivity.
13	AM C.F.	O	This is a terminal of AM ceramic filter.
14	FM/AM	I	Change over the FM/AM input. "H" : FM, "L" : AM
15	MONO/ST	O	Stereo : "H", Mono : "L"
16	L OUT	O	Left channel signal output.
17	R OUT	O	Right channel signal output
18	L IN	I	Input terminal of the Left channel post AMP.
19	R IN	I	Input terminal of the Right channel post AMP.
20	MPX L OUT	O	Mpx Left channel signal output.
21	MPX R OUT	O	Mpx Right channel signal output.
22	MPX IN	I	Mpx input terminal.
23	VCO	I	Voltage controlled oscillator terminal.
24	DET OUT	O	AM/FM detection output.
25	AM DET	—	AM low cut adjustment.
26	AM AGC	I	This is an AGC voltage input terminal for AM.
27	AM RF	I	This is an input terminal for AM RF signal.
28	AFC	—	This is an output terminal of voltage for FM-AFC.
29	AM OSC	—	This is a terminal of AM Local oscillation circuit.
30	OSC BUFFER	O	AM Local oscillation signal output.

## 2. Block Diagram

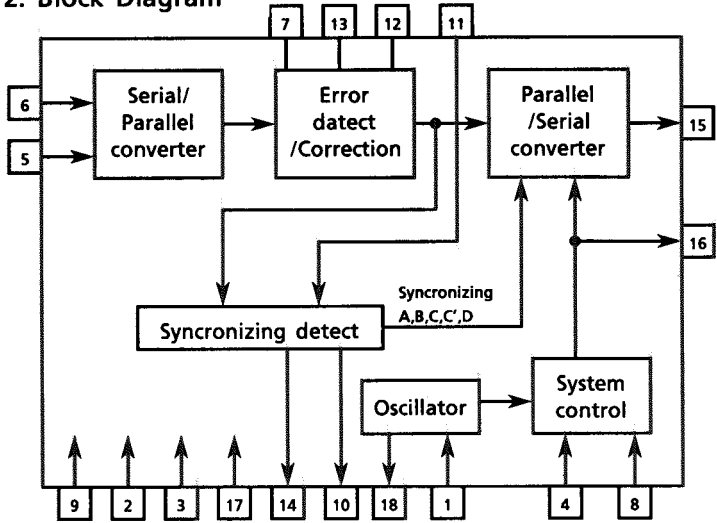


■ LC7073M (IC191) : Radio Data System (Used for FX-F3000R)

1. Terminal Layout



2. Block Diagram



3. Pin Functions

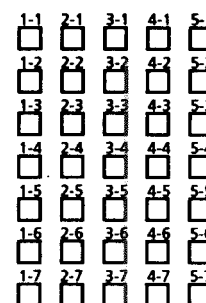
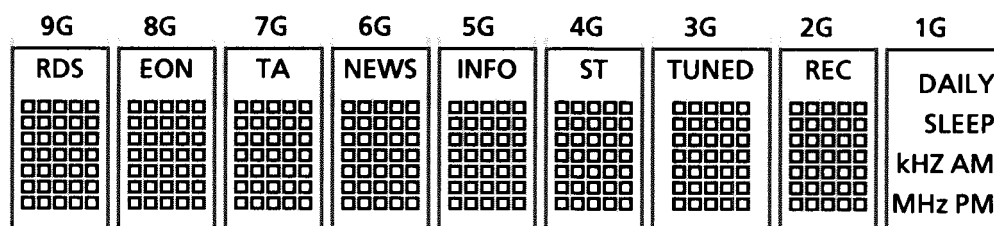
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	OSC1	I	Oscillation terminal	10	RECEIVE	—	Non connection
2	GND	—	GND	11	GND	—	GND
3	GND	—	GND	12	CORRECTION	—	Non connection
4	RES	I	Reset input	13	ERRDR	—	Non connection
5	CLOCK IN	I	RDS clock input	14	DATA START	O	Data start signal for block data to output serial data
6	DATA IN	I	RDS data input	15	DATA OUT	O	Serial data output
7	CORR.SEL	I	Non connection	16	CLOCK OUT	O	Data output of serial data output
8	GND	—	GND	17	GND	—	GND
9	VDD	—	Power supply	18	OSC2	O	Oscillation terminal



# Internal Connections of the FL Display

## ■ ELU0001-205 : (DI201)

### 1. Grid Assignment



(9G~2G)

### 2. Pin Connection

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Connection	F1	F1	F1	NP	NP	NC	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14

Pin No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Connection	P13	P12	P11	P10	9P	P8	P7	NP	NP	F2	F2	F2	F2	F2	F2	NP	NP	IC	P6	P5	P4	P3	P2	P1

Pin No.	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
Connection	NC	NC	NC	NC	NC	1G	2G	3G	4G	5G	6G	7G	8G	9G	P36	P35	P34	P33	P32	NP	NP	F1	F1	F1

NOTE) F1,F2 : Filament, NP : No pin, NC : No connection, 1G~9G : Grid, P : Anode IC : Internal connection,

### 3. Anode Connection

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	DAILY
P2	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	SLEEP
P3	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	AM
P4	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	PM
P5	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	MHz
P6	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	kHz
P7	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	—
P8	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	—
P9	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	—
P10	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	—
P11	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	—
P12	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	—
P13	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	—
P14	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	—
P15	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	—
P16	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	—
P17	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	—
P18	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	—

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P19	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	—
P20	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	—
P21	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	—
P22	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	—
P23	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	—
P24	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	—
P25	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	—
P26	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	—
P27	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	—
P28	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	—
P29	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	—
P30	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	—
P31	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	—
P32	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	—
P33	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	—
P34	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	—
P35	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	—
P36	RDS	EON	TA	NEWS	INFO	ST	TUNED	REC	—

## Disassembly Procedures

### (1) Removing the top cover

1. Remove 2 screws ① fastening both sides of top cover, and 4 screws ② fastening the rear side.
2. Remove the top cover.

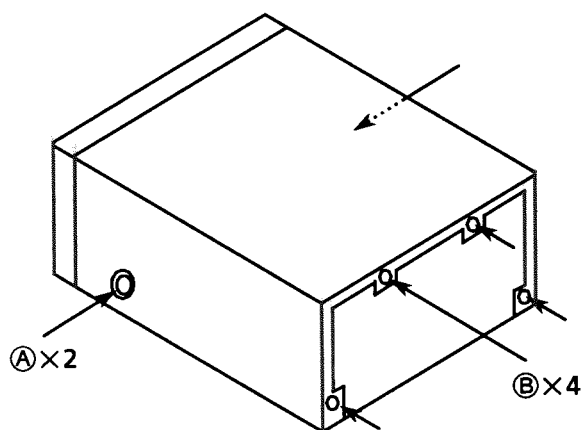


FIG. 1

### (3) Removing the Front Panel Assembly

1. Removing the top cover.
2. Remove 2 screws ③ fastening bottom of the front panel.
3. Remove 2 hooks ④ fastening the assembly with chassis to remove the assembly.

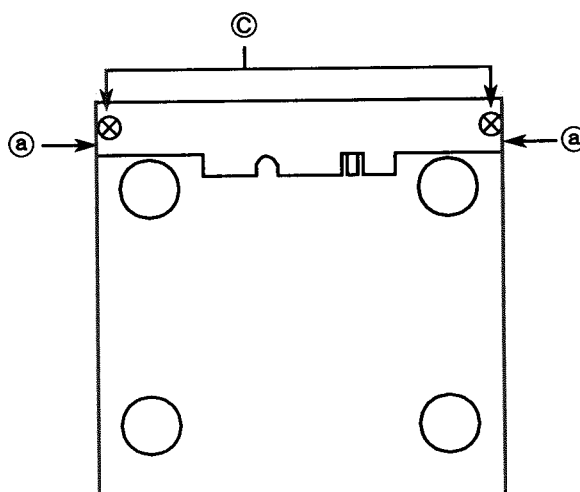


FIG. 2

### (3) Removing the front circuit board

1. Removing the front panel assembly.
2. Remove 5 screws ⑤ to remove the front circuit board.(FX-F3000R : Remove a screw ⑤')
3. Remove it.

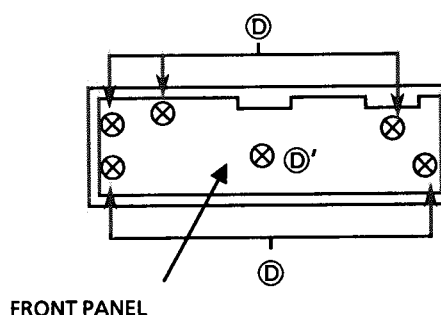


FIG. 3

① .. SD5G3008N    ② ... GB5G3008CC    ③ ... SD5G3008CC    ④ ... SDSF2608Z

## Adjustment Procedures

### Tuning range

Area	Range		
	LW ( kHz)	MW (kHz)	FM (MHz)
Continental Europe, the U.K	144~288	522~1629	87.5MHz~108MHz
Universal type ( AM Channel space 9kHz)	—	531~1602	
Universal type ( AM Channel space 10kHz)	—	530~1600	
U.S.A,CANADA	—	530~1710	

#### (1) Tuning voltage

Confirm the voltages in the table below at TP101.

#### FM Tuning voltage (Unit : V)

Area	Frequency	
	87.5MHz	108MHz
the U.K. , Continental Europe, Universal U.S.A & CANADA	1.3 <	9.0 >

#### AM Tuning voltage (Unit : V)

Area	Frequency (MW)							Frequency (LW)	
	522KHz	530KHz	531KHz	1600KHz	1602KHz	1629KHz	1629KHz	144kHz	288kHz
the U.K. , Continental Europe	0.8 <	—	—	—	—	<9.0	—	0.8 <1.0	6.5 <9.0
Universal (Channel space 9kHz)	—	—	0.8 <	—	8.0 <	—	—	—	—
Universal (Channel space 10kHz)	—	0.8 <	—	8.0 <	—	—	—	—	—
U.S.A,CANADA	—	0.8 <	—	—	—	—	<9.0	—	—

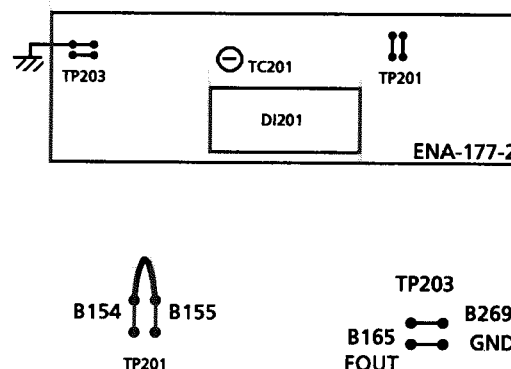
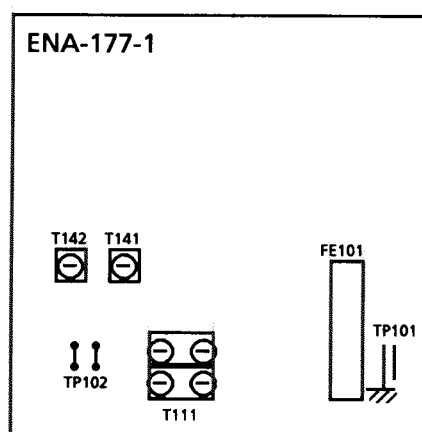
#### (2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.

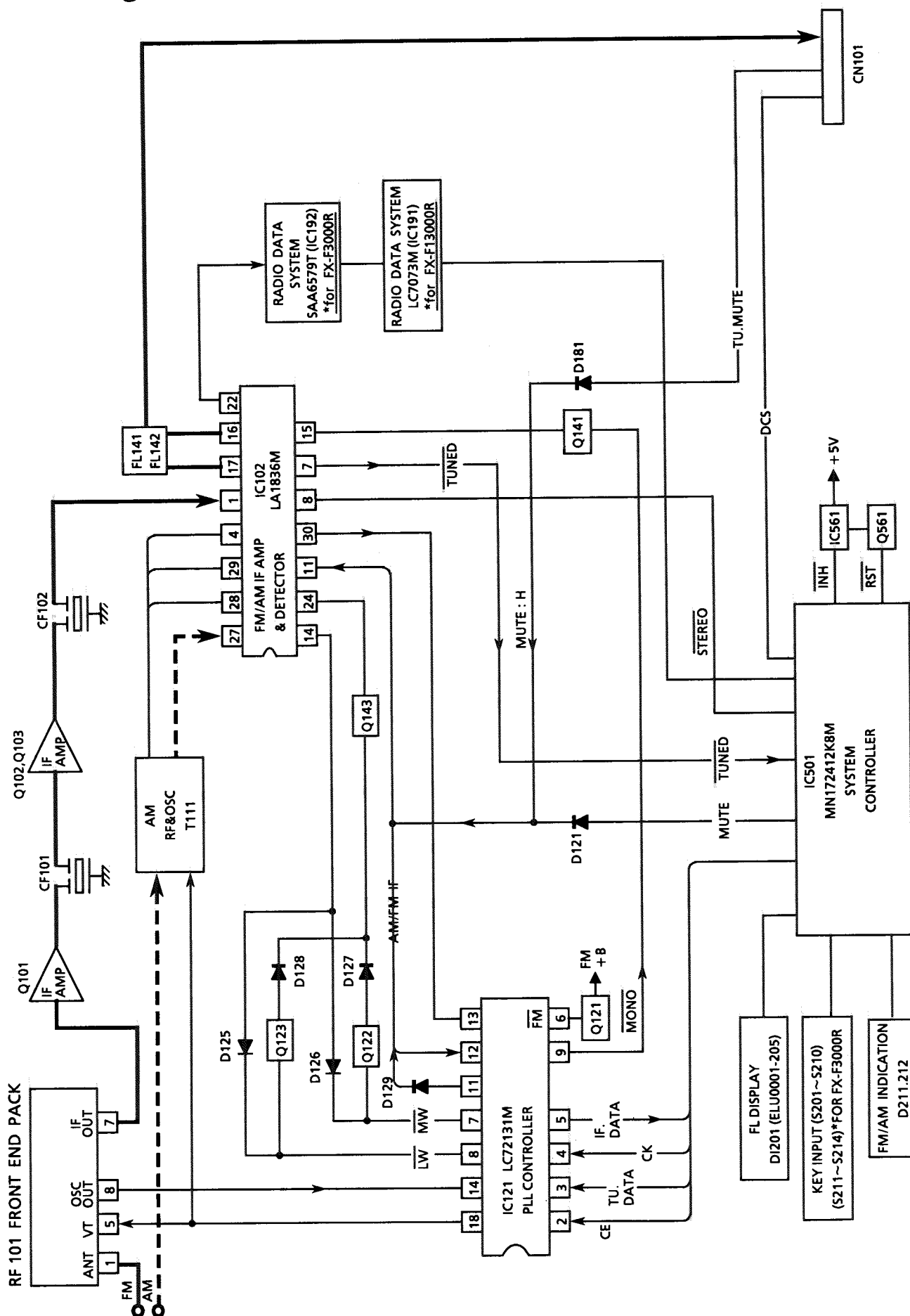
Adjust T141 (detector coil) so that the voltage at TP102 becomes  $0 \pm 1.5\text{mV}$ .

#### (3) Clock Adjustment

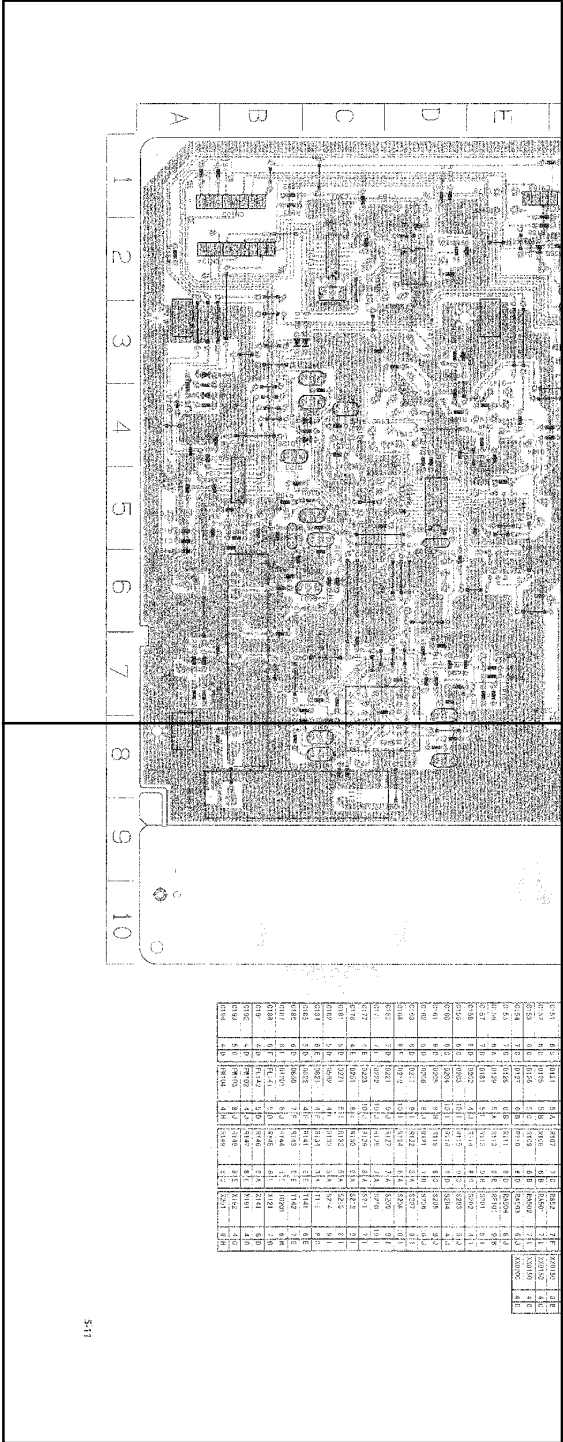
1. After connecting B154 and B155 with some wire as shown in figure below, connect the AC power cord into an AC outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to B165 and B269.
4. Adjust TC201 so that the frequency becomes  $50000.00 \pm 0.38\text{Hz}$ .



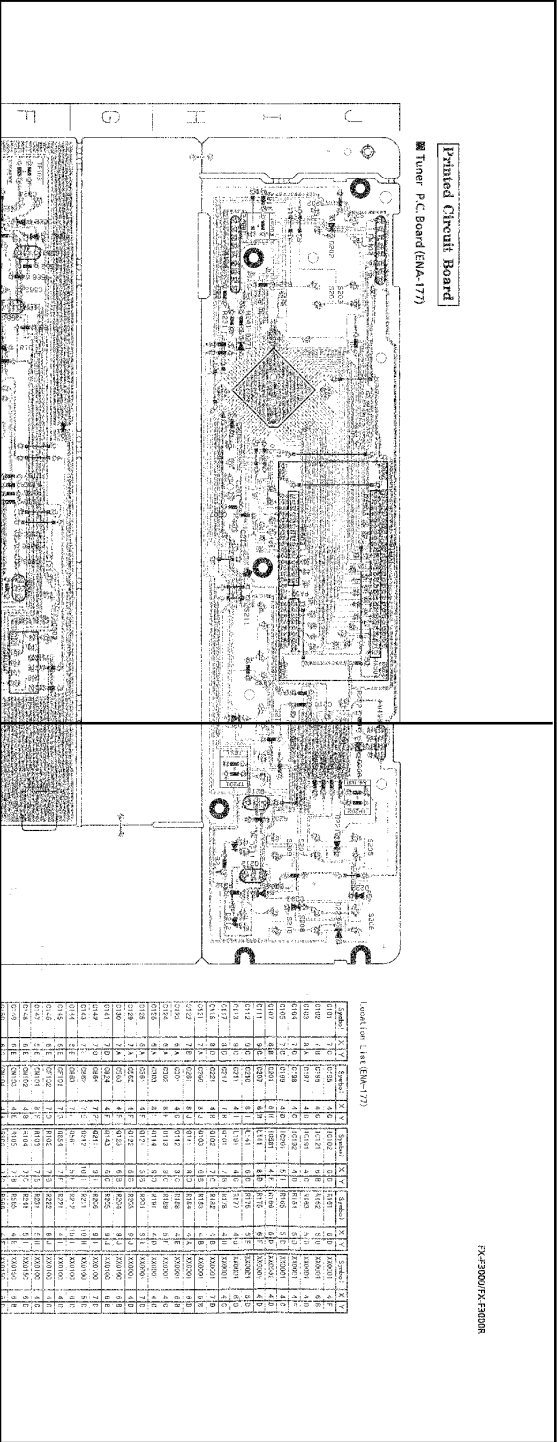
## Block Diagram



P5-11-a



P5-11-b

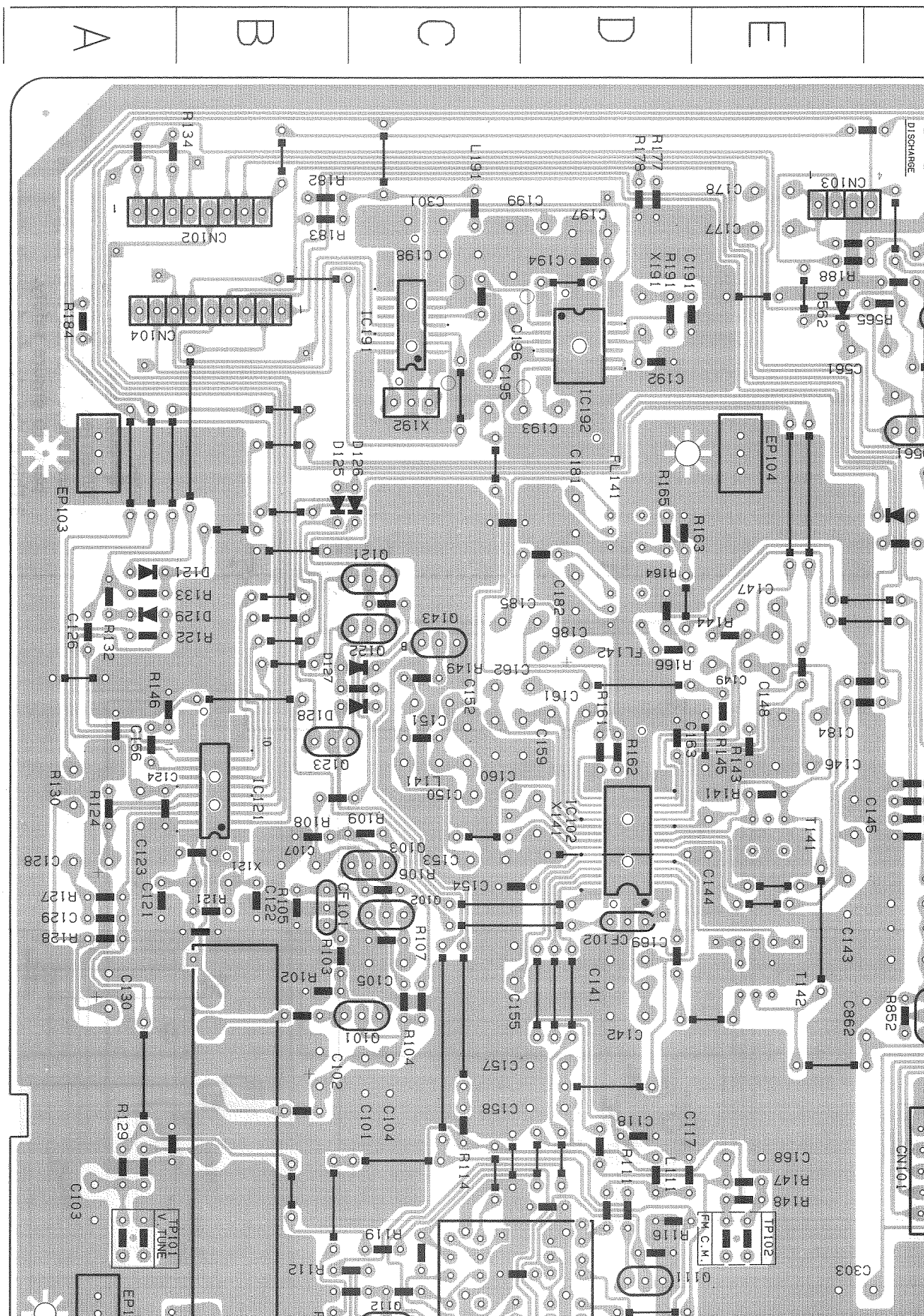


P5-11-c



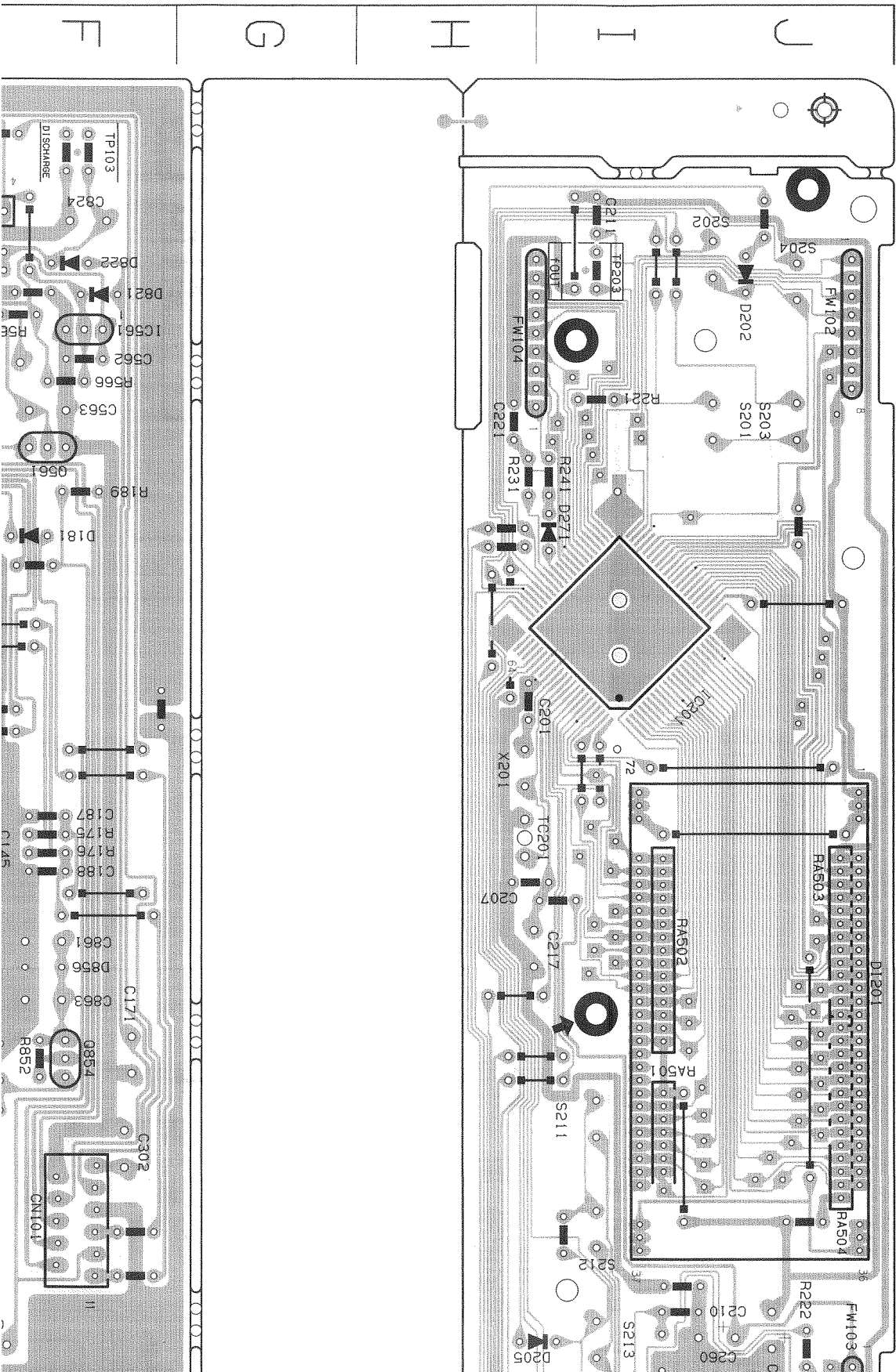
P5-11-d



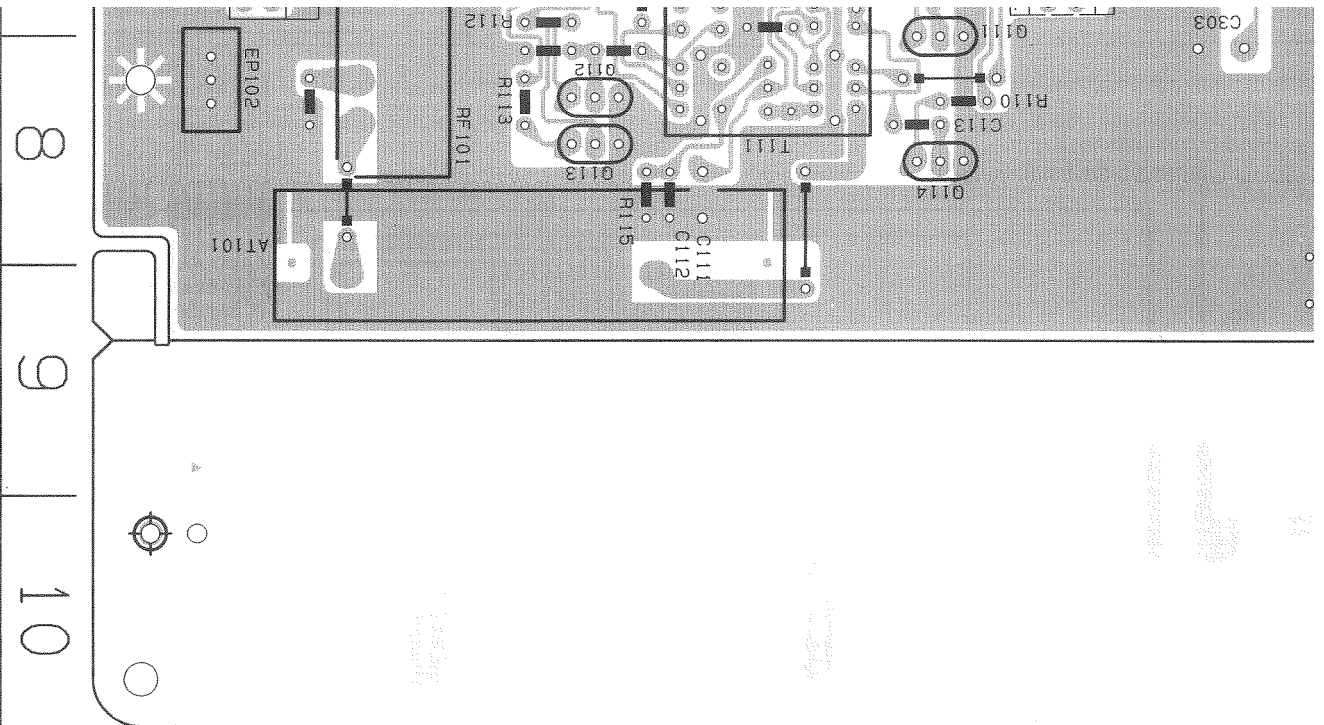


# Printed Circuit Board

■ Tuner P.C. Board (ENA-177)

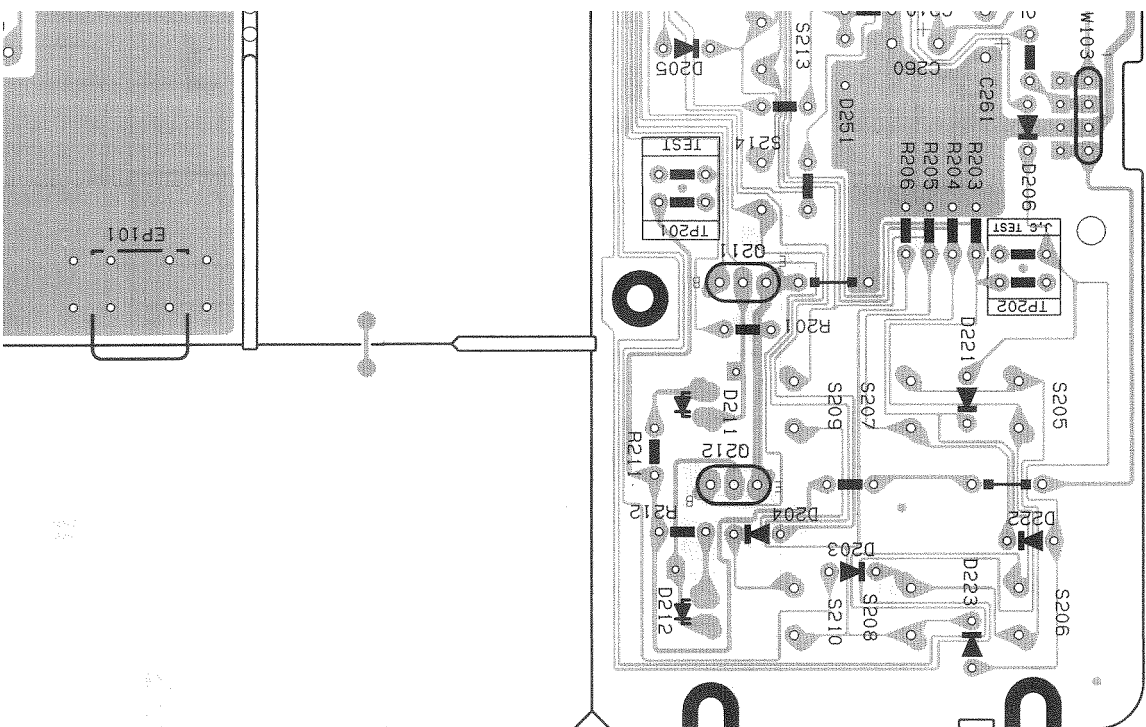






C149	6 E	CN103	4 E	R105	7 B	R565	4 E	XX0150 6 B
C150	6 C	CN104	4 A	R106	7 C	R566	4 F	
C151	6 C	D121	5 A	R107	7 C	R852	7 F	
C152	6 C	D125	5 B	R108	6 B	RA501	7 I	
C153	6 C	D126	5 C	R109	6 B	RA502	7 I	
C154	7 C	D127	6 B	R110	8 D	RA503	6 J	
C155	7 C	D128	6 B	R111	8 D	RA504	8 J	
C156	6 A	D129	5 A	R112	8 B	RF101	9 B	
C157	7 D	D181	5 F	R113	9 B	S201	5 I	
C158	8 D	D202	4 J	R114	8 C	S202	4 I	
C159	6 C	D203	10 I	R115	9 C	S203	5 J	
C160	6 C	D204	10 I	R116	8 D	S204	4 J	
C161	6 D	D205	8 H	R119	8 C	S205	9 J	
C162	6 D	D206	8 J	R121	7 B	S206	10 J	
C163	6 D	D211	9 I	R122	5 A	S207	9 I	
C168	8 E	D212	10 I	R124	6 A	S208	10 I	
C169	7 D	D221	9 J	R127	7 A	S209	9 I	
C171	7 F	D222	10 J	R128	7 A	S210	10 I	
C177	4 E	D223	10 J	R129	8 A	S211	7 I	
C178	4 E	D251	8 I	R130	6 A	S212	8 I	
C181	5 D	D271	5 I	R132	5 A	S213	8 I	
C182	5 D	D562	4 E	R133	5 A	S214	9 I	
C184	6 E	D821	4 F	R134	3 A	T111	8 C	
C185	5 D	D822	4 F	R141	6 E	T141	6 E	
C186	6 D	D856	7 F	R143	6 E	T142	7 E	
C187	6 F	D1201	6 J	R144	5 E	TC201	6 H	
C188	6 F	FL141	5 D	R145	6 E	X121	7 B	
C191	4 D	FL142	5 D	R146	6 A	X141	6 D	
C192	4 D	FW102	4 J	R147	8 E	X191	4 D	
C193	5 C	FW103	8 J	R148	8 E	X192	4 C	
C194	4 D	FW104	4 H	R149	6 C	X201	6 H	



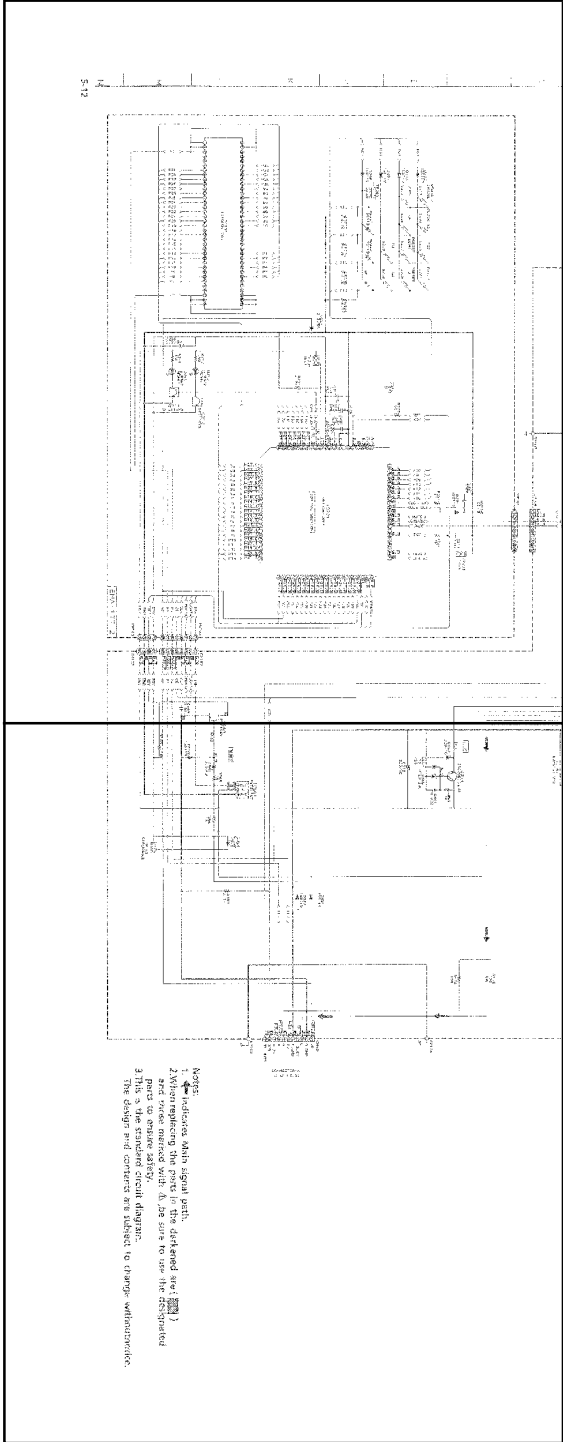


Location List (ENA-177)

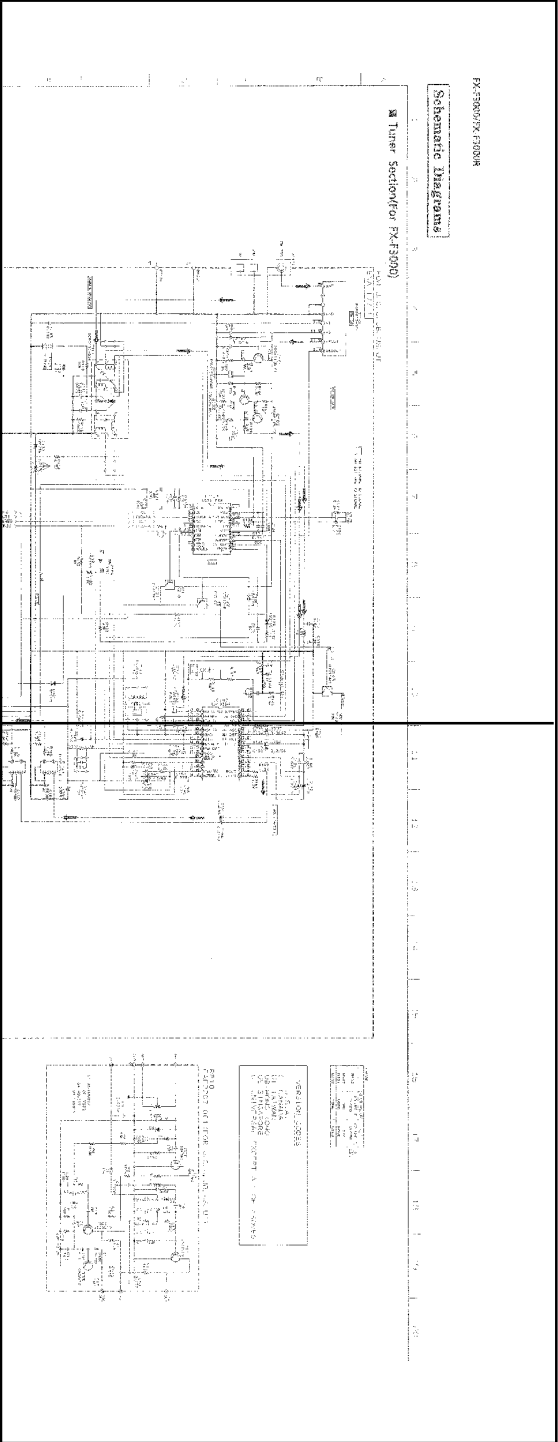
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C101	7	C	C195	4	C	IC102	6	D	R161	6	D	XX0001	4	F
C102	7	B	C196	4	C	IC121	6	B	R162	6	D	XX0001	6	B
C103	8	A	C197	4	D	IC191	4	C	R163	5	D	XX0001	4	D
C104	7	C	C198	4	C	IC192	4	D	R164	5	D	XX0001	4	F
C105	7	C	C199	4	D	IC201	5	I	R165	5	D	XX0001	4	C
C107	6	B	C201	6	H	IC561	4	F	R166	6	D	XX0001	4	D
C111	9	C	C207	6	H	L111	8	D	R175	6	F	XX0001	4	D
C112	9	C	C210	8	I	L141	6	C	R176	6	F	XX0001	6	D
C113	9	D	C211	4	I	L191	4	C	R177	4	D	XX0001	6	D
C117	8	D	C217	7	H	Q101	7	B	R178	4	D	XX0001	4	C
C118	8	D	C221	4	H	Q102	7	C	R182	4	B	XX0001	7	D
C121	7	A	C260	8	J	Q103	6	B	R183	4	B	XX0001	6	B
C122	7	B	C261	8	J	Q111	8	D	R184	4	A	XX0001	6	B
C123	6	A	C301	4	C	Q112	8	C	R188	4	E	XX0001	6	B
C124	6	A	C302	8	F	Q113	9	C	R189	5	F	XX0001	4	C
C126	6	A	C303	8	F	Q114	9	D	R191	4	D	XX0001	4	C
C128	6	A	C561	4	F	Q121	5	B	R201	9	I	XX0001	7	D
C129	7	A	C562	4	F	Q122	5	B	R203	9	J	XX0001	4	D
C130	7	A	C563	4	F	Q123	6	B	R204	9	J	XX0100	6	B
C141	7	D	C824	4	F	Q143	6	C	R205	9	J	XX0100	6	B
C142	7	D	C861	7	F	Q211	9	I	R206	9	I	XX0100	7	D
C143	7	E	C862	7	E	Q212	10	I	R211	10	H	XX0100	5	D
C144	6	E	C863	7	F	Q561	5	F	R212	10	I	XX0100	6	D
C145	6	E	CF101	7	B	Q854	7	F	R221	4	I	XX0100	4	D
C146	6	E	CF102	7	D	R102	7	B	R222	8	J	XX0100	4	C
C147	5	E	CN101	8	F	R103	7	B	R231	5	H	XX0100	4	C
C148	6	E	CN102	4	B	R104	7	C	R241	5	I	XX0150	6	D
C149	6	E	CN103	4	E	R105	7	B	R565	4	E	XX0150	6	B
C150	6	C	CN104	4	A	R106	7	C	R566	4	F	XX0150	6	D
C151	6	C	CN104	4	A	R107	7	C	R567	7	F	XX0150	6	B



P5-12-a



P5-12-b



P5-12-c



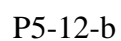
P5-12-d



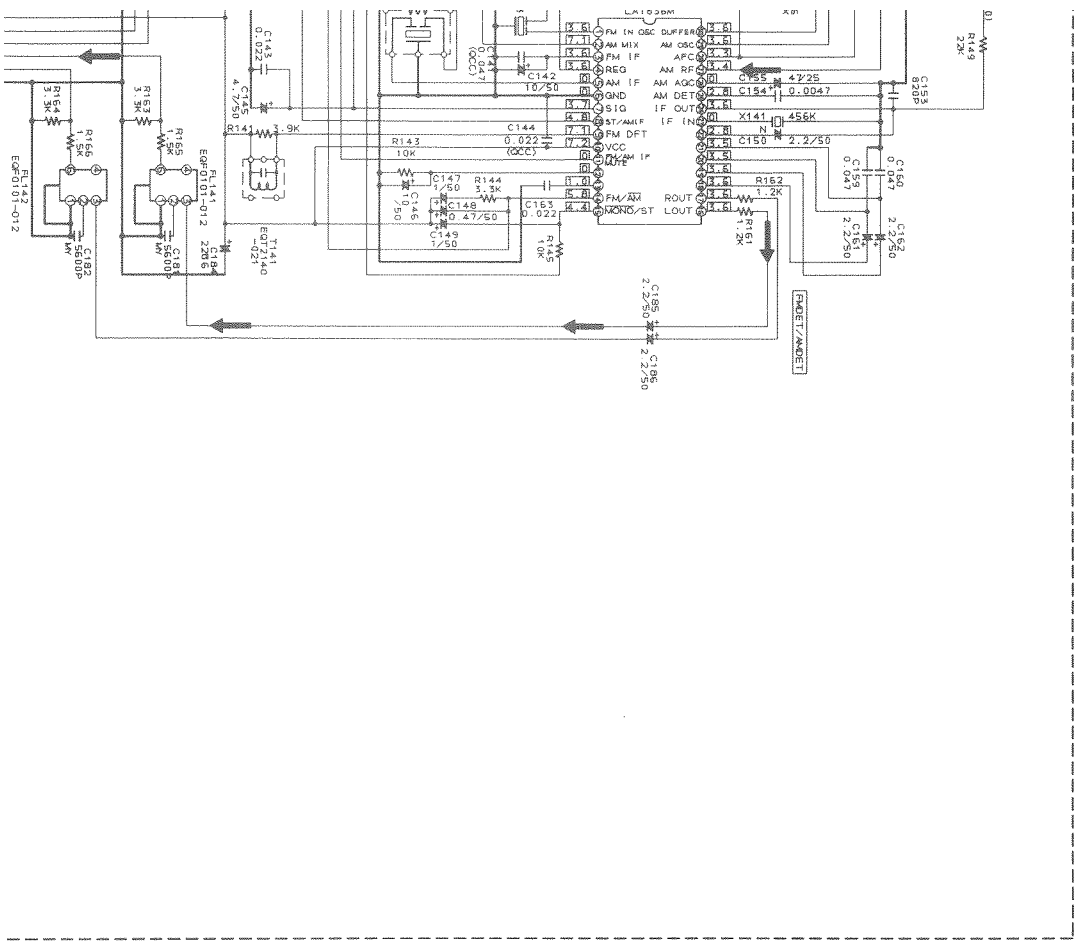


## ■ Tuner Section(For FX-F3000)

ENA-177-1







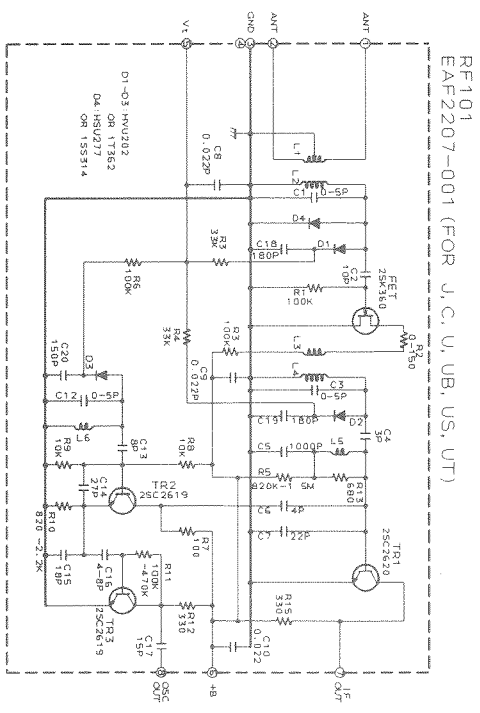
\* MARK

	U: UB, US, UT	J: C
R130	68 UNF F. (1/4W)	68 UNF C. (1/4W)
R147	50K	22K
D222	USED	NONE
D222	NONE	USED

A

VERSION CODES

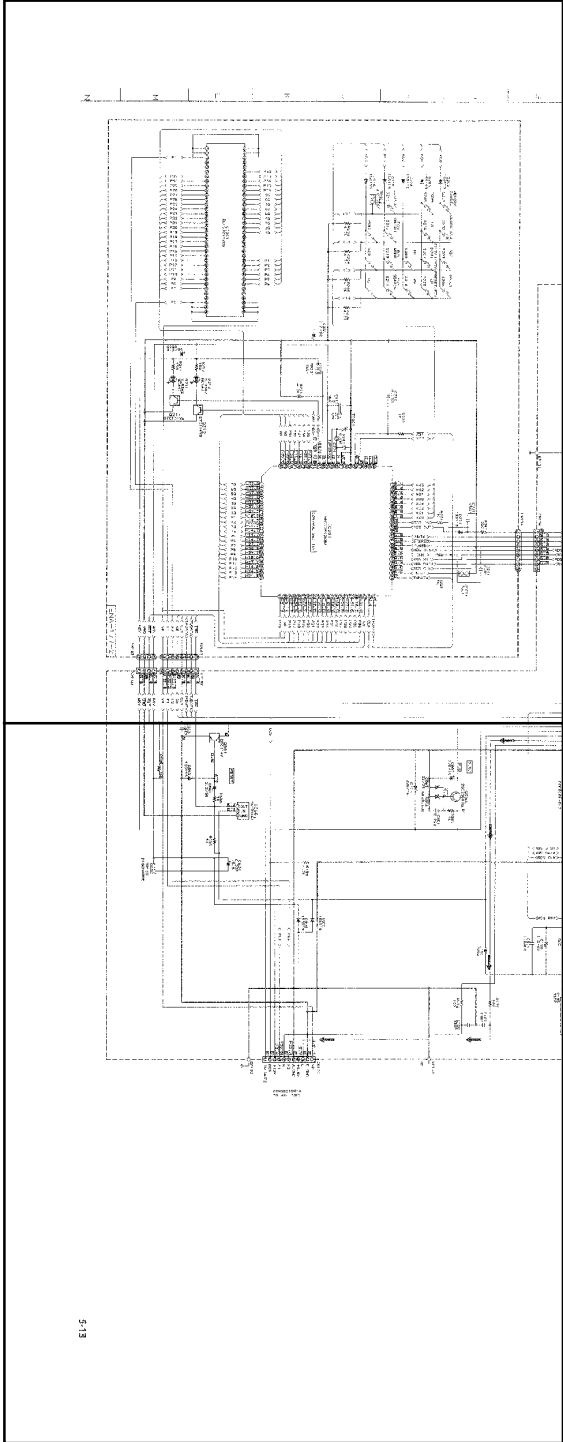
U : U.S.A.  
 C : CANADA  
 UT : TAIWAN  
 UB : HONG KONG  
 US : SINGAPORE  
 U : UNIVERSAL EXCEPT ALL OF ABOVE



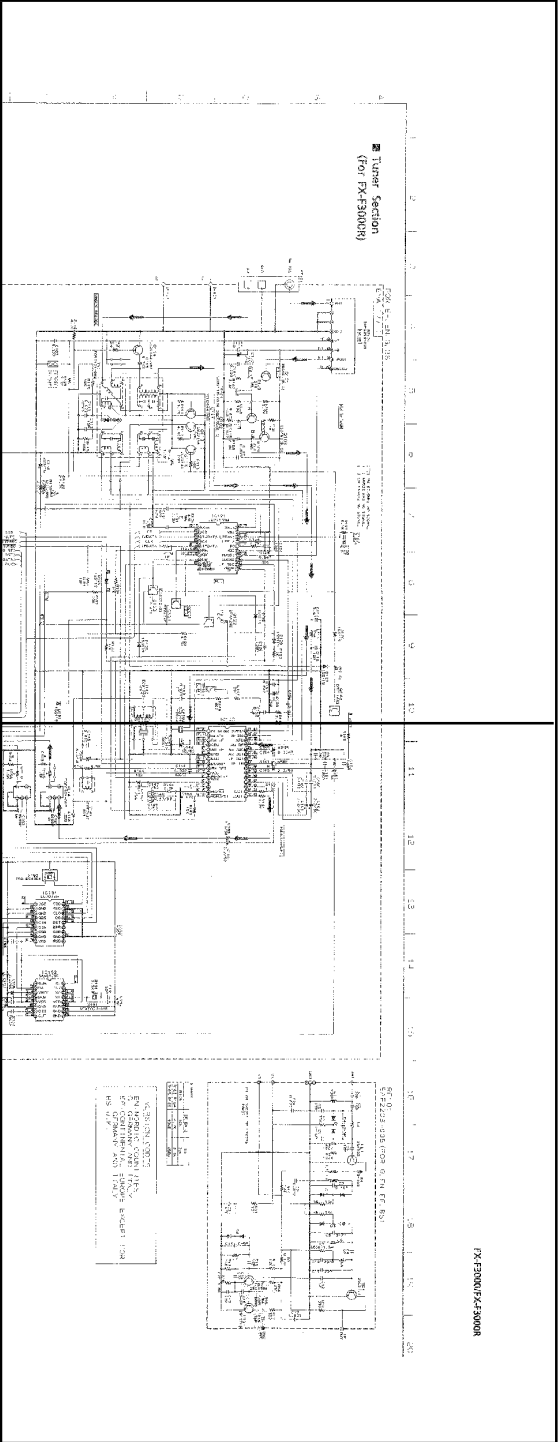




P5-13-a



P5-13-b



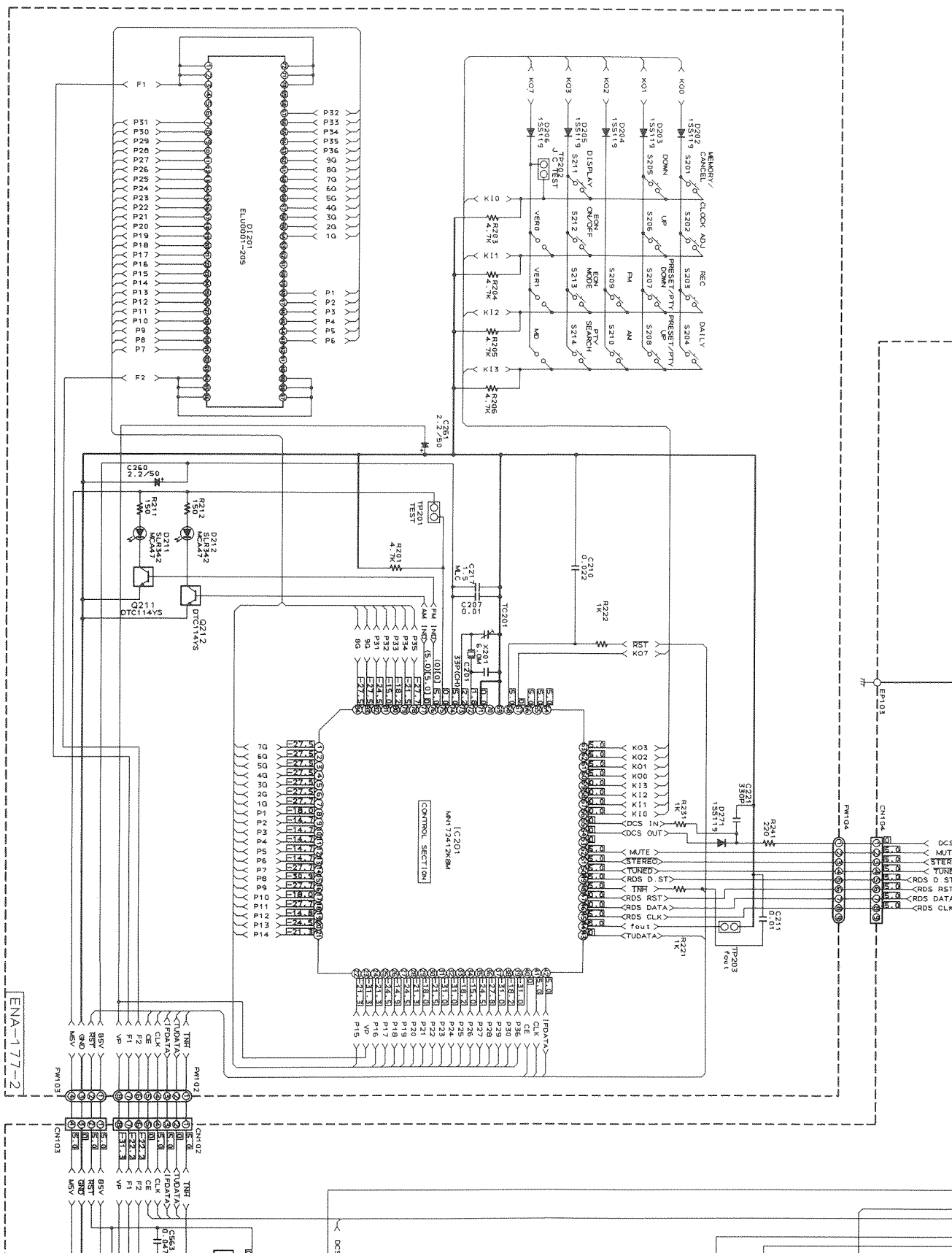
P5-13-c



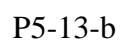
P5-13-d



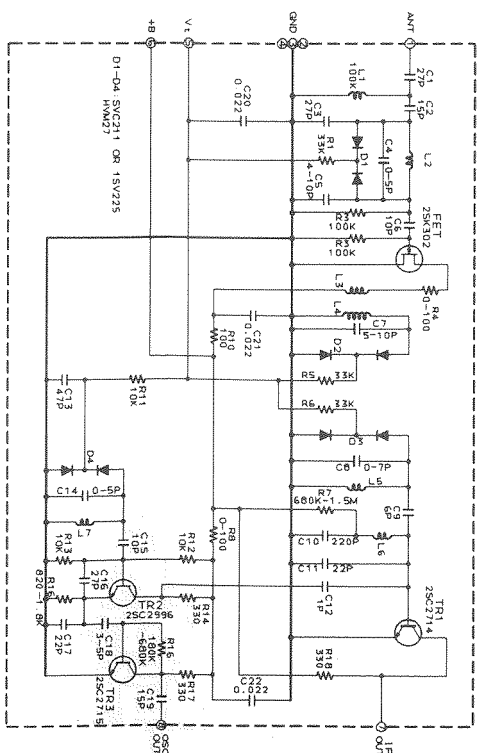
G I H J K L M N Z



1	2	3	4	5	6	7	8	9	10
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* MARK		
	EF, EN, Q	BS
R149	10K	22K
R163, R164	4.7K	3.3K
R165, R166	NONE	USED

P5-13-d



# PARTS LIST

## < AX-F3000 >

\* All printed circuit boards and its assemblies are not available as service parts.

### The Marks for Designated Areas

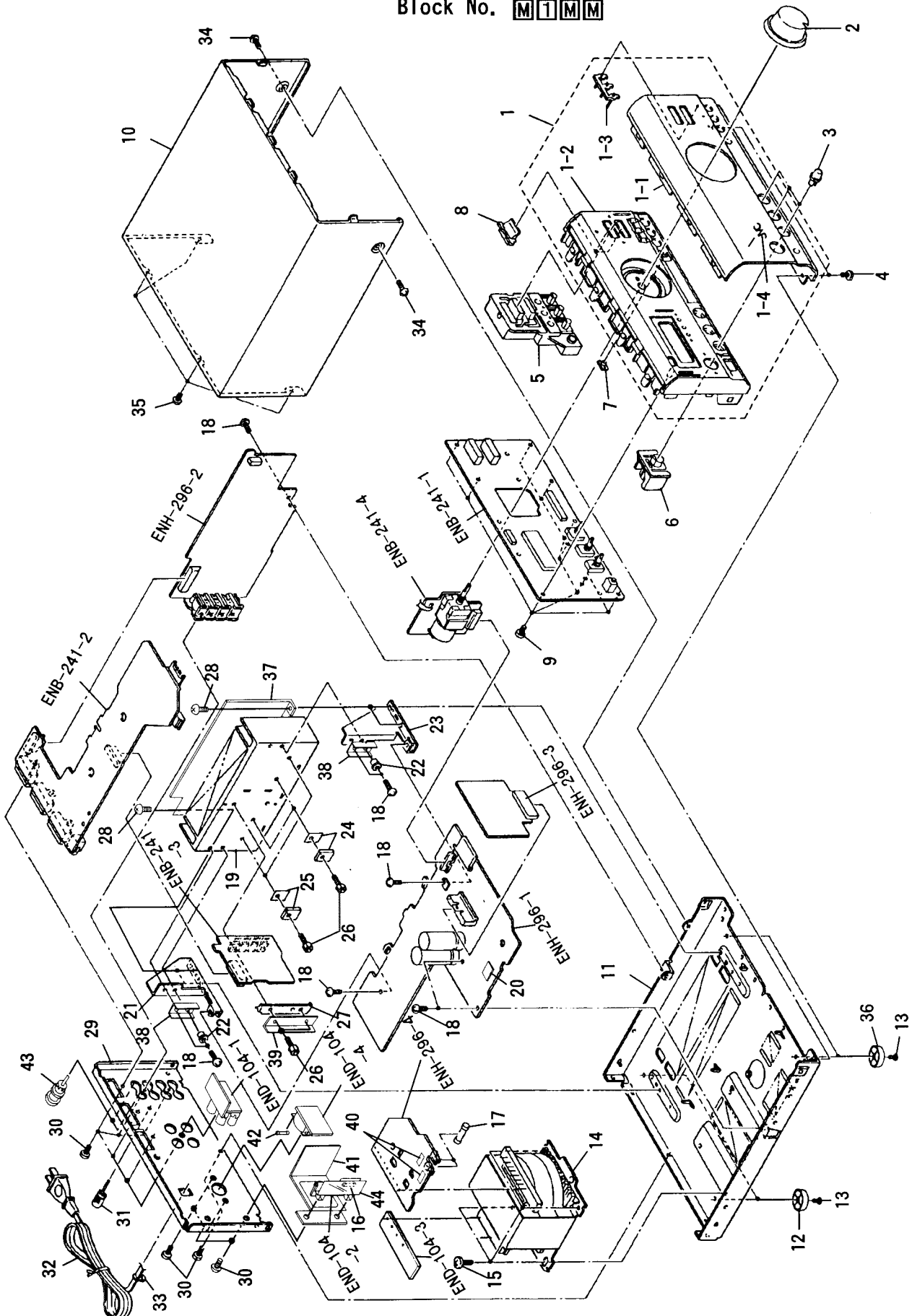
BS . . . the U. K.	C . . . Canada	EF . . . Continental Europe	EN . . . Scandinavia
G . . . Germany	J . . . the U. S. A.	UB . . . Hong Kong	U . . . Universal Type
US . . . Singapore	UT . . . Taiwan	No marks indicates all areas.	

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# General Exploded View and Parts List

Block No. **M1MM**





## ■ Parts List

Block No. **M1M1M1**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	FFP-AXF3000E(S)	FRONT PANEL ASSY	1		
	1-1	E208722-003	FRONT PANEL	1		
	1-2	E103093-002ST	FRONT BASE	1		
	1-3	E408916-001	INDICATOR	1	FUNCTION	
	1-4	E406971-221	JVC MARK	1		
	2	E309630-004SS	VOLUME KNOB	1		
	3	E408127-006	KNOB	3	BASS TREBLE BALANCE	
	4	SDSG3008CC	TAPPING SCREW	2		
	5	E208724-003SS	PUSH BUTTON ASSY	1	SOURCE	
	6	E309627-003SS	PUSH BUTTON ASSY	1	POWER	
	7	E408131-001	REMOCON PLATE	1		
	8	E408915-001	INDICATOR	2	DIRECT	
	9	SDSF2608Z	SCREW	10		
	10	E208174-009(S)	METAL COVER	1		
	11	E102864-001	CHASSIS BASE	1		
	12	E75281-010	FOOT	2		
	13	SBST3010Z	TAPPING SCREW	4		
△	14	ETP1100-63EAJ	POWER TRANSFORMER	1		EF EN G BS
△		ETP1100-63FAJ	POWER TRANSFORMER	1		U UB US UT
△		ETP1100-63JAJ	POWER TRANSFORMER	1		C J
	15	E65389-004	SPECIAL SCREW	4		
△	16	QMF0007-2R5J1	FUSE	1	F001 (T2. 5A/125V)	C J
△		QMF51E2-1R2J1BS	FUSE	1	F001 (T1. 2A/250V)	BS
△		QMF51E2-1R25	FUSE	1	F001 (T1. 25A/250V)	EF EN G
△		QMF51E2-2R5J1	FUSE	1	F001 (2. 5A/250V)	U UB US UT
△	17	QMF0007-1R6J1	FUSE	2	F801 F802 (T1. 6A/125V)	C J
△		QMF51E2-1R2J1BS	FUSE	2	F801 F802 (T1. 2A/250V)	BS
△		QMF51E2-1R25	FUSE	2	F801 F802 (T1. 25A/250V)	EF EN G U UB US UT
	18	SBSG3008CC	TAPPING SCREW	9		
	19	E309632-003SS	HEAT SINK	1		
	20	E3400-431	FELT SPACER	1		BS EF EN G
	21	E308971-001ST	HEAT SINK BRACKET	1		
	22	BUSH-PUL	BUSHING	2		
	23	E308971-002ST	HEAT SINK BRACKET	1		
	24	2SC3853LD(O. Y)	SI. TRANSISTOR	2	Q769 Q770	
	25	2SA1489LD(O. Y)	SI. TRANSISTOR	2	Q771 Q772	
	26	E73525-003	SCREW	6		
	27	E406969-221	LEAF SPRING	1		
	28	SBST3006CC	TAPPING SCREW	4		
	29	E208727-002	REAR PANEL	1		J
		E208727-003	REAR PANEL	1		C
		E208727-004	REAR PANEL	1		BS EF EN G
		E208727-005	REAR PANEL	1		U UB US UT
	30	E73273-003	SPECIAL SCREW	11		U UB US UT
		E73273-003	SPECIAL SCREW	9		Except U UB US UT
	31	E409257-001	EARTH TERMINAL	1		
△	32	QMP1480-200L	POWER CORD	1		C J
△		QMP3900-200	POWER CORD	1		EF EN G US
△		QMP5530-0085BS	POWER CORD	1		BS UB
△		QMP7520-200	POWER CORD	1		U UT
△	33	QHS3771-108	CORD STOPPER	1		
	34	SDSG3008N	TAPPING SCREW	2		
	35	GBSG3008CC	TAPPING SCREW	4		
	36	E75281-009	FOOT	2		
	37	E310161-001	PROTECT SHEET	1		
	38	E70306-001	HEAT SINK	2		
	39	E409510-001SS	HEAT SINK	1		
	40	E61380-032	FUSE LABEL	2		C J
	41	E310128-001SS	PROTECT SHEET	1		U UB US UT
		E409464-001SS	PROTECT SHEET	1		BS C EF EN G J
△	42	QMF51E2-1R25	FUSE	1	F002 (T1. 25A/250V)	U UB US UT
	43	E03449-001	SHORT PLUG	2		
	44	E310127-001SS	PROTECT COVER	1		
	-	E61029-005	NUMBER LABEL	1		
		E75803-001	FUSE C. LABEL	1		J
		E75804-001	FUSE C. LABEL	1		C
		E75139-004	NAME SHEET	1		U
		E309384-027	RATING LABEL	1		UT

# AX-F3000

## ■ Electrical Parts List (ENH-296)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC101	NJM4580DD	I. C (MONO-ANALOG)	
	IC201	TC9164AM	I. C (DIGI-MOS)	
	IC231	NJM4580DD	I. C (MONO-ANALOG)	
	IC301	NJM4580DD	I. C (MONO-ANALOG)	
	IC361	NJM4580DD	I. C (MONO-ANALOG)	
	IC363	NJM4558D	I. C (MONO-ANALOG)	
	IC751	VC5022-2	I. C (MONO-ANALOG)	
	IC752	VC5022-2	I. C (MONO-ANALOG)	
		DIODES		
	D202	1SS119	SI. DIODE	
	D203	1SS119	SI. DIODE	
	D211	MTZ2.7JB	ZENER DIODE	
	D700	SLR-342MCA47	L. E. D.	
	D711	MTZ2.7JB	ZENER DIODE	
	D712	MTZ2.7JB	ZENER DIODE	
	D713	1SS119	SI. DIODE	
	D714	1SS119	SI. DIODE	
	D721	MTZ6.2JC	ZENER DIODE	
	D751	1SS119	SI. DIODE	
	D752	1SS119	SI. DIODE	
	D791	1SS119	SI. DIODE	
	D792	1SS119	SI. DIODE	
	D793	1SS119	SI. DIODE	
	D794	1SS119	SI. DIODE	
△	D801	30DL2FC	SI. DIODE	
△	D802	30DL2FC	SI. DIODE	
△	D803	30DL2FC	SI. DIODE	
△	D804	30DL2FC	SI. DIODE	
	D901	1SS119	SI. DIODE	
	D902	1SS119	SI. DIODE	
	D905	1SS119	SI. DIODE	
	D912	1SS119	SI. DIODE	
		TRANSISTORS		
	Q251	2SC2389 (S, E)	SI. TRANSISTOR	
	Q353	DTA144ES	DIGITAL TRANSISTOR	
	Q354	DTC144ES	DIGITAL TRANSISTOR	
	Q355	DTA114TS	DIGITAL TRANSISTOR	
	Q357	2SD2144S (VW)	SI. TRANSISTOR	
	Q358	2SD2144S (VW)	SI. TRANSISTOR	
	Q361	2SK301 (P, Q)	F. E. T.	
	Q362	2SK301 (P, Q)	F. E. T.	
	Q524	DTA144ES	DIGITAL TRANSISTOR	
	Q701	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q702	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q703	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q704	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q705	2SC1775AV (F1)	SI. TRANSISTOR	
	Q706	2SC1775AV (F1)	SI. TRANSISTOR	
	Q707	2SA933LN (R, S)	SI. TRANSISTOR	
	Q708	2SA933LN (R, S)	SI. TRANSISTOR	
	Q709	2SA1207 (S, T)	SI. TRANSISTOR	
	Q710	2SA1207 (S, T)	SI. TRANSISTOR	
	Q711	2SC2909 (S, T)	SI. TRANSISTOR	
	Q712	2SC2909 (S, T)	SI. TRANSISTOR	
	Q713	2SA933LN (R, S)	SI. TRANSISTOR	
	Q714	2SA933LN (R, S)	SI. TRANSISTOR	
	Q751	2SD637 (Q, R)	SI. TRANSISTOR	
	Q752	2SD637 (Q, R)	SI. TRANSISTOR	
	Q761	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q762	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q763	2SA970 (GR)	SI. TRANSISTOR	
	Q764	2SA970 (GR)	SI. TRANSISTOR	
	Q765	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q766	2SC2235 (O, Y)	SI. TRANSISTOR	
	Q767	2SA965 (Y)	SI. TRANSISTOR	
	Q768	2SA965 (Y)	SI. TRANSISTOR	
	Q773	2SK170 (BL)	F. E. T.	
	Q774	2SK170 (BL)	F. E. T.	

△	Item	Parts Number	Description	Area
	Q791	2SC1740S (R, S)	SI. TRANSISTOR	
	Q792	2SC1740S (R, S)	SI. TRANSISTOR	
	Q793	2SA933S (RS)	SI. TRANSISTOR	
	Q794	2SA933S (RS)	SI. TRANSISTOR	
	Q901	2SA970 (GR)	SI. TRANSISTOR	
	Q902	2SA970 (GR)	SI. TRANSISTOR	
	Q903	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q904	2SC3311A (Q, R)	SI. TRANSISTOR	
	Q905	2SA733A (P, K)	SI. TRANSISTOR	
	Q906	2SC2240 (GR, BL)	SI. TRANSISTOR	
	Q921	DTC144ES	DIGITAL TRANSISTOR	
	Q922	DTC114YS	DIGITAL TRANSISTOR	
	Q923	2SA970 (GR)	SI. TRANSISTOR	
	Q931	2SC3311A (Q, R)	SI. TRANSISTOR	
		CAPACITORS		
	C101	QETB1HM-106	10MF 50V E. CAP.	
	C102	QETB1HM-106	10MF 50V E. CAP.	
	C105	QCB1HK-221Y	220PF 50V CER. CAP.	BS EF EN G
	C106	QCB1HK-221Y	220PF 50V CER. CAP.	BS EF EN G
	C107	QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C108	QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C111	QETB1HM-106	10MF 50V E. CAP.	
	C112	QETB1HM-106	10MF 50V E. CAP.	
	C113	QFLB1HJ-682	6800PF 50V MYLAR CAP.	
	C114	QFLB1HJ-682	6800PF 50V MYLAR CAP.	
	C115	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C116	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C117	QCS31HJ-391Z	390PF 50V CER. CAP.	
	C118	QCS31HJ-391Z	390PF 50V CER. CAP.	
	C121	QETB1EM-107	100MF 25V AL. E. CAP.	
	C122	QETB1EM-107	100MF 25V AL. E. CAP.	
	C123	QETB0JM-107	100MF 6.3V AL. E. CAP.	
	C124	QETB0JM-107	100MF 6.3V AL. E. CAP.	
	C203	QCS21HJ-101A	100PF 50V CER. CAP.	C J U UB US UT
	C203	QCS31HJ-331Z	330PF 50V CER. CAP.	BS EF EN G
	C204	QCS21HJ-101A	100PF 50V CER. CAP.	C J U UB US UT
	C204	QCS31HJ-331Z	330PF 50V CER. CAP.	BS EF EN G
	C220	QCB1HK-471Y	470PF 50V CER. CAP.	
	C221	QETB1EM-107	100MF 25V AL. E. CAP.	
	C222	QETB1EM-107	100MF 25V AL. E. CAP.	
	C231	QETB1HM-106	10MF 50V E. CAP.	
	C232	QETB1HM-106	10MF 50V E. CAP.	
	C233	QCB1HK-101Y	100PF 50V CER. CAP.	
	C234	QCB1HK-101Y	100PF 50V CER. CAP.	
	C241	QETB1EM-107	100MF 25V AL. E. CAP.	
	C242	QETB1EM-107	100MF 25V AL. E. CAP.	
	C251	QETB1HM-106	10MF 50V E. CAP.	
	C261	QFLC1HJ-561Z	560PF 50V MYLAR CAP.	
	C262	QFLC1HJ-561Z	560PF 50V MYLAR CAP.	
	C281	QCB1HK-221Y	220PF 50V CER. CAP.	BS EF EN G
	C282	QCB1HK-221Y	220PF 50V CER. CAP.	BS EF EN G
	C301	QCB1HK-101Y	100PF 50V CER. CAP.	
	C302	QCB1HK-101Y	100PF 50V CER. CAP.	
	C305	QCSB1HJ-680	68PF 50V CER. CAP.	
	C306	QCSB1HJ-680	68PF 50V CER. CAP.	
	C307	QETB1HM-106	10MF 50V E. CAP.	
	C308	QETB1HM-106	10MF 50V E. CAP.	
	C309	QETB1HM-106	10MF 50V E. CAP.	
	C310	QETB1HM-106	10MF 50V E. CAP.	
	C311	QETB1HM-106	10MF 50V E. CAP.	
	C312	QETB1HM-106	10MF 50V E. CAP.	
	C320	QCB1HK-102	1000PF 50V CER. CAP.	
	C331	QETB1EM-107	100MF 25V AL. E. CAP.	
	C332	QETB1EM-107	100MF 25V AL. E. CAP.	
	C345	QETB1EM-106	10MF 25V AL. E. CAP.	
	C371	QETB1HM-106	10MF 50V E. CAP.	
	C372	QETB1HM-106	10MF 50V E. CAP.	
	C373	QETB1HM-106	10MF 50V E. CAP.	
	C374	QETB1HM-106	10MF 50V E. CAP.	

■ Electrical Parts List (ENH-296)

△	Item	Parts Number	Description	Area
	C381	QFVB1HJ-474N	0.47MF 50V THIN FILM CA	
	C382	QFVB1HJ-474N	0.47MF 50V THIN FILM CA	
	C383	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C384	QFLB1HJ-563	0.056MF 50V MYLAR CAP.	
	C385	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C386	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C389	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C390	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C395	QETB1EM-107	100MF 25V AL E. CAP.	
	C396	QETB1EM-107	100MF 25V AL E. CAP.	
	C701	EETB1CM-226E	22MF 16V E. CAP.	
	C702	EETB1CM-226E	22MF 16V E. CAP.	
	C703	QCS21HJ-680A	68PF 50V CER. CAP.	
	C704	QCS21HJ-680A	68PF 50V CER. CAP.	
	C705	QCS21HJ-101A	100PF 50V CER. CAP.	BS EF EN G
	C706	QCS21HJ-101A	100PF 50V CER. CAP.	BS EF EN G
	C709	QFN81HJ-821	820PF 50V MYLAR CAP.	
	C710	QFN81HJ-821	820PF 50V MYLAR CAP.	
	C711	QCS21HJ-100	10PF 50V CER. CAP.	
	C712	QCS21HJ-100	10PF 50V CER. CAP.	
	C713	EETB1CM-226E	22MF 16V E. CAP.	
	C714	EETB1CM-226E	22MF 16V E. CAP.	
	C721	QCS21HJ-220A	22PF 50V CER. CAP.	
	C722	QCS21HJ-220A	22PF 50V CER. CAP.	
	C723	QCS21HJ-680A	68PF 50V CER. CAP.	
	C724	QCS21HJ-680A	68PF 50V CER. CAP.	
	C725	QCS21HJ-680A	68PF 50V CER. CAP.	
	C726	QCS21HJ-680A	68PF 50V CER. CAP.	
	C727	QFN31HJ-103Z	0.01MF 50V MYLAR CAP.	
	C728	QFN31HJ-103Z	0.01MF 50V MYLAR CAP.	
	C761	QFP81HJ-680	68PF 50V POLYPROPY. FI	
	C762	QFP81HJ-680	68PF 50V POLYPROPY. FI	
	C763	QFP81HJ-680	68PF 50V POLYPROPY. FI	
	C764	QFP81HJ-680	68PF 50V POLYPROPY. FI	
	C773	QFN31HJ-473ZN	0.047MF 50V MYLAR CAP.	
	C774	QFN31HJ-473ZN	0.047MF 50V MYLAR CAP.	
	C781	QFVC1HJ-104ZN	0.1MF 50V METAL. MYLAR	
	C782	QFVC1HJ-104ZN	0.1MF 50V METAL. MYLAR	
	C783	QFVC1HJ-104ZN	0.1MF 50V METAL. MYLAR	
	C784	QFVC1HJ-104ZN	0.1MF 50V METAL. MYLAR	
	C801	EEW5009-828E	8200MF E. CAP.	
	C802	EEW5009-828E	8200MF E. CAP.	
	C811	EETB1HM-227E	220MF 50V AL E. CAP.	
	C812	EETB1HM-227E	220MF 50V AL E. CAP.	
	C843	QFN82AJ-104	0.1MF 100V MYLAR CAP.	
	C844	QFN82AJ-104	0.1MF 100V MYLAR CAP.	
	C845	QFN82AJ-104	0.1MF 100V MYLAR CAP.	
	C846	QFN82AJ-104	0.1MF 100V MYLAR CAP.	
	C901	QETB1HM-105	1MF 50V AL E. CAP.	
	C903	QETB1HM-226E	22MF 50V E. CAP.	
	C904	QETB1CM-476	47MF 16V AL E. CAP.	
	C955	QCS31HJ-471Z	470PF 50V CER. CAP.	BS EF EN G
		RESISTORS		
	R101	QRD161J-471	470 1/6W CARBON RES.	
	R102	QRD161J-471	470 1/6W CARBON RES.	
	R103	QRD161J-473	47K 1/6W CARBON RES.	
	R104	QRD161J-473	47K 1/6W CARBON RES.	
	R105	QRD161J-474	470K 1/6W CARBON RES.	
	R106	QRD161J-474	470K 1/6W CARBON RES.	
	R107	QRD161J-393	39K 1/6W CARBON RES.	
	R108	QRD161J-393	39K 1/6W CARBON RES.	
	R109	QRD167J-511	510 1/6W CARBON RES.	
	R110	QRD167J-511	510 1/6W CARBON RES.	
	R111	QRD161J-101	100 1/6W CARBON RES.	
	R112	QRD161J-101	100 1/6W CARBON RES.	
	R113	QRD161J-104	100K 1/6W CARBON RES.	
	R114	QRD161J-104	100K 1/6W CARBON RES.	
	R121	QRD161J-101	100 1/6W CARBON RES.	
	R122	QRD161J-101	100 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R201	QRD161J-222	2.2K 1/6W CARBON RES.	
	R202	QRD161J-222	2.2K 1/6W CARBON RES.	
	R203	QRD161J-273	27K 1/6W CARBON RES.	
	R204	QRD161J-273	27K 1/6W CARBON RES.	
	R211	QRD161J-913	91K 1/6W CARBON RES.	
	R212	QRD161J-913	91K 1/6W CARBON RES.	
	R213	QRD161J-303Y	30K 1/6W CARBON RES.	
	R214	QRD161J-303Y	30K 1/6W CARBON RES.	
	R217	QRD161J-331	330 1/6W CARBON RES.	
	R218	QRD161J-331	330 1/6W CARBON RES.	
	R221	QRD161J-331	330 1/6W CARBON RES.	
	R222	QRD161J-331	330 1/6W CARBON RES.	
	R231	QRD161J-123	12K 1/6W CARBON RES.	
	R232	QRD161J-123	12K 1/6W CARBON RES.	
	R235	QRD161J-104	100K 1/6W CARBON RES.	
	R236	QRD161J-104	100K 1/6W CARBON RES.	
	R241	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R242	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R255	QRD167J-223	22K 1/6W CARBON RES.	
	R256	QRD161J-333	33K 1/6W CARBON RES.	
	R261	QRD161J-103	10K 1/6W CARBON RES.	
	R262	QRD161J-103	10K 1/6W CARBON RES.	
	R263	QRD161J-103	10K 1/6W CARBON RES.	
	R264	QRD161J-103	10K 1/6W CARBON RES.	
	R265	QRD161J-104	100K 1/6W CARBON RES.	
	R266	QRD161J-104	100K 1/6W CARBON RES.	
	R301	QRD161J-123	12K 1/6W CARBON RES.	
	R302	QRD161J-123	12K 1/6W CARBON RES.	
	R305	QRD161J-123	12K 1/6W CARBON RES.	
	R306	QRD161J-123	12K 1/6W CARBON RES.	
	R331	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R332	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R343	QRD161J-105	1M 1/6W CARBON RES.	
	R344	QRD161J-102	1K 1/6W CARBON RES.	
	R345	QRD161J-104	100K 1/6W CARBON RES.	
	R357	QRD161J-103	10K 1/6W CARBON RES.	
	R358	QRD161J-103	10K 1/6W CARBON RES.	
	R371	QRD161J-101	100 1/6W CARBON RES.	
	R372	QRD161J-101	100 1/6W CARBON RES.	
	R373	QRD161J-104	100K 1/6W CARBON RES.	
	R374	QRD161J-104	100K 1/6W CARBON RES.	
	R375	QRD167J-223	22K 1/6W CARBON RES.	
	R376	QRD167J-223	22K 1/6W CARBON RES.	
	R381	QRD167J-332	3.3K 1/6W CARBON RES.	
	R382	QRD167J-332	3.3K 1/6W CARBON RES.	
	R383	QRD167J-332	3.3K 1/6W CARBON RES.	
	R384	QRD167J-332	3.3K 1/6W CARBON RES.	
	R385	QRD161J-392	3.9K 1/6W CARBON RES.	
	R386	QRD161J-392	3.9K 1/6W CARBON RES.	
	R389	QRD161J-103	10K 1/6W CARBON RES.	
	R390	QRD161J-103	10K 1/6W CARBON RES.	
	R391	QRD161J-474	470K 1/6W CARBON RES.	
	R392	QRD161J-474	470K 1/6W CARBON RES.	
	R393	QRD161J-391	390 1/6W CARBON RES.	
	R394	QRD161J-391	390 1/6W CARBON RES.	
△	R395	QRD14CJ-101S	100 1/4W UNF. CARBON R	
△	R396	QRD14CJ-101S	100 1/4W UNF. CARBON R	
	R522	QRD161J-104	100K 1/6W CARBON RES.	
	R523	QRD161J-475	4.7M 1/6W CARBON RES.	
	R524	QRD161J-475	4.7M 1/6W CARBON RES.	
	R527	QRD161J-105	1M 1/6W CARBON RES.	
	R528	QRD161J-105	1M 1/6W CARBON RES.	
	R701	ERD004J-221Z	220 CARBON RES.	
	R702	ERD004J-221Z	220 CARBON RES.	
	R703	ERD004J-104	100K CARBON RES.	
	R704	ERD004J-104	100K CARBON RES.	
△	R705	QRD14CJ-101S	100 1/4W UNF. CARBON R	
△	R706	QRD14CJ-101S	100 1/4W UNF. CARBON R	
	R707	QRD14CJ-121SX	120 1/4W UNF. CARBON R	

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## ■ Electrical Parts List (ENH-296)

△	Item	Parts Number	Description	Area
	R708	QRD14CJ-121SX	120 1/4W UNF. CARBON R	
	R709	QRD161J-101	100 1/6W CARBON RES.	
	R710	QRD161J-101	100 1/6W CARBON RES.	
	R711	ERD004J-104	100K CARBON RES.	
	R712	ERD004J-104	100K CARBON RES.	
	R713	ERD004J-182Z	1.8K CARBON RES.	
	R714	ERD004J-182Z	1.8K CARBON RES.	
△	R715	QRV144F-2201A	2.2K 1/4W CONST. METAL	
△	R716	QRV144F-2201A	2.2K 1/4W CONST. METAL	
△	R717	QRV144F-2701	2.7K 1/4W CONST. METAL	
△	R718	QRV144F-2701	2.7K 1/4W CONST. METAL	
△	R719	QRV144F-2702	27K 1/4W CONST. METAL	
△	R723	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R724	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R725	QRD14CJ-560S	56 1/4W UNF. CARBON R	
△	R726	QRD14CJ-560S	56 1/4W UNF. CARBON R	
	R727	QRD167J-332	3.3K 1/6W CARBON RES.	
	R728	QRD167J-332	3.3K 1/6W CARBON RES.	
	R729	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R730	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
△	R731	QRV144F-2702	27K 1/4W CONST. METAL	
△	R732	QRV144F-2702	27K 1/4W CONST. METAL	
△	R735	QRD14CJ-221S	220 1/4W UNF. CARBON R	
△	R736	QRD14CJ-221S	220 1/4W UNF. CARBON R	
△	R737	QRD14CJ-101S	100 1/4W UNF. CARBON R	
△	R738	QRD14CJ-101S	100 1/4W UNF. CARBON R	
	R751	QVPE601-501	500 0.15WTRIMMER RES.	
	R752	QVPE601-501	500 0.15WTRIMMER RES.	
	R755	ERT-D2WFL351S	350 1/4W NEGATIVE THE	
	R756	ERT-D2WFL351S	350 1/4W NEGATIVE THE	
	R757	QRD161J-101	100 1/6W CARBON RES.	
	R758	QRD161J-101	100 1/6W CARBON RES.	
	R759	QRD161J-471	470 1/6W CARBON RES.	
	R760	QRD161J-471	470 1/6W CARBON RES.	
	R761	QRD161J-391	390 1/6W CARBON RES.	
	R762	QRD161J-391	390 1/6W CARBON RES.	
△	R763	QRD14CJ-122SX	1.2K 1/4W UNF. CARBON R	
△	R764	QRD14CJ-122SX	1.2K 1/4W UNF. CARBON R	
△	R765	QRD14CJ-101S	100 1/4W UNF. CARBON R	
△	R766	QRD14CJ-101S	100 1/4W UNF. CARBON R	
	R767	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	
	R768	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	
	R769	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	
	R770	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	
△	R771	ERF032K-R22	0.22 3W CEM. RES.	
△	R772	ERF032K-R22	0.22 3W CEM. RES.	
△	R777	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
△	R778	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
△	R779	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
△	R780	QRD14CJ-470SX	47 1/4W UNF. CARBON R	
△	R781	QRD125J-100	10 1/2W UNF. CARBON R	
△	R782	QRD125J-100	10 1/2W UNF. CARBON R	
△	R783	QRG022J-100A	10 2W OXIDE METAL	
△	R784	QRG022J-100A	10 2W OXIDE METAL	
	R785	QRG01DJ-821X	820 1W OXIDE METAL	
	R786	QRG01DJ-821X	820 1W OXIDE METAL	
△	R789	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R790	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R791	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R792	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R793	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
△	R794	QRD14CJ-471SX	470 1/4W UNF. CARBON R	
	R795	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R796	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R797	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
	R798	QRD14CJ-331SX	330 1/4W UNF. CARBON R	
△	R811	QRD14CJ-330SX	33 1/4W UNF. CARBON R	
△	R812	QRD14CJ-330SX	33 1/4W UNF. CARBON R	
	R901	QRD161J-104	100K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R902	QRD161J-823	82K 1/6W CARBON RES.	
	R903	QRD167J-272	2.7K 1/6W CARBON RES.	
	R904	QRD167J-272	2.7K 1/6W CARBON RES.	
	R905	QRD167J-153	15K 1/6W CARBON RES.	
	R906	QRD167J-153	15K 1/6W CARBON RES.	
	R907	QRD167J-223	22K 1/6W CARBON RES.	
	R908	QRD167J-223	22K 1/6W CARBON RES.	
	R909	QRD161J-103	10K 1/6W CARBON RES.	
	R910	QRD167J-332	3.3K 1/6W CARBON RES.	
	R911	QRD161J-103	10K 1/6W CARBON RES.	
	R912	QRD161J-473	47K 1/6W CARBON RES.	
	R913	QRD161J-103	10K 1/6W CARBON RES.	
	R914	QRD161J-104	100K 1/6W CARBON RES.	
	R915	QRD161J-473	47K 1/6W CARBON RES.	
	R916	QRD161J-103	10K 1/6W CARBON RES.	
	R917	QRD161J-222	2.2K 1/6W CARBON RES.	
	R921	QRD161J-563	56K 1/6W CARBON RES.	
	R922	QRD161J-473	47K 1/6W CARBON RES.	
	R924	QRD161J-103	10K 1/6W CARBON RES.	
	R931	QRG01DJ-471X	470 1W OXIDE METAL	BS EF EN G U UB US UT
△	R931	QRG022J-391A	390 2W OXIDE METAL	C J
	R933	QRD161J-222	2.2K 1/6W CARBON RES.	
		OTHERS		
		EMW10582-102	PRINTED BOARD	
		E61380-032	FUSE LABEL	C
		E61380-032	FUSE LABEL	J
	J201	EMN00TV-406B	PIN JACK	
	J202	EMN00TV-406A	JACK BOARD ASSY	
	L781	EQL0001-1R0	INDUCTOR	
	L782	EQL0001-1R0	INDUCTOR	
	S510	ESP0001-023M	TACT SWITCH	
	CN001	EMS284-004	SOCKET WIRE ASSY	
	CN201	EMV7145-005Z	SOCKET ASSY	
	CN202	EMV5109-006B	CONNECT TERMINAL	
	CN203	EMV5109-003B	CONNECT TERMINAL	
	CN212	EMS296-1916	SOCKET WIRE ASSY	
	CN606	VMC0107-R06	MALE CONNECTOR	
	CN614	EMV5163-012R	CONNECT TERMINAL	
	CN701	EMV5140-015	CONNECT TERMINAL	
	CN711	EMV7140-L15R	CONNECT TERMINAL	
	CN901	EMV7167-026R	CONNECT TERMINAL	
	CN902	EMV7163-010	CONNECT TERMINAL	
	EP200	EMZ4002-002Z	EARTH PLATE	
	EP300	EMZ4002-002Z	EARTH PLATE	
	FS705	E3400-431	FELT SPACER	BS EF EN G
	FS706	E3400-431	FELT SPACER	BS EF EN G
	FS707	E3400-431	FELT SPACER	BS EF EN G
	FS708	E3400-431	FELT SPACER	BS EF EN G
	FT801	EMG7331-003Z	FUSE CLIP	
	FT802	EMG7331-003Z	FUSE CLIP	
	FT811	EMG7331-003Z	FUSE CLIP	
	FT812	EMG7331-003Z	FUSE CLIP	
	RY251	ESK5D24-21AF	RELAY	
	RY901	ESK7D24-2120	RELAY	

## ■ Electrical Parts List (ENB-241)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC351	LB1639-CV	I. C (DIGI-OTHER)	
	IC501	MN171202K8N	I. C (MICRO-COMPUTER)	
	IC502	NJH32H380A	I. C (M)	
		DIODES		
	D355	1SR139-200	SI. DIODE	
	D504	1SS119	SI. DIODE	
	D505	1SS119	SI. DIODE	
	D506	1SS119	SI. DIODE	
	D507	1SS119	SI. DIODE	
	D508	SLR-342MCA47	L. E. D.	
	D509	SLR-342MCA47	L. E. D.	
	D510	SLR-342MCA47	L. E. D.	
	D511	SLR-342MCA47	L. E. D.	
	D512	SLR-342MCA47	L. E. D.	
	D513	SLR-342MCA47	L. E. D.	
	D514	SLA-380LT	L. E. D.	BS
	D514	SLR-342VC3F	L. E. D.	C EF EN G J U UB US UT
	D515	SLR-342VC3F	L. E. D.	
	D516	SLR-342VC3F	L. E. D.	
	D517	SLR-342VC3F	L. E. D.	
	D518	SLR-342VC3F	L. E. D.	
	D519	SLR-342VC3F	L. E. D.	
	D520	SLR-342VC3F	L. E. D.	
△	D611	11E2	SI. DIODE	
△	D612	11E2	SI. DIODE	
△	D613	11E2	SI. DIODE	
△	D614	11E2	SI. DIODE	
	D615	1SR139-200	SI. DIODE	
	D616	1SR139-200	SI. DIODE	
	D617	1SR139-200	SI. DIODE	
	D621	1SS119	SI. DIODE	
	D622	1SS119	SI. DIODE	
	D623	MTZ5. 1JB	ZENER DIODE	
	D624	1SR139-200	SI. DIODE	
	D625	1SR139-200	SI. DIODE	
	D626	MTZ33JC	ZENER DIODE	
	D627	MTZ8. 2JC	ZENER DIODE	
	D629	1SS119	SI. DIODE	
	D630	1SS119	SI. DIODE	
	D631	1SS119	SI. DIODE	
	D651	MTZ5. 1JAT-77	ZENER DIODE	
	D653	MTZ5. 6JC	ZENER DIODE	
	D654	MTZ6. 8JC	ZENER DIODE	
	D655	MTZ6. 8JC	ZENER DIODE	
		TRANSISTORS		
	Q351	2SC2878 (B)	SI. TRANSISTOR	
	Q352	2SC2878 (B)	SI. TRANSISTOR	
	Q503	DTC114YS	DIGITAL TRANSISTOR	
	Q522	DTC114YS	DIGITAL TRANSISTOR	
	Q523	DTC114YS	DIGITAL TRANSISTOR	
	Q524	DTA144ES	DIGITAL TRANSISTOR	
	Q525	DTC144ES	DIGITAL TRANSISTOR	
	Q621	DTC114YS	DIGITAL TRANSISTOR	
	Q622	DTC144ES	DIGITAL TRANSISTOR	
	Q623	2SB1357 (E, F)	SI. TRANSISTOR	
	Q624	2SD2037 (E, F)	SI. TRANSISTOR	
	Q651	2SD2061 (F, G)	SI. TRANSISTOR	
	Q652	2SC1740S (R, S)	SI. TRANSISTOR	
	Q653	2SC1740S (R, S)	SI. TRANSISTOR	
△	Q654	2SD2394 (E, F)	SI. TRANSISTOR	
	Q655	2SC1740S (R, S)	SI. TRANSISTOR	
	Q656	2SC1740S (R, S)	SI. TRANSISTOR	
△	Q657	2SD2394 (E, F)	SI. TRANSISTOR	
	Q658	2SC1775AV (F1)	SI. TRANSISTOR	
	Q659	2SC1740S (R, S)	SI. TRANSISTOR	
	Q660	2SC1740S (R, S)	SI. TRANSISTOR	
	Q661	2SB1565 (E, F)	SI. TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q662	2SA872AV (E, F)	SI. TRANSISTOR	
	Q663	2SA933LN (R, S)	SI. TRANSISTOR	
	Q664	2SA933LN (R, S)	SI. TRANSISTOR	
	Q665	DTA144ES	DIGITAL TRANSISTOR	
	Q666	DTC144ES	DIGITAL TRANSISTOR	
	Q667	DTC144ES	DIGITAL TRANSISTOR	
	Q668	DTA144ES	DIGITAL TRANSISTOR	
		CAPACITORS		
	C313	QFN81HJ-153	0. 015MF 50V MYLAR CAP.	
	C314	QFN81HJ-153	0. 015MF 50V MYLAR CAP.	
	C315	QFVB1HJ-124N	0. 12MF 50V THIN FILM CA	
	C316	QFVB1HJ-124N	0. 12MF 50V THIN FILM CA	
	C317	QFVB1HJ-124N	0. 12MF 50V THIN FILM CA	
	C318	QFVB1HJ-124N	0. 12MF 50V THIN FILM CA	
	C355	QETB1AM-476	47MF 10V E. CAP.	
	C356	QCHB1EZ-223	0. 022MF 25V CER. CAP.	
	C501	QCVB1CM-103Y	0. 01MF 16V CER. CAP.	
	C502	QCHB1EZ-223	0. 022MF 25V CER. CAP.	
	C503	QETB1HM-225	2. 2MF 50V AL. E. CAP.	
	C504	QCVB1CM-103Y	0. 01MF 16V CER. CAP.	
	C505	EEZ0601-108	1000MF AL. E. CAP.	
	C506	QEK50JM-476	47MF 6. 3V AL. E. CAP.	
	C507	QETB1AM-227	220MF 10V E. CAP.	
	C508	QCB1HK-471Y	470PF 50V CER. CAP.	
	C521	QETB1CM-226	22MF 16V E. CAP.	
	C611	EET3513-228	2200MF ELECTRO	
	C612	EET3513-228	2200MF ELECTRO	
	C613	EET3513-228	2200MF ELECTRO	
	C616	QFN82AJ-104	0. 1MF 100V MYLAR CAP.	
	C621	QETB1HM-105	1MF 50V AL. E. CAP.	
	C622	QETB1HM-227	220MF 50V E. CAP.	
	C623	QETB1HM-227	220MF 50V E. CAP.	
	C624	QETB1HM-226E	22MF 50V E. CAP.	
	C625	QETB1HM-226E	22MF 50V E. CAP.	
	C626	QETB1HM-475E	4. 7MF 50V E. CAP.	
	C627	QETB1HM-475E	4. 7MF 50V E. CAP.	
	C651	QCVB1CM-103Y	0. 01MF 16V CER. CAP.	
	C652	QETB1CM-226	22MF 16V E. CAP.	
	C653	QETB1CM-226	22MF 16V E. CAP.	
	C654	QCVB1CM-103Y	0. 01MF 16V CER. CAP.	
	C655	QETB1CM-226	22MF 16V E. CAP.	
	C656	QETB1CM-226	22MF 16V E. CAP.	
	C657	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C658	QETB1CM-226	22MF 16V E. CAP.	
	C659	QETB1CM-226	22MF 16V E. CAP.	
	C660	QFLB1HJ-103	0. 01MF 50V MYLAR CAP.	
	C661	QETB1CM-226	22MF 16V E. CAP.	
	C662	QETB1CM-226	22MF 16V E. CAP.	
	C951	QCB1HK-561Y	560PF 50V CER. CAP.	BS EF EN G
	C952	QCB1HK-561Y	560PF 50V CER. CAP.	BS EF EN G
	C953	QCS31HJ-471Z	470PF 50V CER. CAP.	BS EF EN G
	C961	QCS21HJ-101A	100PF 50V CER. CAP.	
		RESISTORS		
	R307	QRD161J-392	3. 9K 1/6W CARBON RES.	
	R308	QRD161J-392	3. 9K 1/6W CARBON RES.	
	R309	QRD161J-132	1. 3K 1/6W CARBON RES.	
	R310	QRD161J-132	1. 3K 1/6W CARBON RES.	
	R311	QRD161J-132	1. 3K 1/6W CARBON RES.	
	R312	QRD161J-132	1. 3K 1/6W CARBON RES.	
	R313	QRD161J-392	3. 9K 1/6W CARBON RES.	
	R314	QRD161J-392	3. 9K 1/6W CARBON RES.	
	R341	QRD161J-472	4. 7K 1/6W CARBON RES.	
	R342	QRD161J-472	4. 7K 1/6W CARBON RES.	
	R350	QRD161J-221	220 1/6W CARBON RES.	
	R351	ERD004J-471	470 NETWORK RES.	
	R352	ERD004J-471	470 NETWORK RES.	
	R501	QRD167J-751	750 1/6W CARBON RES.	
	R502	QRD167J-751	750 1/6W CARBON RES.	
	R508	QRD167J-223	22K 1/6W CARBON RES.	

# AX-F3000

## ■ Electrical Parts List (ENB-241)

△	Item	Parts Number	Description	Area
	R509	QRD167J-560	56 1/6W CARBON RES.	
	R510	QRD161J-221	220 1/6W CARBON RES.	
	R511	QRD161J-101	100 1/6W CARBON RES.	
	R513	QRD161J-473	47K 1/6W CARBON RES.	
	R514	QRD161J-103	10K 1/6W CARBON RES.	
	R515	QRD161J-103	10K 1/6W CARBON RES.	
	R516	QRD161J-103	10K 1/6W CARBON RES.	
	R517	QRD161J-103	10K 1/6W CARBON RES.	
	R518	QRD161J-103	10K 1/6W CARBON RES.	
	R519	QRD161J-103	10K 1/6W CARBON RES.	
	R520	QRD161J-331	330 1/6W CARBON RES.	
	R521	QRD161J-331	330 1/6W CARBON RES.	
	R522	QRD161J-331	330 1/6W CARBON RES.	
	R523	QRD161J-103	10K 1/6W CARBON RES.	
	R524	QRD161J-102	1K 1/6W CARBON RES.	
	R525	QRD161J-221	220 1/6W CARBON RES.	
	R527	QRD161J-221	220 1/6W CARBON RES.	
	R562	QRD167J-272	2.7K 1/6W CARBON RES.	
	R621	QRD161J-103	10K 1/6W CARBON RES.	
	R622	QRD161J-103	10K 1/6W CARBON RES.	
	R623	QRD161J-102	1K 1/6W CARBON RES.	
	R624	QRD161J-472	4.7K 1/6W CARBON RES.	
△	R625	PTH61G25AR4R7M	POSITIVE THE	
	R626	QRD167J-332	3.3K 1/6W CARBON RES.	
	R627	QRD167J-223	22K 1/6W CARBON RES.	
	R628	QRD161J-104	100K 1/6W CARBON RES.	
△	R631	QRD14CJ-2R7S	2.7 1/4W UNF. CARBON R	C J
	R631	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	BS EF EN G U UB US UT
△	R632	QRD14CJ-3R3S	3.3 1/4W UNF. CARBON R	
	R633	QRD14CJ-110SX	11 1/4W CARBON RES.	BS EF EN G U UB US UT
△	R633	QRD14CJ-8R2S	8.2 1/4W UNF. CARBON R	C J
△	R634	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R637	QRD161J-331	330 1/6W CARBON RES.	
	R651	QRD167J-332	3.3K 1/6W CARBON RES.	
	R652	QRD161J-681	680 1/6W CARBON RES.	
	R653	QRD161J-123	12K 1/6W CARBON RES.	
	R655	QRD161J-512	5.1K 1/6W CARBON RES.	
	R656	QRD161J-122	1.2K 1/6W CARBON RES.	
	R657	QRD161J-202	2K 1/6W CARBON RES.	
	R658	QRD167J-152	1.5K 1/6W CARBON RES.	
	R659	QRD167J-153	15K 1/6W CARBON RES.	
	R660	QRD161J-392	3.9K 1/6W CARBON RES.	
	R661	QRD161J-182	1.8K 1/6W CARBON RES.	
	R662	QRD161J-222	2.2K 1/6W CARBON RES.	
	R663	QRD161J-102	1K 1/6W CARBON RES.	
	R664	QRD161J-182	1.8K 1/6W CARBON RES.	
	R665	QRD167J-153	15K 1/6W CARBON RES.	
	R666	QRD161J-392	3.9K 1/6W CARBON RES.	
	R667	QRD161J-182	1.8K 1/6W CARBON RES.	
	R668	QRD161J-222	2.2K 1/6W CARBON RES.	
	R669	QRD161J-102	1K 1/6W CARBON RES.	
	R670	QRD161J-182	1.8K 1/6W CARBON RES.	
	R681	QRG01DJ-100X	10 1W OXIDE METAL	C J
	R682	QRG01DJ-100X	10 1W OXIDE METAL	C J
	R999	QRD161J-103	10K 1/6W CARBON RES.	
	R1001	QRD14CJ-6R8SX	6.8 1/4W UNF. CARBON R	C J
△	R1002	QRD14CJ-100SX	10 1/4W UNF. CARBON R	C J
	R1515	QRD12CJ-1R0SX	1 1/2W UNF. CARBON R	C J
	VR300	QVDB94B-E15H	100K VARIABLE RE	
	VR321	QVJB81B-E54D	50K VARIABLE RE	
	VR322	QVJB81B-E54D	50K VARIABLE RE	
	VR323	QVJB81M-E54B	50K VARIABLE RE	
		OTHERS		
		EMW10581-102	PRINTED BOARD	
		E309629-001SS	LED HOLDER	
	J703	QMS3L10-0A0	MICROPHONE JACK	
	J791	QMS3R80-EE0S	HEADPHONE JACK	

△	Item	Parts Number	Description	Area
	L901	EQL4007-6R8T	INDUCTOR	
	L902	EQL4007-R56T	INDUCTOR	
	L903	EQL4007-3R3T	INDUCTOR	
	L904	EQL4007-R56T	INDUCTOR	
	L905	EQL4007-3R3T	INDUCTOR	
	LG001	EMV9519-001	LUG	BS EF EN G
	S501	ESP0001-023M	TACT SWITCH	
	S502	ESP0001-023M	TACT SWITCH	
	S503	ESP0001-023M	TACT SWITCH	
	S507	ESP0001-023M	TACT SWITCH	
	S508	ESP0001-023M	TACT SWITCH	
	S509	ESP0001-023M	TACT SWITCH	
	TW111	QWE350-134K4K	WIRE	BS EF EN G
	X501	ECX0060-000EM	CERAMIC RESONATOR	
	CN213	EWS293-0113	SOCKET WIRE ASSY	
	CN601	EMV7127-015	FEMALE CONNECTOR	
	CN602	EMV7127-013	CONNECT TERMINAL	
	CN603	EMV7127-011	JACK TERMINAL	
	CN604	EMV7163-012	CONNECT TERMINAL	
	CN605	EMV5159-010R	CONNECT TERMINAL	
	CN607	EMV7163-010	CONNECT TERMINAL	
	CN615	EMV7159-010	PIN PLUG	
	CN617	EMV5163-010R	CONNECT TERMINAL	
	CN911	EMV5167-126	CONNECT TERMINAL	
	CN912	EMV5163-010R	CONNECT TERMINAL	
	FW201	EWR35D-16LS	CORD	
	FW606	EWR36D-13LS	CORD	

## ■ Electrical Parts List (END-104)

△	Item	Parts Number	Description	Area
		CAPACITORS		
	C1011	QFVC1HJ-103ZN	0.01MF 50V METAL. MYLAR	BS EF EN G
	C1012	QFVC1HJ-103ZN	0.01MF 50V METAL. MYLAR	BS EF EN G
	C1015	QCS31HJ-471Z	470PF 50V CER. CAP.	BS EF EN G
	C1016	QCS31HJ-471Z	470PF 50V CER. CAP.	BS EF EN G
	C1017	QCS31HJ-471Z	470PF 50V CER. CAP.	BS EF EN G
		RESISTORS		
	R996	QRD161J-104	100K 1/8W CARBON RES.	U UB US UT
	R997	QRD161J-104	100K 1/8W CARBON RES.	U UB US UT
	R998	QRD161J-104	100K 1/8W CARBON RES.	U UB US UT
	R1011	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	BS EF EN G
	R1012	QRD14CJ-4R7SX	4.7 1/4W UNF. CARBON R	BS EF EN G
△	R1111	QRC128K-275EM	2.7M 1/2W COMPOSITION	C J
		OTHERS		
		EMW10660-002A	PRINTED BOARD	
		E61380-024	FUSE LABEL	C J
		E67132-T2R5	FUSE LABEL	U UB US UT
		QWE882-19RR	VINYL WIRE	
		QWE883-19RR	VINYL WIRE	
		QWE888-19RR	VINYL WIRE	
	J702	EMB00TV-406A	SPEAKER TERMINAL	
	S001	QSR8001-E01U	ROTARY SWITCH	U UB US UT
	CN011	EMV5138-004	PIN CONNECTOR	
	EP001	E70225-003SS	EARTH PLATE	
	EP002	E70225-003SS	EARTH PLATE	
	FS017	E3400-431	FELT SPACER	BS EF EN G
	FT001	EMG7331-003Z	FUSE CLIP	
	FT002	EMG7331-003Z	FUSE CLIP	U UB US UT
	FT011	EMG7331-003Z	FUSE CLIP	
	FT022	EMG7331-003Z	FUSE CLIP	U UB US UT
	TB001	ENZ4001-002Z	TAB	
	TB002	ENZ4001-002Z	TAB	





# PARTS LIST

## < XL-F3000 >

\* All printed circuit boards and its assemblies are not available as service parts.

### The Marks for Designated Areas

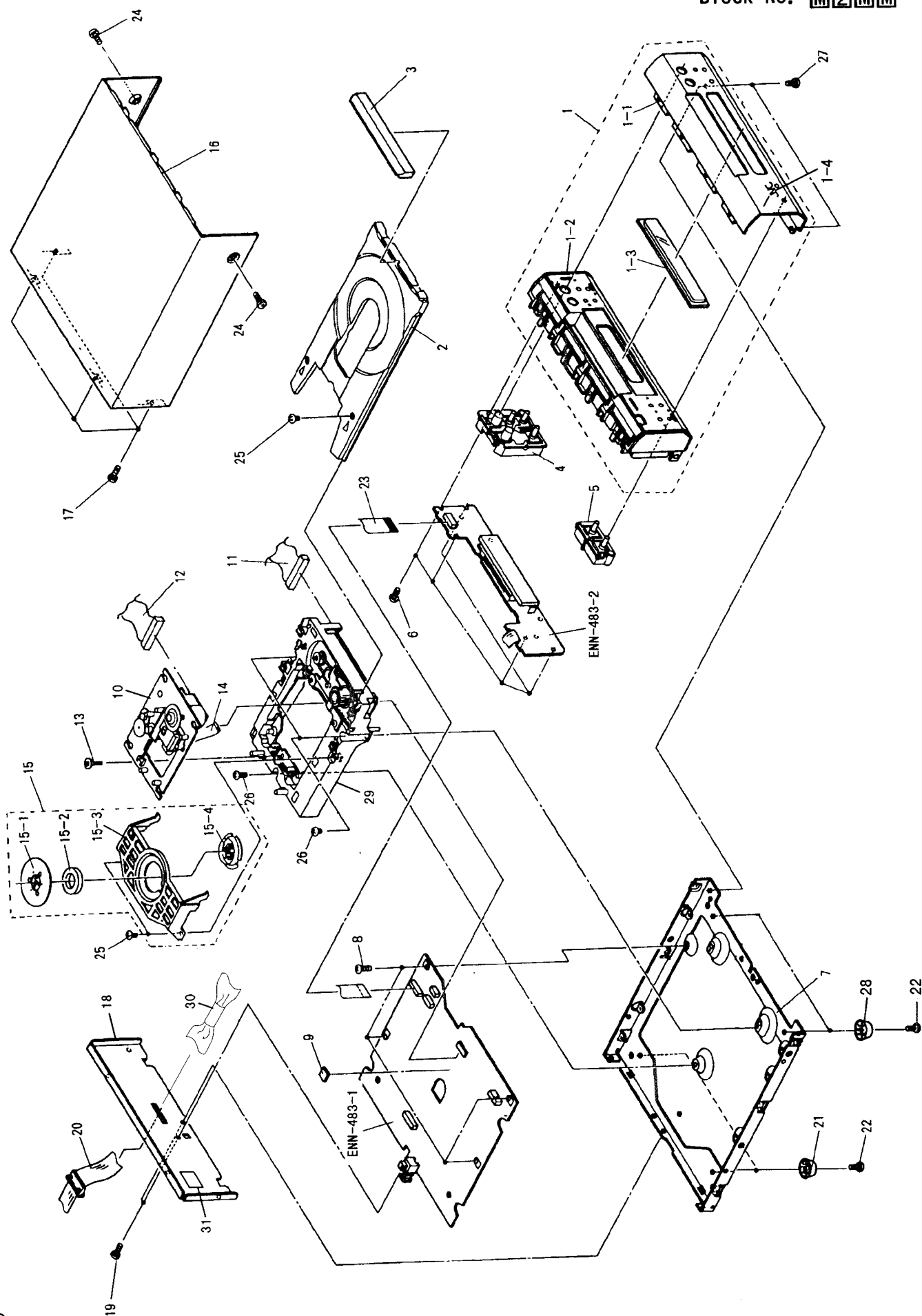
BS . . . the U.K.	C . . . Canada	EF . . . Continental Europe	EN . . . Scandinavia
G . . . Germany	J . . . the U.S.A.	UB . . . Hong Kong	U . . . Universal Type
US . . . Singapore	UT . . . Taiwan	No marks indicates all areas.	

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# General Exploded View and Parts List

Block No. **M2MM**



■ Parts List

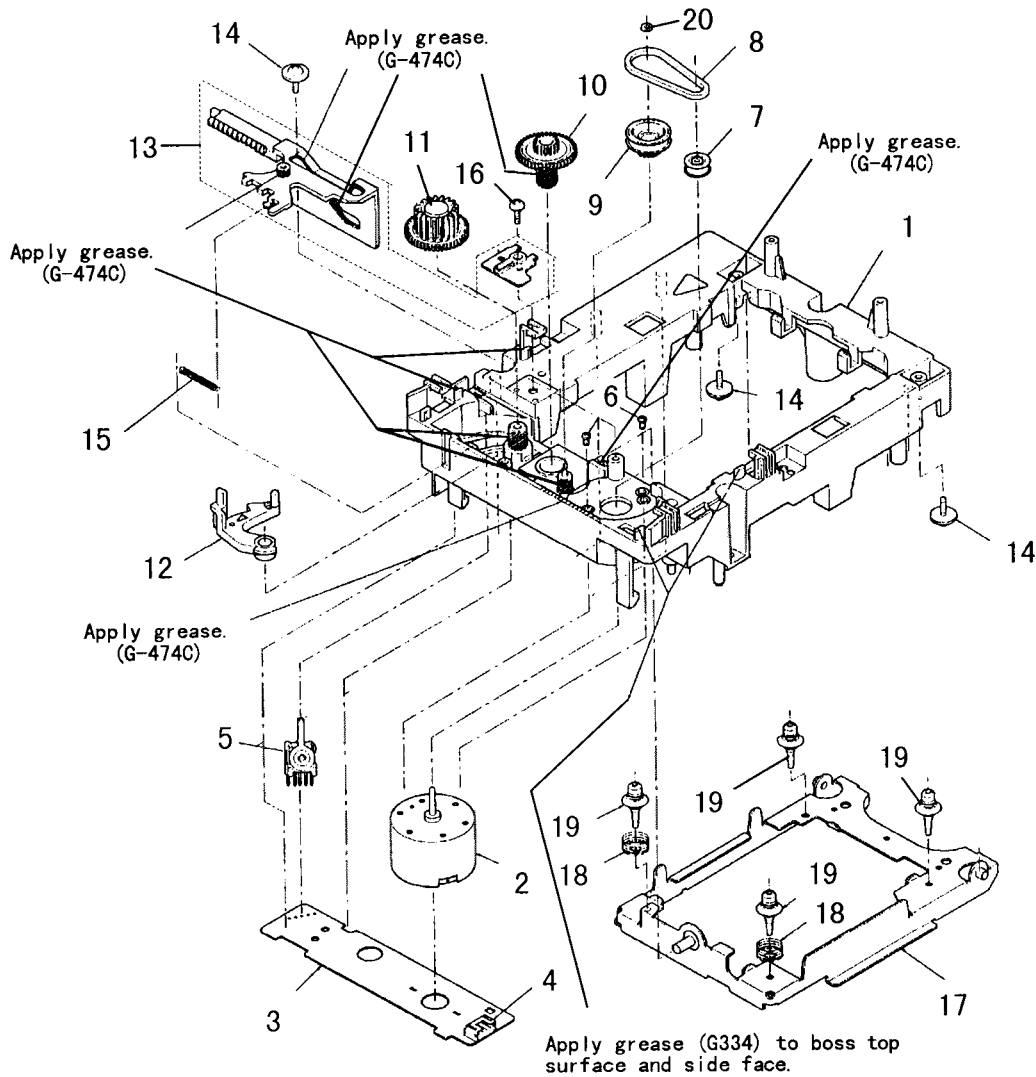
Block No. **M2M**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-XLF3000E (S)	FRONT PANEL ASSY	1		
	1-1	E208737-002	FRONT PANEL	1		
	1-2	E103087-003ST	FRONT BASE	1		
	1-3	E309614-002	WINDOW SCREEN	1		
	1-4	E406971-221	JVC MARK	1		
	2	E102358-332SS	CD TRAY	1		
	3	E309616-004SS	CD FITTING	1		
	4	E208703-003SS	PUSH BUTTON ASSY	1		
	5	E309613-003SS	PUSH BUTTON	1		
	6	SDSF2608Z	SCREW	5		
	7	E103088-001	CHASSIS BASE	1		
	8	SBST3006CC	TAPPING SCREW	4		
	9	E75896-001	SPACER	1		
	10	-----	CD MECHANISM ASSY	1	See Page 7-5	
	11	EWS265-B410	SOCKET WIRE	1		
	12	EWS266-B410	SOCKET WIRE	1		
	13	E406293-001	SPECIAL SCREW	1		
	14	VWF1015-09PPAV	FFC CABLE	1		
	15	E306837-005	CLAMPER ASSY	1		
	15-1	E306836-003	YOKE PLATE	1		
	15-2	E74897-002	MAGNET	1		
	15-3	E26756-002	CLAMPER BASE	1		
	15-4	E306835-001	CD CLAMPER	1		
	16	E208179-013 (S)	METAL COVER	1		
	17	GBSG3008CC	TAPPING SCREW	4		
	18	E208705-003	REAR PANEL	1		J
		E208705-004	REAR PANEL	1		C
		E208705-005	REAR PANEL	1		BS EF EN G
		E208705-006	REAR PANEL	1		U UB US UT
	19	E73273-003	SPECIAL SCREW	2		
	20	EWP907-025	FLAT WIRE ASSY	1		
	21	E75281-010	FOOT	2		
	22	SBST3010Z	TAPPING SCREW	4		
	23	VWF1215-16TTB	FLAT WIRE ASSY	1		
	24	SDSG3008N	TAPPING SCREW	2		
	25	SBSF3008Z	TAPPING SCREW	3		
	26	SBST3008Z	TAPPING SCREW	3		
	27	SDSG3008CC	TAPPING SCREW	2		
	28	E75281-009	FOOT	2		
	29	-----	CD LOADING MECHANISM ASSY	1	See Page 7-4	
	30	ENZ8104-005	NOISE FILTER	1		
	31	E406507-001	CAUTION LABEL	1		Except J
	-	E75139-004	NAME LABEL	1		U
		E307570-001	NUMBER LABEL	1		J
		E61029-005	NUMBER LABEL	1		Except J

## Loading Mechanism Ass'y and Parts List

Block No. **M3MM**

## ■ Grease Point



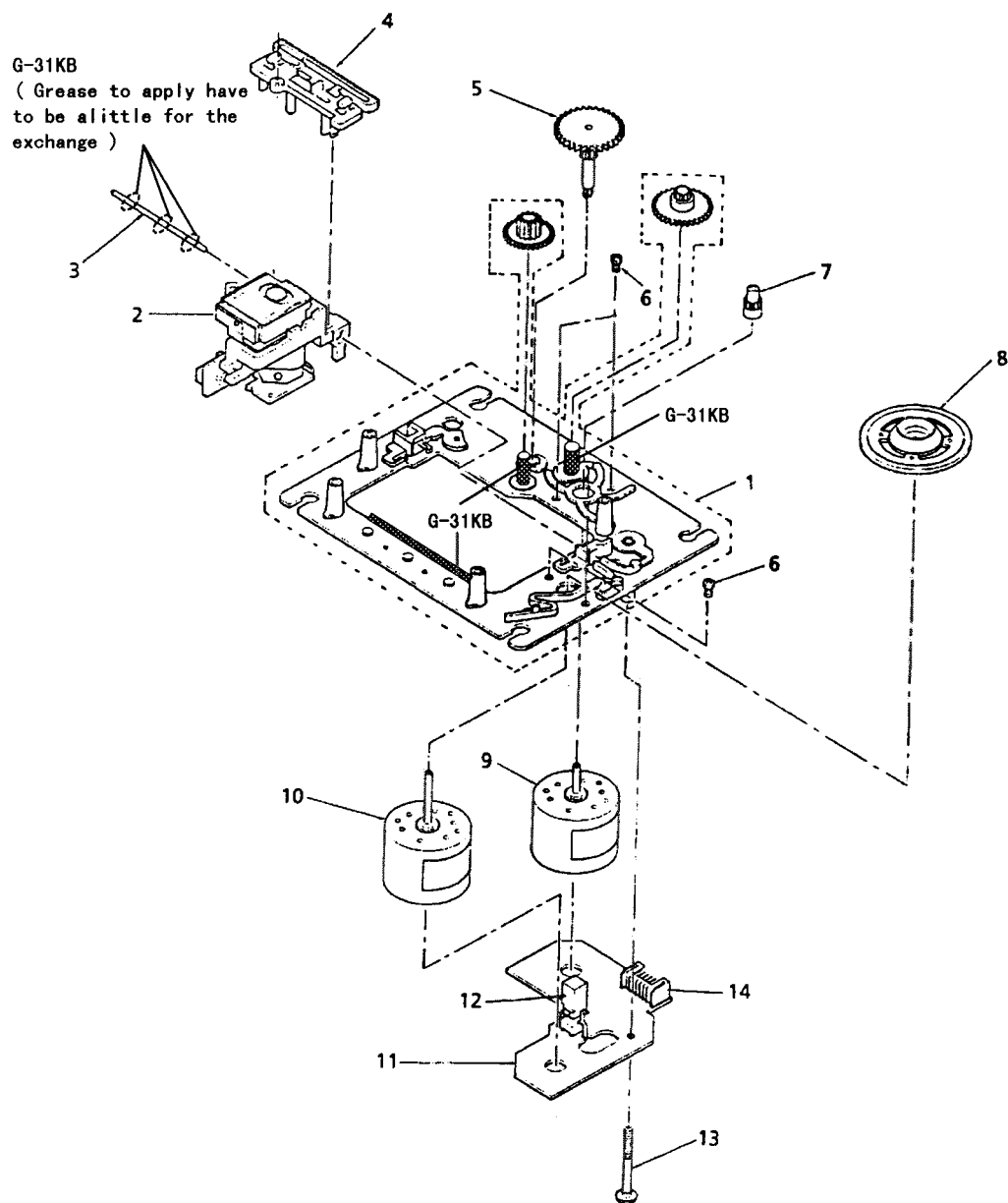
## ■ Parts List (Loading Mechanism Ass'y)

Block No. **M3MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	E102357-221	LOADING BASE	1		
	2	MMN-6F1LB8K	MOTOR	1		
	3	EMW10264-002	P. C. BOARD	1		
	4	EMV5109-005B	5P PLUG ASSY	1		
	5	ESS1200-002	SWITCH	1		
	6	SPSK2640Z	SCREW	2		
	7	E75984-221	MOTOR PULLEY	1		
	8	E75950-002	BELT	1		
	9	E75985-221SS	GEAR (1)	1		
	10	E75986-221SS	GEAR (2)	1		
	11	E75987-221SS	GEAR (3)	1		
	12	E307162-331	LEVER	1		
	13	E307252-331	CAM PLATE	1		
	14	E65923-003	SCREW	3		
	15	E75989-001	SPRING	1		
	16	SBSF3008Z	SCREW	1		
	17	E307179-332	ELEVATOR BASE ASSY	1		
	18	E406871-001	SPRING	2		
	19	E406294-002	INSULATOR	4		
	20	E60912-005SS	SPEED NUT	1		

## CD Mechanism Ass'y and Pars List

■ Grease Point

Block No. **M4MM**

## ■ Parts List (CD Mechanism Ass'y)

Block No. **M4MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EPB-002A	MECHA. BASE ASSY	1		
	2	OPTIMA-6S	OPTICAL PICK UP	1		
	3	E407782-001	CD SHAFT	1		
	4	E307746-001	CD RACK	1		
	5	EPB-003A	MECHA GEAR	1		
	6	SDSP2003N	SCREW	3		
	7	E406750-001	PINION GEAR	1		
	8	E75807-302	TURN TABLE	1		
	9	E406784-001	FEED MOTOR	1		
	10	E406783-001	SPINDLE MOTOR	1		
	11	EMW10190-001 (S)	P. C. BOARD	1		
	12	ESB1100-005	LEAF SWITCH	1		
	13	E75832-001	SCREW	1		
	14	EMV5109-006B	CONN. TERMINAL	1	6PIN	

# XL-F3000

## ■ Electrical Parts List (ENN-483)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC401	MN662720RB	I. C (DIGI-MOS)	
	IC501	AN8806SB	I. C (MONO-ANALOG)	
	IC750	MN35503	I. C (DIGI-MOS)	
	IC751	NJM4580DD	I. C (MONO-ANALOG)	
	IC801	BA6398FPX	I. C (MONO-ANALOG)	
	IC851	NJM4558L	I. C (MONO-ANALOG)	
	IC901	MN171602JJX1	I. C (MICRO-COMPUTER)	
	IC902	MN1281 (P. Q)	I. C (DIGI-MOS)	
		DIODES		
	D601	1SR139-200	SI. DIODE	
	D751	1SS119	SI. DIODE	
	D752	1SS119	SI. DIODE	
	D871	1SS119	SI. DIODE	
	D945	1SS119	SI. DIODE	
	D946	1SS119	SI. DIODE	
	D948	1SS119	SI. DIODE	
	D949	1SS119	SI. DIODE	
	D950	1SS119	SI. DIODE	
	D971	SLR-342MCA47	L. E. D.	
		TRANSISTORS		
	Q501	2SA950 (O. Y)	SI. TRANSISTOR	
	Q611	2SA934 (Q. R)	SI. TRANSISTOR	
	Q612	DTA114TS	DIGITAL TRANSISTOR	
	Q851	2SC2060 (Q. R)	SI. TRANSISTOR	
	Q852	2SA934 (Q. R)	SI. TRANSISTOR	
	Q945	DTA114YS	DIGITAL TRANSISTOR	
	Q946	DTC114YS	DIGITAL TRANSISTOR	
	Q971	DTC114YS	DIGITAL TRANSISTOR	
		CAPACITORS		
	C401	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C402	QCZ0205-155	1.5MF 25V C. CAP.	
	C404	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C405	QCB1HK-471Y	470PF 50V CER. CAP.	
	C406	EFH001J-223	METAL. MYLAR	
	C407	QFV81HJ-334	0.33MF 50V TF. CAP.	
	C408	QCZ0205-155	1.5MF 25V C. CAP.	
	C409	QER61AM-107Z	100MF 10V AL E. CAP.	
	C411	QCSB1HK-5R6Y	5.6PF 50V CER. CAP.	
	C416	QCSB1HJ-270Y	27PF 50V CER. CAP.	
	C417	QCSB1HJ-270Y	27PF 50V CER. CAP.	
	C418	QCSB1HJ-270Y	27PF 50V CER. CAP.	
	C421	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C422	QER51AM-227	220MF 10V AL E. CAP.	
	C423	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C424	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C440	QER50JM-107	100MF 6.3V AL E. CAP.	
	C501	QER50JM-107	100MF 6.3V AL E. CAP.	
	C502	QCZ0205-155	1.5MF 25V C. CAP.	
	C504	QER50JM-107	100MF 6.3V AL E. CAP.	
	C505	QCB1HK-271Y	270PF 50V CER. CAP.	
	C506	QCSB1HJ-470	47PF 50V CER. CAP.	
	C507	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C509	QCXB1CM-222Y	2200PF 16V CER. CAP.	
	C510	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C511	QCB1HK-821	820PF 50V CER. CAP.	
	C514	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C517	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C518	QEK51HM-105G	1MF 50V AL E. CAP.	
	C519	QFV81HJ-104	0.1MF 50V THIN FILM CA	
	C522	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C523	QER51VM-106	10MF 35V AL E. CAP.	
	C524	QER50JM-476	47MF 6.3V AL E. CAP.	
	C525	EFH001J-333	METAL. MYLAR	
	C526	QCB1HK-101Y	100PF 50V CER. CAP.	
	C527	QFV81HJ-273	0.027MF 50V THIN FILM CA	
	C528	QFLB1HJ-472	4700PF 50V MYLAR CAP.	
	C529	QFV81HJ-104	0.1MF 50V THIN FILM CA	
	C530	QCB1HK-102Y	1000PF 50V CER. CAP.	

△	Item	Parts Number	Description	Area
	C531	QCB1HK-102Y	1000PF 50V CER. CAP.	
	C541	QCB1HK-331Y	330PF 50V CER. CAP.	
△	C601	QETB1CM-108	1000MF 16V AL E. CAP.	
	C602	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C603	QCZ0205-155	1.5MF 25V C. CAP.	
	C610	QETB1AM-477	470MF 10V E. CAP.	
	C611	QCF21HP-223A	0.022MF 50V CER. CAP.	
	C612	QETB0JM-338M	3300MF 6.3V AL E. CAP.	
	C621	QCZ0205-155	1.5MF 25V C. CAP.	
	C701	QETB1AM-107	100MF 10V AL E. CAP.	
	C751	QFV81HJ-104	0.1MF 50V THIN FILM CA	
	C752	EETB1AM-107E	100MF 10V E. CAP.	
	C753	EFH001J-104	METAL. MYLAR	
	C754	QCZ0205-155	1.5MF 25V C. CAP.	
	C755	EETB1AM-227E	220MF 10V E. CAP.	
	C756	EFH001J-104	METAL. MYLAR	
	C757	EETB1AM-477E	470MF 10V E. CAP.	
	C758	EETB1AM-477E	470MF 10V E. CAP.	
	C759	QCT30CH-100Y	10PF 50V CER. CAP.	
	C760	QCT30CH-100Y	10PF 50V CER. CAP.	
	C768	QFN31HJ-392Z	3900PF 50V MYLAR CAP.	
	C769	QFN31HJ-392Z	3900PF 50V MYLAR CAP.	
	C770	QCS21HJ-181A	180PF 50V CER. CAP.	
	C771	QCS21HJ-181A	180PF 50V CER. CAP.	
	C772	QFN31HJ-333Z	0.033MF 50V MYLAR CAP.	
	C773	QFN31HJ-333Z	0.033MF 50V MYLAR CAP.	
	C774	EEZ5011-476E	47MF E. CAP.	
	C775	EEZ5011-476E	47MF E. CAP.	
	C778	EETB1HM-475E	4.7MF 50V E. CAP.	
	C779	EETB1HM-475E	4.7MF 50V E. CAP.	
	C780	QCZ0205-155	1.5MF 25V C. CAP.	
	C801	QETB1CM-227	220MF 16V AL E. CAP.	
	C802	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C803	QFLB1HJ-273	0.027MF 50V MYLAR CAP.	
	C804	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C806	QFV81HJ-273	0.027MF 50V THIN FILM CA	
	C851	QETB1CM-477M	470MF 16V E. CAP.	
	C852	QETB1CM-477M	470MF 16V E. CAP.	
	C854	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C855	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C856	QCF21HP-103A	0.01MF 50V CER. CAP.	
	C876	QER51HM-475	4.7MF 50V AL E. CAP.	
	C901	QER51HM-475	4.7MF 50V AL E. CAP.	
	C902	QER51HM-475	4.7MF 50V AL E. CAP.	
	C903	QER50JM-107	100MF 6.3V AL E. CAP.	
	C945	QER61HM-226	22MF 50V AL E. CAP.	
	C946	QER50JM-107	100MF 6.3V AL E. CAP.	
	C947	QCZ0205-155	1.5MF 25V C. CAP.	
	C948	QER50JM-107	100MF 6.3V AL E. CAP.	
	C949	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C950	QCB1HK-331Y	330PF 50V CER. CAP.	
		RESISTORS		
	R402	QRD161J-124	120K 1/6W CARBON RES.	
	R403	QRD167J-155	1.5M 1/6W CARBON RES.	
	R404	QRD161J-104	100K 1/6W CARBON RES.	
	R405	QRD161J-104	100K 1/6W CARBON RES.	
	R406	QRD161J-681	680 1/6W CARBON RES.	
	R407	QRD161J-471	470 1/6W CARBON RES.	
	R408	QRD161J-820	82 1/6W CARBON RES.	
	R409	QRD161J-820	82 1/6W CARBON RES.	
	R410	QRD161J-820	82 1/6W CARBON RES.	
	R415	QRD161J-2R2	2.2 1/6W CARBON RES.	
	R416	QRD161J-2R2	2.2 1/6W CARBON RES.	
	R417	QRD161J-102	1K 1/6W CARBON RES.	
	R418	QRD161J-101	100 1/6W CARBON RES.	
	R419	QRD161J-102	1K 1/6W CARBON RES.	
	R420	QRD161J-102	1K 1/6W CARBON RES.	
	R421	QRD161J-102	1K 1/6W CARBON RES.	
	R422	QRD161J-102	1K 1/6W CARBON RES.	

## ■ Electrical Parts List (ENN-483)

△	Item	Parts Number	Description	Area
	R424	QRD161J-102	1K 1/6W CARBON RES.	
	R425	QRD161J-102	1K 1/6W CARBON RES.	
	R426	QRD161J-102	1K 1/6W CARBON RES.	
	R427	QRD161J-102	1K 1/6W CARBON RES.	
	R428	QRD161J-102	1K 1/6W CARBON RES.	
	R430	QRD167J-152	1.5K 1/6W CARBON RES.	
	R504	QRD161J-114	110K 1/6W CARBON RES.	
	R505	QRD161J-273	27K 1/6W CARBON RES.	
	R507	QRD167J-134	130K 1/6W CARBON RES.	
	R509	QRD161J-103	10K 1/6W CARBON RES.	
	R510	QRD167J-154	150K 1/6W CARBON RES.	
	R511	QRD161J-394	390K 1/6W CARBON RES.	
	R512	QRD161J-913	91K 1/6W CARBON RES.	
	R513	QRD167J-562	5.6K 1/6W CARBON RES.	
	R514	QRD161J-622	6.2K 1/6W CARBON RES.	
	R518	QRD167J-121	120 1/6W CARBON RES.	
	R520	QRD161J-910Y	91 1/6W CARBON RES.	
	R524	QRD161J-470	47 1/6W CARBON RES.	
	R525	QRD161J-470	47 1/6W CARBON RES.	
	R526	QRD161J-470	47 1/6W CARBON RES.	
	R527	QRD161J-2R2	2.2 1/6W CARBON RES.	
	R531	QRD161J-125	1.2M 1/6W CARBON RES.	
△	R601	PTH61G25AR4R7M	POSITIVE THE	Except J
△	R601	QRD12CJ-4R7S	4.7 1/2W UNF. CARBON R	J
	R609	QRD161J-331	330 1/6W CARBON RES.	
	R611	QRD161J-472	4.7K 1/6W CARBON RES.	
	R612	QRD161J-821	820 1/6W CARBON RES.	
	R613	QRD161J-472	4.7K 1/6W CARBON RES.	
	R701	QRD161J-2R2	2.2 1/6W CARBON RES.	
	R750	QRD161J-271	270 1/6W CARBON RES.	
	R751	QRD161J-101	100 1/6W CARBON RES.	
	R752	QRD161J-102	1K 1/6W CARBON RES.	
	R753	QRD167J-560	56 1/6W CARBON RES.	
	R754	QRD167J-560	56 1/6W CARBON RES.	
	R755	QRD161J-271	270 1/6W CARBON RES.	
	R756	QRD161J-101	100 1/6W CARBON RES.	
	R758	QRD161J-101	100 1/6W CARBON RES.	
	R760	ERD004J-163Z	16K CARBON RES.	
	R761	ERD004J-163Z	16K CARBON RES.	
	R762	ERD004J-243Z	24K CARBON RES.	
	R763	ERD004J-243Z	24K CARBON RES.	
	R764	ERD004J-163Z	16K CARBON RES.	
	R765	ERD004J-163Z	16K CARBON RES.	
	R766	ERD004J-243Z	24K CARBON RES.	
	R767	ERD004J-243Z	24K CARBON RES.	
	R768	QRD167J-682	6.8K 1/6W CARBON RES.	
	R769	QRD167J-682	6.8K 1/6W CARBON RES.	
	R772	QRD161J-362	3.6K 1/6W CARBON RES.	
	R773	QRD161J-362	3.6K 1/6W CARBON RES.	
	R774	QRD161J-183	18K 1/6W CARBON RES.	
	R775	QRD161J-183	18K 1/6W CARBON RES.	
	R776	QRD161J-162	1.6K 1/6W CARBON RES.	
	R777	QRD161J-162	1.6K 1/6W CARBON RES.	
	R780	QRD167J-560	56 1/6W CARBON RES.	
	R781	QRD167J-560	56 1/6W CARBON RES.	
	R784	QRD161J-183	18K 1/6W CARBON RES.	
	R785	QRD161J-183	18K 1/6W CARBON RES.	
	R786	QRD161J-271	270 1/6W CARBON RES.	
	R787	QRD161J-271	270 1/6W CARBON RES.	
	R801	QRD161J-821	820 1/6W CARBON RES.	
	R802	QRD167J-562	5.6K 1/6W CARBON RES.	
	R803	QRD161J-112	1.1K 1/6W CARBON RES.	
	R804	QRD167J-113	11K 1/6W CARBON RES.	
	R806	QRD161J-124	120K 1/6W CARBON RES.	
	R807	QRD167J-332	3.3K 1/6W CARBON RES.	
	R808	QRD161J-752	7.5K 1/6W CARBON RES.	
	R809	QRD167J-223	22K 1/6W CARBON RES.	
	R810	QRD161J-392	3.9K 1/6W CARBON RES.	
	R811	QRD167J-153	15K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R812	QRD161J-752	7.5K 1/6W CARBON RES.	
	R813	QRD167J-751	750 1/6W CARBON RES.	
	R814	QRD161J-363	36K 1/6W CARBON RES.	
△	R851	QRD12CJ-4R7S	4.7 1/2W UNF. CARBON R	
△	R852	QRD12CJ-4R7S	4.7 1/2W UNF. CARBON R	
	R871	QRD161J-513	51K 1/6W CARBON RES.	
	R872	QRD161J-513	51K 1/6W CARBON RES.	
	R873	QRD161J-753	75K 1/6W CARBON RES.	
	R874	QRD161J-623	62K 1/6W CARBON RES.	
	R875	QRD161J-221	220 1/6W CARBON RES.	
	R876	QRD161J-684	680K 1/6W CARBON RES.	
	R877	QRD161J-102	1K 1/6W CARBON RES.	
	R904	QRD161J-472	4.7K 1/6W CARBON RES.	
	R905	QRD161J-472	4.7K 1/6W CARBON RES.	
	R906	QRD161J-472	4.7K 1/6W CARBON RES.	
	R907	QRD161J-472	4.7K 1/6W CARBON RES.	
	R945	QRD161J-473	47K 1/6W CARBON RES.	
	R946	QRD161J-821	820 1/6W CARBON RES.	
	R947	QRD161J-103	10K 1/6W CARBON RES.	
	R965	QRD161J-472	4.7K 1/6W CARBON RES.	
	R966	QRD161J-472	4.7K 1/6W CARBON RES.	
	R967	QRD161J-472	4.7K 1/6W CARBON RES.	
	R971	QRD167J-151	150 1/6W CARBON RES.	
		OTHERS		
		EMW10583-102	PRINTED BOARD	
	J701	GP1F32T	OPTICAL JACK	
	K751	ENZ8101-007	F. BEADS	
	K752	ENZ8101-007	F. BEADS	
	K753	ENZ8101-007	F. BEADS	
	K756	ENZ8101-007	F. BEADS	
	K757	ENZ8101-007	F. BEADS	
	K910	ENZ8101-007	F. BEADS	
	K911	ENZ8101-007	F. BEADS	
	K912	ENZ8101-007	F. BEADS	
	K913	ENZ8101-007	F. BEADS	
	S904	ESP0001-023M	TACT SWITCH	
	S905	ESP0001-023M	TACT SWITCH	
	S906	ESP0001-023M	TACT SWITCH	
	S908	ESP0001-023M	TACT SWITCH	
	S912	ESP0001-023M	TACT SWITCH	
	S913	ESP0001-023M	TACT SWITCH	
	S914	ESP0001-023M	TACT SWITCH	
	X751	ECX0169-344EA	CRYSTAL	
	X901	ECX0060-000EM	CERAMIC RESONATOR	
	CN102	EMV5109-005A	MALE CONNECTOR	
	CN103	EMV5109-006A	CONNECT TERMINAL	
	CN104	EMV7144-015R	CONNECT TERMINAL	
	CN601	EMV7141-013	CONNECT TERMINAL	
	CN701	EMV7123-015	MALE CONNECTOR	
	CN901	EMV7123-015R	MALE CONNECTOR	
	DI901	ELU0001-178	FLUORESCENT DISPLAY TUBE	
	EP601	EMZ4002-002Z	EARTH PLATE	
	EP602	EMZ4002-002Z	EARTH PLATE	
	EP603	EMZ4002-002Z	EARTH PLATE	
	EP604	EMZ4002-002Z	EARTH PLATE	
	FH901	E308892-001ST	FL HOLDER	
	FS901	E306805-075	FELT SPACER	
	FW902	EW37D-16LS	FLAT WIRE ASSY	
	JT701	EMV7145-003Z	SOCKET ASSY	
	JT702	EMV7145-004Z	SOCKET ASSY	
	SP401	VYH7653-002	I. C. SOCKET	
	SP501	VYH7653-008	P. W. BOARD HOLDER	
	SP750	VYH7653-002	I. C. SOCKET	
	SP801	VYH7653-002	I. C. SOCKET	





# PARTS LIST

## < TD-F3000 >

\* All printed circuit boards and its assemblies are not available as service parts.

### The Marks for Designated Areas

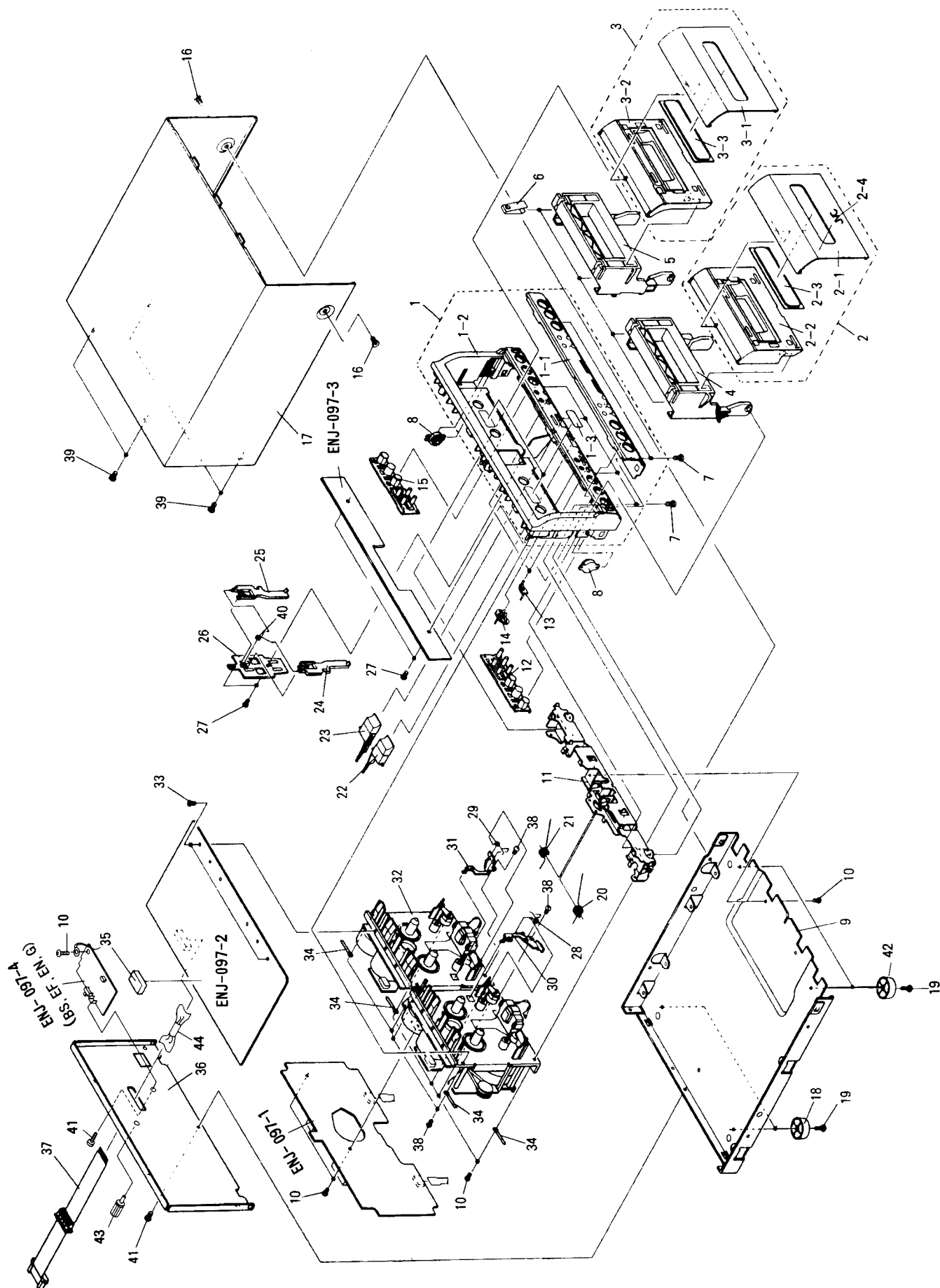
BS . . . the U.K.	C . . . Canada	EF . . . Continental Europe	EN . . . Scandinavia
G . . . Germany	J . . . the U.S.A.	UB . . . Hong Kong	U . . . Universal Type
US . . . Singapore	UT . . . Taiwan	No marks indicates all areas.	

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# General Exploded View and Parts List

Block No. **M5MM**



## ■ Parts List

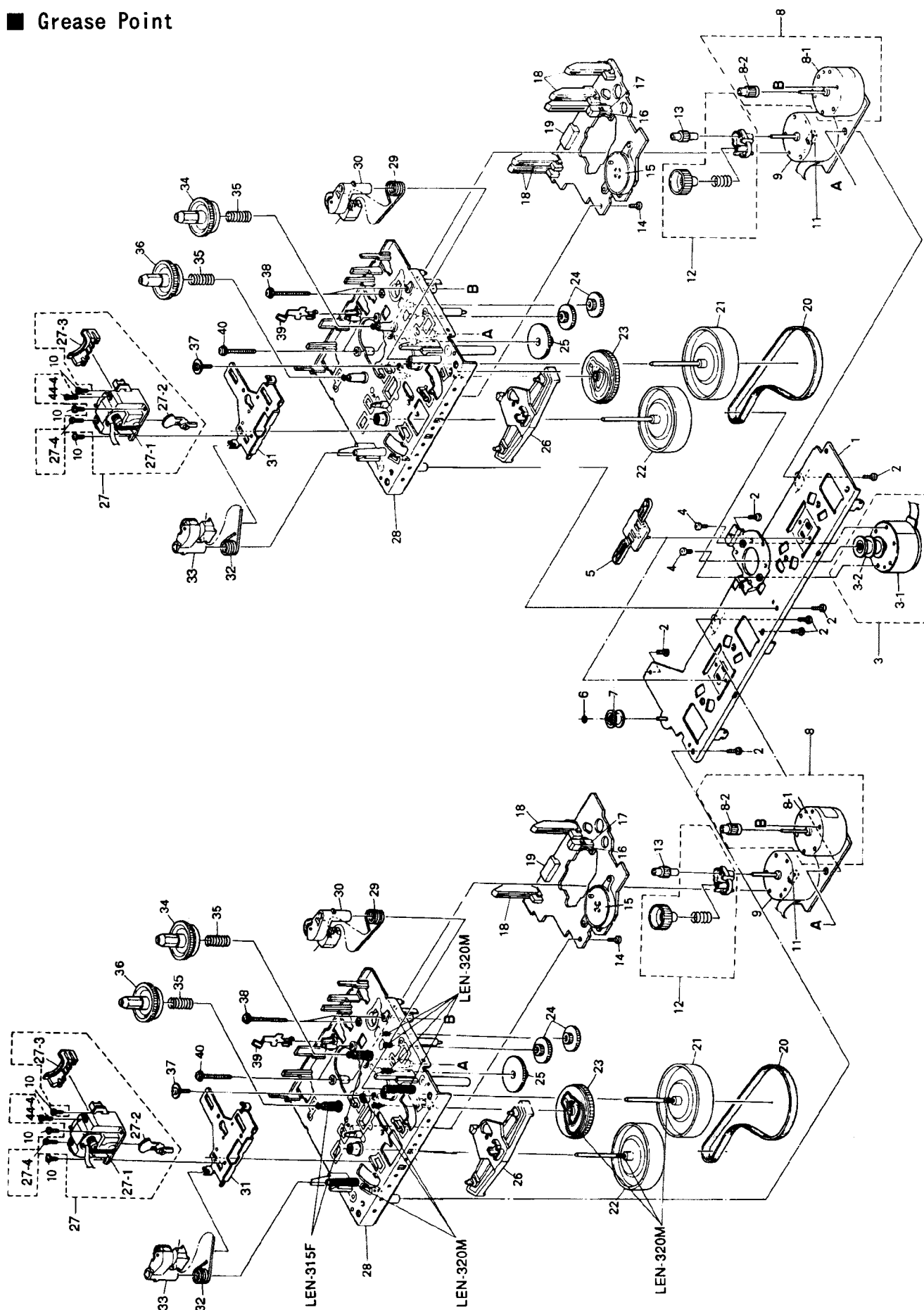
Block No. **M5MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	FFP-TDF3000E(S)	FRONT PANEL ASSY	1		
	1-1	E208709-003	FRONT PANEL	1		
	1-2	E103091-002ST	FRONT BASE	1		
	1-3	E69777-003	REFLECTION PLATE	2		
	2	E309621-002SA	CASSETTE LID ASSY	1		
	2-1	E309621-002	CASSETTE LID	1		
	2-2	E208720-002ST	LID BASE	1		
	2-3	E309625-001	CASSETTE LENS	1		
	2-4	E406971-221	JVC MARK	1		
	3	E309623-002SA	CASSETTE LID ASSY	1		
	3-1	E309623-002	CASSETTE LID	1		
	3-2	E208721-002ST	LID BASE	1		
	3-3	E309625-001	CASSETTE LENS	1		
	4	E207972-005SS	CASSETTE HOLDER	1		
	5	E207973-005SS	CASSETTE HOLDER	1		
	6	E406713-001	CASSETTE SPRING	4		
	7	SDST3008CC	SCREW	6		
	8	E304434-005	DAMPER ASSY	2		
	9	E103092-002	CHASSIS BASE	1		
	10	SBST3006Z	TAPPING SCREW	8		
	11	E208717-001	HOLDER BKT	1		
	12	E208711-003SS	PUSH BUTTON ASSY	1		
	13	E408911-001	INDICATOR	2	REC	
	14	E408910-001	INDICATOR	1	REV.	
	15	E208714-003SS	PUSH BUTTON ASSY	1		
	16	SDSG3008N	TAPPING SCREW	2		
	17	E208174-010(S)	METAL COVER	1		
	18	E75281-010	FOOT	2		
	19	SBST3010Z	TAPPING SCREW	4		
	20	FSKW4002-001	HOLDER SPRING	1		
	21	FSKW4003-001	HOLDER SPRING	1		
	22	E309619-003SS	EJECT BUTTON	1		
	23	E309620-003SS	EJECT BUTTON	1		
	24	E308681-002SS	EJECT LEVER	1		
	25	E308682-002SS	EJECT LEVER	1		
	26	E308683-002	EJECT GUIDE	1		
	27	SDSF2608Z	SCREW	4		
	28	E407801-002	SPRING	1		
	29	E407802-002	SPRING	1		
	30	E407799-001	EJECT BRACKET	1		
	31	E407800-001	EJECT BRACKET	1		
	32	-----	CASSETTE MECHANISM ASSY	1	See page 8-4	
	33	SDST2604Z	SCREW	2		
	34	PU49485-3	CORD CLAMP	4		
	35	E306805-056	SPACER	1		
	36	E208718-002	REAR PANEL	1		J
		E208718-003	REAR PANEL	1		C
		E208718-005	REAR PANEL	1		U UB US UT
		E208718-006	REAR PANEL	1		BS EF EN G
	37	EWP907-020	FLAT WIRE ASSY	1		
	38	SBSF3008Z	TAPPING SCREW	6		
	39	GBSG3008CC	TAPPING SCREW	4		
	40	E407798-002	SPRING	1		
	41	E73273-003	SPECIAL SCREW	1		BS EF EN G
	42	E75281-009	FOOT	2		
	43	E409257-001	EARTH TERMINAL	1		BS EF EN G
	44	ENZ8104-005	NOISE FILTER	1		BS EF EN G
	-	E61029-005	NUMBER LABEL	1		

# Cassette Mechanism Ass'y and Parts List

Block No. **M6MM**

■ Grease Point



## ■ Parts List (Cassette Mechanism Ass'y)

Block No. **M6MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	VKM3775-00A	FM. BKT. ASS'Y	1		
	2	SPSP2603Z	WOOD SCREW	2		
	3	MSI5U2LWA-SA1	DC MOTOR	1	CAPSTAN MOTOR ASSY	
	3-1	MSI-5U2LWA	DC MOTOR	1	CAPSTAN MOTOR	
	3-2	VKR4632-003MM	MOTOR PULLEY	1		
	4	SBSF2608Z	TAPPING SCREW	7		
	5	VKS5327-005MM	LOCK PLATE	2		
	6	WDL163525-4	WASHER	1		
	7	VKR4631-005MM	IDLER PULLEY	1		
	8	MSN5D257A-SA1	DC MOTOR	2	CAM MOTOR ASSY	
	8-1	MSN-5D257A	DC MOTOR	2	CAM MOTOR	
	8-2	VKS5433-001	ACTUATOR MOTOR GEAR	2		
	9	MMN-6F4RA38	DC MOTOR	2	REEL MOTOR	
	10	SDSR2004Z	SCREW	6		
	11	VMC0234-R08	CONNECT TERMINAL	2	8PIN	
	12	VKS5430-00CMM	F.F./REW. ARM	2		
	13	VKS5432-001	REEL MOTOR GEAR	2		
	14	SDST2612Z	SCREW	2		
	15	VKS3616-00A	CAM SWITCH	2		
	16	DN6851-HI	I.C(M)	2		
	17	VKS3630-001MM	I.C. PROTECTOR	2		
	18	MXS00220MVL0	CASSETTE SWITCH	7		
	19	VMC0234-R11	CONNECT TERMINAL	1	A MECHA. 11PIN	
		VMC0234-R14	CONNECT TERMINAL	1	B MECHA. 14PIN	
	20	VKB3001-064	DRIVE BELT	1	A MECHA.	
		VKB3001-065	DRIVE BELT	1	B MECHA.	
	21	VKF3184-00H	FLYWHEEL ASS'Y	2	RIGHT	
	22	VKF3186-00H	FLYWHEEL ASS'Y	2	LEFT	
	23	VKS2224-002	CONTROL CAM	2		
	24	VKS5454-001	ACTUATOR GEAR	4		
	25	VKS5455-001	ACTUATOR GEAR	2		
	26	VKS3627-002	PINCH ROLLER LEVER	2		
	27	VKS3626-00F	H. MOUNT ASS'Y	1	A MECHA.	
		VKS3629-00F	H. MOUNT ASS'Y	1	B MECHA.	
	27-1	VKW5126-001	HEAD SPRING	2		
	27-2	VKS3614-001	TURN OVER GEAR	2		
	27-3	VKS3654-001	HEAD MT. COVER	2		
	27-4	VKZ4629-003	SCREW	4		
	28	VKS1134-00B	CHASSIS BASE	2		
	29	VKW5045-003	PINCH ROLLER SPRING	2	RIGHT	
	30	VKP4227-00B	PINCH ROLLER	2	RIGHT	
	31	VKM3632-001	HEAD BASE	2		
	32	VKW5046-003	PINCH ROLLER SPRING	2	LEFT	
	33	VKP4229-00B	PINCH ROLLER	2	LEFT	
	34	VKS5428-00B	REEL DISK	2		
	35	VKW5043-001	TENSION SPRING	4		
	36	VKS3617-002	REEL DISK	2		
	37	VKZ4708-001	SPECIAL SCREW	2		
	38	VKZ4705-002	SCREW	4		
	39	VKY4670-001	CASSETTE SPRING	2		
	40	VKZ4705-001	SCREW	4		

## ■ Electrical Parts List (ENJ-097)

△	Item	Parts Number	Description	Area
		I. C. S		
	IC201	AN7374K	I. C (MONO-ANALOG)	
	IC202	BA8221AN	I. C (MONO-ANALOG)	
	IC203	HD6140B1SE39	I. C (MICRO-COMPUTER)	
	IC204	LB1641	I. C (DIGI-OTHER)	
	IC205	LB1641	I. C (DIGI-OTHER)	
	IC206	LB1641	I. C (DIGI-OTHER)	
	IC207	LB1641	I. C (DIGI-OTHER)	
	IC301	BA15218N	I. C (MONO-ANALOG)	
	IC302	UPC1228HA	I. C (MONO-ANALOG)	
	IC303	UPC1228HA	I. C (MONO-ANALOG)	
	IC304	UPC1330HA	I. C (MONO-ANALOG)	
	IC501	UPC1297CA	I. C (MONO-ANALOG)	
		DIODES		
	D201	1SS119	SI. DIODE	
	D202	1SS119	SI. DIODE	
	D203	1SS119	SI. DIODE	
	D204	1SS119	SI. DIODE	
	D205	1SS119	SI. DIODE	
	D206	1SS119	SI. DIODE	
	D207	1SS119	SI. DIODE	
	D208	1SS119	SI. DIODE	
	D209	1SS119	SI. DIODE	
	D210	1SS119	SI. DIODE	
	D211	1SS119	SI. DIODE	
	D213	1SS119	SI. DIODE	
	D214	1SS119	SI. DIODE	
	D215	1SS119	SI. DIODE	
	D216	1SS119	SI. DIODE	
	D217	MTZ3.9JB	ZENER DIODE	
	D218	1SS119	SI. DIODE	
	D219	1SS119	SI. DIODE	
	D220	1SS119	SI. DIODE	
	D221	1SS119	SI. DIODE	
	D224	1SS119	SI. DIODE	
	D275	1SS119	SI. DIODE	
	D292	1SS119	SI. DIODE	
	D303	1SS119	SI. DIODE	BS EF EN G
	D310	SLR-342MCA47	L. E. D.	
	D311	SLR-342MCA47	L. E. D.	
	D312	SLR-342MCA47	L. E. D.	
	D313	SLR-342MCA47	L. E. D.	
	D314	SLR-342VC3F	L. E. D.	
	D315	SLR-342VC3F	L. E. D.	
	D316	SLR-342VC3F	L. E. D.	
	D317	SLR-342VC3F	L. E. D.	
		TRANSISTORS		
	Q201	DTC144ES	DIGITAL TRANSISTOR	
	Q202	DTC144ES	DIGITAL TRANSISTOR	
	Q203	2SC1740S (R, S)	SI. TRANSISTOR	
	Q204	2SC1740S (R, S)	SI. TRANSISTOR	
	Q205	2SD2144S (VW)	SI. TRANSISTOR	
	Q206	2SD2144S (VW)	SI. TRANSISTOR	
	Q207	DTA144ES	DIGITAL TRANSISTOR	
	Q209	DTC114YS	DIGITAL TRANSISTOR	
	Q210	DTA114YS	DIGITAL TRANSISTOR	
	Q211	2SC1740S (R, S)	SI. TRANSISTOR	
	Q212	2SC1740S (R, S)	SI. TRANSISTOR	
	Q214	DTC144ES	DIGITAL TRANSISTOR	
	Q216	2SA933AS	SI. TRANSISTOR	
	Q217	DTC144ES	DIGITAL TRANSISTOR	
	Q218	DTC144ES	DIGITAL TRANSISTOR	
	Q219	DTA114YS	DIGITAL TRANSISTOR	
	Q220	DTC114YS	DIGITAL TRANSISTOR	
	Q301	2SD2144S (VW)	SI. TRANSISTOR	
	Q302	2SD2144S (VW)	SI. TRANSISTOR	
	Q303	2SC1740S (R, S)	SI. TRANSISTOR	

△	Item	Parts Number	Description	Area
	Q304	2SC1740S (R, S)	SI. TRANSISTOR	
	Q305	2SC1740S (R, S)	SI. TRANSISTOR	
	Q306	2SC1740S (R, S)	SI. TRANSISTOR	
	Q313	DTC144TS	DIGITAL TRANSISTOR	
	Q314	DTC144TS	DIGITAL TRANSISTOR	
	Q315	DTC144TS	DIGITAL TRANSISTOR	
	Q316	DTC144TS	DIGITAL TRANSISTOR	
	Q319	2SA933AS	SI. TRANSISTOR	
	Q320	2SA933AS	SI. TRANSISTOR	
	Q321	2SA933AS	SI. TRANSISTOR	
	Q322	2SA933AS	SI. TRANSISTOR	
	Q327	2SC1740S (R, S)	SI. TRANSISTOR	
	Q328	2SC1740S (R, S)	SI. TRANSISTOR	
	Q329	2SC1740S (R, S)	SI. TRANSISTOR	
	Q330	2SC945A	SI. TRANSISTOR	BS EF EN G
	Q331	DTA144ES	DIGITAL TRANSISTOR	BS EF EN G
	Q501	2SA934 (Q, R)	SI. TRANSISTOR	
	Q502	DTC114YS	DIGITAL TRANSISTOR	
	Q504	DTC114YS	DIGITAL TRANSISTOR	
	Q505	DTC114YS	DIGITAL TRANSISTOR	
	Q506	DTC144ES	DIGITAL TRANSISTOR	
		CAPACITORS		
	C201	QEK51HM-105G	1MF 50V AL. E. CAP.	
	C202	QEK51HM-105G	1MF 50V AL. E. CAP.	
	C203	QCB81HK-101Y	100PF 50V CER. CAP.	BS EF EN G
	C204	QCB81HK-101Y	100PF 50V CER. CAP.	BS EF EN G
	C205	QEK51HM-105G	1MF 50V AL. E. CAP.	
	C206	QEK51HM-105G	1MF 50V AL. E. CAP.	
	C207	QETB1HM-106	10MF 50V E. CAP.	
	C208	QETB1HM-106	10MF 50V E. CAP.	
	C209	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C210	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C213	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C214	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C215	QEK51HM-474G	0.47MF 50V AL. E. CAP.	
	C216	QEK51HM-474G	0.47MF 50V AL. E. CAP.	
	C217	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C218	QFLB1HJ-152	1500PF 50V MYLAR CAP.	
	C219	QEK51HM-474G	0.47MF 50V AL. E. CAP.	
	C220	QEK51HM-474G	0.47MF 50V AL. E. CAP.	
	C221	QCB81HK-101Y	100PF 50V CER. CAP.	BS EF EN G
	C222	QCB81HK-101Y	100PF 50V CER. CAP.	BS EF EN G
	C223	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C224	QFLB1HJ-272	2700PF 50V MYLAR CAP.	
	C225	QETB1EM-106	10MF 25V AL. E. CAP.	
	C226	QETB1EM-106	10MF 25V AL. E. CAP.	
	C227	QETB1CM-226	22MF 16V E. CAP.	
	C228	QETB1EM-476	47MF 25V AL. E. CAP.	
	C229	QETB1CM-226	22MF 16V E. CAP.	
	C231	QETB1CM-476	47MF 16V AL. E. CAP.	
	C232	QC20205-155	1.5MF 25V C. CAP.	
	C233	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C234	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C236	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C237	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C238	QETB1HM-105	1MF 50V AL. E. CAP.	
	C239	QETB1CM-107	100MF 16V AL. E. CAP.	
	C240	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C241	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C242	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C243	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C244	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C245	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	C246	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C247	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C301	QETB1HM-225	2.2MF 50V AL. E. CAP.	
	C302	QETB1HM-225	2.2MF 50V AL. E. CAP.	

## ■ Electrical Parts List (ENJ-097)

△	Item	Parts Number	Description	Area
	C303	QEK51HM-225G	2.2MF 50V AL E. CAP.	
	C304	QEK51HM-225G	2.2MF 50V AL E. CAP.	
	C305	QCB1HK-101Y	100PF 50V CER. CAP.	
	C306	QCB1HK-101Y	100PF 50V CER. CAP.	
	C307	QCB1HK-181Y	180PF 50V CER. CAP.	
	C308	QCB1HK-181Y	180PF 50V CER. CAP.	
	C309	QETB1EM-106	10MF 25V AL E. CAP.	
	C310	QETB1EM-106	10MF 25V AL E. CAP.	
	C311	QCSB1HJ-470	47PF 50V CER. CAP.	
	C312	QCSB1HJ-470	47PF 50V CER. CAP.	
	C313	QETB1CM-107	100MF 16V AL E. CAP.	
	C314	QETB1CM-107	100MF 16V AL E. CAP.	
	C315	QEK51HM-105G	1MF 50V AL E. CAP.	
	C316	QEK51HM-105G	1MF 50V AL E. CAP.	
	C317	QEK51EM-106	10MF 25V AL E. CAP.	
	C318	QETB1CM-107	100MF 16V AL E. CAP.	
	C319	QCF21HP-223A	0.022MF 50V CER. CAP.	BS EF EN G
	C320	QFLB1HJ-682	6800PF 50V MYLAR CAP.	
	C321	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C322	QFLB1HJ-332	3300PF 50V MYLAR CAP.	
	C323	QFLB1HJ-183	0.018MF 50V MYLAR CAP.	
	C324	QFP81HG-472	4700PF 50V POLYPROPY. FI	
	C327	QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C328	QCHB1EZ-223	0.022MF 25V CER. CAP.	BS EF EN G
	C341	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C342	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C345	QFLB1HJ-123	0.012MF 50V MYLAR CAP.	
	C346	QFLB1HJ-123	0.012MF 50V MYLAR CAP.	
	C347	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C348	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C360	QETB1CM-226	22MF 16V E. CAP.	
	C361	QCF21HP-473A	0.047MF 50V CER. CAP.	
	C362	QCF21HP-473A	0.047MF 50V CER. CAP.	
	C364	QETB1CM-107	100MF 16V AL E. CAP.	
	C365	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C366	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C367	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C368	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C369	QETB1AM-107	100MF 10V AL E. CAP.	
	C370	QETB1AM-107	100MF 10V AL E. CAP.	
	C371	QEK51HM-225G	2.2MF 50V AL E. CAP.	
	C372	QEK51HM-225G	2.2MF 50V AL E. CAP.	
	C373	QETB1EM-106	10MF 25V AL E. CAP.	
	C374	QETB1CM-107	100MF 16V AL E. CAP.	
	C375	QCB1HK-101Y	100PF 50V CER. CAP.	C J U UB US UT
		QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C376	QCB1HK-101Y	100PF 50V CER. CAP.	C J U UB US UT
		QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C377	QCY31HK-182Z	1800PF 50V CER. CAP.	
	C378	QCY31HK-182Z	1800PF 50V CER. CAP.	
	C379	QCB1HK-331Y	330PF 50V CER. CAP.	
	C380	QCB1HK-331Y	330PF 50V CER. CAP.	
	C381	QETB1CM-107	100MF 16V AL E. CAP.	
	C383	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C384	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C385	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C386	QFLB1HJ-822	8200PF 50V MYLAR CAP.	
	C387	QETB1AM-107	100MF 10V AL E. CAP.	
	C388	QETB1AM-107	100MF 10V AL E. CAP.	
	C389	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C390	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C391	QETB1EM-106	10MF 25V AL E. CAP.	
	C392	QETB1CM-107	100MF 16V AL E. CAP.	
	C393	QCB1HK-101Y	100PF 50V CER. CAP.	C J U UB US UT
		QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G
	C394	QCB1HK-101Y	100PF 50V CER. CAP.	C J U UB US UT
		QCB1HK-471Y	470PF 50V CER. CAP.	BS EF EN G

△	Item	Parts Number	Description	Area
	C395	QCXB1CM-182Y	1800PF 16V CER. CAP.	
	C396	QCXB1CM-182Y	1800PF 16V CER. CAP.	
	C397	QCB1HK-331Y	330PF 50V CER. CAP.	
	C398	QCB1HK-331Y	330PF 50V CER. CAP.	
	C501	QETB1EM-106	10MF 25V AL E. CAP.	
	C502	QETB1EM-106	10MF 25V AL E. CAP.	
	C503	QFP81HG-821	820PF 50V POLYPROPY. FI	
	C504	QFP81HG-821	820PF 50V POLYPROPY. FI	
	C506	QETB1EM-106	10MF 25V AL E. CAP.	
	C507	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C508	QFLB1HJ-103	0.01MF 50V MYLAR CAP.	
	C509	QCF31HP-102Z	1000PF 50V CER. CAP.	
	C510	QCF31HP-102Z	1000PF 50V CER. CAP.	
	C511	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C512	QFLB1HJ-223	0.022MF 50V MYLAR CAP.	
	C513	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C514	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	
	C515	QETB1CM-107	100MF 16V AL E. CAP.	
	C516	QCS21HJ-100	10PF 50V CER. CAP.	
	C525	QCB1HK-101Y	100PF 50V CER. CAP.	
	C526	QCB1HK-101Y	100PF 50V CER. CAP.	
	C541	QETB1EM-106	10MF 25V AL E. CAP.	
	C991	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	C992	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
		RESISTORS		
	R201	QRD161J-221	220 1/6W CARBON RES.	
	R202	QRD161J-221	220 1/6W CARBON RES.	
	R203	QRD161J-393	39K 1/6W CARBON RES.	
	R204	QRD161J-393	39K 1/6W CARBON RES.	
	R205	QRD161J-754	750K 1/6W CARBON RES.	
	R206	QRD161J-754	750K 1/6W CARBON RES.	
	R207	QRD161J-103	10K 1/6W CARBON RES.	
	R208	QRD161J-103	10K 1/6W CARBON RES.	
	R209	QRD167J-223	22K 1/6W CARBON RES.	
	R210	QRD167J-223	22K 1/6W CARBON RES.	
	R211	QRD161J-122	1.2K 1/6W CARBON RES.	
	R212	QRD161J-122	1.2K 1/6W CARBON RES.	
	R213	QRD161J-103	10K 1/6W CARBON RES.	
	R214	QRD161J-103	10K 1/6W CARBON RES.	
	R215	QRD161J-105	1M 1/6W CARBON RES.	
	R216	QRD161J-274	270K 1/6W CARBON RES.	
	R217	QRD161J-104	100K 1/6W CARBON RES.	
	R218	QRD161J-102	1K 1/6W CARBON RES.	
	R219	QRD161J-103	10K 1/6W CARBON RES.	
	R220	QRD167J-223	22K 1/6W CARBON RES.	
	R221	QRD161J-103	10K 1/6W CARBON RES.	
	R222	QRD161J-103	10K 1/6W CARBON RES.	
	R223	QRD161J-103	10K 1/6W CARBON RES.	
△	R224	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R225	QRD167J-562	5.6K 1/6W CARBON RES.	
	R226	QRD167J-562	5.6K 1/6W CARBON RES.	
	R227	QRD161J-102	1K 1/6W CARBON RES.	
	R228	QRD161J-102	1K 1/6W CARBON RES.	
	R229	QRD167J-223	22K 1/6W CARBON RES.	
	R232	QRD161J-221	220 1/6W CARBON RES.	
	R233	QRD161J-105	1M 1/6W CARBON RES.	
	R234	QRD161J-221	220 1/6W CARBON RES.	
	R235	QRD161J-472	4.7K 1/6W CARBON RES.	
	R236	QRD161J-301	300 1/6W CARBON RES.	
	R237	QRD161J-301	300 1/6W CARBON RES.	
	R238	QRD161J-301	300 1/6W CARBON RES.	
	R239	QRD161J-301	300 1/6W CARBON RES.	
	R240	QRD161J-301	300 1/6W CARBON RES.	
	R241	QRD161J-301	300 1/6W CARBON RES.	
	R242	QRD161J-301	300 1/6W CARBON RES.	
	R243	QRD161J-301	300 1/6W CARBON RES.	
	R244	QRD161J-105	1M 1/6W CARBON RES.	

## ■ Electrical Parts List (ENJ-097)

△	Item	Parts Number	Description	Area
	R245	QRD161J-103	10K 1/6W CARBON RES.	
	R246	QRD161J-105	1M 1/6W CARBON RES.	
	R247	QRD161J-913	91K 1/6W CARBON RES.	
	R248	QRD161J-104	100K 1/6W CARBON RES.	
	R251	QRD161J-224	220K 1/6W CARBON RES.	
	R253	QRD161J-103	10K 1/6W CARBON RES.	
	R257	QRD161J-683	68K 1/6W CARBON RES.	
	R258	QRD167J-113	11K 1/6W CARBON RES.	
	R259	QRD167J-822	8.2K 1/6W CARBON RES.	
	R260	QRD167J-822	8.2K 1/6W CARBON RES.	
	R261	QRD161J-913	91K 1/6W CARBON RES.	
	R262	QRD161J-913	91K 1/6W CARBON RES.	
	R263	QRD161J-163	16K 1/6W CARBON RES.	
	R264	QRD161J-163	16K 1/6W CARBON RES.	
	R265	QRD161J-432	4.3K 1/6W CARBON RES.	
	R266	QRD161J-432	4.3K 1/6W CARBON RES.	
	R267	QRD161J-103	10K 1/6W CARBON RES.	
	R268	QRD161J-103	10K 1/6W CARBON RES.	
	R269	QRD161J-222	2.2K 1/6W CARBON RES.	
	R270	QRD161J-222	2.2K 1/6W CARBON RES.	
	R271	QRD161J-103	10K 1/6W CARBON RES.	
	R279	QRD167J-153	15K 1/6W CARBON RES.	
	R280	QRD161J-221	220 1/6W CARBON RES.	
	R283	QRD161J-100	10 1/6W CARBON RES.	
	R284	QRD161J-100	10 1/6W CARBON RES.	
	R285	QRD161J-393	39K 1/6W CARBON RES.	
	R286	QRD161J-393	39K 1/6W CARBON RES.	
	R287	QRD14CJ-6R8SX	6.8 1/4W UNF. CARBON R	
△	R288	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R293	QRD161J-331	330 1/6W CARBON RES.	
	R294	QRD161J-271	270 1/6W CARBON RES.	
	R296	QRD161J-104	100K 1/6W CARBON RES.	
	R297	QRD167J-332	3.3K 1/6W CARBON RES.	
	R298	QRD161J-561	560 1/6W CARBON RES.	BS EF EN G
	R301	QRD161J-103	10K 1/6W CARBON RES.	
	R302	QRD161J-103	10K 1/6W CARBON RES.	
	R303	QRD167J-562	5.6K 1/6W CARBON RES.	
	R304	QRD167J-562	5.6K 1/6W CARBON RES.	
	R315	QRD161J-103	10K 1/6W CARBON RES.	
	R316	QRD161J-103	10K 1/6W CARBON RES.	
	R317	QRD161J-103	10K 1/6W CARBON RES.	
	R318	QRD161J-103	10K 1/6W CARBON RES.	
	R319	QRD161J-103	10K 1/6W CARBON RES.	
	R320	QRD161J-103	10K 1/6W CARBON RES.	
	R321	QRD161J-103	10K 1/6W CARBON RES.	
	R322	QRD161J-103	10K 1/6W CARBON RES.	
	R323	QRD167J-562	5.6K 1/6W CARBON RES.	
	R324	QRD167J-562	5.6K 1/6W CARBON RES.	
	R325	QRD167J-562	5.6K 1/6W CARBON RES.	
	R326	QRD167J-562	5.6K 1/6W CARBON RES.	
	R339	QRD167J-272	2.7K 1/6W CARBON RES.	
	R340	QRD167J-272	2.7K 1/6W CARBON RES.	
	R341	QRD161J-512	5.1K 1/6W CARBON RES.	
	R342	QRD161J-512	5.1K 1/6W CARBON RES.	
	R343	QRD161J-432	4.3K 1/6W CARBON RES.	
	R344	QRD161J-432	4.3K 1/6W CARBON RES.	
	R345	QRD161J-512	5.1K 1/6W CARBON RES.	
	R346	QRD161J-512	5.1K 1/6W CARBON RES.	
	R347	QRD161J-820	82 1/6W CARBON RES.	
	R348	QRD161J-820	82 1/6W CARBON RES.	
	R351	QRD161J-242	2.4K 1/6W CARBON RES.	
	R352	QRD161J-242	2.4K 1/6W CARBON RES.	
	R355	QRD161J-243	24K 1/6W CARBON RES.	
	R356	QRD161J-243	24K 1/6W CARBON RES.	
	R357	QRD161J-683	68K 1/6W CARBON RES.	
	R358	QRD161J-683	68K 1/6W CARBON RES.	
	R359	QRD167J-223	22K 1/6W CARBON RES.	

△	Item	Parts Number	Description	Area
	R360	QRD167J-223	22K 1/6W CARBON RES.	
	R361	QRD161J-393	39K 1/6W CARBON RES.	
	R362	QRD161J-393	39K 1/6W CARBON RES.	
	R363	QRD161J-221	220 1/6W CARBON RES.	
	R364	QRD161J-221	220 1/6W CARBON RES.	
	R365	QRD161J-470	47 1/6W CARBON RES.	BS EF EN G
	R366	QRD161J-470	47 1/6W CARBON RES.	BS EF EN G
	R367	QRD167J-334	330K 1/6W CARBON RES.	
	R368	QRD167J-334	330K 1/6W CARBON RES.	
	R369	QRD161J-470	47 1/6W CARBON RES.	
	R370	QRD161J-470	47 1/6W CARBON RES.	
	R371	QRD167J-682	6.8K 1/6W CARBON RES.	
	R372	QRD167J-682	6.8K 1/6W CARBON RES.	
	R375	QRD161J-752	7.5K 1/6W CARBON RES.	
	R376	QRD161J-752	7.5K 1/6W CARBON RES.	
	R377	QRD161J-224	220K 1/6W CARBON RES.	
	R378	QRD161J-224	220K 1/6W CARBON RES.	
	R379	QRD161J-102	1K 1/6W CARBON RES.	
	R380	QRD161J-473	47K 1/6W CARBON RES.	
	R381	QRD161J-471	470 1/6W CARBON RES.	
	R382	QRD161J-471	470 1/6W CARBON RES.	
	R383	QRD161J-470	47 1/6W CARBON RES.	BS EF EN G
	R384	QRD161J-470	47 1/6W CARBON RES.	BS EF EN G
	R385	QRD167J-334	330K 1/6W CARBON RES.	
	R386	QRD167J-334	330K 1/6W CARBON RES.	
	R387	QRD161J-470	47 1/6W CARBON RES.	
	R388	QRD161J-470	47 1/6W CARBON RES.	
	R389	QRD167J-682	6.8K 1/6W CARBON RES.	
	R390	QRD167J-682	6.8K 1/6W CARBON RES.	
	R393	QRD161J-752	7.5K 1/6W CARBON RES.	
	R394	QRD161J-752	7.5K 1/6W CARBON RES.	
	R395	QRD161J-224	220K 1/6W CARBON RES.	
	R396	QRD161J-224	220K 1/6W CARBON RES.	
	R397	QRD161J-102	1K 1/6W CARBON RES.	
	R398	QRD161J-102	1K 1/6W CARBON RES.	
	R492	QRD161J-103	10K 1/6W CARBON RES.	
	R501	QRD161J-103	10K 1/6W CARBON RES.	
	R502	QRD161J-222	2.2K 1/6W CARBON RES.	
△	R503	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R504	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
△	R506	QRD14CJ-100SX	10 1/4W UNF. CARBON R	
	R507	QRD161J-183	18K 1/6W CARBON RES.	
	R508	QRD161J-183	18K 1/6W CARBON RES.	
	R509	QRD167J-154	150K 1/6W CARBON RES.	
	R510	QRD167J-154	150K 1/6W CARBON RES.	
	R511	QRD161J-392	3.9K 1/6W CARBON RES.	
	R515	QRD167J-682	6.8K 1/6W CARBON RES.	
	R520	QRD161J-362	3.6K 1/6W CARBON RES.	
	R523	QRD167J-272	2.7K 1/6W CARBON RES.	
	R541	QRD167J-332	3.3K 1/6W CARBON RES.	
	R600	QRD161J-221	220 1/6W CARBON RES.	BS EF EN G
	R991	QRD161J-103	10K 1/6W CARBON RES.	
	R992	QRD161J-103	10K 1/6W CARBON RES.	
	RA201	QRB049J-103	10K 1/10WRES.	
	RA202	QRB089J-103	10K 1/10WNETWORK RES.	
	VR201	QVPA603-103A	10K TRIMMER RES.	
	VR301	QVPA603-201AZ	200 VARIABLE RE	
	VR302	QVPA603-201AZ	200 VARIABLE RE	
	VR303	QVPA603-201AZ	200 VARIABLE RE	
	VR304	QVPA603-201AZ	200 VARIABLE RE	
	VR305	QVPA603-104A	100K TRIMMER RES.	
	VR306	QVPA603-104A	100K TRIMMER RES.	
	VR307	QVPA603-104A	100K TRIMMER RES.	
	VR308	QVPA603-104A	100K TRIMMER RES.	
	VR311	QVPA603-503A	50K VARIABLE RE	
	VR312	QVPA603-503A	50K VARIABLE RE	
	VR513	QVPA603-203M	20K TRIMMER RES.	



■ Electrical Parts List (ENJ-097)

△	Item	Parts Number	Description	Area
	VR514	QVPA603-203M	20K TRIMMER RES.	
		OTHERS		
		EMW10584-102	PRINTED BOARD	
	J303	VMC0314-S08	CONNECT TERMINAL	
	J304	VMC0314-S12	CONNECT TERMINAL	
	K303	ENZ8101-007	INDUCTOR	BS EF EN G
	L301	ENZ6002-012	OSCILLATOR COIL	
	L303	EQL2106-562	INDUCTOR	
	L304	EQL2106-562	INDUCTOR	
	L305	EQL2106-223	INDUCTOR	
	L306	EQL2106-223	INDUCTOR	
	L501	ENZ2500-001	OSCILLATOR COIL	
	L502	ENZ2500-001	OSCILLATOR COIL	
	P201	VMC0234-P11	CONNECT TERMINAL	
	P202	VMC0234-P14	CONNECT TERMINAL	
	P203	VMC0234-P08	CONNECT TERMINAL	
	P204	VMC0234-P08	CONNECT TERMINAL	
	P292	EMV5142-909	CONNECT TERMINAL	
	P293	EMV5142-908	CONNECT TERMINAL	
	P303	EMV5132-008R	CONNECT TERMINAL	
	P304	EMV5132-012R	CONNECT TERMINAL	
	P331	EMV7155-106R	CONNECT TERMINAL	
	P333	EMV7155-106R	CONNECT TERMINAL	
	P702	EMV7145-003Z	SOCKET ASSY	BS EF EN G
	S300	ESP0001-023M	TACT SWITCH	
	S301	ESP0001-023M	TACT SWITCH	
	S302	ESP0001-023M	TACT SWITCH	
	S303	ESP0001-023M	TACT SWITCH	
	S310	ESP0001-023M	TACT SWITCH	
	S311	ESP0001-023M	TACT SWITCH	
	S312	ESP0001-023M	TACT SWITCH	
	S313	ESP0001-023M	TACT SWITCH	
	S320	ESP0001-023M	TACT SWITCH	
	S321	ESP0001-023M	TACT SWITCH	
	S322	ESP0001-023M	TACT SWITCH	
	S330	ESP0001-023M	TACT SWITCH	
	S331	ESP0001-023M	TACT SWITCH	
	S332	ESP0001-023M	TACT SWITCH	
	S333	ESP0001-023M	TACT SWITCH	
	S941	QSS7A12-E01	SLIDE SWITCH	BS EF EN G
	BC292	EWS329-A920	SOCKET WIRE ASSY	
	BC293	EWS328-A920	SOCKET WIRE ASSY	
	CN221	EMV7141-015	PIN CONNECTOR	
	CN701	EMV7145-004Z	SOCKET ASSY	
	EP302	E70225-003SS	EARTH PLATE	BS EF EN G
	FW701	EMR34D-08LS	FLAT WIRE ASSY	
	FW702	EMR33D-20LS	FLAT WIRE ASSY	BS EF EN G
	TW010	EWT015-002	TERMINAL WIRE	
	XT201	ECX0004-194KM	CERAMIC RESONATOR	



# PARTS LIST

## < FX-F3000 >

\* All printed circuit boards and its assemblies are not available as service parts.

### The Marks for Designated Areas

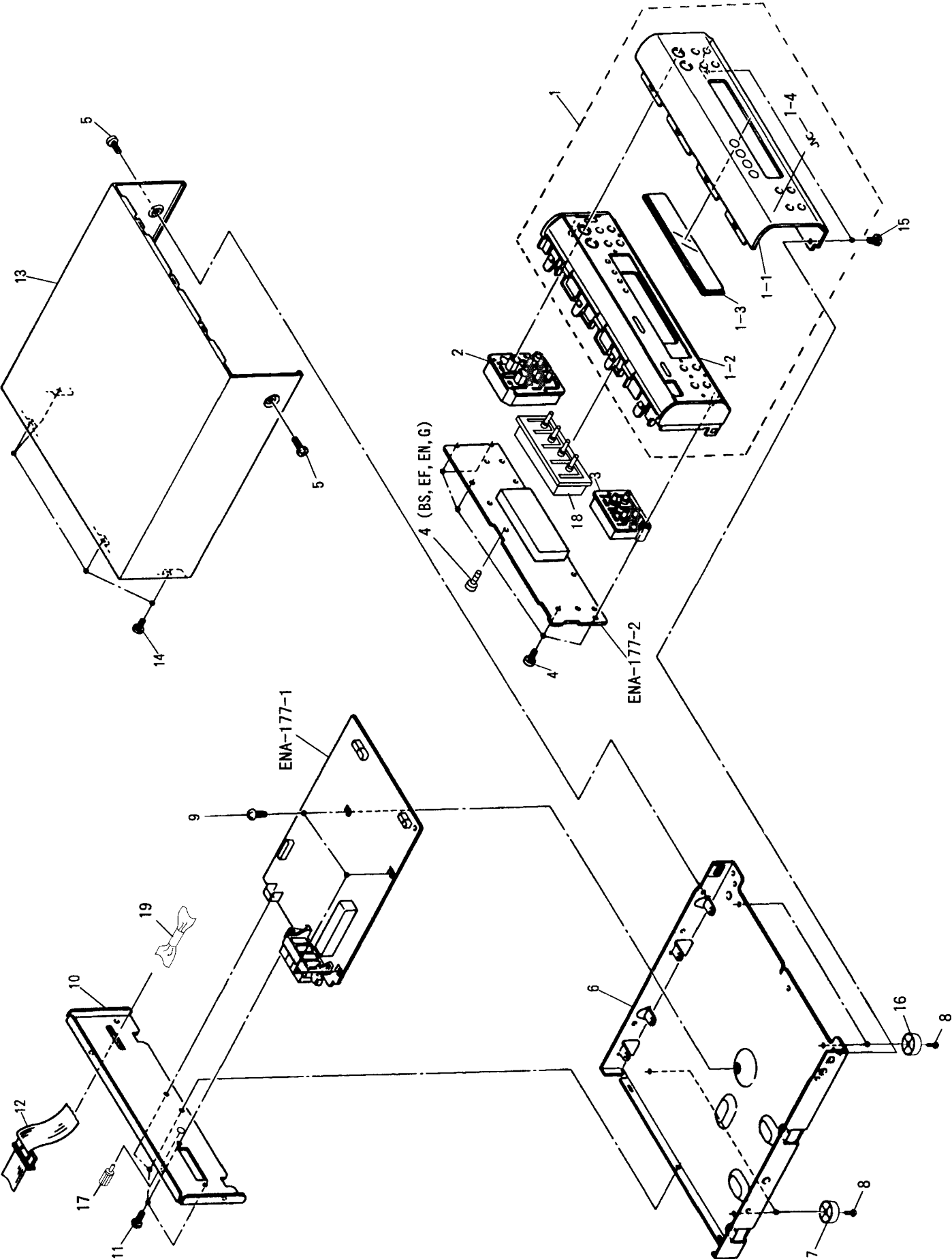
BS . . . the U.K.	C . . . Canada	EF . . . Continental Europe	EN . . . Scandinavia
G . . . Germany	J . . . the U.S.A.	UB . . . Hong Kong	U . . . Universal Type
US . . . Singapore	UT . . . Taiwan	No marks indicates all areas.	

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General Exploded View and Parts List

Block No. **M7MM**



## ■ Parts List (FX-F3000)

Block No. **M7MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-FXF3000U(S)	FRONT PANEL ASSY	1		
	1-1	E208739-002	FRONT PANEL	1		
	1-2	E103087-004ST	FRONT BASE	1		
	1-3	E309614-002	WINDOW SCREEN	1		
	1-4	E406971-221	JVC MARK	1		
	2	E208707-003SS	PUSH BUTTON ASSY	1		
	3	E309618-003SS	PUSH BUTTON	1		
	4	SDSF2608Z	SCREW	5		
	5	SDSG3008N	TAPPING SCREW	2		
	6	E102878-005	CHASSIS BASE	1		
	7	E75281-010	FOOT	2		
	8	SBST3010Z	TAPPING SCREW	4		
	9	SBST3006CC	TAPPING SCREW	3		
	10	E208705-007	REAR PANEL	1		J
		E208705-008	REAR PANEL	1		C
		E208705-010	REAR PANEL	1		U UB US UT
	11	E73273-003	SPECIAL SCREW	4		
	12	EWP907-018	FLAT WIRE ASSY	1		
	13	E208179-013(S)	METAL COVER	1		
	14	GBSG3008CC	TAPPING SCREW	4		
	15	SDSG3008CC	TAPPING SCREW	2		
	16	E75281-009	FOOT	2		
	17	E409257-001	EARTH TERMINAL	1		
	-	E61029-005	NUMBER LABEL	1		
		E75139-004	NAME LABEL	1		U

## ■ Parts List (FX-F3000R)

\* Please see the parts list for FX-F3000 for parts which are not described.

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
	1	EFP-FXF3000RE(S)	FRONT PANEL ASSY	1		
	1-1	E208739-003	FRONT PANEL	1		
	4	SDSF2608Z	SCREW	6		
	10	E208705-009	REAR PANEL	1		
	18	E310023-001SS	PUSH BUTTON	1	RDS	
	19	ENZ8104-005	NOISE FILTER	1		

## ■ Electrical Parts List (ENA-177)

△	Item	Parts Number	Description	Area	△	Item	Parts Number	Description	Area
		I. C. S				C146	QETB1HM-106	10MF 50V E. CAP.	
	IC102	LA1836M	I. C (MONO-ANALOG)			C147	QETB1HM-105	1MF 50V AL E. CAP.	
	IC121	LC72131M	I. C (M)			C148	QETB1HM-474	0.47MF 50V E. CAP.	
	IC191	LC7073M	I. C (DIGI-MOS)	BS EF EN G		C149	QETB1HM-105	1MF 50V AL E. CAP.	
	IC192	SAA6579T	I. C (M)	BS EF EN G		C150	QETC1HM-225ZN	2.2MF 50V AL E. CAP.	
	IC201	MN172412K8M	I. C (MICRO-COMPUTER)			C151	QCS21HJ-181A	180PF 50V CER. CAP.	BS EF EN G
	IC561	PST9146T	I. C (MONO-ANALOG)			C152	QCS21HJ-181A	180PF 50V CER. CAP.	BS EF EN G
		DIODES				C153	QCS31HJ-821Z	820PF 50V CER. CAP.	
	D121	1SS119	SI. DIODE			C154	QCSB1CM-472Y	4700PF 16V CER. CAP.	
	D125	1SS119	SI. DIODE	BS EF EN G		C155	QETB1EM-476	47MF 25V AL E. CAP.	
	D126	1SS119	SI. DIODE			C156	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	D127	1SS119	SI. DIODE	BS EF EN G		C157	QCC21EM-473	0.047MF 25V CER. CAP.	
	D128	1SS119	SI. DIODE	BS EF EN G		C158	QETB1HM-106	10MF 50V E. CAP.	
	D129	1SS119	SI. DIODE			C159	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	BS EF EN G
	D181	1SS119	SI. DIODE				QFLB1HJ-473	0.047MF 50V MYLAR CAP.	C J U UB US UT
	D202	1SS119	SI. DIODE			C160	QFLB1HJ-333	0.033MF 50V MYLAR CAP.	BS EF EN G
	D203	1SS119	SI. DIODE				QFLB1HJ-473	0.047MF 50V MYLAR CAP.	C J U UB US UT
	D204	1SS119	SI. DIODE			C161	QETB1HM-225	2.2MF 50V AL E. CAP.	
	D205	1SS119	SI. DIODE	BS EF EN G		C162	QETB1HM-225	2.2MF 50V AL E. CAP.	
	D206	1SS119	SI. DIODE			C163	QCHB1EZ-223	0.022MF 25V CER. CAP.	
	D211	SLR-342MCA47	L. E. D.			C168	QFV81HJ-274	0.27MF 50V THIN FILM	
	D212	SLR-342MCA47	L. E. D.			C169	QFV81HJ-273	0.027MF 50V THIN FILM	
	D221	1SS119	SI. DIODE	U UB US UT		C181	QFN81HJ-562	5600PF 50V METAL. MYLA	
	D222	1SS119	SI. DIODE	C J		C182	QFN81HJ-562	5600PF 50V METAL. MYLA	
	D271	1SS119	SI. DIODE			C184	QETB1CM-227	220MF 16V AL E. CAP.	
	D562	1SS119	SI. DIODE			C185	QETB1HM-225	2.2MF 50V AL E. CAP.	
	D821	1SS119	SI. DIODE			C186	QETB1HM-225	2.2MF 50V AL E. CAP.	
	D822	1SS119	SI. DIODE			C187	QCSB1HK-331Y	330PF 50V CER. CAP.	BS EF EN G
	D856	MT28.2JC	ZENER DIODE			C188	QCSB1HK-331Y	330PF 50V CER. CAP.	BS EF EN G
		TRANSISTORS				C191	QCSB1HK-820Y	82PF 50V CER. CAP.	BS EF EN G
	Q101	2SC461	SI. TRANSISTOR			C192	QCS31HJ-470	47PF 50V CER. CAP.	BS EF EN G
	Q102	2SC535	SI. TRANSISTOR			C193	QCS31HJ-561Z	560PF 50V CER. CAP.	BS EF EN G
	Q103	2SC461	SI. TRANSISTOR			C194	QCHB1EZ-223	0.022MF 25V CER. CAP.	BS EF EN G
	Q111	2SD2144S (VW)	SI. TRANSISTOR	BS EF EN G		C195	QCS31HJ-331Z	330PF 50V CER. CAP.	BS EF EN G
	Q112	2SD2144S (VW)	SI. TRANSISTOR	BS EF EN G		C196	QETB1HM-225	2.2MF 50V AL E. CAP.	BS EF EN G
	Q113	2SD2144S (VW)	SI. TRANSISTOR	BS EF EN G		C197	QETC1CM-106Z	10MF 16V AL E. CAP.	BS EF EN G
	Q114	2SD2144S (VW)	SI. TRANSISTOR	BS EF EN G		C198	QCC21EM-473	0.047MF 25V CER. CAP.	BS EF EN G
	Q121	DTA124ES	DIGITAL TRANSISTOR			C199	QETB1HM-225	2.2MF 50V AL E. CAP.	BS EF EN G
	Q122	DTA124ES	DIGITAL TRANSISTOR			C201	QCSB1HJ-330Y	33PF 50V CER. CAP.	
	Q123	DTA124ES	DIGITAL TRANSISTOR	BS EF EN G		C207	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	Q143	DTC114ES	DIGITAL TRANSISTOR			C210	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	Q211	DTC114YS	DIGITAL TRANSISTOR			C211	QCVB1CM-103Y	0.01MF 16V CER. CAP.	
	Q212	DTC114YS	DIGITAL TRANSISTOR			C217	QCZ0205-155	1.5MF 25V C. CAP.	
	Q561	DTC114YS	DIGITAL TRANSISTOR			C221	QCSB1HK-331Y	330PF 50V CER. CAP.	
	Q854	2SC2060 (Q. R)	SI. TRANSISTOR			C260	QETB1HM-225	2.2MF 50V AL E. CAP.	
		CAPACITORS				C261	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C101	QCF21HP-103A	0.01MF 50V CER. CAP.			C301	QCZ0205-155	1.5MF 25V C. CAP.	BS EF EN G
	C102	QETB1CM-107	100MF 16V AL E. CAP.			C303	QETB1CM-227	220MF 16V AL E. CAP.	
	C103	QCF21HP-223A	0.022MF 50V CER. CAP.			C561	QETB1HM-225	2.2MF 50V AL E. CAP.	
	C104	QCF21HP-223A	0.022MF 50V CER. CAP.			C563	QCF21HP-473A	0.047MF 50V CER. CAP.	
	C105	QCF21HP-223A	0.022MF 50V CER. CAP.			C824	QEAD0HZ-22AZM	E. CAP.	
	C107	QCF21HP-223A	0.022MF 50V CER. CAP.			C861	QCF21HP-223A	0.022MF 50V CER. CAP.	
	C111	QCC21EM-223	0.022MF 25V CER. CAP.			C862	QETB1CM-227	220MF 16V AL E. CAP.	
	C112	QCT30CH-120Y	12PF 50V CER. CAP.			C863	QETB1EM-226N	22MF 25V E. CAP.	
	C113	QCHB1EZ-223	0.022MF 25V CER. CAP.	BS EF EN G		TC201	ENZ1003-015	0.1MF TRIMMER CA	
	C117	QCSB1HK-5R6Y	5.6PF 50V CER. CAP.				RESISTORS		
	C118	QCSB1HJ-150Y	15PF 50V CER. CAP.			R102	QRD167J-332	3.3K 1/6W CARBON RE	
	C121	QCT30CH-180Y	18PF 50V CER. CAP.			R103	QRD161J-221	220 1/6W CARBON RE	
	C122	QCT30CH-180Y	18PF 50V CER. CAP.			R104	QRD167J-272	2.7K 1/6W CARBON RE	
	C123	QCC21EM-473	0.047MF 25V CER. CAP.			R105	QRD161J-391	390 1/6W CARBON RE	
	C124	QCSB1HK-101Y	100PF 50V CER. CAP.			R106	QRD161J-102	1K 1/6W CARBON RE	
	C126	QCSB1HK-101Y	100PF 50V CER. CAP.			R107	QRD161J-561	560 1/6W CARBON RE	
	C128	QENB1HM-474	0.47MF 50V NP E. CAP.			R108	QRD167J-332	3.3K 1/6W CARBON RE	
	C129	QCSB1HK-102	1000PF 50V CER. CAP.			R109	QRD161J-221	220 1/6W CARBON RE	
	C130	QETB1CM-227	220MF 16V AL E. CAP.			R110	QRD161J-472	4.7K 1/6W CARBON RE	BS EF EN G
	C141	QCC21EM-473	0.047MF 25V CER. CAP.			R111	QRD161J-472	4.7K 1/6W CARBON RE	BS EF EN G
	C142	QETB1HM-106	10MF 50V E. CAP.			R112	QRD161J-472	4.7K 1/6W CARBON RE	BS EF EN G
	C143	QCF21HP-223A	0.022MF 50V CER. CAP.			R113	QRD161J-103	10K 1/6W CARBON RE	BS EF EN G
	C144	QCC21EM-223	0.022MF 25V CER. CAP.			R114	QRD161J-122	1.2K 1/6W CARBON RE	BS EF EN G
	C145	QETB1HM-475E	4.7MF 50V E. CAP.			R115	QRD161J-104	100K 1/6W CARBON RE	

## ■ Electrical Parts List (ENA-177)

△	Item	Parts Number	Description	Area
	R116	QRD161J-472	4.7K 1/6W CARBON RE	BS EF EN G
	R119	QRD161J-103	10K 1/6W CARBON RE	
	R121	QRD161J-473	47K 1/6W CARBON RE	
	R122	QRD161J-472	4.7K 1/6W CARBON RE	
	R124	QRD161J-222	2.2K 1/6W CARBON RE	
	R127	QRD167J-822	8.2K 1/6W CARBON RE	
	R128	QRD161J-472	4.7K 1/6W CARBON RE	
	R129	QRD161J-222	2.2K 1/6W CARBON RE	
△	R130	QRD14CJ-680SX	68 1/4W UNF. CARBON	C J
△		QRZ0077-680	68 1/4W FUSIBLE RE	BS EF EN G U UB US UT
	R132	QRD161J-102	1K 1/6W CARBON RE	
	R133	QRD161J-473	47K 1/6W CARBON RE	
	R134	QRD161J-102	1K 1/6W CARBON RE	
	R141	QRD161J-392	3.9K 1/6W CARBON RE	
	R143	QRD161J-103	10K 1/6W CARBON RE	
	R144	QRD167J-332	3.3K 1/6W CARBON RE	
	R145	QRD161J-103	10K 1/6W CARBON RE	
	R146	QRD161J-222	2.2K 1/6W CARBON RE	
	R147	QRD161J-393	39K 1/6W CARBON RE	BS EF EN G U UB US UT
		QRD167J-223	22K 1/6W CARBON RE	C J
	R148	QRD161J-561	560 1/6W CARBON RE	
	R149	QRD161J-103	10K 1/6W CARBON RE	EF EN G
		QRD167J-223	22K 1/6W CARBON RE	BS C J U UB US UT
	R161	QRD161J-122	1.2K 1/6W CARBON RE	
	R162	QRD161J-122	1.2K 1/6W CARBON RE	
	R163	QRD161J-472	4.7K 1/6W CARBON RE	EF EN G
		QRD167J-332	3.3K 1/6W CARBON RE	BS C J U UB US UT
	R164	QRD161J-472	4.7K 1/6W CARBON RE	EF EN G
		QRD167J-332	3.3K 1/6W CARBON RE	BS C J U UB US UT
	R165	QRD167J-152	1.5K 1/6W CARBON RE	BS C J U UB US UT
	R166	QRD167J-152	1.5K 1/6W CARBON RE	BS C J U UB US UT
	R175	QRD161J-101	100 1/6W CARBON RE	
	R176	QRD161J-101	100 1/6W CARBON RE	
	R182	QRD161J-103	10K 1/6W CARBON RE	
	R183	QRD161J-103	10K 1/6W CARBON RE	
	R184	QRD161J-103	10K 1/6W CARBON RE	
	R188	QRD161J-103	10K 1/6W CARBON RE	
	R189	QRD161J-472	4.7K 1/6W CARBON RE	
	R191	QRD161J-222	2.2K 1/6W CARBON RE	BS EF EN G
	R201	QRD161J-472	4.7K 1/6W CARBON RE	
	R203	QRD161J-472	4.7K 1/6W CARBON RE	
	R204	QRD161J-472	4.7K 1/6W CARBON RE	
	R205	QRD161J-472	4.7K 1/6W CARBON RE	
	R206	QRD161J-472	4.7K 1/6W CARBON RE	
	R211	QRD167J-151	150 1/6W CARBON RE	
	R212	QRD167J-151	150 1/6W CARBON RE	
	R221	QRD161J-102	1K 1/6W CARBON RE	
	R222	QRD161J-102	1K 1/6W CARBON RE	
	R231	QRD161J-102	1K 1/6W CARBON RE	
	R241	QRD161J-221	220 1/6W CARBON RE	
	R565	QRD161J-102	1K 1/6W CARBON RE	
	R566	QRD161J-102	1K 1/6W CARBON RE	
	R852	QRD161J-102	1K 1/6W CARBON RE	
		OTHERS		
		EMW10653-002	PRINTED BOARD	
	L111	EQL4007-150T	INDUCTOR	
	L141	EQL2108-392	INDUCTOR	BS EF EN G
	L191	EQL4007-101	INDUCTOR	BS EF EN G
	S201	ESP0001-023M	TACT SWITCH	
	S202	ESP0001-023M	TACT SWITCH	
	S203	ESP0001-023M	TACT SWITCH	
	S204	ESP0001-023M	TACT SWITCH	
	S205	ESP0001-023M	TACT SWITCH	
	S206	ESP0001-023M	TACT SWITCH	
	S207	ESP0001-023M	TACT SWITCH	
	S208	ESP0001-023M	TACT SWITCH	
	S209	ESP0001-023M	TACT SWITCH	
	S210	ESP0001-023M	TACT SWITCH	
	S211	ESP0001-023M	TACT SWITCH	BS EF EN G
	S212	ESP0001-023M	TACT SWITCH	BS EF EN G

△	Item	Parts Number	Description	Area
	S213	ESP0001-023M	TACT SWITCH	BS EF EN G
	S214	ESP0001-023M	TACT SWITCH	BS EF EN G
	T111	EQR7121-002	RF COIL	BS EF EN G
		EQR7121-004	RF COIL	C J U UB US UT
	T141	EQT2140-021	I. F. TRANSFORMER	
	T142	ECB1560-012	CERAMIC FILTER	
	X121	ECX0007-200KWJ1	CRYSTAL	
	X141	ECXPR46-001A	CRYSTAL	
	X191	VGX5057-001	CRYSTAL	BS EF EN G
	X192	EFO-EC4004T4	CERAMIC RESONATOR	BS EF EN G
	X201	ECX0006-000KNJ	CRYSTAL	
	AT101	EMB41YV-302K	ANTENNA TERMINAL	
	BK001	E308963-002	SHIELD BRACKET	
	CF101	ECB2118-007R	CERAMIC FILTER	BS EF EN G
		ECB2123-006R	CERAMIC FILTER	C J U UB US UT
	CF102	ECB2118-007R	CERAMIC FILTER	BS EF EN G
		ECB2123-006R	CERAMIC FILTER	C J U UB US UT
	ON101	EMV7141-011	CONNECT TERMINAL	
	D1201	ELU0001-205	FLUORESCENT DISPLAY TUB	
	EP101	E70225-003SS	EARTH PLATE	
	EP102	EMZ4002-002Z	EARTH PLATE	
	EP103	EMZ4002-002Z	EARTH PLATE	
	EP104	EMZ4002-002Z	EARTH PLATE	
	FL141	EQF0101-012	LOWPASS FILTER	
	FL142	EQF0101-012	LOWPASS FILTER	
	FS101	E306805-191	SPACER	
	FS102	E306805-191	SPACER	
	FW102	EWR38D-16LS	FLAT WIRE ASSY	
	FW103	EWR34D-16LS	FLAT WIRE ASSY	
	FW104	EWR39D-16LS	FLAT WIRE ASSY	
	JT101	EMV7145-004Z	SOCKET ASSY	
	JT102	EMV7145-004Z	SOCKET ASSY	
	JT103	EMV7145-004Z	SOCKET ASSY	
	JT104	EMV7145-005Z	SOCKET ASSY	
	JT105	EMV7145-004Z	SOCKET ASSY	
	RF101	EAF2203-005	FRONT END	BS EF EN G
		EAF2207-001	FRONT END	C J U UB US UT
	SP102	VYH7653-002	I. C. SOCKET	
	SP121	VYH7653-004	I. C. PROTECTOR	
	SP191	VYH7653-004	I. C. PROTECTOR	BS EF EN G
	SP192	VYH7653-009	I. C. HOLDER	BS EF EN G
	SP201	VYH7653-001	SPRING	





## Accessories List

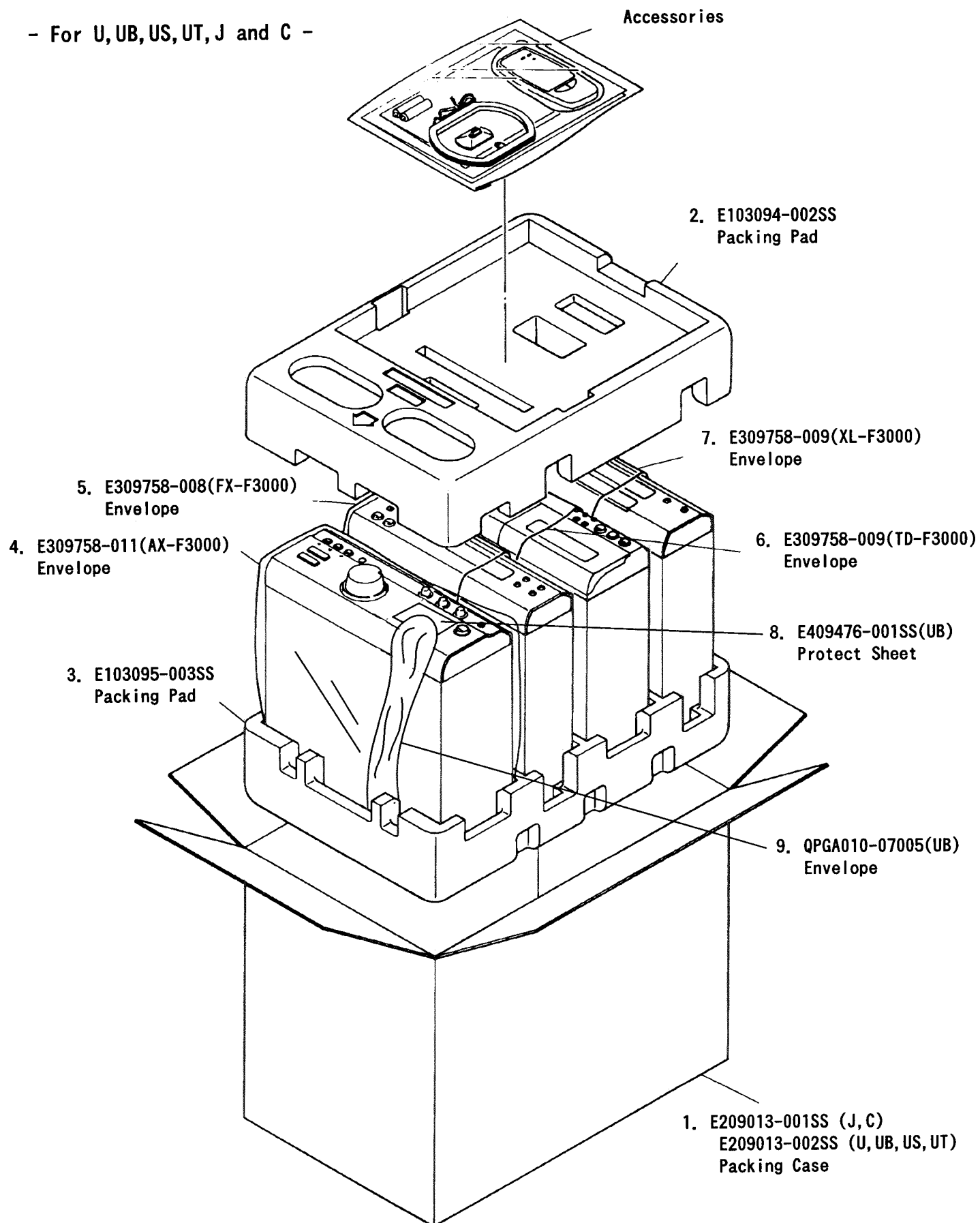
Block No. **M8MM**

△	Item	Parts Number	Parts Name	Q'ty	Description	Area
△	1	E30580-2516A	INSTRUCTION BOOK	1		J
△		E30580-2517A	INSTRUCTION BOOK	1		C
△		E30580-2518A	INSTRUCTION BOOK	1		EF G
△		E30580-2519A	INSTRUCTION BOOK	1		EN
△		E30580-2520A	INSTRUCTION BOOK	1		U UB US UT
△		E30580-2521ABS	INSTRUCTION BOOK	1		BS
	2	E43486-696A	CAUTION SHEET	1		
	3	E309758-003	ENVELOPE	1		
	4	BT-51006-1	REGISTER CARD	1		J
	5	BT-20134	WARRANTY CARD	1		G
		BT-52002-1	WARRANTY CARD	1		C
		BT-54003-1	WARRANTY CARD	1		BS
		BT-20071B	SERVICE NETWORK	1		C
	7	BT-20066A	DISTRIBUTOR LIST	1		BS
	8	BT-20044G	SAFETY SHEET	1		J
		E43486-340A	SAFETY SHEET	1		BS
	9	RM-SEF3000RU	WIRE-LESS REMOTE CONTROL	1		BS EF EN G
		RM-SEF3000U	WIRE-LESS REMOTE CONTROL	1		C J U UB US UT
	10	R03BPA-2STSA	BATTERY	1		
	11	EQB4001-015	LOOP ANTENNA	1		
	12	EWP503-001	ANTENNA WIRE	1		BS EF EN G
	13	E03614-004	FM FEEDER ANTENNA	1		C J U UB US UT
	14	EMZ2001-014	ADAPTOR	1		C J U UB US UT
	15	EWPZ01-012	EARTH WIRE	1		BS EF EN G
		EWPZ01-015	EARTH WIRE	1		C J U UB US UT
	16	ENZ2202-001	SIEMENS PLUG	1		US
		ENZ2203-001	SIEMENS PLUG	1		U UT

# Packing Materials and Part Numbers

Block No. **M9MM**

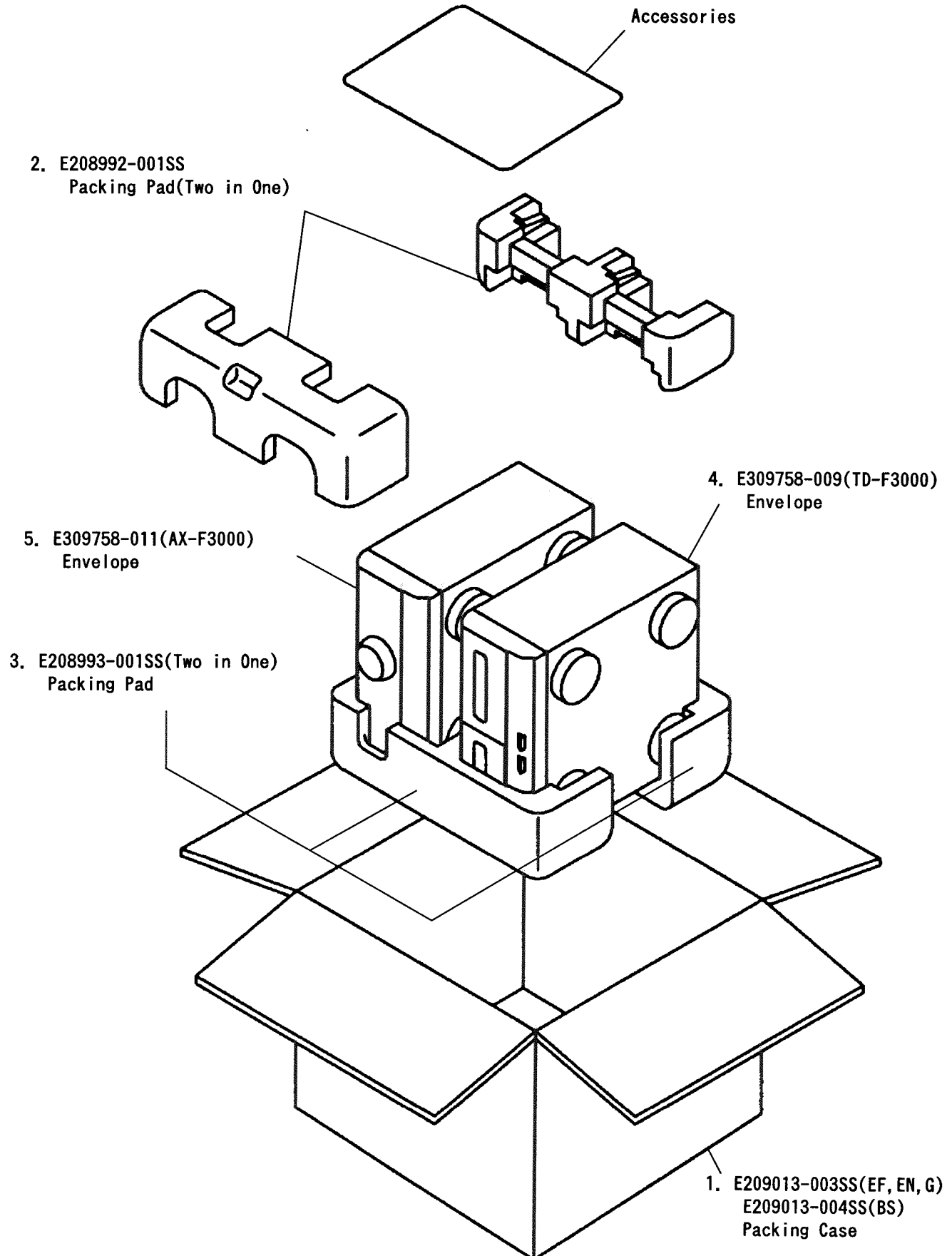
- For U, UB, US, UT, J and C -



## Packing Materials and Part Numbers

Block No. **M10MM**

- For BS, EF, EN and G -



# Description of Major LSIs

## ■ HD614081SE39 (IC203) : Deck controller

### Terminal Layout

NR LED	1	64	A.FWD. LED
NR LED(C)	2	63	A. REV. LED
A SPEED UP	3	62	B FWD. LED
B SPEED UP	4	61	B. REV. LED
MUSIC IN	5	60	REC LED
B.FWD.REEL MOTOR	6	59	REV. MODE
B. REV. REEL MOTOR	7	58	BIAS
B REV CAM MOTOR	8	57	NR OFF
B FWD CAM MOTOR	9	56	REC MUTE
A CAM SW-2	10	55	DCS IN
A CAM SW-1	11	54	DCS OUT
A CAM SW-0	12	53	GND
A PULSE IN	13	52	4.19MHz OSC IN
B CAM SW-2	14	51	4.19MHz OSC IN
B CAM SW-1	15	50	TO VCC
B CAM SW-0	16	49	RESET IN
B PULSE IN	17	48	KEY&SW IN-4
POWER OFF IN	18	47	KEY&SW IN-3
GND	19	46	KEY&SW IN-2
A FWD REEL MOTOR	20	45	KEY&SW IN-1
A REV REEL MOTOR	21	44	KEY OUT-4
A REV CAM MOTOR	22	43	KEY OUT-3
A FWD CAM MOTOR	23	42	KEY OUT-2
NR REC	24	41	KEY OUT-1
A MUTE	25	40	SW OUT-2
B MUTE	26	39	SW OUT-1
PLAY MUTE	27	38	HI-SPEED DUBBING
CAP.MOTOR ON	28	37	H.S.CrO2
REC	29	36	H.S. ME
FADE CTRL.	30	35	H.S.NORM.
BEQ	31	34	CrO2
+5V	32	33	METAL

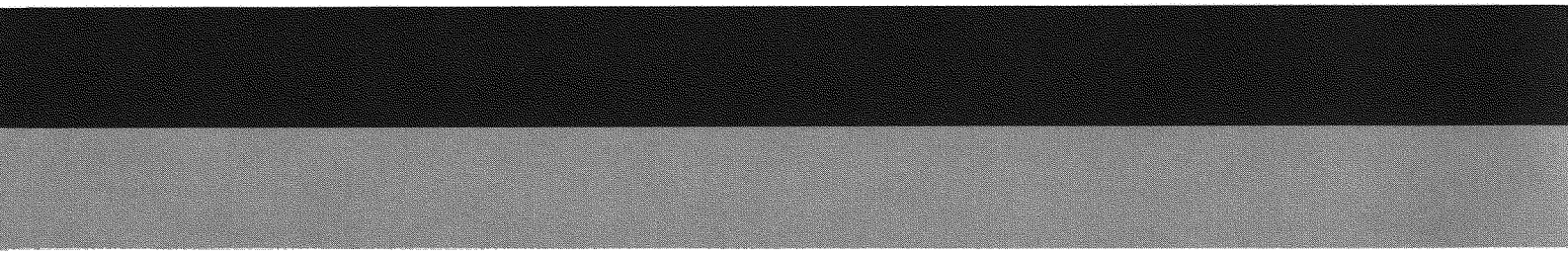
### Key matrix

	KEY&SW-1 (PIN45)	KEY&SW-2 (PIN46)	KEY&SW-3 (PIN47)	KEY&SW-4 (PIN48)
KEY OUT 1 (PIN41)	A ◀ (S300)	A ◀◀ (S301)	A ▶▶ (S302)	A ▶ (S303)
KEY OUT 2 (PIN42)	B ◀ (S310)	B ◀◀ (S311)	B ▶▶ (S312)	B ▶ (S313)
KEY OUT 3 (PIN43)	A ■ (S320)	B ■ (S321)	REC PAUSE (S322)	—
KEY OUT 4 (PIN44)	A▶▶B (S330)	DOLBY (S331)	REV. MODE (S332)	CD REC (S333)
SW OUT 1 (PIN39)	—	B CrO2	METAL	—
SW OUT 2 (PIN40)	B PACK	REV REC	FWD REC	A PACK

### Terminal Description

Pin NO.	Symbol	I/O	Function	Pin NO.	Symbol	I/O	Function
1	NR LED	O	Dolby B indicator signal output	33	METAL	O	Metal tape , normal speed record
2	NR LED(C)	O	Dolby C indicator signal output	34	CrO <sub>2</sub>	O	CrO <sub>2</sub> tape , normal speed record
3	A S UP	O	Reel speed up control (Deck A)	35	HS NORM	O	Not used
4	B S UP	O	Reel speed up control (Deck B)	36	HS METAL	O	Metal tape , high speed record
5	MUSIC IN	I	Music scan signal input	37	HS CrO <sub>2</sub>	O	CrO <sub>2</sub> tape , high speed record
6	B F RM	O	Reel control signal for forward (Deck B)	38	HI DUB	O	Not used
7	B R RM	O	Reel control signal for reverse (Deck B)	39	SW O1	O	Keymatrix output for leaf switch
8	B R CM	O	Cam control signal for reverse (Deck B)	40	SW O2	O	Keymatrix output for leaf switch
9	B F CM	O	Cam control signal for forward (Deck B)	41	KEY O1	O	Key matrix output
10	A C SW2	I	Cam data input	42	KEY O2	O	Key matrix output
11	A C SW1	I	Cam data input	43	KEY O3	O	Key matrix output
12	A C SW0	I	Cam data input	44	KEY O4	O	Key matrix output
13	A.PULS IN	I	Reel pulse input from deck A	45	KEY/SW11	I	Key matrix input
14	B C SW2	I	Cam data input	46	KEY/SW12	I	Key matrix input
15	B C SW1	I	Cam data input	47	KEY/SW13	I	Key matrix input
16	B C SW0	I	Cam data input	48	KEY/SW14	I	Key matrix input
17	B.PULSE IN	I	Reel pulse input from deck B	49	RESET	I	Reset input
18	P.CONT	I	Inhibit input from system controller	50	TO VCC	--	Connected to VCC
19	GND	--	GND	51	OSC	--	Oscillation terminal
20	A F RM	O	Reel control signal for forward (Deck A)	52	OSC	--	Oscillation terminal
21	A R RM	O	Reel control signal for reverse (Deck A)	53	GND	--	GND
22	A R CM	O	Cam control signal for reverse (Deck A)	54	DCS OUT	O	Compulink output
23	A F CM	O	Cam control signal for forward (Deck A)	55	DCS IN	I	Compulink input
24	NR REC	O	It is "H" when recording with NR on	56	REC MUTE	O	Recording mute control
25	A MUTE	O	It is "H" when deck A is not playing	57	NR OFF	O	NR on/off control
26	B MUTE	O	It is "H" when deck B is not playing	58	BIAS	O	Bias on/off control
27	PLAY MU	O	Deck mute	59	REV MODE	O	Indication control for reverse mode
28	CAP CONT	O	Capstan on/off control	60	REC LED	O	Indication control for record
29	REC	O	It is "H" when recording	61	BREV LED	O	Indication control for reverse playback
30	FADE CON	O	It is "H" when recording with fade	62	BFWD LED	O	Indication control for forward playback
31	BEQ	O	It is "L" when CrO <sub>2</sub> tape is in deck B	63	AREV LED	O	Indication control for reverse playback
32	+5V	--	Power supply	64	AFWD LED	O	Indication control for forward playback





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