

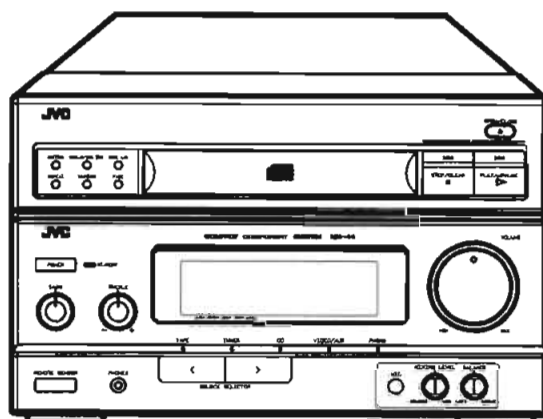
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-MX44BK

(UNIT No. AX-MX44BK)



* For instruction manual, please refer to the CA-MX44BK (S.M. No.20325).

Contents

Safety Precautions	1-2	Flow of Functional Operation	
Important for Laser Products	1-3	Until TOC is Read	1-16
Description of Major LSIs	1-4	Maintenance of Laser Pickup	1-17
Internal Block Diagrams		Replacement of Laser Pickup	1-17
of Other ICs	1-9	Troubleshooting	1-18
Internal Connection		Schematic Diagrams	Insertion
for the FL Display Tube ...	1-10	Connection Diagram	Insertion
Application Points for Grease	1-11	Block Diagrams	Insertion
Disassembly Procedures	1-12	Printed Circuit Boards	Insertion
Adjustment Procedures	1-15	Parts List	Separate-volume Insertion

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

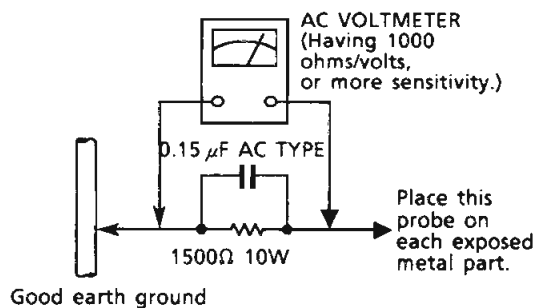
● Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1. **CLASS 1 LASER PRODUCT**
2. **DANGER** : Invisible laser radiation will cause when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. **CAUTION** : If safety switches malfunction, the laser is able to function.
6. **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. **CAUTION** : The compact disc player provides a laser diode of wavelength 760-800nm and optical output power typical 3mW at the laser diode.

VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alltiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

ADVARSEL : Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

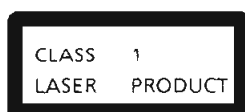
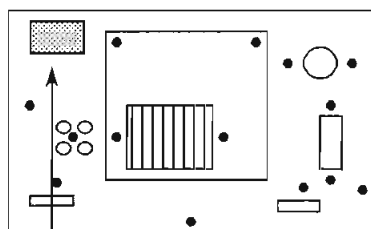
(Except for the U. S. A.)

DANGER: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

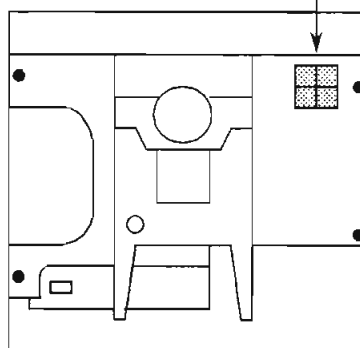
VARNING: Osynlig laserstrålning när denna del ä öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL: Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude at funktion. Undgåudsættelse for stråling. (d)

VARO: Avattaessa ja suojalukitus ohitettaessa olet alltiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)



CLASSIFICATION LABEL
(Except for the U. S. A. and Canada)





Description of Major LSIs

■ μ PD75104CW-269(IC502) : System controller

1. Terminal Layout

DCS IN	1	64	GND
C/S	2	63	DSC OUT
RM IN	3	62	
INH IN	4	61	VOL DOWN
	5	60	VOL UP
	6	59	SURROUND ON/OFF
	7	58	SURR -IND
	8	57	TAPE-IND
	9	56	TUNER-IND
PROTECTOR	10	55	CD-IND
STANDBY-IND	11	54	VIDEO/AUX-IND
MUTE OUT	12	53	PHONO-IND
NC	13	52	SEA-IND
TC91635TB	14	51	LC7522CLK
C/S	15	50	LC7522DATA
TC9163DATA	16	49	NC
TC9163CLK	17	48	SPK
	18	47	X1
KEY OUT-3	19	46	X2
KEY OUT-2	20	45	RESET
KEY OUT-1	21	44	
KEY OUT-0	22	43	
C/S	23	42	
KEY IN-2	24	41	
KEY IN-1	25	40	
KEY IN-0	26	39	
DECK RESET	27	38	TUNER-RESET
DECK INH	28	37	TUNER-INH
CD-RESET	29	36	AC-OUT
	30	35	FL ON
NC	31	34	
+5V	32	33	ENGINE

2. KEY matrix

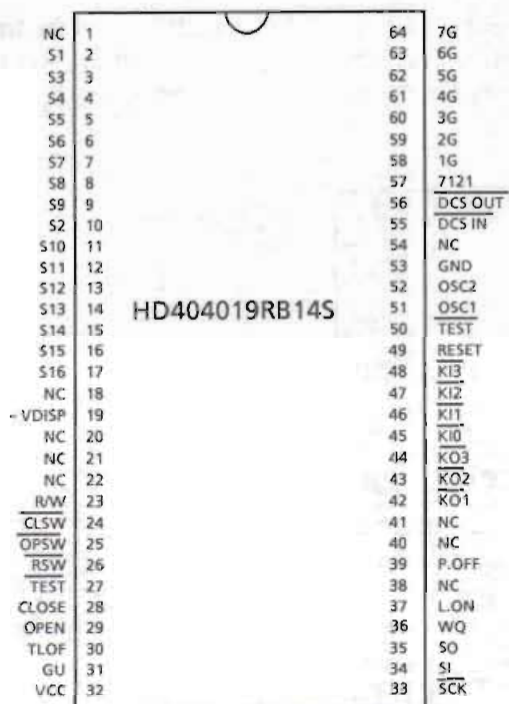
	KEY IN 0 (PIN26)
KEY OUT 0 (PIN22)	SOURCE 
KEY OUT 1 (PIN21)	SOURCE 
KEY OUT 2 (PIN20)	POWER

3. Terminal Description

Pin NO.	Symbol	I/O	Function and Operations	Pin NO.	Symbol	I/O	Function and Operations
1	DCS IN	I	Compulink signal input	33	ENGINE	--	Non connection
2	C/S	--	Connected to GND	34	--	--	Non connection
3	RM IN	I	Remote control signal input	35	FL ON	O	FL ON signal output
4	INH IN	I	System inhibit signal input	36	AC-OUT	O	Power primary OFF signal
5	--	--	Connected to GND	37	TUNER INH	O	Tuner inhibit signal output
6	--	--	⋮	38	TUNER RESET	O	Tuner reset signal output
7	--	--	⋮	39	--	--	Non connection
8	--	--	⋮	40	--	--	⋮
9	--	--	⋮	41	--	--	⋮
10	PROTECTOR	I	Protector detection signal	42	--	--	⋮
11	STANDBY IND	O	Indication signal for standby/remote cont.	43	--	--	⋮
12	MUTE OUT	O	Mute signal output	44	--	--	⋮
13	NC	--	Non connection	45	RESET	I	System reset signal input
14	TC91635TB	O	Strobe signal output (To TN9163N)	46	X2	O	Clock oscillation output
15	C/S	--	Connected to GND	47	X1	I	Clock oscillation input
16	TC9163DATA	O	Serial data output (To TN9163N)	48	SPK	O	Speaker relay on signal output
17	TC9163CLK	O	Clock signal output (To TN9163N)	49	NC	--	Non connection
18	--	--	Connected to GND	50	LC7522DATA	O	Serial data output (To LC7522)
19	KEY OUT 3	O	Key matrix output	51	LC7522CLK	O	Clock signal output (To LC7522)
20	KEY OUT 2	O	⋮	52	SEA-IND	O	SEA indicator signal output
21	KEY OUT 1	O	⋮	53	PHONO-IND	O	PHONO indicator signal output
22	KEY OUT 0	O	⋮	54	V/A -IND	O	VIDEO / AUX indicator signal output
23	C/S	--	Connected to GND	55	CD-IND	O	CD indicator signal output
24	KEY IN 2	I	Key matrix input	56	TUNER-IND	O	TUNER indicator signal output
25	KEY IN 1	I	⋮	57	TAPE-IND	O	TAPE indicator signal output
26	KEY IN 0	I	⋮	58	SURR.IND	--	Non connection
27	DECK RESET	O	Deck reset signal output	59	SURR.ON/OFF	--	Non connection
28	DECK INH	O	Deck inhibit signal output	60	VOL UP	O	Volume up signal output
29	CD RESET	O	CD reset signal output	61	VOL DOWN	O	Volume down signal output
30	--	--	Connected to GND	62	--	--	Non connection
31	NC	--	Non connect	63	DCS OUT	--	Compulink signal output
32	Vcc	--	Power supply voltage (+5V)	64	GND	--	Ground

■ HD404019RB14S(IC951) : CD system controller

1. Terminal Layout



2. Key Matrix

	KEY IN 0 (PIN45)	KEY IN 1 (PIN46)	KEY IN 2 (PIN47)	KEY IN 3 (PIN48)
KEY OUT 1 (PIN42)	STOP /CLEAR	⏮	PLAY PAUSE	OPEN /CLOSE
KEY OUT 2 (PIN43)	DISPLAY	A. EDIT	⏭	FADE
KEY OUT 3 (PIN44)	REPEAT	SIDE A/B	—	RANDOM

3. Terminal Description

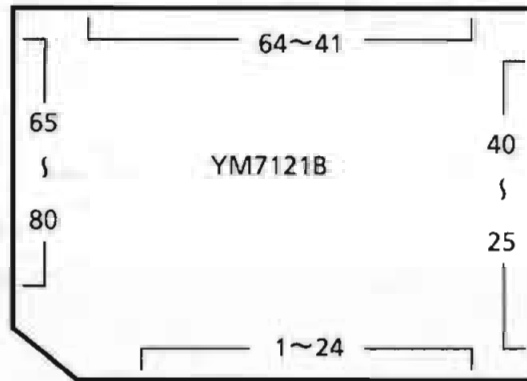
Pin NO.	Symbol	I/O	Function and Operations	Pin NO.	Symbol	I/O	Function and Operations
1	NC	--	Non connection	33	SCK	O	Clock output
2	S1	O	FL segment control output	34	SI	O	Serial data output
3	S3	O	⊘	35	SO	I	Serial data input
4	S4	O	⊘	36	WQ	I/O	Write request input
5	S5	O	⊘	37	L.ON	O	Laser ON signal
6	S6	O	⊘	38	NC	--	Non connection
7	S7	O	⊘	39	P.OFF	O	CD power off signal
8	S8	O	⊘	40	NC	--	Non connection
9	S9	O	⊘	41	NC	--	⊘
10	S2	O	⊘	42	KO1	O	Key matrix output
11	S10	O	⊘	43	KO2	O	⊘
12	S11	O	⊘	44	KO3	O	⊘
13	S12	O	⊘	45	KI0	I	Key matrix input
14	S13	O	⊘	46	KI1	I	⊘
15	S14	O	⊘	47	KI2	I	⊘
16	S15	O	⊘	48	KI3	I	⊘
17	S16	O	⊘	49	RESET	I	Reset signal input
18	NC	--	Non connection	50	TEST	--	PULL UP (+ 5V)
19	-VDISP	I	Power supply for FL display	51	OSC 1	I	Clock oscillation input
20	NC	--	Non connection	52	OSC 2	O	Clock oscillation output
21	NC	--	⊘	53	GND	--	Ground
22	NC	--	⊘	54	NC	--	Non connection
23	R/W	O	Read / write signal output	55	DCS IN	I	Compulink signal input
24	CLSW	I	"L" with tray closed	56	DCS OUT	O	Compulink signal output
25	OPSW	I	"L" with tray opened	57	7121	--	Pull up(+ 5V)
26	RSW	I	"L" with pickup rest position	58	1G	O	FL grid control output
27	TEST	--	TEST mode terminal	59	2G	O	⊘
28	CLOSE	O	"CLOSE" signal output	60	3G	O	⊘
29	OPEN	O	"OPEN" signal output	61	4G	O	⊘
30	TLOF	O	Turns off tracking servo	62	5G	O	⊘
31	GU	O	Increases tracking gain	63	6G	O	⊘
32	VCC	--	Power supply voltage (+ 5V)	64	7G	O	⊘

■ YM7121B(IC841) : Servo controller

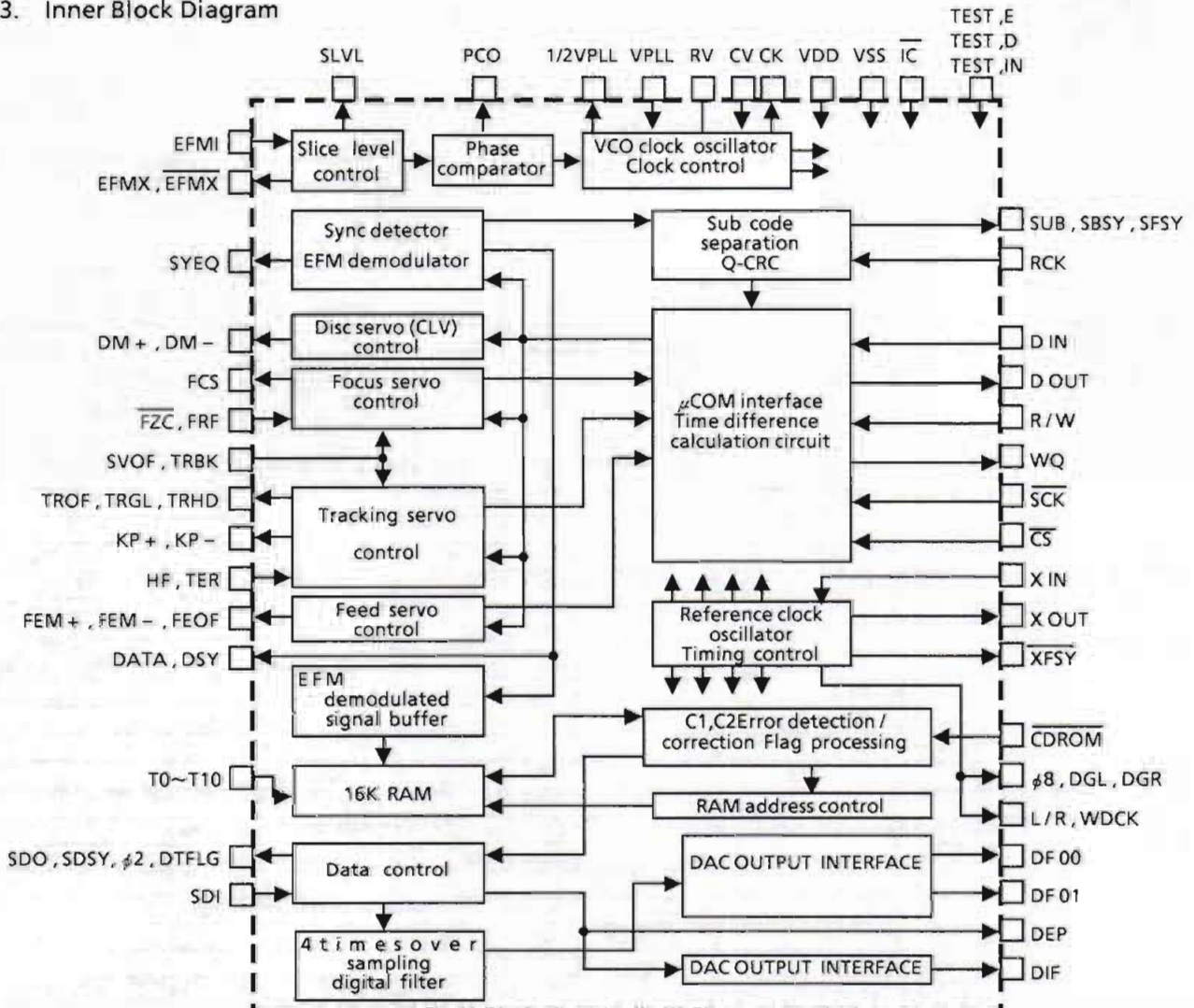
1. Outline

YM7121 is a C-MOS LSI for signal processing and servo control (SVC) in a CD player. It is used for the demodulation of the EFM signal from the laser pick up, detection / correction of the error signal, signal processing in digital filtering, etc. and for various servo controls (focusing, disc, tracking and feed servos).

2. Top View



3. Inner Block Diagram



4. Terminal Description

Pin No.	Symbol	I/O	Function and Operation
1	CV	—	Adequate time constant is added to this terminal and input the PCO output. This makes the structure of clock reproduce circuit by inner VCO circuit.
2	RV	—	RV terminal is standard voltage terminal of inner VCO. And capacity for stabilizing is added to this terminal.
3,32,72	VDD	—	These are +5V power supply terminals.
4 5 70	TEST. IN TEST. E TEST. D	I I I	These terminals are for test. (Not used)
6	SYEQ	O	This is the check output terminal, it becomes high when frame synchronizing signal detected from EFM pattern coincides frame synchronizing signal from internal counter.
7	DSY	O	DSY is synchronizing signal which becomes high when first signal of data output comes in. This terminal is the check terminal. (Not used)
8	DATA	O	This terminal is for checks. The DATA is a serial signal of CK bit rate and it contains 8 bit EFM demodulation signal and 5 bit data control signal in 17 bit. (Not used)
9	CK	O	CK has 4.3218 MHz clock.
10~19	TO~T9	I	These terminals are internal RAM test terminals, and connected GND.
22	DEP	O	De-emphasis is necessary when this terminal is high.
23	DIF	O	DIF is digital audio interface format output matched EIAJ standards. (Not used)
24	SDO	O	SDO is a serial signal output of $\phi 2$ bit rate. (The MSB puts in at first.)
25	SDI	I	SDI is the input terminal of 4 times over sampling digital filter. It is usually connected with SDO.
26	SDSY	O	This terminal changes the Lch/Rch by LSB of the SDO. (Not used)
27	DTFLG	O	Not used.
28	$\phi 2$	O	$\phi 2$ is 2.1168 MHz crystal clock. (Not used)
29,52,77	VSS	—	GND
30	XOUT	O	Not used.
31	XIN	I	Input from crystal clock.
33~38	—	O	Not used.
39	$\Phi 8$	O	
40	WDCK	O	Synchronizing signal
41	L/R	O	Synchronizing signal
42,43	DGL,,DGR	—	Not used.
44,45	DF00,DF01	O	Serial signal with $\Phi 8$ bit rate (DF00 : Left channel, DF01 : Right channel)
46	SCK	I	This terminal is connected to μ COM. It is an input terminal that carries the clock signal for data transfers.
47	R/W	I	This connects with microcomputer and it is an output terminal for switching data transmission mode. it enables to transmit data from SVC to microcomputer when R/W is "L" and from microcomputer to SVC when R/W is "H".
48	CS	I	This is chip select terminal for YM7121.
49	DOUT	O	This terminal is the data output terminal connected to μ COM. When R/W is low, data is transferred from YM7121 to μ COM, according to the SCK clock input.
51	DIN	I	This is a data input terminal connected to μ COM. When R/W is high, the data is transferred from μ COM to YM7121 according to the SCK clock input.
53	DM +	O	These terminals output the PWM to control the speed of spindle motor. The speed of the motor goes up when DM+ is high, and slows down when DM- is high: both terminals can not become high simultaneously.
54	DM -	O	
55	HF	I	When tracks are being crossed during serches, the amplitude variation of the generated HF signal is sampled at the zero - cross point of the tracking error signal TER and the TROF signal is output. The level variations of this signal turn the servo on and off, greatly facilitating track acquisition. KP+ or KP- is output to conduct tracking, and TRHD is output during tracking to cause generation of the tracking error signal. The TRGL signal is for increasing the tracking gain after tracking is completed.
56	TER	I	
60	TRHD	O	
61	TRGL	O	
62	TROF	O	
63 64	KP- KP+	O O	
57,58,59	FEM+, FEM-, FEOF	O	The FEM+ and FEM- are output as high speed feed signals, and FEOF signal is output for cutting the feed servo during high speed feed.
65	TRBK	I	TRBK is input to apply tracking brake from outside. TRGL becomes low with high input and inner control signal TBKE becomes high.
66	SVOF	I	When the signal inputs to SVOF, tracking and feed servo set to OFF. TROF and FEOF become "H" with high input, and TRHD, KP+, KP- become low.
67	FZC	I	These terminals are used for controlling the focus servo. The FCS is for a leading signal of focusing; the signal, generated when the focus point is achieved, stops the focusing operation, and FCO which is internal flag is dropped internally by FRF signal generated when reflected light is detected.
58	FCS	O	
59	FRF	I	
71	IC	I	YM7121 needs initializing when power supply turn on. IC will be low more than 400 μ s since XIN is input clock with VDD standard.
73	SLVL	O	Amplitude limited, mutually anti-phased signals are output from EFMX and EMFX. Slice level is controlled by these signals and external amplifier. SLVL is output amplitude alteration component of both terminals. When integral circuit is connected to external, YM7121 easily can control slice level.
74	EFMX	O	
75	EMFX	O	
76	EFMI	I	This terminal input EFM signal. (1~2Vpp)
78	PCO	O	This terminal outputs the phase difference when the polarity of the clock and the EFM pattern changes.
79	VPLL	I	This terminal is input D.C. voltage matched VCO free run frequency. (17.2872 MHz)
80	1/2 VPLL	O	This terminal outputs a half of VPLL input, and capacity for stabilizing is added to this terminal.

■ JCE4501(IC873) : D / A converter

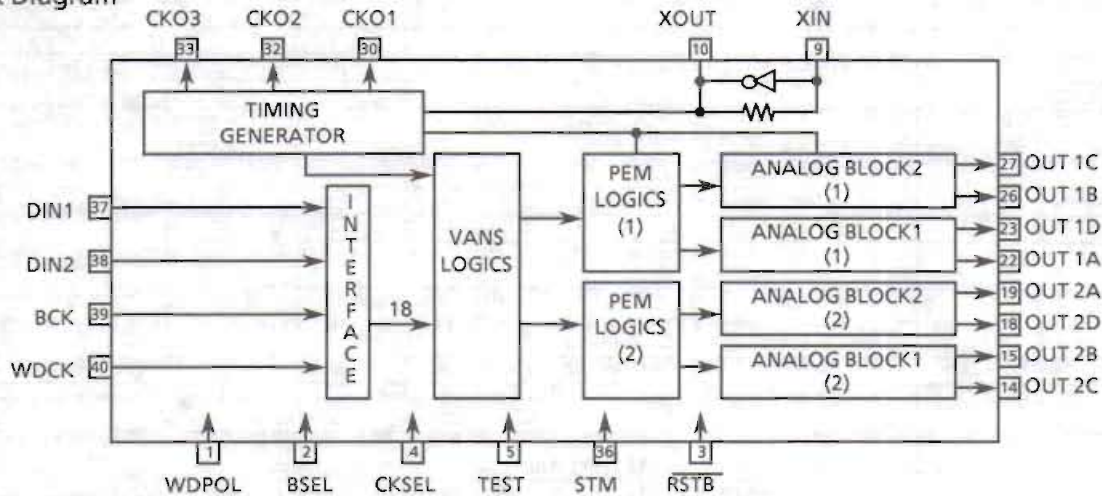
1. Outline

The JCE4501 is a CMOS digital-analog converter with independent left and right channels. It was developed for PCM digital audio equipment. It features pulse edge modulation (PEM) and Victor advanced noise shaping (VANS) for resolution equipment to 20 bits(0-20kHz) and a low distortion ratio. At JVC, this type of digital-analog converter is called a DD converter.

2. Terminal Layout

WDPOL	1	40	WDCK
BSEL	2	39	BCK
RSTB	3	38	DIN2
CLKSEL	4	37	DIN1
TEST	5	36	STM
COM	6	35	NC
NSUB	7	34	DVDD2
DVDD1	8	33	CKO3
XIN	9	32	CKO2
XOUT	10	31	DVSS2
DVSS1	11	30	CKO1
NC	12	29	NC
AVSS1	13	28	AVSS4
OUT2C	14	27	OUT1C
OUT2B	15	26	OUT1B
AVDD1	16	25	AVDD4
AVDD2	17	24	AVDD3
OUT2D	18	23	OUT1D
OUT2A	19	22	OUT1A
AVSS2	20	21	AVSS3

3. Block Diagram



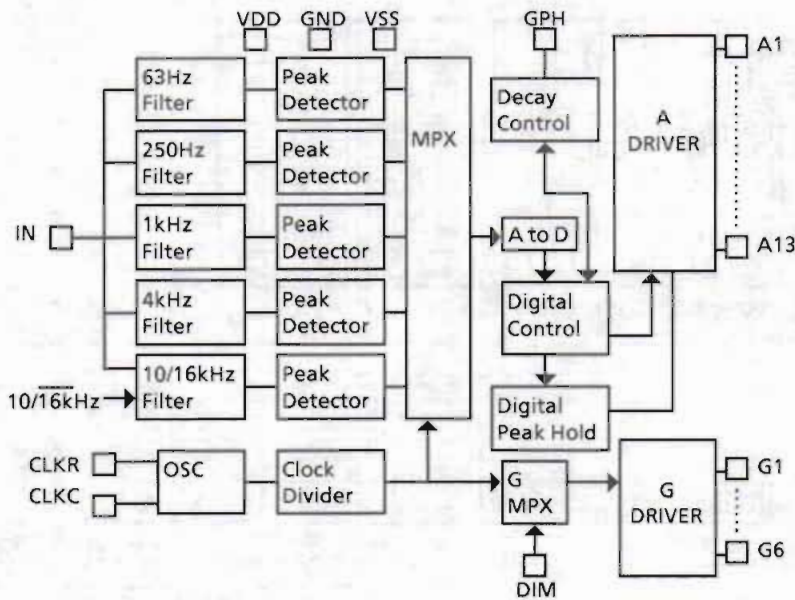
4. Terminal Description

Pin No	Symbol	I/O	Description	Pin No	Symbol	I/O	Description
1	WDPOL	I	Word data polarity switching pin	21	AVSS3	--	Analog ground pin 3
2	BSEL	I	H:CDX2554P format,L: YM7121 format	22	OUT1A	O	1A PEM output pin
3	RSTB	I	Reset pin (low active)	23	OUT1D	O	1D PEM output pin
4	CLKSEL	I	H: 256Fs mode,L: 384Fs mode	24	AVDD3	--	Analog power supply pin 3
5	TEST	I	Test mode switching pin	25	AVDD4	--	Analog power supply pin 4
6	COM	I	COM board voltage fastening pin	26	OUT1B	O	1B PEM output pin
7	NSUB	I	Silicon board voltage fastening pin	27	OUT1C	O	1C PEM output pin
8	DVDD1	--	Digital power supply pin 1	28	AVSS4	--	Analog ground pin 4
9	XIN	I	Crystal oscillator input pin	29	NC	--	To ground
10	XOUT	O	Crystal oscillator output pin	30	CKO1	O	Clock output pin 1(384Fs output)
11	DVSS1	--	Digital ground pin 1	31	DVSS2	--	Digital ground pin 2
12	NC	--	To ground	32	CKO2	O	Clock output pin 2(192Fs output)
13	AVSS1	--	Analog ground pin 1	33	CKO3	O	Clock output pin 3(128Fs output)
14	OUT2C	O	2C PEM output pin	34	DVDD2	--	Digital power supply pin 2
15	OUT2B	O	2B PEM output pin	35	NC	--	Non connection
16	AVDD1	--	Analog power supply pin 1	36	STM	I	Stereo/monaural switching pin. H:stereo,L:left channel,reversed polarity left channel
17	AVDD2	--	Analog power supply pin 2	37	DIN1	I	Left channel 18-bits 8Fs serial data input
18	OUT2D	O	2D PEM output pin	38	DIN2	I	Right channel 18-bits 8Fs serial data input
19	OUT2A	O	2A PEM output pin	39	BCK	I	Bit clock input pin
20	AVSS2	--	Analog ground pin 2	40	WDCK	I	Word clock input pin

Internal Block Diagrams of Other ICs

■ XR1094CP (IC901) : Display Driver

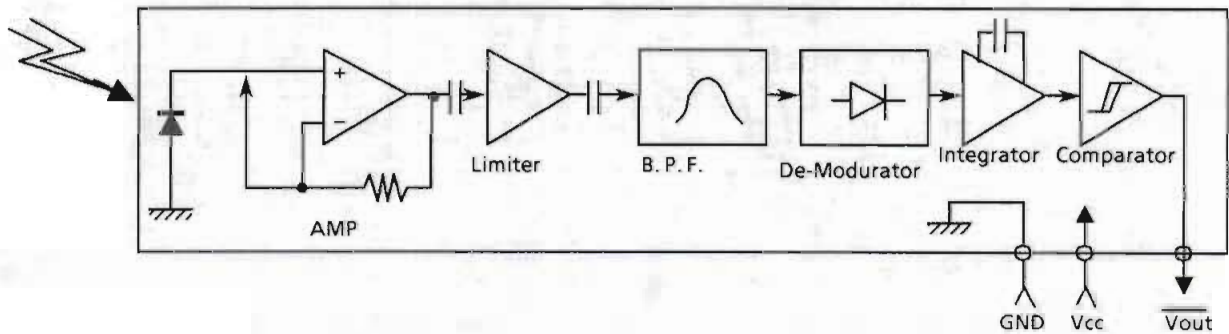
1. Block Diagram



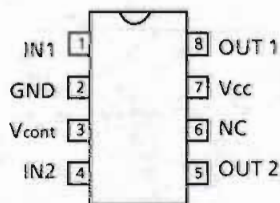
2. Terminal description

Pin No.	Symbol	Description
1~13	A1~A13	FL anode control
31~26	G1~G6	FL grid control
15	DIM	Connected to ground
16	10k/16k	Input terminal for the filter select "L" : 16kHz, "H" : 10kHz
17	VSS	Power supply(-)
20	GND	Ground
21	IN	Audio signal input
22	GPH	The resistor and capacitor connected to this pin determine the peak hold time.
23	CLKC	A capacitor is connected for oscillation
24	CLKR	A resistor is connected for oscillation
32	VDD	Power supply (+)

■ SPS-420-1 (IC902) : Remocon Module IC



■ LB1639-CV (IC633) : Motor Driver

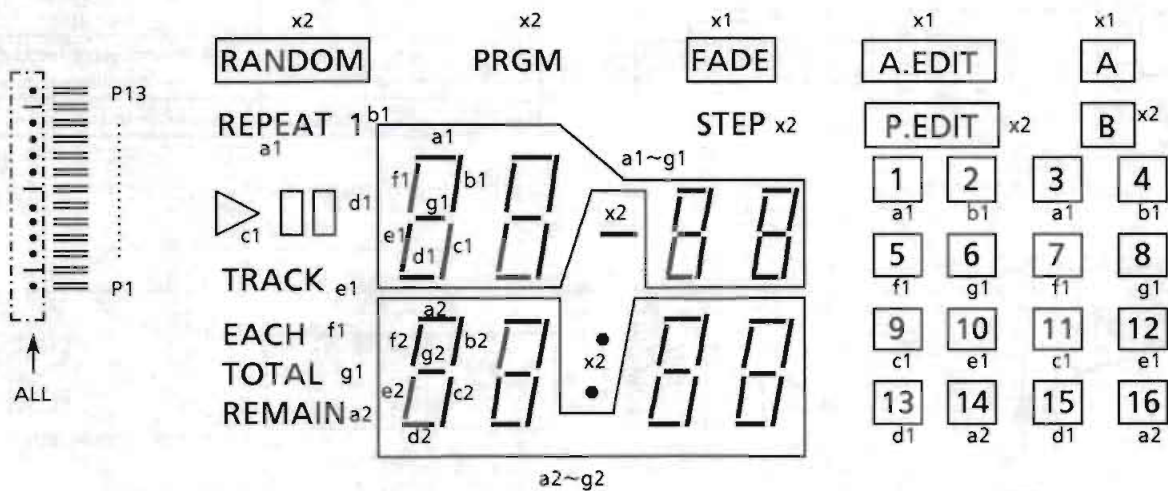
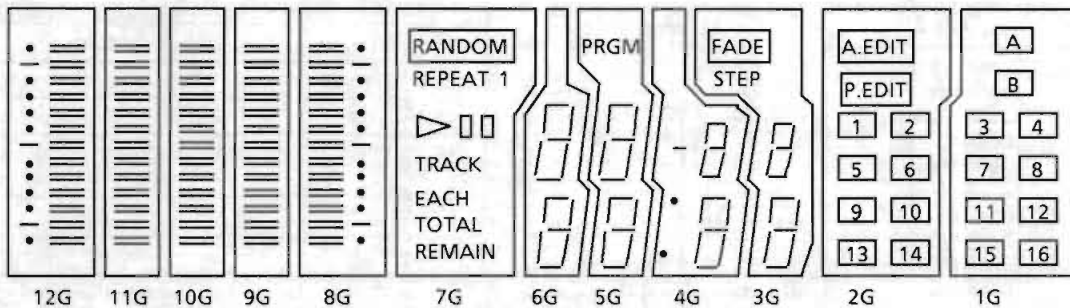


FUNCTION TABLE

IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

Internal Connection for the FL Display Tube

■ ELU0001-131 : FL display



Terminal connection

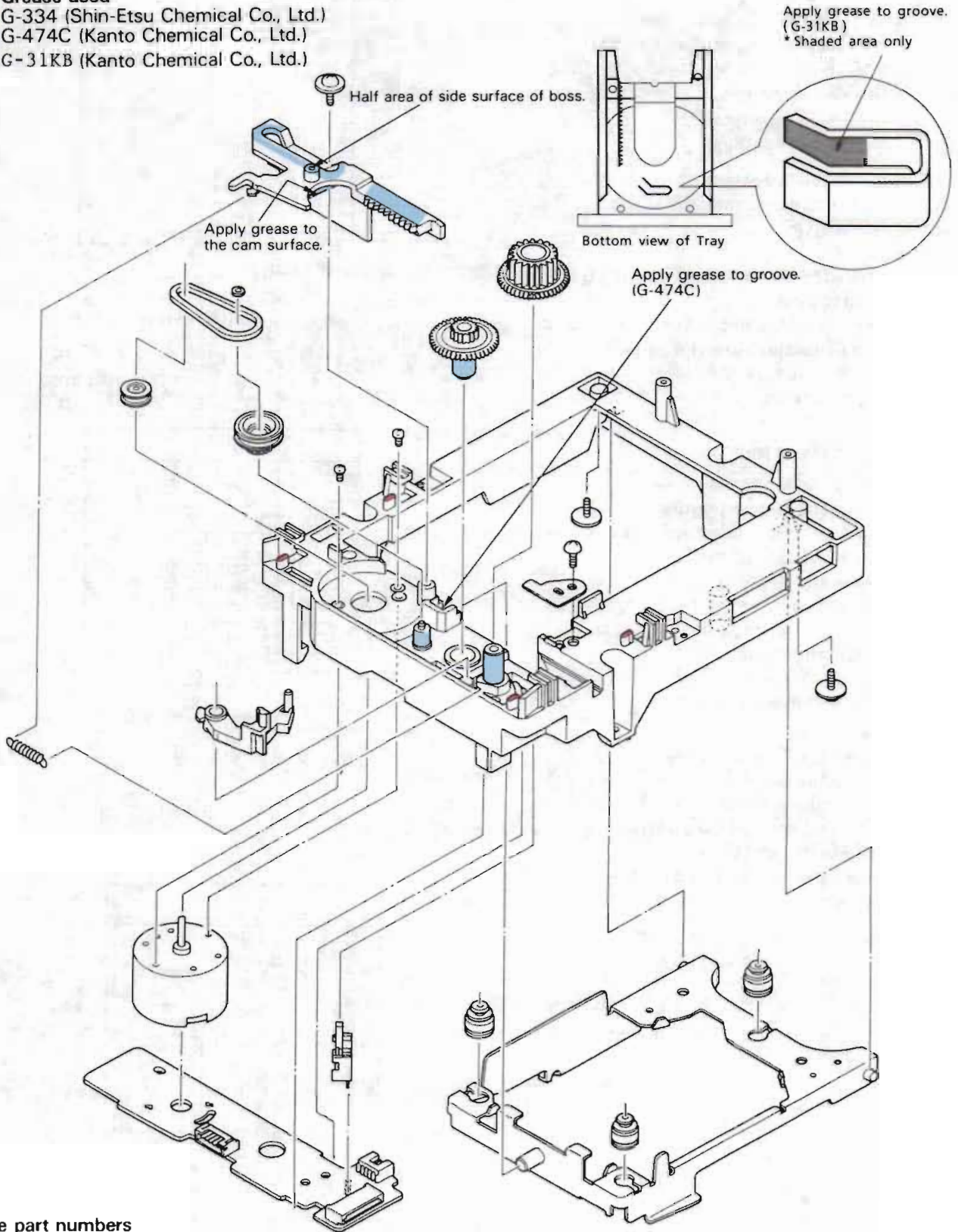
TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
ELECTRODE	F1	F1	F1	NP	ALL	12G	P1	P2	P3	11G	P4	P5	10G	P6	P7	P8	9G			
TERMINAL NO.	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
ELECTRODE	P9	P10	8G	P11	P12	7G	P13	Px1	Px2	7G	Pa1	6G	Pb1	Pc1	5G	Pd1	Pe1	4G	Pf1	Pg1
TERMINAL NO.					38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
ELECTRODE					3G	Pa2	Pb2	2G	Pc2	Pd2	2G	Pe2	1G	Pf2	Pg2	1G	NP	F2	F2	F2

Notes F: Filament NP: No Pin
 G: Grid
 P: Anode

Application points for Grease

Grease used

- G-334 (Shin-Etsu Chemical Co., Ltd.)
- G-474C (Kanto Chemical Co., Ltd.)
- G-31KB (Kanto Chemical Co., Ltd.)



Grease part numbers

- G-334: EBS0006-009B
- G-474C: EBS0006-019B
- G-31KB: EBS0006-013B

Disassembly Procedures

■ Top cover removal

1. Remove 4 screws on both sides of the top cover and 2 screws on the rear side.
2. Lift the back of the top cover spreading both sides to remove.

■ Tray assembly removal

1. Remove the top cover.
2. Turn the power on and press the OPEN/CLOSE button to move the tray out.
3. Remove the screw ① and pull the tray toward front out.
4. If the power can not be turned on due to any malfunction, insert a filips driver to the hall ② to turn the screw to move the tray out (Figure 1).

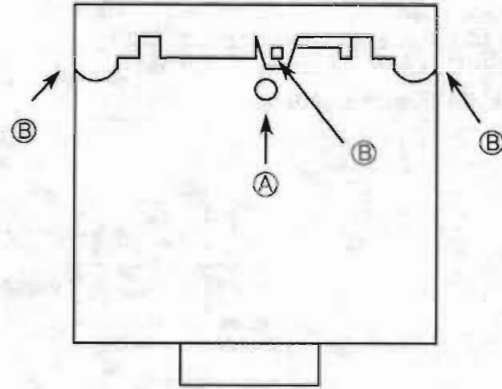


Figure 1 Bottom view

■ CD chassis base removal

1. Remove the top cover.
2. Remove the tray assembly.
3. Disconnect the connector P711 and the flat wire J701 (Figure 2).
4. Remove the 4 screws ③ fixing the chassis base.
5. Take out the chassis base with the CD mechanism assembly.

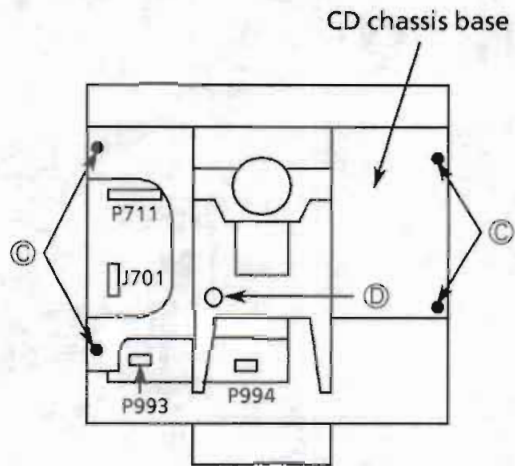


Figure 2 Top view

■ Front panel assembly removal

1. Remove the top cover.
2. Remove the CD chassis base.
3. Remove the volume knob and the nut fastning the volume.
4. Disconnect the flat wire J493, JA511 and J944 (Figure 3).
5. Release the pawls ④ and remove the front panel assembly (Figure 1).

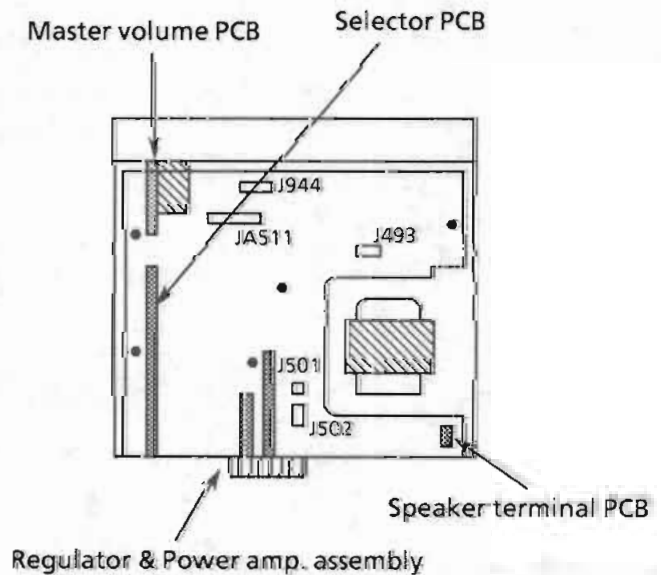


Figure 3 Top view of the front panel without the CD chassis base

■ Front PCB removal

1. Remove the front panel assembly.
2. Remove all the knobs.
3. Remove the 12 screws fixing the PCB (Figure 4).
4. Remove the front PCB.

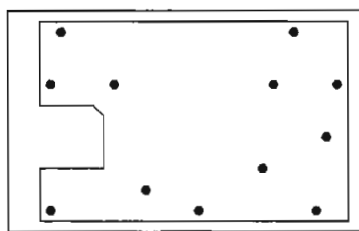


Figure 4 Rear view of the front panel assembly

■ Rear panel removal

1. Remove the 2 screws fastening the heat sink cover and the cover.
2. Remove the screws ㉔ and ㉕ (Figure 5).
3. Remove the rear panel.

■ Main PCB removal

1. Remove the top cover.
2. Remove the CD chassis base.
3. Remove the front panel assembly.
4. Remove the rear panel.
5. Remove the master volume PCB, selector PCB, speaker terminal PCB & Regulator & Power amp. assembly (Figure 3).
6. Disconnect the flat wire J501,502 (Figure 3).
7. Remove the 5 screws, then take out the main PCB.

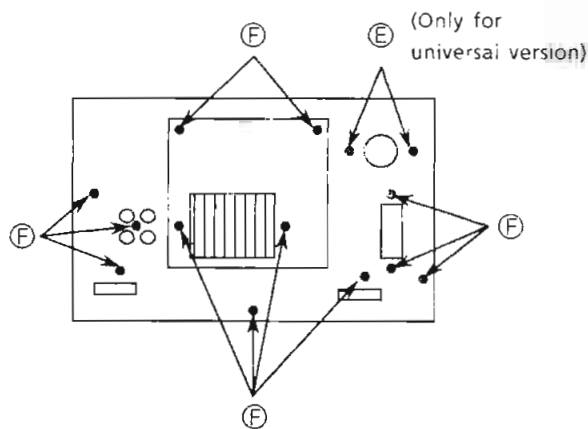


Figure 5 Rear view

■ Mechanism assembly removal

1. Remove the top cover, tray assembly and clamp.
2. Remove the 3 screws fixing the mechanism assembly.
3. Disconnect connector P994 and flat wire P993 (Figure 2).
4. Remove the mechanism assembly.

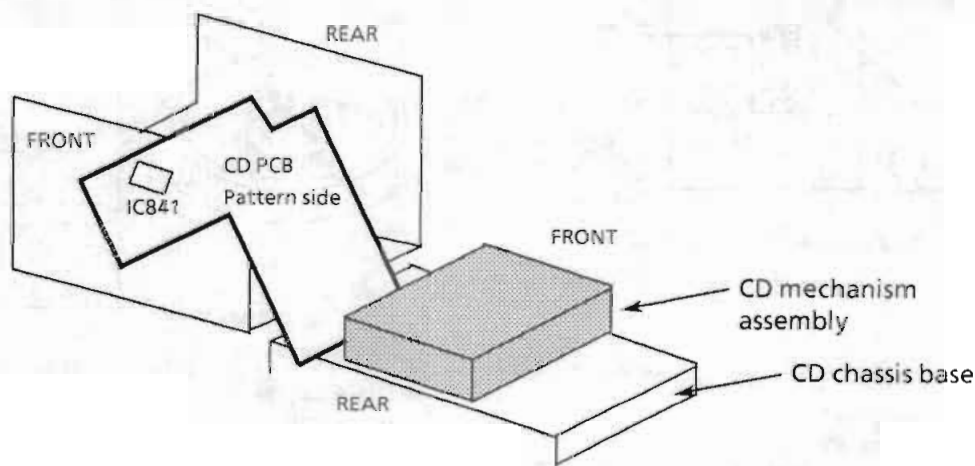


Figure 6 How to check the CD PCB

AX-MX44BK

■ Laser Pickup removal

1. Remove the top cover, tray assembly and the clamp.
2. Move the Pickup unit from rest position to the center pushing ⑤ point with finger.
3. Remove the screw ② from the CD Rack assembly, and remove the CD Rack assembly.
4. Remove the screws ① from the CD mechanism base assembly.
5. Remove the CD Holder fastening the shaft from the CD mechanism base assembly. (Release the hook ⑥)
6. Remove the CD Pick Unit with the shaft.

■ CD Pick Unit installation

1. Connect two wires with the connectors of APC P.C.Board.
2. While installing the ③ in the CD Support, set the shaft on the base hook ④.
3. Install the CD Holder.
4. Install the CD Rack assembly in the CD Pick Unit.
 - 1) Fit end ⑦
 - 2) Fix screw ②.

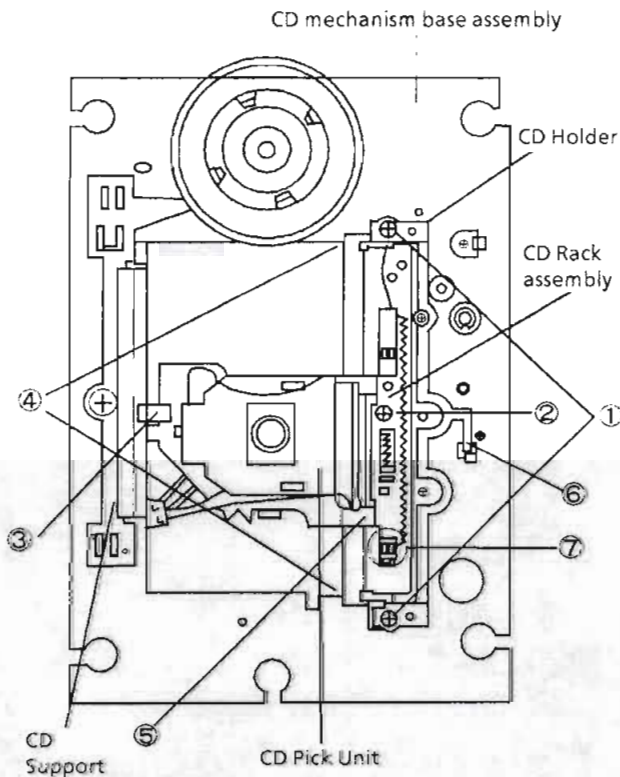


Figure 7

■ Spindle motor removal

1. Remove the CD mechanism base assembly.
2. Remove the turntable, and remove the two screws retaining the spindle motor.
3. Remove the screws retaining the Spindle and Feed Motor P.C. Board and unsolder it.

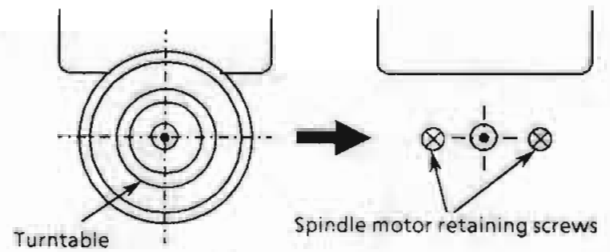


Figure 8

■ Spindle motor installation

1. Tighten the 2 screws to the same torque.
2. Fasten the Spindle and Feed Motor P.C. Board with the screw and solder.
3. Install the turntable. When installing, press straight down at the center of the turntable until the distance from the surface of the mechanism base to the top of the turntable is exactly $12.0 \pm 0.1\text{mm}$.

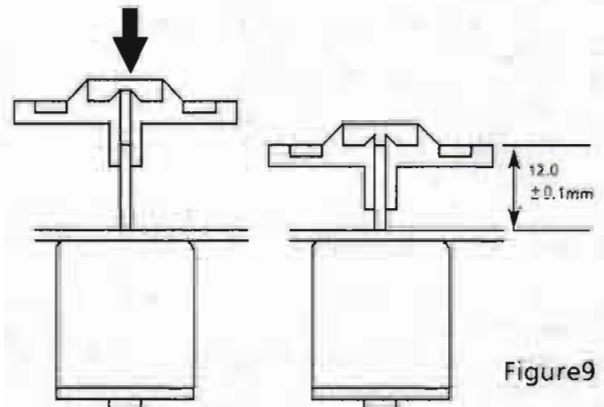


Figure 9

4. After insertion is complete, bond the motor shaft and turntable together (at the section marked by an arrow in the figure 10 on the left below).

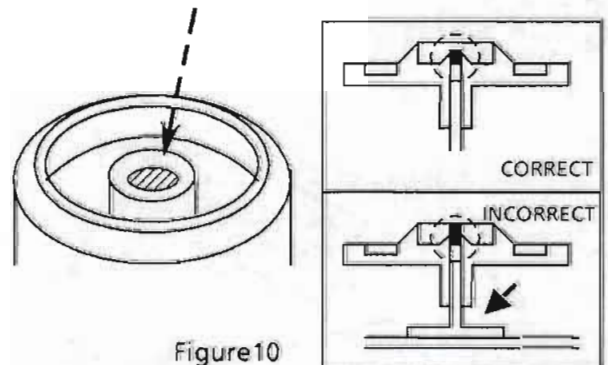
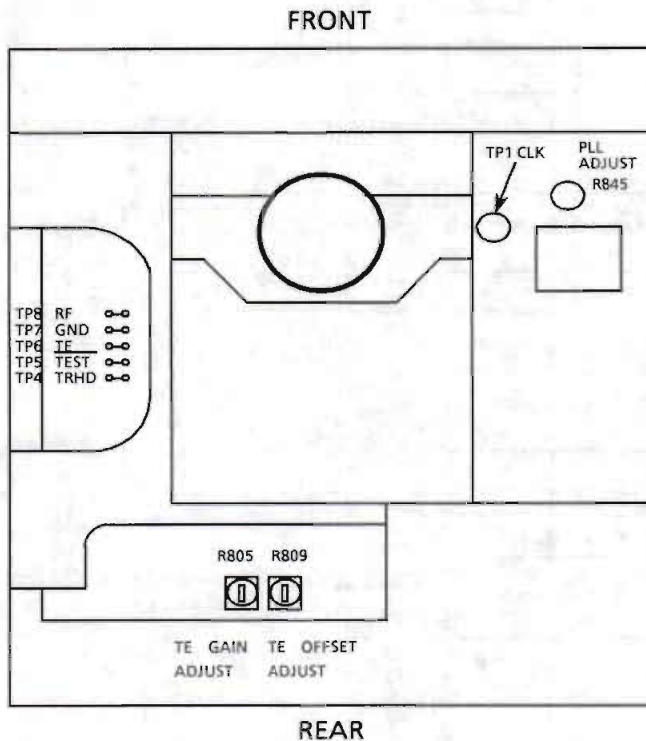


Figure 10

5. Use "LOCKTITE" #460 bonding agent, and apply as little as possible. Take care not to allow any excess bonding agent to get onto the turntable. Be extremely careful not to allow bonding agent to adhere to the motor bearings (the section marked by an allow in the figure 10 on the right).

Adjustment Procedures



(1) PLL free-running adjustment

- a. Measuring instrument
Frequency counter
- b. Adjusting procedure
 1. Set the player to stop mode.
 2. Connect a frequency counter with TP1 (CK) and GND on the main PC board.
 3. Adjust R845 for setting the counter's value becomes $4.310 \pm 0.002\text{MHz}$.
 4. Perform this adjustment immediately after the power is turned on.

(2) Tracking gain adjustment

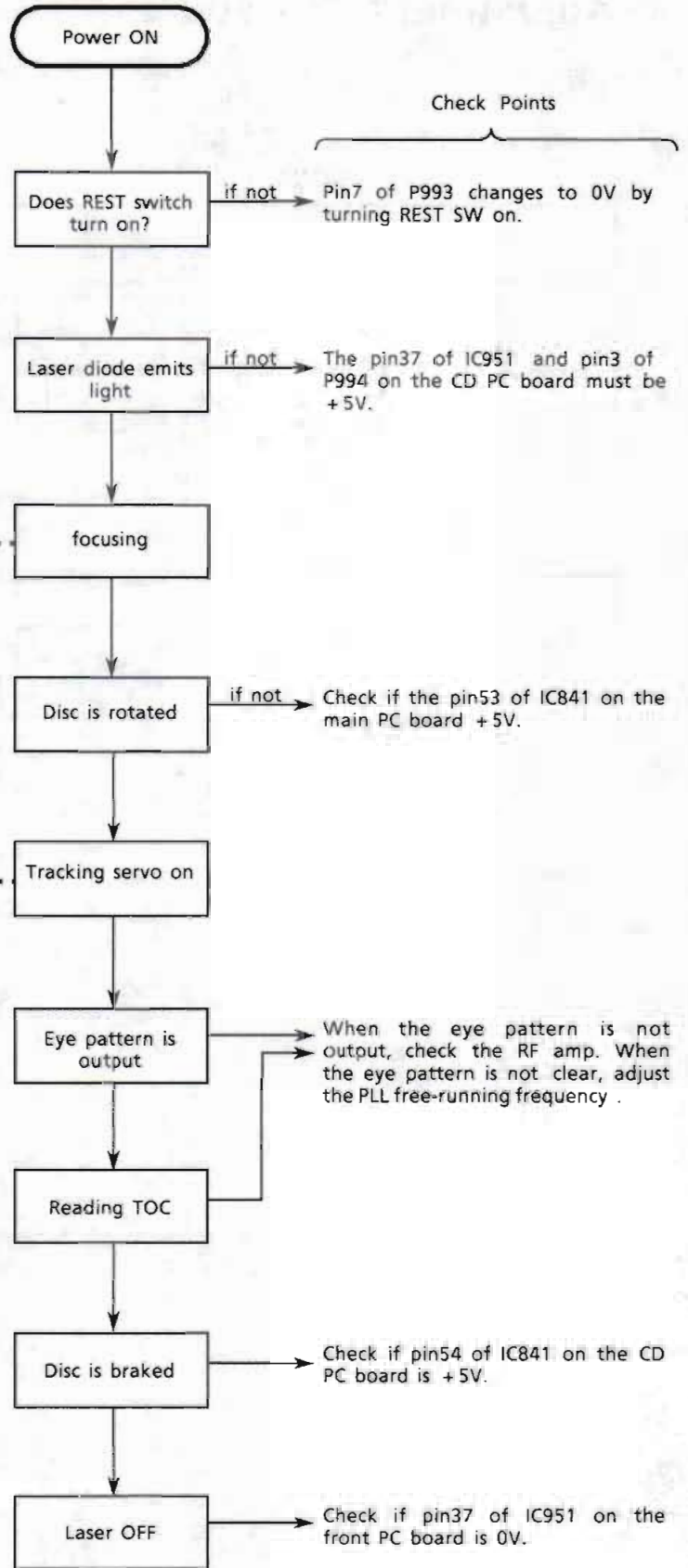
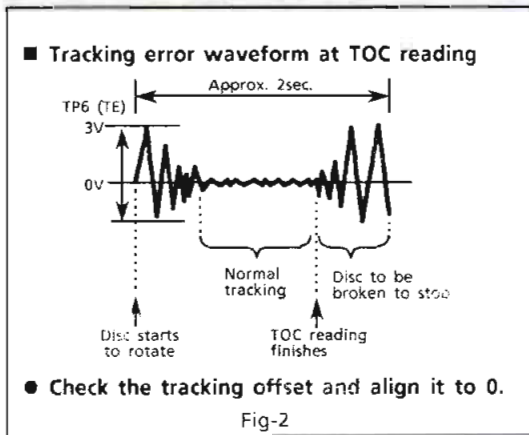
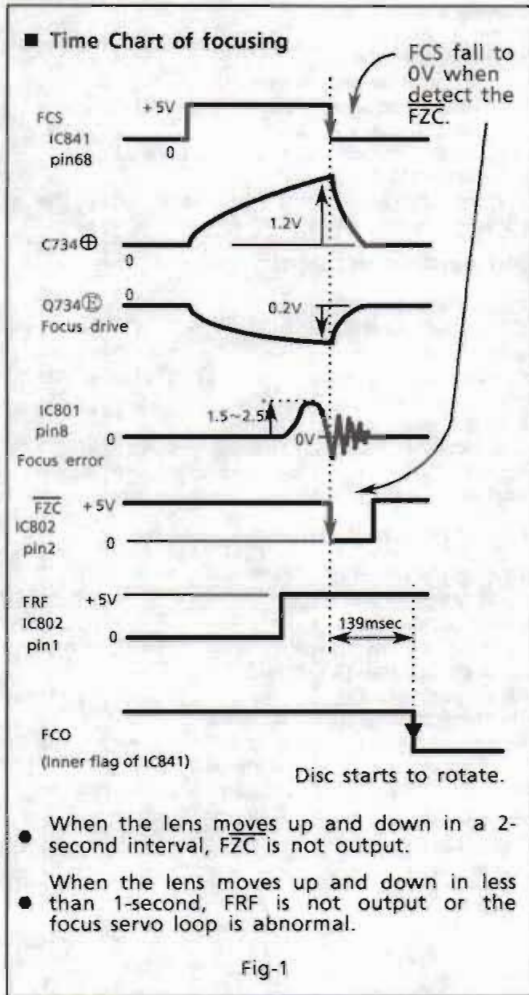
- a. Measuring instruments
Oscilloscope, Normal disc
- b. Adjusting procedure
 1. Connect an oscilloscope with TP6 (TE) and TP7 (GND) on the main PC board.
 2. Play the disc.
 3. Short circuit TP5 (TEST) to GND.
 4. Adjust R805 for setting tracking error signal becomes $2.0 V_{p-p}$.

(3) Tracking offset adjustment

- a. Measuring instruments
Oscilloscope, Normal disc
- b. Adjusting procedure
 1. Connect an oscilloscope with TP6 (TE) and GND on the main PC board.
 2. Play the disc.
 3. Short circuit TP5 (TEST) to GND.
 4. Adjust R809 for setting the DC level of the tracking error (off set) becomes 0.

Note: Adjust R809 for setting the waveform becomes symmetrical around the 0 level.

Flow of Functional Operation Until TOC is Read

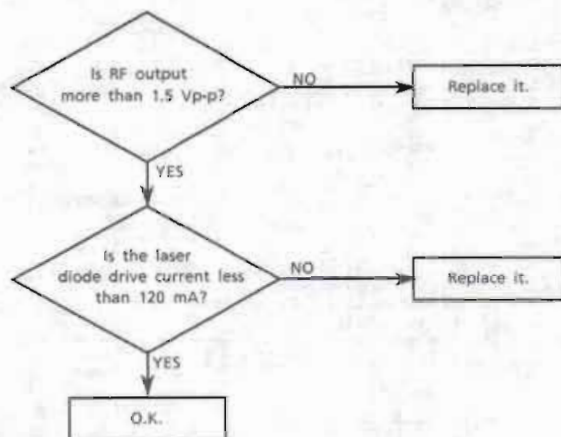


Maintenance of Laser Pickup

(1) Life of the laser diode

When the life of the laser diode has expired, the following symptoms will appear.

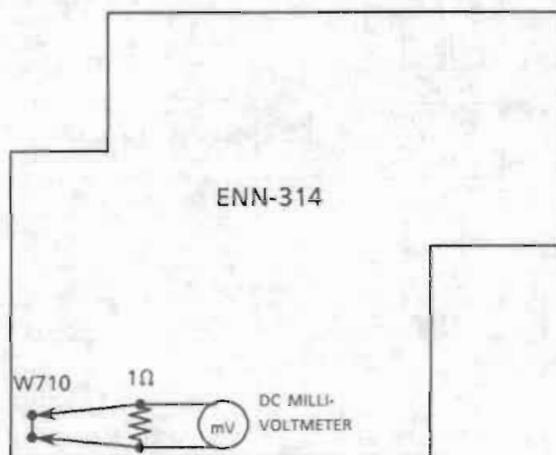
1. The level of RF output (EFM output: amplitude of eye pattern) will be low.
2. The drive current required by the laser diode will be increased.
In such a case, check the life of the laser diode following the flowchart below



(2) Measurement of laser diode drive current

Replace W710 to a resistor (1Ω).

Measure the voltage across the resistor with a milli-voltmeter. When the voltage is more than 180mV, it shows that the life of the laser diode has expired



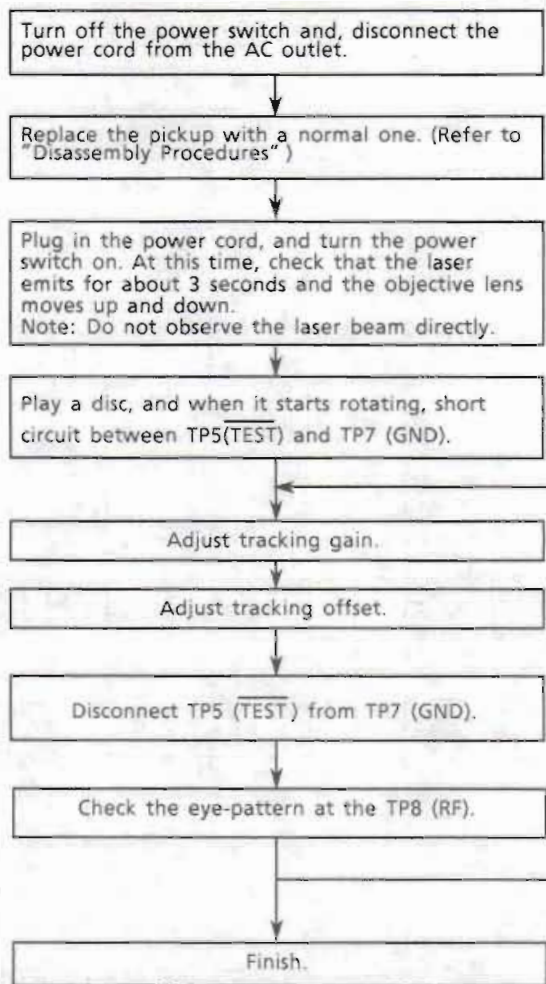
(3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

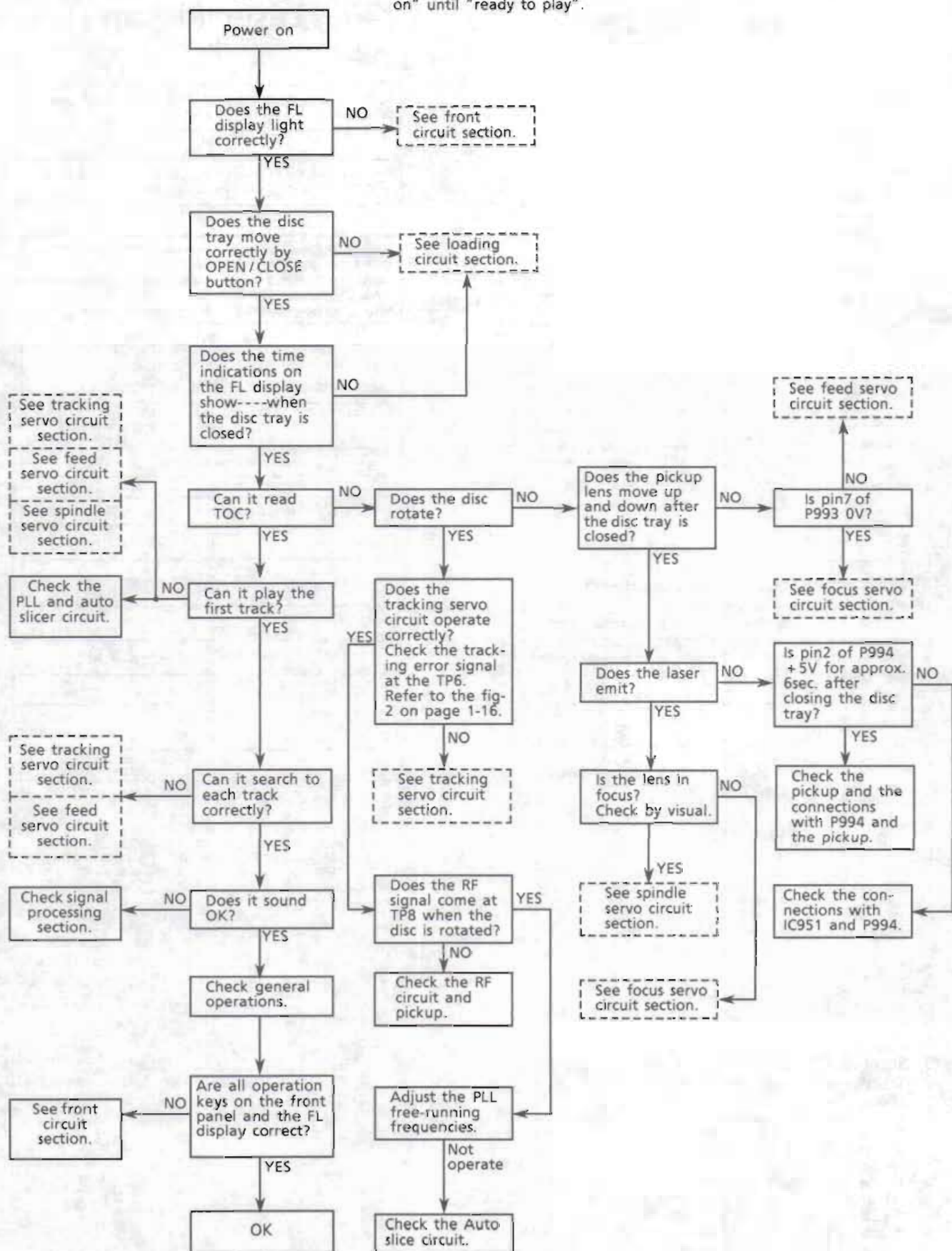
Replacement of Laser Pickup



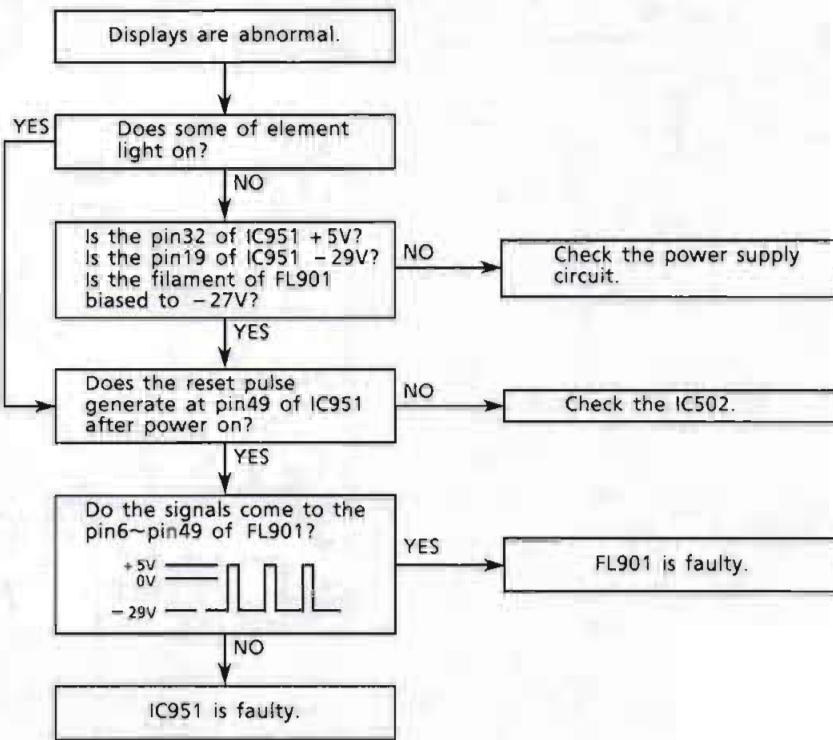
Note: Since one adjustment may affect other settings, repeat these adjustments a few times.

Troubleshooting

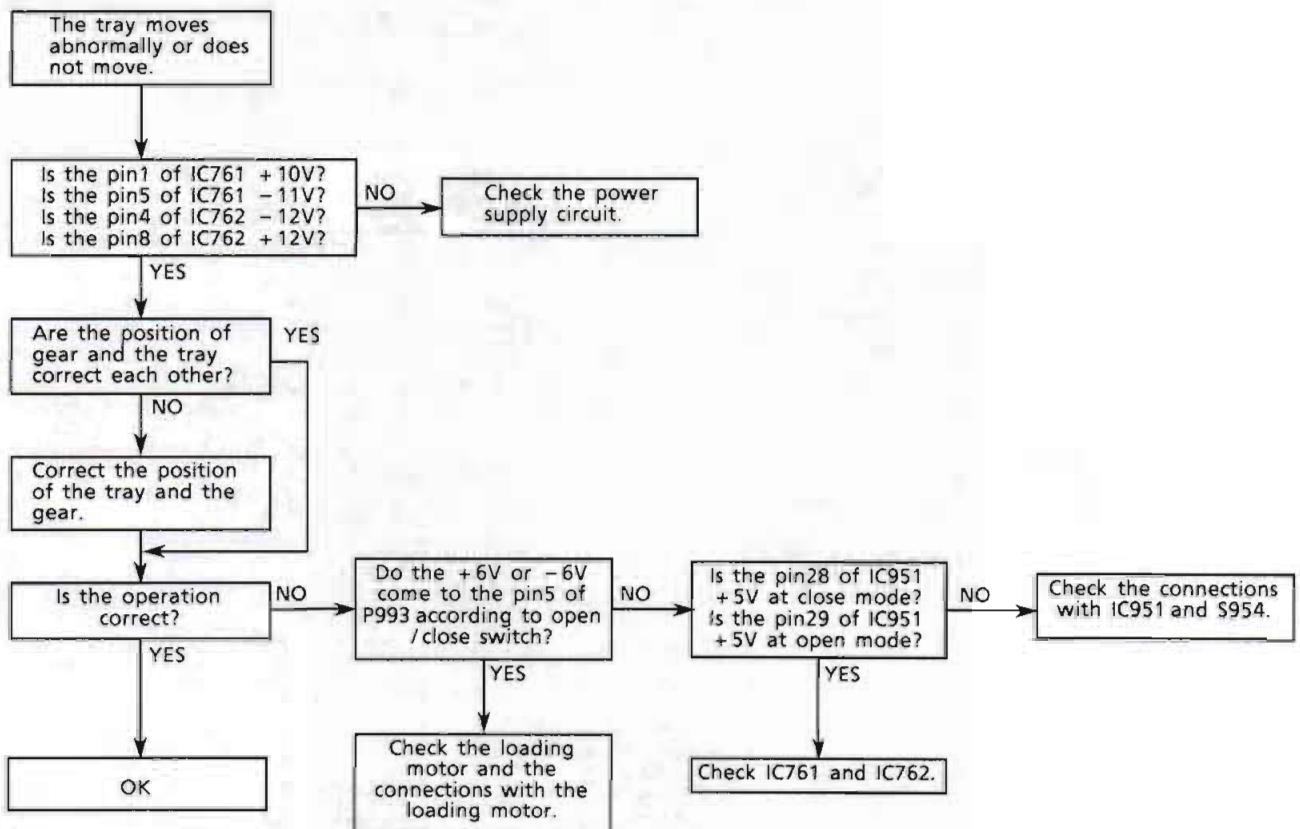
The following flowchart shows each circuit's condition about from "power on" until "ready to play".



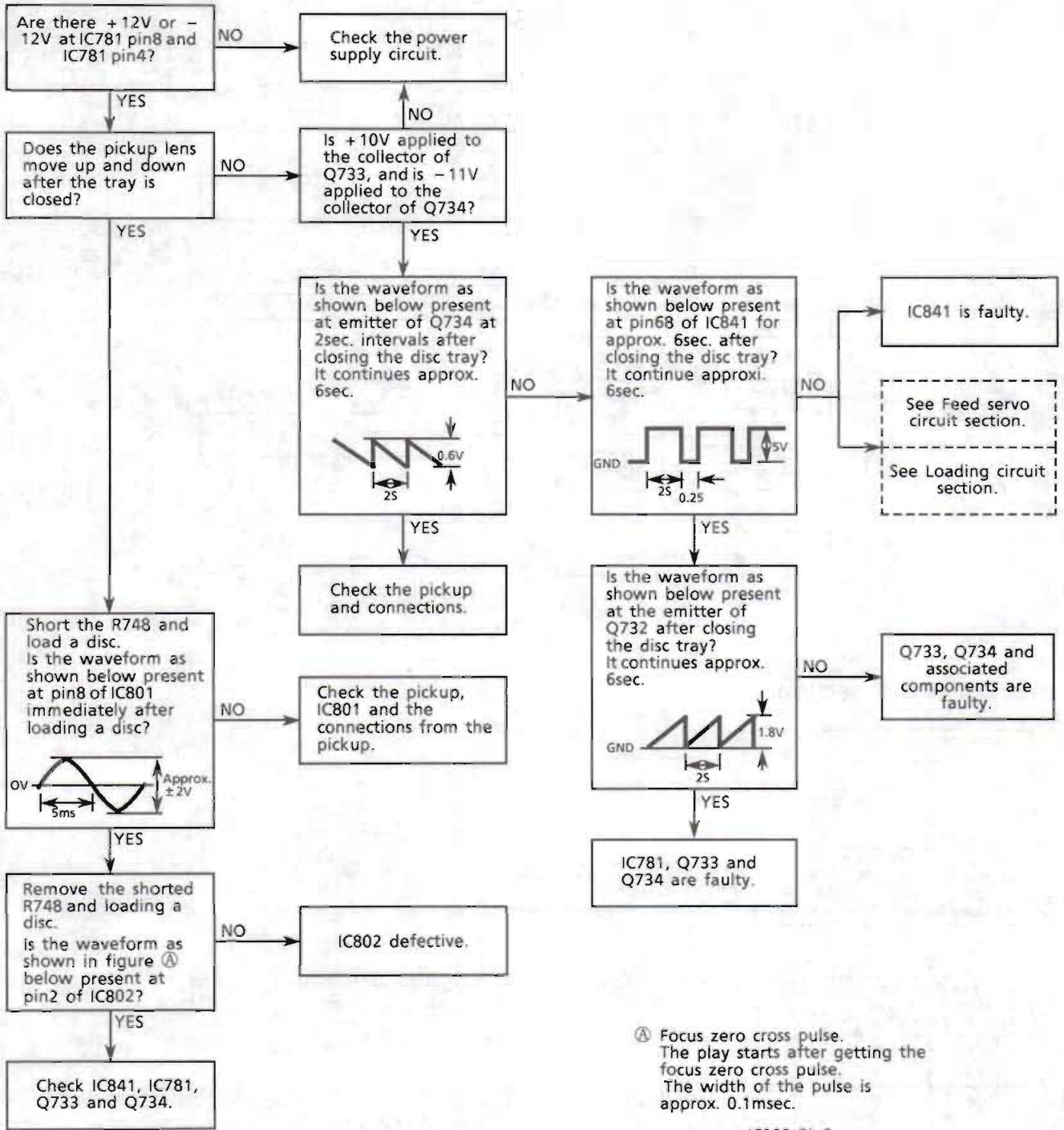
Front circuit Section



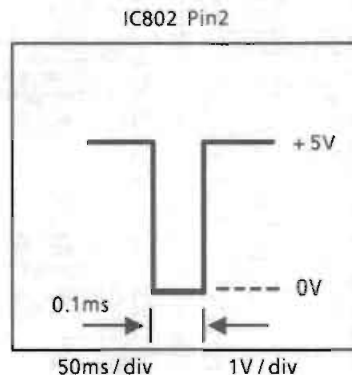
Loading circuit section



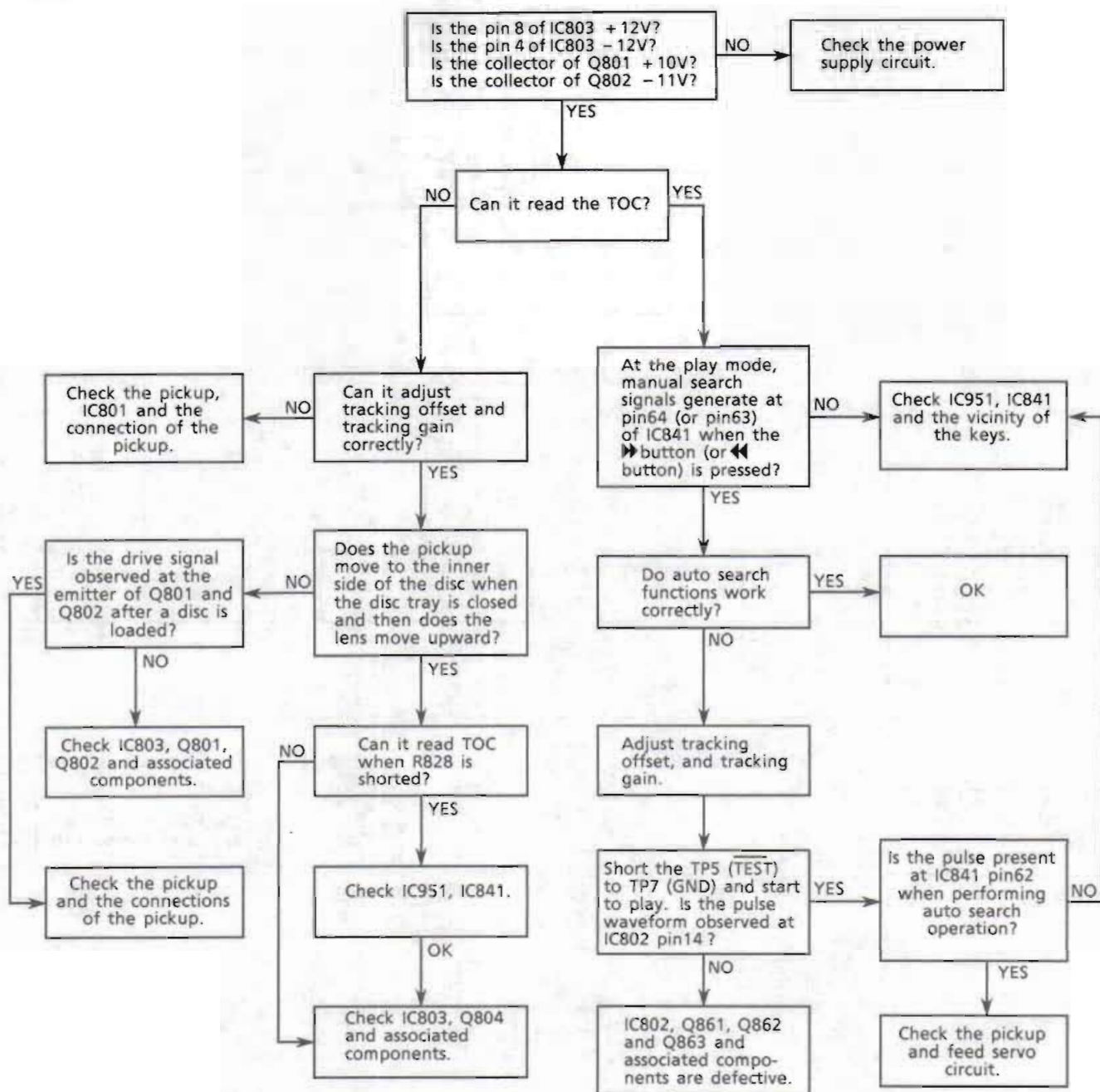
Focus servo circuit section



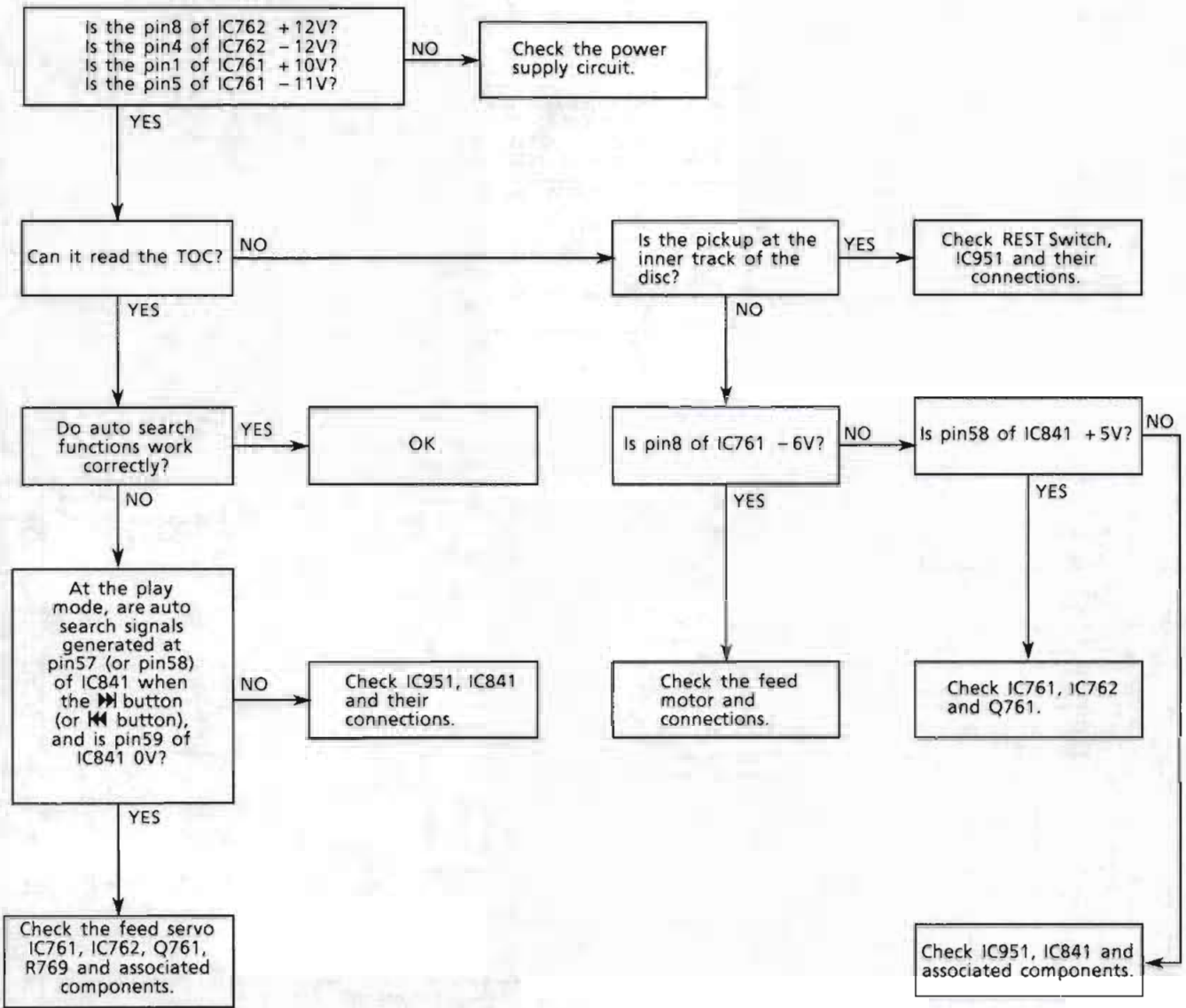
(A) Focus zero cross pulse.
The play starts after getting the focus zero cross pulse.
The width of the pulse is approx. 0.1msec.



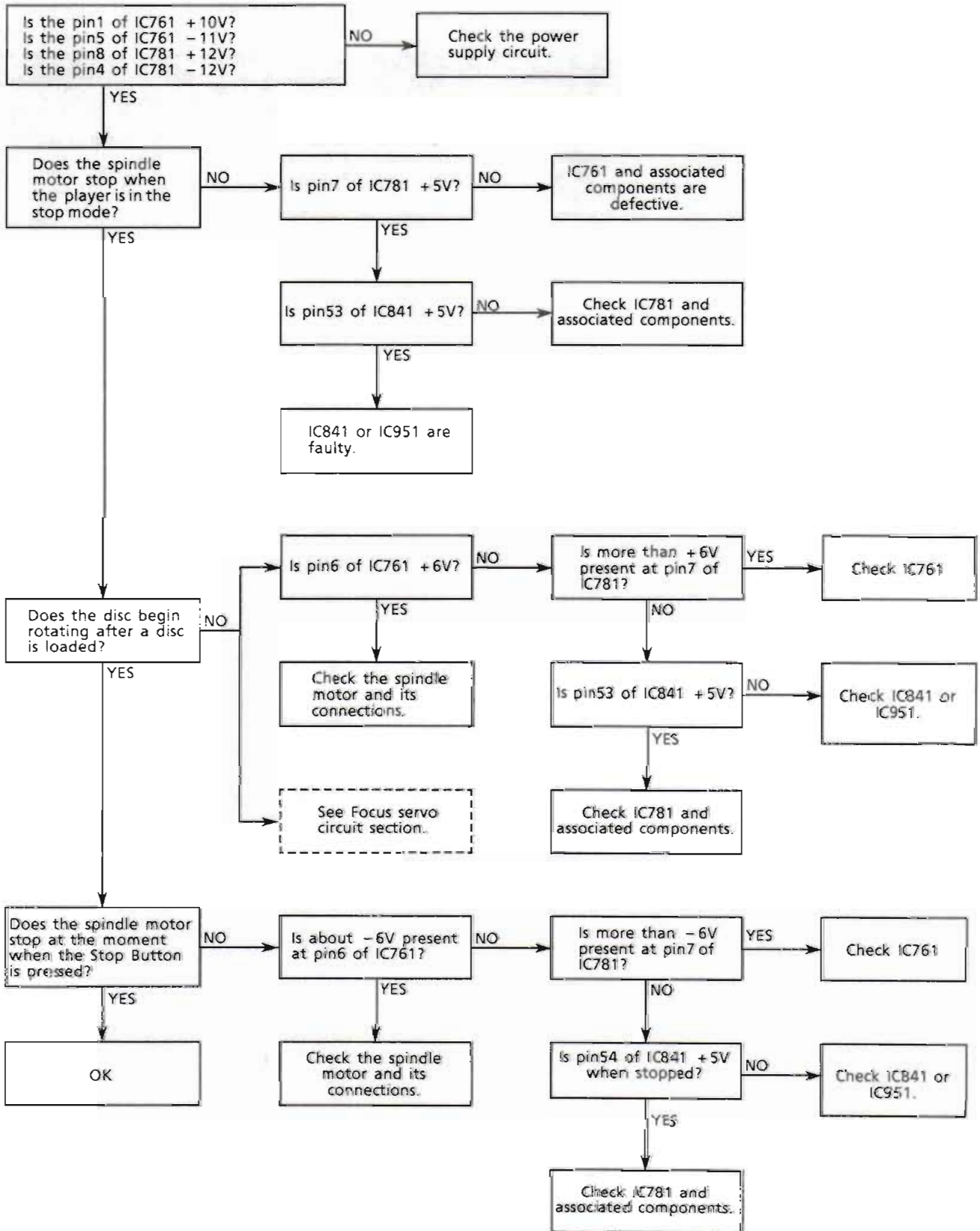
Tracking servo circuit section



Feed servo circuit section



Spindle servo circuit section



JVC

VICTOR COMPANY OF JAPAN, LIMITED

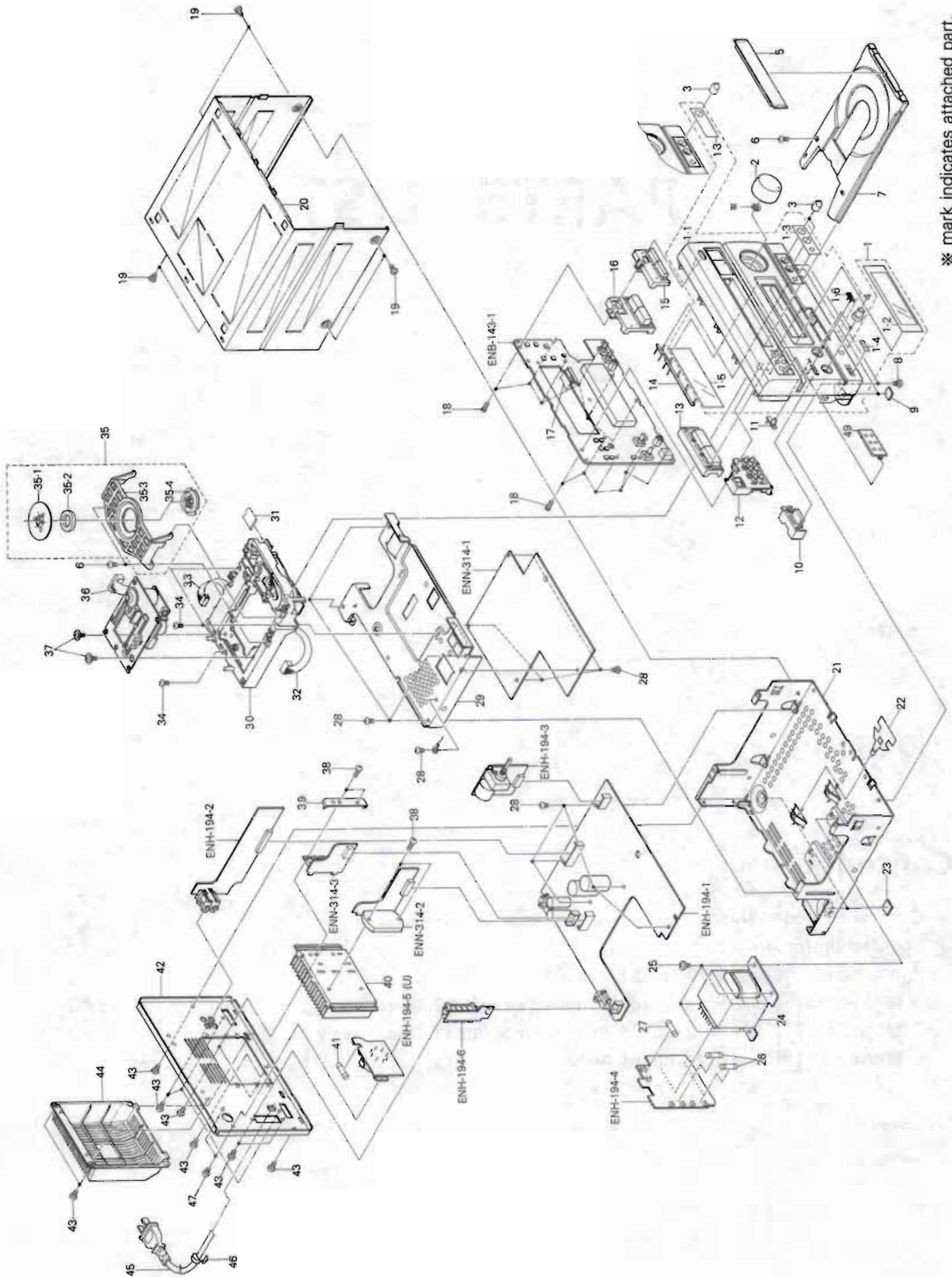
AUDIO PRODUCTS DIVISION, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN

PARTS LIST

Contents

General Exploded View and Parts List	2-2
CD Mechanism Ass'y and Parts List	2-5
Printed Circuit Board Ass'y and Parts List	2-7
■ ENH-194 <input type="checkbox"/> System Control & Input Selector PC Board Ass'y	2-7
■ ENN-314 <input type="checkbox"/> CD Regulator & Power Amplifier PC Board Ass'y	2-12
■ ENB-143 <input type="checkbox"/> Front PC Board Ass'y	2-16

General Exploded View and Parts List



* mark indicates attached part.

■ Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-AXMX44BKJ (S)	Front Panel Ass'y	1		J
		EFP-AXMX44BKE (S)	Front Panel Ass'y	1		Except J, U
		EFP-AXMX44BKU (S)	Front Panel Ass'y	1		U
	1-1	E102537-002SM	Front Panel	1		
	1-2	E307915-001SM	Window Screen	1		Except J
		E307915-002SM	Window Screen	1		J
	1-3	E406939-001SM	Balance Plate	1		Except U
	1-4	E406939-002SM	Balance Plate	1		U
		E406943-002SM	Remote Plate	1		
	1-5	E75130-004SM	FL Screen	1		J
	1-6	E406971-001	JVC Mark	1		
	2	E306549-001SS	Volume Knob	1		
	3	E406691-221SM	Knob	1	BALANCE	Except U
		E406691-221SM	Knob	2	BALANCE, MIC	U
	4	E306920-221SM	Knob	2	TONE	
	5	E307906-001SM	Fitting	1		
	6	SBSF3008M	Screw	3		
	7	E12289-222SS	Tray	1		
	8	SBSG3008M	Screw	2		
	9	E406855-006SM	Spacer	2	Front Foot	
	10	E307917-001SM	Push Button	1	POWER	
	11	E406938-001	Indicator	1		
	12	E307898-002SS	Push Button	1		
	13	E307904-001SS	Push Button	1	SOURCE	
	14	E307910-001	Indicator	1		
	15	E307902-001SS	Push Button	1		
	16	E307900-001SS	Push Button	1	PLAY	
	17	EWR121G-15TT	Flat Cable	1	FC511	
	18	SDSF2610Z	Screw	12		
	19	SDSG3006M	Screw	6	for Metal Cover	
	20	E207537-002	Metal Cover	1		Except J
		E207537-005	Metal Cover	1		J
	21	E102532-001SM	AMP Chassis Base	2		
	22	E407010-003SM	Protect Cover	2		
	23	E406855-007SM	Spacer	2	Rear Foot	
△	24	ETP1070-24JAJ	Power Transformer	1	T002	J, C
△		ETP1070-24FAJ	Power Transformer	1	T002	U
△		ETP1070-24EAJ	Power Transformer	1	T002	Except J, C, U, BS
△		ETP1070-24EJBS	Power Transformer	1	T002	BS
	25	E65389-004	Special Screw	4		
△	26	QMFS1U1-1R6S	Fuse	2	F003, F004	J, C
△		QMFS1E2-1R25J1	Fuse	2	F003, F004	Except J, C, BS
△		QMFS1E2-1R2J1BS	Fuse	2	F003, F004	BS
△	27	QMFS1U1-2R0S	Fuse	1	F001	J, C
△		QMFS1E2-2R0J1	Fuse	1	F001	U
△		QMFS1E2-1R0J1	Fuse	1	F001	Except J, C, U, BS
△		QMFS1E2-1R0J1BS	Fuse	1	F001	BS
	28	SBSG3008CC	Screw	13		Except J, C
		SBSG3008CC	Screw	14		J, C
	29	E102531-001SM	CD Chassis Base	1		
	30		CD Mechanism Unit Ass'y	1	See page 2-5	
	31	EWR1DE-23TT	Flat Cable	1	13Pin	
	32	EWS256-B102	Socket Wire Ass'y	1	6Pin	
	33	EWS254-B103	Socket Wire Ass'y	1	4Pin	
	34	SBST3006Z	Screw	3		
	35	E306837-003	Clamper Base Ass'y	1		
	35-1	E306836-003	Yoke	1		
	35-2	E74897-002	Magnet	1		
	35-3	E26756-001	Clamper Base	1		
	35-4	E306835-001	Clamper	1		

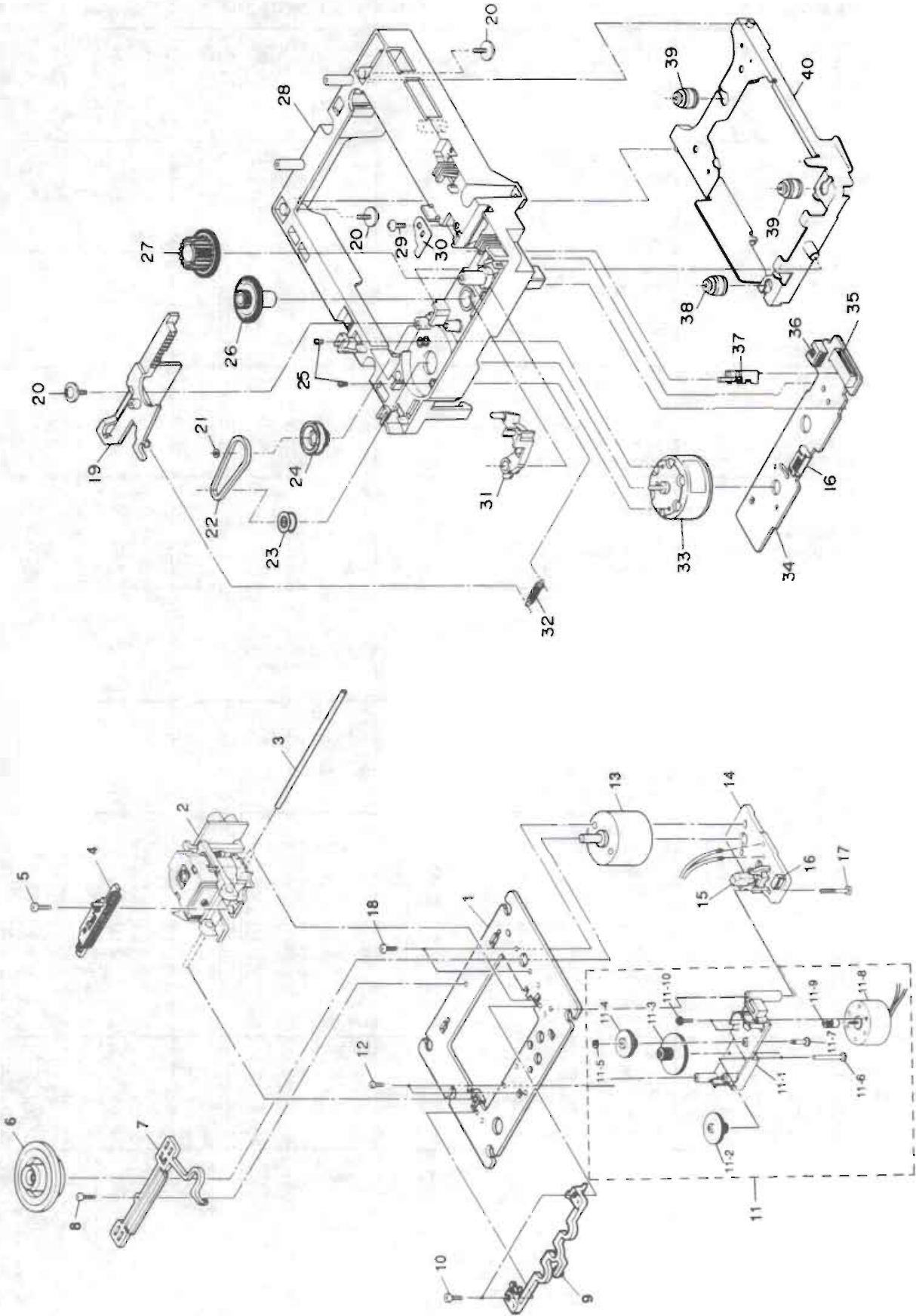
⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	36	EWS26A-B414	Socket Wire Ass'y	1	10Pin	
	37	E75871-003	Special Screw	2		
	38	SBSG3014CC	Screw	4		
	39	E406969-001SM	Leaf Spring	1		
	40	E307908-001SM	Heat Sink	1		
⚠	41	QMF51E2-1R0J1	Fuse	1	F002	U
	42	E207354-004SM	Rear Panel	1		J
		E207354-005SM	Rear Panel	1		C
		E207354-006SM	Rear Panel	1		U
		E207354-007SM	Rear Panel	1		A, BS
		E207354-008SM	Rear Panel	1		EN, EF, G, GI
		E207354-010SM	Rear Panel	1		VX
	43	E73273-006	Special Screw	12		
	44	E207356-001SM	Rear Cover	1		Except J
		E207356-002SM	Rear Cover	1		J
⚠	45	QMP1D00-200H	Power Cord	1		J, C
⚠		QMP2560-244	Power Cord	1		A
⚠		QMP3900-200	Power Cord	1		EN, EF, G, GI, VX
⚠		QMP7520-200	Power Cord	1		U
⚠		QMP9017-008BS	Power Cord	1		BS
⚠	46	QHS3876-162	Cord Stopper	1		Except BS
⚠		QHS3876-162BS	Cord Stopper	1		BS
	47	SBST3006M	Screw	2		U
	48	E73967-002	Spacer	1		
	49	E307610-221SM	Ornament	1		
	—	E61029-009	Number Label	1		Except J
	—	E70891-001	Class 1 Label	1		Except J, C
	—	E406507-001	Mecha Caution Label	1		Except J
	—	E65507-001	Caution Label	1		C
	—	E67199-001	Fuse Caution Label	1		J
	—	QZL1001-001	UL Label	1		J
	—	E45858-002	CSA Label	1		C
	—	E70027-001	Approval Label	1		EN
	—	QZL1031-101	SEV Label	1		EF
	—	E407091-053	FTZ Label	1		G

The Marks for Designated Areas

⚠ Safety Parts

J.....the U.S.A. GI.....Italy
C.....Canada BS.....the U.K.
A.....Australia VX.....Poland, Soviet Union and Rumania
EN.....Scandinavia U.....Universal Type
EF.....Continental Europe **No mark indicates all areas.**
G.....Germany

CD Mechanism Ass'y and Parts List



■ Parts List

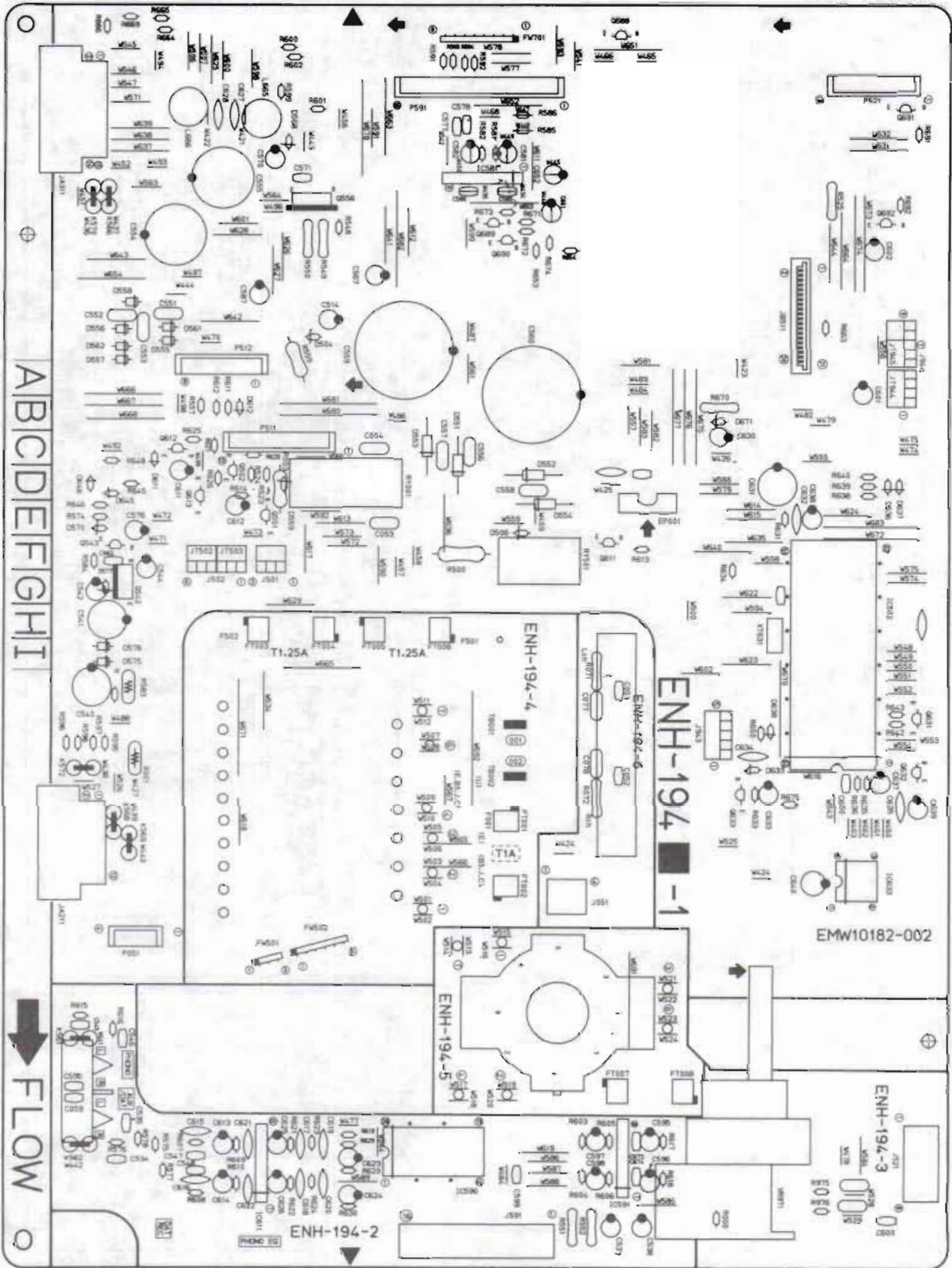
Item	Part Number	Part Name	Q'ty	Description	Areas
1	E26487-003	Mechanism Base	1		
2	OPTIMA-5S	Pick up Ass'y	1		
3	E74930-003	Shaft	1		
4	E306282-001	Rack Ass'y	1		
5	SPSH2050M	Screw	1		
6	E406064-002	Turn Table Ass'y	1		
7	E306275-003	Support	1		
8	SDST2005Z	Screw	1		
9	E306277-001	Holder	1		
10	SDST2004Z	Screw	2		
11	SE10351-11	Gear Ass'y	1		
11-1	E306276-001	Gear Base	1		
11-2	E75444-001	Gear	1		
11-3	E75443-001	Gear	1		
11-4	E75445-001	Gear	1		
11-5	WDM163550	Slit Washer	1		
11-6	E75494-003	Shaft	2		
11-7	E75494-002	Shaft	1		
11-8	HKN-3A6RDNV	Feed Motor	1		
11-9	E75493-001	Pinion Gear	1		
11-10	LPSH1735Z	Screw	2		
12	E72713-001	Special Screw	2		
13	E74539-001B	Spindle Motor	1		
14	E12114-005 (S)	Circuit Board	1		
15	ESB1100-005	Leaf Switch	1	S001	
16	EMV5109-006B	6P Plug Ass'y	2	P011	
17	E75832-001	Special Screw	1		
18	SDSP2003N	Screw	2		
19	E306834-001	Cam	1		
20	E65923-003	Special Screw	3		
21	E72024-001	Speed Nut	1		
22	E75950-002	Belt	1		
23	E75984-001	Motor Pulley	1		
24	E75985-001	Gear (1)	1		
25	SPSK2640Z	Screw	2		
26	E75986-002	Gear (2)	1		
27	E75987-001	Gear (3)	1		
28	E12288-002	Loading Base	1		
29	SBSF3008Z	Screw	1		
30	E75988-001	Plate	1		
31	E306833-001	Lever	1		
32	E75989-001	Spring	1		
33	MMN-6F1LB8Q	Loading Motor	1		
34	EMW10060-002 (S)	Circuit Board	1		
35	EMV7123-013R	Connector	1	13Pin	
36	EMV5109-004B	Plug Ass'y	1	4Pin	
37	ESS1200-002	Switch	1		
38	E75609-002	Insulator	1		
39	E75609-001	Insulator	2		
40	E307087-001	Elevator Base Ass'y	1		

Printed Circuit Board Ass'y and Parts List

■ ENH-194 □ System Control & Input Selector PC Board Ass'y (Excpet the U.S.A. & Canada)

Note : ENH-194 □ varies according to the areas employed. See note (1) when placing an order.

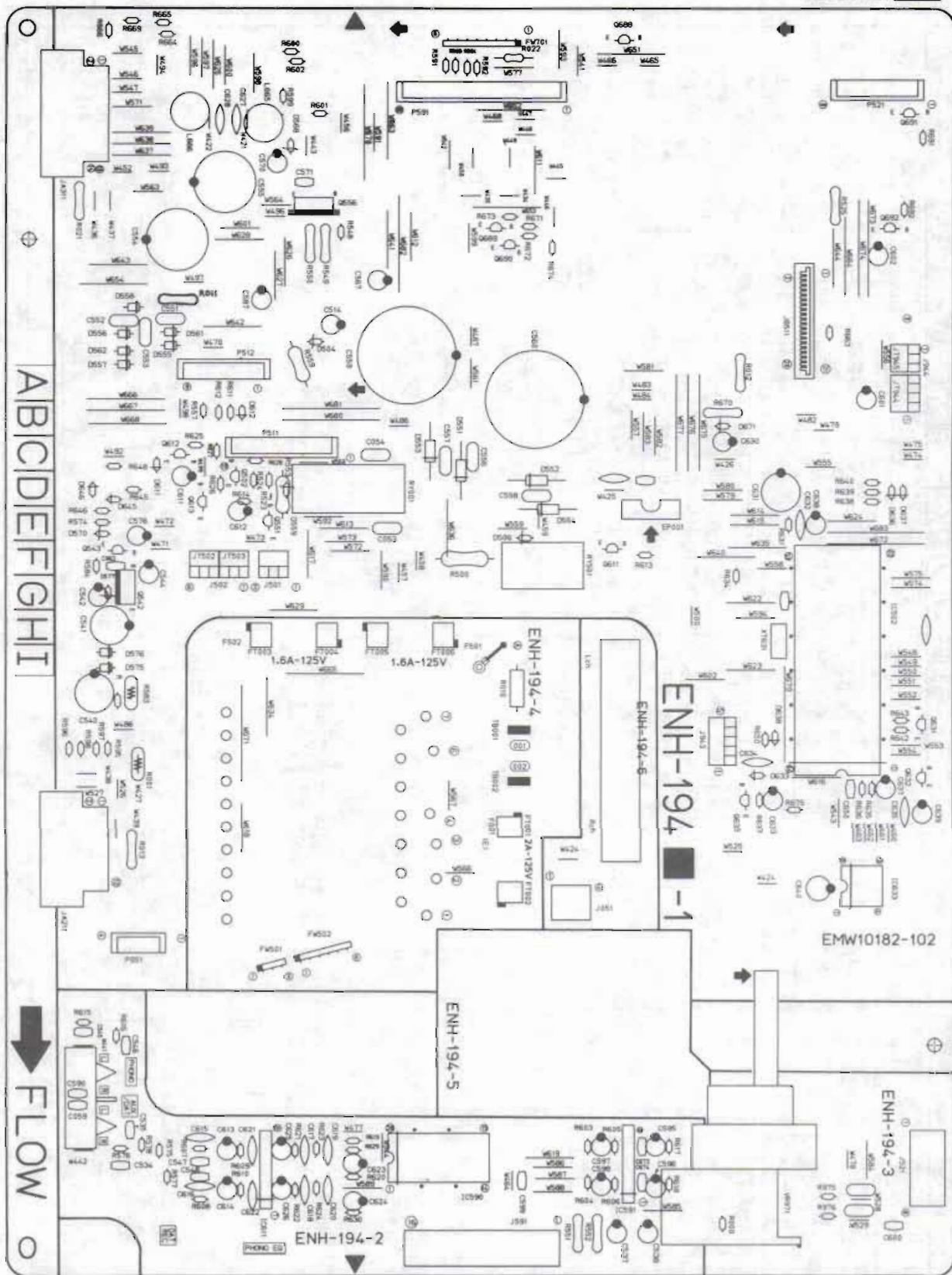
BLOCK NO. 01



■ ENH-194 □ System Control & Input Selector PC Board Ass'y (Only for the U.S.A. & Canada)

Note : ENH-194 □ varies according to the areas employed. See note (1) when placing an order.

BLOCK NO. 01



Note (1)

PC Board Ass'y	Designated Areas
ENH-194 A	the U.S.A.
ENH-194 B	Canada
ENH-194 C	Universal Type
ENH-194 D	Australia
ENH-194 E	Scandinavia Continental Europe Poland, Soviet Union and Rumania
ENH-194 F BS	the U.K.
ENH-194 G	Germany, Italy

Transistors

BLOCK NO. **01**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q502	2SC1740S(R,S)	SILICON ROHM	
	Q542	2SB1357(E,F)	SILICON ROHM	
	Q543	2SC945A(P,Q)	SILICON NEC	
	Q551	2SC1740S(R,S)	SILICON ROHM	
	Q556	2SD1944(J,K)	SILICON ROHM	
	Q611	2SC1740S(R,S)	SILICON ROHM	
	Q612	2SA933S(R,S)	SILICON ROHM	
	Q613	2SC1740S(R,S)	SILICON ROHM	
	Q631	DTC114YS	SILICON ROHM	
	Q632	DTC114YS	SILICON ROHM	
	Q633	DTC114WS	SILICON SOOI	
	Q688	DTA144ES	SILICON ROHM	
	Q689	2SD2144S(VW)	SILICON ROHM	
	Q690	2SD2144S(VW)	SILICON ROHM	

Δ : SAFETY PARTS

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC502	UPD75104CW-269	I.C. NEC	
	IC581	BA15218N	I.C. ROHM	C
	IC590	TC9163N	I.C. TOSHIBA	
	IC591	BA15218N	I.C. ROHM	
	IC611	VC4580LD	I.C. DAINICHI	
	IC633	LB1639-CV	I.C. SANYO	

Δ : SAFETY PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D504	MTZ12JC	ZENER ROHM	
	D506	MTZ24JC	ZENER ROHM	
	D551	ERB12-02RKL1	SILICON KYOUDOU	
	D552	ERB12-02RKL1	SILICON KYOUDOU	
	D553	ERB12-02RKL1	SILICON KYOUDOU	
	D554	ERB12-02RKL1	SILICON KYOUDOU	
Δ	D555	ERA15-02L19	SILICON KYOUDOU	
Δ	D556	ERA15-02L19	SILICON KYOUDOU	
Δ	D557	ERA15-02L19	SILICON KYOUDOU	
Δ	D558	ERA15-02L19	SILICON KYOUDOU	
	D559	MTZ12JC	ZENER ROHM	
Δ	D561	ERA15-02L19	SILICON KYOUDOU	
Δ	D562	ERA15-02L19	SILICON KYOUDOU	
	D568	MTZ5.6JC	ZENER ROHM	
	D570	MTZ10JC	ZENER ROHM	
	D575	1SR139-200	SILICON ROHM	
	D576	1SR139-200	SILICON ROHM	
	D577	MTZ30JC	ZENER ROHM	
	D611	1SS133	SILICON ROHM	
	D612	1SS133	SILICON ROHM	
	D633	1SS133	SILICON ROHM	
	D636	1SS133	SILICON ROHM	
	D637	1SS133	SILICON ROHM	
	D638	1SS133	SILICON ROHM	
	D645	1SS133	SILICON ROHM	
	D646	1SS133	SILICON ROHM	
	D671	MTZ5.1JB	ZENER ROHM	

Δ : SAFETY PARTS

Capacitors

BLOCK NO. **01**

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C051	QCBB1HK-331	330PF 50V CERAMIC	G
	C052	QCBB1HK-331	330PF 50V CERAMIC	G
	C053	QFLB1HJ-104	0.1MF 50V MYLAR	
	C054	QFLB1HJ-104	0.1MF 50V MYLAR	
	C059	QCVB1CM-103	0.01MF 16V CERAMIC	
	C063	QCGB1HK-102	1000PF 50V CERAMIC	
	C077	QFLB1HJ-103	0.01MF 50V MYLAR	G
	C078	QFLB1HJ-103	0.01MF 50V MYLAR	G
	C514	QETB1HM-226	22MF 50V ELECTRO	
	C534	QCBB1HK-221	220PF 50V CERAMIC	G
	C535	QCBB1HK-221	220PF 50V CERAMIC	G
	C537	QETB1CM-226	22MF 16V ELECTRO	
	C538	QETB1CM-226	22MF 16V ELECTRO	
	C540	QETB1JM-227	220MF 63V ELECTRO	
	C541	QETB1JM-227	220MF 63V ELECTRO	
	C542	QETB1HM-226	22MF 50V ELECTRO	
	C544	QETB1HM-226	22MF 50V ELECTRO	
	C545	QCBB1HK-331	330PF 50V CERAMIC	E
	C545	QCBB1HK-331	330PF 50V CERAMIC	FBS
	C545	QCBB1HK-331	330PF 50V CERAMIC	G
	C546	QCBB1HK-331	330PF 50V CERAMIC	E
	C546	QCBB1HK-331	330PF 50V CERAMIC	FBS
	C546	QCBB1HK-331	330PF 50V CERAMIC	G
	C547	QCVB1CM-103	0.01MF 16V CERAMIC	G
	C548	QCVB1CM-103	0.01MF 16V CERAMIC	G
	C551	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C551	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C551	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C551	QFV82AJ-104	0.1MF 100V T.FILM	D
	C551	QFV82AJ-104	0.1MF 100V T.FILM	E
	C551	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C551	QFV82AJ-104	0.1MF 100V T.FILM	G
	C552	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C552	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C552	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C552	QFV82AJ-104	0.1MF 100V T.FILM	D
	C552	QFV82AJ-104	0.1MF 100V T.FILM	E
	C552	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C552	QFV82AJ-104	0.1MF 100V T.FILM	G
	C553	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C553	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C553	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C553	QFV82AJ-104	0.1MF 100V T.FILM	D
	C553	QFV82AJ-104	0.1MF 100V T.FILM	E
	C553	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C553	QFV82AJ-104	0.1MF 100V T.FILM	G
	C554	QETB1VM-228N	2200MF 35V ELECTRO	
	C555	QETB1EM-338	3300MF 25V ELECTRO	
	C556	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C556	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C556	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C556	QFV82AJ-104	0.1MF 100V T.FILM	D
	C556	QFV82AJ-104	0.1MF 100V T.FILM	E
	C556	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C556	QFV82AJ-104	0.1MF 100V T.FILM	G
	C557	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C557	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C557	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C557	QFV82AJ-104	0.1MF 100V T.FILM	D
	C557	QFV82AJ-104	0.1MF 100V T.FILM	E
	C557	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C557	QFV82AJ-104	0.1MF 100V T.FILM	G
	C558	QFLB2AJ-103	0.01MF 100V MYLAR	A
	C558	QFLB2AJ-103	0.01MF 100V MYLAR	B
	C558	QFLB2AJ-103	0.01MF 100V MYLAR	C
	C558	QFV82AJ-104	0.1MF 100V T.FILM	D
	C558	QFV82AJ-104	0.1MF 100V T.FILM	E
	C558	QFV82AJ-104	0.1MF 100V T.FILM	FBS
	C558	QFV82AJ-104	0.1MF 100V T.FILM	G
	C559	EEW4207-688T	6800MF ELECTRO	
	C560	EEW4207-688T	6800MF ELECTRO	
	C567	QETB1EM-106	10MF 25V ELECTRO	
	C570	QETB1AM-227	220MF 10V ELECTRO	
	C571	QCVB1CM-103	0.01MF 16V CERAMIC	
	C576	QETB1HM-475	4.7MF 50V ELECTRO	
	C577	QCHB1EZ-223	0.022MF 25V CERAMIC	C
	C578	QCHB1EZ-223	0.022MF 25V CERAMIC	C
	C581	QEK51EM-475G	4.7MF 25V ELECTRO	C
	C582	QEK51EM-475G	4.7MF 25V ELECTRO	C
	C585	QCBB1HK-101	100PF 50V CERAMIC	C
	C586	QCBB1HK-101	100PF 50V CERAMIC	C
	C587	QETB1CM-476	47MF 16V ELECTRO	
	C590	QCVB1CM-103	0.01MF 16V CERAMIC	
	C595	EEZ5009-106	10MF ELECTRO	
	C596	EEZ5009-106	10MF ELECTRO	
	C597	QETB1HM-475	4.7MF 50V ELECTRO	
	C598	QETB1HM-475	4.7MF 50V ELECTRO	
	C599	QCBB1HK-561	560PF 50V CERAMIC	
	C600	QCVB1CM-103	0.01MF 16V CERAMIC	
	C601	QETB1EM-106	10MF 25V ELECTRO	

Δ : SAFETY PARTS

Capacitors

BLOCK NO. 01

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C602	QETB1EM-106	10MF	25V	ELECTRO	
	C611	QETB1CM-226	22MF	16V	ELECTRO	
	C612	QETB1CM-476	47MF	16V	ELECTRO	
	C613	QETB1HM-225	2.2MF	50V	ELECTRO	
	C614	QETB1HM-225	2.2MF	50V	ELECTRO	
	C615	QCS21HJ-101	100PF	50V	CERAMIC	A
	C615	QCS21HJ-101	100PF	50V	CERAMIC	B
	C615	QCS21HJ-101	100PF	50V	CERAMIC	C
	C615	QCS21HJ-221	220PF	50V	CERAMIC	D
	C615	QCS21HJ-221	220PF	50V	CERAMIC	E
	C615	QCS21HJ-221	220PF	50V	CERAMIC	FBS
	C615	QCS21HJ-221	220PF	50V	CERAMIC	G
	C616	QCS21HJ-101	100PF	50V	CERAMIC	A
	C616	QCS21HJ-101	100PF	50V	CERAMIC	B
	C616	QCS21HJ-101	100PF	50V	CERAMIC	C
	C616	QCS21HJ-221	220PF	50V	CERAMIC	D
	C616	QCS21HJ-221	220PF	50V	CERAMIC	E
	C616	QCS21HJ-221	220PF	50V	CERAMIC	FBS
	C616	QCS21HJ-221	220PF	50V	CERAMIC	G
	C617	QCY21HK-182	1800PF	50V	CERAMIC	
	C618	QCY21HK-182	1800PF	50V	CERAMIC	
	C619	QCY21HK-682	6800PF	50V	CERAMIC	
	C620	QCY21HK-682	6800PF	50V	CERAMIC	
	C621	QCS21HJ-101	100PF	50V	CERAMIC	
	C622	QCS21HJ-101	100PF	50V	CERAMIC	
	C623	QETB1HM-225	2.2MF	50V	ELECTRO	
	C624	QETB1HM-225	2.2MF	50V	ELECTRO	
	C625	QETB1EM-226	22MF	25V	ELECTRO	
	C626	QETB1EM-226	22MF	25V	ELECTRO	
	C630	QETB1CM-476	47MF	16V	ELECTRO	
	C631	QETB0JM-477	470MF	6.3V	ELECTRO	
	C632	QCF21HP-103	0.01MF	50V	CERAMIC	
	C633	QETB1EM-106	10MF	25V	ELECTRO	
	C634	QCF21HP-103	0.01MF	50V	CERAMIC	
	C635	QCF21HP-103	0.01MF	50V	CERAMIC	
	C637	QETB1CM-476	47MF	16V	ELECTRO	
	C638	QETB1CM-476	47MF	16V	ELECTRO	
	C639	QETB1HM-225	2.2MF	50V	ELECTRO	
	C640	QETB1AM-476	47MF	10V	ELECTRO	
	C650	QCBB1HK-471	470PF	50V	CERAMIC	
	C651	QEK51EM-475G	4.7MF	25V	ELECTRO	C
	C652	QEK51EM-475G	4.7MF	25V	ELECTRO	C
	C673	QCBB1HK-101	100PF	50V	CERAMIC	
	C674	QCBB1HK-101	100PF	50V	CERAMIC	

Δ SAFETY PARTS

Resistors

BLOCK NO. 01

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R550	QRZ0077-4R7	4.7	1/4W	FUSIBLE	G
	R551	QRD14CJ-100S	10	1/4W	UNF. CARBON	
	R552	QRD14CJ-100S	10	1/4W	UNF. CARBON	
	R553	QRG012J-221AM	220	1W	O.M. FILM	
	R557	QRD167J-222	2.2K	1/6W	CARBON	
	R559	QRG012J-222AM	2.2K	1W	O.M. FILM	
	R574	QRD167J-104	100K	1/6W	CARBON	
	R575	QRD167J-183	18K	1/6W	CARBON	
	R576	QRD167J-183	18K	1/6W	CARBON	
	R577	QRD167J-683	68K	1/6W	CARBON	
	R578	QRD167J-683	68K	1/6W	CARBON	
	R581	QRD167J-104	100K	1/6W	CARBON	C
	R582	QRD167J-104	100K	1/6W	CARBON	C
	R583	PTH61G25AR4R7M			FUSIBLE RESI	
	R584	QRD167J-562	5.6K	1/6W	CARBON	
	R585	QRD167J-332	3.3K	1/6W	CARBON	C
	R586	QRD167J-332	3.3K	1/6W	CARBON	C
	R595	QRD167J-222	2.2K	1/6W	CARBON	
	R596	QRD167J-222	2.2K	1/6W	CARBON	
	R597	QRD167J-103	10K	1/6W	CARBON	
	R598	QRD167J-103	10K	1/6W	CARBON	
	R599	QRD167J-152	1.5K	1/6W	CARBON	
	R600	QRD167J-152	1.5K	1/6W	CARBON	
	R601	QRD167J-103	10K	1/6W	CARBON	
	R602	QRD167J-103	10K	1/6W	CARBON	
	R603	QRD167J-104	100K	1/6W	CARBON	
	R604	QRD167J-104	100K	1/6W	CARBON	
	R605	QRD167J-104	100K	1/6W	CARBON	
	R606	QRD167J-104	100K	1/6W	CARBON	
	R607	QRD167J-272	2.7K	1/6W	CARBON	
	R608	QRD167J-272	2.7K	1/6W	CARBON	
	R609	QRD167J-104	100K	1/6W	CARBON	
	R610	QRD167J-104	100K	1/6W	CARBON	
	R611	QRD167J-103	10K	1/6W	CARBON	
	R612	QRD167J-222	2.2K	1/6W	CARBON	
	R613	QRD167J-152	1.5K	1/6W	CARBON	
	R614	QRD167J-104	100K	1/6W	CARBON	
	R615	QRD167J-104	100K	1/6W	CARBON	
	R616	QRD167J-104	100K	1/6W	CARBON	
	R617	QRD167J-104	100K	1/6W	CARBON	
	R618	QRD167J-104	100K	1/6W	CARBON	
	R619	QRD167J-751	750	1/6W	CARBON	
	R620	QRD167J-751	750	1/6W	CARBON	
	R621	QRD167J-393	39K	1/6W	CARBON	
	R622	QRD167J-393	39K	1/6W	CARBON	
	R623	QRD167J-474	470K	1/6W	CARBON	
	R624	QRD167J-474	470K	1/6W	CARBON	
	R625	QRD167J-104	100K	1/6W	CARBON	
	R626	QRD167J-103	10K	1/6W	CARBON	
	R627	QRD167J-103	10K	1/6W	CARBON	
	R628	QRD167J-473	47K	1/6W	CARBON	
	R629	QRD167J-104	100K	1/6W	CARBON	
	R630	QRD167J-104	100K	1/6W	CARBON	
	R631	QRD167J-471	470	1/6W	CARBON	
	R633	QRD167J-473	47K	1/6W	CARBON	
	R634	QRD167J-103	10K	1/6W	CARBON	
	R635	QRD167J-153	15K	1/6W	CARBON	
	R636	QRD167J-104	100K	1/6W	CARBON	
	R638	QRD167J-103	10K	1/6W	CARBON	
	R639	QRD167J-103	10K	1/6W	CARBON	
	R640	QRD167J-103	10K	1/6W	CARBON	
	R642	QRD167J-222	2.2K	1/6W	CARBON	
	R643	QRD167J-103	10K	1/6W	CARBON	
	R645	QRD167J-103	10K	1/6W	CARBON	
	R646	QRD167J-103	10K	1/6W	CARBON	
	R648	QRD167J-223	22K	1/6W	CARBON	
	R650	QRD167J-271	270	1/6W	CARBON	
	R653	QRD167J-104	100K	1/6W	CARBON	
	R654	QRD167J-104	100K	1/6W	CARBON	
	R663	QRD167J-271	270	1/6W	CARBON	
	R664	QRD167J-271	270	1/6W	CARBON	
	R665	QRD167J-271	270	1/6W	CARBON	
	R666	QRD167J-271	270	1/6W	CARBON	
	R669	QRD167J-271	270	1/6W	CARBON	
	R670	QRD14CJ-331S	330	1/4W	UNF. CARBON	
	R671	QRD167J-103	10K	1/6W	CARBON	
	R672	QRD167J-103	10K	1/6W	CARBON	
	R673	QRD167J-221	220	1/6W	CARBON	
	R674	QRD167J-221	220	1/6W	CARBON	
	R975	QRD167J-273	27K	1/6W	CARBON	
	R976	QRD167J-273	27K	1/6W	CARBON	
	VR971	QVDB91B-E15F	100K		VARIABLE	

Δ SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R	QRD167J-273	27K	1/6W	CARBON	
	R001	QRD14CJ-2R2S	2.2	1/4W	UNF. CARBON	
	R010	QRC128K-275EM	2.7M	1/2W	COMPOSI	A
	R010	QRC128K-275EM	2.7M	1/2W	COMPOSI	B
	R011	QRD14CJ-5R6S	5.6	1/4W	UNF. CARBON	A
	R011	QRD14CJ-2R7S	2.7	1/4W	UNF. CARBON	B
	R012	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	A
	R012	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	B
	R013	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	A
	R013	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	B
	R021	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	A
	R021	QRD14CJ-6R8S	6.8	1/4W	UNF. CARBON	B
	R022	QRD145J-6R8S	6.8	1/4W	UNF. CARBON	A
	R022	QRD145J-6R8S	6.8	1/4W	UNF. CARBON	B
	R071	QRD14CJ-100S	10	1/4W	UNF. CARBON	G
	R072	QRD14CJ-100S	10	1/4W	UNF. CARBON	G
	R500	QRG022J-331AM	330	2W	O.M. FILM	A
	R500	QRG022J-331AM	330	2W	O.M. FILM	B
	R500	QRG022J-331AM	330	2W	O.M. FILM	C
	R500	QRG022J-391AM	390	2W	O.M. FILM	D
	R500	QRG022J-391AM	390	2W	O.M. FILM	E
	R500	QRG022J-391AM	390	2W	O.M. FILM	FBS
	R500	QRG022J-391AM	390	2W	O.M. FILM	G
	R523	QRD167J-823	82K	1/6W	CARBON	
	R524	QRD167J-104	100K	1/6W	CARBON	
	R525	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	A
	R548	QRD167J-512	5.1K	1/6W	CARBON	
	R549	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	B
	R549	QRZ0077-4R7	4.7	1/4W	FUSIBLE	C
	R549	QRZ0077-4R7	4.7	1/4W	FUSIBLE	D
	R549	QRZ0077-4R7	4.7	1/4W	FUSIBLE	E
	R549	QRZ0077-4R7	4.7	1/4W	FUSIBLE	FBS
	R549	QRZ0077-4R7	4.7	1/4W	FUSIBLE	G
	R550	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	A
	R550	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	B
	R550	QRZ0077-4R7	4.7	1/4W	FUSIBLE	C
	R550	QRZ0077-4R7	4.7	1/4W	FUSIBLE	D
	R550	QRZ0077-4R7	4.7	1/4W	FUSIBLE	E
	R550	QRZ0077-4R7	4.7	1/4W	FUSIBLE	FBS

Δ SAFETY PARTS

Others

BLOCK NO 01

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10182-102	CIRCUIT BOARD	A
		EMW10182-102	CIRCUIT BOARD	B
		EMW10182-002	CIRCUIT BOARD	C
		EMW10182-002	CIRCUIT BOARD	D
		EMW10182-002	CIRCUIT BOARD	E
		EMW10182-002BS	CIRCUIT BOARD	FBS
		EMW10182-002	CIRCUIT BOARD	G
	J001	EMB90YV-401A	SPEAKER TERMINAL	
	J051	EMV7125-004R	CONNECTOR(4PIN)	
	J501	EMV7122-103	CONNECTOR(3PIN)	
	J521	EMV7125-008R	CONNECTOR(8PIN)	
	J561	EMN00TV-405A	4P PIN JACK(PHONO,AUX,DAT)	
	J591	EMV7125-016R	CONNECTOR(16PIN)	
	J943	EMV7122-005	CONNECTOR(5PIN)	
	K561	ENZ8101-008	INDUCTOR	G
	K562	ENZ8101-008	INDUCTOR	G
	K566	ENZ8101-007	INDUCTOR	G
	K568	ENZ8101-007	INDUCTOR	G
	K569	ENZ8101-007	INDUCTOR	G
	K570	ENZ8101-007	INDUCTOR	G
	K572	ENZ8101-007	INDUCTOR	G
	P051	EMV5125-004	PLUG ASSY(4PIN)	
	P511	EMV5125-010	PLUG ASSY(10PIN)	
	P512	EMV5125-008	PLUG ASSY(8PIN)	
	P521	EMV5125-008	PLUG ASSY(8PIN)	
	P591	EMV5125-016	PLUG ASSY(16PIN)	
Δ	S001	QSR0085-018	VOLTAGE SELECTOR	C
	EP001	E70859-001	EARTH PLATE	
	FT001	VMZ0087-001	FUSE CLIP	
	FT002	VMZ0087-001	FUSE CLIP	
	FT003	VMZ0087-001	FUSE CLIP	
	FT004	VMZ0087-001	FUSE CLIP	
	FT005	VMZ0087-001	FUSE CLIP	
	FT006	VMZ0087-001	FUSE CLIP	
	FT007	VMZ0087-001	FUSE CLIP	C
	FT008	VMZ0087-001	FUSE CLIP	C
	FW501	EWR338-10LST	FLAT WIRE(3PIN)	
	FW502	EWR368-10LST	FLAT WIRE(6PIN)	
	FW701	EWR388-16LST	FLAT WIRE(8PIN)	
	JA211	EMV7127-011	CONNECTOR(11PIN)	
	JA311	EMV7127-015	CONNECTOR(15PIN)	
	JB511	VMC0161-021	PIN CONNECTOR(21PIN)	
	JT502	EMV7122-103	CONNECTOR(3PIN)	
	JT503	EMV7122-103	CONNECTOR(3PIN)	
	JT944	EMV7122-004	CONNECTOR(4PIN)	
	JT945	EMV7122-103	CONNECTOR(3PIN)	A
	JT945	EMV7122-103	CONNECTOR(3PIN)	B
	JT945	EMV7122-005	CONNECTOR(3PIN)	C
	JT945	EMV7122-103	CONNECTOR(3PIN)	D
	JT945	EMV7122-103	CONNECTOR(3PIN)	E
	JT945	EMV7122-103	CONNECTOR(3PIN)	FBS
	JT945	EMV7122-103	CONNECTOR(3PIN)	G
	LB001	E67132-T2R0	FUSE LABEL	C
	RY001	ESK1D12-211M	RELAY(POWER SECONDARY)	
	RY501	ESK8D24-212	RELAY(SPEAKER)	
	TB001	EMZ4001-001	TAB	
	TB002	EMZ4001-001	TAB	
	TW001	EWTO11-090	TERMINAL WIRE	A
	TW001	EWTO11-090	TERMINAL WIRE	B
	XT631	ECX0004-194KM	RESONATOR	

Δ : SAFETY PARTS

Note (1)

PC Board Ass'y	Designated Areas
ENN-314 A	the U.S.A.
ENN-314 B	Australia, Scandinavia Continental Europe the U.K., Universal Type Poland, Soviet Union and Rumania
ENN-314 C	Germany, Italy
ENN-314 D	Canada

Transistors

BLOCK NO. **02**

Δ ITEM	PART NUMBER	DESCRIPTION	AREA
Q553	2SB1187(E,F)	SILICON ROHM	
Q554	2SA733A(P,Q)	SILICON NEC	
Q555	2SC1740S(R,S)	SILICON ROHM	
Q556	2SK301(Q,R)	F.E.T MATSUSHITA	
Q557	2SB1187(E,F)	SILICON ROHM	
Q558	2SA733A(P,Q)	SILICON NEC	
Q561	2SD2061(E,F)	SILICON ROHM	
Q563	DTA144ES	SILICON ROHM	
Q564	DTC144ES	SILICON ROHM	
Q565	DTC144ES	SILICON ROHM	
Q566	DTA144ES	SILICON ROHM	
Q567	2SD2061(E,F)	SILICON ROHM	
Q583	2SC945A(P,Q)	SILICON NEC	
Q703	2SA934(Q,R)	SILICON ROHM	
Q711	2SC535(B,C)	SILICON HITACHI	
Q712	2SC1740S(R,S)	SILICON ROHM	
Q713	2SA933S(R,S)	SILICON ROHM	
Q721	2SD2144S(VW)	SILICON ROHM	
Q731	2SD2144S(VW)	SILICON ROHM	
Q732	2SA933S(R,S)	SILICON ROHM	
Q733	2SC2060(Q,R)	SILICON ROHM	
Q734	2SB1357(E,F)	SILICON ROHM	
Q735	DTA144WS	SILICON ROHM	
Q761	2SD2144S(VW)	SILICON ROHM	
Q801	2SD2037(E,F)	SILICON ROHM	
Q802	2SB1357(E,F)	SILICON ROHM	
Q803	2SD2144S(VW)	SILICON ROHM	
Q804	2SD2144S(VW)	SILICON ROHM	
Q805	2SD2144S(VW)	SILICON ROHM	
Q841	2SD2144S(VW)	SILICON ROHM	
Q861	2SA933S(R,S)	SILICON ROHM	
Q862	2SC1740S(R,S)	SILICON ROHM	
Q863	2SC1740S(R,S)	SILICON ROHM	
Q871	2SD2144S(VW)	SILICON ROHM	
Q872	2SD2144S(VW)	SILICON ROHM	
Q873	DTA144ES	SILICON ROHM	

Δ : SAFETY PARTS

I.C.s

Δ ITEM	PART NUMBER	DESCRIPTION	AREA
IC501	STK4141MK5	I.C., SANYO	
IC761	STA341M(A)	I.C., SANKEN	
IC762	M5218AL	I.C., MITSUBISHI	
IC781	M5218AL	I.C., MITSUBISHI	
IC801	NJM072S	I.C., DAINICHI	
IC802	BA10339	I.C., ROHM	
IC803	M5218AL	I.C., MITSUBISHI	
IC841	YM7121B	I.C., YAMAHA	
IC871	M5218AL	I.C., MITSUBISHI	
IC872	M5218AL	I.C., MITSUBISHI	
IC873	JCE4501	I.C., MATSUSHITA	

Δ : SAFETY PARTS

Diodes

BLOCK NO. **02**

Δ ITEM	PART NUMBER	DESCRIPTION	AREA
D501	1SS133	SILICON ROHM	
D502	1SS133	SILICON ROHM	
D561	MTZ6.2JC	ZENER ROHM	
D564	1SS133	SILICON ROHM	
D565	MTZ13JC	ZENER ROHM	
D566	1SS133	SILICON ROHM	
D567	MTZ13JC	ZENER ROHM	
D569	MTZ13JC	ZENER ROHM	
D578	1SS133	SILICON ROHM	
D585	MTZ11JC	ZENER ROHM	
D791	1SS133	SILICON ROHM	

Δ : SAFETY PARTS

Capacitors

Δ ITEM	PART NUMBER	DESCRIPTION	AREA
C501	EEZ5009-106	10MF ELECTRO	
C502	EEZ5009-106	10MF ELECTRO	
C503	QCBB1HK-221	220PF 50V CERAMIC	
C504	QCBB1HK-221	220PF 50V CERAMIC	
C505	QCBB1HK-101	100PF 50V CERAMIC	
C506	QCBB1HK-101	100PF 50V CERAMIC	
C507	QETB1EM-107	100MF 25V ELECTRO	
C508	QETB1EM-107	100MF 25V ELECTRO	
C509	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C510	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C511	QETB1HM-226	22MF 50V ELECTRO	
C512	QETB1HM-226	22MF 50V ELECTRO	
C513	QETB1HM-476	47MF 50V ELECTRO	
C515	QFLB1HJ-104	0.1MF 50V MYLAR	
C516	QFLB1HJ-104	0.1MF 50V MYLAR	
C525	QFLB1HJ-104	0.1MF 50V MYLAR	B
C525	QFLB1HJ-104	0.1MF 50V MYLAR	C
C525	QFLB1HJ-104	0.1MF 50V MYLAR	D
C526	QFLB1HJ-104	0.1MF 50V MYLAR	B
C526	QFLB1HJ-104	0.1MF 50V MYLAR	C
C526	QFLB1HJ-104	0.1MF 50V MYLAR	D
C561	QETB1AM-476	47MF 10V ELECTRO	
C562	QCVB1CM-103	0.01MF 16V CERAMIC	
C564	QCVB1CM-103	0.01MF 16V CERAMIC	
C569	QETB1CM-226	22MF 16V ELECTRO	
C574	QCVB1CM-103	0.01MF 16V CERAMIC	
C575	QETB1CM-226	22MF 16V ELECTRO	
C576	QETB1CM-226	22MF 16V ELECTRO	
C587	QETB1CM-226	22MF 16V ELECTRO	
C589	QCVB1CM-103	0.01MF 16V CERAMIC	
C590	QCBB1HK-101	100PF 50V CERAMIC	B
C590	QCBB1HK-101	100PF 50V CERAMIC	C
C701	QETB1CM-108	1000MF 16V ELECTRO	
C702	QETB1CM-108	1000MF 16V ELECTRO	
C703	QETB1CM-227	220MF 16V ELECTRO	
C704	QETB1CM-227	220MF 16V ELECTRO	
C707	QETBOJM-227	220MF 6.3V ELECTRO	
C709	QCF21HP-223	0.022MF 50V CERAMIC	
C711	QFLB1HJ-472	4700PF 50V MYLAR	
C712	QFLB1HJ-472	4700PF 50V MYLAR	
C713	QCHB1EZ-223	0.022MF 25V CERAMIC	
C714	QCSB1HK-3R9	3.9PF 50V CERAMIC	
C715	QCBB1HK-471	470PF 50V CERAMIC	
C716	QETB1EM-106	10MF 25V ELECTRO	
C717	QETB1CM-476	47MF 16V ELECTRO	
C718	QCBB1HK-101	100PF 50V CERAMIC	
C719	QFLB1HJ-183	0.018MF 50V MYLAR	
C721	QCSB1HJ-470	47PF 50V CERAMIC	
C723	QCZO20Z-155	1.5MF 25V CERAMIC	
C724	QFLB1HJ-563	0.056MF 50V MYLAR	
C725	QFVB1HJ-564	0.56MF 50V T.FILM	
C726	QETB1EM-106	10MF 25V ELECTRO	
C731	QFLB1HJ-185	0.018MF 50V MYLAR	
C732	QCBB1HK-271	270PF 50V CERAMIC	
C733	QFLB1HJ-393	0.039MF 50V MYLAR	
C734	QETB1EM-226	22MF 25V ELECTRO	
C735	QFLB1HJ-104	0.1MF 50V MYLAR	
C736	QFVB1HJ-224	0.22MF 50V T.FILM	
C761	QENS1HM-225	2.2MF 50V NON POLE	
C762	QETB1EM-226	22MF 25V ELECTRO	
C763	QETBOJM-227	220MF 6.3V ELECTRO	
C764	QCHB1EZ-223	0.022MF 25V CERAMIC	
C765	QCHB1EZ-223	0.022MF 25V CERAMIC	
C781	QFLB1HJ-272	2700PF 50V MYLAR	
C782	QCBB1HK-101	100PF 50V CERAMIC	
C783	QENS1HM-225	2.2MF 50V NON POLE	
C784	QCHB1EZ-223	0.022MF 25V CERAMIC	
C785	QCHB1EZ-223	0.022MF 25V CERAMIC	
C791	QETB1HM-475	4.7MF 50V ELECTRO	
C801	QCT26CH-151	150PF 50V CERAMIC	
C802	QCT26CH-121	120PF 50V CERAMIC	
C803	QFLB1HJ-223	0.022MF 50V MYLAR	
C805	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C806	QENS1HM-225	2.2MF 50V NON POLE	
C807	QFLB1HJ-563	0.056MF 50V MYLAR	

Δ : SAFETY PARTS

Capacitors

BLOCK NO. 02

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C808	QETB1CM-476	47MF	16V	ELECTRO	
	C809	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C810	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C811	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C812	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C813	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C815	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C816	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C841	QETB1AM-107	100MF	10V	ELECTRO	
	C842	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C843	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C844	QETB1EM-106	10MF	25V	ELECTRO	
	C845	QCBBIHK-101	100PF	50V	CERAMIC	
	C846	QFV81HJ-105	1MF	50V	T. FILM	
	C847	QFLB1HJ-182	1800PF	50V	MYLAR	
	C848	QFV81HJ-224	0.22MF	50V	T. FILM	
	C849	QETB1EM-106	10MF	25V	ELECTRO	
	C850	QETBOJM-227	220MF	6.3V	ELECTRO	
	C851	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C852	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C855	QFLB1HJ-473	0.047MF	50V	MYLAR	
	C861	QCBBIHK-101	100PF	50V	CERAMIC	
	C862	QETB1CM-107	100MF	16V	ELECTRO	
	C863	QFLB1HJ-473	0.047MF	50V	MYLAR	
	C864	QETB1EM-106	10MF	25V	ELECTRO	
	C865	QETB1HM-105	1MF	50V	ELECTRO	
	C872	QCZO202-155	1.5MF	25V	CERAMIC	
	C873	QCT30CH-120	12PF	50V	CERAMIC	
	C874	QCT30CH-3R9	3.9PF	50V	CERAMIC	
	C876	QCY21HK-392	3900PF	50V	CERAMIC	
	C878	QCS21HJ-5R0	5PF	50V	CERAMIC	
	C880	EEZ2505-107	100MF		ELECTRO	
	C881	QETBOJM-477	470MF	6.3V	ELECTRO	
	C883	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C884	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C885	QFLB1HJ-104	0.1MF	50V	MYLAR	
	C887	QCS21HJ-221	220PF	50V	CERAMIC	
	C888	QCS21HJ-221	220PF	50V	CERAMIC	
	C889	QCS21HJ-221	220PF	50V	CERAMIC	
	C890	QCS21HJ-221	220PF	50V	CERAMIC	
	C891	QCS21HJ-221	220PF	50V	CERAMIC	
	C892	QCS21HJ-221	220PF	50V	CERAMIC	
	C893	QCF21HP-223	0.022MF	50V	CERAMIC	
	C894	QCF21HP-223	0.022MF	50V	CERAMIC	
	C895	QFLB1HJ-182	1800PF	50V	MYLAR	
	C896	QFLB1HJ-182	1800PF	50V	MYLAR	
	C897	QFLB1HJ-103	0.01MF	50V	MYLAR	
	C898	QFLB1HJ-103	0.01MF	50V	MYLAR	
	C899	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C900	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C901	QETB1HM-106	10MF	50V	ELECTRO	
	C902	QETB1HM-106	10MF	50V	ELECTRO	
	C903	QFLB1HJ-562	5600PF	50V	MYLAR	
	C904	QFLB1HJ-562	5600PF	50V	MYLAR	
	C905	QFLB1HJ-683	0.068MF	50V	MYLAR	
	C906	QFLB1HJ-683	0.068MF	50V	MYLAR	
	C907	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C915	QETB1AM-107	100MF	10V	ELECTRO	
	C921	QCZO202-155	1.5MF	25V	CERAMIC	
	C922	QCZO202-155	1.5MF	25V	CERAMIC	C

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R501	QRD167J-102	1K	1/6W	CARBON	
	R502	QRD167J-102	1K	1/6W	CARBON	
	R503	QRD167J-104	100K	1/6W	CARBON	
	R504	QRD167J-104	100K	1/6W	CARBON	
	R505	ERD141J-102S	1K	1/4W	CARBON	
	R506	ERD141J-102S	1K	1/4W	CARBON	
	R507	QRD167J-122	1.2K	1/6W	CARBON	
	R508	QRD167J-122	1.2K	1/6W	CARBON	
	R509	QRD167J-104	100K	1/6W	CARBON	
	R510	QRD167J-104	100K	1/6W	CARBON	
	R511	QRD167J-122	1.2K	1/6W	CARBON	
	R512	QRD167J-122	1.2K	1/6W	CARBON	
	R513	QRD167J-122	1.2K	1/6W	CARBON	
	R514	QRD167J-122	1.2K	1/6W	CARBON	
	R515	QRX012J-R22AM	0.22	1W	M. FILM	
	R516	QRX012J-R22AM	0.22	1W	M. FILM	
	R517	QRD14CJ-101S	100	1/4W	UNF. CARBON	A
	R517	QRZ0077-101	100	1/4W	FUSIBLE	B
	R517	QRZ0077-101	100	1/4W	FUSIBLE	C
	R517	QRD14CJ-101S	100	1/4W	UNF. CARBON	D
	R518	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R518	QRZ0077-100	10	1/4W	FUSIBLE	B
	R518	QRZ0077-100	10	1/4W	FUSIBLE	C
	R518	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R519	QRD14CJ-100S	10	1/4W	UNF. CARBON	A

Δ : SAFETY PARTS

Resistors

BLOCK NO. 02

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R519	QRZ0077-100	10	1/4W	FUSIBLE	B
	R519	QRZ0077-100	10	1/4W	FUSIBLE	C
	R519	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R520	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R520	QRZ0077-100	10	1/4W	FUSIBLE	B
	R520	QRZ0077-100	10	1/4W	FUSIBLE	C
	R520	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R521	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R521	QRZ0077-100	10	1/4W	FUSIBLE	B
	R521	QRZ0077-100	10	1/4W	FUSIBLE	C
	R521	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R522	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R522	QRZ0077-100	10	1/4W	FUSIBLE	B
	R522	QRZ0077-100	10	1/4W	FUSIBLE	C
	R522	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R530	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R530	QRZ0077-100	10	1/4W	FUSIBLE	B
	R530	QRZ0077-100	10	1/4W	FUSIBLE	C
	R530	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R533	QRD167J-122	1.2K	1/6W	CARBON	
	R534	QRD167J-122	1.2K	1/6W	CARBON	
	R535	QRD167J-122	1.2K	1/6W	CARBON	
	R536	QRD167J-122	1.2K	1/6W	CARBON	
	R541	QRD14CJ-100S	10	1/4W	UNF. CARBON	A
	R541	QRZ0077-100	10	1/4W	FUSIBLE	B
	R541	QRZ0077-100	10	1/4W	FUSIBLE	C
	R541	QRD14CJ-100S	10	1/4W	UNF. CARBON	D
	R545	QRD167J-222	2.2K	1/6W	CARBON	
	R546	QRD167J-222	2.2K	1/6W	CARBON	
	R551	QRD167J-104	100K	1/6W	CARBON	
	R552	QRD167J-104	100K	1/6W	CARBON	
	R556	QRD167J-332	3.3K	1/6W	CARBON	
	R558	QRD167J-272	2.7K	1/6W	CARBON	
	R559	QRD167J-272	2.7K	1/6W	CARBON	
	R560	QRD167J-472	4.7K	1/6W	CARBON	
	R562	QRD167J-332	3.3K	1/6W	CARBON	
	R564	QRD167J-472	4.7K	1/6W	CARBON	
	R565	QRD167J-472	4.7K	1/6W	CARBON	
	R581	QRD167J-332	3.3K	1/6W	CARBON	
	R701	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	
	R702	QRD14CJ-4R7S	4.7	1/4W	UNF. CARBON	
	R703	QRZ0077-100	10	1/4W	FUSIBLE	
	R704	QRZ0077-100	10	1/4W	FUSIBLE	
	R705	QRD167J-472	4.7K	1/6W	CARBON	
	R706	QRD167J-681	680	1/6W	CARBON	
	R708	QRD167J-472	4.7K	1/6W	CARBON	
	R711	QRD167J-183	18K	1/6W	CARBON	
	R712	QRD167J-432	4.3K	1/6W	CARBON	
	R713	QRD167J-391	390	1/6W	CARBON	
	R714	QRD167J-221	220	1/6W	CARBON	
	R715	QRD167J-152	1.5K	1/6W	CARBON	
	R716	QRD167J-561	560	1/6W	CARBON	
	R717	QRD167J-561	560	1/6W	CARBON	
	R718	QRD167J-562	5.6K	1/6W	CARBON	
	R719	QRD167J-152	1.5K	1/6W	CARBON	
	R720	QRD167J-271	270	1/6W	CARBON	
	R721	QRD167J-471	470	1/6W	CARBON	
	R722	QRD167J-682	6.8K	1/6W	CARBON	
	R723	QRD167J-103	10K	1/6W	CARBON	
	R726	QRD167J-102	1K	1/6W	CARBON	
	R727	QRD167J-183	18K	1/6W	CARBON	
	R731	QRD167J-104	100K	1/6W	CARBON	
	R732	QRD167J-104	100K	1/6W	CARBON	
	R733	QRD167J-394	390K	1/6W	CARBON	
	R734	QRD167J-394	390K	1/6W	CARBON	
	R735	QRD167J-121	120	1/6W	CARBON	
	R736	QRD167J-182	1.8K	1/6W	CARBON	
	R737	QRD167J-681	680	1/6W	CARBON	
	R738	QRD167J-473	47K	1/6W	CARBON	
	R739	QRD167J-331	330	1/6W	CARBON	
	R740	QRD167J-333	33K	1/6W	CARBON	
	R741	QRD167J-273	27K	1/6W	CARBON	
	R742	QRD167J-394	390K	1/6W	CARBON	
	R743	QRD167J-105	1M	1/6W	CARBON	
	R744	QRD167J-470	47	1/6W	CARBON	
	R745	QRD167J-473	47K	1/6W	CARBON	
	R746	QRD167J-272	2.7K	1/6W	CARBON	
	R747	QRD167J-682	6.8K	1/6W	CARBON	
	R748	QRD167J-104	100K	1/6W	CARBON	
	R749	QRD167J-562	5.6K	1/6W	CARBON	
	R750	QRD167J-105	1M	1/6W	CARBON	
	R751	QRD167J-105	1M	1/6W	CARBON	
	R752	QRD167J-104	100K	1/6W	CARBON	
	R753	QRD167J-562	5.6K	1/6W	CARBON	
	R754	QRD167J-104	100K	1/6W	CARBON	
	R755	QRD167J-103	10K	1/6W	CARBON	
	R756	QRD167J-470	47	1/6W	CARBON	
	R757	QRD167J-183	18K	1/6W	CARBON	
	R758	QRD167J-183	18K	1/6W	CARBON	
	R759	QRD167J-222	2.2K	1/6W	CARBON	

Δ : SAFETY PARTS

Resistors

BLOCK NO. 02

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R761	QRD167J-564	560K	1/6W	CARBON	
	R762	QRD167J-224	220K	1/6W	CARBON	
	R763	QRD167J-393	39K	1/6W	CARBON	
	R764	QRD167J-224	220K	1/6W	CARBON	
	R765	QRD167J-562	5.6K	1/6W	CARBON	
	R766	QRD167J-392	3.9K	1/6W	CARBON	
	R768	QRD167J-103	10K	1/6W	CARBON	
	R769	QRD167J-102	1K	1/6W	CARBON	
	R770	QRD167J-471	470	1/6W	CARBON	
	R771	QRD167J-683	68K	1/6W	CARBON	
	R772	QRD167J-183	18K	1/6W	CARBON	
	R773	QRD167J-183	18K	1/6W	CARBON	
	R774	QRD167J-470	47	1/6W	CARBON	
	R775	QRD167J-335	3.3M	1/6W	CARBON	
	R776	QRD167J-472	4.7K	1/6W	CARBON	
	R777	QRD167J-472	4.7K	1/6W	CARBON	
	R778	QRD167J-472	4.7K	1/6W	CARBON	
	R781	QRD167J-684	680K	1/6W	CARBON	
	R782	QRD167J-684	680K	1/6W	CARBON	
	R783	QRD167J-823	82K	1/6W	CARBON	
	R784	QRD167J-470	47	1/6W	CARBON	
	R785	QRD167J-683	68K	1/6W	CARBON	
	R786	QRD167J-123	12K	1/6W	CARBON	
	R787	QRD167J-152	1.5K	1/6W	CARBON	
	R788	QRD167J-2R2	2.2	1/6W	CARBON	
	R790	QRD167J-684	680K	1/6W	CARBON	
	R791	QRD167J-513	51K	1/6W	CARBON	
	R792	QRD167J-513	51K	1/6W	CARBON	
	R793	QRD167J-683	68K	1/6W	CARBON	
	R794	QRD167J-683	68K	1/6W	CARBON	
	R795	QRD167J-221	220	1/6W	CARBON	
Δ	R798	PTH61G30B02R2M	2.2		FUSIBLE	
Δ	R799	PTH61G30B02R2M	2.2		FUSIBLE	
	R801	QRD167J-563	56K	1/6W	CARBON	
	R802	QRD167J-563	56K	1/6W	CARBON	
	R803	QRD167J-394	390K	1/6W	CARBON	
	R804	QRD167J-681	680	1/6W	CARBON	
	R805	QVPA601-202A	2K		VARIABLE	
	R806	QRD167J-561	560	1/6W	CARBON	
	R807	QRD167J-334	330K	1/6W	CARBON	
	R808	QRD167J-222	2.2K	1/6W	CARBON	
	R809	QVPA601-154A	150K		VARIABLE	
	R810	QRD167J-223	22K	1/6W	CARBON	
	R811	QRD167J-682	6.8K	1/6W	CARBON	
	R812	QRD167J-103	10K	1/6W	CARBON	
	R813	QRD167J-562	5.6K	1/6W	CARBON	
	R814	QRD167J-562	5.6K	1/6W	CARBON	
	R815	QRD167J-562	5.6K	1/6W	CARBON	
	R816	QRD167J-562	5.6K	1/6W	CARBON	
	R817	QRD167J-183	18K	1/6W	CARBON	
	R819	QRD167J-103	10K	1/6W	CARBON	
	R820	QRD167J-224	220K	1/6W	CARBON	
	R821	QRD167J-103	10K	1/6W	CARBON	
	R823	QRD167J-434	430K	1/6W	CARBON	
	R824	QRD167J-474	470K	1/6W	CARBON	
	R825	QRD167J-103	10K	1/6W	CARBON	
	R826	QRD167J-184	180K	1/6W	CARBON	
	R827	QRD167J-104	100K	1/6W	CARBON	
	R828	QRD167J-104	100K	1/6W	CARBON	
	R829	QRD167J-681	680	1/6W	CARBON	
	R830	QRD167J-183	18K	1/6W	CARBON	
	R832	QRD167J-102	1K	1/6W	CARBON	
	R833	QRD167J-562	5.6K	1/6W	CARBON	
	R837	QRD167J-470	47	1/6W	CARBON	
	R838	QRD167J-562	5.6K	1/6W	CARBON	
	R839	QRD167J-183	18K	1/6W	CARBON	
	R841	QRD167J-182	1.8K	1/6W	CARBON	
	R842	QRD167J-221	220	1/6W	CARBON	
	R843	QRD167J-184	180K	1/6W	CARBON	
	R844	QRD167J-393	39K	1/6W	CARBON	
	R845	QVPA601-104A	100K		VARIABLE	
	R846	QRD167J-224	220K	1/6W	CARBON	
	R847	QRD167J-182	1.8K	1/6W	CARBON	
	R848	QRD167J-122	1.2K	1/6W	CARBON	
	R849	QRD167J-822	8.2K	1/6W	CARBON	
	R850	QRD167J-822	8.2K	1/6W	CARBON	
	R851	QRD167J-821	820	1/6W	CARBON	
	R852	QRD167J-182	1.8K	1/6W	CARBON	
	R853	QRD167J-101	100	1/6W	CARBON	
	R855	QRD167J-682	6.8K	1/6W	CARBON	
	R856	QRD167J-682	6.8K	1/6W	CARBON	
	R857	QRD167J-102	1K	1/6W	CARBON	
	R859	QRD167J-102	1K	1/6W	CARBON	
	R860	QRD167J-102	1K	1/6W	CARBON	
	R861	QRD167J-103	10K	1/6W	CARBON	
	R862	QRD167J-272	2.7K	1/6W	CARBON	
	R863	QRD167J-102	1K	1/6W	CARBON	
	R864	QRD167J-271	270	1/6W	CARBON	
	R865	QRD167J-103	10K	1/6W	CARBON	
	R866	QRD167J-562	5.6K	1/6W	CARBON	

Δ : SAFETY PARTS

Resistors

BLOCK NO. 02

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	R867	QRD167J-472	4.7K	1/6W	CARBON	
	R868	QRD167J-822	8.2K	1/6W	CARBON	
	R869	QRD167J-103	10K	1/6W	CARBON	
	R870	QRD167J-132	1.3K	1/6W	CARBON	
	R871	QRD167J-561	560	1/6W	CARBON	
	R872	QRD167J-561	560	1/6W	CARBON	
	R873	QRD167J-561	560	1/6W	CARBON	
	R874	QRD167J-561	560	1/6W	CARBON	
	R875	QRD167J-472	4.7K	1/6W	CARBON	
	R876	QRD167J-390	39	1/6W	CARBON	
	R877	QRD167J-181	180	1/6W	CARBON	
	R878	QRD167J-101	100	1/6W	CARBON	
	R879	QRD167J-183	18K	1/6W	CARBON	
	R880	QRD167J-183	18K	1/6W	CARBON	
	R881	QRD167J-183	18K	1/6W	CARBON	
	R882	QRD167J-183	18K	1/6W	CARBON	
	R883	QRD167J-183	18K	1/6W	CARBON	
	R884	QRD167J-183	18K	1/6W	CARBON	
	R885	QRD167J-183	18K	1/6W	CARBON	
	R886	QRD167J-183	18K	1/6W	CARBON	
	R887	QRD167J-243	24K	1/6W	CARBON	
	R888	QRD167J-243	24K	1/6W	CARBON	
	R889	QRD167J-243	24K	1/6W	CARBON	
	R890	QRD167J-243	24K	1/6W	CARBON	
	R891	QRD167J-183	18K	1/6W	CARBON	
	R892	QRD167J-183	18K	1/6W	CARBON	
	R893	QRD167J-183	18K	1/6W	CARBON	
	R894	QRD167J-183	18K	1/6W	CARBON	
	R895	QRD167J-511	510	1/6W	CARBON	
	R896	QRD167J-511	510	1/6W	CARBON	
	R897	QRD167J-112	1.1K	1/6W	CARBON	
	R898	QRD167J-112	1.1K	1/6W	CARBON	
	R899	QRD167J-472	4.7K	1/6W	CARBON	
	R900	QRD167J-472	4.7K	1/6W	CARBON	
	R901	QRD167J-273	27K	1/6W	CARBON	
	R902	QRD167J-273	27K	1/6W	CARBON	
	R903	QRD167J-331	330	1/6W	CARBON	
	R904	QRD167J-331	330	1/6W	CARBON	
	R921	QRD167J-681	680	1/6W	CARBON	
	R922	QRD167J-681	680	1/6W	CARBON	
	R923	QRD167J-241	240	1/6W	CARBON	
	R924	QRD167J-241	240	1/6W	CARBON	
	R925	QRD167J-104	100K	1/6W	CARBON	
	R926	QRD167J-104	100K	1/6W	CARBON	
	R927	QRD167J-392	3.9K	1/6W	CARBON	
	R928	QRD167J-392	3.9K	1/6W	CARBON	
	R929	QRD167J-684	680K	1/6W	CARBON	
	R930	QRD167J-154	150K	1/6W	CARBON	

Δ : SAFETY PARTS

Others

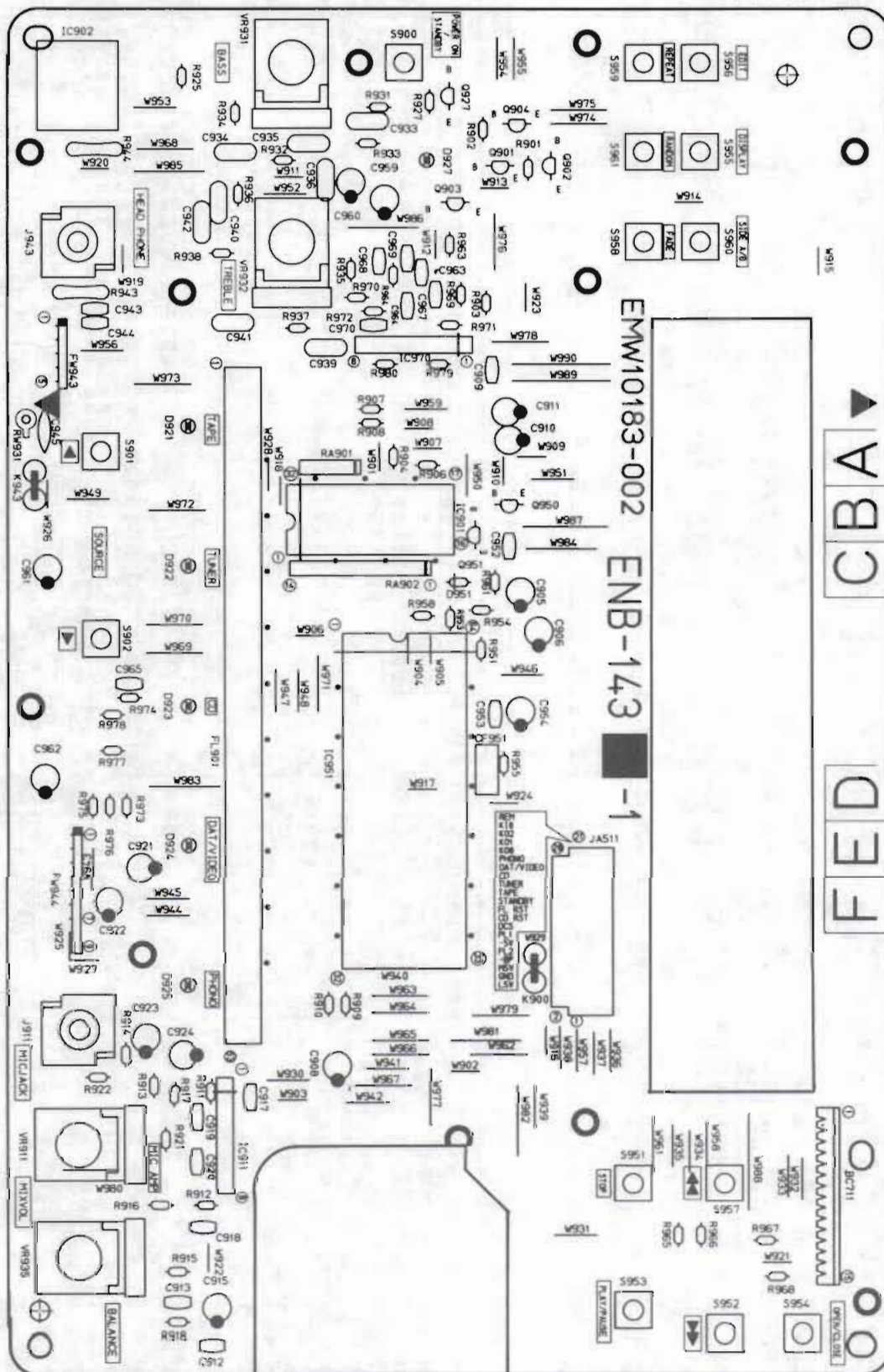
Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
		EMW10199-002	CIRCUIT BOARD			
	J511	EMV7125-010R	CONNECTOR(10PIN)			
	J512	EMV7125-008R	CONNECTOR(8PIN)			
	L501	EQL0001-R4F	INDUCTOR			
	L502	EQL0001-R4F	INDUCTOR			
	P711	EMV5109-015A	PLUG ASSY(15PIN)			
	P993	VMC0161-013	MALE CONNECTOR(To CD Mecha.)			
	P994	EMV5109-010A	PLUG ASSY(10PIN)			
	X841	ECX0169-344KL	RESONATOR			
	CP701	ICP-N5	I.C. PROTECTOR			
	JT701	EMV7122-004	CONNECTOR(4PIN)			
	JT702	EMV7122-004	CONNECTOR(4PIN)			

Δ : SAFETY PARTS

■ENB-143 □ Front PC Board Ass'y

Note : ENB-143 □ varies according to the areas employed. See note (1) when placing an order.

BLOCK NO. **03**



Note (1)

PC Board Ass'y	Designated Areas
ENB-143 A	the U.S.A. , Canada
ENB-143 B	Australia , Scandinavia Continental Europe Poland , Soviet Union and Rumania
ENB-143 C	Germany , Italy
ENB-143 D	the U.K.
ENB-143 E	Universal Type

Transistors

BLOCK NO. **03**

ITEM	PART NUMBER	DESCRIPTION	AREA
Q901	2SA933S(R,S)	SILICON ROHM	
Q902	DTA114YS	SILICON ROHM	
Q903	2SC1740S(R,S)	SILICON ROHM	
Q904	DTC114ES	SILICON ROHM	
Q927	DTA114WS	SILICON ROHM	
Q950	DTC114YS	SILICON ROHM	
Q951	DTA114YS	SILICON ROHM	

Δ : SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC901	XR1094CP	I.C. EXAR JAPAN	
IC902	SPS-420-1	I.C. SANYO	
IC911	BA15218N	I.C. ROHM	E
IC951	HD404019RB76S	I.C. HITACHI	
IC970	BA15218N	I.C. ROHM	

Δ : SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D921	SLR-34VC3F	L.E.D. ROHM	
D922	SLR-34VC3F	L.E.D. ROHM	
D923	SLR-34VC3F	L.E.D. ROHM	
D924	SLR-34VC3F	L.E.D. ROHM	
D925	SLR-34VC3F	L.E.D. ROHM	
D927	SLR-34VC3F	L.E.D. ROHM	
D951	1SS133	SILICON ROHM	

Δ : SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C905	QEK51HM-226	22MF 50V ELECTRO	
C906	QEK60JM-476	47MF 6.3V ELECTRO	
C908	QEK51HM-106	10MF 50V ELECTRO	
C909	QCXB1CM-152	1500PF 16V CERAMIC	
C910	QEK51HM-225G	2.2MF 50V ELECTRO	
C911	QEK51HM-106	10MF 50V ELECTRO	
C912	QCB1HK-102	1000PF 50V CERAMIC	E
C913	QCB1HK-102	1000PF 50V CERAMIC	E
C915	QEK51HM-105G	1MF 50V ELECTRO	E
C917	QCB1HK-101	100PF 50V CERAMIC	E
C918	QCB1HK-101	100PF 50V CERAMIC	E
C919	QCB1HK-101	100PF 50V CERAMIC	E
C920	QCB1HK-101	100PF 50V CERAMIC	E
C921	QEK51HM-105G	1MF 50V ELECTRO	
C922	QEK51HM-105G	1MF 50V ELECTRO	
C923	QEK51HM-475	4.7MF 50V ELECTRO	E
C924	QEK51HM-475	4.7MF 50V ELECTRO	E
C933	QFLB1HJ-183	0.018MF 50V MYLAR	
C934	QFLB1HJ-183	0.018MF 50V MYLAR	
C935	QFVB1HJ-823	0.082MF 50V T.FILM	
C936	QFVB1HJ-823	0.082MF 50V T.FILM	
C939	QFLB1HJ-272	2700PF 50V MYLAR	
C940	QFLB1HJ-272	2700PF 50V MYLAR	
C941	QFLB1HJ-183	0.018MF 50V MYLAR	
C942	QFLB1HJ-183	0.018MF 50V MYLAR	
C943	QCB1HK-471	470PF 50V CERAMIC	B
C943	QCB1HK-471	470PF 50V CERAMIC	C
C943	QCB1HK-471	470PF 50V CERAMIC	D
C944	QCB1HK-471	470PF 50V CERAMIC	B
C944	QCB1HK-471	470PF 50V CERAMIC	C

Δ : SAFETY PARTS

Capacitors

BLOCK NO. **03**

ITEM	PART NUMBER	DESCRIPTION	AREA
C944	QCB1HK-471	470PF 50V CERAMIC	D
C945	QCS21HJ-220	22PF 50V CERAMIC	A
C945	QCS21HJ-220	22PF 50V CERAMIC	C
C952	QCVB1CM-103	0.01MF 16V CERAMIC	
C953	QCHB1EZ-223	0.022MF 25V CERAMIC	
C954	QEK51CM-107	100MF 16V ELECTRO	
C959	QEK51HM-475	4.7MF 50V ELECTRO	
C960	QEK51HM-475	4.7MF 50V ELECTRO	
C961	QEK51HM-475	4.7MF 50V ELECTRO	
C962	QEK51HM-475	4.7MF 50V ELECTRO	
C963	QCB1HK-101	100PF 50V CERAMIC	
C964	QCB1HK-101	100PF 50V CERAMIC	
C965	QCXB1CM-222	2200PF 16V CERAMIC	
C967	QFLB1HJ-821	820PF 50V MYLAR	
C968	QFLB1HJ-821	820PF 50V MYLAR	
C969	QCSB1HK-4R7	4.7PF 50V CERAMIC	
C970	QCSB1HK-4R7	4.7PF 50V CERAMIC	

Δ : SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R901	QRD167J-103	10K 1/6W CARBON	
R902	QRD167J-103	10K 1/6W CARBON	
R903	QRD167J-104	100K 1/6W CARBON	
R904	QRD167J-102	1K 1/6W CARBON	
R906	QRD167J-105	1M 1/6W CARBON	
R907	QRD167J-4R7	4.7 1/6W CARBON	
R908	QRD167J-4R7	4.7 1/6W CARBON	
R911	QRD167J-104	100K 1/6W CARBON	E
R912	QRD167J-104	100K 1/6W CARBON	E
R913	QRD167J-102	1K 1/6W CARBON	E
R914	QRD167J-102	1K 1/6W CARBON	E
R915	QRD167J-103	10K 1/6W CARBON	E
R916	QRD167J-621	620 1/6W CARBON	E
R917	QRD167J-621	620 1/6W CARBON	E
R918	QRD167J-103	10K 1/6W CARBON	E
R921	QRD167J-104	100K 1/6W CARBON	E
R922	QRD167J-104	100K 1/6W CARBON	E
R925	QRD167J-271	270 1/6W CARBON	
R927	QRD167J-151	150 1/6W CARBON	
R931	QRD167J-163	16K 1/6W CARBON	
R932	QRD167J-163	16K 1/6W CARBON	
R933	QRD167J-362	3.6K 1/6W CARBON	
R934	QRD167J-362	3.6K 1/6W CARBON	
R935	QRD167J-222	2.2K 1/6W CARBON	
R936	QRD167J-222	2.2K 1/6W CARBON	
R937	QRD167J-301	300 1/6W CARBON	
R938	QRD167J-301	300 1/6W CARBON	
R943	QRD12CJ-331S	330 1/2W R.NETWORK	
R944	QRD12CJ-331S	330 1/2W R.NETWORK	
R951	QRD167J-103	10K 1/6W CARBON	
R953	QRD167J-103	10K 1/6W CARBON	
R954	QRD167J-103	10K 1/6W CARBON	
R955	QRD167J-105	1M 1/6W CARBON	
R958	QRD167J-103	10K 1/6W CARBON	
R961	QRD167J-271	270 1/6W CARBON	
R963	QRD167J-222	2.2K 1/6W CARBON	
R964	QRD167J-222	2.2K 1/6W CARBON	
R965	QRD167J-223	22K 1/6W CARBON	
R966	QRD167J-223	22K 1/6W CARBON	
R967	QRD167J-223	22K 1/6W CARBON	
R968	QRD167J-223	22K 1/6W CARBON	
R969	QRD167J-223	22K 1/6W CARBON	
R970	QRD167J-223	22K 1/6W CARBON	
R971	QRD167J-104	100K 1/6W CARBON	
R972	QRD167J-104	100K 1/6W CARBON	
R974	QRD167J-472	4.7K 1/6W CARBON	
R975	QRD167J-392	3.9K 1/6W CARBON	
R976	QRD167J-392	3.9K 1/6W CARBON	
R977	QRD167J-183	18K 1/6W CARBON	
R978	QRD167J-183	18K 1/6W CARBON	
R979	QRD167J-822	8.2K 1/6W CARBON	
R980	QRD167J-822	8.2K 1/6W CARBON	
RA901	QRB059J-104	100K 1/10W R.NETWORK	
RA902	QRB139J-104	100K 1/10W R.NETWORK	
VR911	QVJB84B-E54B	50K VARIABLE	E
VR931	QVJB84C-E15B	100K VARIABLE	
VR932	QVJB84C-E15B	100K VARIABLE	
VR935	QVJB84W-E15B	100K VARIABLE	

Δ : SAFETY PARTS

Others

BLOCK NO. 03

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10183-002	CIRCUIT BOARD	
	J911	QMS3R10-E40S	MINI JACK(MICROPHONE)	E
	J943	QMS3R10-E40S	MINI JACK(HEADPHONE)	
	K900	ENZ8101-008	INDUCTOR	C
	K943	ENZ8101-008	INDUCTOR	C
	S900	ESP0001-023M	TACT SWITCH(SOURCE→)	
	S901	ESP0001-023M	TACT SWITCH(SOURCE←)	
	S902	ESP0001-023M	TACT SWITCH(POEWR)	
	S951	ESP0001-023M	TACT SWITCH(STOP/CLEAR)	
	S952	ESP0001-023M	TACT SWITCH(FORWARD SKIP)	
	S953	ESP0001-023M	TACT SWITCH(PLAY/PAUSE)	
	S954	ESP0001-023M	TACT SWITCH(OPEN/CLOSE)	
	S955	ESP0001-023M	TACT SWITCH(DISPLAY)	
	S956	ESP0001-023M	TACT SWITCH(A.EDIT)	
	S957	ESP0001-023M	TACT SWITCH(BACKWARD SKIP)	
	S958	ESP0001-023M	TACT SWITCH(FADE)	
	S959	ESP0001-023M	TACT SWITCH(REPEAT)	
	S960	ESP0001-023M	TACT SWITCH(SIDE A/B)	
	S961	ESP0001-023M	TACT SWITCH(RANDOM)	
	BC711	EWS26F-G416J2	SOCKET WIRE(15PIN)	
	BK901	E307913-001	FL HOLDER	
	BK902	E307913-002	FL HOLDER	
	CF951	ECX0004-194KM	RESONATOR	
	FL901	ELU0001-131	FL TUBE	
	FS901	E3400-444	FELT SPACER	
	FW943	EWR35B-13LST	FLAT WIRE(5PIN)	
	FW944	EWR37B-13LST	FLAT WIRE(9PIN)	A
	FW944	EWR37B-13LST	FLAT WIRE(9PIN)	B
	FW944	EWR37B-13LST	FLAT WIRE(9PIN)	C
	FW944	EWR37B-13LST	FLAT WIRE(9PIN)	D
	FW944	EWR39B-13LST	FLAT WIRE(9PIN)	E
	JA511	VMC0161-R21	PIN CONNECTOR(21PIN)	
	RW931	EWT011-104	TERMINAL WIRE	A
	RW931	EWT011-104	TERMINAL WIRE	C

△ : SAFETY PARTS

— MEMO —

— MEMO —

Schematic Diagrams

A B C D E F G H I J K L M N O P Q R S

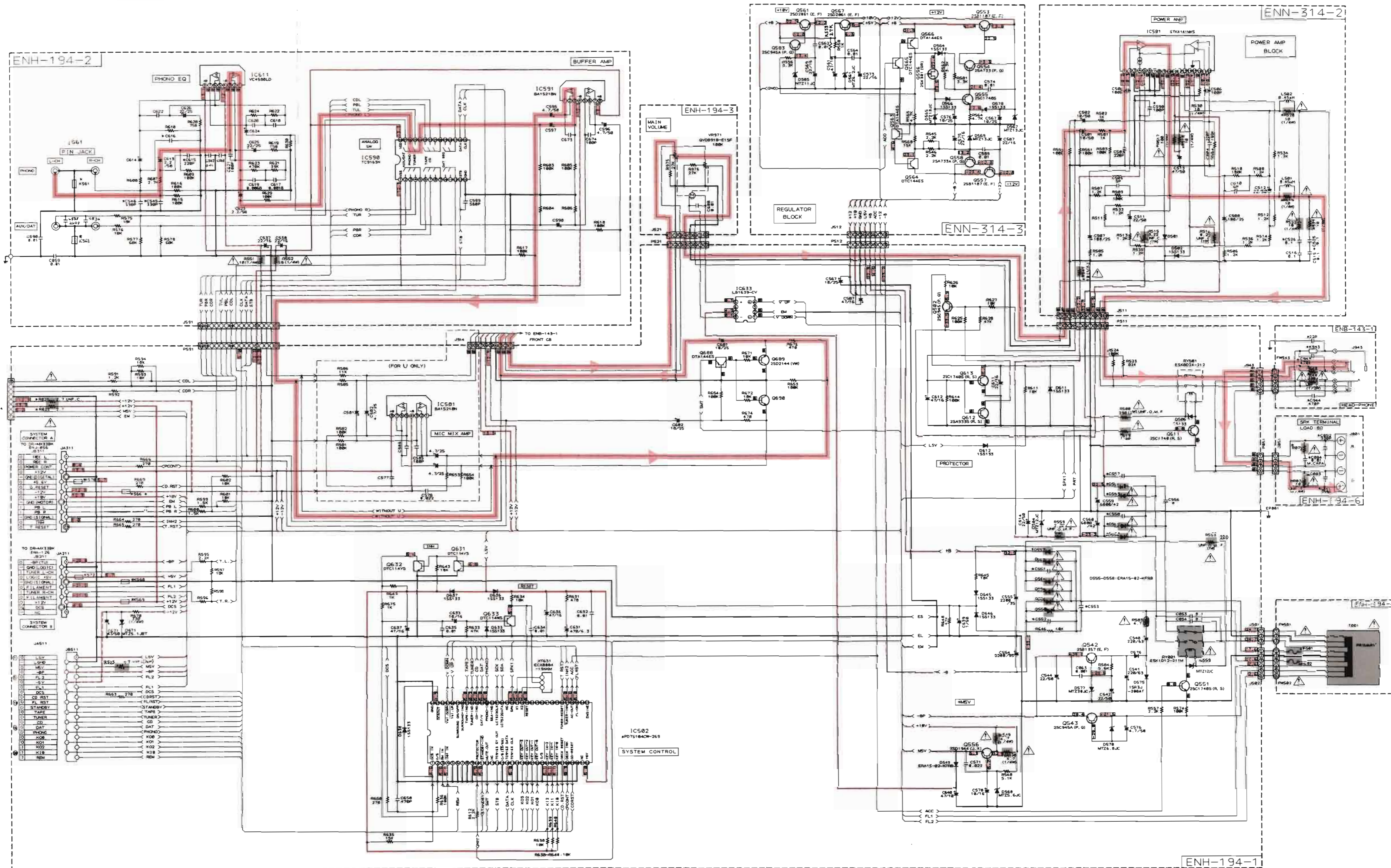
(1) Input Selector, System Control, Power Supply and Power Amplifier Section

SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
FS01, FS02	1.6A-125V	1.6A-125V	T1.25A	T1.25A	T1.25A
CS51, CS52	NONE	NONE	NONE	NONE	USED
RS71, RS72	NONE	NONE	NONE	NONE	USED
CS63, CS64	NONE	NONE	NONE	NONE	USED
CS77, CS78	NONE	NONE	NONE	NONE	USED
CS37, CS38	NONE	NONE	NONE	NONE	USED
KS39	SHORT	SHORT	NONE	NONE	USED
RS30, RS17, RS41	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.

SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
RS18	UNF. C.	UNF. F.	UNF. F.	UNF. F.	UNF. F.
CS90	NONE	NONE	NONE	NONE	USED
CS56, CS57, CS58	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
CS51, CS52, CS53	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
RS21, RS22	USED	USED	SHORT	SHORT	SHORT
RS56	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.
CS45, CS46	NONE	NONE	NONE	USED	USED

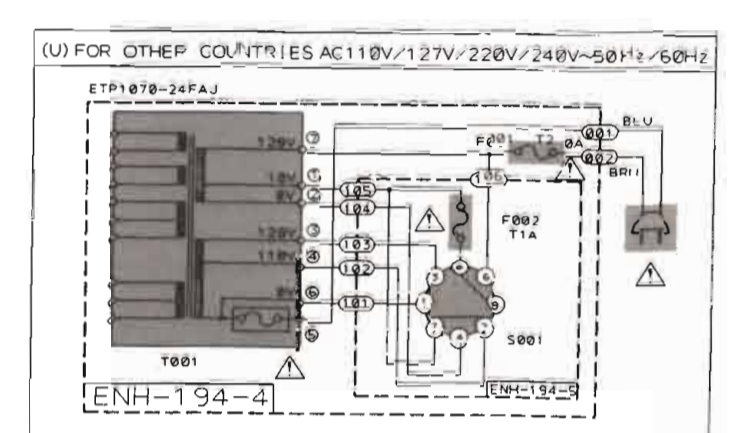
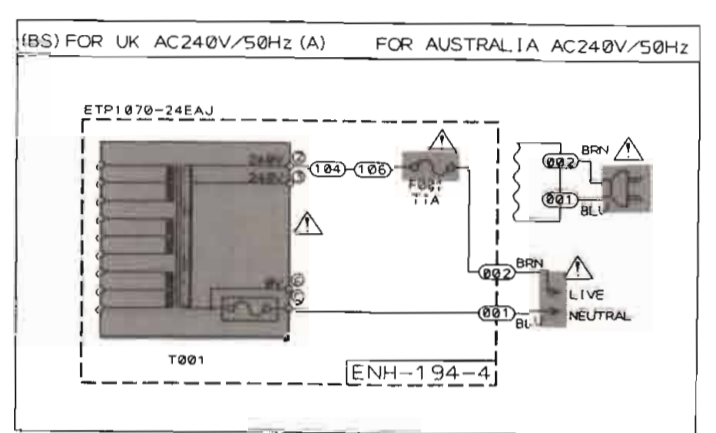
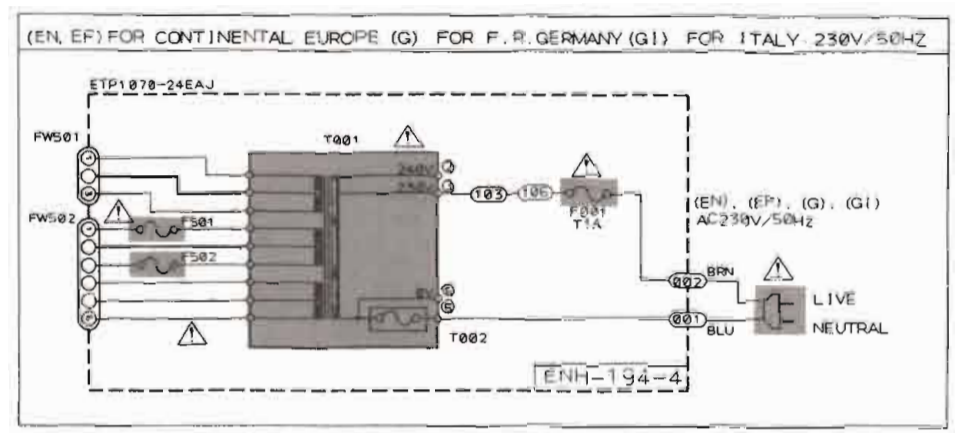
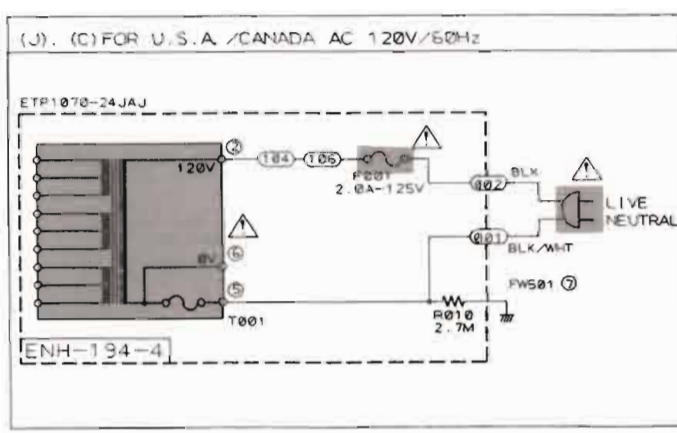
SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
CS15, CS16	100P	100P	100P	220P	220P
KS51	SHORT	SHORT	SHORT	SHORT	USED
CS56, CS57, CS58	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
CS51, CS52, CS53	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
RS21, RS22	USED	USED	SHORT	SHORT	SHORT
RS56	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.
CS45, CS46	NONE	NONE	NONE	USED	USED
KS56	SHORT	SHORT	SHORT	SHORT	USED
KS57	SHORT	SHORT	SHORT	SHORT	USED
KS58	SHORT	SHORT	SHORT	SHORT	USED
KS59	SHORT	SHORT	SHORT	SHORT	USED

SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
DS51-DS54	ERB12	ERB12	ERB12	ERB12	ERB12
RS49	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.
CS45, CS46	NONE	NONE	NONE	NONE	USED
RS19, RS20	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.
RS21, RS22	UNF. C.	UNF. C.	UNF. F.	UNF. F.	UNF. F.



A B C D E F G H I J K L M N O P Q R S

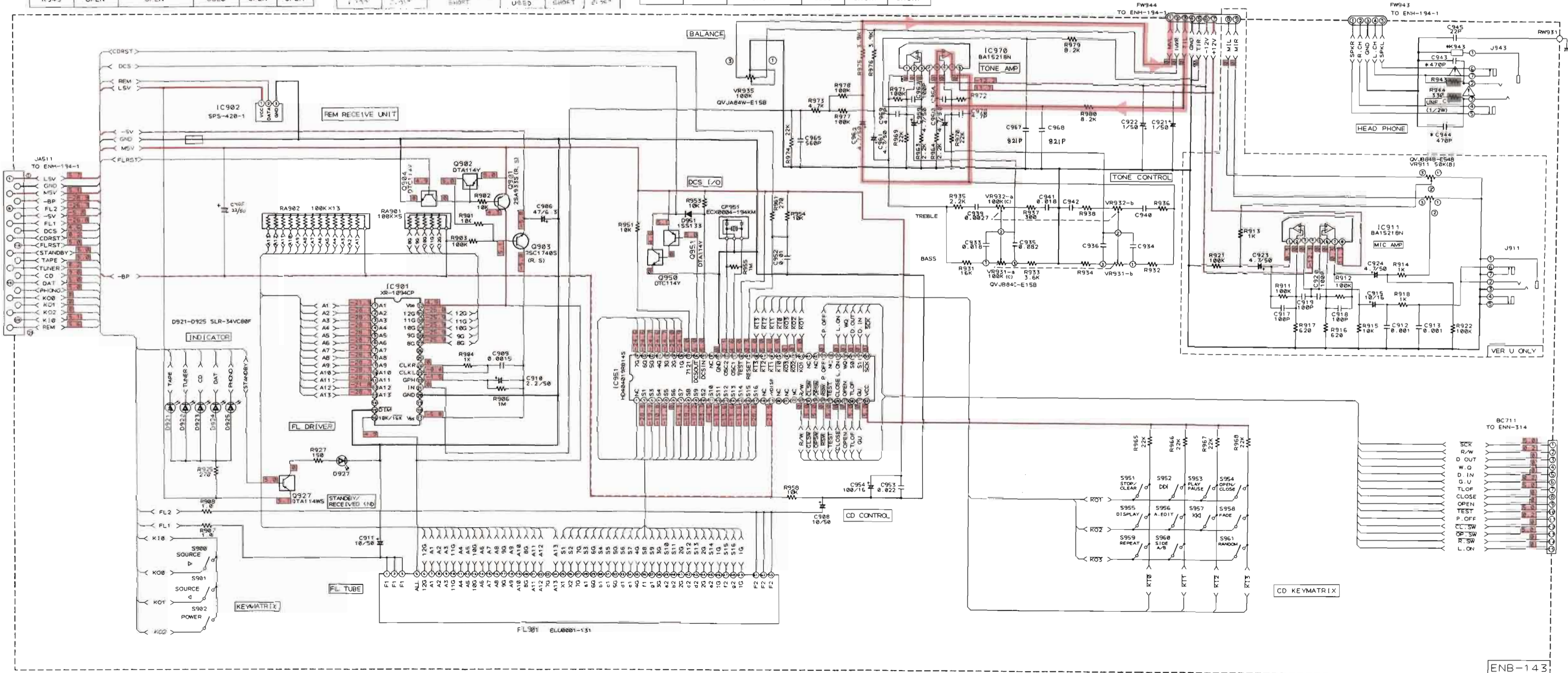
(2) Power Primary and Front Section



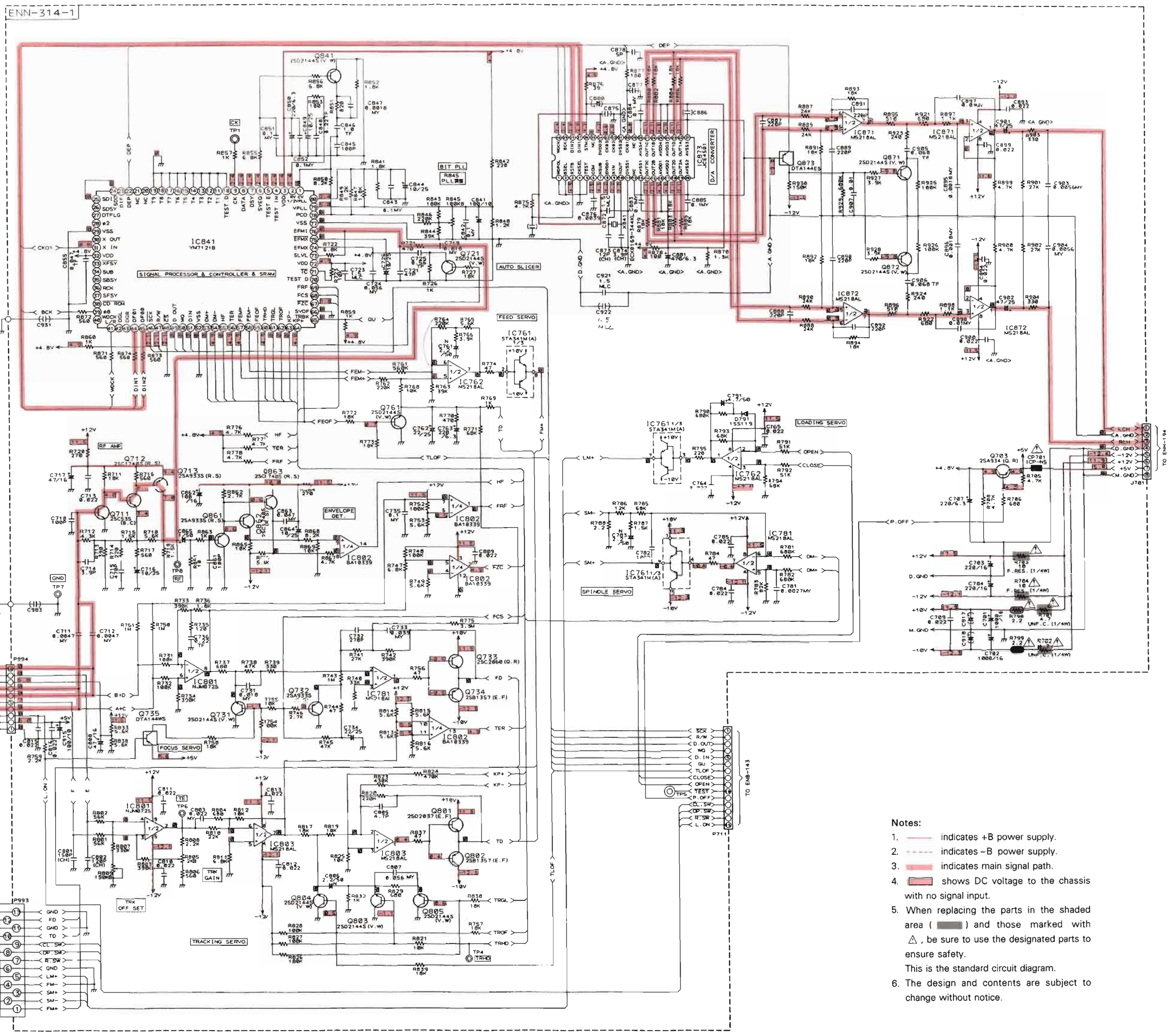
	J, C	A, EN, EF, V, VX	G, GI	BS	U
ENB-143	A	B	C	D	E
K943	OPEN	OPEN	USED	OPEN	OPEN

*LIST	J, C	A, EN, EF, V, VX	G, GI	BS	U
C943, 944	OPEN	OPEN	USED	OPEN	OPEN
K943	OPEN	OPEN	USED	OPEN	OPEN

SYMBOL	J, C	A, EN, EF, V, VX	G, GI	BS	U
C945	SHORT	SHORT	USED	SHORT	SHORT
RW931	SHORT	SHORT	USED	SHORT	SHORT

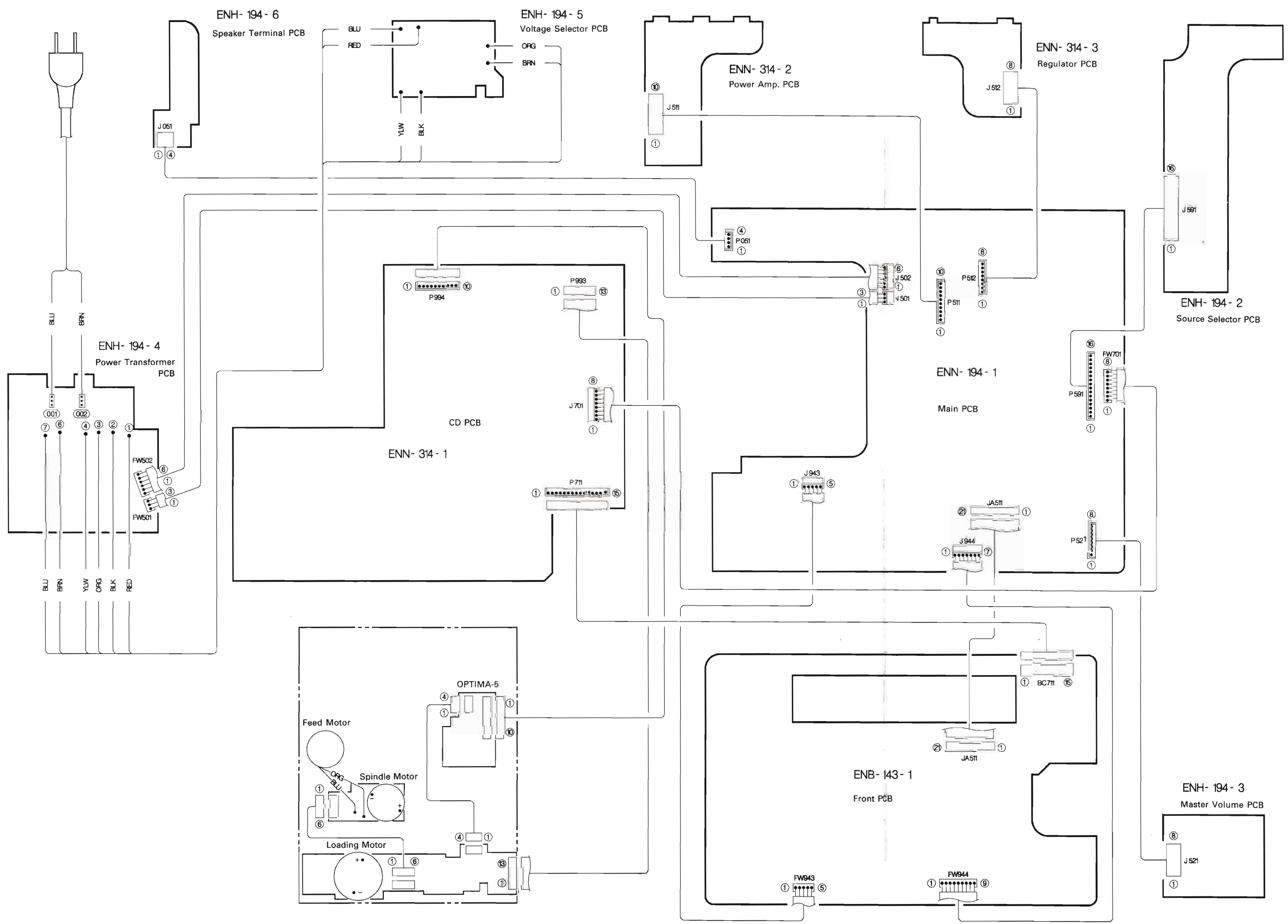


(3) CD Section



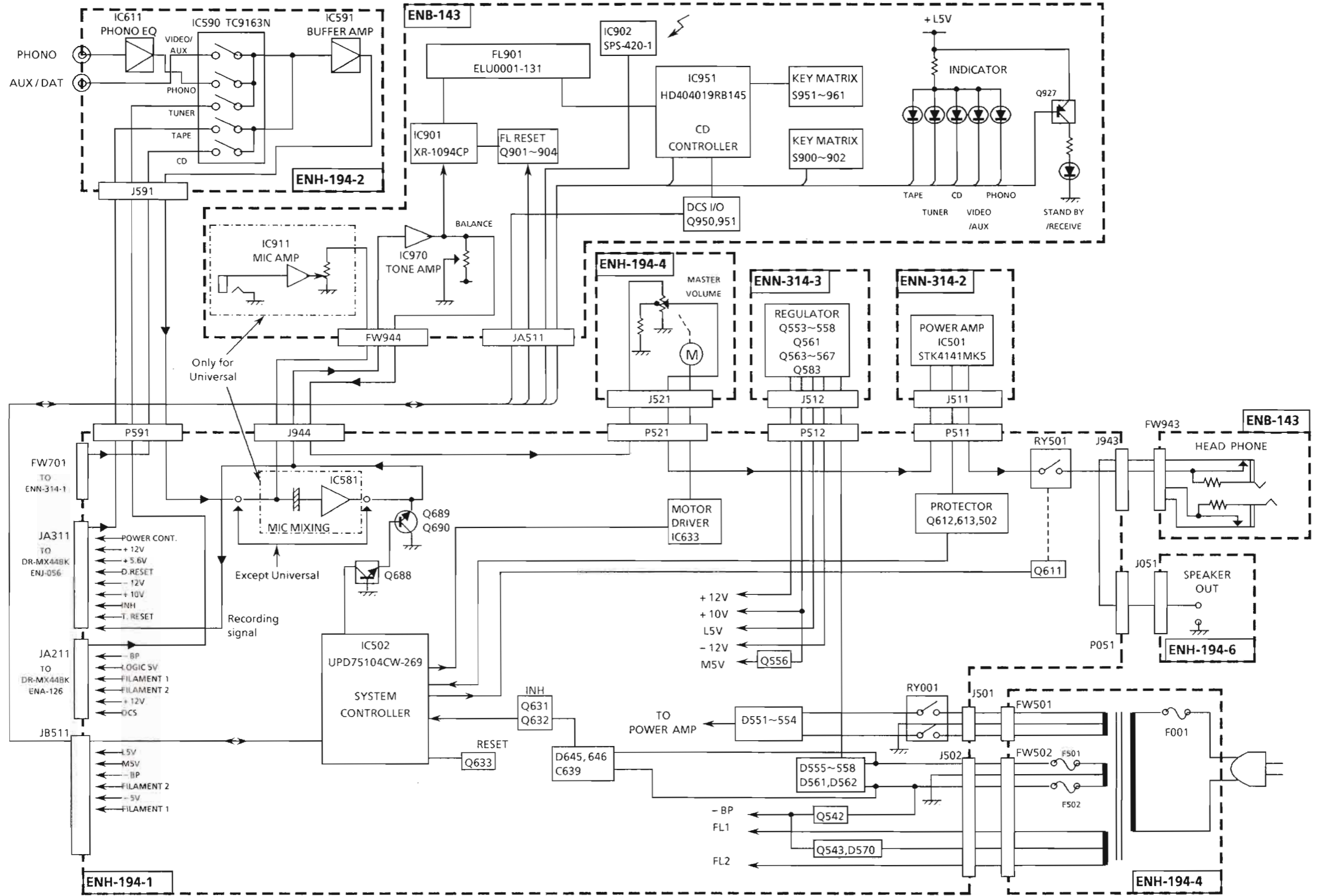
- Notes:
1. — indicates +B power supply.
 2. - - - indicates -B power supply.
 3. — indicates main signal path.
 4. ■ shows DC voltage to the chassis with no signal input.
 5. When replacing the parts in the shaded area (■) and those marked with △, be sure to use the designated parts to ensure safety. This is the standard circuit diagram.
 6. The design and contents are subject to change without notice.

Connection Diagram

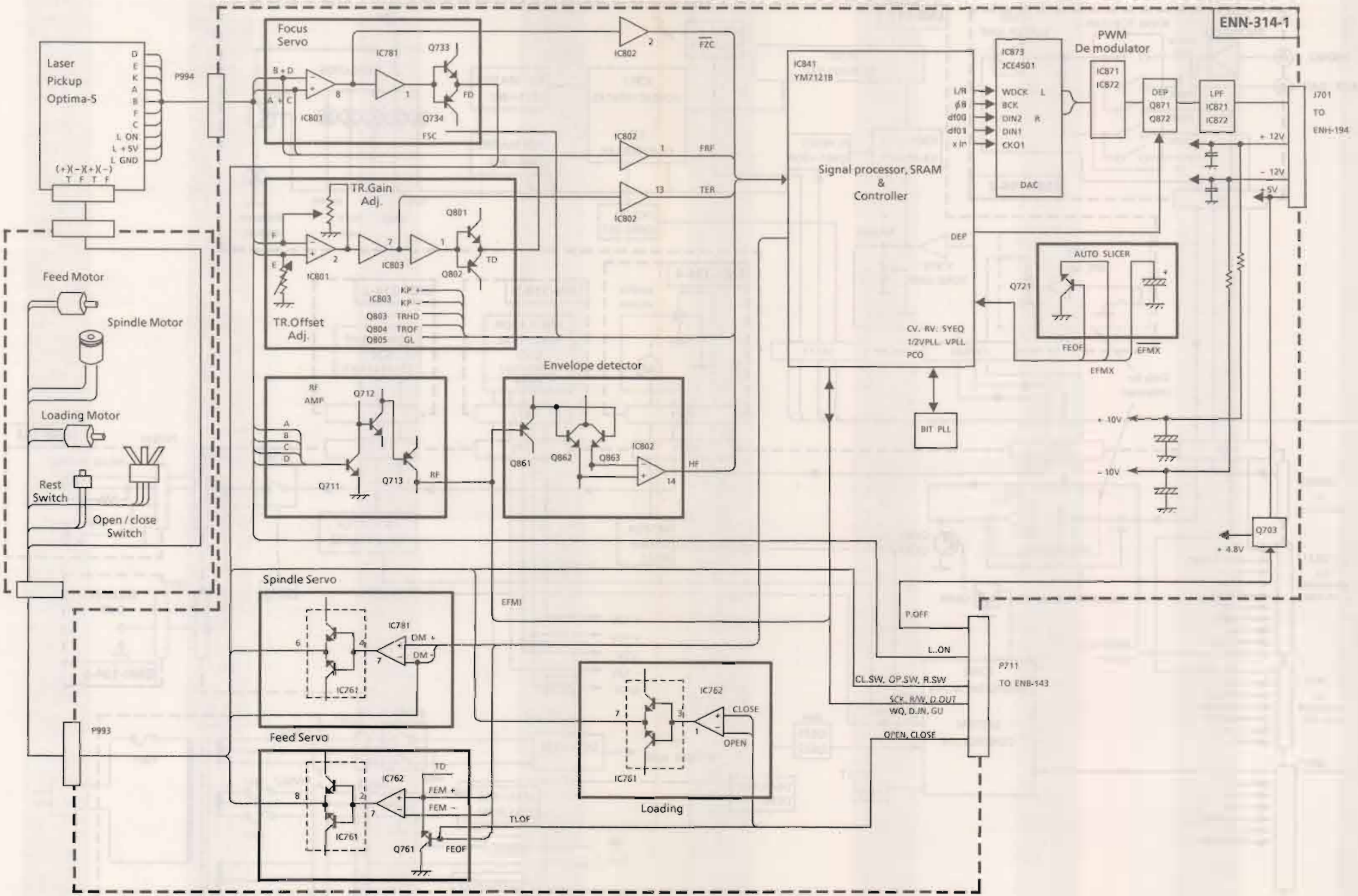


Block Diagrams

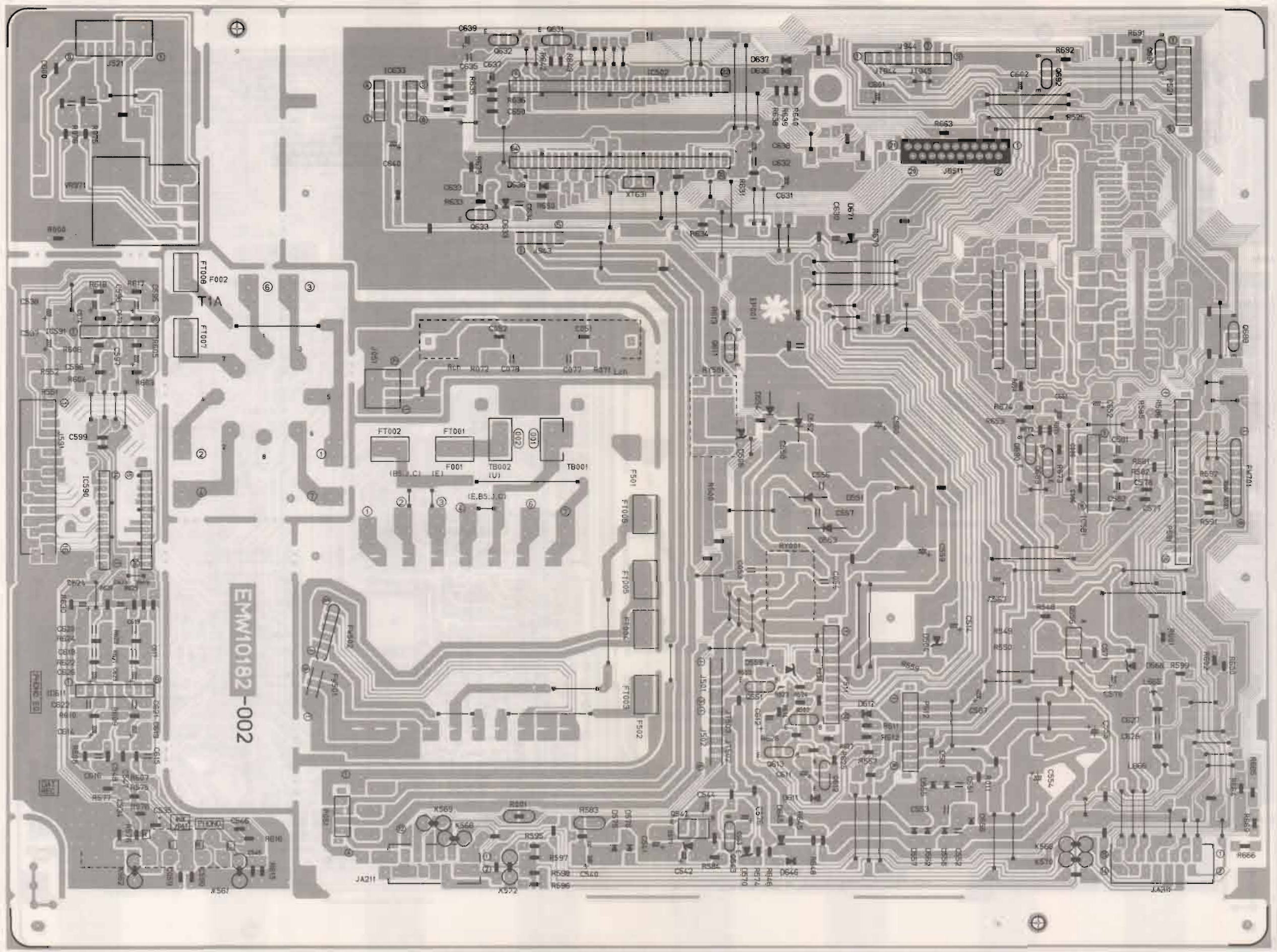
Audio Section



CD Section



System Control & Input Selector PCB (ENH-194)



■ CD, Regulator & Power Amp. P.C.B. (ENN-314)

