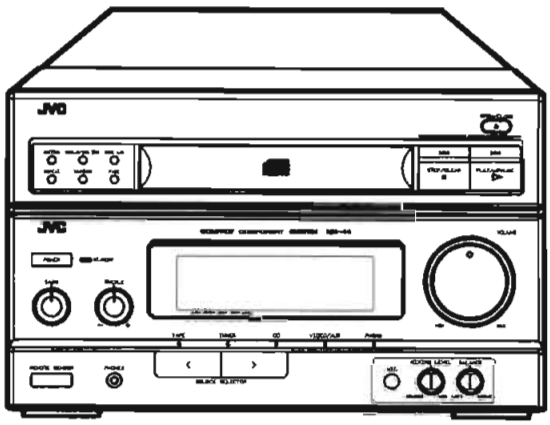
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-MX44BK

(UNIT No. AX-MX44BK)



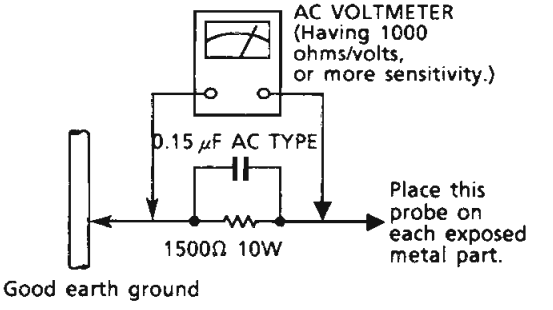
* For instruction manual, please refer to the CA-MX44BK (S.M. No.20325).

Contents

No. 20326
Feb. 1992

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 (⚠) on the Parts List in the Service Manual. The use of a substitute repalcement 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 currnet 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, contorl 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 1,500Ω 10 W resistor paralleled by a 0.15 μF 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 meausre 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 alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

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

ADVARSEL : Usynlig laserstråling ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

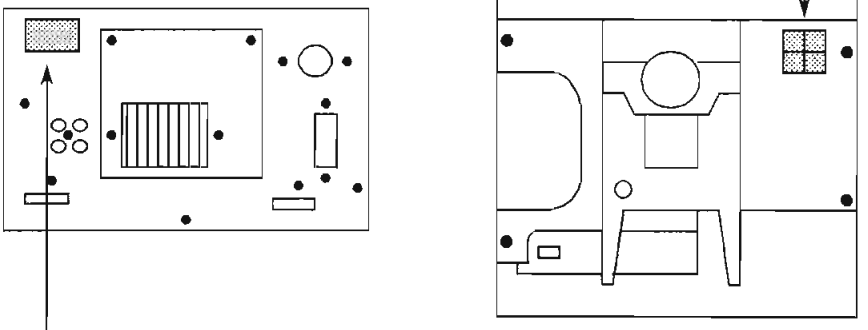
(Except for the U. S. A.)

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

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

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

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



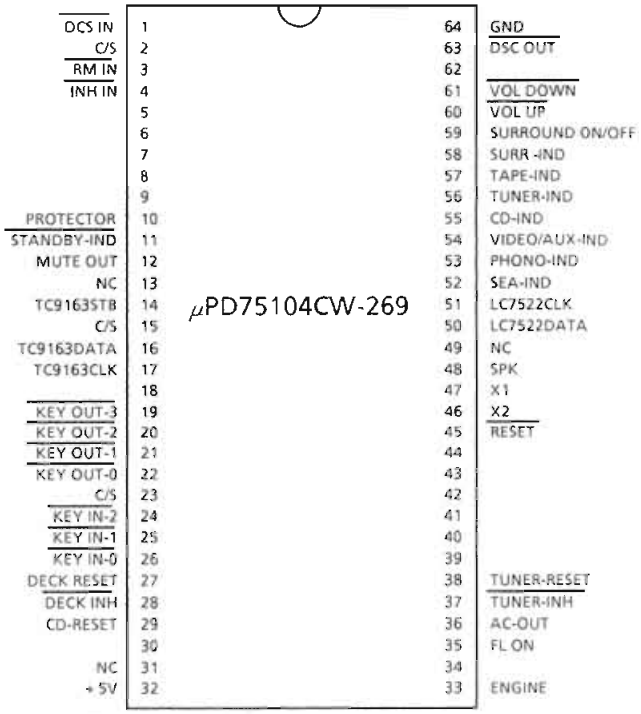
CLASSIFICATION LABEL

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

Description of Major LSIs

■ μPD75104CW-269(IC502) : System controller

1. Terminal Layout



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 ouput	44	—	--	〃
13	NC	--	Non connection	45	RESET	I	System reset signal input
14	TC9163STB	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 IN2 (PIN47)	KEY IN3 (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

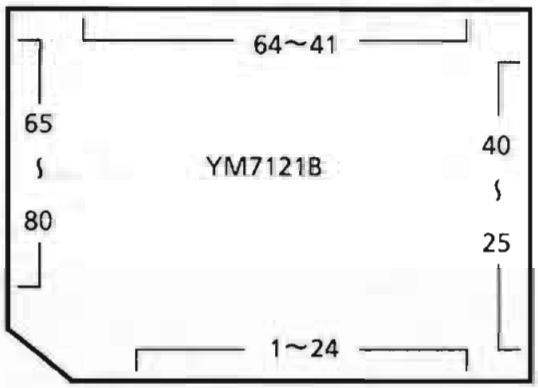
Pin NO.	Symbol	I/O	Function and Operations	Pin NO.	Symbol	I/O	Function and Operations
1	NC	--	Non connection	33	SCK	O	Clock output
2	S1	O	FL segment control output	34	SI	O	Serial data output
3	S3	O	〃	35	SO	I	Serial data input
4	S4	O	〃	36	WQ	I/O	Write request input
5	S5	O	〃	37	L.ON	O	Laser ON signal
6	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

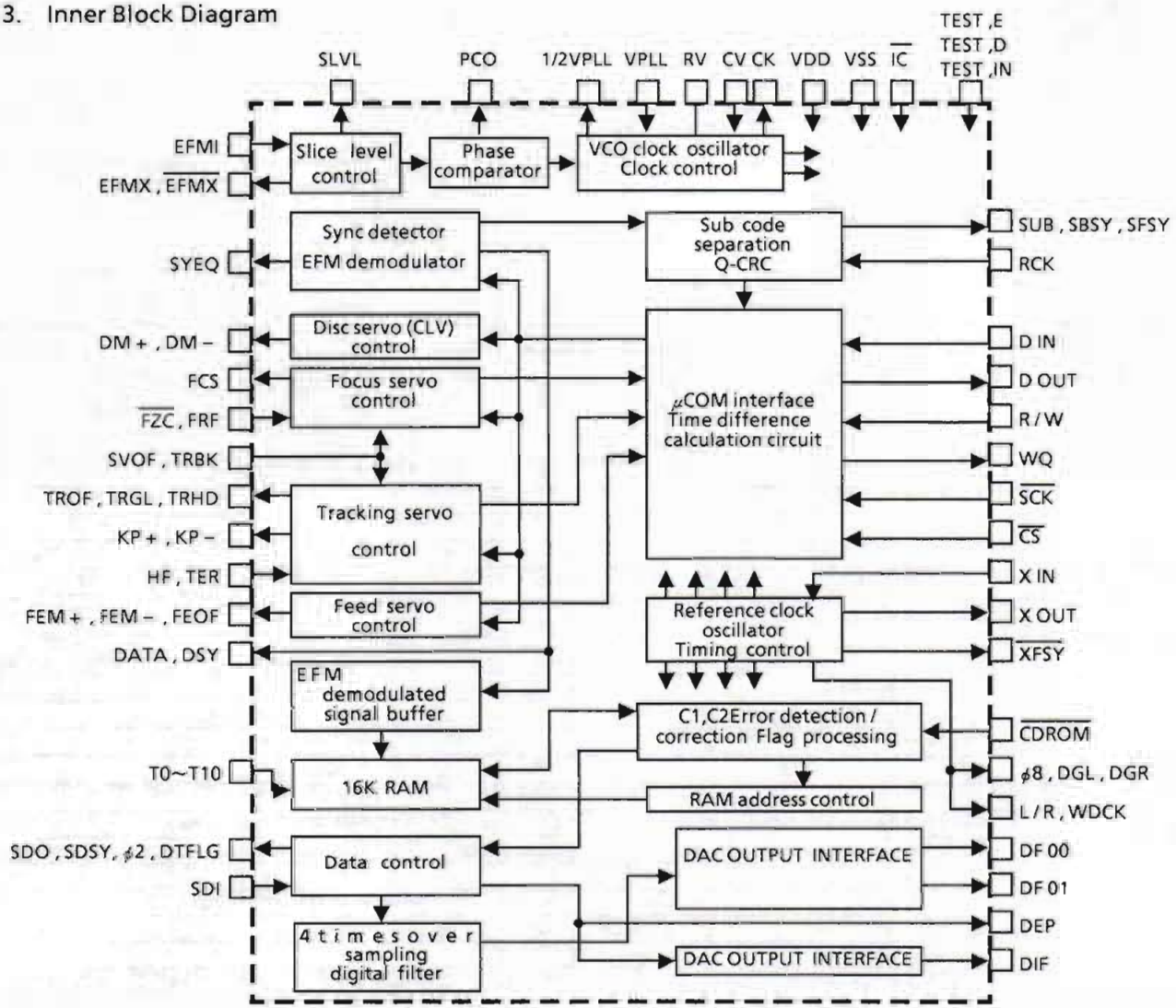
1. Outline

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

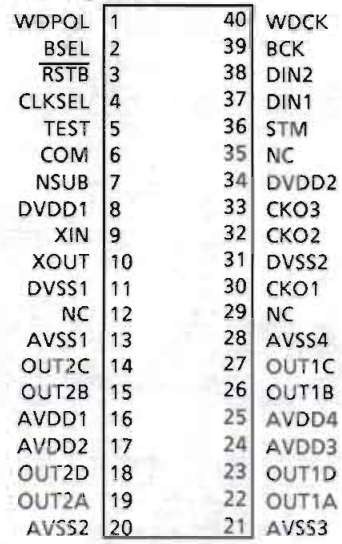
Pin No.	Symbol	I/O	Function and Operation
1	CV	—	Adequate time constant is added to this terminal and input the PCO output. This makes the structure of clock reproduce circuit by inner VCO circuit.
2	RV	–	RV terminal is standard voltage terminal of inner VCO. And capacity for stabilizing is added tothis 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 flame 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 EFMdemodulation signal and 5 bit data control signal in 17 bit. **(Not used)**
9	CK	O	CK has 4.3218 MHz clock.
10~19	T0~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 ϕ2 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	ϕ2	O	ϕ2 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	Φ8	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 Φ8 bit rate (DF00 : Left channel, DF01 : Right channel)
46	SCK	I	This terminal is connected to μCOM. 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/M 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 μCOM. When R / W is low, data is transfered from YM7121 to μCOM, according to the SCK clock input.
51	DIN	I	This is a data input terminal connected to μCOM. When R / W is high, the data is transferred from μCOM to YM7121 according to the SCK clock input.
53 54	DM+ DM–	O 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.
55 56 60 61 62 63 64	HF TER TRHD TRGL TROF KP– KP+	I I O O O O O	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 facilitaing 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.
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 58 59	FZC FCS FRF	I O 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.
71	IC	I	YM7121 needs initializing when power supply turn on. IC will be low more than 400μs since XIN is input clock with VDD standard.
73 74 75	SLVL EFMX EFMX	O O 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.
76	EFMI	I	This terminal input EFM signal. (1~2 Vpp)
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

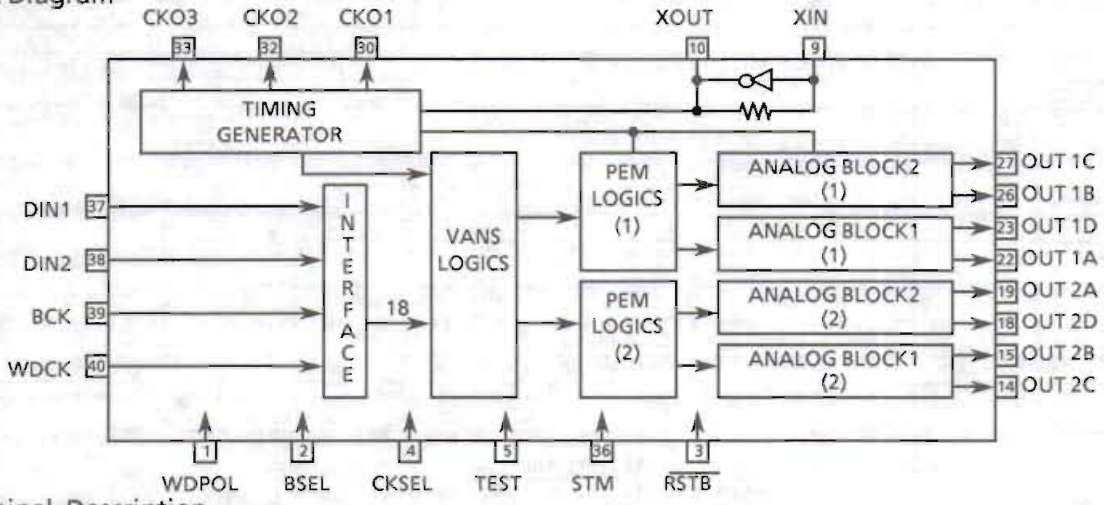
1. Outline

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



3. Block Diagram



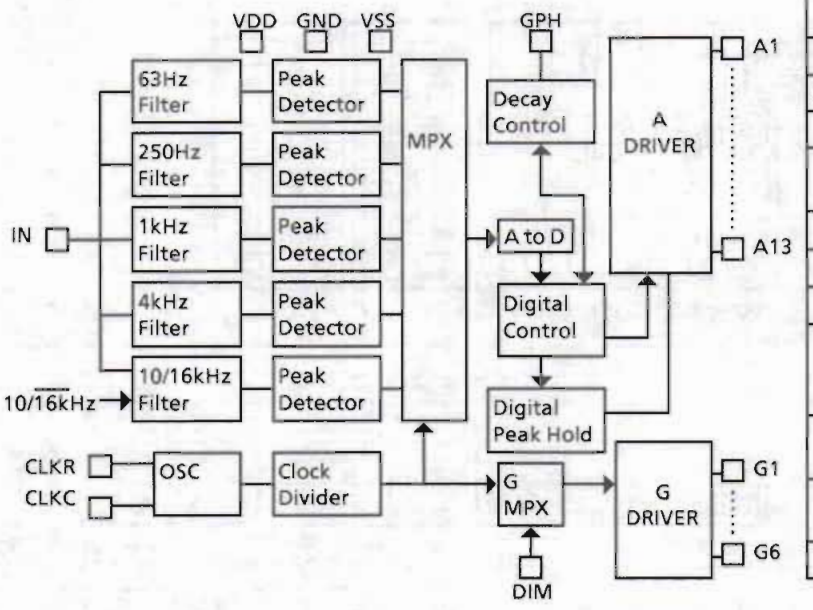
4. Terminal Description

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

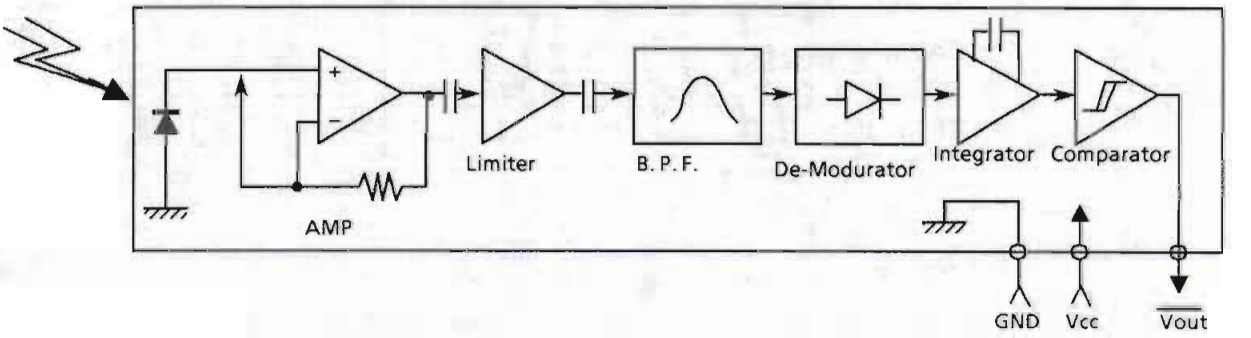
1. Block Diagram



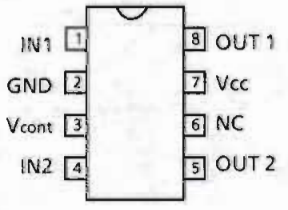
2. Terminal description

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

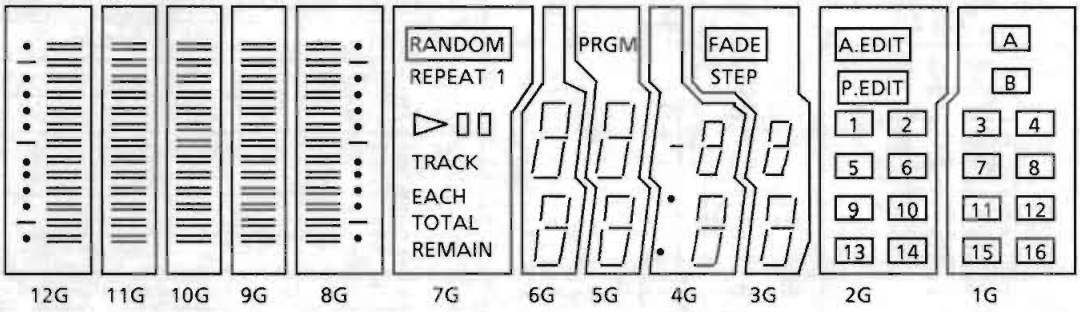


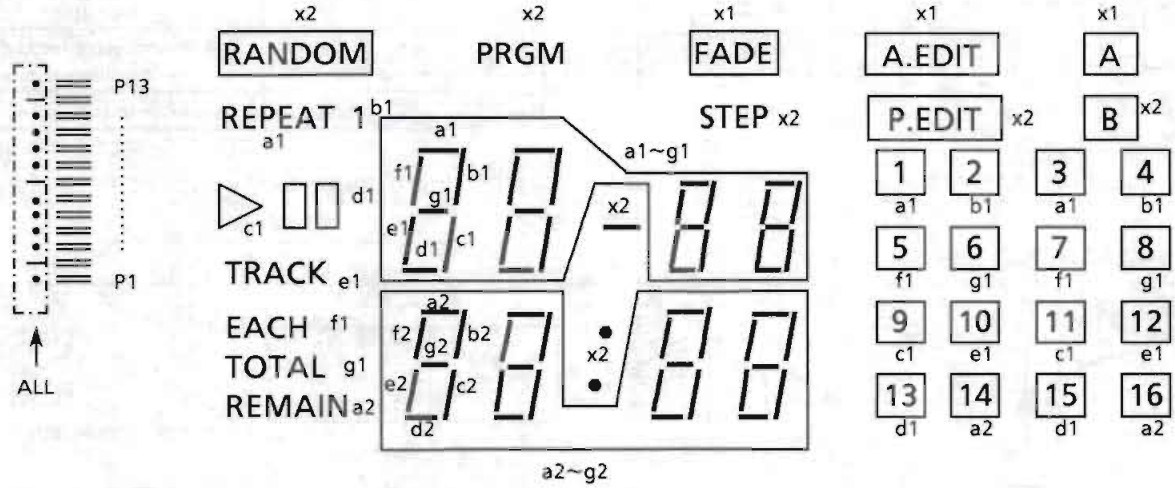
FUNCTION TABLE

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



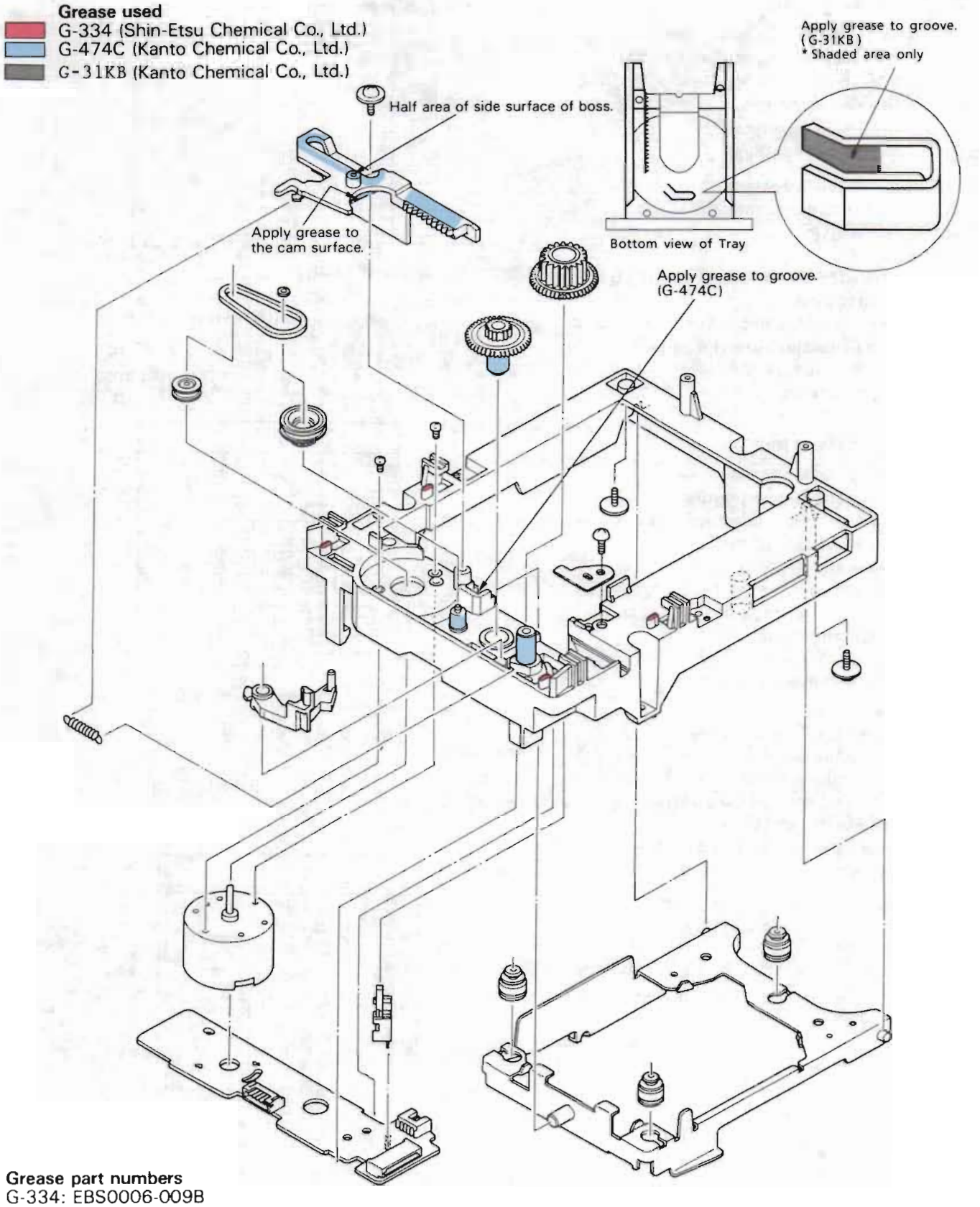


Terminal connection

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 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 Ⓓ 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 Ⓐ to turn the screw to move the tray out (Figure 1).

■ 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 Ⓒ fixing the chassis base.
5. Take out the chassis base with the CD mechanism assembly.

■ 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 Ⓑ and remove the front panel assembly (Figure 1).

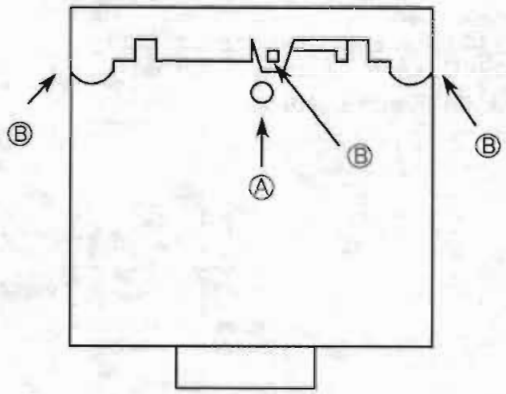


Figure 1 Bottom view

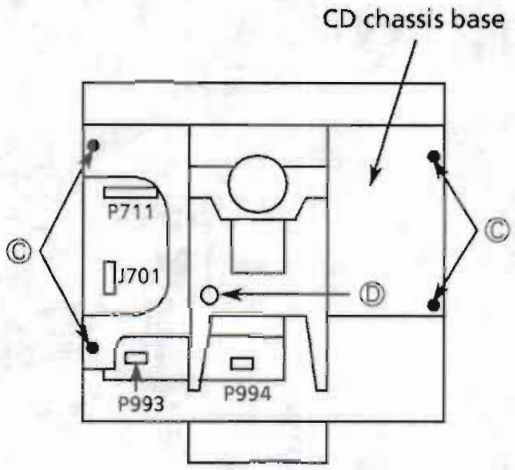


Figure 2 Top view

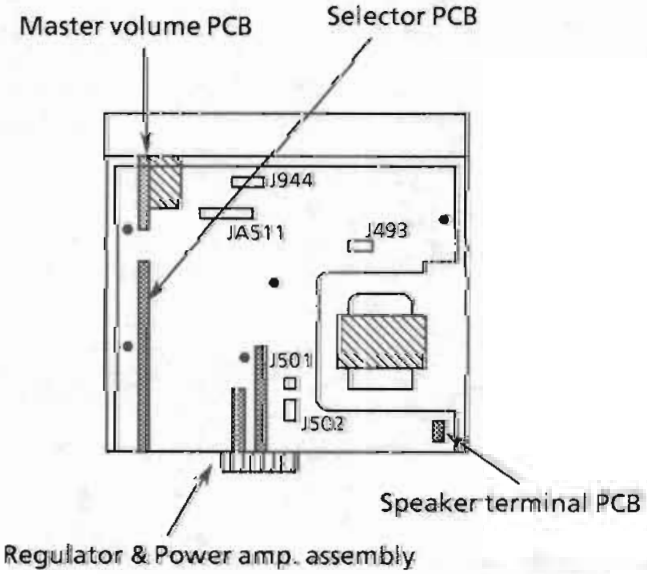


Figure 3 Top view of the unit without the CD chassis base

■ 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.

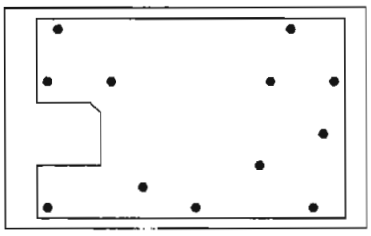


Figure 4 Rear view of the front panel assembly

■ Rear panel removal

1. Remove the 2 screws fastening the heat sink cover and the cover.
2. Remove the screws Ⓔ and Ⓕ (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.

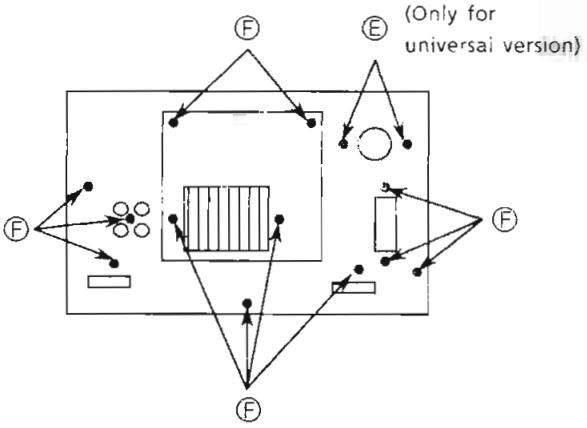


Figure 5 Rear view

■ 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.

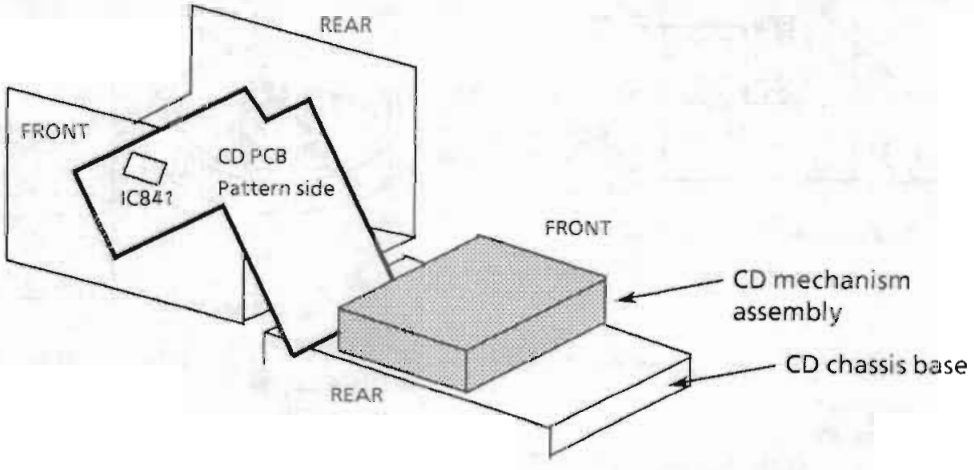


Figure 6 How to check the CD PCB

■ 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 hook④.
3. Install the CD Holder.
4. Install the CD Rack assembly in the CD Pick Unit.
   1) Fit end ⑦
   2) Fix screw ②.

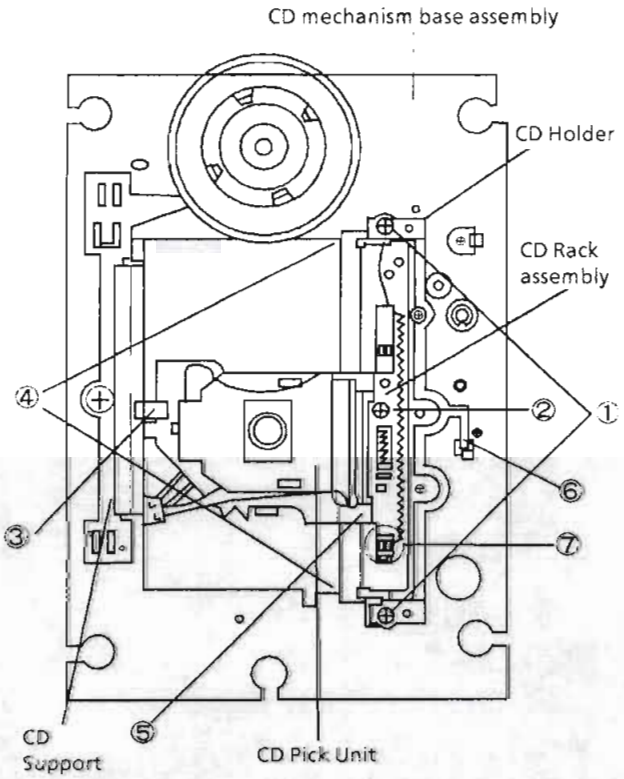


Figure 7

■ 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.

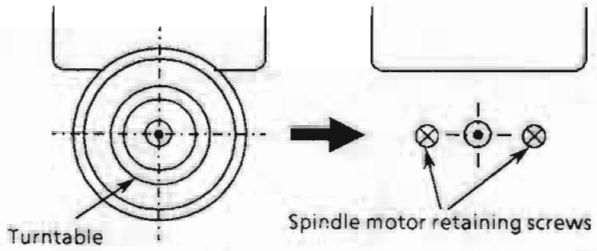


Figure8

■ 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±0.1mm.

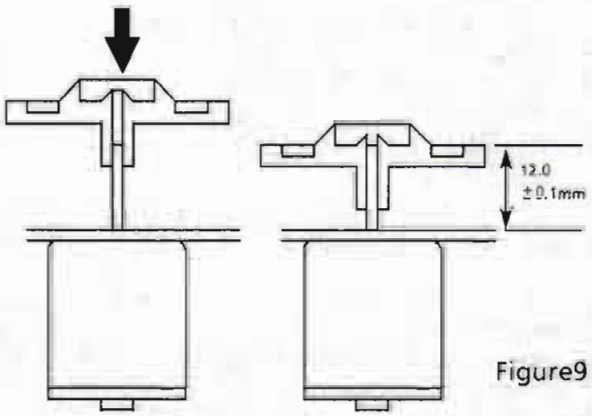


Figure9

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).

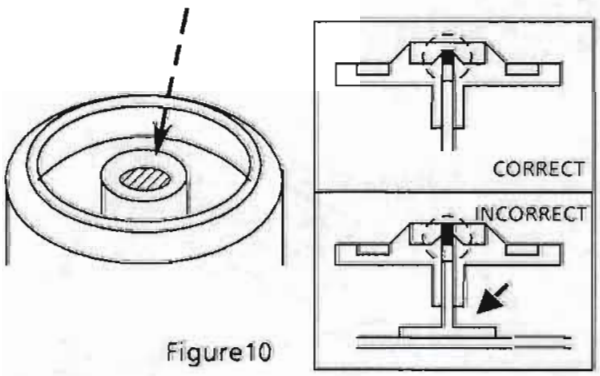
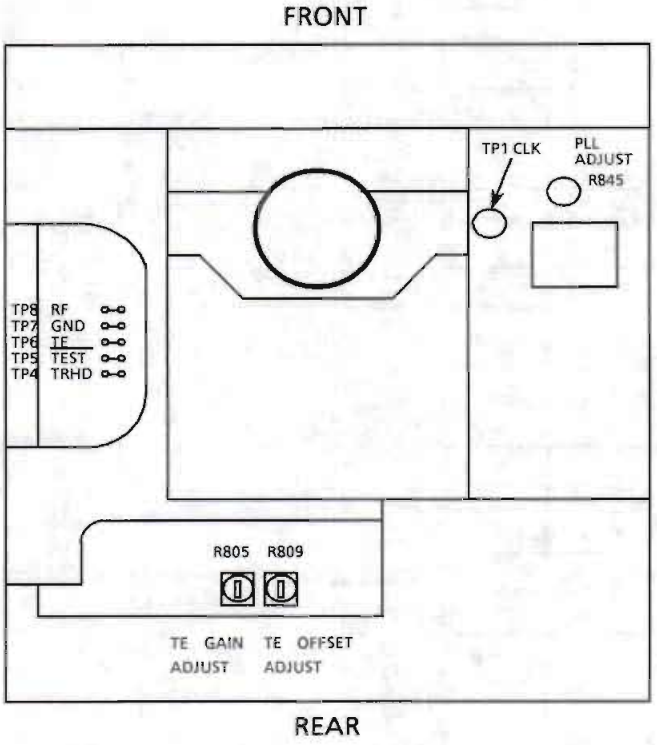


Figure10

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 figure10 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 ± 0.002MHz.
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 ($\overline{\text{TEST}}$) to GND.
4. Adjust R805 for setting tracking error signal becomes 2.0 $V_{P\text{-}P}$.

(3) Tracking offset adjustment

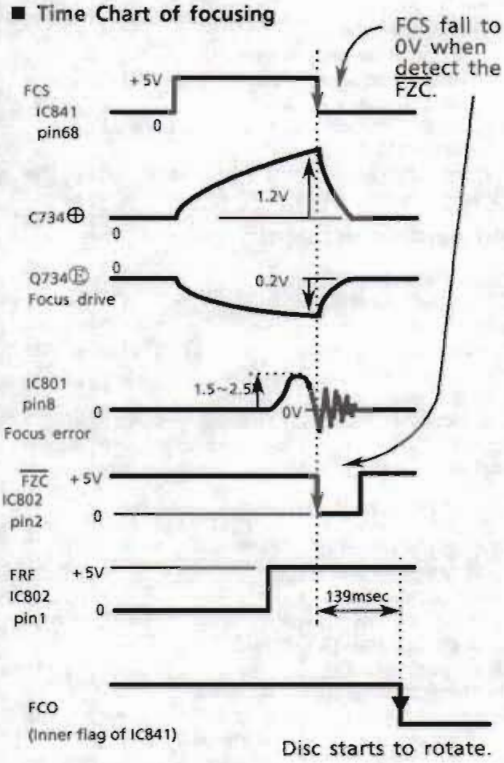
a. Measuring instruments
Oscilloscope, Normal disc

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 ($\overline{\text{TEST}}$) 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

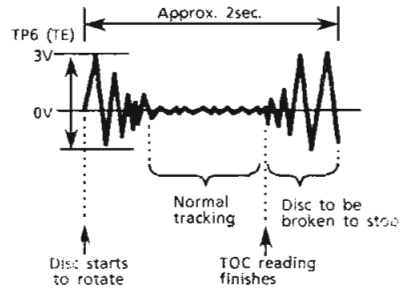
■ Time Chart of focusing



- When the lens moves up and down in a 2-second interval, FZC is not output.
- When the lens moves up and down in less than 1-second, FRF is not output or the focus servo loop is abnormal.

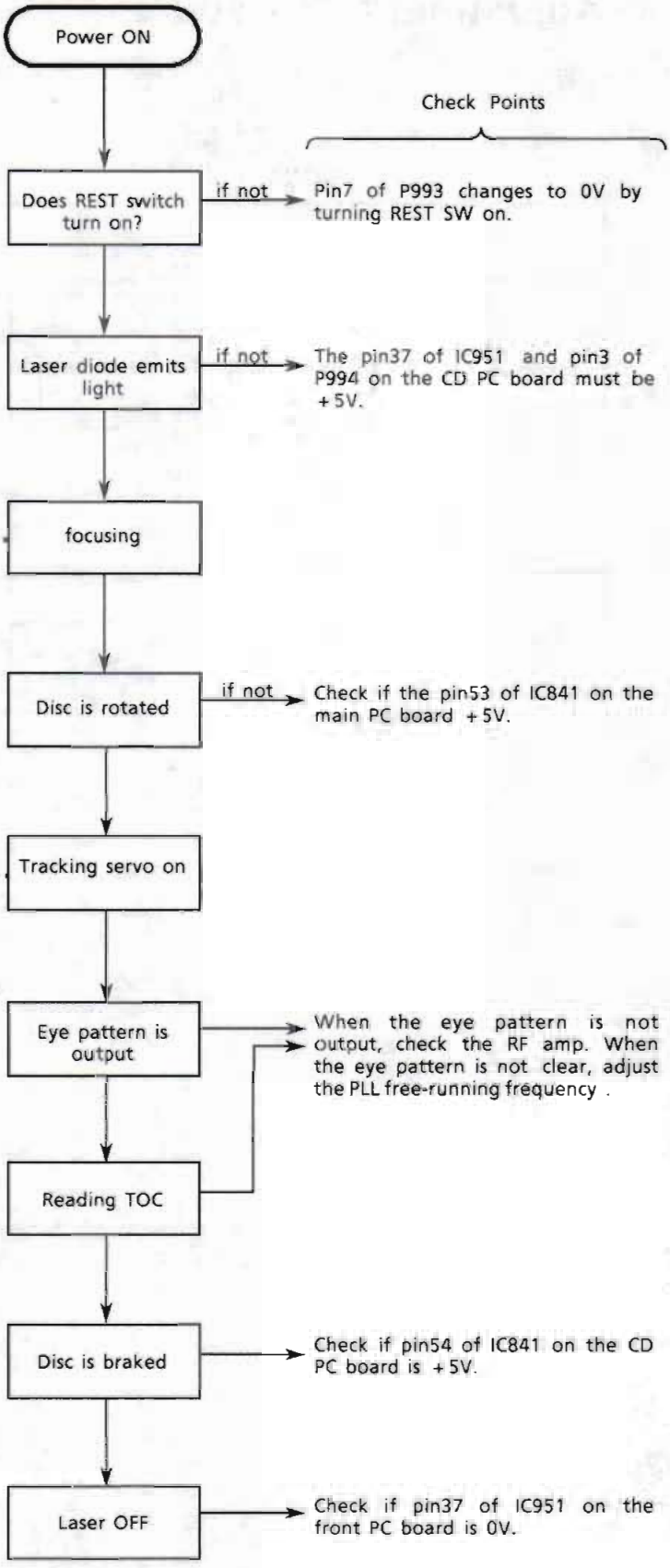
Fig-1

■ Tracking error waveform at TOC reading



- **Check the tracking offset and align it to 0.**

Fig-2

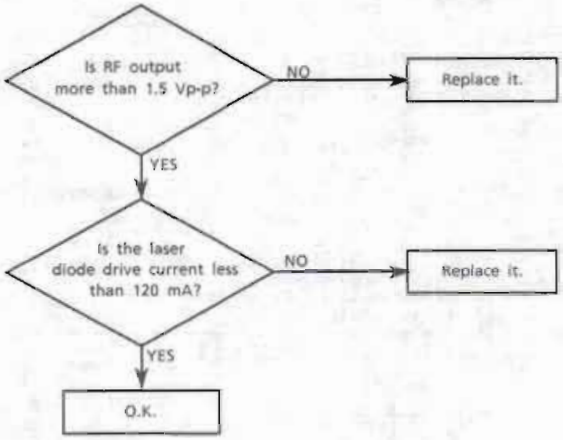


Maintenance of Laser Pickup

(1) Life of the laser diode

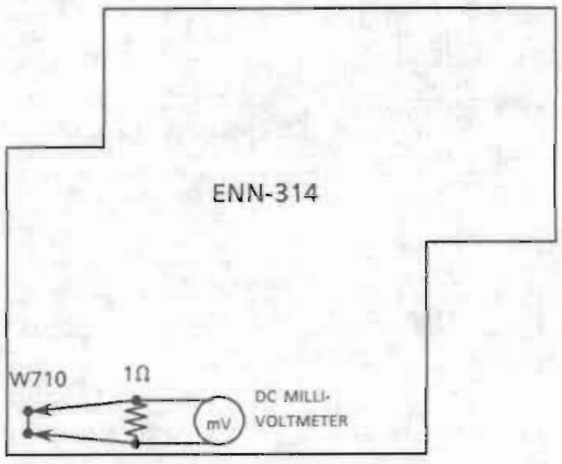
When the life of the laser diode has expired, the following symptoms will appear.

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

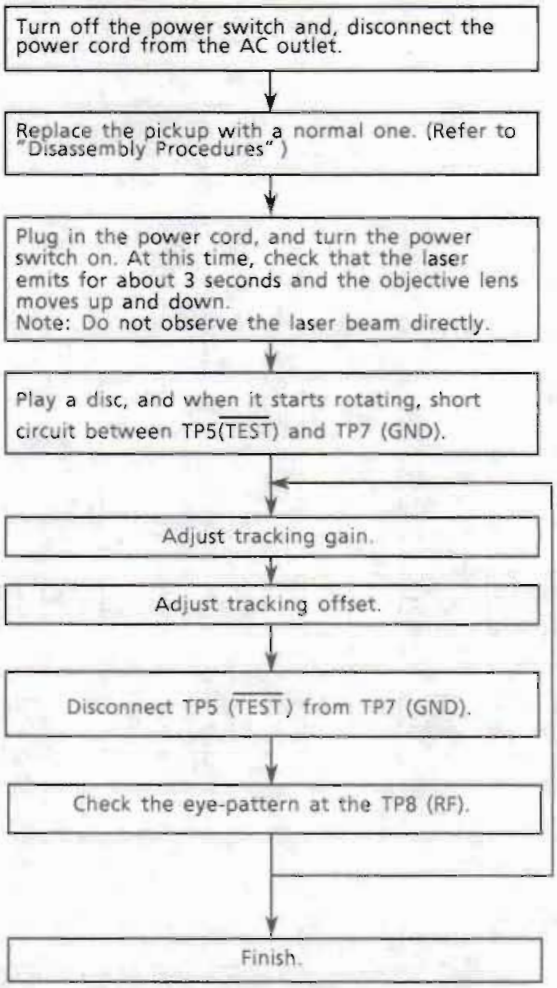
Replace W710 to a resister (1Ω).
Measure the voltage across the resistor with a milli-voltmeter. When the voltage is more than 180mV, it shows that the life of the laser diode has expired



(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.

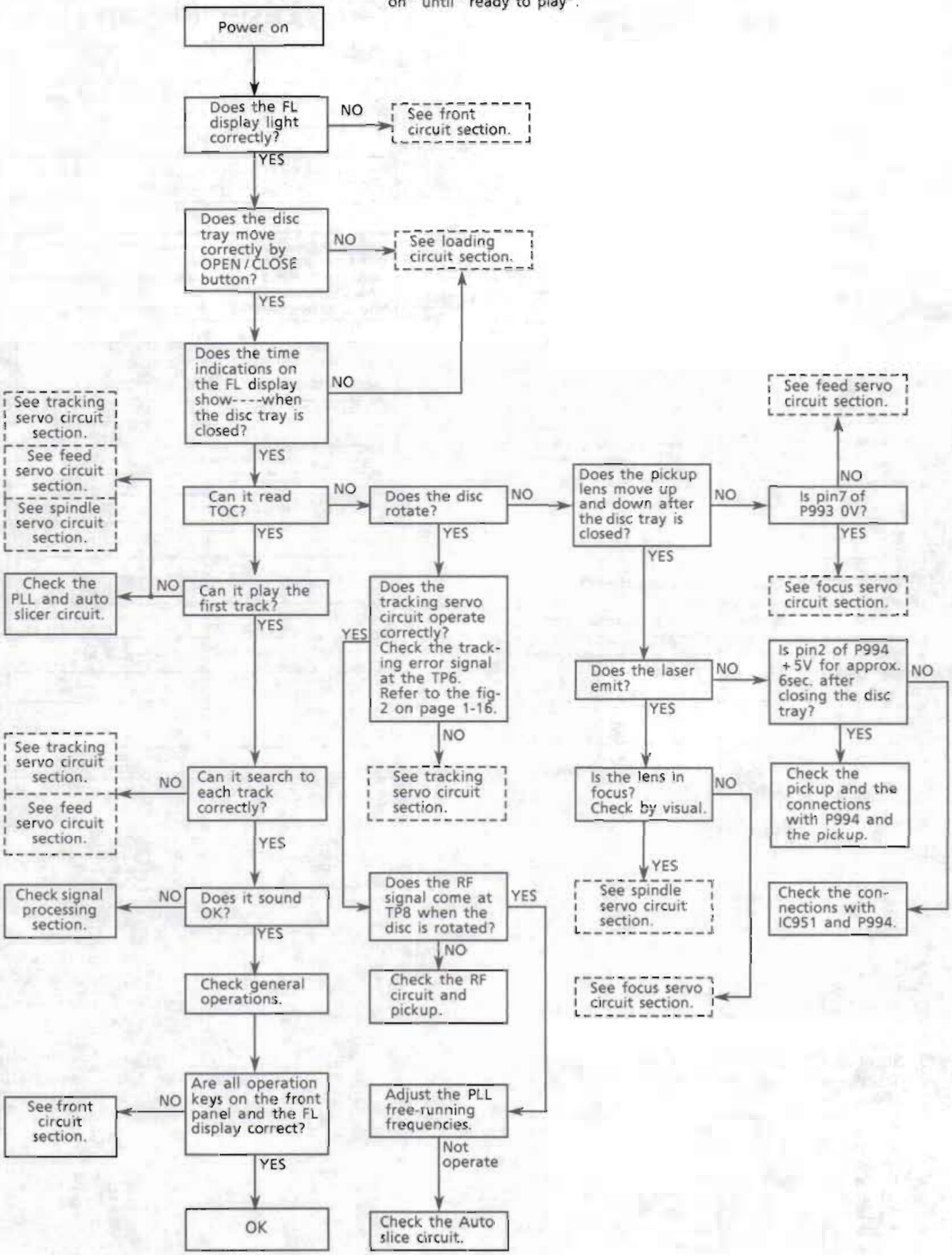
Replacement of Laser Pickup



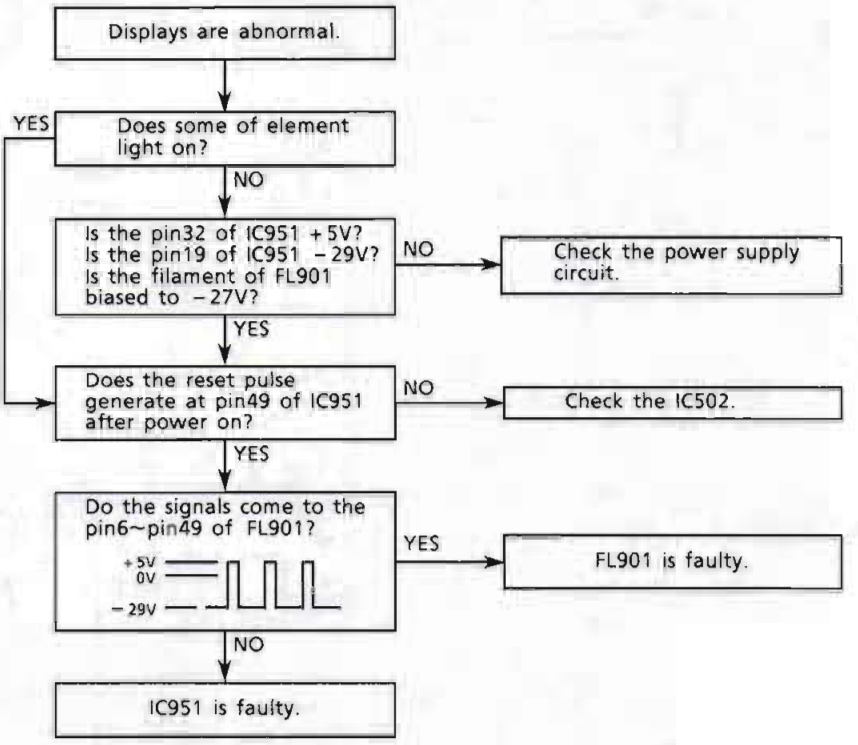
Note: Since one adjustment may affect other settings, repeat these adjustments a few times.

Troubleshooting

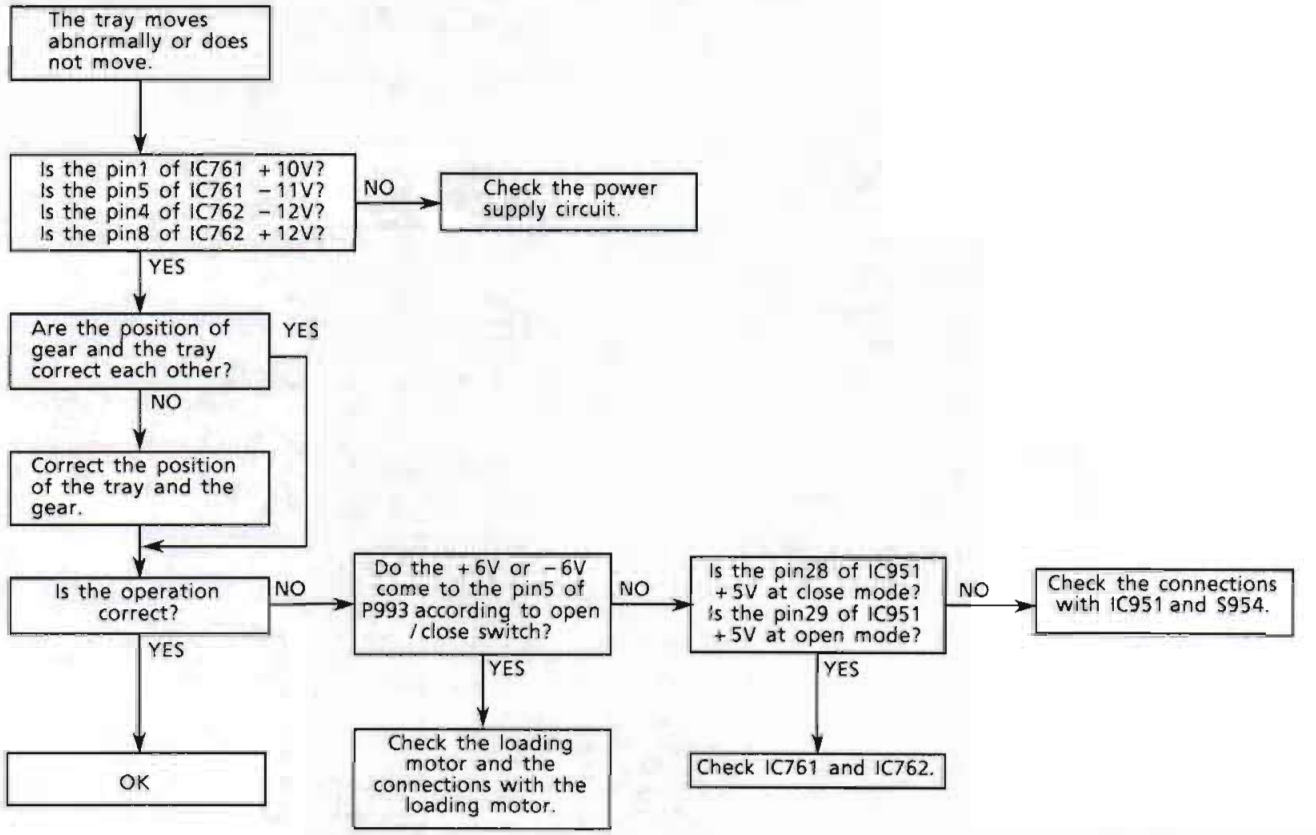
The following flowchart shows each circuit's condition about from "power on" until "ready to play".



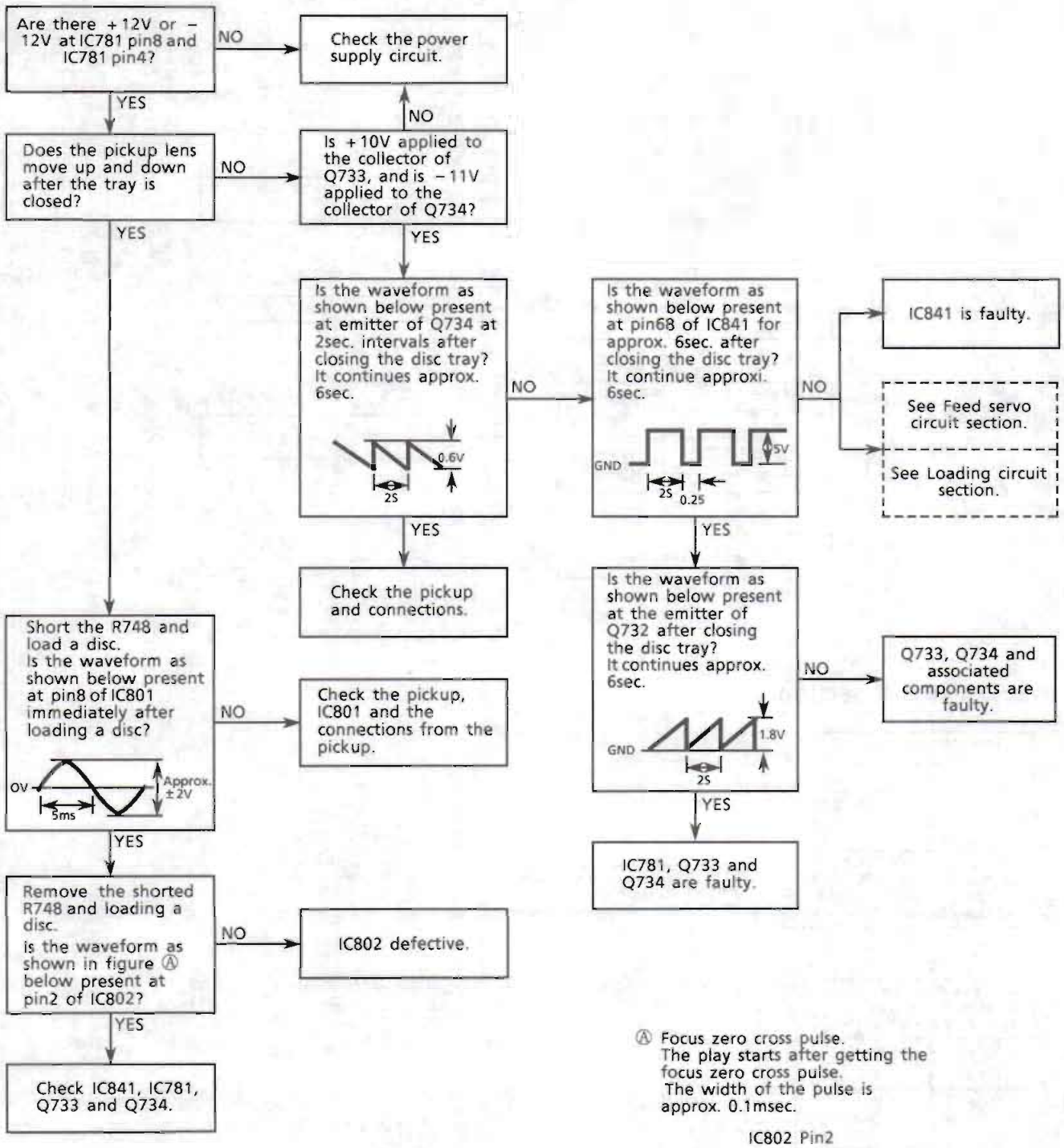
Front circuit Section



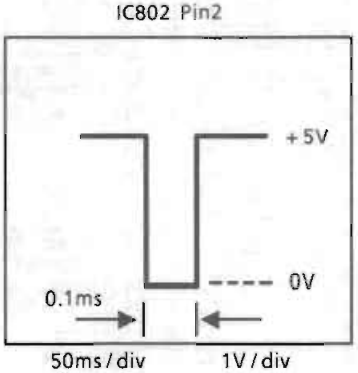
Loading circuit section



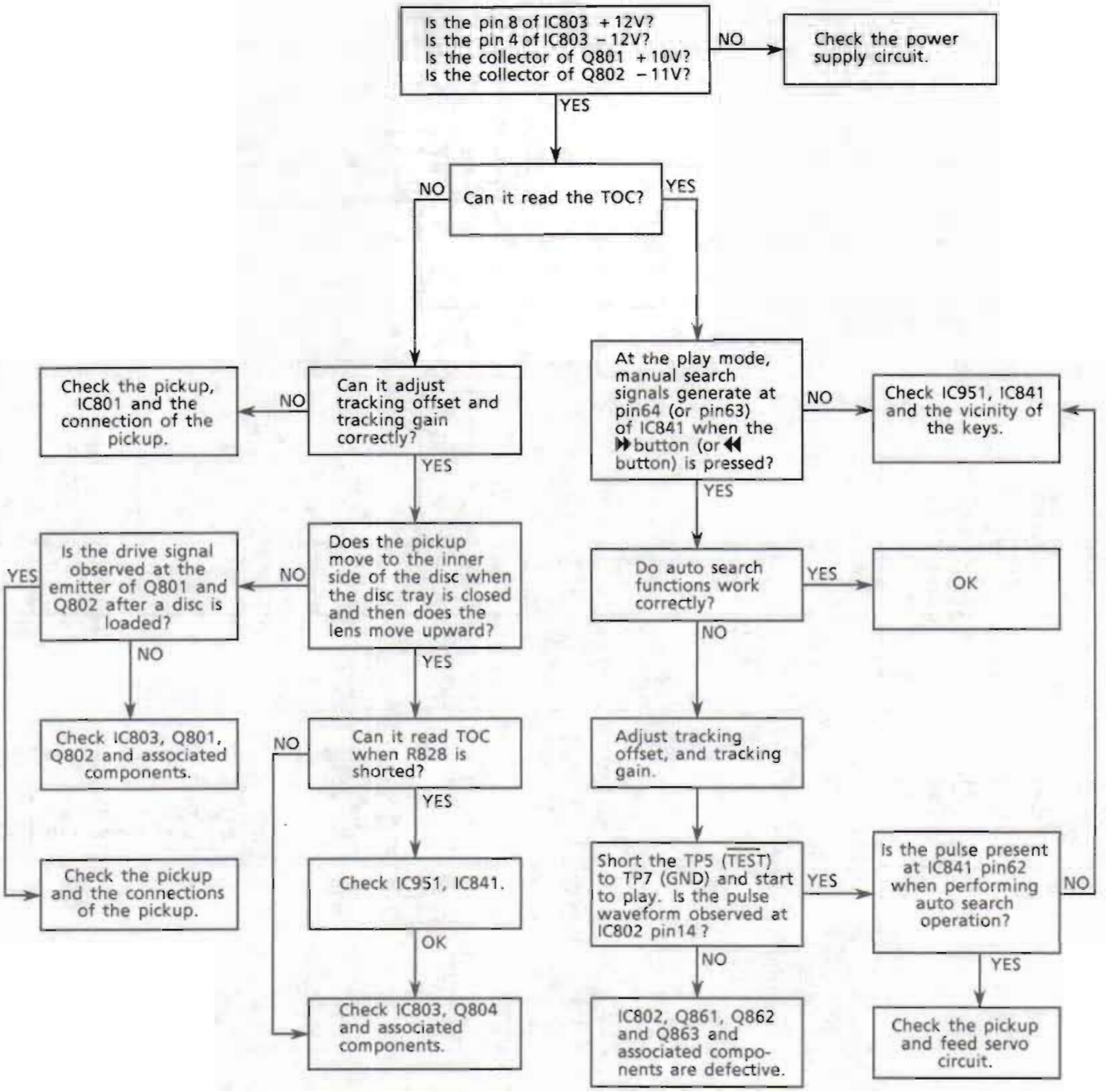
Focus servo circuit section



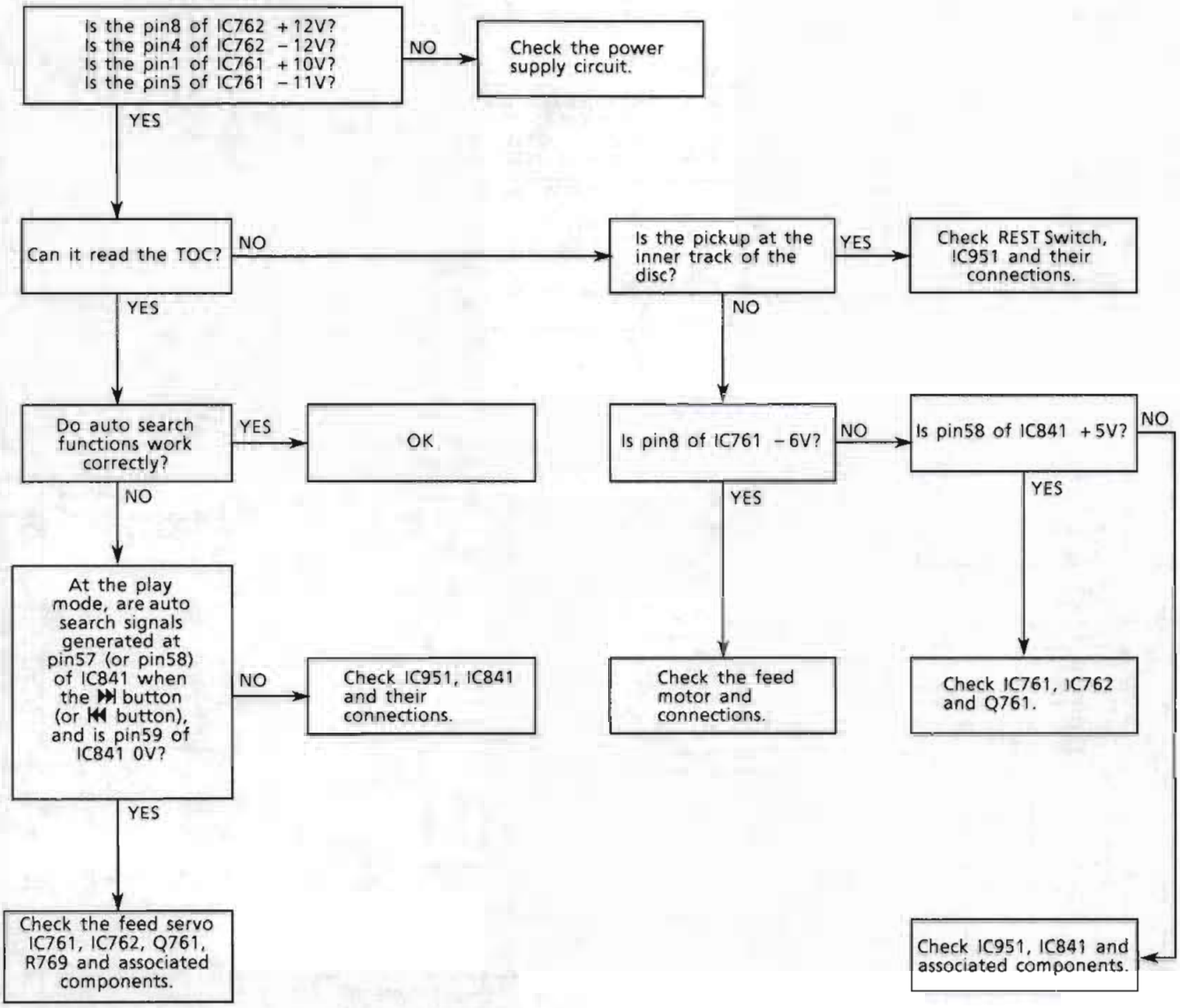
Ⓐ Focus zero cross pulse.
The play starts after getting the focus zero cross pulse.
The width of the pulse is approx. 0.1msec.



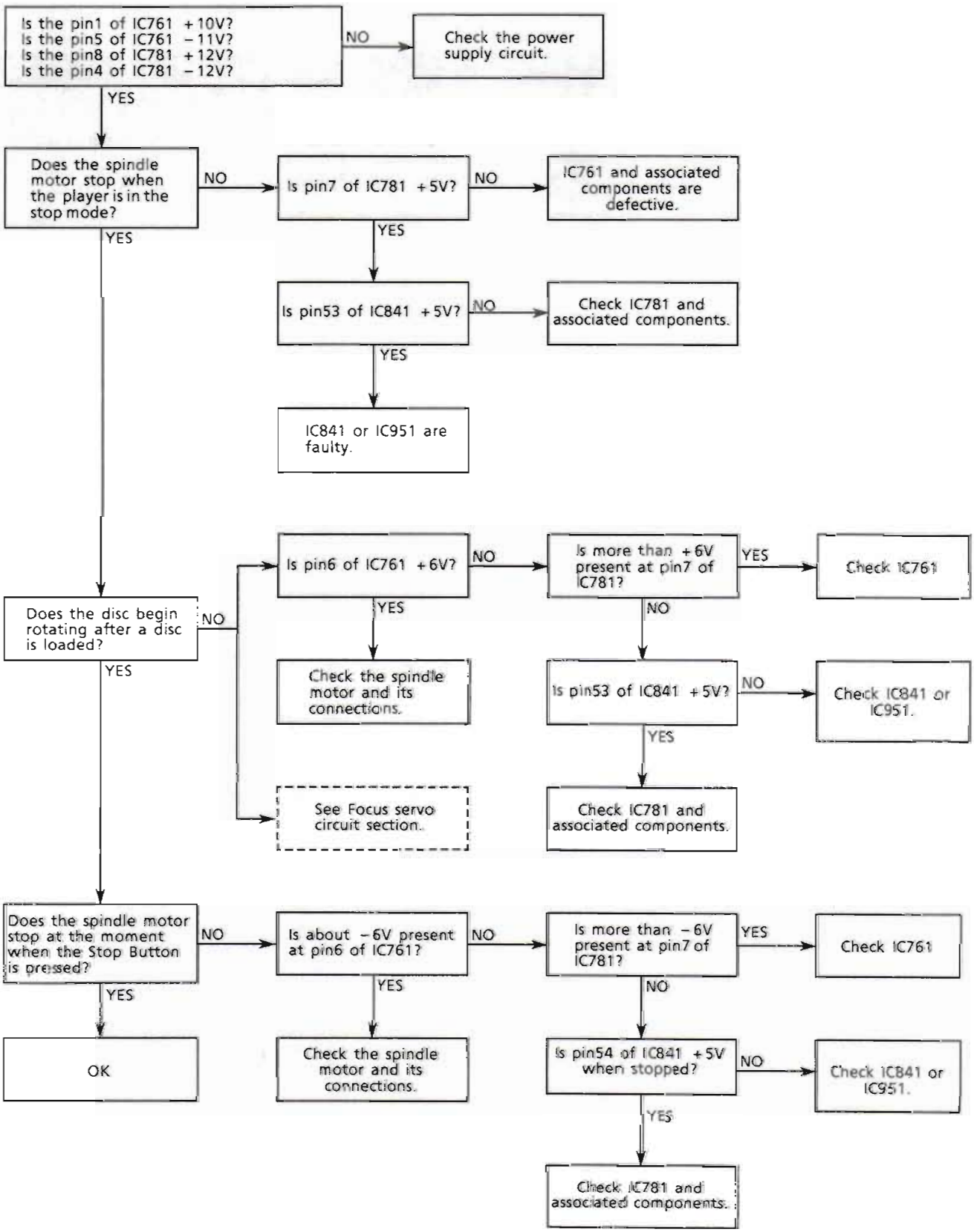
Tracking servo circuit section



Feed servo circuit section



Spindle servo circuit section



JVC

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

(No. 20326)

Printed in
9202 [S]

PARTS LIST

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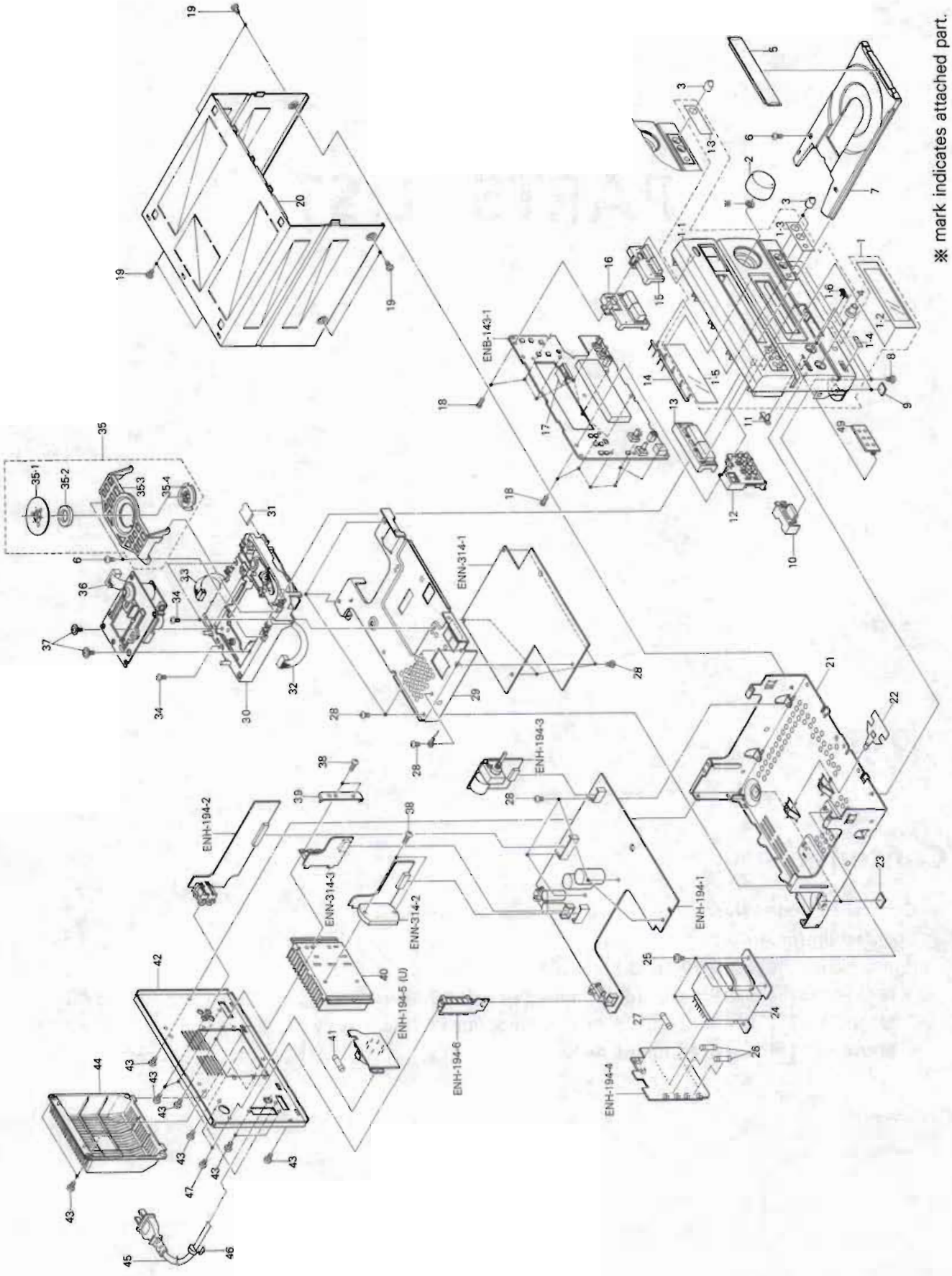
General Exploded View and Parts List



■ 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
⚠		ETP1070-24EAJBS	Power Transformer	1	T002	BS
	25	E65389-004	Special Screw	4		
⚠	26	QMF51U1-1R6S	Fuse	2	F003, F004	J, C
⚠		QMF51E2-1R25J1	Fuse	2	F003, F004	Except J, C, BS
⚠		QMF51E2-1R2J1BS	Fuse	2	F003, F004	BS
⚠	27	QMF51U1-2R0S	Fuse	1	F001	J, C
⚠		QMF51E2-2R0J1	Fuse	1	F001	U
⚠		QMF51E2-1R0J1	Fuse	1	F001	Excpet J, C, U, BS
⚠		QMF51E2-1R0J1BS	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		

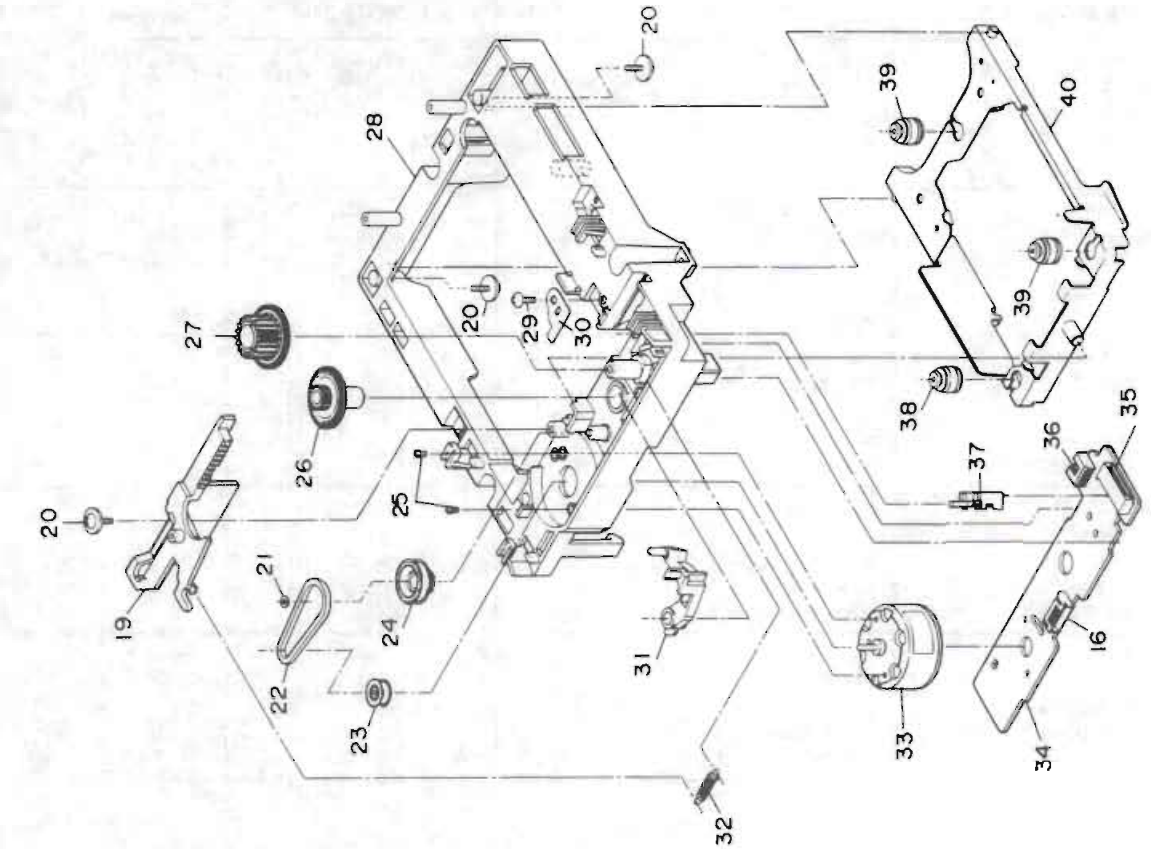
⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	36	EWS26A-B414	Socket Wire Ass'y	1	10Pin	
	37	E75871-003	Special Screw	2		
	38	SBSG3014CC	Screw	4		
	39	E406969-001SM	Leaf Spring	1		
	40	E307908-001SM	Heat Sink	1		
⚠	41	QMF51E2-1R0J1	Fuse	1	F002	U
	42	E207354-004SM	Rear Panel	1		J
		E207354-005SM	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	Aprroval Label	1		EN
	—	QZL1031-101	SEV Label	1		EF
	—	E407091-053	FTZ Label	1		G

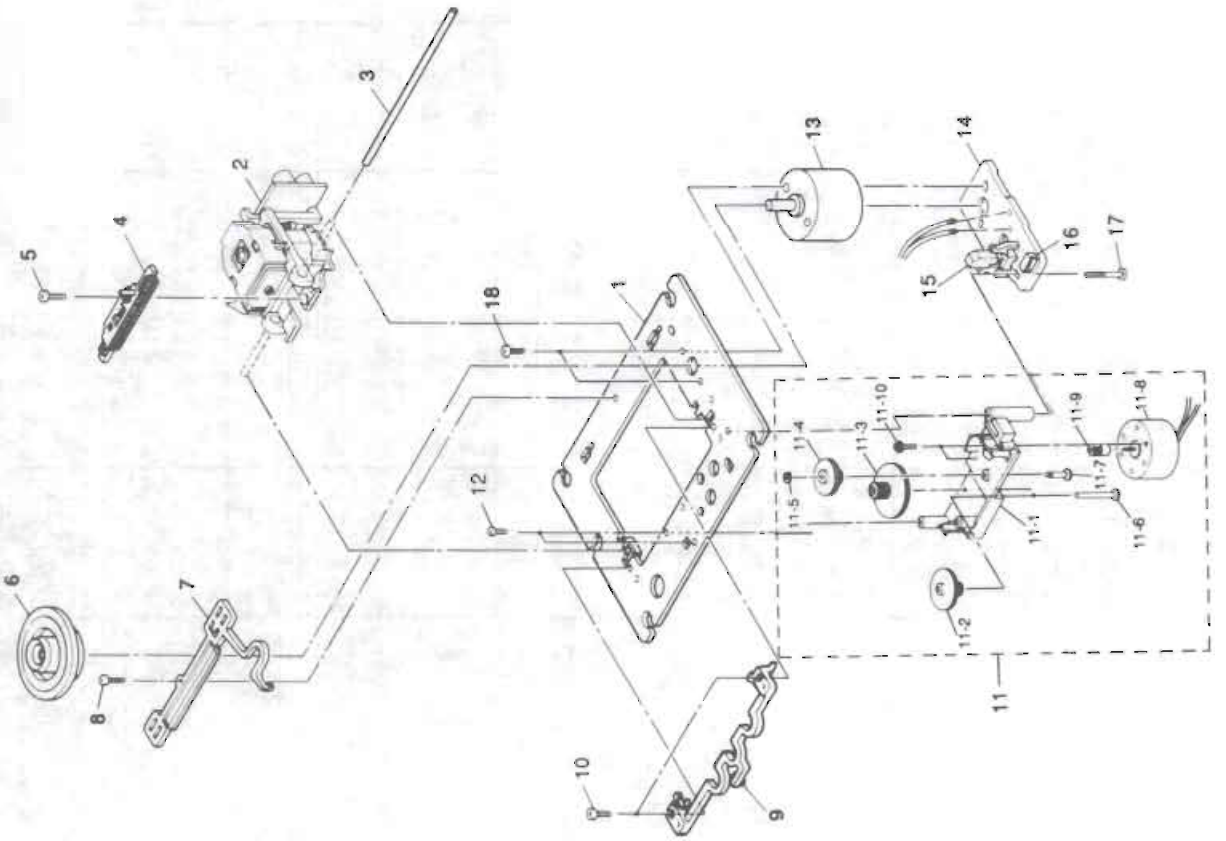
The Marks for Designated Areas

⚠ Safety Parts

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

CD Mechanism Ass'y and Parts List





■ Parts List

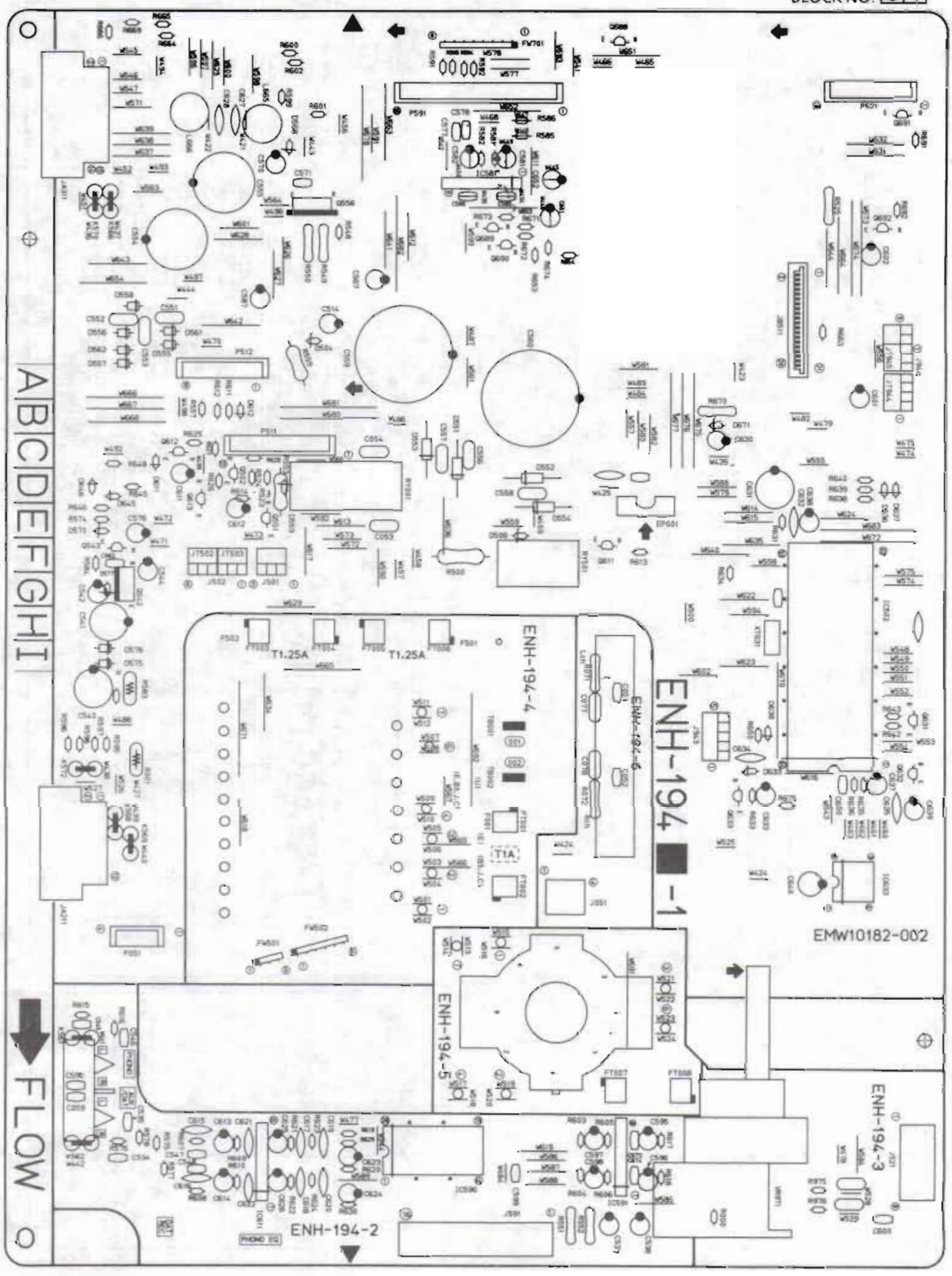
Item	Part Number	Part Name	Q'ty	Description	Areas
1	E26487-003	Mechanism Base	1		
2	OPTIMA-5S	Pick up Ass'y	1		
3	E74930-003	Shaft	1		
4	E306282-001	Rack Ass'y	1		
5	SPSH2050M	Screw	1		
6	E406064-002	Turn Table Ass'y	1		
7	E306275-003	Support	1		
8	SDST2005Z	Screw	1		
9	E306277-001	Holder	1		
10	SDST2004Z	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.

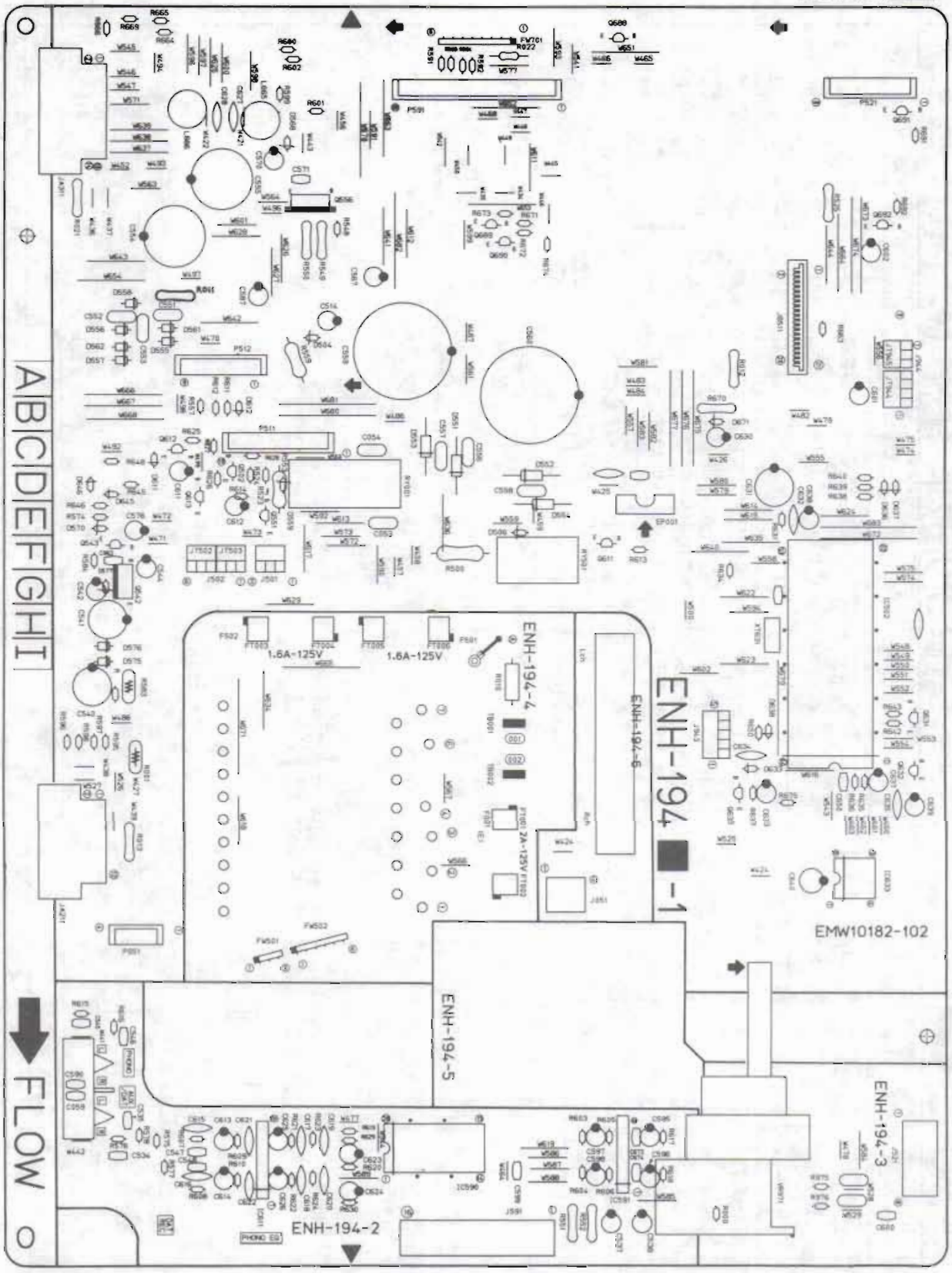
BLOCK NO. 0 1



■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. [0] [1]

⚠	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	SOO1	
	Q688	DTA144ES	SILICON	ROHM	
	Q689	2SD2144S(VW)	SILICON	ROHM	
	Q690	2SD2144S(VW)	SILICON	ROHM	

⚠ : SAFETY PARTS

I.C.s

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

⚠ : SAFETY PARTS

Diodes

⚠	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	
⚠	D555	ERA15-02L19	SILICON	KYOUDOU	
⚠	D556	ERA15-02L19	SILICON	KYOUDOU	
⚠	D557	ERA15-02L19	SILICON	KYOUDOU	
⚠	D558	ERA15-02L19	SILICON	KYOUDOU	
	D559	MTZ12JC	ZENER	ROHM	
⚠	D561	ERA15-02L19	SILICON	KYOUDOU	
⚠	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	

⚠ : SAFETY PARTS

Capacitors

BLOCK NO. [0] [1]

⚠	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	

⚠ : SAFETY PARTS

Capacitors

BLOCK NO. 01

⚠	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	QETBOJM-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	

⚠ : SAFETY PARTS

Resistors

⚠	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	
	R548	QRD167J-512	5.1K	1/6W	CARBON	
⚠	R549	QRD14CJ-4R7S	4.7	1/4W	UNF.CARBON	A
⚠	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

⚠ : SAFETY PARTS

Resistors

BLOCK NO. 01

⚠	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 RE	SI
	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	

⚠ : SAFETY PARTS

Others

BLOCK NO. 01

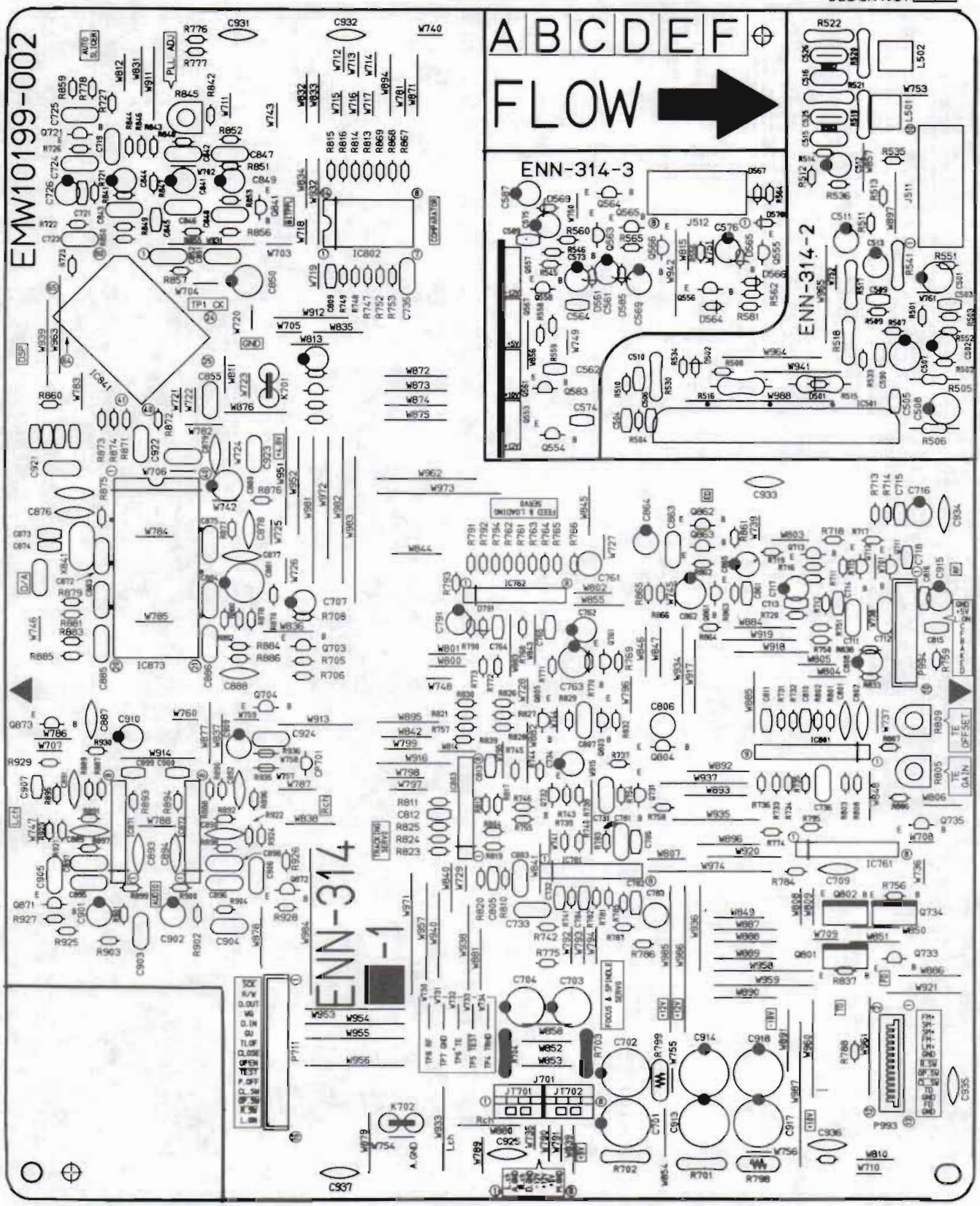
⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10182-102	CIRCUIT BOARD	A
		EMW10182-102	CIRCUIT BOARD	B
		EMW10182-002	CIRCUIT BOARD	C
		EMW10182-002	CIRCUIT BOARD	D
		EMW10182-002	CIRCUIT BOARD	E
		EMW10182-002BS	CIRCUIT BOARD	FBS
		EMW10182-002	CIRCUIT BOARD	G
	J001	EMB90YV-401A	SPEAKER TERMINAL	
	J051	EMV7125-004R	CONNECTOR(4PIN)	
	J501	EMV7122-103	CONNECTOR(3PIN)	
	J521	EMV7125-008R	CONNECTOR(8PIN)	
	J561	EMN00TV-405A	AP 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)	
⚠	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	EWR33B-10LST	FLAT WIRE(3PIN)	
	FW502	EWR36B-10LST	FLAT WIRE(6PIN)	
	FW701	EWR38B-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	EWT011-090	TERMINAL WIRE	A
	TW001	EWT011-090	TERMINAL WIRE	B
	XT631	ECX0004-194KM	RESONATOR	

⚠ : SAFETY PARTS

■ENN-314☐ CD Regulator & Power Amplifier PC Board Ass'y

Note : ENN-314☐ varies according to the areas employed. See note (1) when placing an order.

BLOCK NO. 0 2



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. [0][2]

⚠	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	

⚠ : SAFETY PARTS

I.C.s

⚠	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	

⚠ : SAFETY PARTS

Diodes

BLOCK NO. [0][2]

⚠	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	

⚠ : SAFETY PARTS

Capacitors

⚠	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	QCZ0202-155	1.5MF	25V	CERAMIC	
	C724	QFLB1HJ-563	0.056MF	50V	MYLAR	
	C725	QFV81HJ-564	0.56MF	50V	T.FILM	
	C726	QETB1EM-106	10MF	25V	ELECTRO	
	C731	QFLB1HJ-183	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	QFV81HJ-224	0.22MF	50V	T.FILM	
	C761	QEN51HM-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	QEN51HM-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	QEN51HM-225	2.2MF	50V	NON POLE	
	C807	QFLB1HJ-563	0.056MF	50V	MYLAR	

⚠ : SAFETY PARTS

Capacitors

BLOCK NO. 02

⚠	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	QCBB1HK-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	QETB0JM-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	QCBB1HK-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	QCZ0202-155	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	QETB0JM-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	QCZ0202-155	1.5MF	25V	CERAMIC	
	C922	QCZ0202-155	1.5MF	25V	CERAMIC	C

⚠ : SAFETY PARTS

Resistors

⚠	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

⚠ : SAFETY PARTS

Resistors

BLOCK NO. 02

⚠	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	

⚠ : SAFETY PARTS

Resistors

BLOCK NO. 02

⚠	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	
⚠	R798	PTH61G30BD2R2N	2.2		FUSIBLE	
⚠	R799	PTH61G30BD2R2N	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	

⚠ : SAFETY PARTS

Resistors

BLOCK NO. 02

⚠	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	

⚠ : SAFETY PARTS

Others

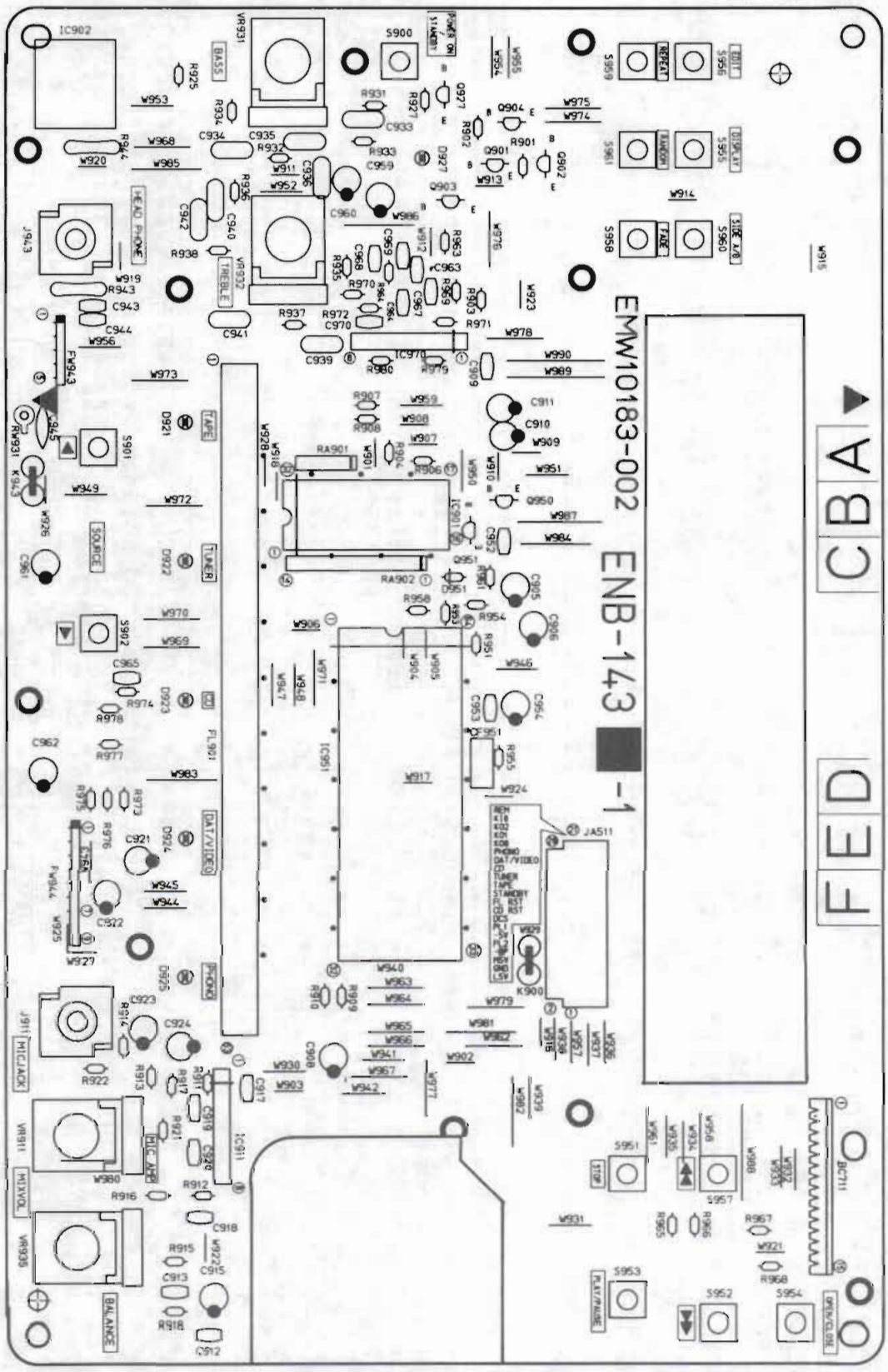
⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMW10199-002	CIRCUIT BOARD	
	J511	EMV7125-010R	CONNECTOR(10PIN)	
	J512	EMV7125-008R	CONNECTOR(8PIN)	
	L501	EQL0001-R45	INDUCTOR	
	L502	EQL0001-R45	INDUCTOR	
	P711	EMV5109-015A	PLUG ASSY(15PIN)	
	P993	VMC0161-013	MALE CONNECTOR(To CD Mecha.)	
	P994	EMV5109-010A	PLUG ASSY(10PIN)	
	X841	ECX0169-344KL	RESONATOR	
⚠	CP701	ICP-N5	I.C. PROTECTOR	
	JT701	EMV7122-004	CONNECTOR(4PIN)	
	JT702	EMV7122-004	CONNECTOR(4PIN)	

⚠ : 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. [0][3]

⚠	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	

⚠ : 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	

⚠ : 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	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C905	QEKS1HM-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	QCGB1HK-102	1000PF	50V	CERAMIC	E
	C913	QCGB1HK-102	1000PF	50V	CERAMIC	E
	C915	QEK51HM-105G	1MF	50V	ELECTRO	E
	C917	QCBB1HK-101	100PF	50V	CERAMIC	E
	C918	QCBB1HK-101	100PF	50V	CERAMIC	E
	C919	QCBB1HK-101	100PF	50V	CERAMIC	E
	C920	QCBB1HK-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	QCBB1HK-471	470PF	50V	CERAMIC	B
	C943	QCBB1HK-471	470PF	50V	CERAMIC	C
	C943	QCBB1HK-471	470PF	50V	CERAMIC	D
	C944	QCBB1HK-471	470PF	50V	CERAMIC	B
	C944	QCBB1HK-471	470PF	50V	CERAMIC	C

⚠ : SAFETY PARTS

Capacitors

BLOCK NO. [0][3]

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C944	QCBB1HK-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	QCBB1HK-101	100PF	50V	CERAMIC	
	C964	QCBB1HK-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	

⚠ : 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	QVJA84W-E15B	100K		VARIABLE	

⚠ : 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

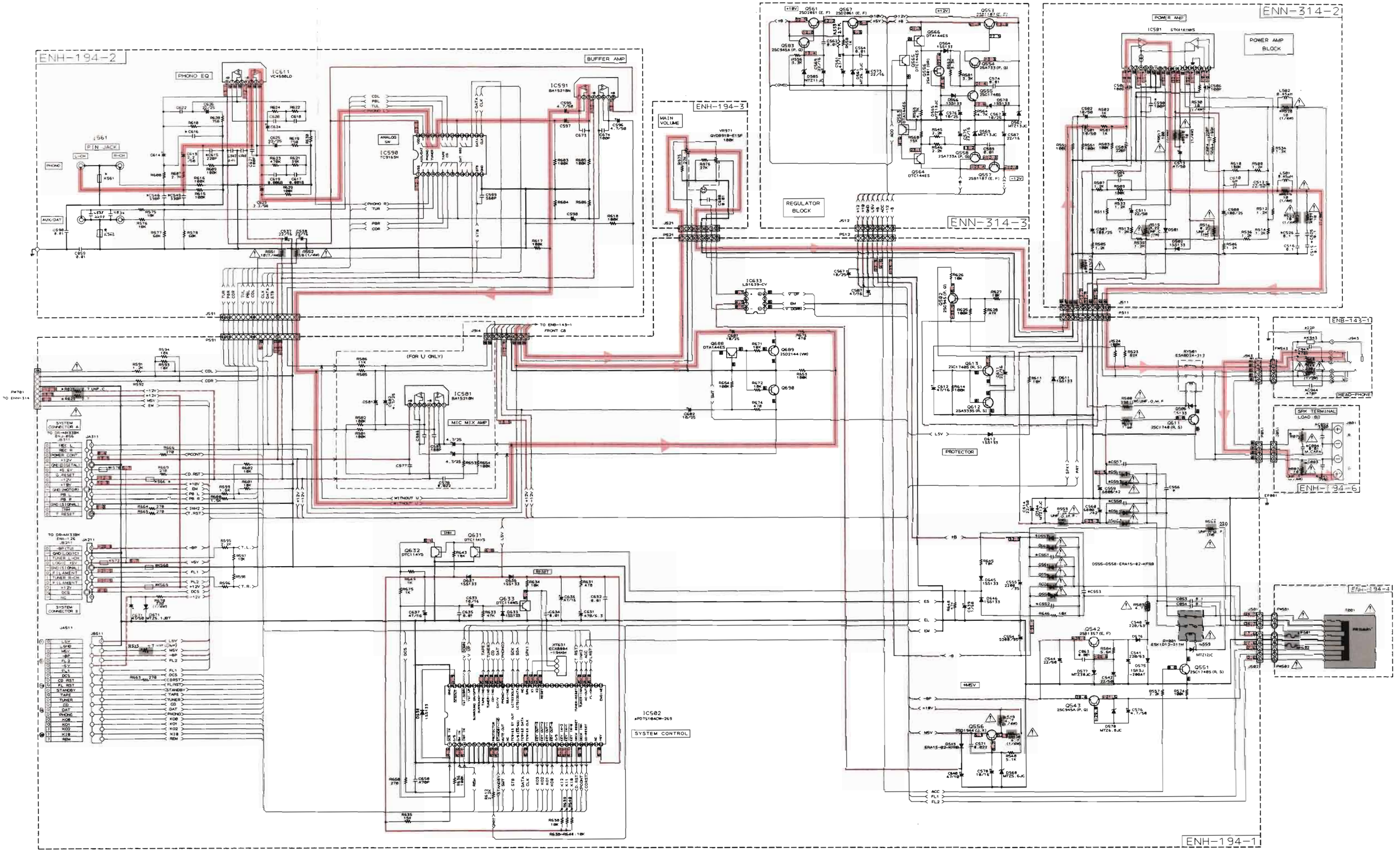
(1) Input Selector, System Control, Power Supply and Power Amplifier Section

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
C051, C052	NONE	NONE	NONE	NONE	USED
R071, R072	NONE	NONE	NONE	NONE	USED
C083, C084	NONE	NONE	NONE	NONE	USED
C077, C078	NONE	NONE	NONE	NONE	USED
C537, C538	NONE	NONE	NONE	NONE	USED
K539	SHORT	SHORT	NONE	NONE	USED
R538, R517, R541	UNF.C	UNF.C	UNF.F.	UNF.F.	UNF.F.

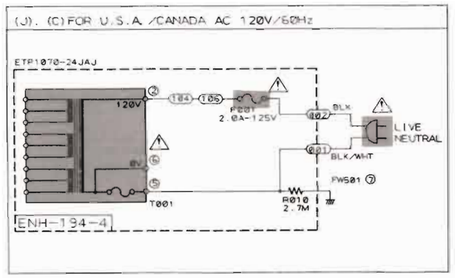
SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
R518	UNF.C.	UNF.F.	UNF.F.	UNF.F.	UNF.F.
C590	NONE	NONE	NONE	USED	USED
C556, C557, C558	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
C551, C552, C553	0.01/100	0.01/100	0.01/100	0.1/100	0.1/100
R021, R022	USED	USED	SHORT	SHORT	SHORT
R566	UNF.C.	UNF.C.	UNF.F.	UNF.F.	UNF.F.
C545, C546	NONE	NONE	NONE	USED	USED

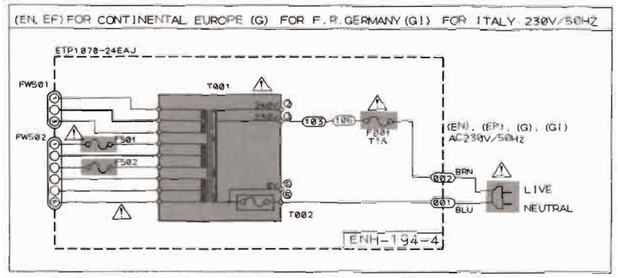
SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
C615, C616	100P	100P	100P	220P	220P
K561	SHORT	SHORT	SHORT	SHORT	USED
K562	SHORT	SHORT	SHORT	SHORT	USED
K565	SHORT	SHORT	SHORT	SHORT	USED
K566	SHORT	SHORT	SHORT	SHORT	USED
K567	SHORT	SHORT	SHORT	SHORT	USED
K568	SHORT	SHORT	SHORT	SHORT	USED
K569	SHORT	SHORT	SHORT	SHORT	USED

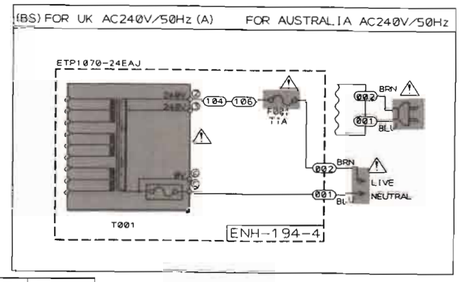
SYMBOL	J	C	U	EN, EF, A, V, VX, BS	G, GI
D551-D554	ERB12	ERB12	ERB12	ERB12	ERB12
R549	UNF.C.	UNF.C.	UNF.F	UNF.F.	UNF.F.
C545, C546	NONE	NONE	NONE	USED	
R519, R520	UNF.C.	UNF.C.	UNF.F	UNF.F.	
R521, R522	UNF.C.	UNF.C.	UNF.F	UNF.F.	

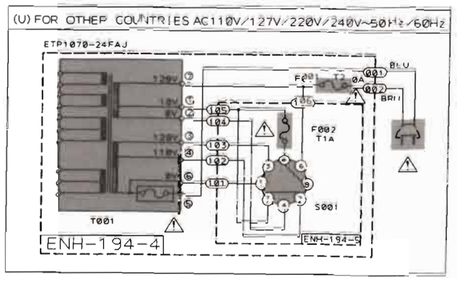


(2) Power Primary and Front Section







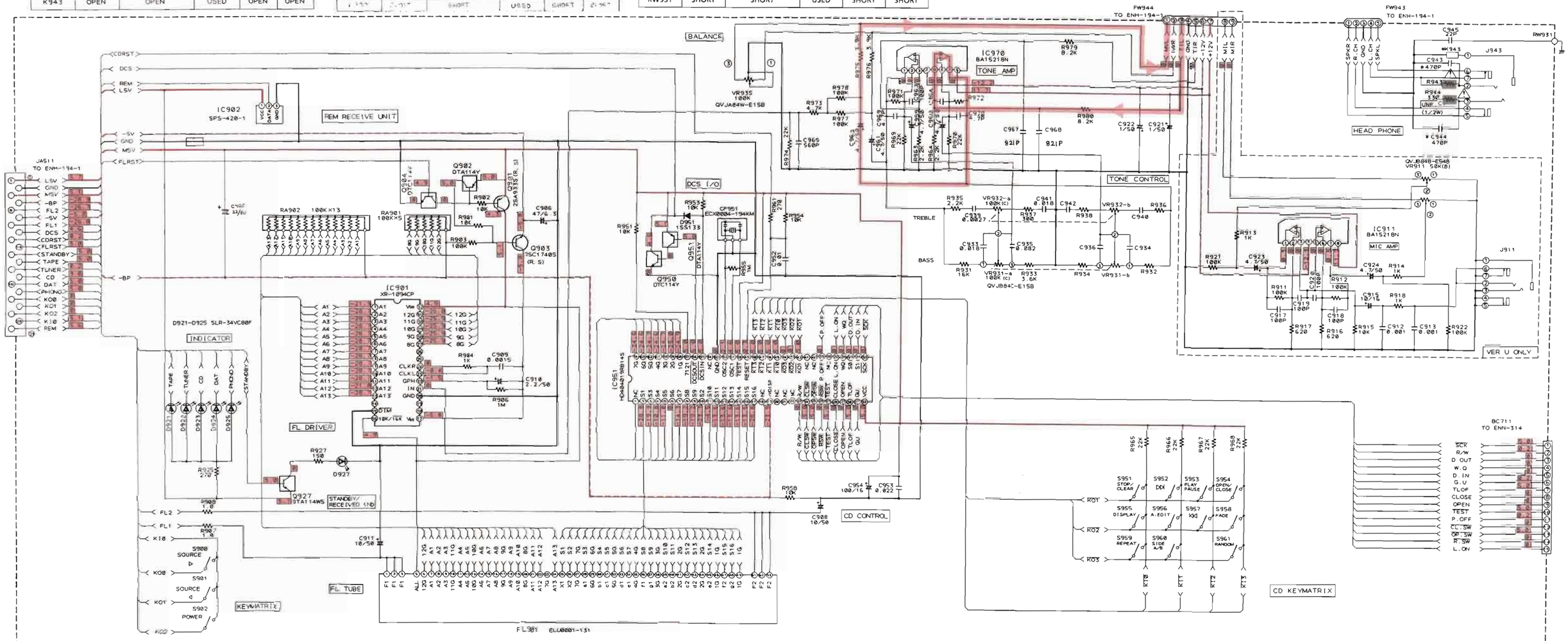


	J, C	A, EN, EF, V, VX	G, GI	BS	U
ENB-143	A	B	C	D	E
K943	OPEN	OPEN	USED	OPEN	OPEN

*LIST

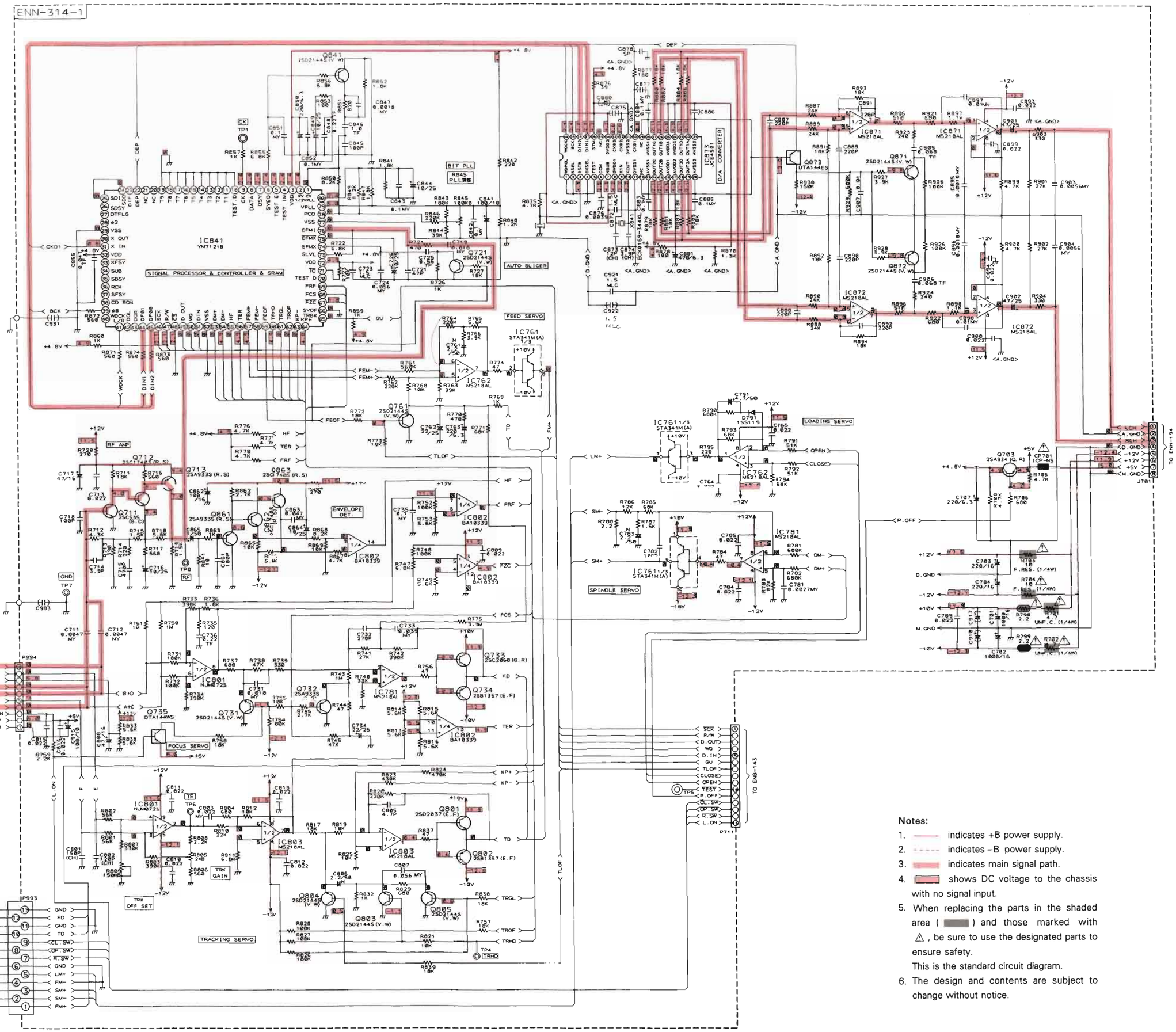
	J, C	A, EN, EF, V, VX	G, GI	BS	U
C943, 944	OPEN	OPEN	USED	OPEN	OPEN
[illegible]	[illegible]	SHORT	USED	SHORT	[illegible]

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

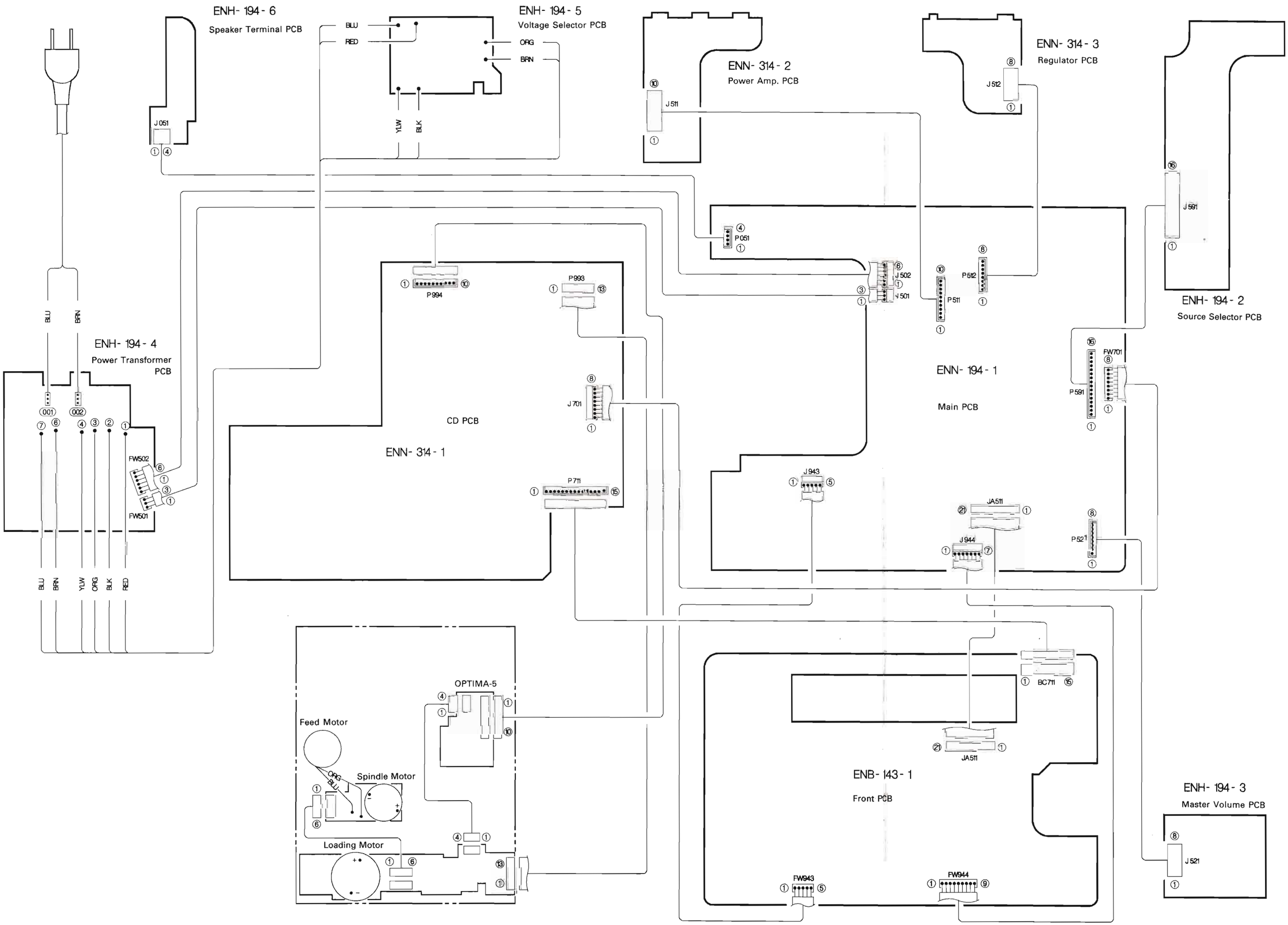
ENN-314-1



Notes:

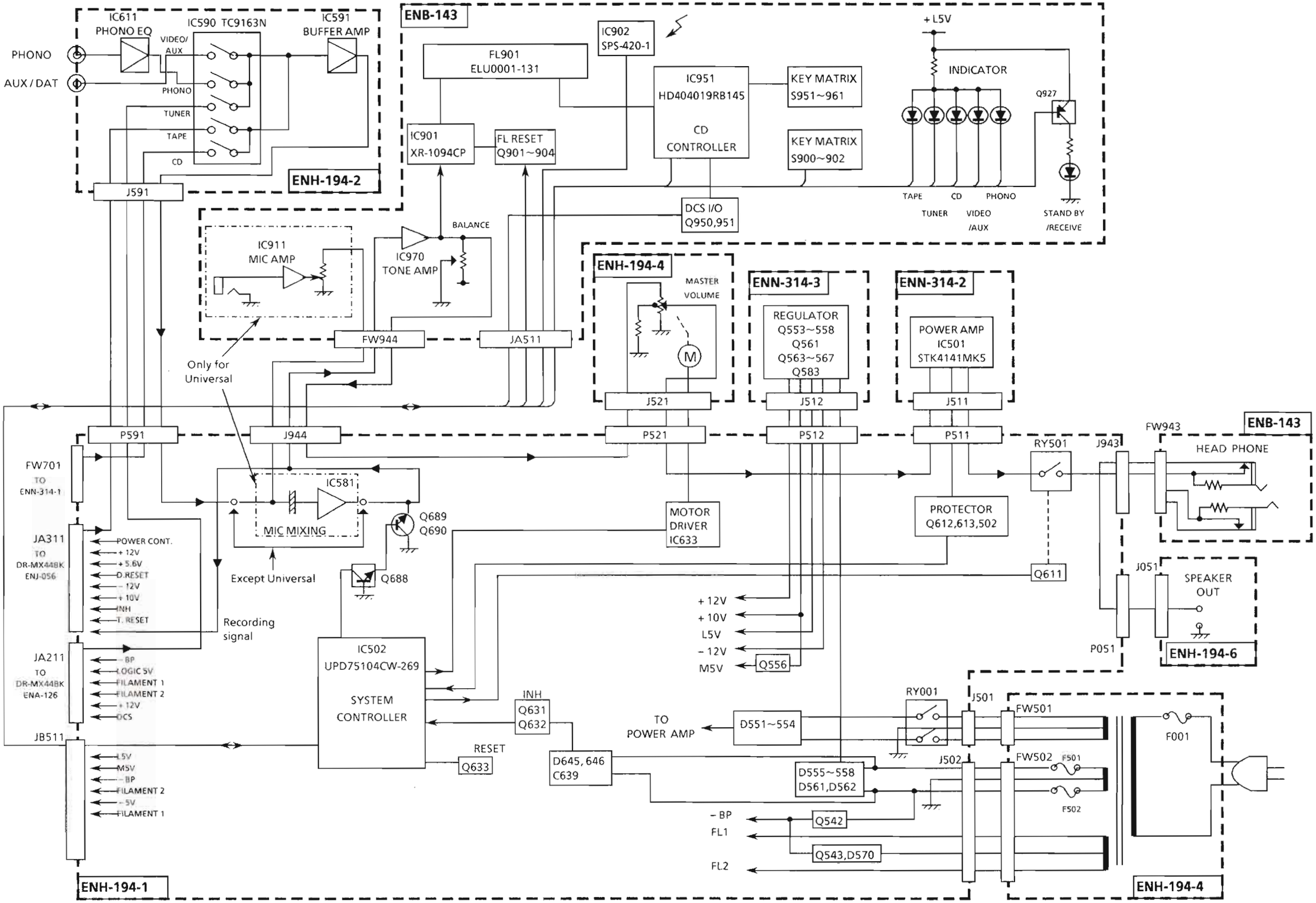
1. ——— indicates +B power supply.
2. - - - - indicates −B power supply.
3. ▬▬ indicates main signal path.
4. ▭ shows DC voltage to the chassis with no signal input.
5. When replacing the parts in the shaded area (▭) and those marked with ⚠, be sure to use the designated parts to ensure safety.
   This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

Connection Diagram



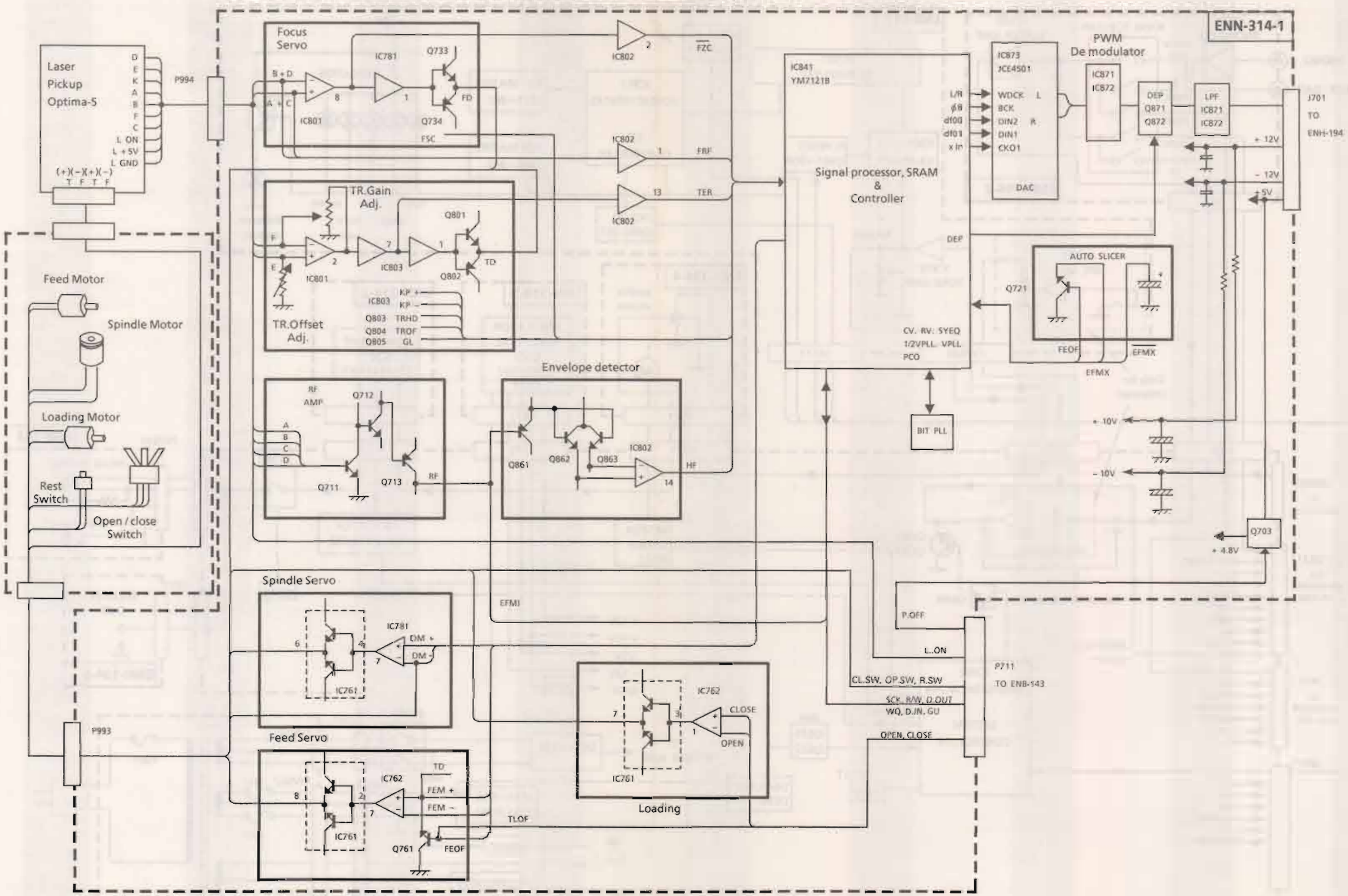
Block Diagrams

■ Audio Section



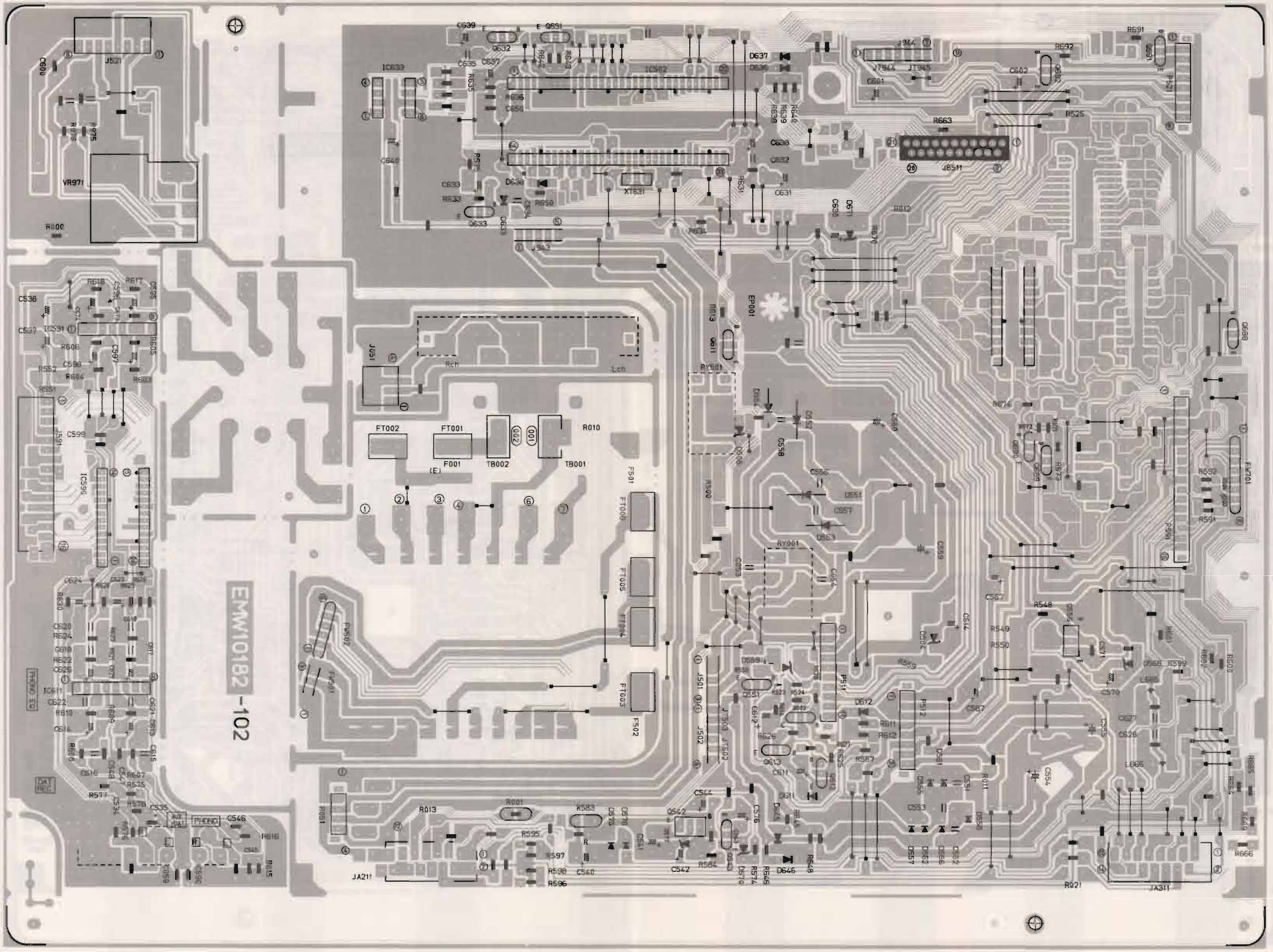
AX-MX44BK	AX-MX44BK

■ CD Section



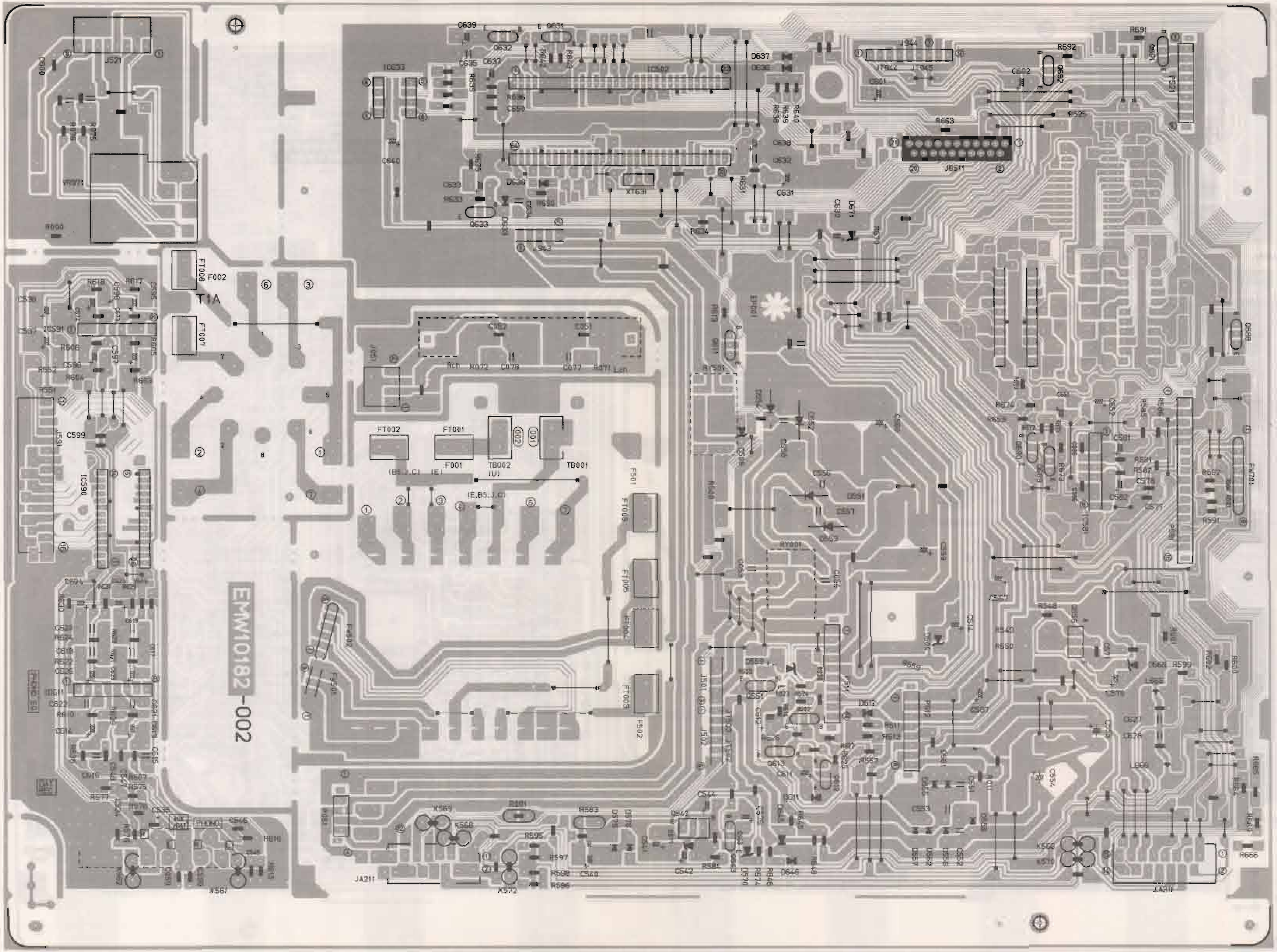
Printed Circuit Boards

■ **System Control & Input Selector PCB (ENH-194) For the U.S. and Canada**



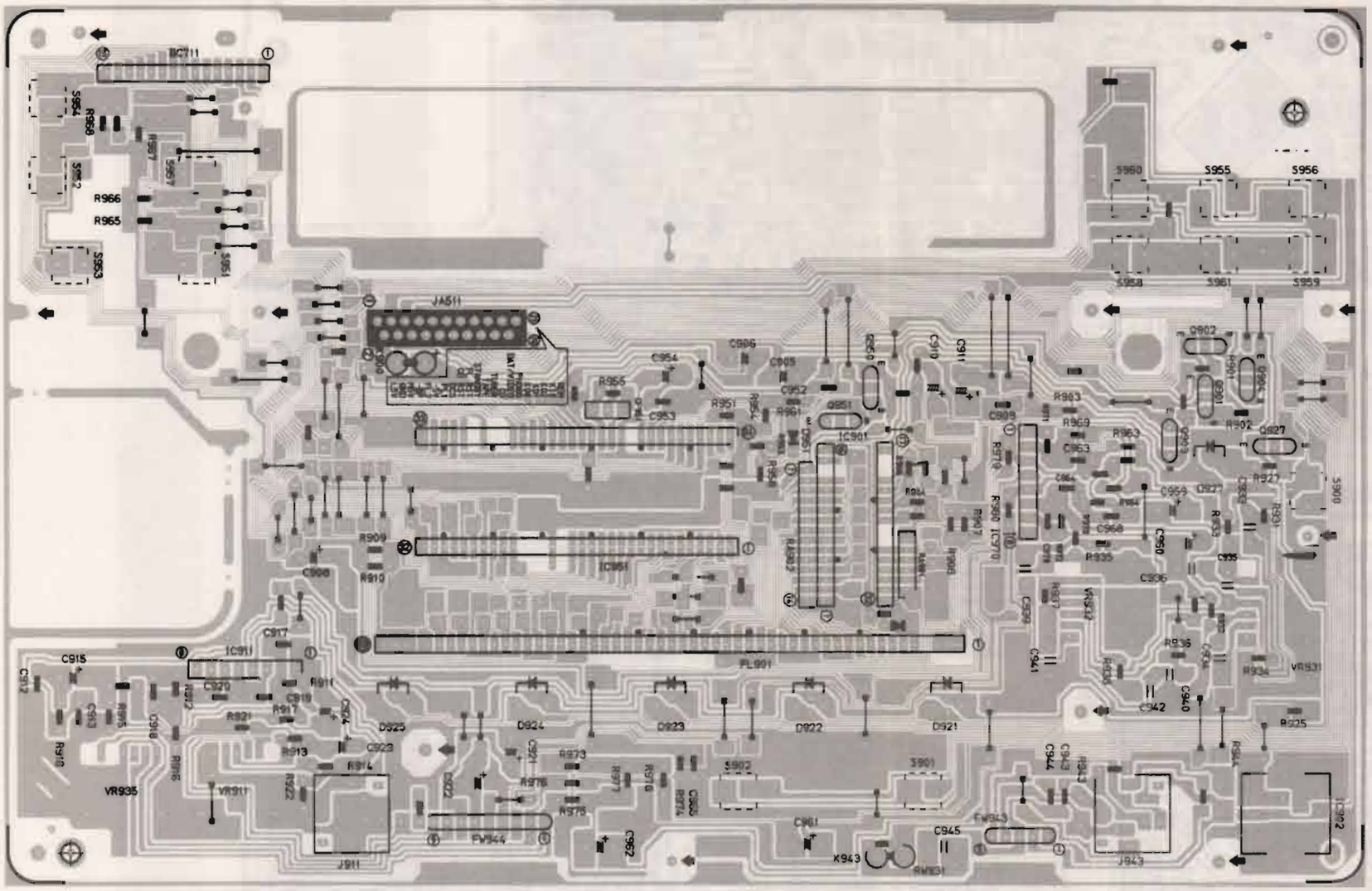
 AX-MX44BK

■ System Control & Input Selector PCB (ENH-194)



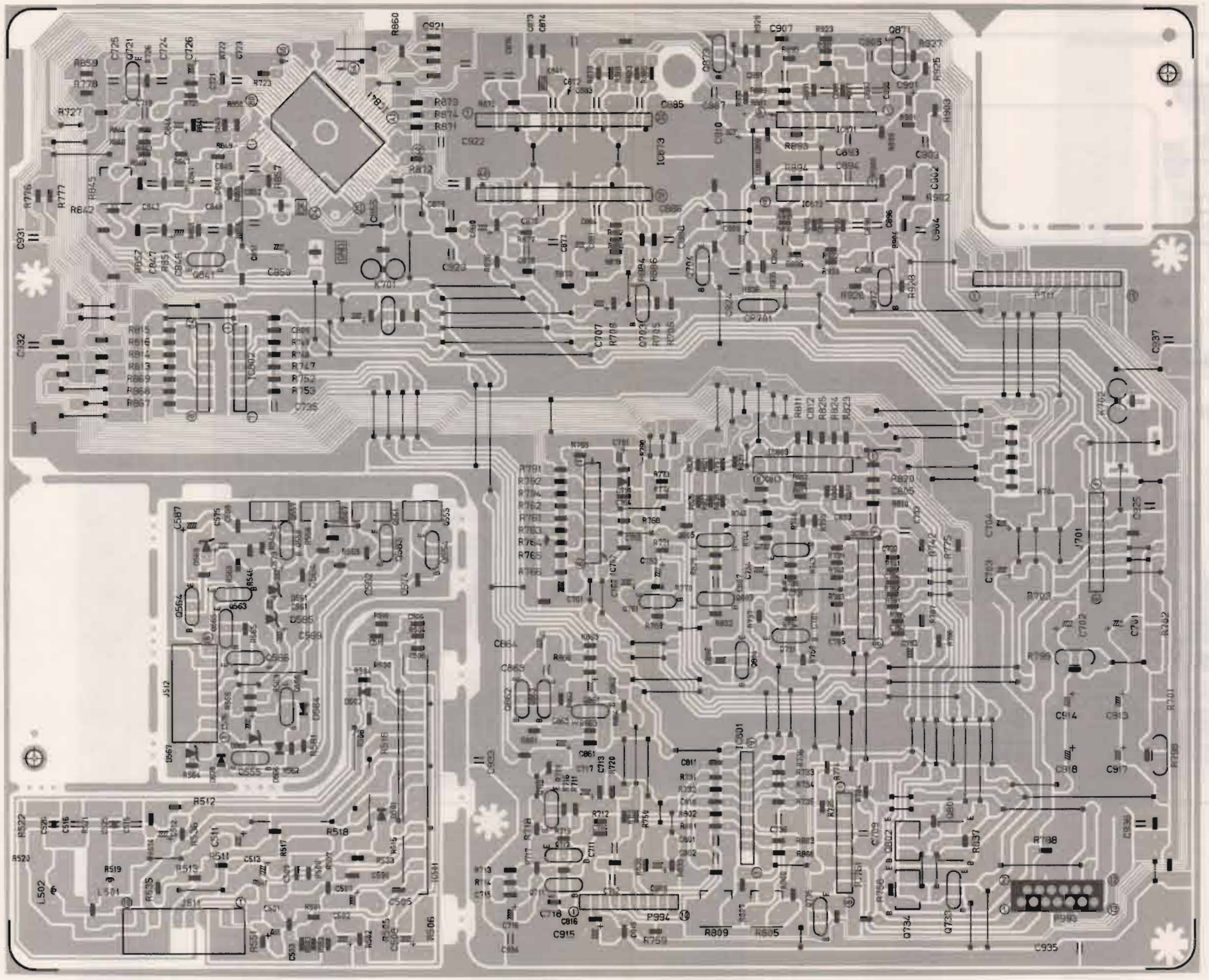
 (No. 20326)

■ **Front P.C.B. (ENB-143)**



AX-MX44BK	AX-MX44BK

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



(No. 20326) (No.20326)