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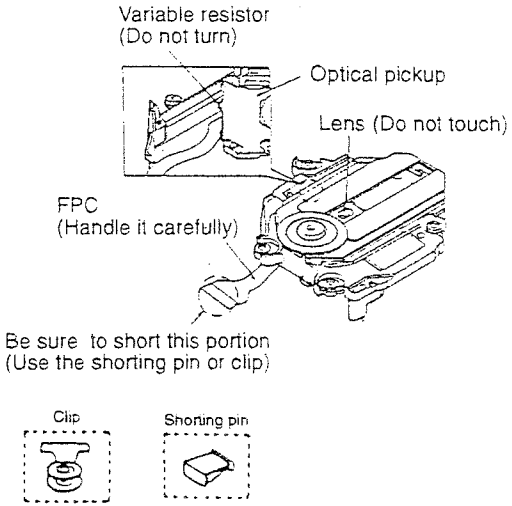
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HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the traverse deck (optical pickup) may break down due to potential difference caused by static electricity of clothes or human body.
So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

Handling of traverse deck (optical pickup)

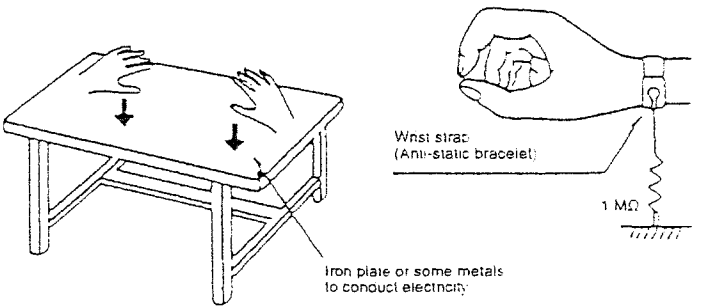
- 1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
- 2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FPC board). When removing or connecting the short pin, finish the job in as short time as possible.
- 3. Take care not to apply excessive stress to the flexible board (FPC board).
- 4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.



Grounding for electrostatic breakdown prevention

- 1. Human body grounding
Use the anti-static wrist strap to discharge the static electricity from your body.
- 2. Work table grounding
Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

Caution :
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).



Service Manual

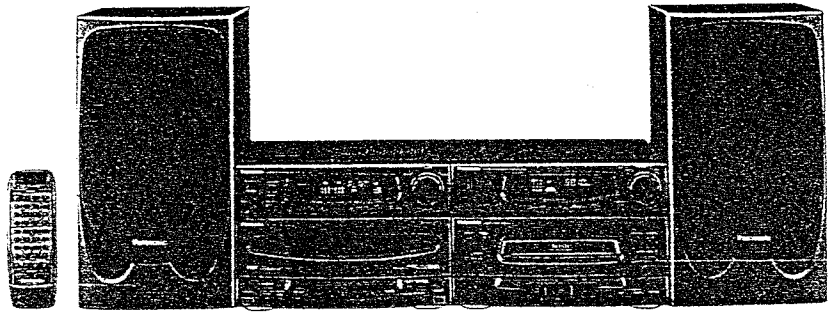
ORDER NO. MD9401001C2



Tuner/Compact Disc Player

010704 SL-CH40

Colour (K) ... Black Type



SB-CH40 SU-CH40 SL-CH40 SB-CH40

Suffix for Model No.	Area	Colour
(E)	Continental Europe, Great Britain	(K)
(EG)	F.R. Germany/Italy	

TRAVERSE DECK : MECHANISM SERIES (RAE0113Z)

SPECIFICATIONS

FM TUNER SECTION

Frequency range	87.50 — 108.00 MHz
Sensitivity	23.3 dBf (4.0 μV, IHF '58)
Total harmonic distortion	
MONO	0.3%
STEREO	0.5%
S/N Ratio	
MONO	60 dB(65 dB, IHF)
Image rejection at 98 MHz	35 dB
Stereo separation	
1 kHz	35 dB
Antenna terminal(s)	75 Ω (unbalanced)

CD PLAYER

Sampling frequency	44.1 kHz
Decoding	16-bit linear
Beam Source/wave length	Semiconductor laser/780nm
Number of channels	2 - channel, Stereo
Frequency response	20 Hz-20 kHz (+1, -2 dB)
S/N Ratio	90 dB filter (JIS. A)
Wow and Flutter	Below measurable limit
Digital filter	4 times over sampling
D/A converter	Multi stage noise shaping

GENERAL

Power consumption	130 W
Power supply	AC 50 Hz, 230 — 240 V
Dimension (W x H x D)	270 x 184.4 x 304.8 mm
Weight	3.2 kg

AM TUNER SECTION

Frequency range	
MW	522 — 1611 kHz
LW	144 — 288 kHz
Sensitivity (for 500 mW)	
MW (at 999 kHz)	250 μV/m
LW (at 216 kHz)	500 μV/m

- Notes :
- 1. Specifications are subject to change without notice.
 - Weight and dimensions shown are approximate.
 - 2. Total harmonic distortion is measured by the digital spectrum analyzer.



System	Amplifier/Cassette player	Tuner/Disc player	Speaker
SC-CH40E	SD-CH40E	SL-CH40E	SB-CH40E (MADE IN PAES)
SC-CH40EB	SU-CH40E	SL-CH40E	
SC-CH40EB	SD-CH40EB	SL-CH40E	
SC-CH40EB	SU-CH40EB	SL-CH40E	
SC-CH40EG	SD-CH40EG	SL-CH40EG	
SC-CH40EG	SU-CH40EG	SL-CH40EG	

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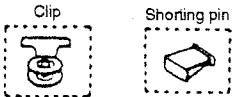
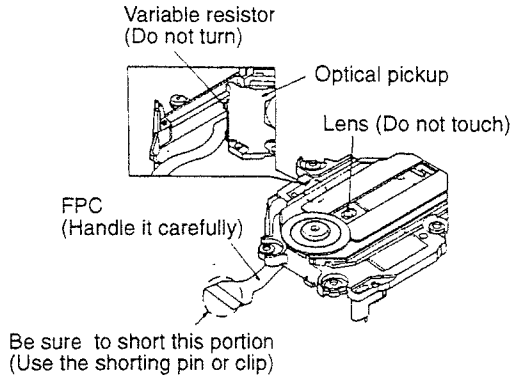
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Handling of traverse deck (optical pickup)

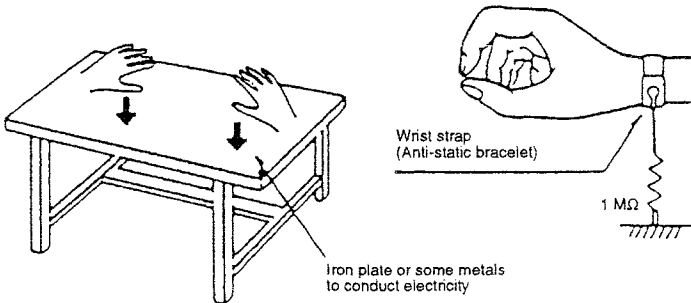
- 1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
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Caution :
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).



PRECAUTION OF LASER DIODE

CAUTION : This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pick up lens.
Wave length : 780 nm
Maximum output radiation power from pick up : 100 μW/VDE

Laser radiation from the pick up lens is safety level, but be sure the followings:

- 1. Do not disassemble the optical pick up unit, since radiation from exposed laser diode is dangerous.
- 2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
- 3. Do not look at the focus lens using optical instruments.
- 4. Recommend not to look at pick up lens for a long time.

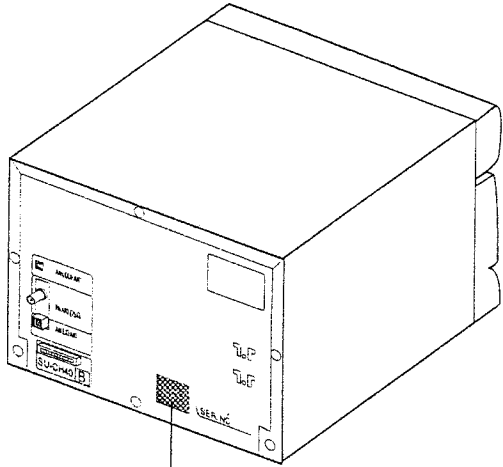
ACHTUNG: Dieses produkt enthält eine laserdiode. Im eingeschalteten zustand wird unsichtbare laserstrahlung von der lasereinheit abgestrahlt.

Wellenlänge : 780nm
Maximale strahlungsleistung der lasereinheit :100μW/VDE

Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

- 1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
- 2. Den werkseitig justierten einstellregler der lasereinheit nicht verstellen.
- 3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
- 4. Nicht über längere zeit in die fokussierlinse blicken.

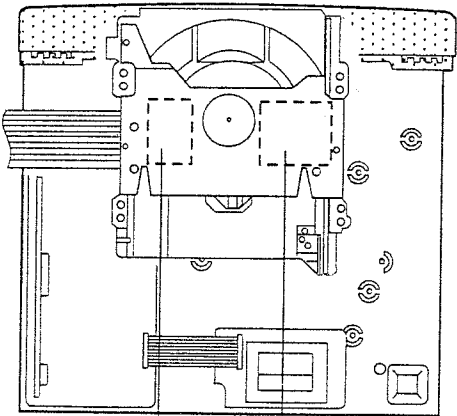
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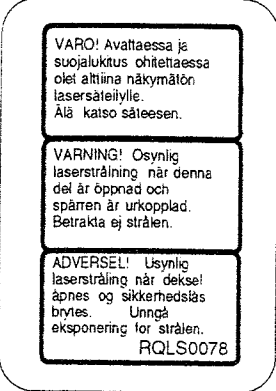
RQT4389ZAA



LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT



RQLS0078
(for E area only)



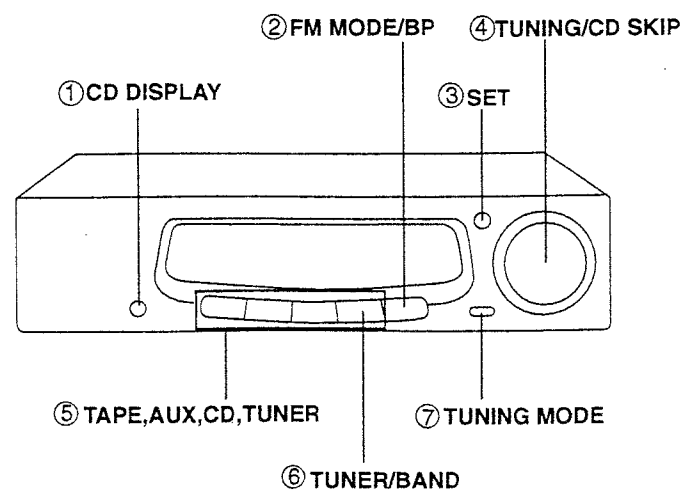
RQLS0021



FRONT PANEL CONTROLS AND FUNCTIONS

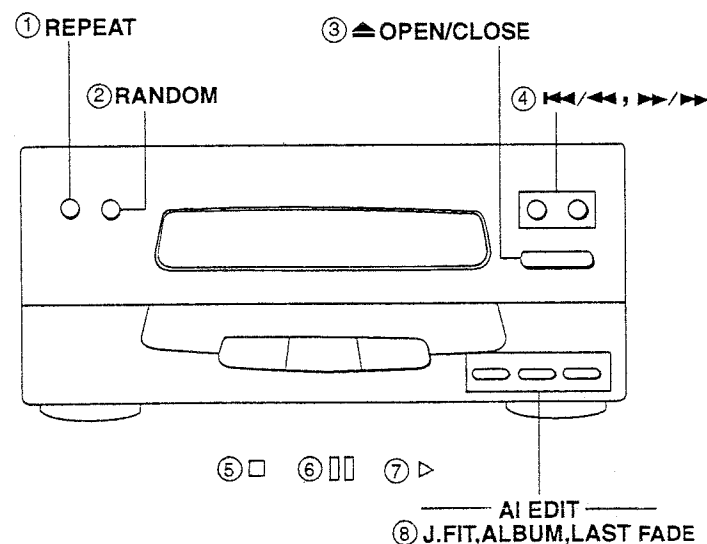
Tuner sections

- ① CD display mode select button (CD DISPLAY)
- ② FM mode/beat proof button (FM MODE/BP)
- ③ Setting button (SET)
- ④ Tuning/CD skip dial (TUNING/CD SKIP)
- ⑤ Input select buttons (CD, TAPE, AUX)
- ⑥ Select tuner/band button (TUNER/BAND)
- ⑦ Tuning mode select button (TUNING MODE)



Compact disc player section

- ① Repeat button (REPEAT)
- ② Random play button (RANDOM)
- ③ Disc tray open/close button (▲ OPEN/CLOSE)
- ④ Skip/search buttons (◀◀, ▶▶)
- ⑤ Stop button (□)
- ⑥ Pause button (⏸)
- ⑦ Play button (▶)
- ⑧ Compact disc edit recording buttons (AI EDIT: J.FIT, ALBUM, LAST FADE)

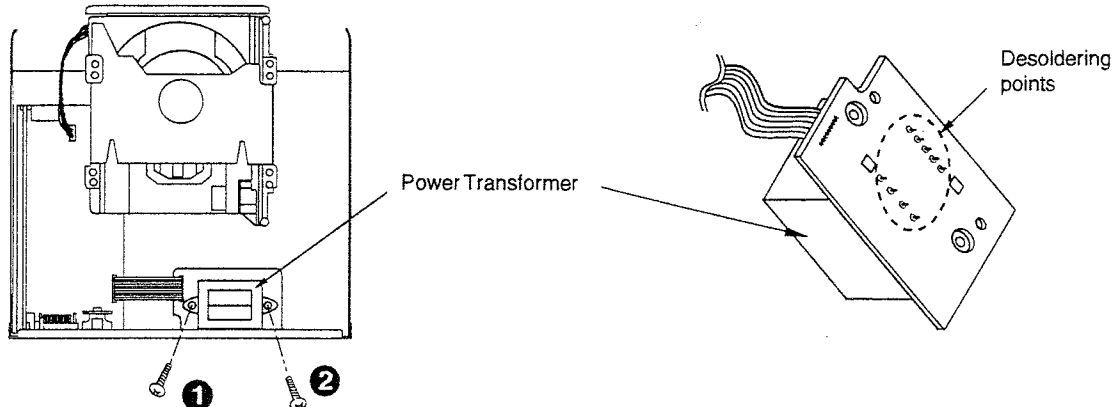
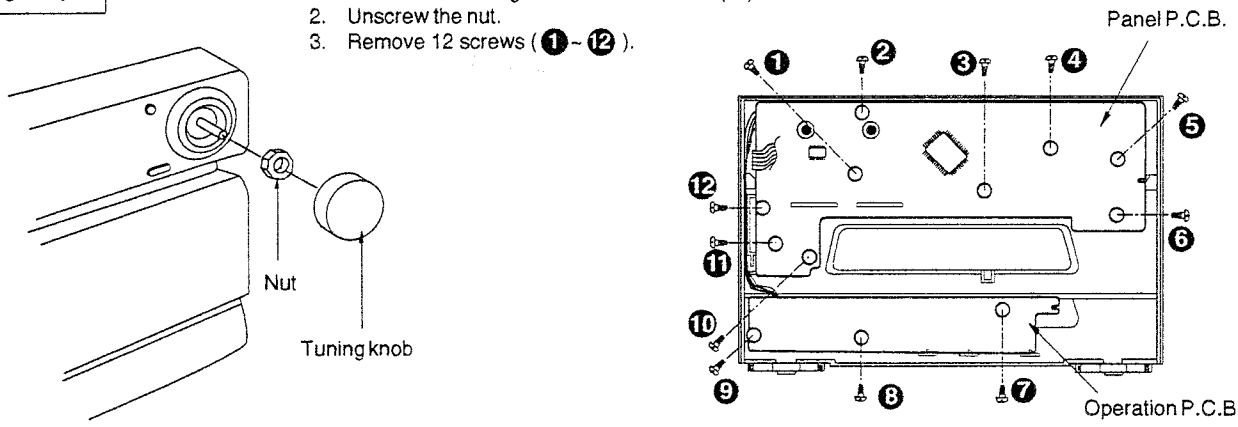
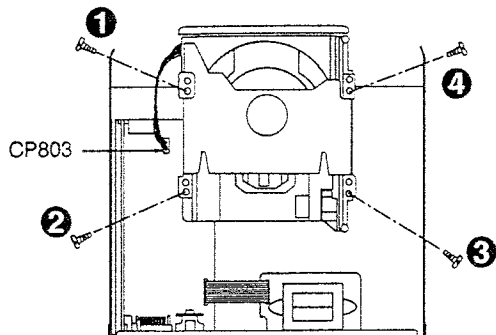
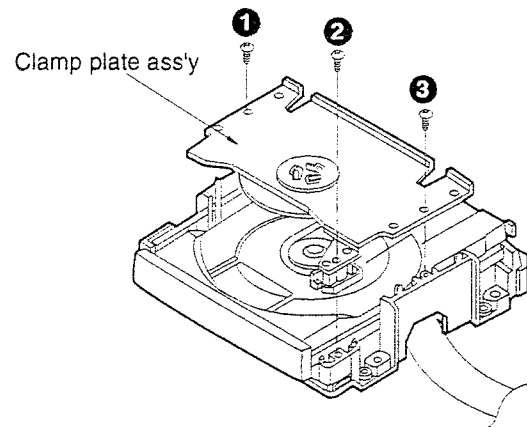


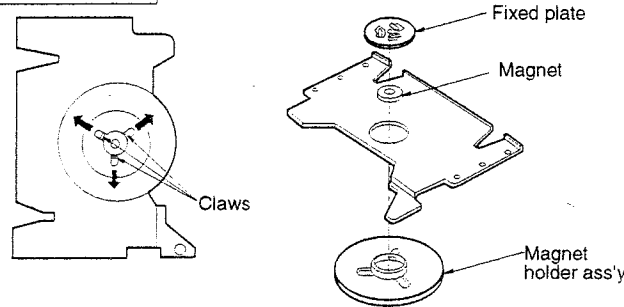
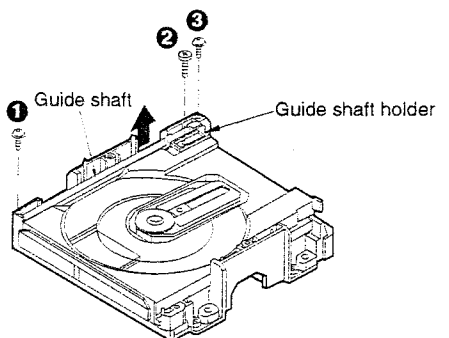
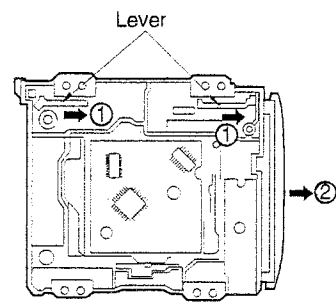
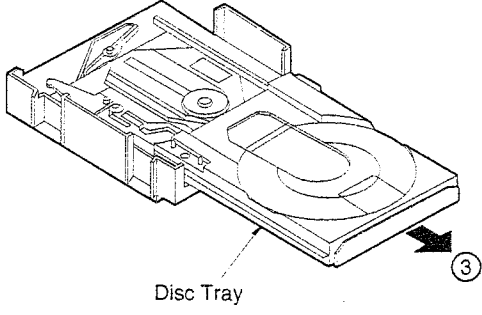
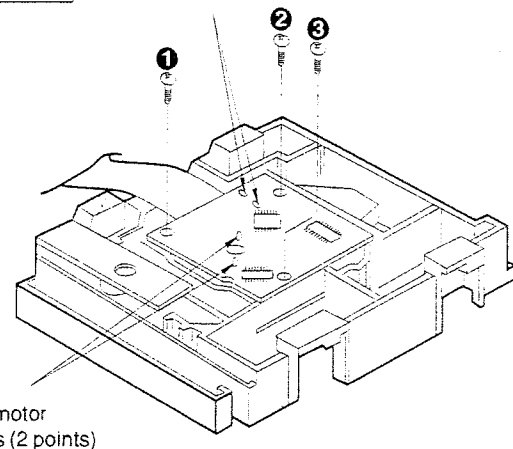
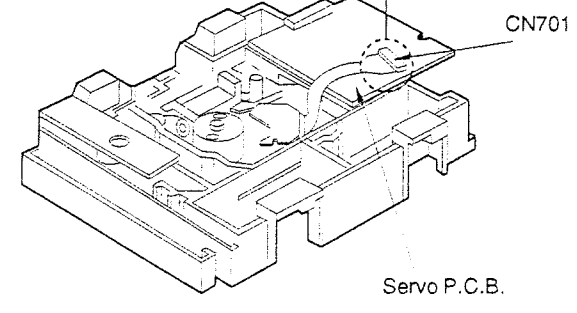
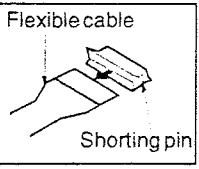
DISASSEMBLY INSTRUCTIONS

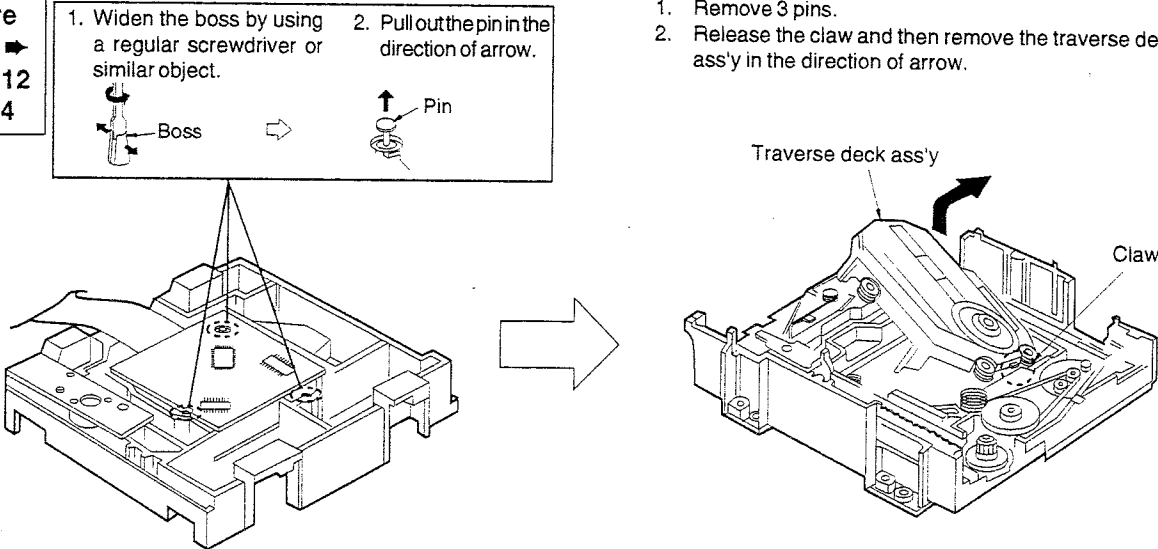
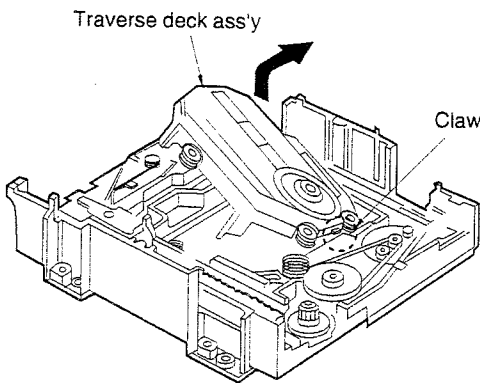
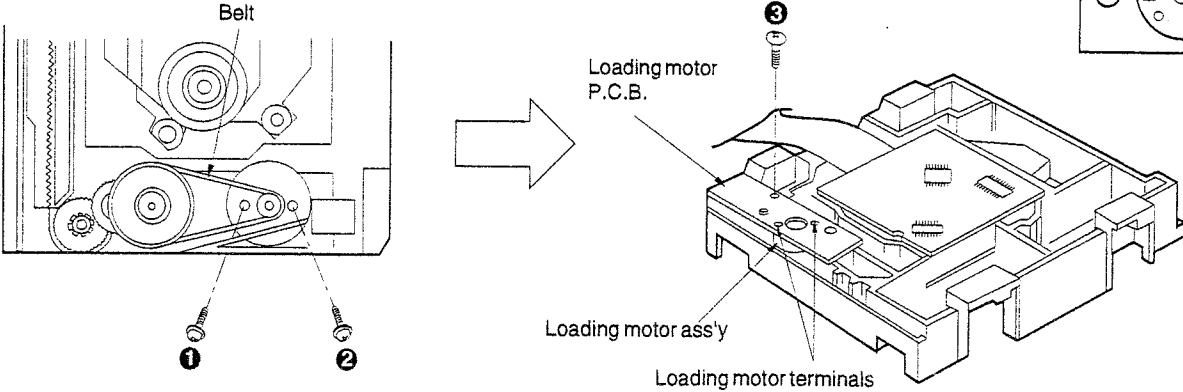
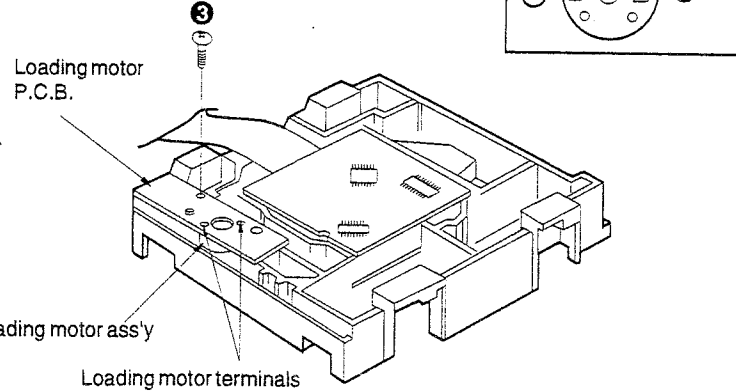
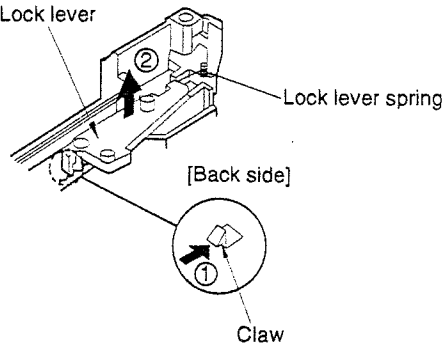
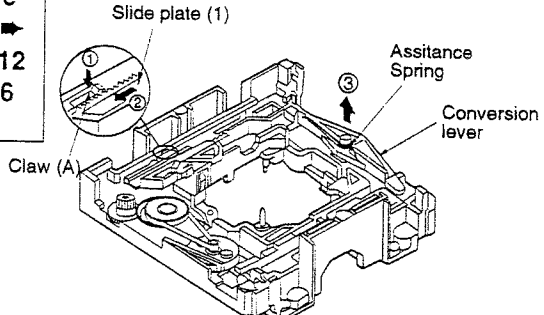
Warning: This product uses a laser diode. Refer to caution statements on page 3.

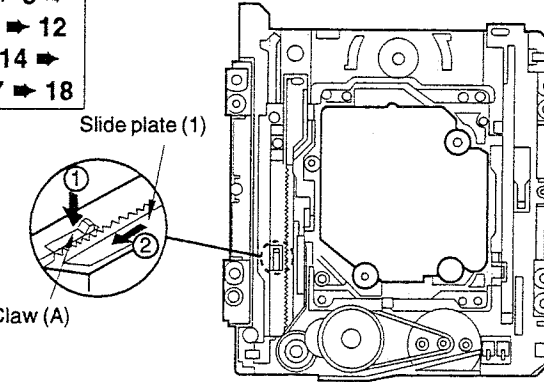
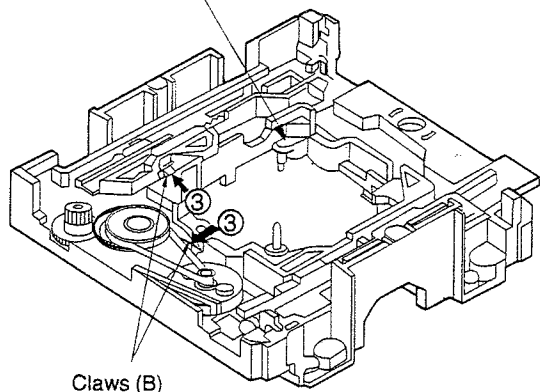
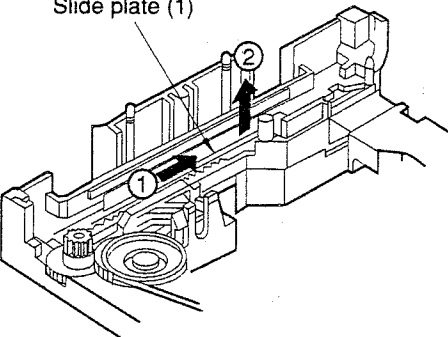
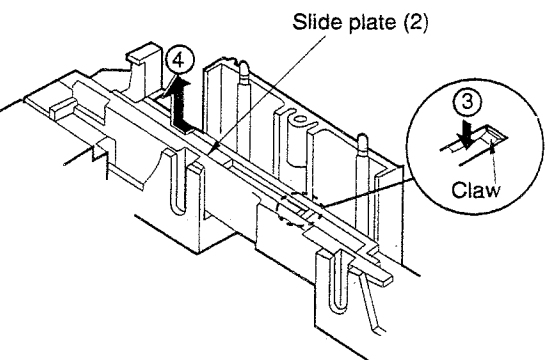
ACHTUNG: • Die Lasereinheit nicht zerlegen.
• Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

Ref. No. 1	Removal of the Cabinet	Ref. No. 2	Removal of the Rear Panel
Procedure 1	Remove 7 screws (① - ⑦).	Procedure 1 → 2	Remove 4 screws (① - ④).
Ref. No. 3	Removal of the Tuner P.C.B.	Ref. No. 4	Removal of the Main P.C.B.
Procedure 1 → 2 → 3	Pull out the Tuner P.C.B. by following the arrows.	Procedure 1 → 2 → 3 → 4	- Pull out 3 wires from the connectors (CN900B, CN800, CP803). - Remove 3 screws (① - ③).
Ref. No. 5	Removal of the Front Panel		
Procedure 1 → 5	- Remove 2 screws (①, ②). - Remove 3 connectors (CN902A, CN900A, CN800).		

Ref. No. 6	Removal of the Power Transformer				
Procedure 1 ➡ 6	1. Remove 2 screws (❶, ❷). 2. Desolder 9 points and take out the Power Transformer.				
					
Ref. No. 7	Removal of the Panel P.C.B. and Operation P.C.B.				
Procedure 1 ➡ 5 ➡ 7	1. Remove the tuning knob with a flat head (—) screwdriver. 2. Unscrew the nut. 3. Remove 12 screws (❶ ~ ❷).				
					
Ref. No. 8	Removal of the CD unit		Ref. No. 9	Removal of the Clamp Plate Ass'y	
Procedure 1 ➡ 5 ➡ 8	1. Remove 4 screws (❶ ~ ❹). 2. Pull out connectors CP803.		Procedure 1 ➡ 5 ➡ 8 ➡ 9	• Remove the 3 screws (❶ ~ ❸).	
					

Ref. No. 10	Removal of the fixed plate, magnet and magnet holder ass'y	Ref. No. 11	Removal of the guide shaft and guide shaft holder
Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 10	 Release 3 claws.	Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11	 - Remove 3 screws (❶ ~ ❸). - Remove the guide shaft and guide shaft holder in the direction of arrow.
Ref. No. 12	Removal of the disc tray		
Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12	 Push the 2 levers in the direction of arrow ❶ until the traverse unit goes down and pull the tray slightly in the direction of arrows ❷.	 Remove the disc tray in the direction of arrow ❸.	
Ref. No. 13	Removal of the Servo P.C.B.	※ Push the top of the connector in the direction of arrow ❶, and then pull out the flexible cable in the direction of arrow ❷.	
Procedure 1 ➡ 5 ➡ 8 ➡ 13	Traverse motor terminals (2 points) 		
Spindle motor terminals (2 points) - Remove the 3 screws (❶ ~ ❸). - Unsolder the spindle motor terminals (2 points). - Unsolder the traverse motor terminals (2 points).		CN701 Servo P.C.B. Remove the FPC board (CN701). Note: Insert a shorting pin into the traverse unit flexible cable. (Refer to "handling precautions for traverse deck" on page 2.) 	

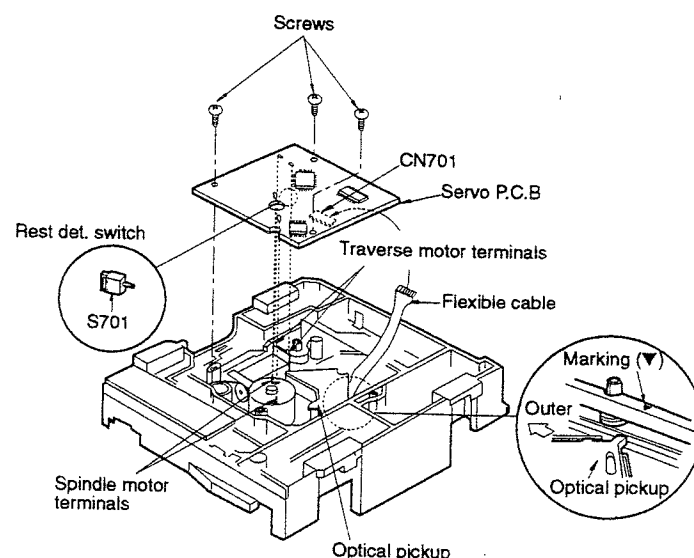
Ref. No. 14 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 13 ➡ 14	Removal of the traverse deck ass'y 1. Widen the boss by using a regular screwdriver or similar object. 2. Pull out the pin in the direction of arrow. 	1. Remove 3 pins. 2. Release the claw and then remove the traverse deck ass'y in the direction of arrow. 
Ref. No. 15 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 15	Removal of the loading motor P.C.B. and loading motor 1. Remove the belt. 2. Remove the 2 screws (1, 2). 	3. Remove 1 screws (3). 4. Unsolder the loading motor ass'y terminals (2 points). 
Ref. No. 16 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 16	Removal of the lock lever 	Ref. No. 17 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 13 ➡ 16 ➡ 17 

Ref. No. 18 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 13 ➡ 14 ➡ 16 ➡ 17 ➡ 18	Removal of the Traverse Chassis ass'y 	Traverse chassis ass'y 
Ref. No. 19 Procedure 1 ➡ 5 ➡ 8 ➡ 9 ➡ 11 ➡ 12 ➡ 13 ➡ 14 ➡ 16 ➡ 17 ➡ 18 ➡ 19	Removal of the slide plate (1) and slide plate (2) 	

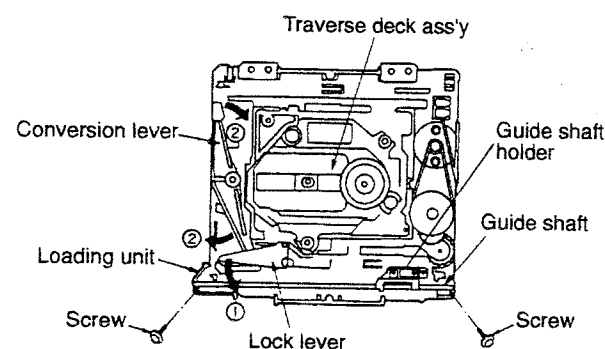
■ INSTALLING SERVO P.C.B.

1. Before installing the servo P.C.B., move the optical pickup toward the outer edge from the mark "▲".
[Otherwise, the rest switch (S701) mounted on the servo P.C.B. may be damaged.]
2. Connect the flexible cable to the connector (CN701).
3. Install the servo P.C.B. in the traverse deck ass'y with the 3 screws.
4. Solder the 2 terminals of the traverse motor and the 2 terminals of the spindle motor.

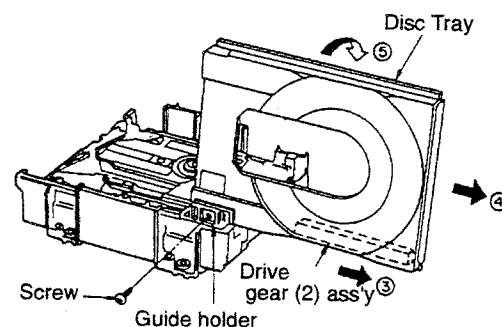
Note: Connect the flexible cable to the connector (CN701) firmly. Tighten the screws before soldering the terminals.



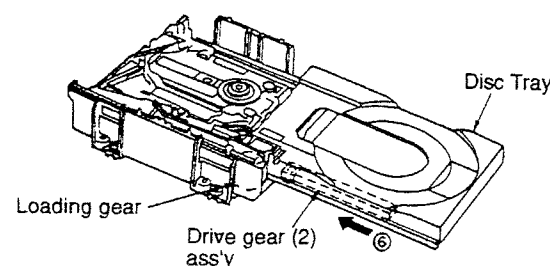
■ INSTALLING DISC TRAY



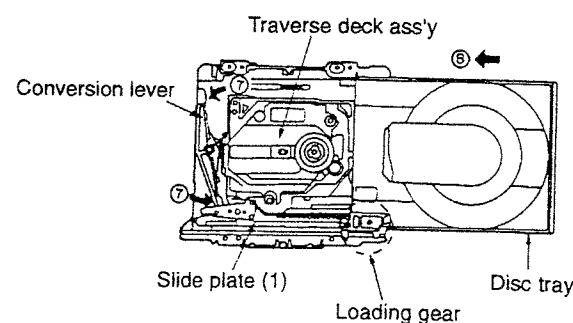
1. Move lock lever in the direction of arrow ① and conversion lever in the direction of arrow ②.
2. Install the guide shaft and guide shaft holder on the loading unit.
3. Install the disc tray on the guide shaft holder with the screw as shown above.



4. Slide the drive gear (2) ass'y fully in the direction of arrow ③.
5. Slide the disc tray fully in the direction of arrow ④.
6. Lay the disc tray down in the direction of arrow ⑤.



7. Slide the drive gear (2) ass'y in the direction of arrow ⑥.
8. Holder the disc tray and slide the under tray fully the direction of arrow ⑥.
[Slide but very little and the loading gear is engaged with drive gear (2) ass'y.]



9. Slide the conversion lever fully in the direction of arrow ⑦, and the drive gear (2) ass'y engages with the slide plate (1).
(The traverse deck ass'y is lowered.)
10. Slide the disc tray in the direction of arrow ⑧.

■ MEASUREMENTS AND ADJUSTMENTS

Warning: This product uses a laser diode. Refer to caution statements on page 3.

Caution: It is very dangerous to look or touch the laser beam. (laser radiation is invisible)
With the unit turned "on", laser radiation is emitted from the pickup lens.
Avoid exposure to the laser beam, especially when performing adjustments.

Measuring Instruments and Special Tools

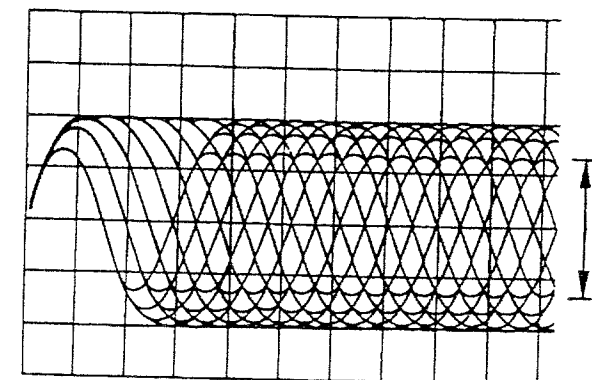
- * Test discs
 1. Playability test disc (SZZP1054C).
 2. Uneven test disc (SZZP1056C).
 - * Musical program disc (ordinary).
- * Dual-beam oscilloscope with bandwidth of 30 MHz or better (with EXT. trigger and 1 : 1 probe).
- * Allen wrench (M2.0) (SZZP1101C).
- * Lock paint (RZZ0L01)

(1) MECHANICAL ADJUSTMENT

- When the traverse deck is replaced, making adjustments is not necessary. (The traverse deck ass'y is already adjusted.)
 - Make adjustments to improve playability if the traverse deck has not been replaced.
1. Connect the oscilloscope's CH.1 probe across **TJ701** (RF) (+) and **TJ702** (V-Ref.) (-) on the servo P.C.B.

Oscilloscope setting : VOLT200mV.
SWEEP.....0.5μs.
Input couplingAC.

2. Switch the player power **ON**, and play track 19 on the test disc (SZZP1056C).
(Playing any other track will prevent the HEX screws from being accessed.)
3. Leave the player in play mode.
4. Alternately adjust the HEX screws with the 2.0mm allen wrench (SZZP1101C) until the vertical fluctuation of RF signal is minimized and the eye pattern is most stretched. (Refer to Fig. 2 on page 12)
5. After completing the adjustment, lock the HEX screws with lock paint (RZZ0L01).



* Most stretched eye pattern

(3) CHECK OF PLAY OPERATION AFTER ADJUSTMENT

* Checking skip Search

1. Play an ordinary musical program disc.
2. Press the skip button to check for normal skip search operation (in both the forward and reverse directions).

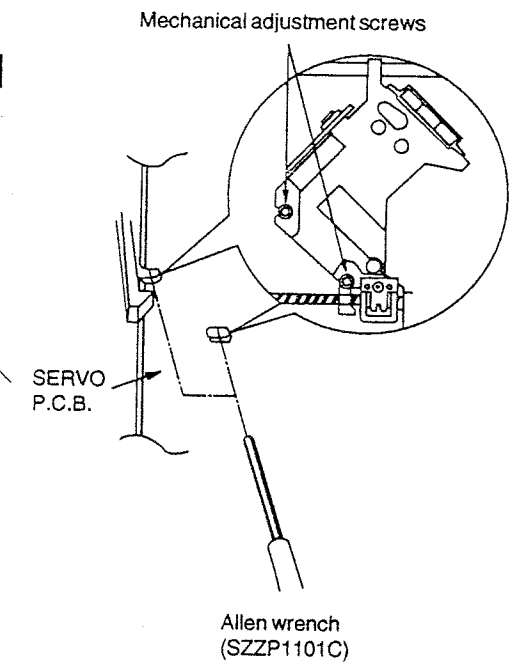
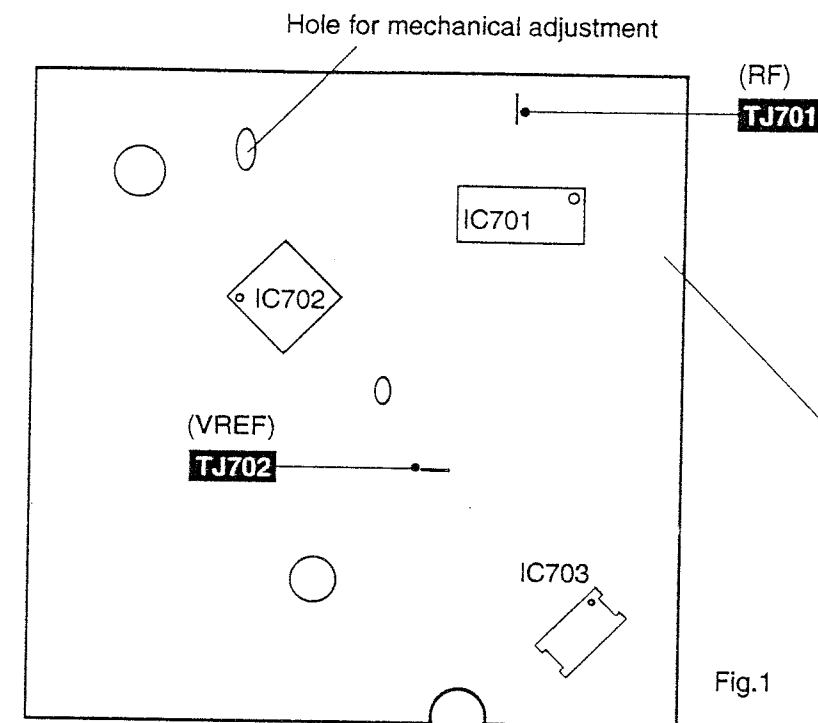
* Checking Manual Search

1. Play an ordinary musical program disc.
2. Press the manual search button to check for smooth manual search operations at either low or high speed (in both the forward and reverse directions).

* Checking Playability

1. Play the 0.7mm black dot and the 0.7mm wedge on the test disc (SZZP1054C) and verify that no sound skip or noise occurs.
2. Play the middle tracks of the uneven test disc (SZZP1056C) and verify that no sound skip or noise occurs.

• Adjustment points



■ TEST MODE INSPECTION

Note : Test mode will be cancelled when:
 (1) the system is switched to power off or,
 (2) "CD STOP" is received from the remote control unit.

TEST[1] : FL DISPLAY

- | | |
|---|---|
| <p>(1) Press [CD] key to set the display.
 (2) Press ■ (CD stop) key on the unit.
 Then simultaneously press [REPEAT] key for about 2 seconds.
 * FL display will indicate on all segments.</p> | <p>(3) Press [CD DISPLAY].
 * FL display will lights out.
 (4) Press any key one by one.
 * FL display will indicate on each segment.
 ([CD DISPLAY] and [SET] key is no object.)</p> |
|---|---|

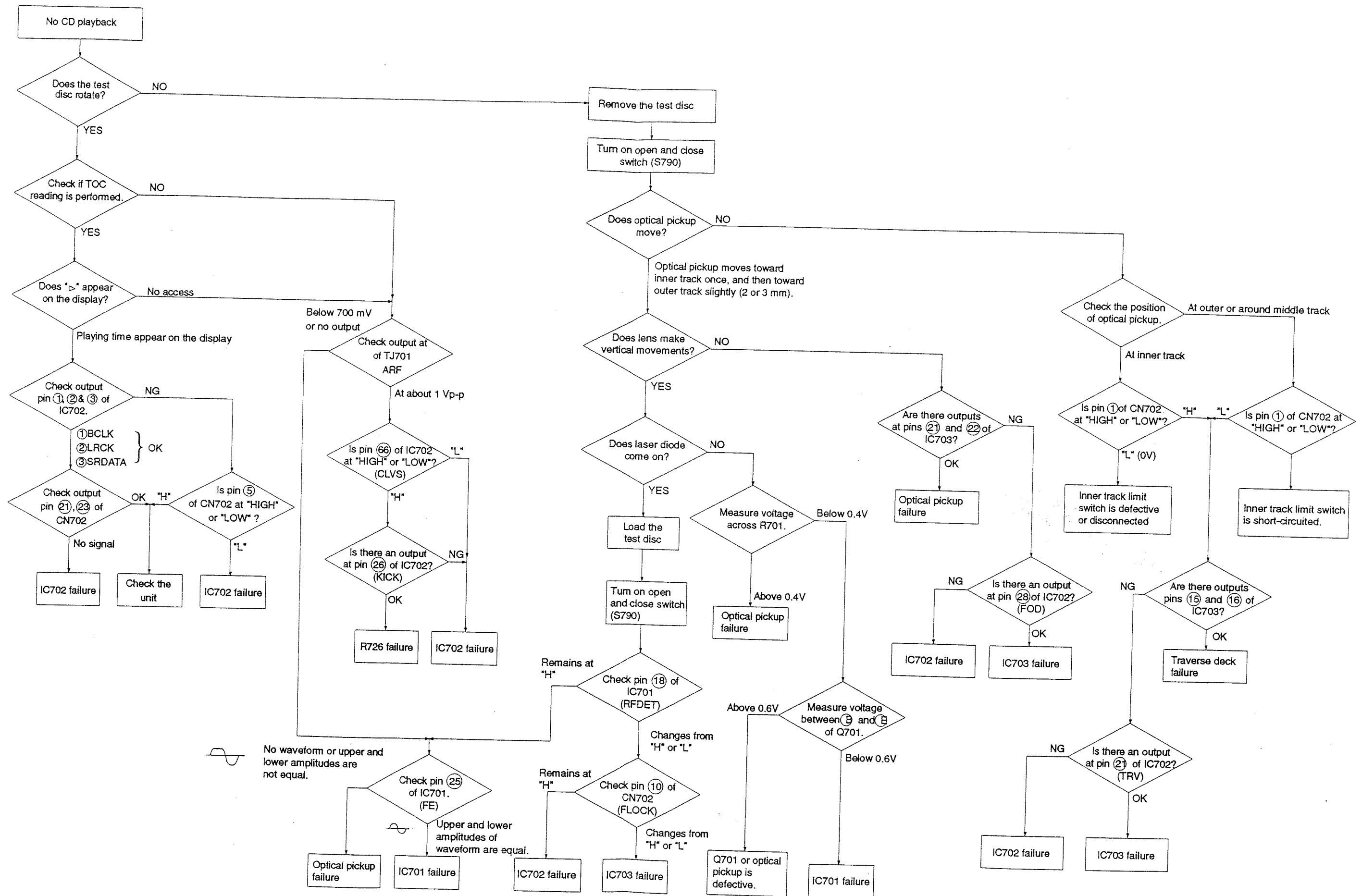
TEST[2] : CD SERVO / LOADING MECHANISM

- | | |
|--|---|
| <p>(1) Press [CD] to set the display.
 (2) Press ■ (CD STOP) key on the testing unit.
 Then simultaneously press [▶▶/▶▶] key for about 2 seconds.
 * "C-2" will appear on the display for 2 seconds.</p> | <p>(3) Press (PLAY) key on the testing unit.
 * "E-00" will appear on the display.
 * If any error code "E-***" is displayed, check the CD servo and loading mechanism.</p> |
|--|---|

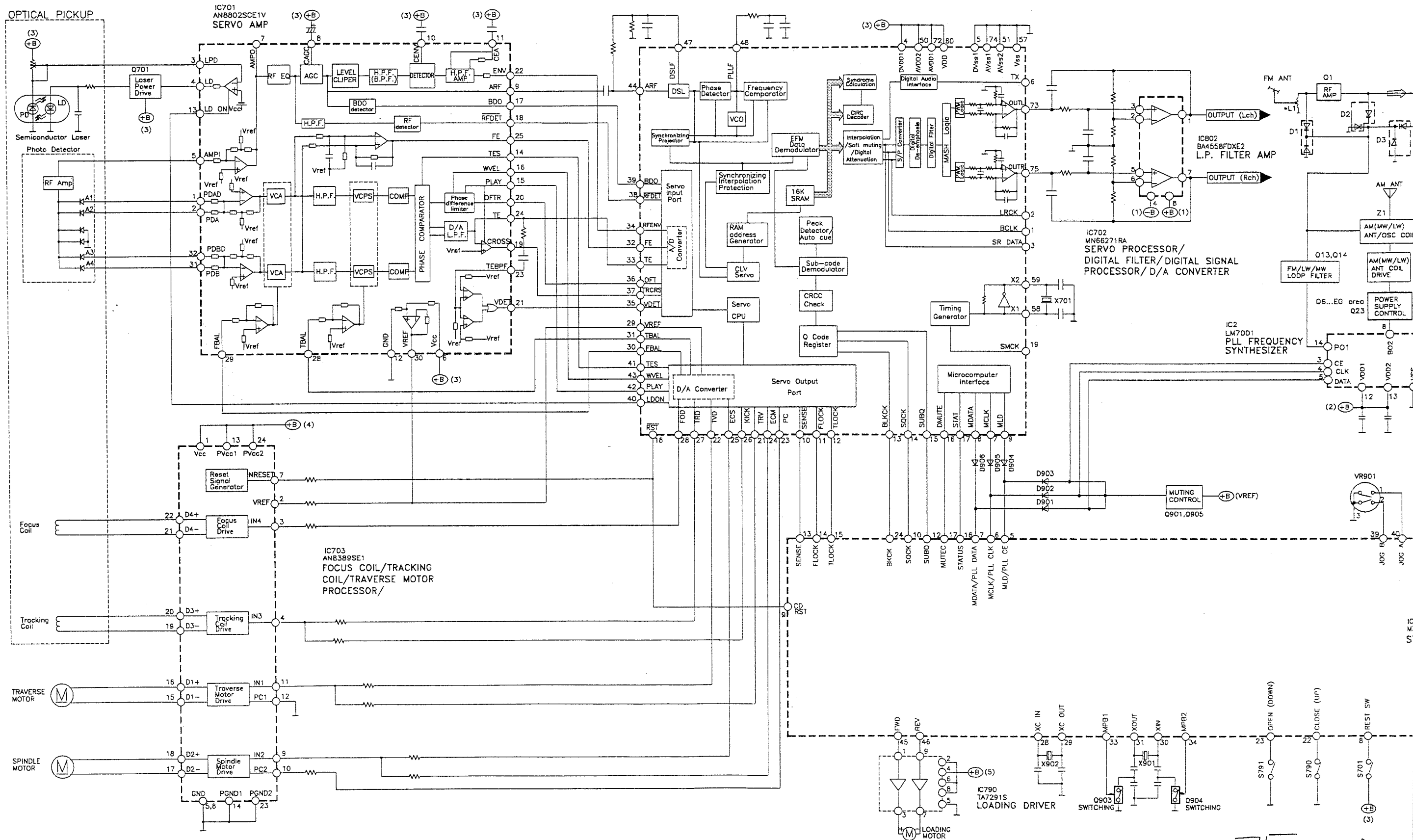
TEST[3] : TUNER / AUTO TUNING

- | | |
|--|--|
| <p>(1) Press [TUNER / BAND] key on the testing unit.
 (2) Press ■ (CD STOP) key on the testing unit.
 Then simultaneously press [TUNER / BAND] key for about 2 seconds.
 * "C-3" will appear on the display for 2 seconds.</p> | <p>(3) Press [◀◀/◀◀] or [▶▶/▶▶] on remote control unit.
 * Tuner band will set to "FM" and start to auto tuning and each direction.
 (4) Confirm the auto tuning activate correctly.</p> |
|--|--|

TROUBLESHOOTING GUIDE

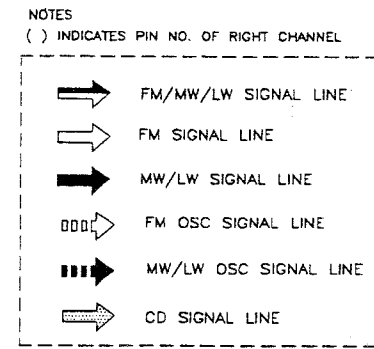
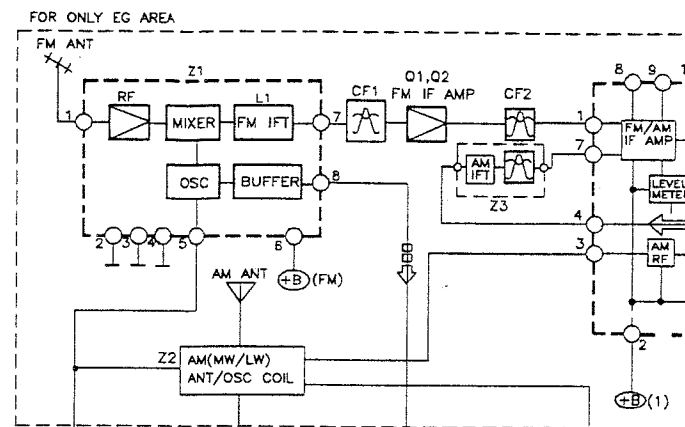
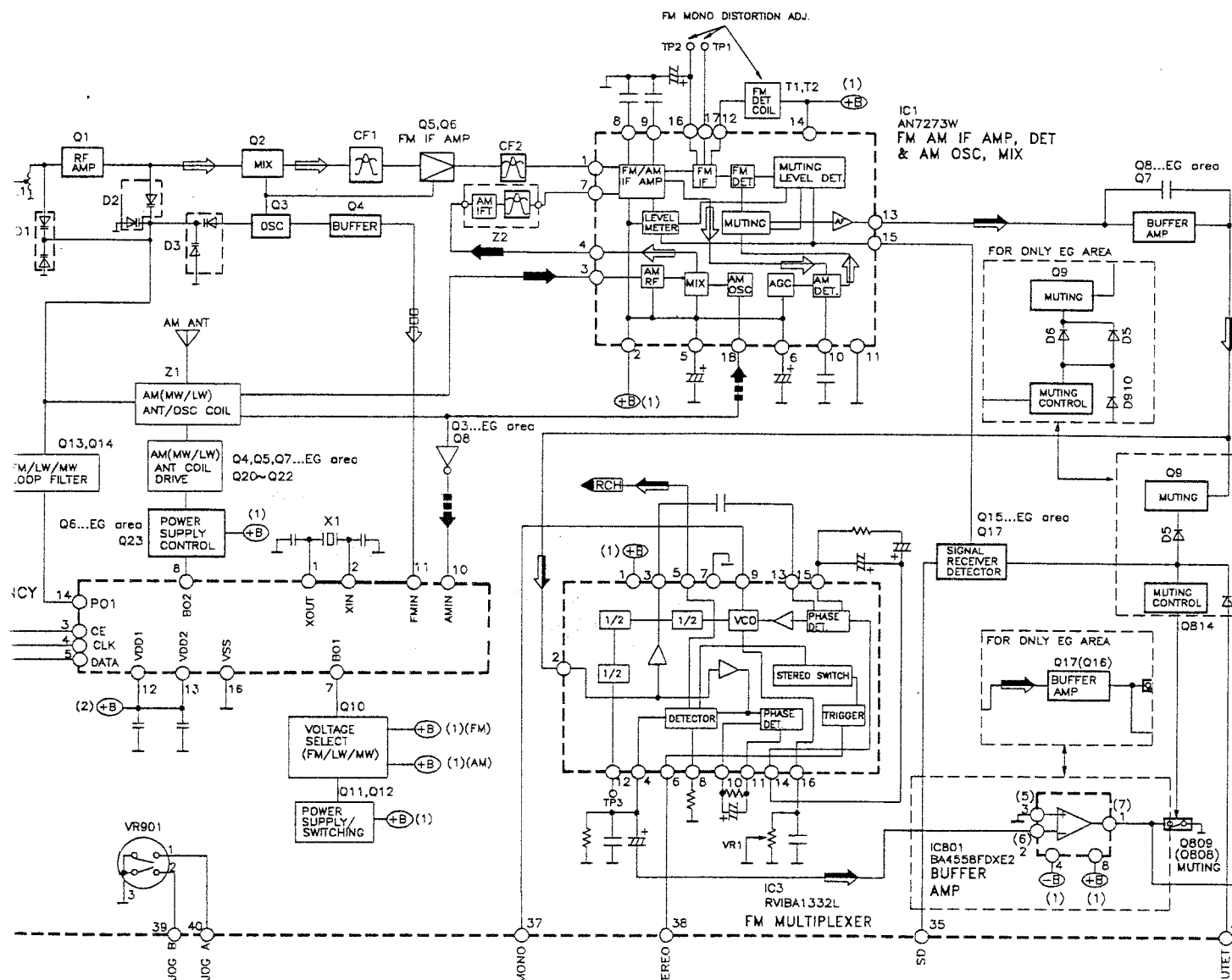


■ BLOCK DIAGRAM

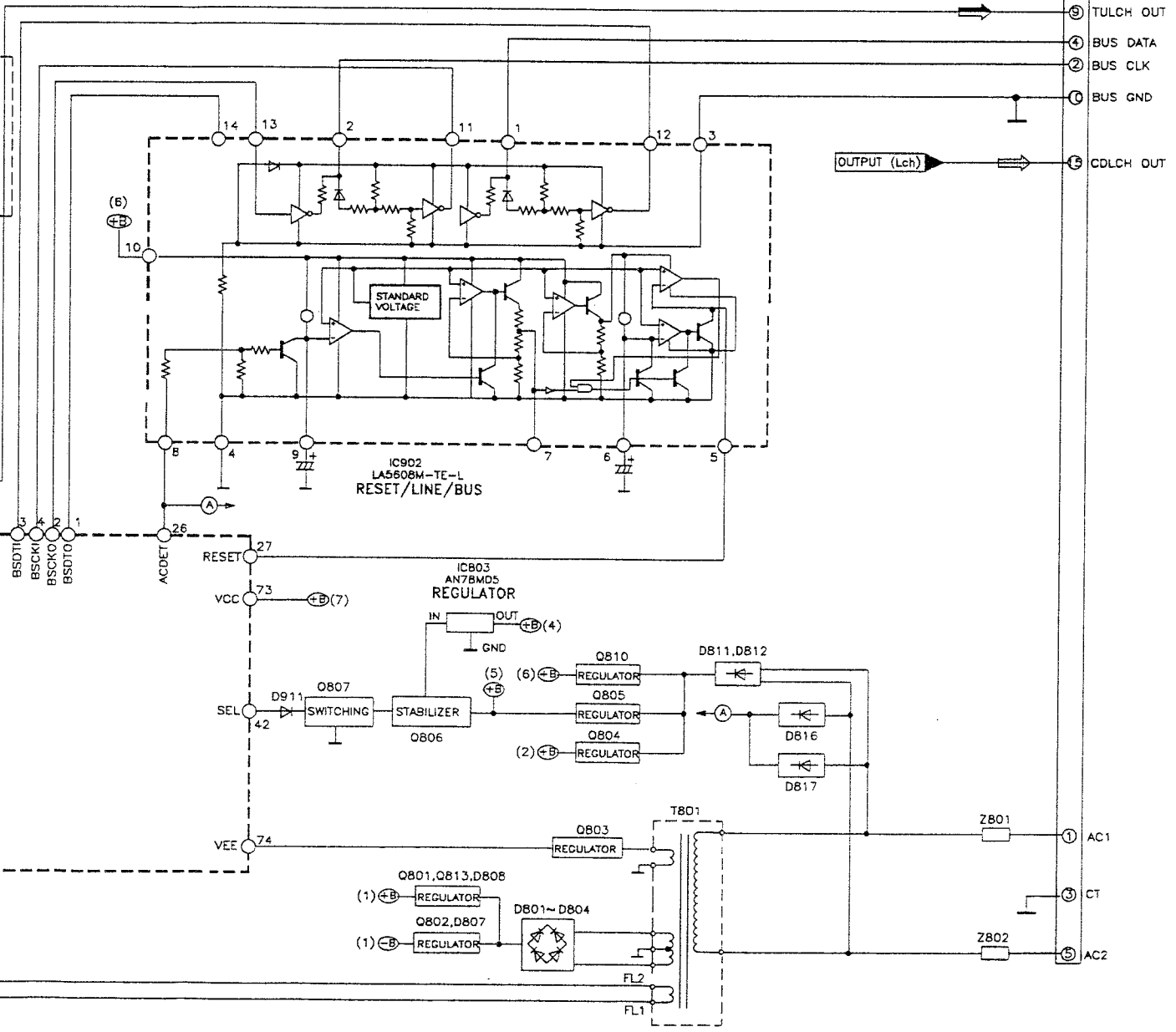
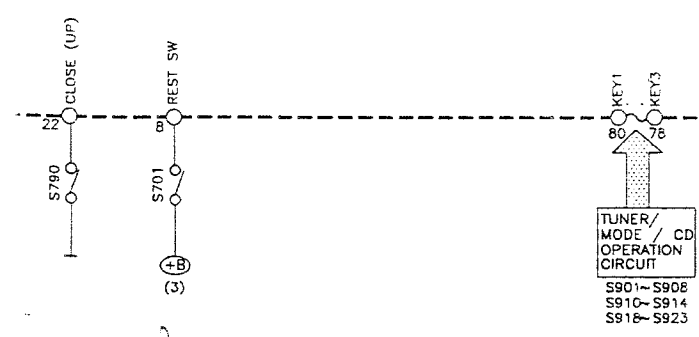


Open
File

Open
File



IC901
 M38173M6262
 SYSTEM CONTROL & FL DRIVE

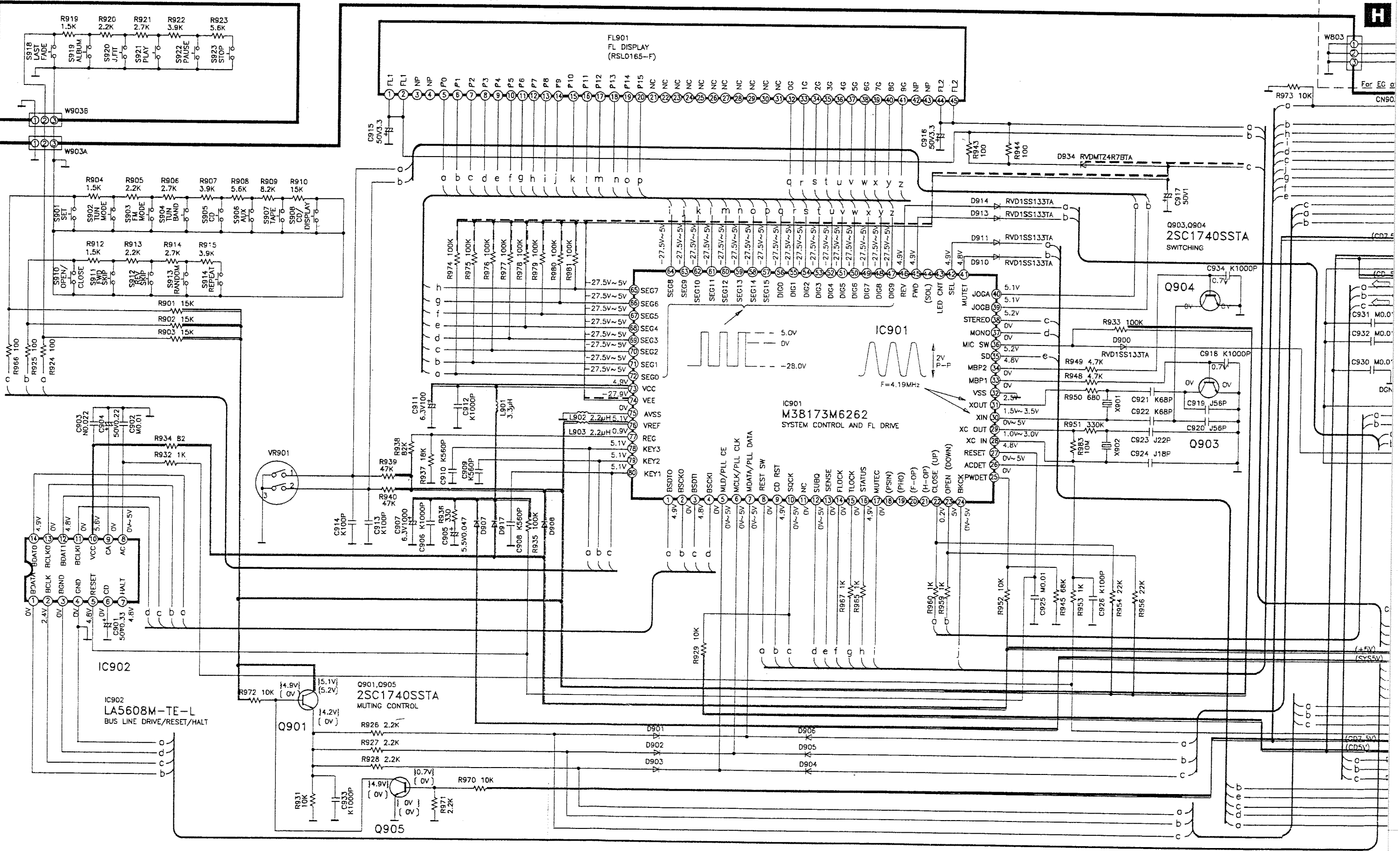


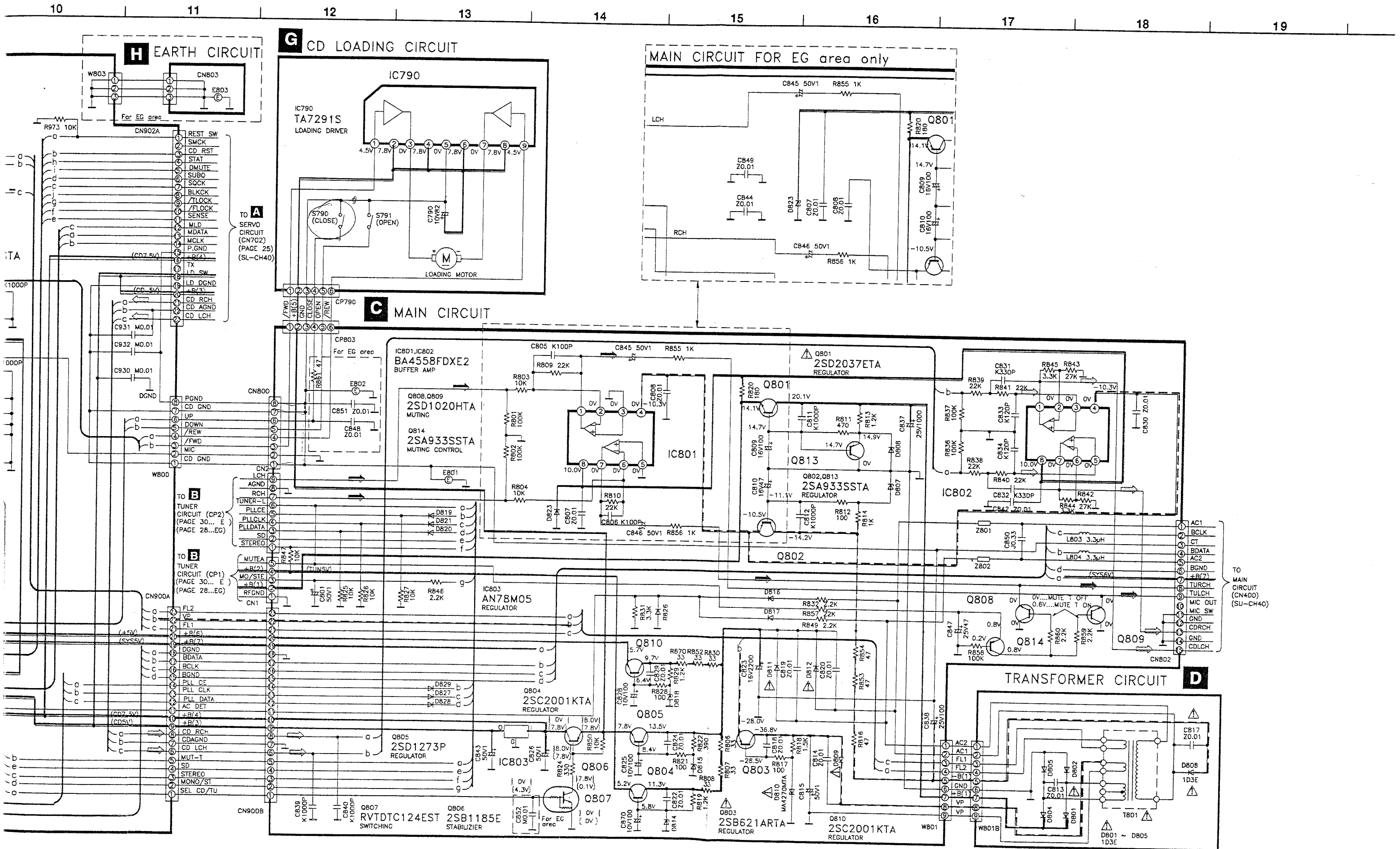
SCHEMATIC DIAGRAMS (Parts list on page 44 ~ 51)

E OPERATION CIRCUIT

F PANEL CIRCUIT

H





■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology)

Note :

< for Main and Panel circuit >

- S901 : Set (SET) switch.
- S902 : Tuning mode select (TUNING MODE) switch.
- S903 : FM mode/beat proof (FM MODE/BP) switch.
- S904 : Tuner/Band select (TUNER/BAND) switch.
- S905 : CD input select (CD) switch.
- S906 : AUX input select (AUX) switch.
- S907 : TAPE input select (TAPE) switch.
- S908 : CD display mode select (CD DISPLAY) switch.
- S910 : Disc tray open/close select (OPEN/CLOSE) switch.
- S911 : Forward skip select (▶▶/▶▶) switch.
- S912 : Reverse skip select (◀◀/◀◀) switch.
- S913 : Random play select (RANDOM) switch.
- S914 : Repeat play select (REPEAT) switch.
- S918 : Last fade editing select (LAST FADE) switch.
- S919 : Album editing select (ALBUM) switch.
- S920 : J. Fit editing select (J. FIT) switch.
- S921 : CD play select (▷) switch.
- S922 : CD pause select (⏸) switch.
- S923 : CD stop select (◻) switch.
- VR901 : Tuning/CD skip (TUNING/CD SKIP) adjustment.

< for Servo circuit >

- S701 : Rest switch.
- S790, 791 : Disc tray open/close detection switch.

•Signal line

- : +B lines
- : -B lines
- : CD signal lines
- : FM/AM signal line

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.
- Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

{ } : FM/AM { } : Other No mark : Playback (()) : CD

•Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

Caution !

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

Note:

< for Tuner circuit >

- VR1 : FM stereo adjustment.

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.
- Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

< > : FM () : AM No mark : Playback

•Signal line :

- : FM Signal line
- : AM (MW/LW) signal line
- : AM (MW/LW) OSC signal line
- : FM OSC signal line
- : +B line
- : FM/AM signal line

•Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

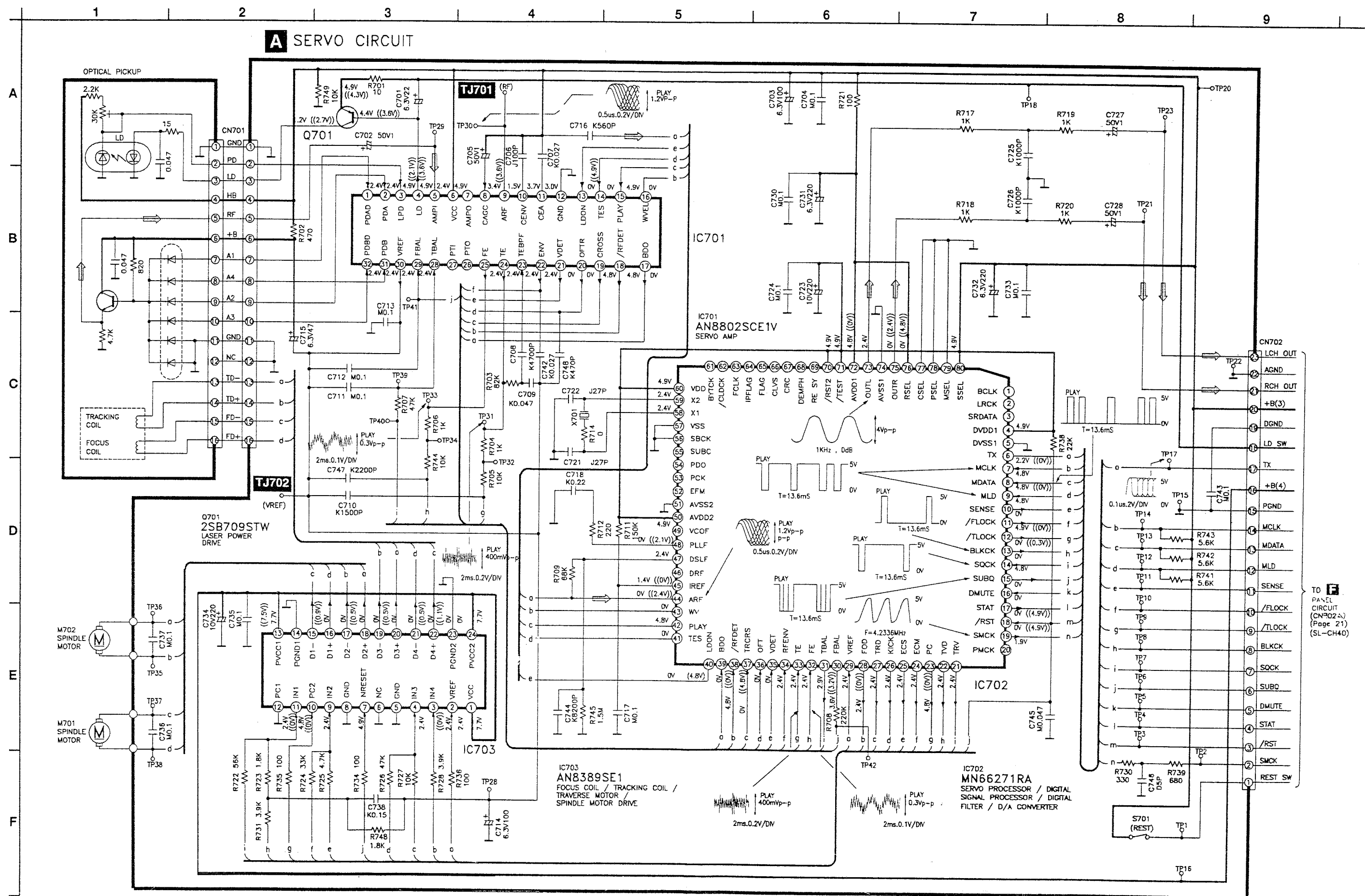
Caution !

IC and LSI are sensitive to static electricity.
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- Cover the parts boxes made of plastics with aluminium foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the pins of IC or LSI with fingers directly.

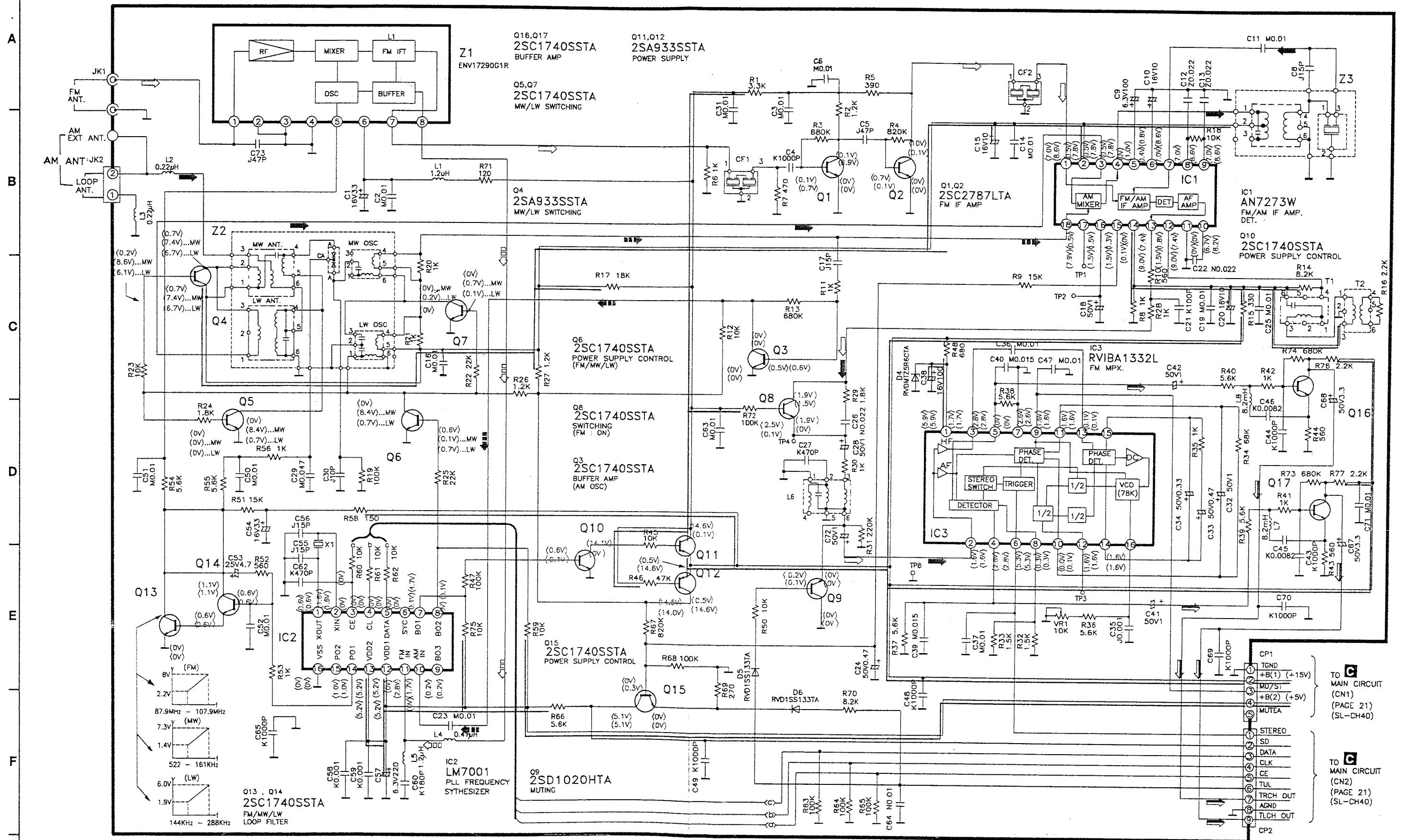
This schematic diagram may be modified at any time with development of new technology.

■ **SCHEMATIC DIAGRAM** (Parts list on page 44 ~ 51)



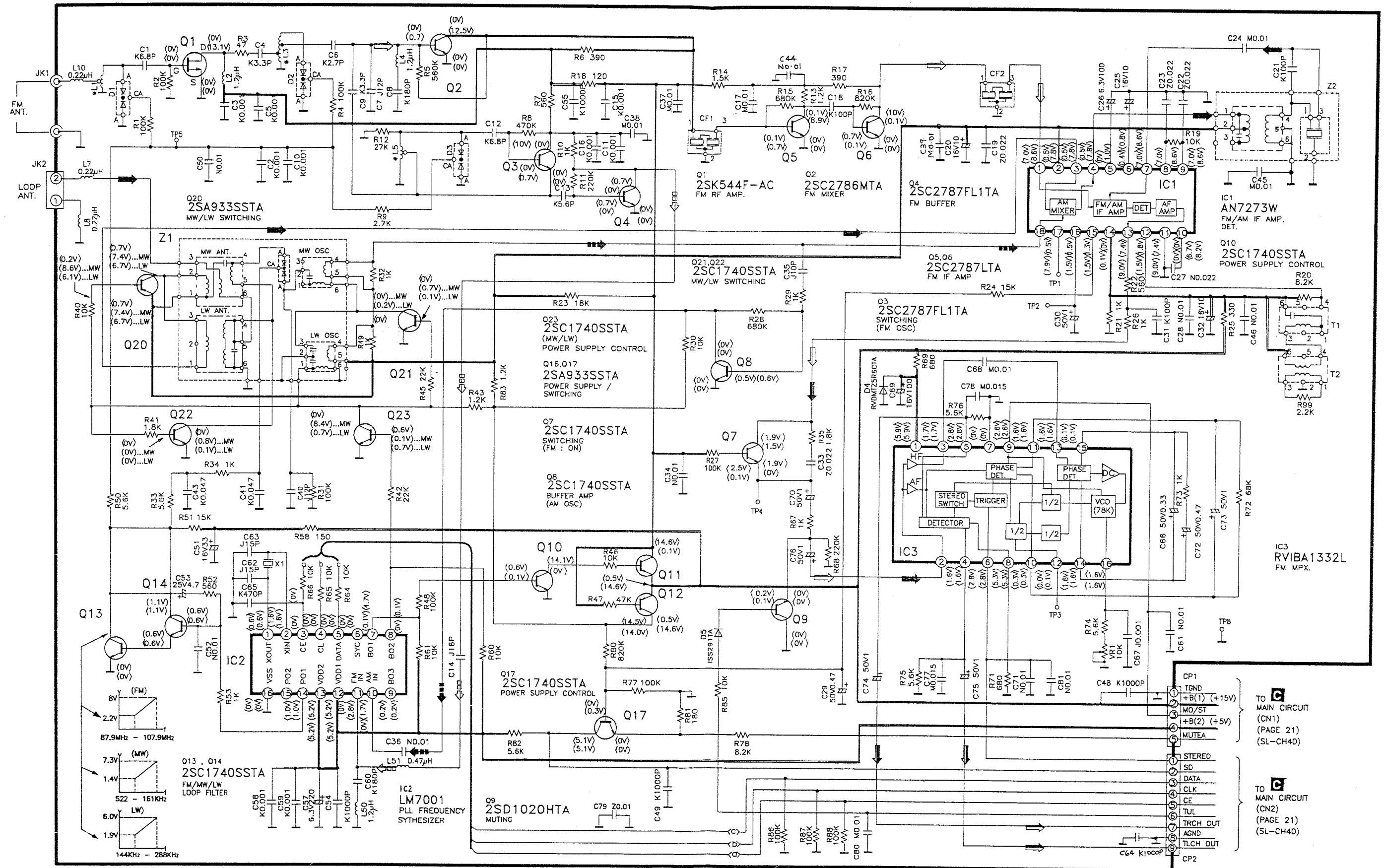
■ SCHEMATIC DIAGRAM (Parts list on page 44 ~ 51)

B TUNER CIRCUIT FOR EG AREA

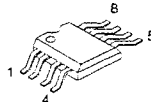
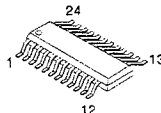
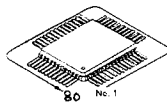
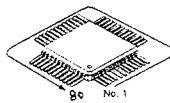
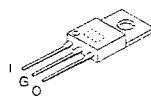
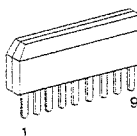
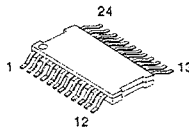
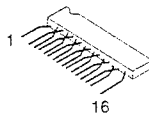
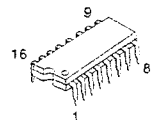
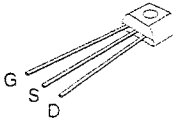
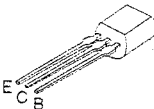
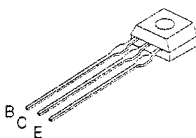
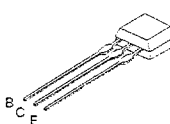
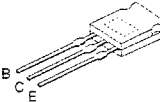
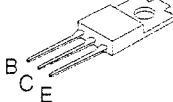
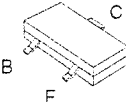
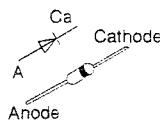
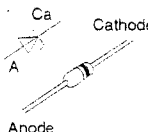
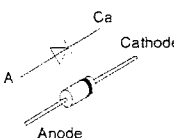
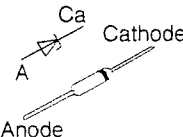


■ SCHEMATIC DIAGRAM

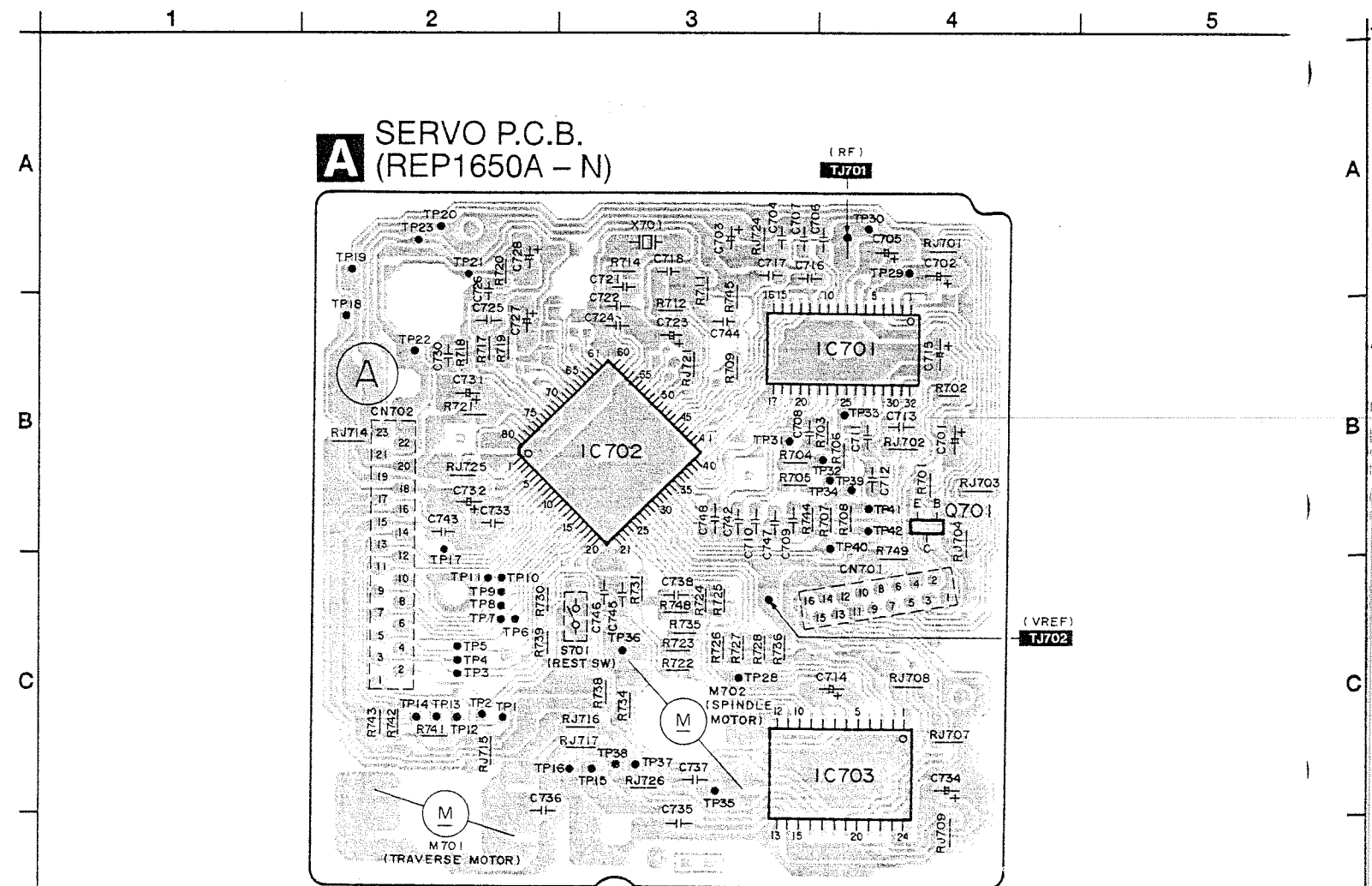
B TUNER CIRCUIT FOR E AREA



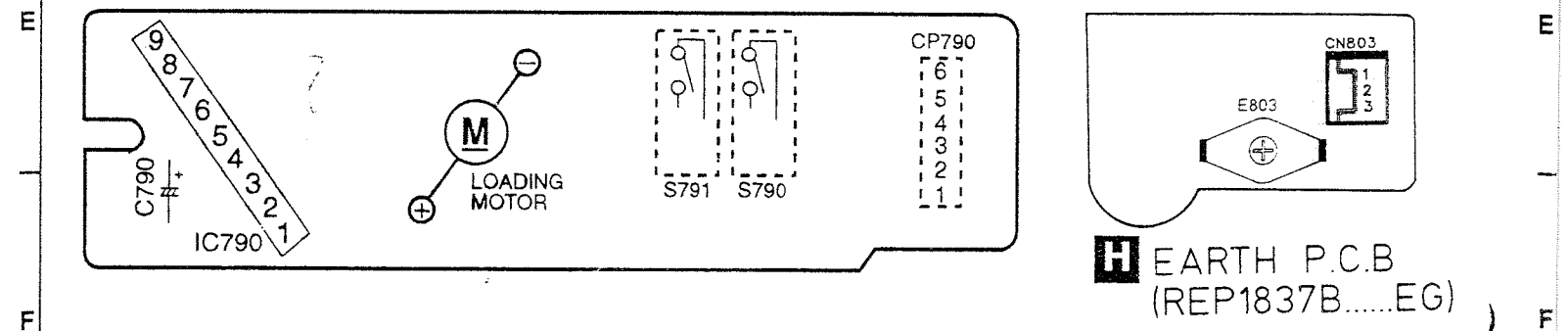
■ TERMINAL GUIDE OF ICs, TRANSISTORS AND DIODES

BA4558FDXE2 	AN8802SCE1V (32Pin) LA5608M-TE-L(14Pin) 	AN7273W 	M38173M6262 	MN66271RA 
AN78M05 	TA7291S 	AN8389SE1 	RVIBA1332L 	LM7001 
2SK544F-AC 	2SB621ARTA 2SC2001KTA 	 2SC2787LTA 2SC2786MTA 2SA933SSTA 2SD1020HTA 2SC2787FL1TA		RVTDT124EST 2SC1740SSTA 
2SD2037EFTA 	2SB1185E 2SD1273P 	2SB709S 	1SS291TA RVD1SS133TA 	MA4270MTA 
1D3E 	 RVDMTZ4R7BTA RVDMTZ5R6CTA RVDMTZ8R2CTA RVDMTZ6R8ATA RVDMTZ15CTA RVDMTZ10BTA RVDMTZ5R1BTA RVDMTZ11BTA			

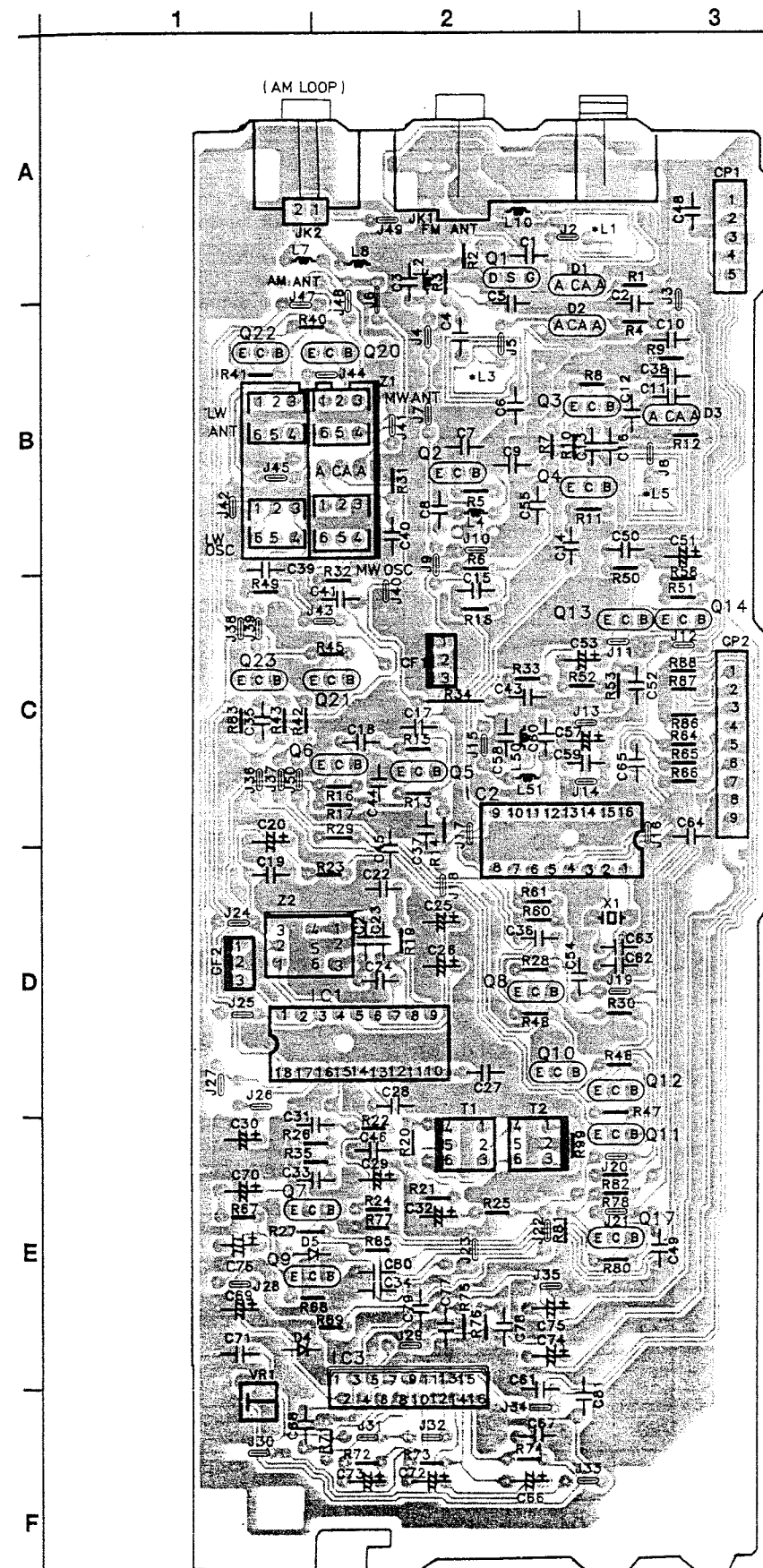
■ PRINTED CIRCUIT BOARD



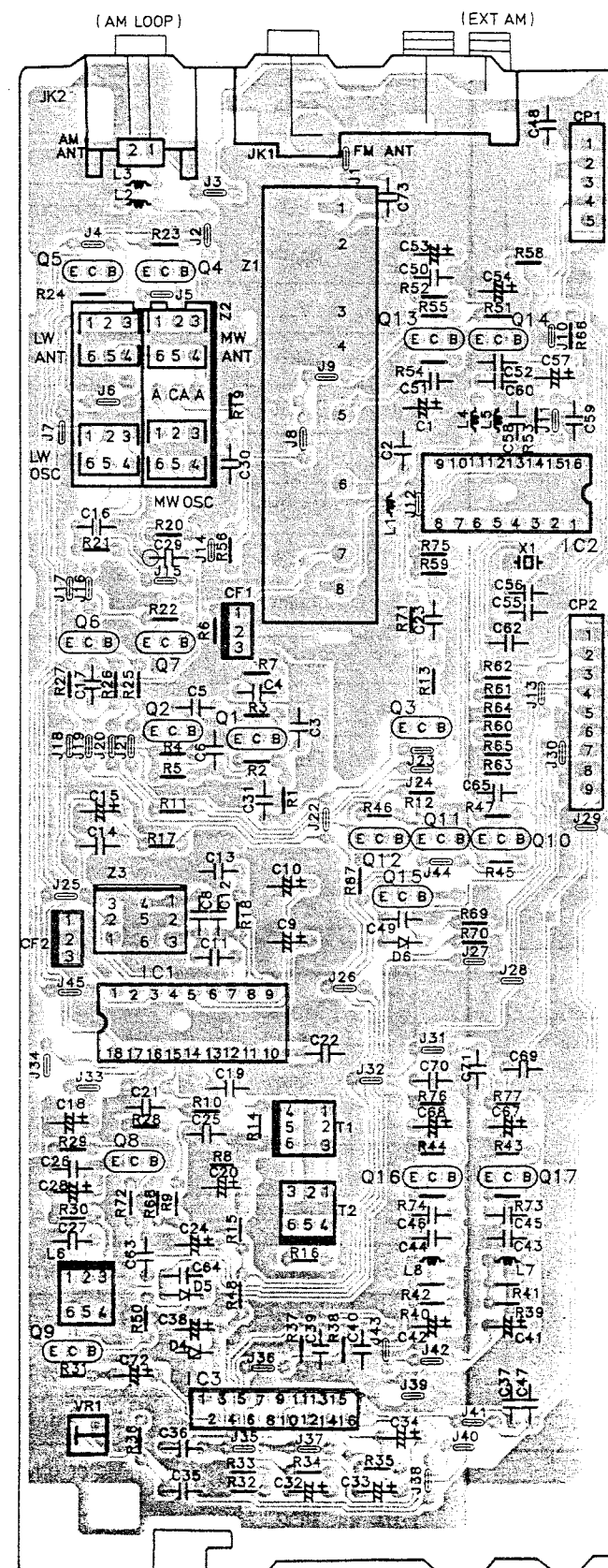
G CD LOADING P.C.B. (REP0767)



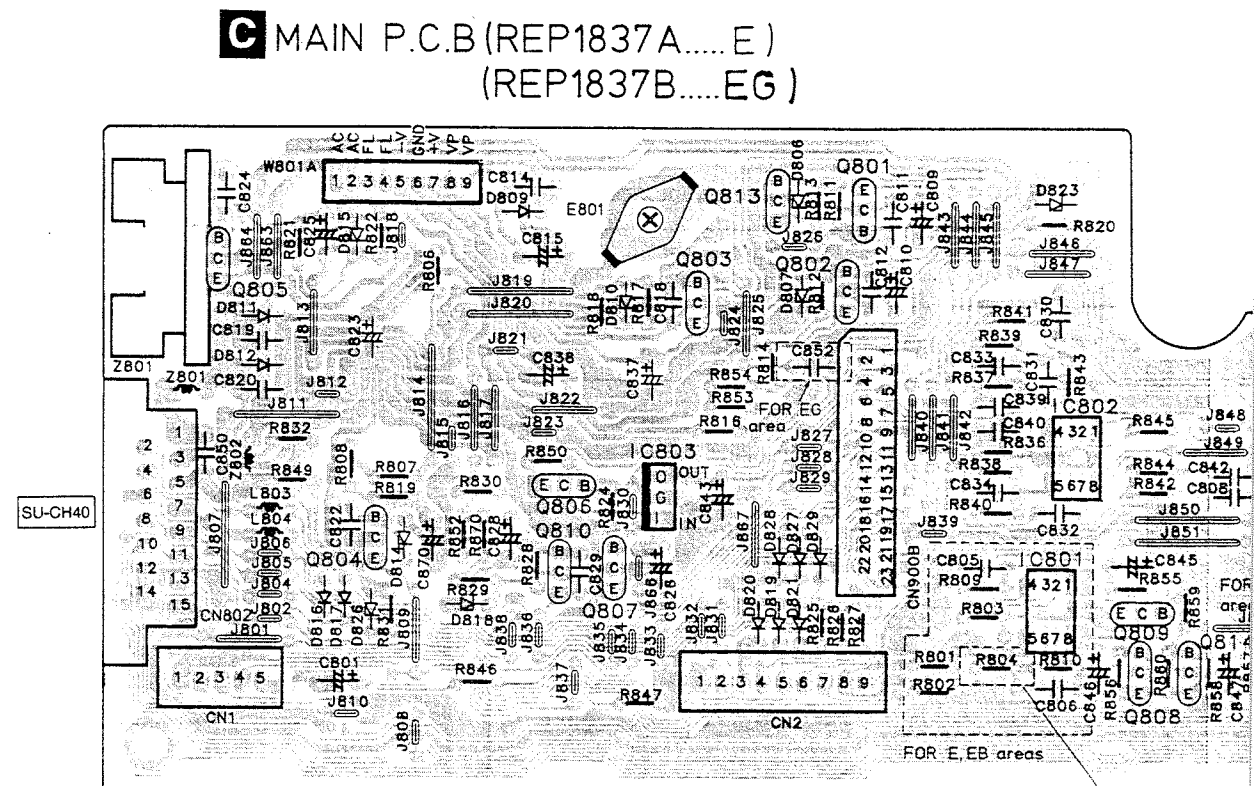
■ PRINTED CIRCUIT BOARD



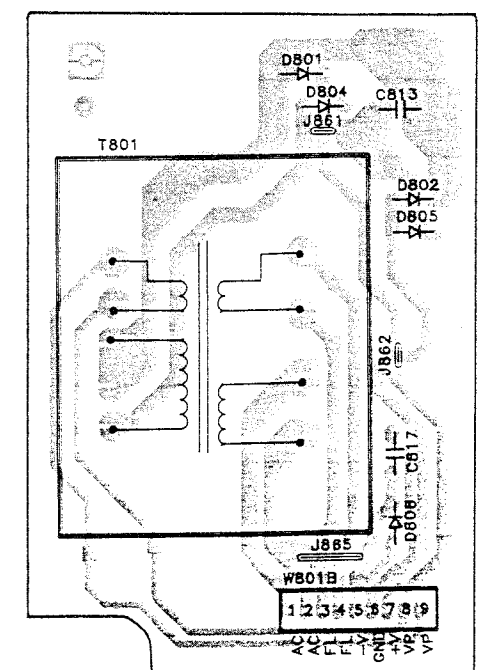
B TUNER P.C.B (REP1548C E)



B TUNER P.C.B (REP1839A EG)

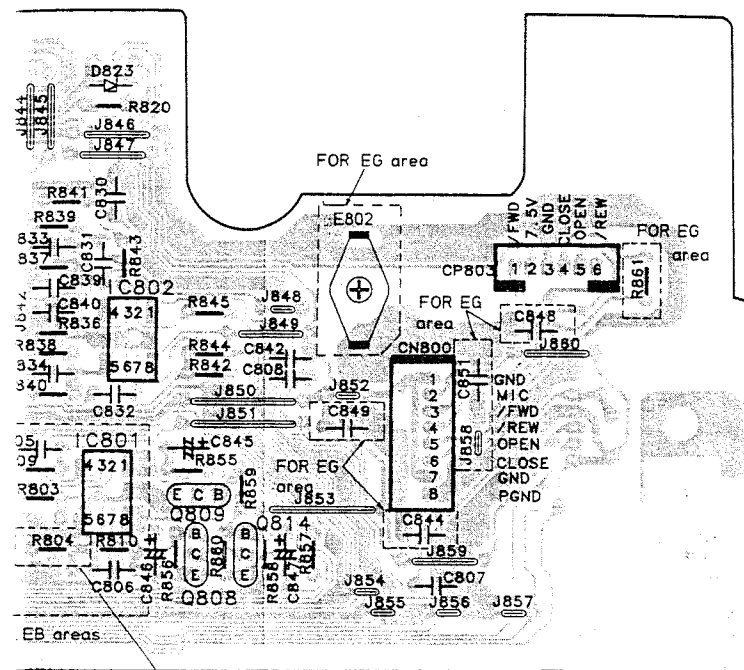


C MAIN P.C.B (REP1837A.....E)
(REP1837B.....EG)

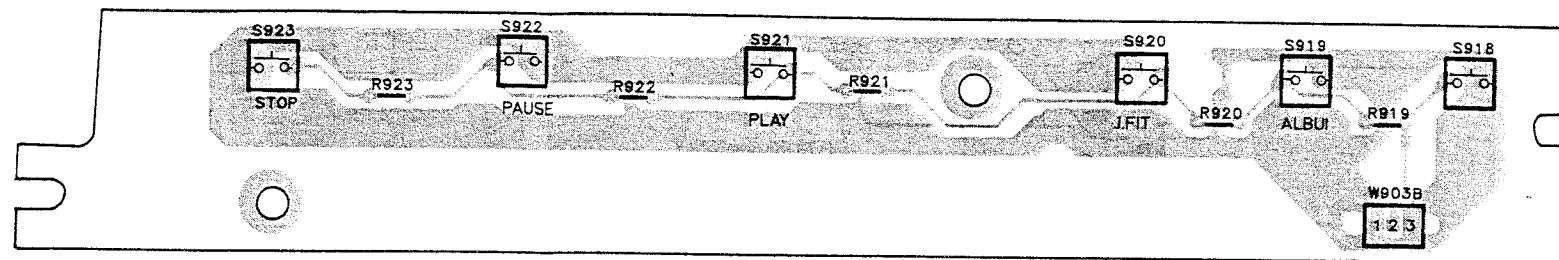


D TRANSFORMER P.C.B
(REP1837A.....E)
(REP1837B.....EG)

10 11 12 13 14 15 16 17 18 19

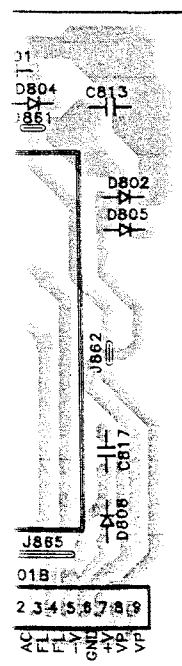


R804 Replaced by J871 ONLY FOR EG area

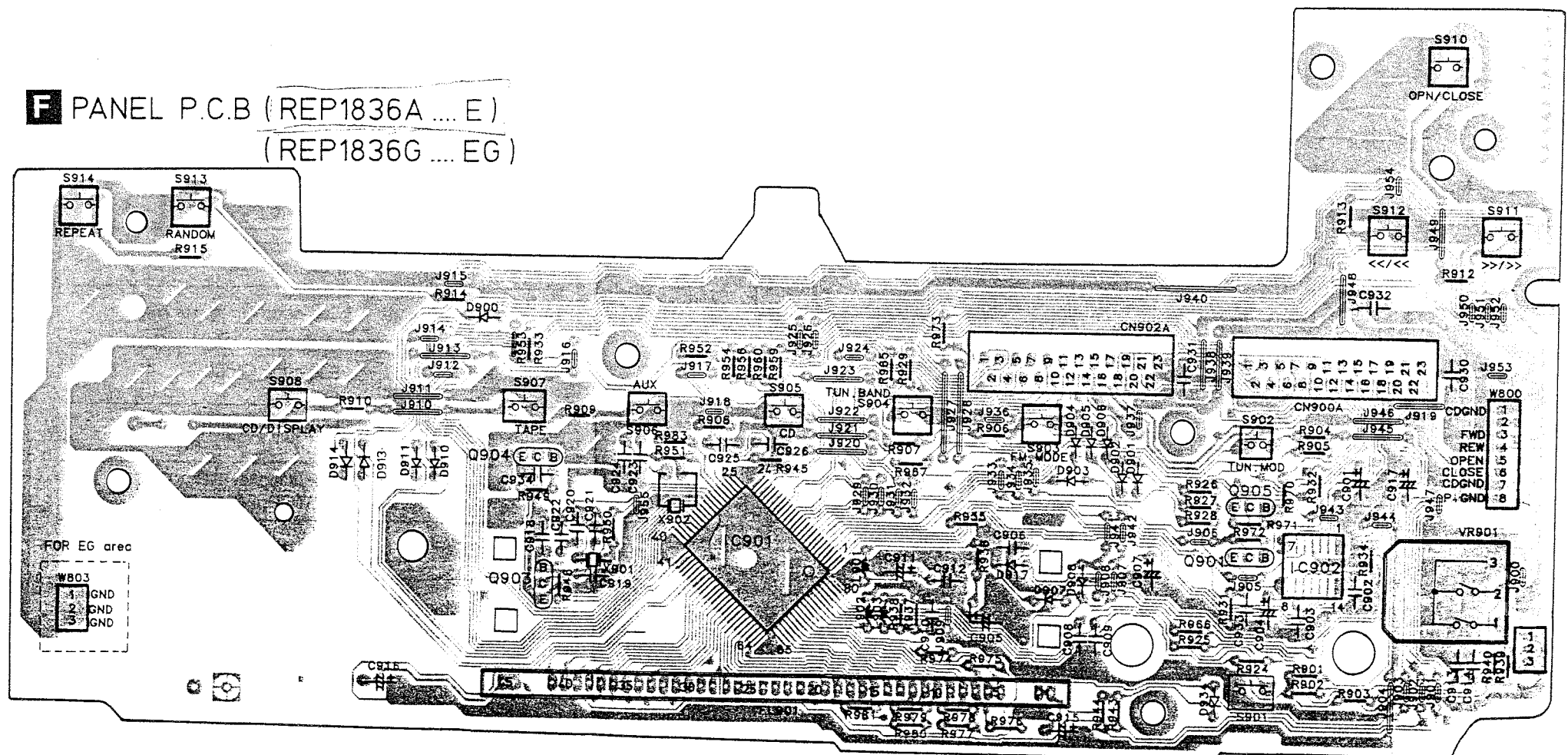


E OPERATION P.C.B (REP1836A ... E)
(REP1836G ... EG)

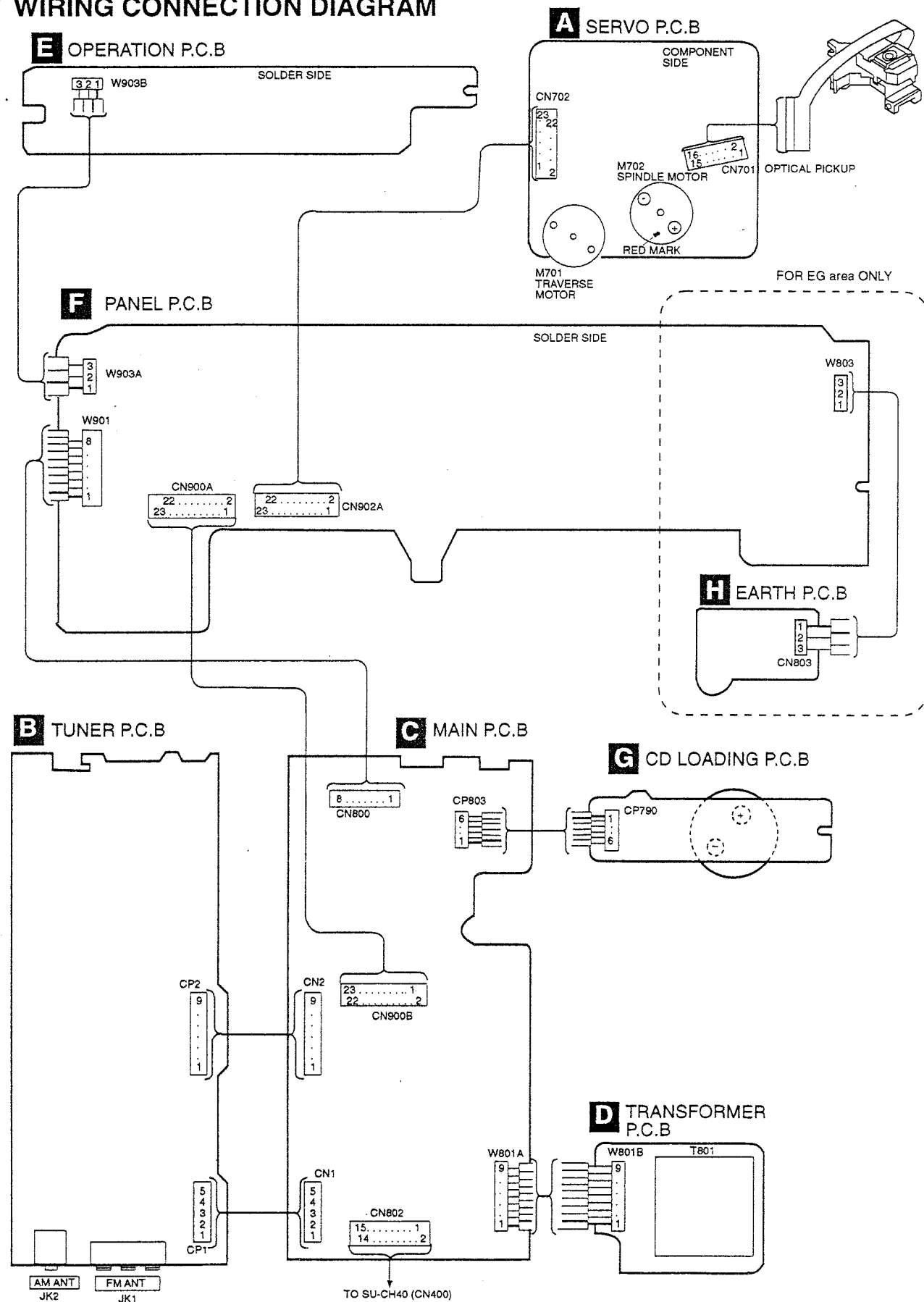
F PANEL P.C.B (REP1836A ... E)
(REP1836G ... EG)



RMER P.C.B
(REP1836A ... E)
(REP1836G ... EG)



■ WIRING CONNECTION DIAGRAM



■ TERMINAL FUNCTION OF IC'S

- IC702 (MN66271RA): Digital Servo processor/digital signal processor/digital filter/D/A converter

Pin No.	Mark	I/O Division	Function
1	BCLK	O	Serial bit clock terminal
2	LRCK	O	L/R discriminating signal
3	SRDATA	O	Serial data (Not used, open)
4	DV _{DD} 1	I	Power supply (digital circuit) terminal
5	DV _{SS} 1	—	GND (digital circuit) terminal
6	TX	O	Digital audio interface signal
7	MCLK	I	Command clock signal
8	MDATA	I	Command data signal
9	MLD	I	Command load signal ("L": LOAD)
10	SENSE	O	Sense signal (OFT, FESL, NACEND, NAJEND, POSAD, SFG)
11	/FLOCK	O	Optical servo condition (focus)("L": lead-in)
12	/TLOCK	O	Optical servo condition (tracking)("L": lead-in)
13	BLKCK	O	Sub-code block clock (f=75Hz)
14	SQCK	I	Sub-code Q register clock
15	SUBQ	O	Sub-code Q data
16	DMUTE	I	Muting input ("H": MUTE)
17	STAT	O	Status signal (CRC, CUE, CLVS, TTSTOP, FCLV, SQCK)
18	/RST	I	Reset signal ("L": reset)
19	SMCK	O	System clock (f=4.2336 MHz)
20	PMCK	O	Frequency division clock signal (Not used, open) ($f = \frac{1}{1.92} \times ck = 88.2 \text{ kHz}$)
21	TRV	O	Traverse servo control

Pin No.	Mark	I/O Division	Function
22	TVD	O	Traverse drive signal
23	PC	O	Turntable motor drive signal ("L": ON)
24	ECM	O	Turntable motor drive signal (Forced mode)
25	ECS	O	Turntable motor drive signal (Servo error signal)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive signal output
28	FOD	O	Focus drive signal output
29	VREF	I	D/A drive output (TVD, ECS, TRD, FOD, FBAL, TBAL) normal voltage input terminal
30	FBAL	O	Focus balance adj. output
31	TBAL	O	Tracking balance adj. output
32	FE	I	Focus error signal (analog input)
33	TE	I	Tracking error signal (analog input)
34	RFENV	I	RF envelope signal
35	VDET	I	Oscillation det. signal ("H": det.)
36	OFT	I	Off track signal ("H": Off track)
37	TRCRS	I	Track cross signal input
38	/RFDET	I	RF detection signal ("L": detection)
39	BDO	I	Dropout detection signal ("H": dropout)
40	LDON	O	Laser power control ("H": ON)
41	TES	O	Tracking error shunt output ("H": dropout)
42	PLAY	O	Play signal ("H": play)

Pin No.	Mark
43	WVEL
44	ARF
45	IREF
46	DRF
47	DSLIF
48	PLLIF
49	VCOF
50	AV _{DD} 2
51	AV _{SS} 2
52	EFM
53	PCK
54	PDO
55	SUBC
56	SBCK
57	V _{SS}
58	X1
59	X2
60	VDD
61	BYTCK
62	/CLDCK

Pin No.	Mark	I/O Division	Function
43	WVEL	O	Double velocity status signal ("H" : double)
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	DSL bias terminal (Not used, open)
47	DSL F	I/O	DSL loop filter terminal
48	PLL F	I/O	PLL loop filter terminal
49	VCO F	I/O	VCO loop filter terminal (Not used, open)
50	AV _{DD} 2	I	Power supply (analog circuit) terminal (2)
51	AV _{SS} 2	—	GND (analog circuit) terminal
52	EFM	O	EFM signal (Not used, open)
53	PCK	O	PLL extract clock (f = 4.3218 MHz)
54	PDO	O	Phase comparated signal of EFM and PCK (Not used, open)
55	SUBC	O	Sub-code serial output data (Not used, open)
56	SBCK	I	Sub-code serial output clock (Not used, open)
57	V _{SS}	—	GND terminal
58	X1	I	Crystal oscillator terminal (f = 16.9344 MHz)
59	X2	O	
60	VDD	I	Power supply terminal
61	BYTCK	O	Byte clock signal
62	/CLDCK	O	Sub-code frame clock signal (f CLDCK = 7.35 kHz : Normal) (Not used, open)

Pin No.	Mark	I/O Division	Function
63	FCLK	O	Crystal rfame clock (Not used, open)
64	IPFLAG	O	Interpolation flag terminal
65	FLAG	O	Flag terminal
66	CLVS	O	Turntable servo phase synchro signal ("H" : CLV, "L" : Rough servo)
67	CRC	O	Sub-code CRC check terminal ("H" : OK, "L" : NG)
68	DEMPH	O	De-emphasis ON signal ("H" : ON)
69	RESY	O	Re-synchronizing signal of frame sync. (Not used, open)
70	/RST2	I	Reset terminal after MASH" circuit
71	/TEST	I	Test terminal (Normal : "H")
72	AV _{DD} 1	I	Power supply (analog circuit) terminal (1)
73	OUTL	O	
74	AV _{SS} 1	—	GND (analog circuit) terminal (1)
75	OUTR	O	Rch audio signal
76	RSEL	I	Polarity direction control terminal of RF signal
77	CSEL	I	Frequency control terminal of crystal oscillator
78	PSEL	I	Test terminal (Normal : "L")
79	MSEL	I	"SMCK" terminal frequency select ("L" : SMCK = 4.2336 MHz)
80	SSEL	I	"SUBQ" terminal mode select ("H" : Q code buffer)

• IC701 (AN8802SCE1V) : Servo amp

Pin No.	Mark	I/O Division	Function
1	PDAD	I	Photo detection Bch input without delay
2	PDA	I	Photo detection Ach input without delay
3	LPD	I	Laser PD signal
4	LD	O	Laser power auto control output
5	AMPI	I	RF amp terminal
6	V _{CC}	I	Power supply terminal
7	AMPO	O	RF amp signal, not used.
8	CAGC	I	AGC detection capacitor input
9	ARF	O	RF signal
10	CENV	I	RF detect capacitor connection terminal
11	CEA	I	HPF-AMP capacitor connection terminal
12	GND	—	GND terminal
13	LDON	I	LD APC ON/OFF ("H" : ON, "L" : OFF)
14	TES	I	Tracking error shunt input ("H" : shunt)
15	PLAY	I	Play signal ("H" : ON, "L" : OFF)
16	WVEL	I	Double velocity ("H" : L double, "L" : single)

Pin No.	Mark	I/O Division	Function
17	BDO	O	Dropout detection control
18	/RFDET	O	RF det. signal ("L" : det.)
19	CROSS	O	Tracking error zero cross output
20	OFTR	O	Off track detection ("H" : det.)
21	VDET	O	Oscillation det. signal ("H" : det.)
22	ENV	O	Envelope output terminal
23	TEBPF	I	Oscillation detect input terminal
24	TE	O	Tracking error signal
25	FE	O	Focusing error signal
26	PTO	O	Potion amp output, not used.
27	PTI	I	Potion amp input, not used.
28	TBAL	I	Tracking balance adj. input
29	FBAL	I	Focus balance adj. input
30	VREF	O	Reference voltag output
31	PDB	I	Photo detection Ach input with delay
32	PDBD	I	Photo detection Bch input with delay

• IC703 (AN8389SE1) : Focus coil / tracking coil / traverse motor / spindle motor drive

Pin No.	Mark	I/O Division	Function
1	V _{CC}	I	Power supply terminal
2	VREF	I	Reference voltage input
3	IN4	I	Motor driver (4) input
4	IN3	I	Motor driver (3) input
5	GND	—	GND terminal
6	NC	—	No connection
7	NRESET	I	Reset terminal
8	GND	—	GND terminal
9	IN2	I	Motor driver (2) input
10	PC2	I	PC2 (power cut) input
11	IN1	I	Motor driver (1) input
12	PC1	I	PC1 (power cut) input (Not used, open)

Pin No.	Mark	I/O Division	Function
13	PV _{CC} 1	I	Driver power supply (1)
14	PGND1	—	Driver GND terminal (1)
15	D1 -	O	Motor driver (1) output terminal (-)
16	D1 +	O	Motor driver (1) output terminal (+)
17	D2 -	O	Motor driver (2) output terminal (-)
18	D2 +	O	Motor driver (2) output terminal (+)
19	D3 -	O	Motor driver (3) output terminal (-)
20	D3 +	O	Motor driver (3) output terminal (+)
21	D4 -	O	Motor driver (4) output terminal (-)
22	D4 +	O	Motor driver (4) output terminal (+)
23	PGND2	—	Driver GND terminal (2)
24	PVCC2	I	Driver power supply (2)

• IC901 (M38173M6262) : System microprocessor

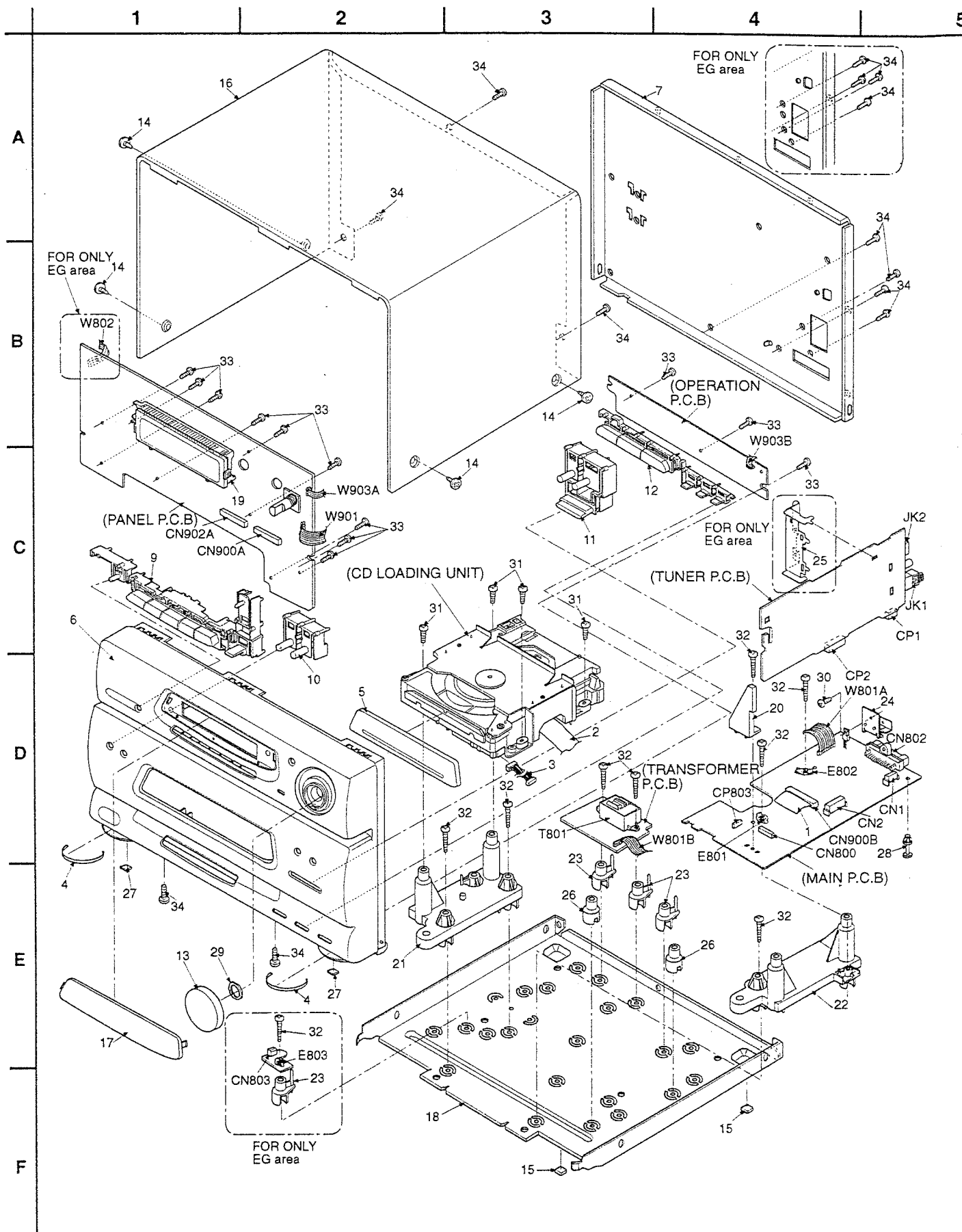
Pin No.	Mark	I/O Division	Function
1	BSDTO	O	Bus control data output
2	BSCO	O	Bus control clock output
3	BSDTI	I	Bus control data input
4	BSCI	I	Bus control clock input
5	MLD/ PLL CE	O	Command load signal ("L":Load)
6	MCLK/ PLL CLK	O	Command clock signal
7	MDATA/ PLL DATA	O	Command data signal
8	REST SW	I	Rest position detection signal
9	CD RST	I	Reset signal input
10	SQCK	O	Subcode Q resistor clock
11	NC	—	No connection
12	SUBQ	I	Subcode (Q data) input
13	SENSE	I	Sense signal input
14	FLOCK	I	Optical servo condition (focus) output.
15	TLOCK	I	Optical servo condition (tracking) output.
16	STATUS	I	Processing status input from signal processor
17	MUTEC	O	Muting signal of computer circuit
18	PSIN	—	Not used
19	PHO	—	Not used
20	F-OP	—	Not used

Pin No.	Mark	I/O Division	Function
21	H-OP	—	Not used
22	CLOSE (UP)	O	Loading motor "CLOSE" command
23	OPEN (DOWN)	O	Loading motor "OPEN" command
24	BKCK	I	Subcode block clock signal
25	PWDET	I	Power on detection input
26	ACDET	I	Power down detection input
27	RESET	I	Reset signal input
28	XC IN	I	Crystal oscillator input (32 kHz)
29	XC OUT	O	Crystal oscillator input (32 kHz)
30	XIN	I	Ceramic oscillator input (4.9 MHz)
31	XOUT	O	Ceramic oscillator output (4.9 MHz)
32	V _{ss}	—	GND terminal
33	MBP1	O	μ-com beatproof of output 1
34	MBP2	O	μ-com beatproof of output 2
35	SD	I	Signal received detector terminal
36	MIC SW	—	Microphone switch connected to GND
37	MONO	O	FM mono control signal output
38	STEREO	I	Stereo signal detector terminal
39	JOGB	I	Jog dial signal input
40	JOGA	I	Jog dial signal input

Pin No.	Mark	I/O Division	Function
41	MUTET	O	Muting signal of tuner circuit
42	SEL	O	Function (CD/tuner) select signal output
43	LED CNT	—	Not used
44	SOL	—	not used
45	FWD	O	Motor control
46	REW	O	Motor control
47	DIG9	O	Digital signal output for FL display
48	DIG8	O	Digital signal output for FL display
49	DIG7	O	Digital signal output for FL display
50	DIG6	O	Digital signal output for FL display
51	DIG5	O	Digital signal output for FL display
52	DIG4	O	Digital signal output for FL display
53	DIG3	O	Digital signal output for FL display
54	DIG2	O	Digital signal output for FL display
55	DIG1	O	Digital signal output for FL display
56	DIG0	O	Digital signal output for FL display
57	SEG15	O	Segment signal output for FL display
58	SEG14	O	Segment signal output for FL display
59	SEG13	O	Segment signal output for FL display
60	SEG12	O	Segment signal output for FL display

Pin No.	Mark	I/O Division	Function
61	SEG11	O	Segment signal output for FL display
62	SEG10	O	Segment signal output for FL display
63	SEG9	O	Segment signal output for FL display
64	SEG8	O	Segment signal output for FL display
65	SEG7	O	Segment signal output for FL display
66	SEG6	O	Segment signal output for FL display
67	SEG5	O	Segment signal output for FL display
68	SEG4	O	Segment signal output for FL display
69	SEG3	O	Segment signal output for FL display
70	SEG2	O	Segment signal output for FL display
71	SEG1	O	Segment signal output for FL display
72	SEG0	O	Segment signal output for FL display
73	V _{cc}	—	Power supply terminal
74	V _{EE}	—	- 28 V
75	AV _{ss}	—	GND
76	VREF	—	Output reference voltage
77	REG	I	Regulator signal
78	KEY3	I	Key source input (operation switch)
79	KEY2	I	Key source input (operation switch)
80	KEY1	I	Key source input (operation switch)

CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

Notes:

- Important safety notice : Components identified by Δ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
- When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- The parenthesized indications in the Ref. No. columns specify the areas. (refer to the cover page for area.) Parts without these indications can be used for all areas.
- [M] Indicates in Remarks column parts that are supplied by MESA.
- Warning: This product uses a laser diode. Refer to caution statements on page 3.
- ACHTUNG: Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

Ref. No	Part No.	Part Name & Description	Remarks	Ref. No	Part No.	Part Name & Description	Remarks
CABINET AND CHASSIS				INTEGRATED CIRCUITS			
1	REE0547	FFC (PANEL-MAIN)	[M]	IC1	AN7273W	IC, FM/AM IF	
2	REE0548	FFC (PANEL-CD)	[M]	IC2	LM7001	IC, PLL	
3	REX0435	WIRE (CD MAIN)	[M]	IC3	RVIBA1332L	IC, MPX	
4	RGK0608-N	FOOT ORNAMENT	[M]	IC701	AN8802SCE1V	IC, HEAD AMP	
5	RGK0609-K	CD LID	[M]	IC702	MN66271RA	IC, DIGITAL LSI	
6	RGP0374-K	FRONT PANEL	[M]	IC703	AN8389SE1	IC, 4-CH DRIVER	
7(E)	RGR0183A-A	REAR PANEL	[M]	IC790	TA7291S	IC, LOADING DRIVER	
7(EG)	RGR0183A-B	REAR PANEL	[M]	IC801(E)	BA4558FDXE2	IC, OP AMP	[M]
9	RGU1009-K	INPUT SEL. BUTTON	[M]	IC802	BA4558FDXE2	IC, OP AMP	[M]
10	RGU1010-K	RANDOM/REPEAT BUTTON	[M]	IC803	AN78M05	IC, REGULATOR	
11	RGU1011-K	OPEN/CLOSE BUTTON	[M]	IC901	M38173M6262	IC, MICROPROCESSOR	[M]
12	RGU1012-K	CD OPERATION BUTTON	[M]	IC902	LA5608M-TE-L	IC, RESET	
13	RGW0194-K	AI JOG KNOB	[M]	TRANSISTORS			
14	RHD30007	SCREW		Q1(EG)	2SC2787LTA	TRANSISTOR	
15	RKA0059-K	LEG RUBBER	[M]	Q1(E)	2SK544F-AC	TRANSISTOR	
16	RKM0247AZ-K	CABINET	[M]	Q2(E)	2SC2786MTA	TRANSISTOR	
17	RKW0323A-Q	FL WINDOW	[M]	Q2(EG)	2SC2787LTA	TRANSISTOR	
18	RMK0199	BOTTOM CHASSIS	[M]	Q3(E)	2SC2787FL1TA	TRANSISTOR	
19	RMN0253	FL HOLDER	[M]	Q3(EG)	2SC1740SSTA	TRANSISTOR	
20	RMR0404	TUNER PCB SUPPORT	[M]	Q4(EG)	2SA933SSTA	TRANSISTOR	
21	RMR0732-X	CD SUPPORT (L)	[M]	Q4(E)	2SC2787FL1TA	TRANSISTOR	
22	RMR0733-X	CD SUPPORT (R)	[M]	Q5(EG)	2SC1740SSTA	TRANSISTOR	
23	RMR0741-X	PCB SUPPORT (PIN)	[M]	Q5(E)	2SC2787LTA	TRANSISTOR	
24	RMY0132	HEAT SINK	[M]	Q6(EG)	2SC1740SSTA	TRANSISTOR	
25(EG)	RSC0363	EARTH TERMINAL	[M]	Q6(E)	2SC2787LTA	TRANSISTOR	
26	SHE187-3	PCB SUPPORT		Q7	2SC1740SSTA	TRANSISTOR	
27	SHS3276	LEG FELT	[M]	Q8	2SC1740SSTA	TRANSISTOR	
28	RMR0406	PCB SUPPORT	[M]	Q9	2SD1020HTA	TRANSISTOR	[M]
29	XNS9D	NUT		Q10	2SC1740SSTA	TRANSISTOR	
30	XTB3+12CFN	SCREW		Q11	2SA933SSTA	TRANSISTOR	
31	XTB3+12JFR	SCREW		Q12	2SA933SSTA	TRANSISTOR	
32	XTB3+20J	SCREW		Q13	2SC1740SSTA	TRANSISTOR	
33	XTBS26+10J	SCREW		Q14	2SC1740SSTA	TRANSISTOR	
34	XTBS3+8JFZ1	SCREW		Q15(EG)	2SC1740SSTA	TRANSISTOR	
				Q16(EG)	2SC1740SSTA	TRANSISTOR	

Ref. No	Part No.	Part Name & Description	Remarks	Ref. No	Part No.	Part Name & Description	Remarks
Q17	2SC1740SSTA	TRANSISTOR		D819	RVD1SS133TA	DIODE	
Q20(E)	2SA933SSTA	TRANSISTOR		D820	RVD1SS133TA	DIODE	
Q21(E)	2SC1740SSTA	TRANSISTOR		D821	RVD1SS133TA	DIODE	
Q22(E)	2SC1740SSTA	TRANSISTOR		D823	RVDMTZ10BTA	DIODE	
Q23(E)	2SC1740SSTA	TRANSISTOR		D826	RVDMTZ5R1BTA	DIODE	
Q701	2SB709S	TRANSISTOR		D827	RVD1SS133TA	DIODE	
Q801	2SD2037ETA	TRANSISTOR	[M] ⚠	D828	RVD1SS133TA	DIODE	
Q802	2SA933SSTA	TRANSISTOR		D829	RVD1SS133TA	DIODE	
Q803	2SB621ARTA	TRANSISTOR	⚠	D900	RVD1SS133TA	DIODE	
Q804	2SC2001KTA	TRANSISTOR		D901	RVD1SS133TA	DIODE	
Q805	2SD1273P	TRANSISTOR		D902	RVD1SS133TA	DIODE	
Q806	2SB1185E	TRANSISTOR		D903	RVD1SS133TA	DIODE	
Q807	RVIDTC124EST	TRANSISTOR	[M]	D904	RVD1SS133TA	DIODE	
Q808	2SD1020HTA	TRANSISTOR	[M]	D905	RVD1SS133TA	DIODE	
Q809	2SD1020HTA	TRANSISTOR	[M]	D906	RVD1SS133TA	DIODE	
Q810	2SC2001KTA	TRANSISTOR		D907	1SS291TA	DIODE	
Q813	2SA933SSTA	TRANSISTOR		D908	RVD1SS133TA	DIODE	
Q814	2SA933SSTA	TRANSISTOR		D910	RVD1SS133TA	DIODE	
Q901	2SC1740SSTA	TRANSISTOR		D911	RVD1SS133TA	DIODE	
Q903	2SC1740SSTA	TRANSISTOR		D913	RVD1SS133TA	DIODE	
Q904	2SC1740SSTA	TRANSISTOR		D914	RVD1SS133TA	DIODE	
Q905	2SC1740SSTA	TRANSISTOR		D917	1SS291TA	DIODE	
				D934	RVDMTZ4R7BTA	DIODE	
		DIODES					
						VARIABLE RESISTORS	
D1(E)	SVC211SPA-AL	DIODE		VR1	EVNDXAA00B14	VR, FM STEREO	
D2(E)	SVC211SPA-AL	DIODE		VR901	RRV16B24204A	VR, TUNING/CD SKIP	[M]
D3(E)	SVC211SPA-AL	DIODE					
D4	RVDMTZ5R6CTA	DIODE	[M]			SWITCHES	
D5(EG)	RVD1SS133TA	DIODE					
D5(E)	1SS291TA	DIODE		S701	RSM0006-P	SW, RESET	
D6(EG)	RVD1SS133TA	DIODE		S790	RSH1A005	SW, CLOSE DETECTOR	
D801	1D3E	DIODE	[M] ⚠	S791	RSH1A005	SW, OPEN DETECTOR	
D802	1D3E	DIODE	[M] ⚠	S901	EVQ21405R	SW, SET	
D804	1D3E	DIODE	[M] ⚠	S902	EVQ21405R	SW, TUNING MODE	
D805	1D3E	DIODE	[M] ⚠	S903	EVQ21405R	SW, FM MODE/BP	
D806	RVDMTZ15CTA	DIODE	[M]	S904	EVQ21405R	SW, TUNER/BAND	
D807	RVDMTZ11BTA	DIODE		S905	EVQ21405R	SW, CD	
D808	1D3E	DIODE	[M] ⚠	S906	EVQ21405R	SW, AUX	
D809	1D3E	DIODE	[M] ⚠	S907	EVQ21405R	SW, TAPE	
D810	MA4270MTA	DIODE	⚠	S908	EVQ21405R	SW, CD DISPLAY	
D811	1D3E	DIODE	[M] ⚠	S910	EVQ21405R	SW, OPEN/CLOSE	
D812	1D3E	DIODE	[M] ⚠	S911	EVQ21405R	SW, FWD SKIP	
D814	RVDMTZ5R6CTA	DIODE	[M]	S912	EVQ21405R	SW, REV SKIP	
D815	RVDMTZ5R2CTA	DIODE	[M]	S913	EVQ21405R	SW, RANDOM	
D816	RVD1SS133TA	DIODE		S914	EVQ21405R	SW, REPEAT	
D817	RVD1SS133TA	DIODE		S918	EVQ21405R	SW, LAST FADE	
D818	RVDMTZ6R8ATA	DIODE	[M]				

Ref. No	Part No.	Part Name & Description	Remarks	Ref. No	Part No.	Part Name & Description	Remarks
S919	EVQ21405R	SW, ALBUM		L901	RLQZP3R3KT-Y	AXIAL COIL	
S920	EVQ21405R	SW, J. FIT		L902	RLQZP2R2KT-Y	AXIAL COIL	
S921	EVQ21405R	SW, PLAY		L903	RLQZP2R2KT-Y	AXIAL COIL	
S922	EVQ21405R	SW, PAUSE		T1	RLI4B016-Z	FM IFT	[M]
S923	EVQ21405R	SW, STOP		T2	RLI4B015-Z	FM IFT	[M]
				T801	RTP1J4G003	POWER TRANSFORMER	[M] △
		EARTH PLATES					
						COMPONENT COMBINATIONS	
E801	SNE1004-1	EARTH PLATE		Z1(E)	RLA6Z002-T	AM COIL BLOCK	
E802(EG)	SNE1004-1	EARTH PLATE		Z1(EG)	ENV17290G1R	FM TUNER PACK	
E803(EG)	SNE1004-1	EARTH PLATE		Z2(EG)	RLA6Z002-T	AM COIL BLOCK	
		CONNECTORS		Z2(E)	RLI2Z003-T	AM IFT	[M]
				Z3(EG)	RLI2Z003-T	AM IFT	[M]
CN1	SJS50578JQ	5P CONNECTOR		Z801	BL02RN2R65T2	BEAD CORE	
CN2	SJS50978JQ	9P CONNECTOR		Z802	BL02RN2R65T2	BEAD CORE	
CN701	RJU035T016-1	16 PIN FFC CONNECTOR				CERAMIC FILTERS	
CN702	RJS1A6723-1Q	23 PIN FFC CONNCETOR					
CN800	RJS1A5208	8P CONNECTOR	[M]	CF1(E)	RLFFETWNA01L	FM CERAMIC FILTER	
CN802	RJT065K15	AB CONNECTOR		CF1(EG)	RLFFETNGA01L	FM CERAMIC FILTER	
CN803(EG)	RJS1A5203	3P CONNECTOR		CF2(E)	RLFFETWNA01L	FM CERAMIC FILTER	
CN900A	RJS1A6223-1	23P FFC CONNECTOR		CF2(EG)	RLFFETNGA02L	FM CERAMIC FILTER	
CN900B	RJS1A6823	23P CONNECTOR				OSCILLATORS	
CN902A	RJS1A6223-1	23P FFC CONNECTOR					
CP1	RJP5G9YA	5P CONNECTOR		X1	SVQ49U722T-S	OSCILLATOR 7.2 MHZ	
CP2	RJP9G9YA	9P CONNECTOR		X701	RSXZ16M9M02T	OSCILLATOR	
CP790	RJP6G17ZA	6P CONNECTOR		X901	RSXZ4M19M01T	OSCILLATOR 4.19 MHZ	
CP803	RJP6G18ZA	6P CONNECTOR		X902	RSXD32K7S02	OSCILLATOR 32.768kHz	[M]
		COILS & TRANSFORMERS				DISPLAY TUBE	
L1(EG)	RLQZP1R2JT-Y	AXIAL COIL	[M]	FL901	RSL0165-F	FL DISPLAY	[M]
L2(EG)	RLQZPR22KT-Y	AXIAL COIL				JACKS	
L2(E)	RLQZP1R2JT-Y	AXIAL COIL	[M]				
L3(EG)	RLQZPR22KT-Y	AXIAL COIL					
L4(EG)	RLQZPR47KT-Y	AXIAL COIL					
L4(E)	RLQZP1R2JT-Y	AXIAL COIL	[M]				
L5(EG)	RLQZP1R2JT-Y	AXIAL COIL	[M]	JK1	RJH8201	JACK, ANTENNA	[M]
L6(EG)	SLM1B10-1M	A.B. FILTER		JK2	SJS208	JACK, AM LOOP ANT	
L7(EG)	ELELN822KL	RF CHOKE COIL	[M]			PACKING MATERIALS	
L7(E)	RLQZPR22KT-Y	AXIAL COIL					
L8(EG)	ELELN822KL	RF CHOKE COIL	[M]				
L8(E)	RLQZPR22KT-Y	AXIAL COIL		P1	RPF0100	BAG (SET)	[M]
L10(E)	RLQZPR22KT-Y	AXIAL COIL		P2	RPN0762	POLYFOAM	[M]
L50(E)	RLQZP1R2JT-Y	AXIAL COIL	[M]				
L51(E)	RLQZPR47KT-Y	AXIAL COIL					
L803	RLQZP3R3KT-Y	AXIAL COIL					
L804	RLQZP3R3KT-Y	AXIAL COIL					

RESISTORS & CAPACITORS

Notes : * Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)
* Resistors values are in ohms, unless specified otherwise, 1k=1,000(OHM), 1M=1,000k(OHM)

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
	RESISTORS		R22(EG)	ERDS2TJ223T	22K 1/4W	R46(EG)	ERDS2TJ473T	47K 1/4W
			R22(E)	ERDS2TJ561T	560 1/4W	R47(EG)	ERDS2TJ104T	100K 1/4W
			R23(EG)	ERDS2TJ103T	10K 1/4W	R47(E)	ERDS2TJ473T	47K 1/4W
R1 (E)	ERDS2TJ104T	100K 1/4W	R23(E)	ERDS2TJ183T	18K 1/4W	R48(E)	ERDS2TJ104T	100K 1/4W
R1 (EG)	ERDS2TJ332T	3.3K 1/4W	R24(EG)	ERDS2TJ182T	1.8K 1/4W	R48(EG)	ERDS2TJ681T	680 1/4W
R2 (E)	ERDS2TJ104T	100K 1/4W	R24(E)	ERDS2TJ153T	15K 1/4W	R49(E)	ERDS2TJ102T	1K 1/4W
R2 (EG)	ERDS2TJ122T	1.2K 1/4W	R25(EG)	ERDS2TJ223T	22K 1/4W	R50(EG)	ERDS2TJ103T	10K 1/4W
R3 (E)	ERDS2TJ470T	47 1/4W	R25(E)	ERDS2TJ331T	330 1/4W	R50(E)	ERDS2TJ562T	5.6K 1/4W
R3 (EG)	ERDS2TJ684T	680K 1/4W	R26(EG)	ERDS2TJ122T	1.2K 1/4W	R51	ERDS2TJ153T	15K 1/4W
R4 (E)	ERDS2TJ104T	100K 1/4W	R26(E)	ERDS2TJ102T	1K 1/4W	R52	ERDS2TJ561T	560 1/4W
R4 (EG)	ERDS2TJ824T	820K 1/4W	R27(EG)	ERDS2TJ122T	1.2K 1/4W	R53	ERDS2TJ102T	1K 1/4W
R5 (EG)	ERDS2TJ391T	390 1/4W	R27(E)	ERDS2TJ104T	100K 1/4W	R54(EG)	ERDS2TJ562T	5.6K 1/4W
R5 (E)	ERDS2TJ564T	560K 1/4W	R28(EG)	ERDS2TJ102T	1K 1/4W	R55(EG)	ERDS2TJ562T	5.6K 1/4W
R6 (EG)	ERDS2TJ102T	1K 1/4W	R28(E)	ERDS2TJ684T	680K 1/4W	R56(EG)	ERDS2TJ102T	1K 1/4W
R6 (E)	ERDS2TJ391T	390 1/4W	R29(EG)	ERDS2TJ182T	1.8K 1/4W	R58	ERDS2TJ151T	150 1/4W
R7 (EG)	ERDS2TJ471T	470 1/4W	R29(E)	ERDS2TJ102T	1K 1/4W	R59(EG)	ERDS2TJ103T	10K 1/4W
R7 (E)	ERDS2TJ561T	560 1/4W	R30(EG)	ERDS2TJ102T	1K 1/4W	R60	ERDS2TJ103T	10K 1/4W
R8 (EG)	ERDS2TJ102T	1K 1/4W	R30(E)	ERDS2TJ103T	10K 1/4W	R61	ERDS2TJ103T	10K 1/4W
R8 (E)	ERDS2TJ474T	470K 1/4W	R31(E)	ERDS2TJ104T	100K 1/4W	R62(EG)	ERDS2TJ103T	10K 1/4W
R9 (EG)	ERDS2TJ153T	15K 1/4W	R31(EG)	ERDS2TJ224T	220K 1/4W	R63(EG)	ERDS2TJ104T	100K 1/4W
R9 (E)	ERDS2TJ272T	2.7K 1/4W	R32(EG)	ERDS2TJ152T	1.5K 1/4W	R64(EG)	ERDS2TJ104T	100K 1/4W
R10 (E)	ERDS2TJ102T	1K 1/4W	R32(E)	ERDS2TJ102T	1K 1/4W	R64(E)	ERDS2TJ103T	10K 1/4W
R10(EG)	ERDS2TJ561T	560 1/4W	R33(EG)	ERDS2TJ152T	1.5K 1/4W	R65(EG)	ERDS2TJ104T	100K 1/4W
R11(EG)	ERDS2TJ102T	1K 1/4W	R33(E)	ERDS2TJ562T	5.6K 1/4W	R65(E)	ERDS2TJ103T	10K 1/4W
R11(E)	ERDS2TJ224T	220K 1/4W	R34(EG)	ERDS2TJ683T	68K 1/4W	R66(E)	ERDS2TJ103T	10K 1/4W
R12(EG)	ERDS2TJ103T	10K 1/4W	R34(E)	ERD25TJ102T	1K 1/4W	R66(EG)	ERDS2TJ562T	5.6K 1/4W
R12(E)	ERDS2TJ273T	27K 1/4W	R35(EG)	ERDS2TJ102T	1K 1/4W	R67(E)	ERDS2TJ102T	1K 1/4W
R13(E)	ERDS2TJ122T	1.2K 1/4W	R35(E)	ERDS2TJ182T	1.8K 1/4W	R67(EG)	ERDS2TJ824T	820K 1/4W
R13(EG)	ERDS2TJ684T	680K 1/4W	R36(EG)	ERDS2TJ562T	5.6K 1/4W	R68(EG)	ERDS2TJ104T	100K 1/4W
R14(E)	ERDS2TJ152T	1.5K 1/4W	R37(EG)	ERDS2TJ562T	5.6K 1/4W	R68(E)	ERDS2TJ224T	220K 1/4W
R14(EG)	ERDS2TJ822T	8.2K 1/4W	R38(EG)	ERDS2TJ562T	5.6K 1/4W	R69(EG)	ERDS2TJ271T	270 1/4W
R15(EG)	ERDS2TJ331T	330 1/4W	R39(EG)	ERDS2TJ562T	5.6K 1/4W	R69(E)	ERDS2TJ681T	680 1/4W
R15(E)	ERDS2TJ684T	680K 1/4W	R40(E)	ERDS2TJ103T	10K 1/4W	R70(EG)	ERDS2TJ562T	5.6K 1/4W
R16(EG)	ERDS2TJ222T	2.2K 1/4W	R40(EG)	ERDS2TJ562T	5.6K 1/4W	R71(EG)	ERDS2TJ121T	120 1/4W
R16(E)	ERDS2TJ824T	820K 1/4W	R41(EG)	ERDS2TJ102T	1K 1/4W	R71(E)	ERDS2TJ681T	680 1/4W
R17(EG)	ERDS2TJ183T	18K 1/4W	R41(E)	ERDS2TJ182T	1.8K 1/4W	R72(EG)	ERDS2TJ104T	100K 1/4W
R17(E)	ERDS2TJ391T	390 1/4W	R42(EG)	ERDS2TJ102T	1K 1/4W	R72(E)	ERDS2TJ683T	68K 1/4W
R18(EG)	ERDS2TJ103T	10K 1/4W	R42(E)	ERDS2TJ223T	22K 1/4W	R73(E)	ERDS2TJ102T	1K 1/4W
R18(E)	ERDS2TJ121T	120 1/4W	R43(E)	ERDS2TJ122T	1.2K 1/4W	R73(EG)	ERDS2TJ684T	680K 1/4W
R19(EG)	ERDS2TJ104T	100K 1/4W	R43(EG)	ERDS2TJ561T	560 1/4W	R74(EG)	ERDS2TJ684T	680K 1/4W
R19(E)	ERDS2TJ103T	10K 1/4W	R44(EG)	ERDS2TJ561T	560 1/4W	R74(E)	ERDS2TJ562T	5.6K 1/4W
R20(EG)	ERDS2TJ102T	1K 1/4W	R45(EG)	ERDS2TJ103T	10K 1/4W	R75(EG)	ERDS2TJ103T	10K 1/4W
R20(E)	ERDS2TJ822T	8.2K 1/4W	R45(E)	ERDS2TJ223T	22K 1/4W	R75(E)	ERDS2TJ562T	5.6K 1/4W
R21	ERDS2TJ102T	1K 1/4W	R46(E)	ERDS2TJ103T	10K 1/4W	R76(EG)	ERDS2TJ222T	2.2K 1/4W

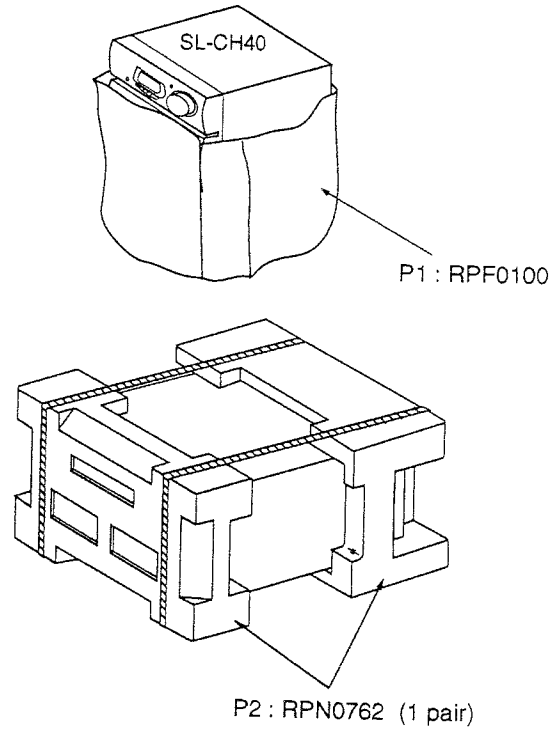
Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R76(E)	ERDS2TJ562T	5.6K 1/4W	R745	ERJ6GEYJ155V	1.5M 1/10W	R854	ERDS2TJ470T	47 1/4W
R77(EG)	ERDS2TJ222T	2.2K 1/4W	R748	ERJ6GEYJ182V	1.8K 1/10W	R855	ERDS2TJ102T	1K 1/4W
R77(E)	ERDS2TJ104T	100K 1/4W	R749	ERJ8GEYJ103V	10K 1/8W	R856	ERDS2TJ102T	1K 1/4W
R78(E)	ERDS2TJ822T	8.2K 1/4W	R801(E)	ERDS2TJ104T	100K 1/4W	R857	ERDS2TJ223T	22K 1/4W
R80(E)	ERDS2TJ824T	820K 1/4W	R802(E)	ERDS2TJ104T	100K 1/4W	R858	ERDS2TJ103T	10K 1/4W
R81(E)	ERDS2TJ181T	180 1/4W	R803(E)	ERDS2TJ103T	10K 1/4W	R859	ERDS2TJ222T	2.2K 1/4W
R82(E)	ERDS2TJ562T	5.6K 1/4W	R804(E)	ERDS2TJ103T	10K 1/4W	R860	ERDS2TJ222T	2.2K 1/4W
R83(E)	ERDS2TJ122T	1.2K 1/4W	R806	ERDS2TJ330T	33 1/4W	R861(EG)	ERDS2TJ471T	470 1/4W
R85(E)	ERDS2TJ103T	10K 1/4W	R807	ERDS2TJ330T	33 1/4W	R870	ERDS2TJ330T	33 1/4W
R86(E)	ERDS2TJ104T	100K 1/4W	R808	ERDS2TJ330T	33 1/4W	R901	ERDS2TJ153T	15K 1/4W
R87(E)	ERDS2TJ104T	100K 1/4W	R809(E)	ERDS2TJ223T	22K 1/4W	R902	ERDS2TJ153T	15K 1/4W
R88(E)	ERDS2TJ104T	100K 1/4W	R810(E)	ERDS2TJ223T	22K 1/4W	R903	ERDS2TJ153T	15K 1/4W
R99(E)	ERDS2TJ222T	2.2K 1/4W	R811	ERDS2TJ471T	470 1/4W	R904	ERDS2TJ152T	1.5K 1/4W
R701	ERJ6GEYJ100V	10 1/10W	R812	ERDS2TJ101T	100 1/4W	R905	ERDS2TJ222T	2.2K 1/4W
R702	ERJ6GEYJ471V	470 1/10W	R813	ERDS2TJ122T	1.2K 1/4W	R906	ERDS2TJ272T	2.7K 1/4W
R703	ERJ6GEYJ823V	82K 1/10W	R814	ERDS2TJ102T	1K 1/4W	R907	ERDS2TJ392T	3.9K 1/4W
R704	ERJ6GEYJ102V	1K 1/10W	R816	ERDS2TJ470T	47 1/4W	R908	ERDS2TJ562T	5.6K 1/4W
R705	ERJ6GEYJ103V	10K 1/10W	R817	ERDS2TJ101T	100 1/4W	R909	ERDS2TJ822T	8.2K 1/4W
R706	ERJ6GEYJ102V	1K 1/10W	R818	ERDS2TJ152T	1.5K 1/4W	R910	ERDS2TJ153T	15K 1/4W
R707	ERJ6GEYJ473V	47K 1/10W	R819	ERDS2TJ122T	1.2K 1/4W	R912	ERDS2TJ152T	1.5K 1/4W
R708	ERJ6GEYJ104V	100K 1/10W	R820	ERDS1FVJ181T	180 1/2W	R913	ERDS2TJ222T	2.2K 1/4W
R709	ERJ6GEYJ683V	68K 1/10W	R821	ERDS2TJ101T	100 1/4W	R914	ERDS2TJ272T	2.7K 1/4W
R711	ERJ6GEYJ154V	150K 1/10W	R822	ERDS1FVJ391T	390 1/2W	R915	ERDS2TJ392T	3.9K 1/4W
R712	ERJ6GEYJ221V	220 1/10W	R824	ERDS2TJ331T	330 1/4W	R919	ERDS2TJ152T	1.5K 1/4W
R714	ERJ6GEY0R00A	0 1/10W	R825	ERDS2TJ103T	10K 1/4W	R920	ERDS2TJ222T	2.2K 1/4W
R717	ERJ6GEYJ102V	1K 1/10W	R826	ERDS2TJ103T	10K 1/4W	R921	ERDS2TJ272T	2.7K 1/4W
R718	ERJ6GEYJ102V	1K 1/10W	R827	ERDS2TJ103T	10K 1/4W	R922	ERDS2TJ392T	3.9K 1/4W
R719	ERJ6GEYJ102V	1K 1/10W	R828	ERDS2TJ101T	100 1/4W	R923	ERDS2TJ562T	5.6K 1/4W
R720	ERJ6GEYJ102V	1K 1/10W	R829	ERDS2TJ122T	1.2K 1/4W	R924	ERDS2TJ101T	100 1/4W
R721	ERJ6GEYJ101V	100 1/10W	R830	ERDS2TJ330T	33 1/4W	R925	ERDS2TJ101T	100 1/4W
R722	ERJ6GEYJ563V	56K 1/10W	R831	ERDS2TJ332T	3.3K 1/4W	R926	ERDS2TJ222T	2.2K 1/4W
R723	ERJ6GEYJ182V	1.8K 1/10W	R832	ERDS2TJ222T	2.2K 1/4W	R927	ERDS2TJ222T	2.2K 1/4W
R724	ERJ6GEYJ333V	33K 1/10W	R836	ERDS2TJ104T	100K 1/4W	R928	ERDS2TJ222T	2.2K 1/4W
R725	ERJ6GEYJ472V	4.7K 1/10W	R837	ERDS2TJ104T	100K 1/4W	R929	ERDS2TJ103T	10K 1/4W
R726	ERJ6GEYJ473V	47K 1/10W	R838	ERDS2TJ223T	22K 1/4W	R931	ERDS2TJ103T	10K 1/4W
R727	ERJ6GEYJ103V	10K 1/10W	R839	ERDS2TJ223T	22K 1/4W	R932	ERDS2TJ102T	1K 1/4W
R728	ERJ6GEYJ392V	3.9K 1/10W	R840	ERDS2TJ223T	22K 1/4W	R933	ERDS2TJ104T	100K 1/4W
R730	ERJ6GEYJ331V	330 1/10W	R841	ERDS2TJ223T	22K 1/4W	R934	ERDS2TJ820T	82 1/4W
R731	ERJ6GEYJ392V	3.9K 1/10W	R842	ERDS2TJ273T	27K 1/4W	R935	ERDS2TJ104T	100K 1/4W
R734	ERJ6GEYJ101V	100 1/10W	R843	ERDS2TJ273T	27K 1/4W	R936	ERDS2TJ331T	330 1/4W
R735	ERJ6GEYJ101V	100 1/10W	R844	ERDS2TJ332T	3.3K 1/4W	R937	ERDS2TJ183T	18K 1/4W
R736	ERJ6GEYJ101V	100 1/10W	R845	ERDS2TJ332T	3.3K 1/4W	R938	ERDS2TJ823T	82K 1/4W
R738	ERJ6GEYJ223V	22K 1/10W	R846	ERDS2TJ222T	2.2K 1/4W	R939	ERDS2TJ473T	47K 1/4W
R739	ERJ6GEYJ681V	680 1/10W	R847	ERDS2TJ103T	10K 1/4W	R940	ERDS2TJ473T	47K 1/4W
R741	ERJ6GEYJ562V	5.6K 1/10W	R849	ERDS2TJ222T	2.2K 1/4W	R943	ERDS2TJ101T	100 1/4W
R742	ERJ6GEYJ562V	5.6K 1/10W	R850	ERDS2TJ103T	10K 1/4W	R944	ERDS2TJ101T	100 1/4W
R743	ERJ6GEYJ562V	5.6K 1/10W	R852	ERDS2TJ330T	33 1/4W	R945	ERDS2TJ683T	68K 1/4W
R744	ERJ6GEYJ103V	10K 1/10W	R853	ERDS2TJ470T	47 1/4W	R948	ERDS2TJ472T	4.7K 1/4W

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
R949	ERDS2TJ472T	4.7K 1/4W	C11(E)	ECBT1H102KB5	1000P 50V	C37	ECBT1C103MS5	0.01 16V
R950	ERDS2TJ681T	680 1/4W	C12(EG)	ECKR1H223ZF5	0.022 50V	C38(EG)	ECEA1CU101B	100 16V
R951	ERDS2TJ334T	330K 1/4W	C12(E)	ECBT1H6R8KC5	6.8P 50V	C38(E)	ECFR1C103MR	0.01 16V
R952	ERDS2TJ103T	10K 1/4W	C13(EG)	ECKR1H223ZF5	0.022 50V	C39(EG)	ECBT0J153MS5	0.015 6.3V
R953	ERDS2TJ102T	1K 1/4W	C13(E)	ECBT1H5R6KC5	5.6P 50V	C39(E)	ECBT1C103MS5	0.01 16V
R954	ERDS2TJ223T	22K 1/4W	C14(EG)	ECBT1C103MS5	0.01 16V	C40(EG)	ECBT0J153MS5	0.015 6.3V
R956	ERDS2TJ223T	22K 1/4W	C14(E)	ECBT1H180JC5	18P 50V	C40(E)	ECBT1H100JC5	10P 50V
R959	ERDS2TJ102T	1K 1/4W	C15(EG)	ECEA1CKA100B	10 16V	C41(EG)	ECEA1HKA010B	1 50V
R960	ERDS2TJ102T	1K 1/4W	C15(E)	ECBT1H102KB5	1000P 50V	C41(E)	ECFR1C473KR	0.047 16V
R965	ERDS2TJ102T	1K 1/4W	C16(EG)	ECBT1C103MS5	0.01 16V	C42(EG)	ECEA1HKA010B	1 50V
R966	ERDS2TJ101T	100 1/4W	C16(E)	ECBT1H102KB5	1000P 50V	C43(E)	ECBT1C103MS5	0.01 16V
R967	ERDS2TJ102T	1K 1/4W	C17(E)	ECBT1C103MS5	0.01 16V	C43(EG)	ECBT1H102KB5	1000P 50V
R970	ERDS2TJ103T	10K 1/4W	C17(EG)	ECBT1H150JC5	15P 50V	C44(E)	ECBT1C103MS5	0.01 16V
R971	ERDS2TJ222T	2.2K 1/4W	C18(EG)	ECEA1HKA010B	1 50V	C44(EG)	ECBT1H102KB5	1000P 50V
R972	ERDS2TJ103T	10K 1/4W	C18(E)	ECBT1H101KB5	100P 50V	C45(E)	ECBT1C103MS5	0.01 16V
R973	ERDS2TJ103T	10K 1/4W	C19	ECBT1C103MS5	0.01 16V	C45(EG)	ECBT1C822KS5	8200P 16V
R974	ERDS2TJ104T	100K 1/4W	C20	ECEA1CKA100B	10 16V	C46(E)	ECBT1C103MS5	0.01 16V
R975	ERDS2TJ104T	100K 1/4W	C21	ECBT1H101KB5	100P 50V	C46(EG)	ECBT1C822KS5	8200P 16V
R976	ERDS2TJ104T	100K 1/4W	C22(EG)	ECBT0J223NS5	0.022 6.3V	C47(EG)	ECBT1C103MS5	0.01 16V
R977	ERDS2TJ104T	100K 1/4W	C22(E)	ECBT0J223NS5	0.022 6.3V	C48	ECBT1H102KB5	1000P 50V
R978	ERDS2TJ104T	100K 1/4W	C23(EG)	ECBT1C103MS5	0.01 16V	C49	ECBT1H102KB5	1000P 50V
R979	ERDS2TJ104T	100K 1/4W	C23(E)	ECBT0J223NS5	0.022 6.3V	C50	ECBT1C103MS5	0.01 16V
R980	ERDS2TJ104T	100K 1/4W	C24(EG)	ECEA1HKAR47B	0.47 50V	C51(E)	ECEA1CU330B	33 16V
R981	ERDS2TJ104T	100K 1/4W	C24(E)	ECBT1C103MS5	0.01 16V	C51(EG)	ECBT1C103MS5	0.01 16V
R983	ERDS2TJ106T	10M 1/4W	C25(E)	ECEA1CKA100B	10 16V	C52	ECBT1C103MS5	0.01 16V
			C25(EG)	ECBT1C103MS5	0.01 16V	C53	ECEA25M4R7RB	4.7 25V
	CAPACITORS		C26(E)	ECEA0JU101B	100 6.3V	C54(EG)	ECEA1CU330B	33 16V
			C26(EG)	ECBT0J223NS5	0.022 6.3V	C54(E)	ECBT1H102KB5	1000P 50V
C1(EG)	ECEA1CU330B	33 16V	C27(E)	ECBT0J223NS5	0.022 6.3V	C55(E)	ECBT1H102KB5	1000P 50V
C1(E)	ECBT1H6R8KC5	6.8P 50V	C27(EG)	ECBT1H471KB5	470P 50V	C55(EG)	ECBT1H150JC5	15P 50V
C2(EG)	ECBT1C103MS5	0.01 16V	C28(EG)	ECEA1HKA010B	1 50V	C56(EG)	ECBT1H150JC5	15P 50V
C2(E)	ECBT1H102KB5	1000P 50V	C28(E)	ECBT1C103MS5	0.01 16V	C57	ECEA0JU221B	220 6.3V
C3(EG)	ECBT1C103MS5	0.01 16V	C29(E)	ECEA1HKAR47B	0.47 50V	C58	ECBT1H102KB5	1000P 50V
C3(E)	ECBT1H102KB5	1000P 50V	C29(EG)	ECFR1C473MR	0.047 16V	C59	ECBT1H102KB5	1000P 50V
C4(EG)	ECBT1H102KB5	1000P 50V	C30(E)	ECEA1HK010B	1 50V	C60	ECBT1H181KB5	180P 50V
C4(E)	ECBT1H3R3KC5	3.3 50V	C30(EG)	ECBT1H100JC5	10P 50V	C61(E)	ECBT1C103MS5	0.01 16V
C5(E)	ECBT1H102KB5	1000P 50V	C31(EG)	ECBT1C103MS5	0.01 16V	C62(E)	ECBT1H150JC5	15P 50V
C5(EG)	ECBT1H470J5	47P 50V	C31(E)	ECBT1H101KB5	100P 50V	C62(EG)	ECBT1H471KB5	470P 50V
C6(EG)	ECBT1C103MS5	0.01 16V	C32(E)	ECEA1CU100B	10 16V	C63(EG)	ECBT1C103MS5	0.01 16V
C6(E)	ECBT1H2R7KC5	2.7P 50V	C32(EG)	ECEA1HU010B	1 50V	C63(E)	ECBT1H150JC5	15P 50V
C7(E)	ECBT1H120JC5	12P 50V	C33(EG)	ECEA1HKAR47B	0.47 50V	C64(EG)	ECBT1C103MS5	0.01 16V
C8(EG)	ECBT1H150JC5	15P 50V	C33(E)	ECBT0J223NS5	0.022 6.3V	C64(E)	ECBT1H102KB5	1000P 50V
C8(E)	ECBT1H181KB5	180P 50V	C34(EG)	ECEA1HKAR33B	0.33 50V	C65(EG)	ECBT1H102KB5	1000P 50V
C9(EG)	ECEA0JU101B	100 6.3V	C34(E)	ECBT1C103MS5	0.01 16V	C65(E)	ECBT1H471KB5	470P 50V
C9(E)	ECBT1H3R3KC5	3.3P 50V	C35(EG)	ECQP1102JZT	1000P 100V	C66(E)	ECEA1HKAR33B	0.33 50V
C10(EG)	ECEA1CKA100B	10 16V	C35(E)	ECBT1H150JC5	15P 50V	C67(EG)	ECEA1HKA3R3B	3.3 50V
C10(E)	ECBT1H102KB5	1000P 50V	C36(EG)	ECFR1C103MR	0.01 16V	C67(E)	ECQP1102JZT	1000P 100V
C11(EG)	ECBT1C103MS5	0.01 16V	C36(E)	ECBT1C103MS5	0.01 16V	C68(EG)	ECEA1HKA3R3B	3.3 50V

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
C68(E)	ECFR1C103MR	0.01 16V	C734	ECEA1AKA221I	220 10V	C846	ECEA1HU010B	1 50V
C69(E)	ECEA1CU101B	100 16V	C735	ECUZ1E104MBN	0.1 25V	C847	ECEA1EU4R7B	4.7 25V
C69(EG)	ECBT1H102KB5	1000P 50V	C736	ECUZ1E104MBN	0.1 25V	C848(EG)	ECKR1H103ZF5	0.01 50V
C70(E)	ECEA1HK010B	1 50V	C737	ECUZ1E104MBN	0.1 25V	C849(EG)	ECKR1H103ZF5	0.01 50V
C70(EG)	ECBT1H102KB5	1000P 50V	C738	ECUV1C154KBN	0.15 16V	C850	ECQV1H334JZ3	0.33 50V
C71	ECBT1C103MS5	0.01 16V	C742	ECUV1E273KBN	0.027 25V	C851(EG)	ECKR1H103ZF5	0.01 50V
C72(EG)	ECEA1HKA010B	1 50V	C743	ECUZ1E104MBN	0.1 25V	C852(EG)	ECBT1C103MS5	0.01 16V
C72(E)	ECEA1HUR47B	0.47 50V	C744	ECUV1E822KBN	8200P 25V	C870	ECEA1AU101B	100 10V
C73(E)	ECEA1HU010B	1 50V	C745	ECUV1C473MBN	0.047 16V	C901	ECEA1HKAR33B	0.33 50V
C73(EG)	ECBT1H470J5	47P 50V	C746	ECUV1H050DCN	5P 50V	C902	ECBT1C103MS5	0.01 16V
C74(E)	ECEA1HK010B	1 50V	C747	ECUV1H222KBN	2200P 50V	C903	ECBT0J223NS5	0.022 6.3V
C75(E)	ECEA1HK010B	1 50V	C748	ECUV1H471KBM	470P 50V	C904	ECEA1HKAR22B	0.22 50V
C76(E)	ECEA1HK010B	1 50V	C801	ECEA1HKA010B	1 50V	C905	EECS5R5H473	0.047 5.5V
C77(E)	ECBT0J153MS5	0.015 6.3V	C805(E)	ECBT1H101KB5	100P 50V	C906	ECBT1H102KB5	1000P 50V
C78(E)	ECBT0J153MS5	0.015 6.3V	C806(E)	ECBT1H101KB5	100P 50V	C907	ECEA0JU102B	1000 6.3V
C79(E)	ECBT1C103MS5	0.01 16V	C807	ECBT1E103ZF5	0.01 25V	C908	ECBT1H561KB5	560P 50V
C80(E)	ECBT1C103MS5	0.01 16V	C808	ECBT1E103ZF5	0.01 25V	C909	ECBT1H561KB5	560P 50V
C81(E)	ECBT1C103MS5	0.01 16V	C809	ECEA1CU101B	100 16V	C910	ECBT1H561KB5	560P 50V
C701	ECEA0JKA220I	22 6.3V	C810	ECEA1CU470B	47 16V	C911	ECEA0JKA101B	100 6.3V
C702	ECEA1HKA010I	1 50V	C811	ECBT1H102KB5	1000P 50V	C912	ECBT1H102KB5	1000P 50V
C703	ECEA0JKA101I	100 6.3V	C812	ECBT1H102KB5	1000P 50V	C913	ECBT1H101KB5	100P 50V
C704	ECUZ1E104MBN	0.1 25V	C813	ECKR1H103ZF5	0.01 50V▲	C914	ECBT1H101KB5	100P 50V
C705	ECEA1HKA010I	1 50V	C814	ECKR1H103ZF5	0.01 50V	C915	ECEA1HKA3R3B	3.3 50V
C706	ECUV1H101JCN	100P 50V	C815	ECEA1HU470B	47 50V	C916	ECEA1HKA3R3B	3.3 50V
C707	ECUV1E273KBN	0.027 25V	C817	ECKR1H103ZF5	0.01 50V▲	C917	ECEA1HKA010B	1 50V
C708	ECUV1H472KBN	4700P 50V	C818	ECBT1E103ZF5	0.01 25V	C918	ECBT1H102KB5	1000P 50V
C709	ECUV1C473KBN	0.047 16V	C819	ECKR1H103ZF5	0.01 50V	C919	ECBT1H560J5	56P 50V
C710	ECUV1H152KBN	1500P 50V	C820	ECKR1H103ZF5	0.01 50V	C920	ECBT1H560J5	56P 50V
C711	ECUZ1E104MBN	0.1 25V	C822	ECBT1E103ZF5	0.01 25V	C921	ECBT1H680J5	68P 50V
C712	ECUZ1E104MBN	0.1 25V	C823	ECEA1CU222E	2200 16V	C922	ECBT1H680J5	68P 50V
C713	ECUV1C104MBM	0.1 16V	C824	ECBT1E103ZF5	0.01 25V	C923	ECBT1H220JC5	22P 50V
C714	ECEA0JKA101I	100 6.3V	C825	ECEA1AU101B	100 10V	C924	ECBT1H180JC5	18P 50V
C715	ECEA0JKA470I	47 6.3V	C826	ECEA1HKA010B	1 50V	C925	ECBT1C103MS5	0.01 16V
C716	ECUV1H561KBN	560P 50V	C828	ECEA1AU101B	100 10V	C926	ECBT1H101KB5	100P 50V
C717	ECUZ1E104MBN	0.1 25V	C829	ECBT1E103ZF5	0.01 25V	C930	ECBT1C103MS5	0.01 16V
C718	ECUV1C224KBM	0.22 16V	C830	ECBT1E103ZF5	0.01 25V	C931	ECBT1C103MS5	0.01 16V
C721	ECUV1H270JCN	27P 50V	C831	ECBT1H331KB5	330P 50V	C932	ECBT1C103MS5	0.01 16V
C722	ECUV1H270JCN	27P 50V	C832	ECBT1H331KB5	330P 50V	C933	ECBT1H102KB5	1000P 50V
C723	ECEA1AKA221I	220 10V	C833	ECBT1H121KB5	120P 50V	C934	ECBT1H102KB5	1000P 50V
C724	ECUV1C104MBM	0.1 16V	C834	ECBT1H121KB5	120P 50V			
C725	ECUV1H102KBN	1000P 50V	C837	ECEA1EU102E	1000 25V		CHIP JUMPERS	
C726	ECUV1H102KBN	1000P 50V	C838	ECEA1EU101B	100 25V			
C727	ECEA1HPK010I	1 50V	C839	ECBT1H102KB5	1000P 50V	RJ701	ERJ8GEY0R00A	0 1/10W
C728	ECEA1HPK010I	1 50V	C840	ECBT1H102KB5	1000P 50V	RJ702	ERJ8GEY0R00A	0 1/10W
C730	ECUZ1E104MBN	0.1 25V	C842	ECBT1E103ZF5	0.01 25V	RJ703	ERJ8GEY0R00A	0 1/10W
C731	ECEA0JK221I	220 6.3V	C843	ECEA1HKA010B	1 50V	RJ704	ERJ8GEY0R00A	0 1/10W
C732	ECEA0JK221I	220 6.3V	C844(EG)	ECBT1C103MS5	0.01 16V	RJ707	ERJ8GEY0R00A	0 1/10W
C733	ECUZ1E104MBN	0.1 25V	C845	ECEA1HU010B	1 50V	RJ708	ERJ8GEY0R00A	0 1/10W

Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks	Ref. No.	Part No.	Values & Remarks
RJ709	ERJ8GEY0R00A	0 1/10W	RJ721	ERJ6GEY0R00A	0 1/10W			
RJ714	ERJ8GEY0R00A	0 1/10W	RJ724	ERJ6GEY0R00A	0 1/10W		TEST JUMPERS	
RJ715	ERJ8GEY0R00A	0 1/10W	RJ725	ERJ6GEY0R00A	0 1/10W			
RJ716	ERJ8GEY0R00A	0 1/10W	RJ726	ERJ6GEY0R00A	0 1/10W	TJ701	EYF8CU	TEST JUMPER
RJ717	ERJ8GEY0R00A	0 1/10W	RJ799	ERJ6GEY0R00A	0 1/10W	TJ702	EYF8CU	TEST JUMPER

PACKAGING



REPLACEMENT PARTS LIST

Notes : * Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
The parenthesized indications in the Ref. No. columns specify the areas. (refer to the cover page for area.)
Parts without these indications can be used for all areas.
[M] Indicates in Remarks columns parts that are supplied by MESA.
* Warning: This product uses a laser diode. Refer to caution statements on page 3.
* ACHTUNG: Die Lasereinheit nicht zerlegen.
Die Lasereinheit darf nur gegen eine vom Hersteller spezifizierte Einheit ausgetauscht werden.

Ref. No	Part No.	Part Name & Description	Remarks	Ref. No	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK					
301	RFKJLPG440BK	TRV CHASSIS ASS'Y		327	RME0109	FLOATING SPRING A	
301-1	RDG0142	INTERMEDIATE GEAR		328	RME0142	FLOATING SPRING B	
301-2	RDG0193	DRIVE GEAR (1)		329	RMS0123-1	FIXED PIN A	
301-3	RDP0065	INTERMEDIATE PULLEY		330	RMS0350	FIXED PIN B	
302	REM0019	LOADING MOTOR ASS'Y		331	RMR0698-K	TRAVERSE CHASSIS	
303	RMA0339	TRAY HOLDER		332	XTV2+6G	SCREW	
304	RME0063	LOCK LEVER SPRING					
305	RME0087	ASSISTANCE SPRING					
306	RMG0158	BELT					
307	RML0177	CONVERSION LEVER					
308	RML0178-1	LOCK LEVER					
309	RMM0059-1	SLIDE PLATE (2)					
310	RMM0079	SLIDE PLATE (1)					
311	XTN26+6G	SCREW					
312	XYN2+F6FZ	SCREW					
313	RDB0036	GUIDE SHAFT HOLDER					
314	RHD20010	SCREW					
315	RMU0046	GUIDE SHAFT					
316	RHM245ZA	MAGNET					
317(E)	RFKNACH350EK	CLAMP PLATE ASS'Y					
317(EG)	RFKNLPG440GC	CLAMP PLATE ASS'Y					
318	RMR0334	FIXED PLATE					
319	RXQ0123	MAGNET HOLDER ASS'Y					
320	RFKNLPG440-K	DRIVE GEAR (2) ASS'Y					
321	RGQ0088-K	DISC TRAY					
322	RHD20009-1	SCREW					
323	XTB3+25GFZ	SCREW					
324	XTN26+6G	SCREW					
325	XTN3+8JFZ	SCREW					
326	RAE0113Z	TRAVERSE UNIT					
326-1	SHGD112	FLOATING RUBBER (A)					
326-2	SHGD113-1	FLOATING RUBBER (B)					
326-3	XQS2+A35FZ	SCREW					

LOADING PARTS LOCATION

