ORDER NO. MD9803053C2

Service Manual

Portable Stereo CD System

Radio Cassette

RX-DS28

COMPACT disc DIGITAL AUDIO

*MASH multi-stage noise shaping

Colour

(K) . . . . . Black Type

Area

Suffix for Model No.	Area	Colour
(E)	Europe	(K)
(EB)	Great Britain	
(EG)	Germany and Italy	

* MASH is a trademark of NTT.

TAPE DECK : SG20 MECHANISM SERIES
CD SECTION : RAE0152Z-M TRAVERSE DECK SERIES

■ Specifications

■ Radio

Frequency Range	
FM	87.5 - 108 MHz(50 kHz steps)
AM	522 - 1629 kHz(9 kHz steps)
Intermediate Frequency	
FM	10.7 MHz
AM	459 kHz
Sensitivity	
FM	20 dB/50 mW
AM	48 dB/m/50 mW

■ TAPE RECORDER

Track system	4 track, 2 channel, stereo
Recording System	AC bias
Tape Speed	4.8 cm/s
Erasing System	Magnet (Multi pole)
Monitor System	Variable sound monitor
Frequency range (Normal position)	60 - 14000 Hz

Notes :

Specifications are subject to change without notice.
Weight and dimensions are approximate.

■ CD PLAYER

Sampling frequency	44.1 kHz
Decoding	16 - bit linear
Beam source	Semiconductor laser (wavelength; 780 nm)
No. of channels	2 channel; stereo
Wow and flutter	less than possible measured data
Digital filter	4fs
D/A converter	MASH (1 bit DAC)

■ General

Power requirement	
AC	230-240V, 50 Hz Power consumption: 48W
Battery	12 V (Eight R20/LR20, D, UM-1 batteries) • Do not use rechargeable type batteries
Memory back-up for computer	6V (Four "AA" size, UM-3,R6/LR6 batteries) • Do not use rechargeable type batteries
Speakers	10 cm 5.4 Ω x 2
Jacks	
Output	Phones: 3.5 mm stereo (16 - 32 Ω)
Dimensions (W x H xD)	500 x 146 x 263 mm
Weight	4.0 kg without batteries

⚠ WARNING

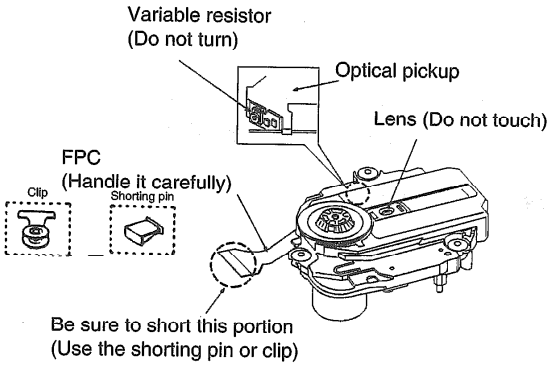
This service information is designed for experiense repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

Contents

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).

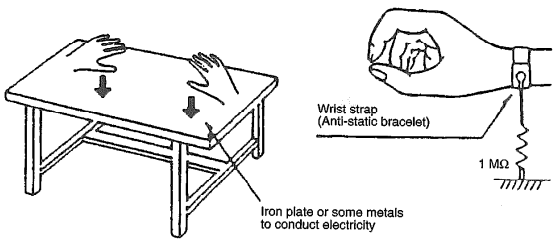


• Handling of traverse deck (optical pickup)

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

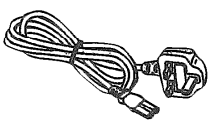
1. Human body grounding
   Use the anti-static wrist strap to discharge the static electricity from your body.
2. Work table grounding
   Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is placed, and ground the sheet.

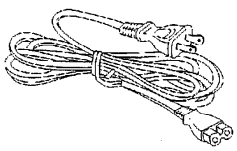


Caution :
The static electricity of your clothes will not be grounded through the wrist strap.
So, take care not to let your clothes touch the traverse deck (optical pickup).

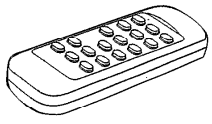
Accessories

☐ AC power cord ..... 1 pc.
(For United Kingdom: VJA0733) (For others)





☐ Remote control transmitter ..... 1 pc.
(EUR646552)



■ 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.

Wavelength: 780 nm
Maximum output radiation power from pick up: 100μW/VDE

Laser radiation from pick up unit 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 pick up 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 : 100μ W/VDE

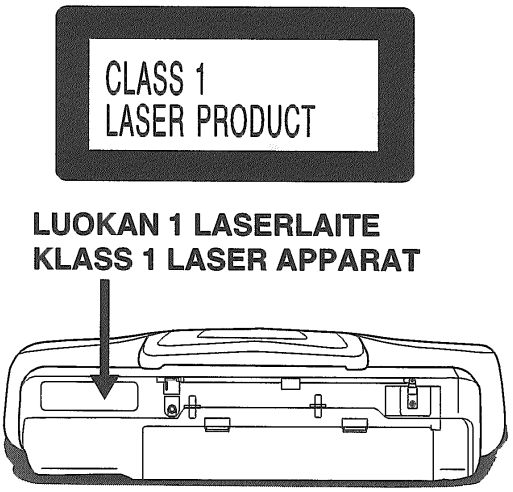
Die strahlung an der lasereinheit ist ungefährlich, wenn folgende punkte beachtet werden:

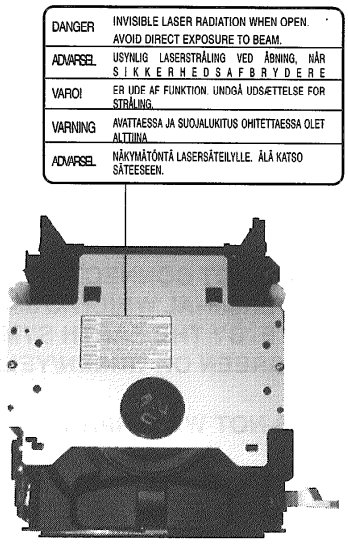
1. Die lasereinheit nicht zerlegen, da die strahlung an der freigelegten laserdiode gefährlich ist.
2. Den werkseitig justierten einstellregler der lasereinhit nicht verstellen.
3. Nicht mit optischen instrumenten in die fokussierlinse blicken.
4. Nicht über längere zeit in die fokussierlinse blicken.

ADVARSEL: **I dette a apparat anvendes laser.**

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

■ Use of Caution Labels





■ Caution for AC Mains Lead

(For "EB" area code model only.)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark or the BSI mark on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION !
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OFF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use
Remove the connector cover.

How to replace the fuse
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

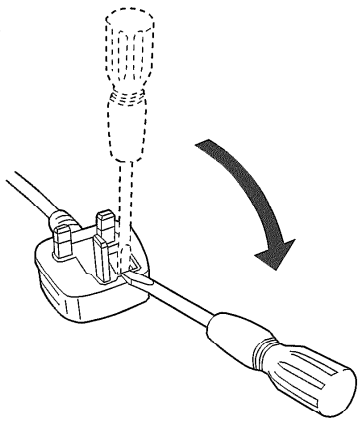
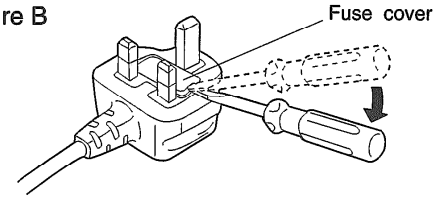


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

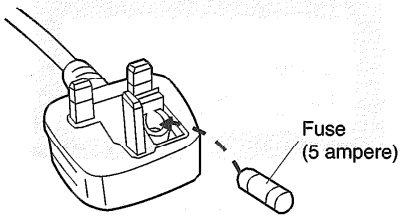
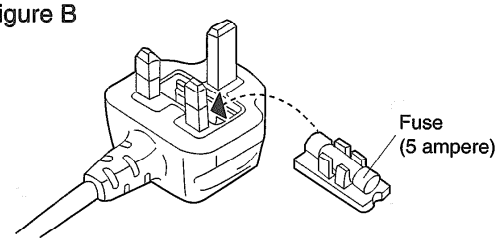
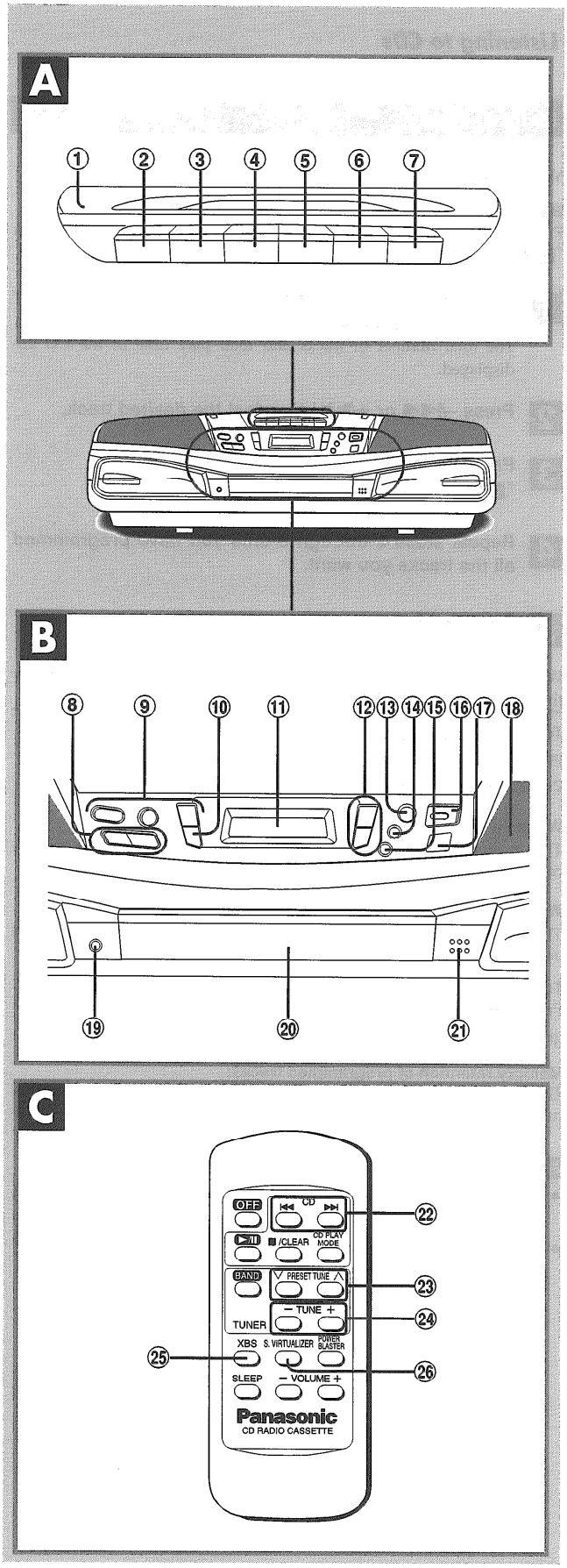


Figure B





Location of controls

Main unit

A

Number **Designation**

① Deck (Recording/playback)
② Recording button (● REC)
③ Playback button (▶ PLAY)
④ Rewind/review button (◀◀ REW/REV)
⑤ Fast forward/cue button (▶▶ FF/CUE)
⑥ Stop/eject button (■/⏏ STOP/EJECT)
⑦ Pause button (❚❚ PAUSE)

B

⑧ Tuning/CD skip, search buttons (TUNE/SKIP/SEARCH –/I◀◀, +/▶▶I)
⑨ Function select buttons
- Tape/power standby button (TAPE /OFF)
  Press to switch the unit from on to standby mode or vice versa. In standby mode (refer to ⑲), the unit is still consuming a small amount of power.
- Tuner/band button (BAND)
- CD play/pause button (▶/❚❚)

⑩ CD stop/program clear, tuning mode select button (■ CLEAR/TUNE MODE)
⑪ Display panel
⑫ Volume control buttons (VOLUME +, –)
⑬ Sleep timer button (SLEEP)
⑭ CD program, tuner preset button (MEMORY)
⑮ Stereo/monaural, beat proof button (FM MODE/BP)
CD play mode select button (CD PLAY MODE)
⑯ Power blaster button (POWER BLASTER)
⑰ Remote control signal sensor (SENSOR)
⑱ Speaker
⑲ Power/standby/battery indicator (PWR/BATT ⏻/I)
The indicator lights green when the unit is turned on.
When the AC power supply is used, it functions as an AC connection indicator. (The indicator colour changes to red when the unit is turned off.)
When the unit is operated on batteries, it functions as a battery check indicator.
⑳ CD tray
㉑ CD tray open button (⏏ CD OPEN)

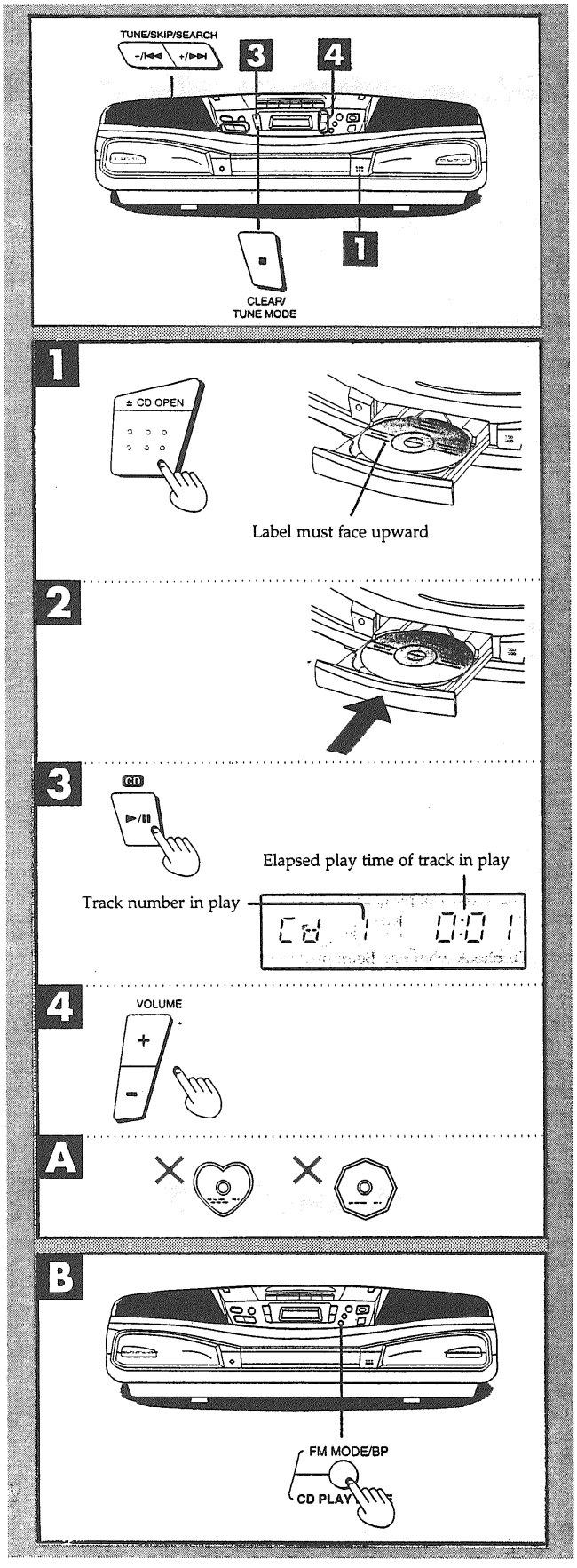
Remote control

The functions of the buttons without numbers are same as on the main unit.

C

Number **Designation**

㉒ CD skip, search buttons (I◀◀, ▶▶I)
㉓ Preset tuning buttons (4 PRESET TUNE 3)
Press to select the preset channel when presetting radio broadcasts and in preset tuning.
㉔ Tuning buttons (– TUNE +)
Press to tune in the station when presetting radio broadcasts and in manual tuning.
㉕ XBS button (XBS)
㉖ Sound virtualizer button (S.VIRTUALIZER)



Listening to CDs

Program play

You can program up to 24 tracks.

Before operation:
Program play cannot be used in combination with random play. When "RANDOM" is displayed, press CD PLAY MODE to clear the display.

1 **Press CD, then press ■ CLEAR after the track number has been displayed.**
The total number of tracks and total play time of the CD are displayed.

2 **Press –/I◄◄ or +/►►I to select the desired track.**

3 **Press MEMORY.**
"PGM" is displayed.

4 **Repeat steps 2 through 3 until you have programmed all the tracks you want.**

5 **Press ►/II.**
Play will start in the programmed sequence.

When all programmed tracks have been played, "Cd-P" and the total play time will be displayed. A

To cancel program play:
Press ■ CLEAR in the stop mode to display "CLR".
Pressing ≜ CD OPEN will cancel program play.

When "– –:– –" appears: B
This means that the total play time of the programmed tracks has exceeded 120 minutes. Tracks can still be programmed and played.

When "FULL" appears: C
The number of programmed tracks is limited to 24. No further tracks can be programmed.

To check what has been programmed:
Press –/I◄◄ or +/►►I when "Cd-P" is displayed at the end of the program. The display will show the track number and programmed sequence.

Memory retention of programmed tracks:
The memory retains the program even if play is stopped or the unit is turned off.

Notes

- During program play, you can search forward or backward only within the current track.
- During program play, skipping is always in the programmed order, whether forward or backward.

■ Operation Checks

" ATTENTION SERVICER " Some chassis component may have shape edges. Be careful when dissembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Refer the Parts No. on the page of "Main Component Replacement Procedures", if necessary.

• Contents

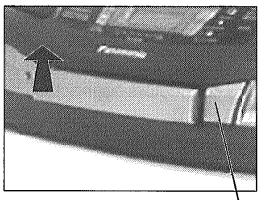
Warning : This product uses a laser diode. Refer to caution statement on page 3.
ACHTUNG : • Die lasereinheit nicht zerlegen.
• Die lasereinheit darf nur gegen eine vom hertsteller spezifizierte einheit ausgetauscht werden.

■ Checking Procedure For Each Major P.C.B.

1. Checking for the Servo, Main, CD Leaf SW, Led and Panel P.C.B.

[XTV3+20G-M] (Brass)

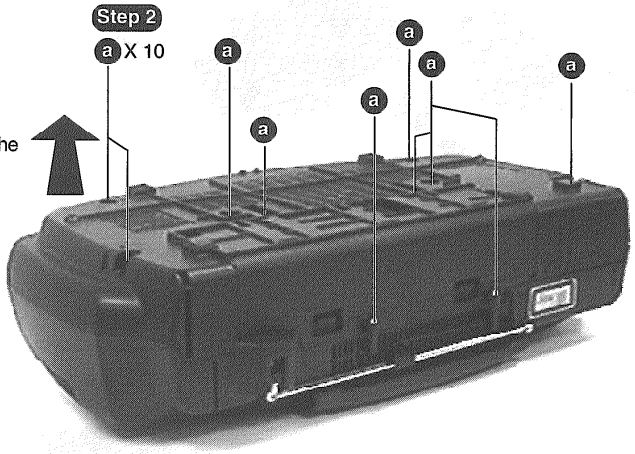
Step 1
Press the CD OPEN button and pull out the CD Lid in the direction of arrow.



CD OPEN button

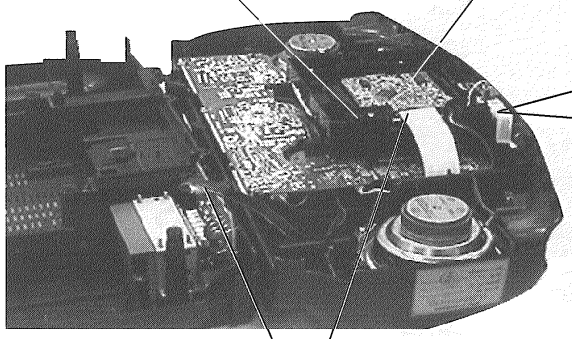
Step 2
a X 10

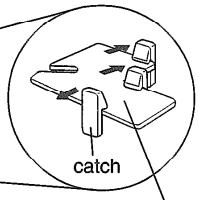
Step 3
Lift up the bottom cabinet to open the set in the direction of arrow.



CD LOADING MECHANISM

SERVO P.C.B.

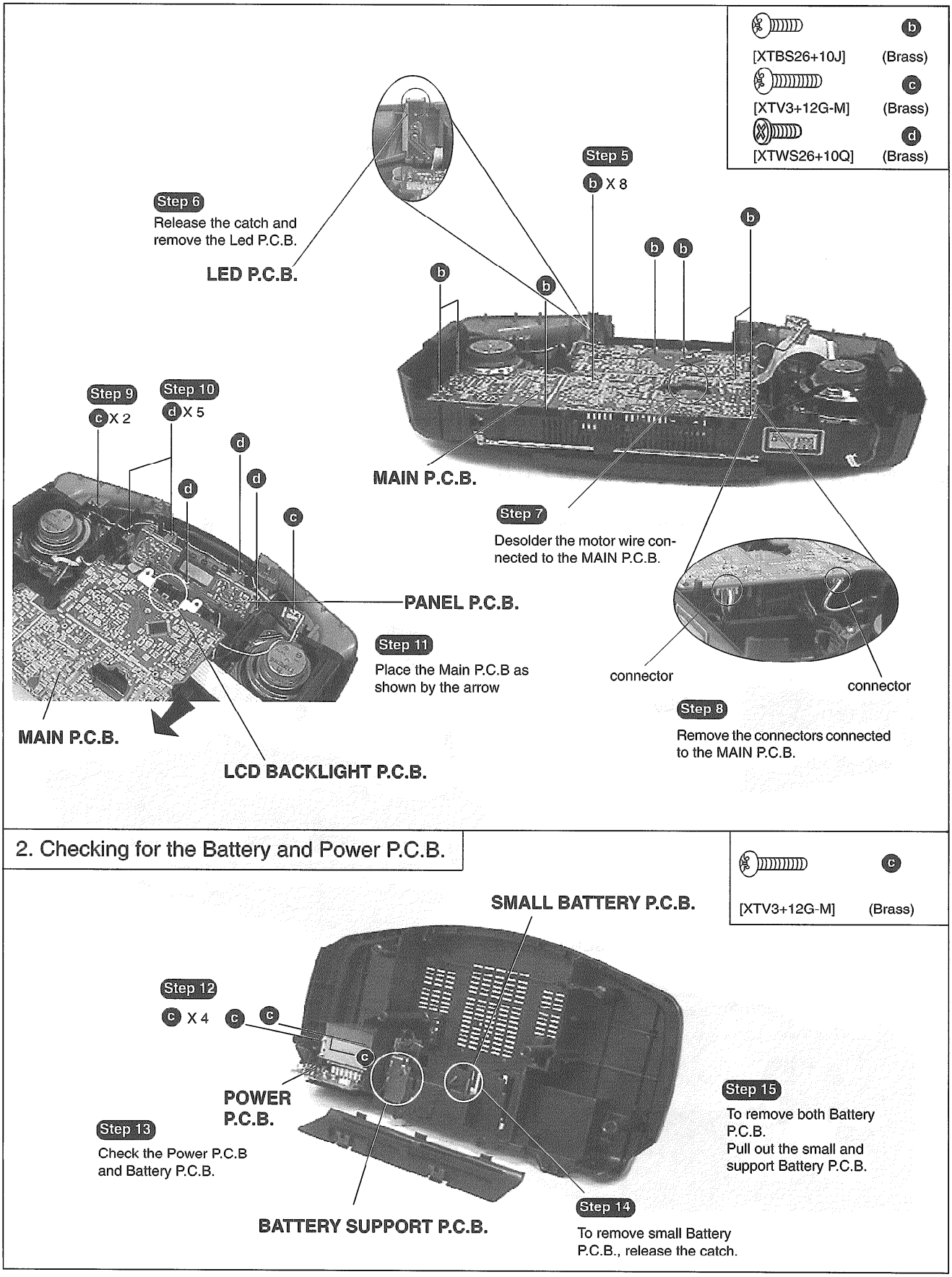




CD LEAF SW P.C.B.

connectors

Step 4
Release the two connectors as shown .
Release both catches and remove the CD Leaf SW P.C.B.
Remove the CD loading mechanism.



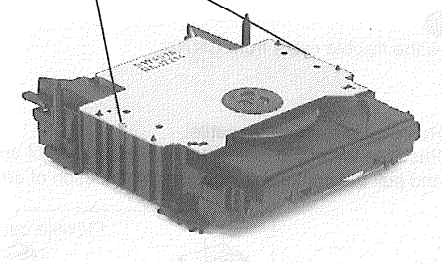
2. Checking for the Battery and Power P.C.B.

3. Replacement for the traverse deck.

[XTV26+6G] (e) (Brass)

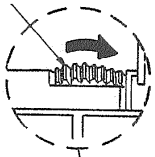
Step 1

(e) X 2

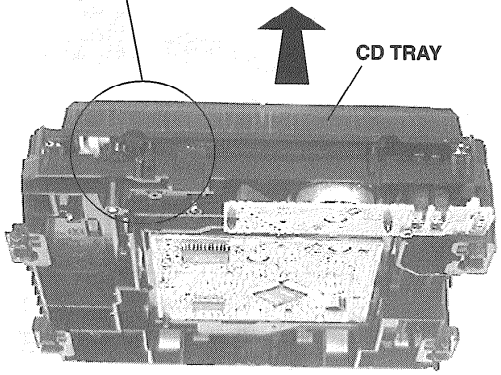


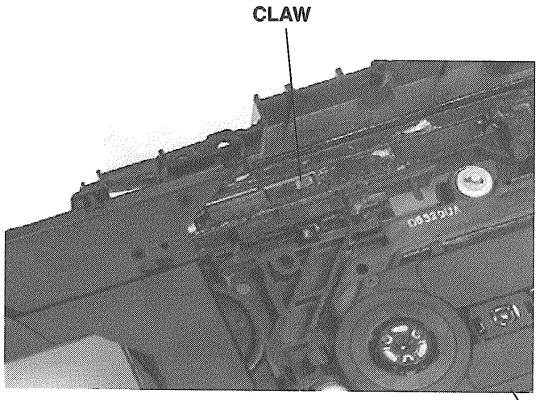
Step 2

Rotate the gear.



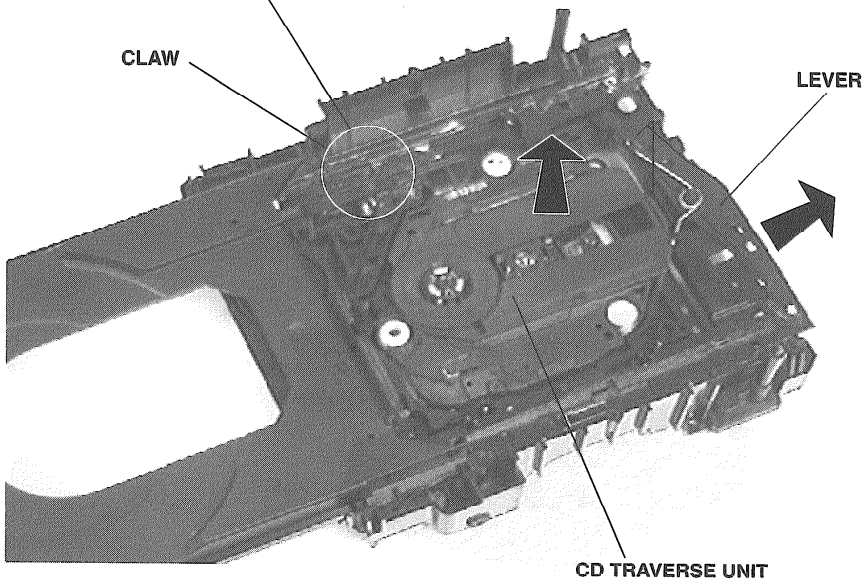
Step 3





Step 4

Release the claw and pull the lever.

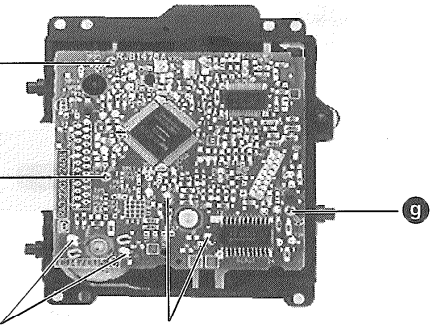


Step 5

Take out the CD traverse unit.

Step 6
ⓕ X 1

Step 7
ⓖ X 2



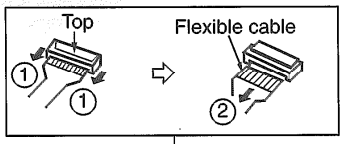
Terminals of traverse motor Terminals of spindle motor

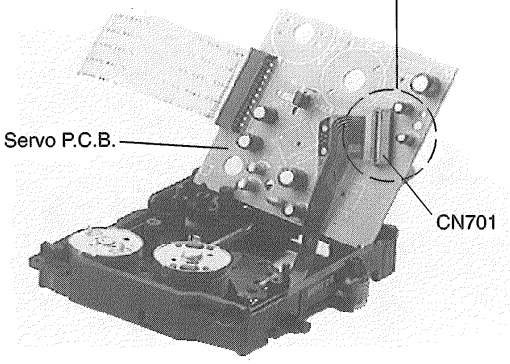
Step 8
Desolder 2 terminals of spindle motor.

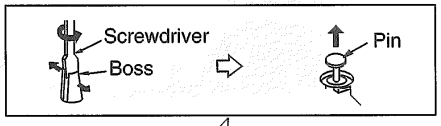
Step 9
Desolder 2 terminals of traverse motor.

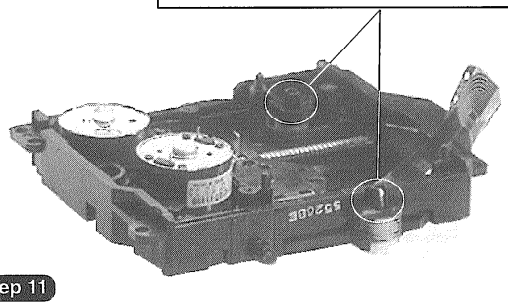
Step 10
Remove the flexible cable from CN701.

• Removal of the flexible cable.
Push the top of the connector in the direction of arrow ①
and pull out the flexible cable in the direction of arrow ②.



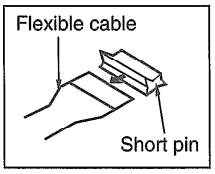


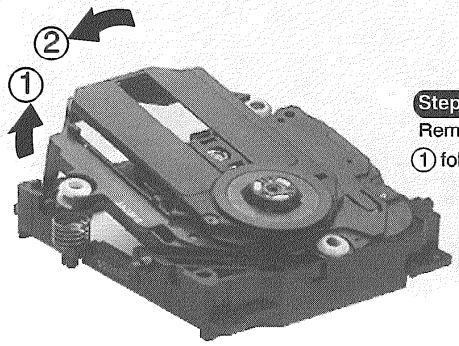




Step 11
Widen 2 bosses by using a flat tip screwdriver and remove 2 pins.

Note:
Insert a short pin into the flexible cable for traverse unit.





Step 12
Remove the Traverse Deck Ass'y in the direction of arrow ① follow by ②.

ⓕ
[XTV2+6G]

ⓖ
[XTV2+6G]

■ Measurements and Adjustments

● Tuner Section

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
Measuring Condition 1. Set volume control to maximum. 2. Set power source voltage to 12V DC. 3. Output of signal generator should be no higher than necessary to obtain an output reading. Note: No AM IF and FM STEREO alignment is necessary as Tuner IC is used.

■ AM - RF ALIGNMENT

SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONIC VOLTMETER or OSCILLOSCOPE)	ADJUSTMENT (Shown in **Fig.1**)	REMARKS
CONNECTIONS	FREQUENCY				
Fashion a loop of several turns of wire and radiate signal into the loop ant. of receiver.	522 kHz	Tune to signal	Headphone Jack (32Ω) (Fabricate the plug as shown in **Fig. 2** and then connect the lead wires of the plug to the measuring instrument.)	L6 (AM OSC Coil)	Adjust for maximum output.
"	1,503 kHz	"	"	CT1 (AM ANT Trimmer)	Adjust for maximum output.

● Cassette Deck Section

■ ALIGNMENT INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
Measuring Instruments • Digital frequency counter **Test Tape** • Tape speed adjustment (3kHz, – 10 dB) : QZZCWAT **Measuring condition** • Make sure the heads are clean. • Make sure the capstan and pressure roller are clean. Note: No Azimuth Head Alignments is required due to Aztec Head is used in the cassette mechanism.

● Tape Speed Alignment

TEST TAPE	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
QZZCWAT (3 kHz, –10dB)	Headphone Jack (32Ω) (Fabricate the plug as shown in **Fig. 2** and then connect the lead wires of the plug to the measuring instrument.)	—	3000 ± 90 Hz	Playback mode

● ALIGNMENT POINTS

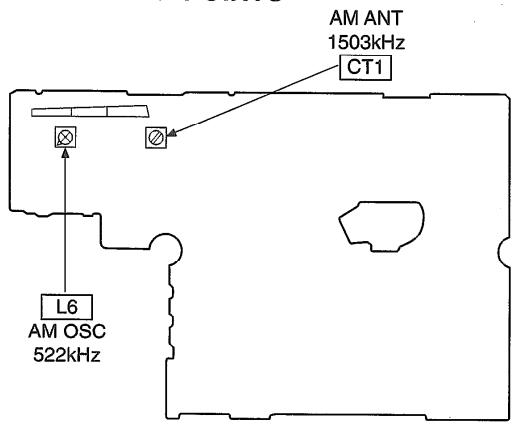


Fig. 1

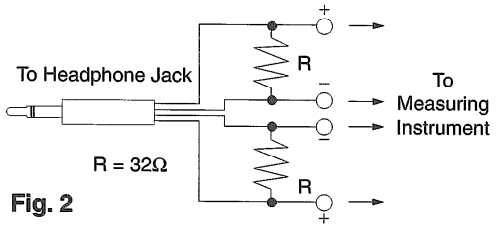
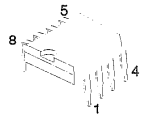
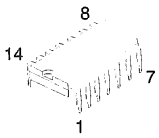
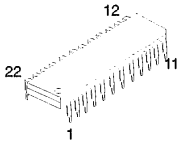
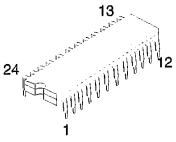
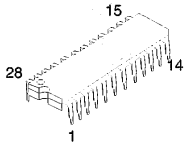
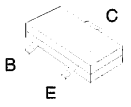
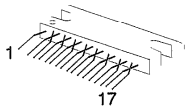
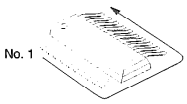
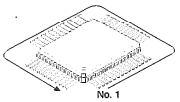
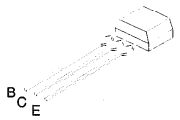
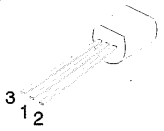
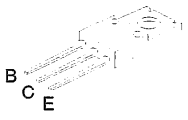
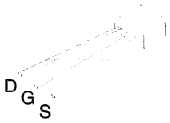
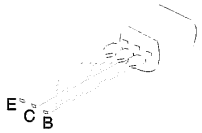
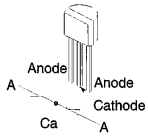
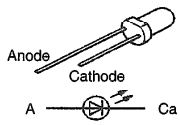
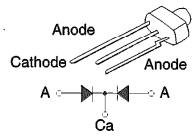
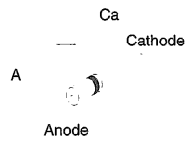
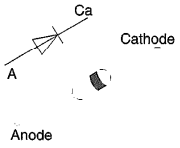
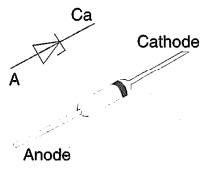


Fig. 2

Terminal Guide of IC's , Transistors and Doides

M62429P 	BU4066BC 	LC72131D 	TA2008AN 	AN8780NSBE2 	2SA1037AKSTX DTC114YKA146 
LA4663 	BA3313L 	AN8837SBE1 	M38224M6M059 MN662746RPK1 	BMR0301G RVTDTA114EST 2SC1740SRTA 	S81250SGY-Z 
2SB1566E 	2SJ40CTA 	2SA952LTA 2SC2001KTA 	KV1360NTM SVC346T-AA 	SLR332DCTB7 	SPR325MVWT31 
1N5402BM21 	RVD1SS133TA 		MTZJ10BTA MTZJ15BTA MTZJ5R1BTA MTZJ5R6CTA MTZJ7R5CTA		

Terminal Function Of IC's

• **IC703 (AN8780NSBE2)** Focus coil / tracking coil / traverse motor / spindle motor drive

Pin No.	Mark	I/O	Function
1	RESET OUT	O	Reset output
2	NC	-	-
3	IN2	I	Motor driver 2 input
4	PC2	I	Power out 2 input
5	NC	-	-
6	IN1	I	Motor driver 1 input
7	PVCC1	I	Power supply for Driver 1
8	PGND1	-	Ground for Driver 1
9	NC	-	-
10	D1-	O	Motor driver 1(-) output
11	D1+	O	Motor driver 1(+) output
12	D2-	O	Motor driver 2(-) output
13	D2+	O	Motor driver 2(+) output
14	D3-	O	Motor driver 3(-) output
15	D3+	O	Motor driver 3(+) output

Pin No.	Mark	I/O	Function
16	D4-	O	Motor driver 4(-) output
17	D4+	O	Motor driver 4(+) output
18	NC	-	
19	PGND2	-	Ground for Driver 2
20	PVCC2	I	Power supply for Driver 2
21	VCC	I	Power supply
22	VREF	I	Reference voltage
23	IN4	I	Motor driver 4 input
24	IN3	I	Motor driver 3 input
25	RESET IN	I	Reset input
26	NC	-	
-	FIN	-	Ground

• IC701 (AN8837SBE1) Servo Amplifier

Pin No.	Mark	I/O	Function
1	PDE	I	Tracking signal input 1
2	PDF	I	Tracking signal input 2
3	VCC	I	Power supply
4	PDA	I	Focus signal input 1
5	PDB	I	Focus signal input 2
6	LPD	I	APC Amp. Input
7	LD	O	APC Amp. Output
8	RF	O	RF addition output
9	RFIN	I	RF signal input
10	CSBRT	-	Capacitor for OFTR connection terminal
11	CEA	-	HPF Amp.
12	BDO	O	BDO output
13	LDON	-	APC control
14	GND	-	Ground

Pin No.	Mark	I/O	Function
15	RFDET	O	NRFDET output
16	CROSS	O	CROSS output
17	OFTR	O	OFTR output
18	VDET	O	VDET output
19	ENV	O	3 TENV output
20	ENVOFF	-	ENV control
21	TEBPF	I	VDET input
22	TEIN	I	TE Amp. input
23	TEOUT	O	TE Amp. output
24	FEOUT	O	FE Amp. output
25	FEIN	I	FE Amp. input
26	VREF	O	Reference voltage output
27	TBAL	-	TBAL control
28	FBAL	-	FBAL control

• IC702 (MN662746RPK1) Servo processor / digital signal processor / digital filter / D/A converter

Pin No.	Mark	I/O	Function
1	BCLK	O	Bit clock for SRDATA
2	LRCK	O	L,R discriminatory signal "H": Lch audio data, "L": Rch audio data
3	SRDATA	O	Serial data output
4	DVDDI	I	Power supply for digital circuit
5	DVSSI	I	Ground for digital circuit
6	TX	O	Digital/ Audio/ Interface signal output
7	MCLK	I	Microcomputer/ Command/ Clock signal
8	MDATA	I	Microcomputer/ Command/ Data signal input
9	MLD	I	Microcomputer/ Command/ Load signal input "L": Load
10	SENSE	O	Sense signal output (OFT, FESL, NACEND, NWTEND, DATA)
11	/FLOCK	O	Focus/ Servo drawback signal "L": drawback
12	/TLOCK	O	Switching command, Tracking/ Servo drawback,
	/VDET		Vibration detect signal "L": drawback "H": detection
13	BLKCK	O	Subcode/Block/Clock signal (fBLKCK=75Hz)
14	SQCK	I	Clock signal for Subcode Q register
15	SUBQ	O	Subcode Q data output
16	DMUTE	I	Muting input "H": mute
17	STAT	O	Status signal (CRC, RESY, CLVS, TTSTOP, SQOK, FLAG6, SENSE,/FLOCK,/TLOCK)
18	/RST	I	Reset input "L": reset
19	SMCK	O	MSEL=at "H" clock signal 8.4672MHz output MSEL=at "L" clock signal 4.2336MHz output
20	PMCK	O	Clock signal 88.2KHz output
21	TRV	O	Test terminal (this terminal should be opened)
22	TVD	O	Drive and forced drive for Traverse output
23	PC	O	Spindle motor ON output "L": ON
24	ECM	O	Spindle motor driving signal (forced mode)
25	ECS	O	Spindle motor driving signal (servo error signal)

Pin No.	Mark	I/O	Function
26	KICK	O	Test terminal (Hi-z fixed)
27	TRD	O	Tracking drive and Kick pulse output
28	FOD	O	Focus drive output (TVD, ECS, TRD, FOD, FBAL, TBAL, DSLF2)
29	VREF	I	Reference voltage (TVD, ECS, TRD, FOD, FBAL, TBAL, DSLF2)
30	FBAL	O	Focus balance adjustment output
31	TBAL	O	Tracking balance adjustment output
32	FE	I	Focus error signal input (analog input)
33	TE	I	Tracking error signal input (analog input)
34	RFENV	I	RF envelope signal input (analog input)
35	VDET	I	Test terminal (fixed to V_{DD} or V_{SS})
36	OFT	I	Off track signal input "H": off track
37	TRCRS	I	Test terminal (fixed to V_{DD} or V_{SS})
38	/RFDET	I	RF detection signal input "L": detection
39	BDO	I	Dropout signal input "H": dropout
49	LDON	O	Laser ON signal output "H": on
41	TES	O	Tracking error shunt signal output "H": shunt
42	PLAY	O	Play signal output "H": play
43	WVEL	O	Double speed status signal output "H": double speed
44	ARF	I	RF signal input
45	IREF	I	Reference current input
46	DRF	I	Bias for DSL
47	DSLF	I/O	Loop filter for DSL
48	PLLF	I/O	Loop filter for PLL
49	DSLF2	O	DSL unbalance current correction
50	AVDD2	I	Power supply for analog circuit (DSL, PLL, DA output, AD)
51	AVSS2	I	Ground for analog circuit (DSL,PLL,DA output,AD)
52	EFM/CK384	0	Switching command signal • EFM signal output • 16.9344 MHz clock output
53	PCK	0	PLL sampling clock output fPCK=4.3218MHz

Pin No.	Mark	I/O	Function
54	CK176	O	176.4KHz clock output
55	SUBC	O	Subcode serial output
56	SBCK	I	Clock for subcode serial output
57	VSS	I	Ground for oscillation circuit
58	X1	O	Crystal oscillation circuit input f=16.9344MHz
59	X2	O	Crystal oscillation circuit output f=16.9344MHz
60	VDD	I	Power supply for oscillation circuit
61	TRVSTP	O	Traverse STOP signal "H": STOP mode
62	/CLDCK	O	Subcode frame clock signal fCLDCK=7.35KHz
63	FCLK	O	Crystal frame clock signal fFCLK=7.35KHz
64	IPFLAG	O	Compensation flag signal "H":compensation
65	FLAG	O	Flag signal output
66	CLVS	O	Spindle servo phase syncronizing signal output "H": CLV "L": rough servo
67	CRC	O	Sub-code CRC checked output "H": OK "L": NG
68	RESY	O	Frame resyncronizing signal output "H": syncronized "L": out of syncronizing
69	FLAG6	O	Flag6 output "L": address reset
70	ARST	I	Test terminal usually "H"
71	/TEST	I	Test terminal normally "H"

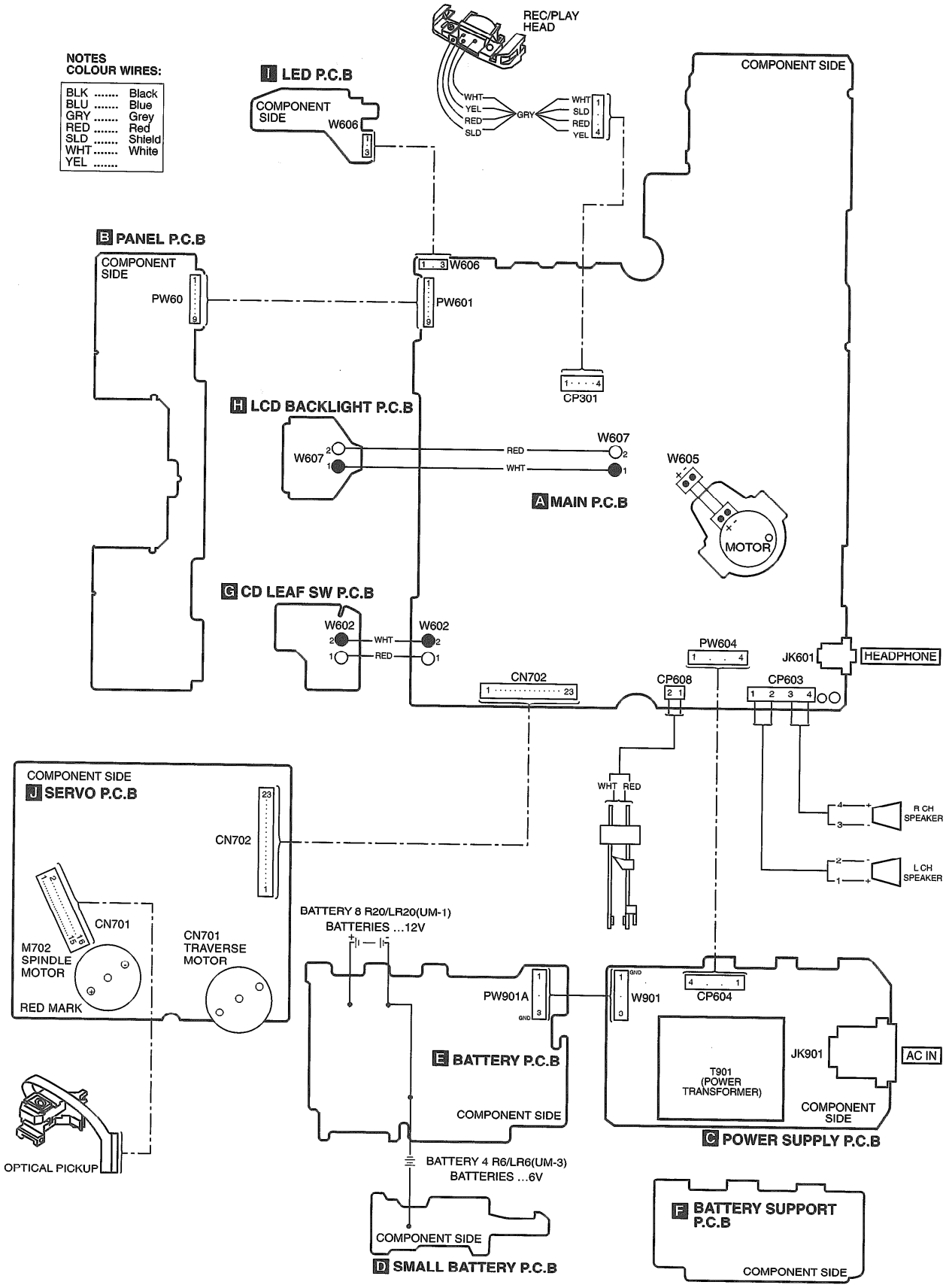
Pin No.	Mark	I/O	Function
72	AVDD1	I	Power supply for analog circuit
73	OUTL	O	Lch audio output
74	AVSS1	I	Ground for analog circuit
75	OUTR	I	Rch audio output
76	RSEL	I	RF signal polarity assignment input at "H" level RSEL="H", at "L" level RSEL="L"
77	FSEL	I	Noise filter on/off switching input "H": filter off "L": filter on
78	PSEL	I	Switching command input • Test terminal (normally:"L") • SRDATA input
79	MSEL	I	Switching command input • Switching frequency of SMCK output "H":SMCK=8.4672MHz "L":SMCK=4.2336MHz • LRCK input (SMCK=4.2336MHz fixed) "H": Lch data "L": Rch data
80	SSEL	I	Switching command input • Switching mode of SUBQ terminal "H": Q code buffer mode "L": CLDCK syncronized mode • BCLK input (Q code buffer mode fixed)

• IC601 (M38224M6M059) System microprocessor

Pin No.	Mark	I/O	Function
1	VLCD2	I	LCD bias reference voltage input V2
2	VLCD1	I	LCD bias reference voltage input V1
3	KEY1	I	KEY input 1
4	TUNER/BAND	I	TUNER/BAND Key input
5	REG2	I	Area setting input 2
6	REG1	I	Area setting input 1
7	R.CTL	O	Remote control power control signal output
8	P.DET	I	SW VCC voltage detection input
9	T.MUTE	O	TUNER FUNCTION & MUTE output
10	PLL DO	I	PLL IC DATA input
11	PLL DATA	O	PLL IC DATA output
12	PLL CLK	O	PLL IC CLK output
13	PLL CE	O	PLL IC CE output
14	REC H	O	REC detect signal output
15	B.P1	O	AM Rec. beat proof output 1
16	DECK MUTE	O	DECK MUTE output
17	D PLAY/PAUS	I	CD PLAY/PAUSE key input
18	REM IN	I	Remote control signal input
19	AC DET	I	AC Power detection input
20	SQCK	O	CD subcode clock output
21	P.CNT	O	Power control output
22	SUBQ	I	CD subcode data input
23	MTRL	I	Deck motor detection input
24	BLK CK	I	CD subcode block clock input
25	MEGA	-	Not used
26	Vcc DET	I	Vcc detection input (main power detection)
27	RESET	I	System reset signal input
28	X OSC IN	I	Crystal oscillator input (32.768kHz)
29	X OSC OUT	O	Crystal oscillator output (32.768kHz)
30	OSC IN	I	Clock input (4.19kHz)

Pin No.	Mark	I/O	Function
31	OSC OUT	I	Clock output (4.19kHz)
32	VSS	-	GND
33	MBP1	O	Beatproof control signal output 1
34	MBP2	O	Beatproof control signal output 2
35	MUTE A	O	Audio Mute output A
36	CD L	O	CD power control output
37	CLOSE SW	I	CD close detection switch input
38	STAT	I	CD status signal input
39	CD RESET	I	CD reset signal output
40	REST SW	I	CD limit switch input
41	MCLK	O	CD clock control signal output
42	MDATA	O	CD data control signal output
43	MLD	O	CD loading control signal output
44	VOL DATA	O	PMW data signal output for electric volume circuit (IC604)
45	VOL CLK	O	PMW clock signal output for electric volume circuit (IC604)
46	TONE1	O	Tone control output 1
47	TONE2	O	Tone control output 2
48	S.V	O	Sound Virtualizer control output
49 I 51	NC	-	Not used
52 I 72	SEG0 I SEG20	O	LCD segment signal output
73	Vcc	I	Power supply (+5V)
74	VREF	I	A/D converter reference voltage
75	AVSS	-	GND
76 I 79	COM3 I COM0	O	LCD common signal output
80	VLCD3	I	LCD bias reference voltage input V3

Wiring Connection Diagram



■ Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

Note :

- **S601** : TAPE-DECK motor switch
- **S701** : CD Rest switch
- **SW301** : R/P switch
- **SW602** : CD LEAF switch
- **SW801** : TAPE/OFF switch
- **SW802** : TUNE/SKIP/SEARCH (decrease)
- **SW803** : TUNE/SKIP/SEARCH (increase)
- **SW804** : CLEAR/TUNE MODE switch
- **SW805** : SLEEP switch
- **SW806** : VOLUME (decrease) switch
- **SW807** : VOLUME (increase) switch
- **SW808** : MEMORY switch
- **SW809** : FM MODE/ BP switch
- **SW810** : POWER BLASTER switch
- **SW811** : BAND SELECT switch
- **SW812** : PLAY/PAUSE switch
- **SW901** : AC INLET switch (JK901)

- **Battery current :**

Vol. min. ..... 400 mA (FM)
390 mA (AM)
440 mA (TAPE)
600 mA (CD)

Vol. max. ..... 950 mA (FM)
1200 mA (AM)
1700 mA (TAPE)
2300 mA (CD)

Measurement Instruction

AM : 74 dB/m , 30% Mod.
FM : 60 dB/m , 30% Mod.
TAPE : 315 Hz , 0 dB
CD : 1 kHz , 0 dB

- **Signal line**

: +B line
: Main signal line
: Record signal line
: AM signal line
: AM OSC signal line
: FM/AM signal line
: FM signal line
: FM OSC signal line
: Playback signal line
: CD signal line

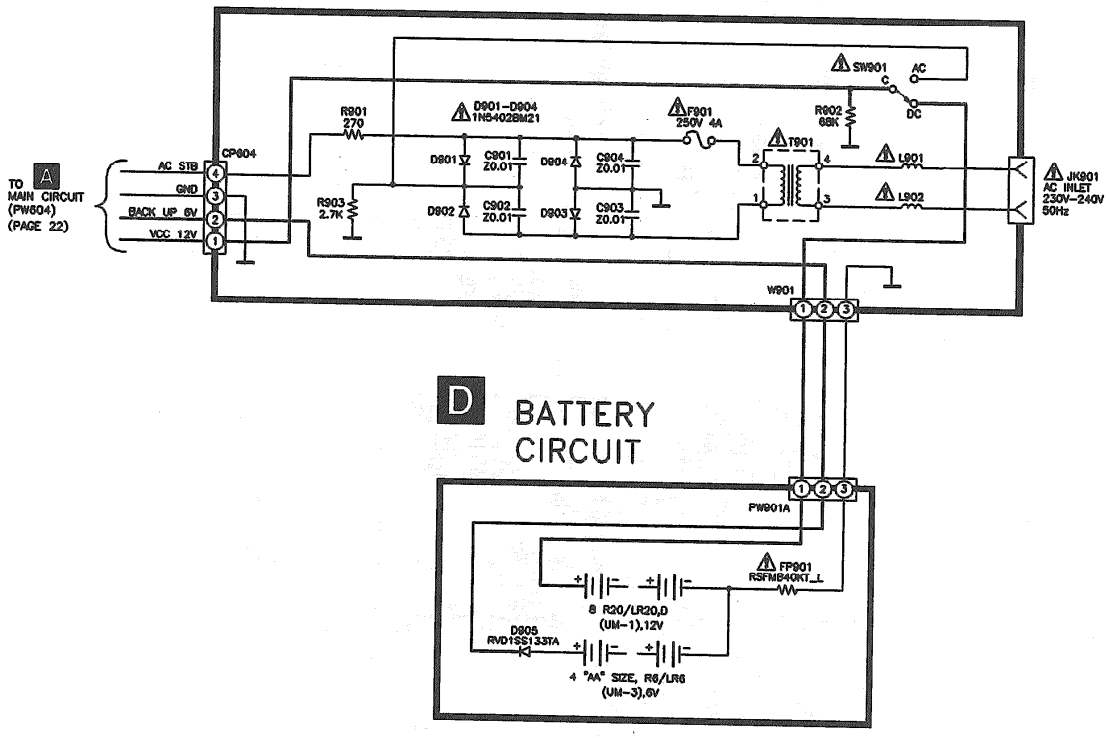
•The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.
Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring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

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

•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.

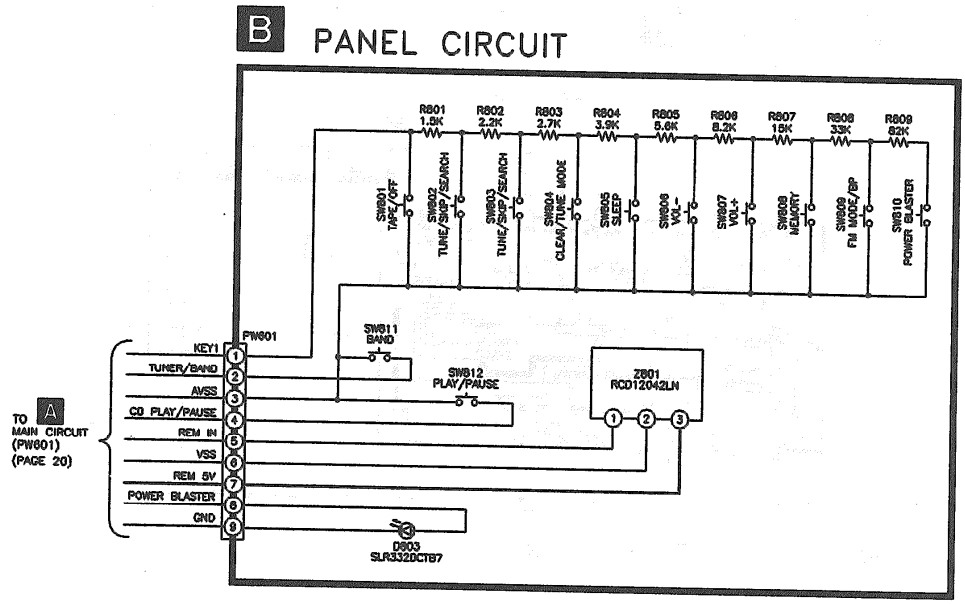
Caution !
IC, LSI and VLSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
•Cover the parts boxes made of plastics with aluminium foil.
•Ground the soldering iron.
•Do not touch the pins of IC, LSI or VLSI with fingers directly.
•Put a conductive mat on the work table.

C POWER CIRCUIT

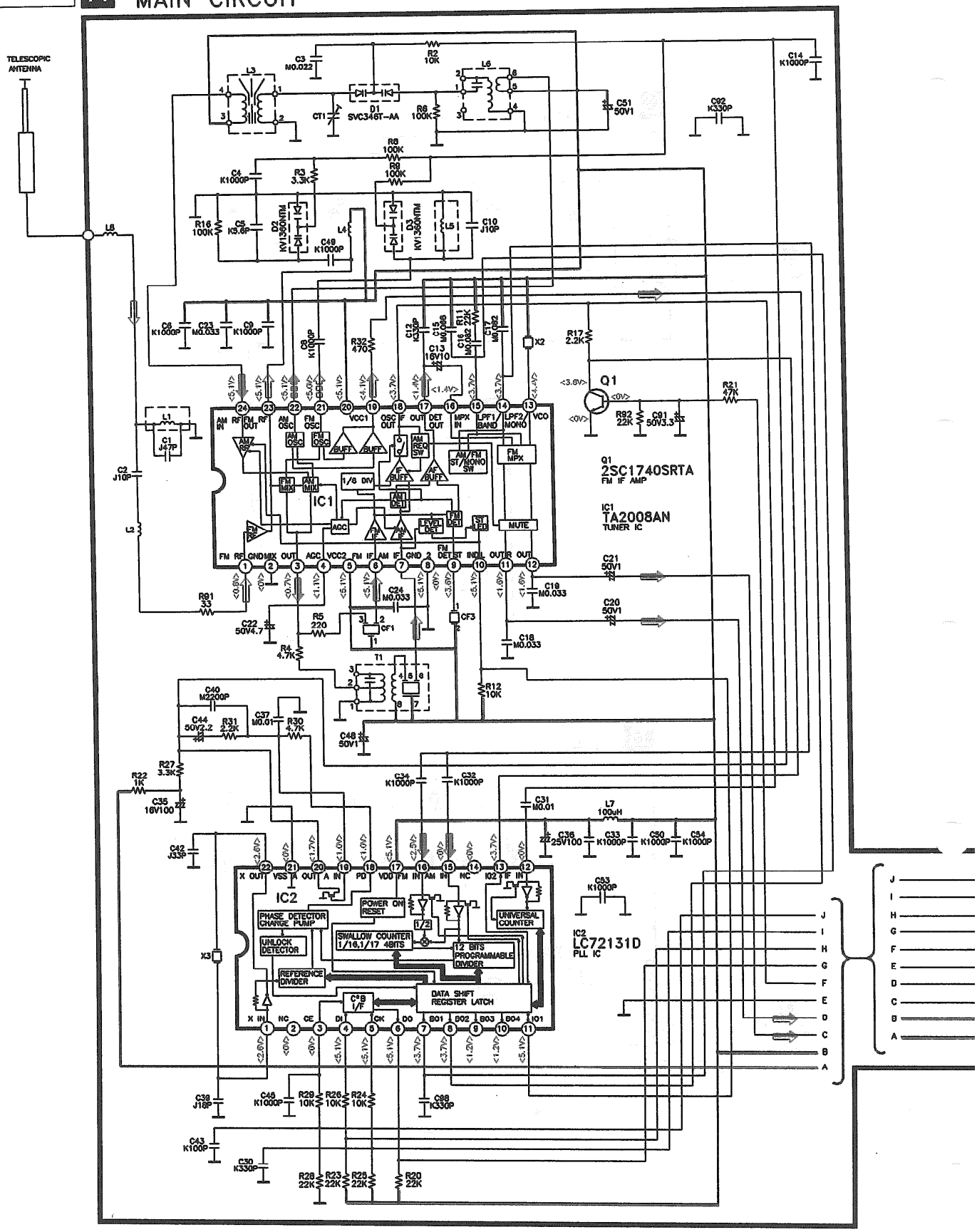


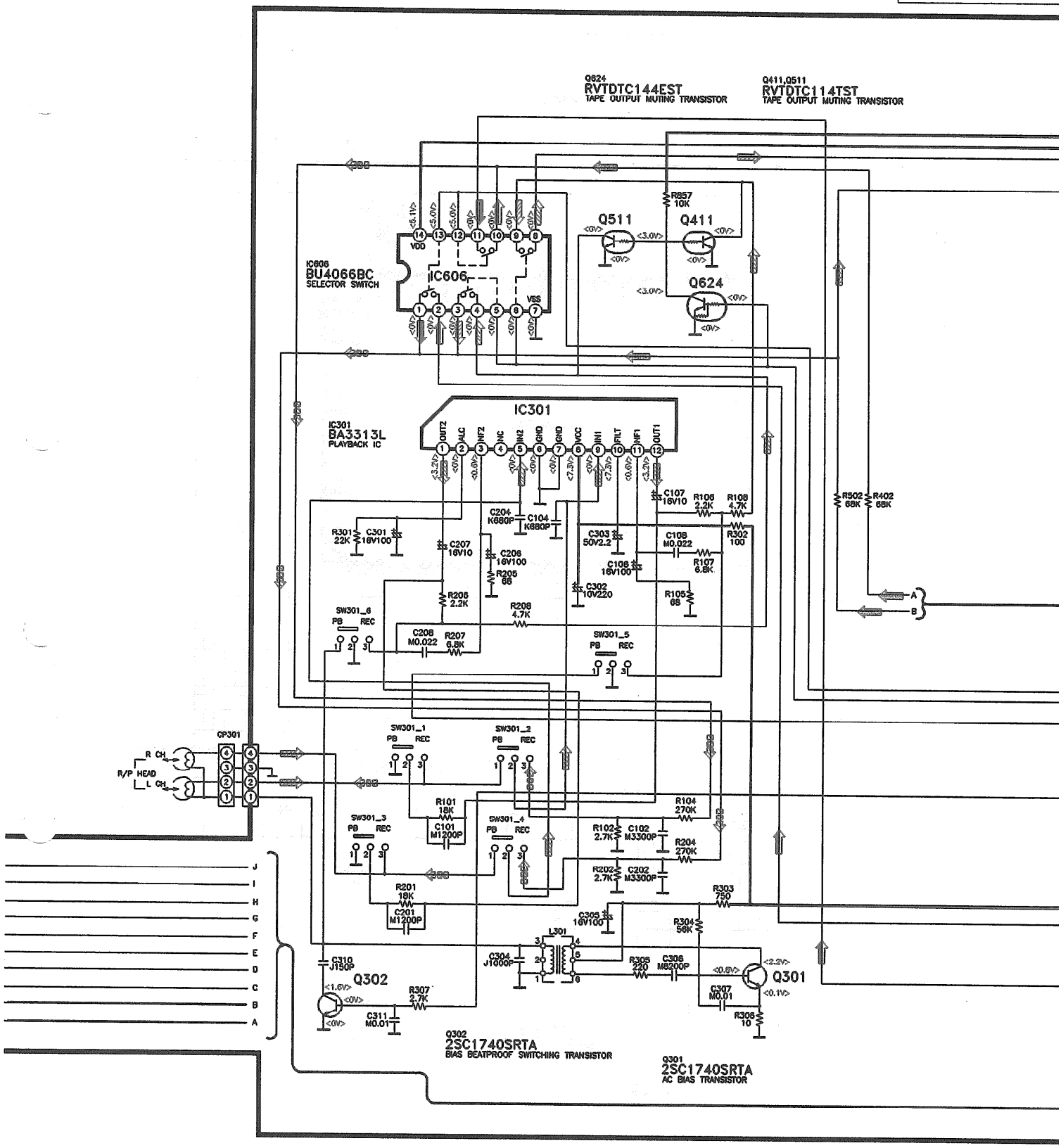
D BATTERY CIRCUIT

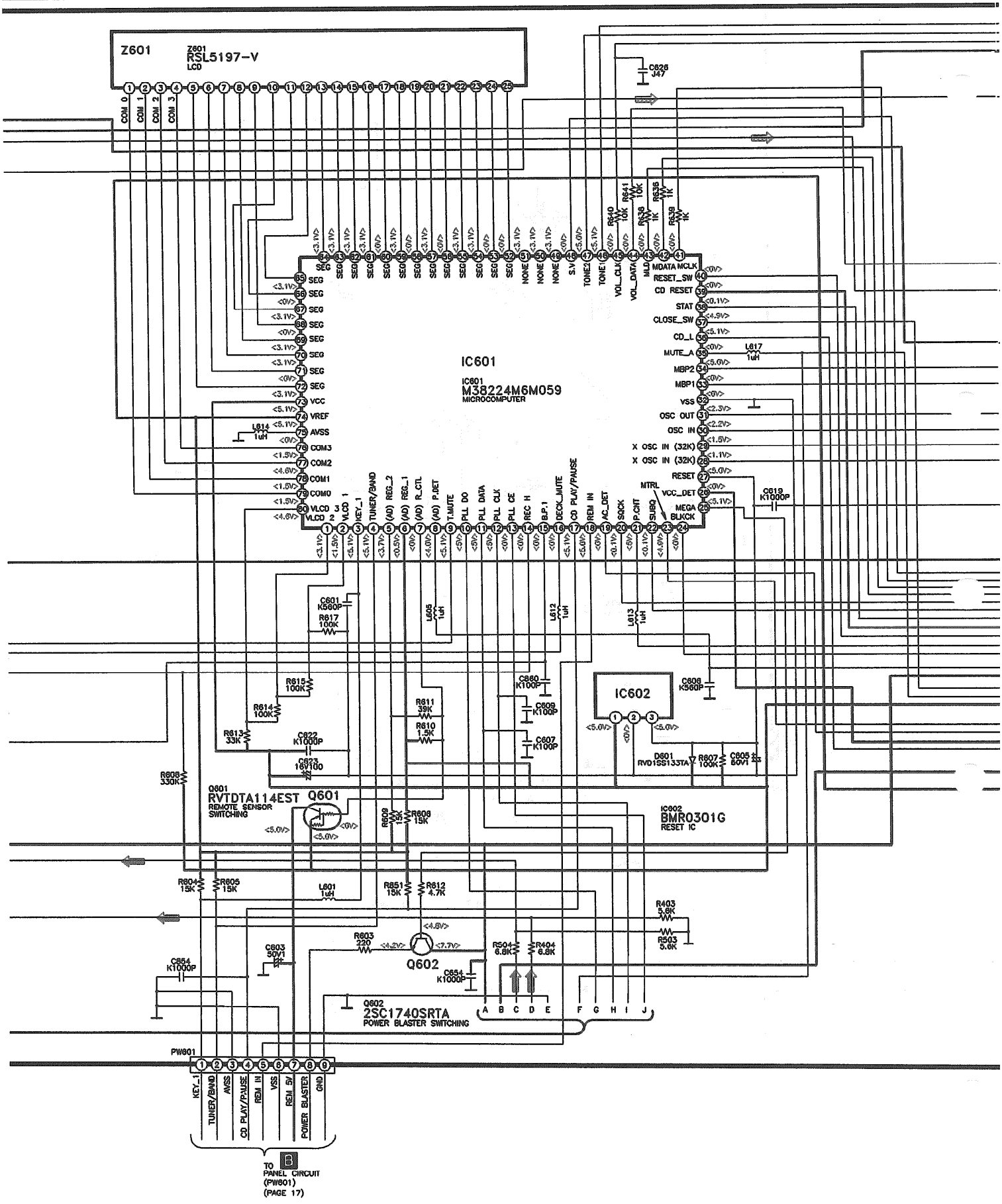
B PANEL CIRCUIT

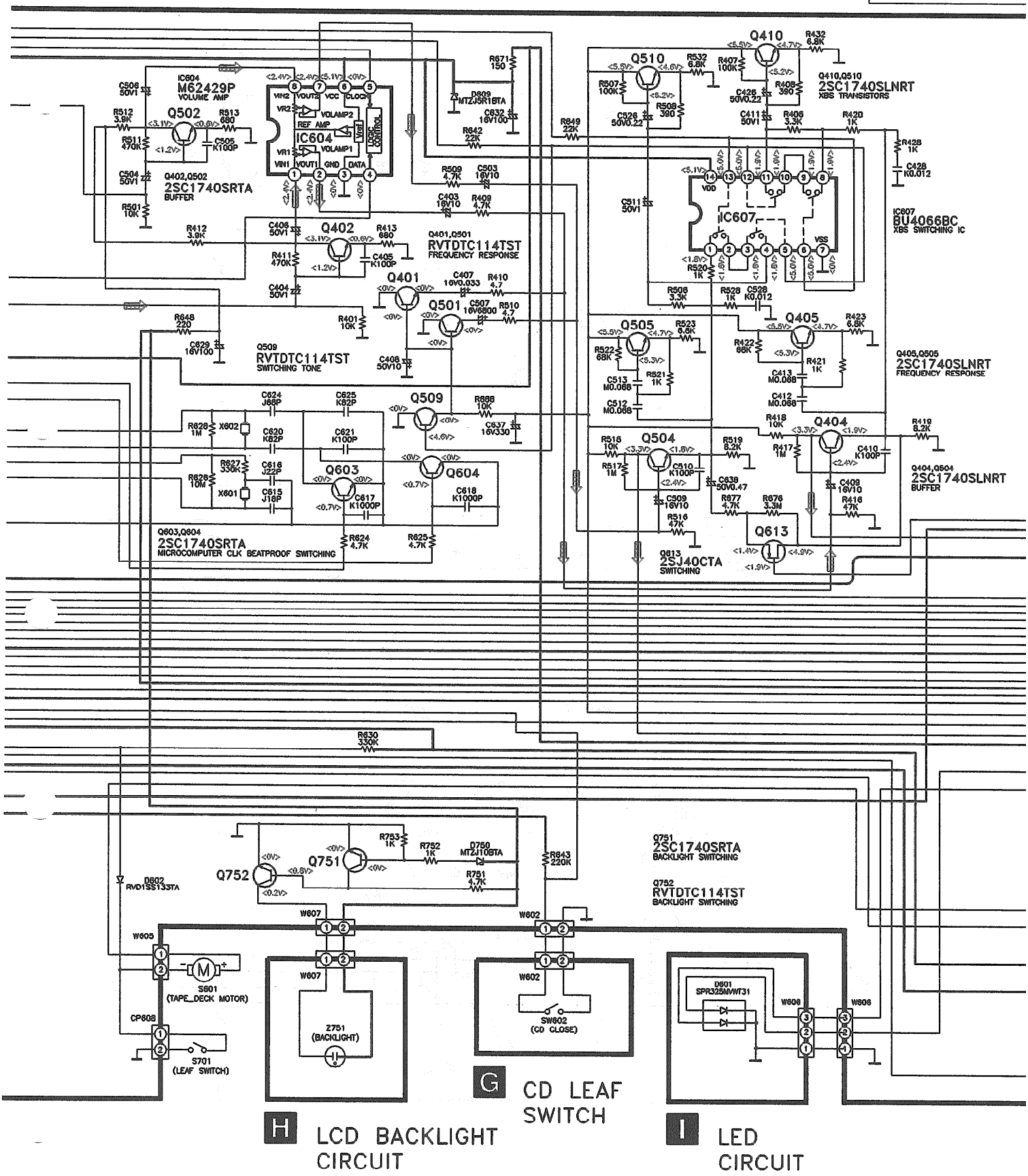


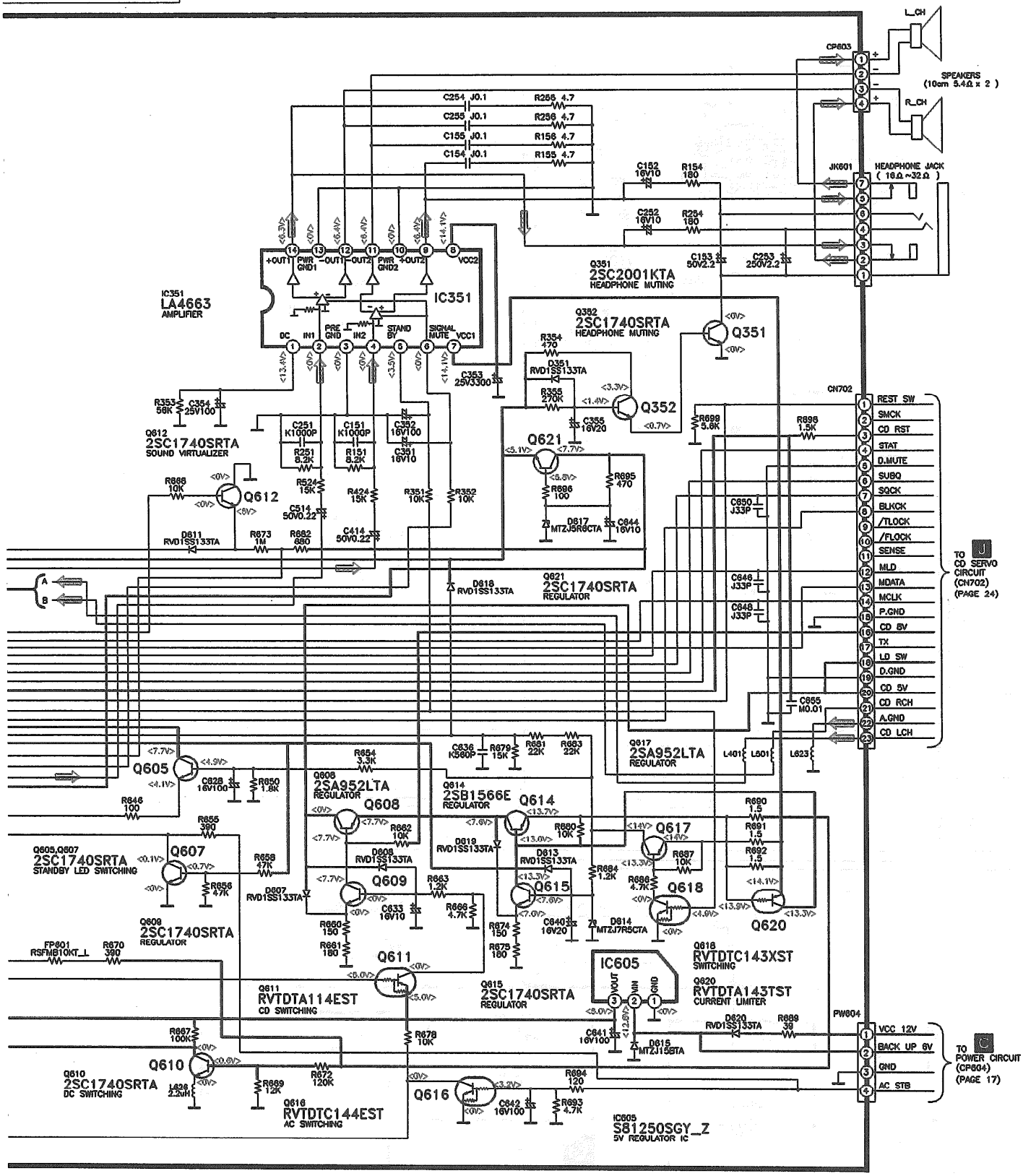
A MAIN CIRCUIT



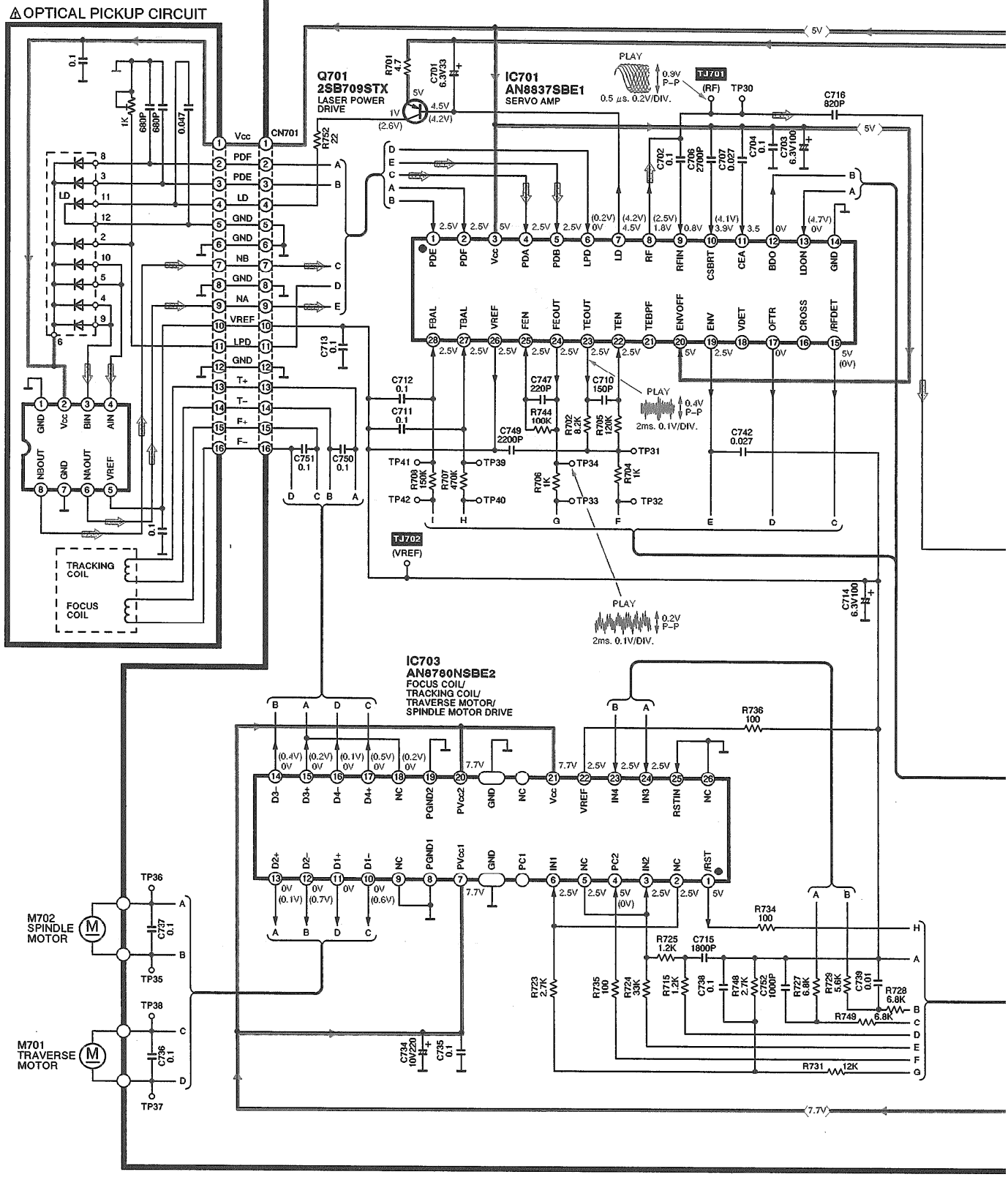

Q624
RVTDTC144EST
TAPE OUTPUT MUTING TRANSISTOR
Q411,0511
RVTDTC114TST
TAPE OUTPUT MUTING TRANSISTOR
IC606
BU4066BC
SELECTOR SWITCH
IC606
VDD
VSS
Q511
Q411
Q624
R857
10K
IC301
IC301
BA3313L
PLAYBACK IC
OUT2
ALC
NF2
NC
IN2
GND
GND
VCC
IN1
FILT
NF1
OUT1
C107
16V10
R106
2.2K
R108
4.7K
R502
68K
R402
68K
C204
K680P
C104
K680P
R301
22K
C301
16V100
C207
16V10
C206
16V100
R205
68
R206
2.2K
R208
4.7K
C303
50V2.2
C108
M0.022
R302
100
C106
16V100
R107
6.8K
C302
10V220
R105
68
SW301_6
PB REC
C208
M0.022
R207
6.8K
SW301_5
PB REC
A
B
CP301
R CH
R/P HEAD
L CH
SW301_1
PB REC
SW301_2
PB REC
SW301_3
PB REC
SW301_4
PB REC
R101
18K
C101
M1200P
R102
2.7K
C102
M3300P
R104
270K
R204
270K
R202
2.7K
C202
M3300P
R201
18K
C201
M1200P
R303
750
C305
16V100
R304
56K
L301
C304
J1000P
R305
220
C306
M8200P
C310
J150P
Q302
R307
2.7K
C311
M0.01
Q301
C307
M0.01
R306
10
J
I
H
G
F
E
D
C
B
A
Q302
2SC1740SRTA
BIAS BEATPROOF SWITCHING TRANSISTOR
Q301
2SC1740SRTA
AC BIAS TRANSISTOR

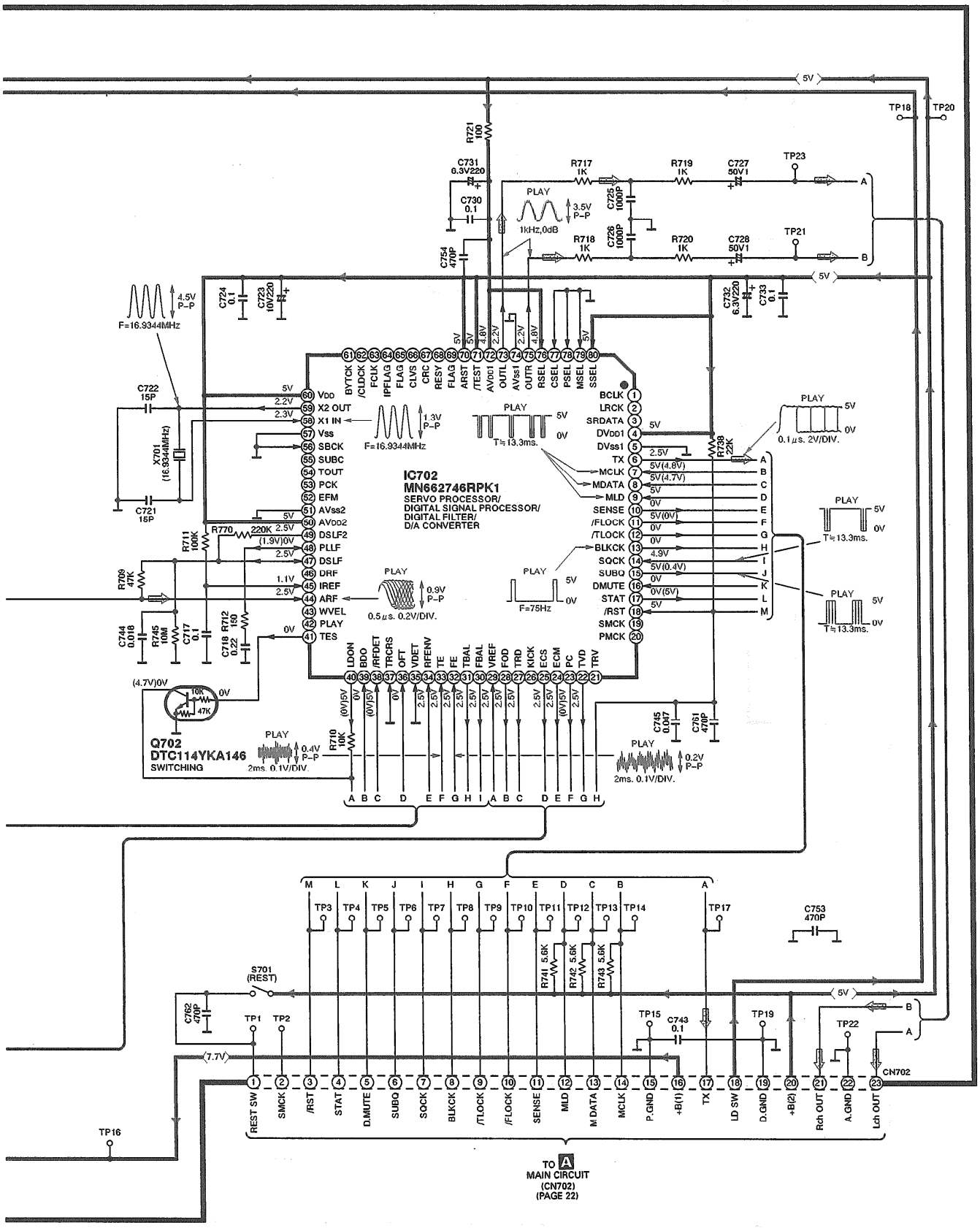

Z601
Z601
RSL5197-V
LCD
IC601
IC601
M38224M6M059
MICROCOMPUTER
IC602
IC602
BMR0301G
RESET IC
Q601
RVTDTA114EST
REMOTE SENSOR
SWITCHING
Q602
Q602
2SC1740SRTA
POWER BLASTER SWITCHING
D601
RVD1SS133TA
PW801
KEY_1
TUNER/BAND
AVSS
CD PLAY/PAUSE
REM IN
VSS
REM 5V
POWER BLASTER
GND
TO
PANEL CIRCUIT
(PW801)
(PAGE 17)


IC604
M62429P
VOLUME AMP
Q502
2SC1740SRTA
BUFFER
Q402,Q502
IC604
VOLAMP2
VOLAMP1
REF AMP
Q402
Q401,Q501
RVTDTC114TST
FREQUENCY RESPONSE
Q401
Q501
Q509
RVTDTC114TST
SWITCHING TONE
Q509
Q603
Q604
Q603,Q604
2SC1740SRTA
MICROCOMPUTER CLK BEATPROOF SWITCHING
Q410
Q510
Q410,Q510
2SC1740SLNRT
XBS TRANSISTORS
IC607
BU4066BC
XBS SWITCHING IC
Q505
Q405
Q405,Q505
2SC1740SLNRT
FREQUENCY RESPONSE
Q504
Q404
Q404,Q504
2SC1740SLNRT
BUFFER
Q613
2SJ40CTA
SWITCHING
Q752
Q751
D760
MTZJ10BTA
D602
RVD1SS133TA
Q751
2SC1740SRTA
BACKLIGHT SWITCHING
Q752
RVTDTC114TST
BACKLIGHT SWITCHING
W605
W607
W602
W606
S601
(TAPE_DECK MOTOR)
CP608
S701
(LEAF SWITCH)
Z751
(BACKLIGHT)
SW602
(CD CLOSE)
D801
SPR325MWT31
H
LCD BACKLIGHT
CIRCUIT
G
CD LEAF
SWITCH
I
LED
CIRCUIT


L_CH
R_CH
SPEAKERS
(10cm 5.4Ω x 2)
CP603
JK601
HEADPHONE JACK
(16Ω ~32Ω)
IC351
LA4663
AMPLIFIER
Q351
2SC2001KTA
HEADPHONE MUTING
Q352
2SC1740SRTA
HEADPHONE MUTING
Q612
2SC1740SRTA
SOUND VIRTUALIZER
Q621
2SC1740SRTA
REGULATOR
Q617
2SA952LTA
REGULATOR
Q605
Q608
2SA952LTA
REGULATOR
Q614
2SB1566E
REGULATOR
Q605,Q607
2SC1740SRTA
STANDBY LED SWITCHING
Q609
2SC1740SRTA
REGULATOR
Q610
2SC1740SRTA
DC SWITCHING
Q611
RVTDTA114EST
CD SWITCHING
Q616
RVTDTC144EST
AC SWITCHING
Q615
2SC1740SRTA
REGULATOR
Q618
RVTDTC143XST
SWITCHING
Q620
RVTDTA143TST
CURRENT LIMITER
IC605
S81250SGY_Z
5V REGULATOR IC
CN702
REST SW
SMCK
CD RST
STAT
D.MUTE
SUBQ
SQCK
BLKCK
/TLOCK
/FLOCK
SENSE
MLD
MDATA
MCLK
P.GND
CD 5V
TX
LD SW
D.GND
CD 5V
CD RCH
A.GND
CD LCH
TO J CD SERVO CIRCUIT (CN702) (PAGE 24)
PW604
VCC 12V
BACK UP 6V
GND
AC STB
TO C POWER CIRCUIT (CP604) (PAGE 17)

J CD SERVO CIRCUIT

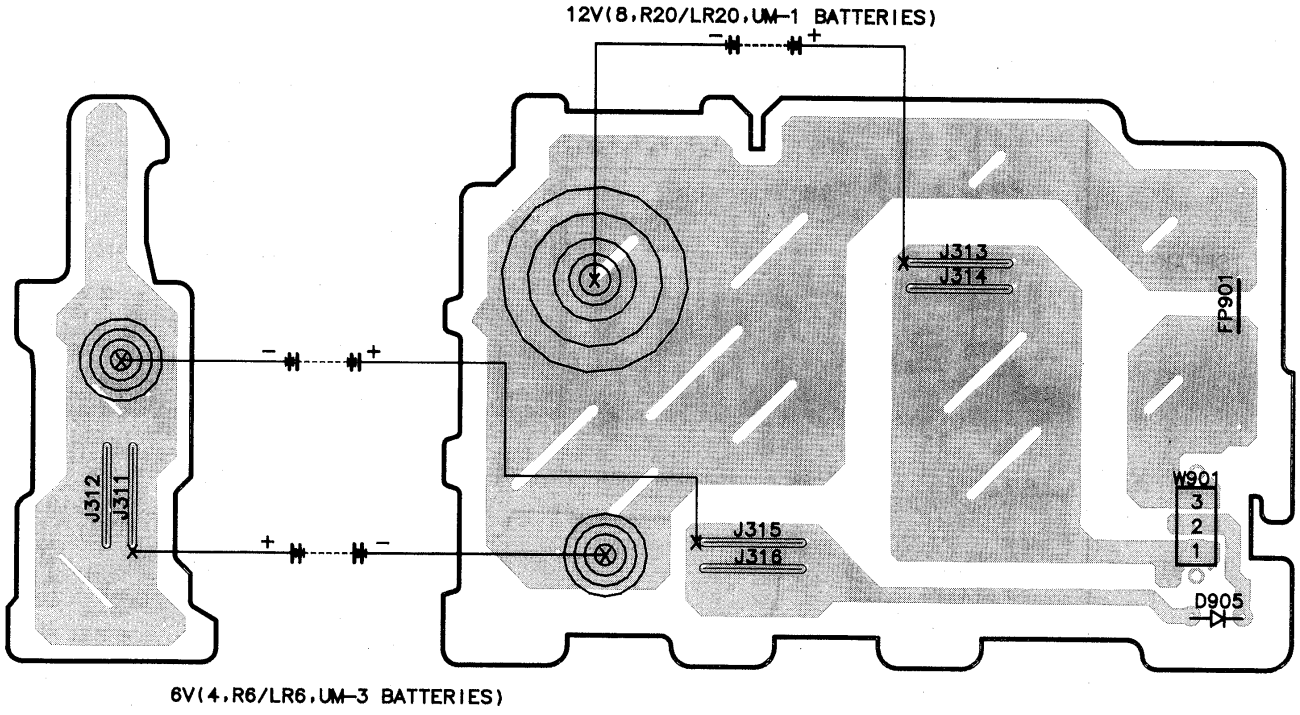



IC702
MN662746RPK1
SERVO PROCESSOR/
DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/
D/A CONVERTER
Q702
DTC114YKA146
SWITCHING
S701
(REST)
TO A
MAIN CIRCUIT
(CN702)
(PAGE 22)

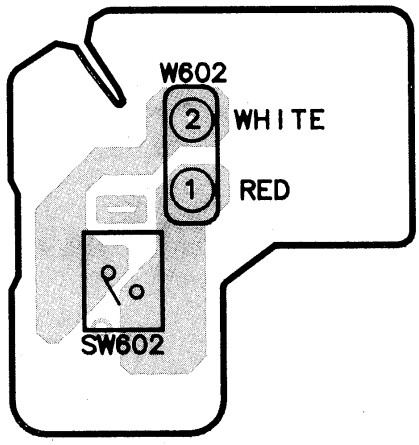
■ Printed Circuit Board

D SMALL BATTERY P.C.B (REPX0152)

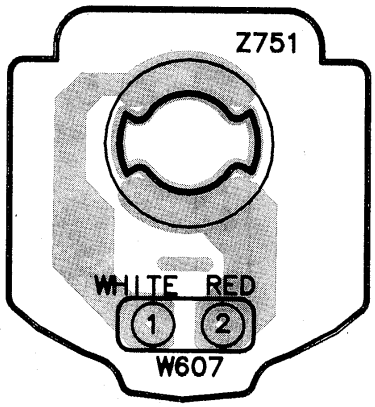
E BATTERY P.C.B (REPX0152)



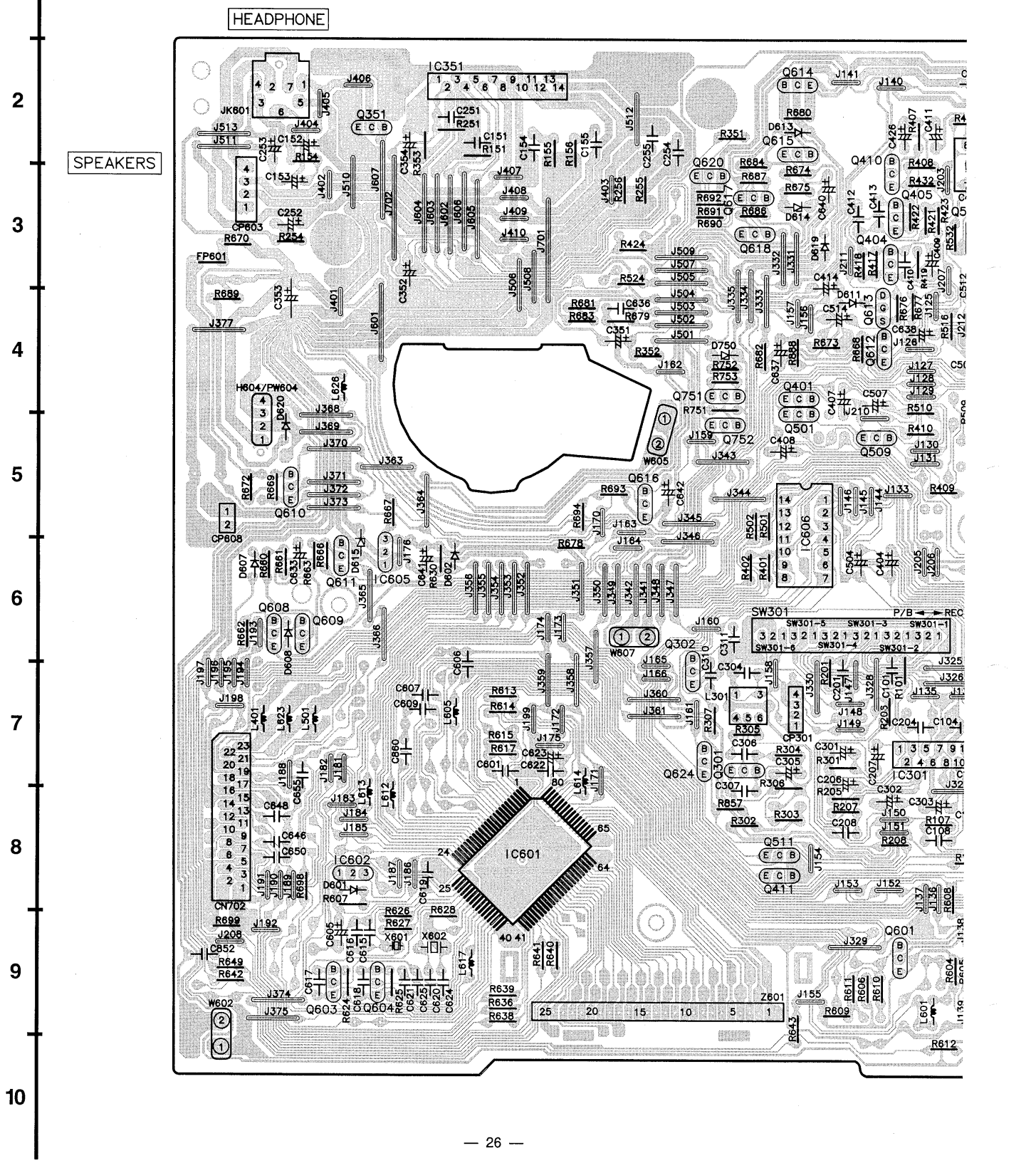
G CD LEAF SW P.C.B (REPX0152)



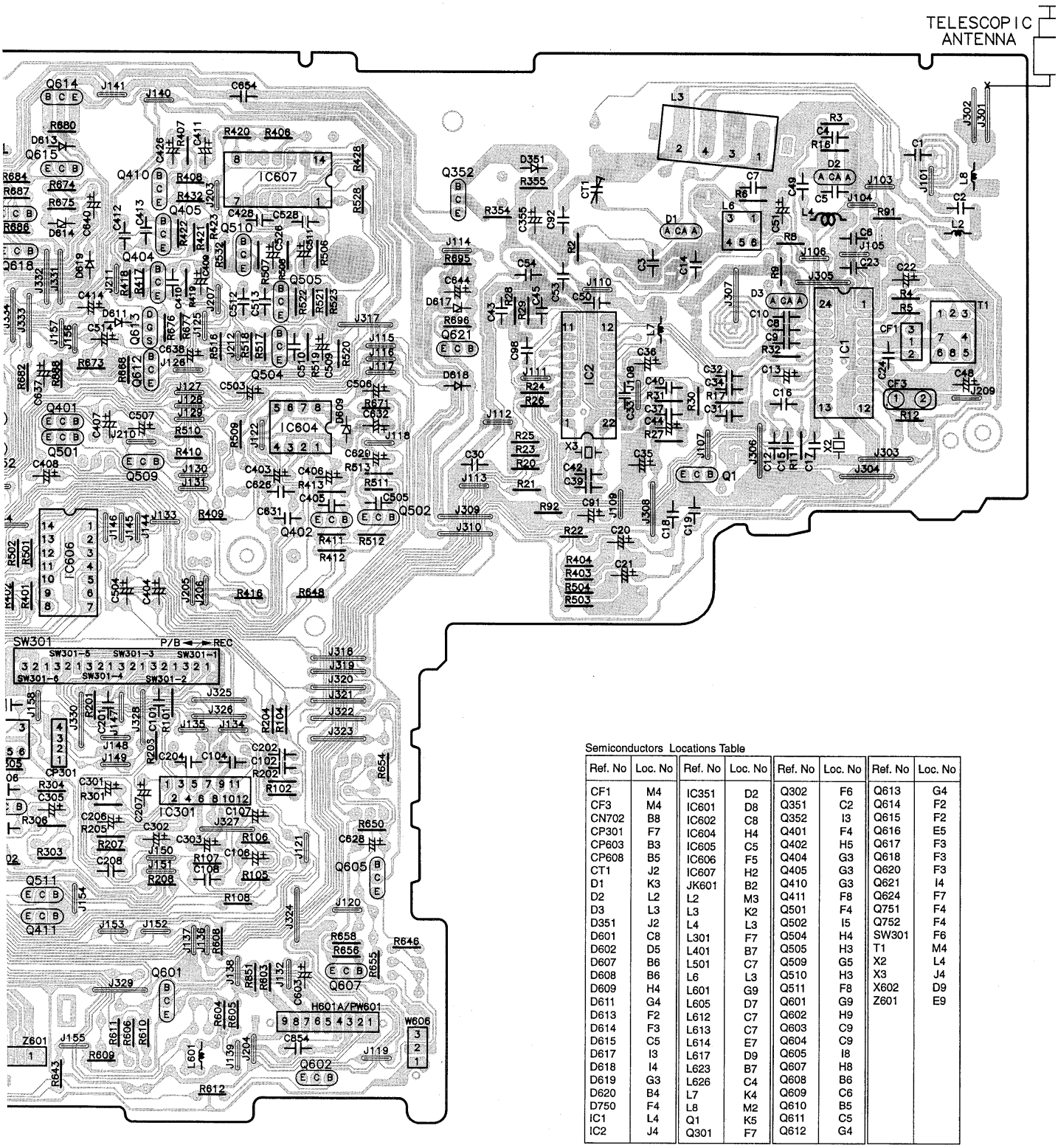
H LCD BACKLIGHT P.C.B (REPX0152)



A MAIN P.C.B (REPX0152)



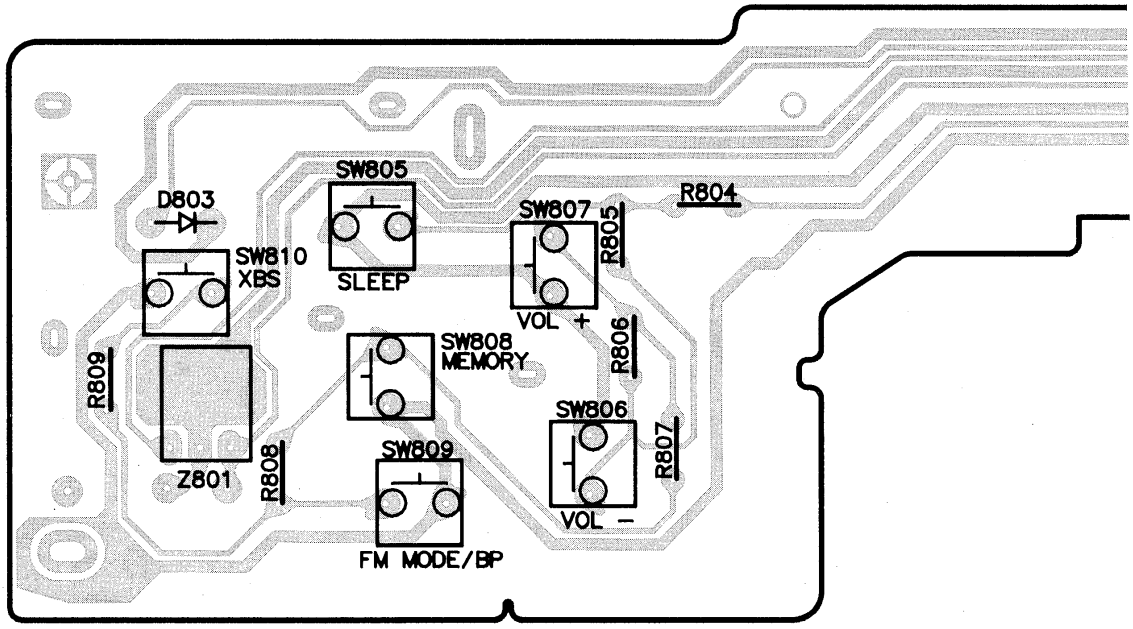
G H I J K L M



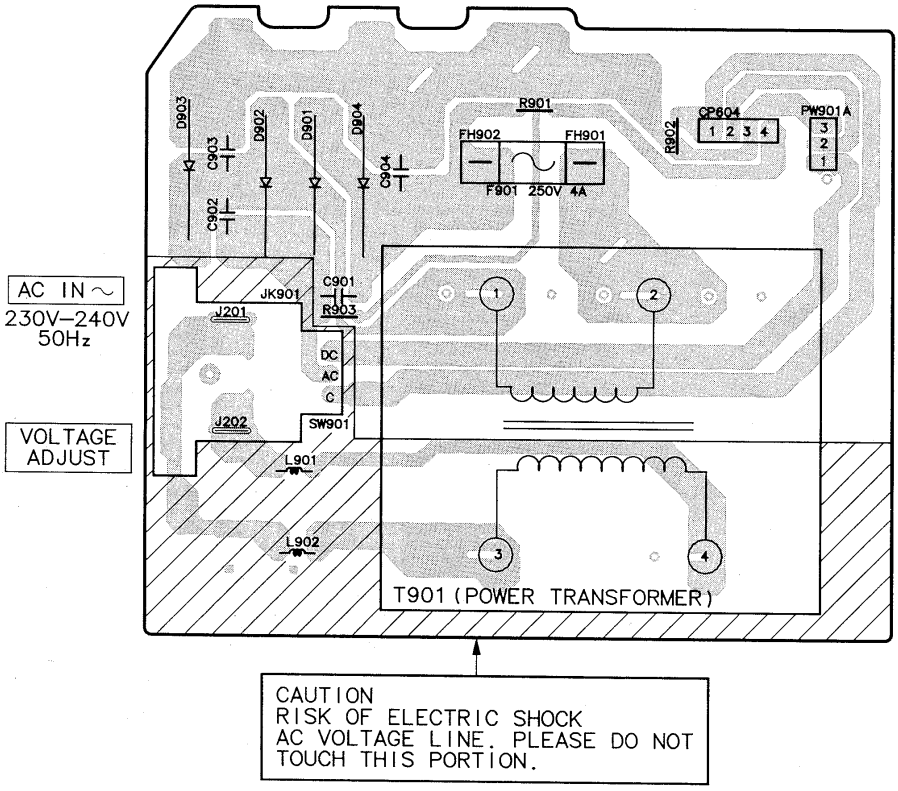
Semiconductors Locations Table

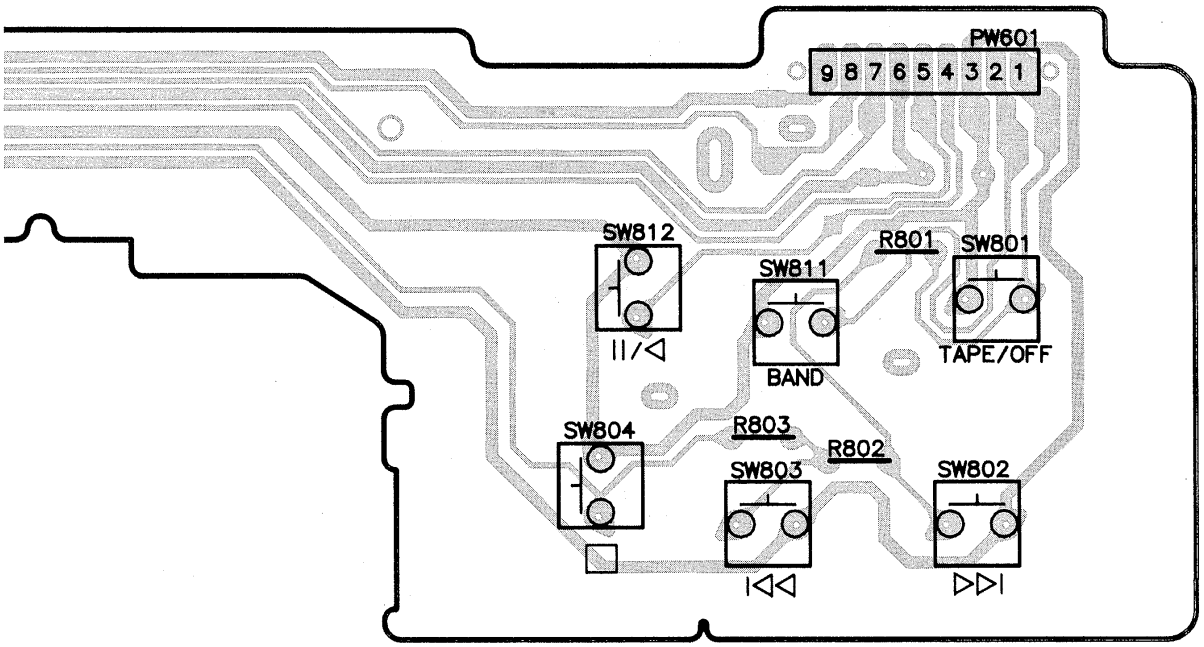
Ref. No	Loc. No	Ref. No	Loc. No	Ref. No	Loc. No	Ref. No	Loc. No
CF1	M4	IC351	D2	Q302	F6	Q613	G4
CF3	M4	IC601	D8	Q351	C2	Q614	F2
CN702	B8	IC602	C8	Q352	I3	Q615	F2
CP301	F7	IC604	H4	Q401	F4	Q616	E5
CP603	B3	IC605	C5	Q402	H5	Q617	F3
CP608	B5	IC606	F5	Q404	G3	Q618	F3
CT1	J2	IC607	H2	Q405	G3	Q620	F3
D1	K3	JK601	B2	Q410	G3	Q621	I4
D2	L2	L2	M3	Q411	F8	Q624	F7
D3	L3	L3	K2	Q501	F4	Q751	F4
D351	J2	L4	L3	Q502	I5	Q752	F4
D601	C8	L301	F7	Q504	H4	SW301	F6
D602	D5	L401	B7	Q505	H3	T1	M4
D607	B6	L501	C7	Q509	G5	X2	L4
D608	B6	L6	L3	Q510	H3	X3	J4
D609	H4	L601	G9	Q511	F8	X602	D9
D611	G4	L605	D7	Q601	G9	Z601	E9
D613	F2	L612	C7	Q602	H9		
D614	F3	L613	C7	Q603	C9		
D615	C5	L614	E7	Q604	C9		
D617	I3	L617	D9	Q605	I8		
D618	I4	L623	B7	Q607	H8		
D619	G3	L626	C4	Q608	B6		
D620	B4	L7	K4	Q609	C6		
D750	F4	L8	M2	Q610	B5		
IC1	L4	Q1	K5	Q611	C5		
IC2	J4	Q301	F7	Q612	G4		

B PANEL P.C.B (REPX0152)

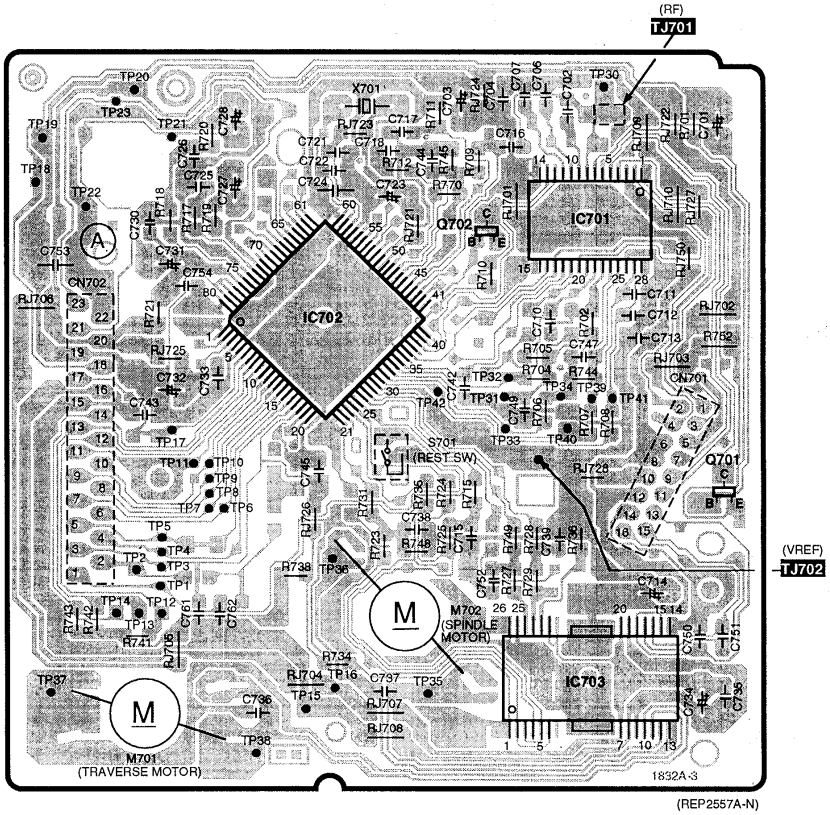


C POWER P.C.B (REPX0144)



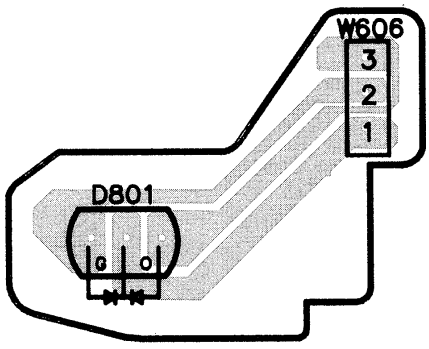


J SERVO P.C.B (REPX0144)

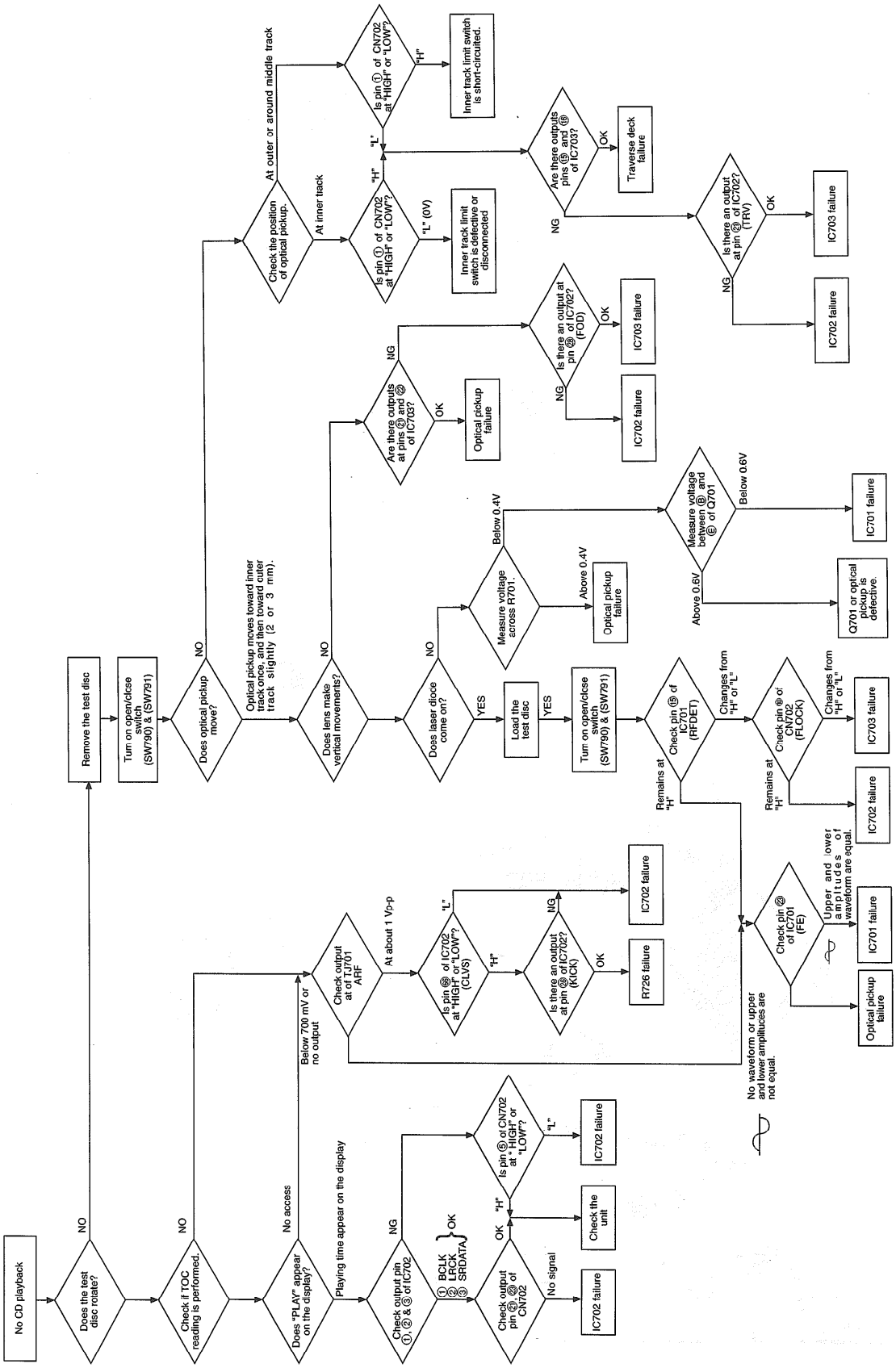


(REP2557A-N)

I LED P.C.B (REPX0152)

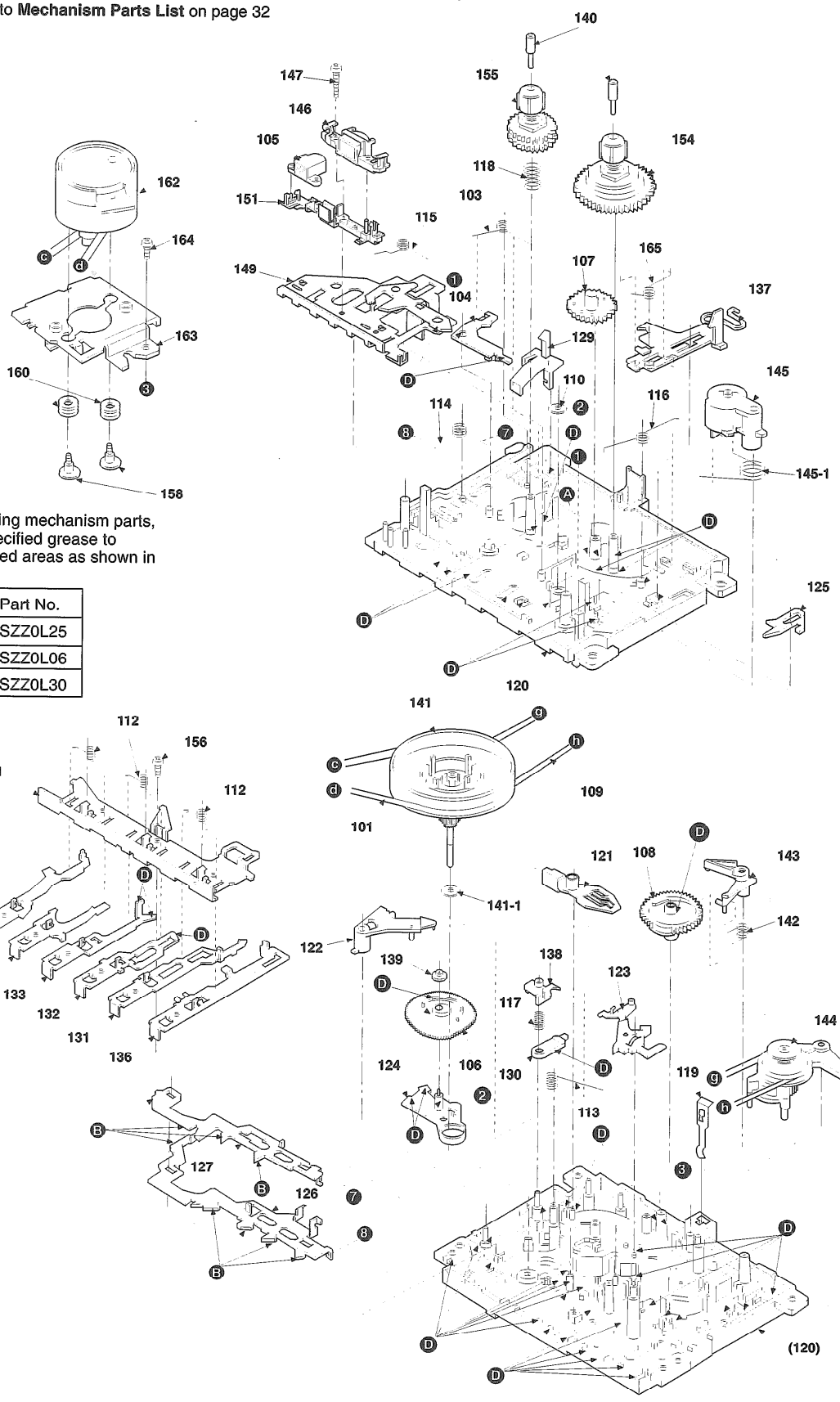


■ Troubleshooting Guide



Mechanism Parts Location (RAA0919)

Note : Refer to **Mechanism Parts List** on page 32



Note :
When changing mechanism parts, apply the specified grease to arrow indicated areas as shown in the drawing.

Ref No.	Part No.
Ⓐ	SZZ0L25
Ⓑ	SZZ0L06
Ⓓ	SZZ0L30

Mechanism Parts List

Notes : [M] in Remarks column indicates parts supplied by **MESA**.

Ref No.	Part No.	Part Name & Description	Remarks
		CASSETTE DECK	
101	RDV0007	MAIN BELT	[M]
103	RMB0109-1	BRAKE SPRING	[M]
104	RML0116	BRAKE	[M]
105	RBR2CY009	ERASE HEAD	[M]
106	RDG0057	IDLER GEAR	[M]
107	RDG0059	FF RELAY GEAR	[M]
108	RDK0005	CAM GEAR	[M]
109	RDV0006-1	RF BELT	[M]
110	RHW16009	CAPSTAN WASHER	[M]
111	RMA0109	BACK PLATE	[M]
112	RMB0043-1	ROD OPERATION SPRING	[M]
113	RMB0045	AS SPRING	[M]
114	RMB0046-1	LOCK PLATE SPRING	[M]
115	RMB0047	HEAD PANEL SPRING	[M]
116	RMB0048	IDLER LEVER SPRING	[M]
117	RMB0053	PAUSE LEVER SPRING	[M]
118	RMB0125	BACK TENSION SPRING	[M]
119	RMC0061	PACK SPRING(OR RUS60	[M]
120	RFKRCT090P-K	CHASSIS ASS'Y	[M]
121	RML0071	SWING LEVER	[M]
122	RML0072	AS RELEASE LEVER	[M]

Ref No.	Part No.	Part Name & Description	Remarks
123	RML0073-1	AS PROTECT LEVER	[M]
124	RML0074	IDLER LEVER	[M]
125	RML0076	EJECT SELECTION LEVER	[M]
126	RML0077	LOCK PLATE	[M]
127	RML0078	FUNCTION PLATE	[M]
129	RML0081-1	RECORD SAFETY LEVER	[M]
130	RML0082	PAUSE LEVER	[M]
131	RMM0023	PLAY ROD	[M]
132	RMM0024	REW ROD	[M]
133	RMM0025	FF ROD	[M]
134	RMM0026	STOP ROD	[M]
135	RMM0027	PAUSE ROD	[M]
136	RMM0028	REC ROD	[M]
137	RMM0029	EJECT SLIDE LEVER	[M]
138	RMR0211	PAUSE BUSH	[M]
139	RMR0227	IDLER GEAR BUSH	[M]
140	RMS0055	REEL SHAFT	[M]
141	RXF0012	FLYWHEEL ASSY	[M]
141-1	RHW21008	FLYWHEEL WASHER	[M]
142	RMB0044	TRIGGER SPRING	[M]
143	RML0075	TRIGGER LEVER	[M]
144	RXP0014	RF CLUTCH ASSY	[M]
145	RXP0015	PINCH ROLLER ASSY	[M]

Ref No.	Part No.	Part Name & Description	Remarks
145-1	RMB0049	PINCH ARM SPRING	[M]
146	RBR4CY016-M	STEREO ASTEC HEAD	[M]
147	XTN2+14F	R/P HEAD SCREW	[M]
149	RMA0696	HEAD BASE	[M]
151	RMQ0384	HEAD BASE	[M]
154	RXR0004	TAKE UP REEL ASSY	[M]
155	RXR0005	SUPPLY REEL ASSY	[M]
156	XTN2+6J	BACK PLATE SCREW	[M]
158	RHD26002	MOTOR SCREW	[M]
160	RMG0102	MOTOR RUB. CUSH.	[M]
162	RFKPXDS101PK	DC MOTOR ASS'Y	[M]
163	RMA0108	MOTOR BK (P:75)	[M]
164	XTN26+8J	MOTOR BK SCREW	[M]
165	RME0098-2	EJECT SLIDE LEVER SP	[M]

Loading Mechanism Parts List

Notes : [M] in Remarks column indicates parts supplied by **MESA**.

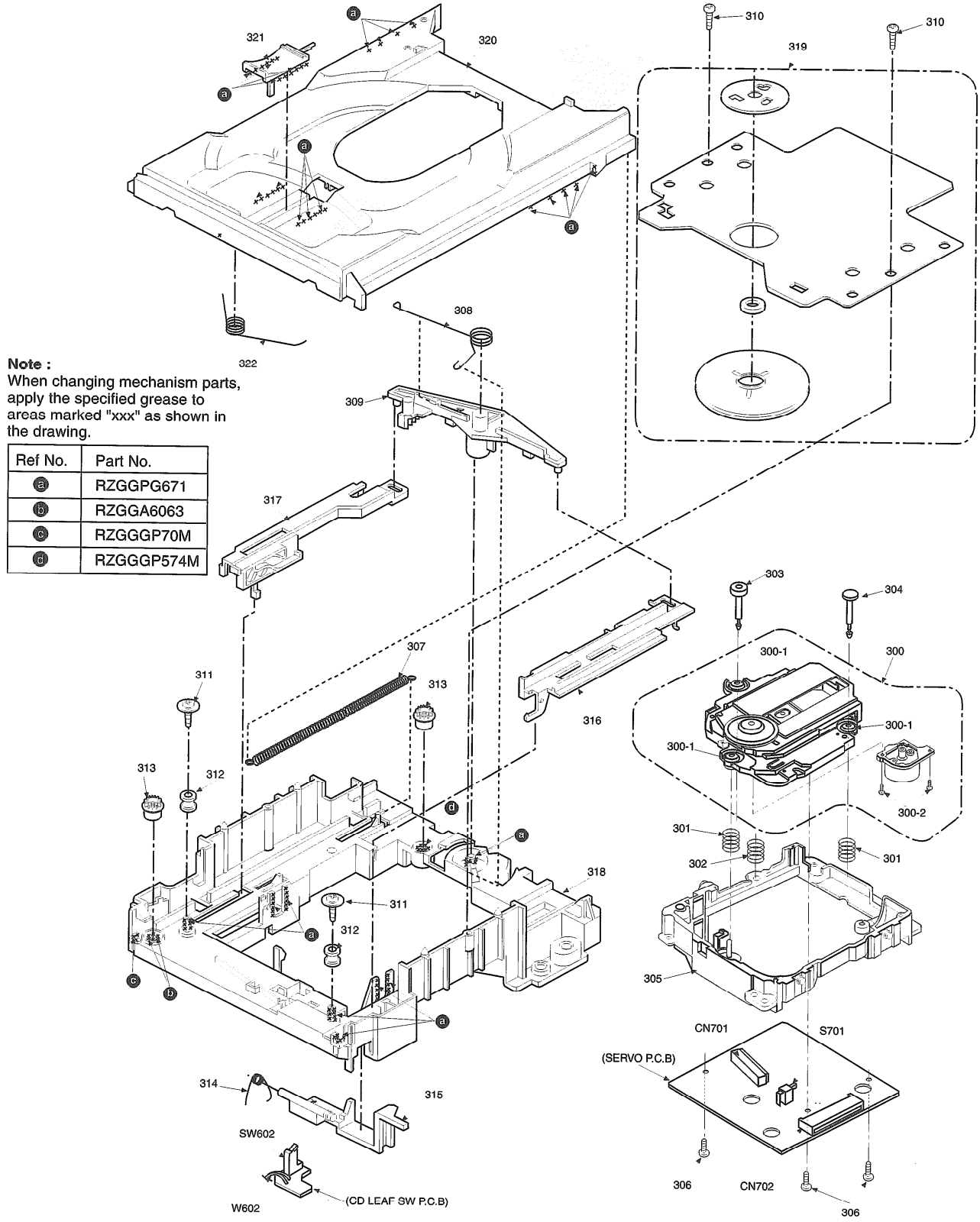
Ref No.	Part No.	Part Name & Description	Remarks
		TRAVERSE DECK	
300	RAE0152Z-M	TRAVERSE	[M]
300-1	SHGD113-1	FLOATING CUSHION	[M]
300-2	SNSD38	TRV MOTOR ASS'Y SCRE	[M]
301	RME0109	FLOATING SPRING B	[M]
302	RME0142	FLOATING SPRING A	[M]
303	RMS0350	FIXED PIN A	[M]
304	RMS0123-1	FIXED PIN B	[M]
305	RMR0698-K	TRY CHASSIS	[M]
306	XTN2+6G	PCB SCREW	[M]

Ref No.	Part No.	Part Name & Description	Remarks
307	RMB0566	CD OPEN SPRING	[M]
308	RME0267	ASSIST SPRING	[M]
309	RMM0207	CHANGE LEVER	[M]
310	XTV26+6G	SCREW	[M]
311	RHD26016	SCREW	[M]
312	RDP0103	ROLLER	[M]
313	RDG0288	DAMPER GEAR	[M]
314	RME0268	CD EJ LEV SPR	[M]
315	RML0535	CD LOCK LEVER	[M]
316	RMM0206	UP/DOWN LEVER B	[M]
317	RMM0205	UP/DOWN LEVER A	[M]

Ref No.	Part No.	Part Name & Description	Remarks
318	RMK0388	CD CHASSIS	[M]
319	RFKNRXDS18PA	DISC HOLDER ASS'Y	[M]
320	RGQ0233-K	CD TRAY	[M]
321	RGQ0234-K	DISC HOLD PIECE	[M]
322	RME0269	DISC HOLD PIECE SPRING	[M]

Loading Mechanism Parts Location

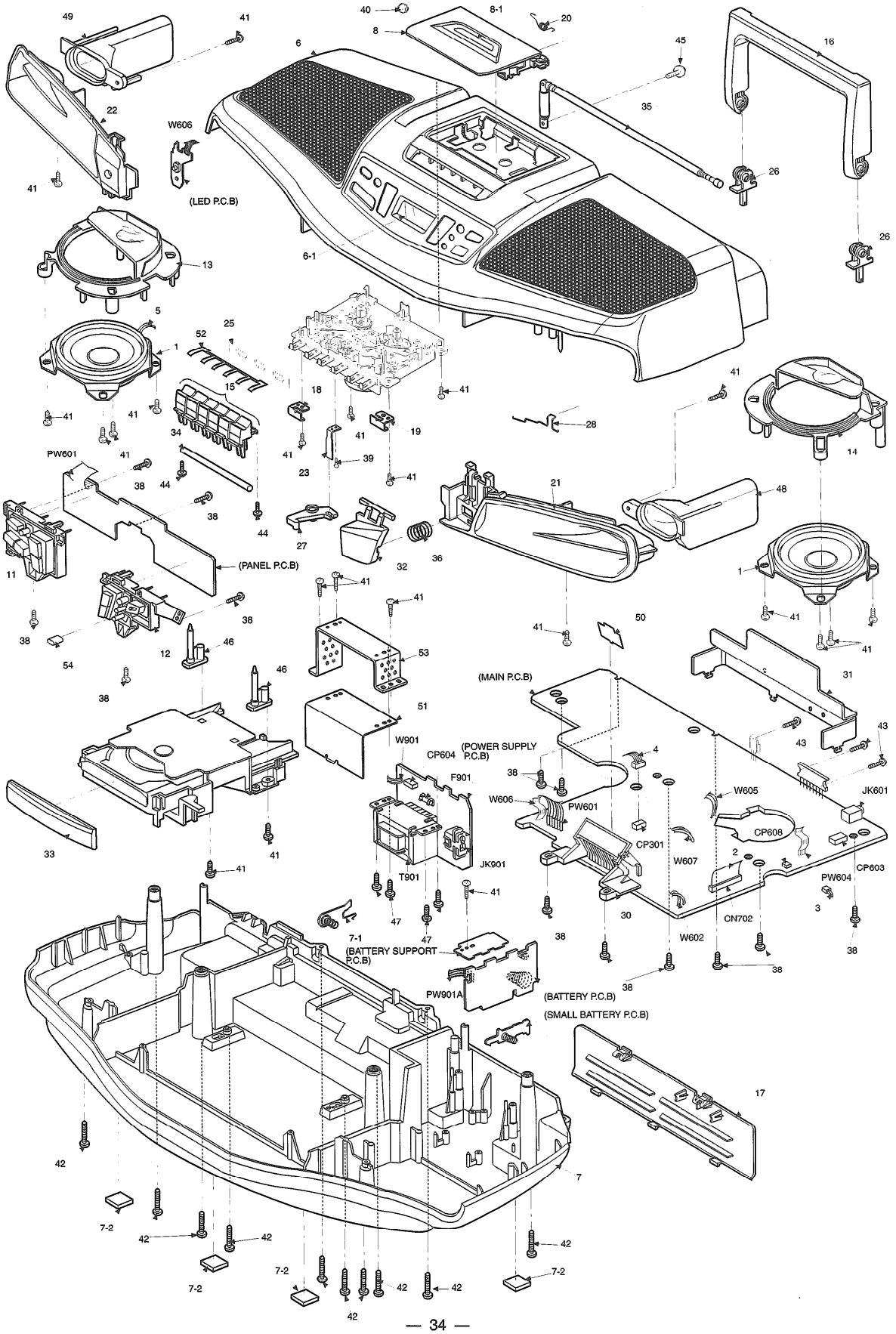
Note : Refer to **Mechanism Parts List** on page 32.



Note :
When changing mechanism parts, apply the specified grease to areas marked "xxx" as shown in the drawing.

Ref No.	Part No.
ⓐ	RZGGPG671
ⓑ	RZGGA6063
ⓒ	RZGGGP70M
ⓓ	RZGGGP574M

■ Cabinet Parts Location



■ Replacement Parts List

Notes: * Important 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 these components, be sure to use only manufacturer's specified parts shown in the parts list .
* The parenthesized indications in the Remarks columns specify the areas or colour. (Refer to the cover page for area or colour)
Parts without these indications can be used for all areas.
* [M] Indicates in the Remarks columns indicates parts 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
		CABINET AND CHASSIS	
1	EAST10P02B6	SPEAKER	[M]
2	REE0842	CD FFC	[M]
3	REX0905Y	MECHA LEAF SW WIRE.U	[M]
4	REX0906	MECHA HEAD WIRE UNIT	[M]
5	REXX0189	SP-MAIN WIRE UNIT	[M]
6	RFKKXDS28EBK	UPPER CAB ASS'Y	[M]
6-1	RGPX0023-Q	LCD PANEL	[M]
7	RFKJXDS28EBK	BOTTOM CAB ASS'Y	[M]EB
7	RFKJXDS28EGK	BOTTOM CAB ASS'Y	[M]EG
7	RFKJXDS28E-K	BOTTOM CAB ASS'Y	[M]E
7-1	RJC91008	+- BATT. TERMINAL	[M]
7-2	RKA0059-K	LEG RUBBER	[M]
8	RFKLXDS27EBK	CASS LID ASS'Y	[M]
8-1	RKWX0092-Q	CASS. PANEL	[M]
11	RYQX0014	OPE BTN UNIT (L)	[M]
12	RYQX0015	OPE BTN UNIT (R)	[M]
13	RGK1006-R	DIFFUSER (L)	[M]
14	RGK1007-R	DIFFUSER (R)	[M]
15	RGZX0025-K	MECHA BUTTON	[M]
16	RKH0042-K	HANDLE	[M]
17	RKK0073-1K	BATT. COVER	[M]
18	RMAX0028	MECHA BRACKET (L)	[M]
19	RMAX0029	MECHA BRACKET (R)	[M]
20	RMB0490	CASS. OPEN SPRING	[M]
21	RKTX0003-S	PORT (R)	[M]
22	RKTX0004-S	PORT (L)	[M]
23	RMC0355	R/P PLATE	[M]
25	RMXX0004	SPACER	[M]
26	RKQ0224-K	HANDLE FIXTURE	[M]
27	RML0534	R/P LEVER	[M]
28	RME0270	R. ANT TERMINAL	[M]
30	RMN0475	LCD HOLDER	[M]
31	RMYX0038	HEATSINK	[M]
32	RGU1630-S	CD EJ BUTTON	[M]
33	RGK1008-S	CD TRAY LID	[M]
34	SUX102	MECHA ROD	[M]
35	XEARR210C-Y	R.ANTENNA	[M]
36	RMB0567	CD EJ BTN SPR	[M]

Ref No.	Part No.	Part Name & Description	Remarks
38	XTBS26+10J	SCREW	[M]
39	XTN2+3F	SCREW	[M]
40	RDG0183-L	DAMPER GEAR	[M]
41	XTV3+12G	SP. MOUNTING SCREW	[M]
42	XTV3+20G	CASING SCREW	[M]
43	XTV3+8F	SCREW	[M]
44	XTWS3+10Q	MECHA SHAFT SCREW	[M]
45	XYN3+F12FY	R.ANT SCREW	[M]
46	RMR1155-K	CD FIXTURE	[M]
47	XTV3+10F	SCREW	[M]
48	RKTX0001-K	JOINT PORT (R)	[M]
49	RKTX0002-K	JOINT PORT (L)	[M]
50	RMVX0040	LAMP COVER	[M]
51	RSCX0041	TRANSFORMER SHIELD	[M]
52	RMQ0649	MECHA BUTTON SUPPORT	[M]
53	RMAX0037	TRANSFORMER BRACKET	[M]
54	RGLX0012-Q	MEGA LED WINDOW	[M]
		INTEGRATED CIRCUITS	
IC1	TA2008AN	IC, TUNER	[M]
IC2	LC72131D	IC, PLL	[M]
IC301	BA3313L	IC, PRE AMP	[M]
IC351	LA4663	IC, POWER	[M]
IC601	M38224M6M059	IC, U. COM	[M]
IC602	BMR0301G	IC, RESET	[M]
IC604	M62429P	IC, E.VOL	[M]
IC605	S81250SGY-Z	IC, 5V REG.	[M]
IC606	BU4066BC	IC, ANALOG SW	[M]
IC607	BU4066BC	IC, ANALOG SW	[M]
IC701	AN8837SBE1	IC, HEAD AMP	[M]
IC702	MN662746RPK1	IC, LSI	[M]
IC703	AN8780NSBE2	IC, MOTOR DRIVER	[M]
		TRANSISTORS	
Q1	2SC1740SRTA	TRANSISTOR	[M]
Q301	2SC1740SRTA	TRANSISTOR	[M]
Q302	2SC1740SRTA	TRANSISTOR	[M]
Q351	2SC2001KTA	TRANSISTOR	[M]

Ref No.	Part No.	Part Name & Description	Remarks
Q352	2SC1740SRTA	TRANSISTOR	[M]
Q401	RVTDTC114TST	TRANSISTOR	[M]
Q402	2SC1740SRTA	TRANSISTOR	[M]
Q404	2SC1740SLNRT	TRANSISTOR	[M]
Q405	2SC1740SLNRT	TRANSISTOR	[M]
Q410	2SC1740SLNRT	TRANSISTOR	[M]
Q411	RVTDTC114TST	TRANSISTOR	[M]
Q501	RVTDTC114TST	TRANSISTOR	[M]
Q502	2SC1740SRTA	TRANSISTOR	[M]
Q504	2SC1740SLNRT	TRANSISTOR	[M]
Q505	2SC1740SLNRT	TRANSISTOR	[M]
Q509	RVTDTC114TST	TRANSISTOR	[M]
Q510	2SC1740SLNRT	TRANSISTOR	[M]
Q511	RVTDTC114TST	TRANSISTOR	[M]
Q601	RVTDTA114EST	TRANSISTOR	[M]
Q602	2SC1740SRTA	TRANSISTOR	[M]
Q603	2SC1740SRTA	TRANSISTOR	[M]
Q604	2SC1740SRTA	TRANSISTOR	[M]
Q605	2SC1740SRTA	TRANSISTOR	[M]
Q607	2SC1740SRTA	TRANSISTOR	[M]
Q608	2SA952LTA	TRANSISTOR	[M]
Q609	2SC1740SRTA	TRANSISTOR	[M]
Q610	2SC1740SRTA	TRANSISTOR	[M]
Q611	RVTDTA114EST	TRANSISTOR	[M]
Q612	2SC1740SRTA	TRANSISTOR	[M]
Q613	2SJ40CTA	TRANSISTOR	[M]
Q614	2SB1566E	TRANSISTOR	[M]
Q615	2SC1740SRTA	TRANSISTOR	[M]
Q616	RVTDTC144EST	TRANSISTOR	[M]
Q617	2SA952LTA	TRANSISTOR	[M]
Q618	RVTDTC143XST	TRANSISTOR	[M]
Q620	RVTDTA143TST	TRANSISTOR	[M]
Q621	2SC1740SRTA	TRANSISTOR	[M]
Q624	RVTDTC144EST	TRANSISTOR	[M]
Q701	2SA1037AKSTX	TRANSISTOR	[M]
Q702	DTC114YKA146	TRANSISTOR	[M]
Q751	2SC1740SRTA	TRANSISTOR	[M]
Q752	2SC2001KTA	TRANSISTOR	[M]

Ref No.	Part No.	Part Name & Description	Remarks
		DIODES	
D1	SVC346T-AA	DIODE	[M]
D2	KV1360NTM	DIODE	[M]
D3	KV1360NTM	DIODE	[M]
D351	RVD1SS133TA	DIODE	[M]
D601	RVD1SS133TA	DIODE	[M]
D602	RVD1SS133TA	DIODE	[M]
D607	RVD1SS133TA	DIODE	[M]
D608	RVD1SS133TA	DIODE	[M]
D609	MTZJ5R1BTA	DIODE	[M]
D611	RVD1SS133TA	DIODE	[M]
D613	RVD1SS133TA	DIODE	[M]
D614	MTZJ7R5CTA	DIODE	[M]
D615	MTZJ15BTA	DIODE	[M]
D617	MTZJ5R6CTA	DIODE	[M]
D618	RVD1SS133TA	DIODE	[M]
D619	RVD1SS133TA	DIODE	[M]
D620	RVD1SS133TA	DIODE	[M]
D750	MTZJ10BTA	DIODE	[M]
D801	SPR325MVWT31	DIODE	[M]
D803	SLR332DCTB7	DIODE	[M]
D901	1N5402BM21	DIODE	[M] ⚠
D902	1N5402BM21	DIODE	[M] ⚠
D903	1N5402BM21	DIODE	[M] ⚠
D904	1N5402BM21	DIODE	[M] ⚠
D905	RVD1SS133TA	DIODE	[M]
		TRIMMER	
CT1	ECRLA010A53R	TRIMMER CAPACITOR	[M]
		SWITCHES	
S601	RSH1A006-U	SW, MOTOR	[M]
S701	RSH1A043-U	SW, REST SWITCH	[M]
SW301	RSP2F002-A	SW, R/P	[M]
SW602	RSH1A005	SW, LEAF	[M]
SW801	EVQ21405R	SW, TAPE/OFF	[M]
SW802	EVQ21405R	SW, TUNE/SKIP/SEARCH	[M]
SW803	EVQ21405R	SW, TUNE/SKIP/SEARCH	[M]
SW804	EVQ21405R	SW, CLEAR/TUNE MODE	[M]
SW805	EVQ21405R	SW, SLEEP	[M]
SW806	EVQ21405R	SW, VOL-	[M]
SW807	EVQ21405R	SW, VOL+	[M]
SW808	EVQ21405R	SW, MEMORY	[M]
SW809	EVQ21405R	SW, FM MODE/BP	[M]
SW810	EVQ21405R	SW, POWER BLASTER	[M]

Ref No.	Part No.	Part Name & Description	Remarks
SW811	EVQ21405R	SW, BAND	[M]
SW812	EVQ21405R	SW, PLAY/PAUSE	[M]
SW901	RJJ1SE01-1H	SW, AC INLET (JK901)	[M] ⚠
		CONNECTORS	
CN701	RJS2A6016	16P FFC CONNECTOR	[M]
CN702	RJS1A6723-1Q	23P FFC CONNCETOR	[M]
CN702	RJS1A6823-J	23P FPC CONNECTOR	[M]
CP301	RJP4G18ZA	SOCKET	[M]
CP603	RJP4G9YA	LEAF SW 9P POST	[M]
CP604	RJP4G4YA	LEAF SW 4P POST	[M]
CP608	RJT029W002-1	SP CONNECTOR	[M]
		COILS & TRANSFORMERS	
L2	RLQY30S1W	COIL	[M]
L3	RLV2C038-0	F. ANT	[M]
L4	RLD4Y45W	COIL	[M]
L6	RL02B130-T	AM OSC COIL	[M]
L7	RLQZP101KT-Y	AXIAL COIL	[M]
L8	RLQY30S1W	COIL	[M]
L301	RL09B17-T	RECORDING BIAS OCS C	[M]
L401	RLL5000S0T-Y	RF CHOKE COIL	[M]
L501	RLL5000S0T-Y	RF CHOKE COIL	[M]
L601	RLQZP1R0KT-Y	COIL	[M]
L605	RLQZP1R0KT-Y	COIL	[M]
L612	RLQZP1R0KT-Y	COIL	[M]
L613	RLQZP1R0KT-Y	COIL	[M]
L614	RLQZP1R0KT-Y	COIL	[M]
L617	RLQZP1R0KT-Y	COIL	[M]
L623	RLL5000S0T-Y	RF CHOKE COIL	[M]
L626	RLQZP2R2KT-Y	COIL	[M]
L901	RLL5000S0T-Y	RF CHOKE COIL	[M] ⚠
L902	RLL5000S0T-Y	RF CHOKE COIL	[M] ⚠
T1	RLI2B014-T	AM IFT	[M]
T901	RTP1L1B011-X	TRANSFORMER	[M] ⚠
		COMPONENT COMBINATION	
Z601	RSL5197-V	LCD	[M]
Z751	XAMR138	LAMP (BACK LIGHT)	[M]
Z801	RCD12042LN	REMOTE SENSOR	[M]
		CERAMIC FILTERS	
CF1	RLFFETNL02AL	FM CF	[M]
CF3	RLFDFT20AL	FM DISCRIMINATOR	[M]

Ref No.	Part No.	Part Name & Description	Remarks
		OSCILLATORS	
X2	RSXZ456KM01	19KHZ OSC	[M]
X3	RSXC7M20S04T	XTAL 7.2MHZ	[M]
X601	RSXD32K7S02	32.768HKZ X'TAL	[M]
X602	RSXZ4M19D01T	CERAMIC OSC.	[M]
X701	RSXZ16M9M01T	CERAMIC OSC	[M]
		FUSES & FUSE HOLDERS	
F901	XBA2C40TB0	FUSE	[M] ⚠
FH901	RJR0169T	FUSE HOLDER	[M]
FH902	RJR0169T	FUSE HOLDER	[M]
FP601	RSFMB10KT-L	FUSE PROTECTOR	[M]
FP901	RSFMB40KT-L	FUSE PROTECTOR	[M] ⚠
		JACKS	
JK601	RJJ37TK01-1C	JK, HEADPHONE	[M]
JK901	RJJ1SE01-1H	JK, AC INLET	[M] ⚠
		WIRE HOLDERS	
H601A	RMR0318	9P CABLE HOLDER	[M]
H601B	RMR0318	9P CABLE HOLDER	[M]
H604	RJS1A5504	CABLE HOLDER	[M]
		WIRES	
W602	RWJ4202190KK	CD LEAF SW WIRE	[M]
W605	RWJ0102050KR	MAIN-MECHA MOTOR	[M]
W606	RWJ8203120KK	MAIN-LED PCB	[M]
W607	RWJ0302120KK	MAIN-BACKLIGHT PCB	[M]
W901	RWJ0103170KK	POWER-BATT WIRE	[M]
PW601	RWJ1109120XX	MAIN-PANEL FFC	[M]
PW604	REX0908	POWER-MAIN WIRE UNIT	[M]
PW901A	RWJ0103170KK	POWER-BATT WIRE	[M]

■ Resistors & Capacitors

Notes :• Important 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.
- The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indication can be used for all areas.
- [M] in Remarks column indicates parts that are supplied by **MESA**.
- 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
	RESISTORS	
R2	ERDS2TJ103T	10K 1/4W [M]
R3	ERDS2TJ332T	3.3K 1/4W [M]
R4	ERDS2TJ472T	4.7K 1/4W [M]
R5	ERDS2TJ221T	220 1/4W [M]
R6	ERDS2TJ104T	100K 1/4W [M]
R8	ERDS2TJ104T	100K 1/4W [M]
R9	ERDS2TJ104T	100K 1/4W [M]
R11	ERDS2TJ223T	22K 1/4W [M]
R12	ERDS2TJ103T	10K 1/4W [M]
R16	ERDS2TJ104T	100K 1/4W [M]
R17	ERDS2TJ222T	2.2K 1/4W [M]
R20	ERDS2TJ223T	22K 1/4W [M]
R21	ERDS2TJ473T	47K 1/4W [M]
R22	ERDS2TJ102T	1K 1/4W [M]
R23	ERDS2TJ223T	22K 1/4W [M]
R24	ERDS2TJ103T	10K 1/4W [M]
R25	ERDS2TJ223T	22K 1/4W [M]
R26	ERDS2TJ103T	10K 1/4W [M]
R27	ERDS2TJ332T	3.3K 1/4W [M]
R28	ERDS2TJ223T	22K 1/4W [M]
R29	ERDS2TJ103T	10K 1/4W [M]
R30	ERDS2TJ472T	4.7K 1/4W [M]
R31	ERDS2TJ222T	2.2K 1/4W [M]
R32	ERDS2TJ471T	470 1/4W [M]
R91	ERDS2TJ330T	33 1/4W [M]
R92	ERDS2TJ223T	22K 1/4W [M]
R101	ERDS2TJ183T	18K 1/4W [M]
R102	ERDS2TJ272T	2.7K 1/4W [M]
R104	ERDS2TJ274T	270K 1/4W [M]
R105	ERDS2TJ680T	68 1/4W [M]
R106	ERDS2TJ222T	2.2K 1/4W [M]
R107	ERDS2TJ682T	6.8K 1/4W [M]
R108	ERDS2TJ472T	4.7K 1/4W [M]
R151	ERDS2TJ822T	8.2K 1/4W [M]
R154	ERDS2TJ181T	180 1/4W [M]
R155	ERD2FCVJ4R7T	4.7 1/4W [M]
R156	ERD2FCVJ4R7T	4.7 1/4W [M]
R201	ERDS2TJ183T	18K 1/4W [M]
R202	ERDS2TJ272T	2.7K 1/4W [M]
R204	ERDS2TJ274T	270K 1/4W [M]
R205	ERDS2TJ680T	68 1/4W [M]
R206	ERDS2TJ222T	2.2K 1/4W [M]
R207	ERDS2TJ682T	6.8K 1/4W [M]
R208	ERDS2TJ472T	4.7K 1/4W [M]
R251	ERDS2TJ822T	8.2K 1/4W [M]
R254	ERDS2TJ181T	180 1/4W [M]
R255	ERD2FCVJ4R7T	4.7 1/4W [M]
R256	ERD2FCVJ4R7T	4.7 1/4W [M]
R301	ERDS2TJ223T	22K 1/4W [M]
R302	ERDS2TJ101T	100 1/4W [M]
R303	ERDS2TJ751T	750 1/4W [M]
R304	ERDS2TJ563T	56K 1/4W [M]
R305	ERDS2TJ221T	220 1/4W [M]
R306	ERDS2TJ100T	10 1/4W [M]
R307	ERDS2TJ272T	2.7K 1/4W [M]
R351	ERDS2TJ103T	10K 1/4W [M]
R352	ERDS2TJ103T	10K 1/4W [M]
R353	ERDS2TJ563T	56K 1/4W [M]
R354	ERDS2TJ471T	470 1/4W [M]
R355	ERDS2TJ274T	270K 1/4W [M]
R401	ERDS2TJ103T	10K 1/4W [M]
R402	ERDS2TJ683T	68K 1/4W [M]
R403	ERDS2TJ562T	5.6K 1/4W [M]
R404	ERDS2TJ682T	6.8K 1/4W [M]
R406	ERDS2TJ332T	3.3K 1/4W [M]
R407	ERDS2TJ104T	100K 1/4W [M]
R408	ERDS2TJ391T	390 1/4W [M]
R409	ERDS2TJ472T	4.7K 1/4W [M]
R410	ERDS2TJ472T	4.7 1/4W [M]
R411	ERDS2TJ474T	470K 1/4W [M]
R412	ERDS2TJ392T	3.9K 1/4W [M]
R413	ERDS2TJ681T	680 1/4W [M]
R416	ERDS2TJ473T	47K 1/4W [M]
R417	ERDS2TJ105T	1M 1/4W [M]
R418	ERDS2TJ103T	10K 1/4W [M]
R419	ERDS2TJ822T	8.2K 1/4W [M]
R420	ERDS2TJ102T	1K 1/4W [M]
R421	ERDS2TJ102T	1K 1/4W [M]
R422	ERDS2TJ683T	68K 1/4W [M]
R423	ERDS2TJ682T	6.8K 1/4W [M]
R424	ERDS2TJ153T	15K 1/4W [M]
R428	ERDS2TJ102T	1K 1/4W [M]
R432	ERDS2TJ682T	6.8K 1/4W [M]
R501	ERDS2TJ103T	10K 1/4W [M]
R502	ERDS2TJ683T	68K 1/4W [M]
R503	ERDS2TJ562T	5.6K 1/4W [M]
R504	ERDS2TJ682T	6.8K 1/4W [M]
R506	ERDS2TJ332T	3.3K 1/4W [M]
R507	ERDS2TJ104T	100K 1/4W [M]
R508	ERDS2TJ391T	390 1/4W [M]
R509	ERDS2TJ472T	4.7K 1/4W [M]
R510	ERDS2TJ472T	4.7 1/4W [M]
R511	ERDS2TJ474T	470K 1/4W [M]
R512	ERDS2TJ392T	3.9K 1/4W [M]
R513	ERDS2TJ681T	680 1/4W [M]
R516	ERDS2TJ473T	47K 1/4W [M]
R517	ERDS2TJ105T	1M 1/4W [M]
R518	ERDS2TJ103T	10K 1/4W [M]
R519	ERDS2TJ822T	8.2K 1/4W [M]
R520	ERDS2TJ102T	1K 1/4W [M]
R521	ERDS2TJ102T	1K 1/4W [M]
R522	ERDS2TJ683T	68K 1/4W [M]
R523	ERDS2TJ682T	6.8K 1/4W [M]
R524	ERDS2TJ153T	15K 1/4W [M]
R528	ERDS2TJ102T	1K 1/4W [M]
R532	ERDS2TJ682T	6.8K 1/4W [M]
R603	ERDS2TJ221T	220 1/4W [M]
R604	ERDS2TJ153T	15K 1/4W [M]
R605	ERDS2TJ153T	15K 1/4W [M]
R606	ERDS2TJ153T	15K 1/4W [M]
R607	ERDS2TJ104T	100K 1/4W [M]
R608	ERDS2TJ334T	330K 1/4W [M]
R609	ERDS2TJ153T	15K 1/4W [M]
R610	ERDS2TJ152T	1.5K 1/4W [M]
R611	ERDS2TJ393T	39K 1/4W [M]
R612	ERDS2TJ472T	4.7K 1/4W [M]
R613	ERDS2TJ333T	33K 1/4W [M]
R614	ERDS2TJ104T	100K 1/4W [M]
R615	ERDS2TJ104T	100K 1/4W [M]
R617	ERDS2TJ104T	100K 1/4W [M]
R624	ERDS2TJ472T	4.7K 1/4W [M]
R625	ERDS2TJ472T	4.7K 1/4W [M]
R626	ERDS2TJ106T	10M 1/4W [M]
R627	ERDS2TJ334T	330K 1/4W [M]
R628	ERDS2TJ105T	1M 1/4W [M]
R630	ERDS2TJ334T	330K 1/4W [M]
R636	ERDS2TJ102T	1K 1/4W [M]
R638	ERDS2TJ102T	1K 1/4W [M]
R639	ERDS2TJ102T	1K 1/4W [M]
R640	ERDS2TJ103T	10K 1/4W [M]
R641	ERDS2TJ103T	10K 1/4W [M]
R642	ERDS2TJ223T	22K 1/4W [M]
R643	ERDS2TJ224T	220K 1/4W [M]
R646	ERDS2TJ101T	100 1/4W [M]
R648	ERDS2TJ221T	220 1/4W [M]
R649	ERDS2TJ223T	22K 1/4W [M]
R650	ERDS2TJ182T	1.8K 1/4W [M]
R654	ERDS2TJ332T	3.3K 1/4W [M]
R655	ERDS2TJ391T	390 1/4W [M]
R656	ERDS2TJ473T	47K 1/4W [M]
R658	ERDS2TJ473T	47K 1/4W [M]
R660	ERDS2TJ151T	150 1/4W [M]
R661	ERDS2TJ181T	180 1/4W [M]
R662	ERDS2TJ103T	10K 1/4W [M]
R663	ERDS2TJ122T	1.2K 1/4W [M]
R666	ERDS2TJ472T	4.7K 1/4W [M]
R667	ERDS2TJ104T	100K 1/4W [M]
R668	ERDS2TJ103T	10K 1/4W [M]
R669	ERDS2TJ123T	12K 1/4W [M]
R670	ERDS1FVJ1R0T	1 1/2W [M]
R671	ERDS2TJ151T	150 1/4W [M]
R672	ERDS2TJ124T	120K 1/4W [M]
R673	ERDS2TJ105T	1M 1/4W [M]
R674	ERDS2TJ151T	150 1/4W [M]
R675	ERDS2TJ181T	180 1/4W [M]
R676	ERDS2TJ335T	3.3M 1/4W [M]
R677	ERDS2TJ472T	4.7K 1/4W [M]
R678	ERDS2TJ103T	10K 1/4W [M]

Ref No.	Part No.	Values & Remarks
R679	ERDS2TJ153T	15K 1/4W [M]
R680	ERDS2TJ103T	10K 1/4W [M]
R681	ERDS2TJ223T	22K 1/4W [M]
R682	ERDS2TJ681T	680 1/4W [M]
R683	ERDS2TJ223T	22K 1/4W [M]
R684	ERDS2TJ122T	1.2K 1/4W [M]
R686	ERDS2TJ472T	4.7K 1/4W [M]
R687	ERDS2TJ103T	10K 1/4W [M]
R689	ERD2FCVG390T	39 1/4W [M]
R690	ERDS2TJ1R5T	1.5 1/4W [M]
R691	ERDS2TJ1R5T	1.5 1/4W [M]
R692	ERDS2TJ1R5T	1.5 1/4W [M]
R693	ERDS2TJ472T	4.7K 1/4W [M]
R694	ERDS2TJ121T	120 1/4W [M]
R695	ERDS2TJ471T	470 1/4W [M]
R696	ERDS2TJ101T	100 1/4W [M]
R698	ERDS2TJ152T	1.5K 1/4W [M]
R699	ERDS2TJ562T	5.6K 1/4W [M]
R701	ERJ6GEYJ4R7A	4.7 1/10W [M]
R702	ERJ6GEYJ822A	8.2K 1/10W [M]
R704	ERJ6GEYJ102A	1K 1/10W [M]
R705	ERJ6GEYJ124A	120K 1/10W [M]
R706	ERJ6GEYJ102A	1K 1/10W [M]
R707	ERJ6GEYJ474A	470K 1/10W [M]
R708	ERJ6GEYJ154A	150K 1/10W [M]
R709	ERJ6GEYJ473A	47K 1/10W [M]
R710	ERJ6GEYJ103A	10K 1/10W [M]
R711	ERJ6GEYJ154A	150K 1/10W [M]
R712	ERJ6GEYJ221A	220 1/10W [M]
R715	ERJ6GEYJ122A	1.2K 1/10W [M]
R717	ERJ6GEYJ102A	1K 1/10W [M]
R718	ERJ6GEYJ102A	1K 1/10W [M]
R719	ERJ6GEYJ102A	1K 1/10W [M]
R720	ERJ6GEYJ102A	1K 1/10W [M]
R721	ERJ6GEYJ101A	100 1/10W [M]
R723	ERJ6GEYJ272A	2.7K 1/10W [M]
R724	ERJ6GEYJ333A	33K 1/10W [M]
R725	ERJ6GEYJ122A	1.2K 1/10W [M]
R727	ERJ6GEYJ682A	6.8K 1/10W [M]
R728	ERJ6GEYJ682A	6.8K 1/10W [M]
R729	ERJ6GEYJ562A	5.6K 1/10W [M]
R731	ERJ6GEYJ123A	12K 1/10W [M]
R734	ERJ6GEYJ101A	100 1/10W [M]
R735	ERJ6GEYJ101A	100 1/10W [M]
R736	ERJ6GEYJ101A	100 1/10W [M]
R738	ERJ6GEYJ223A	22K 1/10W [M]
R741	ERJ6GEYJ562A	5.6K 1/10W [M]
R742	ERJ6GEYJ562A	5.6K 1/10W [M]
R743	ERJ6GEYJ562A	5.6K 1/10W [M]
R744	ERJ6GEYJ104A	100K 1/10W [M]
R745	ERJ6GEYJ155A	1.5M 1/10W [M]
R748	ERJ6GEYJ272A	2.7K 1/10W [M]
R749	ERJ6GEYJ682A	6.8K 1/10W [M]
R751	ERDS2TJ472T	4.7K 1/4W [M]
R752	ERDS2TJ102T	1K 1/4W [M]
R753	ERDS2TJ102T	1K 1/4W [M]
R770	ERJ6GEYJ224A	220K 1/10W [M]
R801	ERDS2TJ152T	1.5K 1/4W [M]
R802	ERDS2TJ222T	2.2K 1/4W [M]
R803	ERDS2TJ272T	2.7K 1/4W [M]
R804	ERDS2TJ392T	3.9K 1/4W [M]
R805	ERDS2TJ562T	5.6K 1/4W [M]
R806	ERDS2TJ822T	8.2K 1/4W [M]
R807	ERDS2TJ153T	15K 1/4W [M]
R808	ERDS2TJ333T	33K 1/4W [M]
R809	ERDS2TJ823T	82K 1/4W [M]
R851	ERDS2TJ153T	15K 1/4W [M]
R857	ERDS2TJ103T	10K 1/4W [M]
R888	ERDS2TJ103T	10K 1/4W [M]
R901	ERDS2TJ271T	270 1/4W [M]
R902	ERDS2TJ683T	68K 1/4W [M]
R903	ERDS2TJ272T	2.7K 1/4W [M]

CAPACITORS

Ref No.	Part No.	Values & Remarks
C1	ECBT1H470J5	47P 50V [M]
C2	ECBT1H100JC5	10P 50V [M]
C3	ECFR1C223MR	0.022 16V [M]
C4	ECBT1H102KB5	1000P 50V [M]
C5	ECBT1H5R6KC5	5.6P 50V [M]
C6	ECBT1H102KB5	1000P 50V [M]
C7	ECBT1H150JC5	15P 50V [M]
C8	ECBT1H102KB5	1000P 50V [M]
C9	ECBT1H102KB5	1000P 50V [M]
C10	ECBT1H100JC5	10P 50V [M]
C12	ECBT1H331KB5	330P 50V [M]
C13	ECA1CM100B	10 16V [M]
C14	ECBT1H102KB5	1000P 50V [M]
C15	ECFR1C683MR	0.068 16V [M]
C16	ECFR1C823MR	0.082 16V [M]
C17	ECFR1C823MR	0.082 16V [M]
C18	ECFR1C333MR	0.033 16V [M]
C19	ECFR1C333MR	0.033 16V [M]
C20	ECA1HM010B	1 50V [M]
C21	ECA1HM010B	1 50V [M]
C22	ECA1HM4R7B	4.7 50V [M]
C23	ECFR1C333MR	0.033 16V [M]
C24	ECFR1C333MR	0.033 16V [M]
C30	ECBT1H331KB5	330P 50V [M]
C31	ECBT1C103MS5	0.01 16V [M]
C32	ECBT1H102KB5	1000P 50V [M]
C33	ECBT1H102KB5	1000P 50V [M]
C34	ECBT1H102KB5	1000P 50V [M]
C35	ECA1CM101B	100 16V [M]
C36	ECA1EM101B	100 25V [M]
C37	ECBT1C103MS5	0.01 16V [M]
C39	ECBT1H180JC5	18P 50V [M]
C40	ECBT1C222MR5	2200P 16V [M]
C42	ECBT1H330J5	33P 50V [M]
C43	ECBT1H101KB5	100P 50V [M]
C44	ECA1HM2R2B	2.2 50V [M]
C45	ECBT1H102KB5	1000P 50V [M]
C48	ECA1HM010B	1 50V [M]
C49	ECBT1H102KB5	1000P 50V [M]
C50	ECBT1H102KB5	1000P 50V [M]
C51	ECA1HM010B	1 50V [M]
C53	ECBT1H102KB5	1000P 50V [M]
C54	ECBT1H102KB5	1000P 50V [M]
C91	ECA1HM3R3B	3.3 50V [M]
C92	ECBT1H331KB5	330P 50V [M]
C98	ECBT1H331KB5	330P 50V [M]
C101	ECBT1C122MR5	1200P 16V [M]
C102	ECBT1C332MR5	3300P 16V [M]
C104	ECBT1H681KB5	680P 50V [M]
C106	ECA1CM101B	100 16V [M]
C107	ECA1CM100B	10 16V [M]
C108	ECBT0J223MS5	0.022 6.3V [M]
C151	ECBT1H102KB5	1000P 50V [M]
C152	ECA1CM100B	10 16V [M]
C153	ECA1HM2R2B	2.2 50V [M]
C154	ECQV1H104JZ3	0.1 50V [M]
C155	ECQV1H104JZ3	0.1 50V [M]
C201	ECBT1C122MR5	1200P 16V [M]
C202	ECBT1C332MR5	3300P 16V [M]
C204	ECBT1H681KB5	680P 50V [M]
C206	ECA1CM101B	100 16V [M]
C207	ECA1CM100B	10 16V [M]
C208	ECBT0J223MS5	0.022 6.3V [M]
C251	ECBT1H102KB5	1000P 50V [M]
C252	ECA1CM100B	10 16V [M]
C253	ECA1HM2R2B	2.2 50V [M]
C254	ECQV1H104JZ3	0.1 50V [M]
C255	ECQV1H104JZ3	0.1 50V [M]
C301	ECA1CM101B	100 16V [M]
C302	ECA1AM221B	220 10V [M]
C303	ECA1HM2R2B	2.2 50V [M]
C304	ECQP2A102JZT	1000P 100V [M]
C305	ECA1CM101B	100 16V [M]
C306	ECBT1C822MS5	8200P 16V [M]
C307	ECBT1C103MS5	0.01 16V [M]
C310	ECQP2A151JZT	150P 100V [M]
C311	ECBT1C103MS5	0.01 16V [M]
C351	ECA1CM100B	10 16V [M]
C352	ECA1CM101B	100 16V [M]
C353	ECA1EM332E	3300 25V [M]
C354	ECA1EM101B	100 25V [M]
C355	ECA1CM220B	20 16V [M]
C403	ECEA1CKA100B	10 16V [M]
C404	ECA1HM010B	1 50V [M]
C405	ECBT1H101KB5	100P 50V [M]
C406	ECEA1HKA010B	1 50V [M]
C408	ECA1HM100B	10 50V [M]
C409	ECA1CM100B	10 16V [M]
C410	ECBT1H101KB5	100P 50V [M]
C411	ECA1HM010B	1 50V [M]
C412	ECFR1C683MR	0.068 16V [M]
C413	ECFR1C683MR	0.068 16V [M]
C414	ECA1HMR22B	0.22 50V [M]
C426	ECA1HMR22B	0.22 50V [M]
C428	ECFR1C123KR	0.012 16V [M]
C503	ECEA1CKA100B	10 16V [M]
C504	ECA1HM010B	1 50V [M]
C505	ECBT1H101KB5	100P 50V [M]
C506	ECA1HM010B	1 50V [M]
C507	ECFR1C682KR	6800 16V [M]
C509	ECEA1CKA100B	10 16V [M]
C510	ECBT1H101KB5	100P 50V [M]
C511	ECA1HM010B	1 50V [M]
C512	ECFR1C683MR	0.068 16V [M]
C513	ECFR1C683MR	0.068 16V [M]
C514	ECA1HMR22B	0.22 50V [M]
C526	ECA1HMR22B	0.22 50V [M]
C528	ECFR1C123KR	0.012 16V [M]
C601	ECBT1H561KB5	560P 50V [M]
C603	ECA1HM010B	1 50V [M]
C605	ECA1HM010B	1 50V [M]
C606	ECBT1H561KB5	560P 50V [M]
C607	ECBT1H101KB5	100P 50V [M]
C609	ECBT1H101KB5	100P 50V [M]
C615	ECBT1H180JC5	18P 50V [M]
C616	ECBT1H220JC5	22P 50V [M]
C617	ECBT1H102KB5	1000P 50V [M]

Ref No.	Part No.	Values & Remarks
C618	ECBT1H102KB5	1000P 50V [M]
C619	ECBT1H102KB5	1000P 50V [M]
C620	ECBT1H820KB5	82P 50V [M]
C621	ECBT1H101KB5	100P 50V [M]
C622	ECBT1H102KB5	1000P 50V [M]
C623	ECA1CM101B	100 16V [M]
C624	ECBT1H680J5	68P 50V [M]
C625	ECBT1H820KB5	82P 50V [M]
C626	ECBT1H470J5	47 50V [M]
C628	ECA1CM101B	100 16V [M]
C629	ECA1CM101B	100 16V [M]
C631	ECBT1H470J5	47 50V [M]
C632	ECA1CM101B	100 16V [M]
C633	ECA1CM100B	10 16V [M]
C636	ECBT1H561KB5	560P 50V [M]
C637	ECA1CM331B	330 16V [M]
C638	ECA1HMR47B	0.47 50V [M]
C640	ECA1CM220B	20 16V [M]
C641	ECA1CM101B	100 16V [M]
C642	ECA1CM101B	100 16V [M]
C644	ECA1CM100B	10 16V [M]
C646	ECBT1H330J5	33P 50V [M]
C648	ECBT1H330J5	33P 50V [M]
C650	ECBT1H330J5	33P 50V [M]
C654	ECBT1H102KB5	1000P 50V [M]
C655	ECBT1C103MS5	0.01 16V [M]
C701	ECEA0JKA330I	33 6.3V [M]
C702	ECUZ1E104MBN	0.1 25V [M]
C703	ECEA0JKA101I	100 6.3V [M]
C704	ECUZ1E104MBN	0.1 25V [M]
C706	ECUZ1H272KBN	2700P 50V [M]
C707	ECUZ1E273KBN	0.027 25V [M]
C710	ECUV1H151KCN	150P 50V [M]
C711	ECUZ1E104ZFN	0.1 25V [M]
C712	ECUZ1E104ZFN	0.1 25V [M]
C713	ECUZ1E104MBN	0.1 25V [M]
C714	ECEA0JKA101I	100 6.3V [M]
C715	ECUZ1H182KBN	1800P 50V [M]
C716	ECUZ1H821KBN	820P 50V [M]
C717	ECUZ1E104ZFN	0.1 25V [M]
C718	ECUZ1C224KBN	0.22 16V [M]
C721	ECUZ1H150JCN	15P 50V [M]
C722	ECUZ1H150JCN	15P 50V [M]
C723	ECEA1AKA221I	220 10V [M]
C724	ECUZ1E104MBN	0.1 25V [M]
C725	ECUZ1H102KBN	1000P 50V [M]
C726	ECUZ1H102KBN	1000P 50V [M]
C727	ECA1HAK010XI	1 50V [M]
C728	ECA1HAK010XI	1 50V [M]
C730	ECUZ1E104ZFN	0.1 25V [M]
C731	ECEA0JKA221I	220 6.3V [M]
C732	ECEA0JKA221I	220 6.3V [M]
C733	ECUZ1E104MBN	0.1 25V [M]
C734	ECEA1AKA221I	220 10V [M]
C735	ECUZ1E104ZFN	0.1 25V [M]
C736	ECUZ1E104ZFN	0.1 25V [M]
C737	ECUZ1E104ZFN	0.1 25V [M]
C738	ECUZ1E104MBN	0.1 25V [M]
C739	ECUZ1H103KBN	0.01 50V [M]
C742	ECUZ1E273KBN	0.027 25V [M]
C743	ECUZ1E104ZFN	0.1 25V [M]
C744	ECUZ1E123KBN	0.012 25V [M]
C745	ECUZ1C473KBN	0.047 16V [M]
C747	ECUV1H221KBN	220P 50V [M]
C749	ECUZ1H222KBN	2200P 50V [M]
C750	ECUZ1E104MBN	0.1 25V [M]
C751	ECUZ1E104MBN	0.1 25V [M]
C752	ECUZ1H102KBN	1000P 50V [M]
C753	ECUZ1H471KBM	470P 50V [M]
C754	ECUZ1H471KBN	470P 50V [M]
C761	ECUZ1H471KBN	470P 50V [M]
C762	ECUZ1H471KBN	470P 50V [M]
C852	ECBT1H100JC5	10P 50V [M]
C854	ECBT1H102KB5	1000P 50V [M]
C860	ECBT1H101KB5	100P 50V [M]
C901	ECKR1H103ZF5	0.01 50V [M]
C902	ECKR1H103ZF5	0.01 50V [M]
C903	ECKR1H103ZF5	0.01 50V [M]
C904	ECKR1H103ZF5	0.01 50V [M]

Ref No.	Part No.	Values & Remarks
	CHIP JUMPERS	
RJ701	ERJ6GEY0R00A	0 1/10W [M]
RJ702	ERJ8GEY0R00A	0 1/8W [M]
RJ703	ERJ8GEY0R00A	0 1/8W [M]
RJ704	ERJ8GEY0R00A	0 1/8W [M]
RJ705	ERJ8GEY0R00A	0 1/8W [M]
RJ706	ERJ8GEY0R00A	0 1/8W [M]
RJ707	ERJ8GEY0R00A	0 1/8W [M]
RJ708	ERJ8GEY0R00A	0 1/8W [M]
RJ709	ERJ8GEY0R00A	0 1/8W [M]
RJ710	ERJ8GEY0R00A	0 1/8W [M]
RJ721	ERJ6GEY0R00A	0 1/10W [M]
RJ722	ERJ6GEY0R00A	0 1/10W [M]
RJ723	ERJ6GEY0R00A	0 1/10W [M]
RJ724	ERJ6GEY0R00A	0 1/10W [M]
RJ725	ERJ6GEY0R00A	0 1/10W [M]
RJ726	ERJ6GEY0R00A	0 1/10W [M]
RJ727	ERJ6GEY0R00A	0 1/10W [M]
RJ728	ERJ6GEY0R00A	0 1/10W [M]
RJ750	ERJ6GEY0R00A	0 1/10W [M]
	TEST JUMPER	
TJ701	EYF8CU	TEST JUMPER [M]

Ref No.	Part No.	Values & Remarks

■ Packing Materials & Accessories

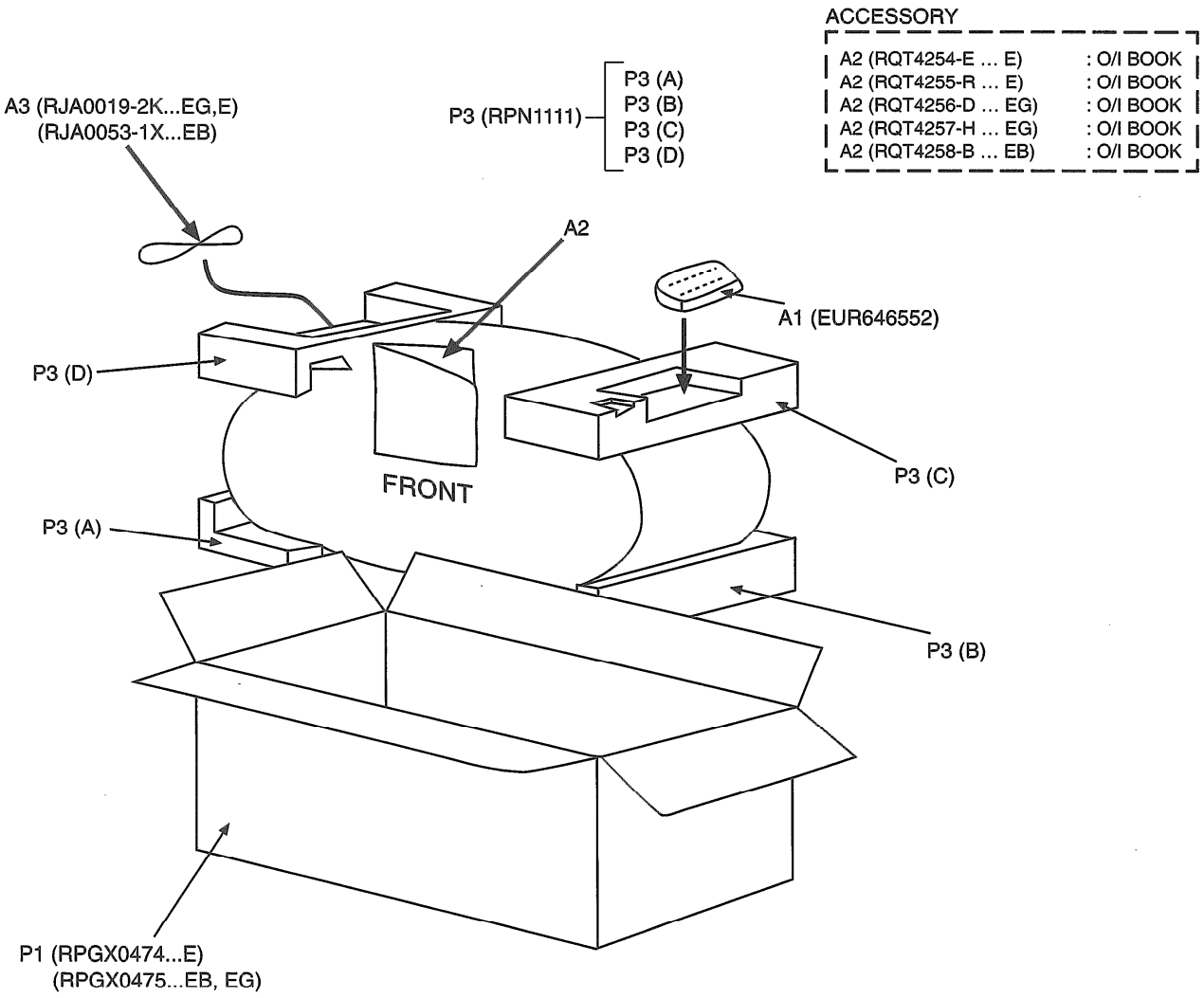
Notes : [M] in Remarks column indicates parts supplied by **MESA**.
Remote Control Unit : Supply period for three years from terminal of production.

Ref No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPGX0474	GIFT BOX	[M]E
P1	RPGX0475	GIFT BOX	[M]EB EG
P2	RPH0131	MIRAMAT SHEET	[M]
P3	RPN1111	POLYFOAM	[M]

Ref No.	Part No.	Part Name & Description	Remarks
		ACCESSORIES	
A1	EUR646552	REMOTE CONTROL	[M]
A1-1	UR64EC2112	R/C BATTERY COVER	[M]
A2	RQT4254-E	O/I BOOK	[M]E
A2	RQT4255-R	O/I BOOK	[M]E
A2	RQT4256-D	O/I BOOK	[M]EG

Ref No.	Part No.	Part Name & Description	Remarks
A2	RQT4257-H	O/I BOOK	[M]EG
A2	RQT4258-B	O/I BOOK	[M]EB
A3	RJA0019-2K	AC CORD ⚠	[M]EG E
A3	RJA0053-1X	AC CORD ⚠	[M]EB

■ Packaging



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