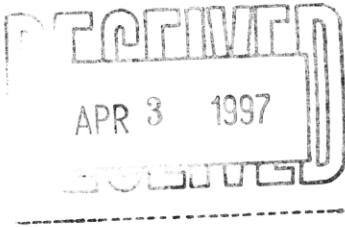


MZ-R30

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model
Tourist Model



US and foreign patents licensed from Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	NEW
MD Mechanism Type	MT-MZR30-124
Optical Pick-up Type	KMS-250AJ2N

SPECIFICATIONS

System

Audio playing system
MiniDisc digital audio system
Laser diode properties
Material: GaAlAs
Wavelength: $\lambda = 780 \text{ nm}$
Emission duration: continuous
Laser output: less than $44.6 \mu\text{W}$
(This output is the value measured at a distance of 200 mm from the lens surface on the optical pick-up block.)
Recording and playback time
Maximum 74 minutes (MDW-74, stereo recording)
Maximum 148 minutes (MDW-74, monaural recording)
Revolutions
400 rpm to 900 rpm (CLV)
Error correction
Advanced Cross Interleave Reed Solomon Code (ACIRC)
Sampling frequency
44.1 kHz
Sampling rate converter
Input: 33 kHz/44.1 kHz/48 kHz

Coding

Adaptive Transform Acoustic Coding (ATRAC)
Modulation system
EFM (Eight to Fourteen Modulation)
Number of channels
2 stereo channels
1 monaural channel
Frequency response
20 to 20,000 Hz $\pm 3 \text{ dB}$
Wow and Flutter
Below measurable limit
Inputs
Microphone: stereo mini-jack, 0.22 - 0.78 mV
Line in: stereo mini-jack, 69 - 194 mV
Optical (Digital) in: optical (digital) mini-jack
Outputs
Headphones: stereo mini-jack, maximum output level 5 mW + 5 mW, load impedance 16 ohm
Line out: stereo mini-jack, 194 mV, load impedance 10 kilohm

- Continued on page 2 -

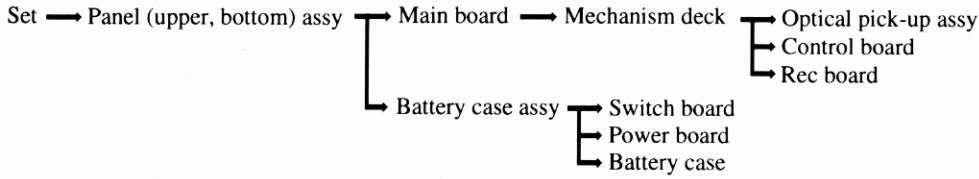
PORTABLE MINIDISC RECORDER

SONY®



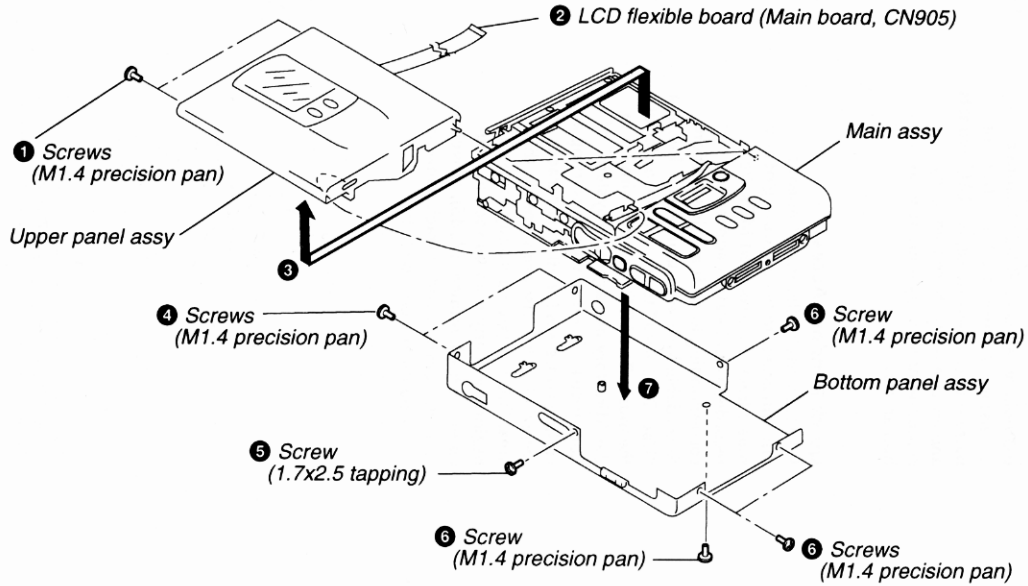
SECTION 3 DISASSEMBLY

- The equipment can be removed using the following procedure.



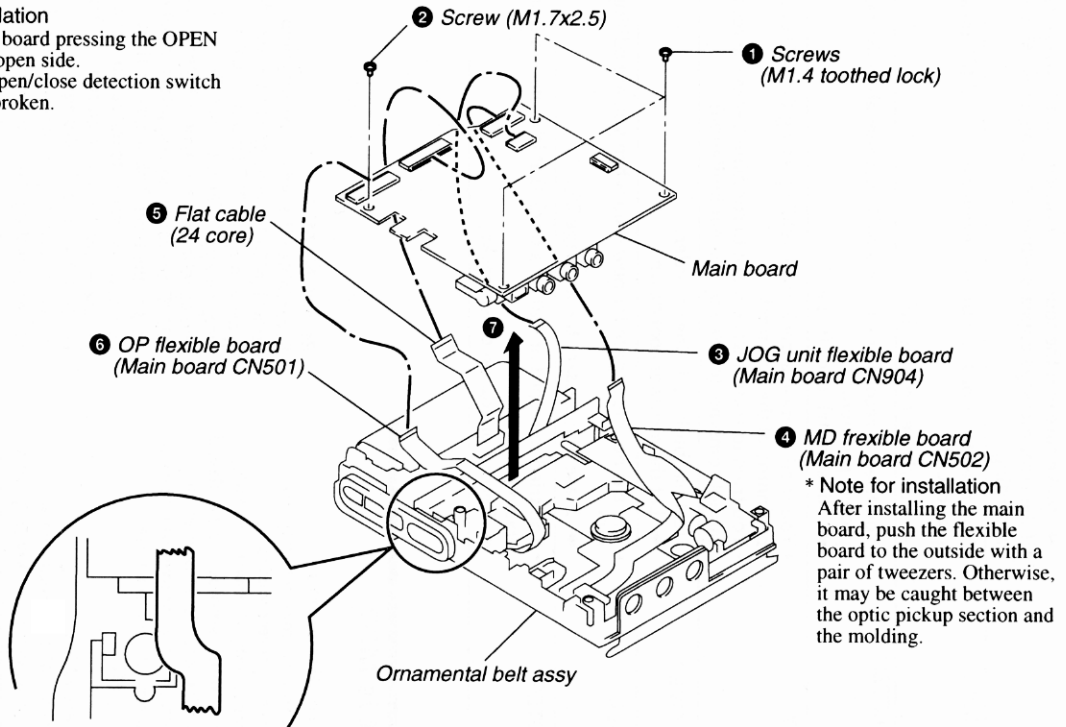
Note : Follow the disassembly procedure in the numerical order given.

3-1. UPPER PANEL ASSY, BOTTOM PANEL ASSY REMOVE



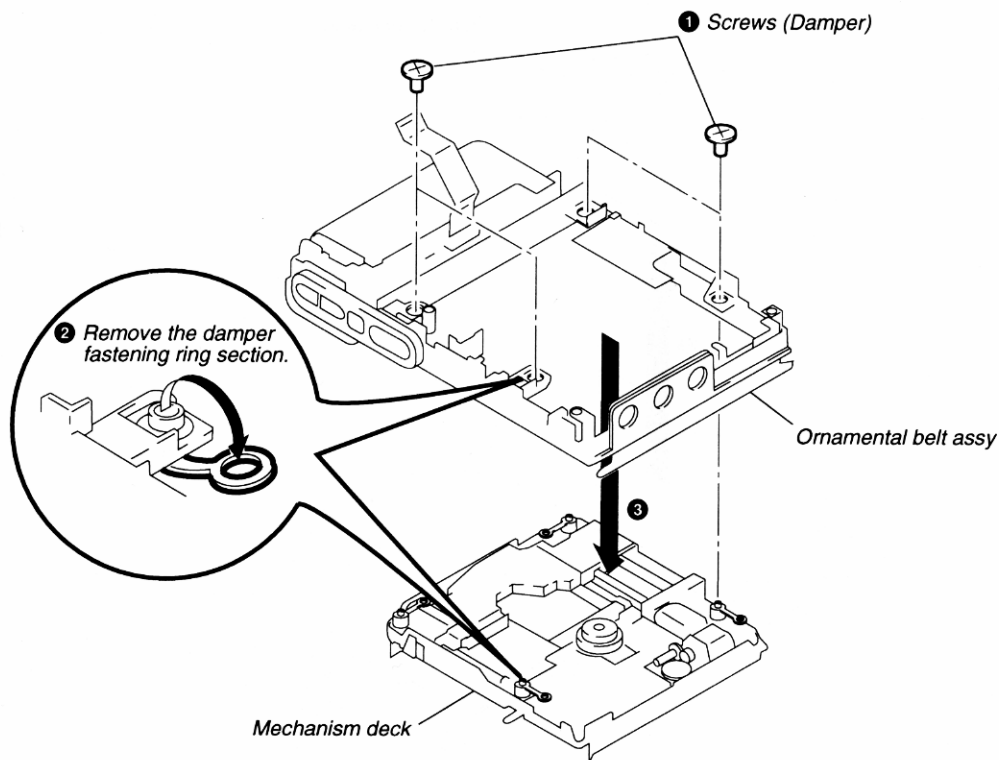
3-2. MAIN BOARD REMOVE

* Note for installation
Install the main board pressing the OPEN button on door open side.
Sometime the open/close detection switch (S817) will be broken.

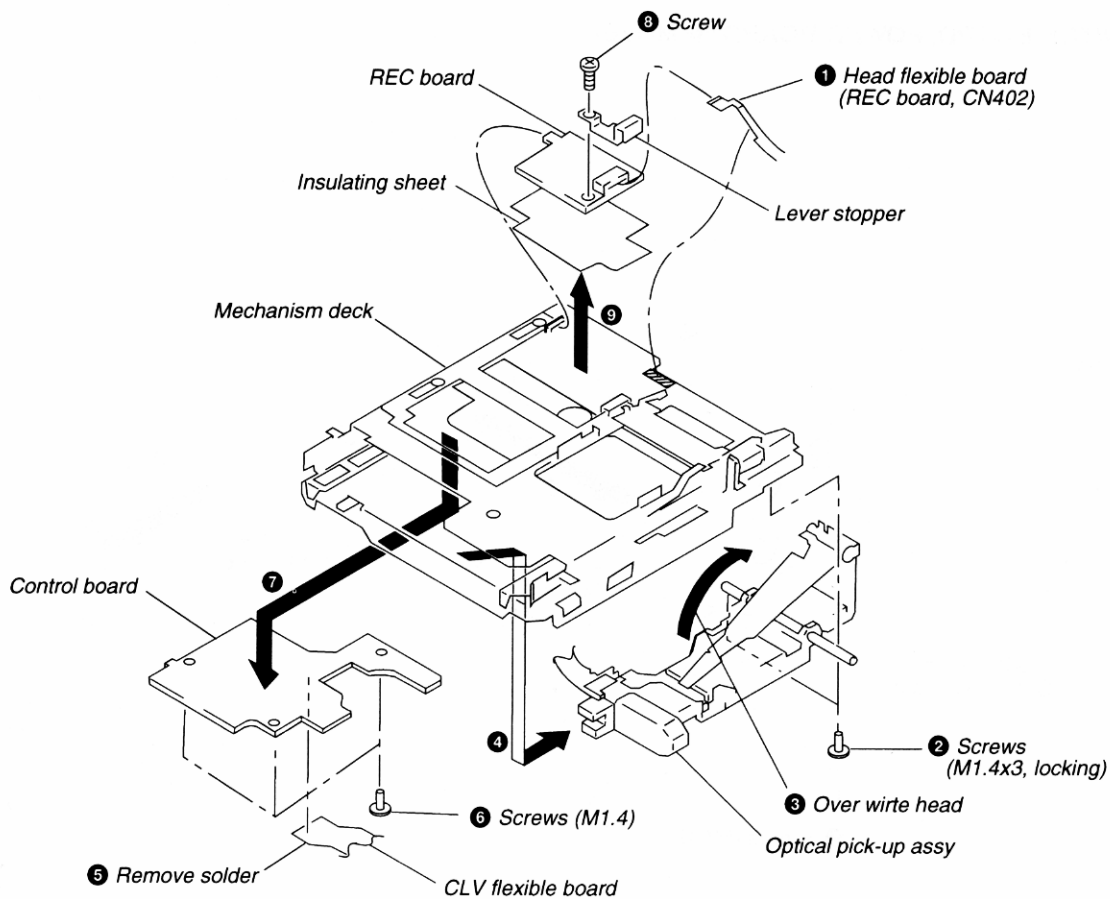


* Note for installation
After installing the main board, make the flexible board ride on the molding. If you hold the flexible board and main board with a pair of tweezers, the board will ride correctly.

3-3. MECHANISM DECK (MT-MZR30-124) REMOVAL



3-4. OPTICAL PICK-UP ASSY, CONTROL BOARD, REC BOARD REMOVAL



SECTION 4 TEST MODE

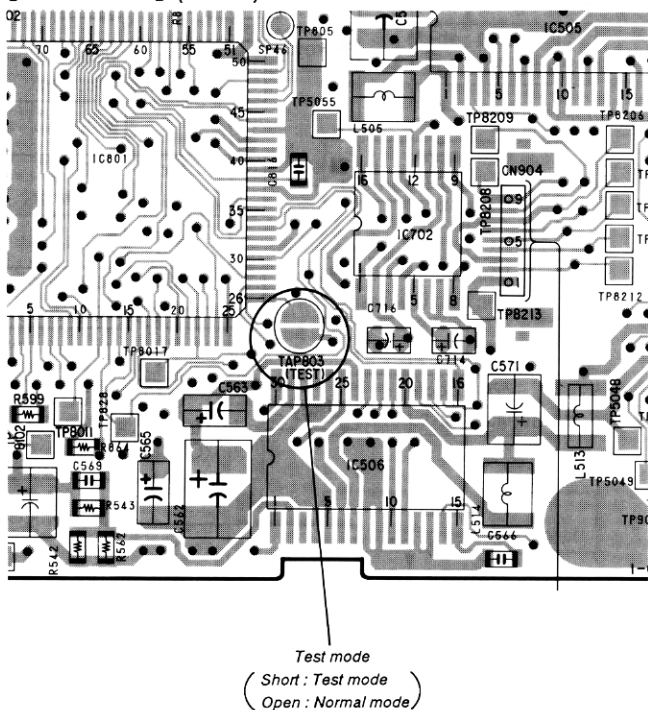
[Outline]

- The general adjustment mode of this unit performs CD and MO adjustments automatically when set. In this mode, the disc is determined if CD or MO and adjustments are automatically performed in order. If errors are detected, the faulty locations are displayed. The servo mode performs each adjustment automatically.

[Setting the Test Mode]

Short-circuit the soldering bridge of TAP803 (TEST) on the main board (connect Pin 26 of IC801 to the GND) and turn on the power supply.

[MAIN BOARD] (SIDE A)

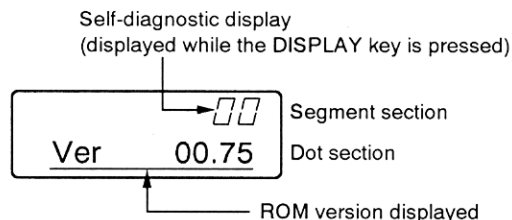


[Exiting the Test Mode]

Turn off the power supply and open the soldering bridge of TAP803 (TEST) on the main board.

[Operations When Test Mode is Set]

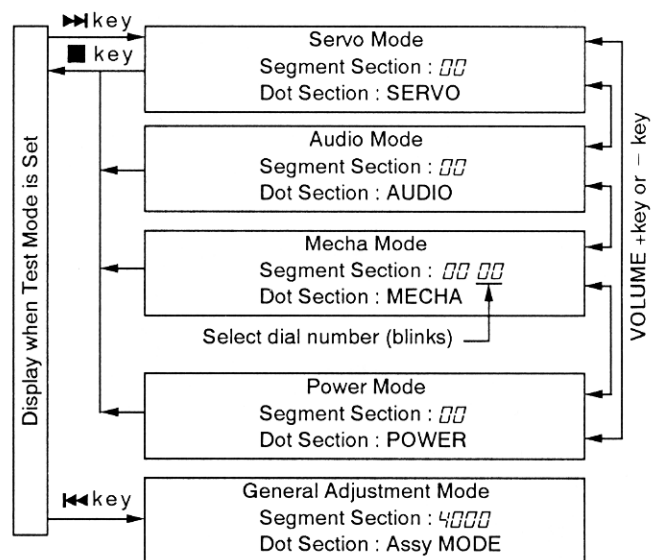
When the test mode is set, the LCD will display as follows.



- The LCD performs the following repeatedly.
ROM version displayed → all lit → all off
- The display can be held and checked by pressing **||** key.
- The self-diagnostic display appears while the DISPLAY key is pressed.

[Structure of Test Mode]

The test mode of this unit consists of the following five modes.

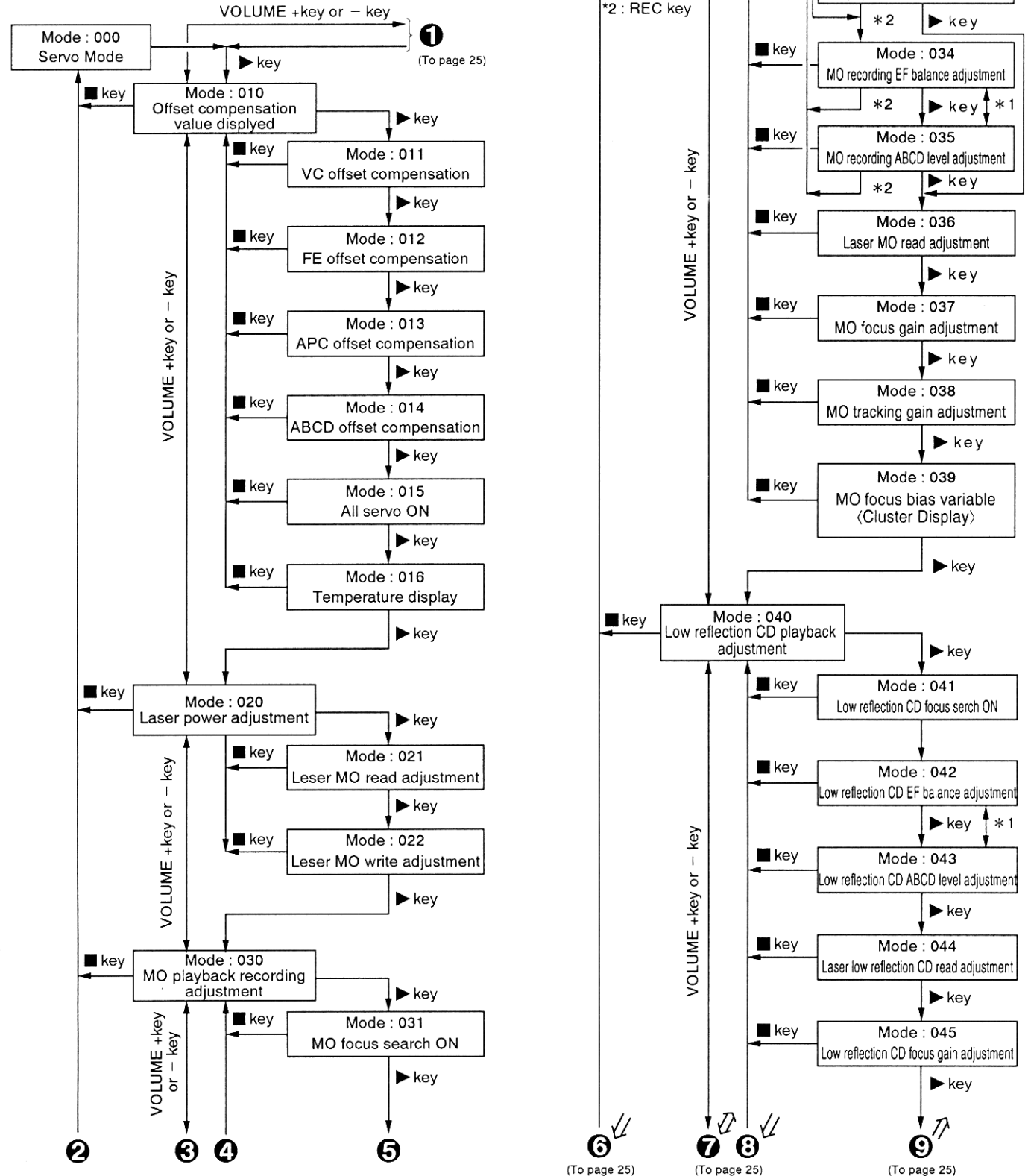


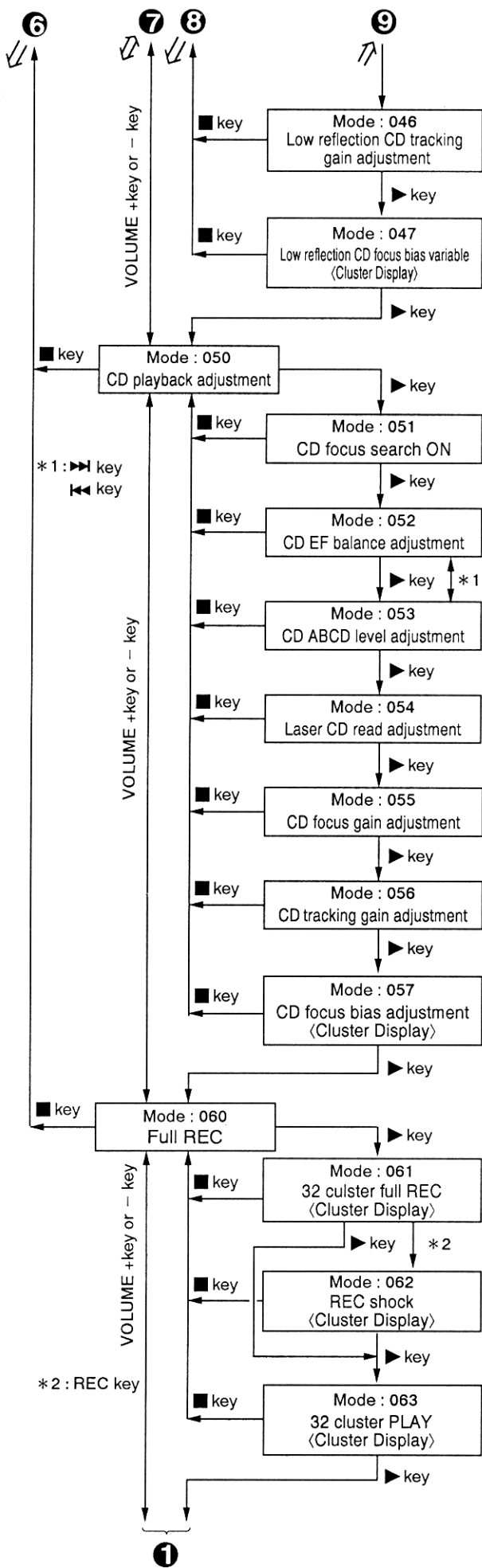
- In modes other than the general adjustment mode, the last two digits of the mode number will be displayed at the **00** section.

[Servo Mode]

- Set the test mode, press the ►► key, and set the servo mode using the VOLUME + and – keys.
- When the servo mode is set, the optical pickup will move to the outer circumference or inner circumference if the ►► key or ◀◀ key is pressed.
- To set other modes, refer to “Structure of Test Mode”.

● Structure of Servo Mode

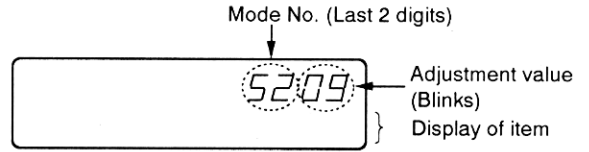




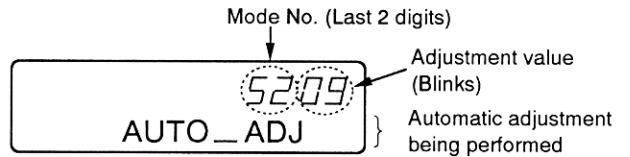
• Adjusting Method

Note : There is basically no display for individual adjustment items. Only such upper position titles as SERVO, AUDIO, etc. (100s position) are displayed.

1. When the adjustment modes are set according to “Structure of Servo Mode”, the last two digits of the mode number and the adjustment value written in the EEPROM will be displayed blinking.

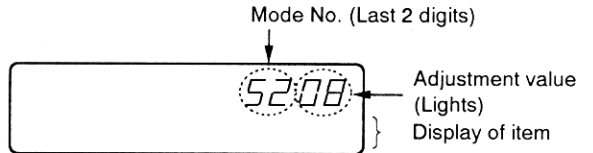


2. When the || key is pressed, the following will be displayed and adjustments will be performed automatically.

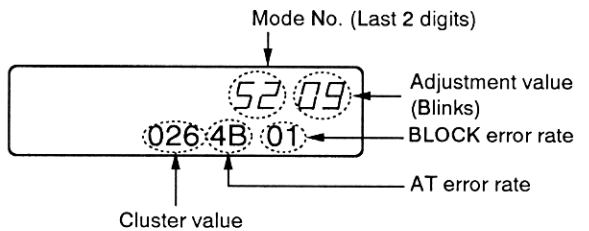


Note :The adjustment value can be changed as desired using the VOLUME + and - keys, but try to avoid this as much as possible.

3. After the adjustments are completed, the item is displayed again and the adjustment value that was blinking lights up.



• Cluster display

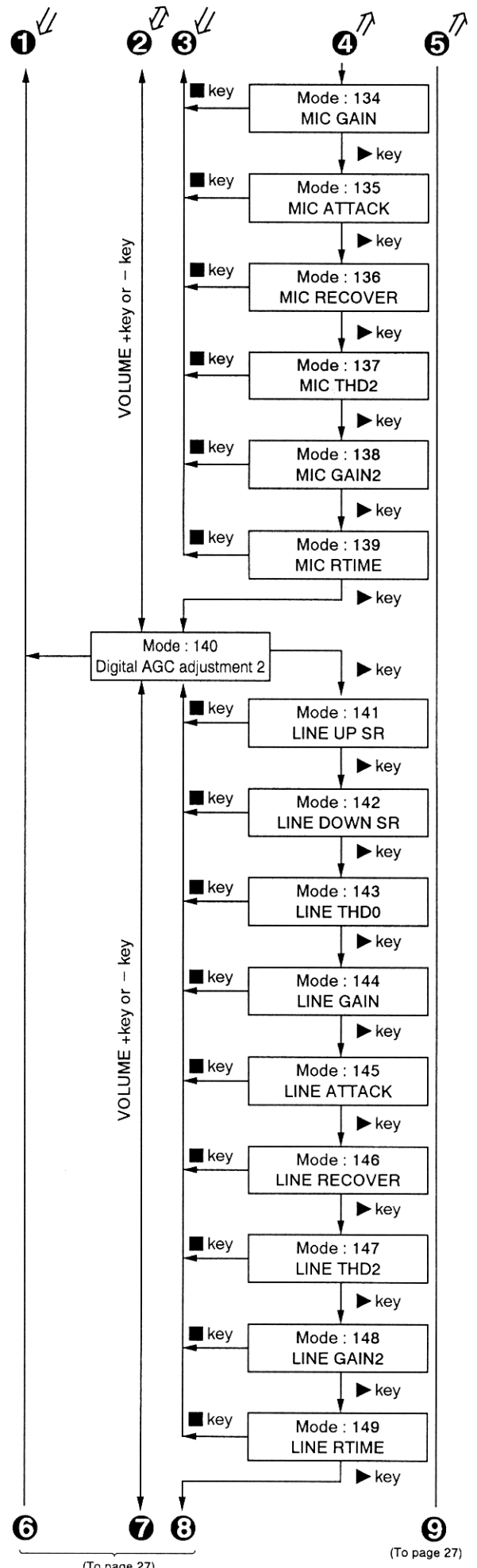
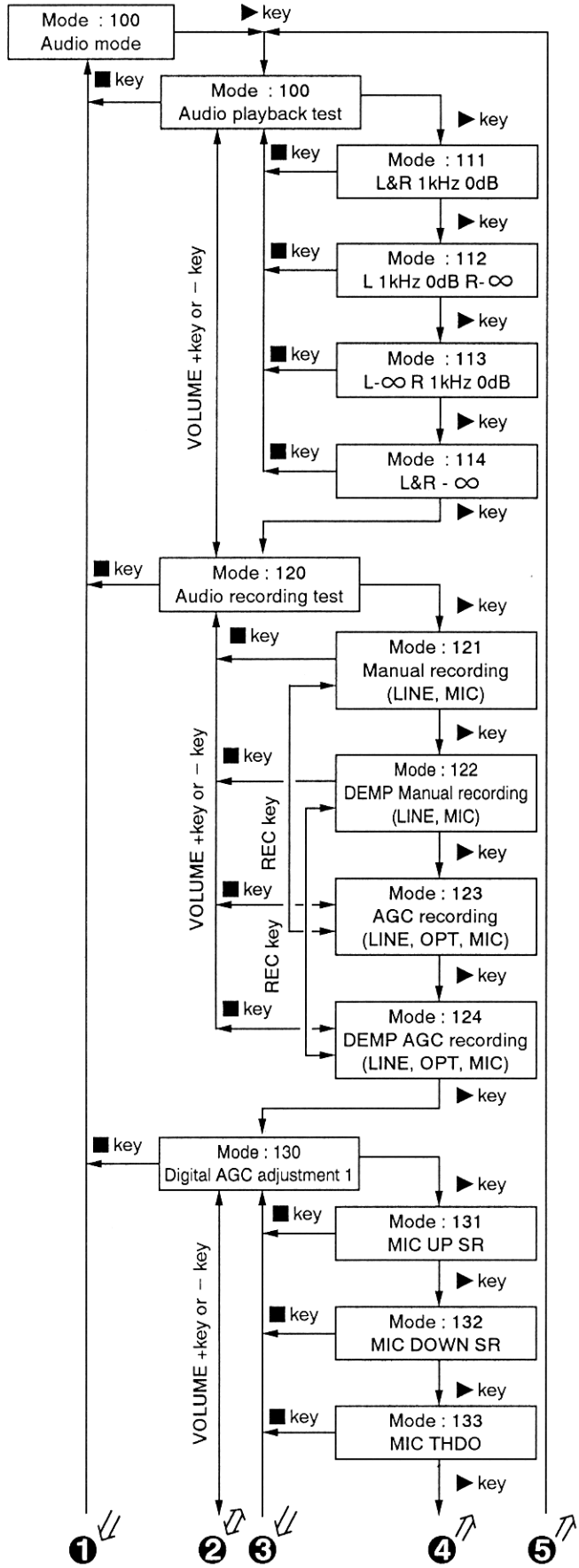


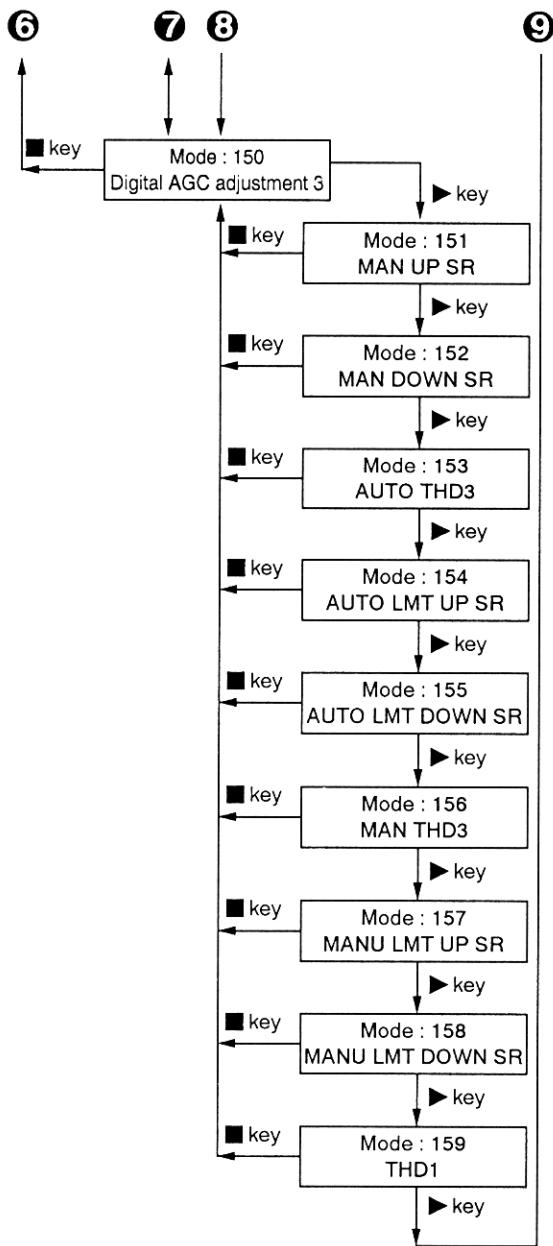
- Nothing is performed at mode numbers 070 to 073.

[Audio Mode]

- Set the test mode, press the ►key, and set the audio mode using the VOLUME + and - keys.
- To set other modes, refer to “Structure of Test Mode”.

● Structure of Audio Mode



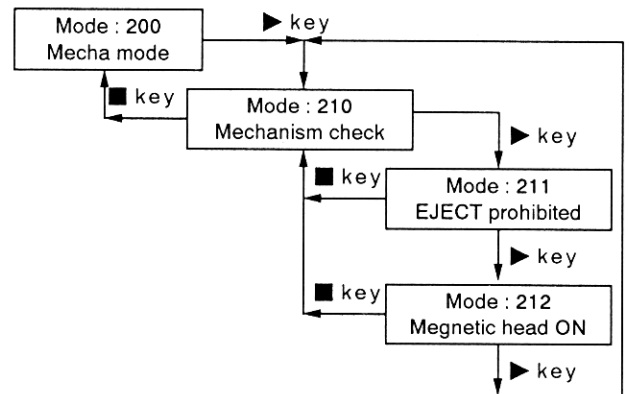


- When the **||** key is pressed at mode numbers 100, 110 to 114, the buzzer will sound.
- When the VOLUME keys + and - are pressed at mode numbers 111 to 113, 123, 124, the volume of the headphone output will increase/decrease. When the **◀◀** key or **▶▶** key is pressed, the volume of the headphone output will become maximum/minimum.
- When the VOLUME keys + and - are pressed at mode numbers 121 or 122, the recording level will increase/decrease. When the **◀◀** key or **▶▶** key is pressed, the recording level will become maximum/minimum.
- At mode numbers 121 to 124, the recording LED will light up.
- At mode numbers 121 to 124, the microprocessor will detect the port and automatically determine the input.

[Mecha Mode]

- Set the test mode, press the **▶▶** key, and set the mecha mode using the VOLUME + and - keys.
- To set other modes, refer to "Structure of Test Mode".

• Structure of Mecha Mode

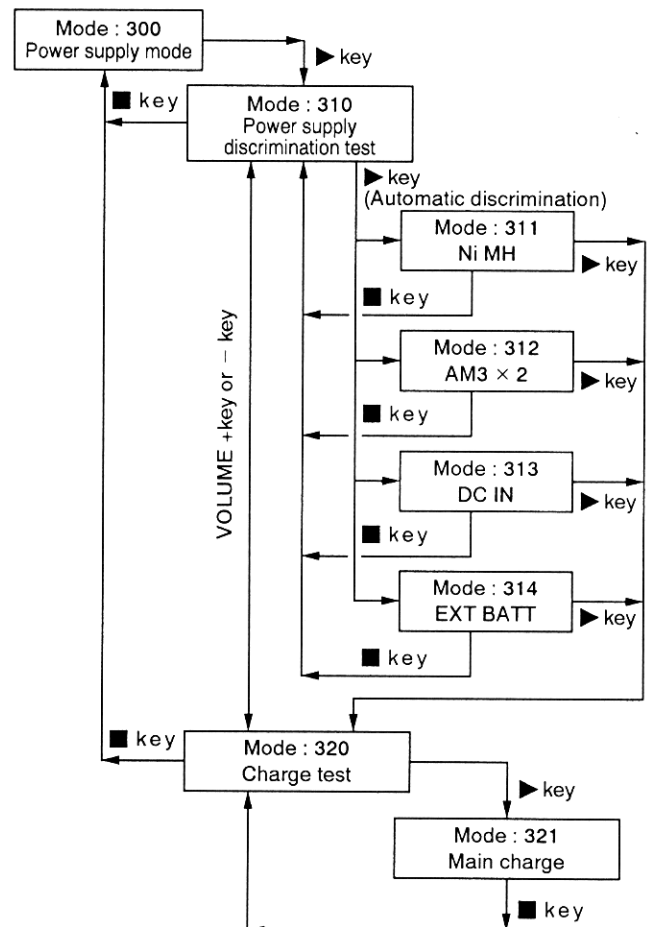


- At mode numbers 200, 210 to 212, the optical pick up can be moved to the outer circumference or inner circumference using the **◀◀** or **▶▶** key.

[Power Supply Mode]

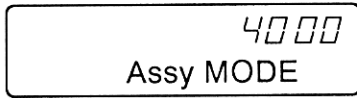
- Set the test mode, press the **▶▶** key, and set the power supply mode using the VOLUME + and - keys.
- To set other modes, refer to "Structure of Test Mode".

• Structure of Power Supply Mode

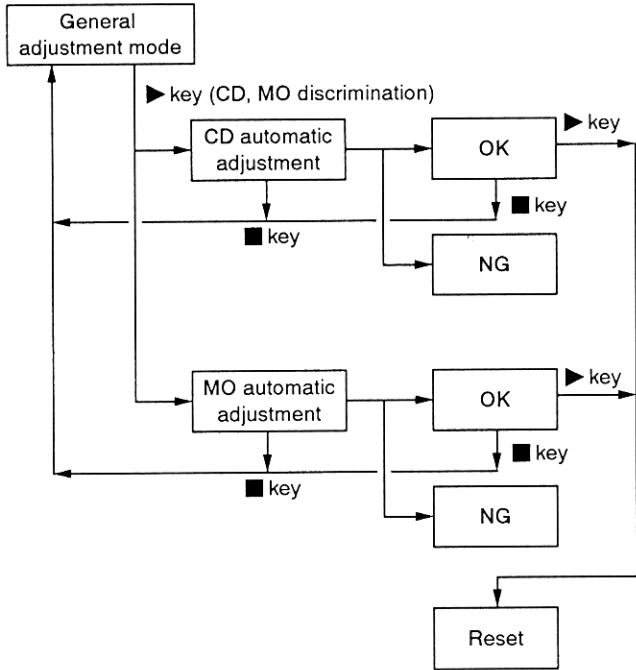


【General Adjustment Mode】

- Set the test mode, press the **⏪** key, and set the general adjustment mode.
- To set other modes, cut off the power once and power on again.
- When the general adjustment mode is set, the LCD display will be as follows.



● **Structure of General Adjustment Mode**



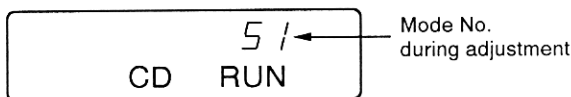
Adjusting Method :

1. Set the test mode, press the **⏪** key to set the general adjustment mode.
2. Load the CD test disc (TDYS-1) or SONY MO disc available on the market.
3. When the **▶** key is pressed, the disc is determined if CD or MO, the automatic adjustment modes are set, and adjustments are performed automatically in the following order.

● **CD Automatic Adjustment**

No.	Mode No.	Adjustment
1	052	CD EF balance adjustment
2	053	CD ABCD level adjustment
3	055	CD focus gain adjustment
4	056	CD tracking gain adjustment
5	057	CD focus bias adjustment

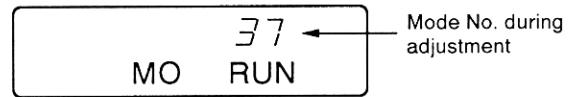
* Display during CD automatic adjustment



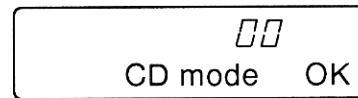
● **MO Automatic Adjustment**

No.	Mode No.	Adjustment
1	032	MO playback EF balance adjustment
2	033	MO playback ABCD level adjustment
3	034	MO recording EF balance adjustment
4	035	MO recoding ABCD level adjustment
5	037	MO focus gain adjustment
6	038	MO tracking gain adjustment
7	061	32 cluster full REC
8	062	REC shock
9	063	32 cluster PLAY
10	039	MO focus bias adjustment
11	042	Low reflection CD EF balance adjustment
12	043	Low reflection CD ABCD level adjustment
13	045	Laser low reflection CD read adjustment
14	046	Low reflection CD tracking gain adjustment

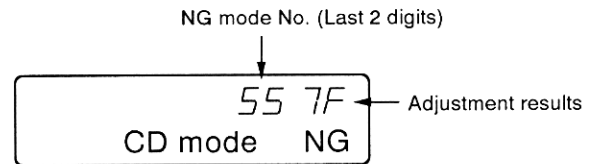
* Display during Mo automatic adjustment



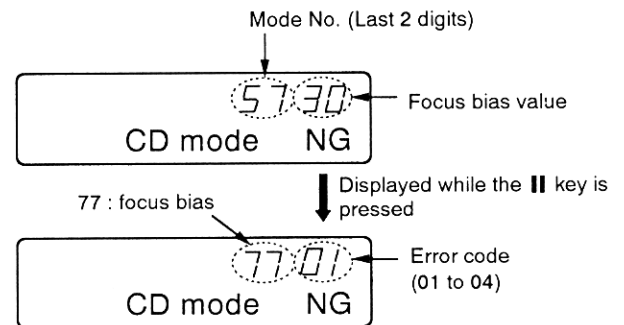
4. If the automatic adjustment results are OK, the following will be displayed.



5. If the automatic adjustment results are NG, the following will be displayed.

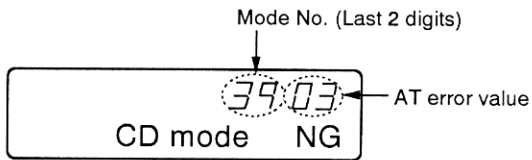


- * When the mode number is 039, 057 and the focus bias value is NG, the following will be displayed.



SECTION 5 ELECTRICAL ADJUSTMENTS

* When the mode number is 039, 061 and the AT error rate is NG, the following will be displayed.



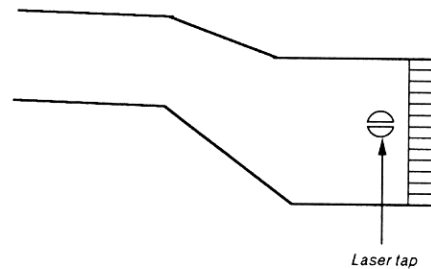
* When NG, set the servo mode and perform the automatic adjustment of the NG item. (Refer to "Servo Mode")

5-1. Precautions for Laser Diode Emission Check

When checking the emission of the laser diode during adjustments, never view directly downwards as this may lead to blindness.

5-2. Precautions for Using Optical Pickup (KMS-250A/J2N)

As the laser diode inside the optical pickup damages by static electricity easily, solder the laser tap of the flexible board when handling. Also take the necessary measures to prevent damages by static electricity. Handle the flexible board with care as it breaks easily



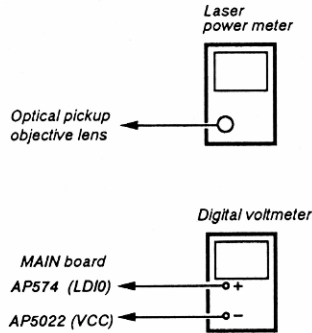
Optical pickup flexible board

5-3. Precautions for Adjustment

- 1) Perform all adjustments in the order given in the test mode. After adjusting, exit the test mode.
- 2) Use the following tools and measuring instruments.
 - CD test disc TDYS-1
(Parts Code : 4-963-646-01)
 - Recorded MO disc PTDM-1
(Parts Code : J-2501-054-A)
 - Laser power meter LPM-1
(Parts Code : J-2501-046-A)
 - Oscilloscope (Frequency band above 40MHz. Perform the calibration of probe first before measuring.)
 - Digital voltmeter
- 3) Unless specified otherwise, supply DC 6V from the DC IN 6V jack.
- 4) Switch, knob positions
 - Hold switch..... OFF
 - AVLS switch OFF

5-4. Laser Power Check

Connection :

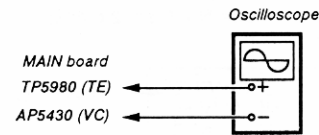


Adjusting Method :

1. Set the servo mode of the test mode (Mode : 000).
2. Press the ► key, and set the laser power adjustment mode (Mode : 020) using the volume + and – keys.
3. Press the ◀◀ key and move the optical pickup to the inner most circumference
4. Open the cover and set the laser power meter on the objective lens of the optical pickup.
5. Press the ► key, and set the laser MO read adjustment mode (Mode : 021).
6. Check that the laser power meter reading is $0.85 \pm 0.085\text{mW}$.
7. Check that the voltage between AP574 (LDI0) and AP5022 (VCC) at this time is below 44mV.
8. Press the ► key, and set the laser MO write adjustment mode (Mode : 022).
9. Check that the laser power meter reading is $6.8 \pm 0.68\text{mW}$.
10. Press the || key to finalize the adjustment data.
11. Check that the voltage between AP574 (LDI0) and AP5022 (VCC) at this time is below 88mV.
12. Press the ■ key.
13. Exit the test mode.

5-5. MO Traverse Adjustment

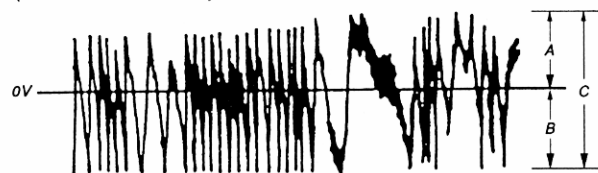
Connection :



Adjusting Method :

1. Set the servo mode of the test mode (Mode : 000).
2. Press the ► key, and set the MO playback adjustment mode (Mode : 030) using the volume + and – keys.
3. Press the ◀◀ and ▶▶ keys and move the optical pickup to the center circumference.
4. Load any MO disc available on the market.
5. When the ► key is pressed, the MO playback EF balance adjustment mode (Mode : 032) will be set after focus search ON (Mode : 031).
6. Press the || key to perform automatic adjustment, and check that the traverse waveform is symmetrical at the top and bottom.
7. Slide the recording key and set the MO recording EF balance adjustment mode (Mode : 034).
8. Press the || key to perform automatic adjustment, and check that the traverse waveform is symmetrical at the top and bottom.

(Traverse Waveform)



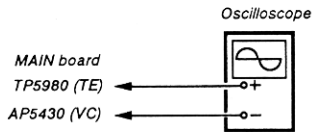
Specification : $A=B, C \geq 1.0\text{Vp-p}$

9. Check that the traverse level at this time is above 1.0Vp-p.
10. Press the ■ key.
11. Exit the test mode.

Note : Using a recorded disc in this adjustment will erase the data.

5-6. Low Reflection CD Traverse Adjustment

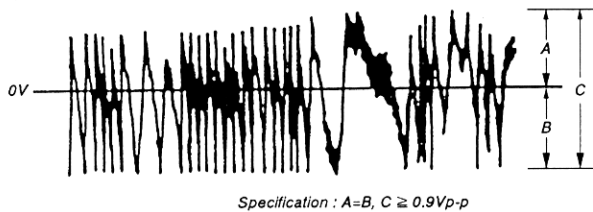
Connection :



Adjusting Method :

1. Set the servo mode of the test mode (Mode : 000).
2. Press the ► key, and set the low reflection CD playback adjustment mode (Mode : 040) using the volume + and – keys.
3. Load any MO disc available on the market.
4. When the ► key is pressed, the low reflection CD playback EF balance adjustment mode (Mode : 042) will be set after low reflection CD focus search ON (Mode : 041).
5. Press the || key to perform automatic adjustment, and check that the traverse waveform is symmetrical at the top and bottom.

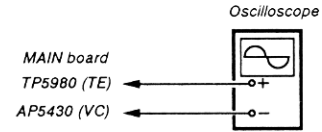
(Traverse Waveform)



6. Check that the traverse level at this time is above 0.9Vp-p.
7. Press the ■ key.
8. Exit the test mode.

5-7. CD Traverse Adjustment

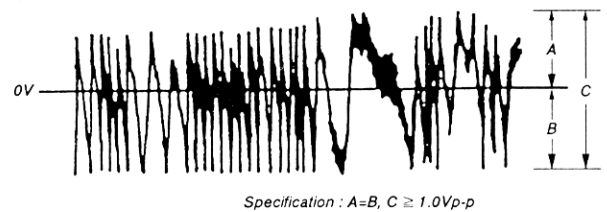
Connection :



Adjusting Method :

1. Set the servo mode of the test mode (Mode : 000).
2. Press the ► key, and set the CD playback adjustment mode (Mode : 050) using the volume + and – keys.
3. Press the ◀◀ and ▶▶ keys and move the optical pickup to the center circumference.
4. Load a CD test disc (TDYS-1).
5. When the ► key is pressed, the CD playback EF balance adjustment mode (Mode : 052) will be set after CD focus search ON (Mode : 051).
6. Press the || key to perform automatic adjustment, and check that the traverse waveform is symmetrical at the top and bottom.

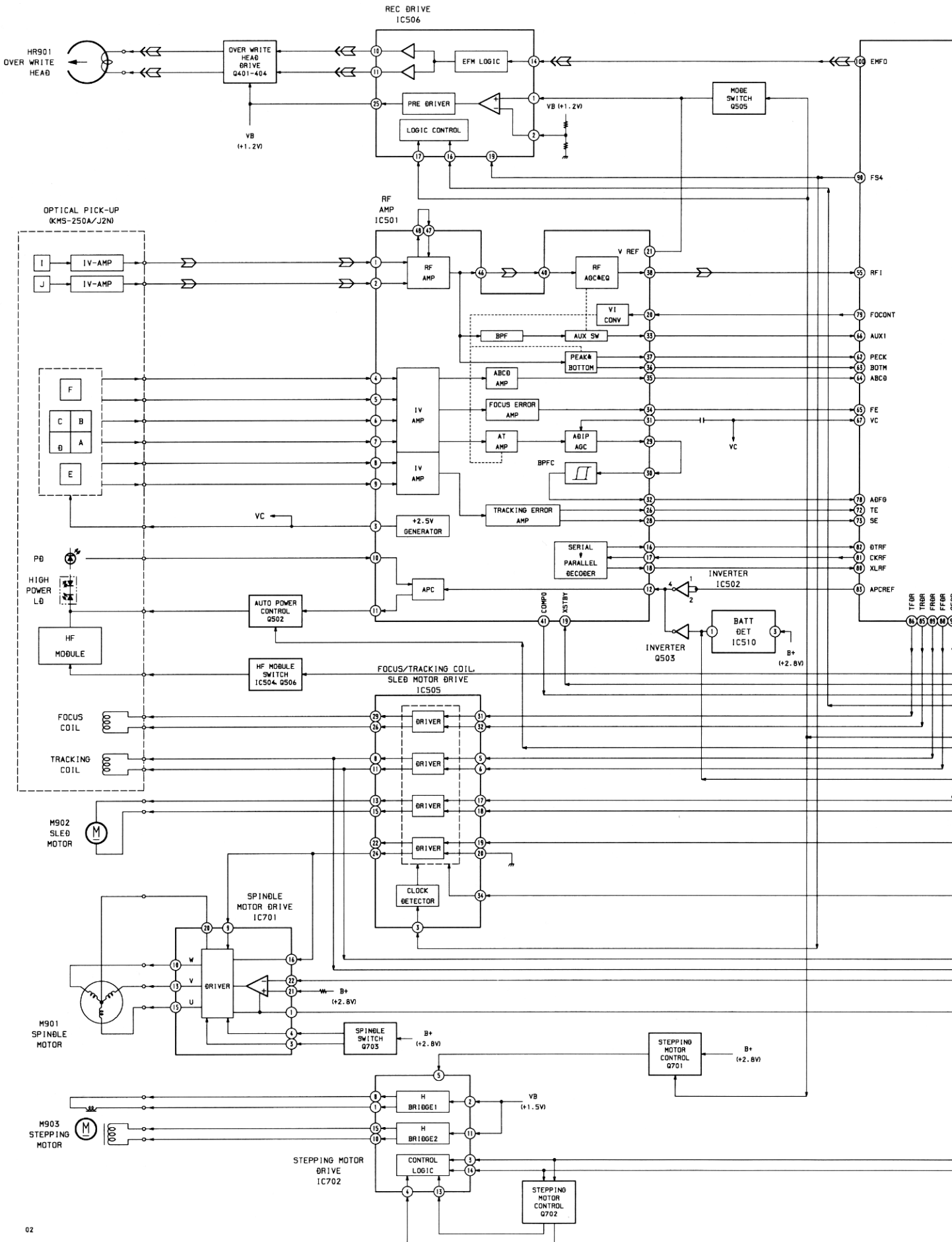
(Traverse Waveform)

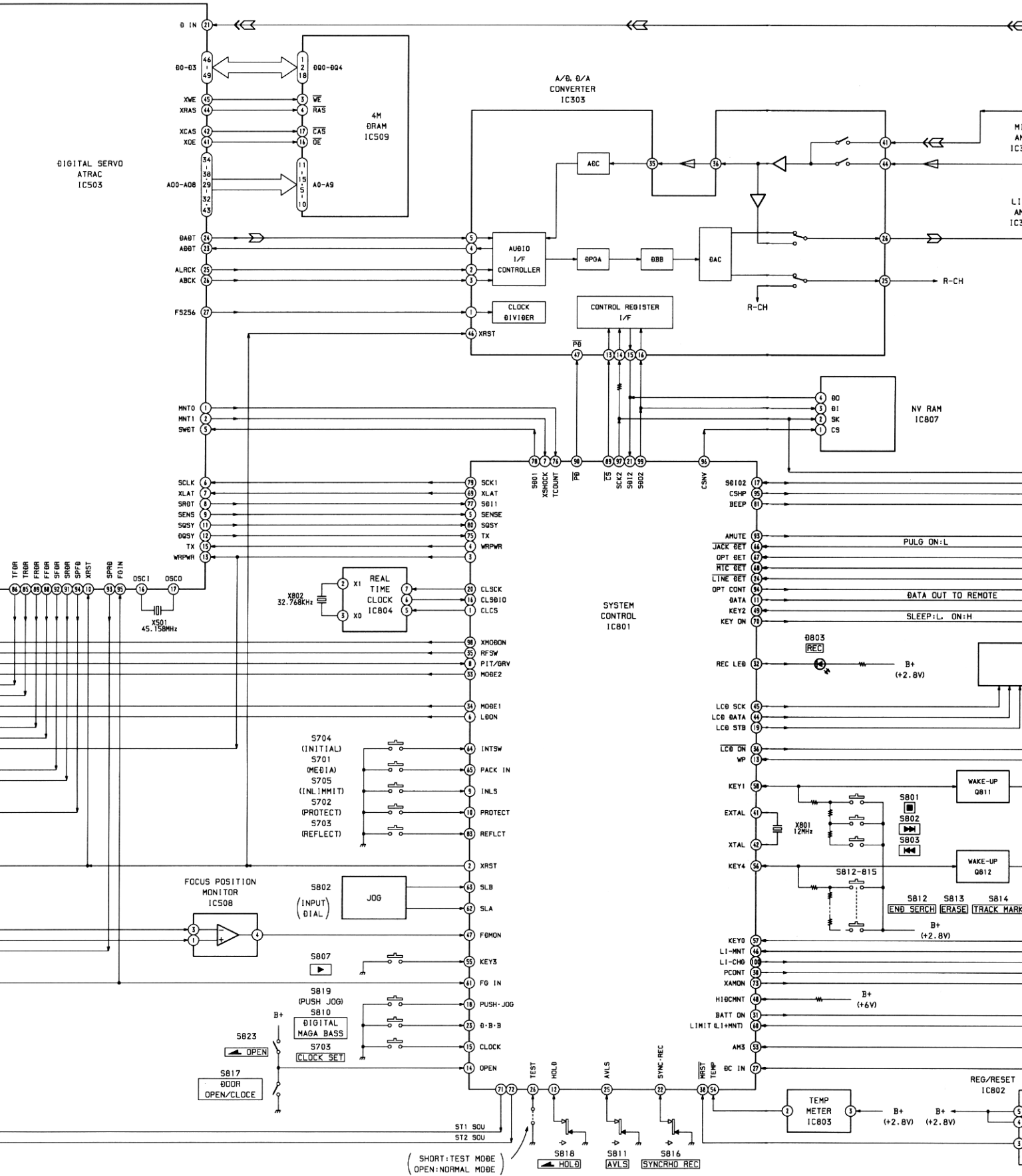


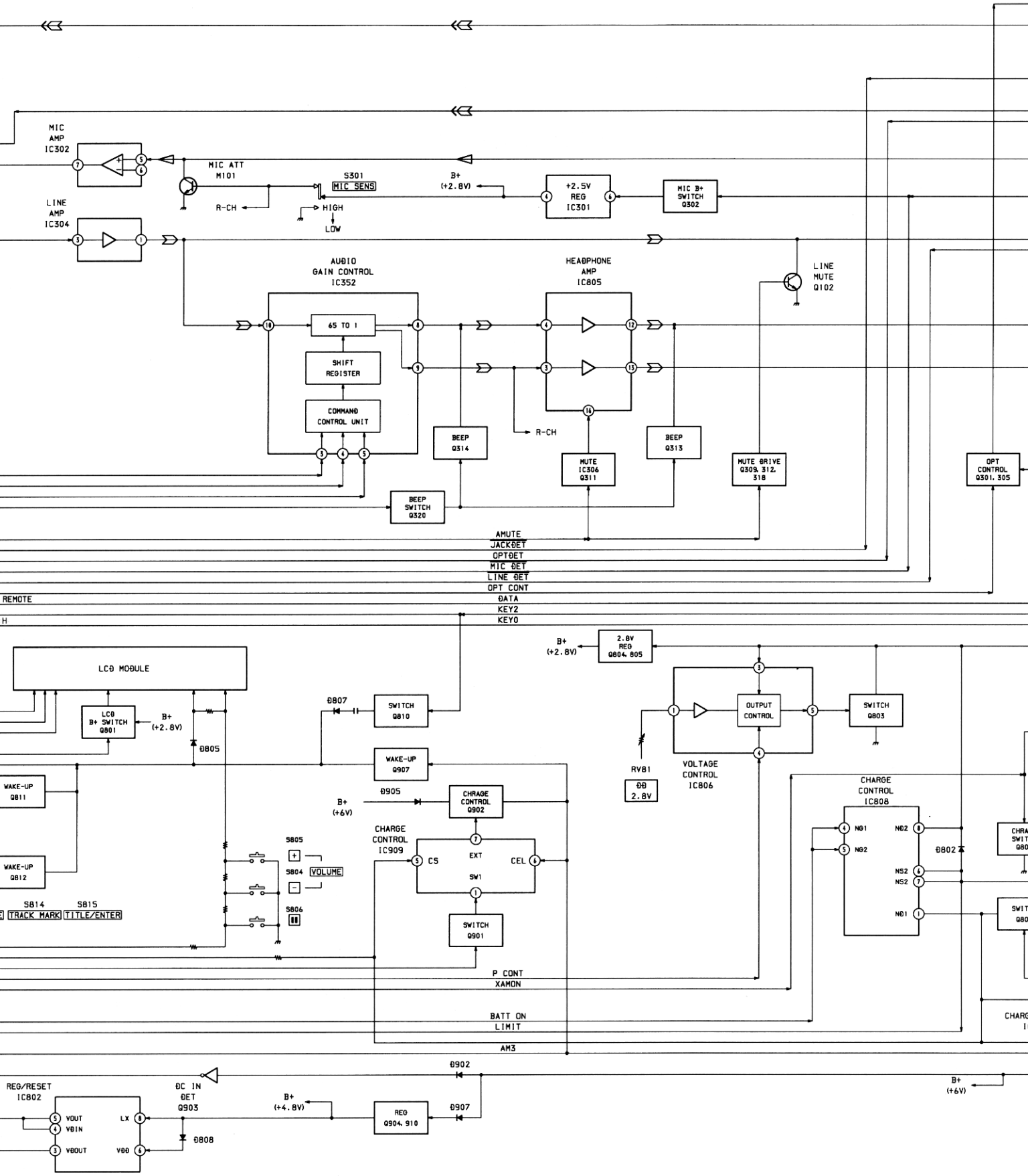
7. Check that the traverse level at this time is above 1.0Vp-p.
8. Press the ■ key.
9. Exit the test mode.

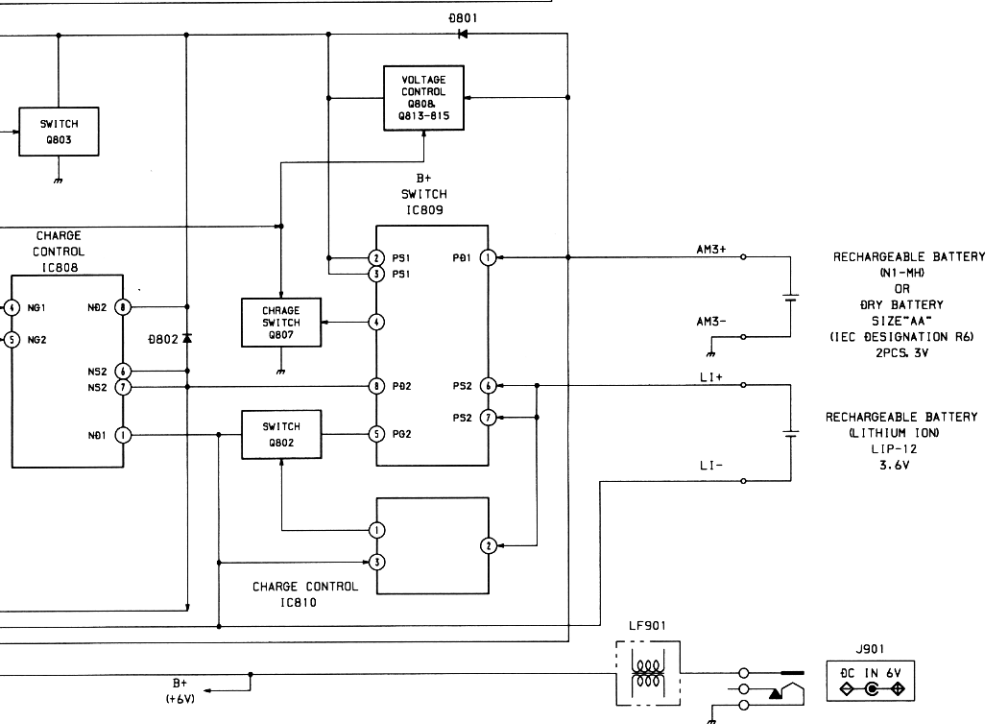
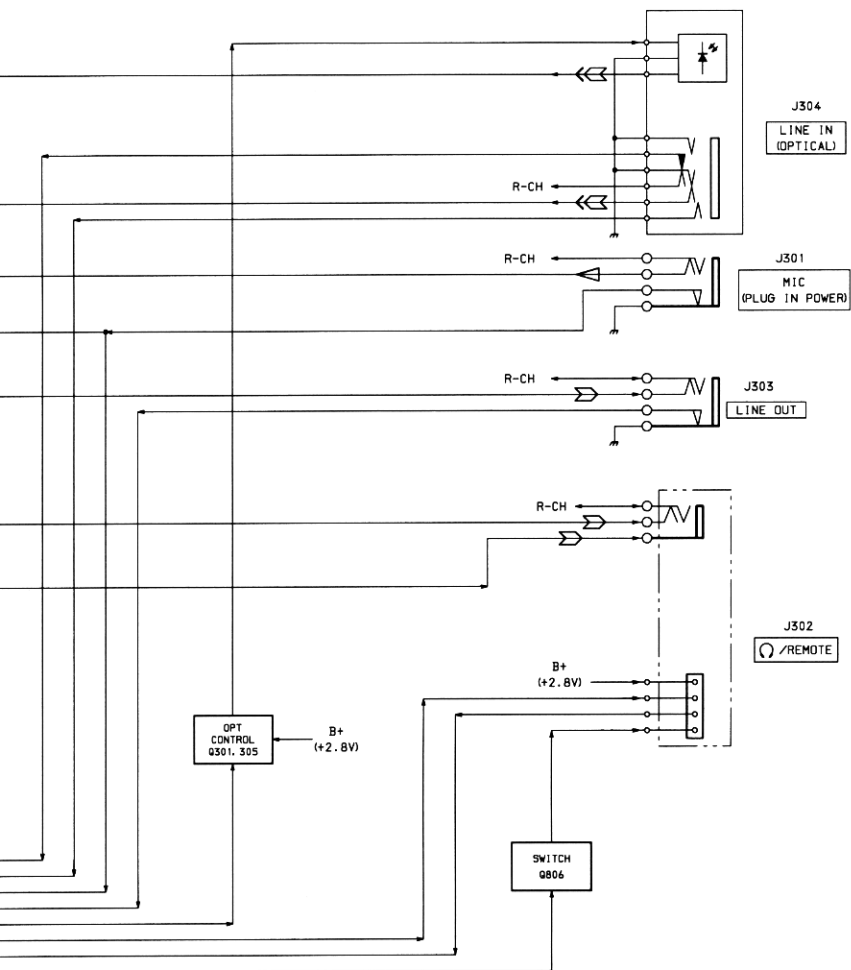
SECTION 7 DIAGRAMS

7-1. BLOCK DIAGRAM



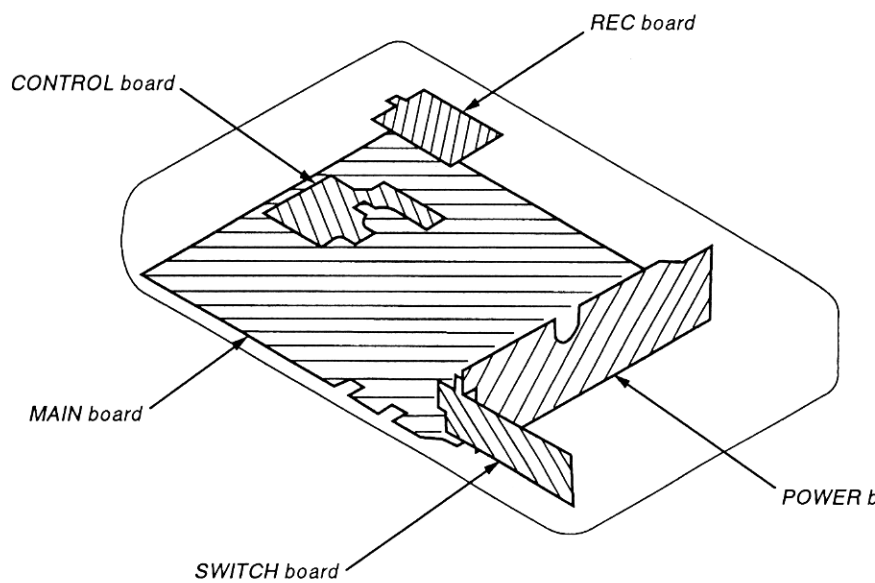






- Signal path.
- ◁ : PB
- ▷ : REC
- ▽ : MIC

7-2. CIRCUIT BOARDS LOCATION

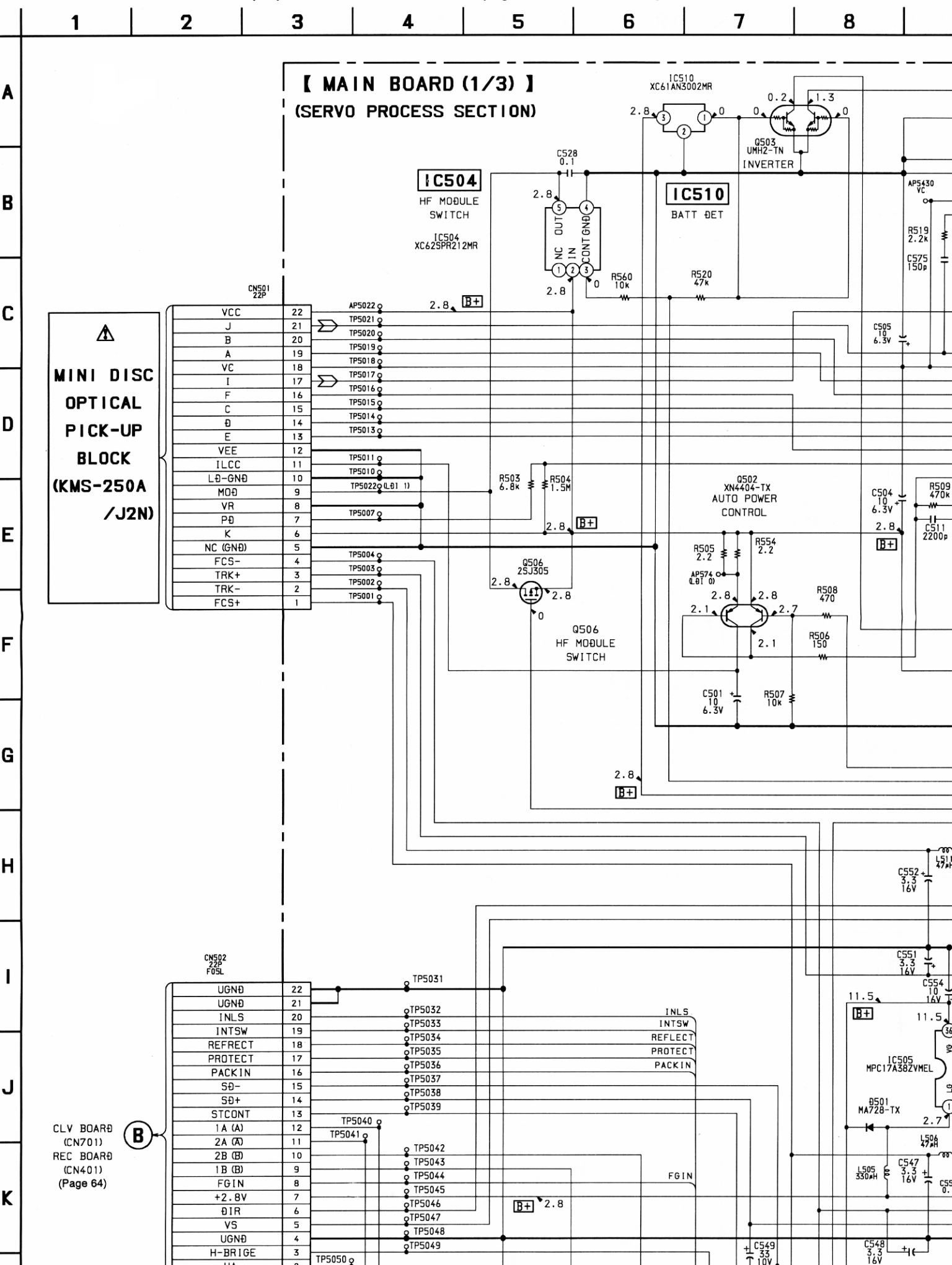


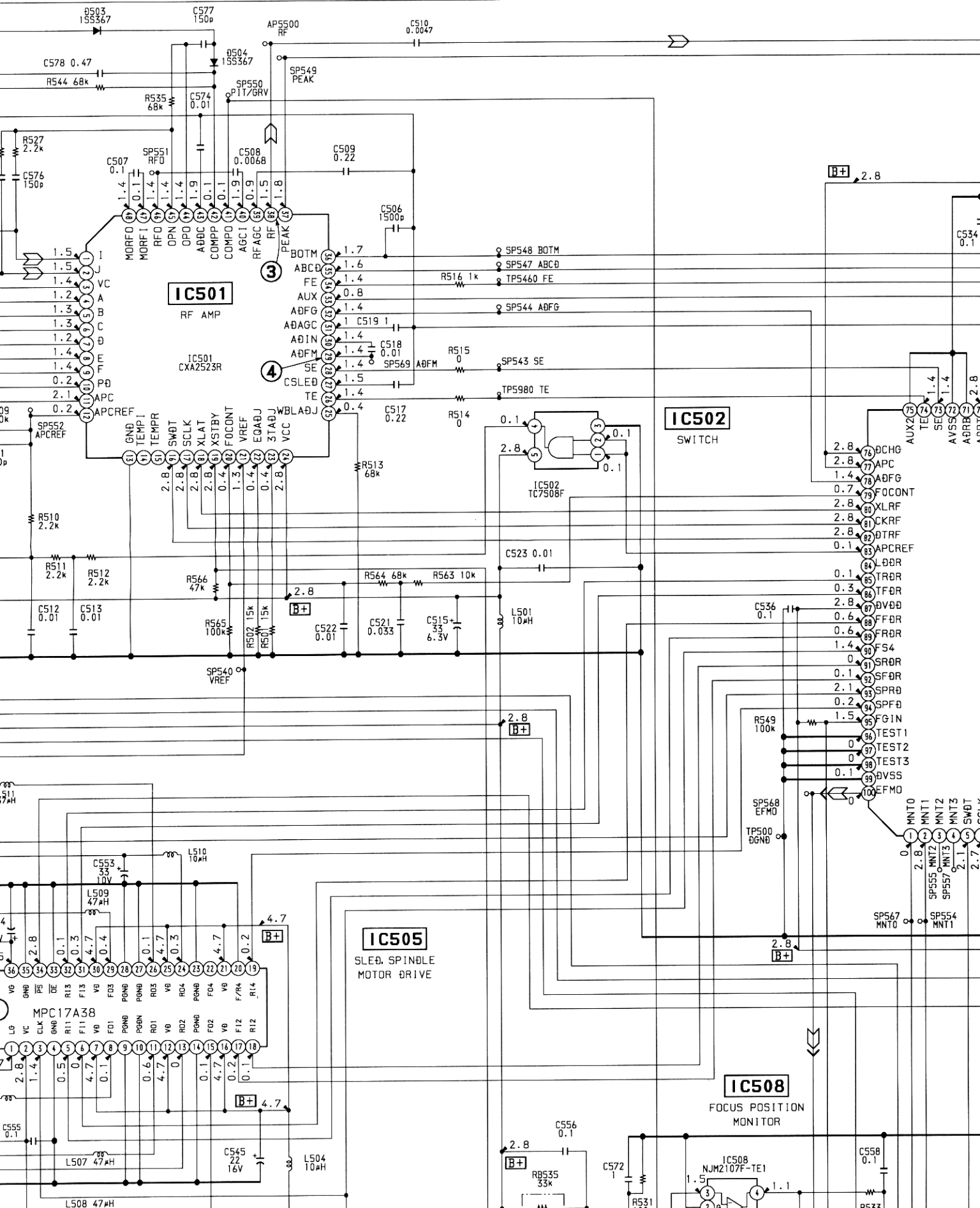
RECHARGEABLE BATTERY
 (N1-MH)
 OR
 DRY BATTERY
 SIZE "AA"
 (IEC DESIGNATION R6)
 2PCS. 3V

RECHARGEABLE BATTERY
 LITHIUM ION
 LIP-12
 3.6V



- Signal path.
- ▾ : PB
- ▾▾ : REC
- ▾ : MIC



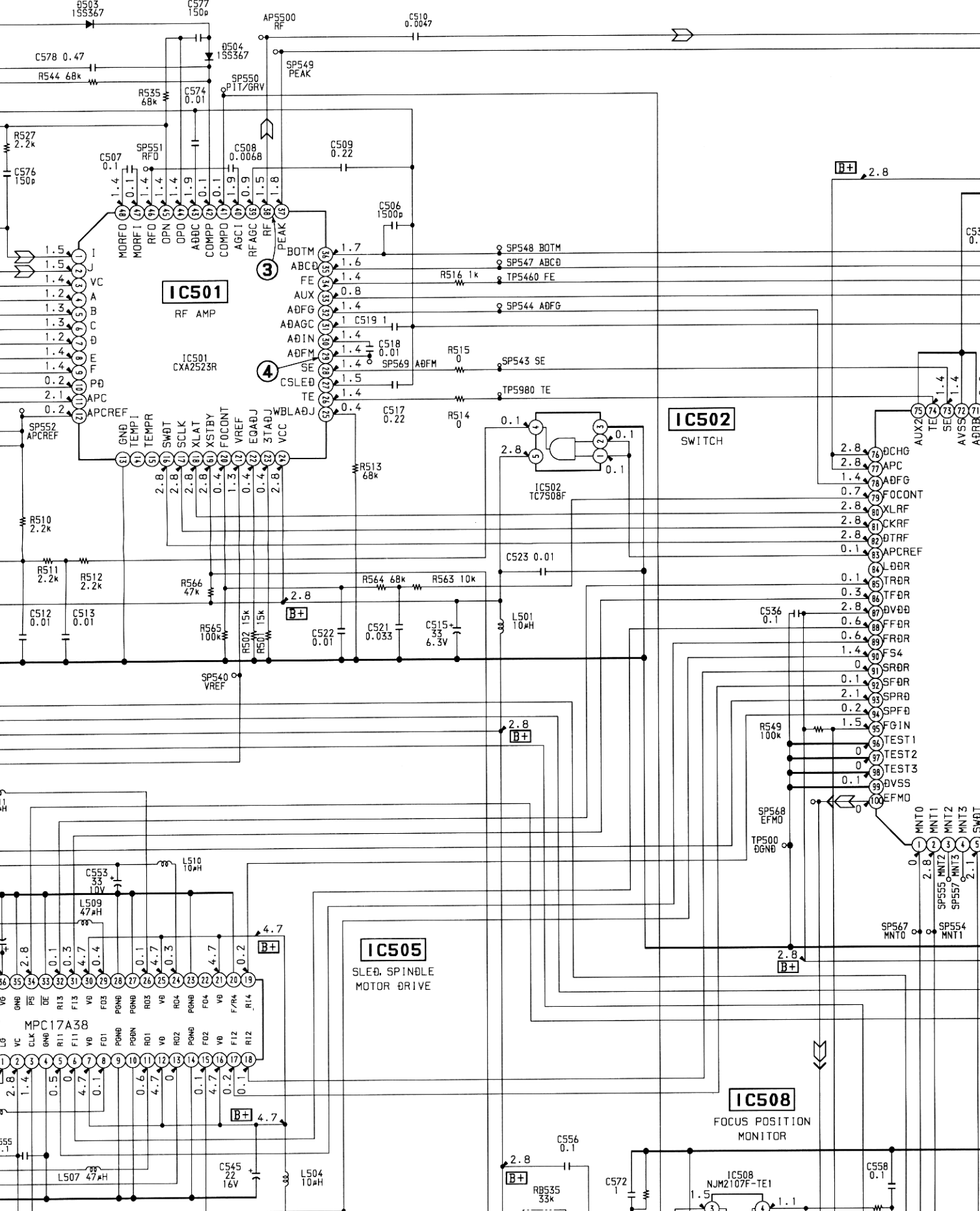


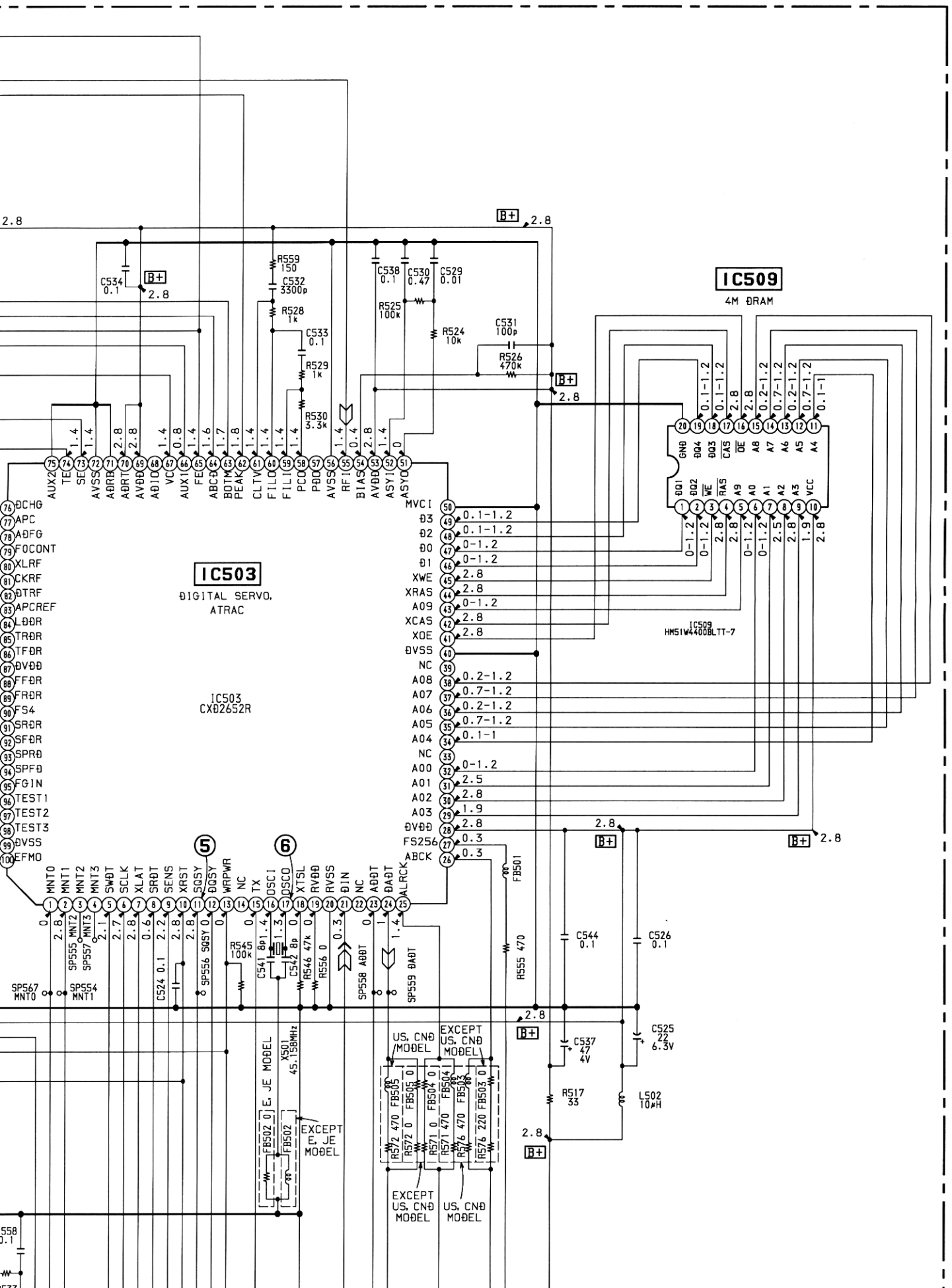
IC501
RF AMP
IC501
CXA2523R

IC502
SWITCH
IC502
TC7508F

IC505
SLEB, SPINDLE
MOTOR DRIVE

IC508
FOCUS POSITION
MONITOR
IC508
NJM2107F-TE1





IC503
DIGITAL SERVO.
ATRAC

IC503
CX02652R

IC509
4M DRAM

IC509
HMS1W4400BLTT-7

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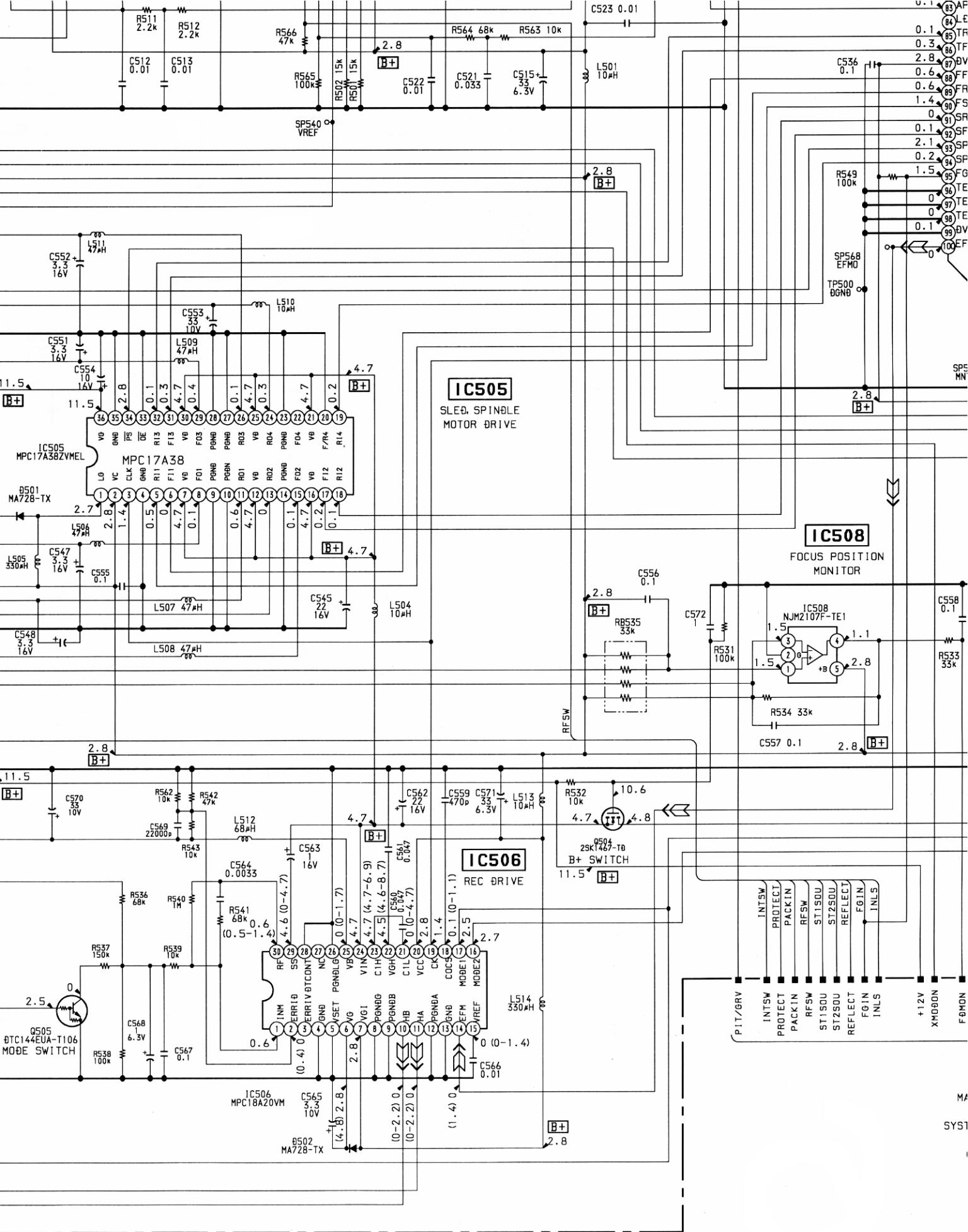
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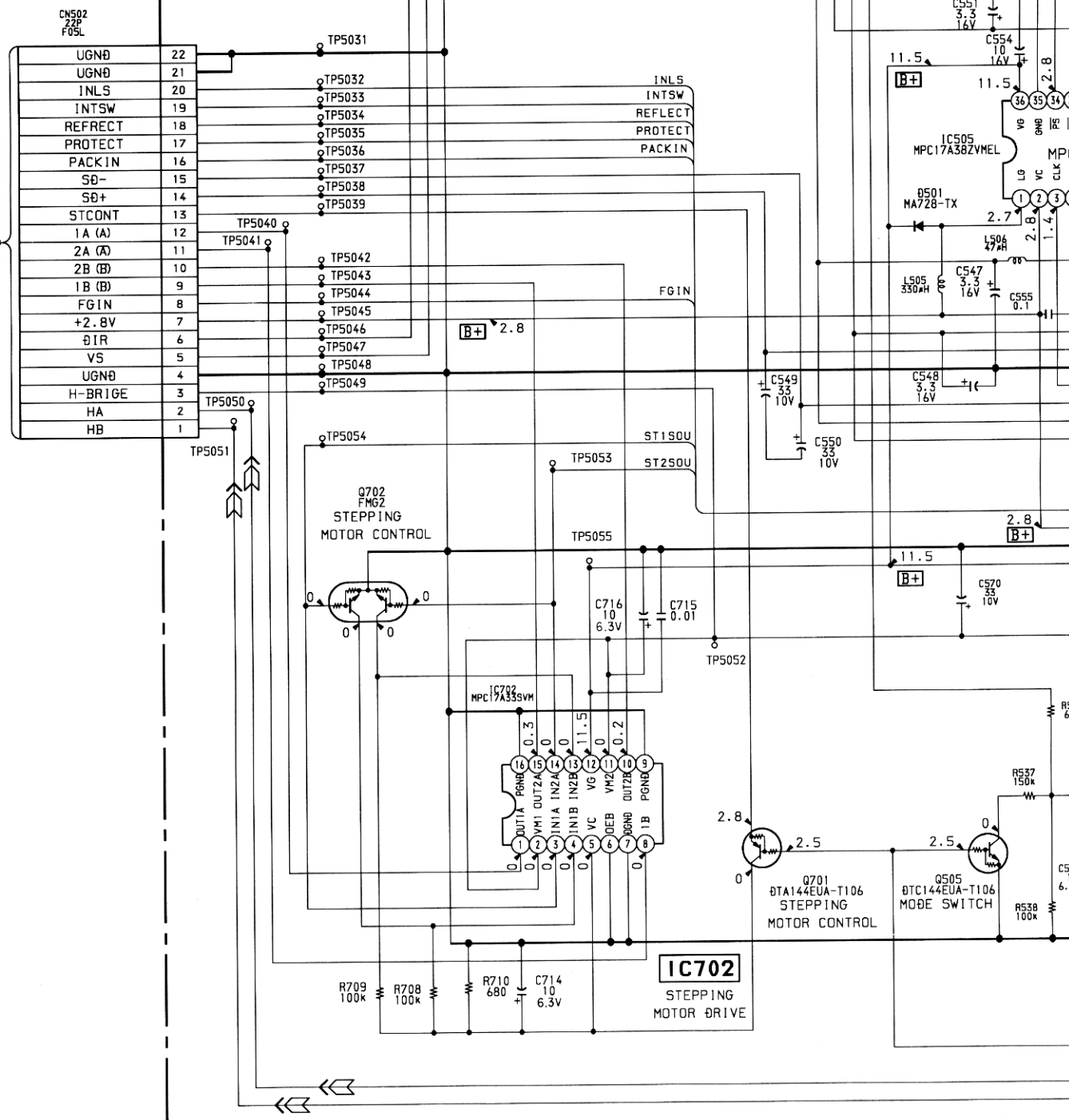
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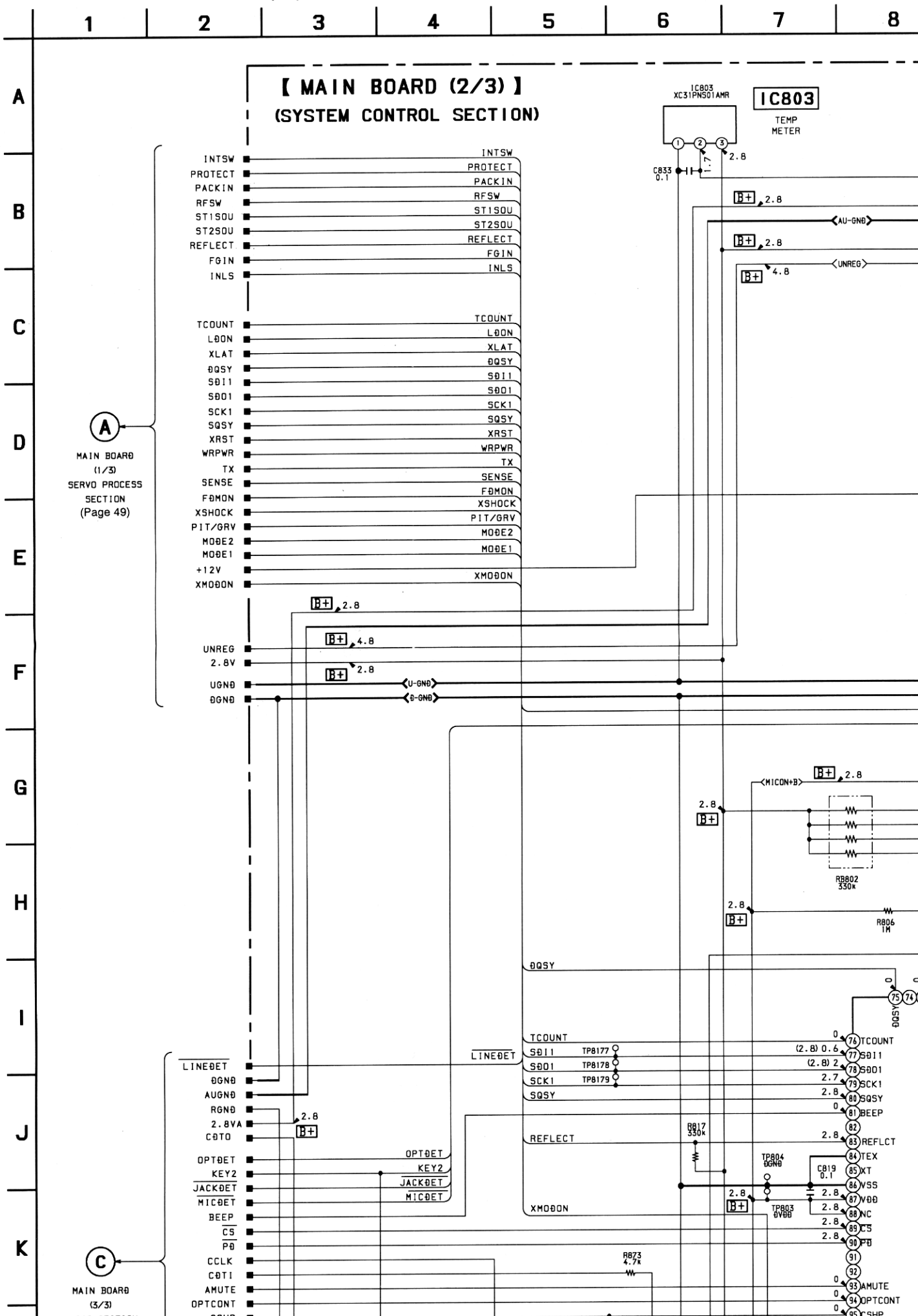
B+



CLV BOARD (CN701)
REC BOARD (CN401)
(Page 64)

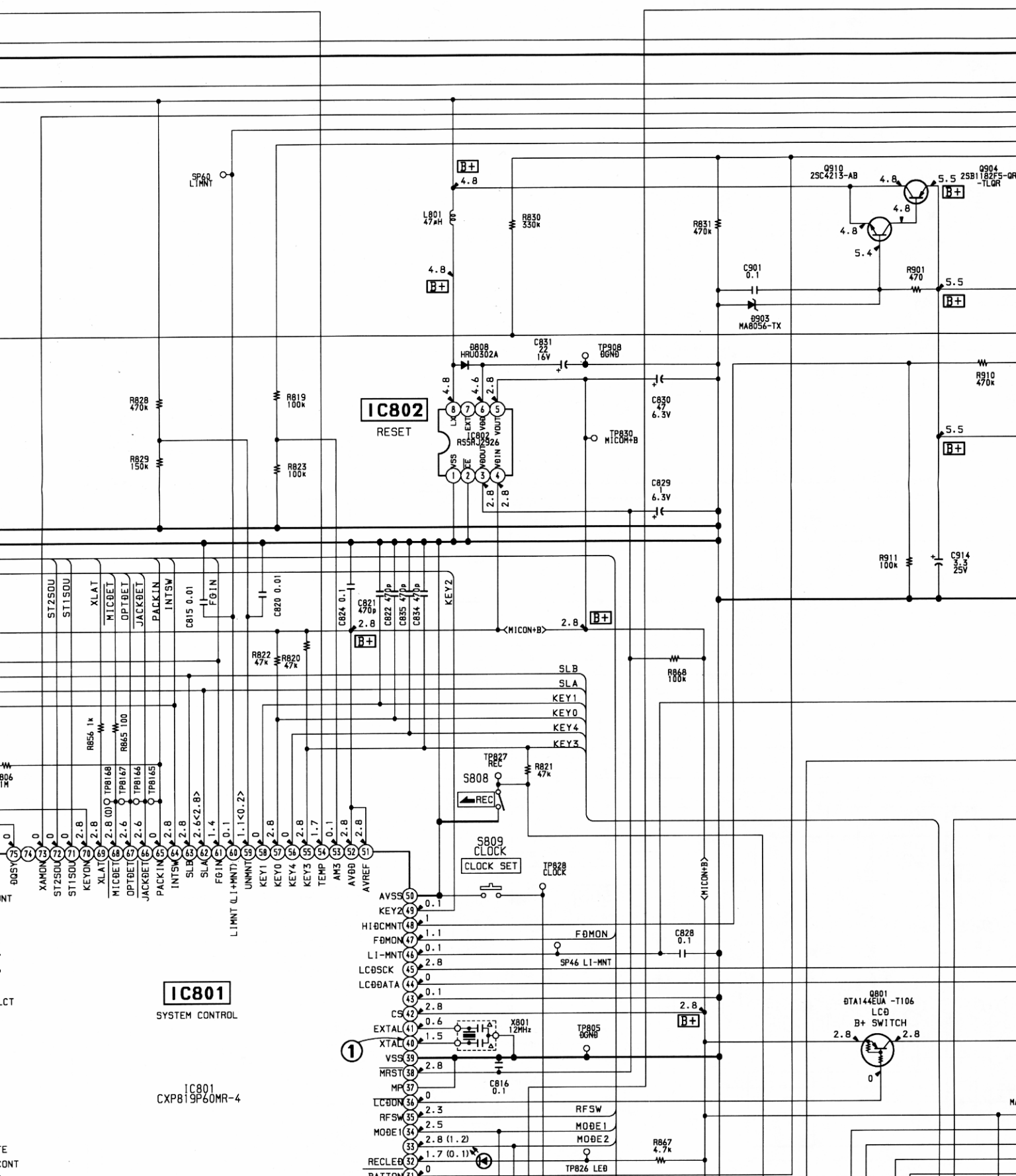
B





A
 MAIN BOARD
 (1/3)
 SERVO PROCESS
 SECTION
 (Page 49)

C
 MAIN BOARD
 (3/3)



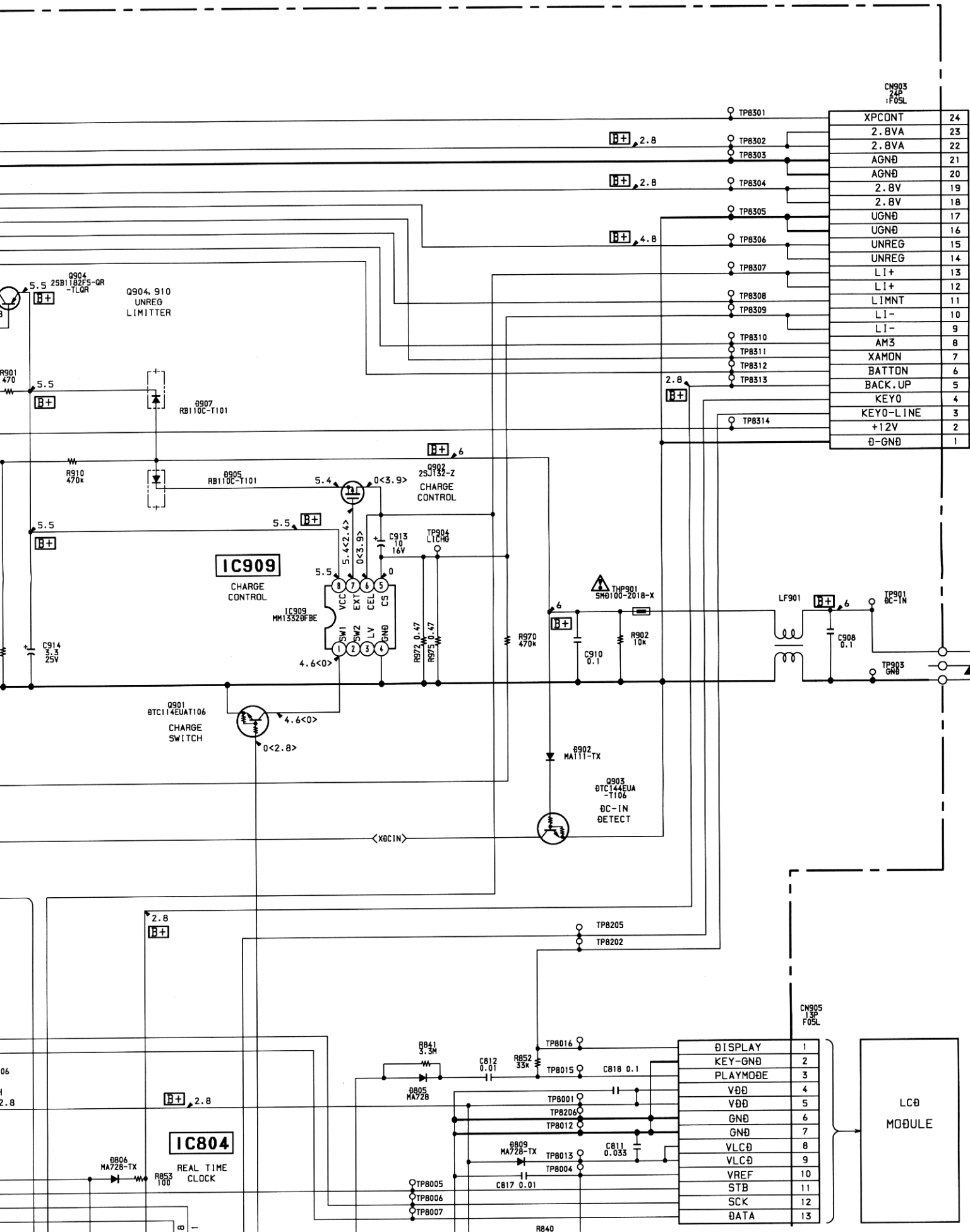
IC801
SYSTEM CONTROL

IC801
CX8019P60MR-4

75	0	905V
74	0	XAMON
73	0	ST250U
72	0	ST150U
71	0	ST150U
70	2.8	KEYON
69	2.8	XLAT
68	2.8 (0)	TP8168
67	2.6	TP8167
66	2.6	TP8166
65	2.6	TP8165
64	2.8	PACKIN
63	2.8	INTSW
62	2.8	SLB
61	1.4	SLA
60	1.4	FGIN
59	0.1	UNMNT
58	1.1 < 0.2	UNMNT
57	2.8	KEY1
56	2.8	KEY0
55	2.8	KEY3
54	1.7	TEMP
53	0.1	AM3
52	2.8	AVDD
51	2.8	AVREF
50	0.1	AVSS
49	0.1	KEY2
48	1	HI0CMNT
47	1.1	F0MNT
46	0.1	LI-MNT
45	2.8	SP46 LI-MNT
44	0	LC0SCK
43	0.1	LC0DATA
42	2.8	CS
41	0.6	EXTAL
40	1.5	XTAL
39	2.8	VSS
38	2.8	MRST
37	0.1	MP
36	0	LC0DN
35	2.3	RFSW
34	2.5	MODE1
33	2.8 (1.2)	MODE2
32	1.7 (0.1)	RECLED
31	0	BATTON

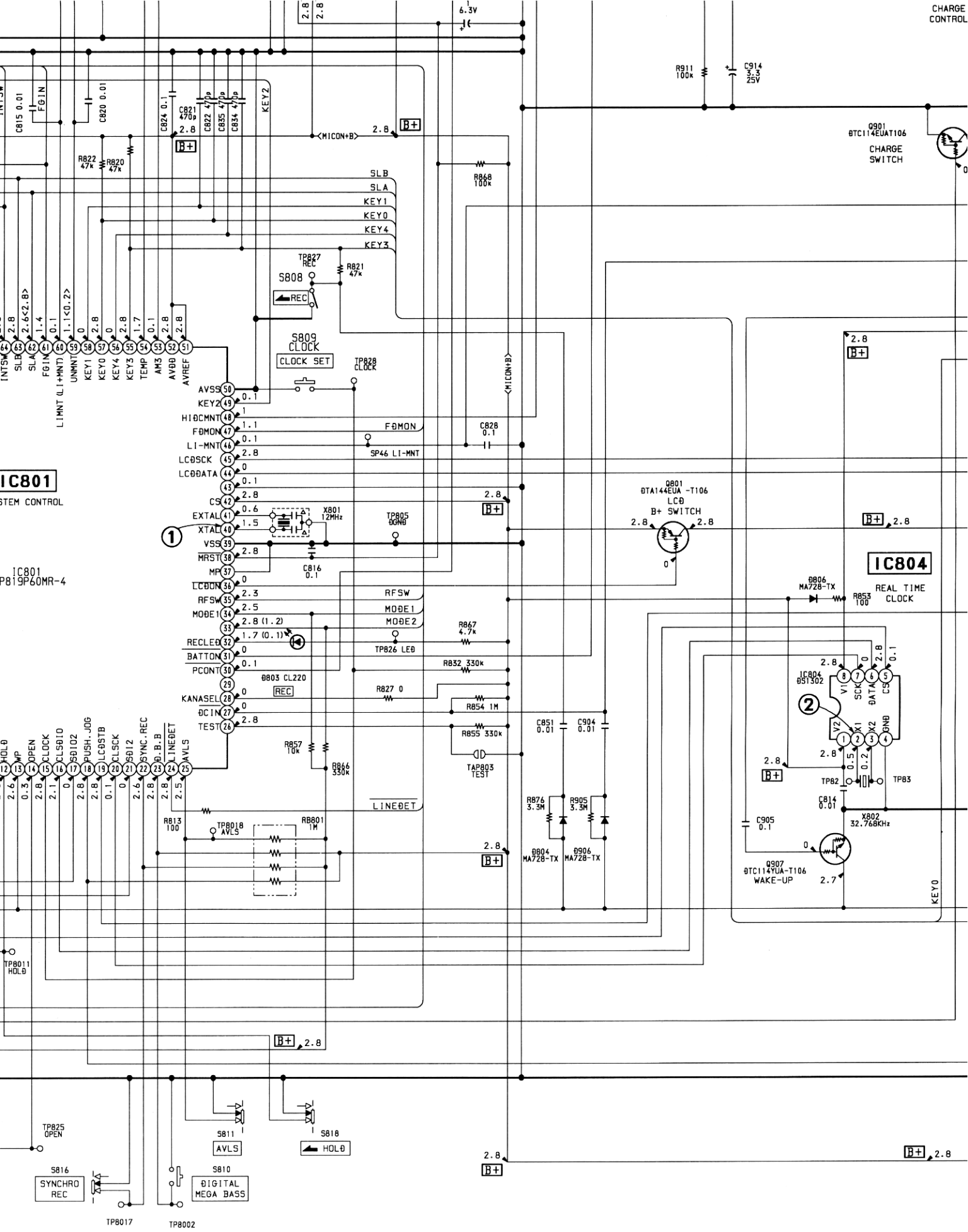
IC801
SYSTEM CONTROL

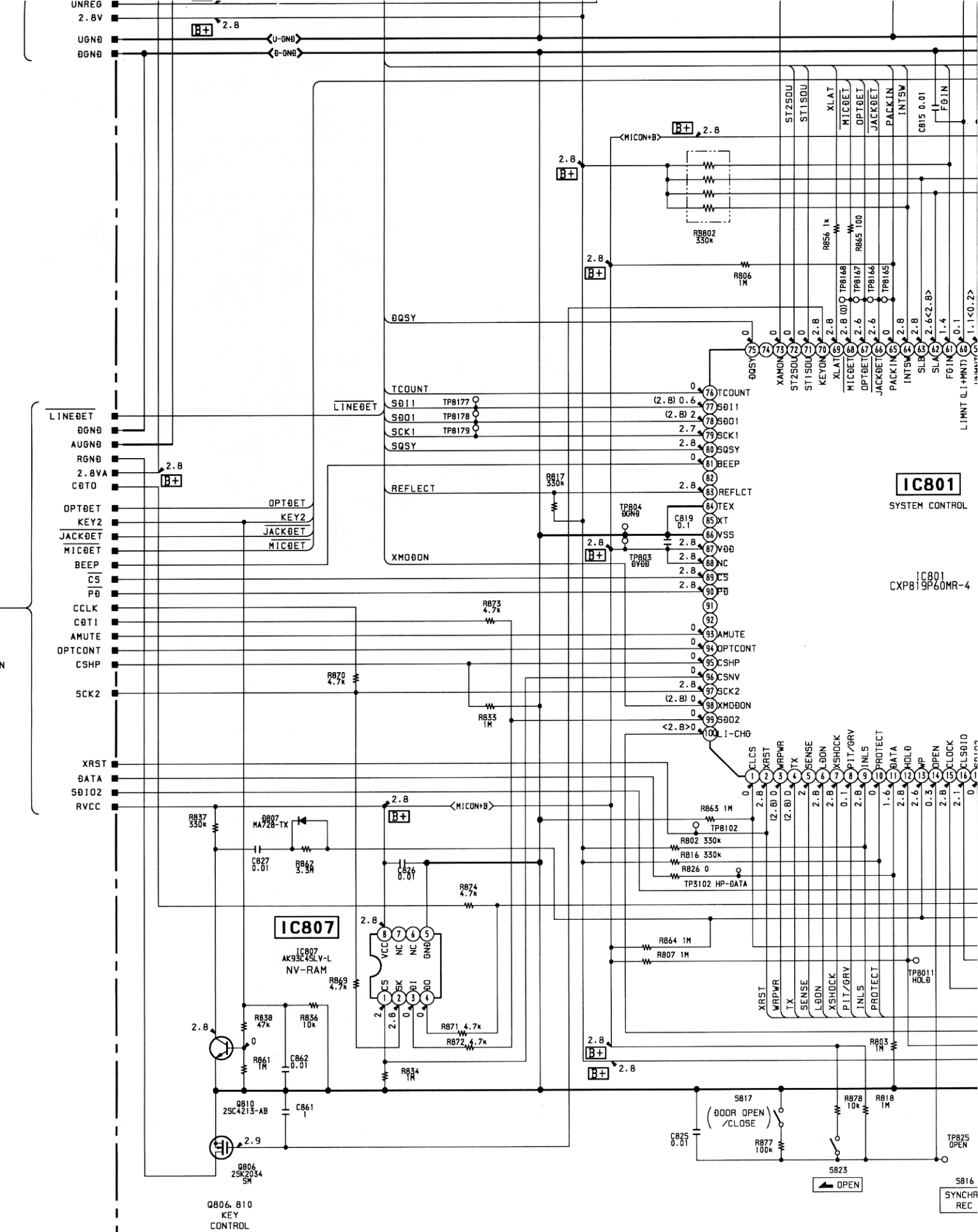
IC801
CX8019P60MR-4



XPCONT	24
2.8VA	23
2.8VA	22
AGND	21
AGND	20
2.8V	19
2.8V	18
UGND	17
UGND	16
UNREG	15
UNREG	14
LI+	13
LI+	12
LIMNT	11
LI-	10
LI-	9
AM3	8
XAMON	7
BATTON	6
BACK.UP	5
KEY0	4
KEY0-LINE	3
+12V	2
0-GND	1

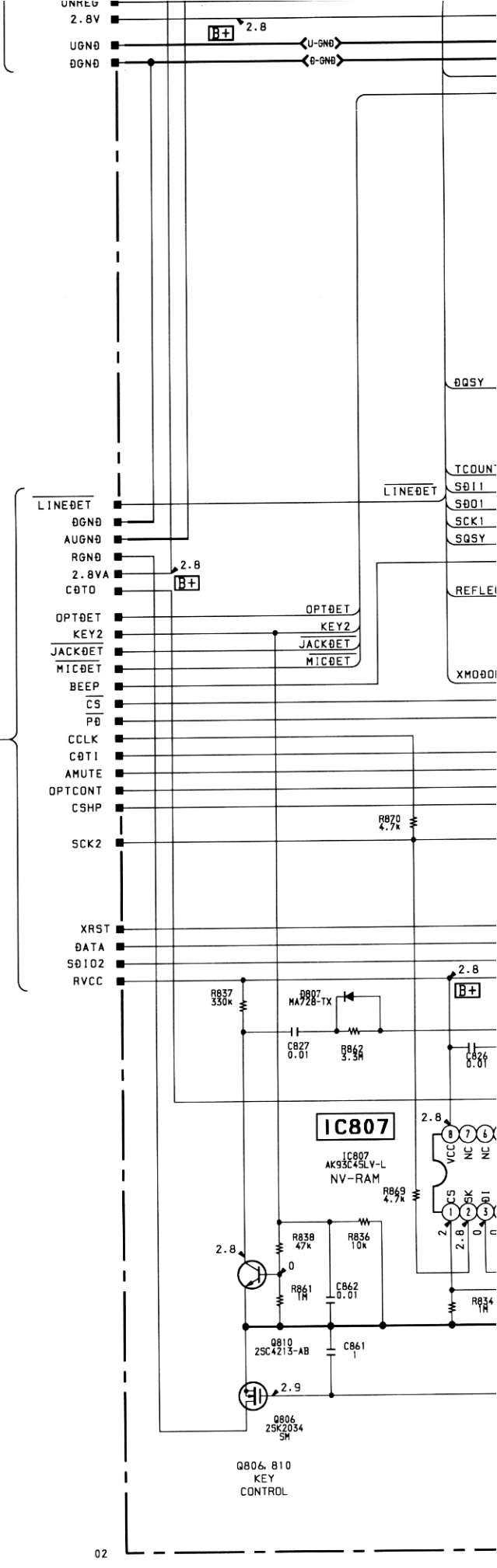
DISPLAY	1
KEY-GND	2
PLAYMODE	3
VDD	4
VDD	5
GND	6
GND	7
VLC0	8
VLC0	9
VREF	10
STB	11
SCK	12
DATA	13





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C
MAIN BOARD
(3/3)
AUDIO SECTION
(Page 56)



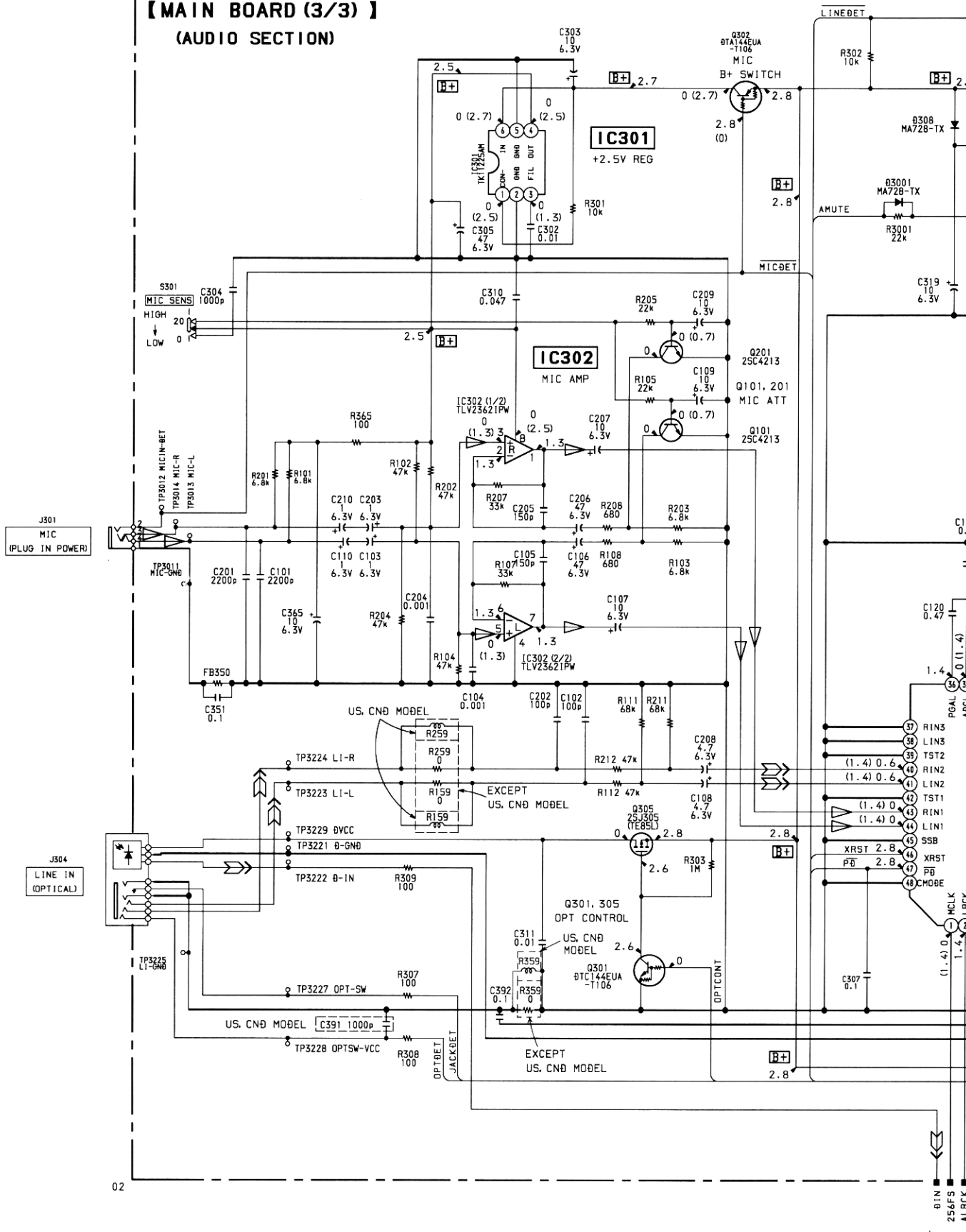
Note :

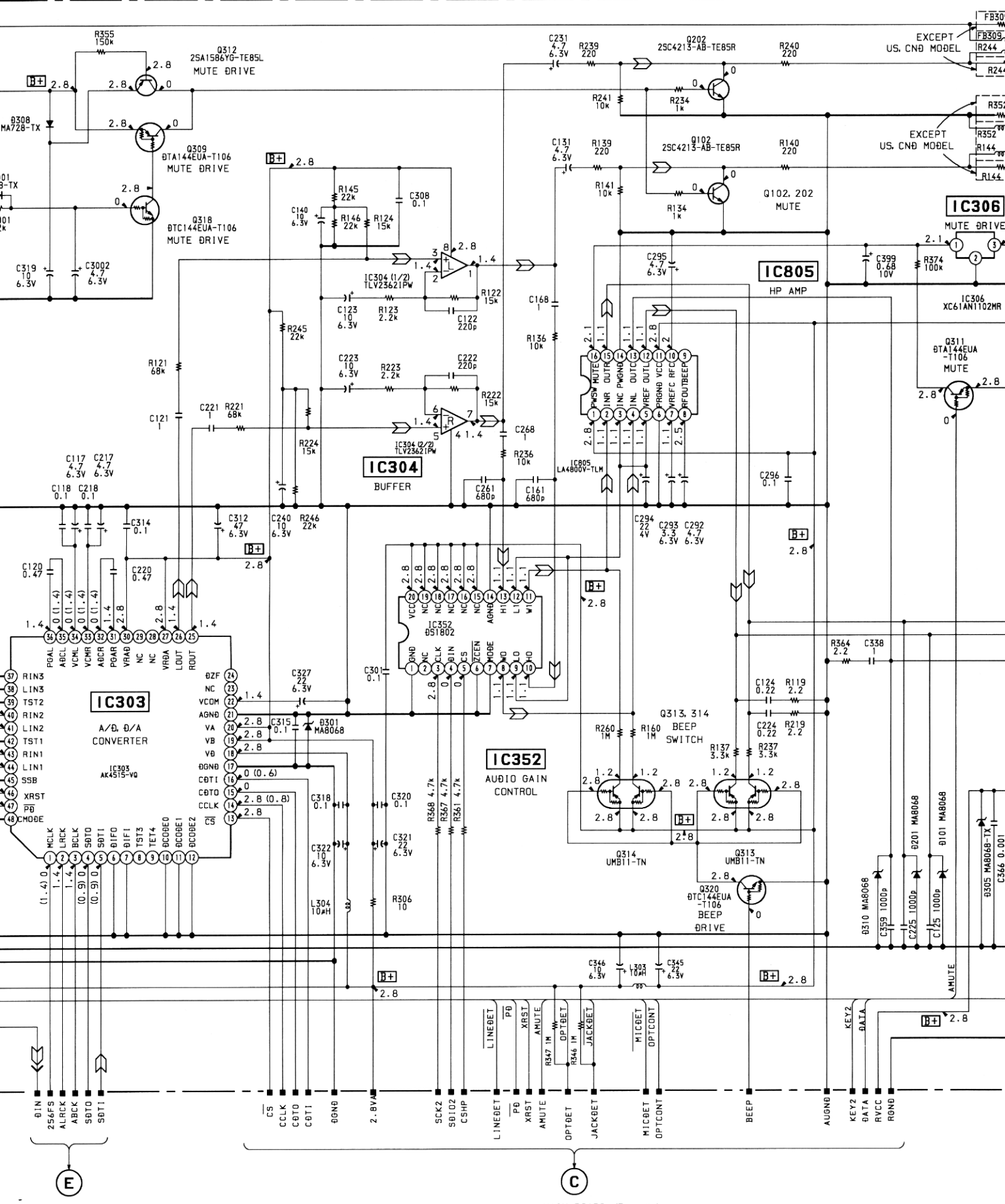
- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
- Δ : internal component.
- **[B+]** : B+ Line
- Power voltage is dc 6V and fed with regulated dc power supply from external power voltage jack (J901).
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : PB
() : REC
< > : CHARGE
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.

1 2 3 4 5 6 7 8 9

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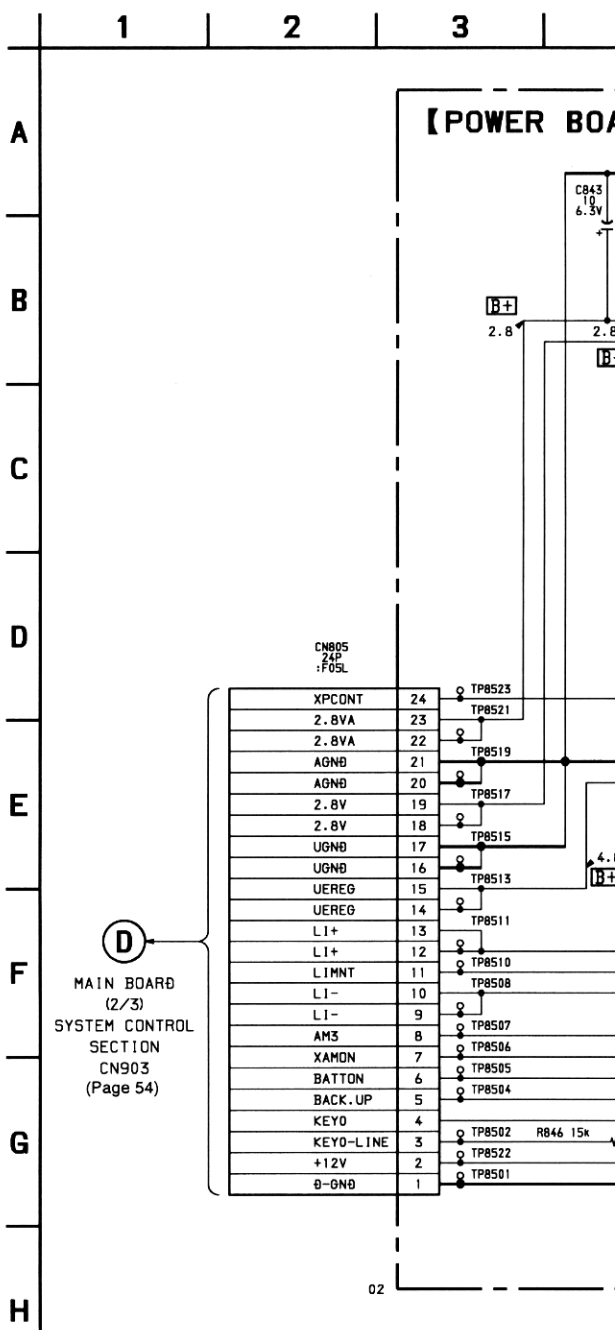
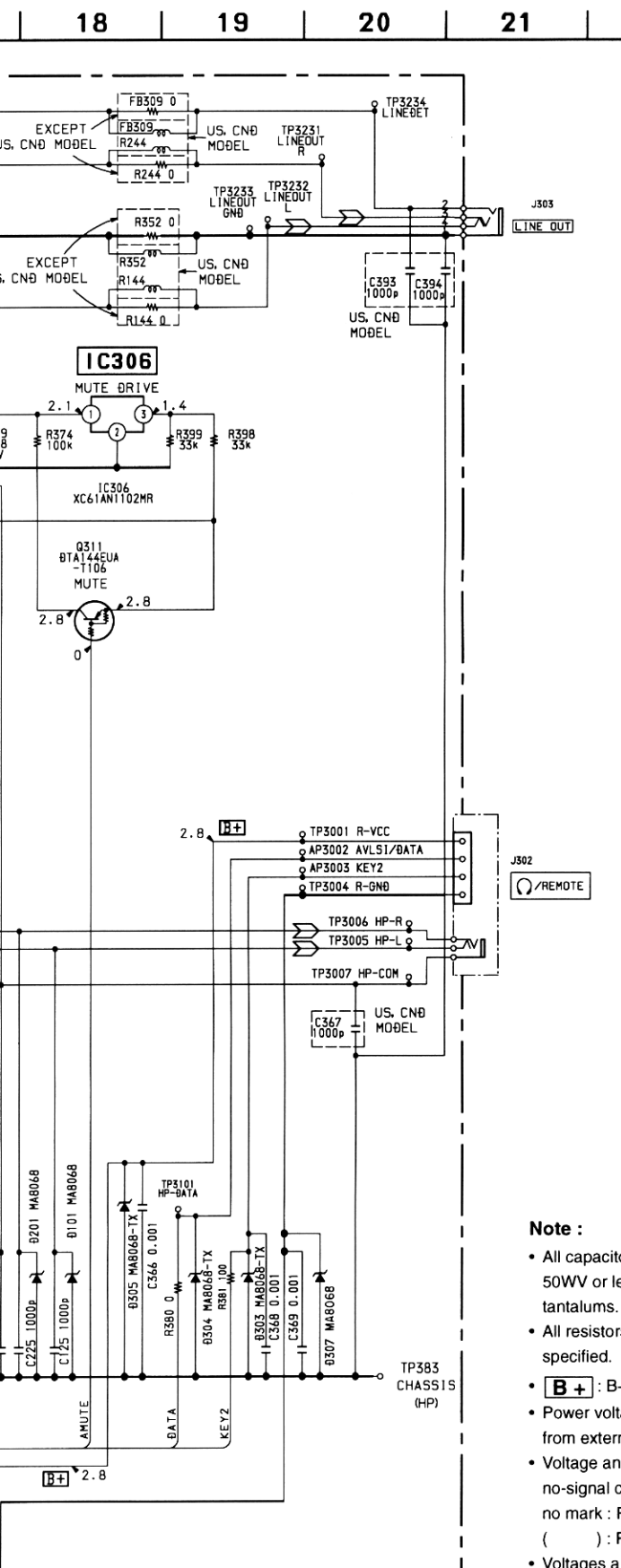
**【 MAIN BOARD (3/3) 】
(AUDIO SECTION)**





MAIN BOARD (Page 49)
(1/3)
SERVO PROCESS SECTION

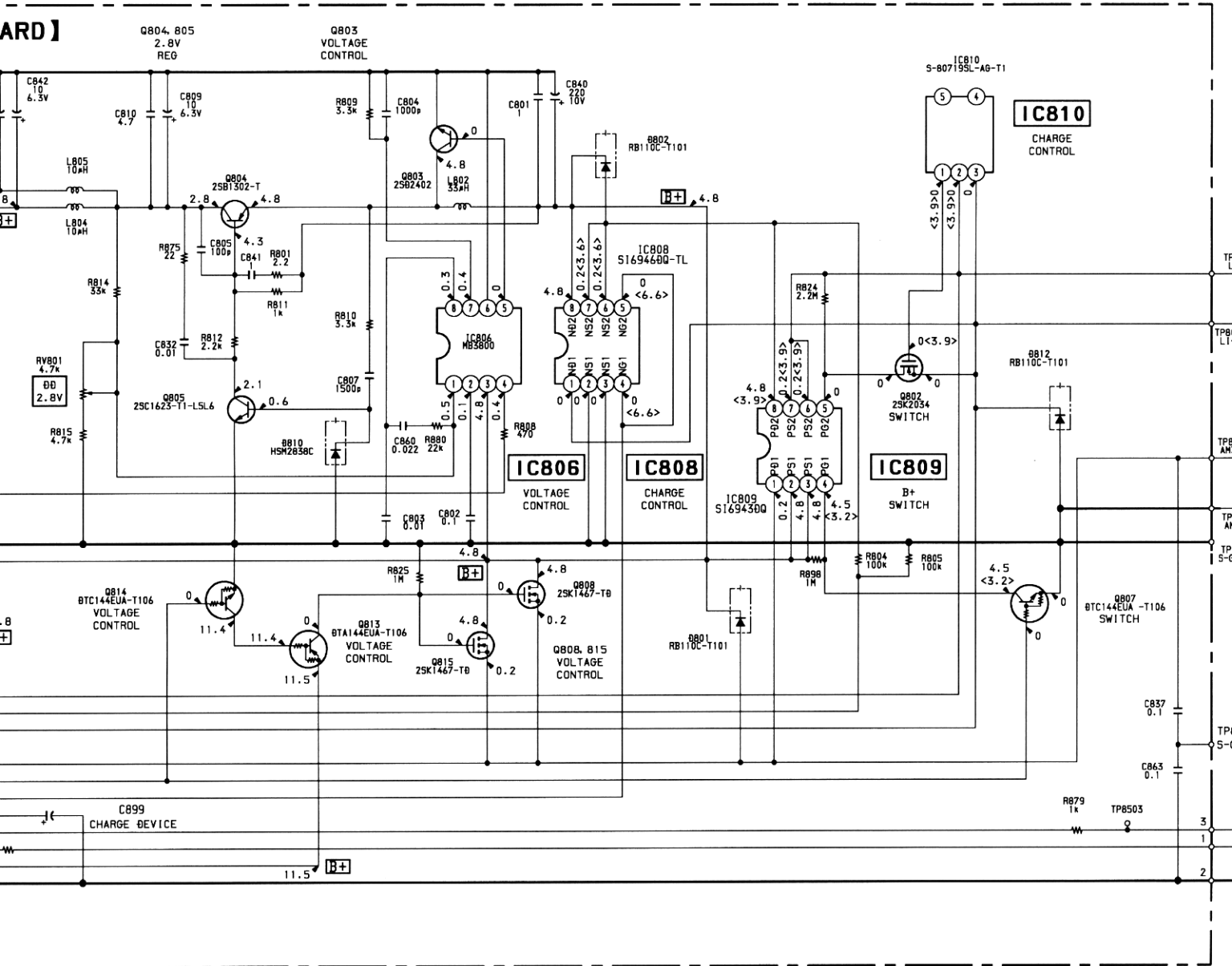
MAIN BOARD (Page 51)
(2/3)
SYSTEM CONTROL SECTION



Note :

- All capacitors are in μF unless otherwise noted. pF : μpF
50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- **[B+]** : B+ Line
- Power voltage is dc 6V and fed with regulated dc power supply from external power voltage jack (J901).
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
no mark : PB
() : REC
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$).
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - >>> : PB
 - >>>> : REC
 - > : MIC
- Abbreviation
CND : Canadian

BOARD]



1 2 3 4 5 6 7

A

【 CONTROL BOARD 】

B

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D

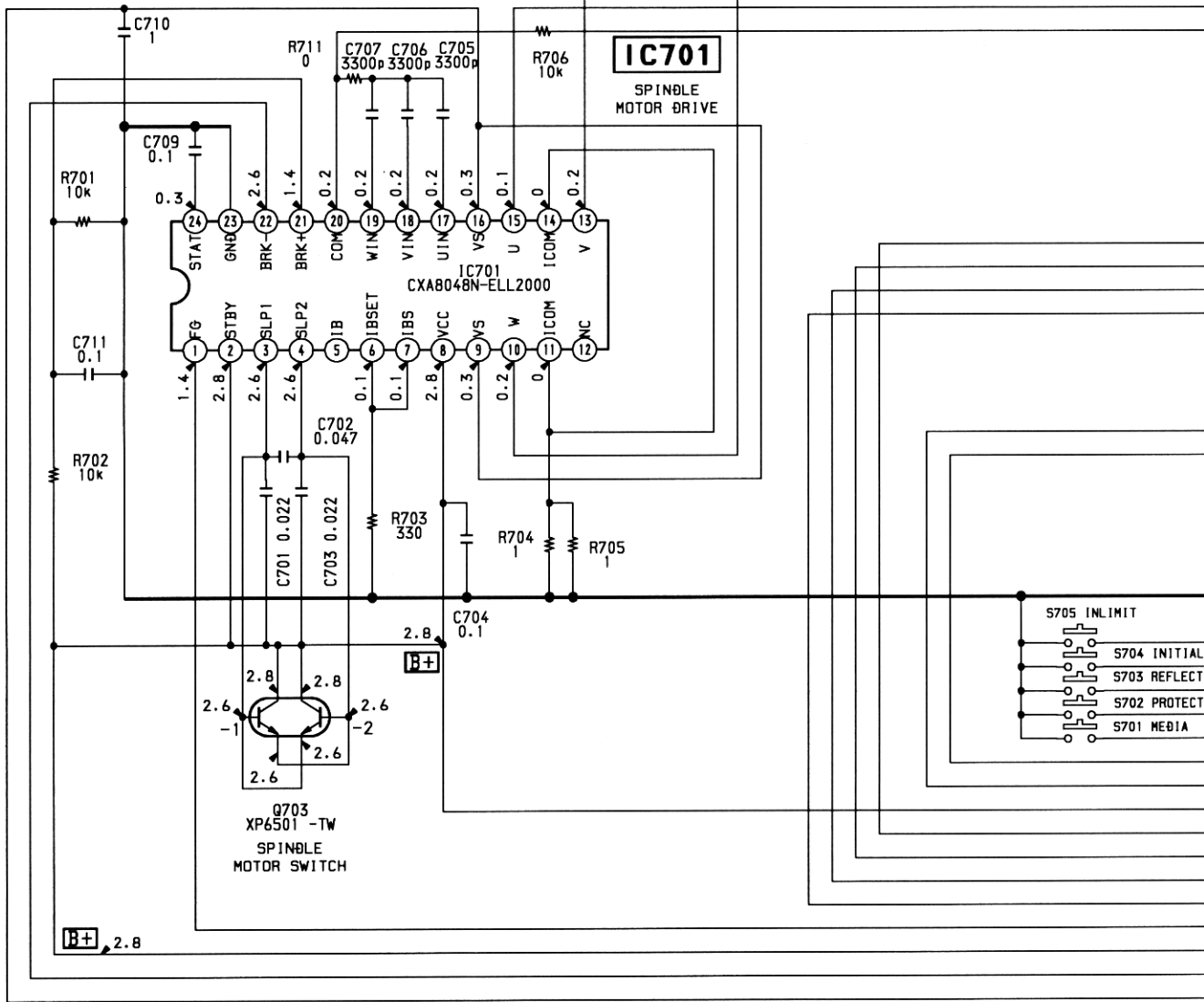
E

F

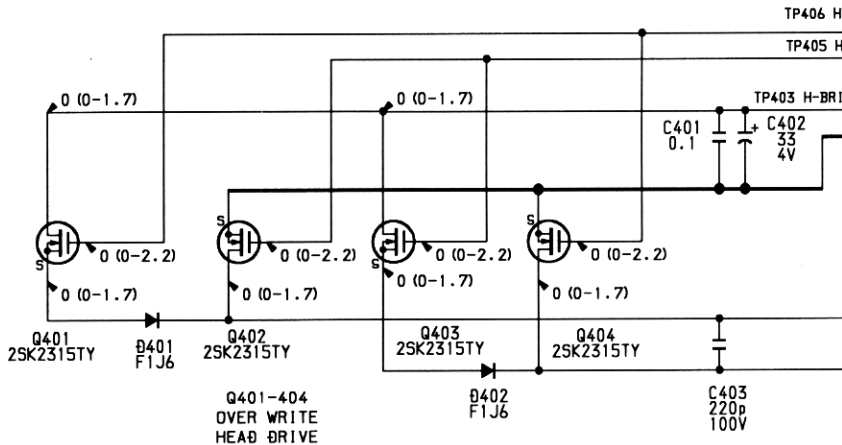
G

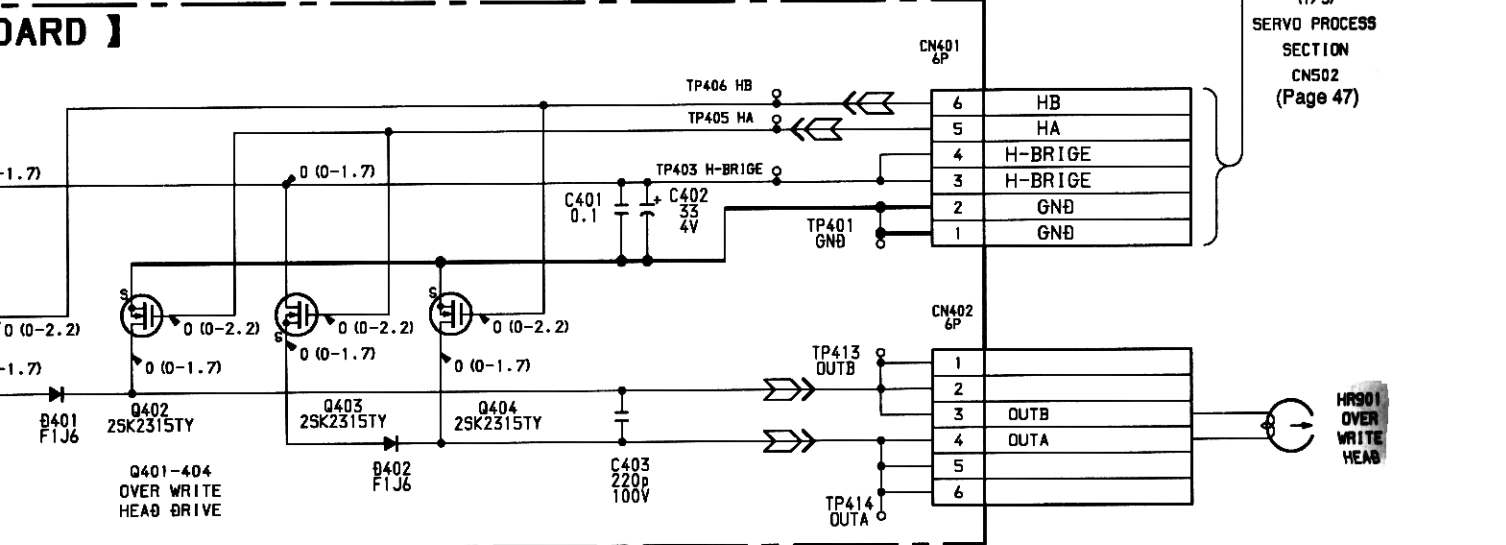
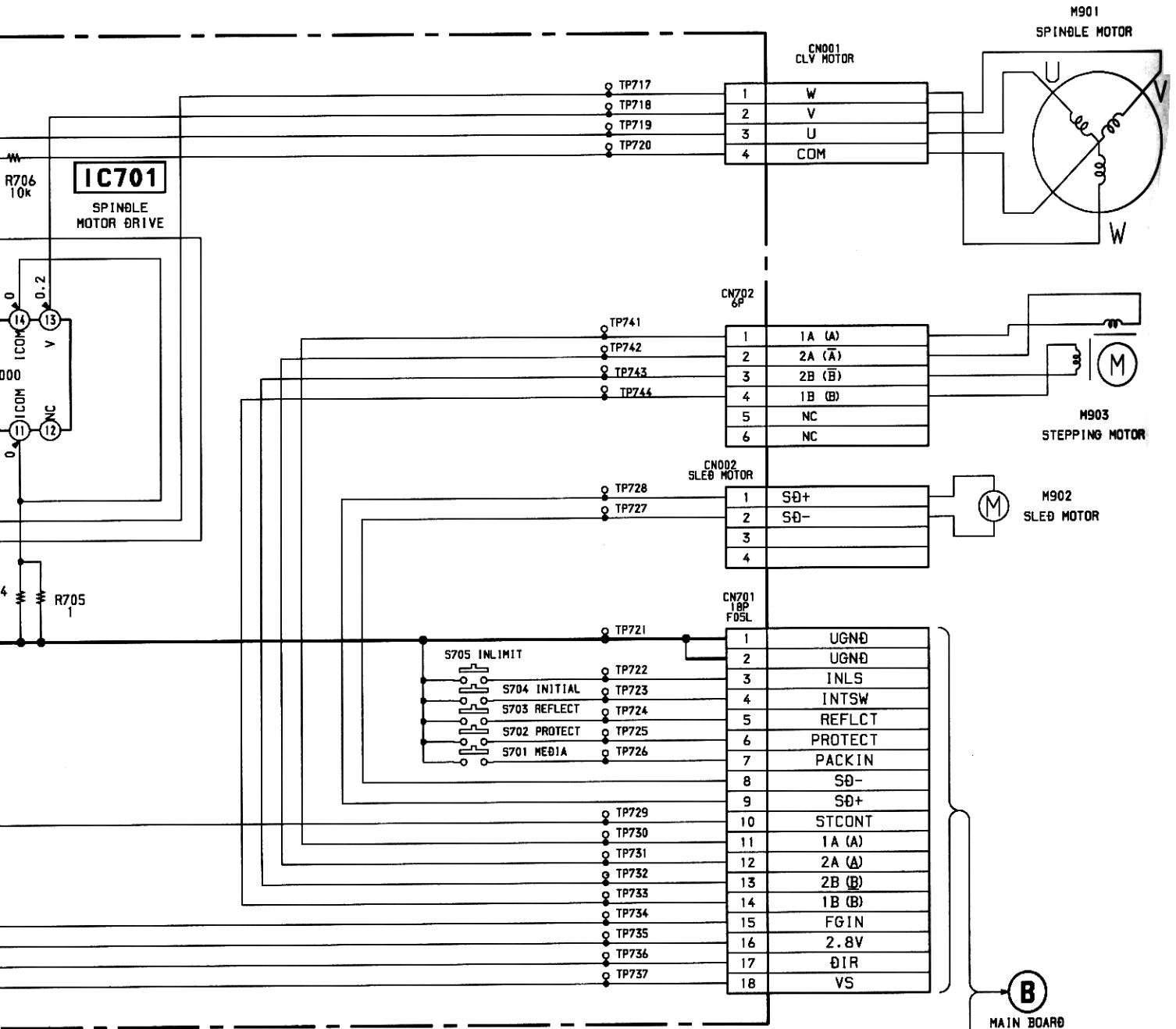
H

I



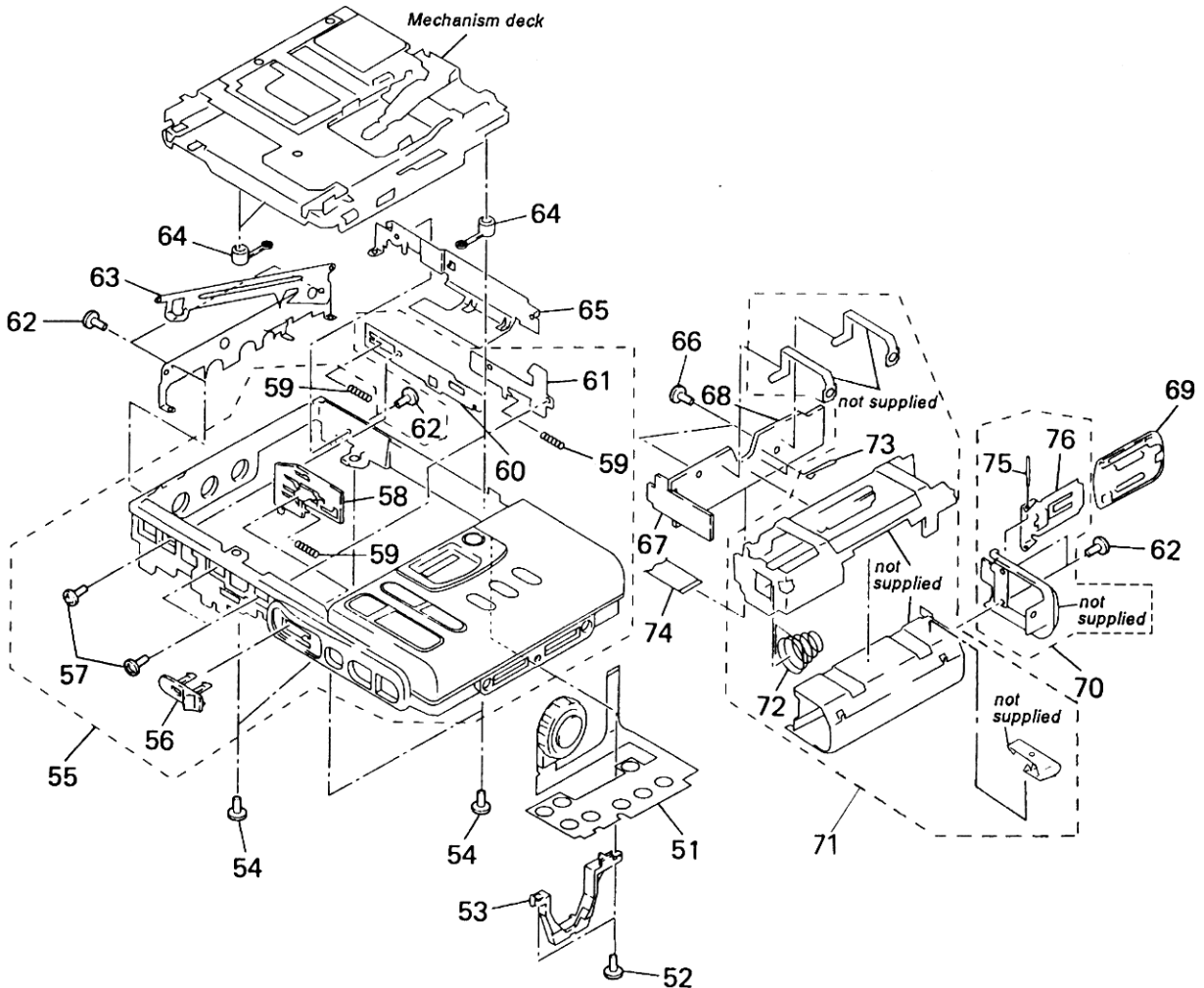
【 REC BOARD 】





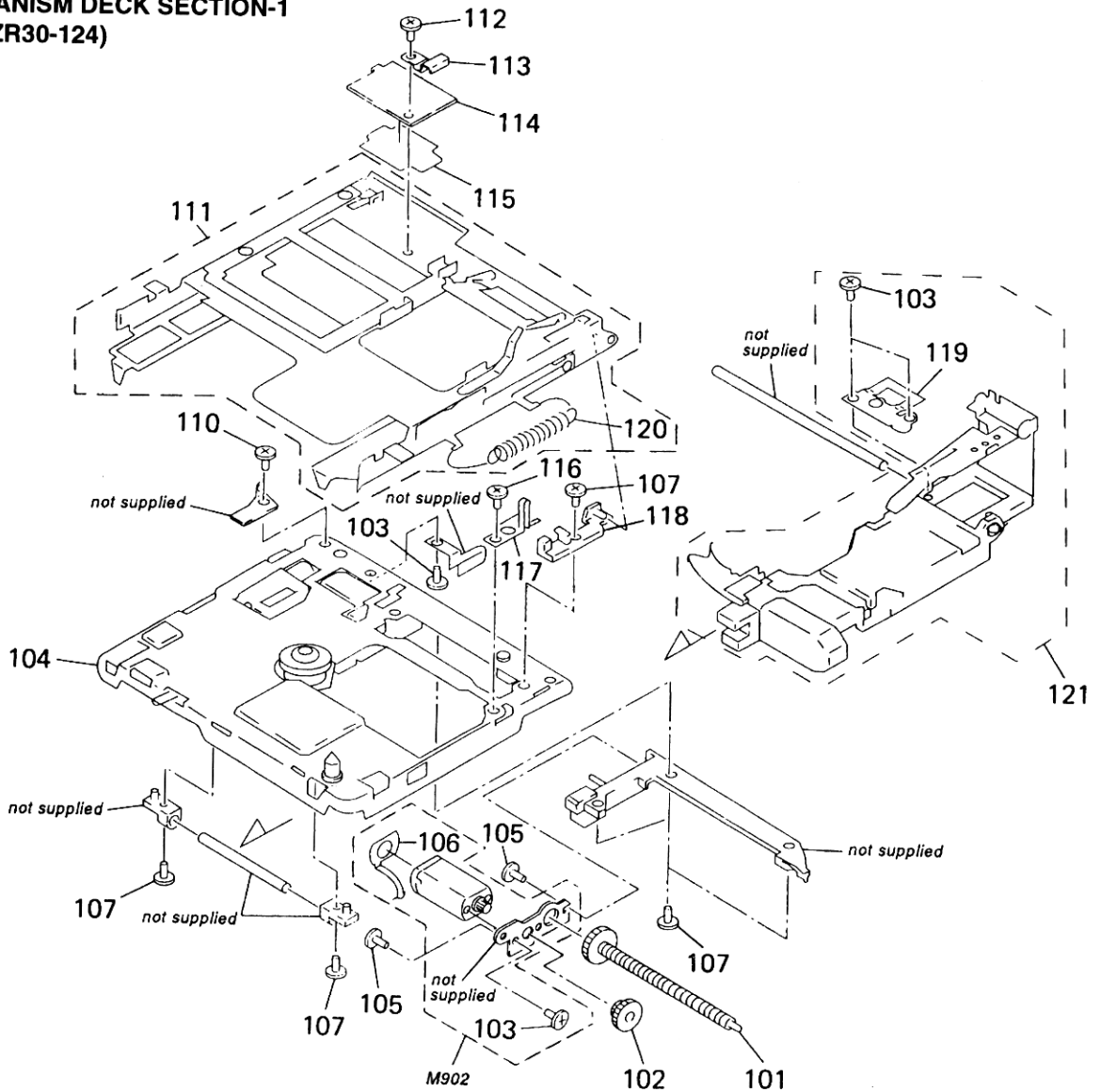
(B)
 MAIN BOARD
 (1/3)
 SERVO PROCESS
 SECTION
 CN502
 (Page 47)

8-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	1-473-895-11	SWITCH UNIT (WITH JOG DIAL)		65	4-986-188-01	REINFORCEMENT	
52	4-984-017-11	SCREW (1.7X2.5), TAPPING		66	3-335-797-91	SCREW (M1.4), TOOTHED LOCK	
53	4-986-186-01	RETAINER (DIAL)		67	A-3306-147-A	SWITCH BOARD, COMPLETE	
54	4-963-924-01	SCREW (DAMPER)		68	A-3293-253-A	POWER BOARD, COMPLETE	
55	X-4947-771-1	BELT ASSY, ORNAMENTAL		69	4-986-183-01	LID, BATTERY CASE	
56	4-983-998-01	KNOB (REC)		70	X-4947-720-1	PLATE (BATTERY)ASSY,ORNAMENTAL ...(SILVER)	
57	4-984-006-01	SCREW, STEP		70	X-4947-842-1	PLATE (BATTERY)ASSY, (L)...(BLUE)	
58	4-983-995-01	LEVER (REC)		71	X-4947-772-1	CASE ASSY, BATTERY	
59	4-984-004-01	SPRING (LOCK), COMPRESSION		72	4-984-016-01	SPRING (POP UP), COIL	
60	4-983-993-01	LEVER (OPEN)		73	4-988-114-01	TERMINAL, BATTERY	
61	4-983-994-01	ARM, LOCK		74	1-777-761-11	WIRE (FLAT TYPE) (24 CORE)	
62	4-963-883-21	SCREW (M1.4), PRECISION PAN... (SILVER)		75	4-984-019-01	SHAFT (BATTERY CASE LID)	
62	4-963-883-31	SCREW (M1.4), PRECISION PAN... (BLUE)		76	4-984-018-01	PLATE, FULCRUM	
63	X-4947-717-1	PLATE ASSY, FULCRUM					
64	4-983-311-01	DAMPER					

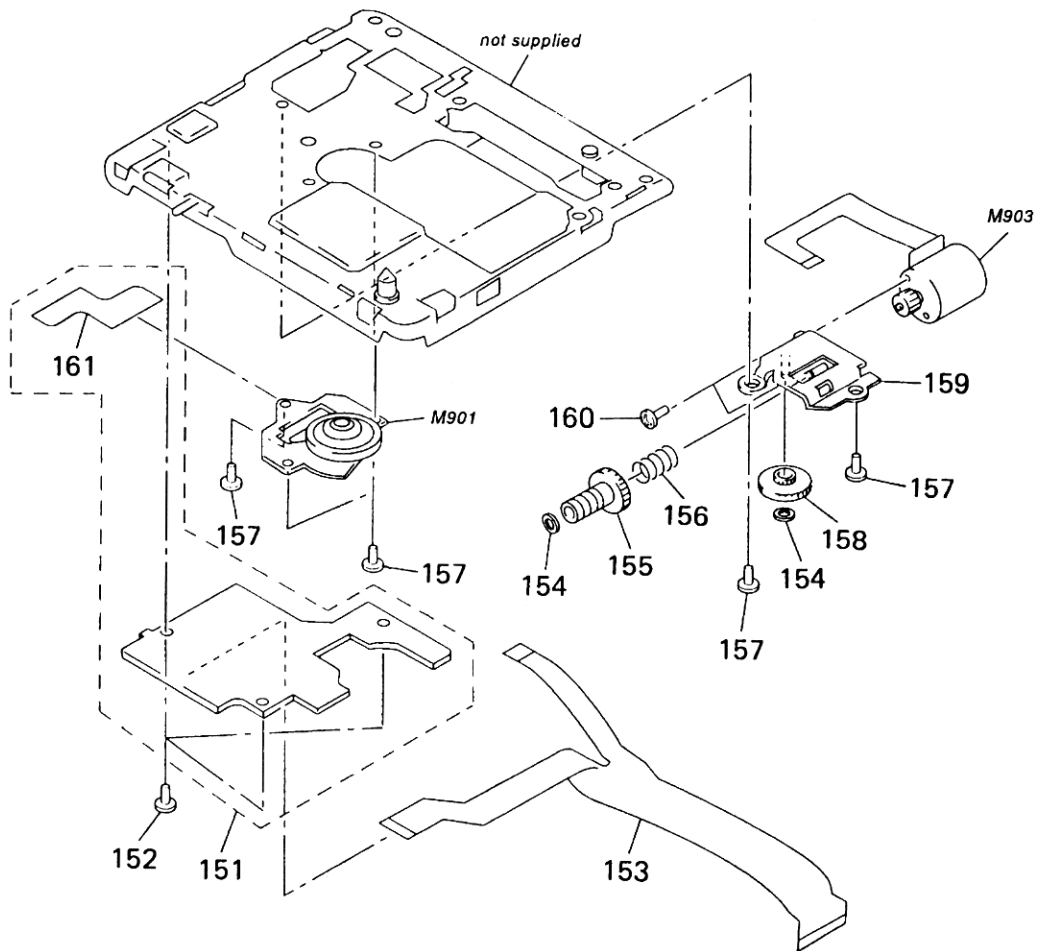
**8-3. MECHANISM DECK SECTION-1
(MT-MZR30-124)**



<p>The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	A-3303-501-A	SCREW BLOCK ASSY, LEAD		113	4-988-174-01	STOPPER, LEVER	
102	4-972-548-01	GEAR (BH)		* 114	1-663-390-11	REC BOARD	
103	3-366-890-11	SCREW (M1.4)		115	4-984-032-01	SHEET, INSULATING	
104	X-4947-429-1	CHASSIS ASSY		116	3-348-160-01	SCREW (M1.4X1.3),PRECISION PAN	
105	4-964-537-01	SCREW (M1.4X4.5), TAPPING		117	4-983-357-01	CLAW, LOCK RELEASE	
106	1-651-018-11	SLED FLEXIBLE BOARD		* 118	4-983-356-01	GUIDE, HOLDER	
107	3-704-197-33	SCREW (M1.4X3.0), LOCKING		119	4-963-914-02	RACK (INSERTER)	
110	4-964-538-01	SCREW (M1.4X2)		120	4-983-358-01	SPRING, TENSION	
111	X-4947-887-1	HOLDER ASSY		\triangle 121	X-4948-260-1	OPTICAL PICK-UP ASSY	
112	4-955-841-01	SCREW		M902	A-3303-502-A	MOTOR BLOCK ASSY (SLED)	

**8-4. MECHANISM DECK SECTION-2
(MT-MZR30-124)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-3293-256-A	CONTROL PC BOARD ASSY,		158	4-963-898-01	GEAR (WORM WHEEL)	
152	3-366-890-11	SCREW (M1.4)		159	X-4944-449-1	CHASSIS ASSY, GEAR	
153	1-663-392-11	MD FLEXIBLE BOARD		160	4-964-564-01	SCREW (M1.2X1.6)	
154	3-338-645-31	WASHER (0.8-2.5)		161	1-651-017-11	CLV FLEXIBLE BOARD	
155	4-963-901-01	GEAR, WORM		M901	1-698-542-11	MOTOR (SPINDLE)	
156	4-972-546-01	SPRING (WORM GEAR), COMPRESSION		M903	A-3303-499-A	STEPPER BLOCK ASSY (STEPPING)	
157	4-955-841-01	SCREW					

REC

SWITCH

Ref. No.	Part No.	Description	Remark
*	1-663-390-11	REC BOARD ***** < CAPACITOR >	
C401	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C402	1-107-810-11	TANTAL. CHIP 33uF 20% 4V	
C403	1-109-814-11	MICA CHIP 220PF 5% 100V	
		< CONNECTOR >	
CN401	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P	
CN402	1-691-344-11	CONNECTOR, FFC/FPC (ZIF) 6P	
		< DIODE >	
D401	8-719-046-86	DIODE F1J6TP	
D402	8-719-046-86	DIODE F1J6TP	
		< TRANSISTOR >	
Q401	8-729-024-44	TRANSISTOR 2SK2315TYTR	
Q402	8-729-024-44	TRANSISTOR 2SK2315TYTR	
Q403	8-729-024-44	TRANSISTOR 2SK2315TYTR	
Q404	8-729-024-44	TRANSISTOR 2SK2315TYTR	

	A-3306-147-A	SWITCH BOARD, COMPLETE *****	
		< RESISTOR >	
R844	1-218-867-11	METAL CHIP 6.8K 0.50% 1/16W	
R845	1-218-871-11	METAL CHIP 10K 0.50% 1/16W	
		< SWITCH >	
S804	1-762-851-21	SWITCH, KEY BOARD (VOLUME -)	
S805	1-762-851-21	SWITCH, KEY BOARD (VOLUME +)	
S806	1-762-851-21	SWITCH, KEY BOARD (■)	

		MISCELLANEOUS *****	
13	1-801-522-11	LCD MODULE	
51	1-473-895-11	SWITCH UNIT (WITH JOG DIAL)	
74	1-777-761-11	WIRE (FLAT TYPE) (24 CORE)	
106	1-651-018-11	SLED FLEXIBLE BOARD	
△121	A-3311-140-A	OPTICAL PICK-UP ASSY	
153	1-663-392-11	MD FLEXIBLE BOARD	
161	1-651-017-11	CLV FLEXIBLE BOARD	
M901	1-698-542-11	MOTOR (SPINDLE)	
M902	A-3303-502-A	MOTOR BLOCK ASSY (SLED)	
M903	A-3303-499-A	STEPPER BLOCK ASSY (STEPPING)	

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS *****	
△	1-467-510-31	ADAPTOR, AC (AC-MZ60A) (US, CND)	
△	1-467-511-31	ADAPTOR, AC (AC-MZ60A) (AEP)	
△	1-467-511-41	ADAPTOR, AC (AC-MZ60) (E13)	
△	1-467-513-21	ADAPTOR, AC (AC-MZ60) (UK, AUS)	
△	1-467-514-11	ADAPTOR, AC (AC-MZ60) (E33, Tourist)	
	1-473-109-31	REMOTE CONTROL UNIT	
	1-559-906-32	CORD, CONNECTION (AEP, UK)	
△	1-569-007-11	ADAPTOR, CONVERSION 2P (E33, Tourist)	
	1-759-277-21	CASE, BATTERY (EBP-MZR4)	
	1-779-504-11	CONNECTOR, OPTICAL (E13)	
	3-858-529-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH) (CND, AEP, E33, Tourist)	
	3-858-529-21	MANUAL, INSTRUCTION (ENGLISH) (US, UK, AUS, E13)	
	3-858-529-31	MANUAL, INSTRUCTION (DUTCH, SWEDISH, ITALIAN, PORTUGUESE) (AEP)	
	3-858-529-41	MANUAL, INSTRUCTION (JAPANESE, KOREAN, CHINESE) (E13, Tourist)	
	4-973-528-01	CASE, CARRYING	
*	4-987-395-01	CASE, INDIVIDUAL (EXCEPT US)	
*	4-991-504-01	CASE, INDIVIDUAL (US)	
	8-953-091-90	HEADPHONE MDR-E838MP SET (EXCEPT US)	
	8-953-101-90	HEADPHONE MDR-24MP SET (US)	
	X-3329-657-1	ATTACHMENT ASSY (EXCEPT US)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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