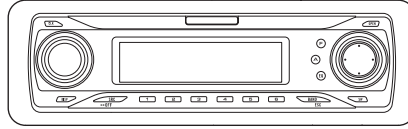


# Service Manual



DEH-P5750MP/XM/ES

ORDER NO.  
**CRT3357**

MULTI-CD CONTROL HIGH POWER CD/MP3/WMA/WAV PLAYER WITH FM/AM TUNER

# DEH-P5750MP /XM/ES

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3158	CRT3394	S10.1AAC	CD Mech. Module:Circuit Description, Mech. Description, Disassembly



For details, refer to "Important Check Points for Good Servicing".

1

2

3

4

# SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

**Service Precaution**

1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
3. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) on page 53.
4. After replacing the pickup unit, be sure to check the grating.

DEH-P5750MP/XM/ES

2

1

2

3

4

## [Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

### 1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

### 2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

### 3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

### 4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

### 5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

# CONTENTS

	SAFETY INFORMATION .....	2
	1. SPECIFICATIONS .....	5
A	2. EXPLODED VIEWS AND PARTS LIST .....	6
	2.1 PACKING .....	6
	2.2 EXTERIOR .....	8
	2.3 CD MECHANISM MODULE .....	10
	3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM .....	12
	3.1 BLOCK DIAGRAM .....	12
	3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE) .....	14
	3.3 KEYBOARD UNIT .....	20
	3.4 CD MECHANISM MODULE(GUIDE PAGE) .....	22
	4. PCB CONNECTION DIAGRAM .....	32
	4.1 TUNER AMP ASSY .....	32
	4.2 KEYBOARD UNIT .....	36
B	4.3 CD MECHAMODULE UNIT .....	38
	4.4 PANEL UNIT .....	40
	5. ELECTRICAL PARTS LIST .....	41
	6. ADJUSTMENT .....	47
	6.1 CD ADJUSTMENT .....	47
	6.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT .....	49
	6.3 ERROR MODE .....	51
	6.4 SYSTEM MICROCOMPUTER TEST PROGRAM .....	52
	7. GENERAL INFORMATION .....	53
	7.1 DIAGNOSIS .....	53
	7.1.1 DISASSEMBLY .....	53
	7.1.2 CONNECTOR FUNCTION DESCRIPTION .....	56
C	7.2 PARTS .....	57
	7.2.1 IC .....	57
	7.2.2 DISPLAY .....	65
	7.3 OPERATIONAL FLOW CHART .....	66
	7.4 CLEANING .....	67
	8. OPERATIONS .....	68

D

E

F

# 1. SPECIFICATIONS

## General

Rated power source	14.4 V DC (allowable voltage range: 12.0 – 14.4 V DC)
Grounding system	Negative type
Max. current consumption	10.0 A
Backup current	5 mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 157 mm
Nose	188 × 58 × 19 mm
D	
Chassis	178 × 50 × 162 mm
Nose	170 × 46 × 14 mm
Weight	1.4 kg

## Audio

Continuous power output is 22 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output	50 W × 4 50 W × 2/4 Ω + 70 W × 1/2 Ω (for subwoofer)
Load impedance	4 Ω (4 – 8 Ω [2 Ω for 1 ch] al- lowable)
Preout max output level/output impedance	2.2 V/1 kΩ
Equalizer (3-Band Parametric Equalizer):	
Low	
Frequency	40/80/100/160 Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Mid	
Frequency	200/500/1k/2k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
High	
Frequency	3.15k/8k/10k/12.5k Hz
Q Factor	0.35/0.59/0.95/1.15 (+6 dB when boosted)
Gain	±12dB
Loudness contour	
Low	+3.5 dB (100 Hz), +3 dB (10 kHz)
Mid	+10 dB (100 Hz), +6.5 dB (10 kHz)

High	+11 dB (100 Hz), +11 dB (10 kHz) (volume: -30 dB)
------	---

## Tone controls:

Bass	
Frequency	40/63/100/160 Hz
Gain	±12dB
Treble	
Frequency	2.5k/4k/6.3k/10k Hz
Gain	±12dB

## HPF:

Frequency	50/80/125 Hz
Slope	-12 dB/oct

## Subwoofer:

Frequency	50/80/125 Hz
Slope	-18 dB/oct
Gain	±12dB
Phase	Normal/Reverse

## CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format:	
Sampling frequency	44.1 kHz
Number of quantization bits	16; linear
Frequency characteristics	5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio	94 dB (1 kHz) (IEC-A net- work)
Dynamic range	92 dB (1 kHz)
Number of channels	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3
WMA decoding format	Ver. 7, 7.1, 8, 9 (2ch audio)
WAV signal format	Linear PCM & MS ADPCM

## FM tuner

Frequency range	87.5 – 108.0 MHz
Usable sensitivity	8 dBf (0.7 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 μV/75 Ω, mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.05 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)

## AM tuner

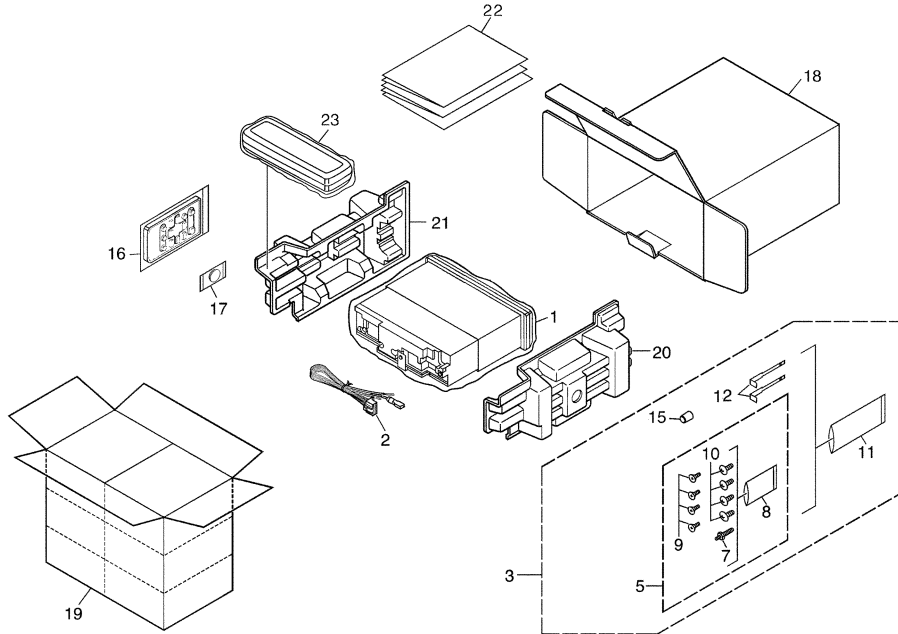
Frequency range	531 – 1,602 kHz (9 kHz) 530 – 1,640 kHz (10 kHz)
-----------------	---

## 2. EXPLODED VIEWS AND PARTS LIST

NOTES : • Parts marked by " \* " are generally unavailable because they are not in our Master Spare Parts List.

- The  $\triangle$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screw adjacent to  $\nabla$  mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.  
(In the case of no amount instructions, apply as you think it appropriate.)

### 2.1 PACKING



#### PACKING SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Polyethylene Bag	CEG-162	15	Bush	CNV3930
2	Cord Assy	XDE7007	16	Remote Control Unit	CXC3173
3	Accessory Assy	CEA4850	* 17	Battery	CEX1065
4	•••••		18	Carton	XHG7091
5	Screw Assy	CEA3849	19	Contain Box	XHL7091
6	•••••		20	Protector	XHP7003
7	Screw	CBA1650	21	Protector	XHP7004
* 8	Polyethylene Bag	CEG-127	22-1	Owner's Manual	XRD7062
9	Screw	CRZ50P090FTC	22-2	Owner's Manual	XRD7063
10	Screw	TRZ50P080FTC	22-3	Installation Manual	XRD7064
* 11	Polyethylene Bag	CEG-158	22-4	Caution Card	CRP1310
12	Handle	CNC5395	23	Case Assy	CXB3520
13	•••••				
14	•••••				

#### Owner's Manual, Installation Manual

Part No.	Language
XRD7062	English, Spanish, Portuguese(B)
XRD7063	Traditional Chinese, Arabic
XRD7064	English, Spanish, Portuguese(B), Traditional Chinese, Arabic



5



6



7



8



A



B



C



D



E



F



5



6

DEH-P5750MP/XM/ES



7

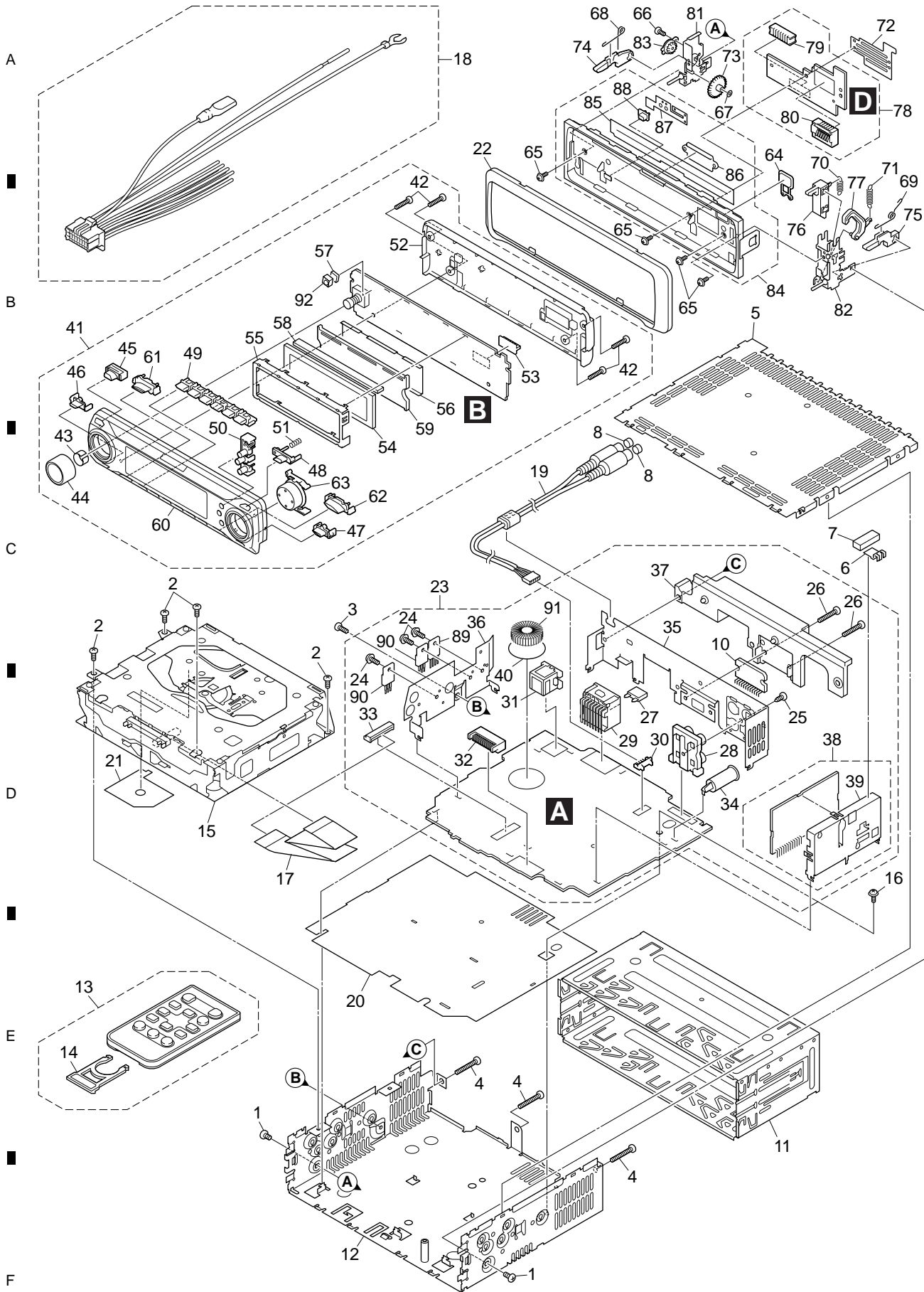


8

7



# 2.2 EXTERIOR

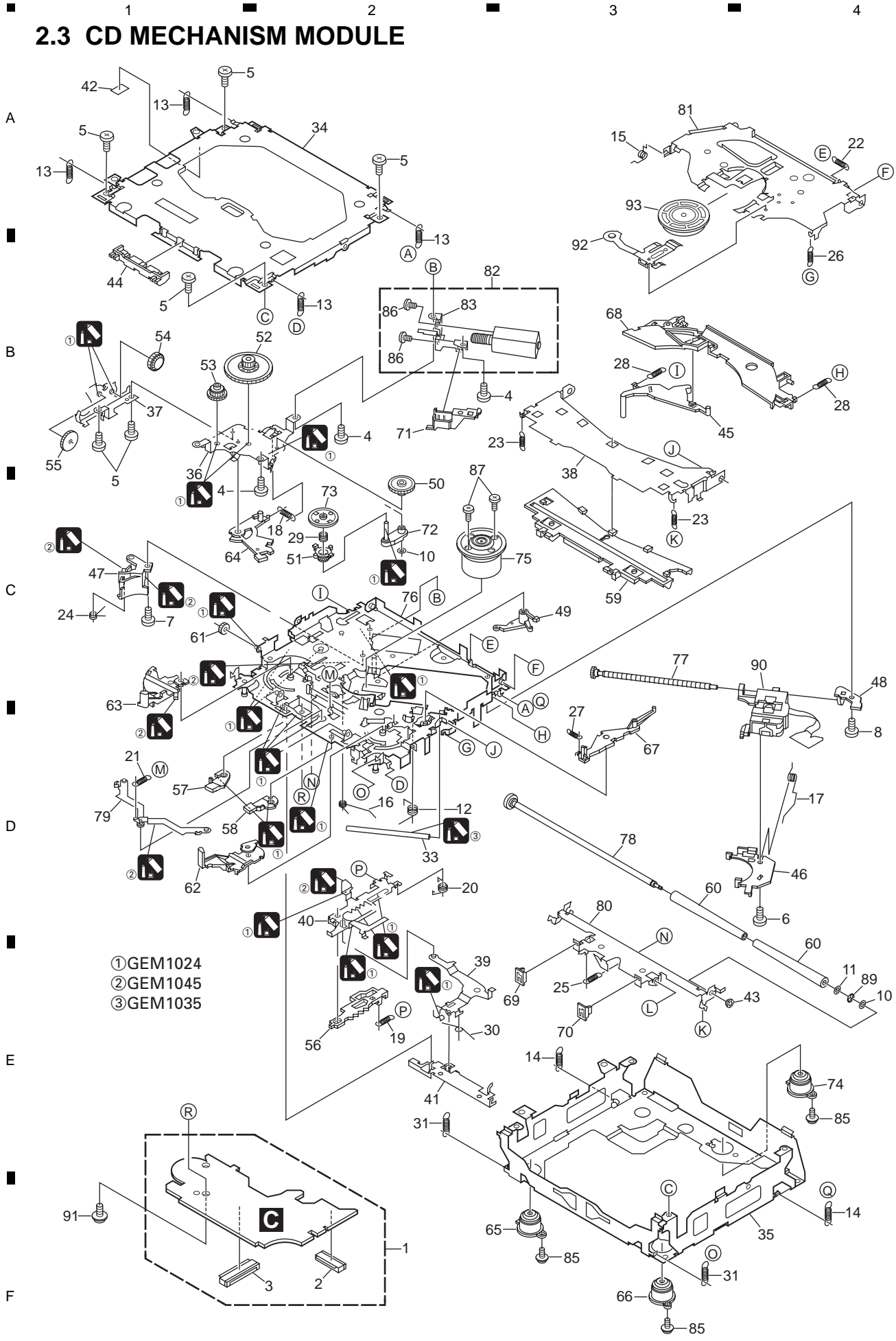




## EXTERIOR SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Screw	BMZ30P040FZK	47	Button(SW)	XAC7064
2	Screw	BSZ26P060FTC	48	Button(OPEN)	XAC7065
3	Screw	BSZ30P060FTC	49	Button(1-6)	XAC7070
4	Screw	BSZ30P200FTC	50	Button(F,A,EQ)	XAC7071
5	Case	CNB2793	51	Spring	XBH7001
6	Earth Plate	CNC8915	52	Cover	XNS7087
7	Cushion	CNM8890	53	Connector(CN1800)	CKS4524
8	Cap	CNV6727	54	LCD	XAW7013
9	.....		55	Holder	XNC7008
10	IC(IC301)	PAL007A	56	Sheet	XNM7044
11	Holder Unit	CXB6681	57	Cushion	XNM7049
12	Chassis Unit	CXB9528	58	Connector	XNV7020
13	Remote Control Unit	CXC3173	59	Lighting Conductor	XNV7021
14	Cover	CNS7068	60	Sub Grille Assy	XXA7290
15	CD Mechanism Module(S10.1AAC)	CXK5668	61	Button Unit(SRC)	XXA7307
16	Screw	ISS26P055FTC	62	Button Unit(BAND)	XXA7308
17	Cable	XDE7002	63	Sub Button Assy	XXA7310
18	Cord Assy	XDE7007	64	Button(EJECT)	CAC7752
19	Cord Assy	XDE7009	65	Screw(M2x4.5)	CBA1647
20	Insulator	XNM7100	66	Screw(M2x4)	CBA1649
21	Insulator	XNM7106	67	Washer	CBF1038
22	Panel	XNS7088	68	Spring	CBH2650
23	Tuner Amp Assy	XWM7091	69	Spring	CBH2651
24	Screw	ASZ26P060FTC	70	Spring	CBH2652
25	Screw	BPZ26P080FTC	71	Spring	CBH2653
26	Screw	BSZ26P160FTC	72	Holder	CND1254
⚠ 27	Fuse(10A)	CEK1208	73	Gear	CNV5997
28	Pin Jack(CN352)	CKB1051	74	Arm	CNV7400
29	Plug(CN901)	CKM1376	75	Arm	CNV7401
30	Plug(CN351)	CKS1238	76	Arm	CNV7402
31	Connector(CN101)	CKS3408	77	Arm	CNV7403
32	Plug(CN801)	CKS3537	78	Panel Unit	CWM8758
33	Connector(CN651)	CKS3837	79	Socket(CN1950)	CKS3550
34	Antenna Jack(CN401)	CKX1056	80	Connector(CN1951)	CKS4806
35	Holder	CND1239	81	Holder Unit	CXB9501
36	Holder	CND1352	82	Holder Unit	CXB9502
37	Heat Sink	CNR1668	83	Damper Unit	CXB9503
38	FM/AM Tuner Unit	CWE1802	84	Sub Panel Unit	XXA7361
39	Holder	CND2144	85	Cover	CNM6854
40	Insulator	XNM7031	86	Lighting Conductor	CNV6487
41	Detachable Assy	XXA7281	87	Spring	CBL1512
42	Screw	BPZ20P100FZK	88	Pin	CNV6486
43	Spring	CBL1470	89	IC(IC901)	NJM2388F84
44	Knob	XAA7021	90	Transistor(Q650,911)	2SD2396
45	Button(CLK)	XAC7062	91	Choke Coil(L901)	CTH1280
46	Button(DISP)	XAC7063	92	IC(IC1802)	TSOP4840SB1

# 2.3 CD MECHANISM MODULE



- ① GEM1024
- ② GEM1045
- ③ GEM1035

## CD MECHANISM MODULE SECTION PARTS LIST

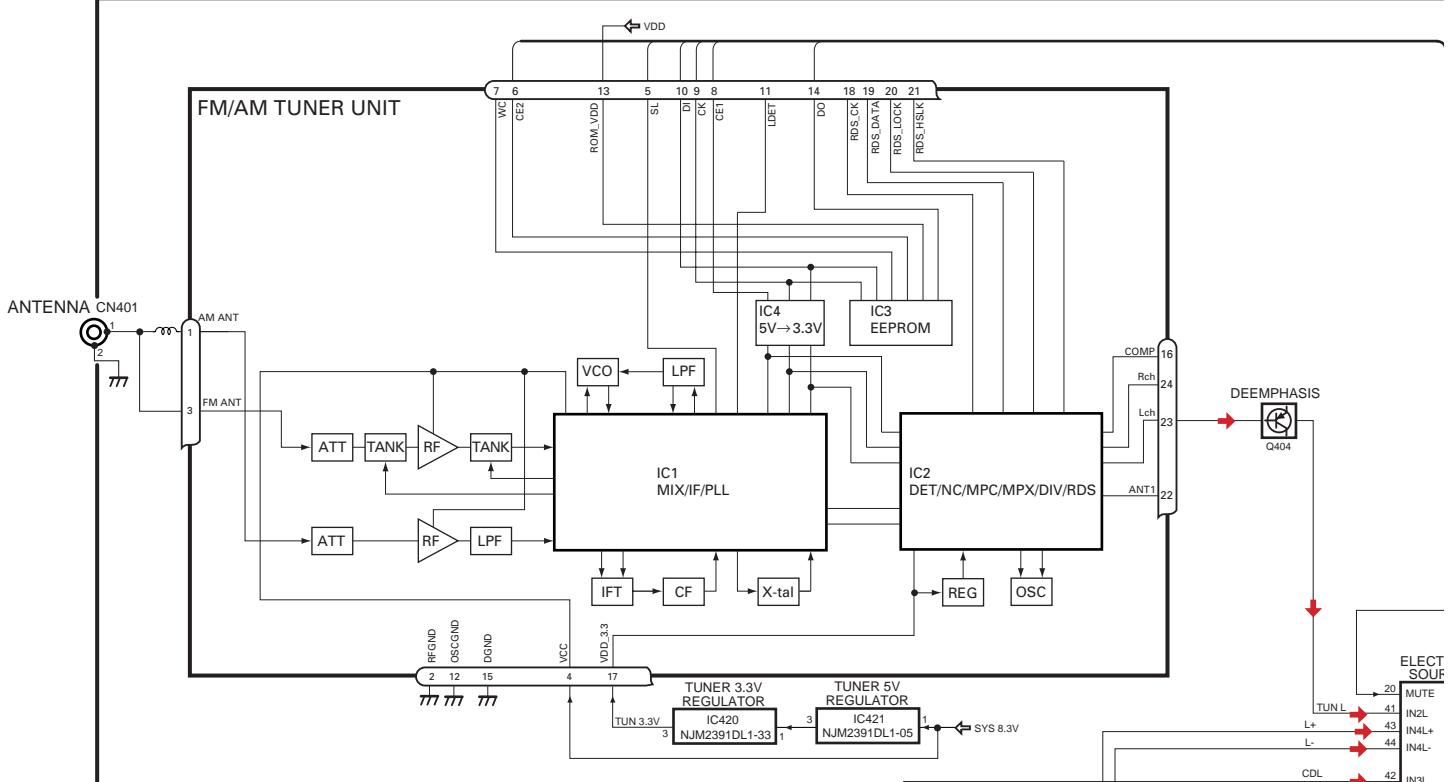
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	CD Core Unit(S10.1)	CWX3096	50	Gear	CNV8379	
2	Connector(CN101)	CKS4182				A
3	Connector(CN901)	CKS4017	51	Gear	CNV8380	
4	Screw	BMZ20P035FTC	52	Gear	CNV8381	
5	Screw	BSZ20P040FTC	53	Gear	CNV8382	
			54	Gear	CNV8383	
			55	Gear	CNV8384	
6	Screw(M2x4)	CBA1362				
7	Screw(M2x3)	CBA1824				
8	Screw(M2x3)	CBA1825	56	Rack	CNV8385	
9	.....		57	Arm	CNV8386	
10	Washer	CBF1038	58	Arm	CNV8387	
			59	Guide	CNV8388	
			60	Roller	CNV7218	B
11	Washer	CBF1060				
12	Spring	CBH2390				
13	Spring	CBH2606	61	Gear	CNV8389	
14	Spring	CBH2607	62	Arm	CNV8391	
15	Spring	CBH2608	63	Arm	CNV8390	
			64	Arm	CNV8392	
16	Spring	CBH2609	65	Damper	CNV7313	
17	Spring	CBH2610				
18	Spring	CBH2735	66	Damper	CNV7314	
19	Spring	CBH2612	67	Arm	CNV8394	
20	Spring	CBH2613	68	Arm	CNV8395	
			69	Guide	CNV8396	C
			70	Guide	CNV8397	
21	Spring	CBH2614				
22	Spring	CBH2615				
23	Spring	CBH2616	71	Holder	CNV8398	
24	Spring	CBH2617	72	Arm	CNV8402	
25	Spring	CBH2620	73	Gear	CNV8400	
			74	Damper	CNV7618	
26	Spring	CBH2621	75	Motor Unit(M1)	CXC4440	
27	Spring	CBH2641				
28	Spring	CBH2642	76	Chassis Unit	CXC2318	
29	Spring	CBH2643	77	Screw Unit	CXB8729	
30	Spring	CBH2659	78	Gear Unit	CXC2397	D
			79	Arm Unit	CXC2316	
			80	Arm	CND1896	
31	Spring	CBH2688				
32	.....					
33	Shaft	CLA4441	81	Arm	CND1894	
34	Frame	CNC9962	82	Motor Unit(M2)	CXB8933	
35	Frame	CNC9963	83	Bracket	CNC9985	
			84	.....		
36	Bracket	CND2712	85	Screw(M2x5)	EBA1028	
37	Bracket	CND1895				
38	Arm	CNC9968	86	Screw	JFZ20P020FTC	E
39	Arm	CND1909	87	Screw	JGZ17P022FTC	
40	Lever	CND2032	88	.....		
			89	Washer	YE20FTC	
41	Lever	CNC9984	90	Pickup Unit(P10)(Service)	CXX1641	
42	Sheet	CNM8134				
43	Collar	CNV7798	91	Screw	IMS26P030FTC	
44	Guide	CNV7799	92	Spring	CBL1635	
45	Arm	CNV8403	93	Clamper	CNV8372	
46	Rack	CNV8374				
47	Holder	CNV8376				F
48	Holder	CNV8377				
49	Arm	CNV8378				

# 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

## 3.1 BLOCK DIAGRAM

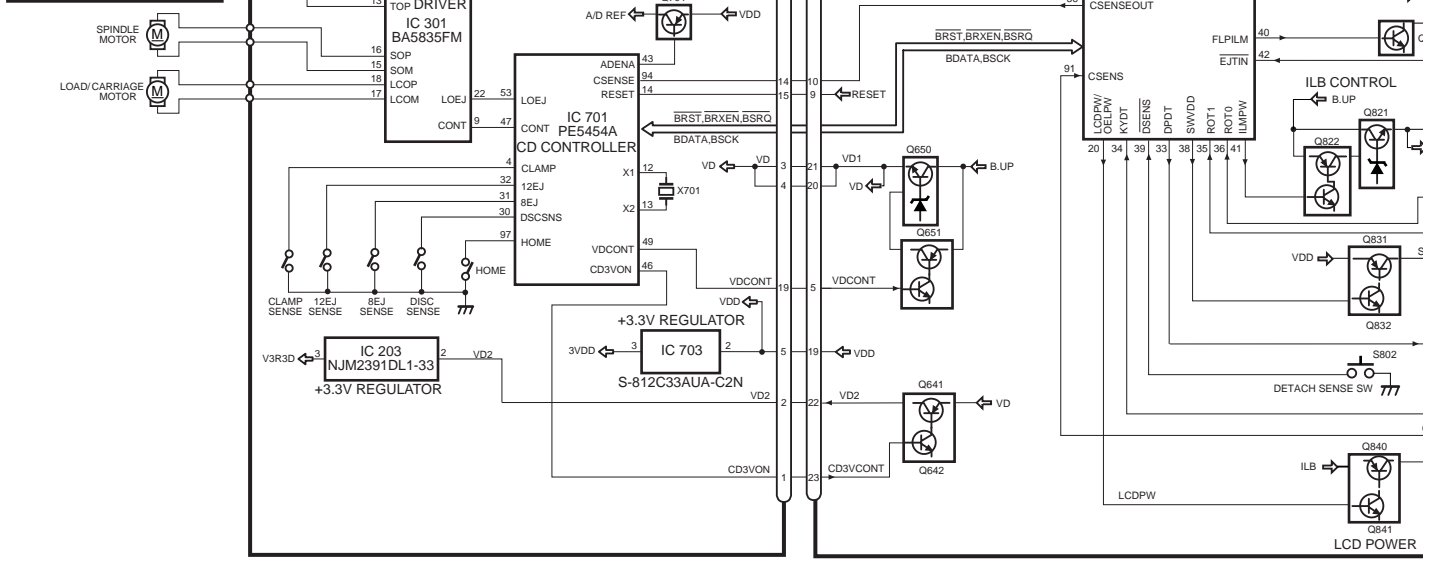
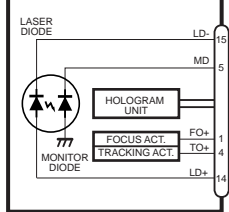
A  
B  
C  
D  
E  
F

**A** TUNER AMP ASSY

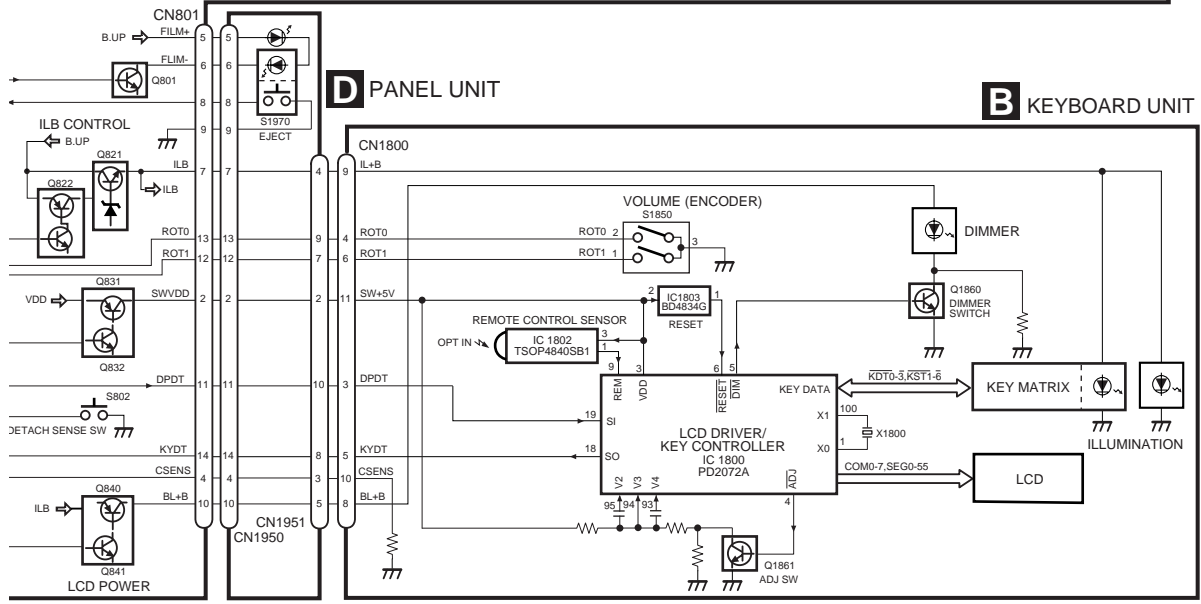
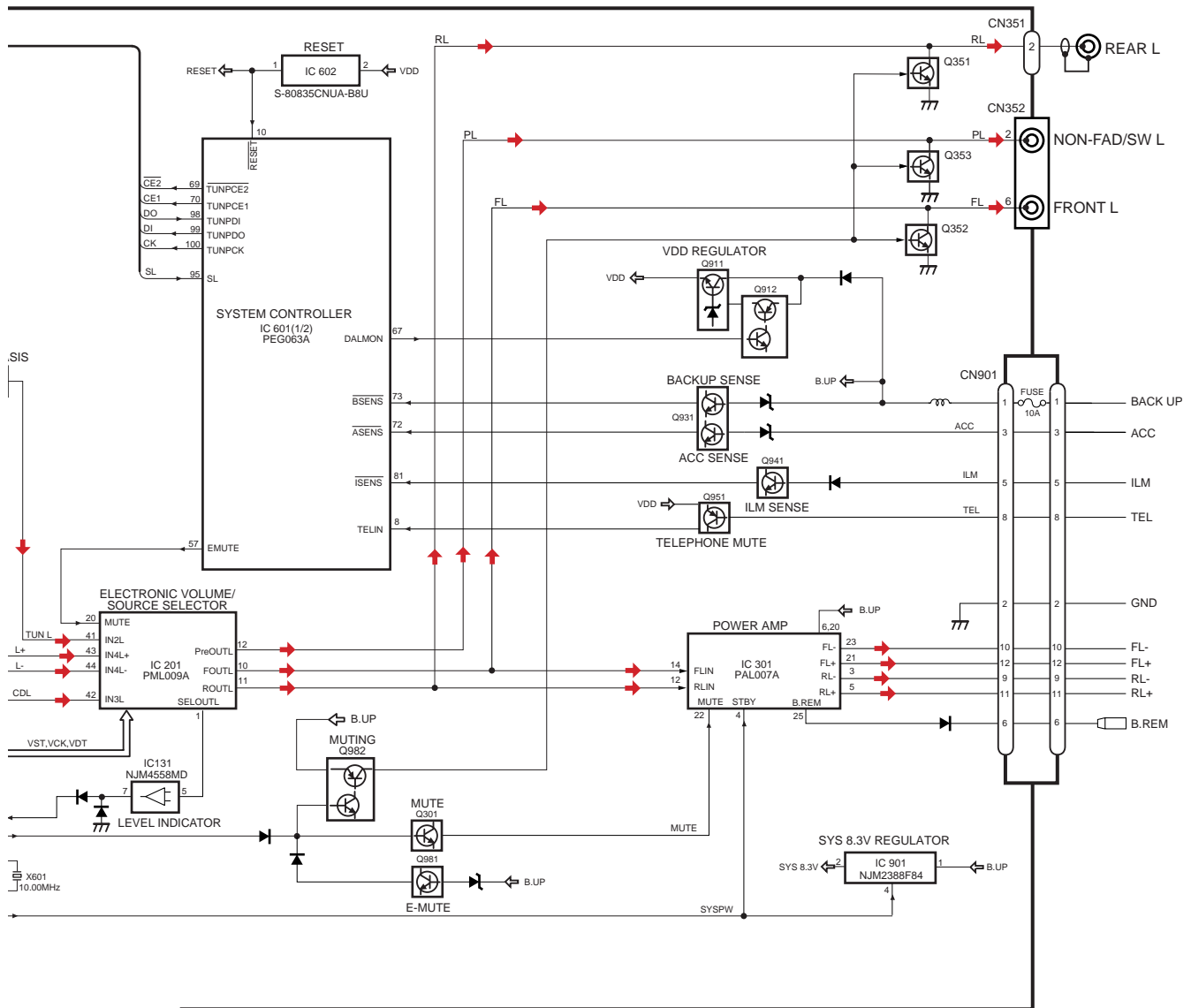


**C** CD CORE UNIT(S10.1)

**PICKUP UNIT (P10)(SERVICE)**



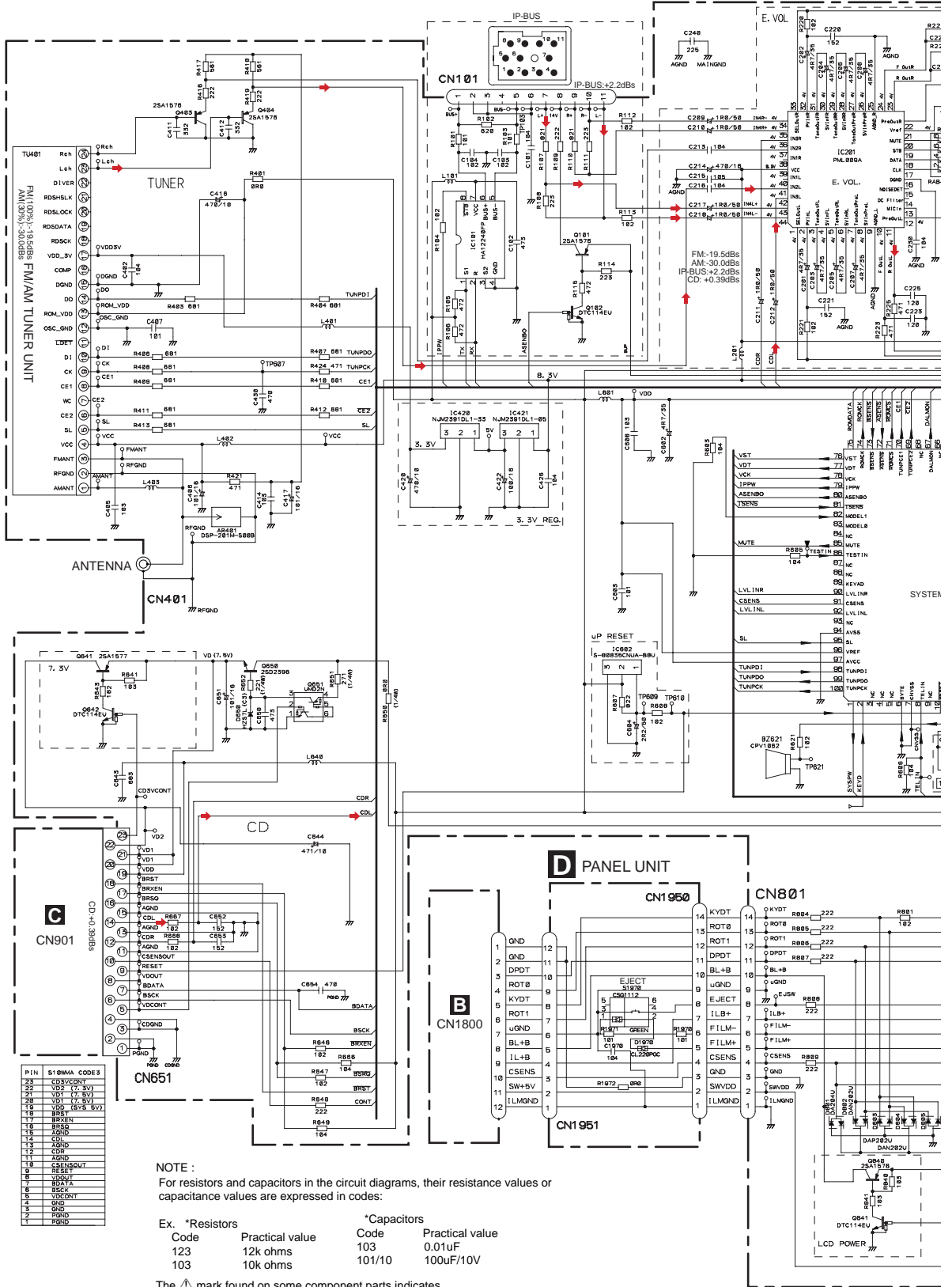
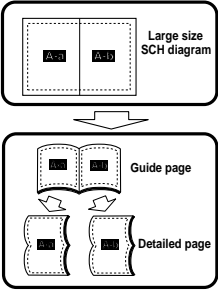
A  
B  
C  
D  
E  
F



# 3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

A-a



Pin	Symbol	Code	Value
28	CDVCONT	000	
27	VDD	(V. 5V)	
26	VDT	(V. 5V)	
25	VDD	(V. 5V)	
24	VDD	(V. 5V)	
23	VDD	(V. 5V)	
22	VDD	(V. 5V)	
21	VDD	(V. 5V)	
20	VDD	(V. 5V)	
19	VDD	(V. 5V)	
18	BRST		
17	BRST		
16	BRST		
15	BRST		
14	BRST		
13	BRST		
12	BRST		
11	BRST		
10	BRST		
9	BRST		
8	BRST		
7	BRST		
6	BRST		
5	BRST		
4	BRST		
3	BRST		
2	BRST		
1	BRST		

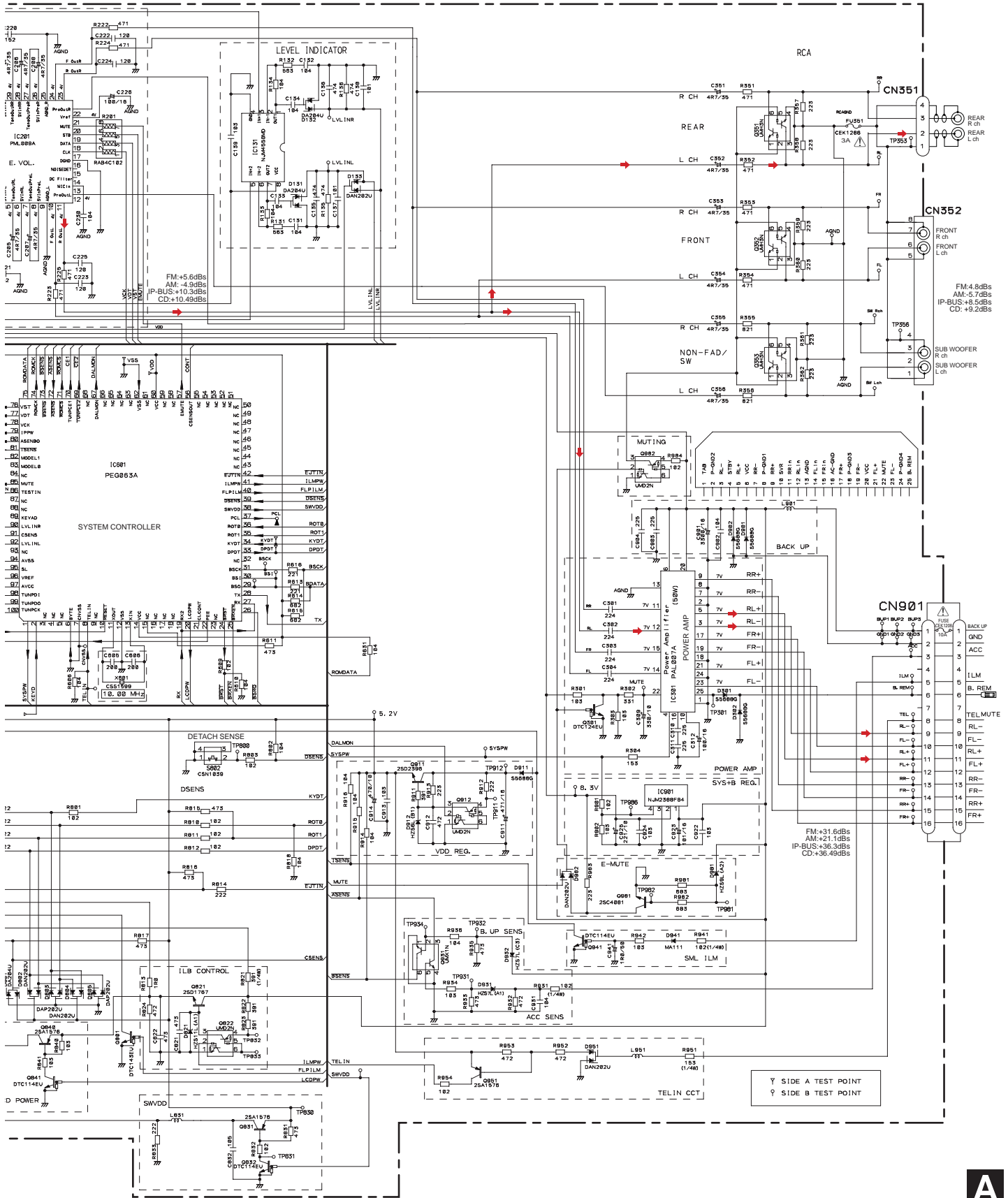
NOTE :  
 For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:  
 Ex. \*Resistors Code Practical value  
 123 12k ohms  
 103 10k ohms  
 \*Capacitors Code Practical value  
 103 0.01uF  
 101/10 100uF/10V

The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

AD

A-b

TUNER AMP ASSY



A

B

C

D

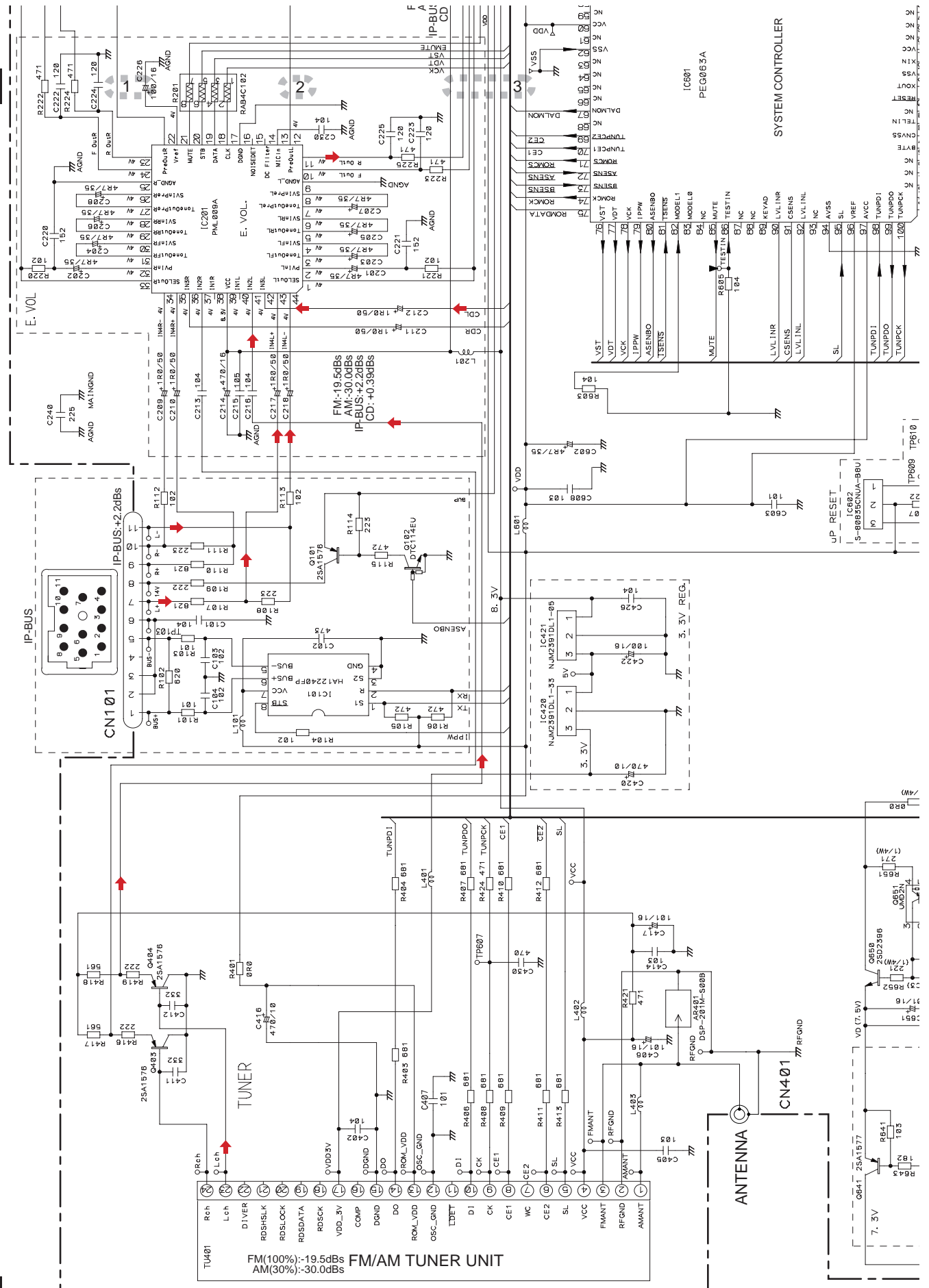
E

F

A-b

A-a

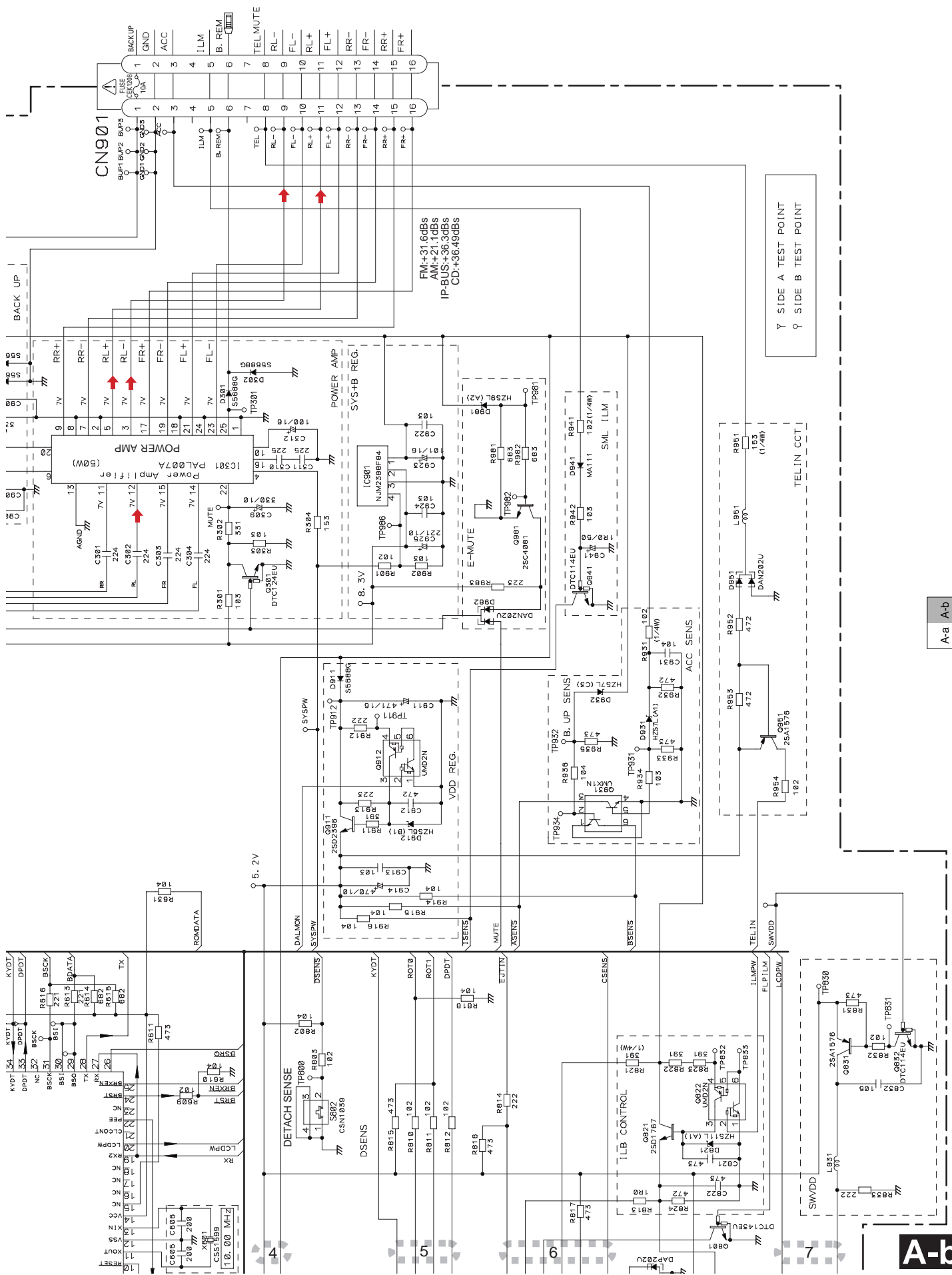
A-a











DEH-P5750MP/XM/ES

A-a A-b

A-b

5

6

7

8

5

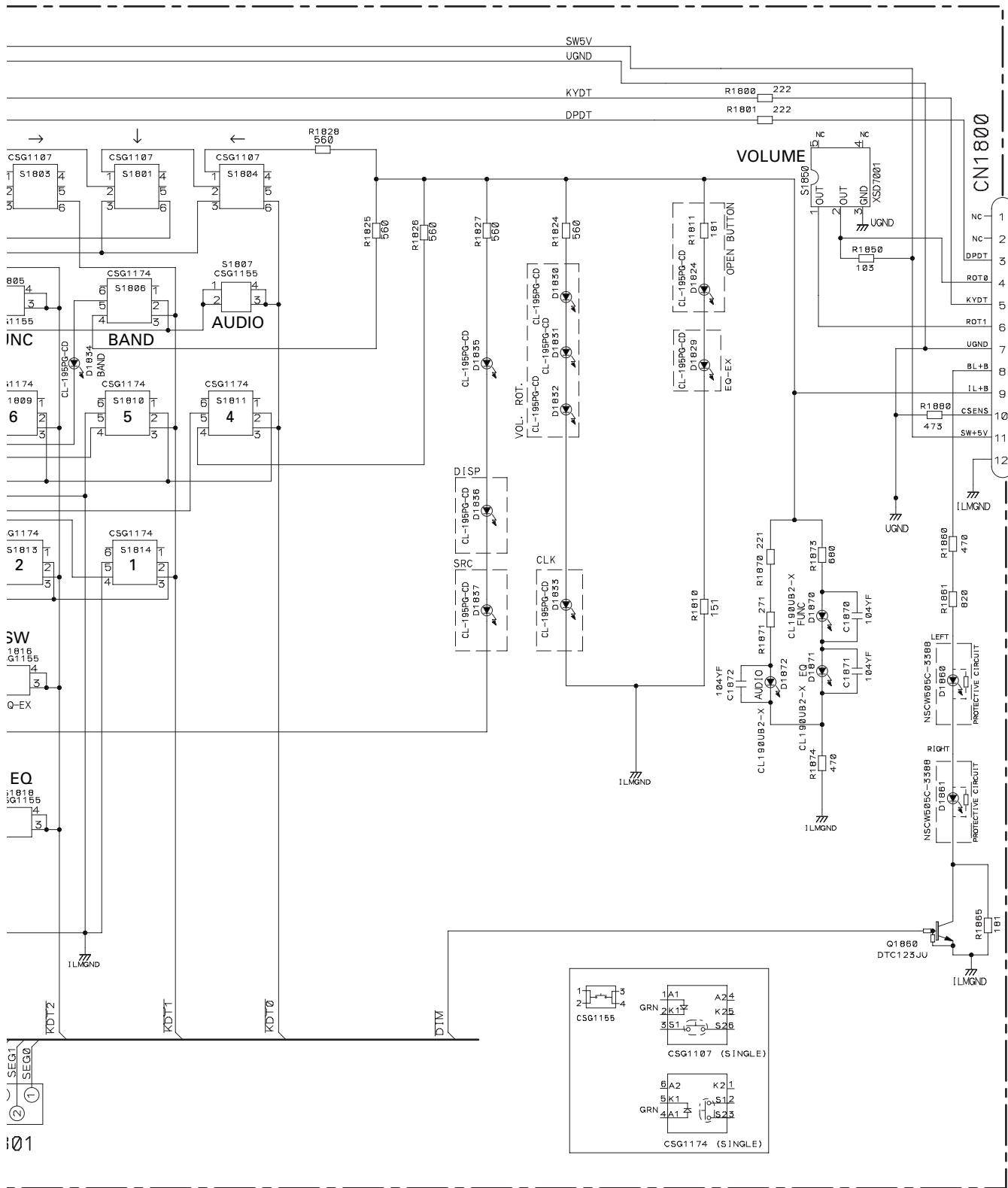
6

7

8



# B KEYBOARD UNIT

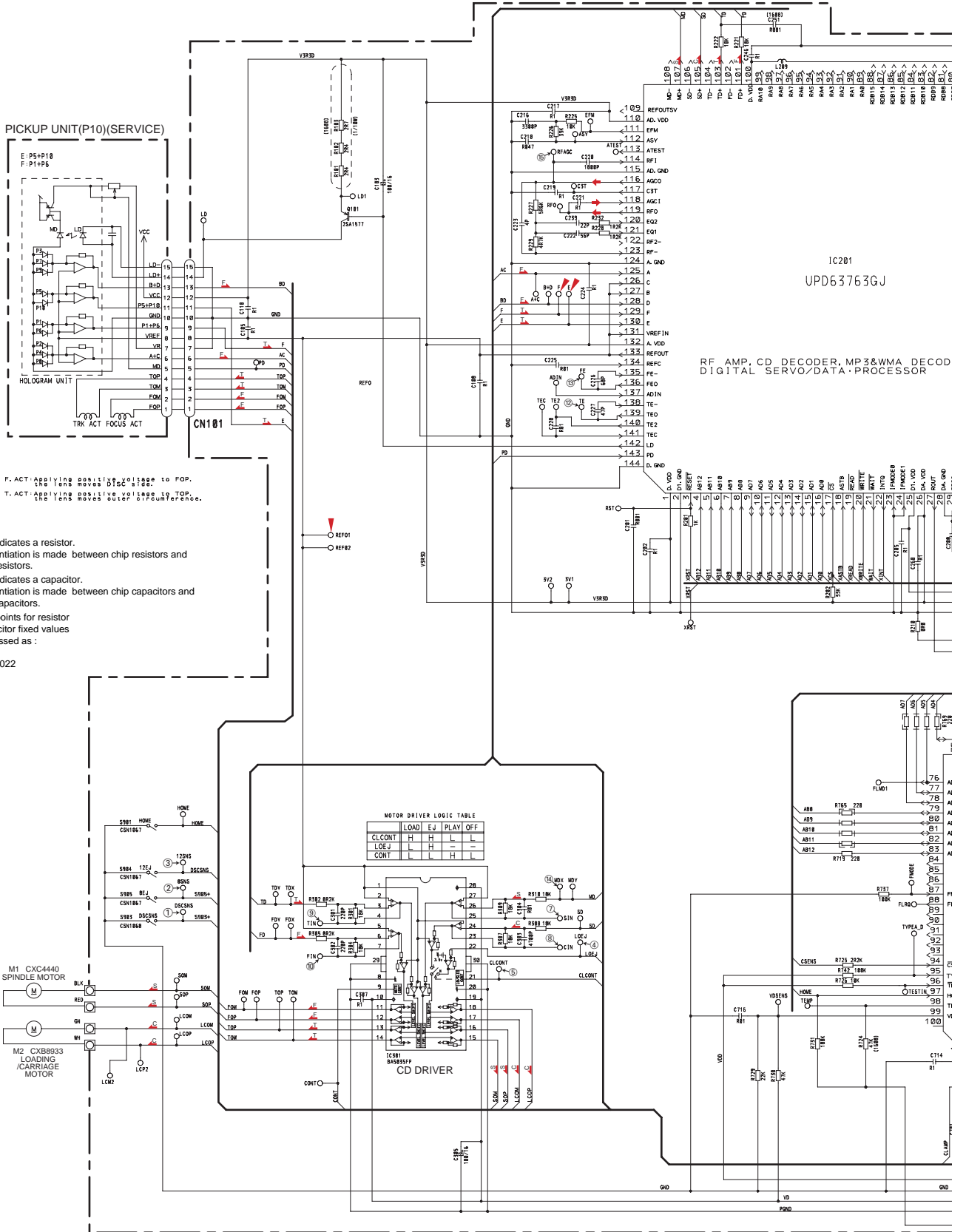


D CN1951

B

# 3.4 CD MECHANISM MODULE(GUIDE PAGE)

C-a



F, ACT: Applying positive voltage to FOP, the lens moves inside of disc.  
 T, ACT: Applying positive voltage to TOP, the lens moves out of disc.

- NOTE :**
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
  - ⊖ Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.
- Decimal points for resistor and capacitor fixed values are expressed as :  
 2.2 → 2R2  
 0.022 → R022

# C-b

NOTE1) GND ... CD LSI, RFAMP, CPU  
 PGND ... Actuator, Motor Driver  
 AGND ... Audio  
 These GND's are not connected to each other on PCB.  
 PGND is connected to a floating mechanism part by a screw.

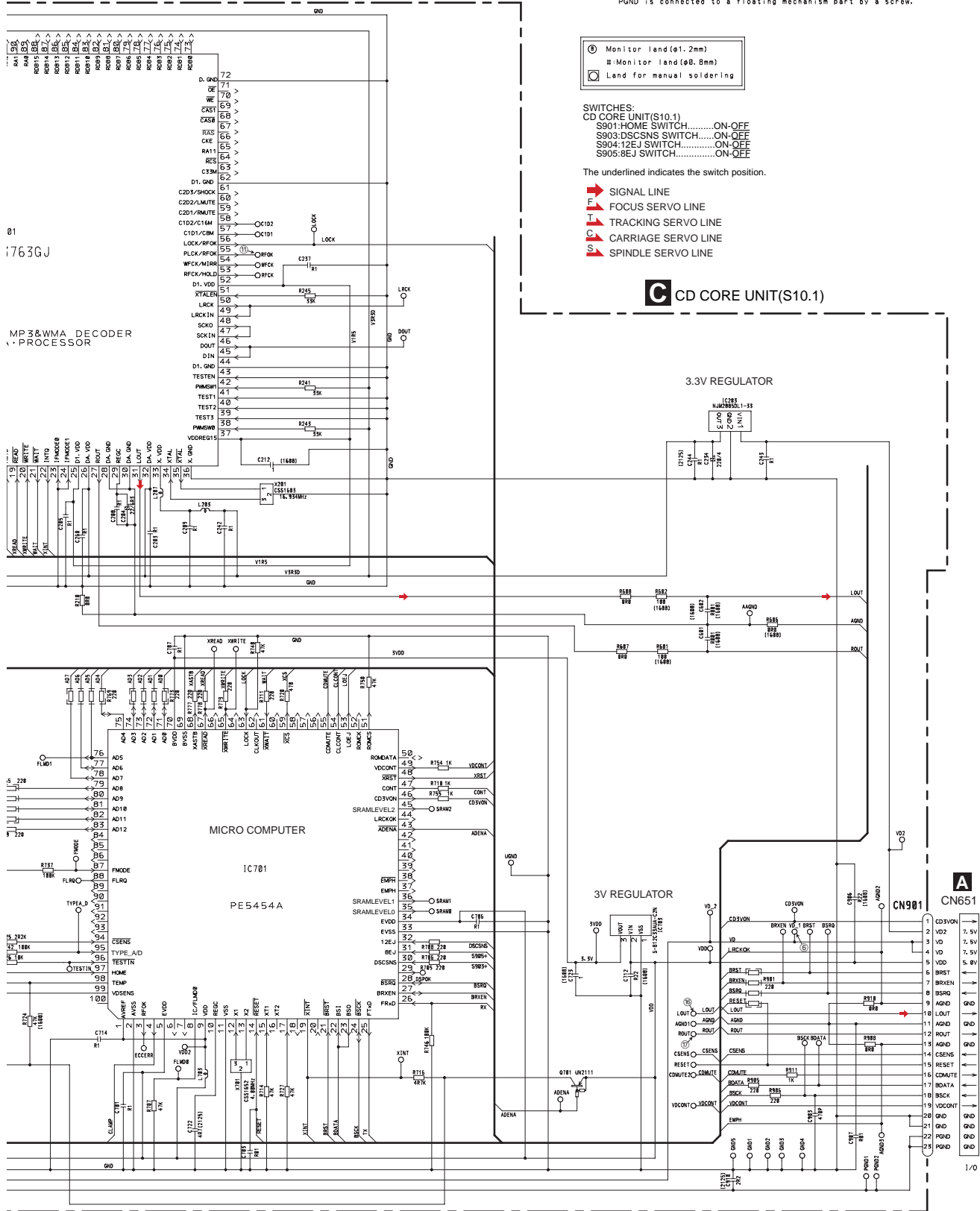
- ⊙ Monitor land(φ1.2mm)
- # Monitor land(φ0.8mm)
- Land for manual soldering

SWITCHES:  
 CD CORE UNIT(S10.1)  
 S901:HOME SWITCH.....ON-OFF  
 S903:DSCSNS SWITCH.....ON-OFF  
 S904:12EJ SWITCH.....ON-OFF  
 S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.

- ➔ SIGNAL LINE
- ➔ FOCUS SERVO LINE
- ➔ TRACKING SERVO LINE
- ➔ CARRIAGE SERVO LINE
- ➔ SPINDLE SERVO LINE

## C CD CORE UNIT(S10.1)



01  
i763GJ

MP3&WMA DECODER  
PROCESSOR

MICRO COMPUTER

IC701

PE5454A

3.3V REGULATOR

3V REGULATOR

A

CN651

1	CD3VON
2	VDD 7.5V
3	V0 7.5V
4	V0 7.5V
5	VDD 5.0V
6	BRST
7	BRKEN
8	LOUT
9	AGND
10	AGND
11	AGND
12	ROUT
13	AGND
14	CSENS
15	RESET
16	COMUTE
17	BRATA
18	BSCK
19	VDDCONT
20	GND
21	GND
22	PGND
23	PGND
24	PGND
25	PGND

1

2

3

4

A

B

C

D

E

F

C-b

C-a

F. ACT: Applying positive voltage to FOP.  
 T. ACT: Applying positive voltage to TOP.  
 the lens moves outer circumference.

NOTE:

- Symbol indicates a resistor.
- No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor.
- No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :  
 2.2 → 2R2  
 0.022 → R022

DEH-P5750MP/XM/ES

24

1

2

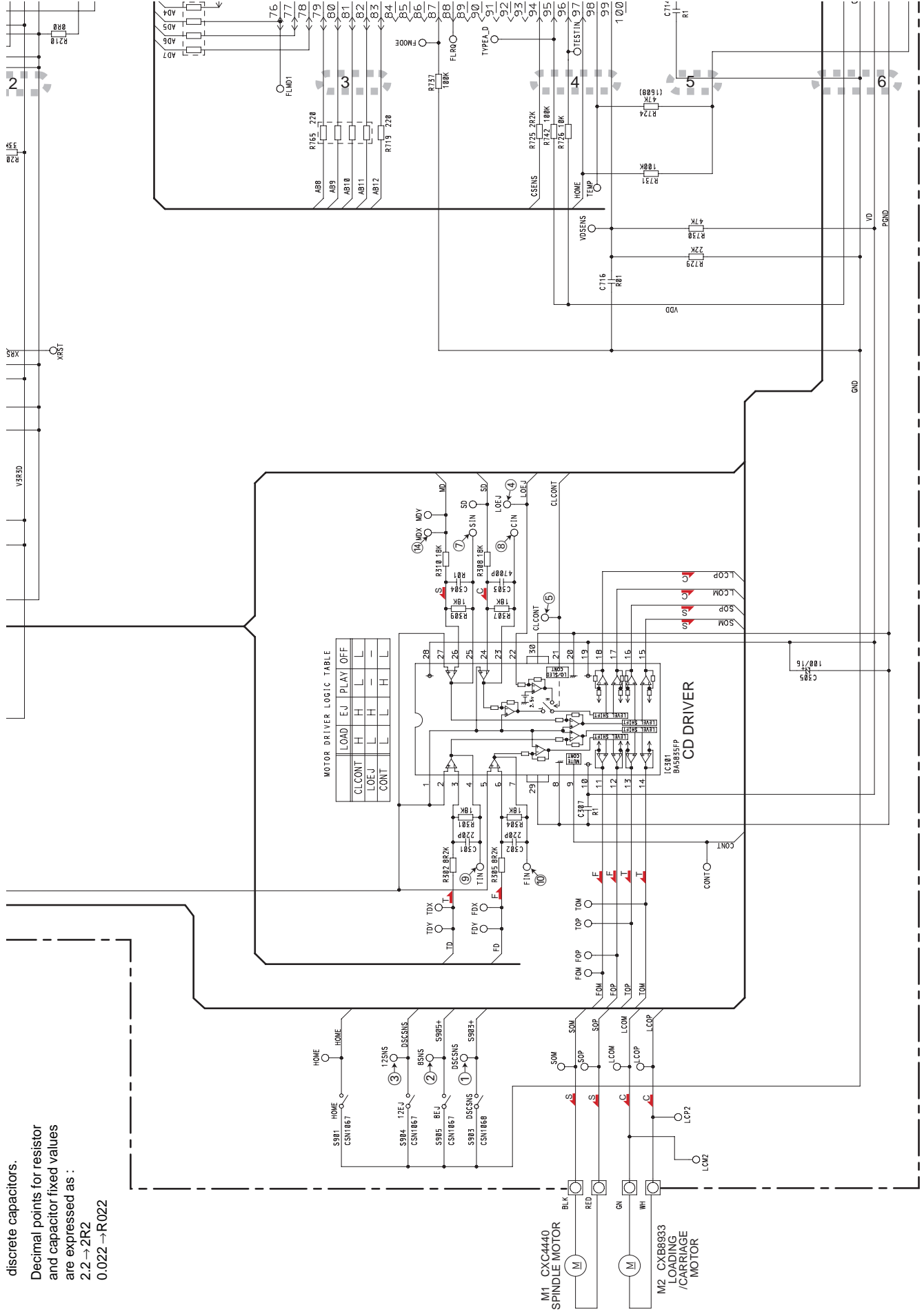
3

4



discrete capacitors.

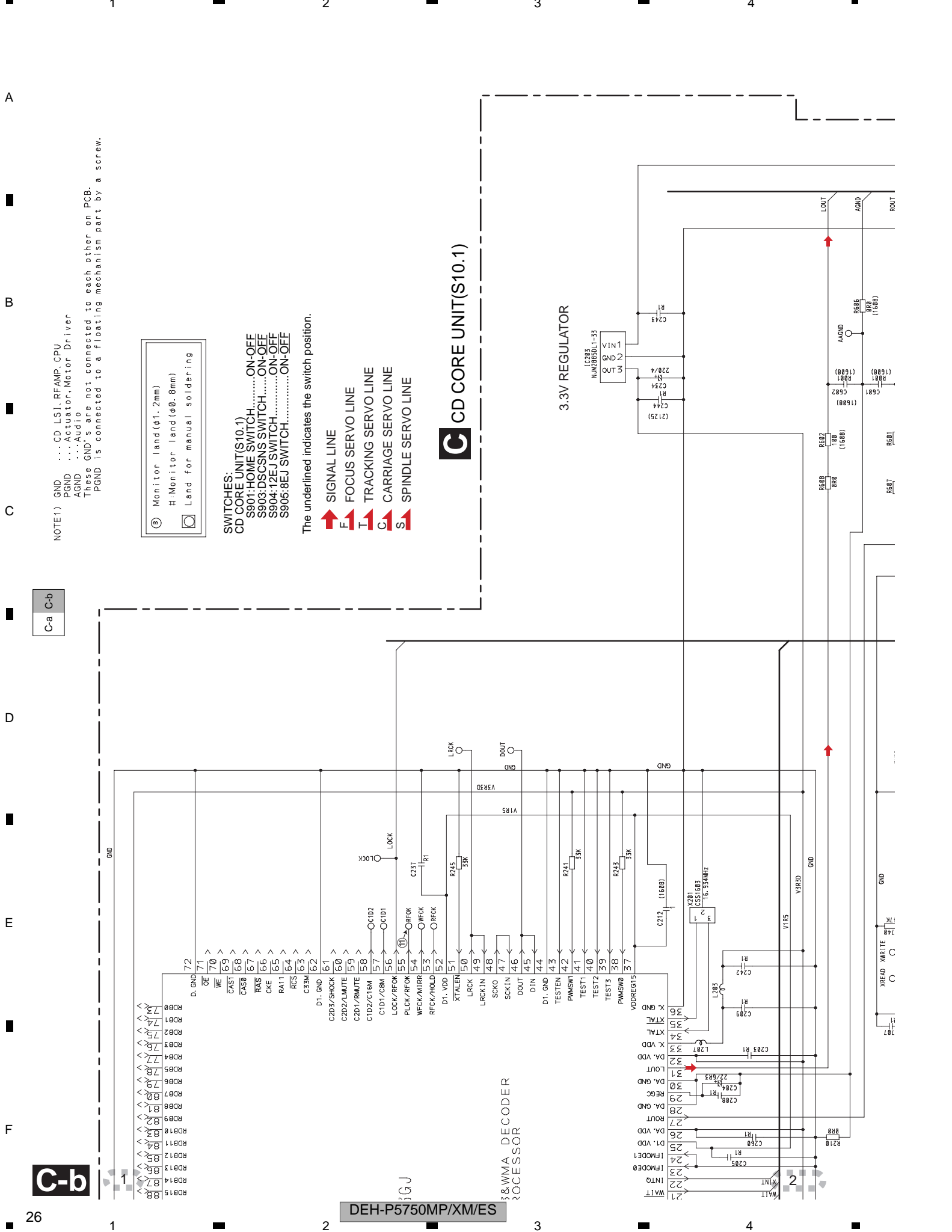
Decimal points for resistor and capacitor fixed values are expressed as :  
 2.2 → 2R2  
 0.022 → R022



C-a

C-a C-b

C-b



NOTE1) GND ...CD LSJ..RFAMP..CPU  
 PGND ...Actuator..Motor Driver  
 AGND ...Audio  
 PGND is connected to a floating mechanism part by a screw.

- (B) Monitor land (φ1.2mm)
- #: Monitor land (φ0.8mm)
- Land for manual soldering

SWITCHES:  
 CD CORE UNIT(S10.1)  
 S901:HOME SWITCH.....ON-OFF  
 S903:DSCSNS SWITCH.....ON-OFF  
 S904:12EJ SWITCH.....ON-OFF  
 S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.

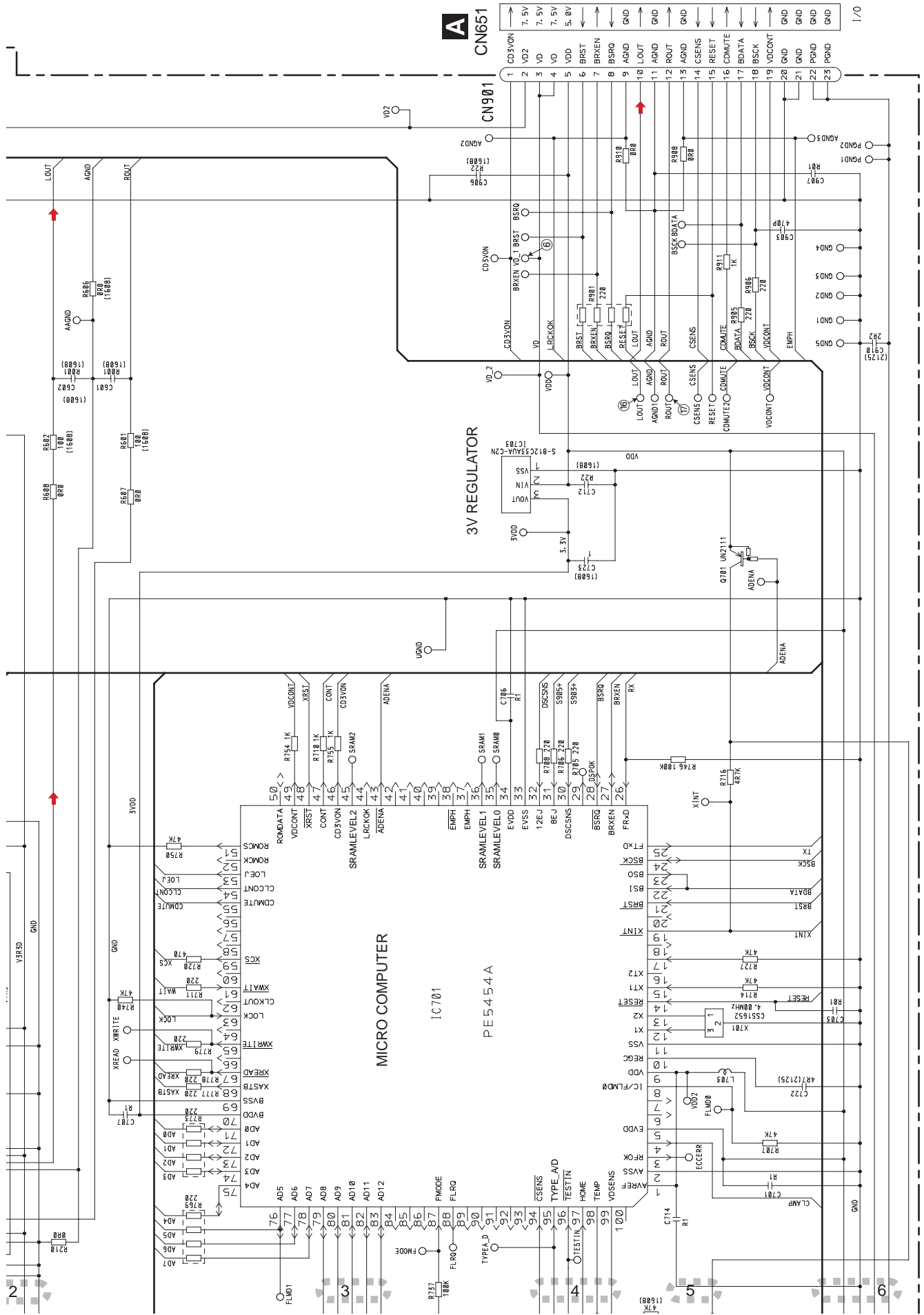
- SIGNAL LINE
- FOCUS SERVO LINE
- TRACKING SERVO LINE
- CARRIAGE SERVO LINE
- SPINDLE SERVO LINE

**C** CD CORE UNIT(S10.1)

3.3V REGULATOR

C-a C-b

C-b



DEH-P5750MP/XM/ES

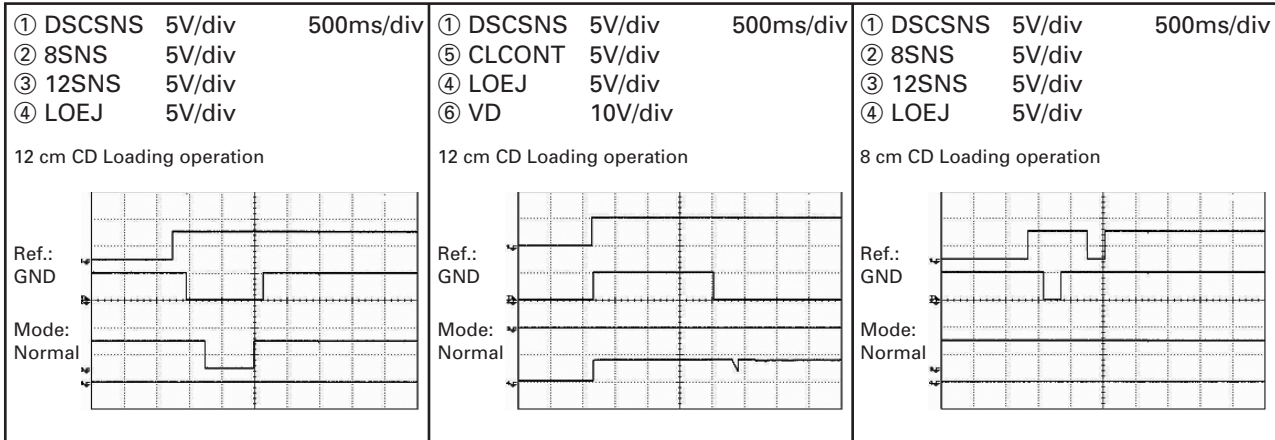
C-a C-b

C-b

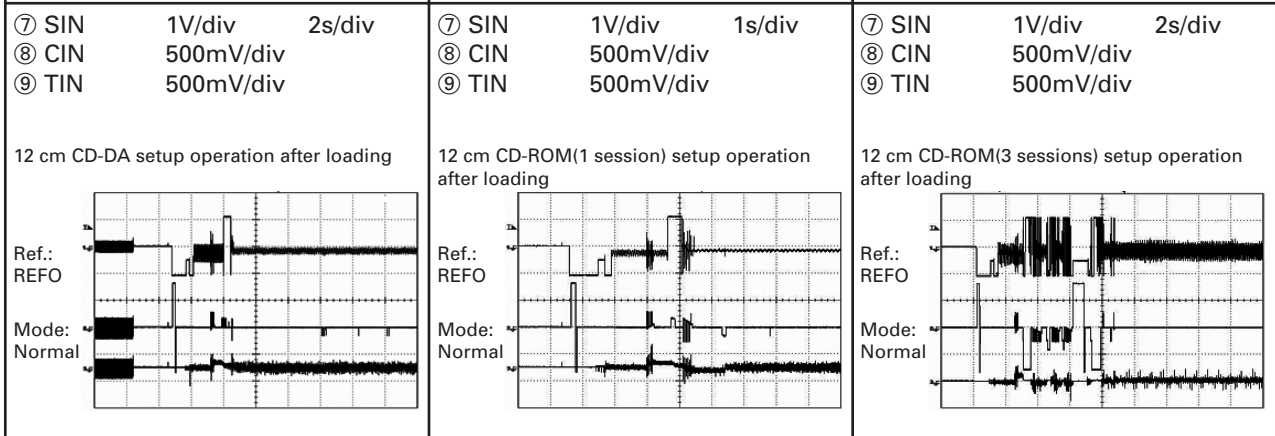
## Waveforms

Note : 1. The encircled numbers denote measuring points in the circuit diagram.  
2. Reference voltage REFO1(1.65V)

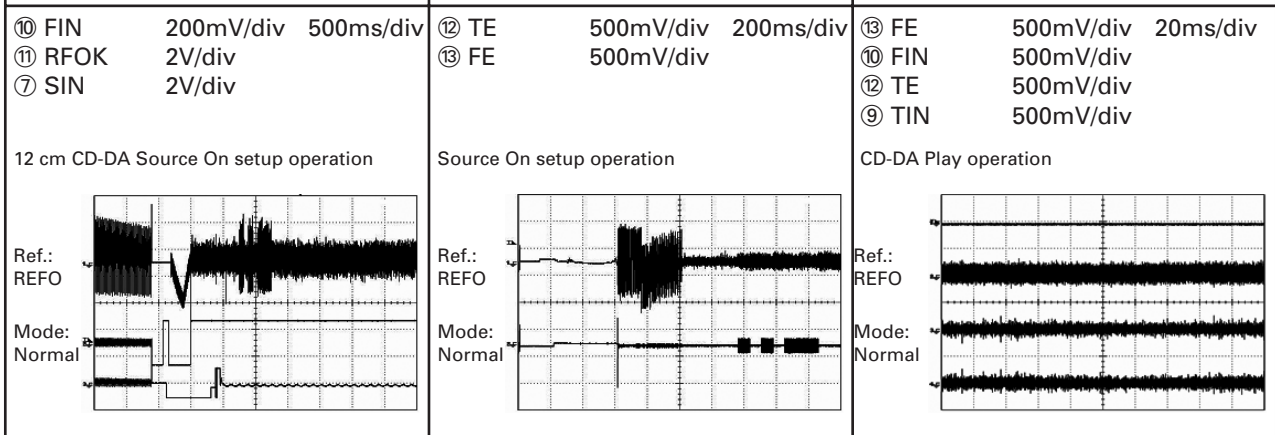
A



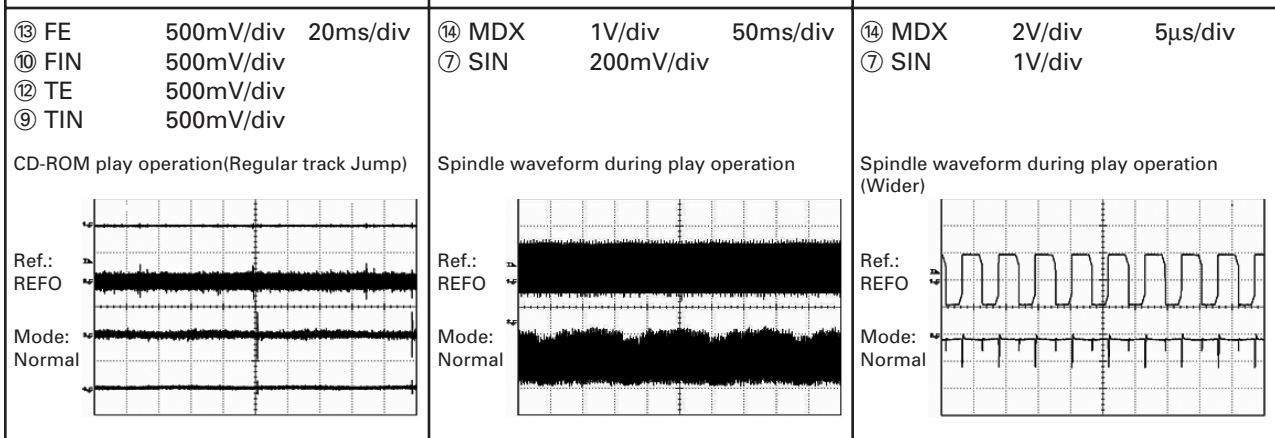
B



C

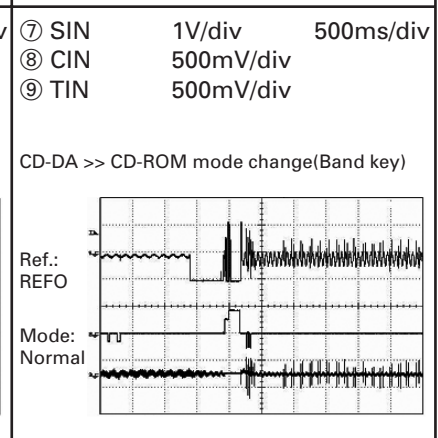
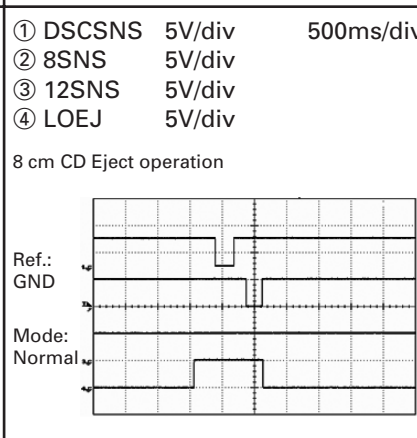
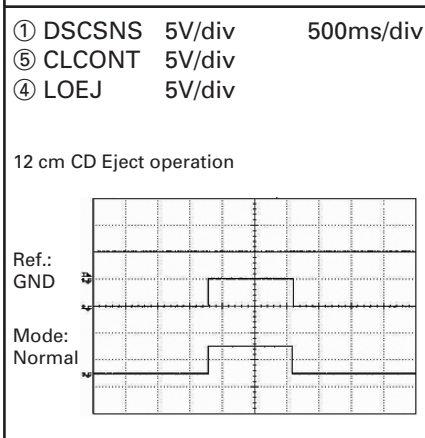
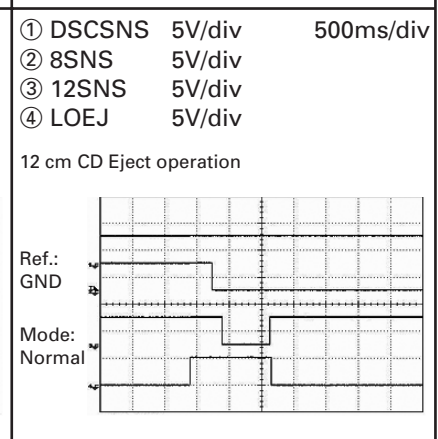
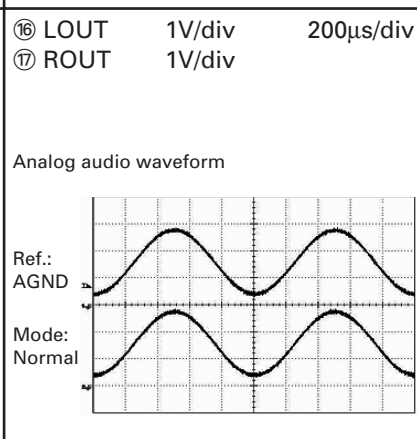
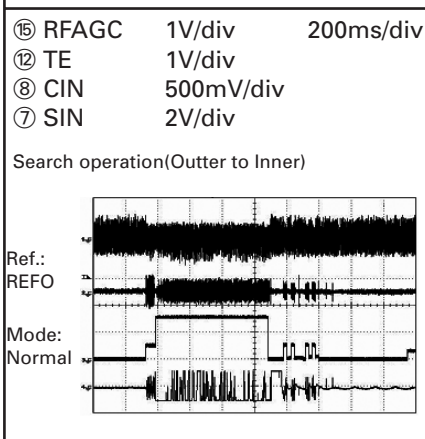
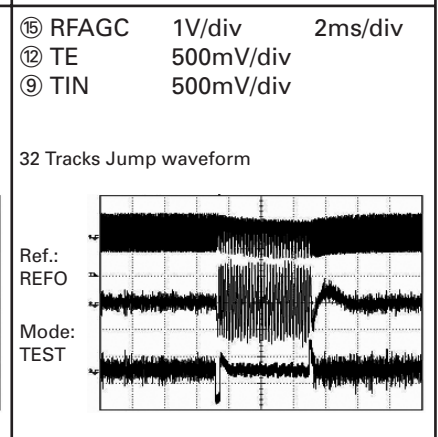
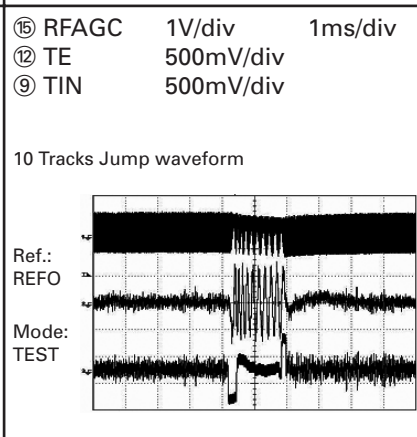
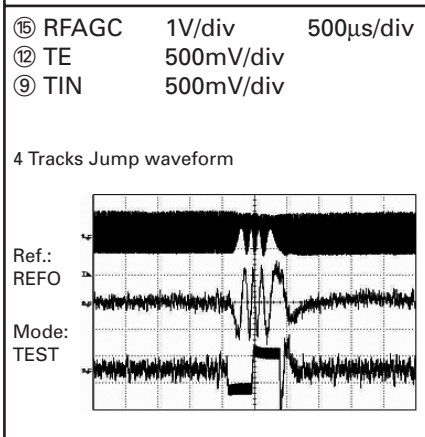
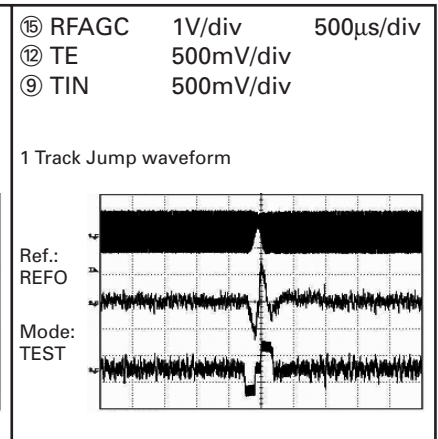
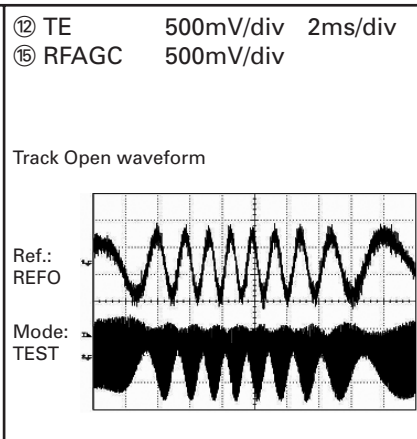
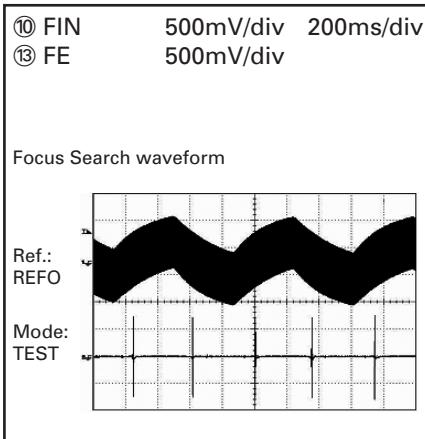


D



E

F



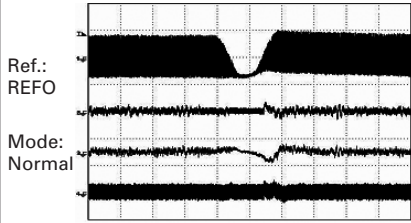
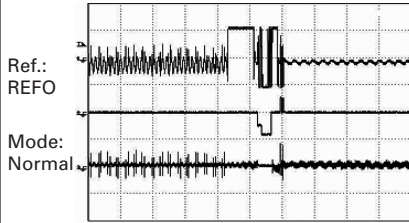
A  
B  
C  
D  
E  
F

⑦ SIN 1V/div 500ms/div  
 ⑧ CIN 500mV/div  
 ⑨ TIN 500mV/div

⑬ RFAGC 1V/div 500μs/div  
 ⑭ TIN 1V/div  
 ⑯ TE 1V/div  
 ⑰ FIN 1V/div

CD-ROM >> CD-DA mode change(Band key)

Black dot(800μm) during play



A

B

C

D

E

F



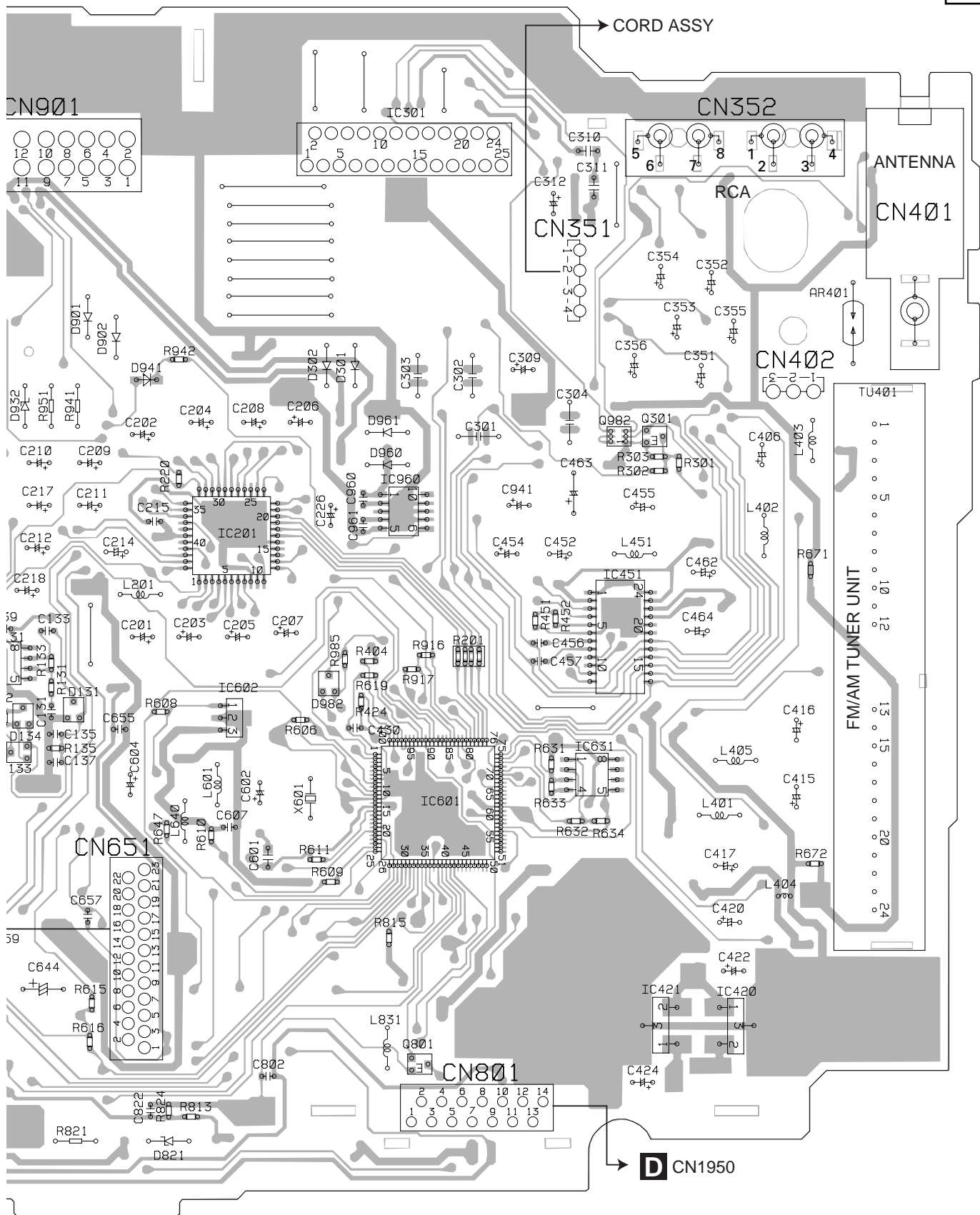


**SIDE A**

A  
B  
C  
D  
E  
F

→ CORD ASSY

→ CORD ASSY



60 70 80 90 100 110 120 130 140 150 160 170

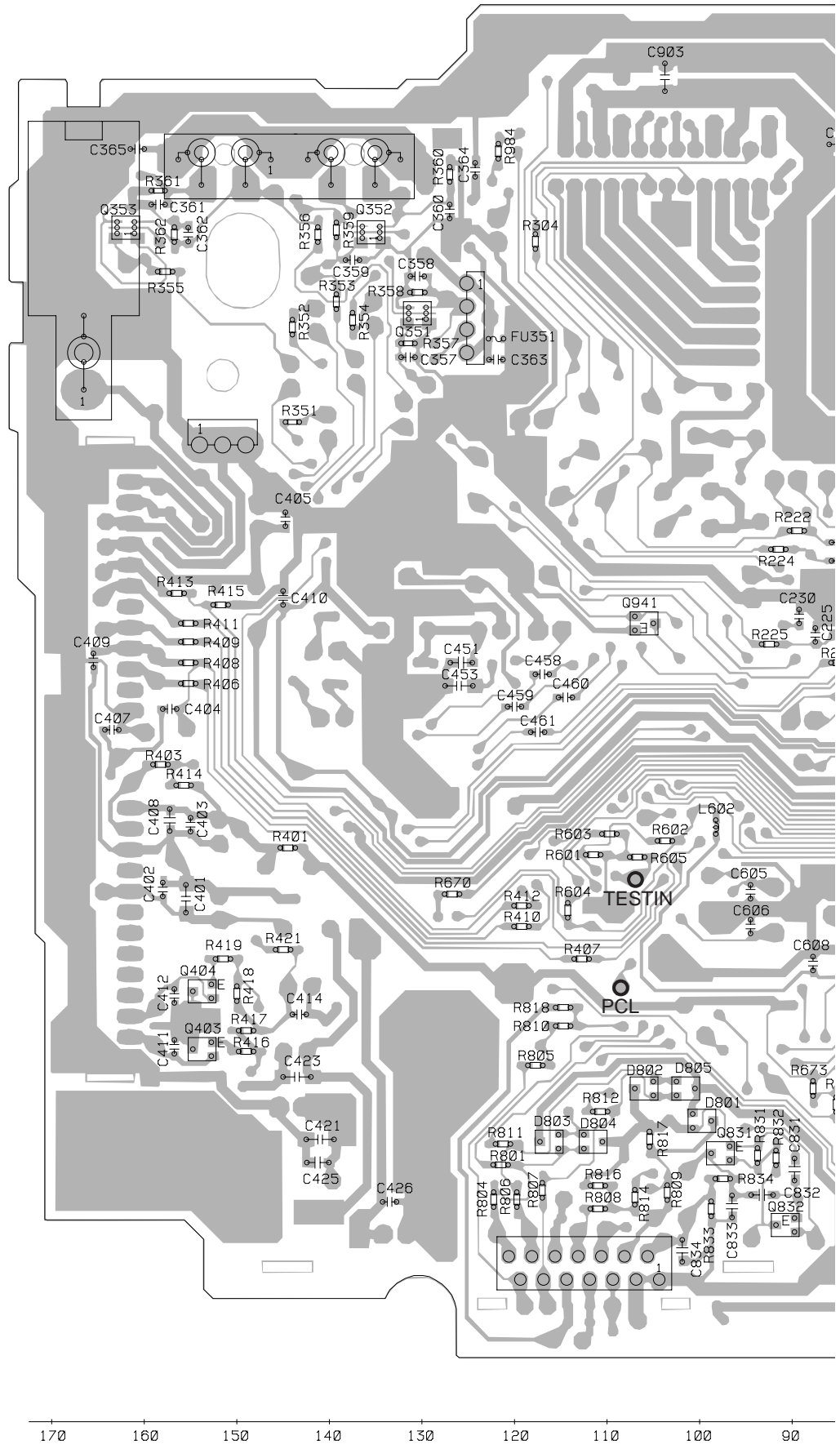
FRONT

DEH-P5750MP/XM/ES

**A**

A  
B  
C  
D  
E  
F

# A TUNER AMP ASSY



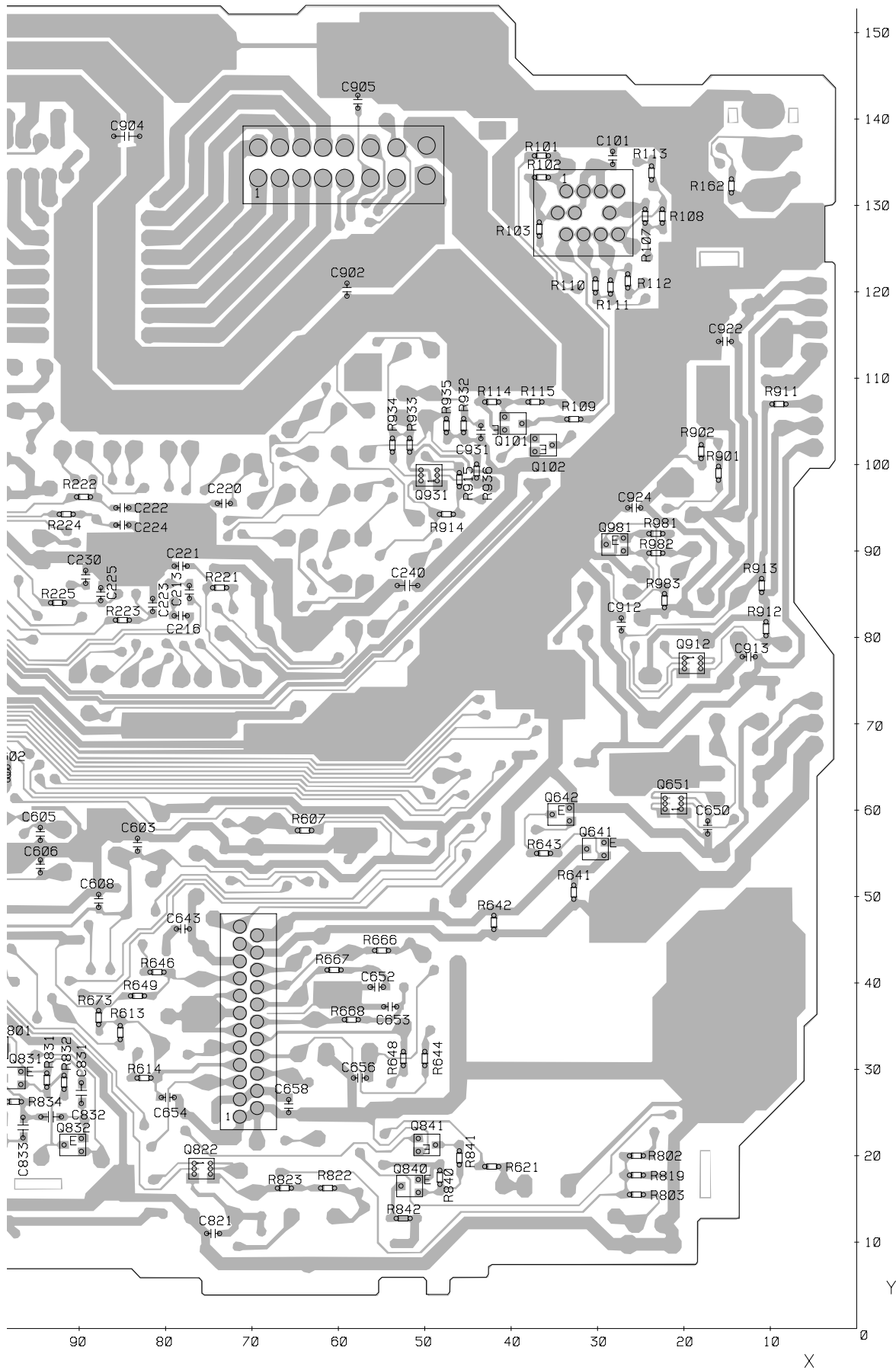
170 160 150 140 130 120 110 100 90

DEH-P5750MP/XM/ES

# A

SIDE B

A  
B  
C  
D  
E  
F

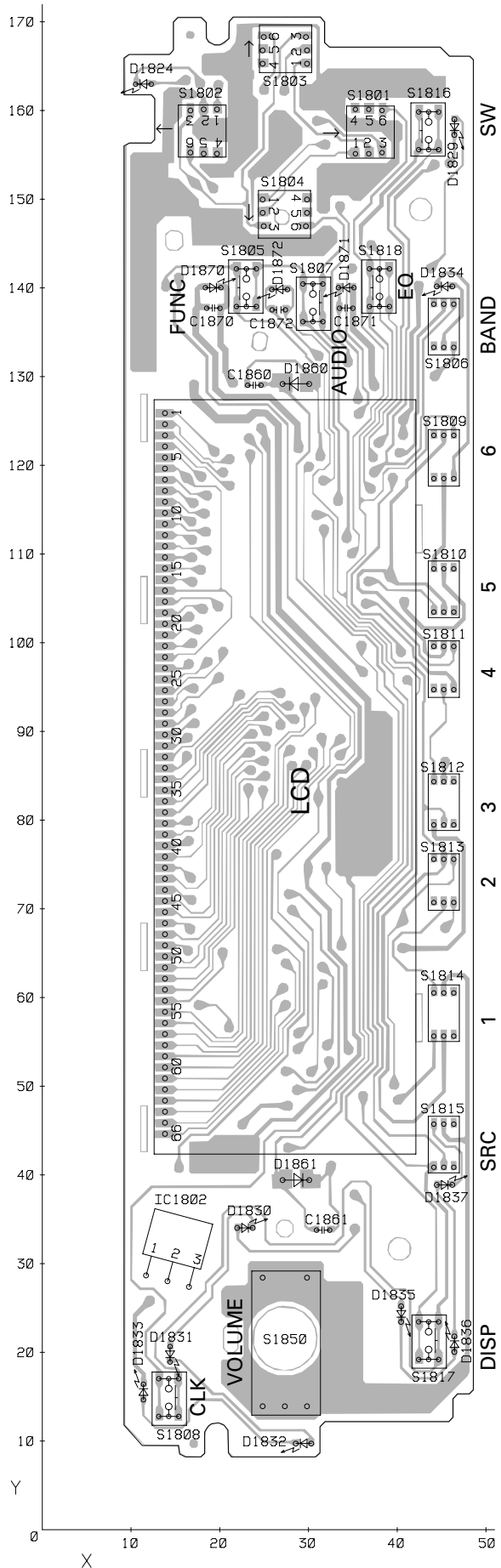


# 4.2 KEYBOARD UNIT

## B KEYBOARD UNIT

SIDE A

A  
B  
C  
D  
E  
F



B

DEH-P5750MP/XM/ES

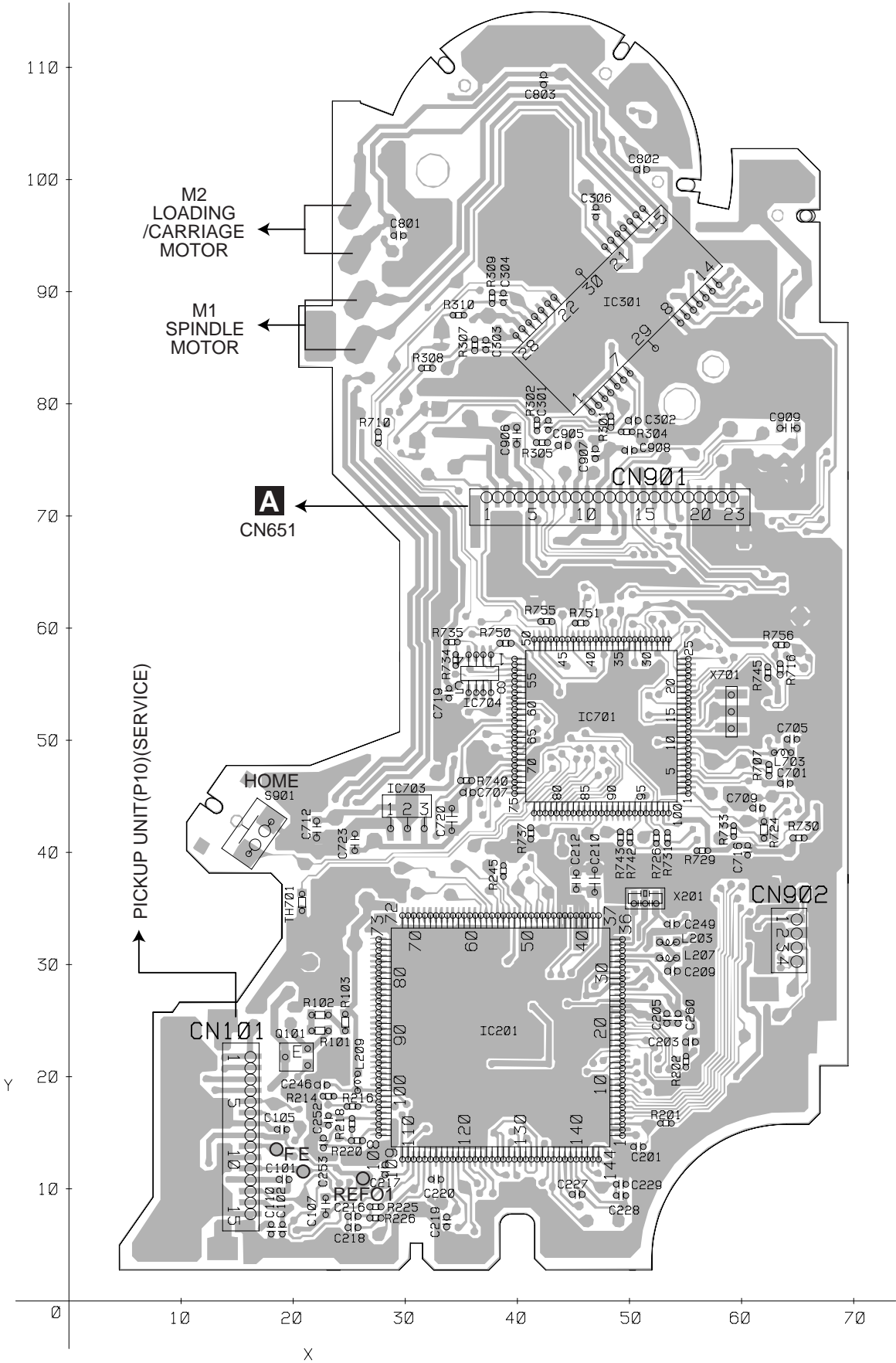


# 4.3 CD MECHAMODULE UNIT

**C** CD CORE UNIT(S10.1)

**SIDE A**

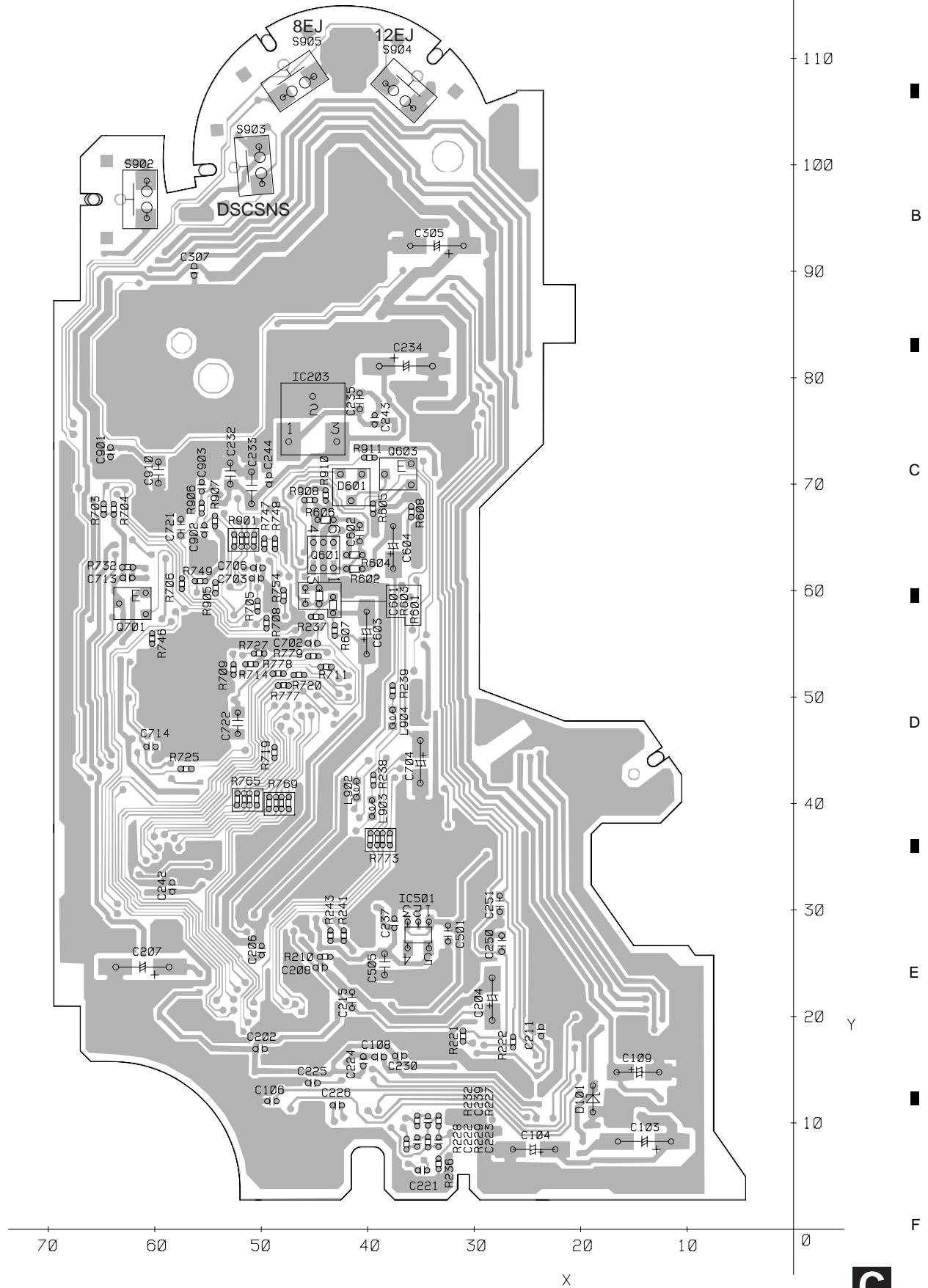
A  
B  
C  
D  
E  
F



1 2 3 4

**C** CD CORE UNIT(S10.1)

**SIDE B**



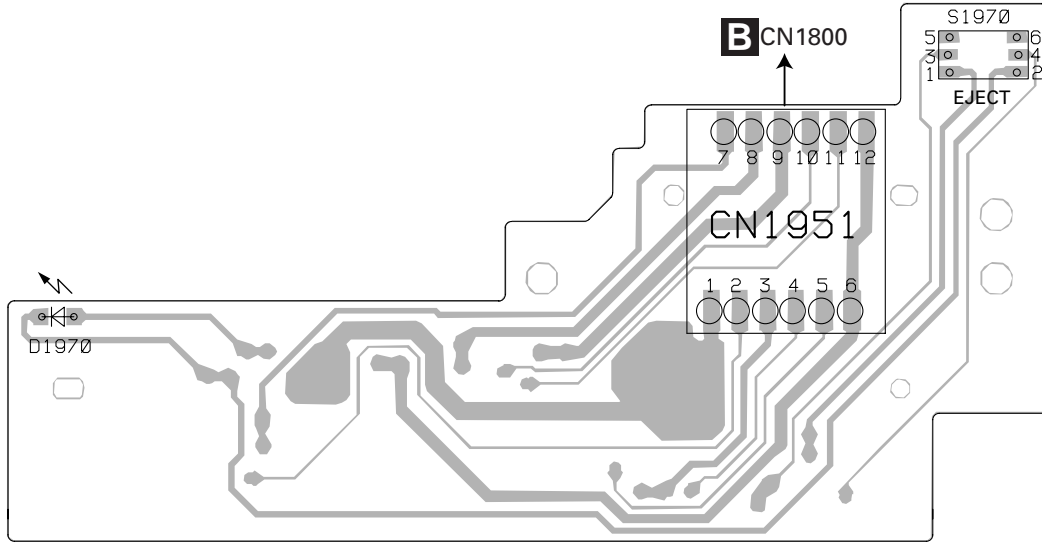
# 4.4 PANEL UNIT

1 2 3 4

A

**D** PANEL UNIT

**SIDE A**



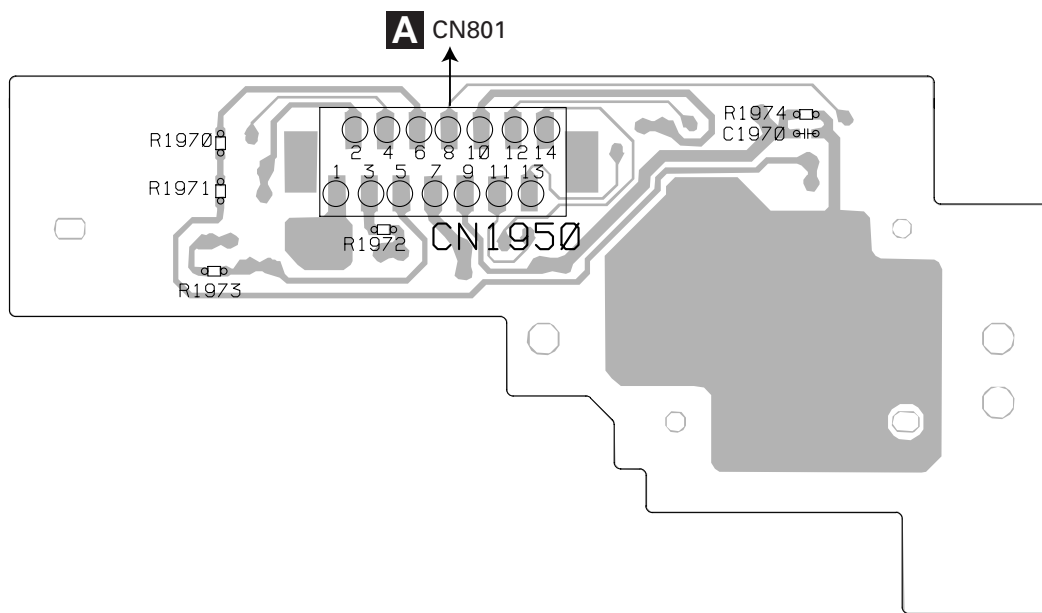
B

C

D

**D** PANEL UNIT

**SIDE B**



E

F

**D**

1 2 3 4



# 5. ELECTRICAL PARTS LIST

**NOTE:**


- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J,RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.



**A**

**Unit Number: XWM7091**

**Unit Name: Tuner Amp Assy**

**MISCELLANEOUS**

IC 101	(A,42,87) IC	HA12240FP
IC 131	(A,54,72) IC	NJM4558MD
IC 201	(A,82,88) IC	PML009A
IC 301	(A,92,133) IC	PAL007A
IC 420	(A,147,27) IC	NJM2391DL1-33
IC 421	(A,133,27) IC	NJM2391DL1-05
IC 601	(A,108,55) IC	PEG063A
IC 602	(A,82,65) IC	S-80835CNUA-B8U
IC 901	(A,5,121) IC	NJM2388F84
Q 101	(B,40,105) Transistor	2SA1576
Q 102	(B,36,102) Transistor	DTC114EU
Q 301	(A,135,100) Transistor	DTC124EU
Q 351	(B,131,120) Transistor	UMH3N
Q 352	(B,136,129) Transistor	UMH3N
Q 353	(B,162,129) Transistor	UMH3N
Q 403	(B,154,40) Transistor	2SA1576
Q 404	(B,154,47) Transistor	2SA1576
Q 641	(B,30,56) Transistor	2SA1577
Q 642	(B,34,60) Transistor	DTC114EU
Q 650	(A,5,68) Transistor	2SD2396
Q 651	(B,21,61) Transistor	UMD2N
Q 801	(A,106,23) Transistor	DTC143EU
Q 821	(A,47,25) Transistor	2SD1767
Q 822	(B,76,19) Transistor	UMD2N
Q 831	(B,98,29) Transistor	2SA1576
Q 832	(B,91,21) Transistor	DTC114EU
Q 840	(B,52,17) Transistor	2SA1576
Q 841	(B,50,21) Transistor	DTC114EU
Q 911	(A,5,102) Transistor	2SD2396
Q 912	(B,19,77) Transistor	UMD2N
Q 931	(B,50,99) Transistor	UMX1N
Q 941	(B,106,86) Transistor	DTC114EU
Q 951	(A,45,94) Transistor	2SA1576
Q 981	(B,28,91) Transistor	2SC4081
Q 982	(A,130,100) Transistor	UMD2N
D 131	(A,63,66) Diode Network	DA204U
D 132	(A,46,70) Diode Network	DA204U
D 133	(A,56,61) Diode	DAN202U

<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
D 301	(A,98,111) Diode	S5688G	
D 302	(A,94,111) Diode	S5688G	
D 650	(A,11,70) Diode	HZS7L(C3)	
D 801	(B,100,33) Diode Network	DA204U	
D 802	(B,106,36) Diode	DAN202U	
D 803	(B,116,30) Diode	DAP202U	
D 804	(B,112,30) Diode	DAN202U	
D 805	(B,102,36) Diode	DAP202U	
D 821	(A,77,13) Diode	HZS11L(A1)	
D 901	(A,65,117) Diode	S5688G	
D 902	(A,68,115) Diode	S5688G	
D 911	(A,18,85) Diode	S5688G	
D 912	(A,14,80) Diode	HZS6L(B1)	
D 931	(A,53,113) Diode	HZS7L(A1)	
D 932	(A,57,101) Diode	HZS7L(C3)	
D 941	(A,72,107) Diode	MA111	
D 951	(A,41,94) Diode	DAN202U	
D 981	(A,19,90) Diode	HZS9L(A2)	
D 982	(A,94,70) Diode	DAN202U	
L 101	(A,32,81) Inductor	LAU2R2K	
L 201	(A,74,81) Ferri-Inductor	LAU4R7K	
L 401	(A,145,53) Inductor	LAUR47K	
L 402	(A,148,90) Inductor	LAU1R0K	
L 403	(A,154,97) Ferri-Inductor	LAU4R7K	
L 601	(A,81,60) Ferri-Inductor	LAU100K	
L 640	(A,77,50) Ferri-Inductor	LAU100K	
L 831	(A,102,22) Inductor	LAU2R2K	
L 901	(A,31,108) Choke Coil 600μH	CTH1280	
L 951	(A,51,89) Inductor	LAU2R2K	
X 601	(A,92,58) Radiator 10.00MHz	CSS1599	
S 802	(A,21,10) Switch(DETACH SENSE)	CSN1039	
 FU351	(B,122,117) Fuse 3A	CEK1286	
BZ621	(A,36,17) Buzzer	CPV1062	
AR401	(A,159,119) Surge Protector	DSP-201M-S00B	
	Fuse 10A	CEK1208	
	FM/AM Tuner Unit	CWE1802	

**RESISTORS**

R 101	(B,37,136)	RS1/16S101J
R 102	(B,37,133)	RS1/16S620J
R 103	(B,37,127)	RS1/16S101J
R 104	(A,38,83)	RS1/16S102J
R 105	(A,46,83)	RS1/16S472J
R 106	(A,47,86)	RS1/16S472J
R 107	(B,25,129)	RS1/16S821J
R 108	(B,23,129)	RS1/16S223J

**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

	R 109	(B,33,105)	RS1/16S222J	R 611	(A,93,48)	RS1/16S473J
	R 110	(B,30,121)	RS1/16S821J	R 613	(B,85,34)	RS1/16S221J
A	R 111	(B,29,121)	RS1/16S223J	R 614	(B,83,29)	RS1/16S682J
	R 112	(B,27,121)	RS1/16S102J	R 615	(A,65,30)	RS1/16S682J
	R 113	(B,24,134)	RS1/16S102J	R 616	(A,65,25)	RS1/16S221J
	R 114	(B,42,107)	RS1/16S223J	R 621	(B,42,19)	RS1/16S102J
	R 115	(B,37,107)	RS1/16S472J	R 631	(A,122,60)	RS1/16S104J
	R 131	(A,60,69)	RS1/16S563J	R 641	(B,33,51)	RS1/16S103J
	R 132	(A,49,71)	RS1/16S563J	R 643	(B,36,55)	RS1/16S182J
	R 133	(A,60,72)	RS1/16S104J	R 646	(B,81,41)	RS1/16S102J
	R 134	(A,49,74)	RS1/16S104J	R 647	(A,74,52)	RS1/16S102J
	R 135	(A,61,62)	RS1/16S474J	R 648	(B,52,31)	RS1/16S222J
B	R 136	(A,54,65)	RS1/16S474J	R 649	(B,83,39)	RS1/16S104J
	R 201	(A,111,73)	RAB4C102J	R 650	(A,11,64)	RD1/4PU0R0J
	R 220	(A,76,95)	RS1/16S102J	R 651	(A,16,61)	RD1/4PU271J
	R 221	(B,74,86)	RS1/16S102J	R 652	(A,16,67)	RD1/4PU221J
	R 222	(B,90,96)	RS1/16S471J	R 666	(B,55,44)	RS1/16S104J
	R 223	(B,85,82)	RS1/16S471J	R 667	(B,61,42)	RS1/16S102J
	R 224	(B,92,94)	RS1/16S471J	R 668	(B,59,36)	RS1/16S102J
	R 225	(B,93,84)	RS1/16S471J	R 801	(B,122,28)	RS1/16S102J
	R 301	(A,138,97)	RS1/16S103J	R 802	(B,26,20)	RS1/16S104J
	R 302	(A,135,96)	RS1/16S331J	R 803	(B,26,16)	RS1/16S102J
	R 303	(A,135,98)	RS1/16S103J	R 804	(B,122,24)	RS1/16S222J
C	R 304	(B,118,128)	RS1/16S153J	R 805	(B,118,39)	RS1/16S222J
	R 351	(B,144,108)	RS1/16S471J	R 806	(B,120,24)	RS1/16S222J
	R 352	(B,144,118)	RS1/16S471J	R 807	(B,117,25)	RS1/16S222J
	R 353	(B,139,121)	RS1/16S471J	R 808	(B,111,23)	RS1/16S222J
	R 354	(B,138,119)	RS1/16S471J	R 809	(B,104,25)	RS1/16S222J
	R 355	(B,158,124)	RS1/16S821J	R 810	(B,115,43)	RS1/16S102J
	R 356	(B,141,128)	RS1/16S821J	R 811	(B,121,30)	RS1/16S102J
	R 357	(B,132,117)	RS1/16S223J	R 812	(B,111,34)	RS1/16S102J
	R 358	(B,131,122)	RS1/16S223J	R 813	(A,77,16)	RS1/16S1R0J
	R 359	(B,139,129)	RS1/16S223J	R 814	(B,107,24)	RS1/16S222J
	R 360	(B,127,135)	RS1/16S223J	R 815	(A,102,38)	RS1/16S473J
D	R 361	(B,159,133)	RS1/16S223J	R 816	(B,111,26)	RS1/16S473J
	R 362	(B,157,128)	RS1/16S223J	R 817	(B,105,31)	RS1/16S473J
	R 401	(B,145,62)	RS1/16S0R0J	R 818	(B,115,45)	RS1/16S104J
	R 403	(B,158,71)	RS1/16S681J	R 821	(A,61,13)	RD1/4PU391J
	R 404	(A,99,72)	RS1/16S681J	R 822	(B,61,16)	RS1/16S391J
	R 406	(B,155,80)	RS1/16S681J	R 823	(B,66,16)	RS1/16S391J
	R 407	(B,113,50)	RS1/16S681J	R 824	(A,75,17)	RS1/16S472J
	R 408	(B,155,82)	RS1/16S681J	R 831	(B,94,29)	RS1/16S473J
	R 409	(B,155,84)	RS1/16S681J	R 832	(B,92,29)	RS1/16S102J
	R 410	(B,119,54)	RS1/16S681J	R 833	(B,99,23)	RS1/16S222J
	R 411	(B,155,86)	RS1/16S681J	R 840	(B,48,18)	RS1/16S103J
E	R 412	(B,119,56)	RS1/16S681J	R 841	(B,46,20)	RS1/16S103J
	R 413	(B,157,90)	RS1/16S681J	R 901	(B,16,99)	RS1/16S102J
	R 416	(B,149,40)	RS1/16S222J	R 902	(B,18,102)	RS1/16S103J
	R 417	(B,149,42)	RS1/16S561J	R 911	(B,9,107)	RS1/16S391J
	R 418	(B,150,46)	RS1/16S561J	R 912	(B,11,81)	RS1/16S222J
	R 419	(B,152,50)	RS1/16S222J	R 913	(B,11,86)	RS1/16S223J
	R 421	(B,145,51)	RS1/16S471J	R 914	(B,48,94)	RS1/16S104J
	R 424	(A,98,67)	RS1/16S471J	R 915	(B,46,98)	RS1/16S104J
	R 603	(B,110,64)	RS1/16S104J	R 916	(A,106,73)	RS1/16S104J
	R 605	(B,107,61)	RS1/16S104J	R 931	(A,49,108)	RD1/4PU102J
	R 606	(A,91,65)	RS1/16S104J	R 932	(B,46,105)	RS1/16S472J
F	R 607	(B,64,58)	RS1/16S822J	R 933	(B,52,102)	RS1/16S473J
	R 608	(A,74,66)	RS1/16S102J	R 934	(B,54,102)	RS1/16S103J
	R 609	(A,95,45)	RS1/16S102J	R 935	(B,48,105)	RS1/16S473J
	R 610	(A,80,51)	RS1/16S104J	R 936	(B,44,99)	RS1/16S104J

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 941	(A,63,101)	RD1/4PU102J	C 312	(A,122,130)	CEHAR100M16
R 942	(A,76,110)	RS1/16S103J	C 351	(A,140,106)	CEJQ4R7M35
R 951	(A,60,101)	RD1/4PU153J	C 352	(A,142,118)	CEJQ4R7M35
R 952	(A,42,91)	RS1/16S472J	C 353	(A,137,112)	CEJQ4R7M35
R 953	(A,46,91)	RS1/16S472J	C 354	(A,135,119)	CEJQ4R7M35
R 954	(A,48,94)	RS1/16S102J	C 355	(A,144,112)	CEJQ4R7M35
R 981	(B,23,92)	RS1/16S683J	C 356	(A,132,108)	CEJQ4R7M35
R 982	(B,23,90)	RS1/16S683J	C 402	(B,158,58)	CKSRBY104K16
R 983	(B,22,84)	RS1/16S223J	C 405	(B,145,98)	CKSRBY103K50
R 984	(B,122,137)	RS1/16S102J	C 406	(A,148,97)	CEJQ101M16
			C 407	(B,164,75)	CCSRCH101J50
			C 411	(B,157,41)	CKSRBY332K50
			C 412	(B,157,46)	CKSRBY332K50

**CAPACITORS**

C 101	(B,28,136)	CKSRBY104K16	C 414	(B,143,44)	CKSRBY103K50
C 102	(A,42,82)	CKSRBY473K25	C 416	(A,152,65)	CEJQ470M10
C 103	(A,39,91)	CKSRBY102K50	C 417	(A,145,47)	CEJQ101M16
C 104	(A,42,83)	CKSRBY102K50	C 420	(A,143,40)	CEJQ470M10
C 131	(A,60,66)	CKSRBY104K16	C 422	(A,143,34)	CEJQ100M16
C 132	(A,50,68)	CKSRBY104K16	C 426	(B,134,24)	CKSRBY104K16
C 133	(A,60,76)	CKSRBY104K16	C 430	(A,98,64)	CCSRCH470J50
C 134	(A,47,73)	CKSRBY104K16	C 602	(A,86,55)	CEJQ4R7M35
C 135	(A,61,63)	CKSRBY474K10	C 603	(B,83,56)	CCSRCH101J50
C 136	(A,51,65)	CKSRBY474K10	C 604	(A,70,58)	CEJQ2R2M50
C 137	(A,61,60)	CCSRCH101J50	C 605	(B,95,57)	CCSRCH200J50
C 138	(A,53,65)	CCSRCH101J50	C 606	(B,95,54)	CCSRCH200J50
C 139	(A,54,76)	CKSRBY103K50	C 608	(B,88,50)	CKSRBY103K50
C 201	(A,73,75)	CEJQ4R7M35	C 643	(B,78,46)	CKSRBY683K16
C 202	(A,73,100)	CEJQ4R7M35	C 644	(A,59,32)	CEAT471M16
C 203	(A,76,75)	CEJQ4R7M35	C 650	(B,17,58)	CKSRBY473K25
C 204	(A,80,102)	CEJQ4R7M35	C 651	(A,13,55)	CEJQ101M16
C 205	(A,82,75)	CEJQ4R7M35	C 652	(B,56,40)	CKSRBY152K50
C 206	(A,90,102)	CEJQ4R7M35	C 653	(B,54,37)	CKSRBY152K50
C 207	(A,88,76)	CEJQ4R7M35	C 654	(B,80,27)	CCSRCH470J50
C 208	(A,86,102)	CEJQ4R7M35	C 821	(B,75,11)	CKSRBY473K25
C 209	(A,66,97)	CEJQ1R0M50	C 822	(A,72,17)	CKSRBY473K25
C 210	(A,60,97)	CEJQ1R0M50	C 832	(B,93,25)	CKSQYB105K16
C 211	(A,66,92)	CEJQ1R0M50	C 901	(A,49,122)	CCH1486
C 212	(A,60,86)	CEJQ1R0M50	C 902	(B,59,120)	CKSRBY104K25
C 213	(B,77,85)	CKSRBY104K16	C 903	(B,104,145)	CKSYB225K16
C 214	(A,69,86)	CEJQ470M16	C 904	(B,85,138)	CKSYB225K16
C 215	(A,73,90)	CKSRBY105K10	C 911	(A,24,76)	CCH1331
C 216	(B,78,83)	CKSRBY104K16	C 912	(B,27,82)	CKSRBY472K50
C 217	(A,60,92)	CEJQ1R0M50	C 913	(B,13,78)	CKSRBY103K50
C 218	(A,58,81)	CEJQ1R0M50	C 914	(A,13,75)	CEJQ470M10
C 220	(B,73,96)	CKSRBY152K50	C 922	(B,15,114)	CKSRBY103K50
C 221	(B,78,88)	CKSRBY152K50	C 923	(A,13,118)	CEJQ101M16
C 222	(B,85,95)	CCSRCH120J50	C 924	(B,26,95)	CKSRBY103K50
C 223	(B,82,84)	CCSRCH120J50	C 925	(A,25,82)	CEJQ221M10
C 224	(B,85,93)	CCSRCH120J50	C 931	(B,44,104)	CKSRBY104K16
C 225	(B,88,85)	CCSRCH120J50	C 941	(A,117,92)	CEJQ1R0M50
C 226	(A,95,92)	CEJQ100M16			
C 230	(B,89,87)	CKSRBY104K16			
C 240	(B,52,86)	CKSQYB225K10			
C 301	(A,115,100)	CFTNA224J50			
C 302	(A,112,110)	CFTNA224J50			
C 303	(A,105,110)	CFTNA224J50			
C 304	(A,124,104)	CFTNA224J50			
C 309	(A,117,108)	CEJQ330M10			
C 310	(A,126,135)	CKSQYB225K10	IC 1800	(B,28,88) IC	PD2072A
C 311	(A,127,131)	CKSQYB225K10	IC 1802	(A,12,29) IC	TSOP4840SB1
			IC 1803	(B,20,62) IC	BD4834G

**B****Unit Number:XWM7092****Unit Name:Keyboard Assy****MISCELLANEOUS**

**Circuit Symbol and No.****Part No.****Circuit Symbol and No.****Part No.**

Q	1860	(B,30,44)	Transistor	DTC123JU
Q	1861	(B,31,69)	Transistor	DTC114EU
A	D 1824	(A,11,163)	LED	CL-195PG-CD
	D 1829	(A,46,158)	LED	CL-195PG-CD
	D 1830	(A,23,34)	LED	CL-195PG-CD
	D 1831	(A,14,20)	LED	CL-195PG-CD
	D 1832	(A,29,10)	LED	CL-195PG-CD
	D 1833	(A,11,16)	LED	CL-195PG-CD
	D 1834	(A,45,140)	LED	CL-195PG-CD
	D 1835	(A,40,24)	LED	CL-195PG-CD
	D 1836	(A,46,21)	LED	CL-195PG-CD
	D 1837	(A,45,39)	LED	CL-195PG-CD
	D 1860	(A,29,129)	White LED	NSCW505C-3388
B	D 1861	(A,29,40)	White LED	NSCW505C-3388
	D 1870	(A,19,140)	LED	CL-190UB2-X
	D 1871	(A,34,140)	LED	CL-190UB2-X
	D 1872	(A,27,140)	LED	CL-190UB2-X
	X 1800	(B,36,78)	Ceramic Resonator 8.18MHz	CSS1631
	S 1801	(A,36,158)	Switch	CSG1107
	S 1802	(A,19,158)	Switch	CSG1107
	S 1803	(A,27,166)	Switch	CSG1107
	S 1804	(A,27,149)	Switch	CSG1107

	S 1805	(A,23,140)	Push Switch	CSG1155
	S 1806	(A,45,136)	Push Switch	CSG1174
C	S 1807	(A,31,138)	Push Switch	CSG1155
	S 1808	(A,14,15)	Push Switch	CSG1155
	S 1809	(A,45,121)	Push Switch	CSG1174
	S 1810	(A,45,106)	Push Switch	CSG1174
	S 1811	(A,45,97)	Push Switch	CSG1174
	S 1812	(A,45,82)	Push Switch	CSG1174
	S 1813	(A,45,73)	Push Switch	CSG1174
	S 1814	(A,45,58)	Push Switch	CSG1174
	S 1815	(A,45,43)	Push Switch	CSG1174
	S 1816	(A,44,158)	Push Switch	CSG1155
	S 1817	(A,44,21)	Push Switch	CSG1155
D	S 1818	(A,38,140)	Push Switch	CSG1155
	S 1850	(A,27,21)	Encoder(VOLUME)	XSD7001

LCD

XAW7013

**RESISTORS**

	R 1800	(B,15,136)		RS1/16S222J
	R 1801	(B,15,138)		RS1/16S222J
	R 1802	(B,19,49)		RS1/16S121J
	R 1803	(B,15,38)		RS1/16S2R2J
	R 1804	(B,25,59)		RS1/16S822J
E	R 1805	(B,25,51)		RS1/16S472J
	R 1806	(B,37,73)		RS1/16S1801D
	R 1807	(B,24,73)		RAB4C681J
	R 1808	(B,40,88)		RAB4C681J
	R 1809	(B,40,92)		RS1/16S681J
	R 1810	(B,42,158)		RS1/16S151J
	R 1811	(B,38,158)		RS1/16S181J
	R 1813	(B,34,69)		RS1/16S473J
	R 1814	(B,37,64)		RS1/16S473J
	R 1824	(B,36,42)		RS1/16S560J
F	R 1825	(B,44,124)		RS1/16S560J
	R 1826	(B,42,119)		RS1/16S560J
	R 1827	(B,39,42)		RS1/16S560J
	R 1828	(B,35,157)		RS1/16S560J

R	1850	(B,24,51)		RS1/16S103J
R	1860	(B,39,139)		RS1/16S470J
R	1861	(B,39,141)		RS1/16S820J
R	1865	(B,33,44)		RS1/16S181J
R	1870	(B,27,116)		RS1/16S221J
R	1871	(B,28,118)		RS1/16S271J
R	1873	(B,26,120)		RS1/16S680J
R	1874	(B,40,133)		RS1/16S470J
R	1880	(B,30,157)		RS1/16S473J
R	1881	(B,27,55)		RS1/16S473J
R	1883	(B,31,72)		RS1/16S3300D
R	1884	(B,38,71)		RS1/16S1001D
R	1885	(B,38,94)		RS1/16S681J
R	1886	(B,25,62)		RS1/16S102J
R	1887	(B,17,36)		RS1/16S103J
R	1888	(B,35,64)		RS1/16S104J
R	1889	(B,35,61)		RS1/16S104J
R	1890	(B,31,60)		RS1/16S104J
R	1891	(B,31,58)		RS1/16S104J
R	1892	(B,32,77)		RS1/16S472J

**CAPACITORS**

C	1801	(B,17,33)		CKSYF106Z10
C	1802	(B,24,54)		CKSQYB225K10
C	1804	(B,33,72)		CKSRYB104K16
C	1805	(B,40,74)		CKSRYB104K16
C	1806	(B,40,81)		CKSRYB104K16
C	1807	(B,40,78)		CKSRYB104K16
C	1808	(B,38,80)		CKSRYB104K16
C	1809	(B,41,71)		CKSRYB104K16
C	1870	(A,19,138)		CKSRYF104Z25
C	1871	(A,34,138)		CKSRYF104Z25
C	1872	(A,27,138)		CKSRYF104Z25

**D****Unit Number:CWM8758****Unit Name:Panel Unit****MISCELLANEOUS**

D	1970	LED		CL220PGC
S	1970	Push Switch(EJECT)		CSG1112

**RESISTORS**

R	1970			RS1/16S101J
R	1971			RS1/16S101J
R	1972			RS1/16S0R0J

**CAPACITORS**

C	1970			CKSRYB104K16
---	------	--	--	--------------

**C****Unit Number:CWX3096****Unit Name:CD Core Unit(S10.1)****MISCELLANEOUS**

IC	201	(A,39,24)	IC	UPD63763GJ
----	-----	-----------	----	------------

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
IC 203	(B,45,78) IC	NJM2885DL1-33	R 726	(A,52,41)	RS1/16SS103J
IC 301	(A,49,88) IC	BA5835FP	R 727	(B,50,54)	RS1/16SS473J
IC 701	(A,48,51) IC	PE5454A	R 729	(A,57,40)	RS1/16SS223J
IC 703	(A,30,44) IC	S-812C33AUA-C2N	R 730	(A,65,41)	RS1/16SS473J
Q 101	(A,20,22) Transistor	2SA1577	R 731	(A,53,41)	RS1/16SS104J
Q 701	(B,62,59) Transistor	UN2111	R 737	(A,41,42)	RS1/16SS104J
L 203	(A,53,32) Inductor	CTF1389	R 740	(A,35,46)	RS1/16SS473J
L 207	(A,53,31) Inductor	CTF1389	R 742	(A,50,41)	RS1/16SS104J
L 209	(A,26,20) Inductor	CTF1389	R 746	(B,60,56)	RS1/16SS104J
L 703	(A,64,49) Inductor	CTF1389	R 750	(A,39,59)	RS1/16SS473J
X 201	(A,51,35) Ceramic Resonator 16.934MHz	CSS1603	R 754	(B,48,60)	RS1/16SS102J
X 701	(A,59,53) Ceramic Resonator 4.00MHz	CSS1652	R 755	(A,43,61)	RS1/16SS102J
S 901	(A,15,43) Switch(HOME)	CSN1067	R 765	(B,51,40)	RAB4CQ221J
S 903	(B,53,100) Switch(DSCSNS)	CSN1068	R 769	(B,48,40)	RAB4CQ221J
S 904	(B,35,108) Switch(12EJ)	CSN1067	R 773	(B,39,37)	RAB4CQ221J
S 905	(B,48,109) Switch(8EJ)	CSN1067	R 777	(B,48,51)	RS1/16SS221J

**RESISTORS**

R 101	(A,22,24)	RS1/10SR2R4J	R 905	(B,54,60)	RS1/16SS221J
R 102	(A,22,26)	RS1/10SR2R4J	R 906	(B,56,68)	RS1/16SS221J
R 103	(A,25,25)	RS1/10SR2R7J	R 908	(B,45,69)	RS1/16SS0R0J
R 201	(A,53,16)	RS1/16SS102J	R 910	(B,44,69)	RS1/16SS0R0J
R 202	(A,55,21)	RS1/16SS333J	R 911	(B,40,73)	RS1/16SS102J
R 221	(B,31,18)	RS1/16SS103J	<b>CAPACITORS</b>		
R 222	(B,26,18)	RS1/16SS103J			
R 225	(A,27,8)	RS1/16SS103J	C 103	(B,14,8) 100µF/16V	CCH1504
R 226	(A,27,7)	RS1/16SS393J	C 105	(A,19,15)	CKSSYB104K10
R 227	(B,33,10)	RS1/16SS562J	C 108	(B,39,16)	CKSSYB104K10
R 228	(B,36,8)	RS1/16SS122J	C 110	(A,18,6)	CKSSYB104K10
R 229	(B,34,8)	RS1/16SS472J	C 201	(A,51,14)	CKSSYB102K50
R 232	(B,35,10)	RS1/16SS122J	C 202	(B,50,17)	CKSSYB104K10
R 241	(B,42,28)	RS1/16SS333J	C 203	(A,55,23)	CKSSYB104K10
R 243	(B,44,28)	RS1/16SS333J	C 204	(B,28,22)	CEVW220M6R3
R 245	(A,39,38)	RS1/16SS333J	C 205	(A,53,25)	CKSSYB104K10
R 301	(A,48,78)	RS1/16SS183J	C 208	(B,44,25)	CKSSYB104K10
R 302	(A,42,78)	RS1/16SS822J	C 209	(A,54,29)	CKSSYB104K10
R 304	(A,50,78)	RS1/16SS183J	C 212	(A,45,37)	CKSRYB105K10
R 305	(A,42,77)	RS1/16SS822J	C 216	(A,25,8)	CKSSYB332K50
R 307	(A,36,85)	RS1/16SS183J	C 217	(A,28,12)	CKSSYB104K10
R 308	(A,32,83)	RS1/16SS183J	C 218	(A,25,7)	CKSSYB473K10
R 309	(A,38,89)	RS1/16SS183J	C 219	(A,34,7)	CKSSYB104K10
R 310	(A,35,88)	RS1/16SS183J	C 220	(A,33,11)	CKSSYB182K50
R 601	(B,43,59)	RS1/16S101J	C 221	(B,35,6)	CKSSYB104K10
R 602	(B,41,62)	RS1/16S101J	C 222	(B,35,8)	CCSSCH560J50
R 606	(B,44,67)	RS1/16S0R0J	C 223	(B,33,8)	CCSSCH4R0C50
R 607	(B,43,56)	RS1/16SS0R0J	C 224	(B,40,16)	CKSSYB104K10
R 608	(B,36,67)	RS1/16SS0R0J	C 225	(B,45,14)	CKSSYB103K16
R 705	(B,50,59)	RS1/16SS221J	C 226	(B,43,12)	CCSSCH680J50
R 706	(B,57,61)	RS1/16SS221J	C 227	(A,45,10)	CCSSCH470J50
R 707	(A,62,47)	RS1/16SS473J	C 228	(A,49,9)	CKSSYB103K16
R 708	(B,50,57)	RS1/16SS221J	C 234	(B,36,81)	CEVW221M4
R 710	(A,28,77)	RS1/16SS102J	C 237	(B,38,29)	CKSSYB104K10
R 711	(B,44,53)	RS1/16SS221J	C 239	(B,34,10)	CCSSCH220J50
R 714	(B,51,53)	RS1/16SS473J	C 242	(B,58,32)	CKSSYB104K10
R 716	(A,63,56)	RS1/16SS472J	C 243	(B,39,76)	CKSSYB104K10
R 719	(B,49,45)	RS1/16SS221J	C 244	(B,49,70)	CKSSYB104K10
R 720	(B,46,52)	RS1/16SS471J	C 246	(A,23,19)	CKSSYB104K10
R 724	(A,62,42)	RS1/16S473J	C 251	(B,28,31)	CKSRYB102K50
R 725	(B,57,43)	RS1/16SS222J	C 260	(A,54,25)	CKSSYB104K10

**Circuit Symbol and No.****Part No.**

C 301	(A,43,78)	CKSSYB221K50
C 302	(A,50,79)	CKSSYB221K50
A C 303	(A,37,85)	CKSSYB472K25
C 304	(A,39,89)	CKSSYB103K16
C 305	(B,34,92)	CEVW101M16
C 307	(B,56,90)	CKSSYB104K10
C 601	(B,46,60)	CCSRCH102J50
C 602	(B,41,65)	CCSRCH102J50
C 701	(A,64,46)	CKSSYB104K10
C 703	(B,50,61)	CKSSYB103K16
C 706	(B,50,62)	CKSSYB104K10
C 707	(A,36,45)	CKSSYB104K10
C 712	(A,22,42)	CKSRYB224K16
B C 714	(B,60,45)	CKSSYB104K10
C 716	(A,61,40)	CKSSYB103K16
C 722	(B,52,48)	CKSQYB475K6R3
C 723	(A,26,41)	CKSRYB105K10
C 903	(B,56,70)	CKSSYB471K50
C 906	(A,40,77)	CKSRYB224K16
C 907	(A,47,76)	CKSSYB103K16
C 910	(B,60,71)	CKSQYB225K10

**Miscellaneous Parts List**

C	Pickup Unit(P10)(Service)	CXX1641
M 1	Motor Unit(SPINDLE)	CXC4440
M 2	Motor Unit(LOADING/CARRIAGE)	CXB8933

# 6. ADJUSTMENT

## 6.1 CD ADJUSTMENT

### 1) Cautions on adjustments

• In this product the single voltage (3.3V) is used for the regulator. The reference voltage is the REFO1 (1.65V) instead of the GND.

If you should mistakenly short the REFO1 with the GND during adjustment, accurate voltage will not be obtained, and the servo's misoperation will apply excessive shock to the pickup. To avoid such problems:

a. Do not mix up the REFO1 with the GND when connecting the (-) probe of measuring instruments. Especially on an oscilloscope, avoid connecting the (-) probe for CH1 to the GND.

b. In many cases, measuring instruments have the same potential as that for the (-) probe. Be sure to set the measuring instruments to the floating state.

c. If you have mistakenly connected the REFO1 to the GND, turn off the regulator or the power immediately.

• Before mounting and removing filters or leads for adjustment, be sure to turn off the regulator.

• For stable circuit operation, keep the mechanism operating for about one minute or more after the regulator is turned on.

• In the test mode, any software protections will not work. Avoid applying any mechanical or electrical shock to the mechanism during adjustment.

• The RFI and RFO signals with a wide frequency range are easy to oscillate. When observing the signals, insert a resistor of 1k ohms in series.

• The load and eject operation is not guaranteed with the mechanism upside down. If the mechanism is blocked due to mistaken eject operation, reset the product or turn off and on the ACC to restore it.

### 2) Test mode

This mode is used to adjust the CD mechanism module.

• To enter the test mode.

While pressing the 4 and 6 keys at the same time, reset.

• To exit from the test mode.

Turn off the ACC and back up.

#### Notes:

a. During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.

b. If you have pressed the (→) key or (←) key during focus search, turn off the power immediately to protect the actuator from damage caused by the lens stuck.

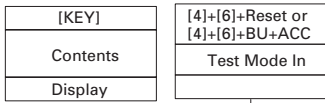
c. For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.

d. For the CRG move and 100TR jump modes, the tracking loop will be closed at the same time when the key is released.

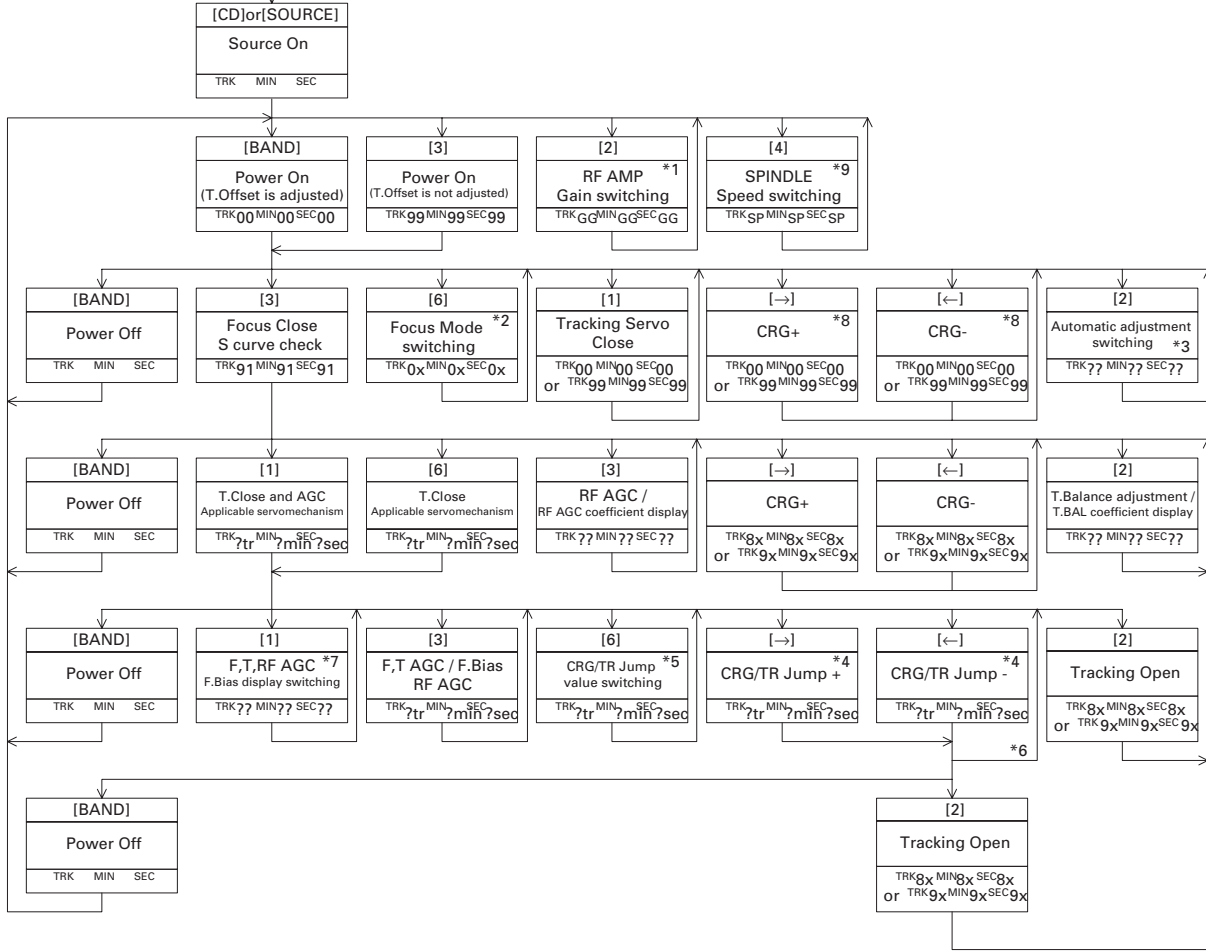
e. When the power is turned off and on, the jump mode is reset to the single TR (91), the RF amp gain is set to 0dB, and the auto-adjustment values are reset to the default settings.

# Flow Chart

A



B



C

D

- \*1) TYP → -6dB → -12dB  
TRK MIN SEC → TRK 06 MIN 06 SEC 06 → TRK 12 MIN 12 SEC 12
- \*2) Focus Close → S.Curve check setting → F EQ measurement setting  
TRK 00 MIN 00 SEC 00 (TRK 99 MIN 99 SEC 99) → TRK 01 MIN 01 SEC 01 → TRK 02 MIN 02 SEC 02
- \*3) F.Offset Display → T.Offset Display → Switch to the order of the original display
- \*4) 1TR / 32TR / 100TR
- \*5) Single TR → 32TR → 100TR → CRG Move  
9x(8x) : 91(81) 92(82) 93(83) 94(84)
- \*6) Only at the time of CRG move, 100TR jump
- \*7) TRK/MIN/SEC → F.AGC → T.AGC → F Bias → RF AGC

\*8) CRG motor voltage = 2[V]

- \*9) Applicability : A, B, C, D, E, F  
TYP(1X) → 2X → 1X  
TRK MIN SEC → TRK 22 MIN 22 SEC 22 → TRK 11 MIN 11 SEC 11

- Applicability : G  
TYP(2X) → 1X → 2X  
TRK MIN SEC → TRK 11 MIN 11 SEC 11 → TRK 22 MIN 22 SEC 22

As for the double speed (2x), audio output cannot be supported

[Key]	Operation
[KEY]	Test Mode
[BAND]	Power On / Off
[→]	CRG + / TR Jump + (Direction of the external surface)
[←]	CRG - / TR Jump - (Direction of the internal surface)
[1]	U.CLS and AGC and Applicable servomechanism / AGC, AGC display setting
[2]	RF Gain switching / Offset adjustment display / T.Balance adjustment / T.Open
[3]	Close, S.Curve / Rough Servo and RF AGC / F, T, RF AGC
[4]	SPDL 1X / 2X switching As for the double speed (2x), audio output cannot be supported.
[5]	Error Rate measurement 1st - ON : ERR count Beginning (30Sec) 2nd - ON : BER display data [%]
[6]	F.Mode switching / Tracking Close / CRG • TR Jump switching

F



## 6.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT



### • Note :

The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

### • Purpose :

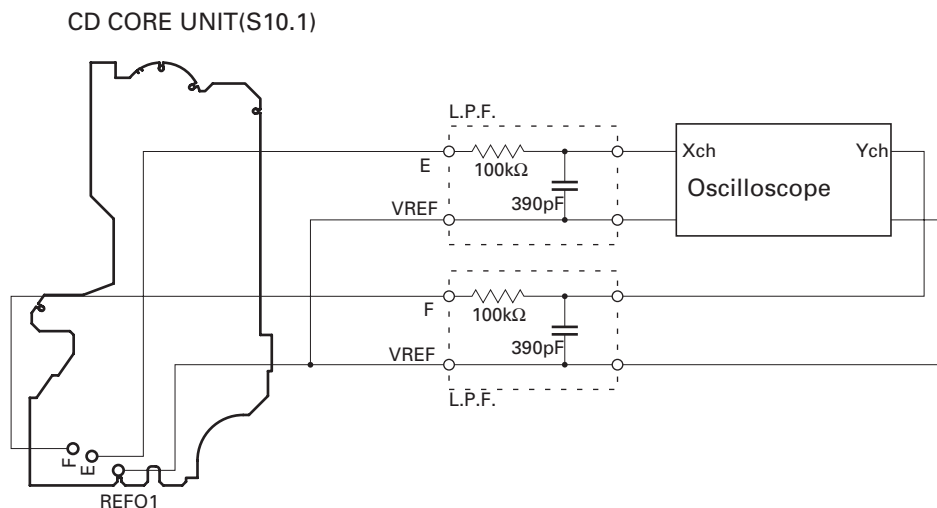
To check that the grating is within an acceptable range when the PU unit is changed.

### • Symptoms of Mal-adjustment :

If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

### • Method :

- |                       |                            |
|-----------------------|----------------------------|
| • Measuring Equipment | • Oscilloscope, Two L.P.F. |
| • Measuring Points    | • E, F, REFO1              |
| • Disc                | • TCD-782                  |
| • Mode                | • TEST MODE                |



### • Checking Procedure

1. In test mode, load the disc and switch the 3V regulator on.
2. Using the → and ← buttons, move the PU unit to the innermost track.
3. Press key 3 to close focus, the display should read "91". Press key 2 to implement the tracking balance adjustment the display should now read "81". Press key 3. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within  $75^\circ$ . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than  $75^\circ$  try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than  $75^\circ$  then the mechanism should be judged to be at fault.

### • Note

Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" ( the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

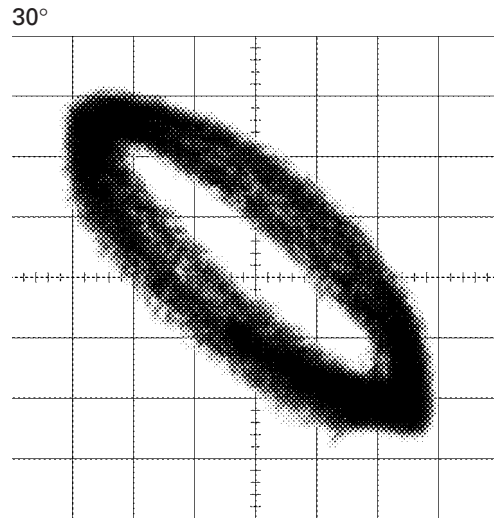
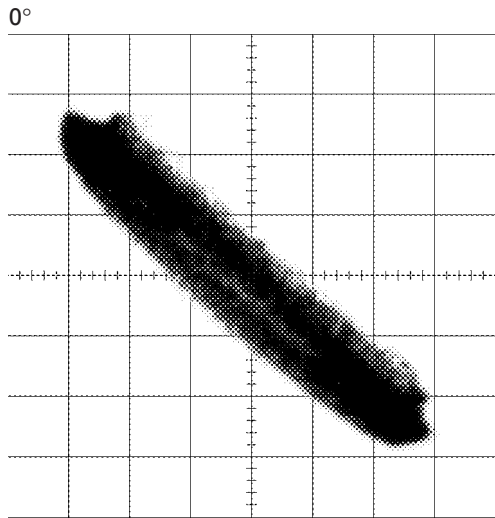
### • Hint

Reloading the disc changes the clamp position and may decrease the "wobble".

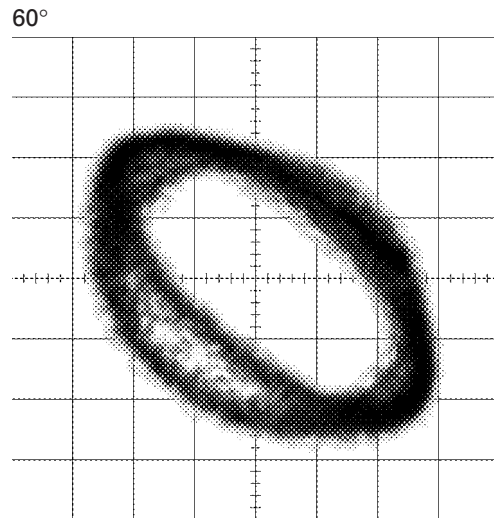
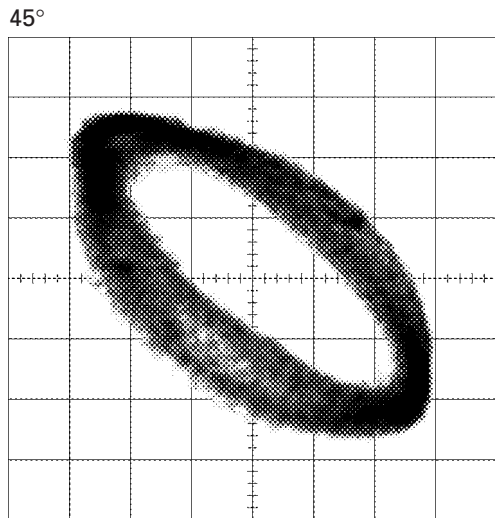
### Grating waveform

Ech → Xch 20mV/div, AC  
Fch → Ych 20mV/div, AC

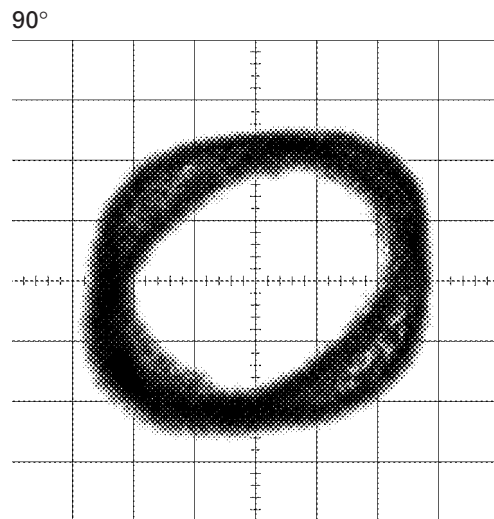
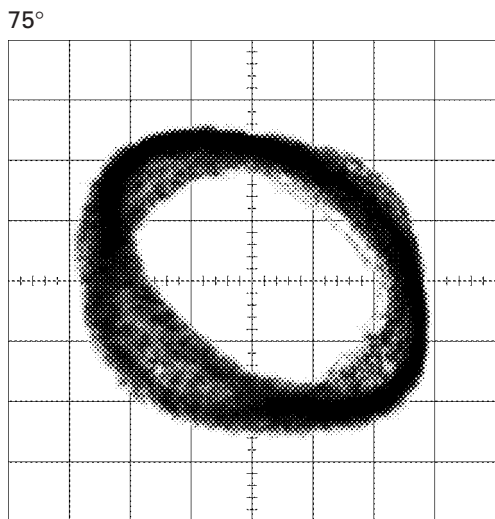
A



B



C



D

E

F

## 6.3 ERROR MODE

### ● Error Messages

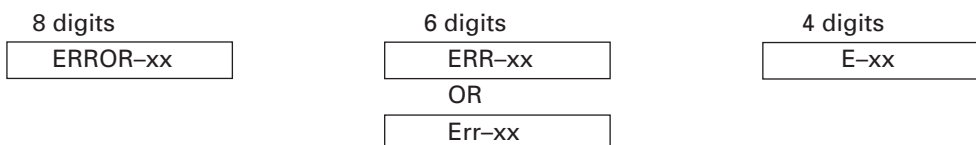
Error is displayed with number for Error cause when CD is inoperative or stops with Error during operation. The purpose is to reduce nonsense calls from users as well as to assist all related analysis and repair for defects at service station.

#### (1) Basic Display Method

1) When CSMOD (CD mode area for system) is SERRORM, Error code will be written in DMIN (minutes area for display), DSEC (seconds area for display). The same data shall be written in DMIN and DSEC. DTNO is blank as usual.

#### 2) Display Example of Head Unit

The following is about LCD display ability. xx is Error number.



#### (2) Error Code List

No.	Classification	Contents	Details • Cause
10	Electricity	Carriage Home NG	CRG can't move to the inner. CRG can't move from the inner. → HOME SW failure, CRG movement failure.
11	Electricity	Focus Search NG	Focus can't be caught. → Back of Disc / Severe dirt and vibration.
12	Electricity	Spindle Lock NG Subcode NG RF-amp NG	Not spindle, lock. Wrong subcode (can't read). → Defective Spindle. Scratch and dirt on Disc. Intense vibration. The appropriate gain of the RF amp cannot be obtained. → Defective spindle. → Scratched or dirty disc. Severe vibration. Abnormal CD signals. → Blanc CD-R disc. Disc inserted upside down.
17	Electricity	Setup NG	AGC protection doesn't work, out of Focus soon. → Scratch on Disc/Severe dirt and vibration.
22	Disc	Impossible to play	There is no playable MP3 or WMA file present in a disc. → No MP3 or WMA file exists in a CD-ROM disc inserted.
23	Disc	File Format NG	Contents are stored in an incompatible file format. → The contents in a CD-ROM disc inserted are recorded in a file format other than ISO9660 Level-1 and 2.
30	Electricity	Search Time Out	Can't reach the target address. → Defective CRG/tracking, or scratch on Disc.
44	Disc	Impossible to play	There is no playable TRK No. present in a disc. → All TRK Nos. In a disc inserted are specified as a track which should be skipped, in the track skip information.
50	Mecha	Disc Load / Eject NG	Disc loading/ejection cannot be complete. → Foreign objects entered into the mechanism. Disc caught in between during loading/ejection.
A0	System	Power NG	Power supply (VD) isn't connected to the ground. → Defective SW transistor. Abnormal power (failed connector)

Note : Error doesn't display in mechanism only. (CD off causes mechanism off)

If TOC can't be read, error wouldn't occur, but mechanism still continues its operation.

The upper digits of error code is mainly classified by 3 kinds as follows:

1x: Setup related error, 3x: Search related error, Ax: Other errors.

## 6.4 SYSTEM MICROCOMPUTER TEST PROGRAM



### ● PCL output

In the normal operation mode (with the detachable panel installed, the ACC switched ON, the standby mode cancelled), shift the TESTIN (Pin 86) terminal to H.

The clock signal is output from the PCL terminal (Pin 37).

The frequency of the clock signal is 312.500kHz that is one 32nd of the fundamental frequency.

The clock signal should be  $312.500\text{kHz} \pm 13\text{Hz}$ .

If the clock signal is out of the range, the X'tal (X601) should be replaced with new one.

# 7. GENERAL INFORMATION

## 7.1 DIAGNOSIS

### 7.1.1 DISASSEMBLY

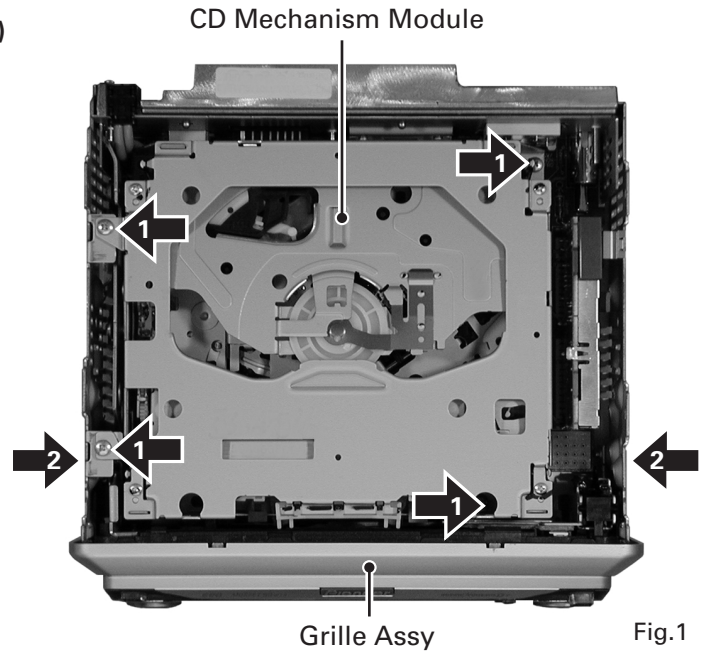
#### ● Removing the Case (not shown)

1. Remove the Case.

#### ● Removing the CD Mechanism Module (Fig.1)

**1** Remove the four screws.

Disconnect the connector and then remove the CD Mechanism Module.



#### ● Removing the Grille Assy (Fig.1)

**2** Remove the two screws and then remove the Grille Assy.

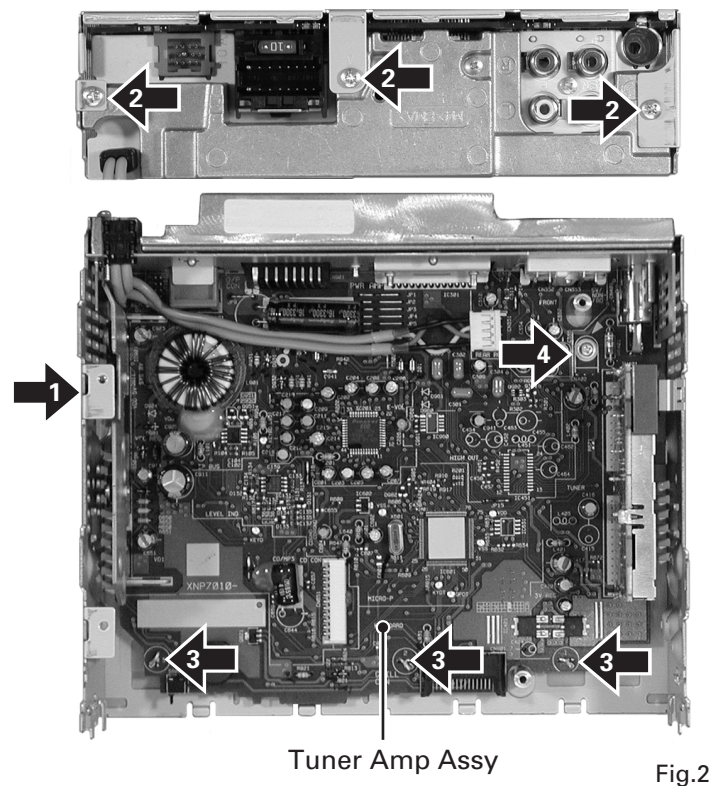
#### ● Removing the Tuner Amp Assy (Fig.2)

**1** Remove the screw.

**2** Remove the three screws.

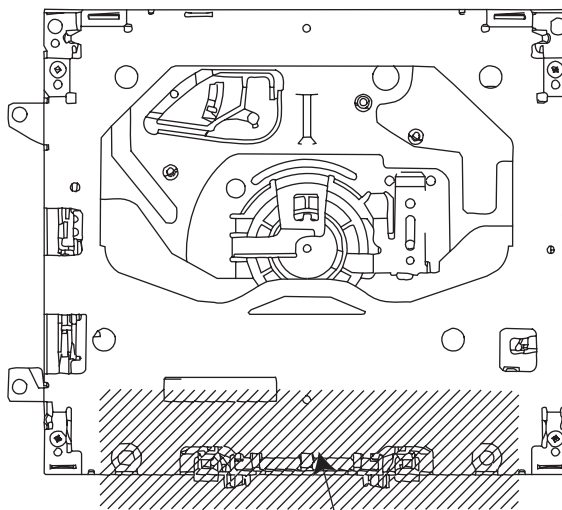
**3** Straighten the tabs at three locations indicated.

**4** Remove the screw and then remove the Tuner Amp Assy.



● **How to hold the Mechanism Unit**

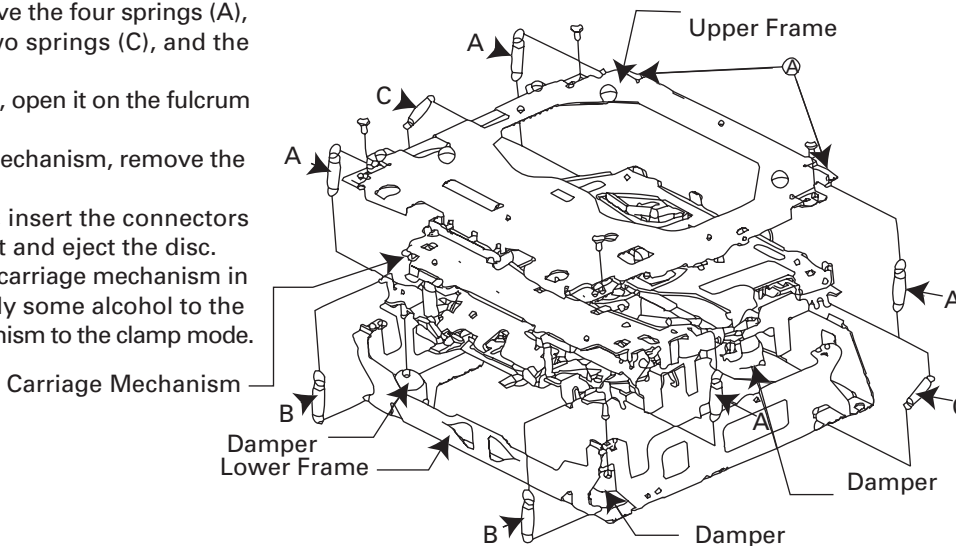
- 1. Hold the top and bottom frame.
- 2. Do not squeeze top frame's front portion too tight, because it is fragile.



Do not squeeze.

● **Removing the Upper and Lower Frames**

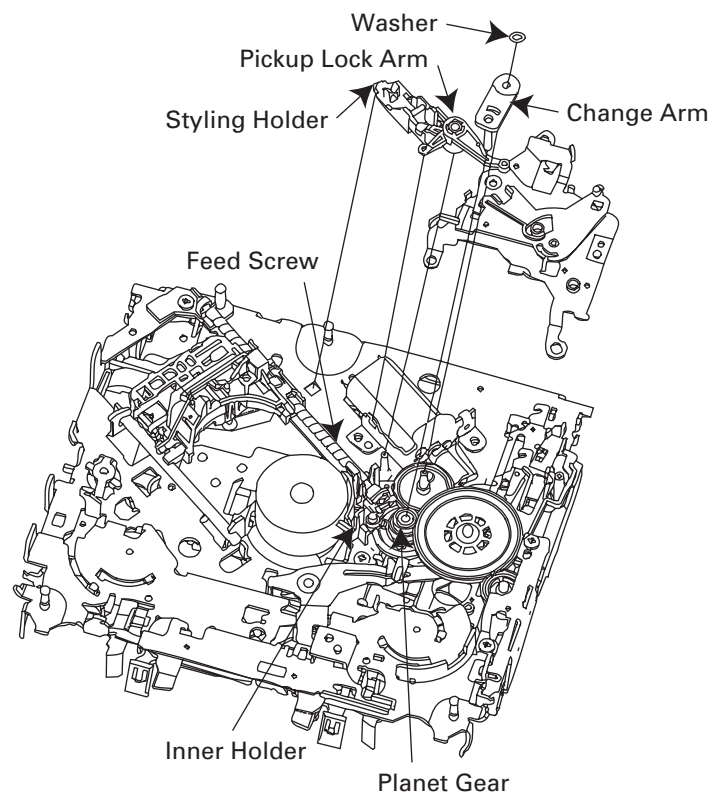
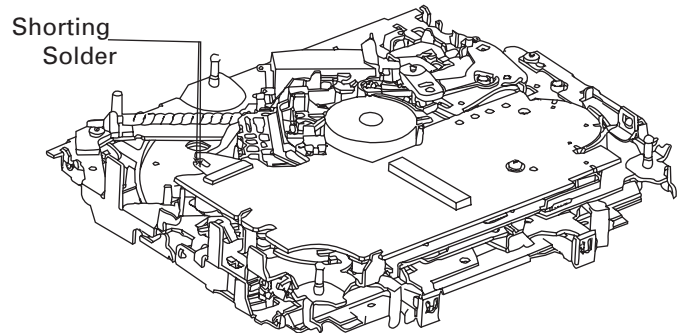
- 1. With a disc clamped, remove the four springs (A), the two springs (B), the two springs (C), and the four screws.
  - 2. To remove the upper frame, open it on the fulcrum A.
  - 3. While lifting the carriage mechanism, remove the three dampers.
  - 4. With the frames removed, insert the connectors coming from the main unit and eject the disc.
- Caution: Before installing the carriage mechanism in the frames, be sure to apply some alcohol to the dampers and set the mechanism to the clamp mode.



### ● Removing the Pickup Unit

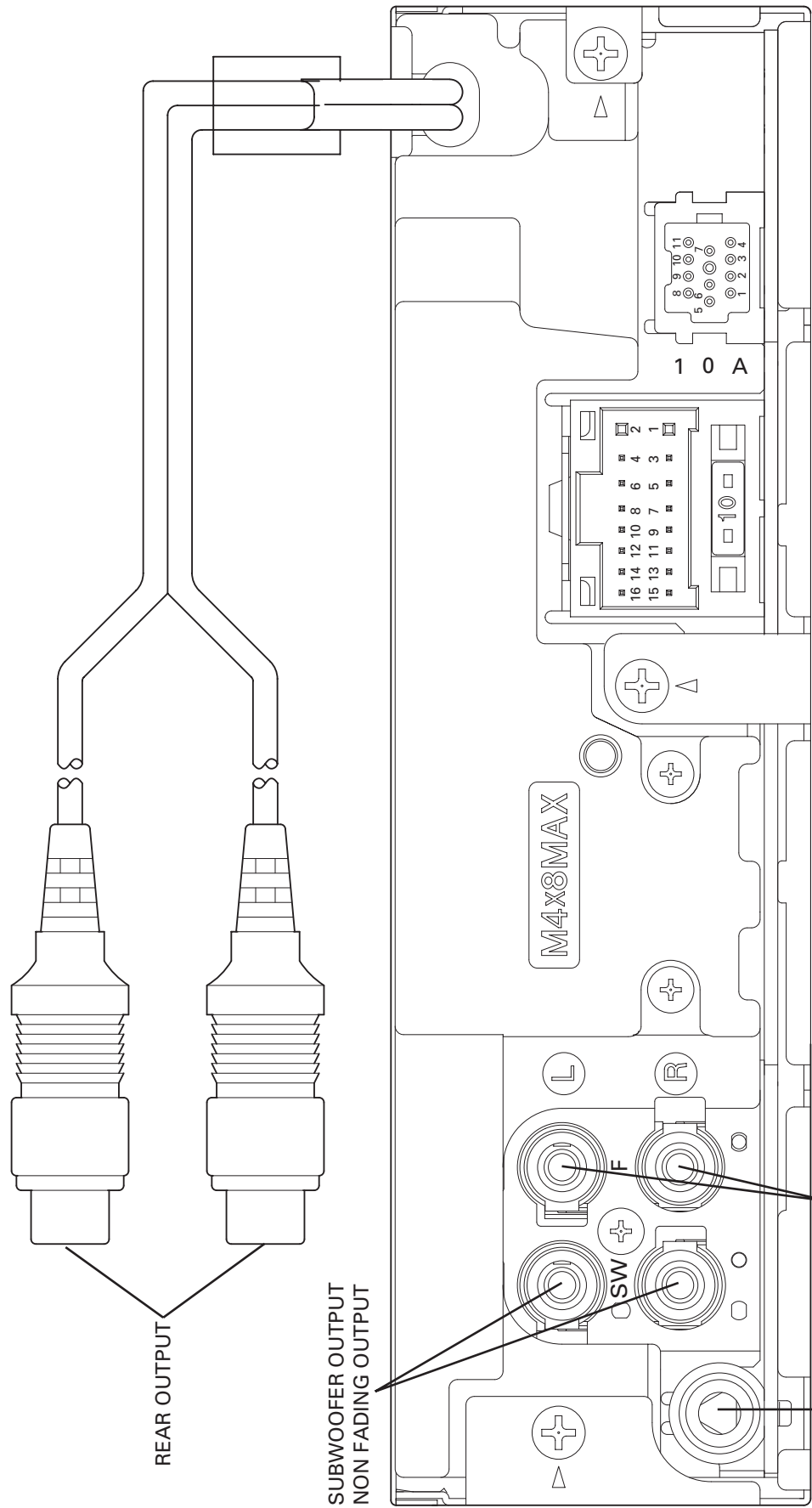
1. Apply shorting solder to the Pickup flexible cable. Disconnect the cable.
2. Set the mechanism to the clamp mode.
3. Remove the lead wires from the inner holder.
4. Remove the washer, styling holder, change arm, and pickup lock arm.
5. While releasing from the hook of the inner holder, lift the end of the feed screw.

Caution: In assembling, move the planet gear to the load/eject position before setting the feed screw in the inner holder.



# 7.1.2 CONNECTOR FUNCTION DESCRIPTION

A  
B  
C  
D  
E  
F



- 1. BUS+
  - 2. GND
  - 3. GND
  - 4. NC
  - 5. BUS-
  - 6. GND
  - 7. BUS L+ INPUT
  - 8. ASEN B
  - 9. BUS R+ INPUT
  - 10. BUS R- INPUT
  - 11. BUS L- INPUT
- 
- 9. RL-
  - 10. FL-
  - 11. RL+
  - 12. FL+
  - 13. RR-
  - 14. FR-
  - 15. RR+
  - 16. FR+
- 
- 1. BACKUP
  - 2. GND
  - 3. ACC
  - 4. NC
  - 5. ILM
  - 6. B.REM
  - 7. NC
  - 8. TEL MUTE



## 7.2 PARTS

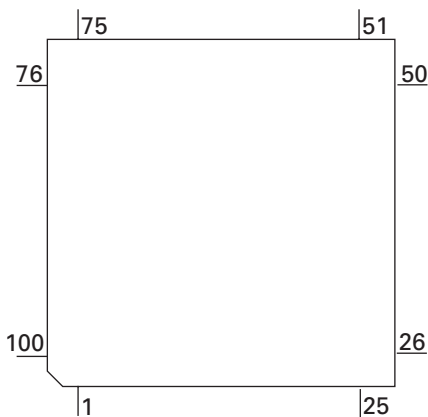
### 7.2.1 IC

#### ● Pin Functions(PEG063A)

Pin No.	Pin Name	I/O	Function and Operation
1	SYSPW	O	System power control output
2	KEYD	I	Wired remote control key input
3-5	NC		Not used
6	BYTE	I	External data bus width change input
7	CNVSS	I	Processor mode change input
8	TELIN	I	TEL : Cellular mute input
9	NC		Not used
10	RESET	I	Reset input
11	XOUT	O	Clock output
12	VSS		GND
13	XIN	I	Clock input
14	VCC		Power supply input
15-18	NC		Not used
19	RX2	I	IPBUS : Input 2
20	LCDPW	O	Back light power supply output
21	NC		Not used
22	PEE	O	PEE sound output
23	NC		Not used
24	BRST	O	PBUS : Reset output
25	BRXEN	I/O	PBUS : Communication input/output
26	BSRQ	I	PBUS : Communication demand input
27	RX	I	IPBUS : Input
28	TX	O	IPBUS : Output
29	BSO	O	PBUS : Output
30	BSI	I	PBUS : Input
31	BSCK	O	PBUS : Clock output
32	NC		Not used
33	DPDT	O	GRILL : Data output
34	KYDT	I	GRILL : Data input
35, 36	ROT1, 0	I	Rotary encoder pulse input1, 0
37	PCL	O	Output for clock adjustment
38	SWVDD	O	GRILL : Chip enable output
39	DSENS	I	Detach sense input
40	FLPILM	O	Illumination output inside flap
41	ILMPW	O	Illumination output
42	EJTIN	I	Eject key input
43-55	NC		Not used
56	CSENSOUT	O	CSENS state output(H : FLAP open)
57	EMUTE	O	EVOL : Mute output
58, 59	NC		Not used
60	VCC	I	Power supply input
61	NC		Not used
62	VSS	I	GND
63-66	NC		Not used
67	DALMON	O	For consumption current reduction
68	NC		Not used
69	TUNPCE2	O	TUNER : Chip enable output(EEPROM)
70	TUNPCE1	O	TUNER : Chip enable output(PLL)
71	NC		Not used
72	ASENS	I	ACC sense input
73	BSENS	I	Back up sense input
74	ROMCK	O	ROM correction : Clock output
75	ROMDATA	I/O	ROM correction : Data input/output
76	VST	O	EVOL : Strobe output
77	VDT	O	EVOL : Data output
78	VCK	O	EVOL : Clock output
79	IPPW	O	IPBUS : Driver power supply control output
80	ASENBO	O	IPBUS : Slave ACC sense output
81	ISENS	I	Illumination sense input
82,83	MODEL1,0	I	Model select input

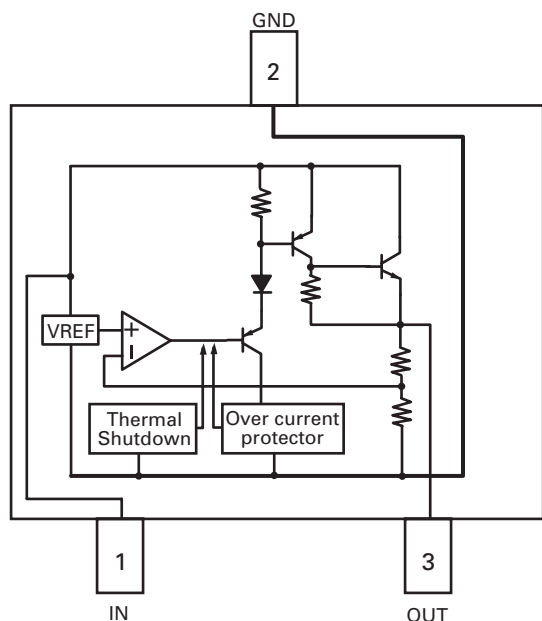
Pin No.	Pin Name	I/O	Format	Function and Operation
84	NC			Not used
85	MUTE	O		MUTE output
86	TESTIN	I		Test program input
87,89	NC			Not used
89	KEYAD	I		Wired remote control key input
90	LVLINR	I		Level indicator R.ch input
91	CSENS	I		Flap opening-and-closing sense input
92	LVLINL	I		Level indicator L.ch input
93	NC			Not used
94	AVSS			GND
95	SL	I		TUNER : Signal level input
96	VREF			AD translation reference voltage
97	AVCC			AD translation power supply input terminal
98	TUNPDI	I		TUNER : PLL communication input
99	TUNPDO	O		TUNER : Data output(PLL)
100	TUNPCK	O		TUNER : Clock output(PLL)

\* PEG063A

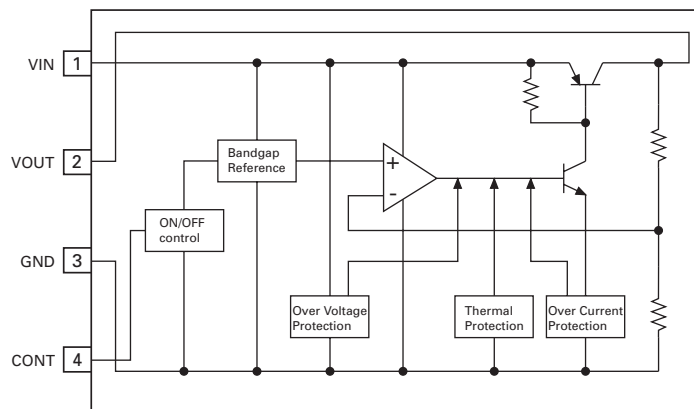


IC's marked by \* are MOS type.  
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

NJM2391DL1-05



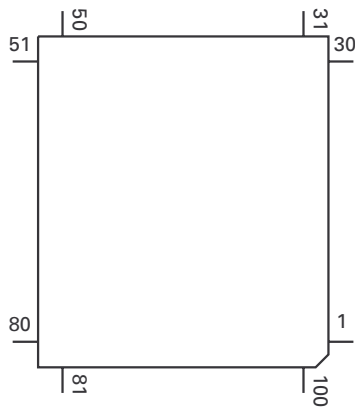
NJM2388F84



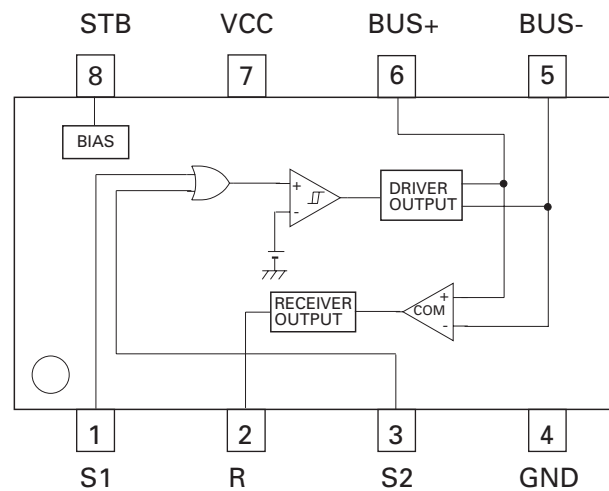
### ● Pin Functions (PD2072A)

Pin No.	Pin Name	I/O	Function and Operation
1	X0		Crystal oscillator connection pin
2	TEST	I	Test input
3	VDD		Power supply
4	ADJ	O	LCD brightness adjustment output
5	DIM	O	Dimmer output
6	RESET	I	Reset input
7,8	NC		Not used
9	REM	I	Remote control reception input
10,11	NC		Not used
12-15	KDT0-3	I	Key data input
16,17	NC		Not used
18	SO	O	System micro computer UART communication data output
19	SI	I	System micro computer UART communication data input
20	NC		Not used
21-75	SEG55-1	O	LCD segment output
76-84	COM0-7	O	LCD common output
85-90	KST1-6	O	Key strobe output
91,92	NC		Not used
93-96	V4-1		LCD drive power supply
97,98	C1,C0		Not used
99	VSS		GND
100	X1		Crystal oscillator connection pin

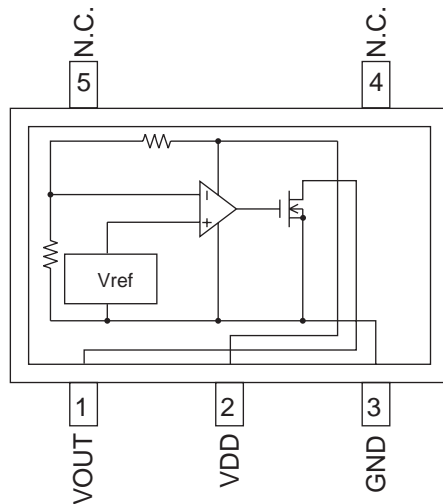
\* PD2072A



HA12240FP



BD4834G

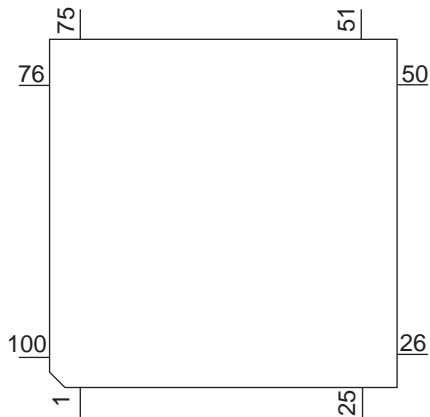


## ● Pin Functions(PE5454A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	AVREF			A power supply Positive power supply(5V)
2	AVSS			A power supply GND
3	RFOK	O	C	Output of state of RFOK
4	NC			Not used
5	EVDD			E power supply Positive power supply
6, 7	NC			Not used
8	IC/FLMD0			IC : VSS direct connection/FLMOD0 : Pull-down
9	VDD			Positive power supply(5V)
10	REGC			Connected to the capacity stabilizing output of the regulator
11	VSS			GND
12	X1	I		Oscillator connection for mainclock
13	X2			Oscillator connection for mainclock
14	RESET	I		System reset input
15	XT1	I		Connected to the oscillator for subclock (connected to VSS via the resistor)
16	XT2			Connected to the oscillator for subclock(Open)
17	NC			Connected to EVDD or EVSS via the resistor
18	NC			Not used
19	XINT	I	C	CD LSI interruption signal input
20	NC			Connected to VSS via the resistor
21	BRST	I		P-Bus reset input
22	BSI	I		P-Bus serial data input
23	BSO	O	C	P-Bus serial data output
24	BSCK	I/O	/C	P-Bus serial clock input/output
25	FTXD	O	C	For flash rewriting(transmitted signal)
26	FRXD	I		For flash rewriting(received signal)
27	BRXEN	I/O	/C	It is possible to receive P-Bus
28	BSRQ	I/O	/C	P-Bus service request demand
29	NC			Not used
30	DSCSNS	I		Disc state sense input
31	8EJ(S905)	I		Input of detection of 8 cm disc ejection
32	12EJ(S904)	I		Input of detection of 12 cm disc ejection
33	EVSS			E power supply GND
34	EVDD			E power supply Positive power supply
35, 36	SRAMLEVEL0, 1	O	C	SRAM level meter output
37	EMPH	O	C	Emphasis information output
38	EMPH	O	C	Emphasis information output
39-42	NC			Not used
43	ADENA	O	C	A/D reference voltage supply control output
44	LRCKOK	O	C	(DOUT mute output)
45	SRAMLEVEL2	O	C	SRAM level meter output
46	CD3VON	O	C	CD +3.3V power supply control output
47	CONT	O	C	Servo driver power supply control output
48	XRST	O	C	CD LSI reset control output
49	VDCONT	O	C	VD power supply control output
50	ROMDATA	I/O	/C	E2PROM data input/output
51	ROMCS	O	C	E2PROM chip selection output
52	ROMCK	O	C	E2PROM clock output
53	LOEJ	O	C	The direction change output of LOAD/EJECT
54	CLCONT	O	C	Driver input change output
55	CDMUTE	O	C	CD mute control output
56-58	NC			Not used
59	XCS	O	C	CD LSI chip selection output
60	NC			Not used
61	XWAIT	I		CD LSI write control signal output
62	CLKOUT	O	C	Internal system clock output(Open)
63	LOCK	I		Spindle lock input
64	NC			Not used
65	XWRITE	O		CD LSI write control signal output
66	NC			Not used

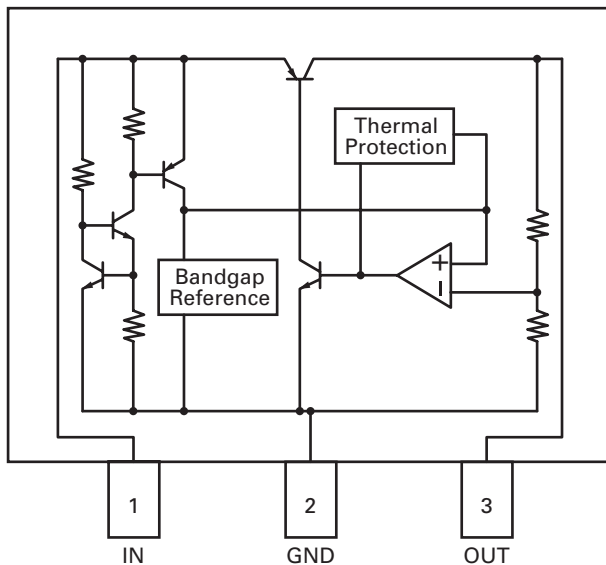
Pin No.	Pin Name	I/O	Format	Function and Operation
67	XREAD	O		CD LSI read control signal output
68	XASTB	O		CD LSI address strobe output
69	BVSS			B power supply GND
70	BVDD			B power supply Positive power supply
71-83	AD0-12	I/O	/C	Address/data Bus 0-12 input/output
84-86	NC			Not used
87	FMODE	I		For flash rewriting Connected to VSS via the resistor
88	FLRQ	O	C	For flash rewriting output
89-93	NC			Not used
94	CSENS	I		Flap closing sense input
95	TYPE_A/D	I		CD-DA analog/digital output change setup input
96	TESTIN	I		Chip check test program starting input
97	HOME	I		Home SW sense input
98	TEMP	I		Temperature information sense input
99	VDSSENS	I		VD power supply short sense input
100	NC			Not used

\* PE5454A



Format	Meaning
C	CMOS

NJM2885DL1-33

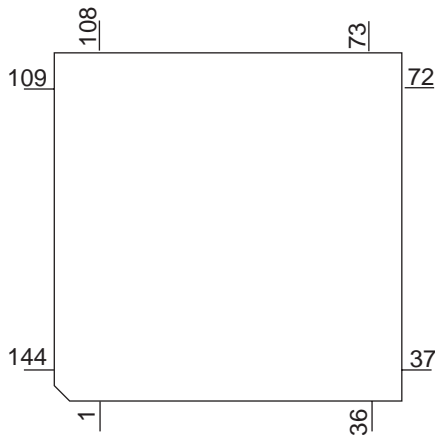


## ● Pin Functions(UPD63763GJ)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Power supply for digital circuits
2	D1.GND		GND for 1.6V digital circuits
3	RESET	I	Input of reset
4-8	AB12-8	I	Address bus 12-8 from the microcomputer
9-16	AD7-0	I/O	Address/data bus 7-0 to the microcomputer
17	$\overline{CS}$	I	Chip selection
18	ASTB	I	Address strobe
19	READ	I	Control signals(read)
20	WRITE	I	Control signals(write)
21	WAIT	O	Control signals(wait)
22	INTQ	O	Interruption signals to the external microcomputer
23, 24	IFMODE0, 1	I	Switching the microcomputer I/F 0, 1
25	D1.VDD		Power supply for 1.6V digital circuits
26	DA.VDD		Power supply for DAC
27	ROUT	O	Output of audio for the right channel
28	DA.GND		GND for DAC
29	REGC		Connected to the capacitor for band gap
30	DA.GND		GND for DAC
31	LOUT	O	Output of audio for the left channel
32	DA.VDD		Power supply for DAC
33	X.VDD		Power supply for the crystal oscillator
34	XTAL	I	Connected to the crystal oscillator(16.9344MHz)
35	XTAL	O	Connected to the crystal oscillator(16.9344MHz)
36	X.GND		Ground for the crystal oscillator
37	VDDREG15		Control of 1.6V regulator
38	PWMSW0	I	Setup 0 for PWM output(SD, MD)
39-41	TEST3-1	I	Connected to GND
42	PWMSW1	I	Setup 1 for PWM output(FD, TD)
43	TESTEN	I	Connected to GND
44	D1.GND		GND for 1.6V digital circuits
45	DIN	I	Input of audio data
46	DOUT	O	Output of audio data
47	SCKIN	I	Clock input for audio data
48	SCKO	O	Clock output for audio data
49	LRCKIN	I	Input of LRCK for audio data
50	LRCK	O	Output LRCK for audio data
51	$\overline{XTALEN}$	I	Permission to oscillate 16.9344MHz
52	D1.VDD		Power supply for 1.6V digital circuits
53	RFCK/HOLD	O	Output of RFCK/HOLD signal
54	WFCK/MIRR	O	Output of WFCK/MIRR signal
55	PLCK/RFOK	O	Output of PLCK/Output of RFOK
56	LOCK/RFOK	O	Output of LRCK/Output of RFOK
57	C1D1/C8M	O	Information on error correction/C8M : 8MHz
58	C1D2/C16M	O	Information on error correction/C16M : 16MHz
59	C2D1/RMUTE	O	Information on error correction/Mute for Rch
60	C2D2/LMUTE	O	Information on error correction/Mute for Lch
61	C2D3/SHOCK	O	Information on error correction/Detection of vibration
62	D1.GND		GND for 1.6V digital circuits
63	C33M	O	Output of 33.8688MHz(CLK for SDRAM)
64	(RCS)	O	DRAM $\overline{CS}$
65	RA11	O	Output of DRAM address 11
66	(CKE)	O	Output of DRAM CKE
67	RAS	O	Output of DRAM $\overline{RAS}$
68	$\overline{CAS0}$ (LDQM)	O	Output of DRAM lower $\overline{CAS}$ (LDQM)
69	$\overline{CAS1}$ (UDQM)	O	Output of DRAM upper $\overline{CAS}$ (UDQM)
70	$\overline{WE}$	O	Output of DRAM $\overline{WE}$
71	OE(CAS)	O	Output of DRAM OE(CAS)
72	D.GND		Ground for digital circuits
73-88	RDB0-15	I/O	Input/output of DRAM data0-15
89-99	RA0-10	O	Output of DRAM address0-10

Pin No.	Pin Name	I/O	Function and Operation
100	D.VDD		Power supply for digital circuits
101	FD+	O	Output of focus drive PWM +
102	FD-	O	Output of focus drive PWM -
103	TD+	O	Output of tracking drive PWM +
104	TD-	O	Output of tracking drive PWM -
105	SD+	O	Output of thread drive PWM +
106	SD-	O	Output of thread drive PWM -
107	MD+	O	Output of spindle drive PWM +
108	MD-	O	Output of spindle drive PWM -
109	REFOUTSV	O	REFOUT for servo
110	AD.VDD		Power supply for ADC
111	EFM	O	Output of EFM signals
112	ASY	I	Input of asymmetry
113	ATEST	O	Analog tests
114	RFI	I	Input of RF
115	AD.GND		Ground for the analog system
116	AGCO	O	Output of RF
117	C3T	O	Connection to the capacitor for detecting 3T
118	AGCI	I	Input of AGC
119	RFO	O	Output of RF(AGC)
120, 121	EQ2, 1	I	Equalizer 2, 1
122	RF2-	I	Reversal input of RF2
123	RF-	I	Reversal input of RF
124	A.GND		Ground for the analog system
125	A	I	Input of A
126	C	I	Input of C
127	B	I	Input of B
128	D	I	Input of D
129	F	I	Input of F
130	E	I	Input of E
131	VREFIN	I	Input of reference voltage
132	A.VDD		Power supply for the analog system
133	REFOUT	O	Output of reference voltage
134	REFC	I	Connected to the capacitor for output of REFOUT
135	FE-	I	Reversal input of FE
136	FEO	O	Output of FE
137	ADIN	I	Input of FE, TE A/D converter
138	TE-	I	Reversal input of TE
139	TEO	O	Output of TE
140	TE2	O	TE2
141	TEC	I	TEC
142	LD	O	Output of LD
143	PD	I	Input of PD
144	D.GND		Ground for digital circuits

\* UPD63763GJ



1

2

3

4

## FM/AM Tuner Unit

No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 33 $\mu$ H. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75 $\Omega$ Surge absorber is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V $\pm$ 0.3V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	WC	I	write control	You can write EEPROM, when EEPROM write control is "Low". Ordinary non connection
8	CE1	I	chip enable-1	Chip enable for AF $\cdot$ RF "High" active
9	CK	I	clock	Clock data input
10	DI	I	data in	Data input
11	LDET	O	lock detector	"Low" active
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	COMP	O	composite output	FM composite signal output.
17	VDD_3.3		power supply	The power supply for digital block. 3.3V $\pm$ 0.2V
18	RDS_CK	O	RDS clock	Output of RDS clock(2.5V)
19	RDS_DATA	O	RDS data	Output of RDS data(2.5V)
20	RDS_LOCK	O	RDS lock	Output unit "High" active(2.5V) (RDS_LOCK turns over by the external transistor. "Low" active)
21	RDS_HSLK	O	RDS high speed lock	Output unit "High" active(2.5V)(RDS_HSLK turns over by the external transistor. "Low" active)
22	ANT1		diversity antenna control	Antenna switch control signal output. "High" : MAIN, "Low"=SUB
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output

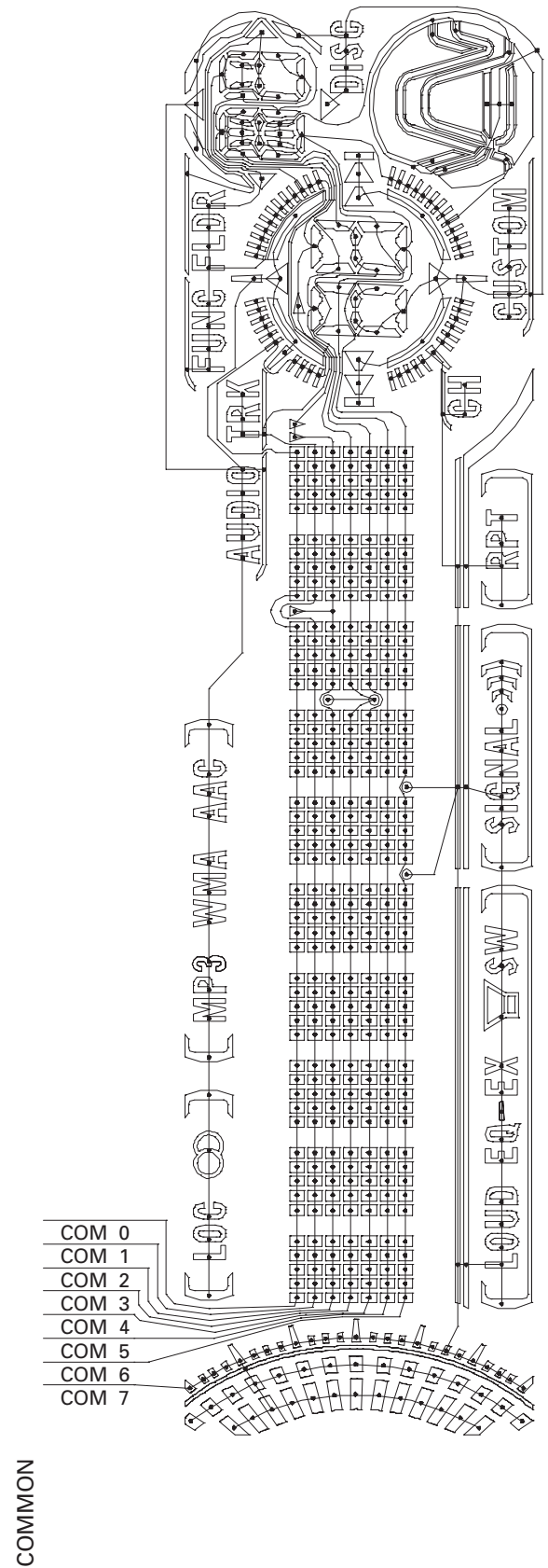
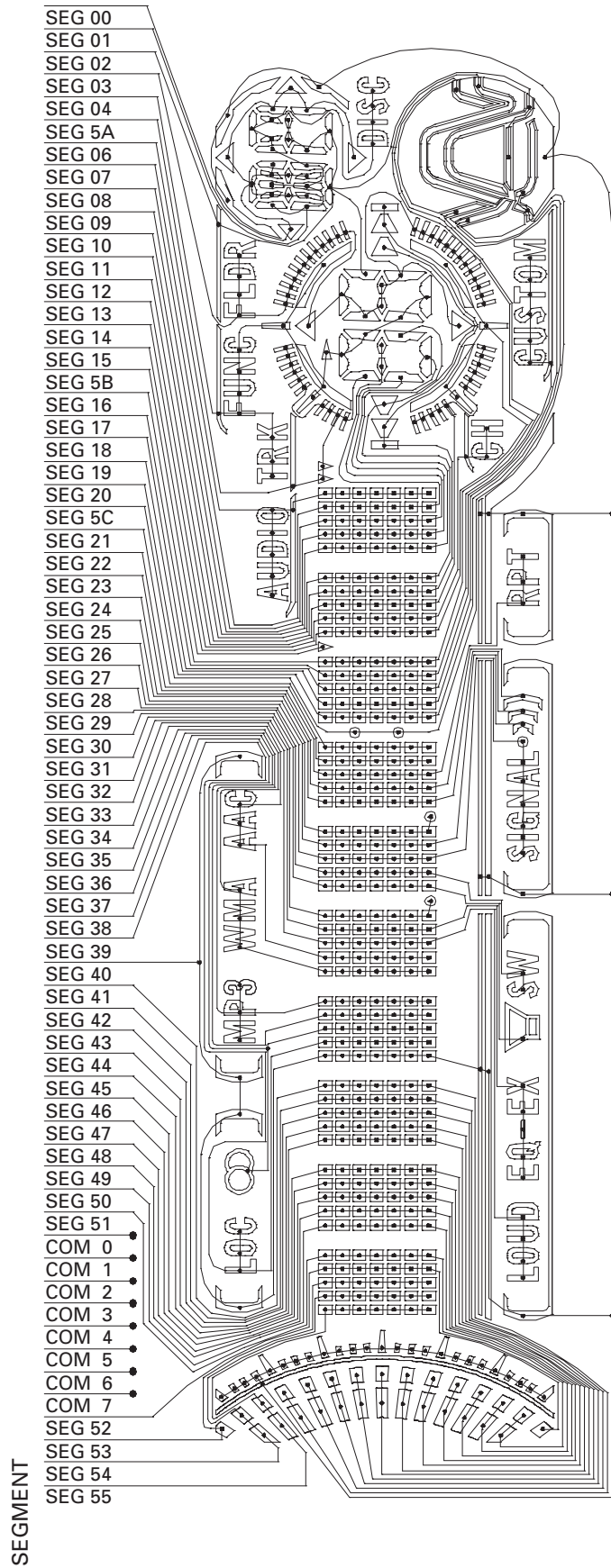
DEH-P5750MP/XM/ES

64

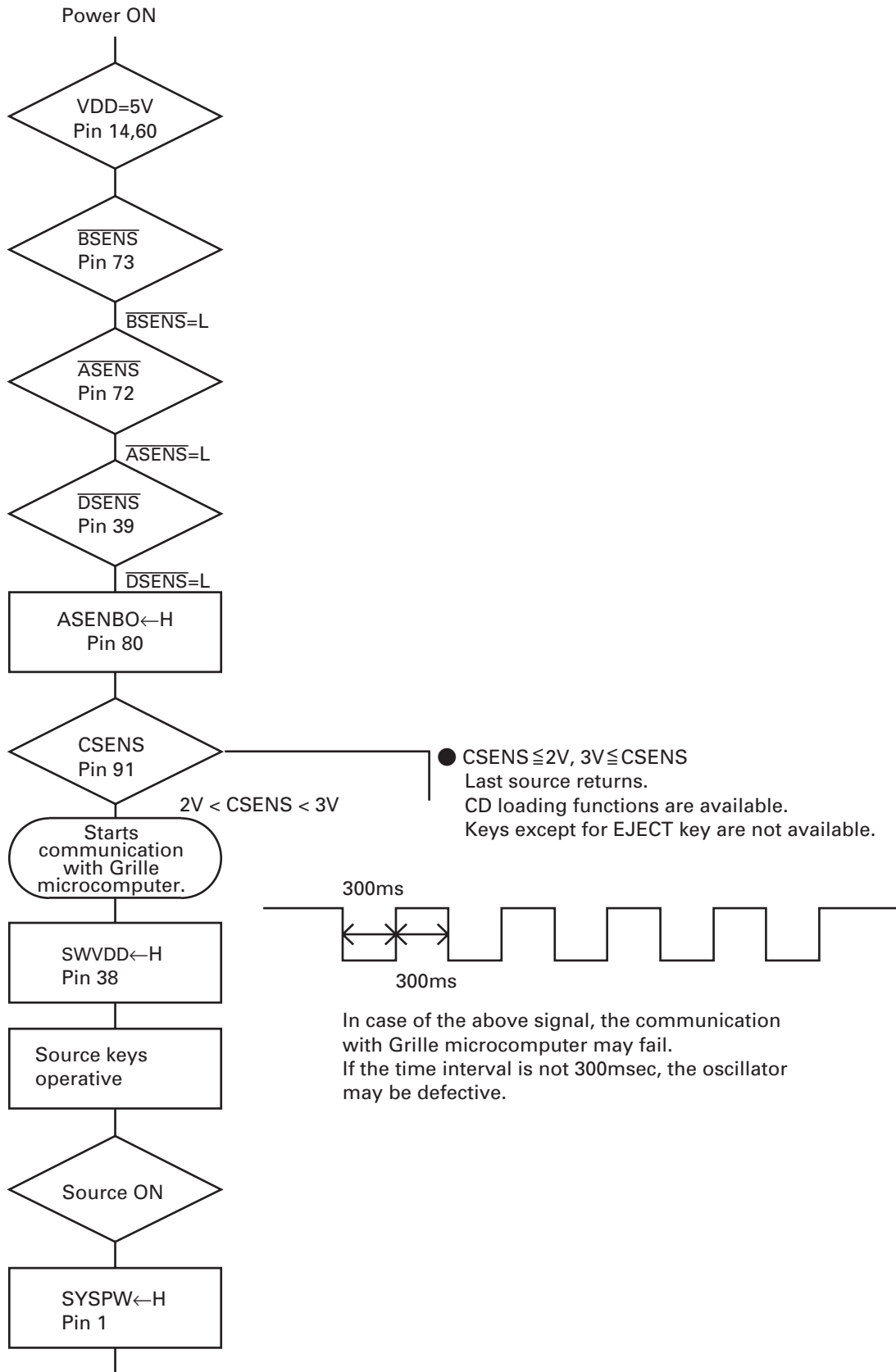


## 7.2.2 DISPLAY

### ● LCD(XAW7013)



# 7.3 OPERATIONAL FLOW CHART



Completes power-on operation.  
(After that, proceed to each source operation)

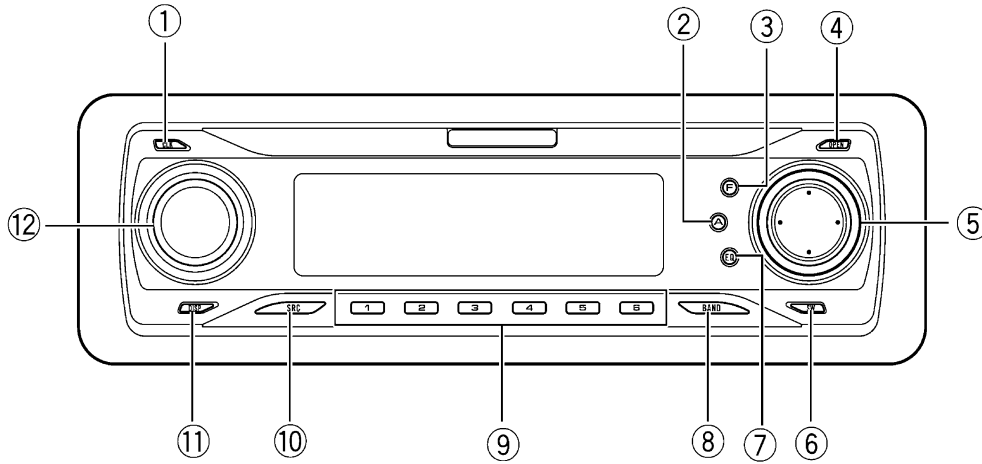
## 7.4 CLEANING



Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

# 8. OPERATIONS



## Head unit

### ① CLOCK button

Press to change to the clock display.

### ② AUDIO button

Press to select various sound quality controls.

### ③ FUNCTION button

Press to select functions.

### ④ OPEN button

Press to open the front panel.

### ⑤ ▲/▼/◀/▶ buttons

Press to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions.

### ⑥ SW button

Press to directly select subwoofer setting menu.

### ⑦ EQ button

Press to select various equalizer curves.

### ⑧ BAND button

Press to select among three FM bands and one AM band and to cancel the control mode of functions.

### ⑨ 1-6 buttons

Press for preset tuning and disc number search when using a multi-CD or multi-DVD player.

### ⑩ SOURCE button

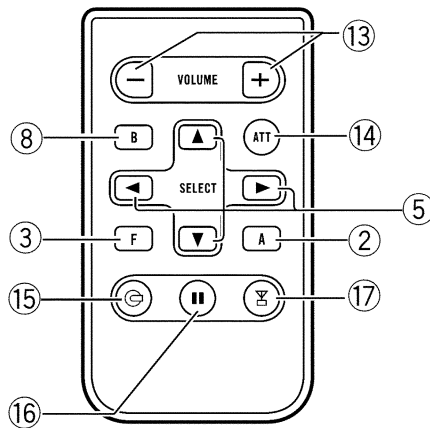
This unit is turned on by selecting a source. Press to cycle through all the available sources.

### ⑪ DISPLAY button

Press to select different displays.

### ⑫ VOLUME

When you press **VOLUME**, it extends outward so that it becomes easier to turn. To retract **VOLUME**, press it again. 



**13 VOLUME button**

Press to increase or decrease the volume.

**14 ATT button**

Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.


**15 CD button**

Press to select the built-in, multi-CD or DVD player as the source.

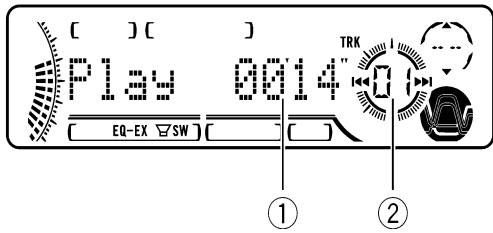
**16 PAUSE button**

Press to turn pause on or off.

**17 TUNER button**

Press to select the tuner or TV as the source. 

## Playing a CD



These are the basic steps necessary to play a CD with your built-in CD player. More advanced CD operation is explained starting on the next page.

### ① Play time indicator

Shows the elapsed playing time of the current track.

### ② Track number indicator

Shows the track currently playing.

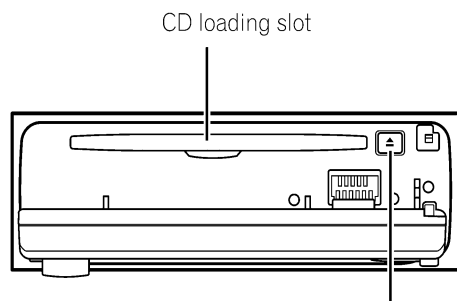
### 1 Press OPEN to open the front panel.

CD loading slot appears.

- After a CD has been inserted, press **SOURCE** to select the built-in CD player.

### 2 Insert a CD into the CD loading slot.

Playback will automatically start.



EJECT button

- You can eject a CD by pressing **EJECT**.
- To avoid a malfunction, make sure that no metal object comes into contact with the terminals when the front panel is open.

### 3 Close the front panel.

### 4 Use VOLUME to adjust the sound level.

Rotate it to increase or decrease the volume.

### 5 To perform fast forward or reverse, press and hold ◀ or ▶.

- If you select **Rough**, pressing and holding ◀ or ▶ enables you to search every 10 tracks in the current disc.

### 6 To skip back or forward to another track, press ◀ or ▶.

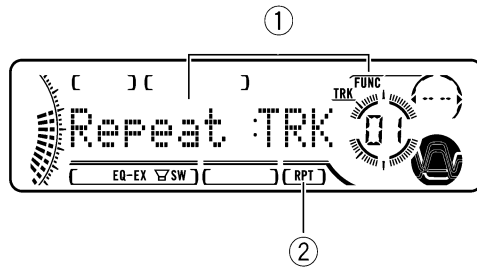
Pressing ▶ skips to the start of the next track. Pressing ◀ once skips to the start of the current track. Pressing again will skip to the previous track.



#### Notes

- The built-in CD player plays one, standard, 12-cm or 8-cm (single) CD at a time. Do not use an adapter when playing 8-cm CDs.
- Do not insert anything other than a CD into the CD loading slot.
- If you cannot insert a disc completely or if after you insert a disc the disc does not play, check that the label side of the disc is up. Press **EJECT** to eject the disc, and check the disc for damage before inserting it again.
- ▲ and ▼ can be operated when MP3, WMA or WAV is playing.
- If an error message such as **ERROR-11** is displayed.
- When a CD TEXT disc is inserted, the disc and track titles begin to scroll to the left automatically.
- When Ever Scroll is set to ON at the initial setting, CD text information scrolls continuously in the display. If you want to display the first 10 characters of text information temporarily and scroll from the beginning, press and hold **DISPLAY**. About Ever Scroll,

## Introduction of advanced built-in CD player operation



### ① Function display

Shows the function status.

### ② RPT indicator

Shows when repeat play is turned on.


#### ● Press FUNCTION to display the function names.

Press **FUNCTION** repeatedly to switch between the following functions:

**Repeat** (repeat play)—**Random** (random play)—**Scan** (scan play)—**Pause** (pause)—**COMP** (compression and BMX)—**FF/REV** (search method)

- To return to the playback display, press **BAND**.

#### Note

If you do not operate the function within about 30 seconds, the display is automatically returned to the playback display. 

## Repeating play

Repeat play lets you hear the same track or disc over again.

### 1 Press FUNCTION to select Repeat.

Press **FUNCTION** until **Repeat** appears in the display.


### 2 Press ◀ or ▶ to select the repeat range.

This switches you to the selected setting.

- **Repeat:DSC** – Repeat the current disc
- **Repeat:TRK** – Repeat just the current track



#### Note

If you perform track search or fast forward/reverse during **Repeat:TRK**, the repeat play range changes to **Repeat:DSC**. 

## Playing tracks in a random order

Random play lets you play back tracks on the CD in a random order.


### 1 Press FUNCTION to select Random.

Press **FUNCTION** until **Random** appears in the display.

### 2 Press ▲ to turn random play on.

**Random:ON** appears in the display. Tracks will play in a random order.

### 3 Press ▼ to turn random play off.

**Random:OFF** appears in the display. Tracks will continue to play in order. 

## Scanning tracks of a CD

Scan play lets you hear the first 10 seconds of each track on the CD.

### 1 Press FUNCTION to select Scan.

Press **FUNCTION** until **Scan** appears in the display.

### 2 Press ▲ to turn scan play on.

**Scan:ON** appears in the display. The first 10 seconds of each track is played.

### 3 When you find the desired track press ▼ to turn scan play off.

**Scan:OFF** appears in the display. The track will continue to play.

- If the display has automatically returned to the playback display, select **Scan** again by pressing **FUNCTION**.



#### Note

After scanning of a CD is finished, normal playback of the tracks will begin again.

## Pausing CD playback

Pause lets you temporarily stop playback of the CD.

### 1 Press **FUNCTION** to select **Pause**.

Press **FUNCTION** until **Pause** appears in the display.

### 2 Press ▲ to turn pause on.

**Pause:ON** appears in the display. Play of the current track pauses.

### 3 Press ▼ to turn pause off.

**Pause:OFF** appears in the display. Play will resume at the same point that you turned pause on.

## Using compression and BMX

Using the COMP (compression) and BMX functions let you adjust the sound playback quality of this player. Each of the functions have a two-step adjustment. The COMP function balances the output of louder and softer sounds at higher volumes. BMX controls sound reverberations to give playback a fuller sound. Listen to each of the effects as you select through them and use the one that best

enhances the playback of the track or CD that you are listening to.

### 1 Press **FUNCTION** to select **COMP**.

Press **FUNCTION** until **COMP** appears in the display.

### 2 Press ▲ or ▼ to select your favorite setting.

Press ▲ or ▼ repeatedly to switch between the following settings:

**COMP OFF—COMP 1—COMP 2—  
COMP OFF—BMX 1—BMX 2**

## Selecting the search method

You can switch the search method between fast forward/reverse and searching every 10 tracks.

### 1 Press **FUNCTION** to select **FF/REV**.

Press **FUNCTION** until **FF/REV** appears in the display.

- If the search method **Rough** has been previously selected, **Rough** will be displayed.

### 2 Press ◀ or ▶ to select the search method.

Press ◀ or ▶ until the desired search method appears in the display.

- **FF/REV** – Fast forward and reverse
- **Rough** – Searching every 10 tracks



## Searching every 10 tracks in the current disc

If a disc contains over 10 tracks, you can search every 10 tracks. When a disc contains a lot of tracks, you can roughly search for the track you want to play.

### 1 Select the search method Rough.

### 2 Press and hold ◀ or ▶ to search every 10 tracks on a disc.

- If a disc contains less than 10 tracks, pressing and holding ▶ recalls the last track of the disc. Also, if the remaining number of tracks after searching every 10 tracks is less than 10, pressing and holding ▶ recalls the last track of the disc.
- If a disc contains less than 10 tracks, pressing and holding ◀ recalls the first track of the disc. Also, if the remaining number of tracks after searching every 10 tracks is less than 10, pressing and holding ◀ recalls the first track of the disc. ◻

## Using disc title functions

You can input CD titles and display the title. The next time you insert a CD for which you have entered a title, the title of that CD will be displayed.

## Entering disc titles

Use the disc title input feature to store up to 48 CD titles in the unit. Each title can be up to 10 characters long.

### 1 Play the CD that you want to enter a title for.

### 2 Press FUNCTION and hold until Title In appears in the display.

- When playing a CD TEXT disc, you cannot switch to **Title In**. The disc title will have already been recorded on a CD TEXT disc.

### 3 Press button 1 to select the desired character type.

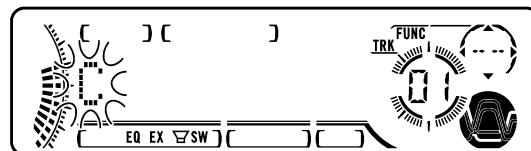
Press button **1** repeatedly to switch between the following character types:

Alphabet (upper case), numbers and symbols—Alphabet (lower case)—European letters, such as those with accents (e.g., **á, à, ä, ç**)

- You can select to input numbers and symbols by pressing button **2**.

### 4 Press ▲ or ▼ to select a letter of the alphabet.

Each press of ▲ will display a letter of the alphabet in **A B C ... X Y Z**, numbers and symbols in **1 2 3 ... > [ ]** order. Each press of ▼ will display a letter in the reverse order, such as **Z Y X ... C B A** order.



### 5 Press ▶ to move the cursor to the next character position.

When the letter you want is displayed, press ▶ to move the cursor to the next position and then select the next letter. Press ◀ to move backwards in the display.

### 6 Move the cursor to the last position by pressing ▶ after entering the title.

When you press ▶ one more time, the entered title is stored in memory.

### 7 Press BAND to return to the playback display.

## Notes

- Titles remain in memory, even after the disc has been removed from the unit, and are recalled when the disc is reinserted.
- After data for 48 discs has been stored in memory, data for a new disc will overwrite the oldest one.
- If you connect a multi-CD player, you can input disc titles for up to 100 discs.

## Displaying disc titles


You can display the title of any disc that has had a disc title entered.

### ● Press DISPLAY.

Press **DISPLAY** repeatedly to switch between the following settings:

Play time—**Disc Title** (disc title)

When you select **Disc Title**, the title of the currently playing disc is shown in the display.

- If no title has been entered for the currently playing disc, **No Title** is displayed. 

## Using CD TEXT functions

Some discs have certain information encoded on the disc during manufacture. These discs may contain such information as the CD title, track title, artist's name and playback time and are called CD TEXT discs. Only these specially encoded CD TEXT discs support the functions listed below.

## Displaying titles on CD TEXT discs

### ● Press DISPLAY.

Press **DISPLAY** repeatedly to switch between the following settings:

Play time—**Disc Title** (disc title)—**ArtistName** (disc artist name)—**TrackTitle** (track title)—**ArtistName** (track artist name)

- If specific information has not been recorded on a CD TEXT disc, **No XXXX** will be displayed (e.g., **No TRK TTL**).


## Scrolling titles in the display

This unit can display the first 10 letters only of **Disc Title**, **ArtistName**, **TrackTitle** and **ArtistName**. When the recorded information is longer than 10 letters, you can scroll the text to the left so that the rest of the title can be seen.

### ● Press DISPLAY and hold until the title begins to scroll to the left.

The rest of the title will appear in the display.

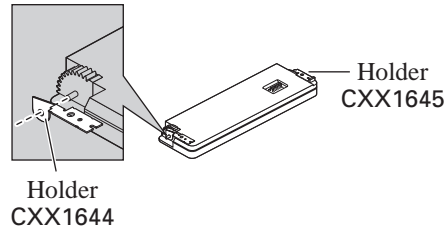
## Note

When Ever Scroll is set to ON at the initial setting, CD text information scrolls continuously in the display. If you want to display the first 10 characters of text information temporarily and scroll from the beginning, press and hold **DISPLAY**. About Ever Scroll. 

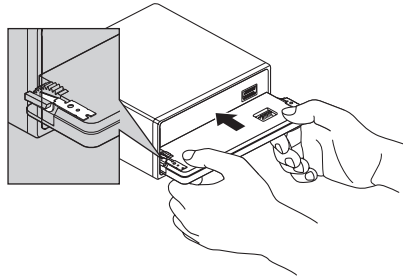
## Fixing the Front Panel

If you do not operate the Detaching and Replacing the Front Panel Function, use the supplied fixing screws and fix the front panel to this unit.

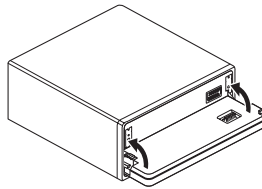
### 1. Attach the holders to both sides of the front panel.



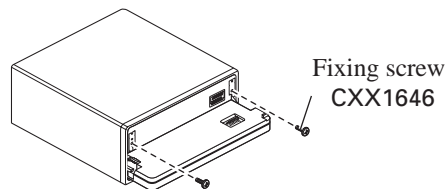
### 2. Replace the front panel to the unit.



### 3. Flip the holders into upright positions.

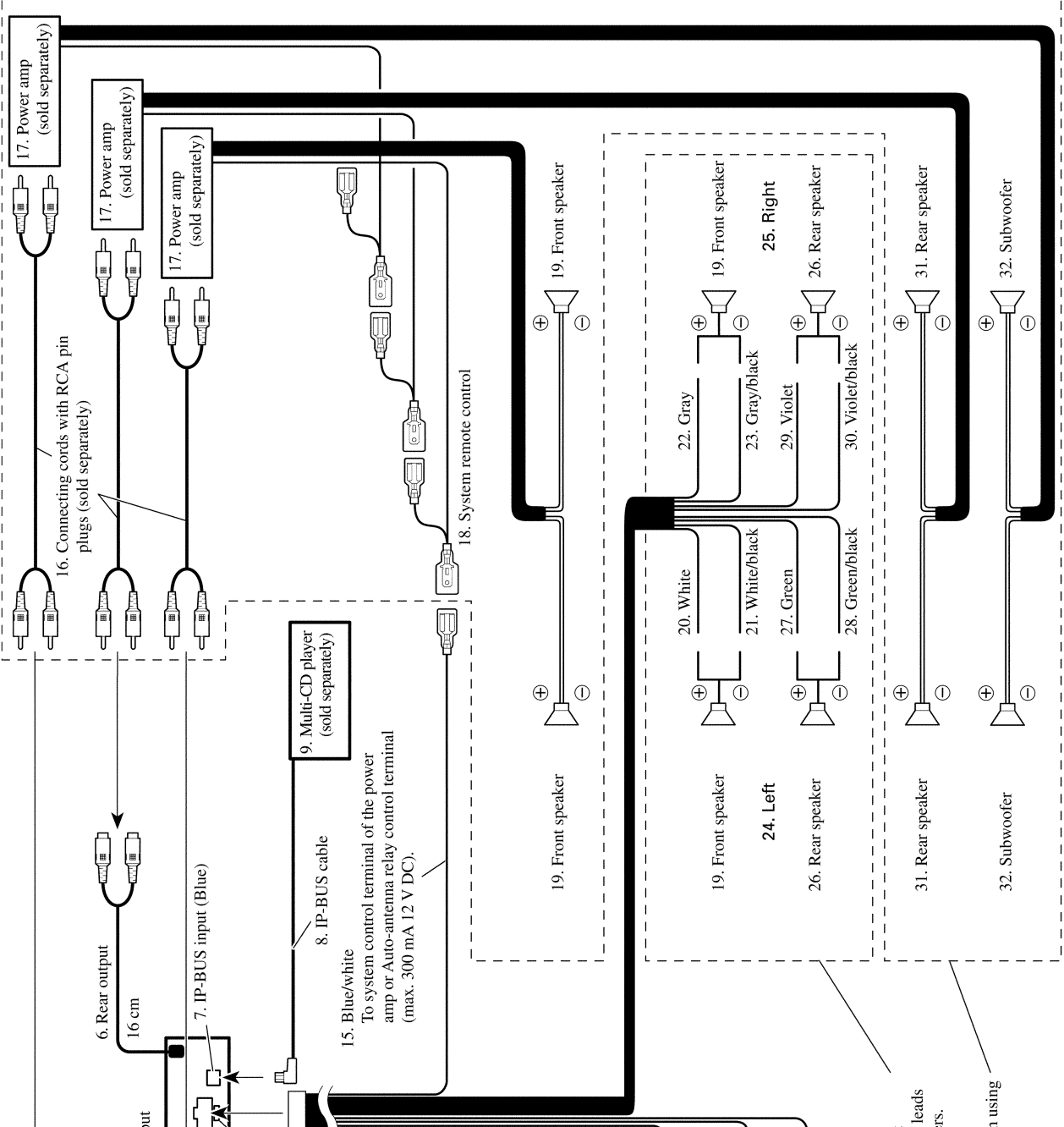


### 4. Fix the front panel to the unit using fixing screws.



# ● Connection Diagram

A  
B  
C  
D  
E  
F



- 1. This product
- 2. Front output
- 3. Subwoofer output or non fading output
- 4. Antenna jack
- 5. Fuse
- 6. Rear output
- 7. IP-BUS input (Blue)
- 8. IP-BUS cable
- 9. Multi-CD player (sold separately)
- 10. Yellow/black  
If you use an equipment with Mute function, wire this lead to the Audio Mute lead on that equipment. If not, keep the Audio Mute lead free of any connections.
- 11. Yellow  
To terminal always supplied with power regardless of ignition switch position.
- 12. Red  
To electric terminal controlled by ignition switch (12 V DC) ON/OFF.
- 13. Orange/white  
To lighting switch terminal.
- 14. Black (ground)  
To vehicle (metal) body.
- 15. Blue/white  
To system control terminal of the power amp or Auto-antenna relay control terminal (max. 300 mA 12 V DC).
- 16. Connecting cords with RCA pin plugs (sold separately)
- 17. Power amp (sold separately)
- 18. System remote control
- 19. Front speaker
- 20. White
- 21. White/black
- 22. Gray
- 23. Gray/black
- 24. Left
- 25. Right
- 26. Rear speaker
- 27. Green
- 28. Green/black
- 29. Violet
- 30. Violet/black
- 31. Rear speaker
- 32. Subwoofer
- 33. With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.
- 34. Perform these connections when using the optional amplifier.



5



6



7



8



A



B



C



D



E



F



5



6



7



8



● Jigs List

Name	Jig No.	Remarks
Test Disc	TCD-784	Checking the grating
L.P.F.		Checking the grating (Two pieces)

A

B

C

D

E

F