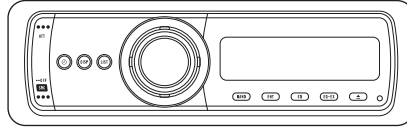


# Service Manual



DEH-P8MP/XN/UC

ORDER NO.  
**CRT3219**

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

# DEH-P8MP /XN/UC

## DEH-P80MP /XN/UC

## DEH-P1Y /XN/ES

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

Model No.	Order No.	Mech.Module	Remarks
CX-3098	CRT3179	S10WMAcode2	CD Mech. Module:Circuit Description, Mech. Description, Disassembly



For details, refer to "Important symbols for good services".

# SAFETY INFORMATION

## CAUTION

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.

## WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.  
Health & Safety Code Section 25249.6 - Proposition 65

### 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) by referring to "the DISASSEMBLY" on page 63.
4. After replacing the pickup unit, be sure to check the grating. (See page 59.)

### [ Important symbols for good services ]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

#### 1. Product safety



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. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

#### 3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

#### 4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

#### 5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.



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# 1. SPECIFICATIONS

## ● DEH-P8MP/XN/UC

### General

A	Power source .....	14.4 V DC (10.8 – 15.1 V allowable)
	Grounding system .....	Negative type
	Max. current consumption .....	20.0 A
	Backup current .....	5mA or less
	Dimensions (W × H × D):	
	DIN	
	Chassis .....	178 × 50 × 159 mm (7 × 2 × 6-1/4 in.)
B	Nose .....	188 × 58 × 19 mm (7-3/8 × 2-1/4 × 3/4 in.)
	D	
	Chassis .....	178 × 50 × 164 mm (7 × 2 × 6-1/2 in.)
	Nose .....	170 × 45 × 14 mm (6-3/4 × 1-3/4 × 1/2 in.)
	Weight .....	1.4 kg (3.5 lbs)

### Audio

	(When in 60W mode)	
C	Continuous power output is 27 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.	
	(When in 40W mode)	
	Continuous power output is 20 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.	
	Maximum power output .....	60W × 4 (When in 60W mode)
	Maximum power output .....	40W × 4 (When in 40W mode)
D	Load impedance .....	4 Ω (4 – 8 Ω allowable)
	Preout max output level/output impedance .....	6.5 V/100Ω
	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
E	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	
F	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) (IHF-A network)
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
WAV signal format .....	Linear PCM & MS ADPCM

### FM tuner

Frequency range .....	87.9 – 107.9 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 (IHF-A network)
Distortion .....	0.3 % (at 65 dBf, 1 kHz, stereo)
	0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response .....	30 – 15,000 Hz (±3 dB)
Stereo separation .....	45 dB (at 65 dBf, 1 kHz)
Selectivity .....	80 dB (±200 kHz)
Three-signal intermodulation (desired signal level) .....	30 dBf (two undesired signal level: 100 dBf)

### AM tuner

Frequency range .....	530 – 1,710 kHz (10 kHz)
Usable sensitivity .....	18 μV (S/N: 20 dB)
Signal-to-noise ratio .....	65 dB (IHF-A network)

## ● DEH-P80MP/XN/UC

### General

Power source .....	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system .....	Negative type
Max. current consumption .....	20.0 A
Backup current .....	5mA or less
Dimensions (W × H × D):	
DIN	
Chassis .....	178 × 50 × 159 mm (7 × 2 × 6-1/4 in.)
Nose .....	188 × 58 × 19 mm (7-3/8 × 2-1/4 × 3/4 in.)
D	
Chassis .....	178 × 50 × 164 mm (7 × 2 × 6-1/2 in.)
Nose .....	170 × 45 × 14 mm (6-3/4 × 1-3/4 × 1/2 in.)
Weight .....	1.4 kg (3.5 lbs)

### Audio

(When in 60W mode)

Continuous power output is 27 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

(When in 40W mode)

Continuous power output is 20 W per channel minimum into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.

Maximum power output ..... 60W × 4  
(When in 60W mode)

Maximum power output ..... 40W × 4  
(When in 40W mode)

Load impedance ..... 4 Ω (4 – 8 Ω allowable)

Preout max output level/output impedance .....

..... 6.5 V/100Ω

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)
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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) (IHF-A network)

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

WAV signal format .....	Linear PCM & MS ADPCM
-------------------------	-----------------------

### FM tuner

Frequency range .....	87.9 – 107.9 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 (IHF-A network)

Distortion .....	0.3 % (at 65 dBf, 1 kHz, stereo)
	0.1 % (at 65 dBf, 1 kHz, mono)

Frequency response .....	30 – 15,000 Hz (±3 dB)
Stereo separation .....	45 dB (at 65 dBf, 1 kHz)

Selectivity .....	80 dB (±200 kHz)
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Three-signal intermodulation (desired signal level) .....	30 dBf (two undesired signal level: 100 dBf)
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### AM tuner

Frequency range .....	530 – 1,710 kHz (10 kHz)
Usable sensitivity .....	18 μV (S/N: 20 dB)

Signal-to-noise ratio .....	65 dB (IHF-A network)
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## ● DEH-P1Y/XN/ES

### General

Rated power source ..... 14.4 V DC  
(allowable voltage range:  
12.0 – 14.4 V DC)

Grounding system ..... Negative type

Backup current ..... 5 mA or less

Max. current consumption  
..... 20.0 A

Dimensions (W × H × D):

DIN Chassis ..... 178 × 50 × 159 mm  
Nose ..... 188 × 58 × 19 mm

D Chassis ..... 178 × 50 × 164 mm  
Nose ..... 170 × 45 × 14 mm

Weight ..... 1.6 kg

### Audio

(When in 60W mode)

Continuous power output is 27 W per channel minimum  
into 4 ohms, both channels driven 50 to 15,000 Hz with  
no more than 5% THD.

(When in 40W mode)

Continuous power output is 20 W per channel minimum  
into 4 ohms, both channels driven 50 to 15,000 Hz with  
no more than 5% THD.

Maximum power output ..... 60W × 4  
(When in 60W mode)

Maximum power output ..... 40W × 4  
(When in 40W mode)

Load impedance ..... 4 Ω (4 – 8 Ω allowable)

Preout max output level/output impedance  
..... 6.5 V/100Ω

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

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)

0.1 % (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)

Usable sensitivity ..... 18 μV (S/N: 20 dB)


Signal-to-noise ratio ..... 65 dB (IEC-A network)

### Infrared remote control

Wavelength ..... 940 nm ±50 nm

Output ..... typ; 12 mw/sr per Infrared  
LED

### Notes

- Specifications and the design are subject to possible modifications without notice due to improvements.
- When the built-in tuner is engaged, the amplifier operates with 40W mode even if 60W mode is selected. 



5



6



7



8



A



B



C



D



E



F



5



6

DEH-P8MP/XN/UC



7



8

7

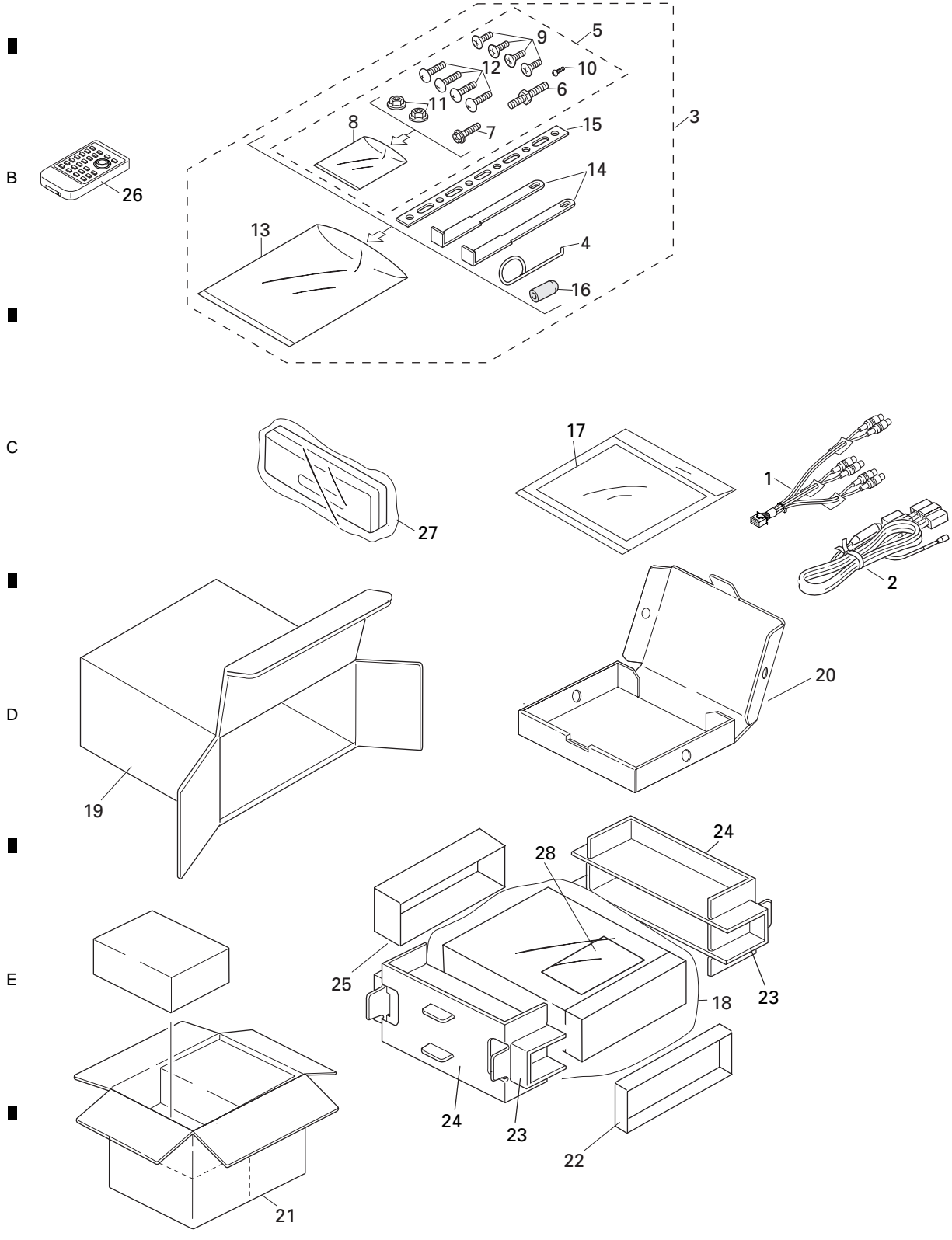


# 2. EXPLODED VIEWS AND PARTS LIST

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

- Screw adjacent to ▽ 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(DEH-P8MP/XN/UC,DEH-P80MP/XN/UC)



**(1) PACKING(DEH-P8MP/XN/UC,DEH-P80MP/XN/UC) 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	Cord Assy	CDE7612	17-2	Owner's Manual	See Contrast table(2)
2	Cord Assy	CDE7482	17-3	Installation Manual	See Contrast table(2)
3	Accessory Assy	CEA4302	* 17-4	Caution Card	CRP1307
4	Spring	CBH1650	17-5	Caution Card	CRP1310
5	Screw Assy	CEA4303	* 17-6	Warranty Card	See Contrast table(2)
6	Screw	CBA1650	* 17-7	Card	See Contrast table(2)
7	Bolt(M5x16)	CBA1783	18	Polyethylene Bag	CEG1173
* 8	Polyethylene Bag	CEG-127	19	Carton	See Contrast table(2)
9	Screw	CRZ50P090FTC	20	Sub Carton	CHA3258
10	Screw	JPZ20P060FZK	21	Contain Box	See Contrast table(2)
11	Nut	NF50FTC	22	Protector	CHP2546
12	Screw	TRZ50P080FTC	23	Protector	CHP2539
* 13	Polyethylene Bag	CEG-158	24	Protector	CHP2538
14	Handle	CNC5395	25	Protector	CHP2541
15	Strap	CNC5402	26	Remote Control Unit	CXC2665
16	Bush	CNV3930	27	Case Assy	CXC3572
17-1	Polyethylene Bag	CEG1116	* 28	Caution Card	CRP1311

**(2) CONTRAST TABLE**

DEH-P8MP/XN/UC and DEH-P80MP/XN/UC are constructed the same except for the following:

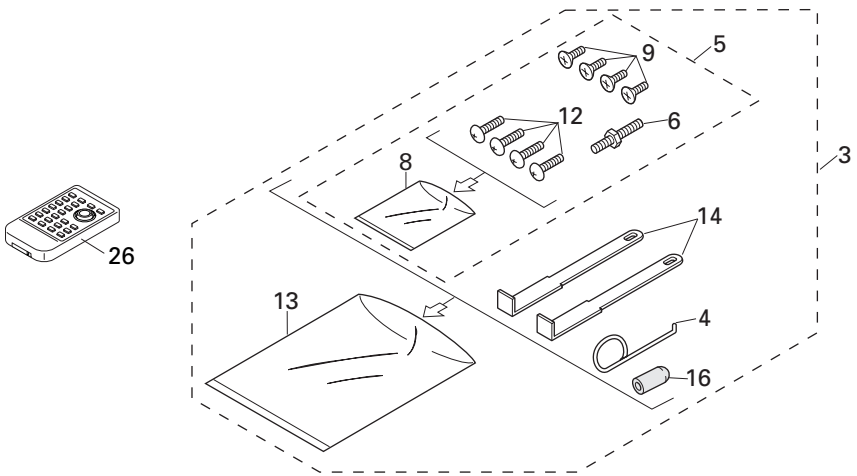
<u>Mark</u>	<u>NO</u>	<u>Description</u>	<u>DEH-P8MP/XN/UC</u>	<u>DEH-P80MP/XN/UC</u>
	17-2	Owner's Manual	CRD3844	CRD3846
	17-3	Installation Manual	CRD3845	CRD3847
*	17-6	Warranty Card	CRY1070	Not used
*	17-7	Card	Not used	ARY1048
	19	Carton	CHG5212	CHG5211
	21	Contain Box	CHL5212	CHL5211

**Owner's Manual,Installation Manual**

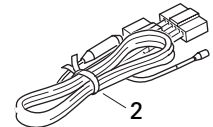
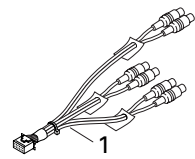
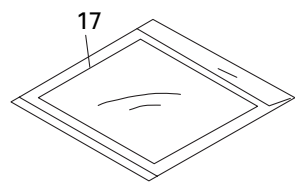
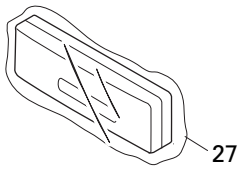
<u>Part No.</u>	<u>Language</u>
CRD3844	English, French
CRD3845	English, French
CRD3846	English, French
CRD3847	English, French

## 2.2 PACKING(DEH-P1Y/XN/ES)

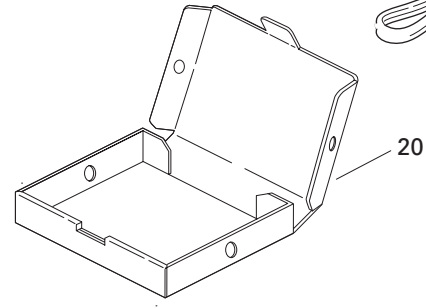
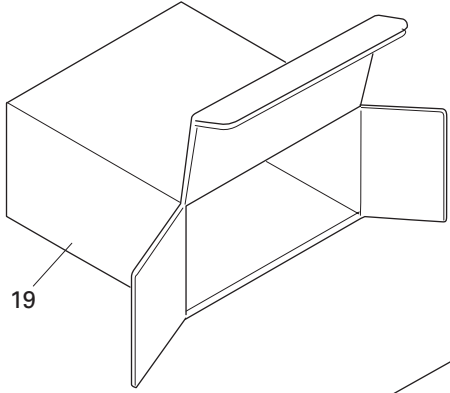
A



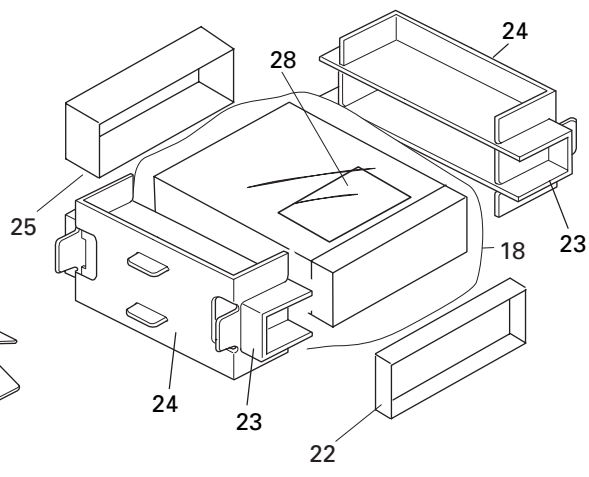
B



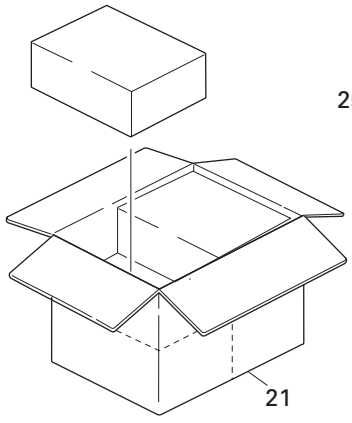
C



D



E



F

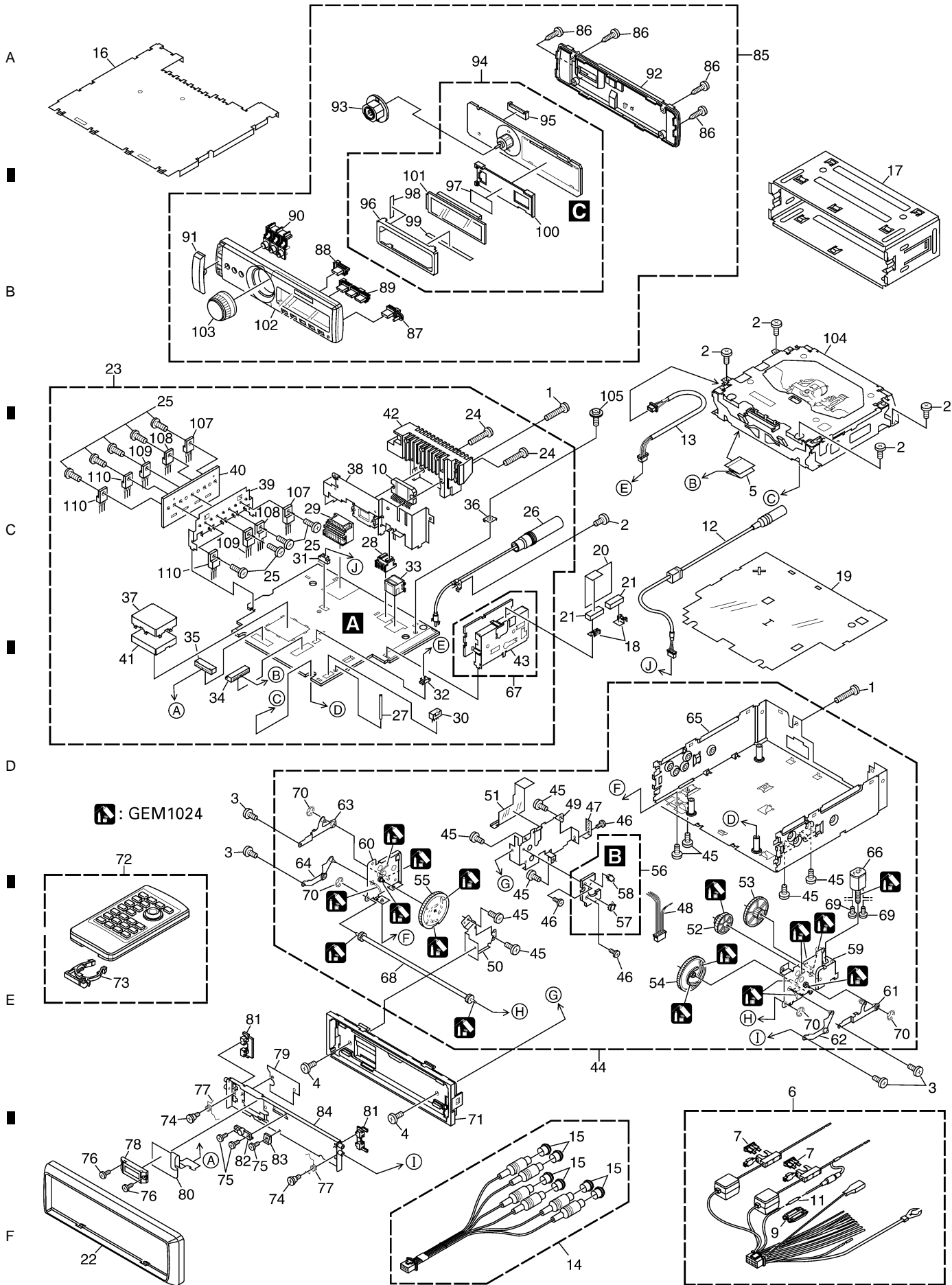
**PACKING(DEH-P1Y/XN/ES) SECTION PARTS LIST**

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Cord Assy	CDE7612	17-2	Owner's Manual	CRD3848
2	Cord Assy	CDE7482	17-3	Owner's Manual	CRD3849
3	Accessory Assy	CEA4301	17-4	Installation Manual	CRD3850
4	Spring	CBH1650			
5	Screw Assy	CEA3849	*	17-5 Caution Card	CRP1307
				17-6 Caution Card	CRP1310
6	Screw	CBA1650	18	Polyethylene Bag	CEG-162
7	*****		19	Carton	CHG5210
*	8 Polyethylene Bag	CEG-127	20	Sub Carton	CHA3258
9	Screw	CRZ50P090FTC			
10	*****		21	Contain Box	CHL5210
			22	Protector	CHP2546
11	*****		23	Protector	CHP2539
12	Screw	TRZ50P080FTC	24	Protector	CHP2538
*	13 Polyethylene Bag	CEG-158	25	Protector	CHP2541
14	Handle	CNC5395			
15	*****		26	Remote Control Unit	CXC2665
			27	Case Assy	CXC3572
16	Bush	CNV3930	*	28 Caution Card	CRP1311
17-1	Polyethylene Bag	CEG1116			

**Owner's Manual,Installation Manual**

<b>Part No.</b>	<b>Language</b>
CRD3848	English, Spanish, Portuguese(B)
CRD3849	Traditional Chinese, Arabic
CRD3850	English, Spanish, Portuguese(B), Traditional Chinese, Arabic

# 2.3 EXTERIOR



(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BMZ26P200FTC	56	Switch Unit	CWS1389
2	Screw	BSZ26P060FTC	57	Switch(S1)	CSN1051
3	Screw(M2x2.5)	CBA1641	58	Spring Switch(S2)	CSN1052
4	Screw(M2.6x4)	CBA1769	59	Holder Unit	CXC2196
5	Flat Cable	CDE7468	60	Holder Unit	CXC2197
6	Cord Assy	CDE7482	61	Arm Unit	CXC2198
7	Fuse(10A)	CEK1136	62	Arm Unit	CXC2199
8	.....		63	Arm Unit	CXC2200
9	Cap	CNS1472	64	Arm Unit	CXC2201
10	IC(IC201)	PAL008A	65	Chassis Unit	See Contrast table(2)
11	Resistor	RS1/2PMF102J	66	Motor Unit(M871)	CXC2204
12	Cord Assy	See Contrast table(2)	67	FM/AM Tuner Unit	CWE1646
13	Cord Assy	CDE7484	68	Gear Unit	CXC2205
14	Cord Assy	CDE7612	69	Screw	JFZ20P025FTC
15	Cap	CNV6727	70	Washer	YE15FTC
16	Case	CNB2945	71	Panel Unit	CXC2603
17	Holder	CNC8659	72	Remote Control Unit	CXC2665
18	Earth Plate	CND2171	73	Cover	CZN5357
19	Insulator	CNM8638	74	Screw(M2x2)	CBA1561
20	Insulator	CNM8790	75	Screw(M2x2)	CBA1633
21	Cushion	CNM9126	76	Screw(M2x3.5)	CBA1754
22	Panel	CNS7772	77	Spring	CBH2530
23	Tuner Amp Unit	See Contrast table(2)	78	Connector	CKS4796
24	Screw	BMZ26P200FTC	79	Holder	CND2172
25	Screw	BSZ26P080FTC	80	Flexible PCB	CNP7698
26	Antenna Cable	CDH1336	81	Arm	CNV6962
27	Clamper	CEF1033	82	Guide	CNV6967
28	Connector(CN361)	CKM1389	83	Guide	CNV6968
29	Plug(CN981)	CKM1428	84	Case Unit	CXC2670
30	Plug(CN871)	CKS-786	85	Detach Grille Assy	See Contrast table(2)
31	Connector(CN571)	See Contrast table(2)	86	Screw	BPZ20P060FZK
32	Connector(CN704)	CKS3125	87	Button(OPEN/RESET)	CAC8442
33	Connector(CN101)	CKS3408	88	Button(BAND)	CAC8443
34	Connector(CN701)	CKS3837	89	Button(ENT/EQ/EQ-EX)	CAC8444
35	Connector(CN801)	CKS4811	90	Button(CLOCK/DISP/LIST)	CAC8450
36	Holder(CN402)	CNC5399	91	Button(ATT/OFF/SRC)	CAC9003
37	Case	CNC8138	92	Cover	CNS7770
38	Holder	CND2029	93	Lighting Conductor	CNV7966
39	Holder	CND2030	94	Keyboard Unit	CWM9290
40	Heat Sink	CND2031	95	Connector(CN1901)	CKS4795
41	Insulator	CNM6249	96	Holder	CND2028
42	Heat Sink	CNR1728	97	Double-sided Seal	CNM8673
43	Holder	CND1054	98	Spacer	CNM9141
44	Drive Unit	See Contrast table(2)	99	Spacer	CNM9142
45	Screw	BMZ26P040FTC	100	Holder	CNV7965
46	Screw(M2x2)	CBA1633	101	OEL Unit	MXS8202
47	Spring	CBL1632	102	Sub Grille Assy	See Contrast table(2)
48	Cord	CDE7392	103	Knob Unit	CXC3581
49	Holder	CND1848	104	CD Mechanism Module(S10CODE2)CXXK5666	
50	Holder	CND1850	105	Screw	ISS26P055FTC
51	Insulator	CNM8797	106	.....	
52	Gear	CNV7752	107	Diode(D241,242)	FMG22
53	Gear	CNV7753	108	Diode(D243,244)	FMJ-2303
54	Gear	CNV7754	109	Transistor(Q241,242)	FKV550N
55	Gear	CNV7755	110	Transistor(Q742,902,921)	2SD2375

**(2) CONTRAST TABLE**

DEH-P8MP/XN/UC, DEH-P80MP/XN/UC and DEH-P1Y/XN/ES are constructed the same except for the following:

Mark	NO	Description	DEH-P8MP/XN/UC	DEH-P80MP/XN/UC	DEH-P1Y/XN/ES
A	12	Cord Assy	CDE7483	CDE7483	Not used
	23	Tuner Amp Unit	CWM9287	CWM9288	CWM9289
	31	Connector(CN571)	CKS3125	CKS3125	Not used
	44	Drive Unit	CXC2206	CXC2206	CXC3562
	65	Chassis Unit	CXC2203	CXC2203	CXC3561
	85	Detach Grille Assy	CXC2695	CXC2696	CXC2697
	102	Sub Grille Assy	CXC3235	CXC3236	CXC3237

B

C

D

E

F

■

5

■

6

■

7

■

8

■

A

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B

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C

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D

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E

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F

■

5

■

6

DEH-P8MP/XN/UC

■

7

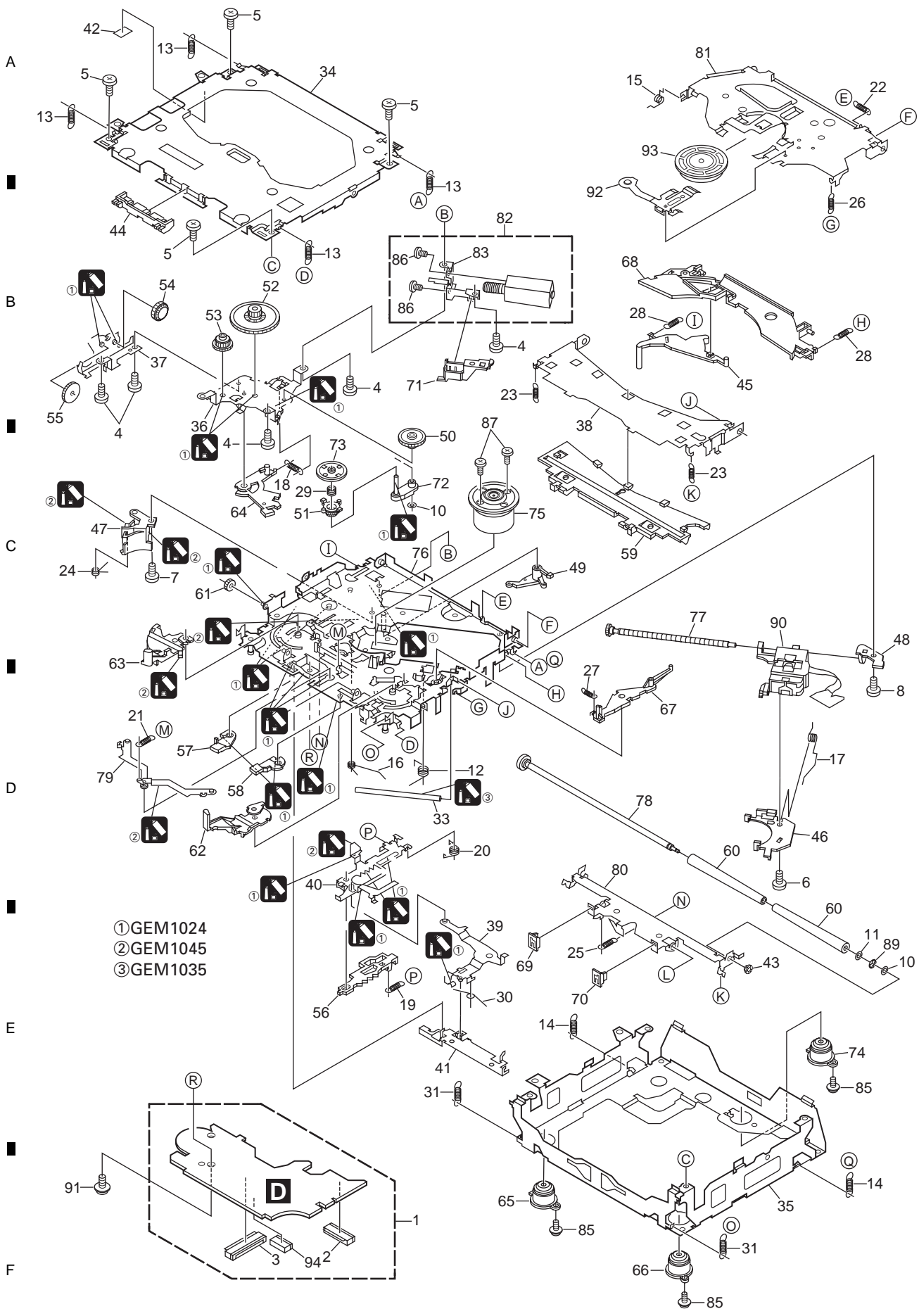
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8

15

■

# 2.4 CD MECHANISM MODULE



- ① GEM1024
- ② GEM1045
- ③ GEM1035

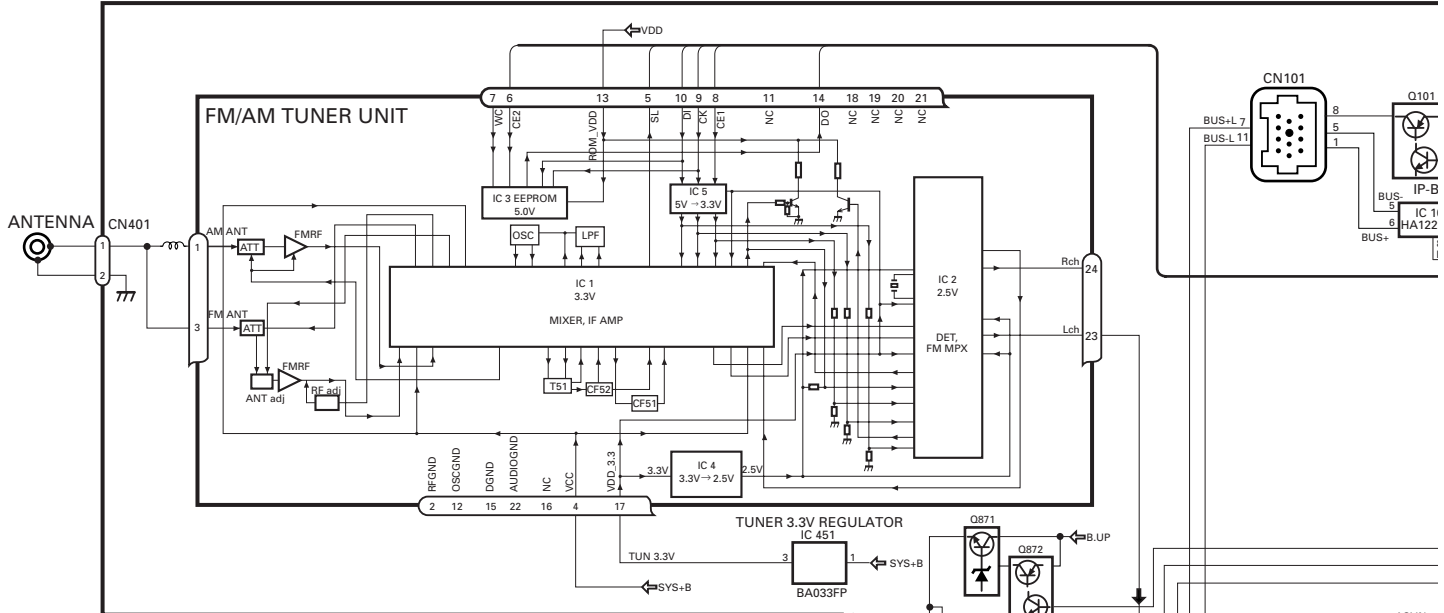
## CD MECHANISM MODULE PARTS LIST

<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(S10WMACODE2)	CWX2952	50	Gear	CNV7207	
2	Connector(CN101)	CKS4182				A
3	Connector(CN901)	CKS4017	51	Gear	CNV7208	
4	Screw	BMZ20P035FTC	52	Gear	CNV7209	
5	Screw	BSZ20P040FTC	53	Gear	CNV7210	
			54	Gear	CNV7211	
			55	Gear	CNV7212	
6	Screw(M2x4)	CBA1362				
7	Screw(M2x3)	CBA1511				
8	Screw(M2x3)	CBA1527	56	Rack	CNV7214	
9	.....		57	Arm	CNV7215	
10	Washer	CBF1038	58	Arm	CNV7216	
			59	Guide	CNV7217	
			60	Roller	CNV7218	B
11	Washer	CBF1060				
12	Spring	CBH2390				
13	Spring	CBH2606	61	Gear	CNV7219	
14	Spring	CBH2607	62	Arm	CNV7221	
15	Spring	CBH2608	63	Arm	CNV7220	
			64	Arm	CNV7222	
16	Spring	CBH2609	65	Damper	CNV7313	
17	Spring	CBH2610				
18	Spring	CBH2735	66	Damper	CNV7314	
19	Spring	CBH2612	67	Arm	CNV7341	
20	Spring	CBH2613	68	Arm	CNV7342	
			69	Guide	CNV7360	
21	Spring	CBH2614	70	Guide	CNV7361	C
22	Spring	CBH2615				
23	Spring	CBH2616	71	Holder	CNV7437	
24	Spring	CBH2617	72	Arm	CNV7805	
25	Spring	CBH2620	73	Gear	CNV7595	
			74	Damper	CNV7618	
26	Spring	CBH2621	75	Motor Unit(M1)	CXB6007	
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	
31	Spring	CBH2688	80	Arm	CND1896	
32	.....					
33	Shaft	CLA4441	81	Arm	CND1894	
34	Frame	CNC9962	82	Motor Unit(M2)	CXB8933	
35	Frame	CNC9963	83	Bracket	CNC9985	
			84	.....		
36	Bracket	CNC9966	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(P9.9MP3)(Service)	CXX1805	
42	Sheet	CNM8134				
43	Collar	CNV7798	91	Screw	IMS26P030FTC	
44	Guide	CNV7799	92	Spring	CBL1635	
45	Arm	CNV7800	93	Clamper	CNV7197	
			94	Connector(CN902)	CKS2193	
46	Rack	CNV7199				
47	Holder	CNV7201				F
48	Holder	CNV7202				
49	Arm	CNV7203				

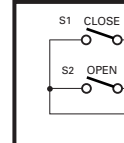
# 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

## 3.1 BLOCK DIAGRAM

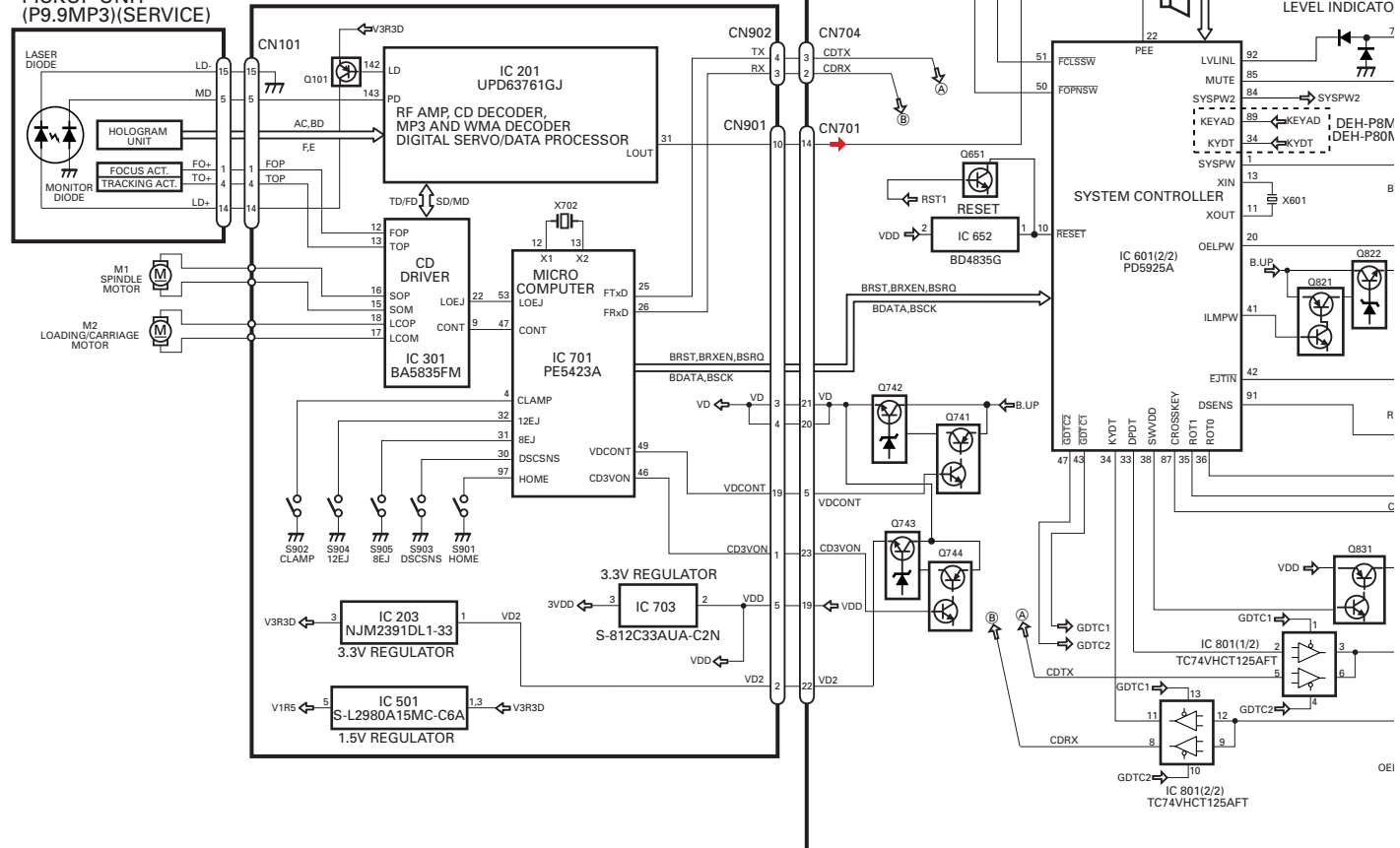
### A TUNER AMP UNIT



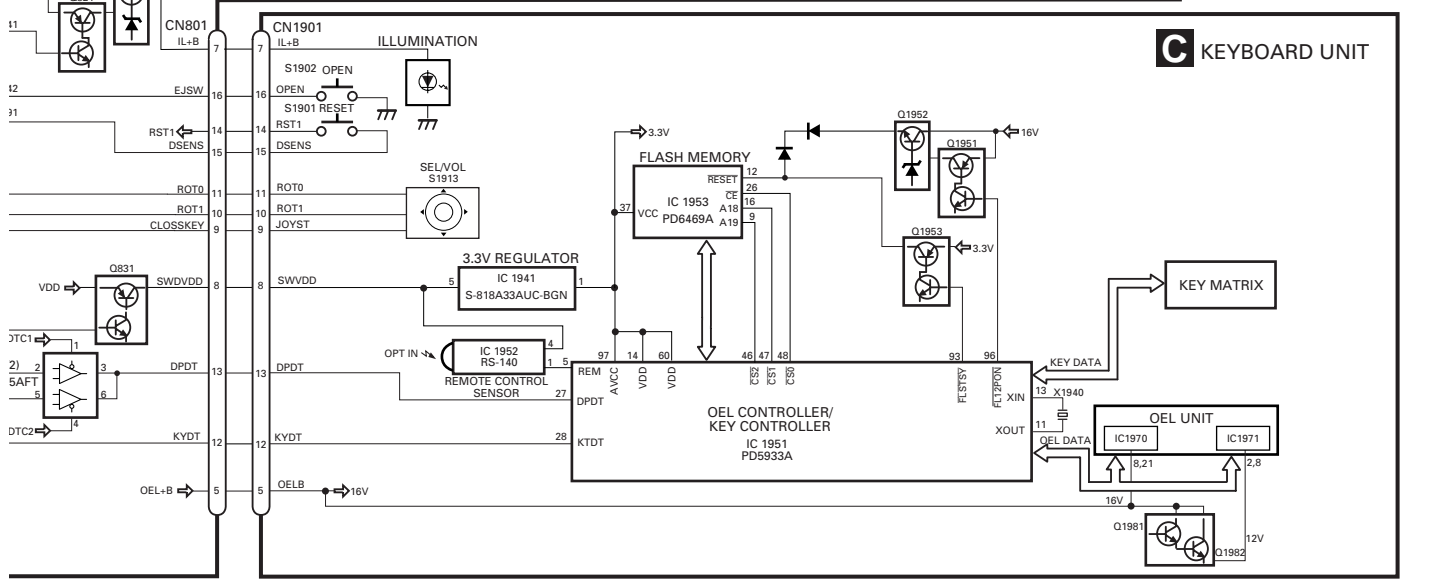
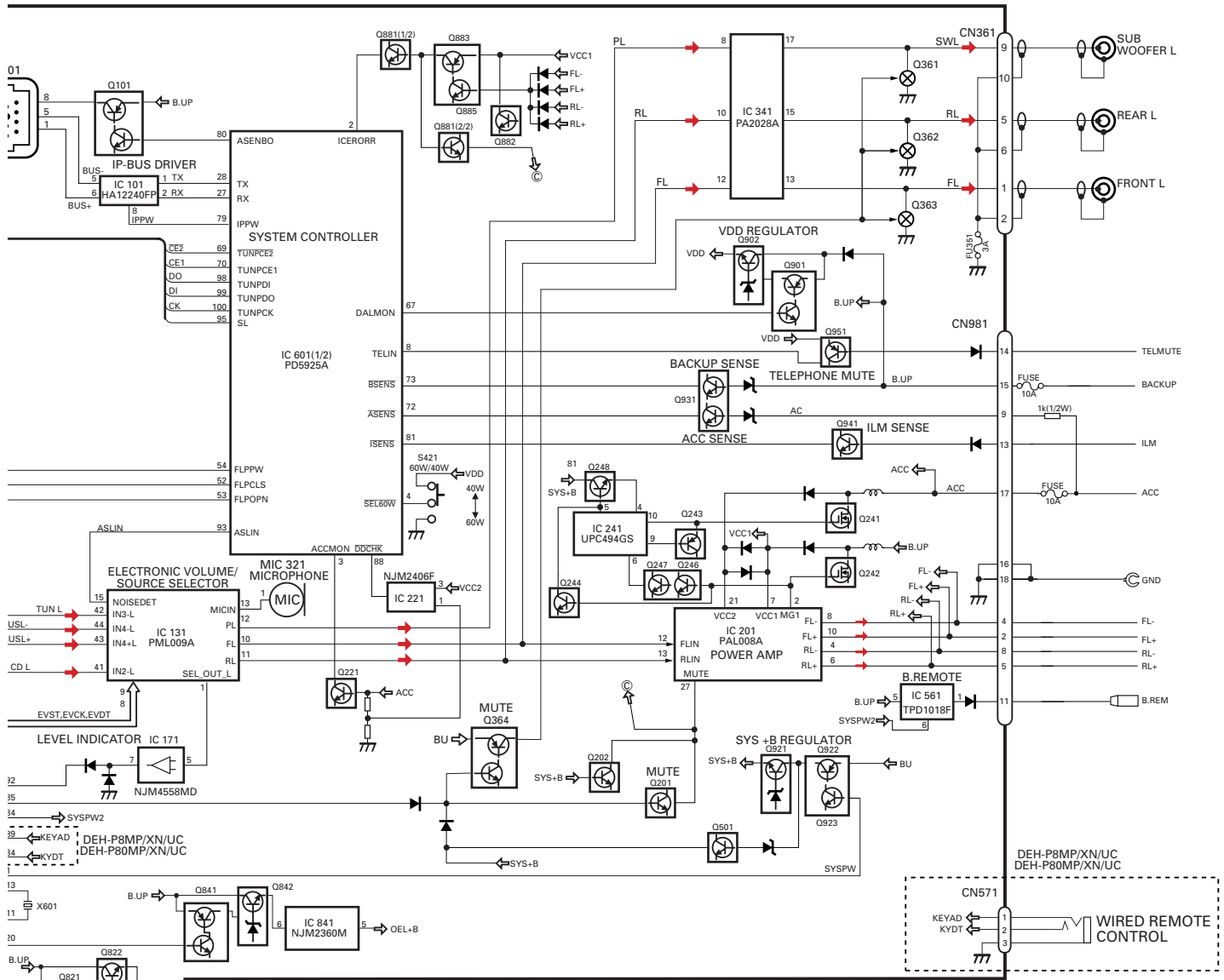
### B SWITCH UNIT



### D CD CORE UNIT(S10WMACODE2)



A  
B  
C  
D  
E  
F

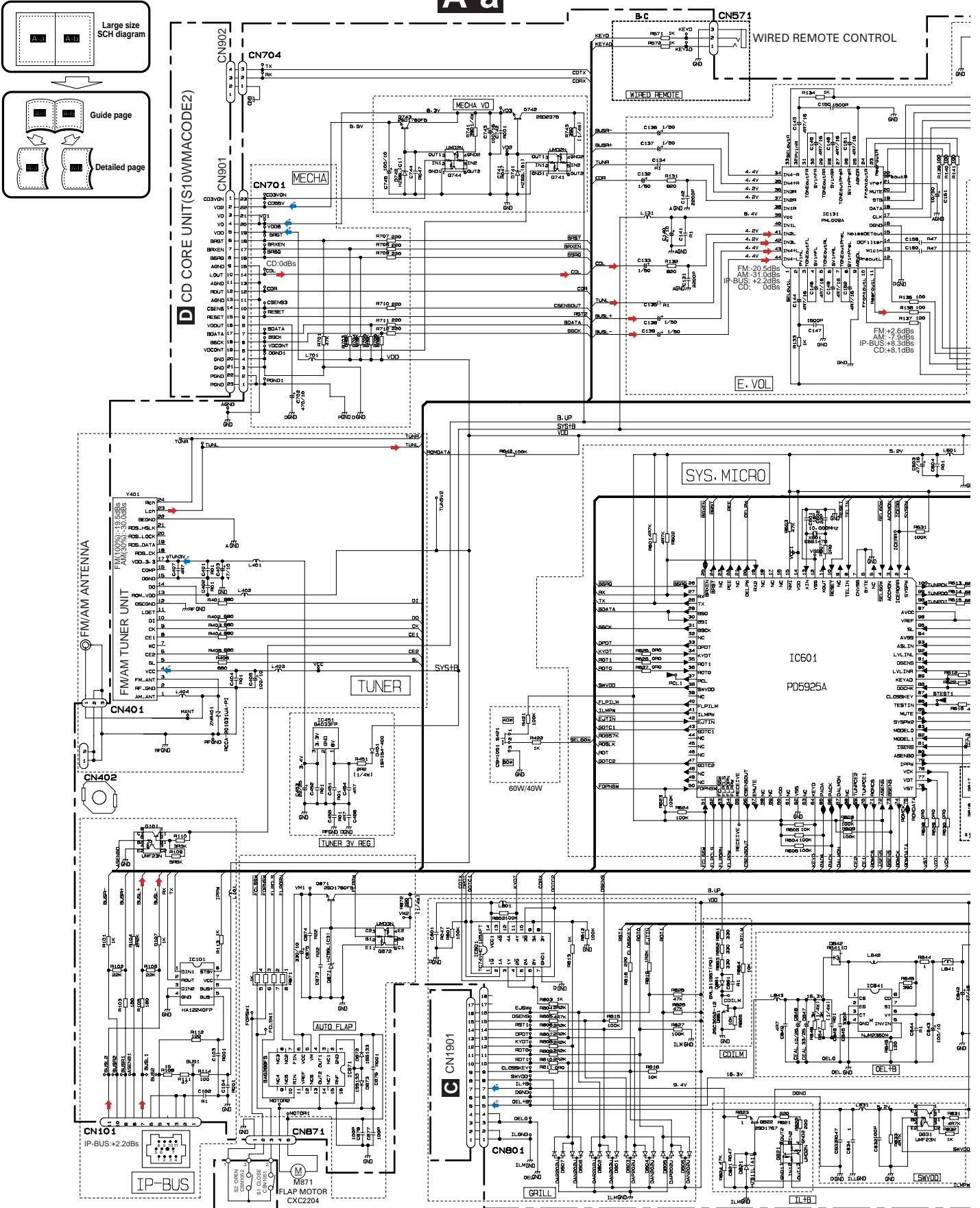


# 3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

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

A  
B  
C  
D  
E  
F

**A-a**



**A B**

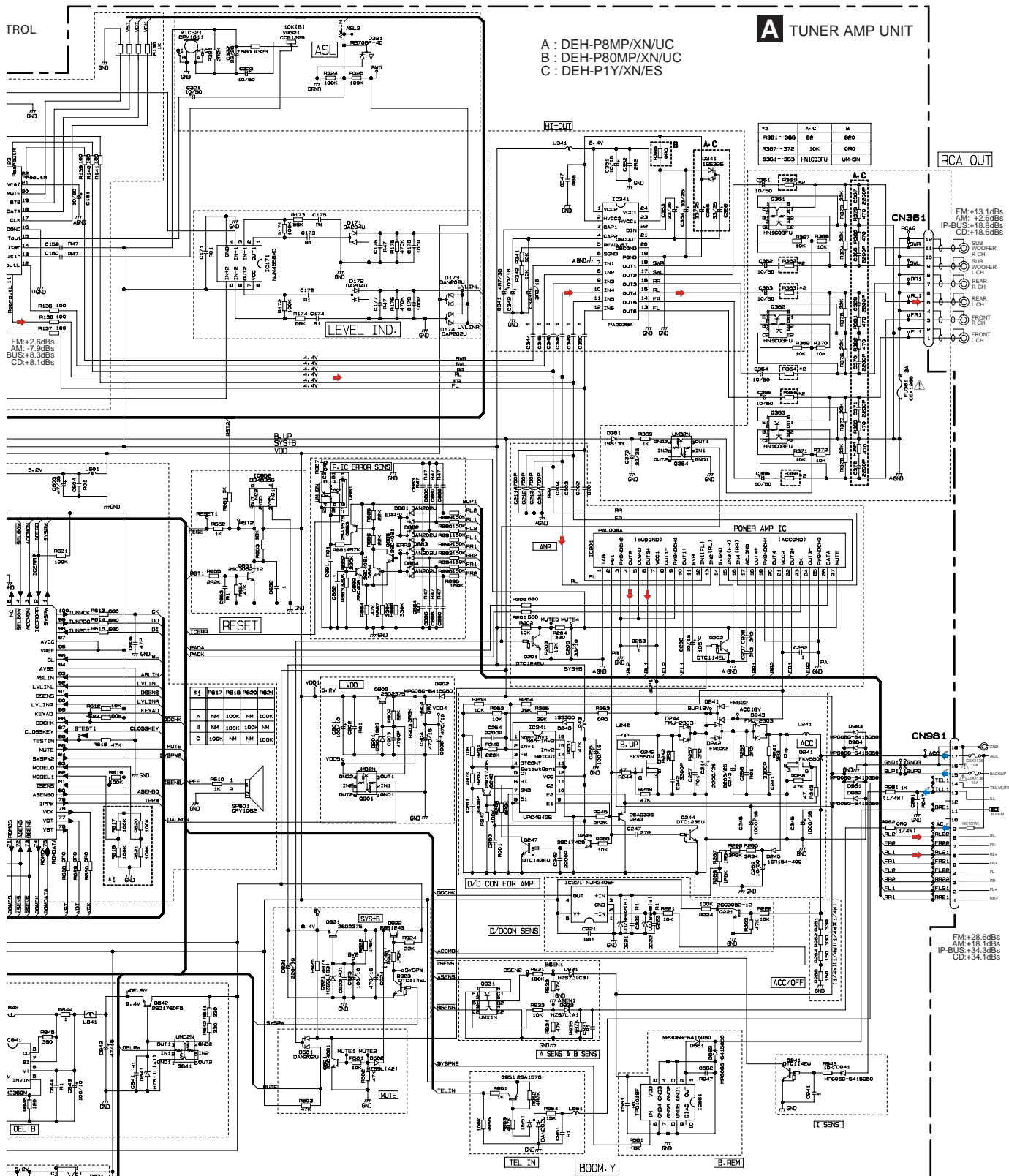
**B** SWITCH UNIT

DEH-P8MP/XN/UC

# A-b

## A TUNER AMP UNIT

A : DEH-P8MP/XN/UC  
 B : DEH-P80MP/XN/UC  
 C : DEH-P1Y/XN/ES

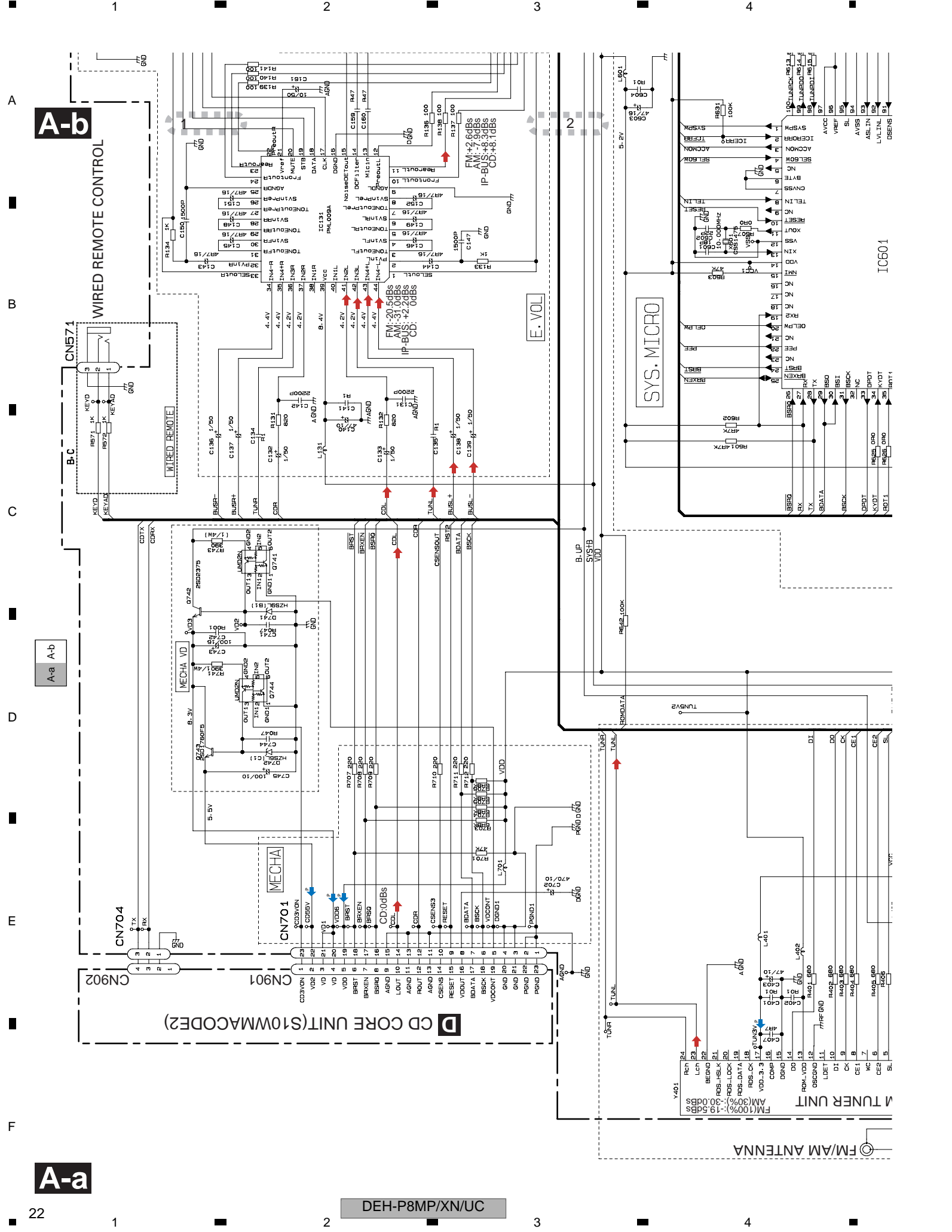


NOTE :  
 □ Symbol indicates a resistor.  
 No differentiation is made between chip resistors and discrete resistors.  
 ▭ Symbol indicates a capacitor.  
 No differentiation is made between chip capacitors and discrete capacitors.

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

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.





1 2 3 4

A B C D E F

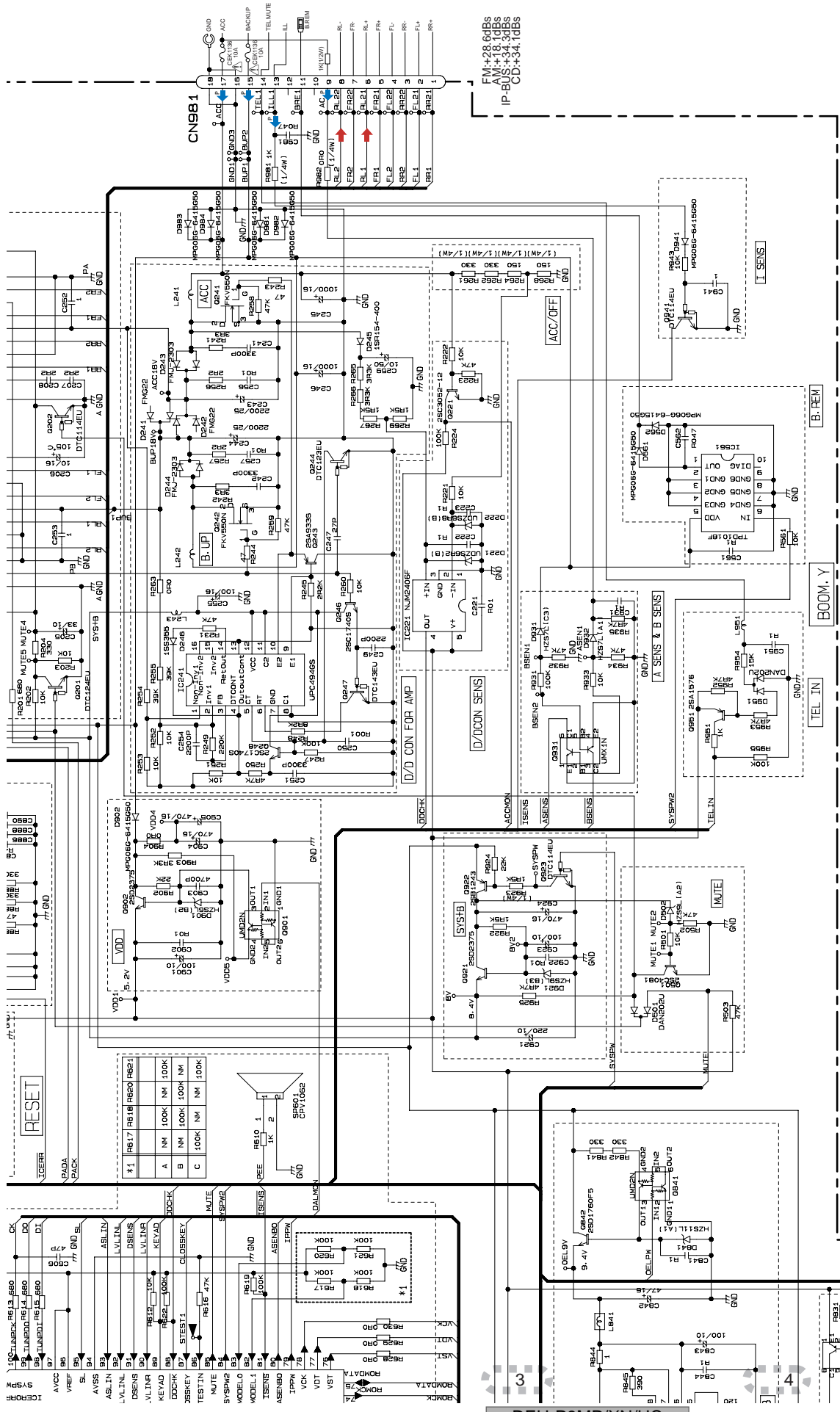
A-a A-b

B.C

DEH-P8MP/XN/UC







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

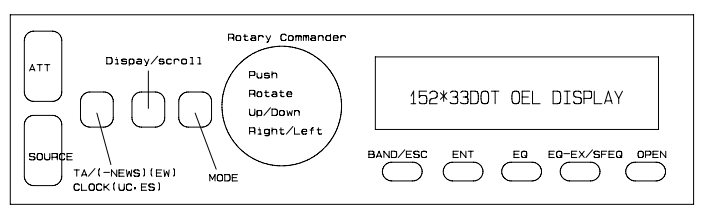
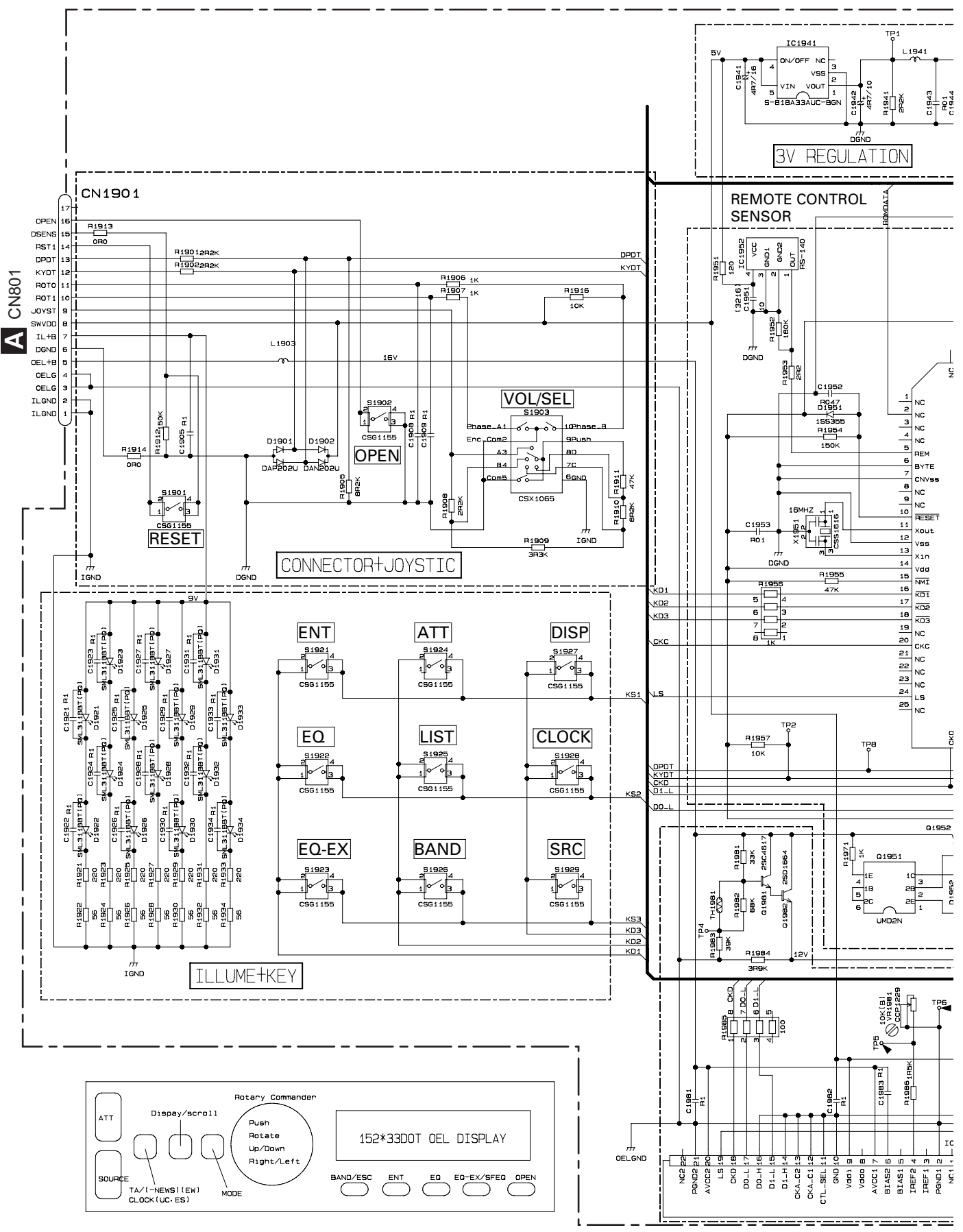
The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

FM:±28.6dB  
 AM:±18.10dB  
 IP-BUS:±34.30dB  
 CD:±34.10dB

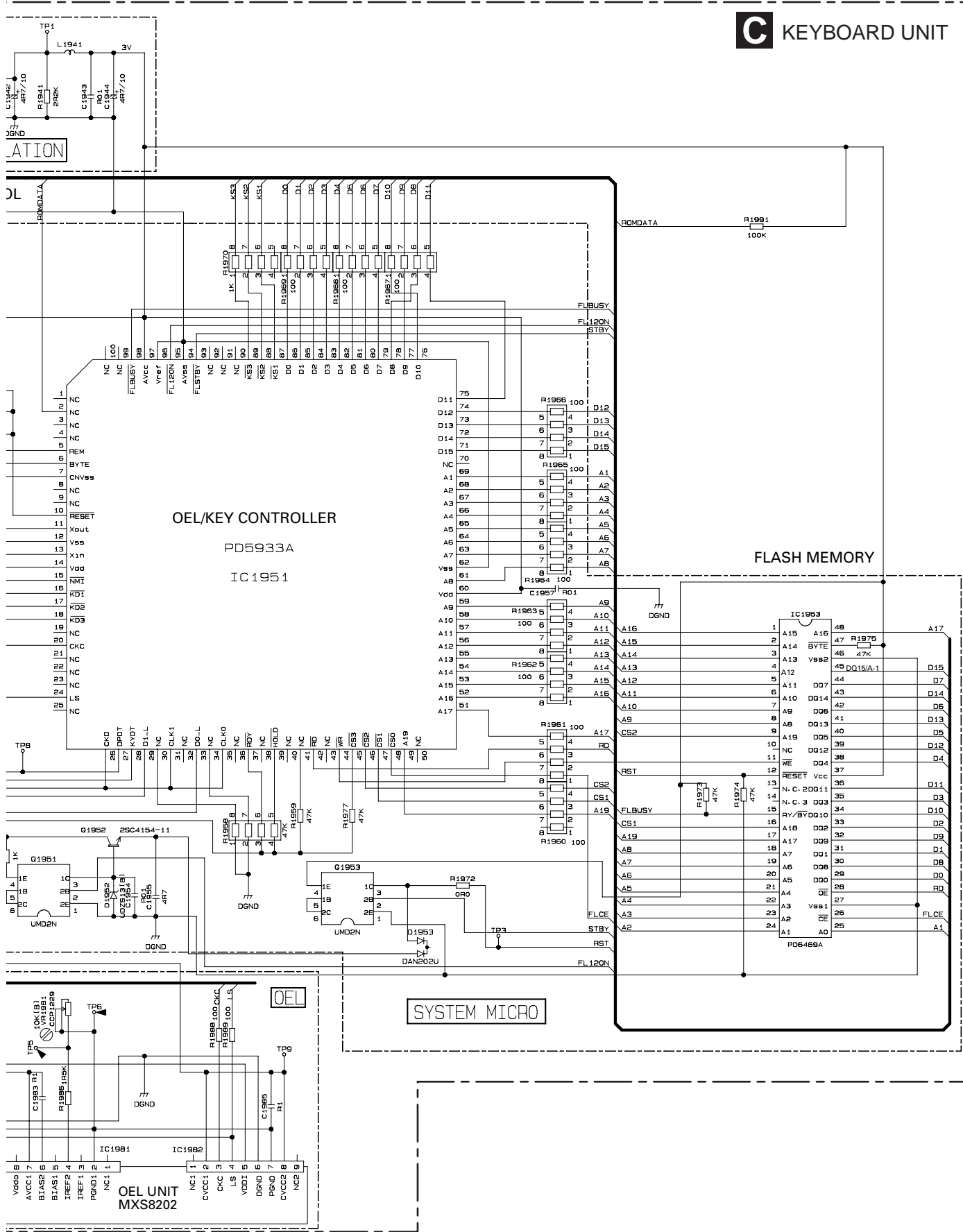


# 3.3 KEYBOARD UNIT

A  
B  
C  
D  
E  
F



# C KEYBOARD UNIT

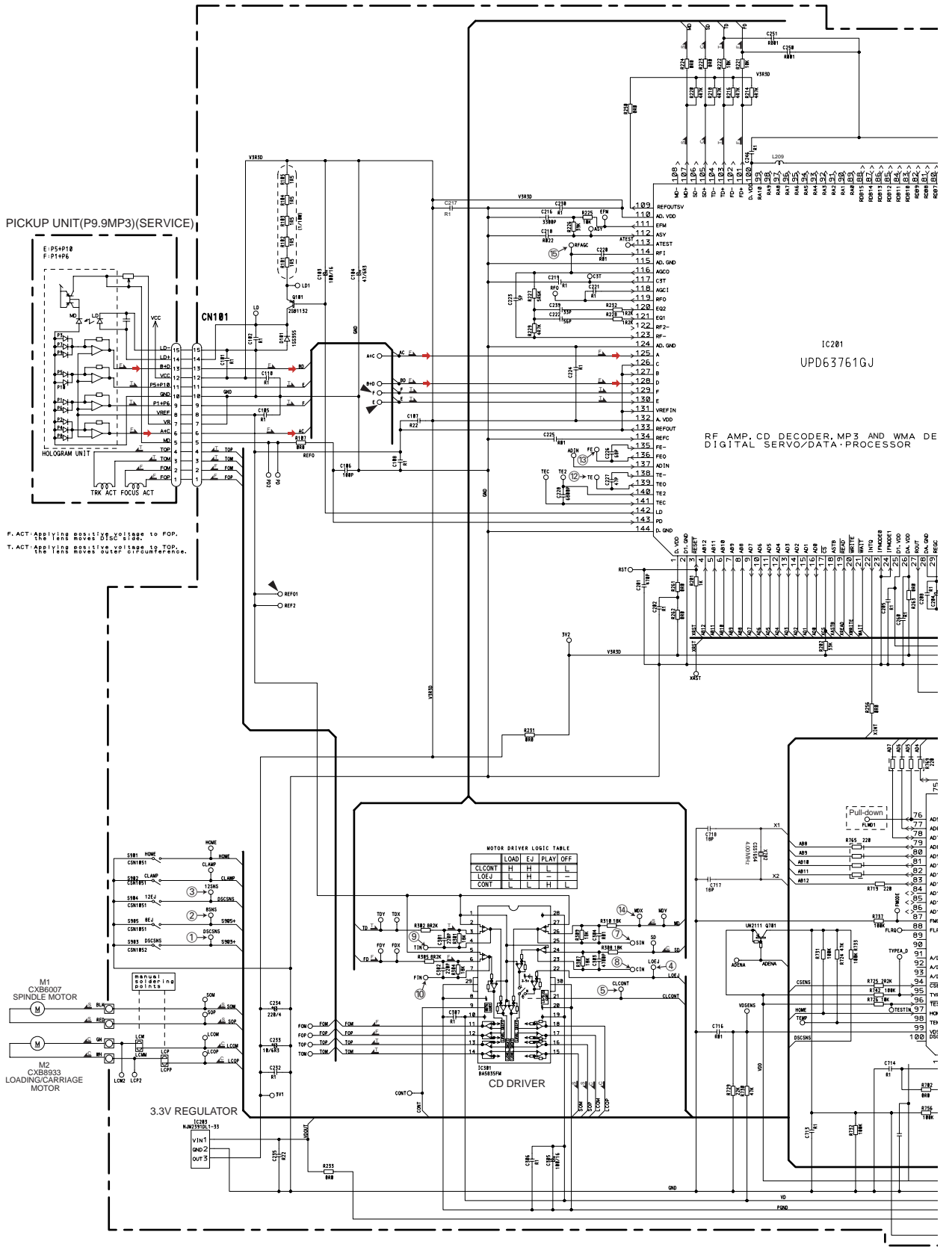


A  
B  
C  
D  
E  
F



# 3.4 CD MECHANISM MODULE(GUIDE PAGE)

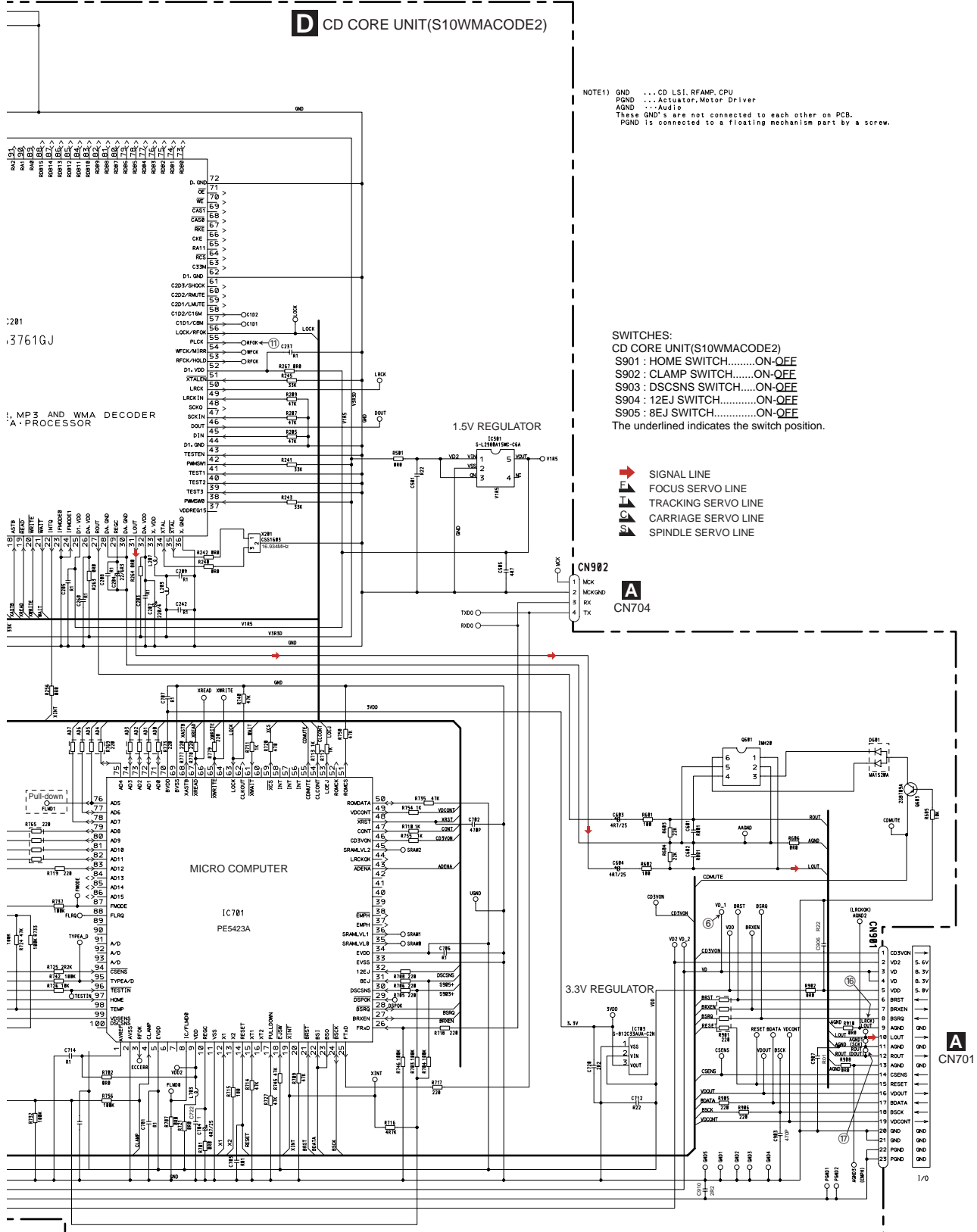
D-a



D

# D-b

## D CD CORE UNIT(S10WMACODE2)



NOTE1) GND ... CD LSI, RFAMP, CPU  
 FGND ... 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.

SWITCHES:  
 CD CORE UNIT(S10WMACODE2)  
 S901 : HOME SWITCH.....ON-OFF  
 S902 : CLAMP 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

CN902  
 1 MCK  
 2 MCKGND  
 3 RX  
 4 TX  
**A**  
 CN704

3.3V REGULATOR  
 5.1V  
 1L783  
 9-REG330M-CIN  
 100  
 100  
 C112  
 R22

**A**  
 CN701

# D

A

B

C

D

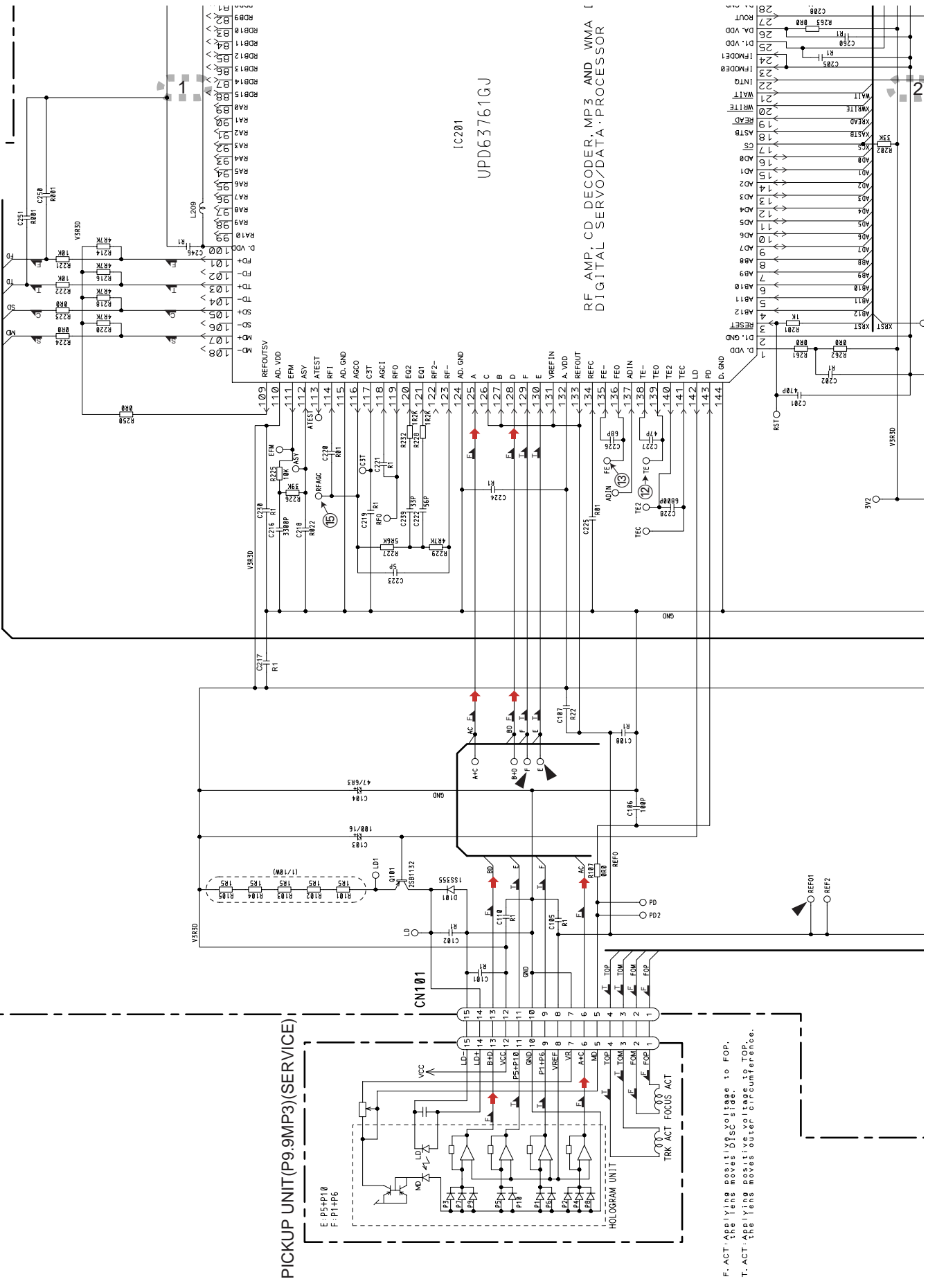
E

F

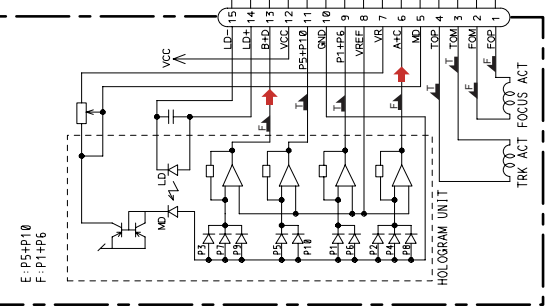
D-b

D-a D-b

D-a

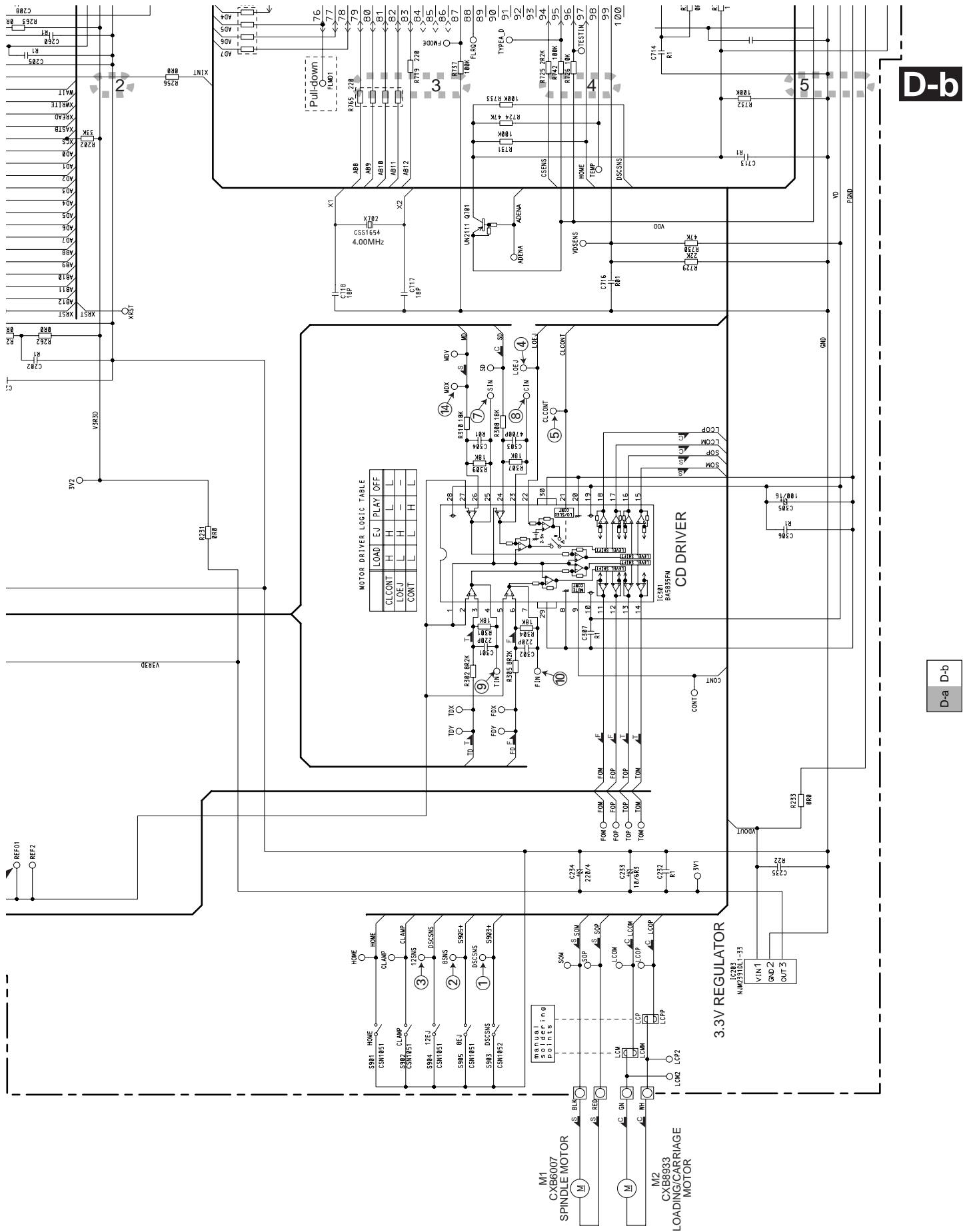


PICKUP UNIT(P9.9MP3)(SERVICE)



F. ACT:Applying positive voltage to FOP,  
the lens moves DISC side.  
T. ACT:Applying positive voltage to TOP,  
the lens moves OUTSIDE circumference.

A B C D E F



D-b

D-a D-b

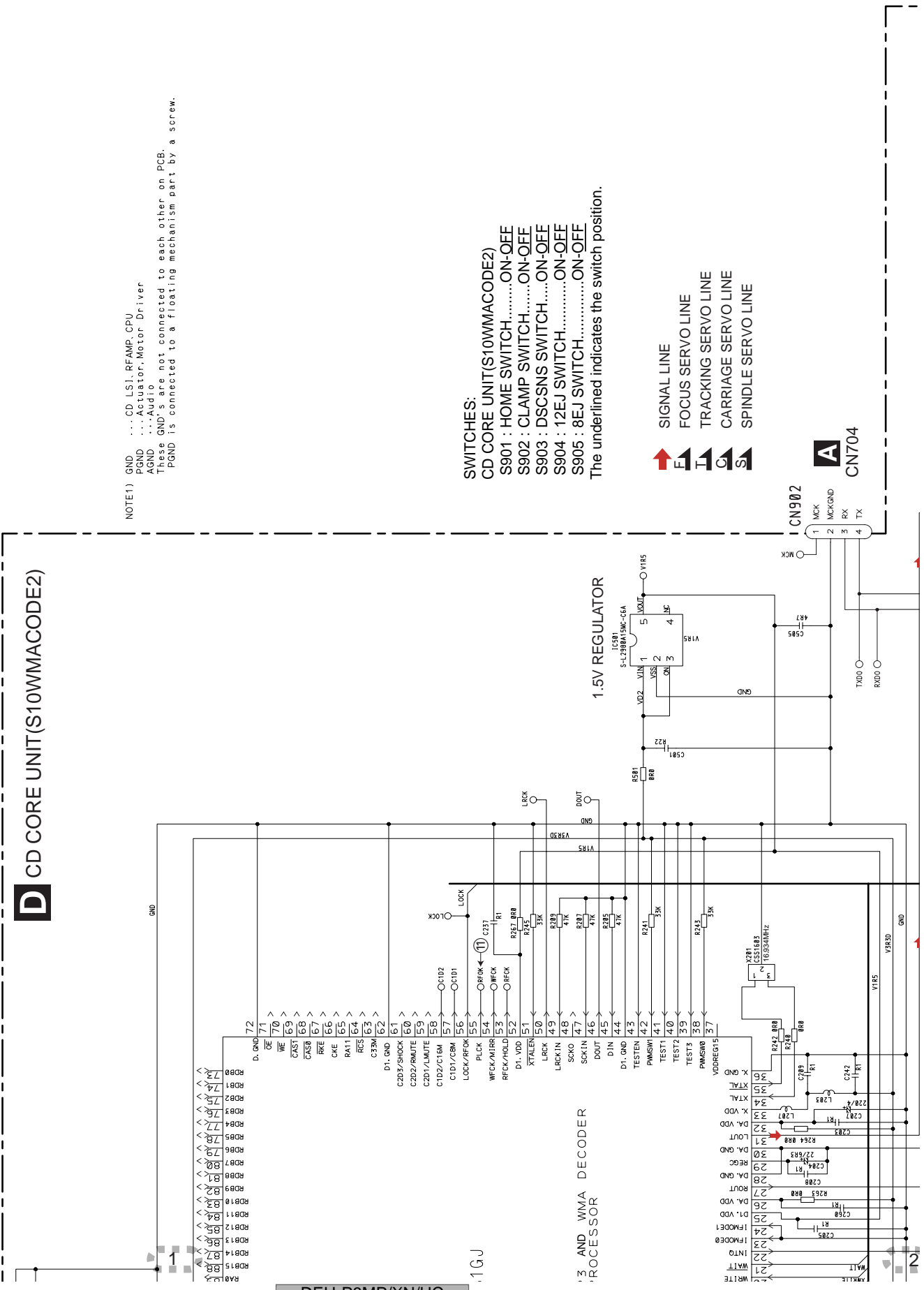
D-a

A B C D E F

D-a D-b

D-b

# D CD CORE UNIT(S10WMACODE2)



NOTE1) GND ...CD LSJ, 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.

**SWITCHES:**  
 CD CORE UNIT(S10WMACODE2)  
 S901 : HOME SWITCH.....ON-OFF  
 S902 : CLAMP 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

**A**

CN902  
 1 MCK  
 2 MCKGND  
 3 RX  
 4 TX

CN704

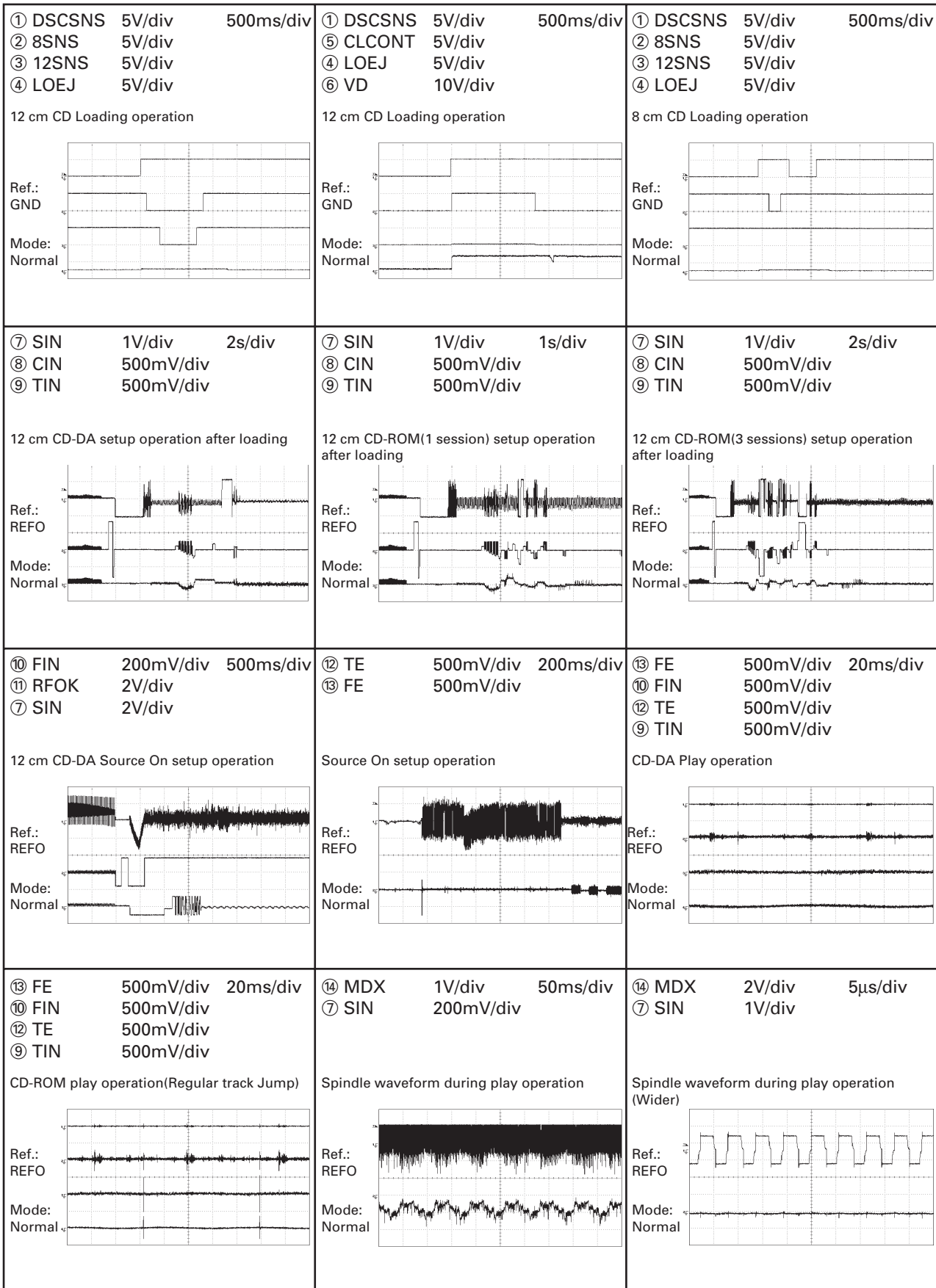
DEH-P8MP/XN/UC

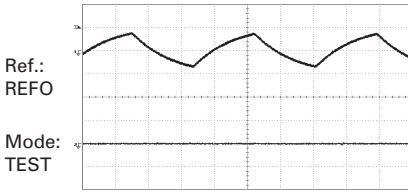
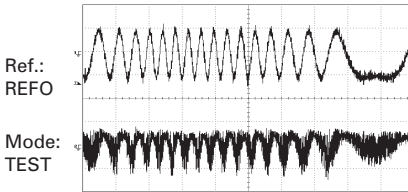
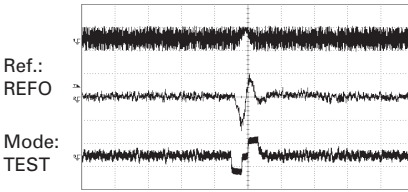
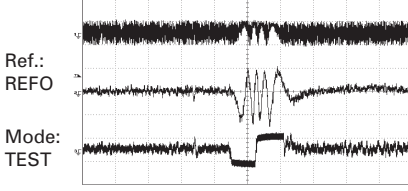
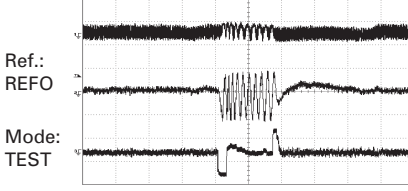
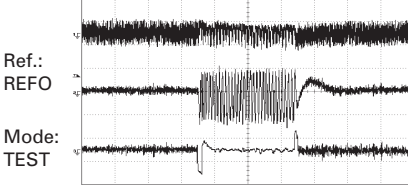
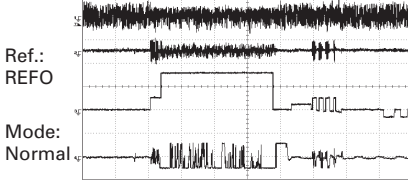
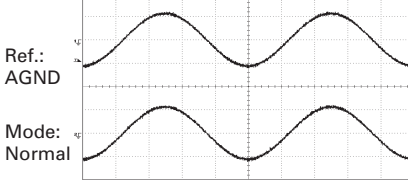
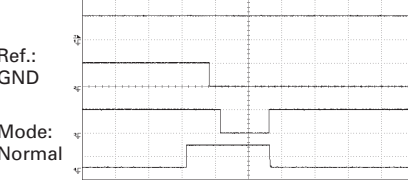
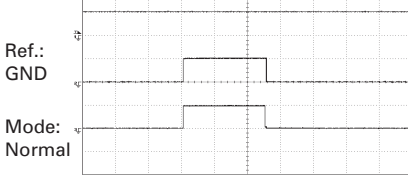
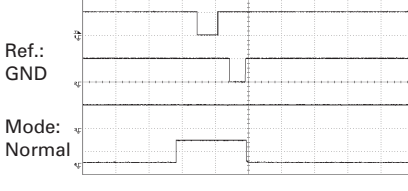
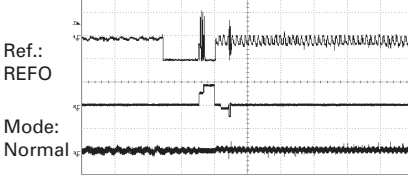


### Waveforms

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

A  
B  
C  
D  
E  
F



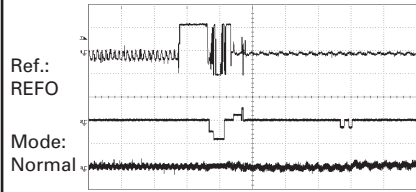
<p>⑩ FIN 500mV/div 200ms/div ⑬ FE 500mV/div</p> <p>Focus Search waveform</p>  <p>Ref.: REFO Mode: TEST</p>	<p>⑫ TE 500mV/div 2ms/div ⑮ RFAGC 500mV/div</p> <p>Track Open waveform</p>  <p>Ref.: REFO Mode: TEST</p>	<p>⑮ RFAGC 1V/div 500μs/div ⑫ TE 500mV/div ⑨ TIN 500mV/div</p> <p>1 Track Jump waveform</p>  <p>Ref.: REFO Mode: TEST</p>
<p>⑮ RFAGC 1V/div 500μs/div ⑫ TE 500mV/div ⑨ TIN 500mV/div</p> <p>4 Tracks Jump waveform</p>  <p>Ref.: REFO Mode: TEST</p>	<p>⑮ RFAGC 1V/div 1ms/div ⑫ TE 500mV/div ⑨ TIN 500mV/div</p> <p>10 Tracks Jump waveform</p>  <p>Ref.: REFO Mode: TEST</p>	<p>⑮ RFAGC 1V/div 2ms/div ⑫ TE 500mV/div ⑨ TIN 500mV/div</p> <p>32 Tracks Jump waveform</p>  <p>Ref.: REFO Mode: TEST</p>
<p>⑮ RFAGC 1V/div 200ms/div ⑫ TE 1V/div ⑧ CIN 500mV/div ⑦ SIN 2V/div</p> <p>Search operation(Outer to Inner)</p>  <p>Ref.: REFO Mode: Normal</p>	<p>⑯ LOUT 1V/div 200μs/div ⑰ ROUT 1V/div</p> <p>Analog audio waveform</p>  <p>Ref.: AGND Mode: Normal</p>	<p>① DSCSNS 5V/div 500ms/div ② 8SNS 5V/div ③ 12SNS 5V/div ④ LOEJ 5V/div</p> <p>12 cm CD Eject operation</p>  <p>Ref.: GND Mode: Normal</p>
<p>① DSCSNS 5V/div 500ms/div ⑤ CLCONT 5V/div ④ LOEJ 5V/div</p> <p>12 cm CD Eject operation</p>  <p>Ref.: GND Mode: Normal</p>	<p>① DSCSNS 5V/div 500ms/div ② 8SNS 5V/div ③ 12SNS 5V/div ④ LOEJ 5V/div</p> <p>8 cm CD Eject operation</p>  <p>Ref.: GND Mode: Normal</p>	<p>⑦ SIN 1V/div 500ms/div ⑧ CIN 500mV/div ⑨ TIN 500mV/div</p> <p>CD-DA &gt;&gt; CD-ROM mode change(Band key)</p>  <p>Ref.: REFO Mode: Normal</p>

A  
B  
C  
D  
E  
F

A

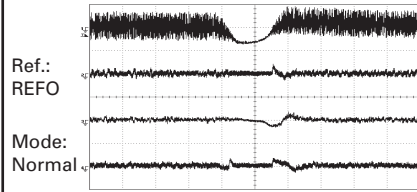
⑦ SIN 1V/div 500ms/div  
 ⑧ CIN 500mV/div  
 ⑨ TIN 500mV/div

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



⑮ RFAGC 1V/div 500μs/div  
 ⑨ TIN 1V/div  
 ⑫ TE 1V/div  
 ⑩ FIN 1V/div

Black dot(800μm) during play



B

C

D

E

F



5



6



7



8



A



B



C



D



E



F



5



6

DEH-P8MP/XN/UC



7



8



# 4. PCB CONNECTION DIAGRAM

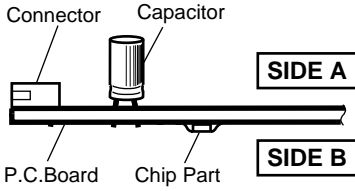
## 4.1 TUNER AMP UNIT

### NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination.

For further information for respective destinations, be sure to check with the schematic diagram.

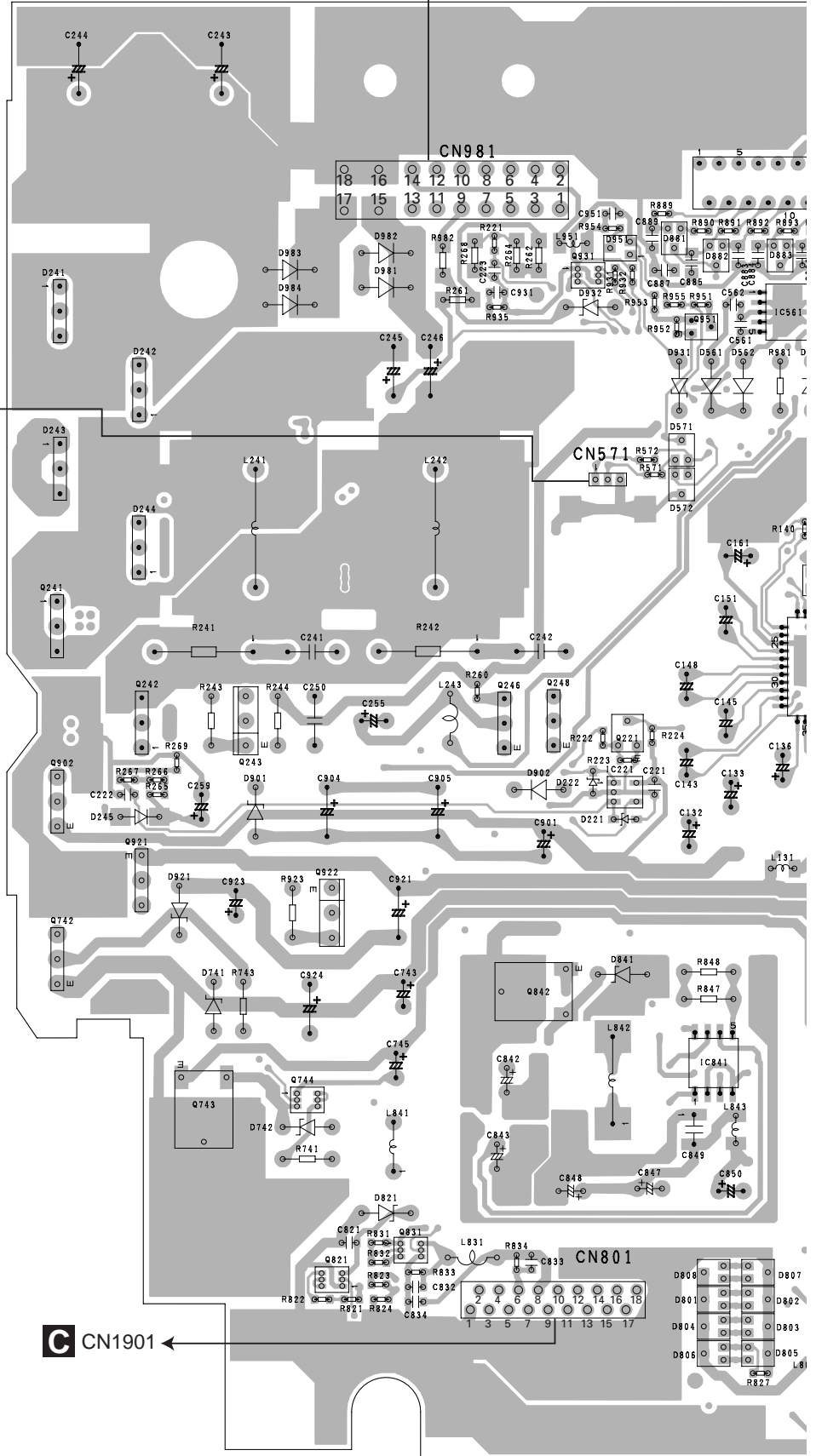
2. Viewpoint of PCB diagrams



### A TUNER AMP UNIT

WIRED REMOTE CONTROL  
(DEH-P8MP/XN/UC,  
DEH-P80MP/XN/UC)

CORD ASSY  
(POWER SUPPLY, SPEAKER)



FRONT

DEH-P8MP/XN/UC

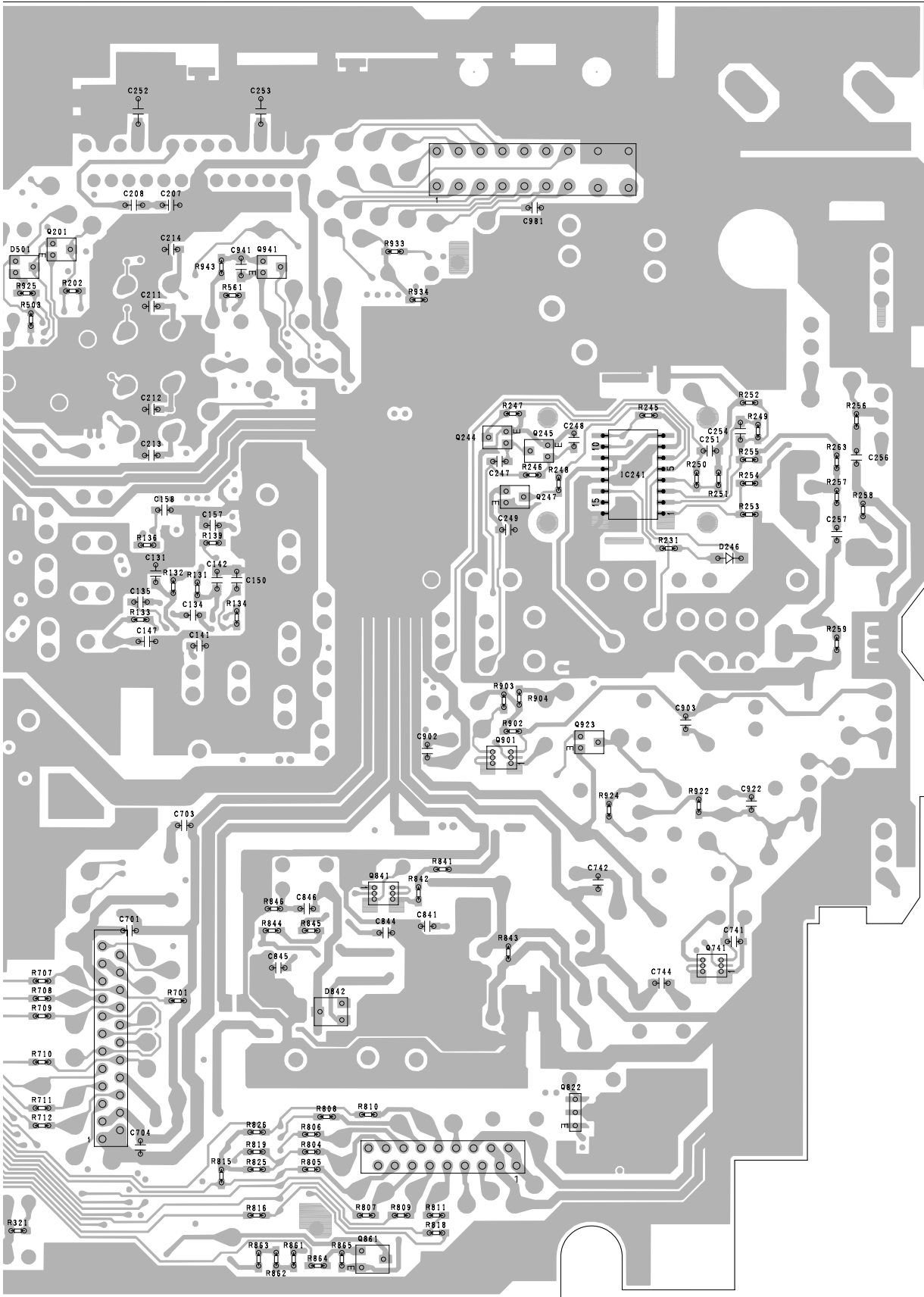
A





SIDE B

A  
B  
C  
D  
E  
F



A

1 ■ 2 ■ 3 ■ 4 ■  
**4.2 SWITCH UNIT**

A

■ **B** SWITCH UNIT

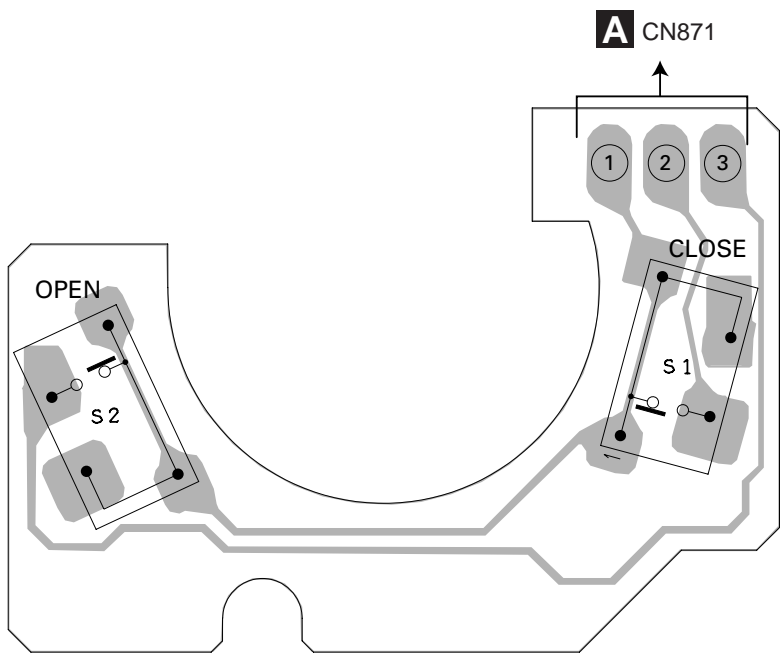
B

C

D

E

F



■ **B**

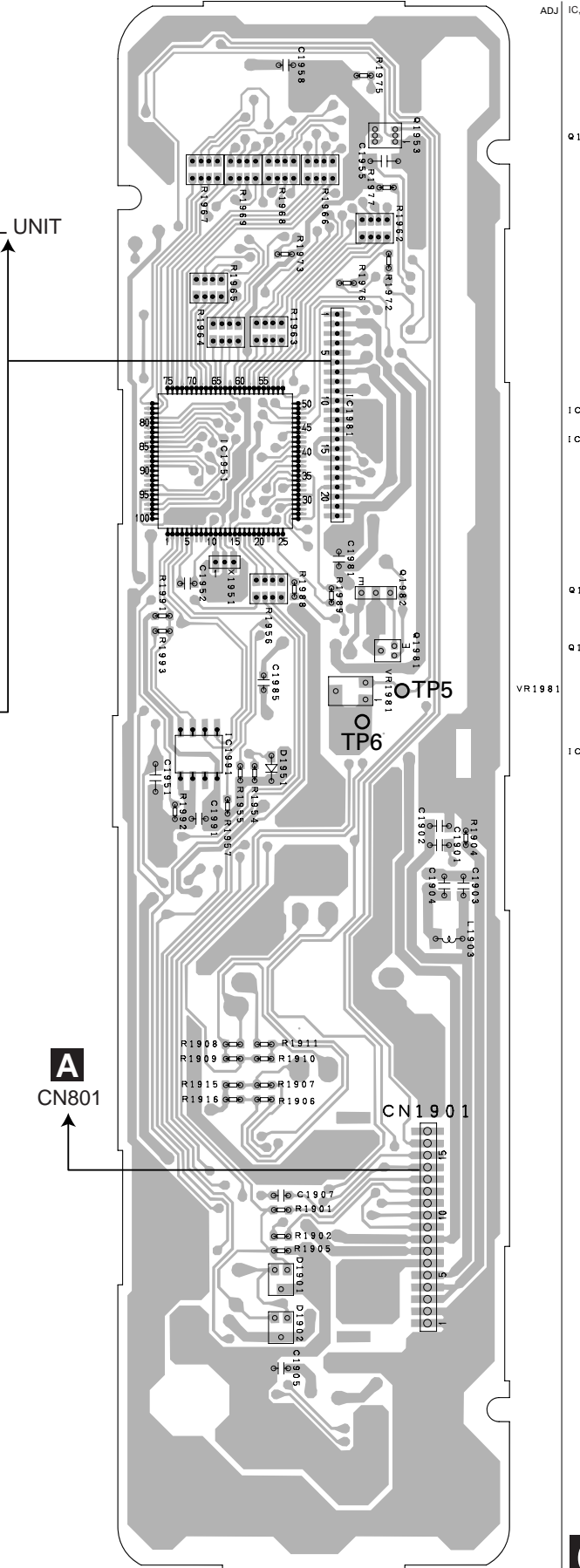
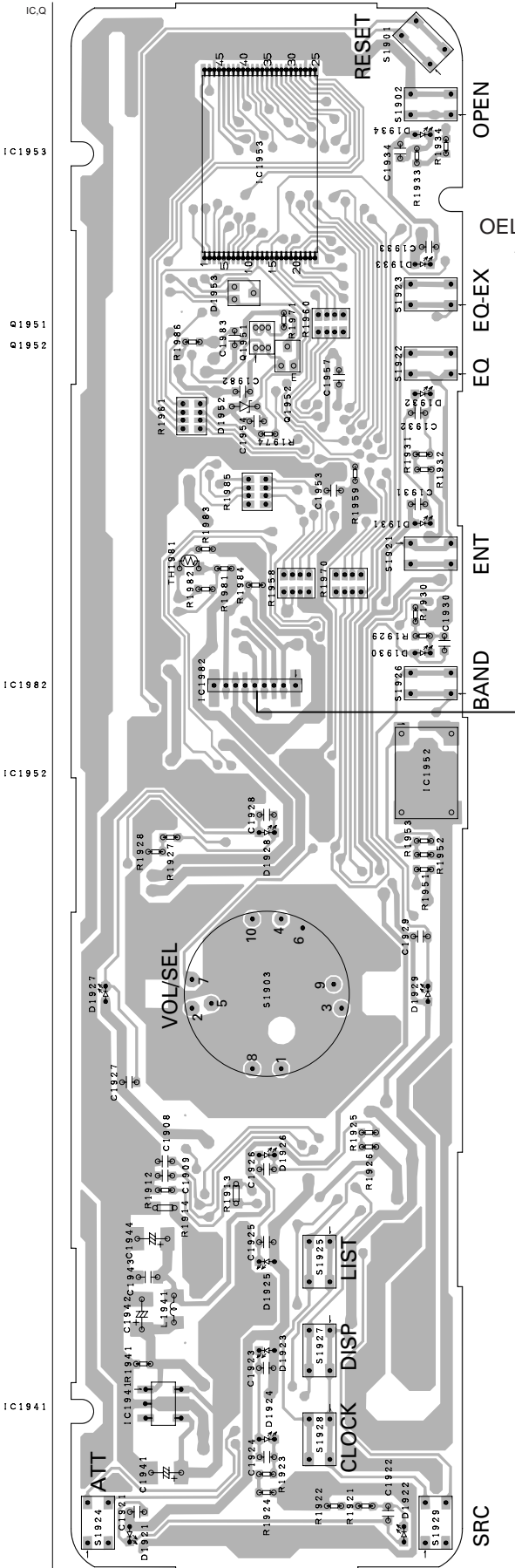
# 4.3 KEYBOARD UNIT

## C KEYBOARD UNIT

SIDE A

## C KEYBOARD UNIT

SIDE B



# 4.4 CD MECHANISM MODULE

## D CD CORE UNIT(S10WMACODE2)

SIDE A

A  
B  
C  
D  
E  
F

IC, Q

IC301

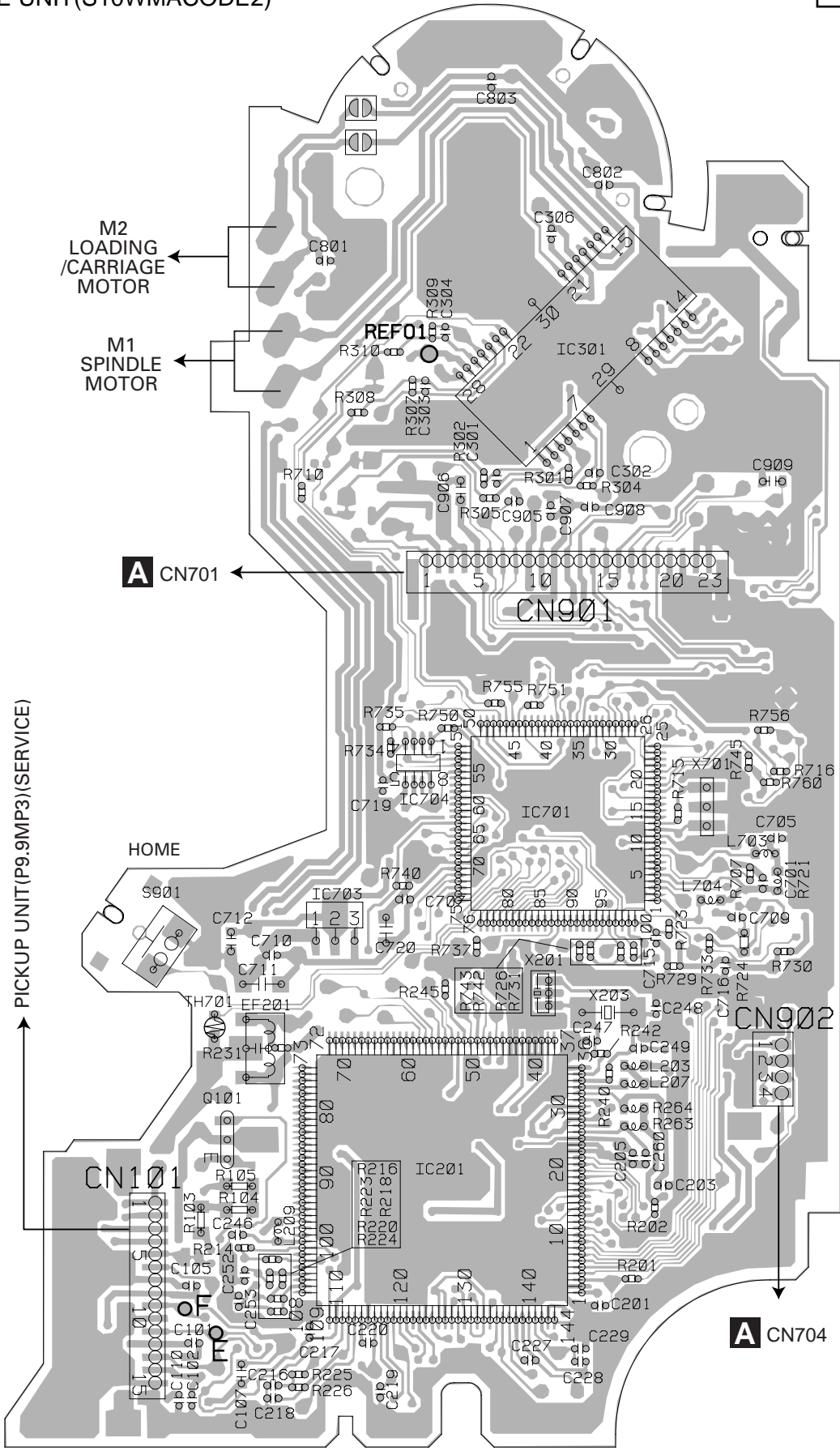
IC704

IC701

IC703

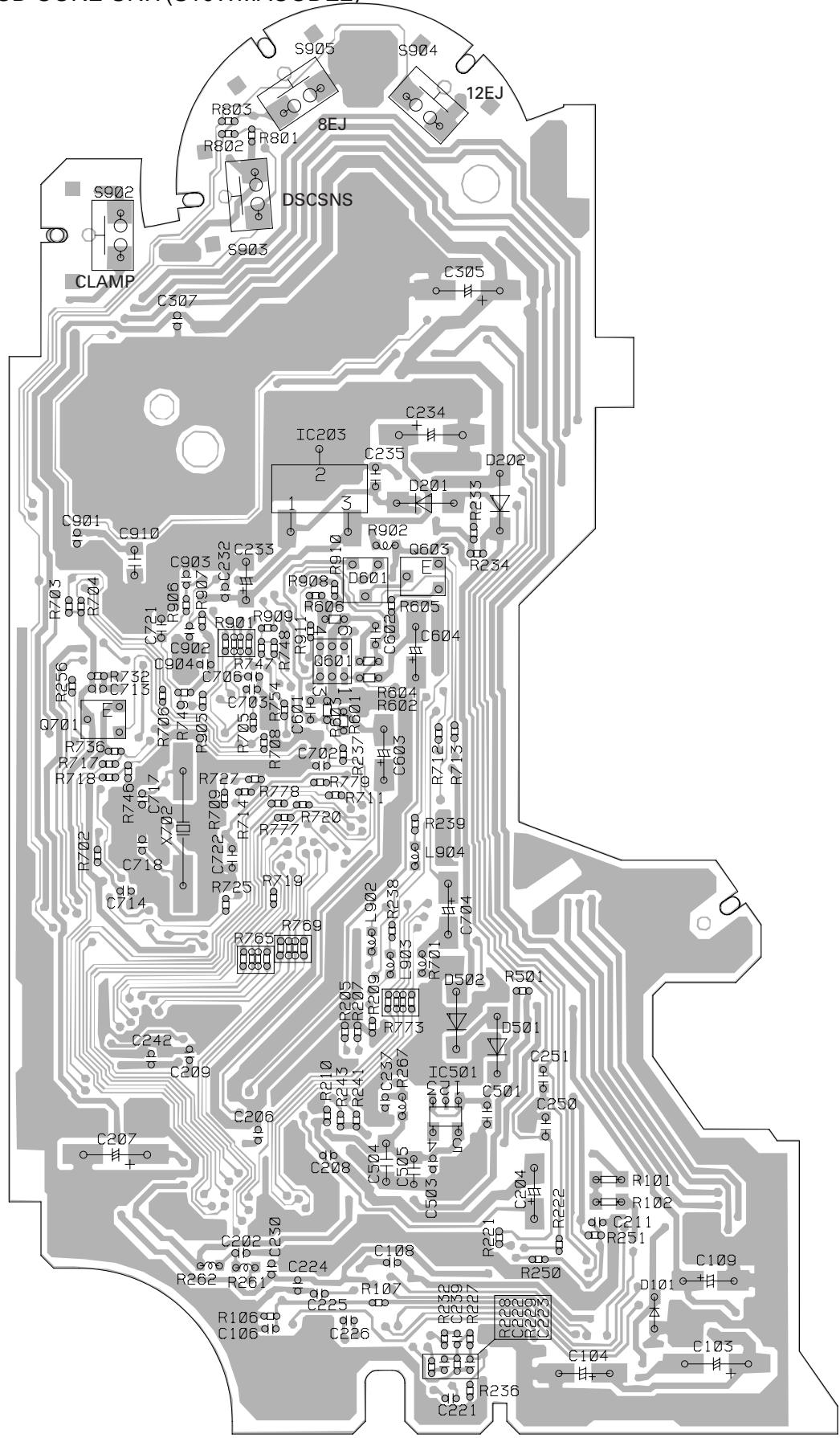
Q101

IC201



# D CD CORE UNIT(S10WMACODE2)

**SIDE B**



IC. Q

IC203

Q603

Q601

Q701

IC501

A  
B  
C  
D  
E  
F

# 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  $\triangle$  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.

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

**A**  
**Unit Number:CWM9287(P8MP/XN/UC)**  
**Unit Number:CWM9288(P80MP/XN/UC)**  
**Unit Number:CWM9289(P1Y/XN/ES)**  
**Unit Name:Tuner Amp Unit**

**MISCELLANEOUS**

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
			Transistor		UMH3N
			(P80MP/XN/UC)		
			Q 364	Transistor	UMD2N
			Q 501	Transistor	2SC4081
			Q 651	Transistor	2SC3052-12
			Q 741	Transistor	UMD2N
			Q 742	Transistor	2SD2375
			Q 743	Transistor	2SD1760F5
			Q 744	Transistor	UMD2N
			Q 821	Transistor	UMD2N
			Q 822	Transistor	2SD1767
			Q 831	Transistor	UMF23N
			Q 841	Transistor	UMD2N
			Q 842	Transistor	2SD1760F5
			Q 861	Transistor	2SC3052-12
			Q 871	Transistor	2SD1760F5
			Q 872	Transistor	UMD3N
			Q 881	Transistor	UMH9N
			Q 882	Transistor	2SC4081
			Q 883	Transistor	2SA1576
			Q 884	Transistor	2SC4081
			Q 885	Transistor	2SC4081
			Q 901	Transistor	UMD2N
			Q 902	Transistor	2SD2375
			Q 921	Transistor	2SD2375
			Q 922	Transistor	2SB1243
			Q 923	Transistor	DTC114EU
			Q 931	Transistor	UMX1N
			Q 941	Transistor	DTC114EU
			Q 951	Transistor	2SA1576
			D 171	Diode Network	DA204U
			D 172	Diode Network	DA204U
			D 173	Diode	DAN202U
			D 174	Diode	DAP202U
			D 221	Diode	UDZS6R2(B)
			D 222	Diode	UDZS6R8(B)
			D 241	Diode	FMG22
			D 242	Diode	FMG22
			D 243	Diode	FMJ-2303
			D 244	Diode	FMJ-2303
			D 245	Diode	1SR154-400
			D 246	Diode	1SS355
			D 321	Diode	RB706F-40
			D 341	Diode(P8MP/XN/UC,P1Y/XN/ES)	1SS396
			D 361	Diode	1SS133
			D 451	Diode	1SR154-400
C	IC 101	IC	HA12240FP		
	IC 131	IC	PML009A		
	IC 171	IC	NJM4558MD		
	IC 201	IC	PAL008A		
	IC 221	IC	NJM2406F		
	IC 241	IC	UPC494GS		
	IC 341	IC	PA2028A		
	IC 451	IC	BA033FP		
	IC 561	IC	TPD1018F		
	IC 601	IC	PD5925A		
D	IC 652	IC	BD4835G		
	IC 801	IC	TC74VHCT125AFT		
	IC 841	IC	NJM2360M		
	IC 871	IC	BA6288FS		
	Q 101	Transistor	UMF23N		
	Q 201	Transistor	DTC124EU		
	Q 202	Transistor	DTC114EU		
	Q 221	Transistor	2SC3052-12		
	Q 241	Transistor	FKV550N		
	Q 242	Transistor	FKV550N		
	Q 243	Transistor	2SA933S		
	Q 244	Transistor	DTC123EU		
	Q 246	Transistor	2SC1740S		
	Q 247	Transistor	DTC143EU		
	Q 248	Transistor	2SC1740S		
	Q 361	Chip Transistor (P8MP/XN/UC,P1Y/XN/ES)	HN1C03FU		
		Transistor (P80MP/XN/UC)	UMH3N		
	Q 362	Chip Transistor (P8MP/XN/UC,P1Y/XN/ES)	HN1C03FU		
		Transistor (P80MP/XN/UC)	UMH3N		
F	Q 363	Chip Transistor (P8MP/XN/UC,P1Y/XN/ES)	HN1C03FU		

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
D 501	Diode	DAN202U		SP601	Buzzer	CPV1062	
D 502	Diode	HZS9L(A2)			FM/AM Tuner Unit	CWE1646	
D 561	Diode	MPG06G-6415G50		<b>RESISTORS</b>			
D 562	Diode	MPG06G-6415G50					A
D 741	Diode	HZS9L(B1)		R 101		RS1/16S102J	
D 742	Diode	HZS6L(C1)		R 102		RS1/16S223J	
D 801	Diode	DAN202U		R 103		RS1/16S181J	
				R 104		RS1/16S222J	
D 802	Diode	DAP202U		R 105		RS1/16S181J	
D 803	Diode	DAP202U					
D 804	Diode	DAN202U		R 106		RS1/16S223J	
D 805	Diode	DAP202U		R 107		RS1/16S102J	
D 806	Diode	DAN202U		R 108		RS1/16S150J	
				R 109		RS1/16S562J	
D 807	Diode	DAP202U		R 110		RS1/16S332J	
D 808	Diode	DAN202U					B
D 821	Diode	HZS11L(A1)		R 111		RS1/16S470J	
D 841	Diode	HZS11L(A1)		R 112		RS1/16S101J	
D 842	Diode	RB411D		R 113		RS1/16S102J	
				R 114		RS1/16S101J	
D 861	LED	SML311BBT(PQ)		R 131		RS1/16S821J	
D 871	Diode	HZS6L(C3)					
D 872	Diode	1SS133		R 132		RS1/16S821J	
D 873	Diode	1SS133		R 133		RS1/16S102J	
D 881	Diode	DAN202U		R 134		RS1/16S102J	
				R 135		RAB4C102J	
D 882	Diode	DAN202U		R 136		RS1/16S101J	
D 883	Diode	DAN202U					
D 884	Diode	DAN202U		R 137		RS1/16S101J	C
D 901	Diode	HZS6L(B2)		R 138		RS1/16S101J	
D 902	Diode	MPG06G-6415G50		R 139		RS1/16S101J	
				R 140		RS1/16S101J	
D 921	Diode	HZS9L(B3)		R 141		RS1/16S101J	
D 931	Diode	HZS7L(C3)					
D 932	Diode	HZS7L(A1)		R 171		RS1/16S104J	
D 941	Diode	MPG06G-6415G50		R 172		RS1/16S104J	
D 951	Diode	DAN202U		R 173		RS1/16S563J	
				R 174		RS1/16S563J	
D 981	Diode	MPG06G-6415G50		R 175		RS1/16S474J	
D 982	Diode	MPG06G-6415G50					
D 983	Diode	MPG06G-6415G50		R 176		RS1/16S474J	
D 984	Diode	MPG06G-6415G50		R 201		RS1/16S681J	D
ZNR401	Surge Protector	RCCA-201Q31UA-PI		R 202		RS1/16S103J	
				R 203		RS1/16S103J	
L 101	Inductor	LCTC2R2K1608		R 204		RS1/16S331J	
L 131	Inductor	LCTA2R2J2520					
L 241	Coil	CTH1310		R 205		RS1/16S681J	
L 242	Coil	CTH1310		R 221		RS1/16S103J	
L 243	Ferri-Inductor	LAU220K		R 222		RS1/16S103J	
				R 223		RS1/16S473J	
L 341	Ferri-Inductor	LAU220K		R 224		RS1/16S104J	
L 401	Inductor	LAU1R0K					
L 402	Inductor	LAU2R2K		R 231		RS1/16S473J	
L 403	Inductor	LAU1R0K		R 241		RS1/2PMF3R3J	E
L 404	Inductor	LCTA4R7J2520		R 242		RS1/2PMF3R3J	
				R 243		RD1/4MUF470J	
L 601	Ferri-Inductor	LAU100K		R 244		RD1/4MUF470J	
L 701	Ferri-Inductor	LAU100K					
L 801	Inductor	CTF1379		R 245		RS1/16S222J	
L 831	Ferri-Inductor	LAU100K		R 247		RS1/16S104J	
L 841	Inductor	CTF1489		R 248		RS1/16S822J	
				R 249		RS1/16S224J	
L 842	Inductor	CTF1510		R 250		RS1/16S472J	
L 843	Chip-Inductor	LCTA2R2J3225					
L 951	Chip-Inductor	LCTA2R2J3225		R 251		RS1/16S103J	
X 601	Radiator 10.00MHz	CSS1475		R 252		RS1/16S1002D	
S 421	Slide Switch(60W/40W)	CSH1051		R 253		RS1/16S1002D	F
				R 254		RS1/16S3902D	
VR321	Semi-fixed 10kΩ(B)	CCP1229		R 255		RS1/16S3902D	
FU361	Fuse 3A $\Delta$	CEK1286					
MIC321	Microphone	CPM1011					

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

	R 256		RS1/16S2R2J		R 404		RS1/16S681J
	R 257		RS1/16S2R2J		R 405		RS1/16S681J
	R 258		RS1/16S473J		R 406		RS1/16S681J
A	R 259		RS1/16S473J				
	R 260		RS1/16S103J		R 421		RS1/16S104J
					R 422		RS1/16S102J
	R 261		RS1/4SA331J		R 451		RD1/4PU2R2J
	R 262		RS1/4SA331J		R 501		RS1/16S103J
	R 263		RS1/16S0R0J		R 502		RS1/16S473J
	R 264		RS1/4SA151J				
	R 265		RS1/16S332J		R 503		RS1/16S473J
					R 561		RS1/16S103J
	R 266		RS1/16S332J		R 571	(P8MP/XN/UC,P80MP/XN/UC)	RS1/16S102J
	R 267		RS1/16S152J		R 572	(P8MP/XN/UC,P80MP/XN/UC)	RS1/16S102J
	R 268		RS1/4SA151J		R 601		RS1/16S472J
	R 269		RS1/16S152J				
B	R 321		RS1/16S222J		R 602		RS1/16S472J
					R 603		RS1/16S473J
	R 323		RS1/16S561J		R 604		RS1/16S104J
	R 324		RS1/16S104J		R 605		RS1/16S104J
	R 325		RS1/16S104J		R 606		RS1/16S103J
	R 341		RS1/16S103J				
	R 342		RS1/16S103J		R 607		RS1/16S0R0J
					R 608		RS1/16S104J
	R 361	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 609		RS1/16S104J
		(P80MP/XN/UC)	RS1/16S821J		R 610		RS1/16S102J
	R 362	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 612		RS1/16S103J
		(P80MP/XN/UC)	RS1/16S821J				
C	R 363	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 613		RS1/16S681J
		(P80MP/XN/UC)	RS1/16S821J		R 614		RS1/16S681J
	R 364	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 615		RS1/16S681J
		(P80MP/XN/UC)	RS1/16S821J		R 616		RS1/16S473J
	R 365	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 617	(P1Y/XN/ES)	RS1/16S104J
		(P80MP/XN/UC)	RS1/16S821J				
	R 366	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S820J		R 618	(P8MP/XN/UC,P80MP/XN/UC)	RS1/16S104J
		(P80MP/XN/UC)	RS1/16S821J		R 619		RS1/16S104J
					R 620	(P80MP/XN/UC)	RS1/16S104J
	R 367	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J		R 621	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S104J
		(P80MP/XN/UC)	RS1/16S0R0J		R 622		RS1/16S104J
	R 368	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J		R 623		RS1/16S104J
		(P80MP/XN/UC)	RS1/16S0R0J		R 624		RS1/16S104J
D	R 369	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J		R 625		RS1/16S0R0J
		(P80MP/XN/UC)	RS1/16S0R0J		R 626		RS1/16S0R0J
					R 627		RS1/16S0R0J
	R 370	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J				
		(P80MP/XN/UC)	RS1/16S0R0J		R 628		RS1/16S0R0J
	R 371	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J		R 629		RS1/16S0R0J
		(P80MP/XN/UC)	RS1/16S0R0J		R 630		RS1/16S0R0J
	R 372	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S103J		R 631		RS1/16S104J
		(P80MP/XN/UC)	RS1/16S0R0J		R 642		RS1/16S104J
	R 373		RS1/16S223J		R 651		RS1/16S102J
	R 374		RS1/16S223J		R 652		RS1/16S102J
E	R 375		RS1/16S223J		R 653		RS1/16S183J
	R 376		RS1/16S223J		R 654		RS1/16S473J
	R 377		RS1/16S223J		R 655		RS1/16S222J
	R 378		RS1/16S223J				
	R 379	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J		R 701		RS1/16S473J
	R 380	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J		R 703		RS1/16S682J
	R 381	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J		R 704		RS1/16S682J
	R 382	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J		R 705		RS1/16S682J
					R 706		RS1/16S682J
	R 383	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J				
	R 384	(P8MP/XN/UC,P1Y/XN/ES)	RS1/16S471J		R 707		RS1/16S221J
	R 385	(P80MP/XN/UC)	RS1/16S0R0J		R 708		RS1/16S221J
F	R 389		RS1/16S102J		R 709		RS1/16S221J
	R 401		RS1/16S681J		R 710		RS1/16S221J
					R 711		RS1/16S221J
	R 402		RS1/16S681J				
	R 403		RS1/16S681J		R 712		RS1/16S221J

5		6		7		8	
<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>
R 741	RD1/4PU391J	R 903	RS1/16S332J	R 743	RD1/4PU391J	R 904	RS1/16S0R0J
R 801	RS1/16S104J	R 922	RS1/16S152J	R 802	RS1/16S104J	R 923	RD1/4PU152J
R 802	RS1/16S104J	R 924	RS1/16S223J	R 803	RS1/16S102J	R 924	RS1/16S223J
R 804	RS1/16S222J	R 925	RS1/16S472J	R 805	RS1/16S222J	R 925	RS1/16S472J
R 806	RS1/16S222J	R 931	RS1/16S104J	R 806	RS1/16S222J	R 931	RS1/16S104J
R 807	RS1/16S222J	R 932	RS1/16S473J	R 807	RS1/16S222J	R 932	RS1/16S473J
R 808	RS1/16S222J	R 933	RS1/16S103J	R 808	RS1/16S222J	R 933	RS1/16S103J
R 809	RS1/16S222J	R 934	RS1/16S473J	R 809	RS1/16S222J	R 934	RS1/16S473J
R 810	RS1/16S222J	R 935	RS1/16S472J	R 810	RS1/16S222J	R 935	RS1/16S472J
R 811	RS1/16S0R0J	R 943	RS1/16S103J	R 811	RS1/16S0R0J	R 943	RS1/16S103J
R 812	RS1/16S104J	R 951	RS1/16S102J	R 812	RS1/16S104J	R 951	RS1/16S102J
R 813	RS1/16S102J	R 952	RS1/16S472J	R 813	RS1/16S102J	R 952	RS1/16S472J
R 815	RS1/16S104J	R 953	RS1/16S472J	R 815	RS1/16S104J	R 953	RS1/16S472J
R 816	RS1/16S221J	R 954	RS1/16S153J	R 816	RS1/16S221J	R 954	RS1/16S153J
R 818	RS1/16S103J	R 955	RS1/16S104J	R 818	RS1/16S103J	R 955	RS1/16S104J
R 819	RS1/16S122J	R 981	RD1/4PU102J	R 819	RS1/16S122J	R 981	RD1/4PU102J
R 821	RS1/16S221J	R 982	RS1/4SA0R0J	R 821	RS1/16S221J	R 982	RS1/4SA0R0J
R 822	RS1/16S221J	R 987	RS1/16S0R0J	R 822	RS1/16S221J	R 987	RS1/16S0R0J
R 823	RS1/16S1R0J	<b><u>CAPACITORS</u></b>				R 823	RS1/16S1R0J
R 824	RS1/16S473J	C 102	CKSRYB104K16	R 824	RS1/16S473J	C 102	CKSRYB104K16
R 825	RS1/16S473J	C 103	CKSRYB102K50	R 825	RS1/16S473J	C 103	CKSRYB102K50
R 826	RS1/16S104J	C 104	CKSRYB102K50	R 826	RS1/16S104J	C 104	CKSRYB102K50
R 827	RS1/16S472J	C 131	CCSQCH222J50	R 827	RS1/16S472J	C 131	CCSQCH222J50
R 831	RS1/16S102J	C 132	CEAL1R0M50	R 831	RS1/16S102J	C 132	CEAL1R0M50
R 832	RS1/16S473J	C 133	CEAL1R0M50	R 832	RS1/16S473J	C 133	CEAL1R0M50
R 833	RS1/16S472J	C 134	CKSRYB104K16	R 833	RS1/16S472J	C 134	CKSRYB104K16
R 841	RS1/16S331J	C 135	CKSRYB104K16	R 841	RS1/16S331J	C 135	CKSRYB104K16
R 842	RS1/16S331J	C 136	CEAL1R0M50	R 842	RS1/16S331J	C 136	CEAL1R0M50
R 844	RS1/16S1R0J	C 137	CEAL1R0M50	R 844	RS1/16S1R0J	C 137	CEAL1R0M50
R 845	RS1/16S391J	C 138	CEAL1R0M50	R 845	RS1/16S391J	C 138	CEAL1R0M50
R 846	RS1/16S121J	C 139	CEAL1R0M50	R 846	RS1/16S121J	C 139	CEAL1R0M50
R 847	RD1/4PU302J	C 140	CEJQ470M10	R 847	RD1/4PU302J	C 140	CEJQ470M10
R 848	RD1/4PU302J	C 141	CKSRYB104K16	R 848	RD1/4PU302J	C 141	CKSRYB104K16
R 861	RS1/16S331J	C 142	CCSQCH222J50	R 861	RS1/16S331J	C 142	CCSQCH222J50
R 862	RS1/16S331J	C 143	CEALNP4R7M16	R 862	RS1/16S331J	C 143	CEALNP4R7M16
R 863	RS1/16S331J	C 144	CEALNP4R7M16	R 863	RS1/16S331J	C 144	CEALNP4R7M16
R 864	RS1/16S103J	C 145	CEALNP4R7M16	R 864	RS1/16S103J	C 145	CEALNP4R7M16
R 865	RS1/16S103J	C 146	CEALNP4R7M16	R 865	RS1/16S103J	C 146	CEALNP4R7M16
R 871	RAB4C102J	C 147	CCSQCH152J50	R 871	RAB4C102J	C 147	CCSQCH152J50
R 872	RD1/4PU391J	C 148	CEALNP4R7M16	R 872	RD1/4PU391J	C 148	CEALNP4R7M16
R 881	RS1/16S472J	C 149	CEALNP4R7M16	R 881	RS1/16S472J	C 149	CEALNP4R7M16
R 882	RS1/16S2203D	C 150	CCSQCH152J50	R 882	RS1/16S2203D	C 150	CCSQCH152J50
R 883	RS1/16S3303D	C 151	CEALNP4R7M16	R 883	RS1/16S3303D	C 151	CEALNP4R7M16
R 884	RS1/16S4702D	C 152	CEALNP4R7M16	R 884	RS1/16S4702D	C 152	CEALNP4R7M16
R 885	RS1/16S223J	C 159	CKSRYB474K10	R 885	RS1/16S223J	C 159	CKSRYB474K10
R 886	RS1/16S223J	C 160	CKSRYB474K10	R 886	RS1/16S223J	C 160	CKSRYB474K10
R 887	RS1/16S3303D	C 161	CEJQ100M50	R 887	RS1/16S3303D	C 161	CEJQ100M50
R 888	RS1/16S3303D	C 171	CKSRYB103K50	R 888	RS1/16S3303D	C 171	CKSRYB103K50
R 889	RS1/16S1503D	C 172	CKSRYB104K16	R 889	RS1/16S1503D	C 172	CKSRYB104K16
R 890	RS1/16S1503D	C 173	CKSRYB104K16	R 890	RS1/16S1503D	C 173	CKSRYB104K16
R 891	RS1/16S1503D	C 174	CKSRYB104K16	R 891	RS1/16S1503D	C 174	CKSRYB104K16
R 892	RS1/16S1503D	C 175	CKSRYB104K16	R 892	RS1/16S1503D	C 175	CKSRYB104K16
R 893	RS1/16S1503D	C 176	CKSRYB474K10	R 893	RS1/16S1503D	C 176	CKSRYB474K10
R 894	RS1/16S1503D	C 177	CKSRYB474K10	R 894	RS1/16S1503D	C 177	CKSRYB474K10
R 895	RS1/16S1503D	C 178	CCSRCH101J50	R 895	RS1/16S1503D	C 178	CCSRCH101J50
R 896	RS1/16S1503D			R 896	RS1/16S1503D		
R 902	RS1/16S223J			R 902	RS1/16S223J		

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

	C 179		CCSRCH101J50	C 369	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50
	C 201		CFTNA224J50	C 370	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50
	C 202		CFTNA224J50	C 371	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50
A	C 203		CFTNA224J50	C 372	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50
	C 204		CFTNA224J50	C 373		CEAL220M35
	C 205		CEAL330M10	C 401		CKSRYB103K50
	C 206		CEHAR100M16	C 402		CKSRYB103K50
	C 207		CKSQYB225K10	C 403		CEJQ470M10
	C 208		CKSQYB225K10	C 404		CKSRYB103K50
	C 211		CKSRYB472K50	C 405		CEJQ101M10
	C 212		CKSRYB472K50	C 407		CKSYB475K10
	C 213		CKSRYB472K50	C 451		CKSRYB103K50
	C 214		CKSRYB472K50	C 452		CKSRYB103K50
	C 221		CKSRYB103K50	C 453		CEJQ220M25
B	C 222		CKSRYB104K25	C 454		CKSYB475K10
	C 223		CKSRYB104K25	C 455		CKSRYB103K50
	C 241		CQMA332J50	C 456		CKSYB475K10
	C 242		CQMA332J50	C 561		CKSRYB104K25
	C 243	2200µF/25V	CCH1594	C 562		CKSRYB473K25
	C 244	2200µF/25V	CCH1594	C 601		CCSRCH180J50
	C 245		CEHAZL102M16	C 602		CCSRCH220J50
	C 246		CEHAZL102M16	C 603		CEAL470M16
	C 247		CCSRCH270J50	C 604		CKSRYB103K50
	C 249		CKSRYB222K50	C 606		CCSRCH470J50
C	C 250		CQMAQ102J50	C 652		CKSRYB105K10
	C 251		CKSRYB332K50	C 653		CKSRYB104K16
	C 252		CKSYB105K25	C 702	470µF/10V	CCH1438
	C 253		CKSYB105K25	C 741		CKSRYB473K16
	C 254		CCSQCH222J50	C 742		CKSRYB102K50
	C 255		CEJQ101M16	C 743		CEJQ101M16
	C 256		CKSRYB103K50	C 744		CKSRYB473K16
	C 257		CKSRYB103K50	C 745		CEJQ101M10
	C 259		CEHAZL100M50	C 801		CKSRYB473K16
	C 321		CEJQ100M50	C 821		CKSRYB473K25
D	C 322		CEJQ220M25	C 832		CCSRCH101J50
	C 323		CEJQ100M50	C 833		CKSRYB473K50
	C 341		CEAL4R7M35	C 834		CKSRYB105K10
	C 342		CEJQ101M16	C 841		CKSRYB104K16
	C 343		CASAQ3R3M16	C 842		CEAL470M16
	C 344		CKSRYB105K10	C 843		CEAL101M10
	C 345		CKSRYB105K10	C 844		CKSRYB104K16
	C 346		CKSRYB105K10	C 845		CCSRCH331J50
	C 347		CKSYB684K16	C 846		CKSRYB103K50
	C 348		CKSRYB105K10	C 847		CEAL330M25
	C 349		CKSRYB105K10	C 848		CEAL100M25
E	C 350		CKSRYB105K10	C 849	4.7µF	CCG1111
	C 351		CEAL100M16	C 861		CKSRYB104K25
	C 352		CKSQYB225K10	C 873		CKSRYB224K10
	C 353		CEJQ330M25	C 874		CKSRYB224K10
	C 354		CEJQ330M25	C 875		CEAT331M10
	C 355	(P8MP/XN/UC,P1Y/XN/ES)	CEJQ330M25	C 876		CKSRYB102K50
	C 356	(P8MP/XN/UC,P1Y/XN/ES)	CEJQ330M25	C 877		CCSRCH101J50
	C 361		CEJQ100M50	C 878		CCSRCH101J50
	C 362		CEJQ100M50	C 881		CKSRYB103K50
	C 363		CEJQ100M50	C 882		CKSQYB105K16
	C 364		CEJQ100M50	C 883		CKSQYB474K25
F	C 365		CEJQ100M50	C 884		CKSQYB474K25
	C 366		CEJQ100M50	C 885		CKSQYB474K25
	C 367	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50	C 886		CKSQYB474K25
	C 368	(P8MP/XN/UC,P1Y/XN/ES)	CKSRYB222K50	C 887		CKSQYB474K25

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
C 888		CKSQYB474K25		TH1981	Thermistor	CCX1037	
C 889		CKSQYB474K25		X 1951	Ceramic Resonator 16MHz	CSS1616	
C 890		CKSQYB474K25		S 1901	Push Switch	CSG1155	A
C 901		CEJQ101M10		S 1902	Push Switch	CSG1155	
C 902		CKSRYB103K50		S 1903	Switch(SEL/VOL)	CSX1065	
C 903		CKSRYB472K50					
C 904	470µF/16V	CCH1331		S 1921	Push Switch	CSG1155	
C 905	470µF/16V	CCH1331		S 1922	Push Switch	CSG1155	
C 921		CEJQ221M10		S 1923	Push Switch	CSG1155	
C 922		CKSRYB103K50		S 1924	Push Switch	CSG1155	
C 923		CEJQ101M10		S 1925	Push Switch	CSG1155	
C 924	470µF/16V	CCH1331		S 1926	Push Switch	CSG1155	
C 931		CKSRYB104K25		S 1927	Push Switch	CSG1155	
C 941		CKSQYB105K16		S 1928	Push Switch	CSG1155	
C 951		CKSRYB104K25		S 1929	Push Switch	CSG1155	B
C 981		CKSRYB473K50		VR1981	Semi-fixed 10kΩ(B)	CCP1229	
					OEL Unit	MXS8202	

**B**

**Unit Number:CWS1389**  
**Unit Name:Switch Unit**

S 1	Switch(CLOSE)	CSN1051
S 2	Switch(OPEN)	CSN1052

**C**

**Unit Number:CWM9290**  
**Unit Name:Keyboard Unit**

**MISCELLANEOUS**

IC 1941	IC	S-818A33AUC-BGN
IC 1951	IC	PD5933A
IC 1952	IC	RS-140
IC 1953	IC	PD6469A
Q 1951	Transistor	UMD2N
Q 1952	Transistor	2SC4154-11
Q 1953	Transistor	UMD2N
Q 1981	Transistor	2SC4617
Q 1982	Transistor	2SD1664
D 1901	Diode	DAP202U
D 1902	Diode	DAN202U
D 1921	LED	SML311BBT(PQ)
D 1922	LED	SML311BBT(PQ)
D 1923	LED	SML311BBT(PQ)
D 1924	LED	SML311BBT(PQ)
D 1925	LED	SML311BBT(PQ)
D 1926	LED	SML311BBT(PQ)
D 1927	LED	SML311BBT(PQ)
D 1928	LED	SML311BBT(PQ)
D 1929	LED	SML311BBT(PQ)
D 1930	LED	SML311BBT(PQ)
D 1931	LED	SML311BBT(PQ)
D 1932	LED	SML311BBT(PQ)
D 1933	LED	SML311BBT(PQ)
D 1934	LED	SML311BBT(PQ)
D 1951	Diode	1SS355
D 1952	Diode	UDZS13(B)
D 1953	Diode	DAN202U
L 1903	Inductor	CTF1530
L 1941	Inductor	CTF1530

**RESISTORS**

R 1901	RS1/16S222J
R 1902	RS1/16S222J
R 1905	RS1/16S822J
R 1906	RS1/16S102J
R 1907	RS1/16S102J
R 1908	RS1/16S222J
R 1909	RS1/16S332J
R 1910	RS1/16S822J
R 1911	RS1/16S473J
R 1912	RS1/16S154J
R 1913	RS1/10S0R0J
R 1914	RS1/10S0R0J
R 1916	RS1/16S103J
R 1921	RS1/16S221J
R 1922	RS1/16S560J
R 1923	RS1/16S221J
R 1924	RS1/16S560J
R 1925	RS1/16S221J
R 1926	RS1/16S560J
R 1927	RS1/16S221J
R 1928	RS1/16S560J
R 1929	RS1/16S221J
R 1930	RS1/16S560J
R 1931	RS1/16S221J
R 1932	RS1/16S560J
R 1933	RS1/16S221J
R 1934	RS1/16S560J
R 1941	RS1/16S222J
R 1951	RS1/16S121J
R 1952	RS1/16S184J
R 1953	RS1/16S2R2J
R 1954	RS1/16S154J
R 1955	RS1/16S473J
R 1956	RAB4C102J
R 1957	RS1/16S103J
R 1958	RAB4C473J
R 1959	RS1/16S473J
R 1960	RAB4C101J
R 1961	RAB4C101J
R 1962	RAB4C101J

Circuit Symbol and No.Part No.Circuit Symbol and No.Part No.**Unit Number: CWX2952****Unit Name: CD CORE UNIT(S10WMACODE2)**MISCELLANEOUS

R 1963 RAB4C101J  
 R 1964 RAB4C101J  
 A R 1965 RAB4C101J  
 R 1966 RAB4C101J  
 R 1967 RAB4C101J

R 1968 RAB4C101J  
 R 1969 RAB4C101J  
 R 1970 RAB4C102J  
 R 1971 RS1/16S102J  
 R 1972 RS1/16S0R0J

R 1973 RS1/16S473J  
 R 1974 RS1/16S473J  
 R 1975 RS1/16S473J  
 B R 1977 RS1/16S473J  
 R 1981 RS1/16S333J

R 1982 RS1/16S683J  
 R 1983 RS1/16S393J  
 R 1984 RS1/16S392J  
 R 1985 RAB4C101J  
 R 1986 RS1/16S152J

R 1988 RS1/16S101J  
 R 1989 RS1/16S101J  
 R 1991 RS1/16S104J

CAPACITORS

C 1905 CKSRYB104K25  
 C 1908 CKSRYB104K25  
 C 1909 CKSRYB104K25  
 C 1921 CKSRYB104K25  
 C 1922 CKSRYB104K25

C 1923 CKSRYB104K25  
 C 1924 CKSRYB104K25  
 C 1925 CKSRYB104K25  
 C 1926 CKSRYB104K25  
 D C 1927 CKSRYB104K25

C 1928 CKSRYB104K25  
 C 1929 CKSRYB104K25  
 C 1930 CKSRYB104K25  
 C 1931 CKSRYB104K25  
 C 1932 CKSRYB104K25

C 1933 CKSRYB104K25  
 C 1934 CKSRYB104K25  
 C 1941 CSZSR4R7M16  
 C 1942 CSZSR4R7M10  
 C 1943 CKSQYB103K50

E C 1944 CSZSR4R7M10  
 C 1951 CKSYF106Z10  
 C 1952 CKSRYB473K50  
 C 1953 CKSRYB103K25  
 C 1954 CKSRYB103K25

C 1955 CKSYF475Z16  
 C 1957 CKSRYB103K25  
 C 1981 CKSRYB104K25  
 C 1982 CKSRYB104K25  
 C 1983 CKSRYB104K25

F C 1985 CKSRYB104K25

**D**

IC 201 IC UPD63761GJ  
 IC 203 IC NJM2391DL1-33  
 IC 301 IC BA5835FM  
 IC 501 IC S-L2980A15MC-C6A  
 IC 701 IC PE5423A

IC 703 IC S-812C33AUA-C2N  
 Q 101 Transistor 2SB1132  
 Q 601 Transistor IMH20  
 Q 603 Transistor 2SB709A  
 Q 701 Transistor UN2111

D 101 Diode 1SS355  
 D 601 Diode MA152WA  
 L 203 Inductor CTF1389  
 L 207 Inductor CTF1389  
 L 209 Inductor CTF1389

L 703 Inductor CTF1389  
 X 201 Ceramic Resonator 16.934MHz CSS1603  
 X 702 Resonator 4.00MHz CSS1654  
 S 901 Switch(HOME) CSN1051  
 S 902 Switch(CLAMP) CSN1051

S 903 Spring Switch(DSCSNS) CSN1052  
 S 904 Switch(12EJ) CSN1051  
 S 905 Switch(8EJ) CSN1051

RESISTORS

R 101 RS1/10S1R5J  
 R 102 RS1/10S1R5J  
 R 103 RS1/10S1R5J  
 R 104 RS1/10S1R5J  
 R 105 RS1/10S1R5J

R 107 RS1/16SS0R0J  
 R 201 RS1/16SS102J  
 R 202 RS1/16SS333J  
 R 205 RS1/16SS473J  
 R 207 RS1/16SS473J

R 209 RS1/16SS473J  
 R 214 RS1/16SS472J  
 R 216 RS1/16SS472J  
 R 218 RS1/16SS472J  
 R 220 RS1/16SS472J

R 221 RS1/16SS103J  
 R 222 RS1/16SS103J  
 R 223 RS1/16SS0R0J  
 R 224 RS1/16SS0R0J  
 R 225 RS1/16SS103J

R 226 RS1/16SS393J  
 R 227 RS1/16SS562J  
 R 228 RS1/16SS122J  
 R 229 RS1/16SS472J  
 R 231 RS1/16SS0R0J

R 232 RS1/16SS122J  
 R 233 RS1/16SS0R0J  
 R 240 RS1/16SS0R0J  
 R 241 RS1/16SS333J  
 R 242 RS1/16SS0R0J



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

A	C 251		CKSRYB102K50
	C 260		CKSSYB104K10
	C 301		CKSSYB221K50
	C 302		CKSSYB221K50
	C 303		CKSSYB472K25
	C 304		CKSSYB103K16
	C 305	100 $\mu$ F/16V	CCH1504
	C 306		CKSSYB104K10
	C 307		CKSSYB104K10
	C 501		CKSRYB224K16
B	C 505		CKSQYB475K6R3
	C 601		CCSRCH102J50
	C 602		CCSRCH102J50
	C 603	4.7 $\mu$ F/25V	CCH1568
	C 604	4.7 $\mu$ F/25V	CCH1568
	C 701		CKSSYB104K10
	C 702		CKSSYB471K50
	C 703		CKSSYB103K16
	C 704	4.7 $\mu$ F/25V	CCH1592
	C 706		CKSSYB104K10
C	C 707		CKSSYB104K10
	C 712		CKSRYB224K16
	C 713		CKSSYB104K10
	C 714		CKSSYB104K10
	C 716		CKSSYB103K16
	C 717		CCSSCH180J50
	C 718		CCSSCH180J50
	C 720		CKSQYB225K10
	C 722		CKSRYB105K10
	C 903		CKSSYB471K50
	C 906		CKSRYB224K16
	C 907		CKSSYB103K16
	C 910		CKSQYB225K10

**Miscellaneous Parts List**

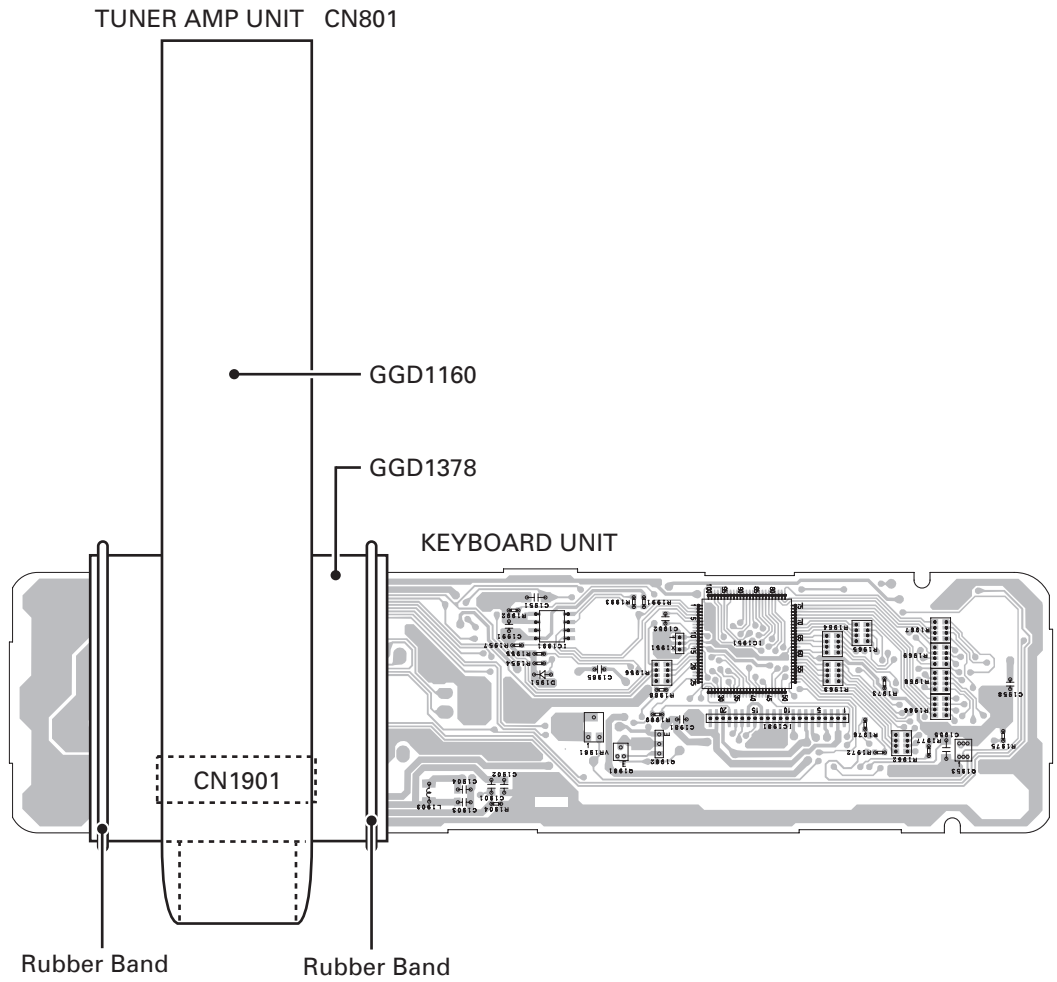
D	Pickup Unit(P9.9MP3)(Service)	CXX1805
M 1	Motor Unit(SPINDLE)	CXB6007
M 2	Motor Unit(LOADING/CARRIAGE)	CXB8933
M 871	Motor Unit(FLAP)	CXC2204

E

F

# 6. ADJUSTMENT

## 6.1 CONNECTION DIAGRAM

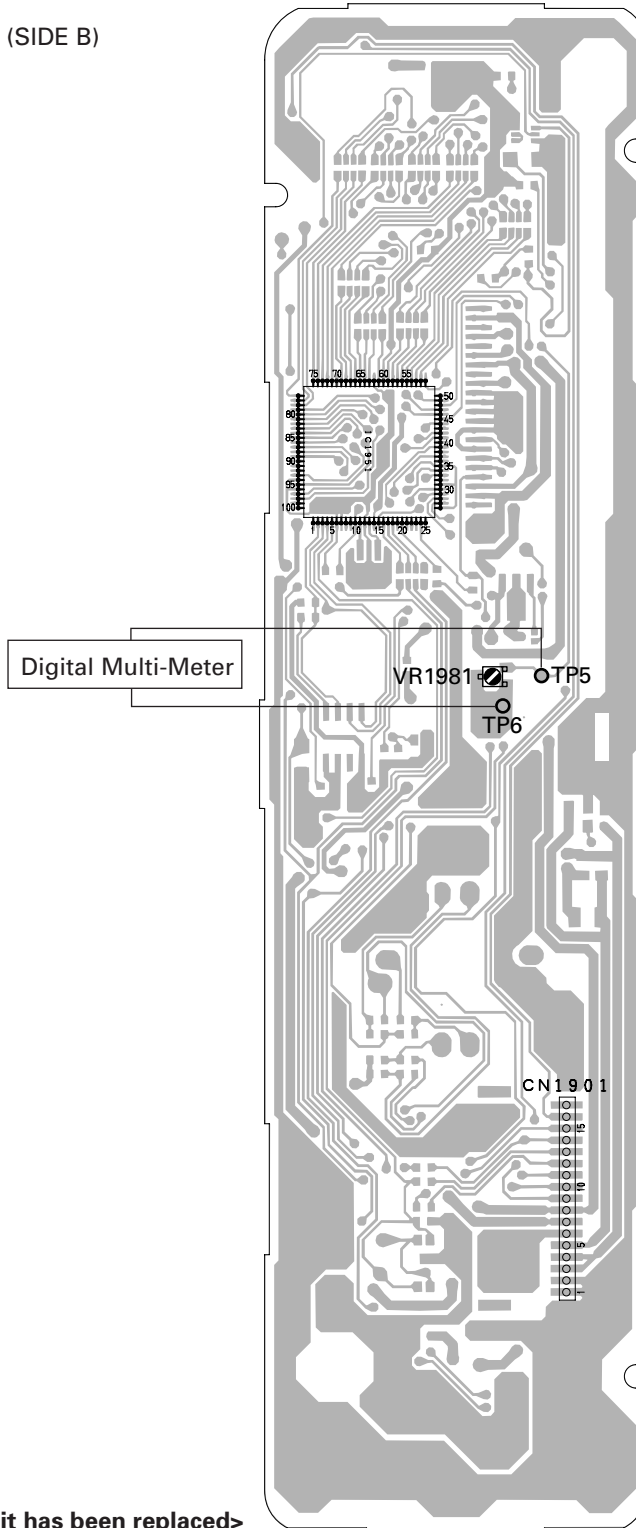


## 6.2 OEL UNIT ADJUSTMENT



### ● Adjustment point

KEYBOARD UNIT (SIDE B)



<When the OEL Unit has been replaced>

1. Use VR1981 to adjust the resistance between TP5 and TP6 to 2.3 k $\Omega$ .

## 6.3 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 LIST and EQ 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.

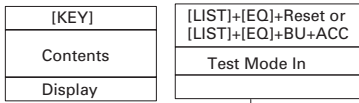
- c. For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.

- 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

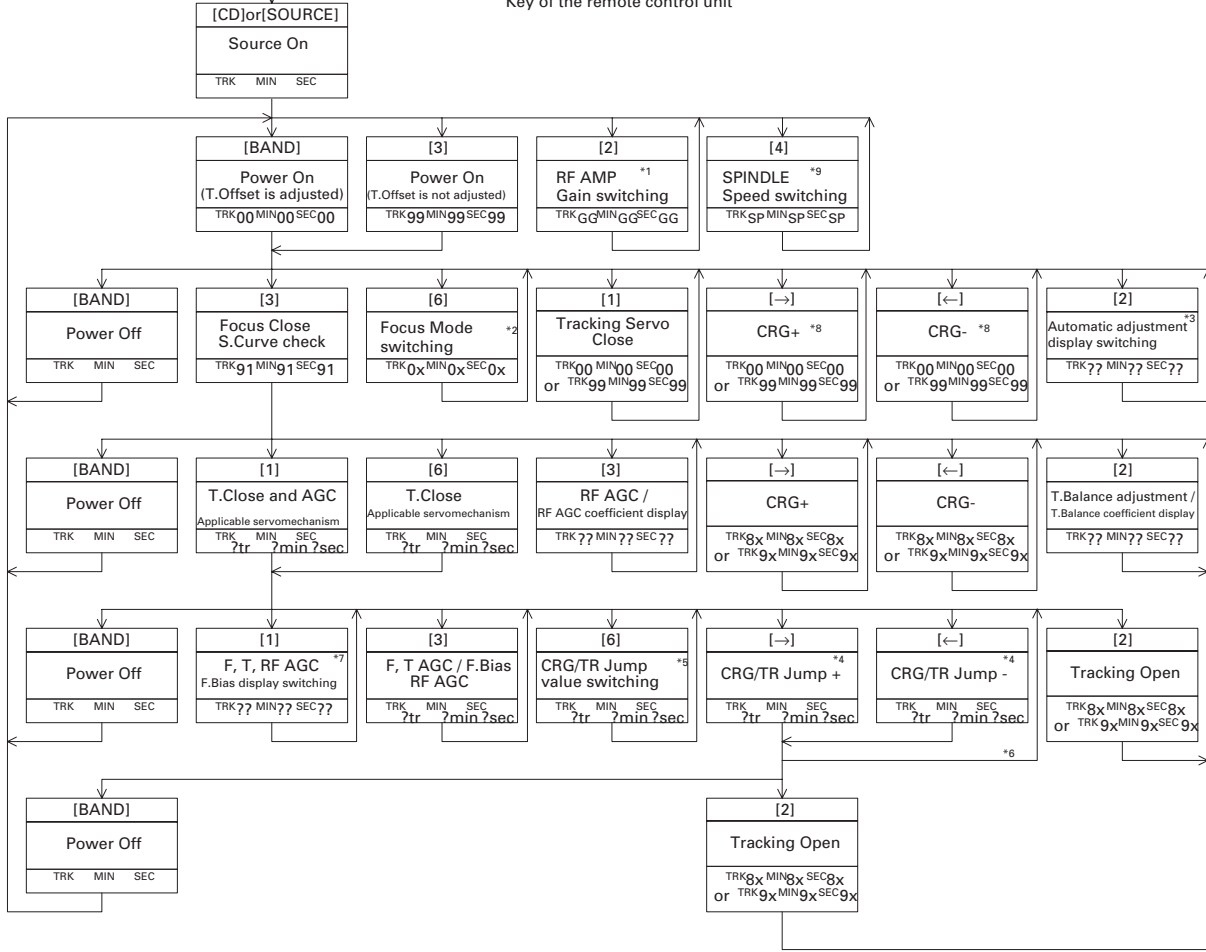
A



Key of the head unit

Key of the remote control unit

B



C

- \*1) TYP → -6dB → -12dB  
TRK MIN SEC → TRK 06 MIN 06 SEC 06 → TRK 12 MIN 12 SEC 12
  - \*2) Focus Close → S.Curve cck setting → F.EQ measurement setting  
TRK 00 MIN 00 SEC 00 → TRK 01 MIN 01 SEC 01 → TRK 02 MIN 02 SEC 02  
(TRK 99 MIN 99 SEC 99)
  - \*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) TYP(1X) → 2X → 1X  
TRK MIN SEC → TRK 22 MIN 22 SEC 22 → TRK 11 MIN 11 SEC 11
- As for the double speed (2x), audio output cannot be supported.
- TYP(2X) → 1X → 2X  
TRK MIN SEC → TRK 11 MIN 11 SEC 11 → TRK 22 MIN 22 SEC 22

E

[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]	T.CLS and AGC and Applicable servomechanism / AGC, AGC display switching
[2]	RF Gain switching / Offset adjustment display / T.Balance adjustment / T.Open
[3]	F.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

## 6.4 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 :

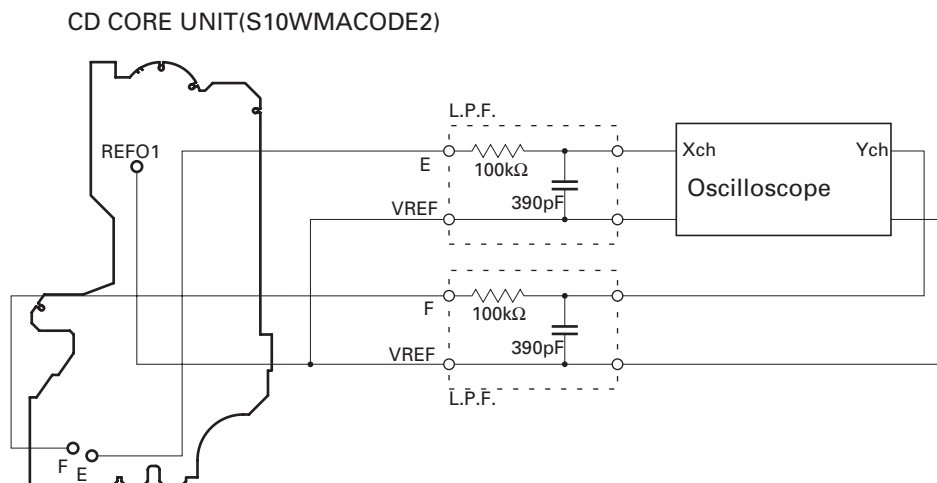
To check that the grating is within an acceptable range when the PU unit is changed.

### • 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

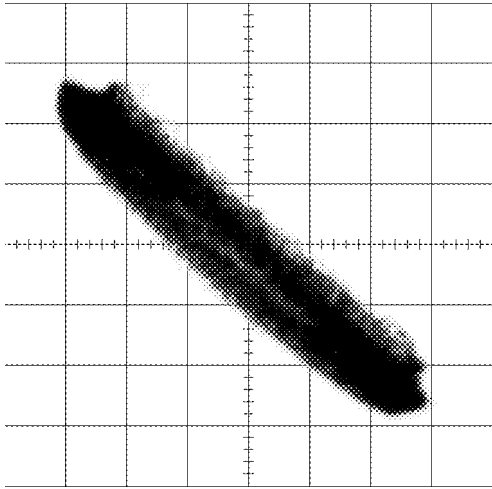
Reloading the disc changes the clamp position and may decrease the "wobble".

### Grating waveform

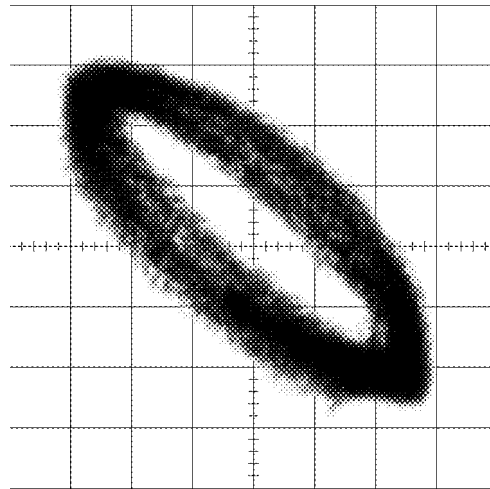
Ech → Xch 20mV/div, AC  
Fch → Ych 20mV/div, AC

A

0°

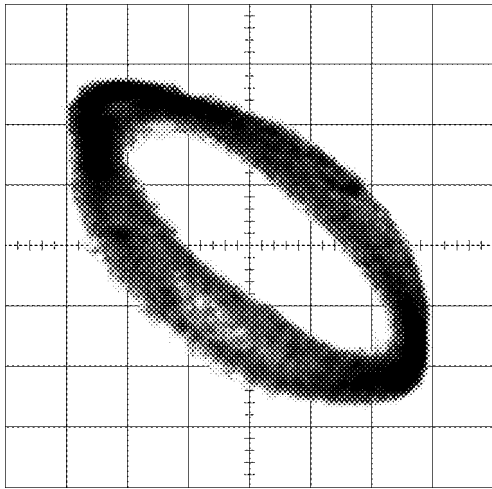


30°

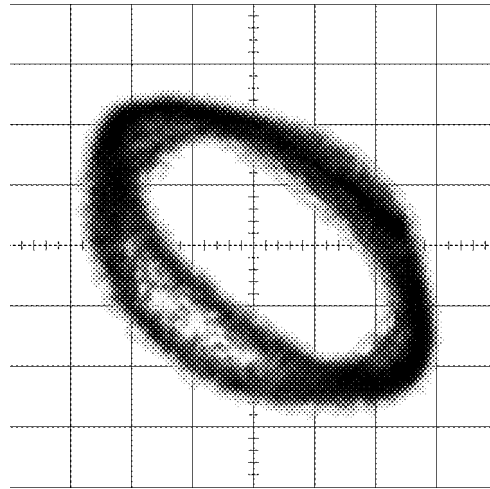


B

45°

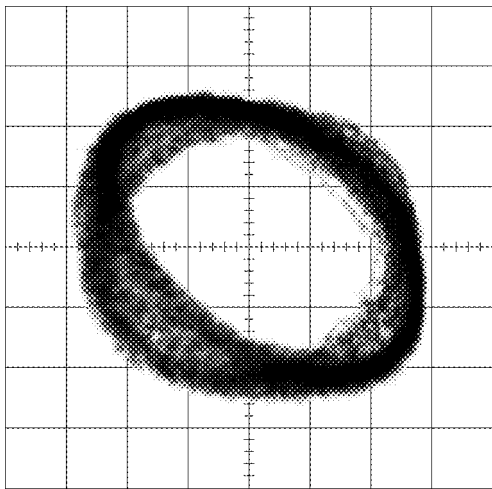


60°

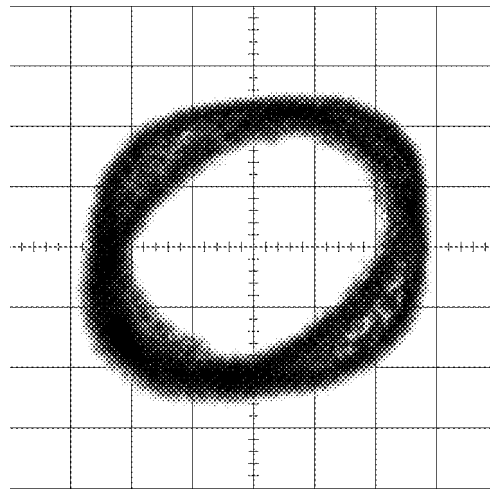


C

75°



90°



D

E

F

## 6.5 ERROR MODE

### ● Error Messages

If a CD is not operative or stopped during operation due to an error, the error mode is turned on and cause(s) of the error is indicated with a corresponding number. This arrangement is intended at reducing nonsense calls from the users and also for facilitating trouble analysis and repair work in servicing.

#### (1) Basic Indication Method

1) When SERRORM is selected for the CSMOD (CD mode area for the system), error codes are written to DMIN (minutes display area) and DSEC (seconds display area). The same data is written to DMIN and DSEC. DTNO remains in blank as before.

#### 2) Head unit display examples

Depending on display capability of LCD used, display will vary as shown below. xx contains the error number.

8-digit display	6-digit display	4-digit display
ERROR-xx	ERR-xx	E-xx

#### (2) Error Code List

Code	Class	Displayed error code	Description of the code and potential cause(s)
10	Electricity	Carriage Home NG SERVO LSI Com- munication Error	CRG can't be moved to inner diameter. CRG can't be moved from inner diameter. → Failure on home switch or CRG move mechanism. Communication error between microcomputer and SERVO LSI.
11	Electricity	Focus Servo NG	Focusing not available. → Stains on rear side of disc or excessive vibrations on REWRITABLE.
12	Electricity	Spindle Lock NG Subcode NG	Spindle not locked. Sub-code is strange (not readable). → Failure on spindle, stains or damages on disc, or excessive vibrations. A disc not containing CD-R data is found. Turned over disc are found, though rarely. CD signal error.
17	Electricity	Setup NG	AGC protection doesn't work. Focus can be easily lost. → Damages or stains on disc, or excessive vibrations on REWRITABLE.
30	Electricity	Search Time Out	Failed to reach target address. → CRG tracking error or damages on disc.
44	Electricity	ALL Skip	Skip setting for all track. (CD-R/RW)
50	Mechanism	CD On Mech Error	Mechanical error during CD ON. → Defective loading motor, mechanical lock and mechanical sensor.
A0	System	Power Supply NG	Power (VD) is ground faulted. → Failure on SW transistor or power supply (failure on connector).

Remarks: Mechanical errors are not displayed (because a CD is turned off in these errors).

Unreadable TOC does not constitute an error. An intended operation continues in this case.

Upper digits of an error code are subdivided as shown below:

1x: Setup relevant errors, 3x: Search relevant errors, Ax: Other errors.

## 6.6 OEL SCREENSAVER STUDIO LKA TO LKD APPLICATION

A

"OEL Screensaver Studio" is an application to create OEL display image file. The customer write the image file on a CD-R disc and install it to car audio. This function is similar to PC link-kit (CD-PC1).

"OEL Screensaver Studio" is available to the public on the PIONEER Home Page.

This software (GGV1169) is added LKA to LKD file conversion function to original "OEL Screensaver Studio".

### ● How to check:

1. Set up GGV1169 application.

2. Confirm the LKA file (ent\_disp.lka) is converted to LKD file correctly or not.

Please see a Readme.txt in the GGV1169 or help file of "OEL Screensaver Studio" for more information.

B

## 6.7 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 STEST1 (Pin 86) terminal to H.

The clock signal is output from the PCL1 terminal (Pin 37).

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

C

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.

D

E

F

# 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.

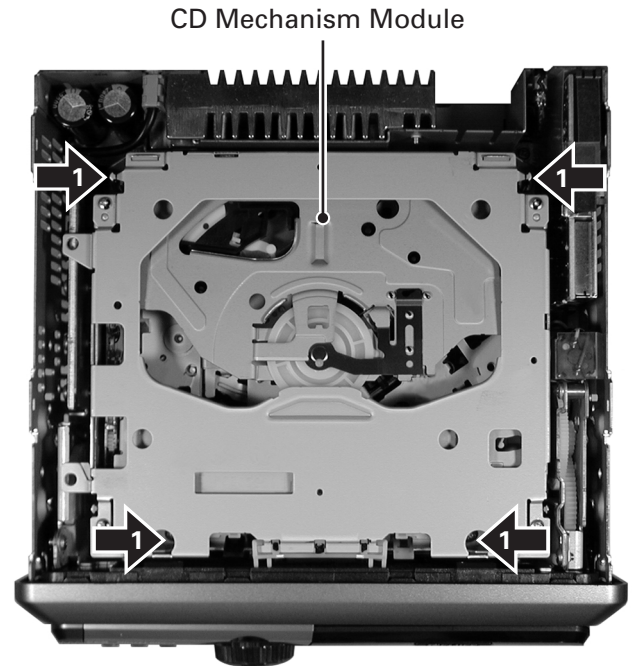


Fig.1

#### ● Removing the Grille Assy (Fig.2)

**1** Remove the four screws.

Disconnect the connector and then remove the Grille Assy.

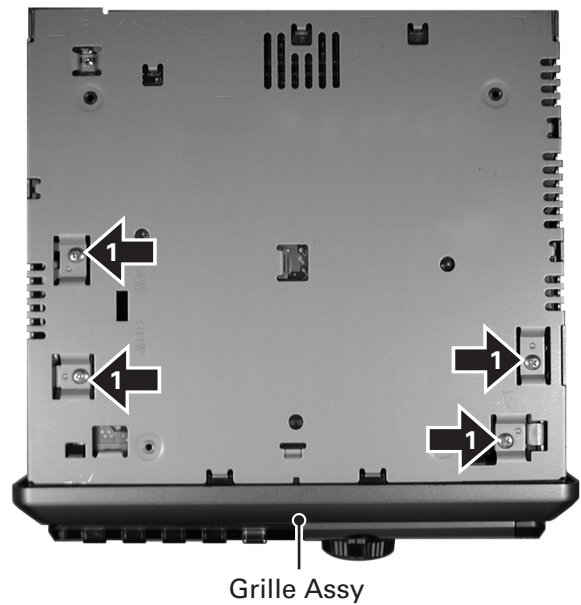


Fig.2

● Removing the Tuner Amp Unit (Fig.3)

A

➔ 1 Remove the screw.

➔ 2 Remove the screw.

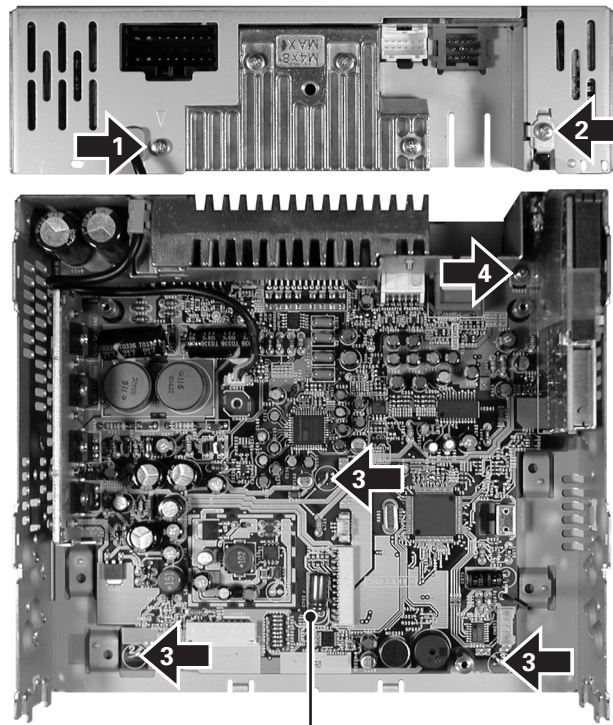
➔ 3 Straighten the tabs at three locations indicated.

➔ 4 Remove the screw and then remove the Tuner Amp Unit.

B

■

C



Tuner Amp Unit

Fig.3

● Removing the D242 and D244 (Fig.4)

➔ 1 Remove the seven screws.

➔ 2 Remove the solder and then remove the D242 and D244.

D

E

F

Tuner Amp Unit (SIDE A)

Tuner Amp Unit (SIDE B)

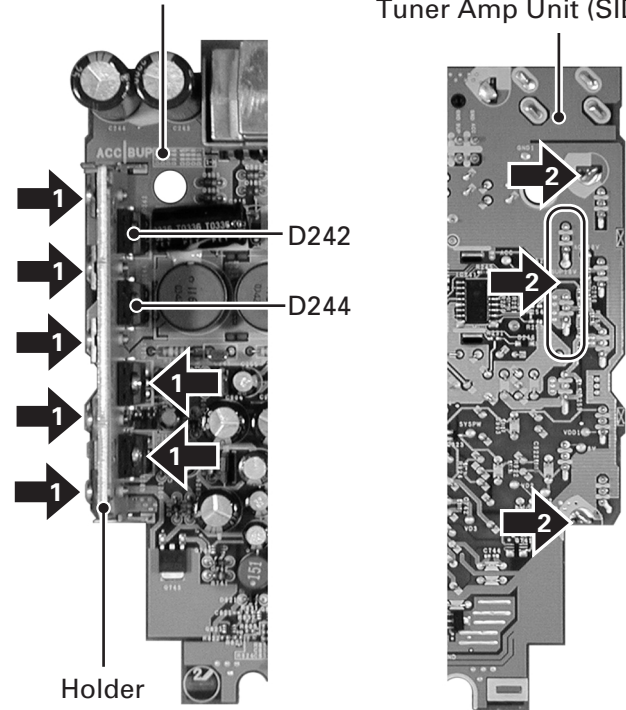


Fig.4

### ● Disconnecting the Flexible PCB (Fig.5)

**1** Release the two latches.

Tweezers are inserted in the hole of Flexible PCB and Flexible PCB is removed from CN801.

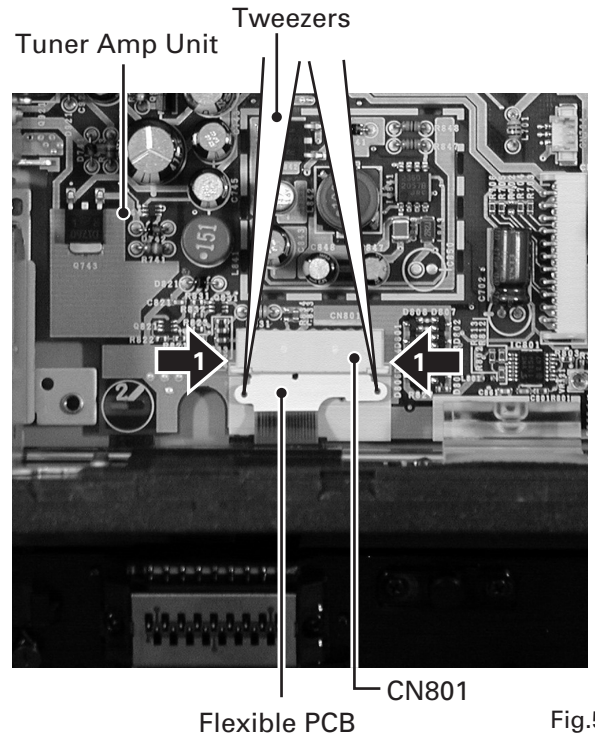


Fig.5

### ● Service Precaution

On the internal surface of the Holder(CND2028), 2 types of spacers(CNM9141, CNM9142) are affixed for insulation with the OEL unit. When ordering parts to replace the Holder, please order the 2 types of spacers along with the Holder.

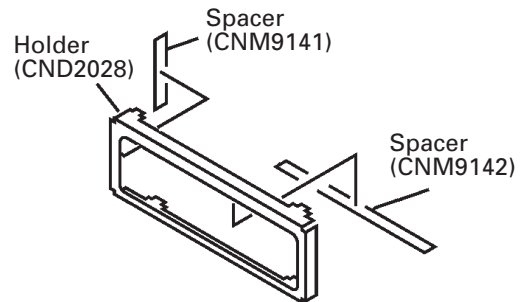


Fig.6

When you attach Case(CNC8138) in Tuner Amp Unit, please attach in Tuner Amp Unit, without also forgetting Insulator(CNM6249). If you forget to attach Insulator in Tuner Amp Unit, there is a possibility that the DC/DC Converter Section may short-circuit.

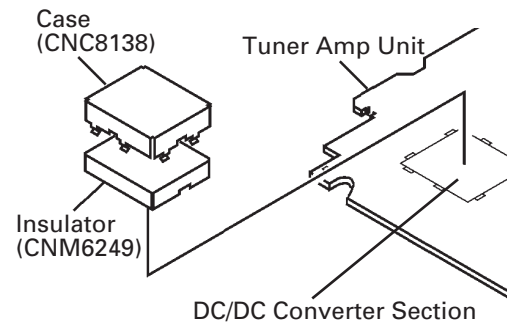
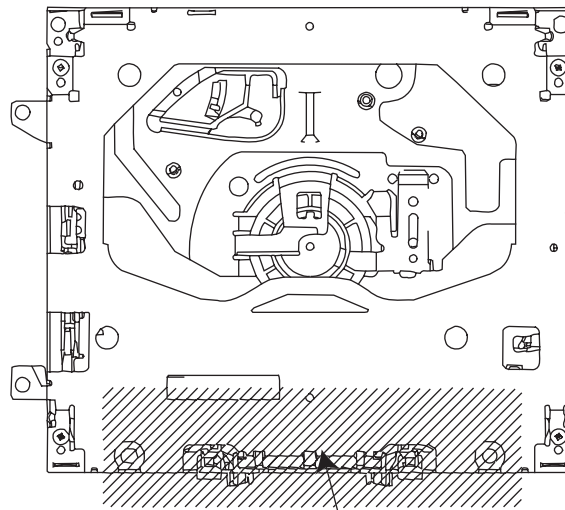


Fig.7

● **How to hold the Mechanism Unit**

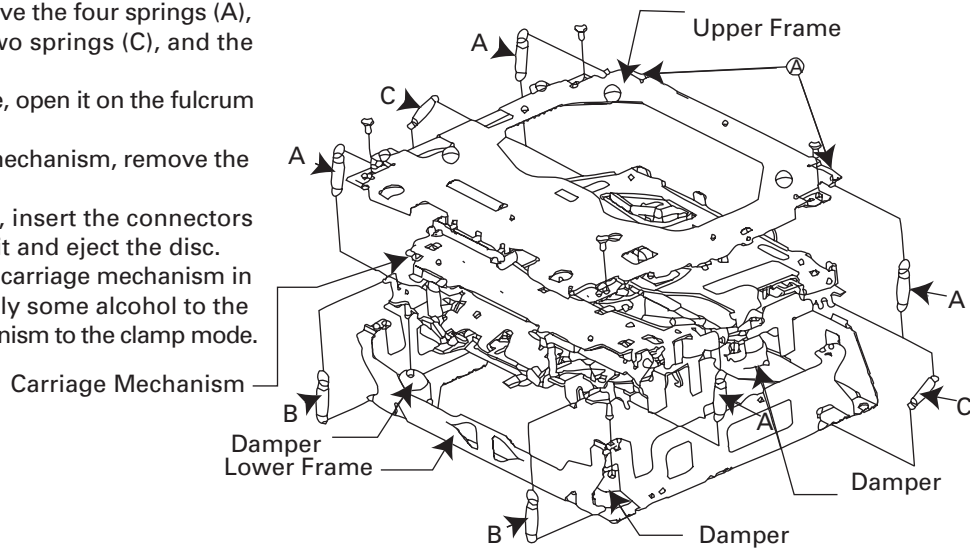
- 1. Hold the top and bottom frame.
- 2. Do not squeeze top frame's front portion too tight, because it is fragile.



Do not squeeze.

● **Removing the Upper and Lower Frames**

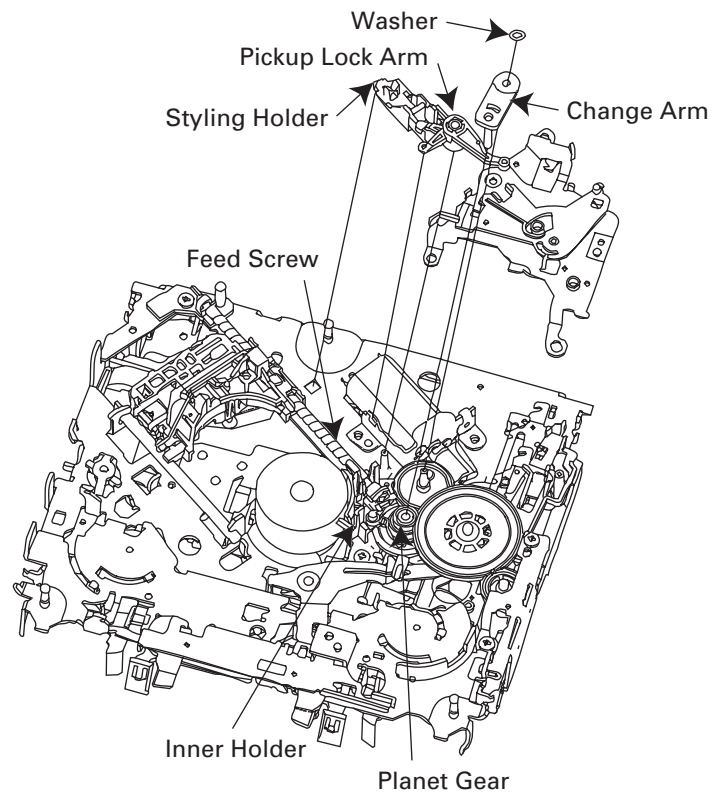
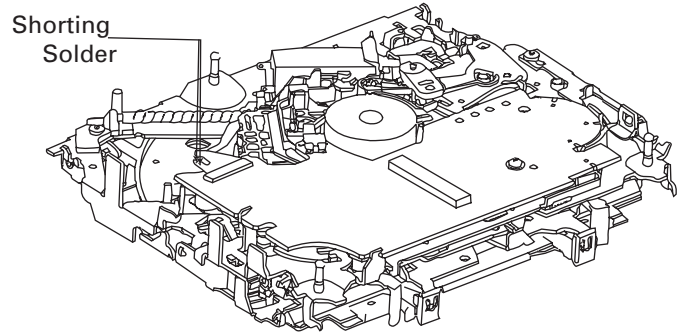
- 1. With a disc clamped, remove the four springs (A), the two springs (B), the two springs (C), and the four screws.
  - 2. To remove the upper frame, open it on the fulcrum A.
  - 3. While lifting the carriage mechanism, remove the three dampers.
  - 4. With the frames removed, insert the connectors 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

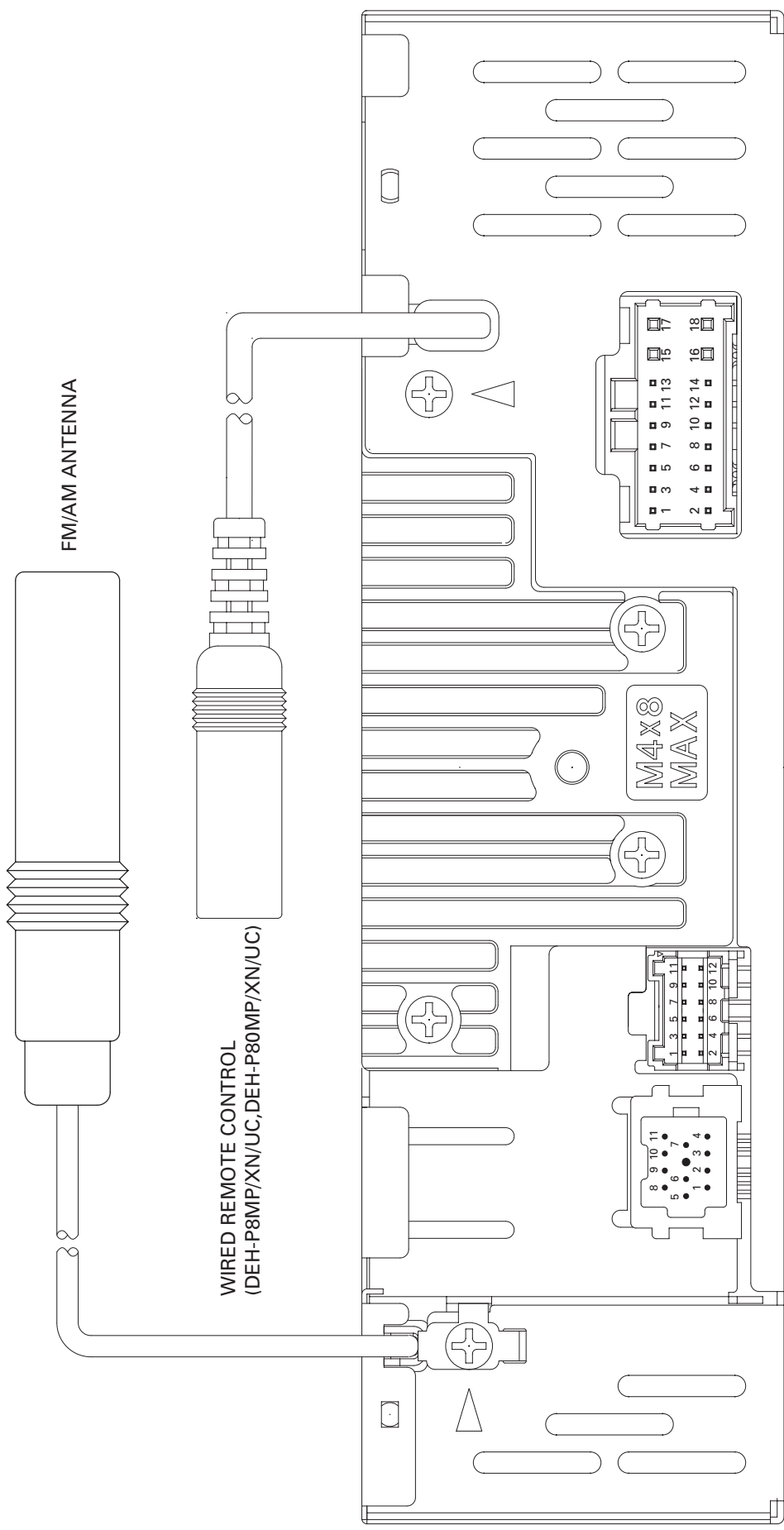
1. Apply shorting solder to the Pickup flexible cable. Disconnect the cable.
2. Set the mechanism to the clamp mode.
3. Remove the lead wires from the inner holder.
4. Remove the washer, styling holder, change arm, and pickup lock arm.
5. While releasing from the hook of the inner holder, lift the end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



DEH-P8MP/XN/UC

- 1. RR+
- 2. FL+
- 3. RR-
- 4. FL-
- 5. FR+
- 6. RL+
- 7. FR-
- 8. RL-
- 9. ACC(SENSE)
- 10. NC
- 11. B.REMOTE
- 12. NC
- 13. ILL
- 14. MUTE
- 15. BACKUP
- 16. GND
- 17. ACC
- 18. GND

- 1. FL OUTPUT
- 2. GND
- 3. FR OUTPUT
- 4. GND
- 5. RL OUTPUT
- 6. GND
- 7. RR OUTPUT
- 8. GND
- 9. SWL OUTPUT
- 10. GND
- 11. SWR OUTPUT
- 12. GND

- 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

## 7.2 IC

PD5925A  
HA12240FP  
UPC494GS  
PAL008A

PD5933A  
PD6469A  
PE5423A  
UPD63761GJ

S-812C33AUA-C2N  
BA5835FM  
S-L2980A15MC-C6A

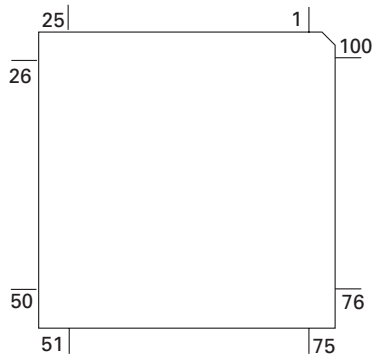
### ● Pin Functions(PD5925A)

Pin No.	Pin Name	I/O	Function and Operation
1	SYSPW	O	System power control output
2	ICERROR	I	Power IC error sense input
3	ACCMON	O	ACC monitor output
4	SEL60W	I	Power amp 60W/40W select input
5	NC		Not used
6	BYTE		External data bus width change input
7	CNVSS		Processor mode change input
8	TELIN	I	Telephone 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	VDD		Power supply input
15	NMI		Not used
16	NC		Not used
17	NC		Not used
18	NC		Not used
19	RX2	I	IP-BUS : Data input 2
20	OELPW	O	OEL power supply output
21	NC		Not used
22	PEE	O	PEE sound output
23	NC		Not used
24	BRST	O	P-BUS : Reset output
25	BRXEN	I/O	P-BUS : Reception enable input / output
26	BSRQ	I	P-BUS : Service request input
27	RX	I	IP-BUS : Data input
28	TX	O	IP-BUS : Data output
29	BSO	O	P-BUS : Data output
30	BSI	I	P-BUS : Data input
31	BSCK	O	P-BUS : Clock output
32	NC		Not used
33	DPDT	O	Display data output
34	KYDT	I	Key data input
35,36	ROT1, 0	I	Rotary encoder pulse input1, 0
37	PCL	O	Output for clock adjustment
38	SWVDD	O	GRILLE : Chip enable output
39	NC		Not used
40	FLPILM	O	Inside of flap illumination output
41	ILMPW	O	Illumination output
42	EJTIN	I	Eject key input
43	GDTC1	O	Picture rewriting output 1
44	NC		Not used
45	NC		Not used
46	NC		Not used
47	GDTC2	O	Picture rewriting output 2
48,49	NC		Not used
50	FOPNSW	I	Flap open sense input
51	FCLSSW	I	Flap close sense input
52	FLPCLS	O	Flap motor close output
53	FLPOPEN	O	Flap motor open output
54	FLPPW	O	Flap motor driver power ON/OFF output
55	RECEIVE	O	Not used
56	CSENSOUT	O	Flap open/close output

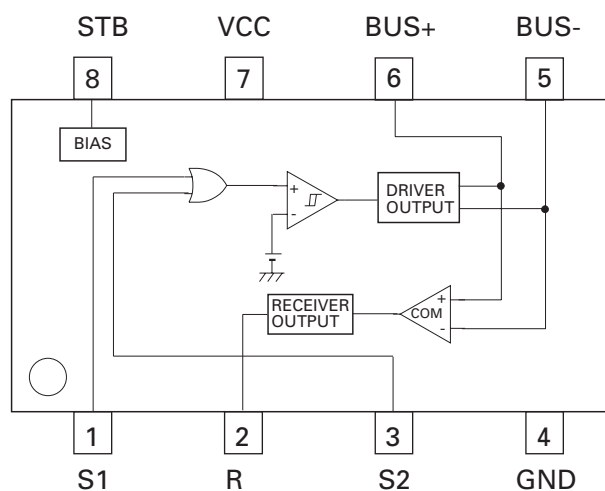
Pin No.	Pin Name	I/O	Function and Operation
57	EMUTE	O	Electronic volume : Mute output
58,59	NC		Not used
60	VDD		Power supply input
61	NC		Not used
62	VSS		GND
63	NC		Not used
64	KEYD	I	Wired remote control input
65	PADA	I	Power amp : Data input
66	PACK	I/O	Power amp : Clock input / output
67	DALMON	O	For consumption current reduction output
68	NC		Not used
69	TUNPCE2	O	TUNER : Chip enable output(EEPROM)
70	TUNPCE1	O	TUNER : Chip enable output(PLL)
71	ROMCS	O	ROM correction chip select output
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	Electronic volume : Strobe output
77	VDT	O	Electronic volume : Data output
78	VCK	O	Electronic volume : 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
84	SYSPW2	O	Power IC power control output
85	MUTE	O	System mute output
86	TESTIN	I	Test program input
87	CROSSKEY	I	Cross key data input
88	DDCHK	I	Temperature sense input for power amp DC/DC converter
89	KEYAD	I	Wired remote control input
90	LVLINR	I	Level indicator R channel input
91	DSENS	I	Flap close sense input
92	LVLINL	I	Level indicator L channel input
93	ASLIN	I	ASL input
94	AVSS		A/D converter power supply terminal
95	SL	I	TUNER : Signal level input
96	VREF		A/D converter reference voltage
97	AVCC		A/D converter power supply input terminal
98	TUNPDI	I	TUNER : PLL communication data input
99	TUNPDO	O	TUNER : Data output(PLL)
100	TUNPCK	O	TUNER : Clock output(PLL)

\* PD5925A

HA12240FP



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



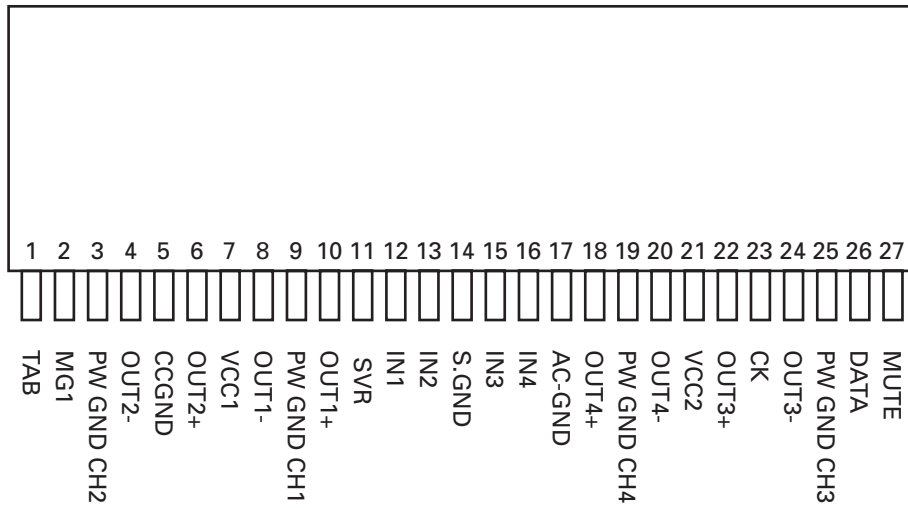


PAL008A

● Pin Layout

A

B



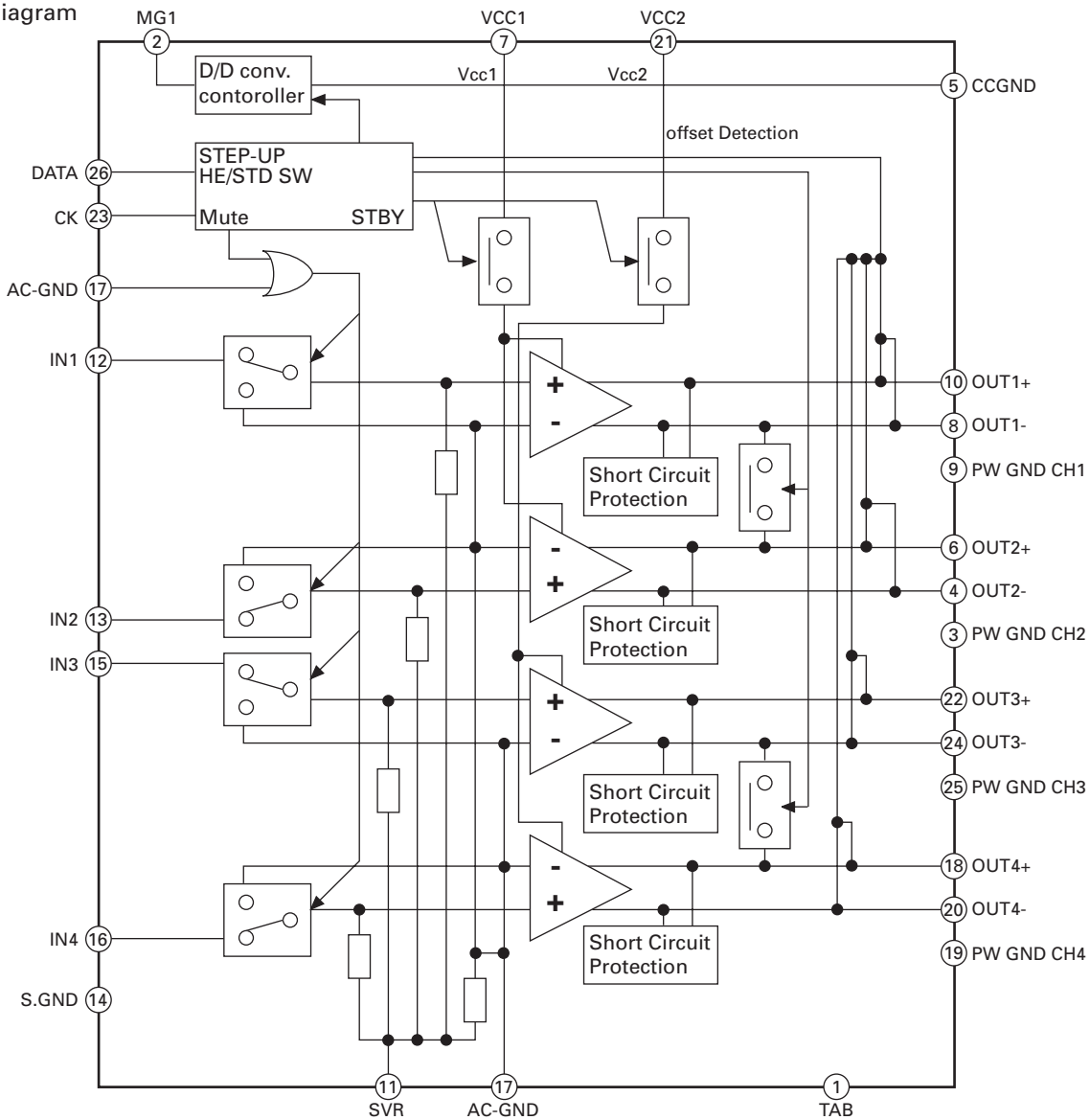
● Block Diagram

C

D

E

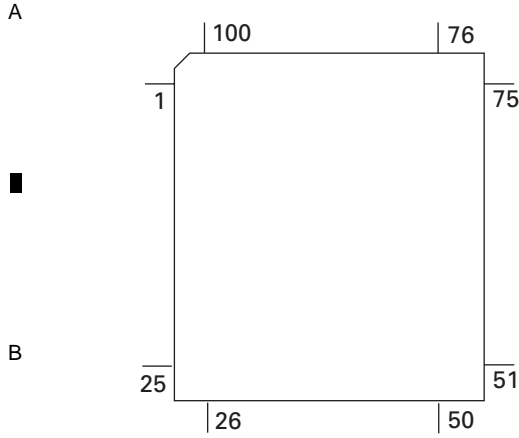
F



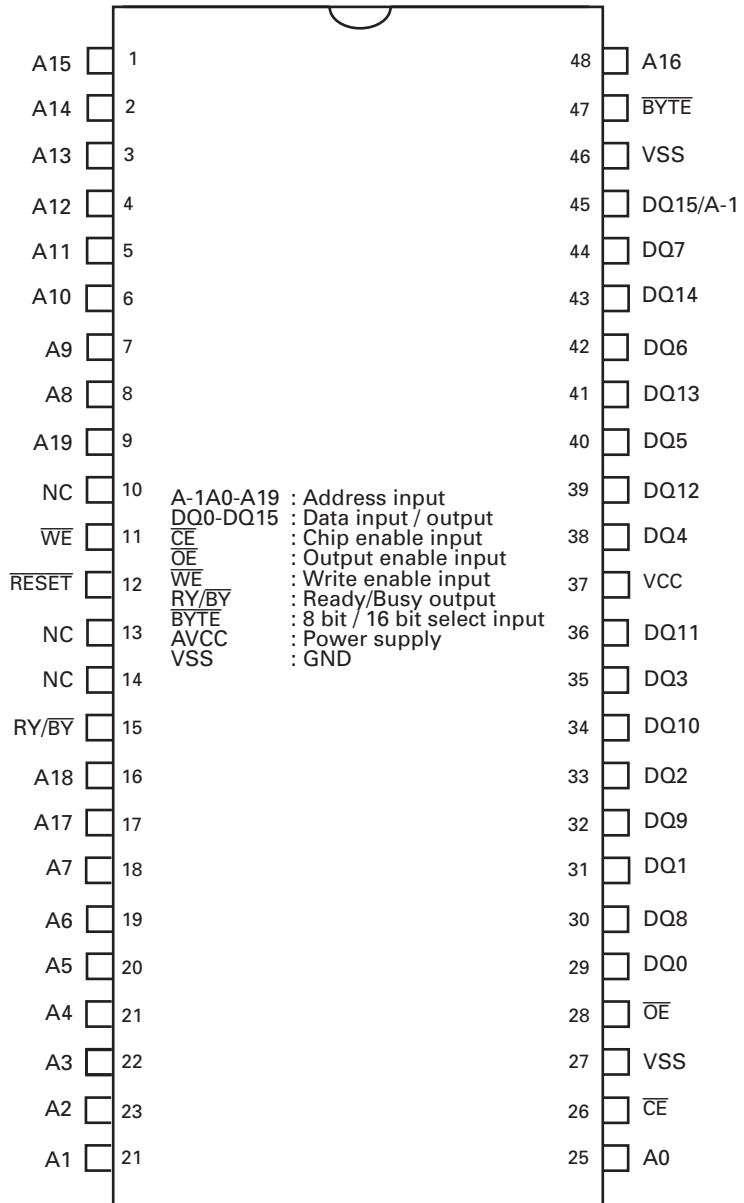
### ● Pin Functions(PD5933A)

Pin No.	Pin Name	I/O	Function and Operation
1-4	NC	O	Not used
5	REM	I	Remote control reception input
6	BYTE	I	GND connection
7	CNVSS	I	Processor select input
8,9	NC		Not used
10	RESET	I	Reset input
11	XOUT	O	Clock output
12	VSS		GND
13	XIN	I	Clock input
14	VDD		Power supply input
15	NMI		Not used
16-18	KD1-KD3	I	Key data input
19	NC		Not used
20	CKC	O	Cathode driver pulse output
21-23	NC		Not used
24	LS	O	Line synchronous signal output
25	NC		Not used
26	CKD	O	Data transfer and driver clock output
27	DPDT	I	Display data input
28	KYDT	O	Key data output
29	D1_L	O	Display data MSB output
30	NC		Not used
31	CLK1	I	UART1 clock input
32	NC		Not used
33	D0_L	O	Display data LSB output
34	NC		Not used
35	CLK0	I	UART0 clock input
36	NC		Not used
37	RDY	O	Not used Pull up
38	NC		Not used
39	HOLD	I	Hold input
40,41	NC		Not used
42	RD	O	Read strobe output
43	NC		Not used
44	WR	O	Not used OPEN
45-48	CS3-CS0	O	External ROM chip select output
49	A19	O	Address bus 19 output
50	NC		Not used
51-59	A17-A9	O	Address bus 17-9 output
60	VDD		Power supply input
61	A8	O	Address bus 8 output
62	VSS		GND connection
63-69	A7-A1	O	Address bus 7-1 output
70	NC		Not used
71-86	D15-D0	I/O	Data bus 15-0 input / output
87-89	KS1-KS3	O	Key strobe output
90-92	NC		Not used
93	FLSTBY	O	Not used
94	AVSS		GND connection
95	FL12ON		Not used OPEN
96	VREF		GND connection
97	AVCC		VCC connection
98	FLSTBY	O	Not used OPEN
99-100	NC		Not used

\* PD5933A



\* PD6469A

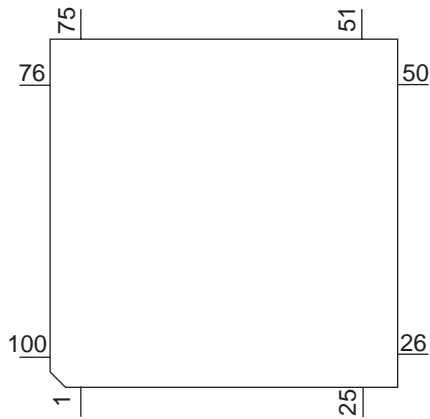


### ● Pin Functions(PE5423A)

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	CLAMP	I		CLAMP SW sense input
5	EVDD			E power supply Positive power supply
6	PWM			For changer(PWM)
7	NC			Not used
8	IC/FLMOD0			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	PULLDOWN	I		Connected to EVDD or EVSS via the resistor
18	EJSW	I		Eject key input
19	XINT	I		CD LSI interruption signal input
20	NC			Not used
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	DSPOK	I		DSP microcomputer initialization OK input
30	DSCSNS(S903)	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	INT			For changer(Interruption at the edge)
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

Pin No.	Pin Name	I/O	Format	Function and Operation
66	NC			Not used
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
71-86	AD0-15	I/O	/C	Address/data Bus 0-15
87-90	NC			Not used
91-93	A/D			For changer(A/D)
94	CSENS	I		Flap closing sense input
95	TYPE_A/D	I		CD-DA analog/digital output change setup
96	TESTIN	I		Chip check test program starting input
97	HOME	I		Home SW sense input
98	TEMP			Temperature information sense input
99	VDSSENS			VD power supply short sense input
100	NC			Not used

\* PE5423A



Format	Meaning
C	CMOS

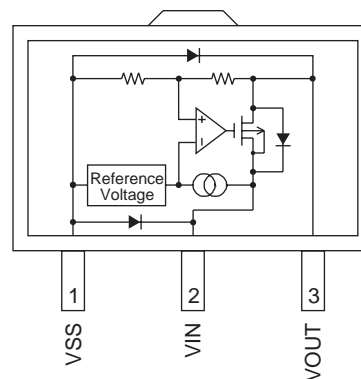
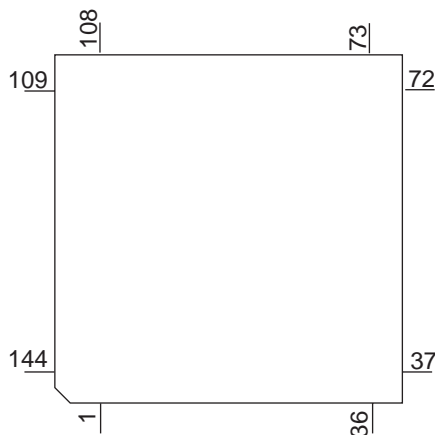
### ● Pin Functions(UPD63761GJ)

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	$\overline{XTAL}$	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	O	Output of PLCK
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

\* UPD63761GJ

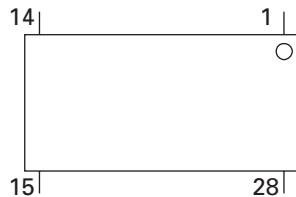
\* S-812C33AUA-C2N



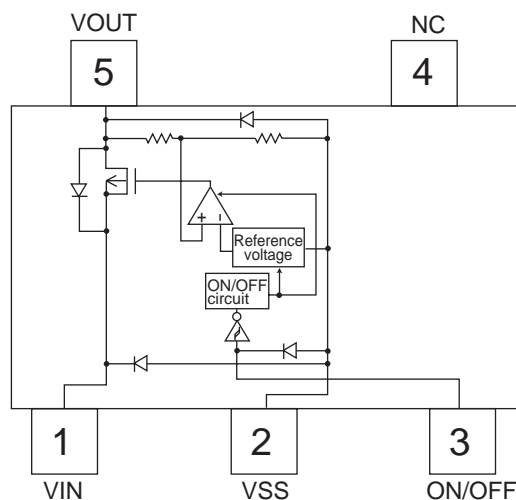
### ● Pin Functions(BA5835FM)

Pin No.	Pin Name	Function and Operation
1	VR	Input pin for reference voltage
2	OPIN2(+)	Input pin for non-inverting input for CH2 preamplifier
3	OPIN2(-)	Input pin for inverting input for CH2 preamplifier
4	OPOUT2	Output pin for CH2 preamplifier
5	OPIN1(+)	Input pin for non-inverting input for CH1 preamplifier
6	OPIN1(-)	Input pin for inverting input from CH1 preamplifier
7	OPOUT1	Output pin for CH1 preamplifier
8	GND	Ground pin
9	MUTE	Mute control pin
10	POWVCC1	Power supply pin for CH1, CH2, and CH3 at "Power" stage
11	VO1(-)	Driver CH1 - Negative output
12	VO1(+)	Driver CH2 - Positive output
13	VO2(-)	Driver CH2 - Negative output
14	VO2(+)	Driver CH2 - Positive output
15	VO3(+)	Driver CH2 - Positive output
16	VO3(-)	Driver CH2 - Negative output
17	VO4(+)	Driver CH4 - Positive output
18	VO4(-)	Driver CH4 - Negative output
19	POWVCC2	Power supply pin for CH4 at "Power" stage
20	GND	Ground pin
21	CNT	Control pin
22	LDIN	Loading input
23	OPOUTSL	Output pin for preamplifier for thread
24	OPINLSL	Input pin for preamplifier for thread
25	OPOUT3	CH3 preamplifier output pin
26	OPIN3(-)	Input pin for inverting input for CH3 preamplifier
27	OPIN3(+)	Input pin for non-inverting input for CH3 preamplifier
28	PREVCC	PreVcc

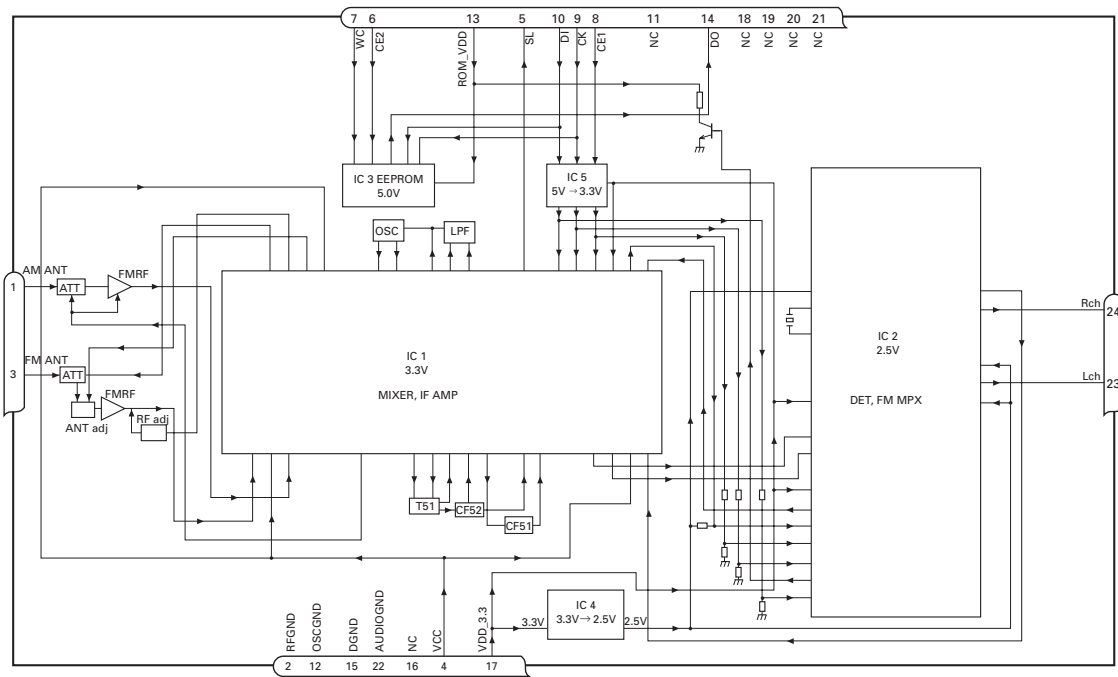
BA5835FM



\* S-L2980A15MC-C6A



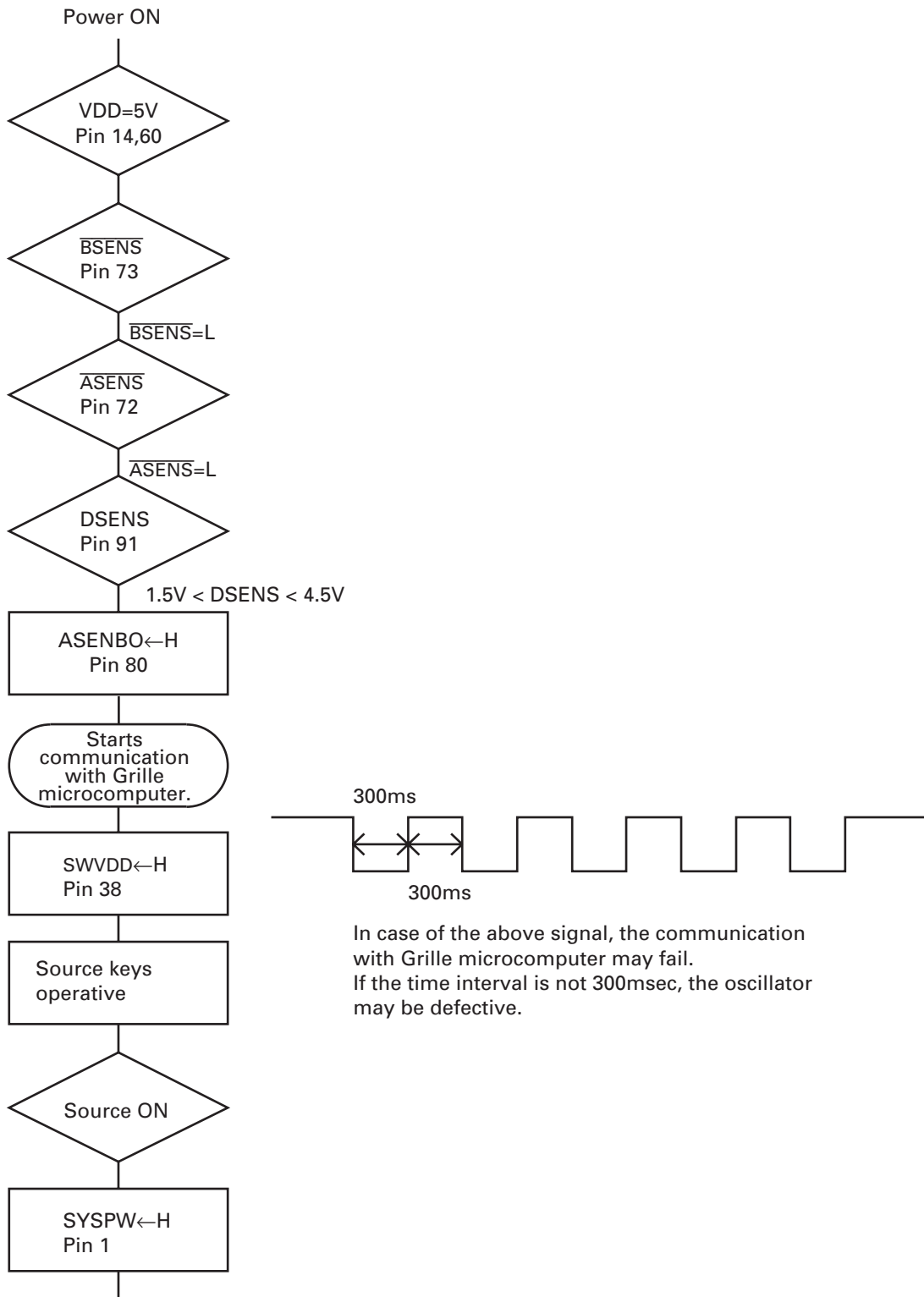
## FM/AM Tuner Unit



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 4.7μH. (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 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V ± 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•RF "High" active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	NC		non connection	Not used
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	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3V ± 0.2V
18	NC		non connection	Not used
19	NC		non connection	Not used
20	NC		non connection	Not used
21	NC		non connection	Not used
22	AUDIOGND		audio ground	Ground of audio block
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

# 7.3 EXPLANATION

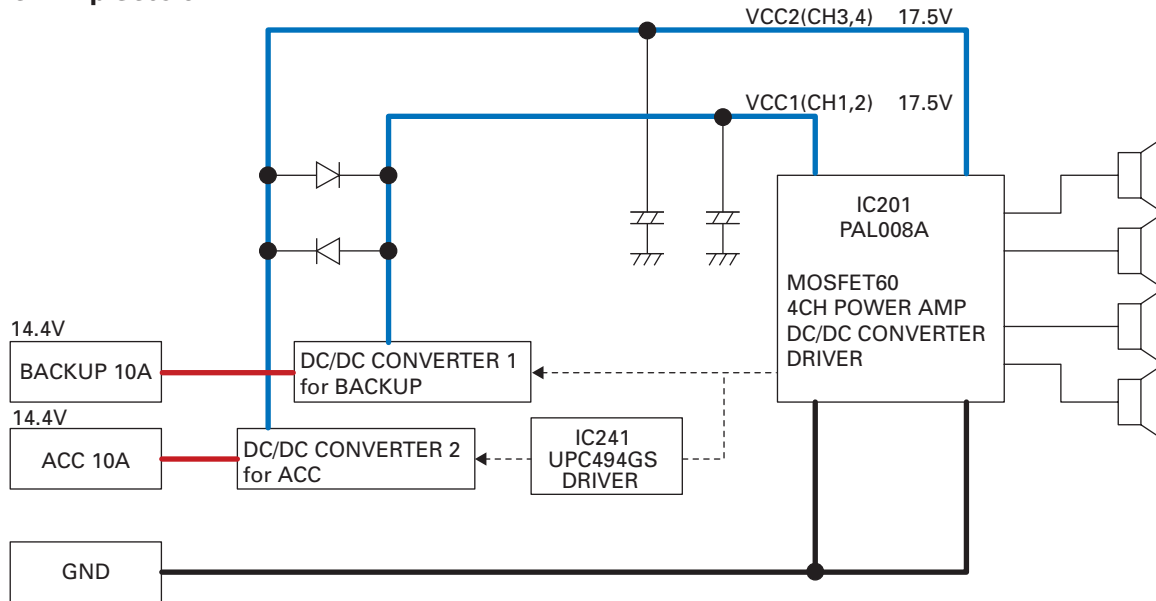
## 7.3.1 OPERATIONAL FLOW CHART



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

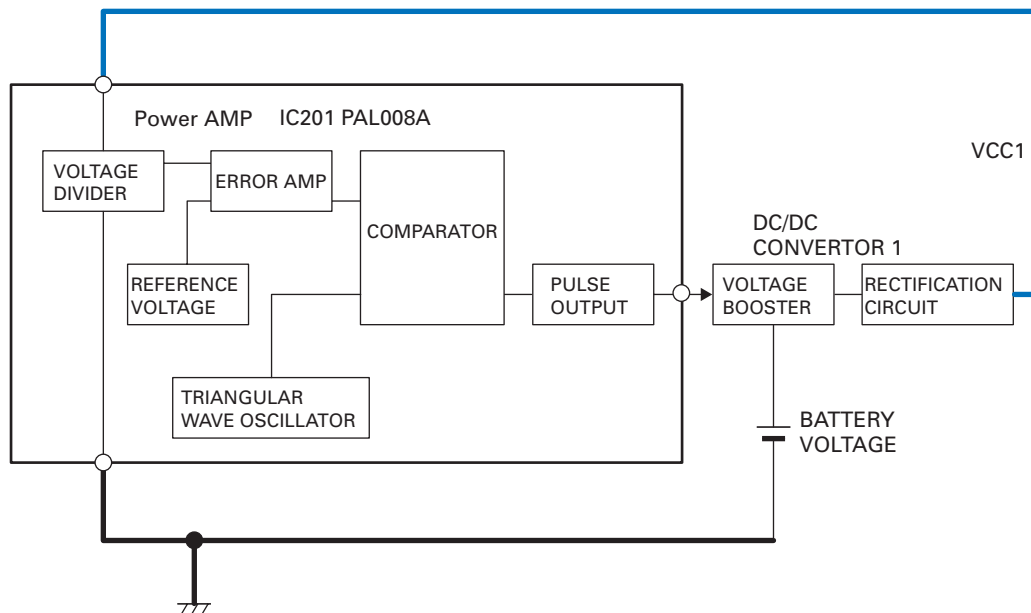
## 7.3.2 CIRCUIT DESCRIPTIONS

### ● Power Amp Section



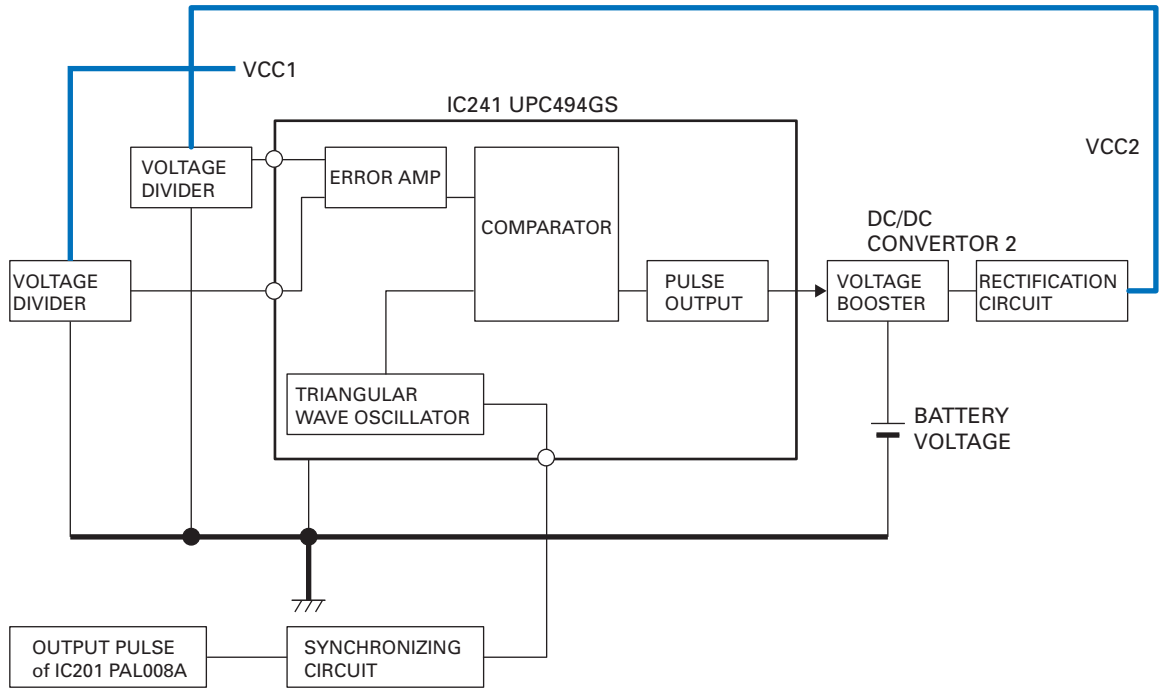
IC201 incorporates a 4channel power amplifier and a DC/DC converter driver. Current for channels 1 and 2 is supplied from the BACKUP power supply and current for channels 3 and 4 from the ACC power supply. This is because when current is supplied with voltage increase in the BACKUP power supply as it is done conventionally, 10A which is the limit to the vehicle fuse is exceeded. Thus ACC power supply was enabled to supply current so that there are two power supplies of BACUP and ACC and output of 60W x 4channel is expressed. Increased voltage (VCC1, VCC2) is controlled individually by separate DC/DC converters. Therefore, different voltages occur when there is difference between the outputs from L channel and R channel. A diode was hence connected between VCC1 and VCC2 so that voltage difference will not occur.

### ● DC/DC converter 1



Only one DC/DC converter driver is incorporated in IC201. Therefore, another DC/DC converter driver was prepared externally to be synchronized with the DC/DC converter driver for IC201 and eliminate noise.

### ● DC/DC Converter 2



Difference between VCC1 and VCC2 is detected with IC241 error amplifier to adjust the pulse output so that VCC1 and VCC2 are identical.

# 7.4 CLEANING



A

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

B

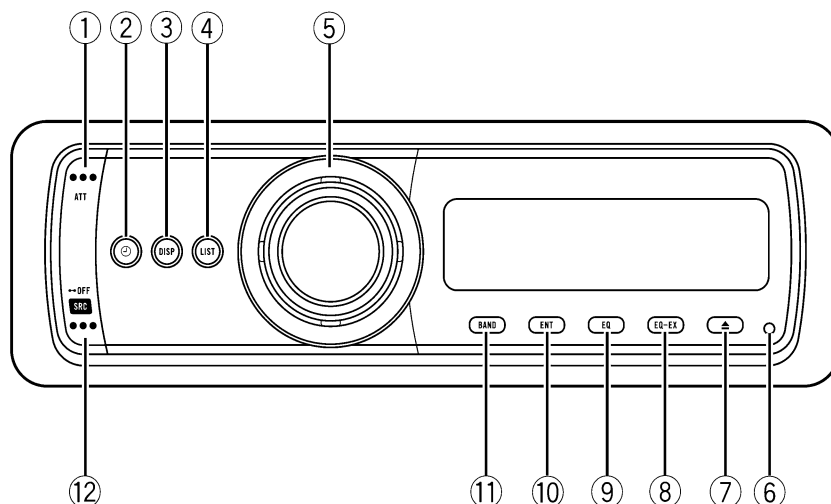
C

D

E

F

## 8. OPERATIONS



### Head unit

#### ① ATT button

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

#### ② CLOCK button

Press to change to the clock display.

#### ③ DISPLAY button

Press to select different displays.

#### ④ LIST button

Press to display the disc title list, track title list, folder list, file list or preset channel list according to the source.

#### ⑤ Multi-Control

Move to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions. Turn it to increase or decrease the volume.

#### ⑥ RESET button

Press to reset the microprocessor.

#### ⑦ EJECT button

Press to eject a CD from your built-in CD player.

#### ⑧ EQ-EX button

Press and hold to switch between EQ-EX and SFEQ functions. Press to operate each function.

#### ⑨ EQ button

Press to select various equalizer curves.


#### ⑩ ENTERTAINMENT button

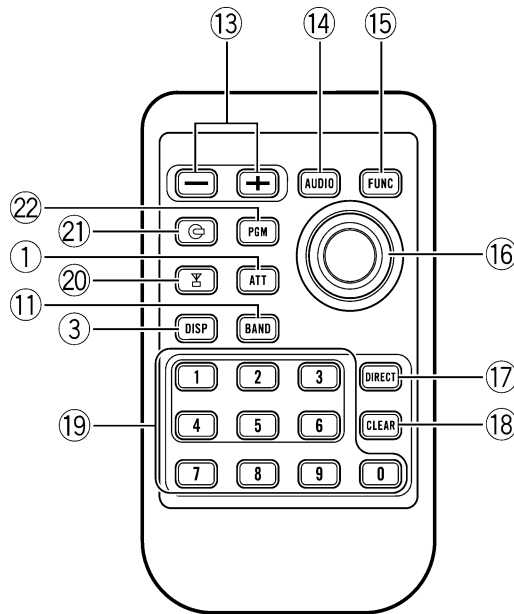
Press to change to the entertainment display.

#### ⑪ BAND button

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

#### ⑫ SOURCE button

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



## Remote control

Operation is the same as when using the buttons on the head unit.

### ⑬ VOLUME buttons

Press to increase or decrease the volume.

### ⑭ AUDIO button

Press to select various sound quality controls.

### ⑮ FUNCTION button

Press to select functions.

### ⑯ Joystick

Move to do manual seek tuning, fast forward, reverse and track search controls. Also used for controlling functions. Functions are the same as **Multi-Control** except for volume control.

### ⑰ DIRECT button

Press to directly select the desired track.

### ⑱ CLEAR button

Press to cancel the input number when **NUMBER** are used.

### ⑲ NUMBER buttons

Press to directly select the desired track, preset tuning or disc. Buttons **1-6** can operate the preset tuning for the tuner or disc number search for the multi-CD player.


### ⑳ TUNER button

Press to select the tuner as the source.

### ㉑ CD button

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

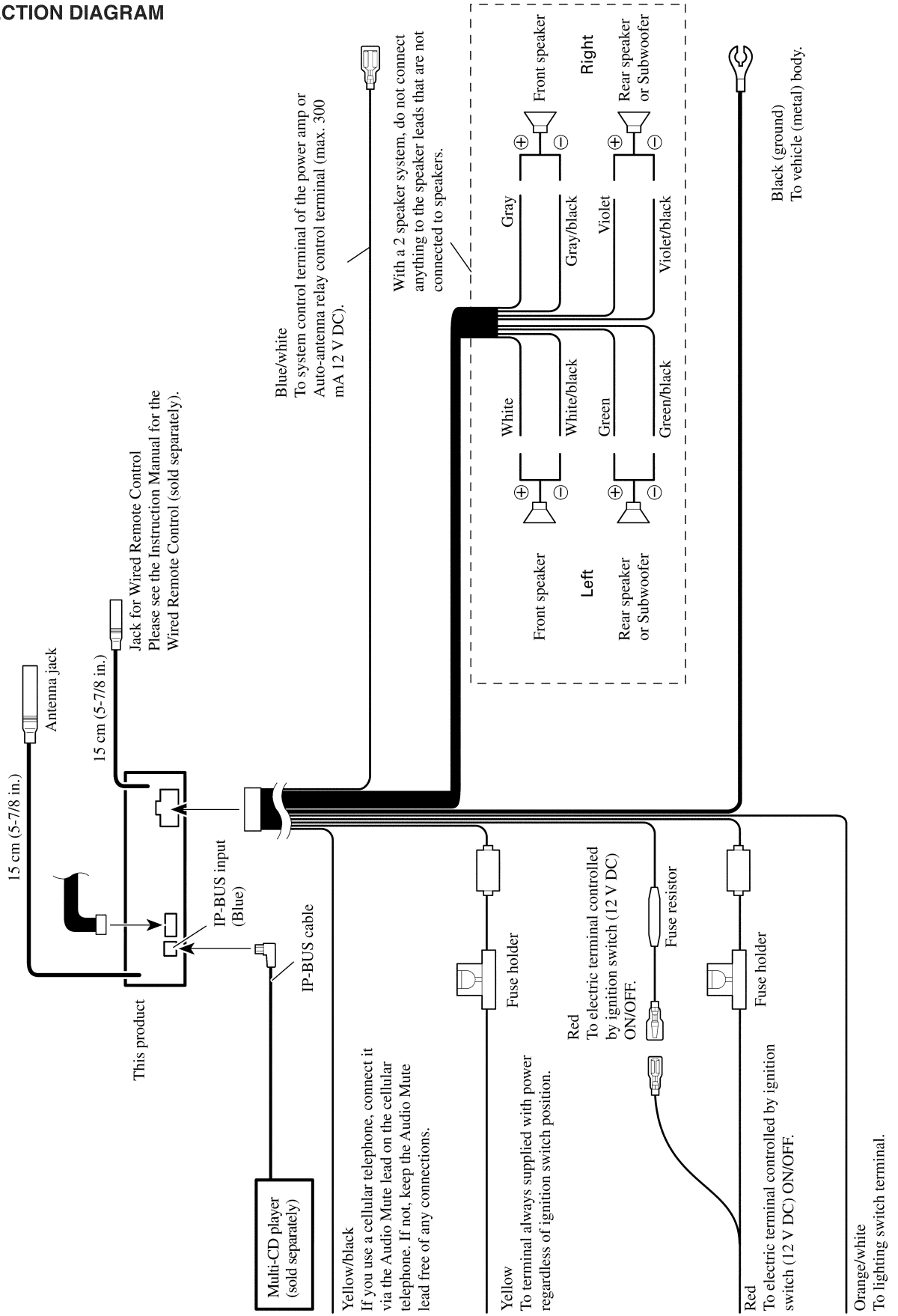
### ㉒ PGM button

Press to operate the preprogrammed functions for each source. 

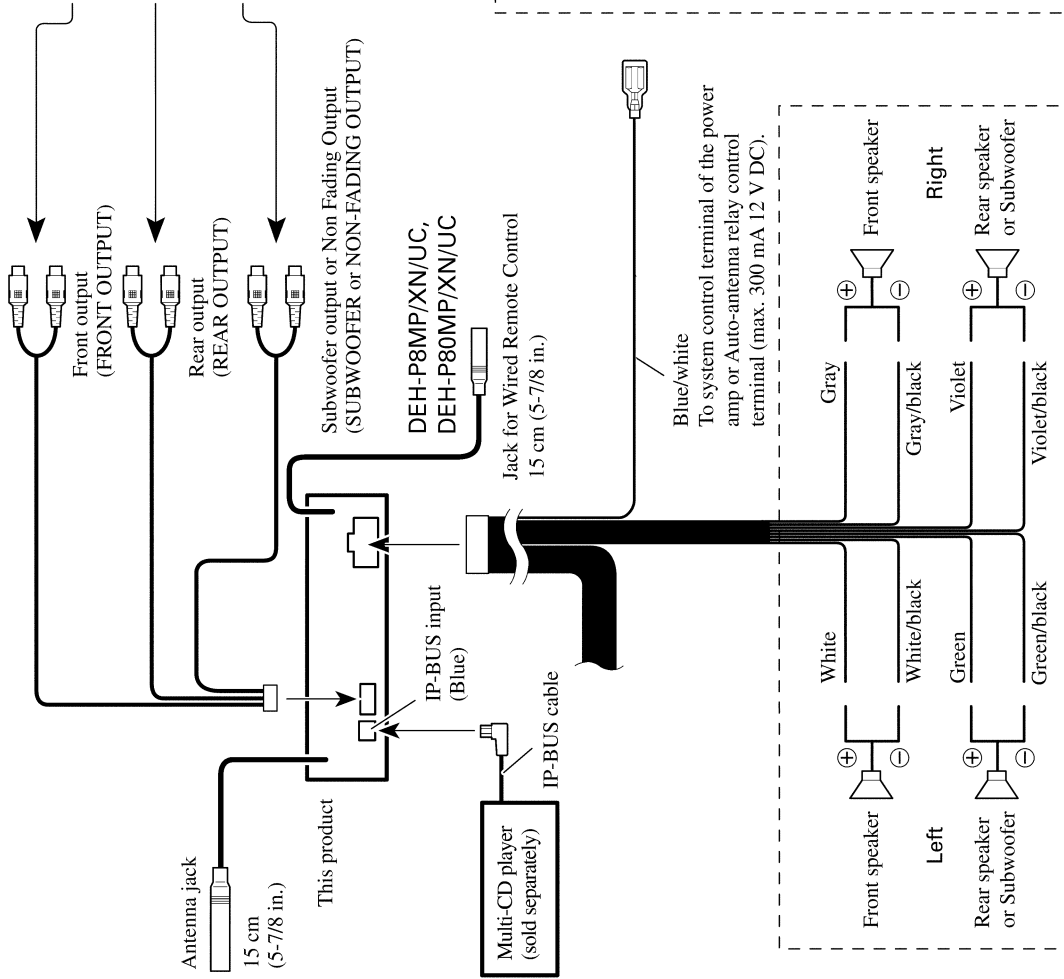
# CONNECTION DIAGRAM

## Power cable connection

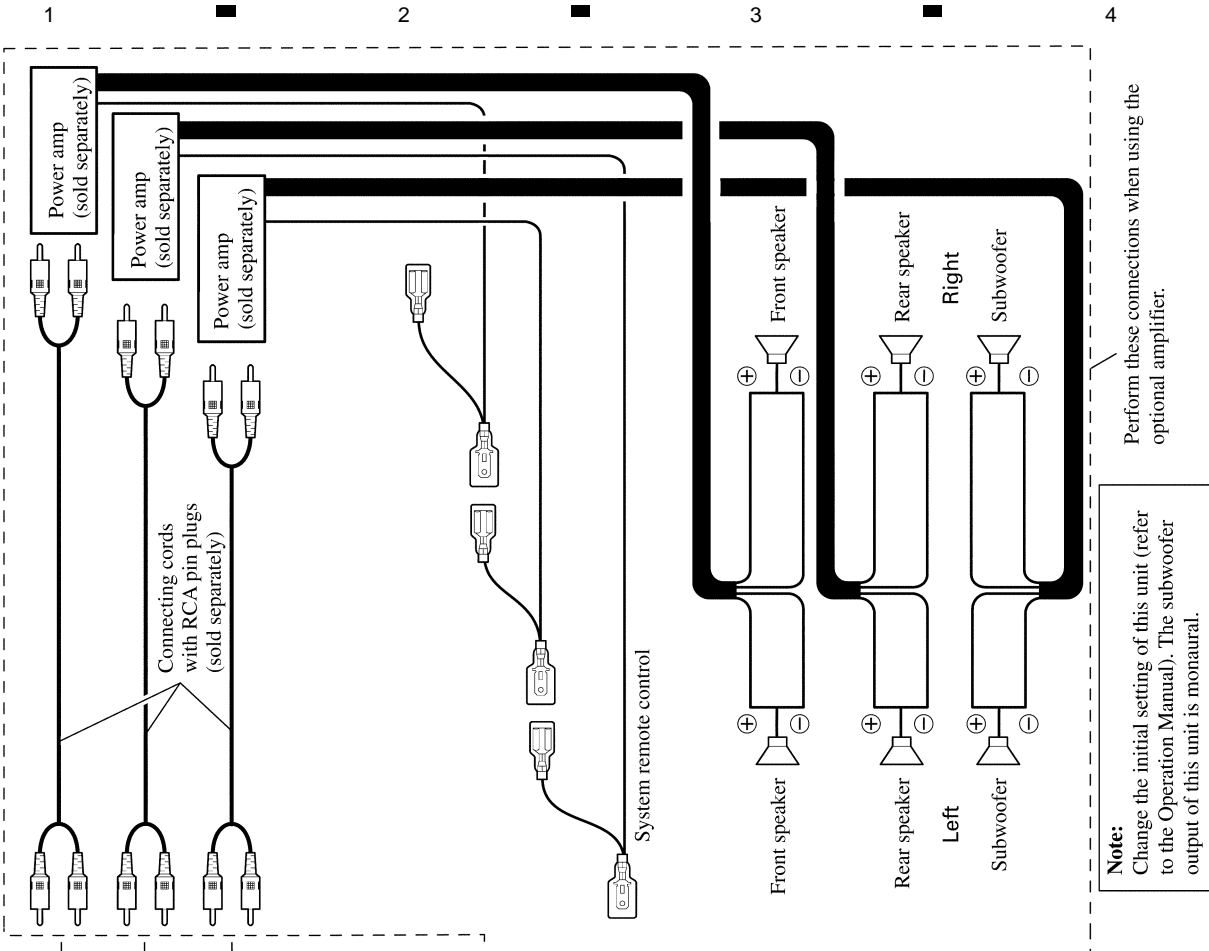
- When using this unit at 40W × 4ch.
- When using this unit at 60W × 4ch and the accessory fuse for the vehicle is 10A or more.



# Connecting to separately sold power amp



With a 2 speaker system, do not connect anything to the speaker leads that are not connected to speakers.



**Note:**  
Change the initial setting of this unit (refer to the Operation Manual). The subwoofer output of this unit is monaural.

Perform these connections when using the optional amplifier.



5



6



7



8



A



B



C



D



E



F



5



6

DEH-P8MP/XN/UC



7



8



## ● Jigs List

Name	Jig No.	Remarks	S/M Location
Test Disc	TCD-782	Checking the grating	P.59
L.P.F.		Checking the grating (Two pieces)	P.59
Extension Cable	GGD1160	Checking the keyboard unit	P.55
Extension PCB	GGD1378	Checking the keyboard unit	P.55
CD-ROM	GGV1169	OEL screensaver studio lka to lkd application	P.62
Cleaning liquid	GEM1004	Cleaning CD pickup lenses	P.84
Cleaning paper	GED-008	Cleaning CD pickup lenses	P.84

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