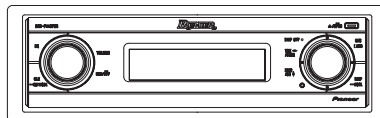


Service Manual



DEH-P880PRS/XN/UC

ORDER NO.
CRT3650

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

DEH-P880PRS/XN/UC

DEH-P80RS/XN/ES

MULTI-CD CONTROL DSP HIGH POWER CD/MP3/WMA/AAC PLAYER WITH RDS TUNER

DEH-P88RS/XN/EW5

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

Model No.	Order No.	Mech.Module	Remarks
CX-3164	CRT3583	S10.5COMP1	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly



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

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

● Safety Precautions for those who Service this Unit.

- When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

CAUTION:

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.
Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit



En

WARNING!

The AEL (accessible emission level) of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.

A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length : 785~814nm

Maximum output : 1190μW(Emitting period : unlimited)

Additional Laser Caution

Transistors Q101 in PCB drive the laser diodes.

When Q101 is shorted between their terminals, the laser diodes will radiate beam.

If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

● Service Precautions



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. This product memorizes every audio setting value during operating product such as VOL position and EQ setting. As the setting value is recorded in the built-in EEPROM, it does not return to the initial setting value even if you press RESET key.
If you return it to the initial setting value, execute the Audio Reset in the initial setting menu.
However, if you execute it, the user setting is deleted.
If you change the audio setting when repairing the product, the product is returned to the user with that setting, so take care of it.

Method of Audio Reset

After pressing MULTI-CONTROL key for two seconds, select Audio Reset by right and left rotation.

After shifting to the reset confirmation screen by right-pressing MULTI-CONTROL key and execute the reset by center-pressing.

● CD Section Precaution

1. 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.
2. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
3. After replacing the pickup unit, be sure to check the grating.



[Important Check Points for Good Servicing]

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

1. Product safety



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

- ① Use specified parts for repair.

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

- ② Do not perform modifications without proper instructions.

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

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

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

- ④ Make sure the screws are tightly fastened.

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

- ⑤ Make sure each connectors are correctly inserted.

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

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

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

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

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

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

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

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

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

- ⑩ Safe environment should be secured during servicing.

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

2. Adjustments



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

3. Lubricants, Glues, and Replacement parts



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

4. Cleaning



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

5. Shipping mode and Shipping screws



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

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1. SPECIFICATIONS

● DEH-P880PRS/XN/UC

General

Power source	14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	10.0 A
Backup current	5 mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 159 mm (7 × 2 × 6-1/4 in.)
Nose	188 × 58 × 30 mm (7-3/8 × 2-1/4 × 1-1/8 in.)
D	
Chassis	178 × 50 × 164 mm (7 × 2 × 6-1/2 in.)
Nose	170 × 45 × 25 mm (6-3/4 × 1-3/4 × 1 in.)
Weight	1.6 kg (3.5 lbs)

Audio/DSP

Maximum power output	50 W × 4
Continuous power output ...	22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)
Load impedance	4 Ω (4 Ω to 8 Ω allowable)
Preout max output level/output impedance	5.0 V/100Ω
Loudness contour	+10 dB (100 Hz), +6.5 dB (10 kHz) (volume: -30 dB)
Equalizer (Left/Right independent 16-Band Graphic Equalizer):	
Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
Equalization range	±12 dB (2 dB step)
Auto equalizer:	
(Front & rear & subwoofer/High & mid & low)	
Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
Equalization range	+6 to -12 dB (2 dB step)
Network (standard mode):	
HPF (Front/rear):	
Frequency	50/63/80/100/125/160/200 Hz
Slope	0 (Pass)/-6/-12 dB/oct
Gain	0 to -24 dB/Mute (1 dB step)

Subwoofer (stereo/mono):

Frequency	50/63/80/100/125/160/200 Hz
Slope	-6/-12/-18 dB/oct
Gain	+6 to -24 dB/Mute (1 dB step)
Phase	Normal/Reverse

Network (3-way network mode):

High HPF:

Frequency	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
Slope	-6/-12/-18/-24 dB/oct
Gain	0 to -24 dB/Mute (1 dB step)
Phase	Normal/Reverse

Mid HPF/LPF:

Frequency (LPF) ...	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
---------------------	---

Frequency (HPF)

.....	25/31.5/40/50/63/80/100/125/160/200/250 Hz
-------	--

Slope (LPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
-------------------	--------------------------------

Slope (HPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
-------------------	--------------------------------

Gain	0 to -24 dB/Mute (1 dB step)
------------	------------------------------

Phase	Normal/Reverse
-------------	----------------

Low LPF (stereo/mono):

Frequency	25/31.5/40/50/63/80/100/125/160/200/250 Hz
-----------------	--

Slope	-12/-18/-24/-30/-36 dB/oct
-------------	----------------------------

Gain	+6 to -24 dB/Mute (1 dB step)
------------	-------------------------------

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 Hz to 20 000 Hz (±1 dB)
-------------------------------	---------------------------

Signal-to-noise ratio	105 dB (1 kHz) (IHF-A network)
-----------------------------	--------------------------------

Dynamic range	100 dB (1 kHz)
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Number of channels	2 (stereo)
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MP3 decoding format	MPEG-1 & 2 Audio Layer 3
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WMA decoding format	Ver. 7, 7.1, 8, 9, 10 (2ch audio) (Windows Media Player)
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AAC decoding format MPEG-4 AAC (iTunes® en-
coded only)
WAV signal format Linear PCM & MS ADPCM

FM tuner

Frequency range 87.9 MHz to 107.9 MHz
Usable sensitivity 8 dBf (0.7 μ V/75 Ω mono,
S/N: 30 dB)
50 dB quieting sensitivity 10 dBf (0.9 μ V/75 Ω mono)
Signal-to-noise ratio 75 dB (IHF-A network)
Distortion 0.3 % (at 65 dBf, 1 kHz,
stereo)
0.05 % (at 65 dBf, 1 kHz,
mono)
Frequency response 30 Hz to 15 000 Hz ($\pm$ 3 dB)
Stereo separation 45 dB (at 65 dBf, 1 kHz)
Selectivity 80 dB ($\pm$ 200 kHz)
Three-signal intermodulation (desired signal level)
..... 30 dBf (two undesired sig-
nal level: 100 dBf)

AM tuner

Frequency range 530 kHz to 1 710 kHz (10
kHz)
Usable sensitivity 18 μ V (S/N: 20 dB)
Signal-to-noise ratio 67 dB (IHF-A network)



Note

Specifications and the design are subject to pos-
sible modifications without notice due to im-
provements.

● DEH-P88RS/XN/EW5

General

Power source	14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	10.0 A
Backup current	5 mA or less
Dimensions (W × H × D):	
DIN	
Chassis	178 × 50 × 159 mm
Nose	188 × 58 × 30 mm
D	
Chassis	178 × 50 × 164 mm
Nose	170 × 45 × 25 mm
Weight	1.6 kg

Audio/DSP

Maximum power output	50 W × 4
Continuous power output	27 W × 4 (DIN 45324, +B=14.4 V)
Load impedance	4 Ω (4 Ω to 8 Ω allowable)
Preout max output level/output impedance	5.0 V/100 Ω
Loudness contour	+10 dB (100 Hz), +6.5 dB (10 kHz) (volume: -30 dB)

Equalizer (Left/Right independent 16-Band Graphic Equalizer):

Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
Equalization range	±12 dB (2 dB step)
Auto equalizer:	
(Front & rear & subwoofer/High & mid & low)	
Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
Equalization range	+6 to -12 dB (2 dB step)

Network (standard mode):

HPF (Front/rear):	
Frequency	50/63/80/100/125/160/200 Hz
Slope	0 (Pass)/-6/-12 dB/oct
Gain	0 to -24 dB/Mute (1 dB step)
Subwoofer (stereo/mono):	
Frequency	50/63/80/100/125/160/200 Hz
Slope	-6/-12/-18 dB/oct
Gain	+6 to -24 dB/Mute (1 dB step)
Phase	Normal/Reverse

Network (3-way network mode):

High HPF:

Frequency	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
Slope	-6/-12/-18/-24 dB/oct
Gain	0 to -24 dB/Mute (1 dB step)
Phase	Normal/Reverse

Mid HPF/LPF:

Frequency (LPF)	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
Frequency (HPF)	25/31.5/40/50/63/80/100/125/160/200/250 Hz

Slope (LPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
Slope (HPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
Gain	0 to -24 dB/Mute (1 dB step)
Phase	Normal/Reverse

Low LPF (stereo/mono):

Frequency	25/31.5/40/50/63/80/100/125/160/200/250 Hz
Slope	-12/-18/-24/-30/-36 dB/oct
Gain	+6 to -24 dB/Mute (1 dB step)
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 Hz to 20 000 Hz (±1 dB)
Signal-to-noise ratio	105 dB (1 kHz) (IEC-A network)
Dynamic range	100 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, 10 (2ch audio) (Windows Media Player)
AAC decoding format	MPEG-4 AAC (iTunes® encoded only)
WAV signal format	Linear PCM & MS ADPCM

FM tuner

Frequency range	87.5 MHz to 108.0 MHz
-----------------	-----------------------

Usable sensitivity	8 dBf (0.7 μ V/75 Ω , mono, S/N: 30 dB)
50 dB quieting sensitivity	10 dBf (0.9 μ V/75 Ω , mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion	0.3 % (at 65 dBf, 1 kHz, stereo) 0.05 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 Hz to 15 000 Hz ($\pm$ 3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB ($\pm$ 200 kHz)

MW tuner

Frequency range	531 kHz to 1 602 kHz (9 kHz)
Usable sensitivity	18 μ V (S/N: 20 dB)
Signal-to-noise ratio	67 dB (IEC-A network)

LW tuner

Frequency range	153 kHz to 281 kHz
Usable sensitivity	30 μ V (S/N: 20 dB)
Signal-to-noise ratio	67 dB (IEC-A network)



Note

Specifications and the design are subject to possible modifications without notice due to improvements. ■

● DEH-P80RS/XN/ES

General

A	Rated power source	14.4 V DC
	(allowable voltage range:	12.0 V to 14.4 V DC)
	Grounding system	Negative type
	Max. current consumption	10.0 A
	Backup current	5 mA or less
	Dimensions (W × H × D):	
	DIN	
	Chassis	178 × 50 × 159 mm
	Nose	188 × 58 × 30 mm
B	D	
	Chassis	178 × 50 × 164 mm
	Nose	170 × 45 × 25 mm
	Weight	1.6 kg

Audio/DSP

	Maximum power output	50 W × 4
	Continuous power output ...	22 W × 4 (50 Hz to 15 000 Hz, 5% THD, 4 Ω load, both channels driven)
C	Load impedance	4 Ω (4 Ω to 8 Ω allowable)
	Preout max output level/output impedance	5.0 V/100Ω
	Loudness contour	+10 dB (100 Hz), +6.5 dB (10 kHz) (volume: -30 dB)
	Equalizer (Left/Right independent 16-Band Graphic Equalizer):	
	Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
	Equalization range	±12 dB (2 dB step)
D	Auto equalizer:	
	(Front & rear & subwoofer/High & mid & low)	
	Frequency	20/31.5/50/80/125/200/315/500/800/1.25k/2k/3.15k/5k/8k/12.5k/20k Hz
	Equalization range	+6 to -12 dB (2 dB step)
	Network (standard mode):	
	HPF (Front/rear):	
	Frequency	50/63/80/100/125/160/200 Hz
	Slope	0 (Pass)/-6/-12 dB/oct
E	Gain	0 to -24 dB/Mute (1 dB step)
	Subwoofer (stereo/mono):	
	Frequency	50/63/80/100/125/160/200 Hz
	Slope	-6/-12/-18 dB/oct

	Gain	+6 to -24 dB/Mute (1 dB step)
	Phase	Normal/Reverse
	Network (3-way network mode):	
	High HPF:	
	Frequency	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
	Slope	-6/-12/-18/-24 dB/oct
	Gain	0 to -24 dB/Mute (1 dB step)
	Phase	Normal/Reverse
	Mid HPF/LPF:	
	Frequency (LPF) ...	1.25/1.6/2/2.5/3.15/4/5/6.3/8/10/12.5 kHz
	Frequency (HPF)	25/31.5/40/50/63/80/100/125/160/200/250 Hz
	Slope (LPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
	Slope (HPF)	0 (Pass)/-6/-12/-18/-24 dB/oct
	Gain	0 to -24 dB/Mute (1 dB step)
	Phase	Normal/Reverse
	Low LPF (stereo/mono):	
	Frequency	25/31.5/40/50/63/80/100/125/160/200/250 Hz
	Slope	-12/-18/-24/-30/-36 dB/oct
	Gain	+6 to -24 dB/Mute (1 dB step)
	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 Hz to 20 000 Hz (±1 dB)
	Signal-to-noise ratio	105 dB (1 kHz) (IHF-A network)
	Dynamic range	100 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, 10 (2ch audio) (Windows Media Player)
	AAC decoding format	MPEG-4 AAC (iTunes® encoded only)
	WAV signal format	Linear PCM & MS ADPCM

FM tuner

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

AM tuner

Frequency range 531 kHz to 1 602 kHz (9 kHz)
530 kHz to 1 640 kHz (10
kHz)
Usable sensitivity 18 μ V (S/N: 20 dB)
Signal-to-noise ratio 67 dB (IHF-A network)

Infrared remote control

Wavelength 940 nm $\pm$ 50 nm
Output typ; 12 mw/sr per Infrared
LED



Note

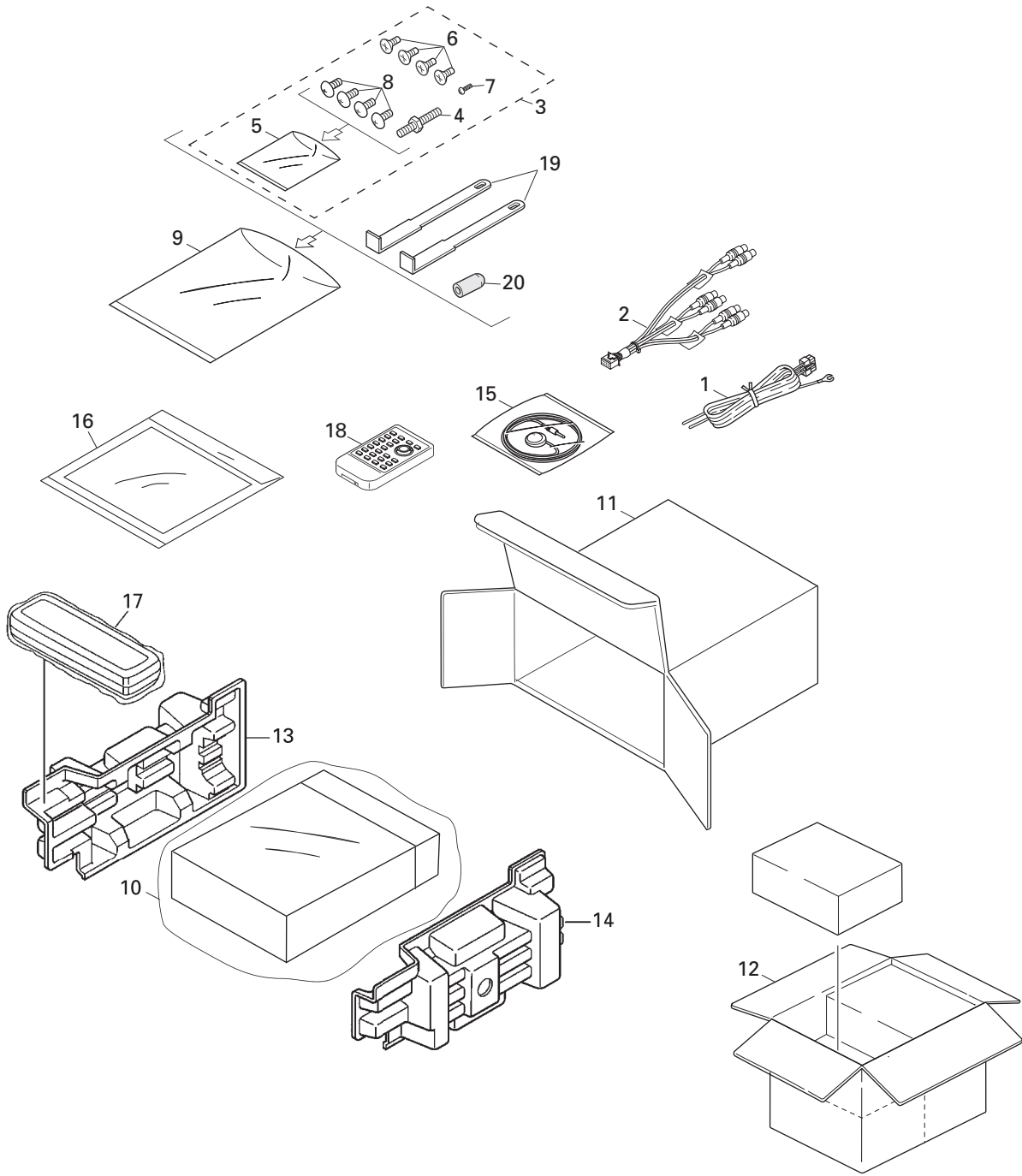
Specifications and the design are subject to possible modifications without notice due to improvements. 

2. EXPLODED VIEWS AND PARTS LIST

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

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



(1) PACKING(UC, ES MODEL) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Cord Assy	CDE7701	15	Microphone Assy	CPM1054
2	Cord Assy	CDE8275			
3	Screw Assy	See Contrast table(2)	16-1	Polyethylene Bag	CEG1116
4	Screw	CBA1650	16-2	Owner's Manual	See Contrast table(2)
* 5	Polyethylene Bag	CEG-127	16-3	Owner's Manual	See Contrast table(2)
			16-4	Owner's Manual	See Contrast table(2)
6	Screw	CRZ50P090FTC	16-5	Installation Manual	See Contrast table(2)
7	Screw	See Contrast table(2)			
8	Screw	TRZ50P080FTC	16-6	Caution Card	CRP1310
* 9	Polyethylene Bag	CEG-158	* 16-7	Warranty Card	See Contrast table(2)
10	Polyethylene Bag	See Contrast table(2)	* 16-8	Caution Card	XRP7002
			17	Case Assy	CXB3520
11	Carton	See Contrast table(2)	18	Remote Control Unit	CXC5717
12	Contain Box	See Contrast table(2)			
13	Protector	XHP7007	19	Handle	CNC5395
14	Protector	XHP7008	20	Bush	CNV3930

(2) CONTRAST TABLE

DEH-P880PRS/XN/UC and DEH-P80RS/XN/ES are constructed the same except for the following:

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P80RS/XN/ES
	3	Screw Assy	CEA5322	CEA3849
	7	Screw	JPZ20P060FTB	Not used
	10	Polyethylene Bag	CEG1368	CEG1227
	11	Carton	CHG5735	CHG5736
	12	Contain Box	CHL5735	CHL5736
	16-2	Owner's Manual	CRD4080	CRD4082
	16-3	Owner's Manual	Not used	CRD4083
	16-4	Owner's Manual	Not used	CRB2177
	16-5	Installation Manual	CRD4081	CRD4084
*	16-7	Warranty Card	CRY1070	Not used

Owner's Manual, Installation Manual

Part No.	Language
CRD4080	English, French
CRD4081	English, French
CRD4082	English, Spanish
CRD4083	Portuguese(B), Traditional Chinese
CRB2177	Arabic
CRD4084	English, Spanish, Portuguese(B), Traditional Chinese, Arabic

2.2 PACKING(EW5 MODEL)

A

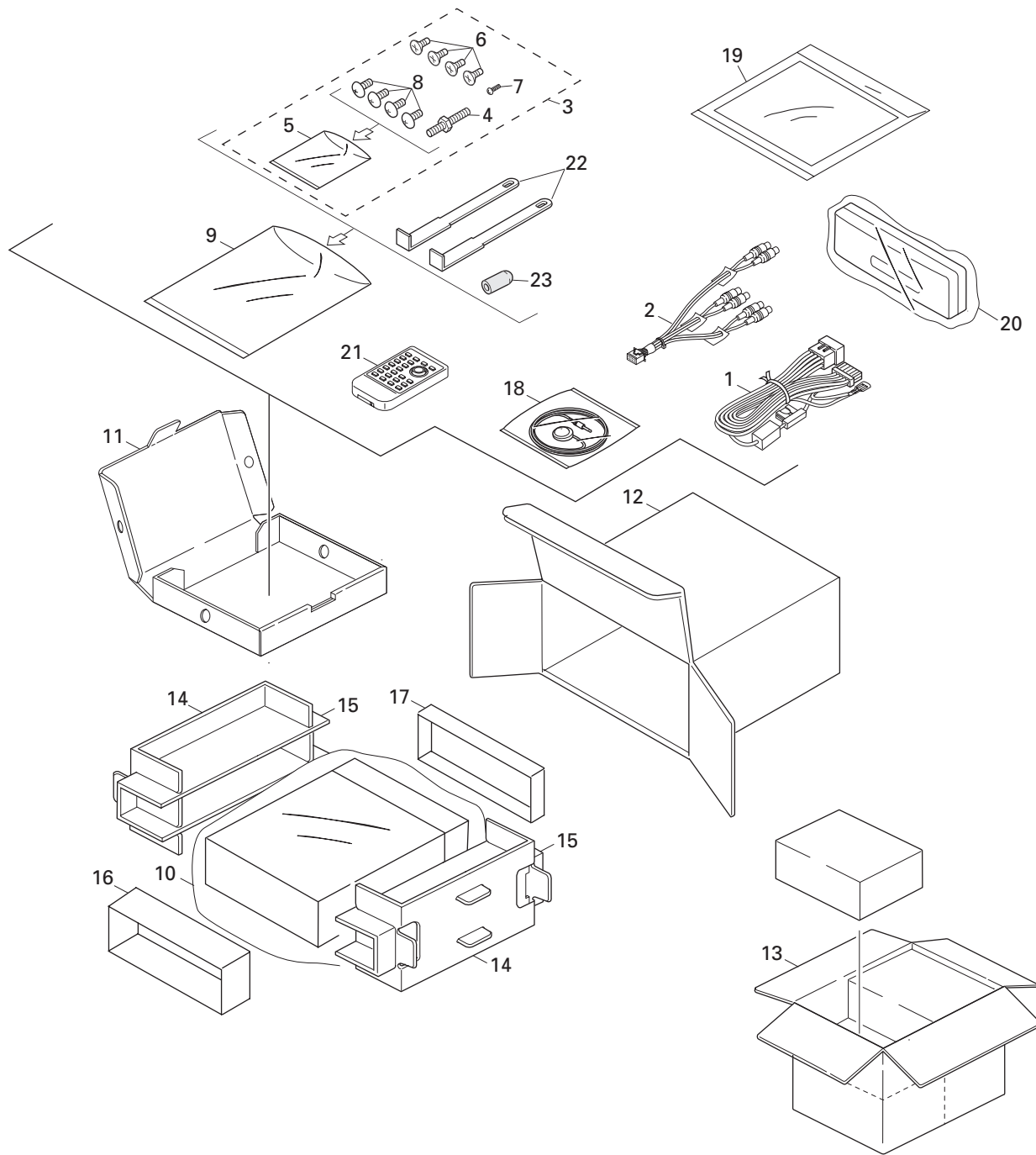
B

C

D

E

F



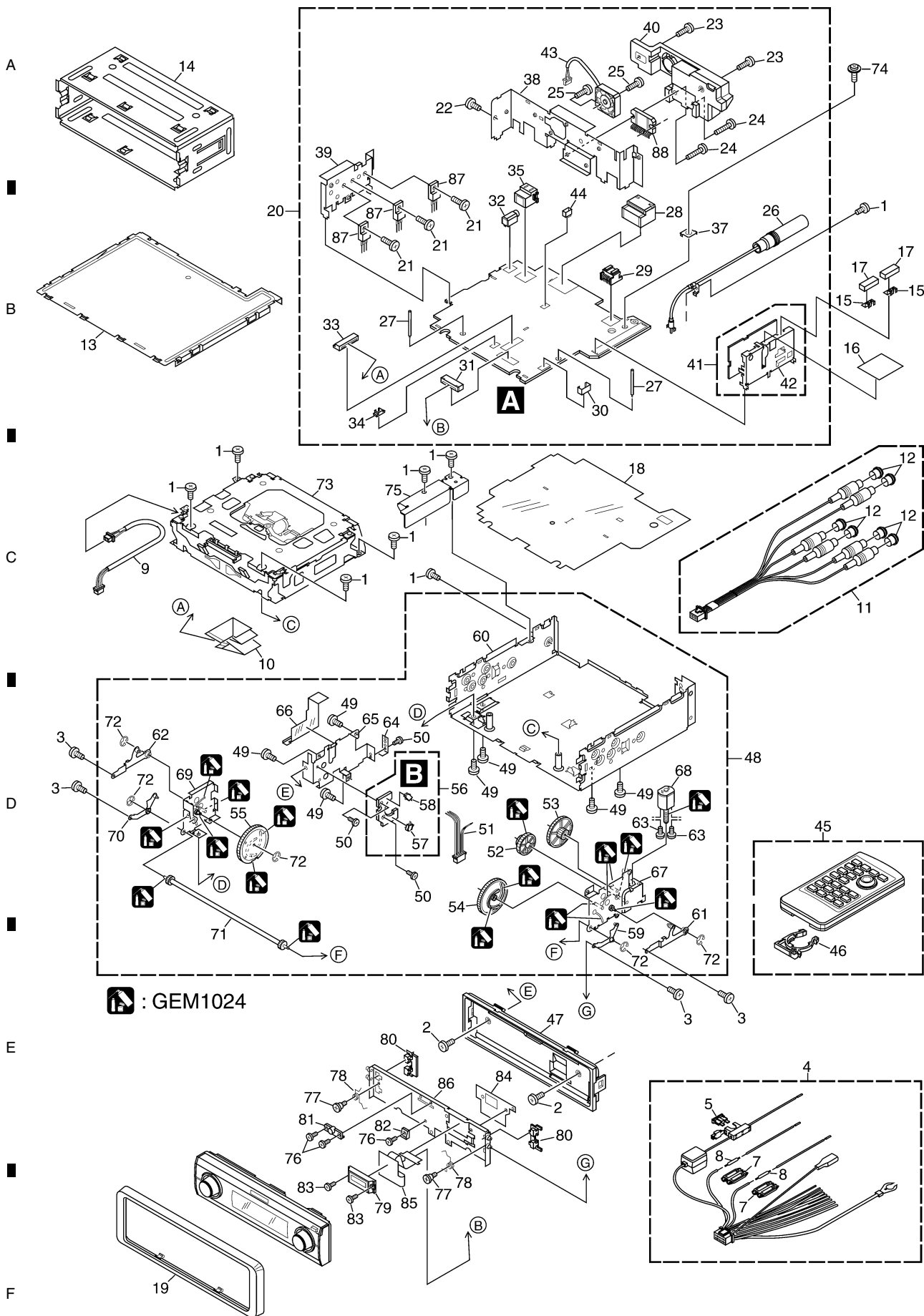
(1)PACKING(EW5 MODEL) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Cord Assy	CDE6562	17	Protector	CHP3184
2	Cord Assy	CDE8274	18	Microphone Assy	CPM1054
3	Screw Assy	CEA5322	* 19-1	Polyethylene Bag	E36-634
4	Screw	CBA1650	19-2	Owner's Manual	CRB2176
* 5	Polyethylene Bag	CEG-127	19-3	Owner's Manual	CRD4076
6	Screw	CRZ50P090FTC	19-4	Owner's Manual	CRD4077
7	Screw	JPZ20P060FTB	19-5	Owner's Manual	CRD4078
8	Screw	TRZ50P080FTC	19-6	Installation Manual	CRD4079
* 9	Polyethylene Bag	CEG-158	* 19-7	Caution Card	CRP1335
10	Polyethylene Bag	CEG-162	* 19-8	Passport	CRY1013
11	Sub Carton	CHG5195	* 19-9	Warranty Card	CRY1157
12	Carton	CHG5882	20	Case Assy	CXB3520
13	Contain Box	CHL5882	21	Remote Control Unit	CXC5717
14	Protector	CHP2797	22	Handle	CNC5395
15	Protector	CHP2798	23	Bush	CNV3930
16	Protector	CHP2812			

Owner's Manual,Installation Manual

Part No.	Language
CRD4076	English, Spanish
CRD4077	German, French
CRD4078	Italian, Dutch
CRB2176	Russian
CRD4079	English, Spanish, German, French, Italian, Dutch, Russian

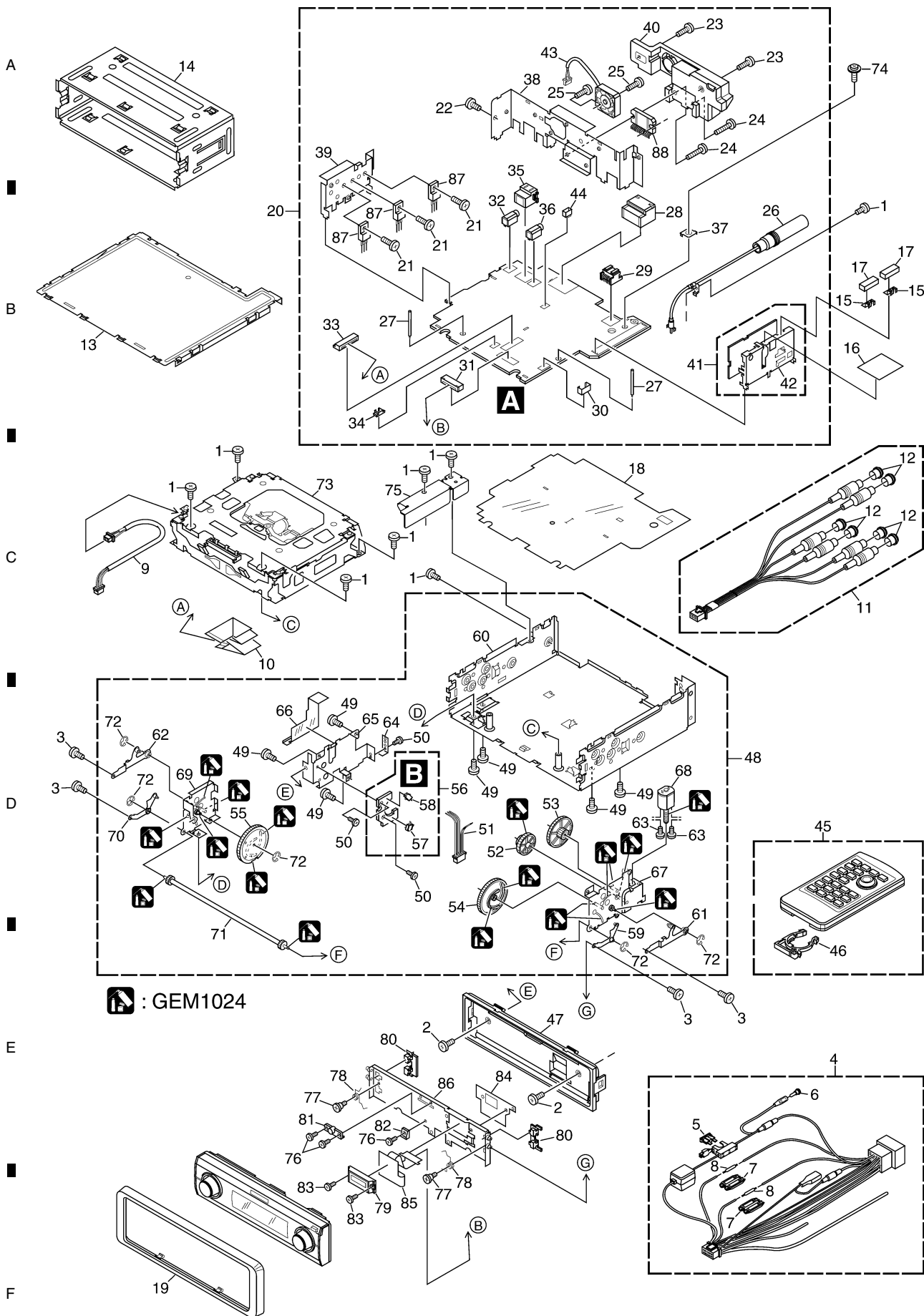
2.3 EXTERIOR(1)(UC, ES MODEL)



EXTERIOR(1)(UC, ES MODEL) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Screw	BSZ26P060FTC	48	Drive Unit	CXC6620	
2	Screw(M2.6 x 4)	CBA1828				A
3	Screw(M2 x 2.5)	CBA1924	49	Screw	BMZ26P040FTC	
4	Cord Assy	CDE7701	50	Screw(M2 x 2)	CBA1871	
⚠ 5	Fuse(10 A)	CEK1136	51	Cord	CDE7392	
6	*****		52	Gear	CNV7752	
7	Cap	CNS1472	53	Gear	CNV7753	
8	Resistor	RS1/2PMF102J	54	Gear	CNV7754	
9	Cord Assy	CDE7817	55	Gear	CNV7755	
10	Cable	CDE8067	56	Switch Unit	CWS1389	
11	Cord Assy	CDE8275	57	Switch(S1)	CSN1051	
12	Cap	CNV6727	58	Spring Switch(S2)	CSN1052	B
13	Case Assy	CXC6908	59	Arm Unit	CXC2199	
14	Holder	CNC8659	* 60	Chassis Unit	CXC5680	
15	Earth Plate	CND2171	61	Arm Unit	CXC6623	
16	Insulator	CNM8790	62	Arm Unit	CXC6624	
17	Cushion	CNM9126	63	Screw	JFZ20P020FTC	
18	Insulator	CNM9936	64	Spring	XBL7003	
19	Panel	CNS8516	* 65	Holder	XNC7017	
20	Tuner Amp Unit(UC)	CWN1478	* 66	Insulator	XNM7119	
	Tuner Amp Unit(ES)	CWN1479	* 67	Holder Unit	XXA7399	C
21	Screw	ASZ26P060FTC	* 68	Motor Unit(M10)	XXA7400	
22	Screw	BMZ26P040FTC	* 69	Holder Unit	XXA7401	
23	Screw	BMZ26P120FTC	* 70	Arm Unit	XXA7403	
24	Screw	BMZ26P180FTC	* 71	Gear Unit	XXA7424	
25	Screw(M2.6 x 14)	CBA1632	72	Washer	YE15FTC	
26	Antenna Cable	CDH1336	73	CD Mechanism Module(S10.5)	CKX5753	
27	Clamper	CEF1040	74	Screw	ISS26P055FTC	
28	Plug(CN901)	CKM1278	75	Holder	CND3606	
29	Connector(CN351)	CKM1389	76	Screw(M2 x 2)	CBA1871	D
30	Plug(CN871)	CKS-786	77	Screw	CBA1935	
31	Connector(CN471)	CKS3834	78	Spring	CBH2530	
32	Connector(CN581)(UC)	CKS4124	79	Connector	CKS5273	
33	Connector(CN801)	CKS4811	80	Arm	CNV6962	
34	Connector(CN472)	CKS4822	81	Guide	CNV6967	
35	Connector(CN101)	CKS5271	82	Guide	CNV8048	
36	*****		83	Screw(M2 x 3.5)	XBA7002	
37	Holder(CN402)	CNC5399	84	Holder	XNC7019	E
38	Holder(UC)	CND3158	85	Flexible PCB	XNP7026	
	Holder(ES)	CND3159	86	Case Unit	XXA7426	
39	Holder	CND3133	87	Transistor(Q462,701,711)	2SD2396	
40	Heat Sink	CNR1837	88	IC(IC331)	PAL007B	
41	FM/AM Tuner Unit(Y401)	CWE1802				
42	Holder	CND2144				
43	Fan Motor	CXM1288				
44	Connector(CN591)	VKN1928				
45	Remote Control Unit	CXC5717				F
46	Cover	CZN5357				
47	Panel Unit	CXC5737				

2.4 EXTERIOR(1)(EW5 MODEL)



EXTERIOR(1)(EW5 MODEL) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Screw	BSZ26P060FTC	50	Screw(M2 x 2)	CBA1871	
2	Screw(M2.6 x 4)	CBA1828				A
3	Screw(M2 x 2.5)	CBA1924	51	Cord	CDE7392	
4	Cord Assy	CDE6562	52	Gear	CNV7752	
⚠ 5	Fuse(10 A)	CEK1136	53	Gear	CNV7753	
			54	Gear	CNV7754	
6	Cap	CKX-003	55	Gear	CNV7755	
7	Cap	CNS1472				
8	Resistor	RS1/2PMF102J	56	Switch Unit	CWS1389	
9	Cord Assy	CDE7817	57	Switch(S1)	CSN1051	
10	Cable	CDE8067	58	Spring Switch(S2)	CSN1052	
			59	Arm Unit	CXC2199	
11	Cord Assy	CDE8274	* 60	Chassis Unit	CXC5680	B
12	Cap	CNV6727				
13	Case Assy	CXC6908	61	Arm Unit	CXC6623	
14	Holder	CNC8659	62	Arm Unit	CXC6624	
15	Earth Plate	CND2171	63	Screw	JFZ20P020FTC	
			64	Spring	XBL7003	
16	Insulator	CNM8790	* 65	Holder	XNC7017	
17	Cushion	CNM9126				
18	Insulator	CNM9936	* 66	Insulator	XNM7119	
19	Panel	CNS8516	* 67	Holder Unit	XXA7399	
20	Tuner Amp Unit	CWN1477	* 68	Motor Unit(M10)	XXA7400	
			* 69	Holder Unit	XXA7401	C
21	Screw	ASZ26P060FTC	* 70	Arm Unit	XXA7403	
22	Screw	BMZ26P040FTC				
23	Screw	BMZ26P120FTC	* 71	Gear Unit	XXA7424	
24	Screw	BMZ26P180FTC	72	Washer	YE15FTC	
25	Screw(M2.6 x 14)	CBA1632	73	CD Mechanism Module(S10.5)	CXK5753	
			74	Screw	ISS26P055FTC	
26	Antenna Cable	CDH1336	75	Holder	CND3606	
27	Clamper	CEF1040				
28	Plug(CN901)	CKM1278	76	Screw(M2 x 2)	CBA1871	
29	Connector(CN351)	CKM1389	77	Screw	CBA1935	
30	Plug(CN871)	CKS-786	78	Spring	CBH2530	D
			79	Connector	CKS5273	
31	Connector(CN471)	CKS3834	80	Arm	CNV6962	
32	Connector(CN581)	CKS4124				
33	Connector(CN801)	CKS4811	81	Guide	CNV6967	
34	Connector(CN472)	CKS4822	82	Guide	CNV8048	
35	Connector(CN101)	CKS5271	83	Screw(M2 x 3.5)	XBA7002	
			84	Holder	XNC7019	
36	Connector(CN541)	CKS5523	85	Flexible PCB	XNP7026	
37	Holder(CN402)	CNC5399				
38	Holder	CND3129	86	Case Unit	XXA7426	E
39	Holder	CND3133	87	Transistor(Q462,701,711)	2SD2396	
40	Heat Sink	CNR1837	88	IC(IC331)	PAL007B	
41	FM/AM Tuner Unit(Y401)	CWE1801				
42	Holder	CND2144				
43	Fan Motor	CXM1288				
44	Connector(CN591)	VKN1928				
45	Remote Control Unit	CXC5717				
46	Cover	CZN5357				
47	Panel Unit	CXC5737				F
48	Drive Unit	CXC6620				
49	Screw	BMZ26P040FTC				

2.5 EXTERIOR(2)

A

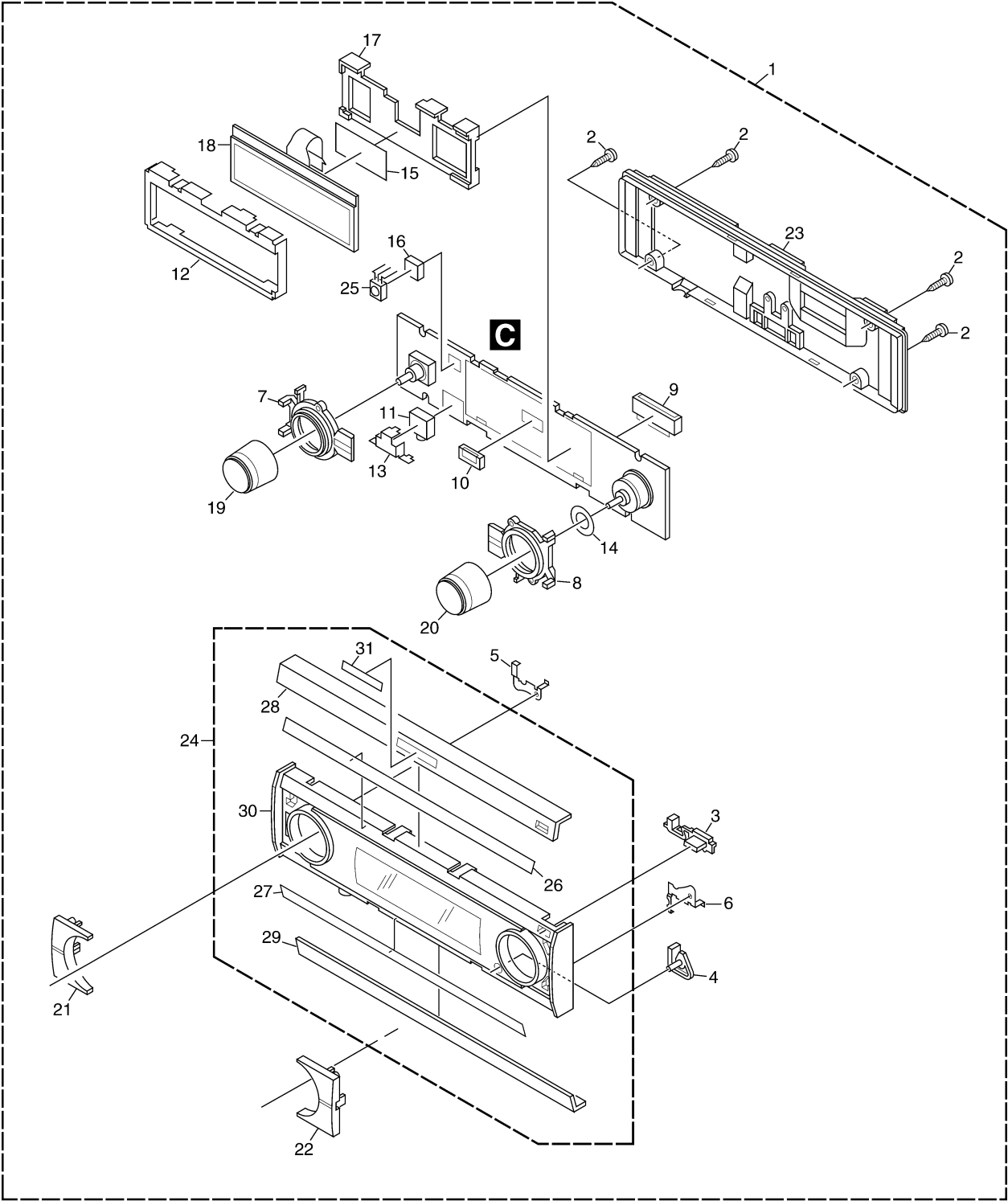
B

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(1) EXTERIOR(2) SECTION PARTS LIST

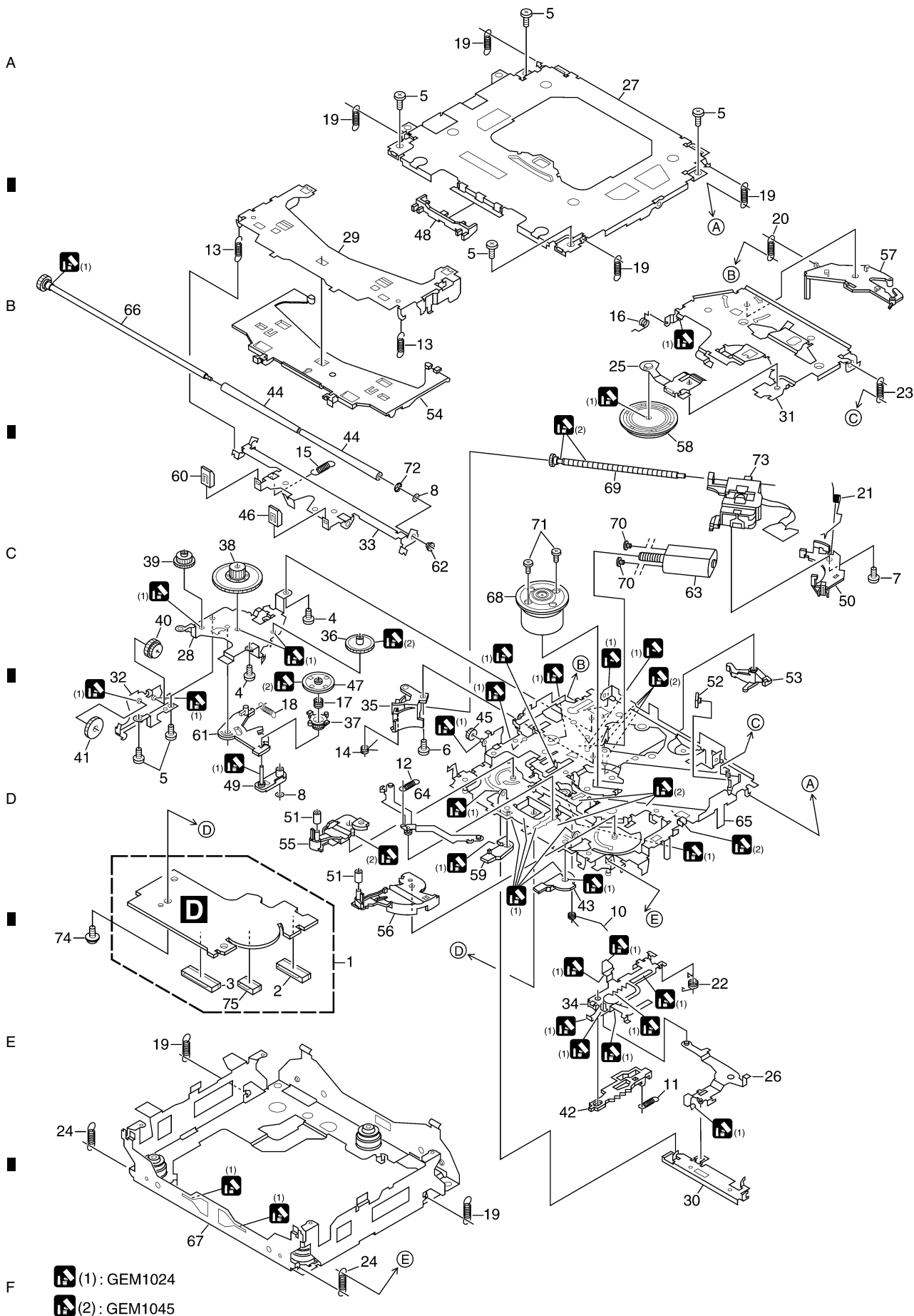
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Detach Grille Assy	See Contrast table(2)	17	Holder	CNV8925
2	Screw	BPZ20P080FTB	18	OEL Unit	MXS8232
3	Button(EJECT)	CAC9616	19	Knob Unit(SOURCE,VOLUME)	CXC5740
4	Button(RESET)	CAC9617	20	Knob Unit(MULTI-CONTROL)	CXC5741
5	Earth Plate	CND3149			
6	Earth Plate	CND3150	21	Button Unit(EQ/CLK)	See Contrast table(2)
7	Lighting Conductor	CNV8923	22	Button Unit(BAND/DISP)	CXC5748
8	Lighting Conductor	CNV8924	23	Cover Unit	CXC5749
9	Connector(CN1801)	CKS5272	24	Sub Grille Assy	See Contrast table(2)
10	Connector(CN1861)	CKS5545	25	IC(IC1902)	GP1UX51RK
11	Connector(CN1802)	See Contrast table(2)	26	Double Sided Seal	CNM9942
12	Holder	CND3151	27	Double Sided Seal	CNM9943
13	Holder	CND3152	28	Panel	See Contrast table(2)
14	Sheet	CNM8658	29	Panel	See Contrast table(2)
15	Double Sided Seal	CNM8673	30	Grille Unit	CXC5732
16	Cushion	CNM9946	* 31	Badge	See Contrast table(2)

(2) CONTRAST TABLE

DEH-P880PRS/XN/UC, DEH-P88RS/XN/EW5 and DEH-P80RS/XN/ES are constructed the same except for the following:

Mark	No.	Description	DEH-P880PRS/XN/UC	DEH-P88RS/XN/EW5	DEH-P80RS/XN/ES
	1	Detach Grille Assy	CXC5764	CXC5763	CXC5765
	11	Connector(CN1802)	CKS5575	CKS3120(Mini Jack)	CKS5575
	21	Button Unit(EQ/CLK)	CXC5745	CXC5744(EQ/TA)	CXC5746
	24	Sub Grille Assy	CXC5823	CXC5822	CXC5824
	28	Panel	CNR1843	CNR1842	CNR1844
	29	Panel	CNR1847	CNR1846	CNR1846
*	31	Badge	CAH1956	CAH1925	CAH1925

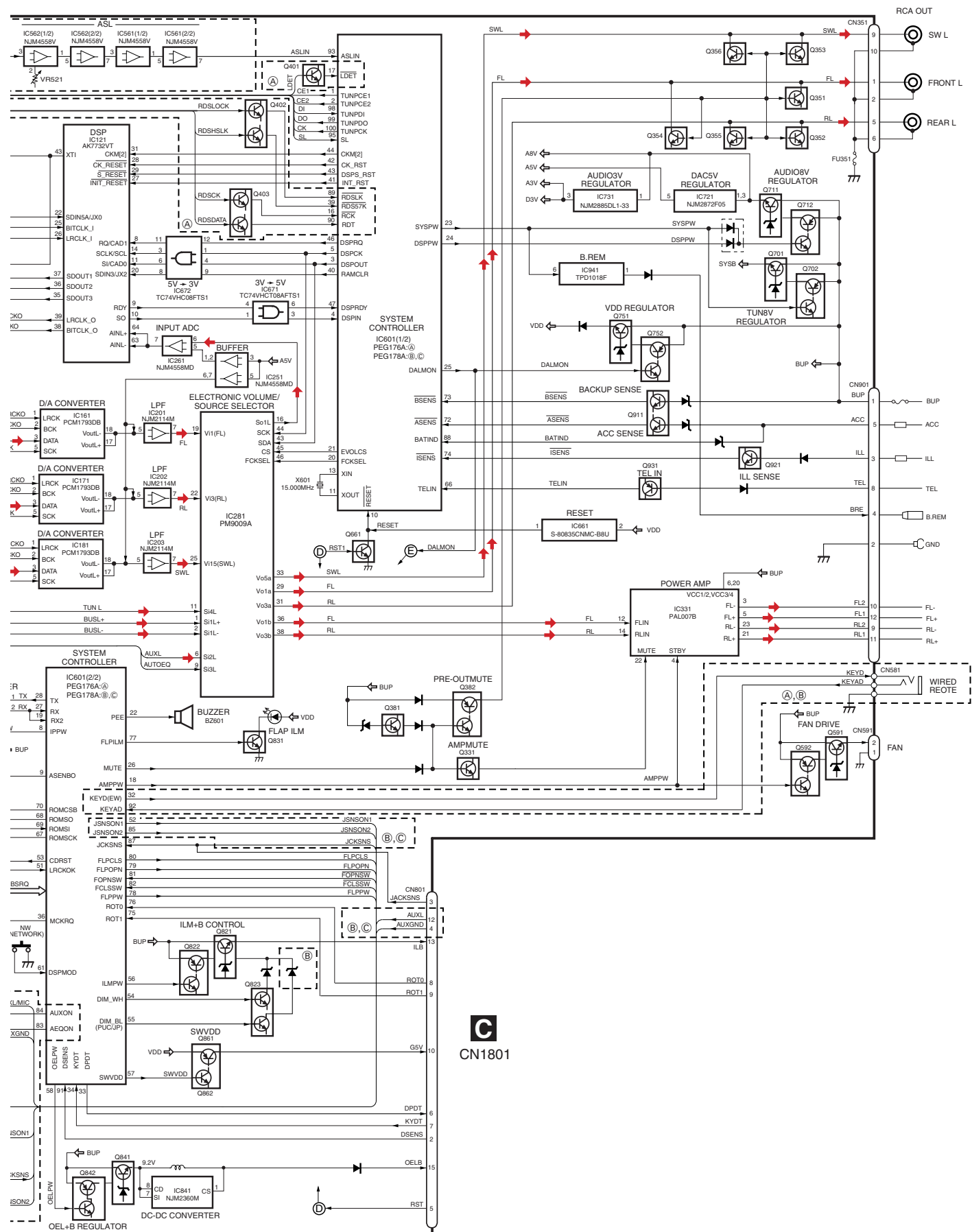
2.6 CD MECHANISM MODULE



CD MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	CD Core Unit(S10.5COMP1)	CWX3381	50	Rack	CNV8342	
2	Connector(CN101)	CKS4182				A
3	Connector(CN901)	CKS4187	51	Roller	CNV8343	
4	Screw	BMZ20P025FTC	52	Holder	CNV8344	
5	Screw	BSZ20P040FTC	53	Arm	CNV8345	
			54	Guide	CNV8347	
6	Screw(M2 x 3)	CBA1511	55	Arm	CNV8348	
7	Screw(M2 x 4)	CBA1835				
8	Washer	CBF1038	56	Arm	CNV8349	
9			57	Arm	CNV8350	
10	Spring	CBH2609	58	Clamper	CNV8365	
			59	Arm	CNV8386	
11	Spring	CBH2612	60	Guide	CNV8396	B
12	Spring	CBH2614				
13	Spring	CBH2616	61	Arm	CNV8413	
14	Spring	CBH2617	62	Collar	CNV8938	
15	Spring	CBH2620	63	Motor Unit(M2)	CXC4026	
			64	Arm Unit	CXC4027	
16	Spring	CBH2855	65	Chassis Unit	CXC4028	
17	Spring	CBH2937				
18	Spring	CBH2735	66	Gear Unit	CXC4029	
19	Spring	CBH2854	67	Frame Unit	CXC4031	
20	Spring	CBH2642	68	Motor Unit(M1)	CXC6742	
			69	Screw Unit	CXC6359	C
21	Spring	CBH2856	70	Screw	JFZ20P020FTC	
22	Spring	CBH2857				
23	Spring	CBH2860	71	Screw	JGZ17P022FTC	
24	Spring	CBH2861	72	Washer	YE20FTC	
25	Spring	CBL1686	73	Pickup Unit(P10.5)(Service)	CXX1942	
			74	Screw	IMS26P030FTC	
26	Arm	CND1909	75	Connector(CN902)	CKS4979	
27	Frame	CND2582				
28	Bracket	CND2583				
29	Arm	CND2584				
30	Lever	CND2585				D
31	Arm	CND2586				
32	Bracket	CND2587				
33	Arm	CND2588				
34	Lever	CND2589				
35	Holder	CNV7201				
36	Gear	CNV7207				
37	Gear	CNV7208				
38	Gear	CNV7209				E
39	Gear	CNV7210				
40	Gear	CNV7211				
41	Gear	CNV7212				
42	Rack	CNV7214				
43	Arm	CNV7216				
44	Roller	CNV7218				
45	Gear	CNV7219				
46	Guide	CNV7361				
47	Gear	CNV7595				F
48	Guide	CNV7799				
49	Arm	CNV7805				

4



C
CN1801

DEH-P880PRS/XN/UC

(A):DEH-P88RS/XN/EW5
 (B):DEH-P880PRS/XN/UC
 (C):DEH-P80RS/XN/ES

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DEH-P880PRS/XN/UC

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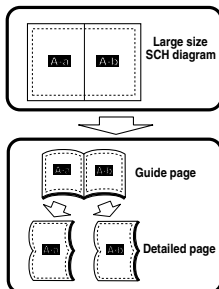
8

■

3.2 OVERALL CONNECTION DIAGRAM(UC, ES MODEL)(GUIDE PAGE)

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

A



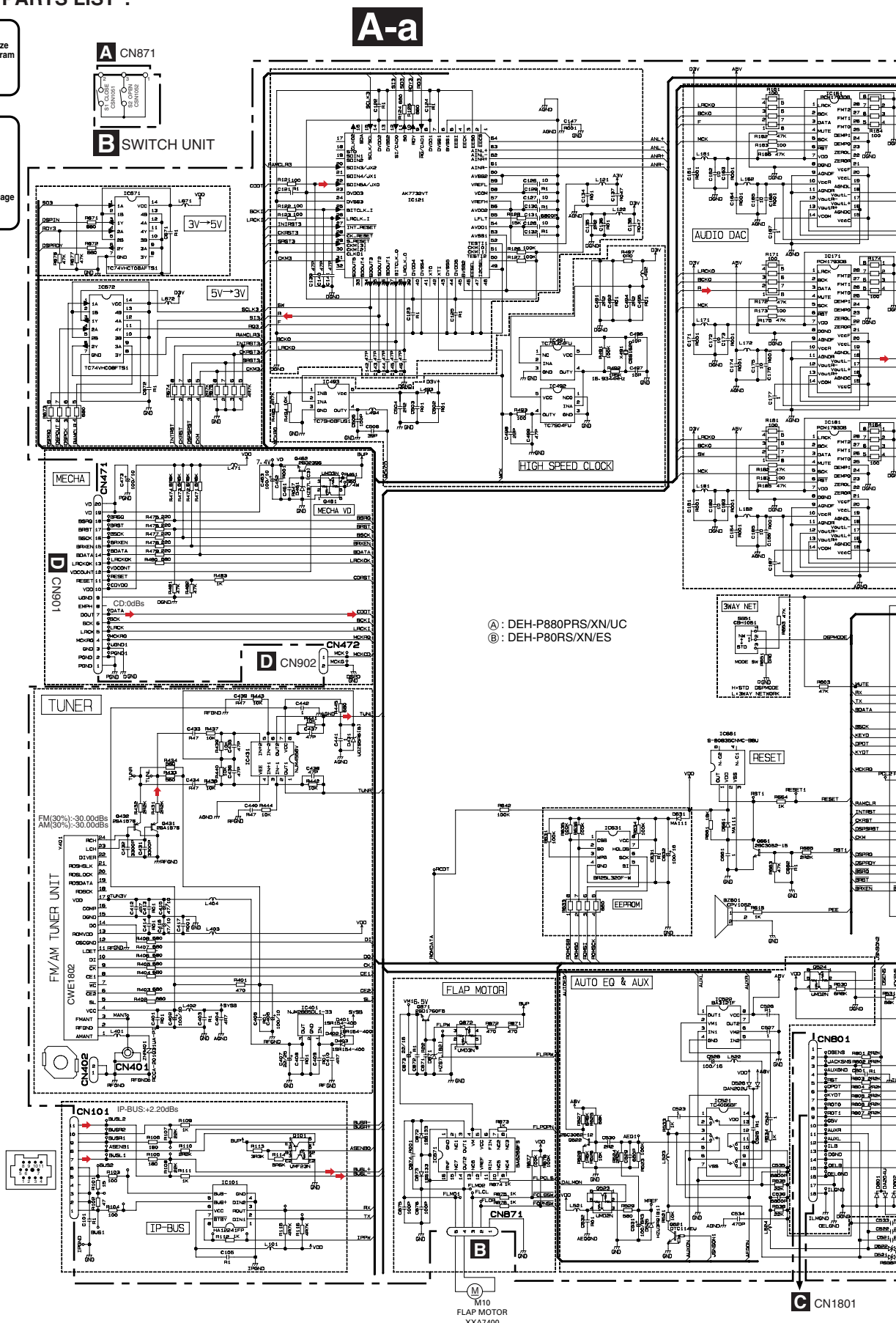
B

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A



 : The power supply is shown with the marked box.

29

A

B

C

D

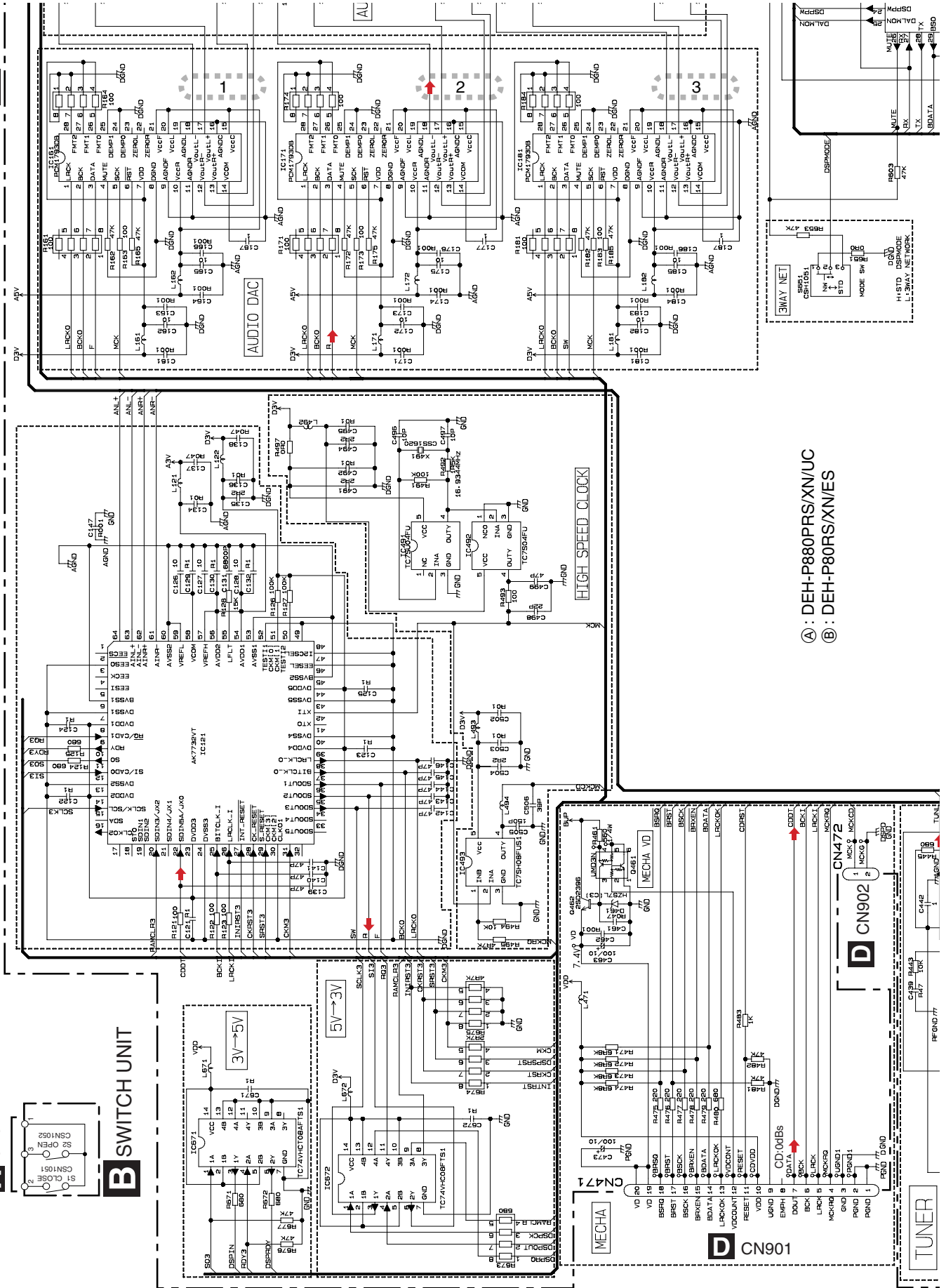
E

F

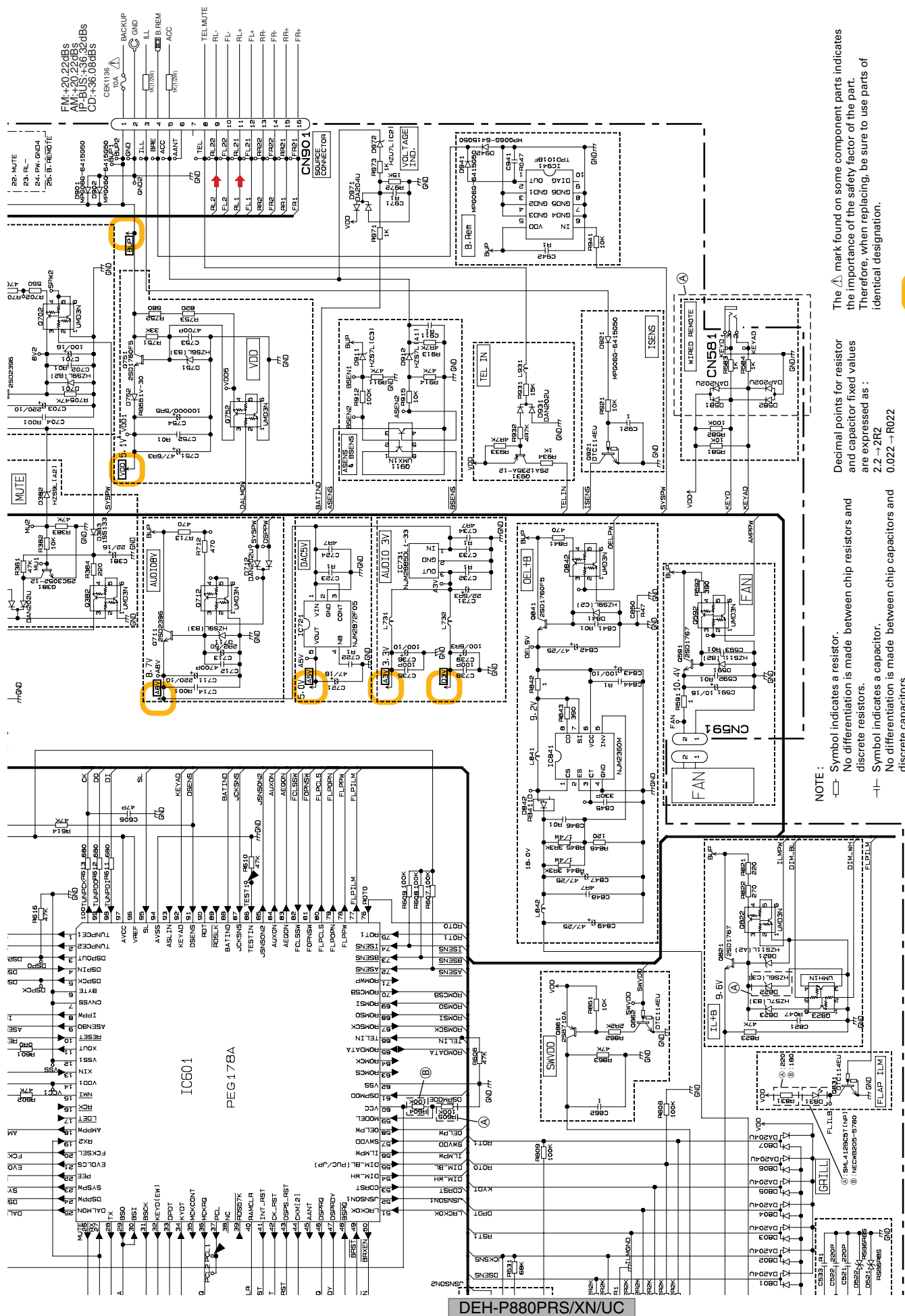
A-b

A-a A-b

A-a B



Ⓐ : DEH-P880PRS/XN/UC
 Ⓑ : DEH-P880RS/XN/ES



The Δ 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.

Decimal points for resistor and capacitor fixed values are expressed as :

2.2 → 2R2
0.022 → R022

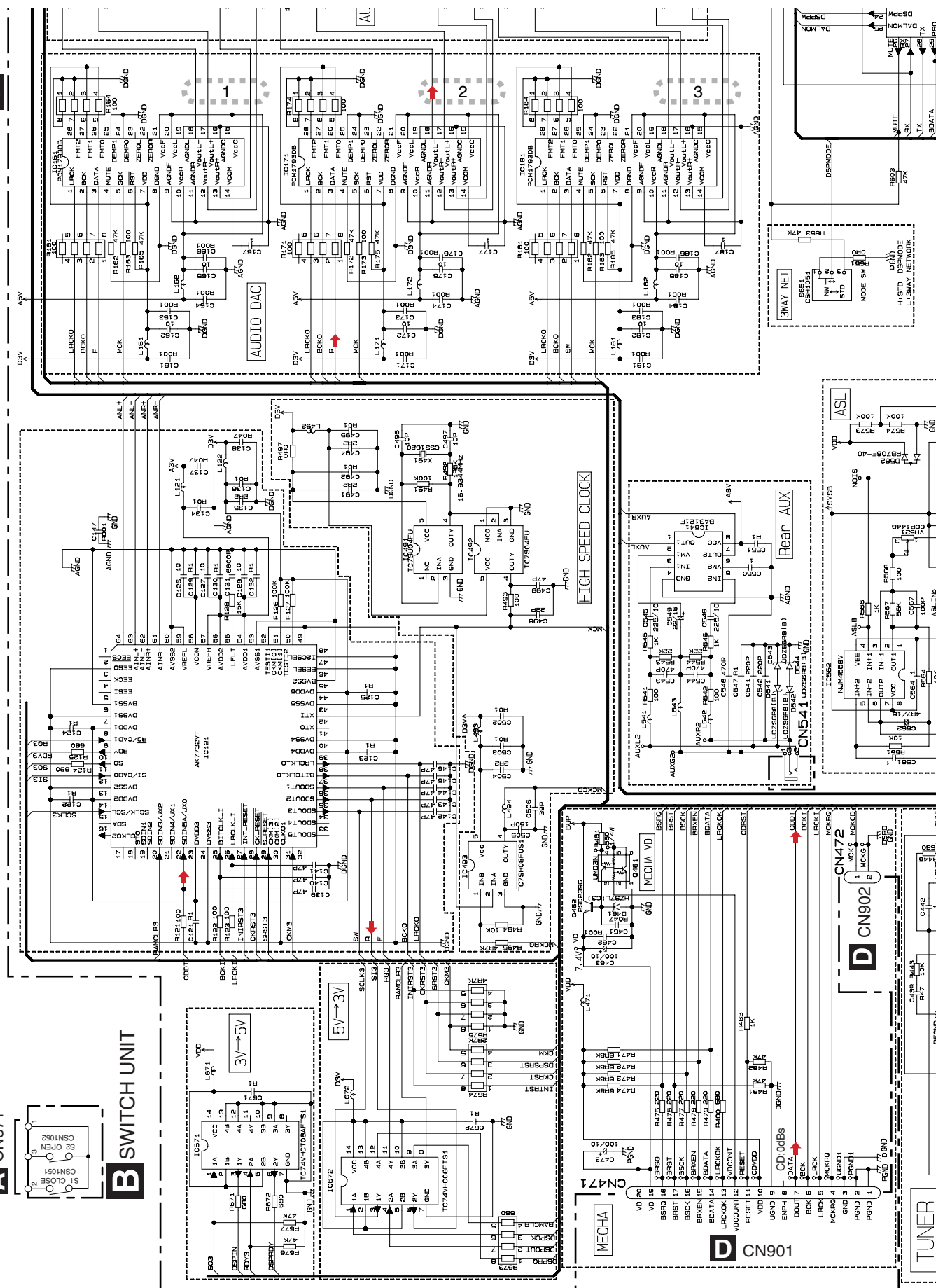
□ Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.

—|— Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

• The power supply is shown with the marked box.

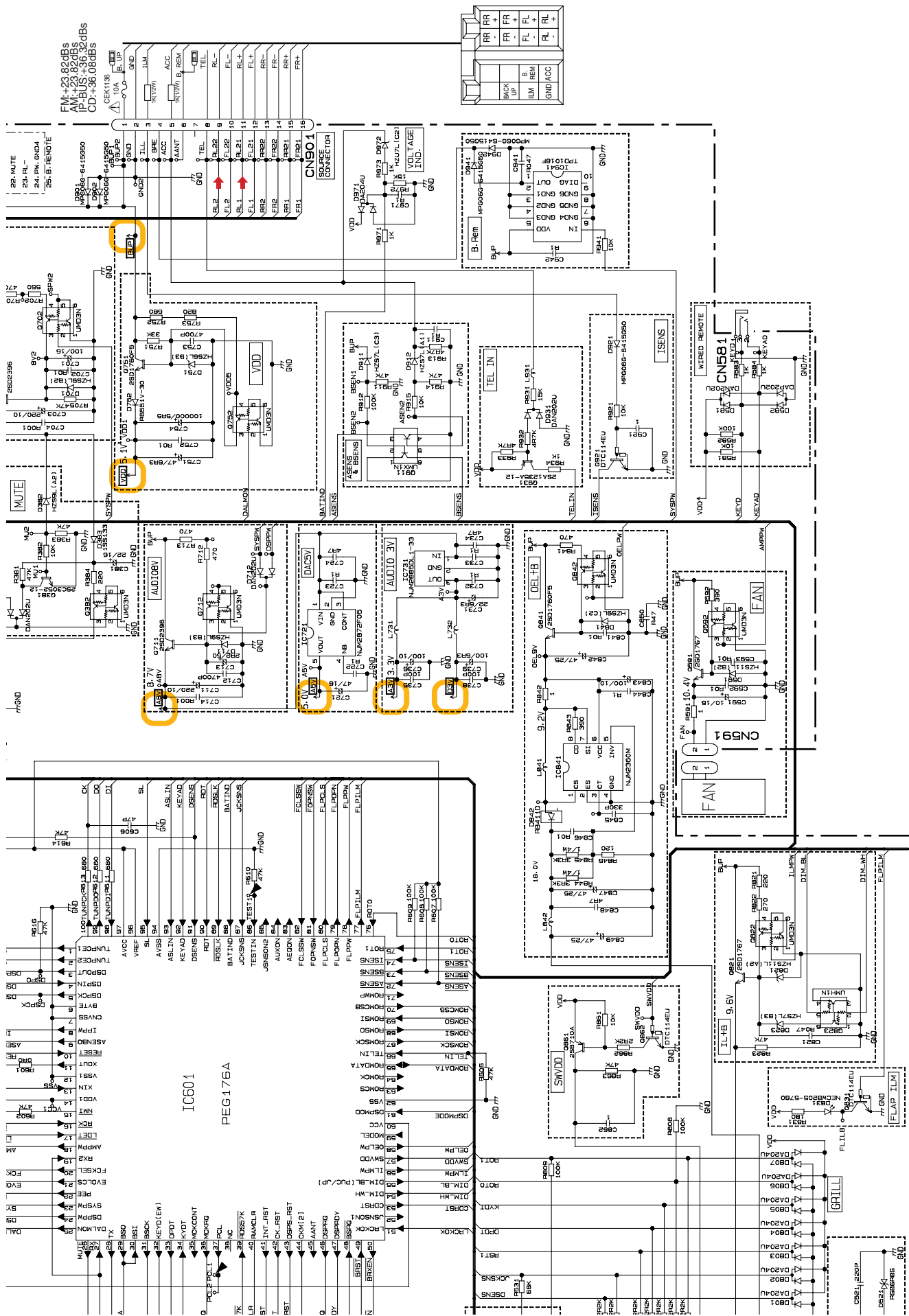
F

A-a A-b



A-a B





DEH-P880PRS/XN/UC

A-b

3.4 KEYBOARD UNIT

A

B

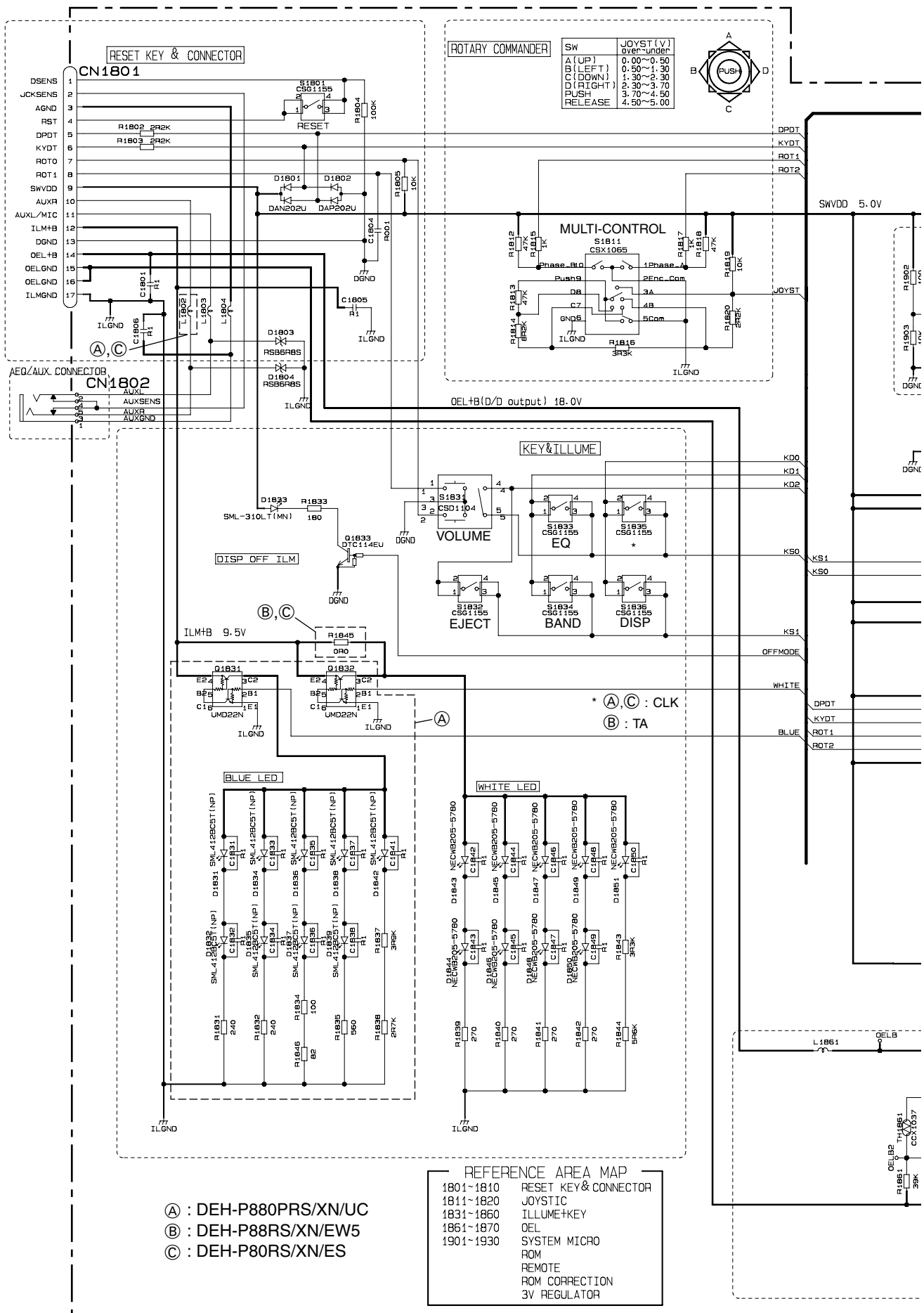
C

D

E

F

C



A



C

D

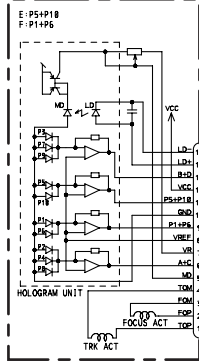
E

F

3.5 CD MECHANISM MODULE(GUIDE PAGE)

D-a

PICKUP UNIT(P10.5)(SERVICE)



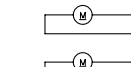
F. ACT: Applying force to the FOP.
T. ACT: Applying force to the TOP.

SWITCHES:

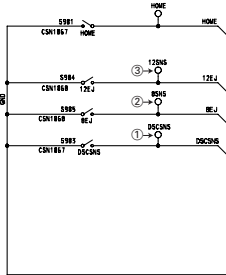
CD CORE UNIT(S10.5COMP1)
S901:HOME SWITCH.....ON-OFF
S903:DCS SNS SWITCH.....ON-OFF
S904:12EJ SWITCH.....ON-OFF
S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.

M1 CXC6742
SPINDLE MOTOR



M2 CXC4026
LOADING/CARRIAGE MOTOR



- ① Monitor land(ø1.2mm)
- #Monitor land(ø0.8mm)
- Land for manual soldering

CD DRIVER

	LOAD	CL	PLAY	OFF
CLCONT	H	H	L	L
LOEJ	L	H	L	L
CONT	L	L	H	L

EEPROM

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

F

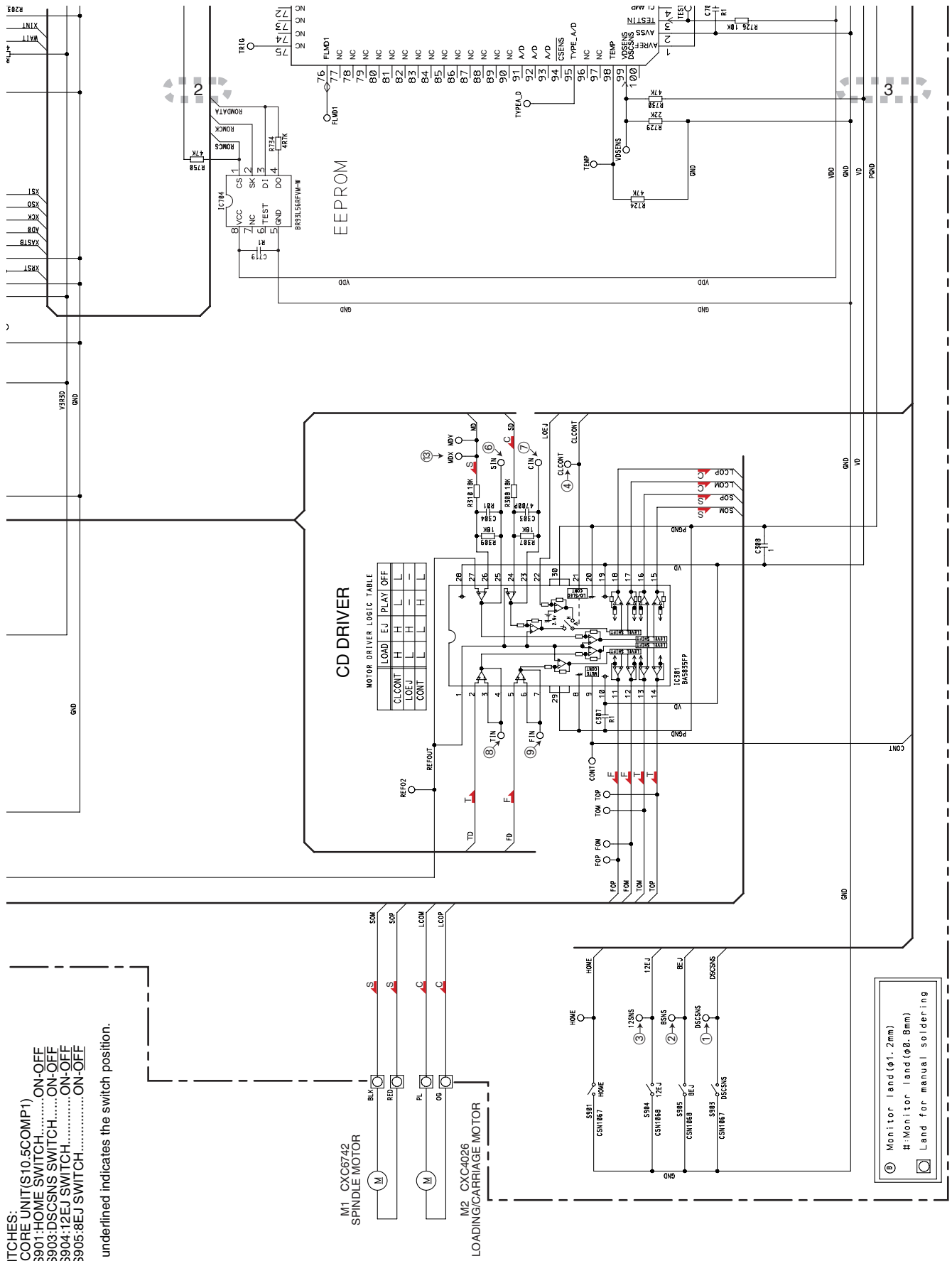


SWITCHES:
 CD CORE UNIT(S10.5COMP1) ON-OFF
 S901:HOME SWITCH.....ON-OFF
 S903:DSCSNS SWITCH.....ON-OFF
 S904:12EJ SWITCH.....ON-OFF
 S905:8EJ SWITCH.....ON-OFF

The underlined indicates the switch position.

M1 CX6742
 SPINDLE MOTOR

M2 CX64026
 LOADING/CARRIAGE MOTOR



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

⑧ Monitor land (ø1.2mm)
 # : Monitor land (ø0.8mm)
 Land for manual soldering

D-a

D-b



A

B

C

D

E

F

D-b

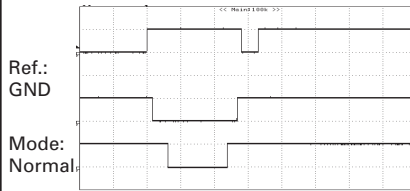
Waveforms

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

A

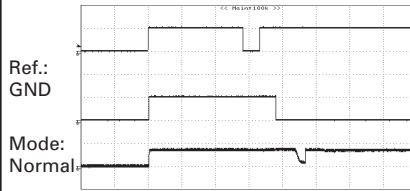
① DSCSNS 5 V/div 500 ms/div
② 8SNS 5 V/div
③ 12SNS 5 V/div

12 cm CD Loading operation



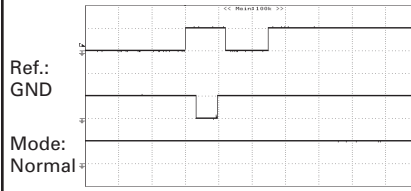
① DSCSNS 5 V/div 500 ms/div
④ CLCONT 5 V/div
⑤ VD 10 V/div

12 cm CD Loading operation



① DSCSNS 5 V/div 500 ms/div
② 8SNS 5 V/div
③ 12SNS 5 V/div

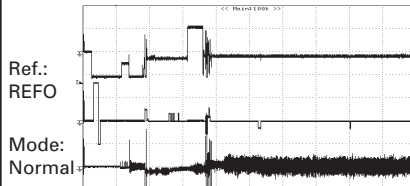
8 cm CD Loading operation



B

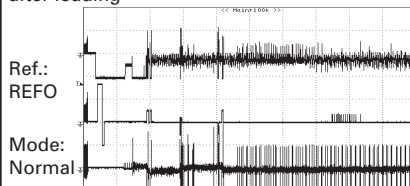
⑥ SIN 1 V/div 1 s/div
⑦ CIN 500 mV/div
⑧ TIN 500 mV/div

12 cm CD-DA setup operation after loading



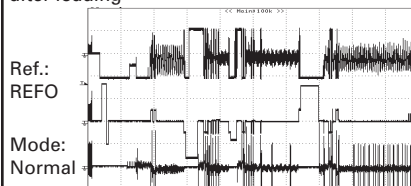
⑥ SIN 1 V/div 1 s/div
⑦ CIN 500 mV/div
⑧ TIN 500 mV/div

12 cm CD-ROM(1 session) setup operation after loading



⑥ SIN 1 V/div 1 s/div
⑦ CIN 500 mV/div
⑧ TIN 500 mV/div

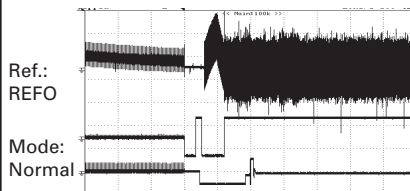
12 cm CD-ROM(3 sessions) setup operation after loading



C

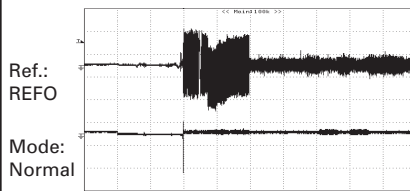
⑨ FIN 200 mV/div 500 ms/div
⑩ RFOK 2 V/div
⑥ SIN 2 V/div

12 cm CD-DA Source On setup operation



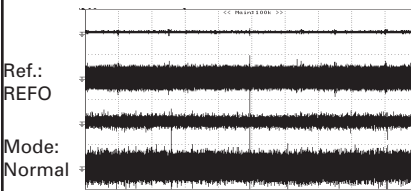
⑪ TE 500 mV/div 200 ms/div
⑫ FE 500 mV/div

Source On setup operation



⑫ FE 500 mV/div 20 ms/div
⑨ FIN 500 mV/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

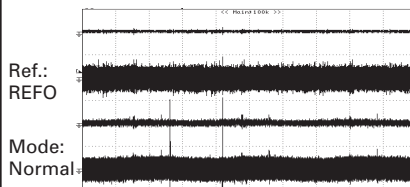
CD-DA Play operation



D

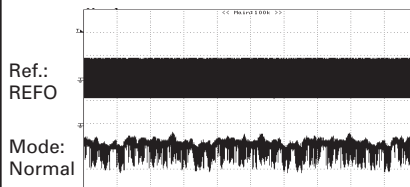
⑫ FE 500 mV/div 20 ms/div
⑨ FIN 500 mV/div
⑪ TE 500 mV/div
⑧ TIN 500 mV/div

CD-ROM play operation(Regular track Jump)



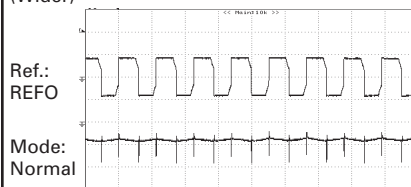
⑬ MDX 2 V/div 50 ms/div
⑥ SIN 200 mV/div

Spindle waveform during play operation



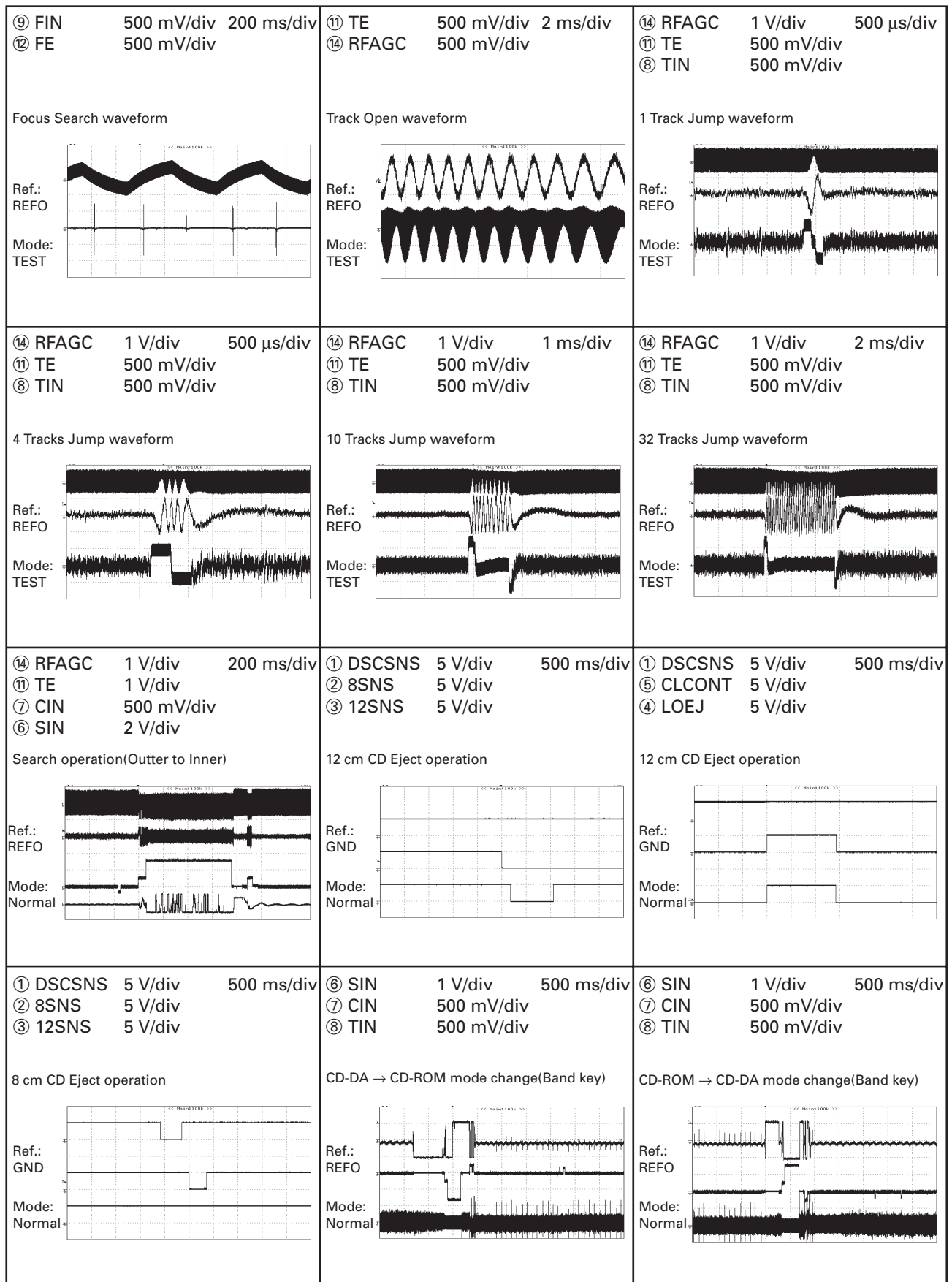
⑬ MDX 2 V/div 5 μs/div
⑥ SIN 500 mV/div

Spindle waveform during play operation (Wider)



E

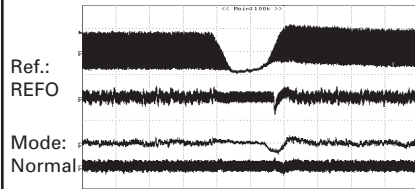
F



A

⑭ RFAGC 1 V/div 500 μ s/div
 ⑧ TIN 1 V/div
 ⑪ TE 1 V/div
 ⑨ FIN 1 V/div

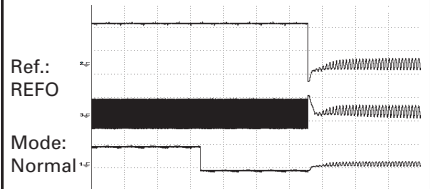
Black dot(800 μ m) during play



B

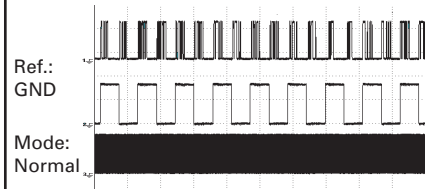
⑲ CD3VON 5 V/div 200 ms/div
 ⑰ LRCK 2 V/div
 ⑳ LRCKOK 2 V/div

12 cm CD Eject operation



⑳ DOUT 2 V/div 20 μ s/div
 ⑰ LRCK 2 V/div
 ⑱ BCK 2 V/div

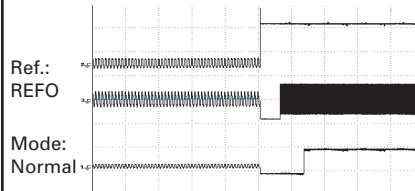
CD-DA play operation



C

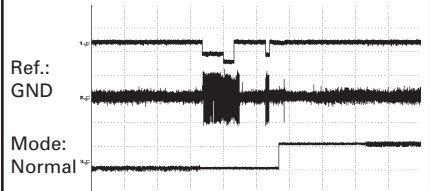
⑲ CD3VON 5 V/div 200 ms/div
 ⑰ LRCK 2 V/div
 ⑳ LRCKOK 2 V/div

12 cm CD-DA Source On setup operation



⑦ CIN 500 mV/div 100 ms/div
 ⑪ TE 500 mV/div
 ⑫ EMPH 5 V/div

Tracks Jump(EMPH : OFF $\rightarrow$ ON)



D

E

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8

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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

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6

DEH-P880PRS/XN/UC

■

7

■

8

■

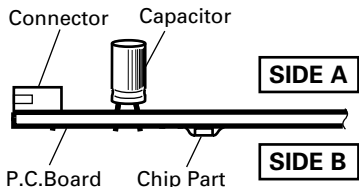
4. PCB CONNECTION DIAGRAM

4.1 TUNER AMP UNIT

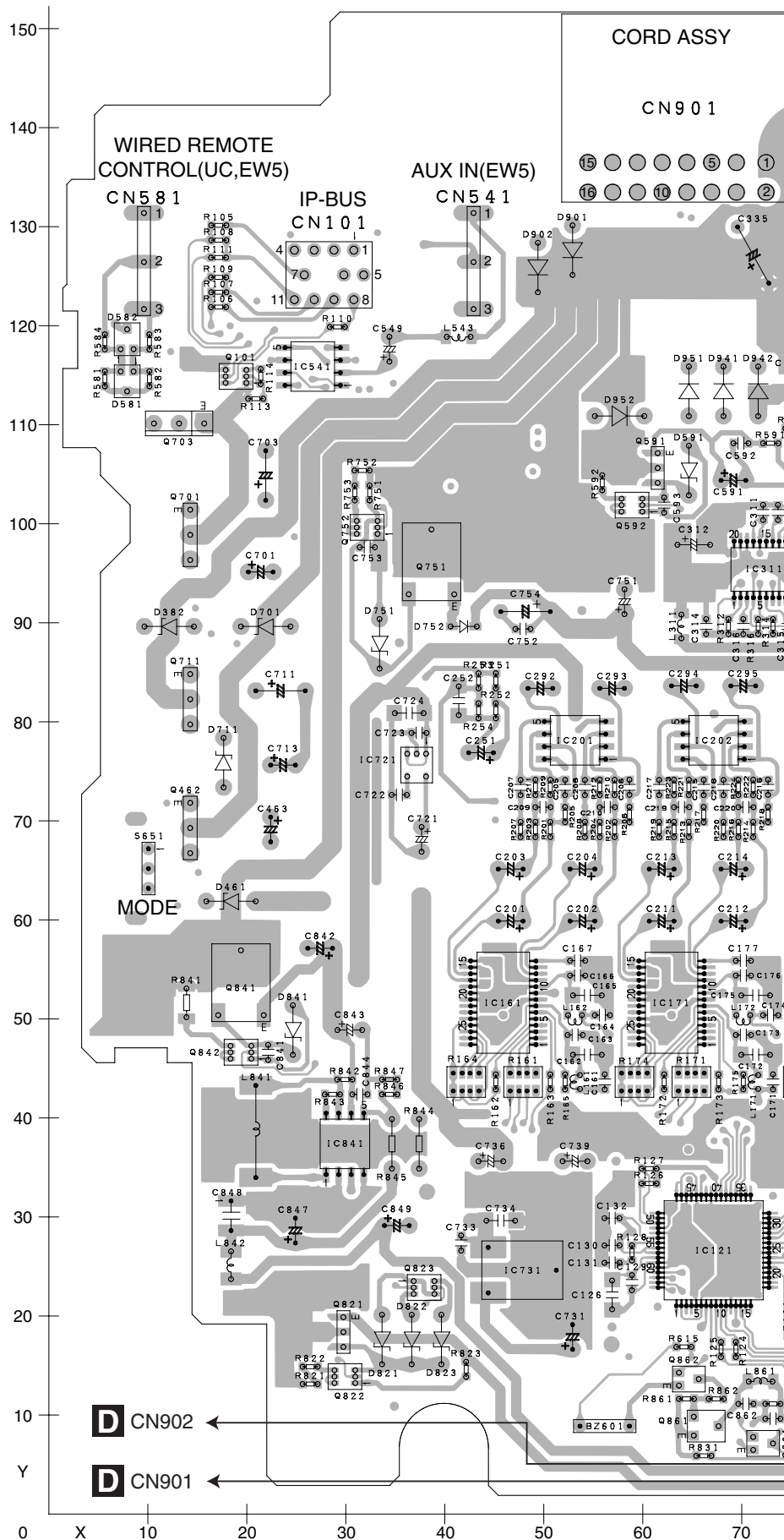
NOTE FOR PCB DIAGRAMS

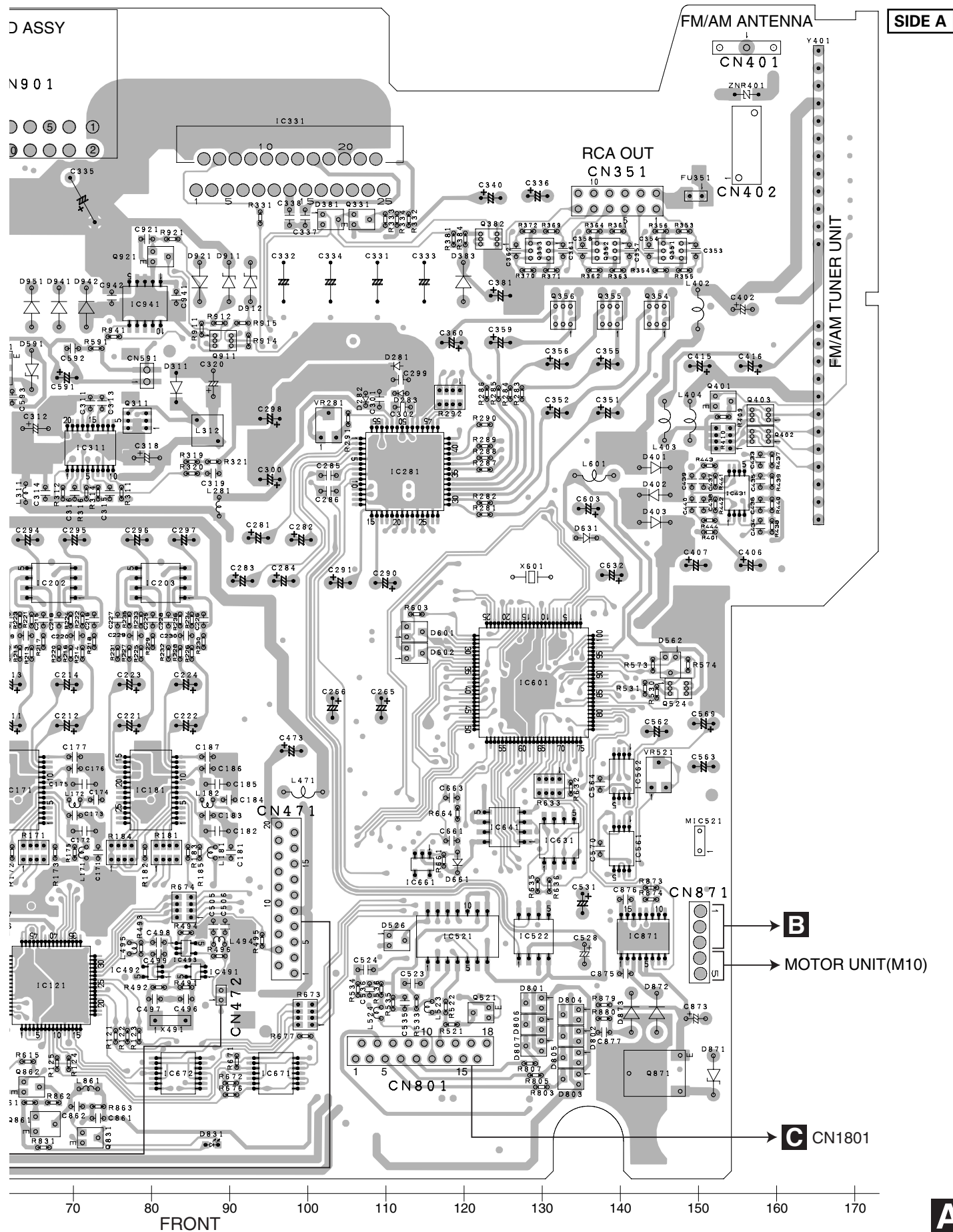
- 1.The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.

2.Viewpoint of PCB diagrams



A TUNER AMP UNIT





A

A TUNER AMP UNIT

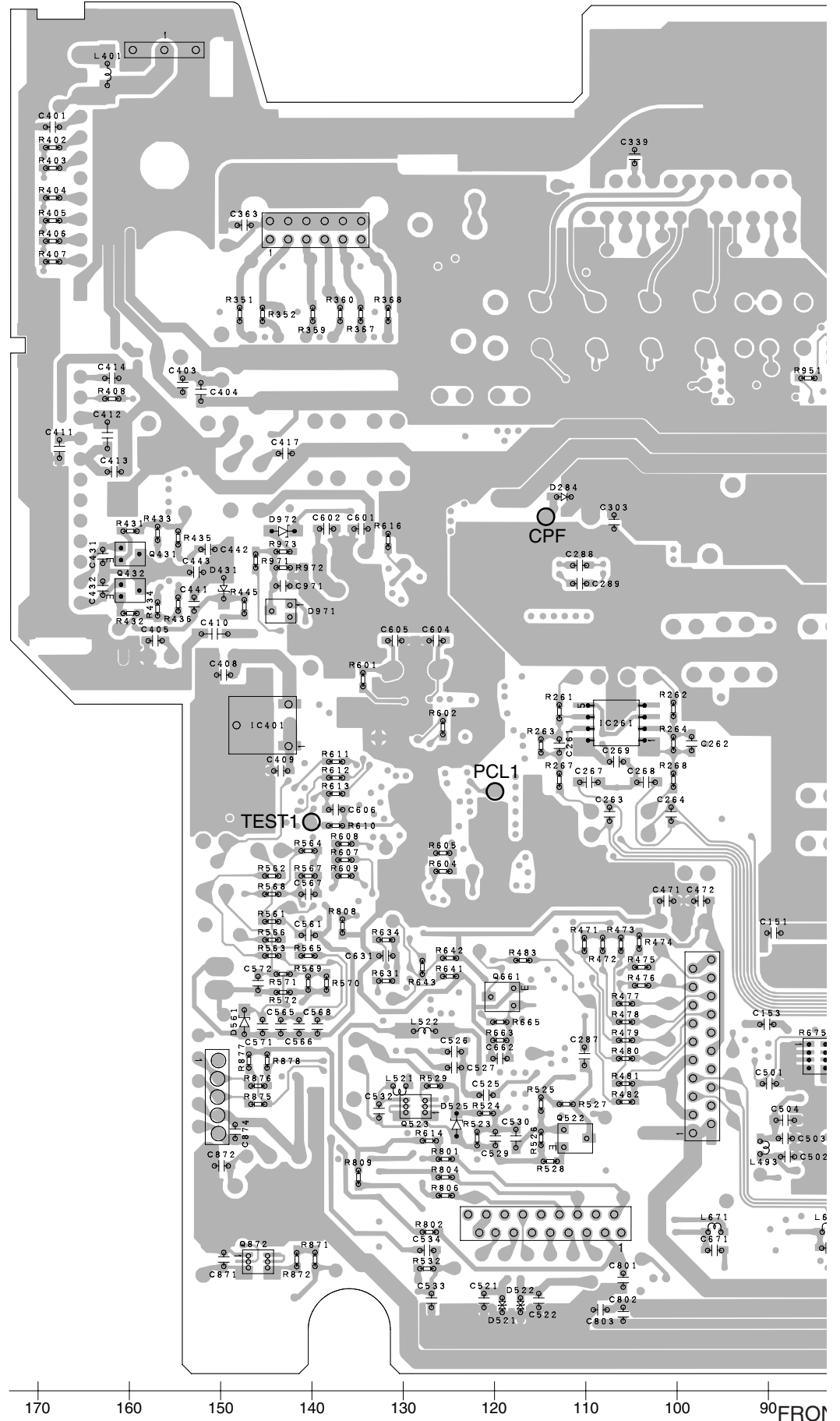
B

C

D

E

F



DEH-P880PRS/XN/UC

SIDE B

A

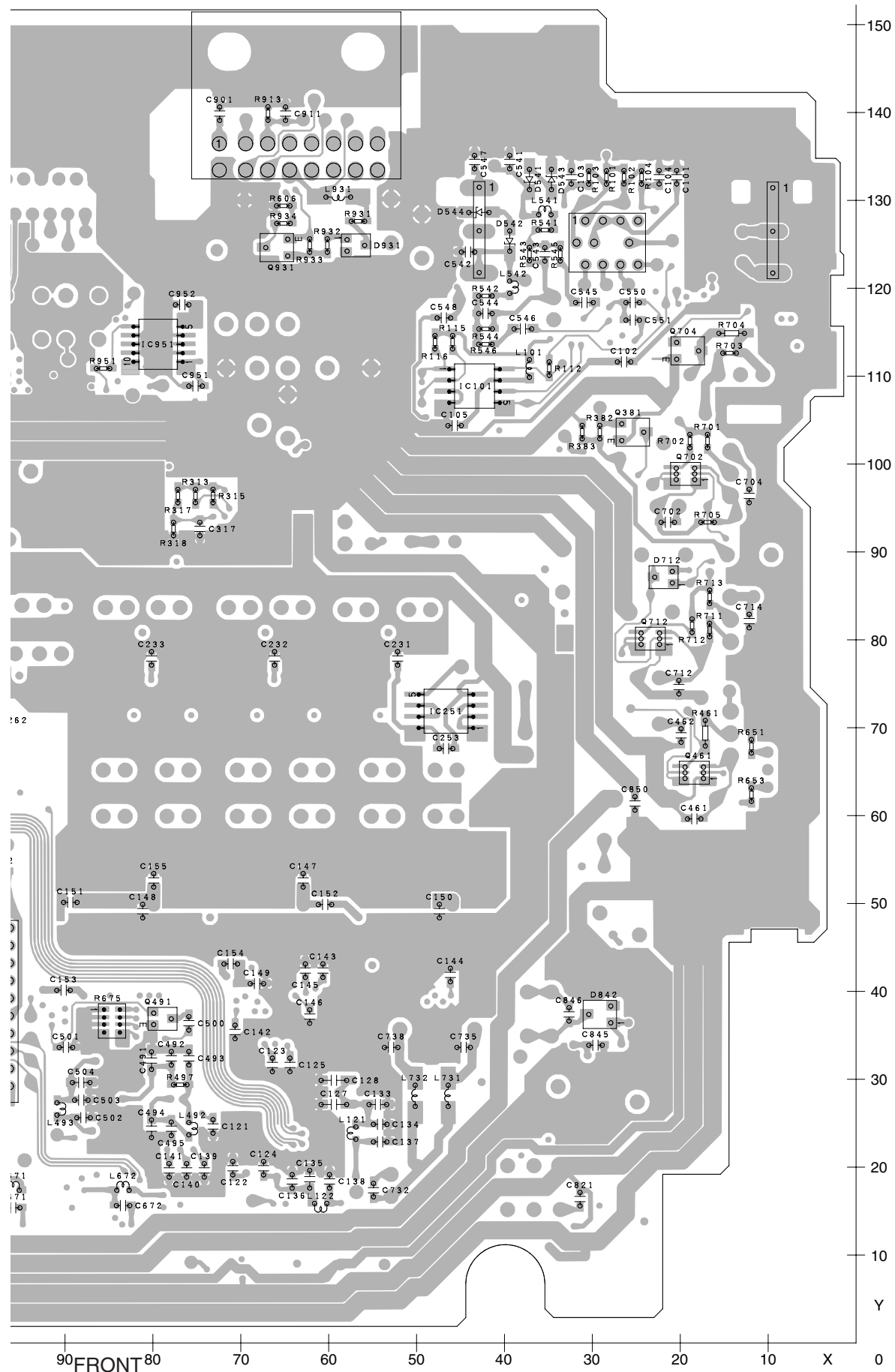
B

C

D

E

F



1

2

3

4

C

B

C

D

E

F

DEH-P880PRS/XN/UC

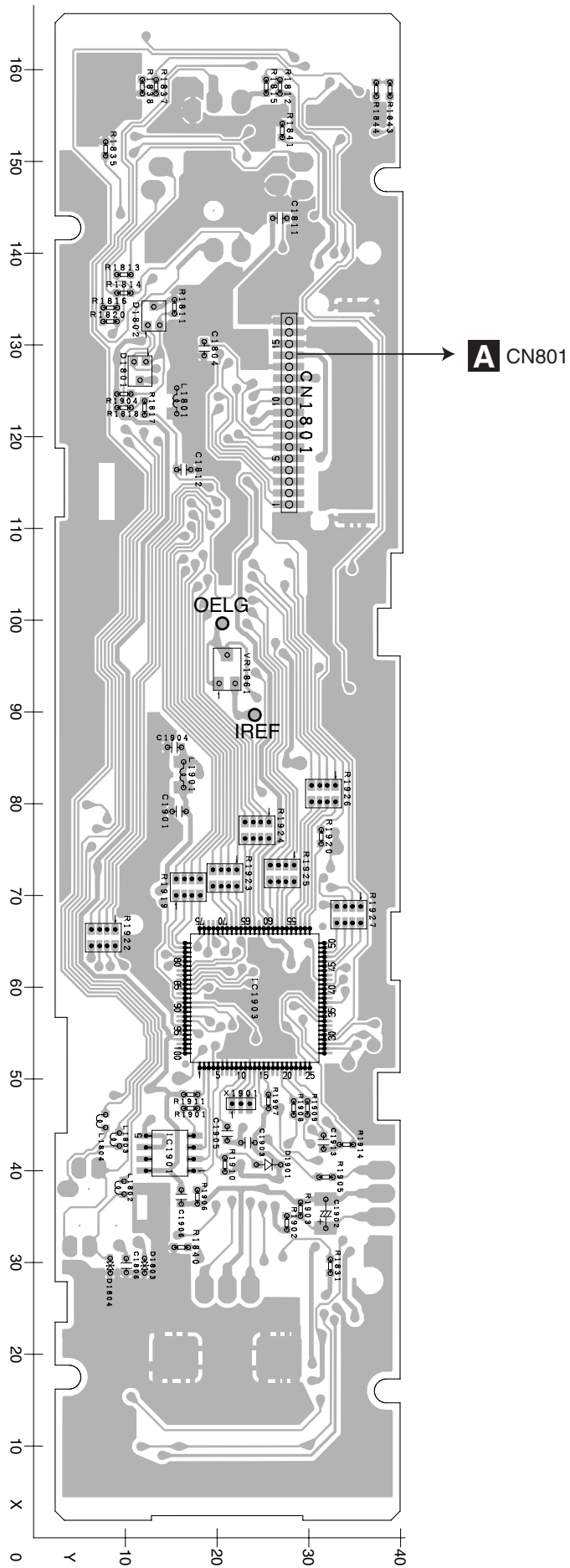
2

3

4

C KEYBOARD UNIT

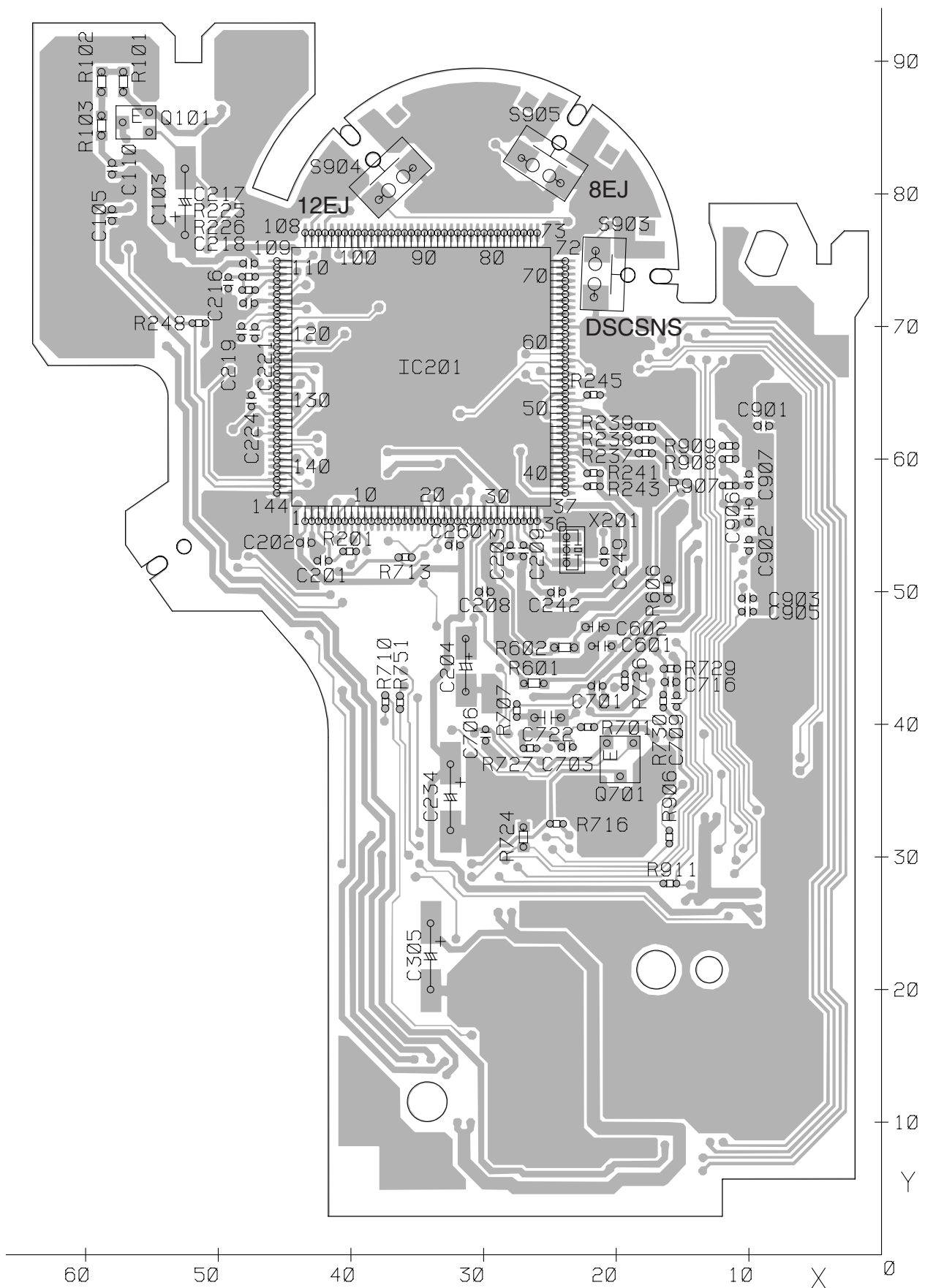
SIDE B



△

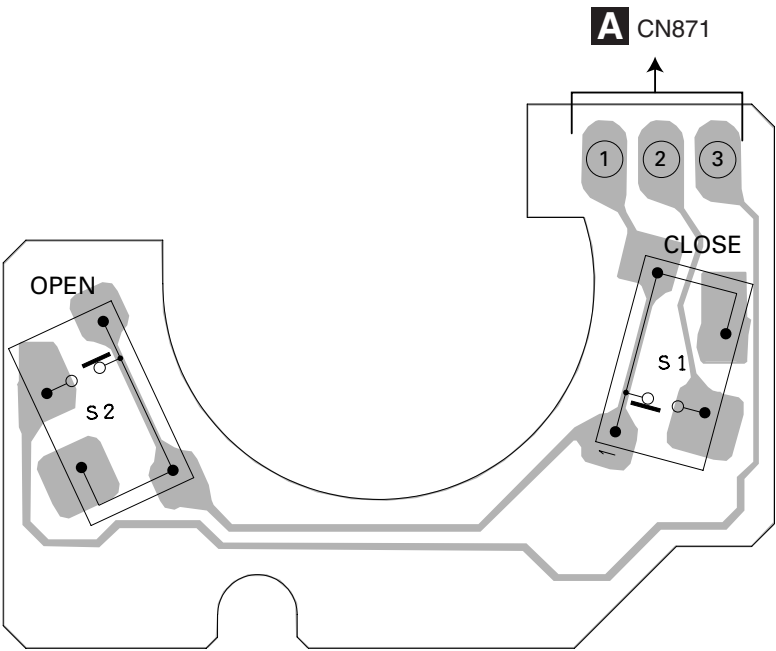
F





4.4 SWITCH UNIT

B SWITCH UNIT



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/OSOOOJ,RS1/OOSOOOJ

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

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

- The Δ 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.

- Meaning of the figures and others in the parentheses in the parts list.

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

Circuit Symbol and No.	Part No.	Circuit Symbol and No.	Part No.
Unit Number : CWN1478(UC model)	IC 492 (A,80,28) IC	TC7S04FU	
Unit Number : CWN1479(ES model)	IC 493 (A,84,31) IC	TC7SH08FUS1	
Unit Name : Tuner Amp Unit	IC 521 (A,119,33) IC	TC4066BF	
Unit Number : CWN1477(EW5 model)	IC 522 (A,129,33) IC	BA3121F	
Unit Name : Tuner Amp Unit	IC 601 (A,129,65) IC	PEG178A	
Unit Number : CWS1389	IC 631 (A,132,45) IC	BR25L320F-W	
Unit Name : Switch Unit	IC 661 (A,115,42) IC	S-80835CNMC-B8U	
Unit Number :	IC 671 (A,96,15) IC	TC74VHCT08AFTS1	
Unit Name : Keyboard Unit	IC 672 (A,83,15) IC	TC74VHC08FTS1	
Unit Number : CWX3381	IC 721 (A,37,76) IC	NJM2872F05	
Unit Name : CD Core Unit(\$10.5COMP1)	IC 731 (A,49,25) IC	NJM2885DL1-33	
	IC 841 (A,30,37) IC	NJM2360M	
	IC 871 (A,143,33) IC	BA6288FS	
	IC 941 (A,79,114) IC	TPD1018F	
	Q 101 (A,19,115) Transistor	UMF23N	
	Q 331 (A,107,125) Transistor	DTC124EU	
	Q 351 (A,147,121) Transistor	IMH23	
	Q 352 (A,138,121) Transistor	IMH23	
	Q 353 (A,130,121) Transistor	IMH23	
	Q 354 (A,145,112) Transistor	IMH23	
	Q 355 (A,139,112) Transistor	IMH23	
	Q 356 (A,133,112) Transistor	IMH23	
	Q 381 (B,25,104) Transistor	2SC3052-12	
	Q 382 (A,123,122) Transistor	UMD3N	
	Q 431 (B,160,92) Transistor	2SA1576	
	Q 432 (B,160,88) Transistor	2SA1576	
	Q 461 (B,18,65) Transistor	UMD3N	
	Q 462 (A,14,69) Transistor	2SD2396	
	Q 521 (A,122,23) Transistor	DTC114EU	
	Q 522 (B,111,28) Transistor	2SC3052-12	
	Q 523 (B,129,31) Transistor	UMD2N	
	Q 524 (A,147,65) Transistor	UMD2N	
	Q 591 (A,60,106) Transistor	2SD1767	
	Q 592 (A,59,102) Transistor	UMD3N	
	Q 661 (B,119,43) Transistor	2SC3052-12	
	Q 701 (A,14,99) Transistor	2SD2396	
	Q 702 (B,19,99) Transistor	UMD3N	
	Q 711 (A,14,82) Transistor	2SD2396	
	Q 712 (B,23,80) Transistor	UMD3N	
	Q 751 (A,39,98) Transistor	2SD1760F5	
	Q 752 (A,32,100) Transistor	UMD3N	
IC 101 (B,43,109) IC	HA12241FP		
IC 121 (A,67,27) IC	AK7732VT		
IC 161 (A,46,52) IC	PCM1793DB		
IC 171 (A,63,52) IC	PCM1793DB		
IC 181 (A,80,52) IC	PCM1793DB		
IC 201 (A,53,78) IC	NJM2114M		
IC 202 (A,67,78) IC	NJM2114M		
IC 203 (A,81,78) IC	NJM2114M		
IC 251 (B,47,72) IC	NJM4558MD		
IC 261 (B,107,73) IC	NJM4558MD		
IC 281 (A,112,92) IC	PM9009A		
IC 331 (A,98,134) IC	PAL007B		
IC 401 (B,147,73) IC	NJM2885DL1-33		
IC 431 (A,155,90) IC	NJM4558V		
IC 491 (A,86,28) IC	TC7SU04FU		

A

Unit Number : CWN1478(UC model)

Unit Number : CWN1479(ES model)

Unit Name : Tuner Amp Unit

MISCELLANEOUS

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

A	Q 821	(A,28,18) Transistor	2SD1767	D 921	(A,86,117) Diode	MPG06G-6415G50
	Q 822	(A,30,14) Transistor	UMD3N	D 931	(B,57,125) Diode	DAN202U
	Q 823	(A,38,23) Transistor	UMH1N	D 941	(A,68,113) Diode	MPG06G-6415G50
	Q 831	(A,72,7) Transistor	DTC114EU	D 942	(A,72,113) Diode	MPG06G-6415G50
	Q 841	(A,19,55) Transistor	2SD1760F5	D 971	(B,143,85) Diode Network	DA204U
	Q 842	(A,19,47) Transistor	UMD3N	D 972	(B,143,94) Diode	HZU7L(C2)
	Q 861	(A,66,9) Transistor	2SB710A	ZNR401	(A,156,141) Surge Protector	RCCA-201Q31UA-PI
	Q 862	(A,65,14) Transistor	DTC114EU	L 101	(B,37,111) Inductor	LCTC3R3K2125
	Q 871	(A,143,15) Transistor	2SD1760F5	L 121	(B,57,24) Inductor	CTF1379
	Q 872	(B,146,14) Transistor	UMD3N	L 122	(B,61,16) Inductor	CTF1379
B	Q 911	(A,89,109) Transistor	UMX1N	L 161	(A,54,44) Inductor	CTF1379
	Q 921	(A,81,120) Transistor	DTC114EU	L 162	(A,53,50) Inductor	CTF1379
	Q 931	(B,66,125) Transistor	2SA1235A-12	L 171	(A,72,44) Inductor	CTF1379
	D 281	(A,111,106) Diode	RB520S-30	L 172	(A,70,50) Inductor	CTF1379
	D 282	(A,107,102) Diode	1SS400	L 181	(A,88,44) Inductor	CTF1379
	D 283	(A,112,102) Diode	RB521S-30	L 182	(A,87,50) Inductor	CTF1379
	D 284	(B,112,98) Diode	RB521S-30	L 281	(A,89,88) Inductor	LCTAW2R2J2520
	D 381	(A,103,125) Diode	DAN202U	L 401	(B,162,144) Chip Coil	LCTAW4R7J2520
	D 382	(A,12,90) Diode	HZS9L(A2)	L 402	(A,150,113) Inductor	LAU1R0K
	D 383	(A,120,117) Diode	1SS133	L 403	(A,146,99) Inductor	LAU1R0K
	D 401	(A,144,93) Diode	1SR154-400	L 404	(A,149,99) Inductor	LAU2R2K
	D 402	(A,144,89) Diode	1SR154-400	L 471	(A,99,51) Ferri-Inductor	LAU100K
	D 403	(A,144,86) Diode	1SR154-400	L 492	(B,76,24) Inductor	CTF1379
	D 431	(B,150,88) Diode	UDZS5R6(B)	L 493	(B,91,27) Inductor	CTF1389
	D 461	(A,18,62) Diode	HZS7L(C3)	L 494	(A,89,32) Inductor	CTF1389
C	D 521	(B,119,9) Diode	RSB6R8S	L 521	(B,130,33) Inductor	LCTC1R0K1608
	D 522	(B,117,9) Diode	RSB6R8S	L 522	(B,128,39) Inductor	LCTAW2R2J2520
	D 525	(B,124,29) Diode	HZU3R9(B1)	L 523	(A,116,24) Inductor	CTF1334
	D 526	(A,111,32) Diode	DAN202U	L 524	(A,109,23) Inductor	CTF1334
	D 581	(A,8,114) Diode(UC)	DAN202U	L 601	(A,137,92) Ferri-Inductor	LAU100K
	D 582	(A,8,119) Diode(UC)	DAP202U	L 671	(B,96,17) Inductor	LCTC4R7K1608
	D 591	(A,65,105) Diode	HZS11L(B2)	L 672	(B,83,17) Inductor	LCTC4R7K1608
	D 631	(A,136,84) Diode	MA111	L 731	(B,46,28) Chip Coil	LCTAW1R0J2520
	D 661	(A,119,42) Diode	MA111	L 732	(B,50,28) Chip Coil	LCTAW1R0J2520
	D 701	(A,22,90) Diode	HZS9L(B2)	L 841	(A,21,39) Inductor	CTF1660
D	D 711	(A,18,76) Diode	HZS9L(B3)	L 842	(A,18,25) Inductor	LCTAW2R2J3225
	D 712	(B,22,87) Diode	DAN202U	L 931	(B,59,130) Inductor	LCTAW2R2J2520
	D 751	(A,33,88) Diode	HZS6L(B3)	X 491	(A,82,22) Crystal Resonator 16.934 MHz	CSS1620
	D 752	(A,42,90) Diode	RB551V-30	X 601	(A,129,79) Crystal Resonator 15.000 MHz	CSS1653
	D 801	(A,129,24) Diode Network	DA204U	S 651	(A,10,65) Switch(MODE)	CSH1051
	D 802	(A,134,20) Diode Network	DA204U	VR281	(A,103,98) Semi-fixed 15 kΩ(B)	CCP1397
	D 803	(A,134,15) Diode Network	DA204U	△FU351	(A,150,128) Fuse 3 A	CEK1286
	D 804	(A,134,23) Diode Network	DA204U	Y 401	(A,165,146) FM/AM Tuner Unit	CWE1802
	D 805	(A,134,17) Diode Network	DA204U	BZ601	(A,56,9) Buzzer	CPV1062
	D 806	(A,129,22) Diode Network	DA204U	RESISTORS		
E	D 807	(A,129,19) Diode Network	DA204U	R 101	(B,28,133)	RS1/16S150J
	D 821	(A,34,18) Diode	HZS11L(A2)	R 102	(B,26,133)	RS1/16S470J
	D 822	(A,37,18) Diode(UC)	HZS6L(C3)	R 103	(B,30,133)	RS1/16S101J
	D 823	(A,40,18) Diode	HZS7L(B3)	R 104	(B,24,133)	RS1/16S101J
	D 831	(A,88,6) LED(UC)	SML412BC5T(NP)	R 105	(A,17,130)	RS1/16S181J
	D 831	(A,88,6) LED(ES)	NECWB205-5780	R 106	(A,17,122)	RS1/16S181J
	D 841	(A,25,49) Diode	HZS9L(C2)	R 107	(A,17,123)	RS1/16S223J
	D 842	(B,29,37) Diode	RB411D	R 108	(A,17,129)	RS1/16S223J
	D 871	(A,152,15) Diode	HZS7L(B2)	R 109	(A,17,125)	RS1/16S102J
	D 872	(A,145,23) Diode	1SS133	R 110	(A,29,120)	RS1/16S222J
F	D 873	(A,141,23) Diode	1SS133	R 111	(A,17,127)	RS1/16S102J
	D 901	(A,53,128) Diode	MPG06G-6415G50	R 112	(B,35,111)	RS1/16S102J
	D 902	(A,49,126) Diode	MPG06G-6415G50	R 113	(A,21,113)	RS1/16S332J
	D 911	(A,90,117) Diode	HZS7L(C3)	R 114	(A,21,115)	RS1/16S562J
	D 912	(A,93,117) Diode	HZS7L(A1)			

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 115	(B,46,114)	RS1/16S472J		R 236	(A,84,73)	RN1/16SE6800D	
R 116	(B,48,114)	RS1/16S472J		R 251	(A,45,84)	RS1/16S332J	A
R 121	(A,75,20)	RS1/16S101J		R 252	(A,45,81)	RS1/16S563J	
R 122	(A,77,20)	RS1/16S101J		R 253	(A,43,84)	RS1/16S682J	
R 123	(A,78,20)	RS1/16S101J		R 254	(A,43,81)	RS1/16S473J	
R 124	(A,69,17)	RS1/16S681J		R 261	(B,113,74)	RS1/16S223J	
R 125	(A,68,17)	RS1/16S681J		R 262	(B,100,75)	RS1/16S223J	
R 126	(A,61,33)	RS1/16S104J		R 263	(B,115,71)	RS1/16S153J	
R 127	(A,61,35)	RS1/16S104J		R 264	(B,100,71)	RS1/16S153J	
R 128	(A,59,26)	RS1/16S153J		R 267	(B,113,67)	RS1/16S101J	
R 161	(A,48,44)	RAB4C101J		R 268	(B,100,67)	RS1/16S101J	
R 162	(A,45,44)	RS1/16S473J		R 281	(A,123,87)	RS1/16S390J	B
R 163	(A,51,44)	RS1/16S101J		R 282	(A,123,88)	RS1/16S390J	
R 164	(A,42,44)	RAB4C101J		R 283	(A,127,102)	RS1/16S390J	
R 165	(A,52,44)	RS1/16S473J		R 284	(A,126,102)	RS1/16S390J	
R 171	(A,65,44)	RAB4C101J		R 285	(A,124,102)	RS1/16S390J	
R 172	(A,62,44)	RS1/16S473J		R 286	(A,123,102)	RS1/16S390J	
R 173	(A,68,44)	RS1/16S101J		R 287	(A,123,93)	RS1/16S0R0J	
R 174	(A,59,44)	RAB4C101J		R 288	(A,123,94)	RS1/16S0R0J	
R 175	(A,70,44)	RS1/16S473J		R 289	(A,123,96)	RS1/16S0R0J	
R 181	(A,82,44)	RAB4C101J		R 290	(A,123,98)	RS1/16S0R0J	
R 182	(A,79,44)	RS1/16S473J		R 291	(A,105,99)	RS1/16S103J	C
R 183	(A,85,44)	RS1/16S101J		R 292	(A,118,102)	RAB4C101J	
R 184	(A,76,44)	RAB4C101J		R 331	(A,94,125)	RS1/16S103J	
R 185	(A,86,44)	RS1/16S473J		R 332	(A,113,125)	RS1/16S331J	
R 201	(A,51,69)	RN1/16SE1502D		R 333	(A,110,125)	RS1/16S103J	
R 202	(A,57,69)	RN1/16SE1502D		R 334	(A,111,125)	RS1/16S103J	
R 203	(A,49,69)	RN1/16SE1502D		R 351	(B,148,118)	RS1/16S390J	
R 204	(A,56,69)	RN1/16SE1502D		R 352	(B,145,118)	RS1/16S390J	
R 205	(A,52,71)	RN1/16SE1502D		R 353	(A,148,123)	RS1/16S223J	
R 206	(A,59,71)	RN1/16SE1502D		R 354	(A,145,118)	RS1/16S223J	
R 207	(A,48,69)	RN1/16SE1502D		R 359	(B,140,118)	RS1/16S390J	D
R 208	(A,54,69)	RN1/16SE1502D		R 360	(B,137,118)	RS1/16S390J	
R 209	(A,51,73)	RN1/16SE6800D		R 361	(A,140,123)	RS1/16S223J	
R 210	(A,57,73)	RN1/16SE6800D		R 362	(A,137,118)	RS1/16S223J	
R 211	(A,49,73)	RN1/16SE6800D		R 367	(B,135,118)	RS1/16S390J	
R 212	(A,56,73)	RN1/16SE6800D		R 368	(B,132,118)	RS1/16S390J	
R 213	(A,65,69)	RN1/16SE1502D		R 369	(A,131,123)	RS1/16S223J	
R 214	(A,71,69)	RN1/16SE1502D		R 370	(A,128,118)	RS1/16S223J	
R 215	(A,63,69)	RN1/16SE1502D		R 381	(A,119,122)	RS1/16S473J	
R 216	(A,70,69)	RN1/16SE1502D		R 382	(B,29,104)	RS1/16S103J	
R 217	(A,66,71)	RN1/16SE1502D		R 383	(B,31,104)	RS1/16S473J	E
R 218	(A,73,71)	RN1/16SE1502D		R 384	(A,120,122)	RS1/16S221J	
R 219	(A,62,69)	RN1/16SE1502D		R 401	(A,151,85)	RS1/16S471J	
R 220	(A,68,69)	RN1/16SE1502D		R 402	(B,168,136)	RS1/16S681J	
R 221	(A,65,73)	RN1/16SE6800D		R 403	(B,168,134)	RS1/16S681J	
R 222	(A,71,73)	RN1/16SE6800D		R 404	(B,168,131)	RS1/16S681J	
R 223	(A,63,73)	RN1/16SE6800D		R 405	(B,168,128)	RS1/16S681J	
R 224	(A,70,73)	RN1/16SE6800D		R 406	(B,168,126)	RS1/16S681J	
R 225	(A,79,69)	RN1/16SE1502D		R 407	(B,168,124)	RS1/16S681J	
R 226	(A,85,69)	RN1/16SE1502D		R 408	(B,162,109)	RS1/16S681J	
R 227	(A,77,69)	RN1/16SE1502D		R 431	(B,160,94)	RS1/16S222J	F
R 228	(A,84,69)	RN1/16SE1502D		R 432	(B,160,85)	RS1/16S222J	
R 229	(A,80,71)	RN1/16SE1502D		R 433	(B,157,94)	RS1/16S561J	
R 230	(A,87,71)	RN1/16SE1502D		R 434	(B,157,86)	RS1/16S561J	
R 231	(A,76,69)	RN1/16SE1502D		R 437	(A,159,94)	RS1/16S103J	
R 232	(A,82,69)	RN1/16SE1502D		R 438	(A,159,85)	RS1/16S103J	
R 233	(A,79,73)	RN1/16SE6800D		R 439	(A,159,91)	RS1/16S103J	
R 234	(A,85,73)	RN1/16SE6800D		R 440	(A,159,88)	RS1/16S103J	
R 235	(A,77,73)	RN1/16SE6800D		R 441	(A,152,91)	RS1/16S103J	

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

	R 442	(A,152,88)	RS1/16S103J	R 631	(B,132,45)	RS1/16S104J
A	R 443	(A,151,93)	RS1/16S103J	R 633	(A,131,52)	RAB4C681J
	R 444	(A,151,86)	RS1/16S103J	R 634	(B,132,49)	RS1/16S104J
	R 445	(B,147,86)	RS1/16S681J	R 635	(A,129,39)	RS1/16S104J
	R 461	(B,17,69)	RS1/4SA561J	R 636	(A,131,39)	RS1/16S104J
	R 471	(B,110,49)	RS1/16S682J	R 642	(B,125,47)	RS1/16S104J
	R 472	(B,108,49)	RS1/16S682J	R 651	(B,12,68)	RS1/16S0R0J
	R 473	(B,106,49)	RS1/16S682J	R 653	(B,12,62)	RS1/16S473J
	R 474	(B,104,49)	RS1/16S682J	R 661	(A,117,43)	RS1/16S183J
	R 475	(B,104,46)	RS1/16S221J	R 663	(B,119,38)	RS1/16S473J
	R 476	(B,104,44)	RS1/16S221J	R 664	(A,119,49)	RS1/16S102J
B	R 477	(B,106,42)	RS1/16S221J	R 665	(B,119,40)	RS1/16S222J
	R 478	(B,106,40)	RS1/16S221J	R 671	(A,91,17)	RS1/16S681J
	R 479	(B,106,38)	RS1/16S221J	R 672	(A,90,14)	RS1/16S681J
	R 480	(B,106,36)	RS1/16S681J	R 673	(A,100,23)	RAB4C681J
	R 481	(B,106,34)	RS1/16S473J	R 674	(A,84,37)	RAB4C272J
	R 482	(B,106,32)	RS1/16S473J	R 675	(B,85,37)	RAB4C472J
	R 483	(B,117,47)	RS1/16S102J	R 676	(A,90,13)	RS1/16S473J
	R 491	(A,84,26)	RN1/16SE1003D	R 677	(A,100,20)	RS1/16S473J
	R 492	(A,81,26)	RS1/16S152J	R 701	(B,17,103)	RS1/16S471J
	R 493	(A,79,31)	RS1/16S101J	R 702	(B,19,103)	RS1/16S561J
C	R 494	(A,84,33)	RS1/16S103J	R 705	(B,17,93)	RS1/16S473J
	R 495	(A,94,32)	RS1/16S472J	R 712	(B,19,82)	RS1/16S471J
	R 497	(B,77,29)	RS1/16S0R0J	R 713	(B,17,85)	RS1/16S471J
	R 521	(A,118,22)	RS1/16S103J	R 751	(A,32,103)	RS1/16S333J
	R 523	(B,122,28)	RS1/16S104J	R 752	(A,32,105)	RS1/16S681J
	R 524	(B,121,30)	RS1/16S222J	R 753	(A,31,103)	RS1/16S821J
	R 525	(B,115,31)	RS1/16S683J	R 801	(B,125,25)	RS1/16S222J
	R 526	(B,115,28)	RS1/16S153J	R 802	(B,127,17)	RS1/16S222J
	R 527	(B,112,31)	RS1/16S682J	R 803	(A,130,14)	RS1/16S222J
	R 528	(B,114,25)	RS1/16S152J	R 804	(B,125,23)	RS1/16S222J
D	R 529	(B,127,33)	RS1/16S561J	R 805	(A,129,15)	RS1/16S222J
	R 530	(A,145,64)	RS1/16S682J	R 806	(B,125,21)	RS1/16S222J
	R 531	(A,143,65)	RS1/16S683J	R 807	(A,128,17)	RS1/16S222J
	R 533	(A,114,24)	RS1/16S102J	R 808	(B,137,51)	RS1/16S104J
	R 534	(A,106,26)	RS1/16S102J	R 809	(B,135,23)	RS1/16S104J
	R 535	(A,111,24)	RS1/16S223J	R 821	(A,26,13)	RS1/16S221J
	R 536	(A,109,26)	RS1/16S223J	R 822	(A,26,15)	RS1/16S271J
	R 581	(A,6,115)	RS1/16S103J	R 823	(A,42,15)	RS1/16S473J
	R 582	(A,10,115)	RS1/16S104J	R 831	(A,66,6) (UC)	RS1/16S221J
	R 583	(A,10,118) (UC)	RS1/16S102J	R 831	(A,66,6) (ES)	RS1/16S181J
E	R 584	(A,6,118) (UC)	RS1/16S102J	R 841	(A,14,52)	RS1/4SA471J
	R 591	(A,73,108)	RS1/16S1R0J	R 842	(A,30,44)	RS1/16S1R0J
	R 592	(A,56,104)	RS1/16S391J	R 843	(A,29,42)	RS1/16S391J
	R 601	(B,134,78)	RS1/16S0R0J	R 844	(A,37,37)	RD1/4PU332J
	R 602	(B,126,73)	RS1/16S473J	R 845	(A,35,37)	RD1/4PU332J
	R 603	(A,114,74)	RS1/16S473J	R 846	(A,34,42)	RS1/16S121J
	R 604	(B,126,57) (ES)	RS1/16S104J	R 861	(A,64,12)	RS1/16S103J
	R 605	(B,126,59) (UC)	RS1/16S104J	R 862	(A,67,12)	RS1/16S222J
	R 606	(B,65,129)	RS1/16S473J	R 863	(A,73,11)	RS1/16S473J
	R 607	(B,136,58)	RS1/16S104J	R 871	(B,140,14)	RS1/16S471J
F	R 608	(B,136,60)	RS1/16S104J	R 872	(B,142,14)	RS1/16S471J
	R 609	(B,136,56)	RS1/16S104J	R 873	(A,144,39)	RS1/16S102J
	R 610	(B,137,62)	RS1/16S473J	R 874	(A,144,38)	RS1/16S102J
	R 611	(B,137,69)	RS1/16S681J	R 875	(B,146,31)	RS1/16S102J
	R 612	(B,137,67)	RS1/16S681J	R 876	(B,146,33)	RS1/16S102J
	R 613	(B,137,65)	RS1/16S681J	R 877	(B,147,36)	RS1/16S104J
	R 614	(B,127,27)	RS1/16S473J	R 878	(B,145,36)	RS1/16S104J
	R 615	(A,64,17)	RS1/16S102J	R 911	(A,86,111)	RS1/16S473J
	R 616	(B,132,93)	RS1/16S473J	R 912	(A,89,111)	RS1/16S104J

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 913	(B,67,140)	RS1/16S472J					
R 914	(A,92,109)	RS1/16S473J		C 184	(A,90,50)	CCSRCH102J50	
R 915	(A,92,111)	RS1/16S103J		C 185	(A,88,52)	CKSYB106K6R3	A
R 921	(A,83,122)	RS1/16S103J		C 186	(A,87,54)	CCSRCH102J50	
R 931	(B,57,128)	RS1/16S153J		C 187	(A,87,56)	CKSRYB105K6R3	
R 932	(B,60,125)	RS1/16S472J		C 201	(A,47,60) 10 µF/16 V	CCH1532	
R 933	(B,62,125)	RS1/16S472J		C 202	(A,54,60) 10 µF/16 V	CCH1532	
R 934	(B,65,127)	RS1/16S102J		C 203	(A,47,65) 10 µF/16 V	CCH1532	
R 941	(A,75,110)	RS1/16S103J		C 204	(A,54,65) 10 µF/16 V	CCH1532	
R 971	(B,146,91)	RS1/16S102J		C 205	(A,52,73)	CCSRCH221J50	
R 972	(B,143,90)	RS1/16S153J		C 206	(A,59,73)	CCSRCH221J50	
R 973	(B,143,92)	RS1/16S102J		C 207	(A,48,73)	CCSRCH221J50	
<u>CAPACITORS</u>				C 208	(A,54,73)	CCSRCH221J50	
C 101	(B,20,133)	CKSRYB104K16		C 209	(A,50,71)	CCSRCH821J50	
C 105	(B,46,104)	CKSRYB104K16		C 210	(A,56,71)	CCSRCH821J50	B
C 121	(B,73,25)	CKSRYB104K16		C 211	(A,62,60) 10 µF/16 V	CCH1532	
C 122	(B,71,20)	CKSRYB104K16		C 212	(A,69,60) 10 µF/16 V	CCH1532	
C 123	(B,66,32)	CKSRYB104K16		C 213	(A,62,65) 10 µF/16 V	CCH1532	
C 124	(B,67,20)	CKSRYB104K16		C 214	(A,69,65) 10 µF/16 V	CCH1532	
C 125	(B,64,32)	CKSRYB104K16		C 215	(A,66,73)	CCSRCH221J50	
C 126	(A,57,22)	CKSYB106K6R3		C 216	(A,73,73)	CCSRCH221J50	
C 127	(B,59,27)	CKSYB106K6R3		C 217	(A,62,73)	CCSRCH221J50	
C 128	(B,59,30)	CKSYB106K6R3		C 218	(A,68,73)	CCSRCH221J50	
C 129	(A,59,23)	CKSRYB104K16		C 219	(A,64,71)	CCSRCH821J50	
C 130	(A,57,27)	CKSRYB104K16		C 220	(A,70,71)	CCSRCH821J50	
C 131	(A,57,25)	CKSRYB682K50		C 221	(A,77,60) 10 µF/16 V	CCH1532	C
C 132	(A,57,30)	CKSRYB104K16		C 222	(A,84,60) 10 µF/16 V	CCH1532	
C 134	(B,54,25)	CKSRYB103K50		C 223	(A,77,65) 10 µF/16 V	CCH1532	
C 135	(B,62,19)	CKSQYB225K10		C 224	(A,84,65) 10 µF/16 V	CCH1532	
C 136	(B,64,18)	CKSRYB103K50		C 225	(A,80,73)	CCSRCH221J50	
C 137	(B,54,23)	CKSRYB473K25		C 226	(A,87,73)	CCSRCH221J50	
C 138	(B,60,18)	CKSRYB473K25		C 227	(A,76,73)	CCSRCH221J50	
C 139	(B,74,20)	CCSRCH470J50		C 228	(A,82,73)	CCSRCH221J50	
C 140	(B,76,20)	CCSRCH470J50		C 229	(A,78,71)	CCSRCH821J50	
C 141	(B,78,20)	CCSRCH470J50		C 230	(A,84,71)	CCSRCH821J50	
C 142	(B,71,35)	CCSRCH470J50		C 231	(B,52,78)	CKSRYB104K16	D
C 143	(B,61,42)	CCSRCH470J50		C 232	(B,66,78)	CKSRYB104K16	
C 144	(B,46,42)	CCSRCH470J50		C 233	(B,80,78)	CKSRYB104K16	
C 145	(B,63,42)	CCSRCH470J50		C 251	(A,44,77) 10 µF/16 V	CCH1532	
C 146	(B,62,37)	CCSRCH470J50		C 252	(A,41,82)	CKSYB106K6R3	
C 147	(B,63,53)	CKSRYB102K50		C 253	(B,47,68)	CKSRYB104K16	
C 161	(A,56,44)	CCSRCH102J50		C 261	(B,113,71)	CCSRCH220J50	
C 162	(A,54,46)	CKSYB106K6R3		C 262	(B,98,71)	CCSRCH220J50	
C 163	(A,53,48)	CCSRCH102J50		C 263	(B,107,63)	CKSRYB332K50	
C 164	(A,56,50)	CCSRCH102J50		C 264	(B,101,63)	CKSRYB332K50	
C 165	(A,54,52)	CKSYB106K6R3		C 265	(A,109,62)	CEAL2R2M50	
C 166	(A,53,54)	CCSRCH102J50		C 266	(A,103,62)	CEAL2R2M50	E
C 167	(A,53,56)	CKSRYB105K6R3		C 267	(B,110,67)	CKSQYB225K10	
C 171	(A,73,44)	CCSRCH102J50		C 268	(B,103,67)	CKSQYB225K10	
C 172	(A,71,46)	CKSYB106K6R3		C 269	(B,107,69)	CKSRYB104K25	
C 173	(A,70,48)	CCSRCH102J50		C 281	(A,94,84)	CEJQ2R2M50	
C 174	(A,73,50)	CCSRCH102J50		C 282	(A,99,84)	CEJQ2R2M50	
C 175	(A,71,52)	CKSYB106K6R3		C 283	(A,92,78)	CEJQ2R2M50	
C 176	(A,70,54)	CCSRCH102J50		C 284	(A,97,78)	CEJQ2R2M50	
C 177	(A,70,56)	CKSRYB105K6R3		C 285	(A,103,92)	CKSQYB225K10	
C 181	(A,90,44)	CCSRCH102J50		C 286	(A,103,90)	CKSQYB225K10	
C 182	(A,88,46)	CKSYB106K6R3		C 287	(B,110,37)	CKSQYB225K10	F
C 183	(A,87,48)	CCSRCH102J50		C 288	(B,111,90)	CKSRYB104K50	
				C 289	(B,111,88)	CKSRYB104K50	
				C 290	(A,110,78)	CEAL100M16	
				C 291	(A,104,78)	CEAL100M16	

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

A	C 292	(A,50,83) 10 μ F/16 V	CCH1563	C 473	(A,98,57)	CEJQ101M10
	C 293	(A,57,83) 10 μ F/16 V	CCH1563	C 491	(B,80,32)	CKSQYB225K10
	C 294	(A,64,84) 10 μ F/16 V	CCH1563	C 492	(B,78,32)	CKSRYB103K50
	C 295	(A,70,84) 10 μ F/16 V	CCH1563	C 494	(B,80,24)	CKSQYB225K10
	C 296	(A,78,84) 10 μ F/16 V	CCH1563	C 495	(B,78,24)	CKSRYB103K50
	C 297	(A,84,84) 10 μ F/16 V	CCH1563	C 496	(A,84,25)	CCSRCH100D50
	C 298	(A,95,99) 56 μ F/10 V	CCH1701	C 497	(A,80,25)	CCSRCH100D50
	C 299	(A,112,104)	CKSQYB474K16	C 498	(A,81,32)	CCSRCH220J50
	C 300	(A,95,91) 56 μ F/10 V	CCH1701	C 499	(A,81,31)	CCSRCH470J50
	C 301	(A,109,102)	CKSQYB475K10	C 502	(B,88,26)	CKSRYB103K50
B	C 302	(A,112,101)	CKSQYB105K16	C 503	(B,88,28)	CKSRYB103K50
	C 303	(B,107,95)	CKSRYB104K16	C 504	(B,88,30)	CKSQYB225K10
	C 331	(A,109,117)	CFTNA274J50	C 505	(A,88,34)	CCSRCH151J50
	C 332	(A,97,117)	CFTNA274J50	C 506	(A,89,34)	CCSRCH390J50
	C 333	(A,115,117)	CFTNA274J50	C 521	(B,121,10)	CKSRYB221K50
	C 334	(A,103,117)	CFTNA274J50	C 522	(B,115,10)	CKSRYB221K50
	C 335	(A,71,127) 3 300 μ F/16 V	CCH1547	C 523	(A,113,27)	CKSQYB105K10
	C 336	(A,129,128) 10 μ F/16 V	CCH1532	C 524	(A,107,29)	CKSQYB105K10
	C 337	(A,100,125)	CKSQYB225K10	C 525	(B,121,32)	CKSRYB104K16
	C 338	(A,98,125)	CKSQYB225K10	C 526	(B,124,37)	CKSRYB104K16
C	C 339	(B,105,135)	CKSRYB104K16	C 527	(B,124,35)	CKSRYB105K10
	C 340	(A,123,127)	CEHAR330M10	C 528	(A,135,31)	CEAL100M16
	C 351	(A,138,100) 10 μ F/16 V	CCH1532	C 529	(B,120,28)	CCSRCH681J50
	C 352	(A,132,100) 10 μ F/16 V	CCH1532	C 530	(B,118,28)	CKSQYB225K10
	C 355	(A,138,106) 10 μ F/16 V	CCH1532	C 531	(A,135,37)	CEJQ101M6R3
	C 356	(A,132,106) 10 μ F/16 V	CCH1532	C 532	(B,133,31)	CKSRYB103K50
	C 359	(A,125,109) 10 μ F/16 V	CCH1532	C 533	(B,127,10)	CKSRYB104K16
	C 360	(A,118,109) 10 μ F/16 V	CCH1532	C 534	(B,127,15)	CKSRYB471K50
	C 381	(A,125,115)	CEJQ220M16	C 535	(A,112,24)	CKSRYB682K50
	C 401	(B,168,138)	CKSRYB103K50	C 536	(A,108,26)	CKSRYB682K50
D	C 402	(A,156,113)	CEAL101M10	C 591	(A,69,104)	CEJQ100M16
	C 403	(B,154,110)	CKSRYB104K16	C 592	(A,70,108)	CKSRYB103K50
	C 404	(B,152,109)	CKSQYB475K10	C 593	(A,62,102)	CKSRYB103K50
	C 405	(B,157,82)	CKSRYB103K50	C 602	(B,138,94)	CKSQYB225K10
	C 406	(A,157,80)	CEJQ101M10	C 603	(A,136,88)	CEJQ4R7M35
	C 407	(A,150,80)	CEJQ220M25	C 604	(B,126,82)	CCSRCH180J50
	C 408	(B,150,78)	CKSRYB103K50	C 605	(B,131,82)	CCSRCH180J50
	C 409	(B,143,68)	CKSRYB103K50	C 606	(B,137,64)	CCSRCH470J50
	C 410	(B,151,83)	CKSYB475K16	C 631	(B,132,48)	CKSRYB104K16
	C 412	(B,162,105)	CKSYB475K16	C 632	(A,139,79)	CEJQ101M16
	C 413	(B,162,101)	CKSRYB103K50	C 661	(A,118,45)	CKSRYB105K10
	C 414	(B,162,111)	CKSRYB103K50	C 662	(B,119,36)	CKSRYB104K16
	C 415	(A,150,106)	CEJQ470M10	C 671	(B,96,15)	CKSRYB104K16
	C 416	(A,157,106)	CEJQ470M10	C 672	(B,83,16)	CKSRYB104K16
	C 417	(B,143,103)	CKSRYB102K50	C 701	(A,21,95)	CEJQ101M16
E	C 431	(B,163,91)	CKSRYB332K50	C 702	(B,21,93)	CKSRYB103K50
	C 432	(B,163,88)	CKSRYB332K50	C 703	(A,22,105)	CEJQ221M10
	C 433	(A,158,94)	CKSRYB474K10	C 704	(B,12,96)	CKSRYB102K50
	C 434	(A,158,85)	CKSRYB474K10	C 711	(A,23,83)	CEJQ221M10
	C 435	(A,158,91)	CCSRCH470J50	C 712	(B,20,75)	CKSRYB472K50
	C 436	(A,158,88)	CCSRCH470J50	C 713	(A,24,76)	CEJQ2R2M50
	C 437	(A,151,91)	CCSRCH470J50	C 714	(B,12,82)	CKSRYB102K50
	C 438	(A,151,88)	CCSRCH470J50	C 721	(A,38,68) 47 μ F/16 V	CCH1533
	C 439	(A,149,91)	CKSRYB474K10	C 722	(A,35,73)	CKSRYB104K16
	C 440	(A,149,88)	CKSRYB474K10	C 723	(A,37,79)	CKSRYB104K16
F	C 441	(B,153,86)	CKSRYB105K10	C 724	(A,36,81)	CKSYB475K10
	C 442	(B,151,92)	CKSRYB105K10	C 731	(A,53,18)	CEAL220M6R3
	C 461	(B,18,60)	CKSRYB473K50	C 732	(B,55,17)	CKSRYB104K16
	C 462	(B,20,69)	CKSRYB102K50	C 733	(A,42,27)	CKSRYB104K16
	C 463	(A,22,69)	CEJQ101M10	C 734	(A,46,30)	CKSYB475K10

5			6			7			8										
Circuit Symbol and No.			Part No.			Circuit Symbol and No.			Part No.										
C 735	(B,45,34)	100 μF/10 V	CCSRCH101J50			IC 601	(A,129,65) IC		PEG176A		A								
C 736	(A,45,36)		CCH1511			IC 631	(A,132,45) IC		BR25L320F-W										
C 738	(B,53,34)		CCSRCH101J50			IC 661	(A,115,42) IC		S-80835CNMC-B8U										
C 739	(A,53,36)		CEAL101M6R3			IC 671	(A,96,15) IC		TC74VHCT08AFTS1										
C 751	(A,58,92)		CEAL470M6R3			IC 672	(A,83,15) IC		TC74VHC08FTS1										
C 752	(A,48,89)	0.1 F/5.5 V	CKSRYB103K50			IC 721	(A,37,76) IC		NJM2872F05										
C 753	(A,32,98)		CKSRYB472K50			IC 731	(A,49,25) IC		NJM2885DL1-33										
C 754	(A,48,99)		CCL1050			IC 841	(A,30,37) IC		NJM2360M										
C 801	(B,106,12)		CKSRYB104K16			IC 871	(A,143,33) IC		BA6288FS										
C 821	(B,31,16)		CKSRYB473K25			IC 941	(A,79,114) IC		TPD1018F										
C 841	(A,22,47)	4.7 μF	CKSRYB103K50			Q 101	(A,19,115) Transistor		UMF23N		B								
C 842	(A,27,57)		CEJQ470M25			Q 331	(A,107,125) Transistor		DTC124EU										
C 843	(A,30,49)		CEAL101M10			Q 351	(A,147,121) Transistor		IMH23										
C 844	(A,31,42)		CKSRYB104K16			Q 352	(A,138,121) Transistor		IMH23										
C 845	(B,30,34)		CCSRCH331J50			Q 353	(A,130,121) Transistor		IMH23										
C 846	(B,33,37)	4.7 μF	CKSRYB103K50			Q 354	(A,145,112) Transistor		IMH23										
C 847	(A,25,29)		CEJQ470M25			Q 355	(A,139,112) Transistor		IMH23										
C 848	(A,18,30)		CCG1111			Q 356	(A,133,112) Transistor		IMH23										
C 849	(A,35,29)		CEJQ470M25			Q 381	(B,25,104) Transistor		2SC3052-12										
C 850	(B,25,61)		CKSRYB474K10			Q 382	(A,123,122) Transistor		UMD3N										
C 862	(A,70,11)		CKSRYB105K10			Q 401	(A,153,101) Transistor		DTC143EU		C								
C 871	(B,150,14)		CKSRYB224K10			Q 402	(A,158,97) Transistor		UMH1N										
C 872	(B,150,25)		CKSRYB104K16			Q 403	(A,158,100) Transistor		UMH1N										
C 873	(A,150,22)		CEAL220M16			Q 431	(B,160,92) Transistor		2SA1576										
C 874	(B,148,28)		CKSRYB102K50			Q 432	(B,160,88) Transistor		2SA1576										
C 875	(A,141,28)		CCSRCH101J50			Q 461	(B,18,65) Transistor		UMD3N										
C 876	(A,141,38)		CCSRCH101J50			Q 462	(A,14,69) Transistor		2SD2396										
C 911	(B,65,140)		CKSRYB104K16			Q 522	(B,111,28) Transistor		2SC3052-12										
C 921	(A,79,122)		CKSRYB105K10			Q 523	(B,129,31) Transistor		UMD2N										
C 941	(A,83,115)		CKSRYB473K25			Q 591	(A,60,106) Transistor		2SD1767										
C 942	(A,75,115)		CKSRYB104K16			Q 592	(A,59,102) Transistor		UMD3N		D								
C 971	(B,143,88)		CKSRYB104K16			Q 661	(B,119,43) Transistor		2SC3052-12										
A						Q 701	(A,14,99) Transistor		2SD2396										
						Q 702	(B,19,99) Transistor		UMD3N										
						Q 711	(A,14,82) Transistor		2SD2396										
						Q 712	(B,23,80) Transistor		UMD3N										
						Q 751	(A,39,98) Transistor		2SD1760F5										
Unit Number : CWN1477(EW5 model)						Q 752	(A,32,100) Transistor		UMD3N										
						Q 821	(A,28,18) Transistor		2SD1767										
						Q 822	(A,30,14) Transistor		UMD3N										
						Q 823	(A,38,23) Transistor		UMH1N	E									
						Q 831	(A,72,7) Transistor		DTC114EU										
Unit Name : Tuner Amp Unit						Q 841	(A,19,55) Transistor		2SD1760F5										
						Q 842	(A,19,47) Transistor		UMD3N										
						Q 861	(A,66,9) Transistor		2SB710A										
						Q 862	(A,65,14) Transistor		DTC114EU										
						Q 871	(A,143,15) Transistor		2SD1760F5										
MISCELLANEOUS						Q 872	(B,146,14) Transistor		UMD3N										
						Q 911	(A,89,109) Transistor		UMX1N										
						Q 921	(A,81,120) Transistor		DTC114EU										
						Q 931	(B,66,125) Transistor		2SA1235A-12										
						D 281	(A,111,106) Diode		RB520S-30										
IC 101	(B,43,109) IC		HA12241FP			D 282	(A,107,102) Diode		1SS400										
IC 121	(A,67,27) IC		AK7732VT			D 283	(A,112,102) Diode		RB521S-30										
IC 161	(A,46,52) IC		PCM1793DB			D 284	(B,112,98) Diode		RB521S-30										
IC 171	(A,63,52) IC		PCM1793DB			D 381	(A,103,125) Diode		DAN202U	F									
IC 181	(A,80,52) IC		PCM1793DB			D 382	(A,12,90) Diode		HZS9L(A2)										
IC 201	(A,53,78) IC		NJM2114M			D 383	(A,120,117) Diode		1SS133										
IC 202	(A,67,78) IC		NJM2114M			D 401	(A,144,93) Diode		1SR154-400										
IC 203	(A,81,78) IC		NJM2114M			D 402	(A,144,89) Diode		1SR154-400										
IC 251	(B,47,72) IC		NJM4558MD			DEH-P880PRS/XN/UC													
IC 261	(B,107,73) IC		NJM4558MD																
IC 281	(A,112,92) IC		PM9009A																
IC 331	(A,98,134) IC		PAL007B																
IC 401	(B,147,73) IC		NJM2885DL1-33																
IC 431	(A,155,90) IC		NJM4558V																
IC 491	(A,86,28) IC		TC7SU04FU																
IC 492	(A,80,28) IC		TC7S04FU																
IC 493	(A,84,31) IC		TC7SH08FUS1																
IC 541	(A,27,116) IC		BA3121F																
IC 561	(A,140,44) IC		NJM4558V																
IC 562	(A,140,53) IC		NJM4558V																

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

A	D 403	(A,144,86) Diode	1SR154-400
	D 431	(B,150,88) Diode	UDZS5R6(B)
	D 461	(A,18,62) Diode	HZS7L(C3)
	D 521	(B,119,9) Diode	RSB6R8S
	D 525	(B,124,29) Diode	HZU3R9(B1)
	D 541	(B,37,132) Diode	UDZS6R8(B)
	D 542	(B,39,125) Diode	UDZS6R8(B)
	D 543	(B,35,132) Diode	UDZS6R8(B)
	D 544	(B,43,129) Diode	UDZS6R8(B)
	D 561	(B,147,40) Diode	UDZS3R9(B)
B	D 562	(A,146,68) Diode	RB706F-40
	D 581	(A,8,114) Diode	DAN202U
	D 582	(A,8,119) Diode	DAP202U
	D 591	(A,65,105) Diode	HZS11L(B2)
	D 631	(A,136,84) Diode	MA111
	D 661	(A,119,42) Diode	MA111
	D 701	(A,22,90) Diode	HZS9L(B2)
	D 711	(A,18,76) Diode	HZS9L(B3)
	D 712	(B,22,87) Diode	DAN202U
	D 751	(A,33,88) Diode	HZS6L(B3)
C	D 752	(A,42,90) Diode	RB551V-30
	D 801	(A,129,24) Diode Network	DA204U
	D 802	(A,134,20) Diode Network	DA204U
	D 803	(A,134,15) Diode Network	DA204U
	D 804	(A,134,23) Diode Network	DA204U
	D 805	(A,134,17) Diode Network	DA204U
	D 806	(A,129,22) Diode Network	DA204U
	D 807	(A,129,19) Diode Network	DA204U
	D 821	(A,34,18) Diode	HZS11L(A2)
	D 823	(A,40,18) Diode	HZS7L(B3)
	D 831	(A,88,6) LED	NECWB205-5780
	D 841	(A,25,49) Diode	HZS9L(C2)
	D 842	(B,29,37) Diode	RB411D
	D 871	(A,152,15) Diode	HZS7L(B2)
	D 872	(A,145,23) Diode	1SS133
D	D 873	(A,141,23) Diode	1SS133
	D 901	(A,53,128) Diode	MPG06G-6415G50
	D 902	(A,49,126) Diode	MPG06G-6415G50
	D 911	(A,90,117) Diode	HZS7L(C3)
	D 912	(A,93,117) Diode	HZS7L(A1)
	D 921	(A,86,117) Diode	MPG06G-6415G50
	D 931	(B,57,125) Diode	DAN202U
	D 941	(A,68,113) Diode	MPG06G-6415G50
	D 942	(A,72,113) Diode	MPG06G-6415G50
	D 971	(B,143,85) Diode Network	DA204U
E	D 972	(B,143,94) Diode	HZU7L(C2)
	ZNR401	(A,156,141) Surge Protector	RCCA-201Q31UA-PI
	L 101	(B,37,111) Inductor	LCTC3R3K2125
	L 121	(B,57,24) Inductor	CTF1379
	L 122	(B,61,16) Inductor	CTF1379
	L 161	(A,54,44) Inductor	CTF1379
	L 162	(A,53,50) Inductor	CTF1379
	L 171	(A,72,44) Inductor	CTF1379
	L 172	(A,70,50) Inductor	CTF1379
	L 181	(A,88,44) Inductor	CTF1379
F	L 182	(A,87,50) Inductor	CTF1379
	L 281	(A,89,88) Inductor	LCTAW2R2J2520
	L 401	(B,162,144) Chip Coil	LCTAW4R7J2520
	L 402	(A,150,113) Inductor	LAU1R0K
	L 403	(A,146,99) Inductor	LAU1R0K

L 404	(A,149,99) Inductor	LAU2R2K
L 471	(A,99,51) Ferri-Inductor	LAU100K
L 492	(B,76,24) Inductor	CTF1379
L 493	(B,91,27) Inductor	CTF1389
L 494	(A,89,32) Inductor	CTF1389
L 521	(B,130,33) Inductor	LCTC1R0K1608
L 541	(B,35,128) Inductor	CTF1334
L 542	(B,39,120) Inductor	CTF1334
L 543	(A,41,119) Inductor	LCTAW2R2J2520
L 601	(A,137,92) Ferri-Inductor	LAU100K
L 671	(B,96,17) Inductor	LCTC4R7K1608
L 672	(B,83,17) Inductor	LCTC4R7K1608
L 731	(B,46,28) Chip Coil	LCTAW1R0J2520
L 732	(B,50,28) Chip Coil	LCTAW1R0J2520
L 841	(A,21,39) Inductor	CTF1660
L 842	(A,18,25) Inductor	LCTAW2R2J3225
L 931	(B,59,130) Inductor	LCTAW2R2J2520
X 491	(A,82,22) Crystal Resonator 16.934 MHz	CSS1620
X 601	(A,129,79) Crystal Resonator 15.000 MHz	CSS1653
S 651	(A,10,65) Switch(MODE)	CSH1051
VR281	(A,103,98) Semi-fixed 15 kΩ(B)	CCP1397
VR521	(A,145,54) Semi-fixed 10 kΩ(B)	CCP1448
△FU351	(A,150,128) Fuse 3 A	CEK1286
MIC521	(A,148,45) Microphone	CPM1068
Y 401	(A,165,146) FM/AM Tuner Unit	CWE1801
BZ601	(A,56,9) Buzzer	CPV1062

RESISTORS

R 101	(B,28,133)	RS1/16S150J
R 102	(B,26,133)	RS1/16S470J
R 103	(B,30,133)	RS1/16S101J
R 104	(B,24,133)	RS1/16S101J
R 105	(A,17,130)	RS1/16S181J
R 106	(A,17,122)	RS1/16S181J
R 107	(A,17,123)	RS1/16S223J
R 108	(A,17,129)	RS1/16S223J
R 109	(A,17,125)	RS1/16S102J
R 110	(A,29,120)	RS1/16S222J
R 111	(A,17,127)	RS1/16S102J
R 112	(B,35,111)	RS1/16S102J
R 113	(A,21,113)	RS1/16S332J
R 114	(A,21,115)	RS1/16S562J
R 115	(B,46,114)	RS1/16S472J
R 116	(B,48,114)	RS1/16S472J
R 121	(A,75,20)	RS1/16S101J
R 122	(A,77,20)	RS1/16S101J
R 123	(A,78,20)	RS1/16S101J
R 124	(A,69,17)	RS1/16S681J
R 125	(A,68,17)	RS1/16S681J
R 126	(A,61,33)	RS1/16S104J
R 127	(A,61,35)	RS1/16S104J
R 128	(A,59,26)	RS1/16S153J
R 161	(A,48,44)	RAB4C101J
R 162	(A,45,44)	RS1/16S473J
R 163	(A,51,44)	RS1/16S101J
R 164	(A,42,44)	RAB4C101J
R 165	(A,52,44)	RS1/16S473J
R 171	(A,65,44)	RAB4C101J
R 172	(A,62,44)	RS1/16S473J

5		6		7		8		
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>		
R 173	(A,68,44)	RS1/16S101J		R 287	(A,123,93)	RS1/16S0R0J		A
R 174	(A,59,44)	RAB4C101J		R 288	(A,123,94)	RS1/16S0R0J		
R 175	(A,70,44)	RS1/16S473J		R 289	(A,123,96)	RS1/16S0R0J		
R 181	(A,82,44)	RAB4C101J		R 290	(A,123,98)	RS1/16S0R0J		
R 182	(A,79,44)	RS1/16S473J		R 291	(A,105,99)	RS1/16S103J		
R 183	(A,85,44)	RS1/16S101J		R 292	(A,118,102)	RAB4C101J		
R 184	(A,76,44)	RAB4C101J		R 331	(A,94,125)	RS1/16S103J		
R 185	(A,86,44)	RS1/16S473J		R 332	(A,113,125)	RS1/16S331J		
R 201	(A,51,69)	RN1/16SE1502D		R 333	(A,110,125)	RS1/16S103J		
R 202	(A,57,69)	RN1/16SE1502D		R 334	(A,111,125)	RS1/16S103J		
R 203	(A,49,69)	RN1/16SE1502D		R 351	(B,148,118)	RS1/16S390J		
R 204	(A,56,69)	RN1/16SE1502D		R 352	(B,145,118)	RS1/16S390J		
R 205	(A,52,71)	RN1/16SE1502D		R 353	(A,148,123)	RS1/16S223J		B
R 206	(A,59,71)	RN1/16SE1502D		R 354	(A,145,118)	RS1/16S223J		
R 207	(A,48,69)	RN1/16SE1502D		R 359	(B,140,118)	RS1/16S390J		
R 208	(A,54,69)	RN1/16SE1502D		R 360	(B,137,118)	RS1/16S390J		
R 209	(A,51,73)	RN1/16SE6800D		R 361	(A,140,123)	RS1/16S223J		
R 210	(A,57,73)	RN1/16SE6800D		R 362	(A,137,118)	RS1/16S223J		
R 211	(A,49,73)	RN1/16SE6800D		R 367	(B,135,118)	RS1/16S390J		
R 212	(A,56,73)	RN1/16SE6800D		R 368	(B,132,118)	RS1/16S390J		
R 213	(A,65,69)	RN1/16SE1502D		R 369	(A,131,123)	RS1/16S223J		
R 214	(A,71,69)	RN1/16SE1502D		R 370	(A,128,118)	RS1/16S223J		
R 215	(A,63,69)	RN1/16SE1502D		R 381	(A,119,122)	RS1/16S473J		
R 216	(A,70,69)	RN1/16SE1502D		R 382	(B,29,104)	RS1/16S103J		
R 217	(A,66,71)	RN1/16SE1502D		R 383	(B,31,104)	RS1/16S473J		C
R 218	(A,73,71)	RN1/16SE1502D		R 384	(A,120,122)	RS1/16S221J		
R 219	(A,62,69)	RN1/16SE1502D		R 401	(A,151,85)	RS1/16S471J		
R 220	(A,68,69)	RN1/16SE1502D		R 402	(B,168,136)	RS1/16S681J		
R 221	(A,65,73)	RN1/16SE6800D		R 403	(B,168,134)	RS1/16S681J		
R 222	(A,71,73)	RN1/16SE6800D		R 404	(B,168,131)	RS1/16S681J		
R 223	(A,63,73)	RN1/16SE6800D		R 405	(B,168,128)	RS1/16S681J		
R 224	(A,70,73)	RN1/16SE6800D		R 406	(B,168,126)	RS1/16S681J		
R 225	(A,79,69)	RN1/16SE1502D		R 407	(B,168,124)	RS1/16S681J		
R 226	(A,85,69)	RN1/16SE1502D		R 408	(B,162,109)	RS1/16S681J		
R 227	(A,77,69)	RN1/16SE1502D		R 409	(A,153,99)	RS1/16S103J		
R 228	(A,84,69)	RN1/16SE1502D		R 410	(A,153,97)	RAB4C223J		D
R 229	(A,80,71)	RN1/16SE1502D		R 431	(B,160,94)	RS1/16S182J		
R 230	(A,87,71)	RN1/16SE1502D		R 432	(B,160,85)	RS1/16S182J		
R 231	(A,76,69)	RN1/16SE1502D		R 433	(B,157,94)	RS1/16S821J		
R 232	(A,82,69)	RN1/16SE1502D		R 434	(B,157,86)	RS1/16S821J		
R 233	(A,79,73)	RN1/16SE6800D		R 437	(A,159,94)	RS1/16S103J		
R 234	(A,85,73)	RN1/16SE6800D		R 438	(A,159,85)	RS1/16S103J		
R 235	(A,77,73)	RN1/16SE6800D		R 439	(A,159,91)	RS1/16S103J		
R 236	(A,84,73)	RN1/16SE6800D		R 440	(A,159,88)	RS1/16S103J		
R 251	(A,45,84)	RS1/16S332J		R 441	(A,152,91)	RS1/16S103J		
R 252	(A,45,81)	RS1/16S563J		R 442	(A,152,88)	RS1/16S103J		
R 253	(A,43,84)	RS1/16S682J		R 443	(A,151,93)	RS1/16S103J		
R 254	(A,43,81)	RS1/16S473J		R 444	(A,151,86)	RS1/16S103J		E
R 261	(B,113,74)	RS1/16S223J		R 445	(B,147,86)	RS1/16S681J		
R 262	(B,100,75)	RS1/16S223J		R 461	(B,17,69)	RS1/4SA561J		
R 263	(B,115,71)	RS1/16S153J		R 471	(B,110,49)	RS1/16S682J		
R 264	(B,100,71)	RS1/16S153J		R 472	(B,108,49)	RS1/16S682J		
R 267	(B,113,67)	RS1/16S101J		R 473	(B,106,49)	RS1/16S682J		
R 268	(B,100,67)	RS1/16S101J		R 474	(B,104,49)	RS1/16S682J		
R 281	(A,123,87)	RS1/16S390J		R 475	(B,104,46)	RS1/16S221J		
R 282	(A,123,88)	RS1/16S390J		R 476	(B,104,44)	RS1/16S221J		
R 283	(A,127,102)	RS1/16S390J		R 477	(B,106,42)	RS1/16S221J		
R 284	(A,126,102)	RS1/16S390J		R 478	(B,106,40)	RS1/16S221J		
R 285	(A,124,102)	RS1/16S390J		R 479	(B,106,38)	RS1/16S221J		F
R 286	(A,123,102)	RS1/16S390J		R 480	(B,106,36)	RS1/16S681J		

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

A	R 481	(B,106,34)	RS1/16S473J	R 633	(A,131,52)	RAB4C681J
	R 482	(B,106,32)	RS1/16S473J	R 634	(B,132,49)	RS1/16S104J
	R 483	(B,117,47)	RS1/16S102J	R 635	(A,129,39)	RS1/16S104J
	R 491	(A,84,26)	RN1/16SE1003D	R 636	(A,131,39)	RS1/16S104J
	R 492	(A,81,26)	RS1/16S152J	R 642	(B,125,47)	RS1/16S104J
	R 493	(A,79,31)	RS1/16S101J	R 651	(B,12,68)	RS1/16S0R0J
	R 494	(A,84,33)	RS1/16S103J	R 653	(B,12,62)	RS1/16S473J
	R 495	(A,94,32)	RS1/16S472J	R 661	(A,117,43)	RS1/16S183J
	R 497	(B,77,29)	RS1/16S0R0J	R 663	(B,119,38)	RS1/16S473J
	R 522	(A,118,24)	RS1/16S0R0J	R 664	(A,119,49)	RS1/16S102J
	R 523	(B,122,28)	RS1/16S104J	R 665	(B,119,40)	RS1/16S222J
	R 524	(B,121,30)	RS1/16S222J	R 671	(A,91,17)	RS1/16S681J
B	R 525	(B,115,31)	RS1/16S683J	R 672	(A,90,14)	RS1/16S681J
	R 526	(B,115,28)	RS1/16S153J	R 673	(A,100,23)	RAB4C681J
	R 527	(B,112,31)	RS1/16S682J	R 674	(A,84,37)	RAB4C272J
	R 528	(B,114,25)	RS1/16S152J	R 675	(B,85,37)	RAB4C472J
	R 529	(B,127,33)	RS1/16S561J	R 676	(A,90,13)	RS1/16S473J
	R 531	(A,143,65)	RS1/16S683J	R 677	(A,100,20)	RS1/16S473J
	R 532	(B,127,13)	RS1/16S0R0J	R 701	(B,17,103)	RS1/16S471J
	R 541	(B,35,127)	RS1/16S101J	R 702	(B,19,103)	RS1/16S561J
	R 542	(B,42,119)	RS1/16S101J	R 705	(B,17,93)	RS1/16S473J
	R 543	(B,37,124)	RS1/16S223J	R 712	(B,19,82)	RS1/16S471J
	R 544	(B,42,115)	RS1/16S223J	R 713	(B,17,85)	RS1/16S471J
	R 545	(B,34,124)	RS1/16S102J	R 751	(A,32,103)	RS1/16S333J
C	R 546	(B,42,114)	RS1/16S102J	R 752	(A,32,105)	RS1/16S681J
	R 561	(B,144,51)	RS1/16S103J	R 753	(A,31,103)	RS1/16S821J
	R 562	(B,144,56)	RS1/16S153J	R 801	(B,125,25)	RS1/16S222J
	R 563	(B,144,48)	RS1/16S153J	R 802	(B,127,17)	RS1/16S222J
	R 564	(B,140,59)	RS1/16S103J	R 803	(A,130,14)	RS1/16S222J
	R 565	(B,140,48)	RS1/16S223J	R 804	(B,125,23)	RS1/16S222J
	R 566	(B,144,49)	RS1/16S102J	R 805	(A,129,15)	RS1/16S222J
	R 567	(B,140,56)	RS1/16S563J	R 806	(B,125,21)	RS1/16S222J
	R 568	(B,144,54)	RS1/16S101J	R 807	(A,128,17)	RS1/16S222J
	R 569	(B,140,45)	RS1/16S152J	R 808	(B,137,51)	RS1/16S104J
	R 570	(B,138,45)	RS1/16S152J	R 809	(B,135,23)	RS1/16S104J
D	R 571	(B,143,46)	RS1/16S104J	R 821	(A,26,13)	RS1/16S221J
	R 572	(B,143,44)	RS1/16S222J	R 822	(A,26,15)	RS1/16S271J
	R 573	(A,144,68)	RS1/16S104J	R 823	(A,42,15)	RS1/16S473J
	R 574	(A,149,68)	RS1/16S104J	R 831	(A,66,6)	RS1/16S181J
	R 581	(A,6,115)	RS1/16S103J	R 841	(A,14,52)	RS1/4SA471J
	R 582	(A,10,115)	RS1/16S104J	R 842	(A,30,44)	RS1/16S1R0J
	R 583	(A,10,118)	RS1/16S102J	R 843	(A,29,42)	RS1/16S391J
	R 584	(A,6,118)	RS1/16S102J	R 844	(A,37,37)	RD1/4PU332J
	R 591	(A,73,108)	RS1/16S1R0J	R 845	(A,35,37)	RD1/4PU332J
	R 592	(A,56,104)	RS1/16S391J	R 846	(A,34,42)	RS1/16S121J
E	R 601	(B,134,78)	RS1/16S0R0J	R 861	(A,64,12)	RS1/16S103J
	R 602	(B,126,73)	RS1/16S473J	R 862	(A,67,12)	RS1/16S222J
	R 603	(A,114,74)	RS1/16S473J	R 863	(A,73,11)	RS1/16S473J
	R 606	(B,65,129)	RS1/16S473J	R 871	(B,140,14)	RS1/16S471J
	R 607	(B,136,58)	RS1/16S104J	R 872	(B,142,14)	RS1/16S471J
	R 608	(B,136,60)	RS1/16S104J	R 873	(A,144,39)	RS1/16S102J
	R 609	(B,136,56)	RS1/16S104J	R 874	(A,144,38)	RS1/16S102J
	R 610	(B,137,62)	RS1/16S473J	R 875	(B,146,31)	RS1/16S102J
	R 611	(B,137,69)	RS1/16S681J	R 876	(B,146,33)	RS1/16S102J
	R 612	(B,137,67)	RS1/16S681J	R 877	(B,147,36)	RS1/16S104J
	R 613	(B,137,65)	RS1/16S681J	R 878	(B,145,36)	RS1/16S104J
F	R 614	(B,127,27)	RS1/16S473J	R 911	(A,86,111)	RS1/16S473J
	R 615	(A,64,17)	RS1/16S102J	R 912	(A,89,111)	RS1/16S104J
	R 616	(B,132,93)	RS1/16S473J	R 913	(B,67,140)	RS1/16S472J
	R 631	(B,132,45)	RS1/16S104J	R 914	(A,92,109)	RS1/16S473J

5		6		7		8		
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>		
R 915	(A,92,111)	RS1/16S103J		C 186	(A,87,54)	CCSRCH102J50		
R 921	(A,83,122)	RS1/16S103J		C 187	(A,87,56)	CKSRYB105K6R3		
R 931	(B,57,128)	RS1/16S153J		C 201	(A,47,60) 10 µF/16 V	CCH1532		A
R 932	(B,60,125)	RS1/16S472J						
				C 202	(A,54,60) 10 µF/16 V	CCH1532		
R 933	(B,62,125)	RS1/16S472J		C 203	(A,47,65) 10 µF/16 V	CCH1532		
R 934	(B,65,127)	RS1/16S102J		C 204	(A,54,65) 10 µF/16 V	CCH1532		
R 941	(A,75,110)	RS1/16S103J		C 205	(A,52,73)	CCSRCH221J50		
R 971	(B,146,91)	RS1/16S102J		C 206	(A,59,73)	CCSRCH221J50		
R 972	(B,143,90)	RS1/16S153J						
				C 207	(A,48,73)	CCSRCH221J50		
R 973	(B,143,92)	RS1/16S102J		C 208	(A,54,73)	CCSRCH221J50		
				C 209	(A,50,71)	CCSRCH821J50		
				C 210	(A,56,71)	CCSRCH821J50		
				C 211	(A,62,60) 10 µF/16 V	CCH1532		
<u>CAPACITORS</u>								
C 101	(B,20,133)	CKSRYB104K16		C 212	(A,69,60) 10 µF/16 V	CCH1532		B
C 105	(B,46,104)	CKSRYB104K16		C 213	(A,62,65) 10 µF/16 V	CCH1532		
C 121	(B,73,25)	CKSRYB104K16		C 214	(A,69,65) 10 µF/16 V	CCH1532		
C 122	(B,71,20)	CKSRYB104K16		C 215	(A,66,73)	CCSRCH221J50		
C 123	(B,66,32)	CKSRYB104K16		C 216	(A,73,73)	CCSRCH221J50		
C 124	(B,67,20)	CKSRYB104K16		C 217	(A,62,73)	CCSRCH221J50		
C 125	(B,64,32)	CKSRYB104K16		C 218	(A,68,73)	CCSRCH221J50		
C 126	(A,57,22)	CKSYB106K6R3		C 219	(A,64,71)	CCSRCH821J50		
C 127	(B,59,27)	CKSYB106K6R3		C 220	(A,70,71)	CCSRCH821J50		
C 128	(B,59,30)	CKSYB106K6R3		C 221	(A,77,60) 10 µF/16 V	CCH1532		
C 129	(A,59,23)	CKSRYB104K16		C 222	(A,84,60) 10 µF/16 V	CCH1532		
C 130	(A,57,27)	CKSRYB104K16		C 223	(A,77,65) 10 µF/16 V	CCH1532		C
C 131	(A,57,25)	CKSRYB682K50		C 224	(A,84,65) 10 µF/16 V	CCH1532		
C 132	(A,57,30)	CKSRYB104K16		C 225	(A,80,73)	CCSRCH221J50		
C 134	(B,54,25)	CKSRYB103K50		C 226	(A,87,73)	CCSRCH221J50		
C 135	(B,62,19)	CKSQYB225K10		C 227	(A,76,73)	CCSRCH221J50		
C 136	(B,64,18)	CKSRYB103K50		C 228	(A,82,73)	CCSRCH221J50		
C 137	(B,54,23)	CKSRYB473K25		C 229	(A,78,71)	CCSRCH821J50		
C 138	(B,60,18)	CKSRYB473K25		C 230	(A,84,71)	CCSRCH821J50		
C 139	(B,74,20)	CCSRCH470J50		C 231	(B,52,78)	CKSRYB104K16		
C 140	(B,76,20)	CCSRCH470J50		C 232	(B,66,78)	CKSRYB104K16		
C 141	(B,78,20)	CCSRCH470J50		C 233	(B,80,78)	CKSRYB104K16		
C 142	(B,71,35)	CCSRCH470J50		C 251	(A,44,77) 10 µF/16 V	CCH1532		D
C 143	(B,61,42)	CCSRCH470J50		C 252	(A,41,82)	CKSYB106K6R3		
C 144	(B,46,42)	CCSRCH470J50		C 253	(B,47,68)	CKSRYB104K16		
C 145	(B,63,42)	CCSRCH470J50		C 261	(B,113,71)	CCSRCH220J50		
C 146	(B,62,37)	CCSRCH470J50		C 262	(B,98,71)	CCSRCH220J50		
C 147	(B,63,53)	CKSRYB102K50		C 263	(B,107,63)	CKSRYB332K50		
C 161	(A,56,44)	CCSRCH102J50		C 264	(B,101,63)	CKSRYB332K50		
C 162	(A,54,46)	CKSYB106K6R3		C 265	(A,109,62)	CEAL2R2M50		
C 163	(A,53,48)	CCSRCH102J50		C 266	(A,103,62)	CEAL2R2M50		
C 164	(A,56,50)	CCSRCH102J50		C 267	(B,110,67)	CKSQYB225K10		
C 165	(A,54,52)	CKSYB106K6R3		C 268	(B,103,67)	CKSQYB225K10		
C 166	(A,53,54)	CCSRCH102J50		C 269	(B,107,69)	CKSRYB104K25		E
C 167	(A,53,56)	CKSRYB105K6R3		C 281	(A,94,84)	CEJQ2R2M50		
C 171	(A,73,44)	CCSRCH102J50		C 282	(A,99,84)	CEJQ2R2M50		
C 172	(A,71,46)	CKSYB106K6R3		C 283	(A,92,78)	CEJQ2R2M50		
C 173	(A,70,48)	CCSRCH102J50		C 284	(A,97,78)	CEJQ2R2M50		
C 174	(A,73,50)	CCSRCH102J50		C 285	(A,103,92)	CKSQYB225K10		
C 175	(A,71,52)	CKSYB106K6R3		C 286	(A,103,90)	CKSQYB225K10		
C 176	(A,70,54)	CCSRCH102J50		C 287	(B,110,37)	CKSQYB225K10		
C 177	(A,70,56)	CKSRYB105K6R3		C 288	(B,111,90)	CKSRYB104K50		
C 181	(A,90,44)	CCSRCH102J50		C 289	(B,111,88)	CKSRYB104K50		
C 182	(A,88,46)	CKSYB106K6R3		C 290	(A,110,78)	CEAL100M16		
C 183	(A,87,48)	CCSRCH102J50		C 291	(A,104,78)	CEAL100M16		F
C 184	(A,90,50)	CCSRCH102J50		C 292	(A,50,83) 10 µF/16 V	CCH1563		
C 185	(A,88,52)	CKSYB106K6R3		C 293	(A,57,83) 10 µF/16 V	CCH1563		

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

C 294 (A,64,84) 10 μ F/16 V
 C 295 (A,70,84) 10 μ F/16 V
 C 296 (A,78,84) 10 μ F/16 V

CCH1563
 CCH1563
 CCH1563

C 492 (B,78,32)
 C 494 (B,80,24)
 C 495 (B,78,24)

CKSRYB103K50
 CKSQYB225K10
 CKSRYB103K50

A

C 297 (A,84,84) 10 μ F/16 V
 C 298 (A,95,99) 56 μ F/10 V
 C 299 (A,112,104)
 C 300 (A,95,91) 56 μ F/10 V
 C 301 (A,109,102)

CCH1563
 CCH1701
 CKSQYB474K16
 CCH1701
 CKSQYB475K10

C 496 (A,84,25)
 C 497 (A,80,25)
 C 498 (A,81,32)
 C 499 (A,81,31)
 C 502 (B,88,26)

CCSRCH100D50
 CCSRCH100D50
 CCSRCH220J50
 CCSRCH470J50
 CKSRYB103K50

C 302 (A,112,101)
 C 303 (B,107,95)
 C 331 (A,109,117)
 C 332 (A,97,117)
 C 333 (A,115,117)

CKSQYB105K16
 CKSRYB104K16
 CFTNA274J50
 CFTNA274J50
 CFTNA274J50

C 503 (B,88,28)
 C 504 (B,88,30)
 C 505 (A,88,34)
 C 506 (A,89,34)
 C 521 (B,121,10)

CKSRYB103K50
 CKSQYB225K10
 CCSRCH151J50
 CCSRCH390J50
 CKSRYB221K50

B

C 334 (A,103,117)
 C 335 (A,71,127) 3 300 μ F/16 V
 C 336 (A,129,128) 10 μ F/16 V
 C 337 (A,100,125)
 C 338 (A,98,125)

CFTNA274J50
 CCH1547
 CCH1532
 CKSQYB225K10
 CKSQYB225K10

C 529 (B,120,28)
 C 530 (B,118,28)
 C 531 (A,135,37)
 C 532 (B,133,31)
 C 541 (B,39,134)

CCSRCH681J50
 CKSQYB225K10
 CEJQ101M6R3
 CKSRYB103K50
 CKSRYB221K50

C 339 (B,105,135)
 C 340 (A,123,127)
 C 351 (A,138,100) 10 μ F/16 V
 C 352 (A,132,100) 10 μ F/16 V
 C 355 (A,138,106) 10 μ F/16 V

CKSRYB104K16
 CEHAR330M10
 CCH1532
 CCH1532
 CCH1532

C 542 (B,44,124)
 C 543 (B,35,124)
 C 544 (B,42,117)
 C 545 (B,31,118)
 C 546 (B,38,115)

CKSRYB221K50
 CKSRYB471K50
 CKSRYB471K50
 CKSQYB225K10
 CKSQYB225K10

C

C 356 (A,132,106) 10 μ F/16 V
 C 359 (A,125,109) 10 μ F/16 V
 C 360 (A,118,109) 10 μ F/16 V
 C 381 (A,125,115)
 C 401 (B,168,138)

CCH1532
 CCH1532
 CCH1532
 CEJQ220M16
 CKSRYB103K50

C 547 (B,43,134)
 C 548 (B,47,117)
 C 549 (A,34,118)
 C 550 (B,25,118)
 C 551 (B,25,116)

CKSRYB104K16
 CKSRYB471K50
 CEAL220M16
 CKSRYB105K10
 CKSRYB104K16

C 402 (A,156,113)
 C 403 (B,154,110)
 C 404 (B,152,109)
 C 405 (B,157,82)
 C 406 (A,157,80)

CEAL101M10
 CKSRYB104K16
 CKSQYB475K10
 CKSRYB103K50
 CEJQ101M10

C 561 (B,140,50)
 C 562 (A,145,59)
 C 563 (A,151,55)
 C 564 (A,137,52)
 C 565 (B,143,40)

CKSRYB105K10
 CEALNP4R7M16
 CEALNP4R7M16
 CKSRYB105K10
 CKSRYB474K10

D

C 407 (A,150,80)
 C 408 (B,150,78)
 C 409 (B,143,68)
 C 410 (B,151,83)
 C 412 (B,162,105)

CEJQ220M25
 CKSRYB103K50
 CKSRYB103K50
 CKSYB475K16
 CKSYB475K16

C 566 (B,141,40)
 C 567 (B,140,54)
 C 568 (B,139,40)
 C 569 (A,151,60)
 C 570 (A,137,44)

CKSRYB104K16
 CCSRCH101J50
 CKSRYB105K10
 CEAL100M16
 CKSRYB105K10

C 413 (B,162,101)
 C 414 (B,162,111)
 C 415 (A,150,106)
 C 416 (A,157,106)
 C 417 (B,143,103)

CKSRYB103K50
 CKSRYB103K50
 CEJQ470M10
 CEJQ470M10
 CKSRYB102K50

C 571 (B,145,40)
 C 572 (B,146,45)
 C 591 (A,69,104)
 C 592 (A,70,108)
 C 593 (A,62,102)

CKSRYB105K6R3
 CKSRYB105K6R3
 CEJQ100M16
 CKSRYB103K50
 CKSRYB103K50

E

C 431 (B,163,91)
 C 432 (B,163,88)
 C 433 (A,158,94)
 C 434 (A,158,85)
 C 435 (A,158,91)

CKSRYB222K50
 CKSRYB222K50
 CKSRYB474K10
 CKSRYB474K10
 CCSRCH470J50

C 602 (B,138,94)
 C 603 (A,136,88)
 C 604 (B,126,82)
 C 605 (B,131,82)
 C 606 (B,137,64)

CKSRYB103K50
 CEJQ4R7M35
 CCSRCH180J50
 CCSRCH180J50
 CCSRCH470J50

C 436 (A,158,88)
 C 437 (A,151,91)
 C 438 (A,151,88)
 C 439 (A,149,91)
 C 440 (A,149,88)

CCSRCH470J50
 CCSRCH470J50
 CCSRCH470J50
 CKSRYB474K10
 CKSRYB474K10

C 631 (B,132,48)
 C 632 (A,139,79)
 C 661 (A,118,45)
 C 662 (B,119,36)
 C 671 (B,96,15)

CKSRYB104K16
 CEJQ101M16
 CKSRYB105K10
 CKSRYB104K16
 CKSRYB104K16

F

C 441 (B,153,86)
 C 442 (B,151,92)
 C 461 (B,18,60)
 C 462 (B,20,69)
 C 463 (A,22,69)

CKSRYB105K10
 CKSRYB105K10
 CKSRYB473K50
 CKSRYB102K50
 CEJQ101M10

C 672 (B,83,16)
 C 701 (A,21,95)
 C 702 (B,21,93)
 C 703 (A,22,105)
 C 704 (B,12,96)

CKSRYB104K16
 CEJQ101M16
 CKSRYB103K50
 CEJQ221M10
 CKSRYB102K50

C 473 (A,98,57)
 C 491 (B,80,32)

CEJQ101M10
 CKSQYB225K10

C 711 (A,23,83)
 C 712 (B,20,75)

CEJQ221M10
 CKSRYB472K50

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 713	(A,24,76)		CEJQ2R2M50			Q 1832	(A,28,33) Transistor(UC)		UMD22N		
C 714	(B,12,82)		CKSRYB102K50			Q 1833	(A,131,33) Transistor		DTC114EU		A
C 721	(A,38,68) 47 μ F/16 V		CCH1533			Q 1861	(A,71,23) Transistor		2SC4617		
C 722	(A,35,73)		CKSRYB104K16			Q 1862	(A,92,21) Transistor		2SD1664		
C 723	(A,37,79)		CKSRYB104K16			D 1801	(B,127,12) Diode		DAN202U		
C 724	(A,36,81)		CKSYB475K10			D 1802	(B,133,13) Diode		DAP202U		
C 731	(A,53,18)		CEAL220M6R3			D 1803	(B,30,12) Diode		RSB6R8S		
C 732	(B,55,17)		CKSRYB104K16			D 1804	(B,30,8) Diode		RSB6R8S		
C 733	(A,42,27)		CKSRYB104K16			D 1831	(A,33,21) LED(UC)		SML412BC5T(NP)		
C 734	(A,46,30)		CKSYB475K10			D 1832	(A,21,34) LED(UC)		SML412BC5T(NP)		
C 735	(B,45,34)		CCSRCH101J50			D 1833	(A,136,33) LED		SML-310LT(MN)		
C 736	(A,45,36) 100 μ F/10 V		CCH1511			D 1834	(A,18,9) LED(UC)		SML412BC5T(NP)		
C 738	(B,53,34)		CCSRCH101J50			D 1835	(A,6,21) LED(UC)		SML412BC5T(NP)		
C 739	(A,53,36)		CEAL101M6R3			D 1836	(A,162,21) LED(UC)		SML412BC5T(NP)		B
C 751	(A,58,92)		CEAL470M6R3			D 1837	(A,135,21) LED(UC)		SML412BC5T(NP)		
C 752	(A,48,89)		CKSRYB103K50			D 1838	(A,150,33) LED(UC)		SML412BC5T(NP)		
C 753	(A,32,98)		CKSRYB472K50			D 1839	(A,147,9) LED(UC)		SML412BC5T(NP)		
C 754	(A,48,99) 0.1 F/5.5 V		CCL1050			D 1842	(A,159,38) LED(UC)		SML412BC5T(NP)		
C 821	(B,31,16)		CKSRYB473K25			D 1843	(A,18,34) LED		NECWB205-5780		
C 841	(A,22,47)		CKSRYB103K50			D 1844	(A,21,9) LED		NECWB205-5780		
C 842	(A,27,57)		CEJQ470M25			D 1845	(A,8,21) LED		NECWB205-5780		
C 843	(A,30,49)		CEAL101M10			D 1846	(A,32,21) LED		NECWB205-5780		
C 844	(A,31,42)		CKSRYB104K16			D 1847	(A,150,9) LED		NECWB205-5780		
C 845	(B,30,34)		CCSRCH331J50			D 1848	(A,147,33) LED		NECWB205-5780		
C 846	(B,33,37)		CKSRYB103K50			D 1849	(A,136,21) LED		NECWB205-5780		C
C 847	(A,25,29)		CEJQ470M25			D 1850	(A,160,21) LED		NECWB205-5780		
C 848	(A,18,30) 4.7 μ F		CCG1111			D 1851	(A,157,38) LED		NECWB205-5780		
C 849	(A,35,29)		CEJQ470M25			D 1901	(B,41,26) Diode		1SS355		
C 850	(B,25,61)		CKSRYB474K10			L 1802	(B,38,10) Inductor(UC, ES)		CTF1379		
C 862	(A,70,11)		CKSRYB105K10			L 1803	(B,43,9) Inductor		CTF1379		
C 871	(B,150,14)		CKSRYB224K10			L 1804	(B,45,8) Inductor		CTF1379		
C 872	(B,150,25)		CKSRYB104K16			L 1861	(A,101,29) Inductor		CTF1617		
C 873	(A,150,22)		CEAL220M16			L 1902	(A,57,25) Inductor		CTF1617		
C 874	(B,148,28)		CKSRYB102K50			TH1861	(A,71,29) Thermistor		CCX1037		
C 875	(A,141,28)		CCSRCH101J50			X 1901	(B,47,23) Ceramic Resonator 16.000 MHz		CSS1616		D
C 876	(A,141,38)		CCSRCH101J50			S 1801	(A,136,10) Push Switch		CSG1155		
C 911	(B,65,140)		CKSRYB104K16			S 1811	(A,148,21) Switch(MULTI-CONTROL)		CSX1065		
C 921	(A,79,122)		CKSRYB105K10			S 1831	(A,20,21) Encoder(VOLUME)		CSD1104		
C 941	(A,83,115)		CKSRYB473K25			S 1832	(A,162,37) Push Switch		CSG1155		
C 942	(A,75,115)		CKSRYB104K16			S 1833	(A,6,33) Push Switch		CSG1155		
C 971	(B,143,88)		CKSRYB104K16			S 1834	(A,162,33) Push Switch		CSG1155		
						S 1835	(A,6,10) Push Switch		CSG1155		
						S 1836	(A,162,10) Push Switch		CSG1155		
						VR1861	(B,95,21) Semi-fixed 10 k Ω (B)		CCP1229		
							OEL Unit		MXS8232		

B
Unit Number : CWS1389
Unit Name : Switch Unit

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

C
Unit Number :
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1902	(A,38,38) IC	GP1UX51RK
IC 1903	(B,59,24) IC	PEG179A
IC 1904	(A,50,19) IC	S-818A33AUC-BGN
IC 1905	(A,107,20) IC	PD8160A
Q 1831	(A,22,37) Transistor(UC)	UMD22N

RESISTORS

R 1802	(A,128,27)	RS1/16S222J
R 1803	(A,130,27)	RS1/16S222J
R 1804	(A,135,14)	RS1/16S104J
R 1805	(A,126,18)	RS1/16S103J
R 1812	(B,158,27)	RS1/16S473J
R 1813	(B,138,10)	RS1/16S473J
R 1814	(B,136,10)	RS1/16S822J
R 1815	(B,158,25)	RS1/16S102J
R 1816	(B,134,8)	RS1/16S332J
R 1817	(B,123,12)	RS1/16S102J
R 1818	(B,123,10)	RS1/16S473J
R 1819	(A,126,11)	RS1/16S103J

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

R 1820	(B,133,8)	RS1/16S222J
R 1831	(B,30,32) (UC)	RS1/16S241J
R 1832	(A,7,26) (UC)	RS1/16S241J
R 1833	(A,131,29)	RS1/16S181J
R 1834	(A,132,21) (UC)	RS1/16S101J
R 1835	(B,151,8) (UC)	RS1/16S561J
R 1837	(B,158,13) (UC)	RS1/16S392J
R 1838	(B,158,12) (UC)	RS1/16S272J

R 1839	(A,23,7)	RS1/16S271J
R 1840	(B,32,16)	RS1/16S271J
R 1841	(B,153,27)	RS1/16S271J
R 1842	(A,162,17)	RS1/16S271J
R 1843	(B,158,39)	RS1/16S332J

R 1844	(B,158,37)	RS1/16S562J
R 1845	(A,30,32) (EW5, ES)	RS1/16S0R0J
R 1846	(A,132,23) (UC)	RS1/16S820J
R 1861	(A,77,21)	RS1/16S3902D
R 1862	(A,71,25)	RS1/16S1802D

R 1863	(A,71,27)	RS1/16S6802D
R 1864	(A,91,16)	RS1/16S392J
R 1865	(A,66,33)	RAB4C101J
R 1866	(A,87,20)	RS1/16S152J
R 1902	(B,34,28)	RS1/16S101J

R 1903	(B,36,29)	RS1/16S103J
R 1904	(B,125,10)	RS1/16S103J
R 1905	(B,39,32)	RS1/16S2R2J
R 1907	(B,48,26)	RS1/16S473J
R 1908	(B,47,28)	RS1/16S102J

R 1909	(B,47,30)	RS1/16S102J
R 1910	(B,41,21)	RS1/16S154J
R 1911	(B,48,17)	RS1/16S104J
R 1912	(A,51,22)	RS1/16S222J
R 1913	(A,49,25)	RAB4C102J

R 1914	(B,43,34)	RS1/16S473J
R 1915	(A,70,12)	RS1/16S221J
R 1916	(A,58,32)	RAB4C473J
R 1917	(A,64,25)	RAB4C101J
R 1918	(A,67,17)	RAB4C101J

R 1919	(B,71,17)	RAB4C101J
R 1920	(B,76,31)	RS1/16S101J
R 1921	(A,66,28)	RS1/16S101J
R 1922	(B,65,8)	RAB4C101J
R 1923	(B,72,21)	RAB4C101J

R 1924	(B,77,24)	RAB4C101J
R 1925	(B,72,27)	RAB4C101J
R 1926	(B,81,32)	RAB4C101J
R 1927	(B,68,34)	RAB4C101J

CAPACITORS

C 1801	(A,115,31)	CKSRYB104K25
C 1804	(B,130,19)	CCSRCH102J50
C 1805	(A,116,34)	CKSRYB104K25
C 1806	(B,30,10)	CKSRYB104K25
C 1831	(A,33,18) (UC)	CKSRYF104Z50

C 1832	(A,19,35) (UC)	CKSRYF104Z50
C 1833	(A,13,9) (UC)	CKSRYF104Z50
C 1834	(A,6,15) (UC)	CKSRYF104Z50
C 1835	(A,162,25) (UC)	CKSRYF104Z50
C 1836	(A,133,18) (UC)	CKSRYF104Z50

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

C 1837	(A,150,35) (UC)	CKSRYF104Z50
C 1838	(A,148,7) (UC)	CKSRYF104Z50
C 1841	(A,156,34) (UC)	CKSRYF104Z50
C 1842	(A,15,33)	CKSRYF104Z50
C 1843	(A,24,9)	CKSRYF104Z50

C 1844	(A,7,18)	CKSRYF104Z50
C 1845	(A,32,18)	CKSRYF104Z50
C 1846	(A,151,7)	CKSRYF104Z50
C 1847	(A,143,33)	CKSRYF104Z50
C 1848	(A,136,24)	CKSRYF104Z50

C 1849	(A,161,17)	CKSRYF104Z50
C 1850	(A,154,34)	CKSRYF104Z50
C 1864	(A,79,20)	CKSRYB104K25
C 1865	(A,84,17)	CKSRYB104K25
C 1866	(A,92,27)	CKSRYB104K25

C 1867	(A,87,19)	CKSRYB104K25
C 1902	(B,35,32)	CSZSR100M16
C 1903	(B,43,23)	CKSRYB103K50
C 1905	(B,44,21)	CKSRYF104Z50
C 1907	(A,50,15)	CSZSR4R7M16

C 1908	(A,54,14)	CSZSR4R7M10
C 1909	(A,54,31)	CKSRYB103K50
C 1910	(A,49,31)	CSZSR4R7M10
C 1911	(A,59,25)	CKSRYB103K50
C 1912	(A,109,29)	CKSRYB103K50

C 1913	(B,43,32)	CCSRCH470J50
C 1914	(A,60,28)	CCSRCH470J50

D**Unit Number : CWX3381****Unit Name : CD Core Unit(S10.5COMP1)****MISCELLANEOUS**

IC 201	(B,39,70) IC	UPD63763CGJ
IC 203	(A,12,16) IC	NJM2886DL3-33
IC 301	(A,28,18) IC	BA5835FP
IC 701	(A,32,48) IC	PE5561A
IC 704	(A,41,64) IC	BR93L56RFVM-W

Q 101	(B,60,89) Transistor	2SA1577
Q 701	(B,24,41) Transistor	UN2111
X 701	(A,24,37) Ceramic Resonator 4.000 MHz	CSS1652
S 901	(A,57,57) Switch(HOME)	CSN1067
S 903	(B,23,78) Switch(DSCSNS)	CSN1067

S 904	(B,42,87) Switch(12EJ)	CSN1068
S 905	(B,28,88) Switch(8EJ)	CSN1068

RESISTORS

R 101	(B,61,92)	RS1/10SR2R4J
R 102	(B,63,92)	RS1/10SR2R4J
R 103	(B,63,89)	RS1/10SR2R7J
R 104	(A,52,73)	RS1/16SS102J
R 201	(B,44,57)	RS1/16SS102J

R 202	(A,38,62)	RS1/16SS473J
R 203	(A,37,62)	RS1/16SS473J
R 210	(A,33,62)	RS1/16SS0R0J
R 214	(A,46,79)	RS1/16SS472J
R 216	(A,46,81)	RS1/16SS472J

R 221	(A,44,81)	RS1/16SS103J
R 222	(A,45,81)	RS1/16SS103J

5		6		7		8	
<u>Circuit Symbol and No.</u>		<u>Part No.</u>		<u>Circuit Symbol and No.</u>		<u>Part No.</u>	
R 225	(B,52,78)	RS1/16SS103J		C 228	(A,46,62)	CKSSYB103K16	
R 226	(B,52,77)	RS1/16SS393J		C 232	(A,12,31)	CKSRYB105K10	A
R 227	(A,44,75)	RS1/16SS562J		C 237	(A,31,67)	CKSSYB104K10	
R 228	(A,46,72)	RS1/16SS122J		C 239	(A,46,74)	CCSSCH220J50	
R 229	(A,44,72)	RS1/16SS472J		C 246	(A,42,80)	CKSSYB104K10	
R 232	(A,46,75)	RS1/16SS122J		C 249	(B,25,57)	CKSSYB221K50	
R 237	(B,22,64)	RS1/16SS221J		C 250	(A,42,81)	CKSRYB102K50	
R 238	(B,22,65)	RS1/16SS221J		C 251	(A,41,83)	CKSRYB102K50	
R 239	(B,22,66)	RS1/16SS221J		C 303	(A,18,20)	CKSSYB472K25	
R 241	(B,26,63)	RS1/16SS333J		C 304	(A,17,17)	CKSSYB103K16	
R 243	(B,26,62)	RS1/16SS333J		C 307	(A,34,15)	CKSSYB104K10	
R 245	(B,26,69)	RS1/16SS333J		C 308	(A,17,30)	CKSRYB105K10	
R 248	(B,55,74)	RS1/16SS105J		C 701	(B,25,47)	CKSSYB104K10	
R 307	(A,19,20)	RS1/16SS183J		C 703	(B,28,42)	CKSSYB103K16	B
R 308	(A,17,20)	RS1/16SS183J		C 706	(B,34,43)	CKSSYB104K10	
R 309	(A,18,18)	RS1/16SS183J		C 707	(A,36,57)	CKSSYB104K10	
R 310	(A,17,16)	RS1/16SS183J		C 714	(A,24,41)	CKSSYB104K10	
R 701	(B,26,44)	RS1/16SS221J		C 719	(A,45,64)	CKSSYB104K10	
R 707	(B,32,45)	RS1/16SS473J		C 722	(B,29,45)	CKSQYB475K6R3	
R 709	(A,36,35)	RS1/16SS222J		C 903	(B,14,54)	CKSSYB471K50	
R 710	(B,41,46)	RS1/16SS102J		Miscellaneous Parts List			
R 712	(A,45,57)	RS1/16SS222J					
R 713	(B,40,57)	RS1/16SS222J					
R 716	(B,29,37)	RS1/16SS472J					
R 724	(B,31,36)	RS1/16S473J		M 1	Pickup Unit(P10.5)(Service)	CXX1942	
R 726	(B,23,47)	RS1/16SS103J		M 2	Motor Unit(SPINDLE)	CXC6742	C
R 727	(B,31,42)	RS1/16SS473J		M 10	Motor Unit(LOADING/CARRIAGE)	CXC4026	
R 729	(B,20,48)	RS1/16SS223J			Motor Unit(FLAP)	XXA7400	
R 730	(B,20,46)	RS1/16SS473J					
R 734	(A,40,61)	RS1/16SS472J					
R 740	(A,38,59)	RS1/16SS222J					
R 746	(A,13,38)	RS1/16SS104J					
R 750	(A,40,66)	RS1/16SS473J					
R 751	(B,40,46)	RS1/16SS102J					
R 902	(A,20,36)	RS1/16SS221J					
R 905	(A,21,36)	RS1/16SS221J					D
R 906	(B,20,36)	RS1/16SS221J					
R 909	(B,16,65)	RS1/16SS0R0J					

CAPACITORS

C 103	(B,57,83)	CEVW101M16	
C 108	(A,47,66)	CKSSYB104K10	
C 201	(B,46,56)	CKSSYB102K50	
C 202	(B,47,58)	CKSSYB104K10	
C 205	(A,34,63)	CKSSYB104K10	
C 208	(B,34,54)	CKSSYB104K10	
C 209	(B,31,57)	CKSSYB104K10	E
C 210	(A,31,66)	CKSRYB105K10	
C 216	(B,53,77)	CKSSYB332K50	
C 217	(B,52,79)	CKSSYB104K10	
C 218	(B,52,76)	CKSSYB473K10	
C 219	(B,52,74)	CKSSYB104K10	
C 220	(A,46,77)	CKSSYB182K50	
C 221	(B,51,74)	CKSSYB104K10	
C 222	(A,46,73)	CCSSCH560J50	
C 223	(A,44,74)	CCSSCH4R0C50	
C 224	(B,52,68)	CKSSYB104K10	F
C 225	(A,47,67)	CKSSYB103K16	
C 226	(A,49,67)	CCSSCH680J50	
C 227	(A,48,65)	CCSSCH470J50	

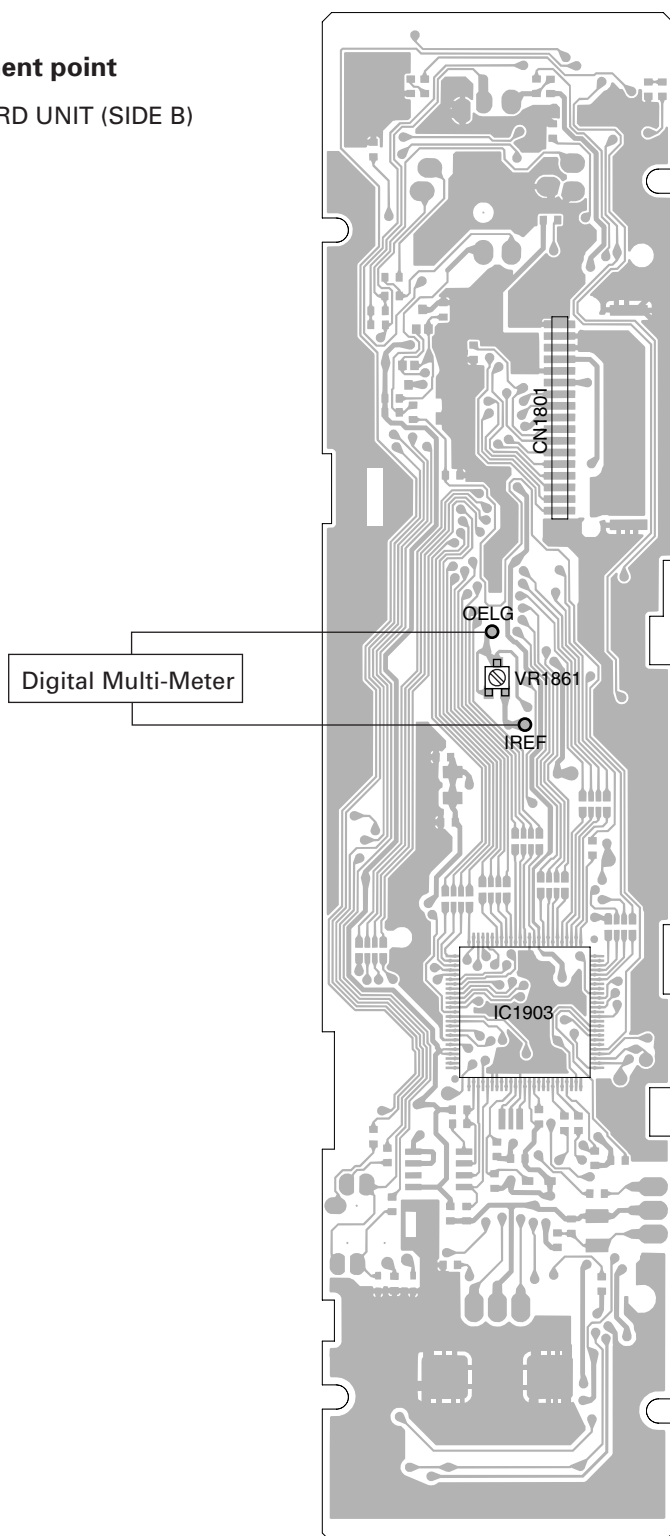
6. ADJUSTMENT

6.1 OEL ADJUSTMENT



● Adjustment point

KEYBOARD UNIT (SIDE B)



<When the OEL Unit has been replaced>

1. Use VR1861 to adjust the resistance between IREF and OELG to 3.4 k Ω .

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 EJECT and DISP 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.

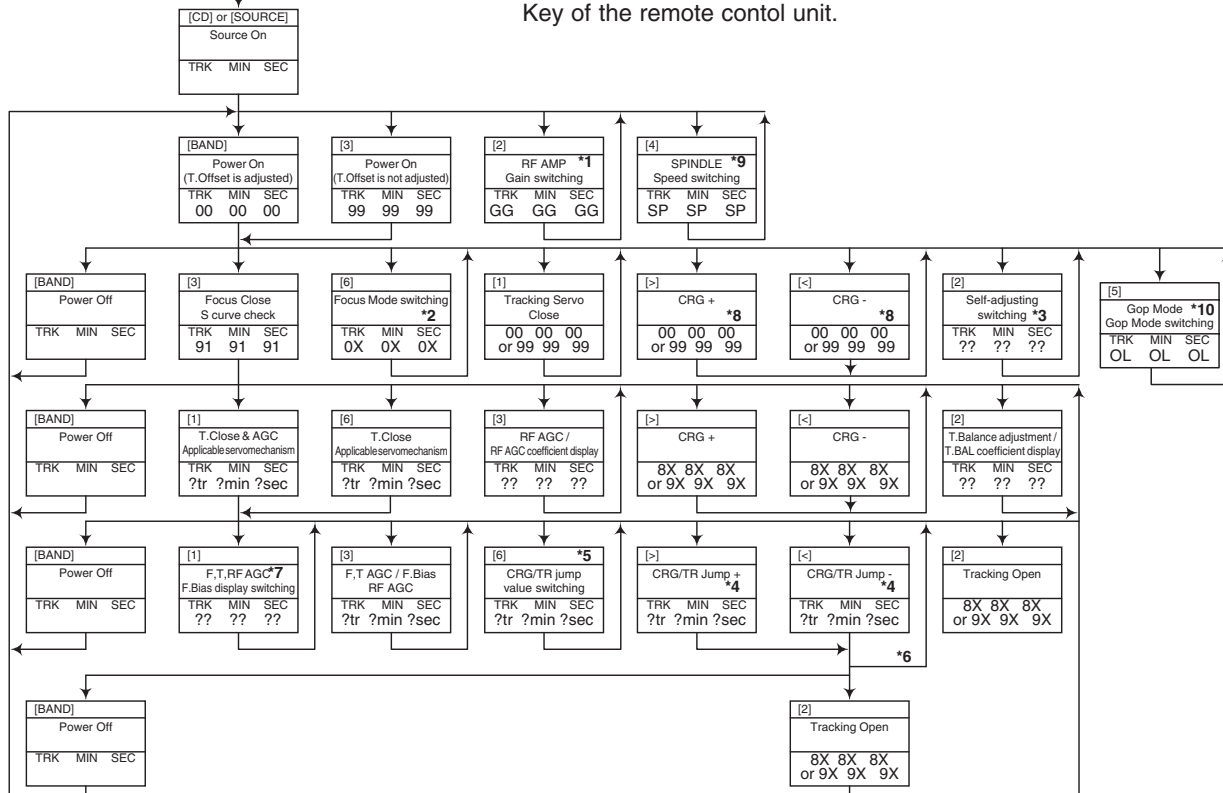
e. When the power is turned off and on, the jump mode is reset to the single TR (91), the RF amp gain is set to 0dB, and the auto-adjustment values are reset to the default settings.

Flow Chart

[Key]	[EJECT] + [DISP] + Reset Test Mode In
Contents	
Display	

Key of the head unit.

Key of the remote control unit.



*1) TYP → + 6 dB → + 12 dB
TRK MIN SEC → TRK₀₆MIN₀₆SEC₀₆ → TRK₁₂MIN₁₂SEC₁₂

*2) Focus Close → S Curve check setting → F EQ measurement setting
TRK₀₀MIN₀₀SEC₀₀ → TRK₀₁MIN₀₁SEC₀₁ → TRK₀₂MIN₀₂SEC₀₂
(TRK₉₉MIN₉₉SEC₉₉)

*3) F. Offset Display → RF. Offset → T. Offset Display → Switch to the order of the original display

*4) 1TR/4TR/10TR/32TR/100TR

*5) Single → 4TR → 10TR → 32TR → 100TR → CRG Move
9x(8x):91(81) 92(82) 93(83) 94(84) 95(85) 96(86)

*6) Only at the time of CRG move, 100TR jump

*7) TRK/MIN/SEC → F.AGC → T.AGC Gain → F.Bias → RF AGC

*8) CRG motor voltage = 2 [V]

*9) TYP (1X) → 2X → 1X
TRK MIN SEC → TRK₂₂MIN₂₂SEC₂₂ → TRK₁₁MIN₁₁SEC₁₁

*10) OFF(TYP) → FORCUS → TRACKING
TRK MIN SEC → TRK₇₀MIN₇₀SEC₇₀ → TRK₇₁MIN₇₁SEC₇₁

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

*1) • After the [Eject] key is pressed keys other than the [Eject] key should not be pressed, until disc ejection is complete.

• When the key [2] or [3] is pressed during the Focus Search, the power supply should be immediately turned off (otherwise the lens sticks to Wall, causing the actuator to be damaged).

• In the case of TR jump other than to 100TR, the function shall continue to be processed even if the TR jump key is released. As for the CRG Move and 100TR Jump, the mechanism shall be set to the Tracking Close mode when the key is released.

• When the power is turned on/off the jump mode is reset to the Single TR (91) while the gain of the RFAMP is reset to 0 dB. At the same time all the self-adjusting values shall return to the default setting.

[Key]	Operation 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 & AGC & Applicable servomechanism / AGC, AGC display setting
[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 <u>cannot</u> be supported.
[5]	Error Rate measurement ON : ERR 30Counts Start BER display data[%]
[6]	F. Mode switching / Tracking Close / CRG•TR Jump Switching

6.3 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 :

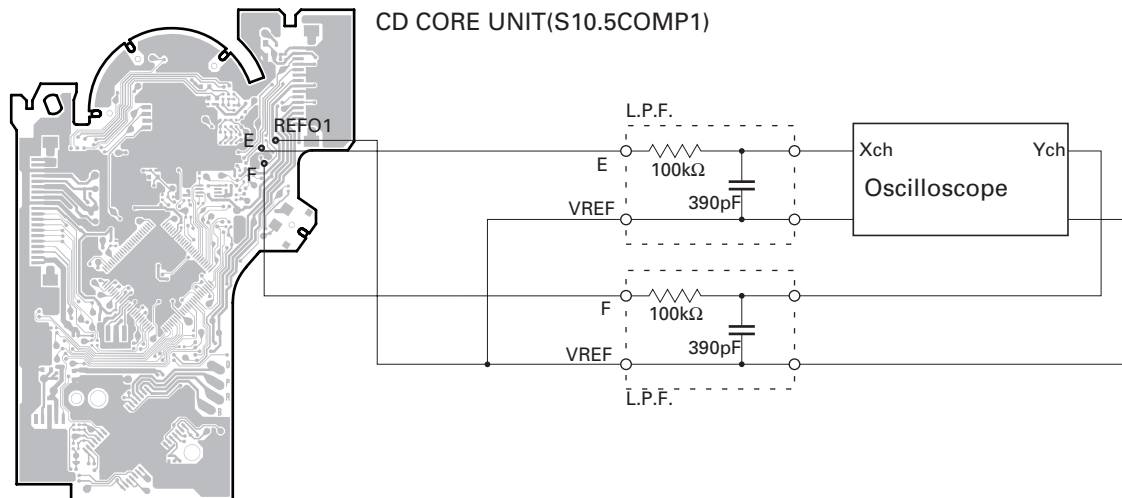
To check that the grating is within an acceptable range when the PU unit is changed.

• 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°. Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° 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° 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".

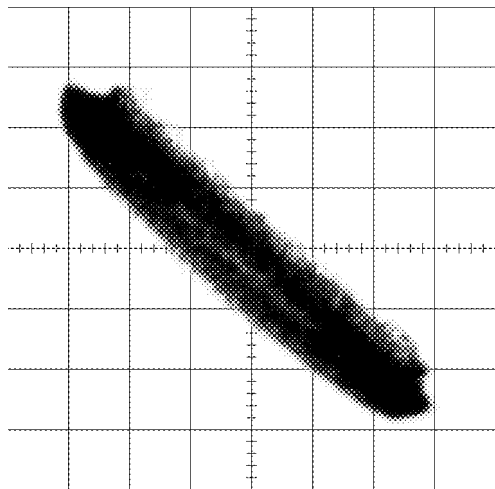
Grating waveform

Ech → Xch 20mV/div, AC

Fch → Ych 20mV/div, AC

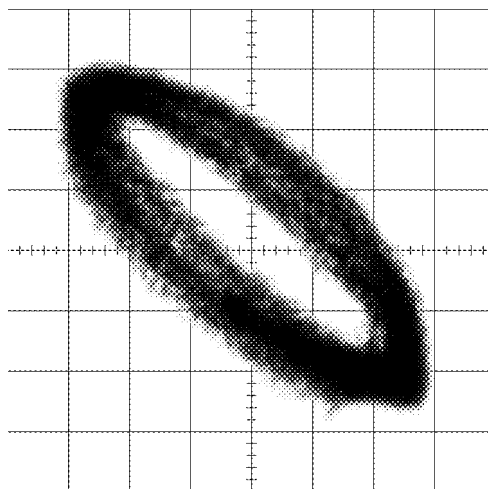
A

0°



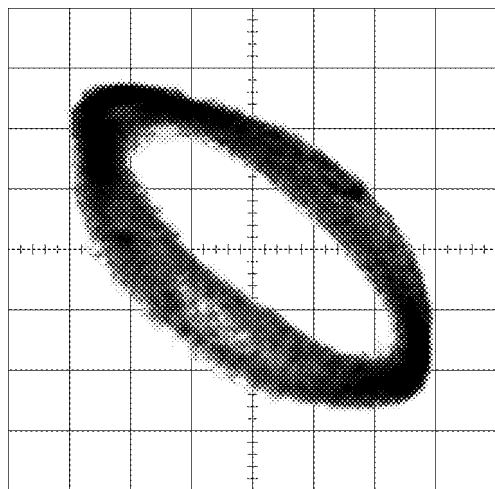
B

30°



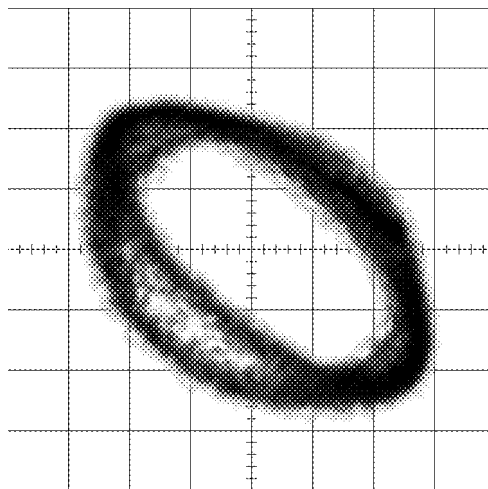
C

45°



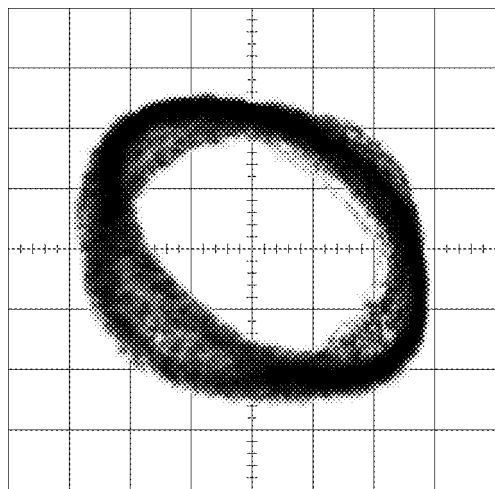
D

60°



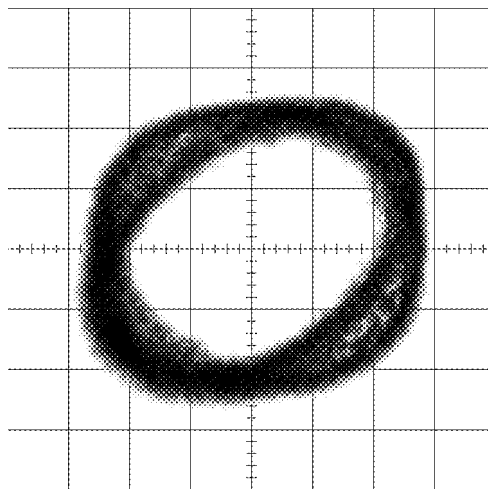
E

75°



F

90°



6.4 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.

6.5 E.VOL IC OSCILLATING FREQUENCY ADJUSTMENT



Specification	Measuring point	Adjustment point	Remarks
400 kHz $\pm$ 10 kHz	IC281 (Pin 49) TP•CPF	VR281 (for source other than AM)	Beat may be generated for AM

Note)

The frequency is always 400 kHz for the sources other than AM, however, it may become 514 kHz by received frequency for AM, adjust it with the source other than AM.

6.6 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 TEST1 (Pin 86) terminal to H.

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

The frequency of the clock signal is 468.750 kHz that is one 32nd of the fundamental frequency.

The clock signal should be 468.750 kHz $\pm$ 13 Hz.

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

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Case (not shown)

1. Remove the two screws and then 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.

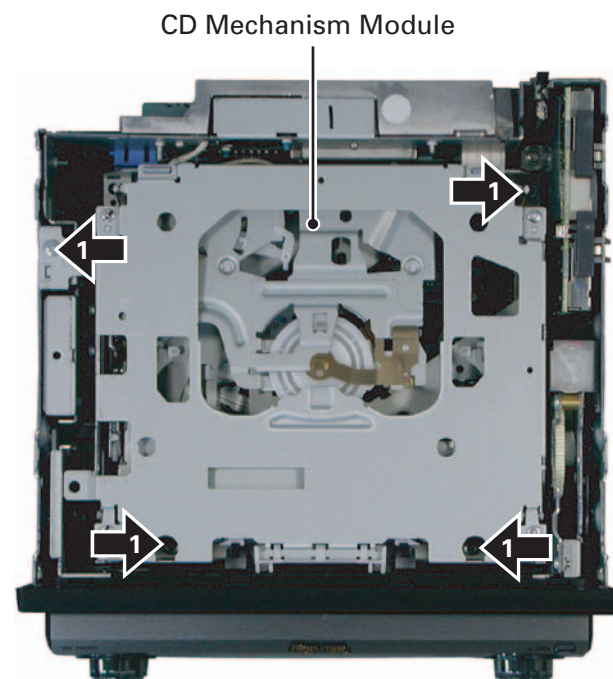


Fig.1

● Removing the Grille Assy (Fig.2)

1 Remove the four screws.

Disconnect the connector and then remove the Grille Assy.

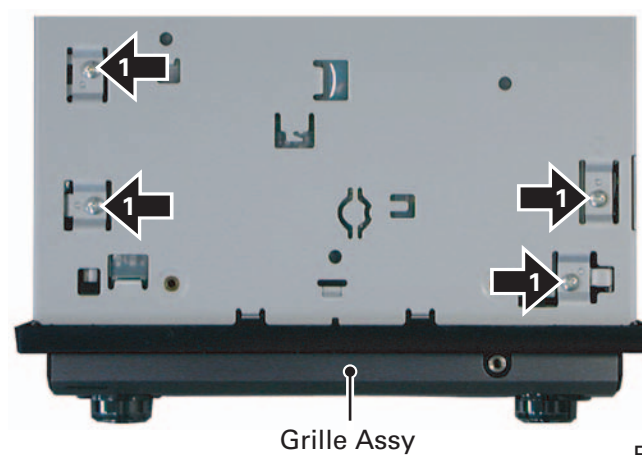


Fig.2

● Removing the Tuner Amp Unit (Fig.3)

A **1** Remove the two screws.

2 Straighten the tabs at three locations indicated.

3 Remove the screw and then remove the Tuner Amp Unit.

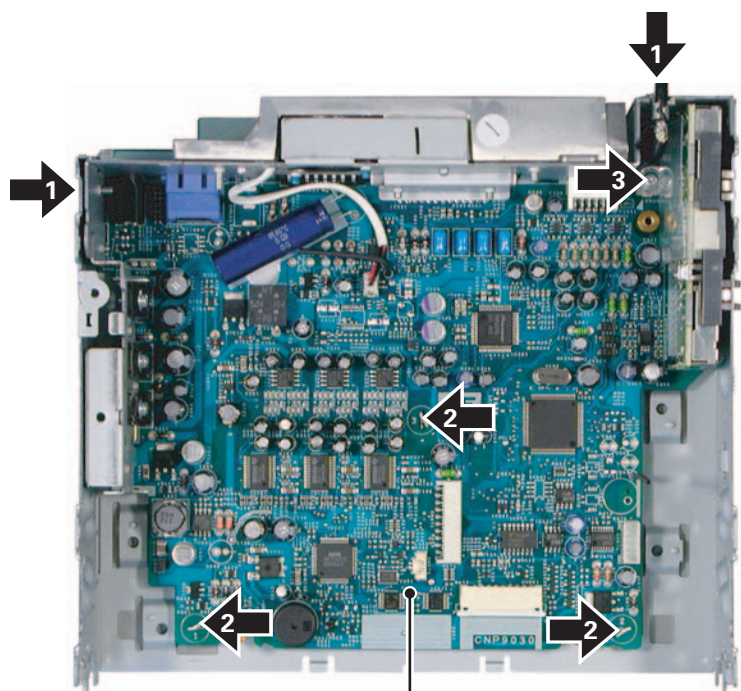
B

C

D

E

F

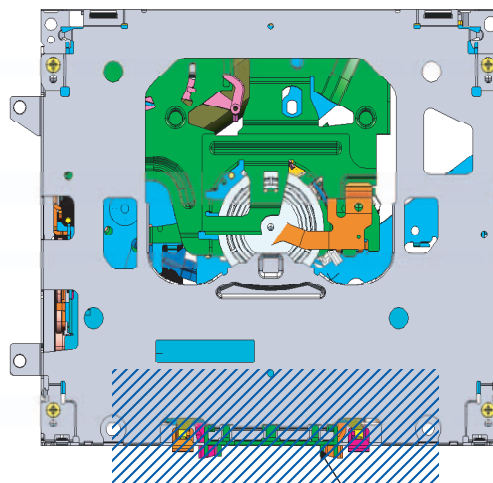


Tuner Amp Unit

Fig.3

● How to hold the Mechanism Unit

1. Hold the Upper and Lower Frames.
2. Do not hold the front portion of the Upper Frame, because it is not very solid.

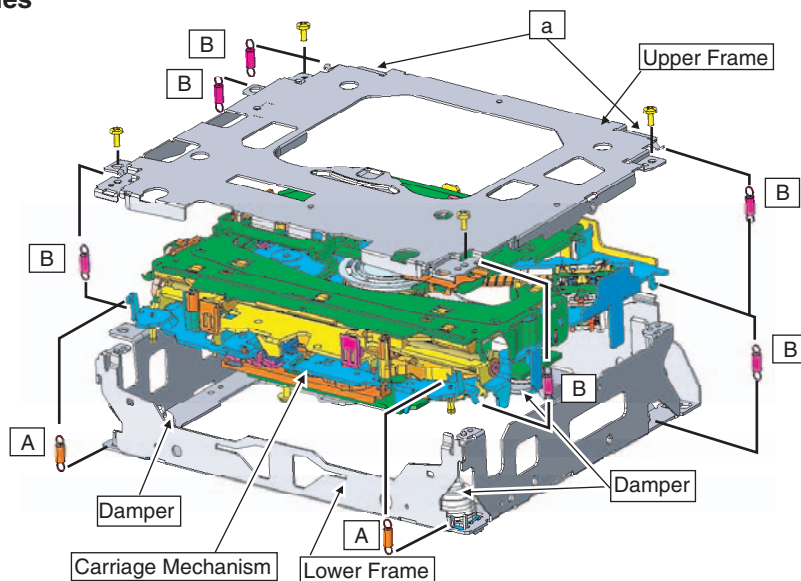


Do not squeeze this area.

● Removing the Upper and Lower Frames

1. With a disc inserted and clamped in the mechanism, remove the two Springs (A), the six Springs (B), and the four Screws.
2. Turn the Upper Frame using the part "a" as a pivot, and remove the Upper Frame.
3. While lifting the Carriage Mechanism, remove it from the three Dampers.

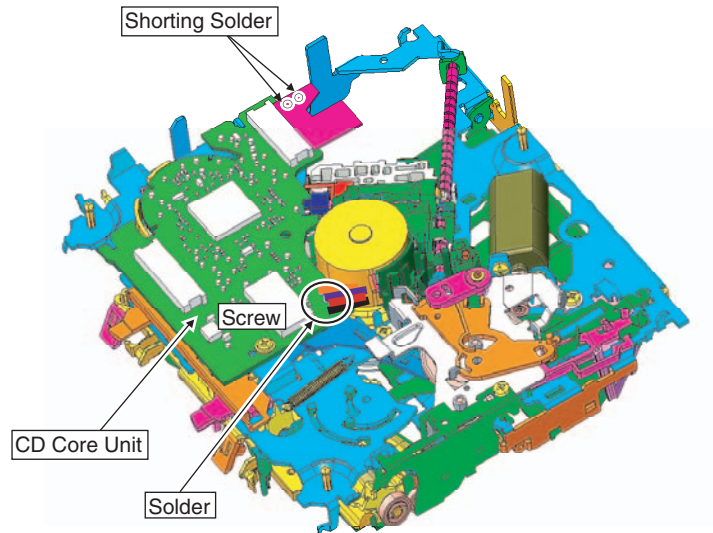
Caution: When assembling, be sure to apply some alcohol to the Dampers and assemble the mechanism in a clamped state.



● How to remove the CD Core Unit

1. Apply Shorting Solder to the flexible cable of the Pickup, and disconnect it from the connector.
2. Unsolder the four leads, and loosen the Screw.
3. Remove the CD Core Unit.

Caution: When assembling the CD Core Unit, assemble it with the SW in a clamped state so as not to damage it.

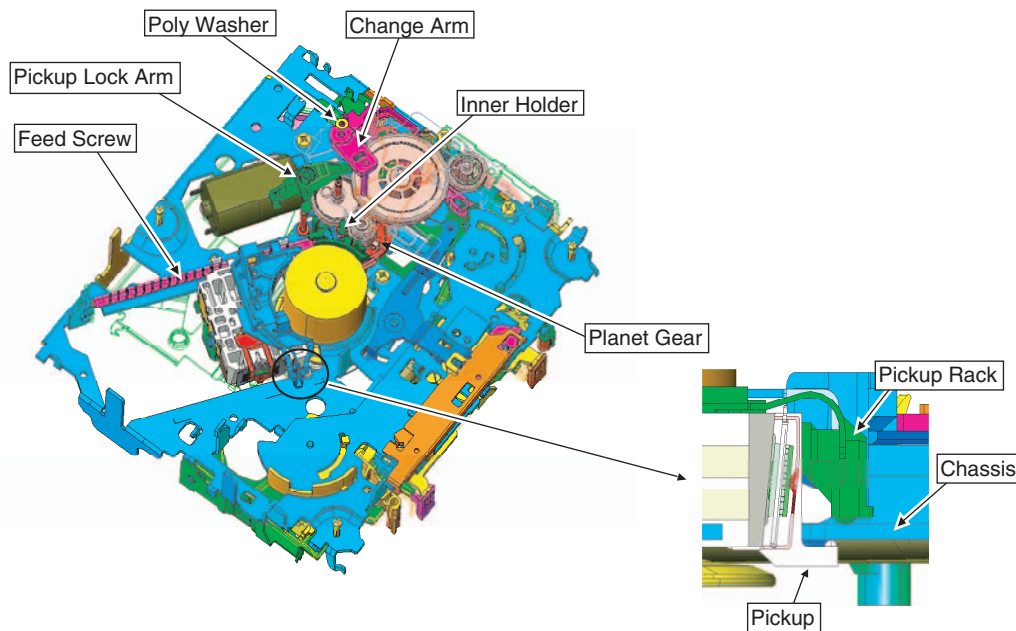


● How to remove the Pickup Unit

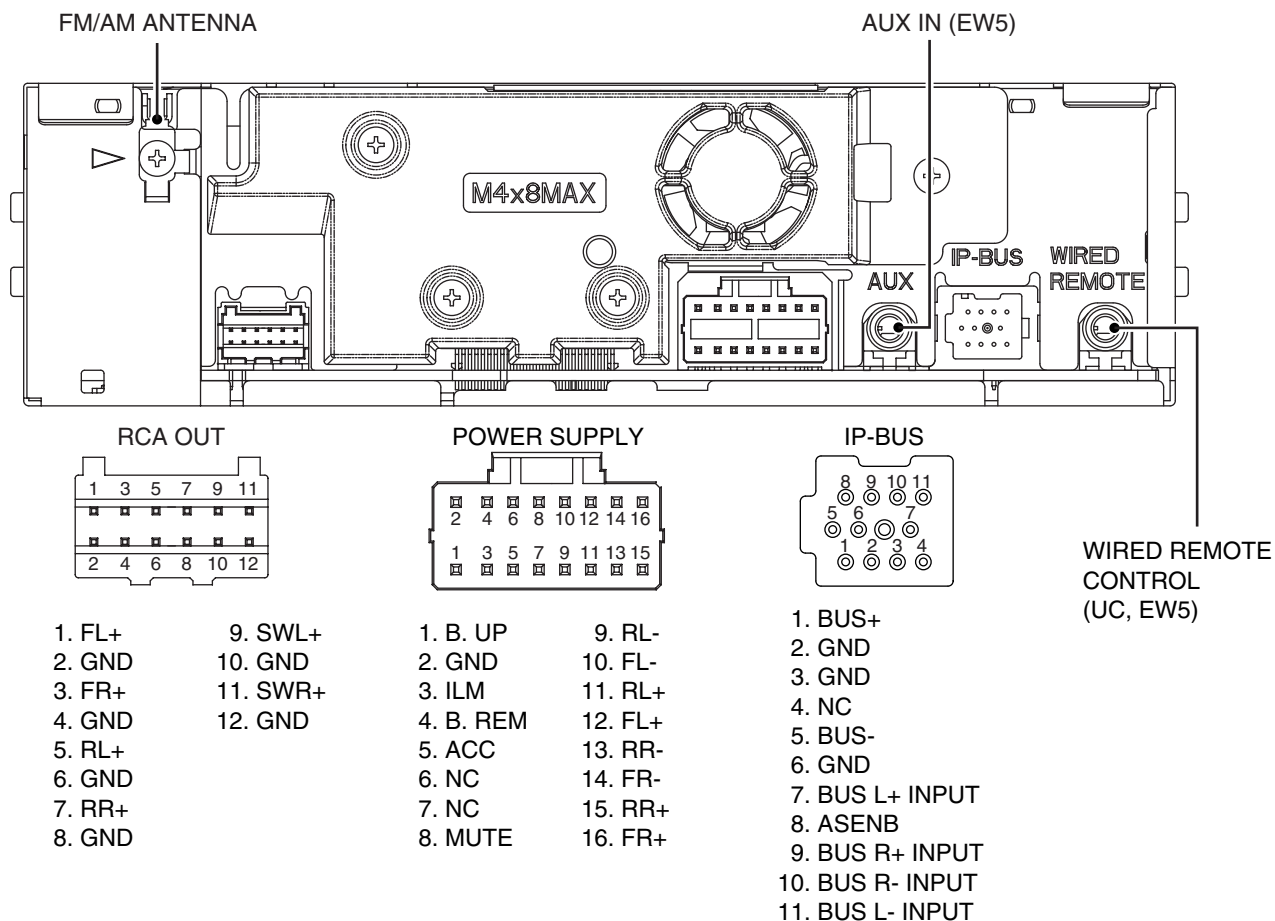
1. Make the system in the carriage mechanism mode, and have it clamped.
2. Remove the CD Core Unit and remove the leads from the Inner Holder.
3. Remove the Poly Washer, Change Arm, and Pickup Lock Arm.
4. While releasing from the hook of the Inner Holder, lift the end of the Feed Screw.

Caution: When assembling, move the Planet Gear to the load/eject position before setting the Feed Screw in the Inner Holder.

Assemble the sub unit side of the Pickup, taking the plate (Chassis) in-between. When treating the leads of the Load Carriage Motor Assy, do not make them loose over the Feed Screw.

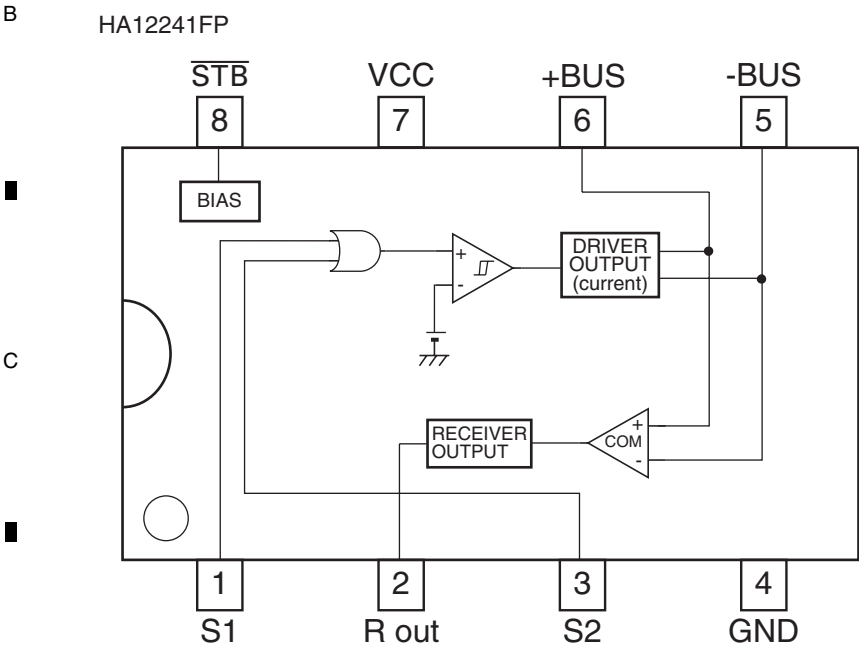


7.1.2 CONNECTOR FUNCTION DESCRIPTION

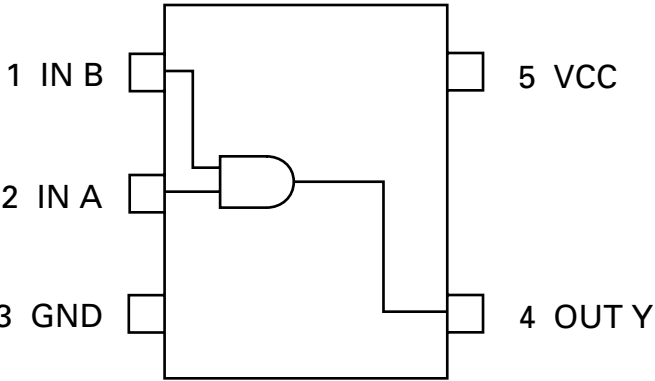


7.2 IC

HA12241FP	PEG176A
TC7SH08FUS1	PAL007B
AK7732VT	PEG179A
PCM1793DB	PD8160A
PM9009A	GP1UX51RK
TC74VHCT08AFTS1	UPD63763CGJ
TC74VHC08FTS1	PE5561A
BR25L320F-W	BR93L56RFVM-W
PEG178A	NJM2886DL3-33



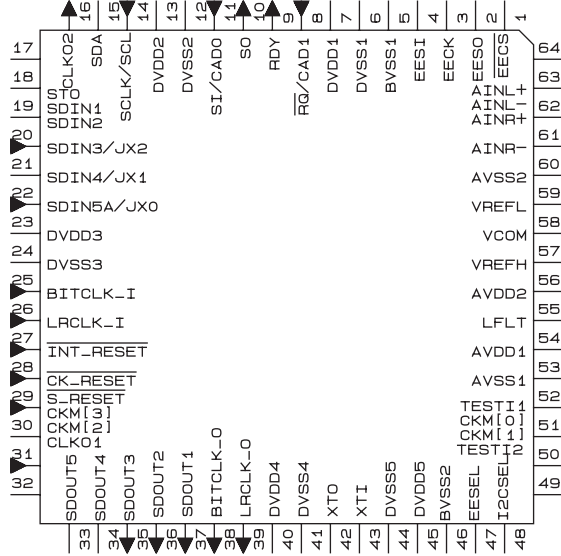
* TC7SH08FUS1



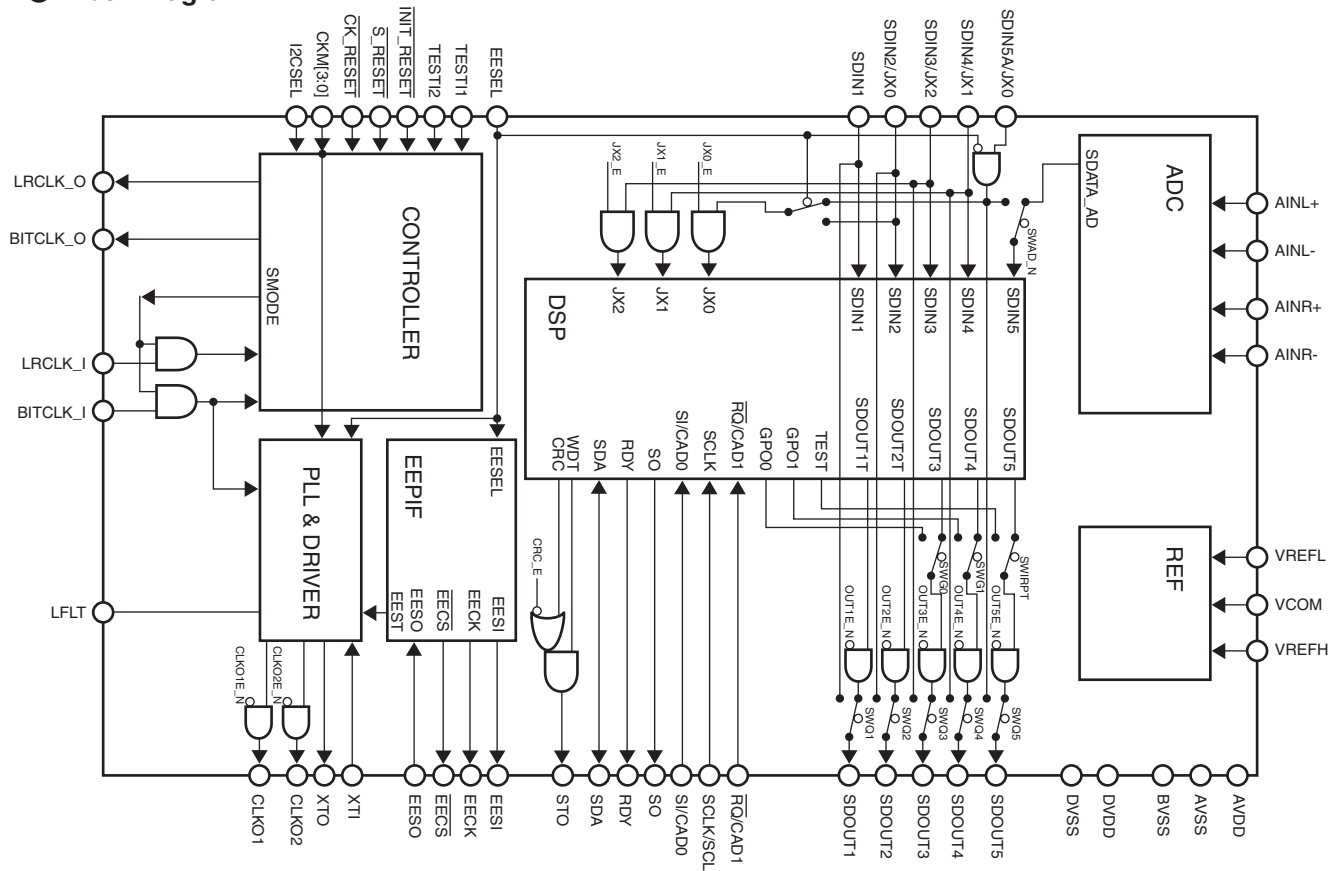
IC's marked by * are MOS type.
Be careful in handling them because they are very
liable to be damaged by electrostatic induction.

* AK7732VT

● Pin Layout

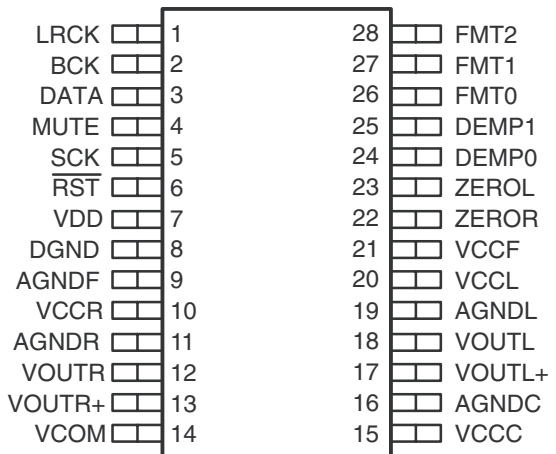


● Block Diagram

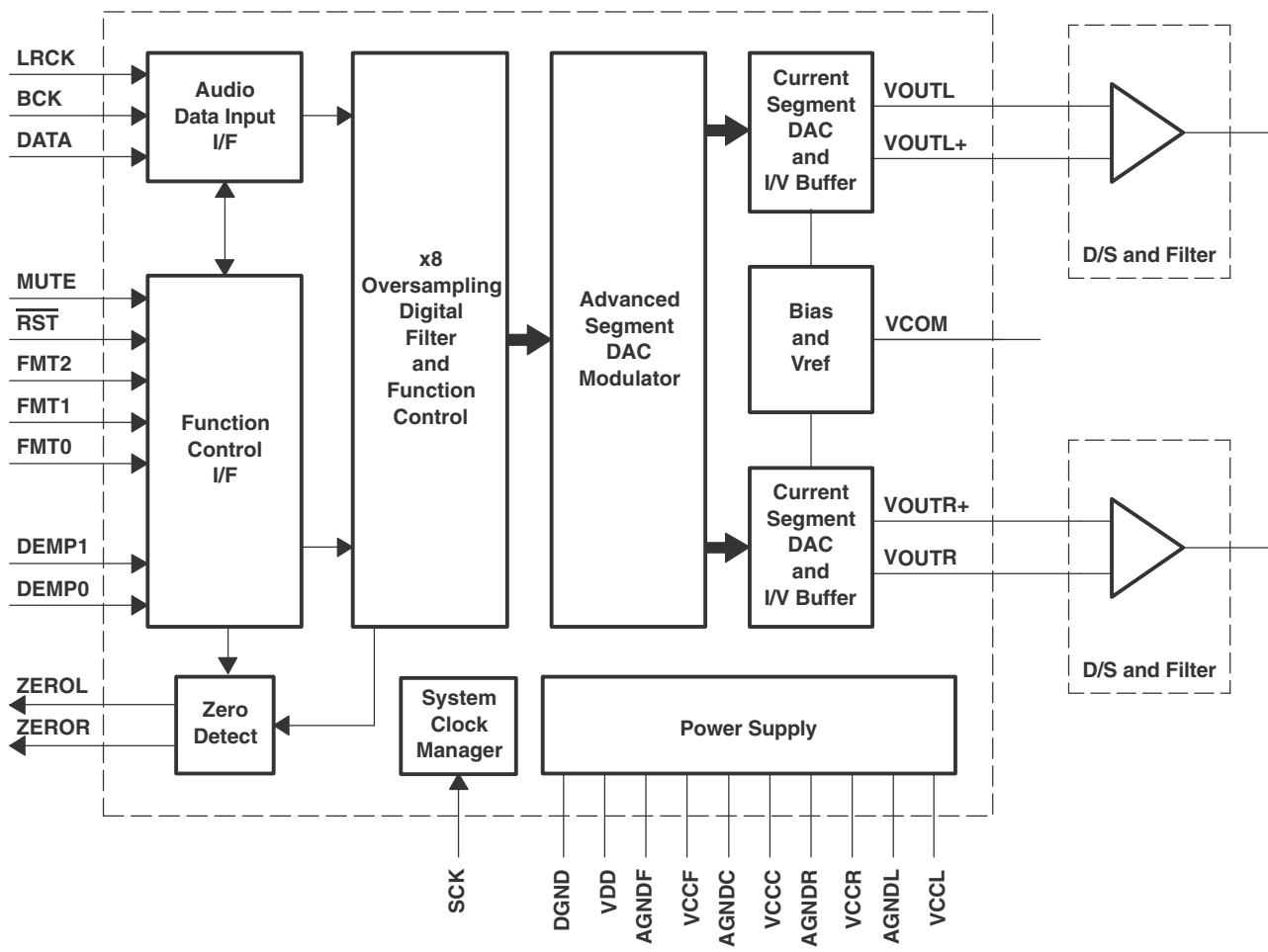


* PCM1793DB

● Pin Layout



● Block Diagram



Pin Functions(PM9009A)

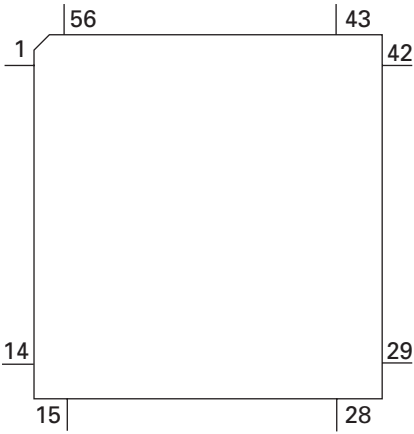
Pin No.	Pin Name	I/O	Function and Operation
1	Si1L+	I	Stereo source signal input 1 Lch (Balance : Hot)
2	Si1L-	I	Stereo source signal input 1 Lch (Balance : Cold)
3	Si1R+	I	Stereo source signal input 1 Rch (Balance : Cold)
4	Si1R-	I	Stereo source signal input 1 Rch (Balance : Hot)
5	S.GND.1		Signal GND
6	Si2L	I	Stereo source signal input 2 Lch
7	Si2R	I	Stereo source signal input 2 Rch
8	S.GND.2		Signal GND
9	Si3L	I	Stereo source signal input 3 Lch
10	Si3R	I	Stereo source signal input 3 Rch
11	Si4L	I	Stereo source signal input 4 Lch
12	Si4R	I	Stereo source signal input 4 Rch
13	S.GND.3		Signal GND
14	So2L	O	Source selector signal output 2 Lch
15	So2R	O	Source selector signal output 2 Rch
16	So1L	O	Source selector signal output 1 Lch
17	So1R	O	Source selector signal output 1 Rch
18	S.GND.4		Signal GND
19	Vi1	I	Volume signal input 1ch
20	Vi2	I	Volume signal input 2ch
21	S.GND.5		Signal GND
22	Vi3	I	Volume signal input 3ch
23	Vi4	I	Volume signal input 4ch
24	S.GND.6		Signal GND
25	Vi5	I	Volume signal input 5ch
26	Vi6	I	Volume signal input 6ch
27	S.GND.7		Signal GND
28	Vi7	I	Volume signal input 7ch
29	Vo1a	O	Volume signal output 1ch (for RCA-out)
30	Vo2a	O	Volume signal output 2ch (for RCA-out)
31	Vo3a	O	Volume signal output 3ch (for RCA-out)
32	Vo4a	O	Volume signal output 4ch (for RCA-out)
33	Vo5a	O	Volume signal output 5ch (for RCA-out)
34	Vo6a	O	Volume signal output 6ch (for RCA-out)
35	Vo7a	O	Volume signal output 7ch (for RCA-out)
36	Vo1b	O	Volume signal output 1ch (for Power-IC)
37	Vo2b	O	Volume signal output 2ch (for Power-IC)
38	Vo3b	O	Volume signal output 3ch (for Power-IC)
39	Vo4b	O	Volume signal output 4ch (for Power-IC)
40	Vo5b	O	Volume signal output 5ch (for Power-IC)
41	Vo6b	O	Volume signal output 6ch (for Power-IC)
42	D.GND		Digital GND
43	SDA	I	Microcomputer interface serial data signal input
44	SCK	I	Microcomputer interface serial clock signal input
45	CS	I	Microcomputer interface chip select signal input
46	FCKSEL	I	Select input of VCO oscillation frequency
47	Vee		Power supply
48	NC1		Not used
49	NC2		Not used
50	P.GND		Power GND
51	NC3		Not used
52	Vcc		Power supply
53	ADJ		Adjustment of VCO oscillation frequency
54	S.GND.MU		Signal GND
55	EXi+	I	Monaural source signal input (Balance : Hot)
56	EXi-	I	Monaural source signal input (Balance : Cold)

* PM9009A

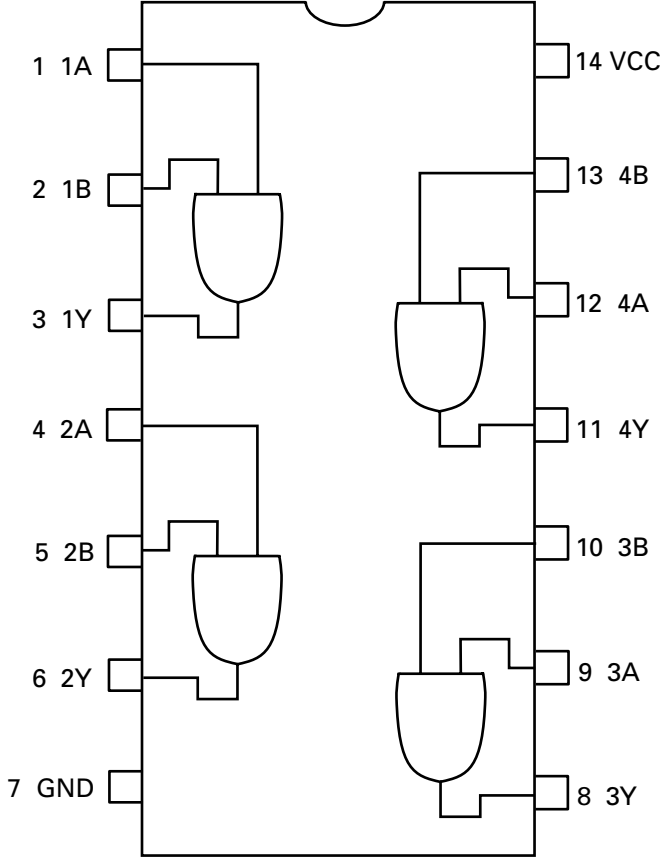
A

B

C



*TC74VHCT08AFTS1
*TC74VHC08FTS1

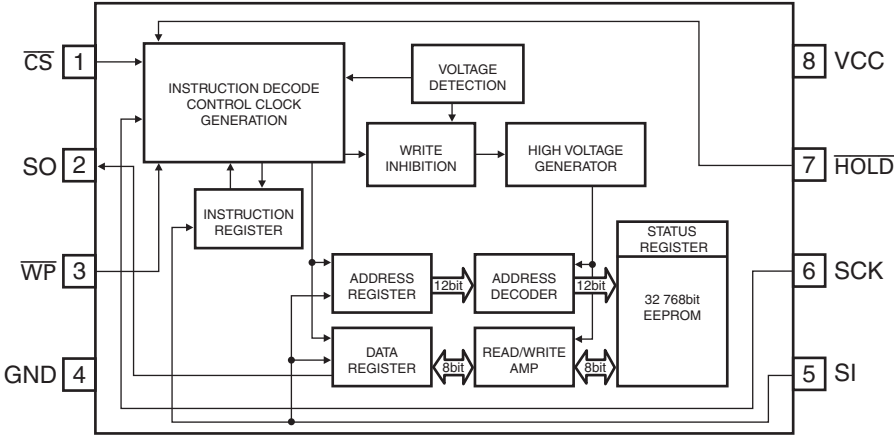


* BR25L320F-W

D

E

F



● Pin Functions(PEG178A : UC and ES model, PEG176A : EW5 model)

Pin No.	Pin Name	I/O	Function and Operation
1	TUNPCE1	O	TUNER : Chip enable output (PLL)
2	TUNPCE2	O	TUNER : Chip enable output (EEPROM)
3	DSPOUT	O	DSP, E.VOL : Data output
4	DSPIN	I	DSP : Data input
5	DSPCK	O	DSP, E.VOL : Clock output
6	BYTE	I	External data bus width change input
7	CNVSS	I	Processor mode change input
8	IPPW	O	IP-BUS : Driver power supply control output
9	ASENBO	O	IP-BUS : Slave ACC sense output
10	RESET	I	Reset input
11	XOUT	O	Crystal oscillating element connection output
12	VSS		GND
13	XIN	I	Crystal oscillating element connection input
14	VCC		Power supply
15	NMI		Not used
16	RCK	I	RDS : Clock input (EW)
17	LDET	I	RDS : PLL Lock detect input (EW)
18	AMPPW	O	Power amplifier power supply control output
19	RX2	I	IP-BUS : Data input 2
20	FCKSEL	O	Switch output of VCO oscillation frequency
21	EVOLCS	O	E.VOL : Chip select output
22	PEE	O	BEEP sound output
23	SYSPW	O	System power control output
24	DSPPW	O	DSP : Power control output
25	DALMON	O	For consumption low-current output
26	MUTE	O	Mute output
27	RX	I	IP-BUS : Data input
28	TX	O	IP-BUS : Data output
29	BSO	O	PBUS : Serial data output
30	BSI	I	PBUS : Serial data input
31	BSCK	O	PBUS : Clock output
32	KEYD	I	Wired remote control key input (UC, EW)
33	DPDT	O	GRILLE : Data output
34	KYDT	I	GRILLE : Data input
35	MCKCONT		Not used
36	MCKRQ	I	Master clock request input
37	PCL	O	Output for clock adjustment
38	NC		Not used
39	RDS57K	I	RDS : 57 kHz count pulse input (EW)
40	DSP_RAMCLR	O	DSP : RAM clear output
41	INIT_RESET	O	DSP : System reset output
42	CK_RST	O	DSP : Clock reset output
43	DSPS_RST	O	DSP : System reset output
44	CKM[2]	O	DSP : Clock mode select output
45	AMTPW		Not used
46	DSPRQ	O	DSP : Interface request output
47	DSPRDY	I	DSP : Data write ready input
48	BSRQ	I	PBUS : Communication request output
49	BRST	O	PBUS : Reset output
50	BRXEN	I/O	PBUS : Communication input/output
51	LRCKOK	I	DSP : Clock stability information input
52	JSN50N1	O	"H" output at Jack sense mode (UC, ES)
53	CDRESET	O	CD : Microcomputer reset output
54	DIM_WH	O	Key illumination dimmer output (White)
55	DIM_BL	O	Key illumination dimmer output (Blue)(UC, ES)
56	ILMPW	O	Illumination output
57	SWVDD	O	GRILLE : Chip enable output
58	OELPW	O	OEL : Power supply output
59	MODEL	I	Model select input (UC, ES)
60	VCC		Power supply
61	DSPMOD	I	DSP : STD/NW setting input
62	VSS		GND

A

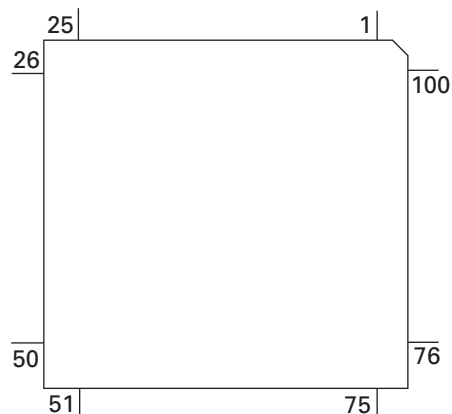
Pin No.	Pin Name	I/O	Function and Operation
63	ROMCS		OPEN
64	ROMCK		OPEN
65	ROMDATA		Pull up
66	TELIN	I	TEL mute input
67	ROMSCK	O	1day backup : Clock output
68	ROMSO	O	1day backup : Data output
69	ROMSI	I	1day backup : Data input
70	ROMCSB	O	1day backup : Chip select output
71	NC		Not used
72	ASENS	I	ACC sense input
73	BSSENS	I	Backup sense input
74	ISENS	I	Illumination sense input
75	ROT1	I	Rotary encoder pulse input 1
76	ROT0	I	Rotary encoder pulse input 0
77	FLPILM	O	Inside of flap illumination output
78	FLPPW	O	Flap motor driver power ON/OFF output
79	FLPOPEN	O	Flap motor open output
80	FLPCLS	O	Flap motor close output
81	FOPNSW	I	Flap open sense input
82	FCLSSW	I	Flap close sense input
83	AEQON	O	AEQ ON output (UC, ES)
84	AUXON	O	AUX ON output (UC, ES)
85	JSN2SON2	O	"H" output at Jack sense mode (UC, ES)
86	TESTIN	I	Test program input
87	JCKSNS	I	Jack sense input
88	BTIND	I	Battery indicator input
89	RDSLK	I	RDS : Lock signal input (EW)
90	RDT	I	RDS : Data input (EW)
91	DSSENS	I	Detach sense input
92	KEYAD	I	Wired remote control key input (UC, EW)
93	ASLIN	I	ASL input (EW)
94	AVSS		Analog GND
95	SL	I	Signal level input
96	VREF		Reference voltage
97	AVCC		Analog power supply
98	TUNPDI	I	TUNER : PLL communication data input
99	TUNPDO	O	TUNER : Data output(PLL)
100	TUNPCK	O	TUNER : Clock output(PLL)

B

C

D

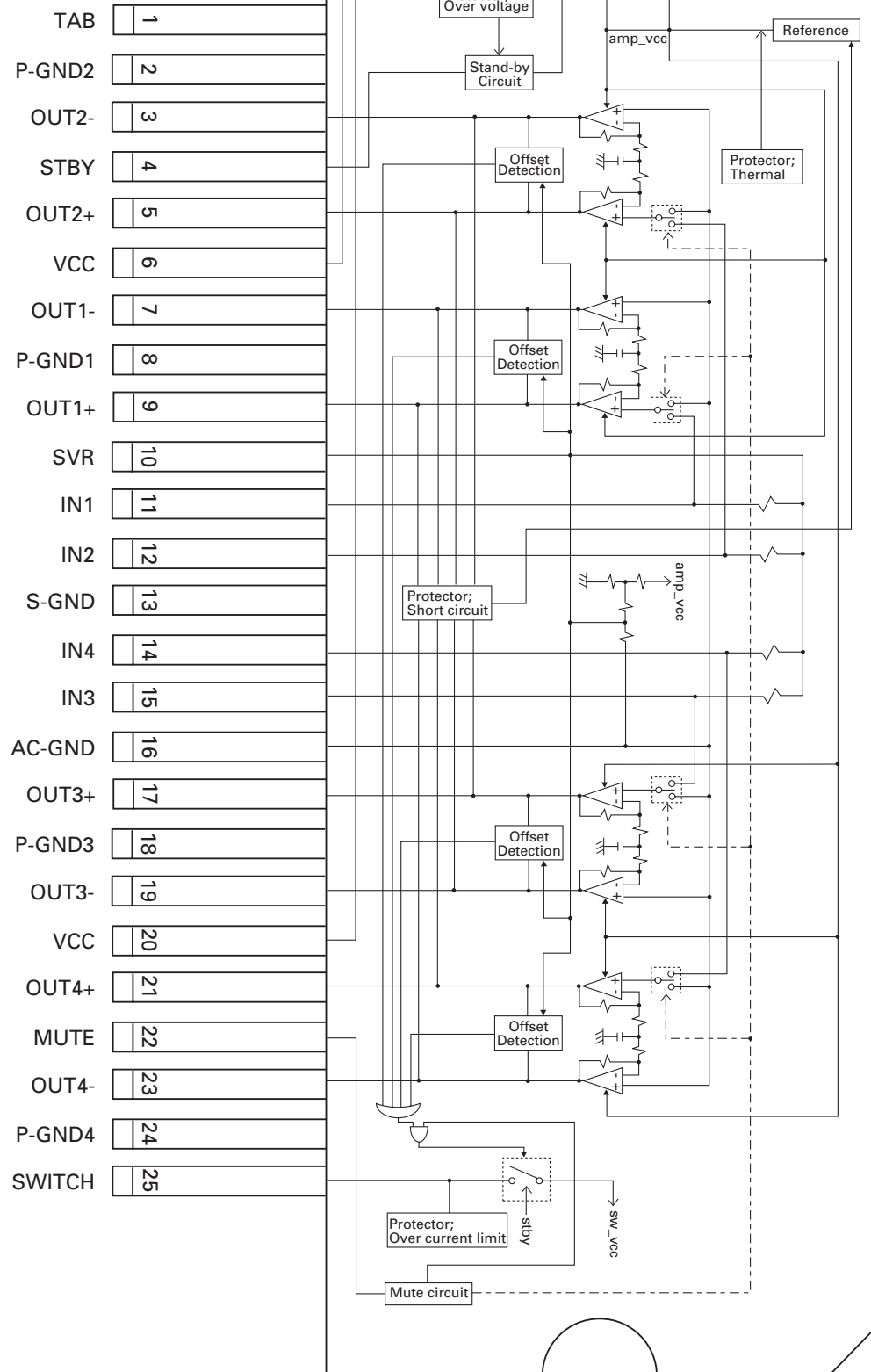
* PEG178A, PEG176A



E

F

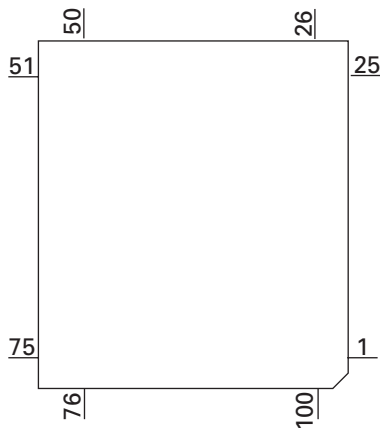
PAL007B



● Pin Functions (PEG179A)

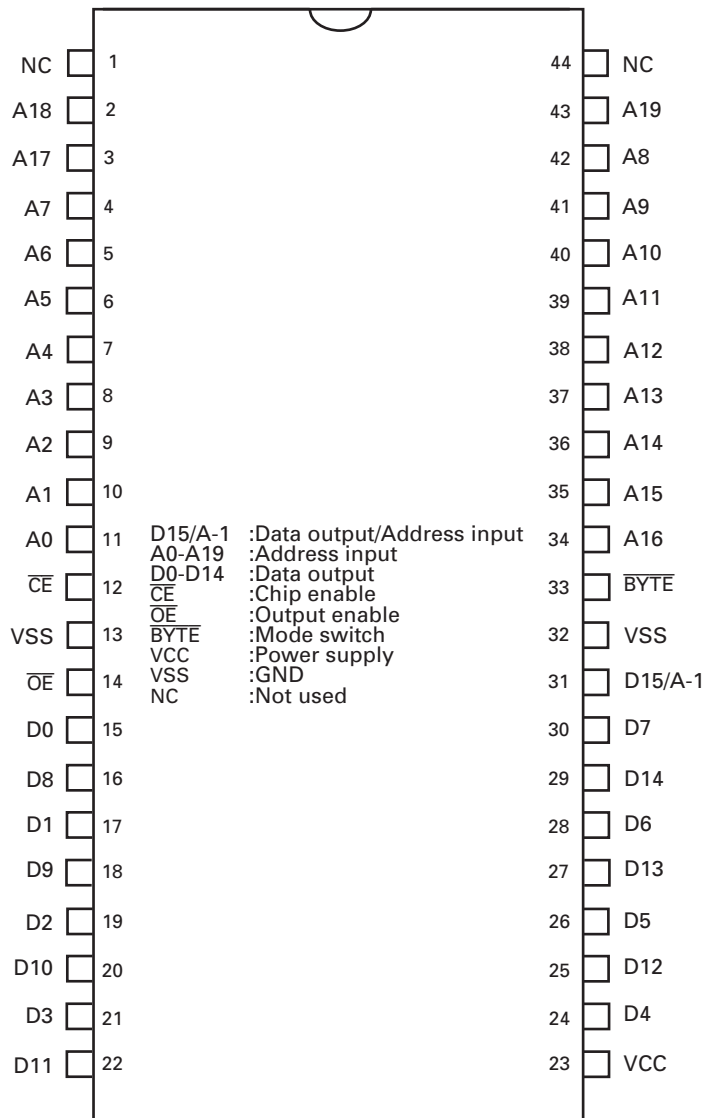
Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Not used
2	ROMDT	I/O	C	ROM collection data input/output
3	ROMCS	O	C	ROM collection chip select output
4	REM	I		Remote control reception input
5	ROMCK	O	C	ROM collection clock output
6	BYTE	I		GND connection
7	CNVSS	I		GND connection
8, 9	NC			Not used
10	RESET	I		Pull up
11	XOUT			Crystal oscillating element connection pin
12	VSS1			GND connection
13	XIN			Crystal oscillating element connection pin
14	VCC1			VCC connection
15	NMI	I		NMI input
16	NC			Not used
17-20	KS1-4	O	C	Key strobe output
21	NC			Not used
22	DSEL	O	C	Display data select output
23	NC			Not used
24	CKD	O	C	OEL data transfer and driver clock output
25	NC			Not used
26	LS	O	C	OEL line synchronous signal output
27	DPDT	I		Display data communication input
28	KYDT	O	N	Key data communication output
29,30	ROT1,2	I		Rotary encoder pulse input
31,32	NC			Not used
33	OELD	O	C	Display data output
34	NC			Not used
35	CLK0	I		UART0 clock input
36	NC			Not used
37	RDY	I		RDY signal input
38	NC			Not used
39	HOLD	I		HOLD signal input
40,41	NC			Not used
42	RD	O	C	Read strobe output
43,44	NC			Not used
45-47	BANK2-0	O	C	Bank address output
48	CS0	O	C	External ROM chip select output
49	NC			Not used
50-59	A18-9	O	C	Address bus output
60	VCC2			VCC connection
61	A8	O	C	Address bus output
62	VSS2			GND connection
63-70	A7-0	O	C	Address bus output
71-86	D15-0	I/O	C	Data bus input/output
87	OFFMODE	O	C	LED output for light at the time of mode of display OFF
88	JOYST	I		Rotary encoder AD input
89	WHITE	O	C	White illumination ON output
90	BLUE	O	C	Blue illumination ON output
91-93	KD3-1	I		Key data input
94	AVSS			GND connection
95	KD3-1	I		Key data input
96	VREF			GND connection
97	AVCC			VCC connection
98-100	NC			Not used

* PEG179A



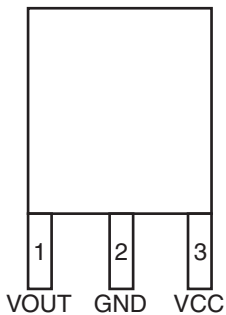
Format	Meaning
C	CMOS
N	Nch open drain

* PD8160A

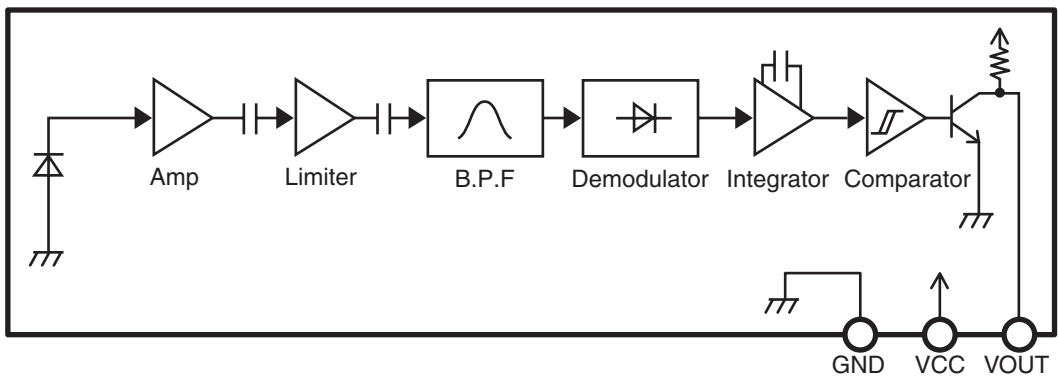


GP1UX51RK

● Pin Layout



● Block Diagram

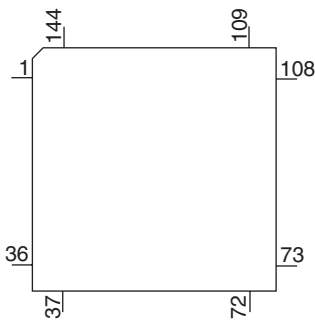


● Pin Functions (UPD63763CGJ)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Power supply for digital circuits
2	D1.GND		Ground for 1.6 V 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 1.6 V digital circuits
26	DA.VDD		Power supply for DAC
27	ROUT	O	Output of audio for the right channel
28	DA.GND		Ground for DAC
29	REGC		Connected to the capacitor for band gap
30	DA.GND		Ground 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(16.9344 MHz)
35	XTAL	O	Connected to the crystal oscillator(16.9344 MHz)
36	X.GND		Ground for the crystal oscillator
37	VDDREG15		Control of 1.6 V regulator
38	PWMSW0	I	Setup 0 for PWM output(SD, MD)
39-41	TEST3-1	I	Connected to Ground
42	PWMSW1	I	Setup 1 for PWM output(FD, TD)
43	TESTEN	I	Connected to Ground
44	D1.GND		Ground for 1.6 V 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 16.9344 MHz
52	D1.VDD		Power supply for 1.6 V digital circuits
53	RFCK/HOLD	O	Output of RFCK/HOLD signal
54	WFCK/MIRR	O	Output of WFCK/MIRR signal
55	PLCK/RFOK	O	Output of PLCK/Output of RFOK
56	LOCK/RFOK	O	Output of LRCK/Output of RFOK
57	C1D1/C8M/(RA13)	O	Information on error correction/C8M : 8 MHz
58	C1D2/C16M/(RA12)	O	Information on error correction/C16M : 16 MHz
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		Ground for 1.6 V digital circuits
63	C33M	O	Output of 33.8688 MHz(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 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)

Pin No.	Pin Name	I/O	Function and Operation
70	WE	O	Output of DRAM 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
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

* UPD63763CGJ

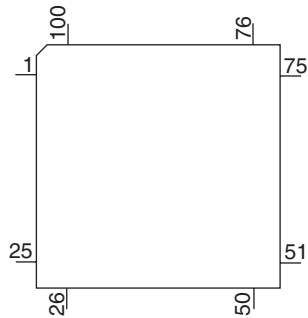


Pin Functions (PE5561A)

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	TESTIN	I		Chip check test program starting input
4	CLAMP			Not used
5	EVDD			E power supply / Positive power supply
6	FMODE			For flash rewriting / L : flash rewriting mode
7	FLRQ			For flash rewriting / Reset voltage control
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			Not used
19	XINT	I	C	CD LSI interruption signal input
20	NC			Not used
21	BRST	I		Bus reset input
22	BSI	I		Bus serial data input
23	BSO	O	C	Bus serial data output
24	BSCK	I/O	/C	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	Bus RX enable input/output
28	BSRQ	I/O	/C	Bus serial clock input/output
29	DSPOK			Not used
30	DSCSNS	I	C	Disc state sense input
31	8EJ(S905)	I	C	input of detection of 8 cm disc ejection
32	12EJ(S904)	I	C	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		SRAM level meter output
37	EMPH	O	C	Emphasis information output
38	EMPH			Not used
39	CDMUTE			Not used
40	LOEJ			Not used
41	CLCONT	O		Driver input switching output
42	HOME	I		Home SW sense input
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(MCKRQ)	O	C	CD + 3.3 V power supply control output(Digital output : MCKRQ)
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	XSI	I		CD LSI serial data input
51	XSO	O	C	CD LSI serial data output
52	XCK	O	C	CD LSI serial clock output
53	XWAIT	I	C	CD LSI wait control signal input
54	XASTB	O	C	CD LSI address strobe output
55	AD0	O	C	Address/data Bus 0
56	INT			Not used

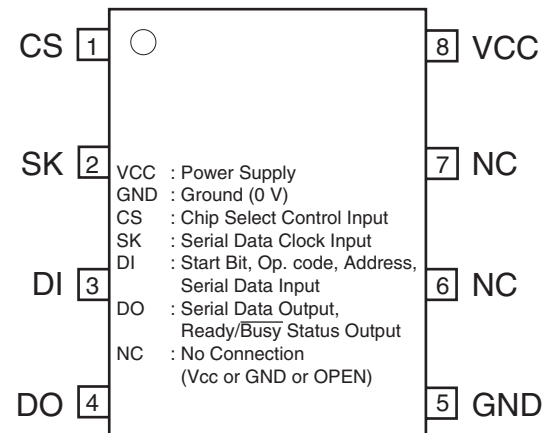
Pin No.	Pin Name	I/O	Format	Function and Operation
57	ROMDATA	I/O		E2PROM data input/output
58	ROMCK	O		E2PROM clock output
59	ROMCS	O	C	E2PROM chip selection output
60,61	NC			Not used
62	CLKOUT			Not used
63	LOCK	I		Spindle lock input
64-68	NC			Not used
69	BVSS			B power supply GND
70	BVDD			B power supply / Positive power supply
71-75	NC			Not used
76	FLMD1	I/O	/C	Address/Data Bus 5
77-90	NC			Not used
91-93	A/D			Not used
94	CSENS			Not used
95	TYPE_A/D			Not used
96,97	NC			Not used
98	TEMP			Not used
99	VDSSENS	I		VD power supply short sense input
100	DSCSNS			Not used

* PE5561A

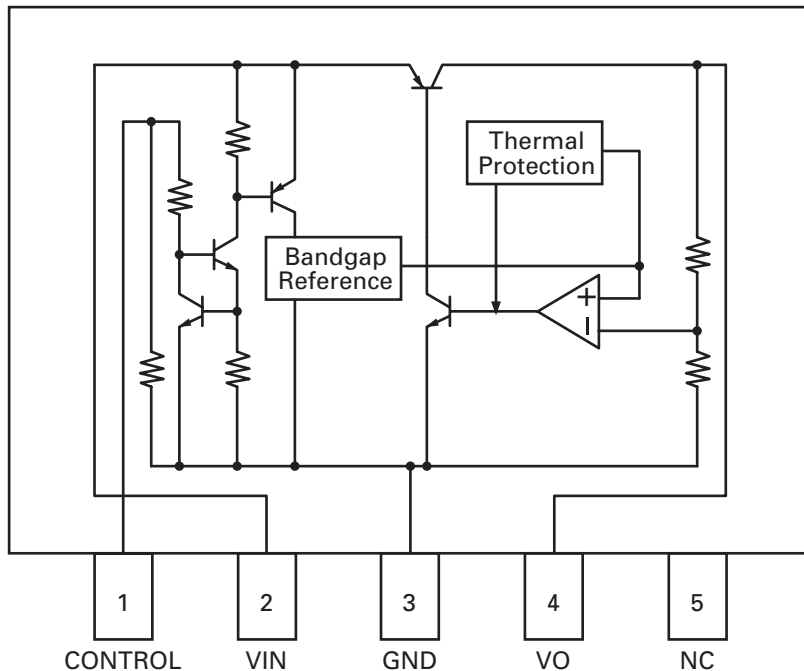


Format	meaning
C	C MOS

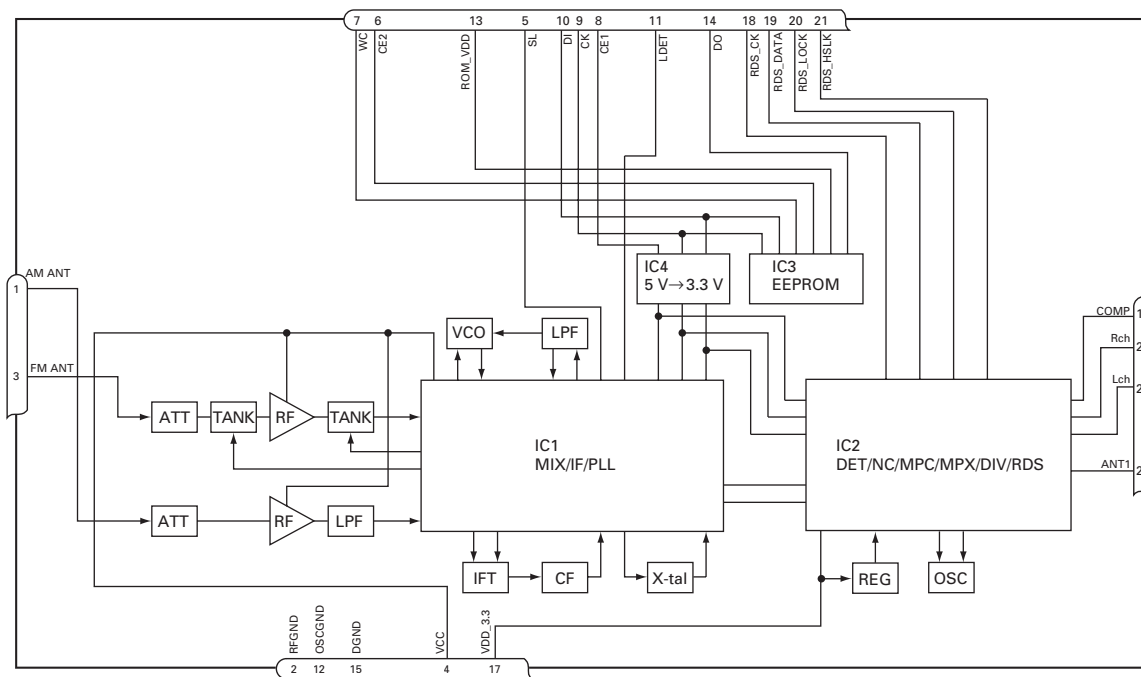
* BR93L56RFVM-W



NJM2886DL3-33

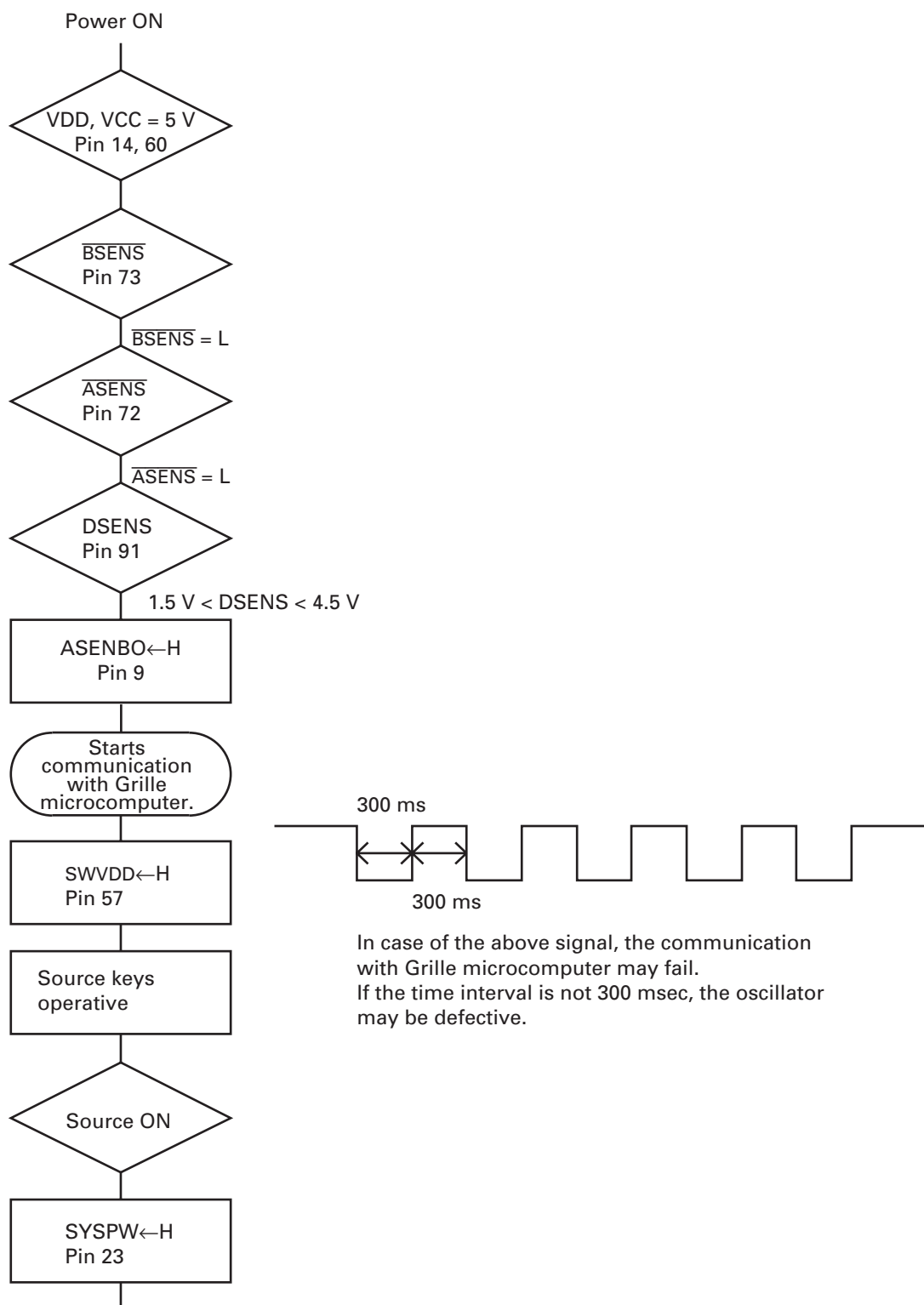


FM/AM Tuner Unit



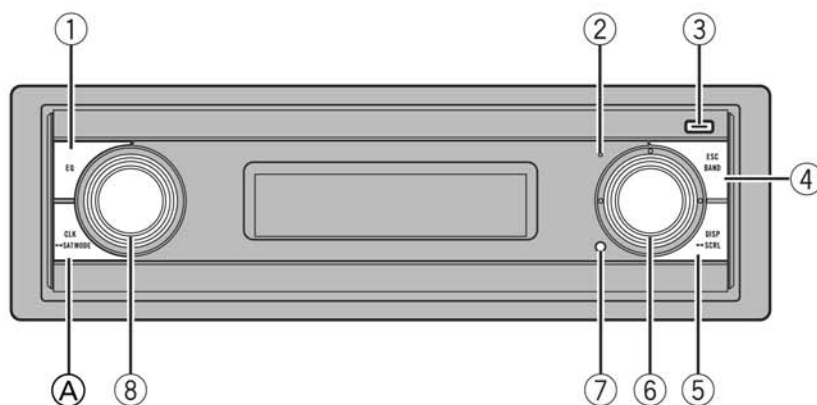
No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 33 μ H. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission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

7.3 OPERATIONAL FLOW CHART



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

8. OPERATIONS



Head unit

① EQ button

Press to select various equalizer curves.

② Display off indicator

Lights up when the display is turned off.

③ EJECT button

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

Press and hold to open or close the front panel.

④ BAND button

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

⑤ DISPLAY button

Press to select different displays.

⑥ MULTI-CONTROL

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

Turn to display the disc title list, track title list, folder list, file list or preset channel list depending on the source.

⑦ RESET button

Press to reset the microprocessor.

⑧ SOURCE button, VOLUME

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

Rotate it to increase or decrease the volume.

Ⓐ CLOCK button (UC, ES)

Press to change to the clock display. 

TA button (EW5)

Press to turn TA function on or off. Press and hold to turn NEWS function on or off. 

Remote control

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

⑨ VOLUME buttons

Press to increase or decrease the volume.

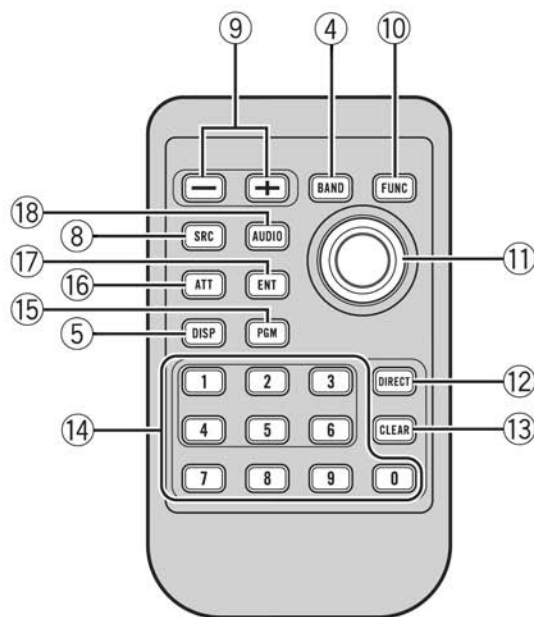
⑩ FUNCTION button

Press to select functions.

⑪ Joystick

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

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



⑱ **AUDIO button**

Press to select various sound quality controls. 

⑫ **DIRECT button**

Press to directly select the desired track.

⑬ **CLEAR button**

Press to cancel the input number when **0–9** are used.

⑭ **0–9 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.

⑮ **PGM button**

Press to operate the preprogrammed functions for each source.

⑯ **ATT button**

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

⑰ **ENTERTAINMENT button**

Press to change to the entertainment display.

Turning the unit on

● Press **SOURCE** to turn the unit on.

When you select a source, the unit is turned on. 

- When this unit's blue/white lead is connected to the vehicle's auto-antenna relay control terminal, the vehicle's antenna extends when this unit's source is turned on. To retract the antenna, turn the source off. 

Selecting a source

You can select a source you want to listen to. To switch to the built-in CD player, load a disc in the unit.

● Press **SOURCE** to select a source.

Press **SOURCE** repeatedly to switch between the following sources:

XM tuner—SIRIUS tuner—Tuner—Television—DVD player/Multi-DVD player—Built-in CD player—Multi-CD player—iPod—External unit 1—External unit 2—AUX1—AUX2

Notes

- In the following cases, the sound source will not change:
 - When there is no unit corresponding to the selected source connected to this unit.
 - When there is no disc in the unit.
 - When there is no disc in the DVD player.
 - When there is no magazine in the multi-CD player.
 - When there is no magazine in the multi-DVD player.
 - When the AUX (auxiliary input) is set to off.
- External unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this unit. Two external units can be controlled by this unit. When two external units are connected, the allocation of them to external unit 1 or external unit 2 is automatically set by this unit.

Loading a disc

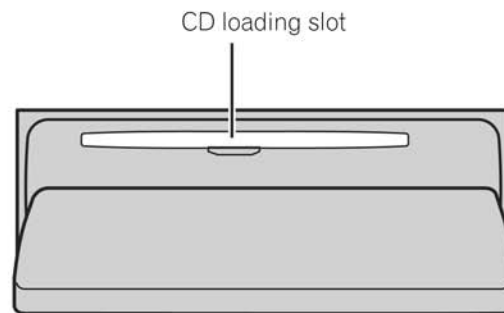
1 Press **EJECT** to open the front panel.

CD loading slot appears.

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

2 Insert a CD into the CD loading slot.

Front panel is closed automatically, and playback will start.



- You can eject a CD by pressing **EJECT**.

Notes

- The built-in CD player plays one standard, 12-cm or 8-cm CD at a time. Do not use an adapter when playing 8-cm CDs.
- Do not insert anything other than a CD into the CD loading slot.
- There is sometimes a delay between starting up CD playback and the sound being issued. When being read, **Format read** is displayed.
- If you cannot insert a disc completely or if after you insert a disc the disc does not play, check that the label side of the disc is up. Press **EJECT** to eject the disc, and check the disc for damage before inserting it again.

- When the CD loading or ejecting function does not operate properly, you can eject the CD by pressing and holding **EJECT** while opening the front panel.

Adjusting the volume

- Use **VOLUME** to adjust the sound level.

With the head unit, rotate **VOLUME** to increase or decrease the volume.

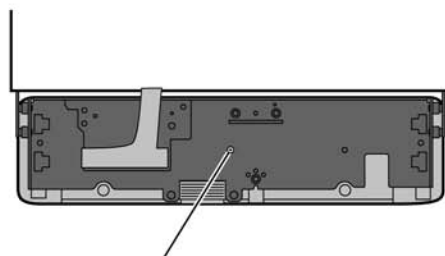
With the remote control, press **VOLUME** to increase or decrease the volume. 

Turning the unit off

- Press **SOURCE** and hold until the unit turns off. 

Fixing the front panel

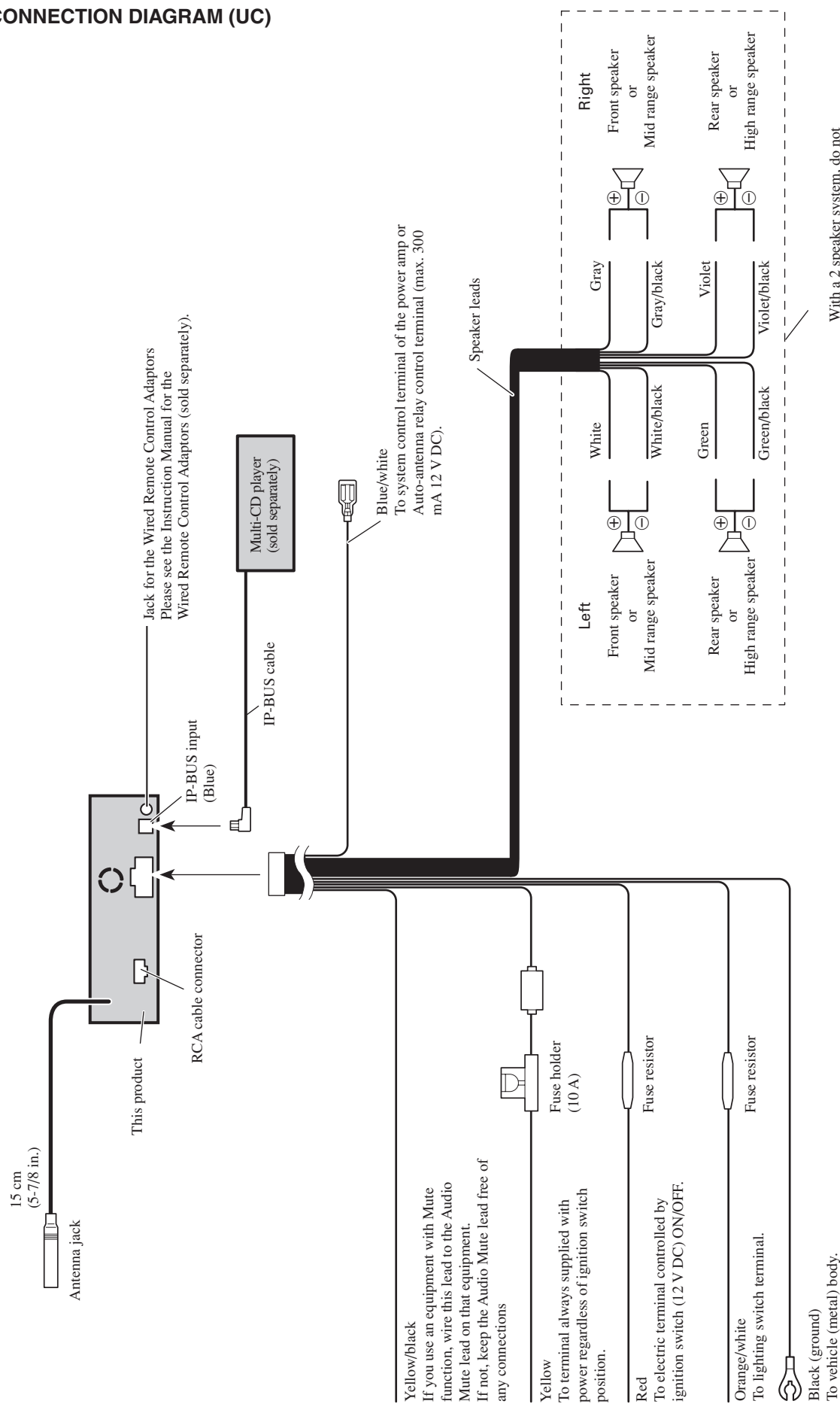
If you do not operate the removing and attaching the front panel function, use the supplied fixing screw and fix the front panel to this unit.



Fixing screw (JPZ20P060FTB)

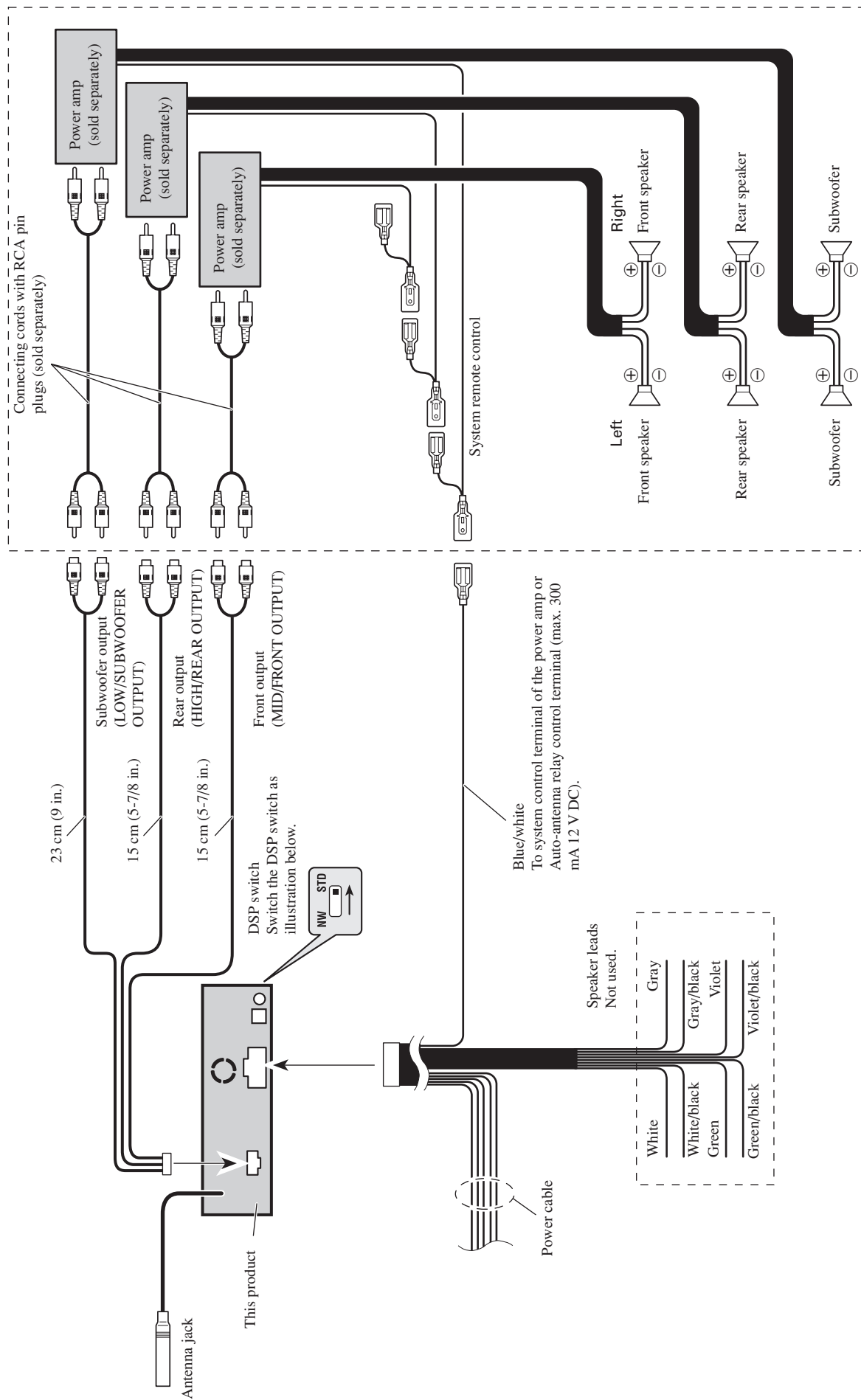
● CONNECTION DIAGRAM (UC)

Power cable connection diagram



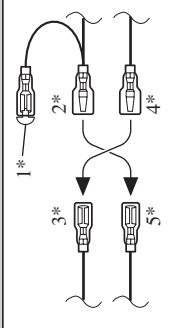
With a 2 speaker system, do not
connect anything to the speaker leads
that are not connected to speakers.

Connection diagram for standard mode without internal amp



Power cable connection diagram

Note:
Depending on the kind of vehicle, the function of 3* and 5* may be different. In this case, be sure to connect 2* to 5* and 4* to 3*.



Connect leads of the same color to each other.

Cap (1*)
When not using this terminal, do not remove the cap.

DEH-P880PRS/XN/UC

Yellow (3*)
Back-up
(or accessory)

Yellow (2*)
To terminal always supplied with power regardless of ignition switch position.

Red (4*)
To electric terminal controlled by ignition switch (12 V DC) ON/OFF.

Red (5*)
Accessory
(or back-up)

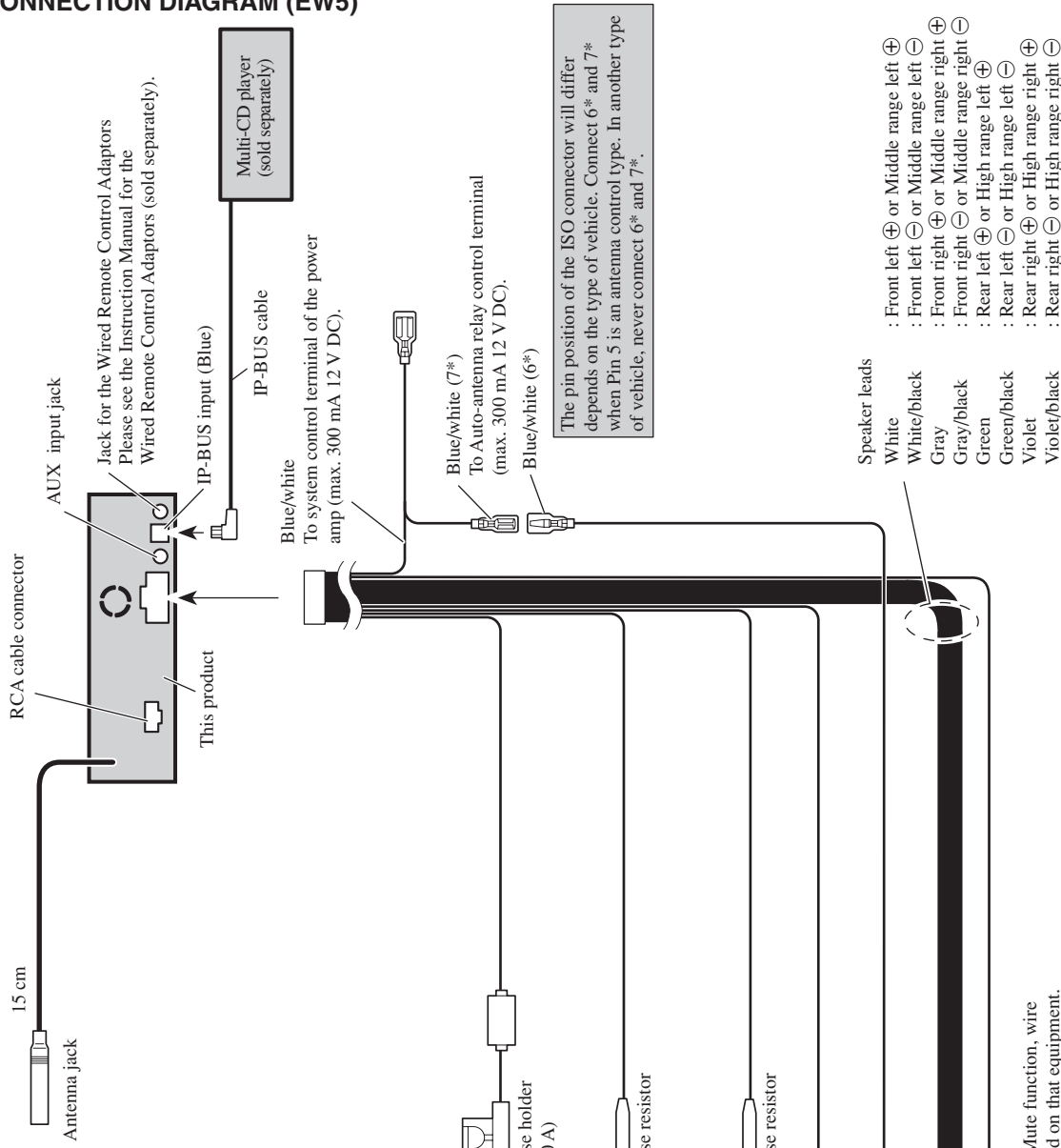
Orange/white
To lighting switch terminal.

Black (ground)
To vehicle (metal) body.

ISO connector

Note:
In some vehicles, the ISO connector may be divided into two. In this case, be sure to connect to both connectors.

Yellow/black
If you use an equipment with Mute function, wire this lead to the Audio Mute lead on that equipment. If not, keep the Audio Mute lead free of any connections.



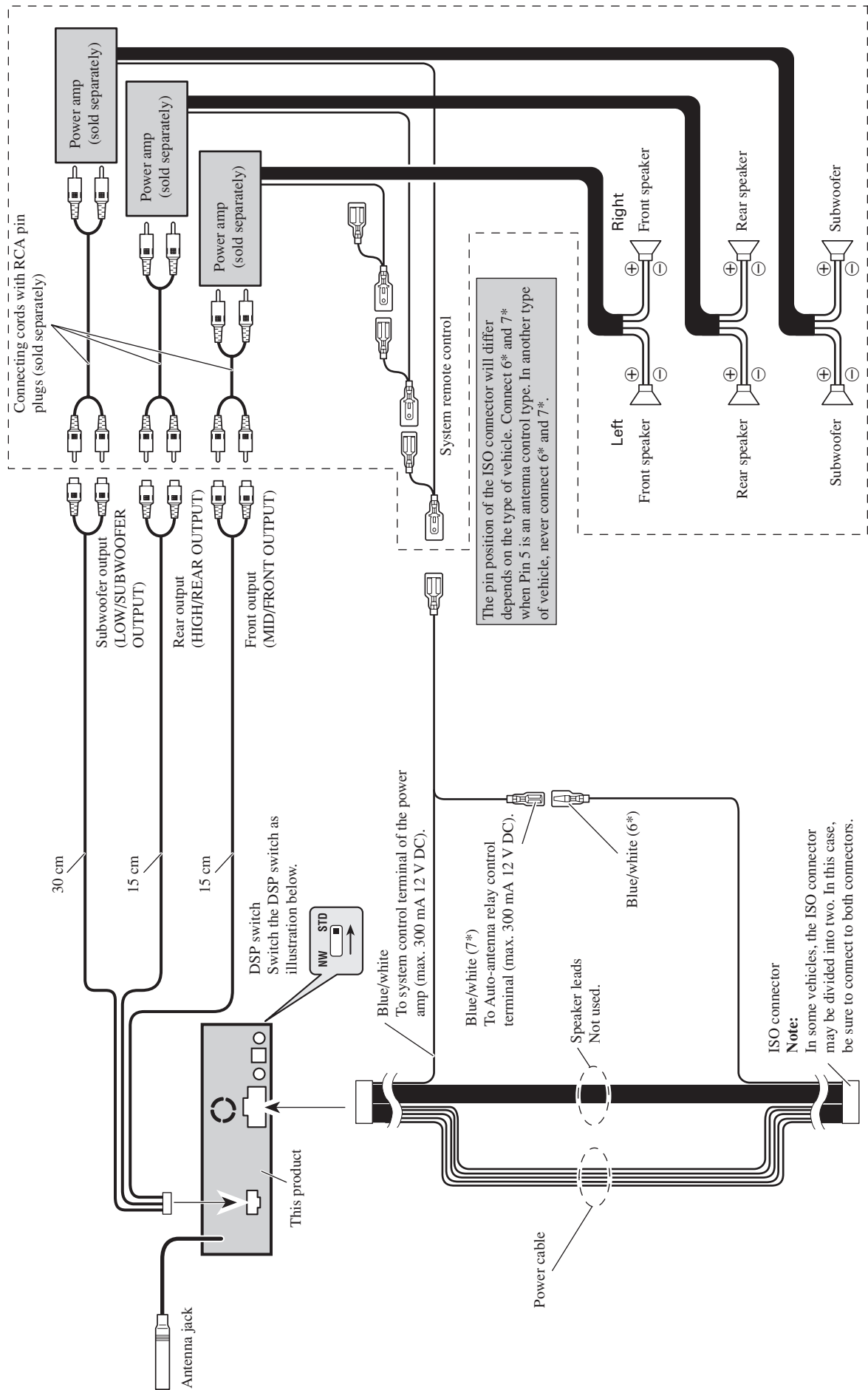
The pin position of the ISO connector will differ depends on the type of vehicle. Connect 6* and 7* when Pin 5 is an antenna control type. In another type of vehicle, never connect 6* and 7*.

Speaker leads
White
White/black
Gray
Green
Green/black
Violet
Violet/black

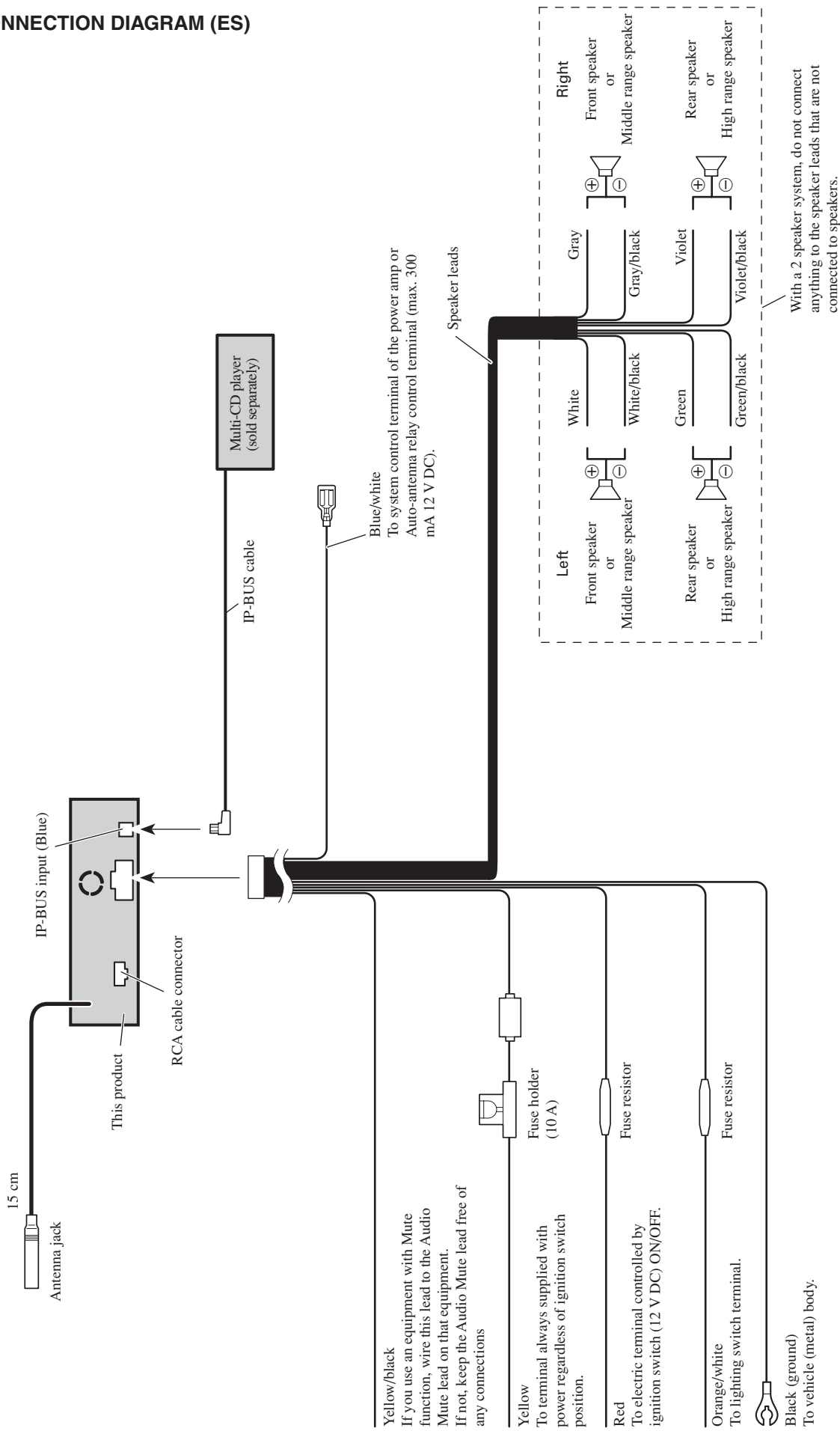
: Front left ⊕ or Middle range left ⊕
: Front left ⊖ or Middle range left ⊖
: Front right ⊕ or Middle range right ⊕
: Front right ⊖ or Middle range right ⊖
: Rear left ⊕ or High range left ⊕
: Rear left ⊖ or High range left ⊖
: Rear right ⊕ or High range right ⊕
: Rear right ⊖ or High range right ⊖

● CONNECTION DIAGRAM (EW5)

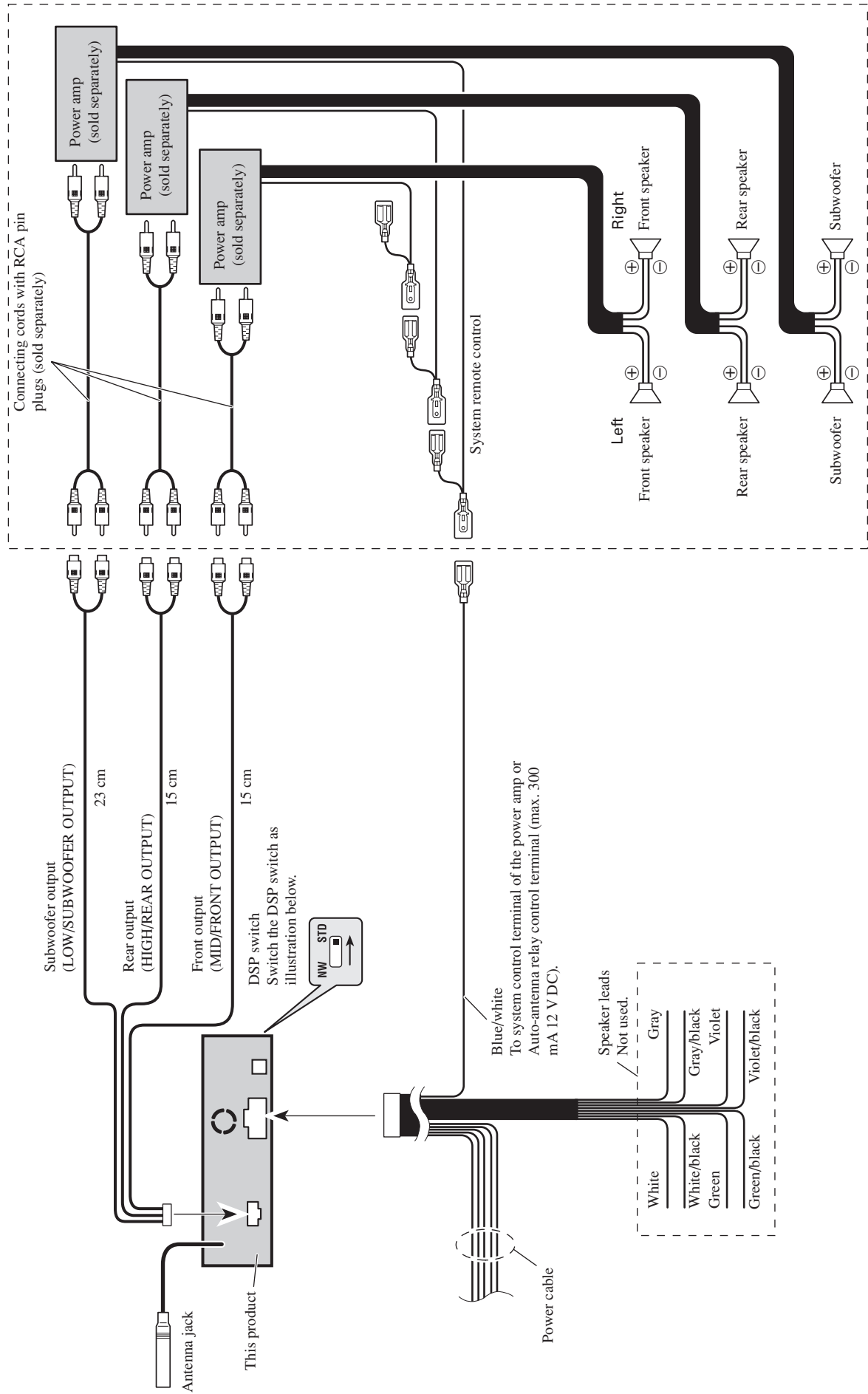
Connection diagram for standard mode without internal amp



Power cable connection diagram



Connection diagram for standard mode without internal amp



● Jigs List

A

Name	Jig No.	Remarks
Test Disc	TCD-782	Checking the grating
L.P.F.		Checking the grating (Two pieces)

● Grease List

B

Name	Grease No.	Remarks
Grease	GEM1024	Drive Unit, CD Mechanism Module
Grease	GEM1045	CD Mechanism Module



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

C

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

D

E

F