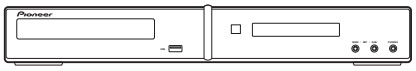
Pioneer

Service Manual



XV-DV282AP

ORDER NO.
RRV3936

DVD/CD RECEIVER

XV-DV282AP
XV-DV181
XV-DV180
XV-DV585K
XV-DV590K

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Region No.	Remarks
XV-DV282AP	LXJ	AC 220 V to 240 V	3	
XV-DV181	LXJ	AC 220 V to 240 V	3	
XV-DV180	LXJ	AC 220 V to 240 V	3	
XV-DV585K	SXJ5	AC 220 V to 240 V	5	
XV-DV590K	SXJ5	AC 220 V to 240 V	5	

For details, refer to "Important Check Points for good servicing".

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

T-ZZK MAY 2009 Printed in Japan

SAFETY INFORMATION

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

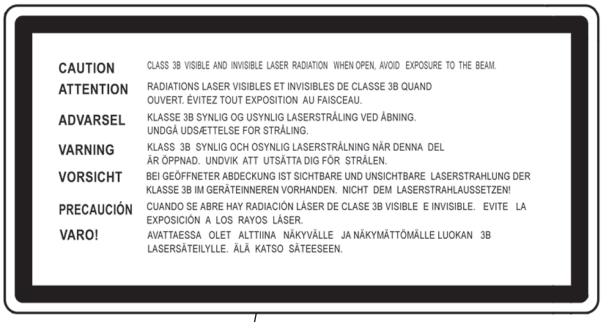
WARNING !

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

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 650 nm
FOR CD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 780 nm

LABEL CHECK



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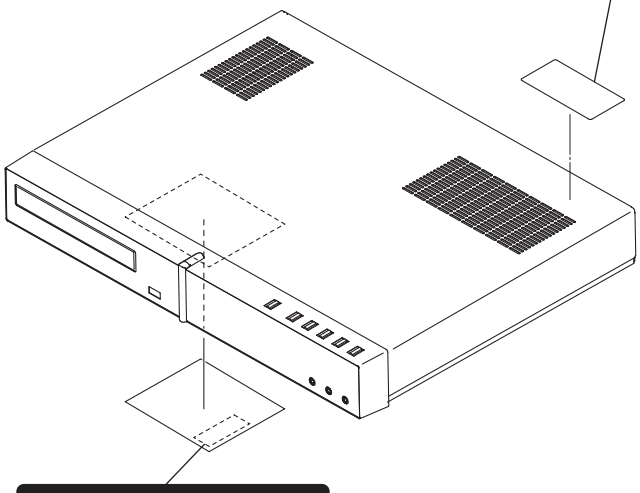


Name label

Additional Laser Caution

1.
- Laser diode is driving with Q307 (650 nm LD) and Q308 (780 nm LD) on the 08 DVDM Assy.
  Therefore, when short-circuit between the emitter and collector of these transistors or the base voltage is supplied for transistors turn on, the laser oscillates. (failure mode)
- In the test mode ∗ , there is the mode that the laser oscillates except for the disc judgment and playback. LD ON mode in the test mode oscillates with the laser forcibly.

2. When the cover is open, close viewing through the objective lens with the naked eye will cause exposure to the laser beam.

∗ : See page 28.

[Important Check Points for Good Servicing]

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

1. Product safety

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

① Use specified parts for repair.

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

② Do not perform modifications without proper instructions.

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

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

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

④ Make sure the screws are tightly fastened.

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

⑤ Make sure each connectors are correctly inserted.

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

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

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

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

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

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

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

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

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

⑩ Safe environment should be secured during servicing.

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

2. Adjustments

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

3. Lubricants, Glues, and Replacement parts

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

4. Cleaning

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

5. Shipping mode and Shipping screws

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

CONTENTS

1. SERVICE PRECAUTIONS

1.1 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 ºC.
  Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 ºC in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Do NOT use a soldering iron whose tip temperature cannot be controlled.

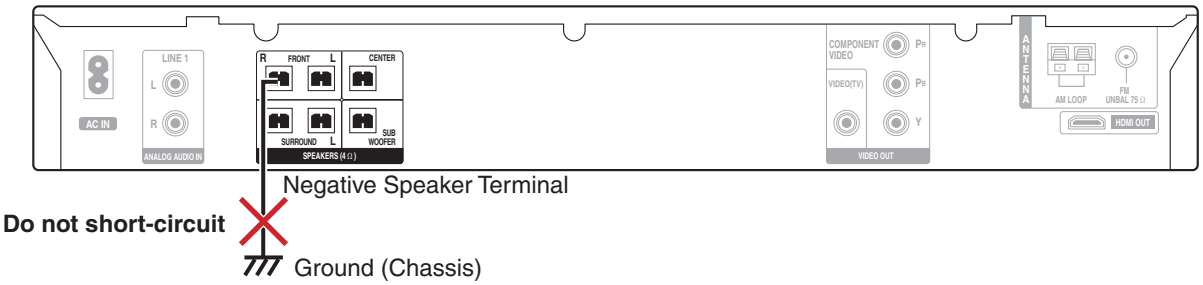
Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:
- Parts numbers of lead-free solder:
  GYP1006 1.0 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

1.2 CAUTION

NOTES ON BTL DRIVE

As a signal to drive the BTL is output from the negative speaker terminal, DO NOT short-circuit between the negative speaker terminal and ground, such as the chassis.
Do not short-circuit between the plus speaker terminal and ground, such as the chassis, too.



1.3 WHEN REPLACING DVD DECK

[Removing the DVD MECHA Assy]

Before removing Pickup PCB and DVD PCB connector, short circuit the position shown in **Fig. 1** using a soldering iron.
If you remove the DVD MECHA Assy with no soldering, the Laser may be damaged.

[Installing the DVD MECHA Assy]

Remove all the soldering on the short circuit position after the connection of Pickup PCB and DVD PCB connector.

NOTE

- Be sure to use lead-free solder and a soldering iron.
- When Soldering/Removing of solder, use the draw in equipment over the Pickup Unit to prevent the Flux smoke from it.

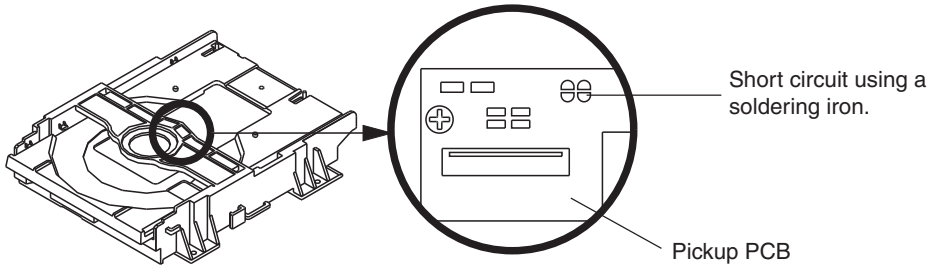


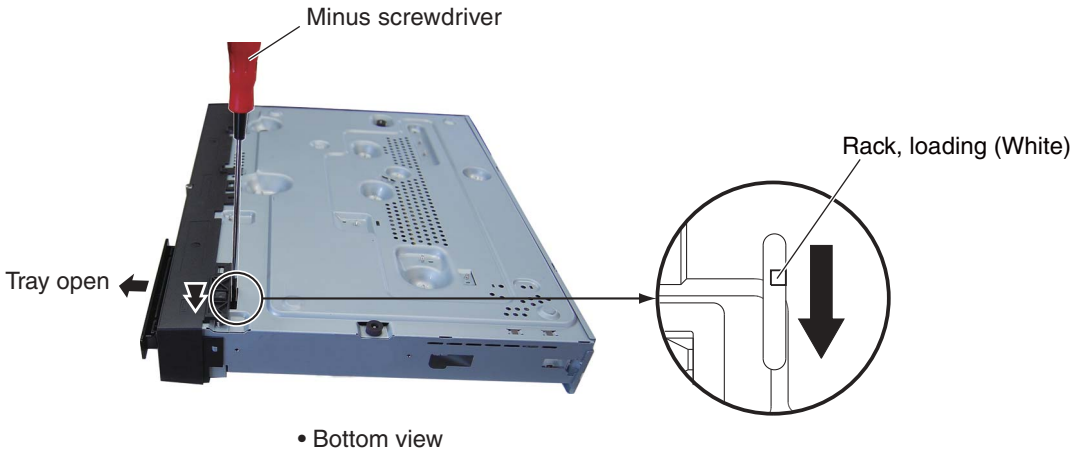
Fig. 1

1.4 DISC REMOVAL METHOD

How to open the tray when the power cannot be on

(1) Slide the rack, loading (White) toward the arrow direction by using a minus screwdriver to release the lock.
(2) Manually open the tray.

Note:
Please strongly pushing rack, loading (White) to release the lock because the tray doesn't go out easily.



• Bottom view

2. SPECIFICATIONS
2.1 SPECIFICATIONS, DISC/CONTENT FORMAT and ACCESORRIES

- **Amplifier section**

RMS Power Output:
Front, Center, Surround . . .60 W per channel (1 kHz, 10 % T.H.D., 4 Ω)
Subwoofer. . . 60 W (100 Hz, 10 % T.H.D., 4 Ω)

- **Disc section**

Type. . . . . .DVD system, Video CD/Super VCD system and Compact Disc digital audio system

- **FM tuner section**

Frequency range . . . . . .87.5 MHz to 108 MHz
Antenna . . . . . .75 Ω, unbalanced

- **AM tuner section**

Frequency range:
Saudi Arabia, Israel, South Africa, other middle eastern contries and duty free models
. . . . . .531 kHz to 1602 kHz
All other models
With 9 kHz step . . . . . .531 kHz to 1602 kHz
With 10 kHz step . . . . . .530 kHz to 1700 kHz
Antenna . . . . . Loop antenna

- **Miscellaneous**

Power requirements:
. . . . . .AC 220 V to 240 V, 50 Hz/60 Hz
Power consumption . . . . . .55 W
Power consumption in standby:
For HTZ180/181DVD. . . . . 0.48 W
Others
KURO LINK ON . . . . . 0.73 W
KURO LINK OFF. . . . . 0.48 W
Dimensions
. . . . . .420 mm (W) x 62 mm (H) x 331 mm (D)
Weight . . . . . .2.8 kg

•Accessories (DVD/CD receiver)

Remote control 1
AA/R6 dry cell batteries
(to confirm system operation) 2
Video cable (yellow plugs) 1
AM loop antenna. 1
FM antenna 1
Power cord 1
Setup Guide
Operating instructions

Disc/content format playback compatibility

This player is compatible with a wide range of disc types (media) and formats. Playable discs will generally feature one of the following logos on the disc and/or disc packaging. Note however that some disc types, such as recordable CD and DVD, may be in an unplayable format.

See the Disc compatibility table below for more information.

DVD-Video DVD-R DVD-RW

Audio CD Video CD CD-R CD-RW

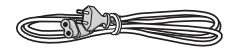
Fujicolor CD

- This unit will play DVD+R/+RW discs.
- is a trademark of FUJIFILM Corporation.
- is a trademark of DVD Format/Logo Licensing Corporation.
- Also compatible with KODAK Picture CD.

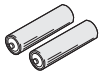
This player supports the IEC’s Super VCD standard for superior picture quality, dual soundtracks, and widescreen support.

Super Video CD (Super VCD)

Accessories



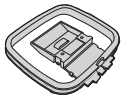
Power cord
(LXJ, SXJ5 : ADG1127)



AA/R6 dry cell batteries
(to confirm system operation)

Remote control
(XV-DV282AP, XV-DV585K, XV-DV590K : XXD3185)
(XV-DV181, XV-DV180 : XXD3186)

FM antenna
(ADH7030)

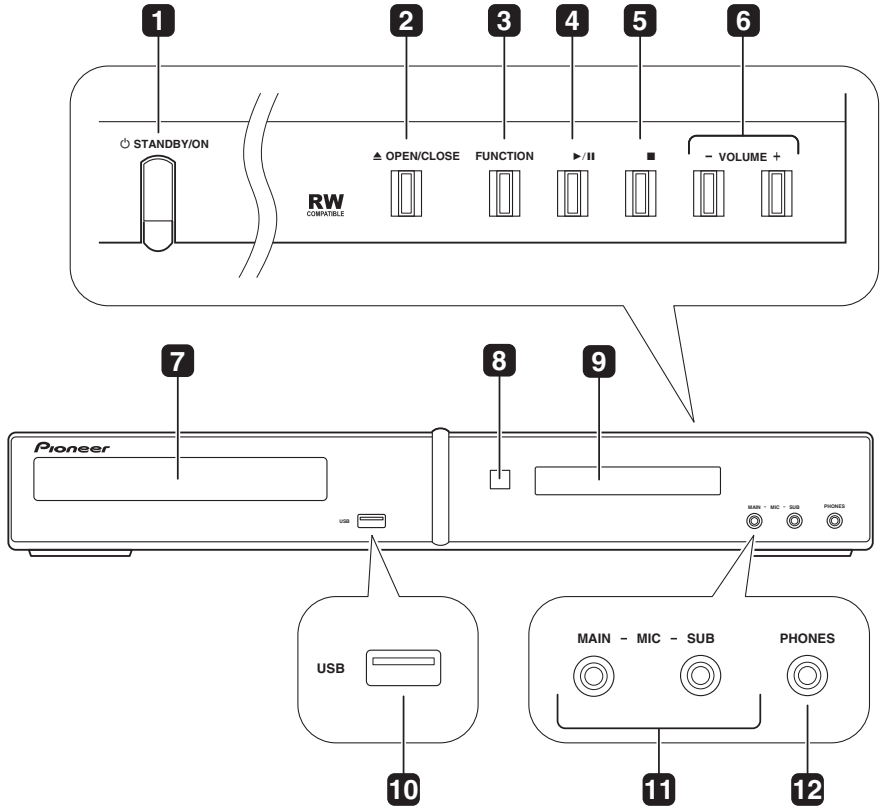


AM loop antenna
(ATB7013)

Video cable (yellow plugs)
(L = 1.5 m) (XDE3046)

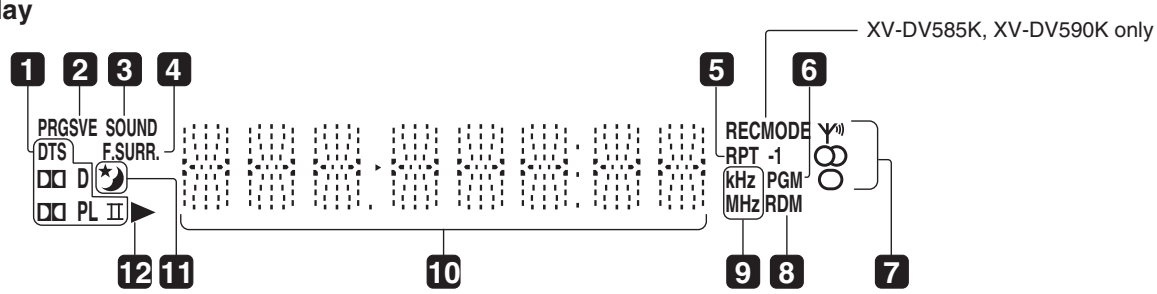
2.2 PANEL FACILITIES

Front panel



1 ⏻ **STANDBY/ON**
2 ▲ **OPEN/CLOSE**
3 **Function**
4 **►/II**
5 **■**
6 **VOLUME +/–**
7 **Disc tray**
8 **Remote Sensor**
9 **Display**
10 **USB interface**
11 **MIC input jacks**
12 **PHONES jack**

Display



1 Decord indicators
DTS lights during playback of a DTS source. **PLII** lights during Dolby Pro Logic II decoding and **D** lights during playback of Dolby Digital sources.

2 PRGSVE (Except XV-DV585K, XV-DV590K)
Lights when progressive scan video signal is given from the component video output terminal.

3 SOUND
Lights when the SFC modes, the tone controls (treble, bass or bass boost), MP3 Expander mode, Voice Enhancer mode are active.

4 F.SURR.
Lights when the Extra Power mode/Front surround mode is selected.

5 RPT and RPT-1
RPT lights during repeat play. **RPT-1** lights during repeat one-track play.

6 PGM
Lights during program or playlist playback.

7 Tuner indicators
Lights when a broadcast is being received, Lights when a stereo FM broadcast is being received, Lights when FM mono reception is selected.

8 RDM
Lights during random play.

9 kHz/MHz
Indicates the frequency unit shown in the character display (**kHz** for AM, **MHz** for FM).

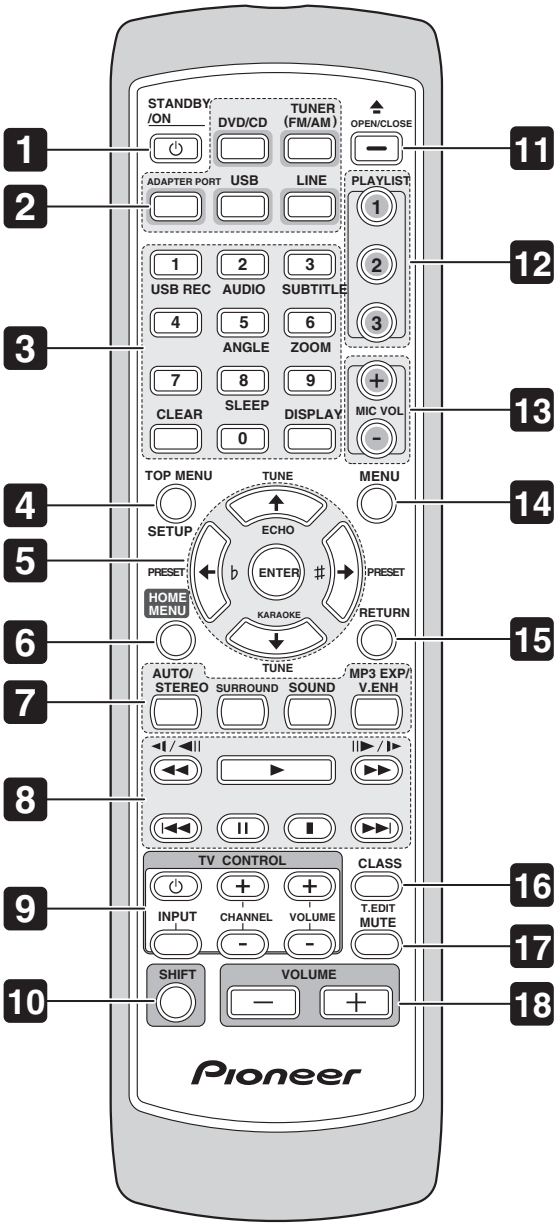
10 Character display

11
Lights when sleep timer is active.

12 ►
Lights during playback.

Remote control

The illustration shows the HTZ280/282DVD-AP.



1 ⏻ STANDBY/ON

2 Function select buttons [1]

3 Number buttons, CLEAR, DISPLAY, SLEEP and DVD controls

- **CLEAR**
- **DISPLAY**
- **SHIFT+SLEEP**
- **SHIFT+USB REC**
- **SHIFT+AUDIO**
- **SHIFT+SUBTITLE**
- **SHIFT+ANGLE**
- **SHIFT+ZOOM**

4 TOP MENU

- **SHIFT+SETUP**

5 SHIFT+KARAOKE

- **SHIFT+♭ / SHIFT+♯**
- **Cursor buttons**
- **ENTER**
- **TUNE**
- **PRESET**

6 HOME MENU

7 Sound controls

- **AUTO/STEREO**
- **SURROUND**
- **SOUND**
- **MP3 EXP/V.ENH**

8 Playback controls

9 TV CONTROL buttons

These control Pioneer flat screen TVs.[2]

10 SHIFT

11 ⏏ OPEN/CLOSE

12 PLAYLIST buttons

13 MIC VOL +/–

14 MENU

15 RETURN

16 Tuner controls

- **CLASS**
- **SHIFT+T.EDIT**

17 MUTE

18 VOLUME +/–

Note

1 Only the HTZ280/282DVD-AP models are equipped with the adapter port.

2 Hold down the number button **1** for over three seconds with the **CLEAR** pressed. If the TV refuses to respond, hold down the number button **2**. After control is properly switched over, the power to the TV can be operated by directing the **TVCONTROL** ⏻ toward the TV and pressing it.

3. BASIC ITEMS FOR SERVICE
3.1 CHECK POINTS AFTER SERVICING

Items to be checked after servicing / HTZ(XV)

To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedures	Check points
1	Confirm the firmware version on Test Mode.	The version of the firmware must be latest. Update firmware to the latest one, if it is not the latest.
2	Confirm whether the customer complain has been solved. If the customer complain occurs with the specific disc, use it for the operation check.	The customer complain must not be reappeared. Video, audio and operations must be normal.
3	Play back a CD. (track search)	Audio and operations must be normal.
4	Play back a DVD. (Menu operation, Title/chapter search)	Video, audio and operations must be normal.
5	Check the tuner (AM and FM) operations.	Audio and operations must be normal.
6	Check the sound from headphone output.	Sound must be normal, without noise.
7	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

Specific Items to be Checked

No.	Procedures	Check points
1	Confirm playback error rates at the innermost and outermost tracks by using the following disc. DVD test disc (GGV1025)	The error rates must be less than 5.0e-4. (This procedure can determine if the drive is degraded.)

See the table below for the items to be checked regarding video and audio.

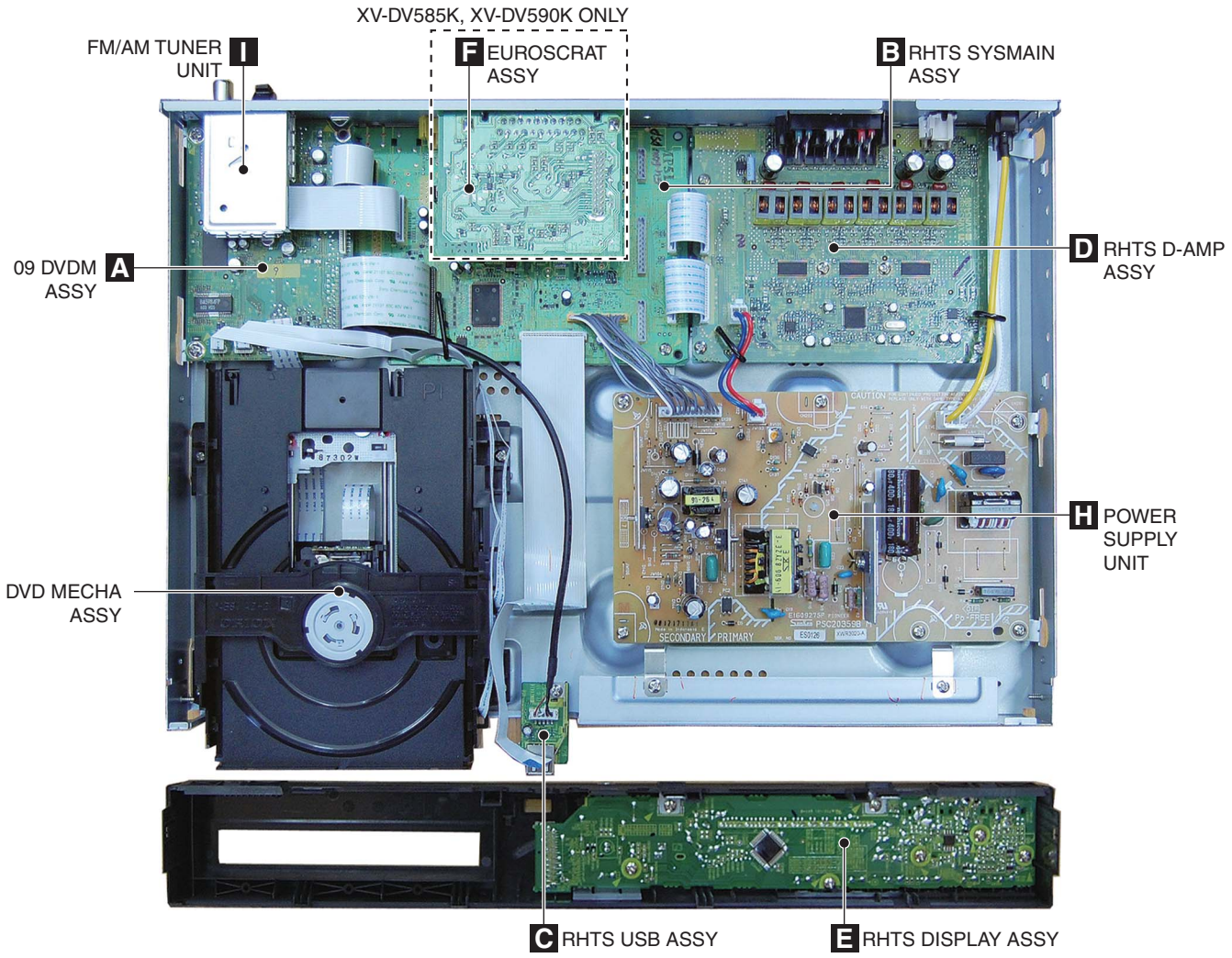
Item to be checked regarding video	Item to be checked regarding audio
Block noise	Distortion
Horizontal noise	Noise
Dot noise	Volume too low
Disturbed image (video jumpiness)	Volume too high
Too dark	Volume fluctuating
Too bright	Sound interrupted
Mottled color	

Cleaning

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

Position to be cleaned	Name	Part No.	Remarks
Pickup lenses	Cleaning liquid	GEM1004	
	Cleaning paper	GED-008	

3.2 PCB LOCATIONS



NOTES: ● *Parts marked by "NSP" 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.*

LIST OF ASSEMBLIES

Mark	Symbol and Description	XV-DV282AP /LXJ	XV-DV181 /LXJ	XV-DV180 /LXJ	XV-DV585K /SXJ5	XV-DV590K /SXJ5
	1..DVD MECHA ASSY (for service)	A2ZX01A650	A2ZX01A650	A2ZX01A650	A2ZX01A650	A2ZX01A650
	1..09 DVDM ASSY	AWM8134	AWM8134	AWM8134	AWM8134	AWM8134
	1..RHTS MAIN ASSY	XWM3497	XWM3520	XWM3496	XWM3505	XWM3506
	2..RHTS USB ASSY	XWZ4414	XWZ4414	XWZ4414	XWZ4414	XWZ4414
	2..RHTS SYSMAIN ASSY	XWZ4426	XWZ4454	XWZ4425	XWZ4434	XWZ4435
	1..RHTS DISPLAY ASSY	XWM3485	XWM3485	XWM3485	XWM3486	XWM3486
	1..RHTS D-AMP ASSY	XWM3490	XWM3490	XWM3490	XWM3489	XWM3489
NSP	1..NHTS JACK ASSY	Not used	Not used	Not used	AWM8034	AWM8034
	2..EUROSCART ASSY	Not used	Not used	Not used	AWU8291	AWU8291
⚠	1..POWER SUPPLY UNIT	XWR3020	XWR3020	XWR3020	XWR3020	XWR3020
	1..FM/AM TUNER UNIT	XXX3088	XXX3088	XXX3088	XXX3085	XXX3085

3.3 JIGS LIST

■ Jigs list

Name	Jig No.	Remarks
Service Remote Control Unit	GGF1381	Adjustment, diagnosis
DVD Test Disc (DVD-Video)	GGV1025	Check of DVD-Video
CD Test Disc	STD-905	Check of CD
DVD Data Disc	GGV1344	ID data setting
Speaker Cable with terminal	SDS1174 (FL/WHITE) SDS1175 (FR/RED), SDS1176 (SL/BLUE) SDS1177 (SR/GRAY), SDS6050 (C/GREEN)	For checking audio at the SP terminal

■ Lubricants and Glues list

Name	Lubricants and Glues No.	Remarks
Daifree	GEM1036 (ZLX-ME413A)	Refer to "9.4 DVD MECHA ASSY"
Lubricating oil	GYA1001 (ZLB-PN397B)	Refer to "9.4 DVD MECHA ASSY"
Grease	GEM1018	Refer to "9.4 DVD MECHA ASSY"

A

B

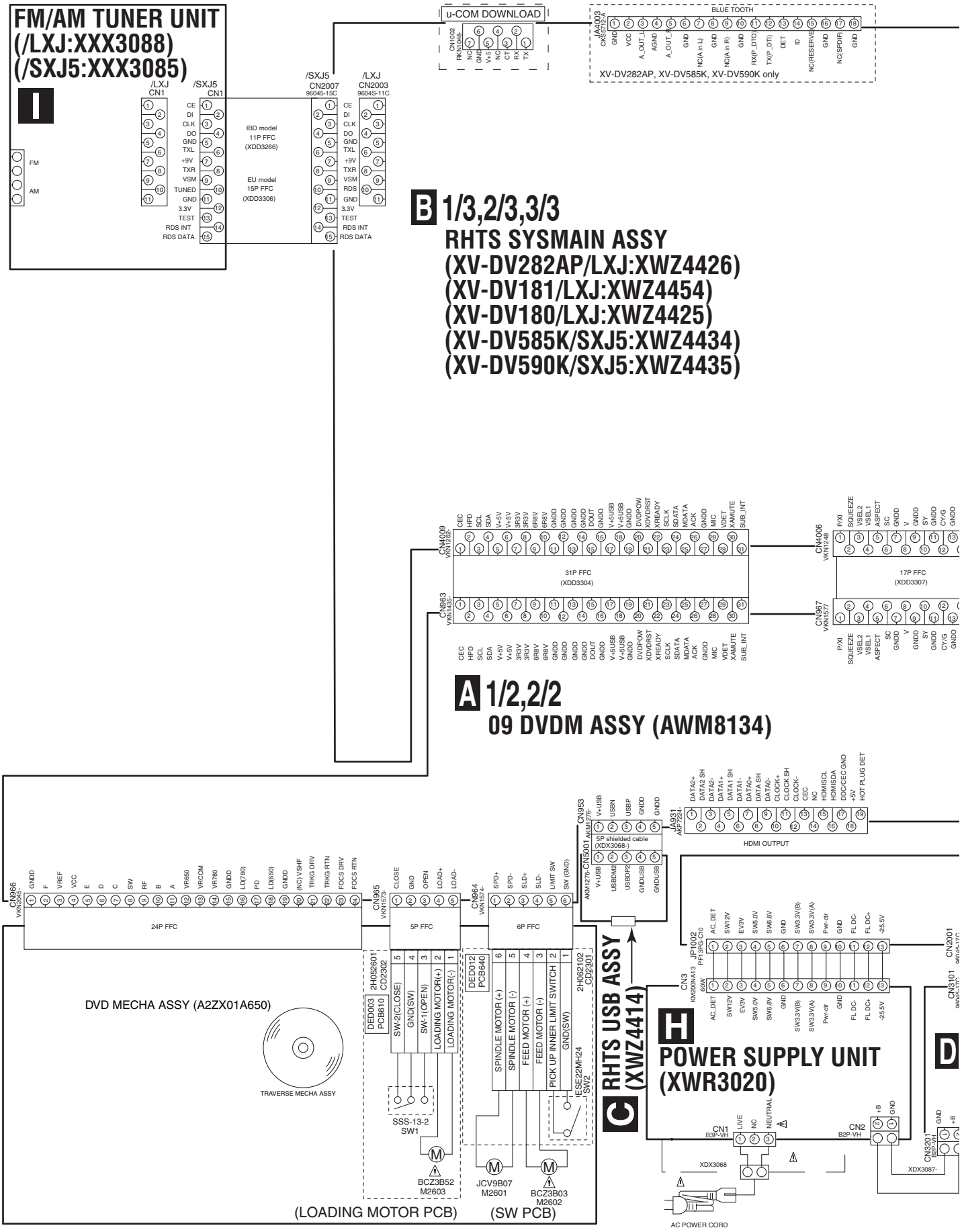
C

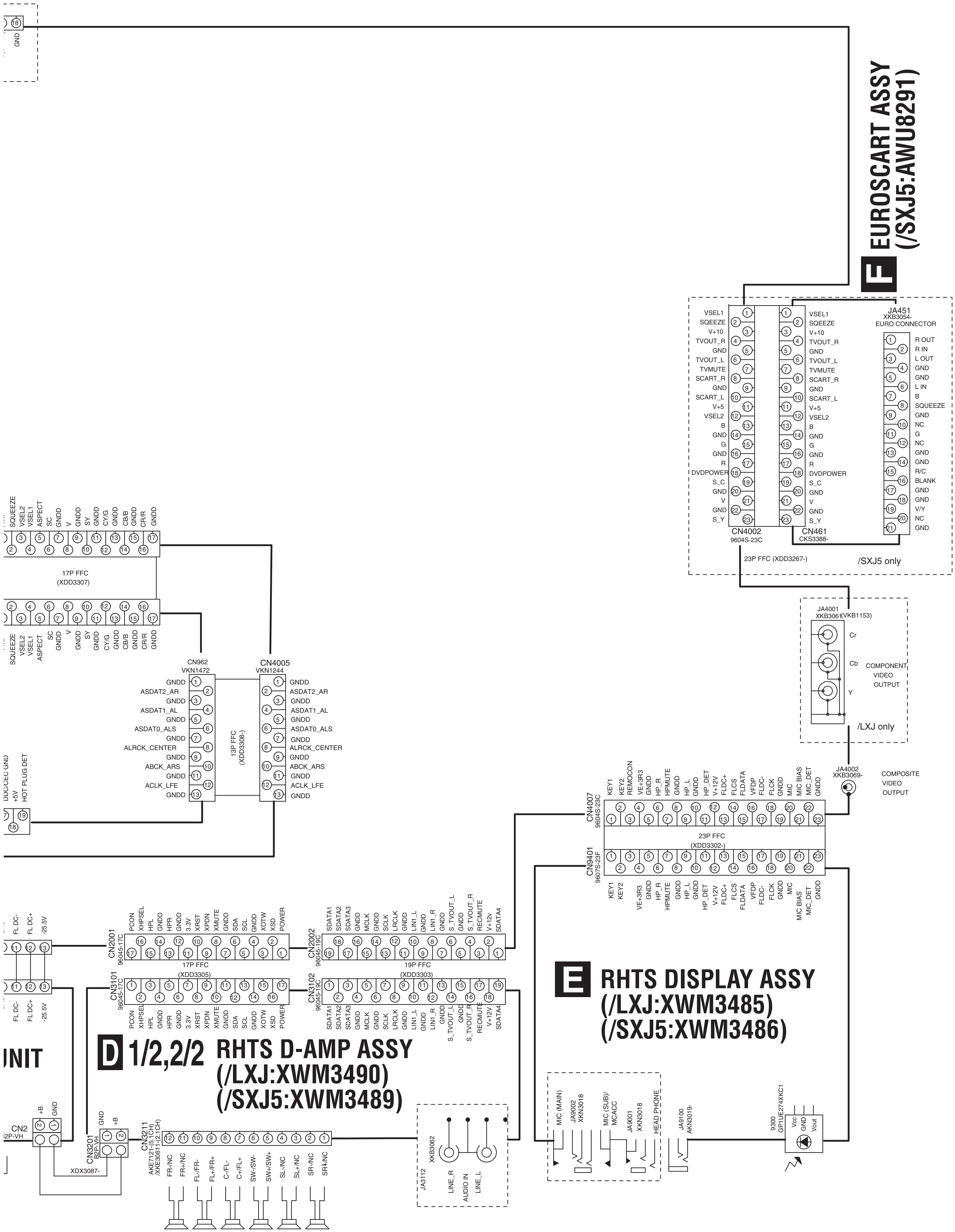
D

E

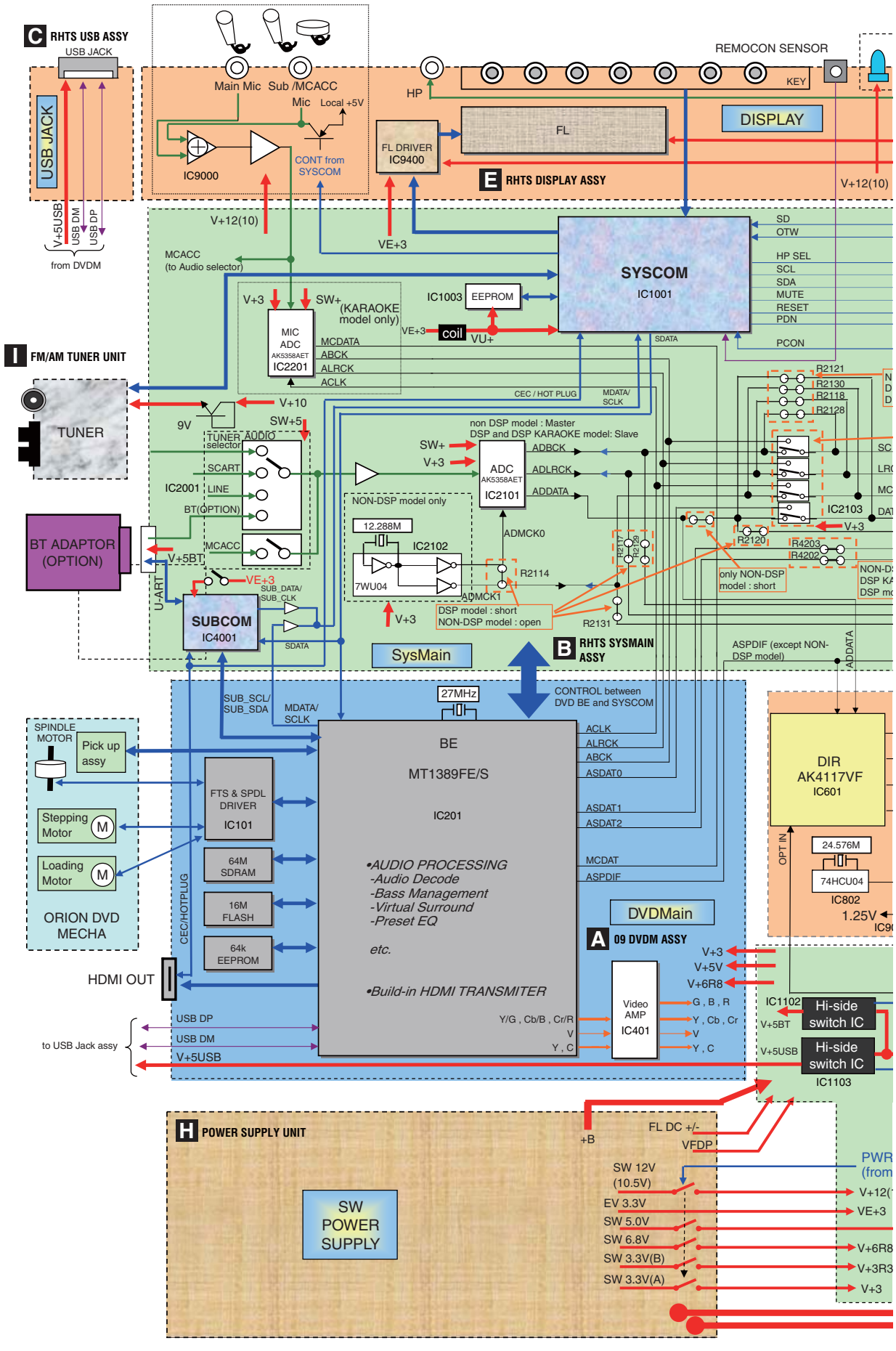
F

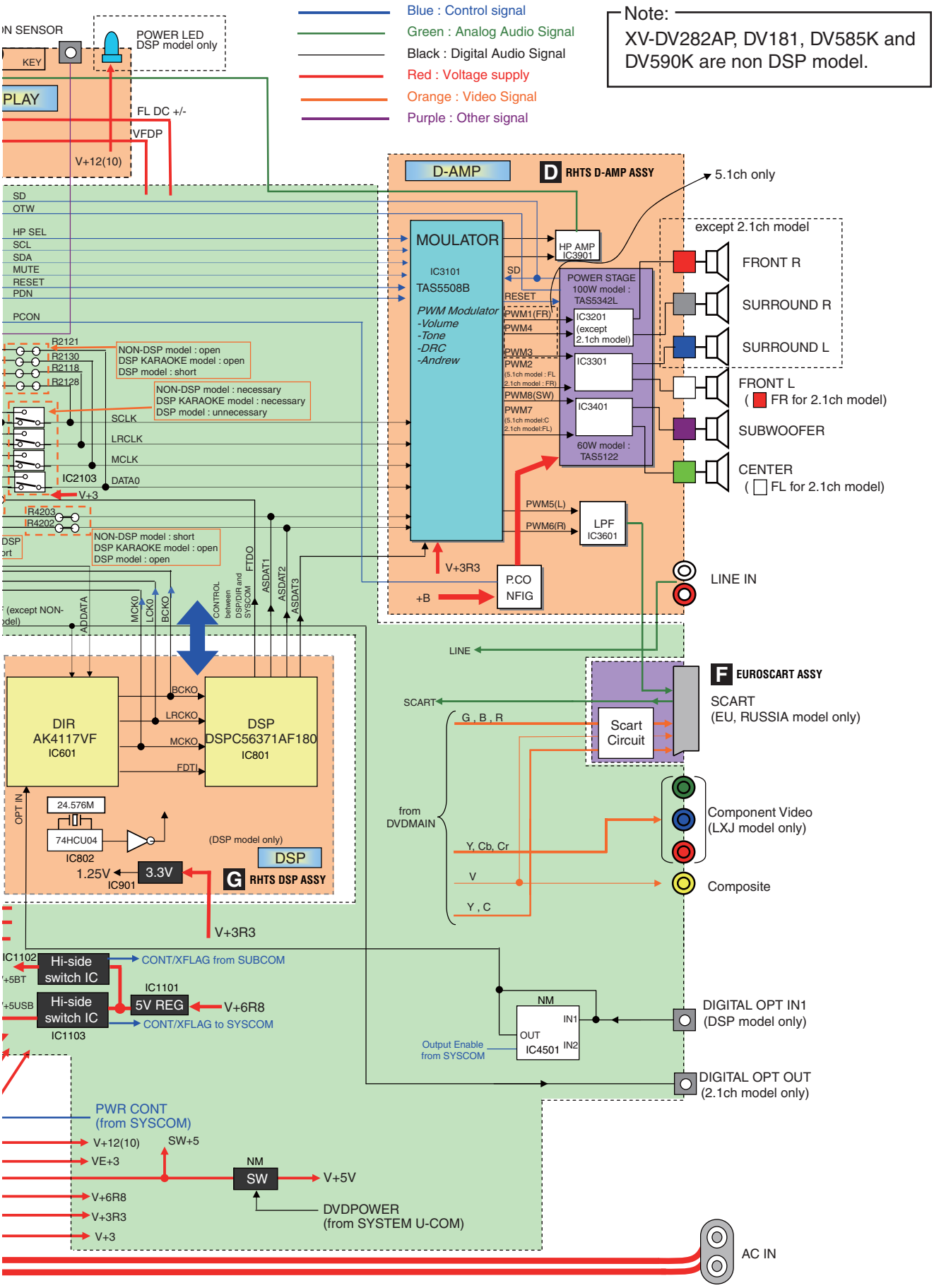
4. BLOCK DIAGRAM
4.1 OVERALL WIRING CONNECTION DIAGRAM



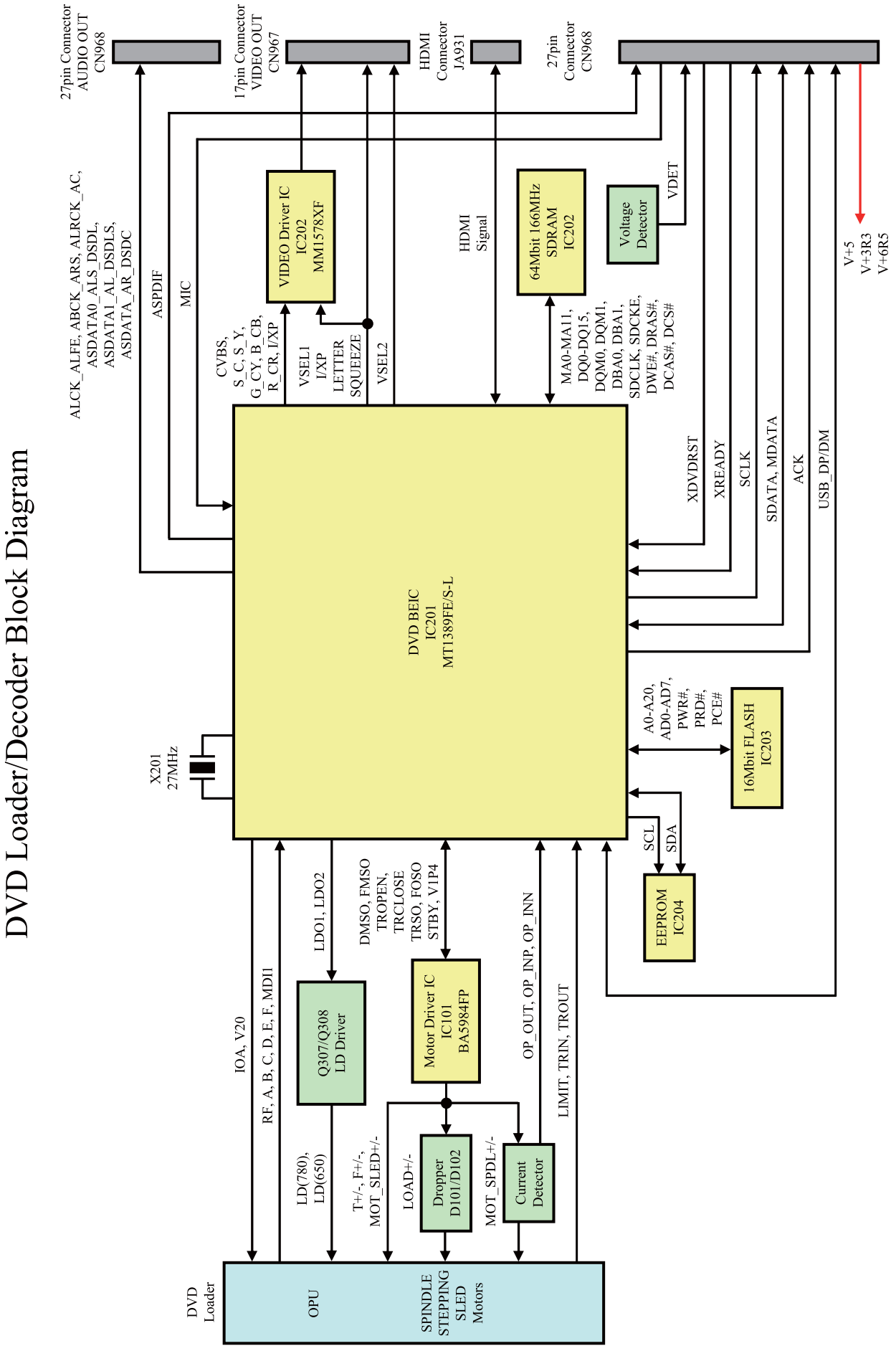

F EUROSCART ASSY
(/SXJ5:AWU8291)
JA451
XKB3054-
EURO CONNECTOR
CN4002
9604S-23C
CN461
CKS3388-
23P FFC (XDD3267-)
/SXJ5 only
JA4001
XKB3061(VKB1153)
Cr
Cb
Y
COMPONENT
VIDEO
OUTPUT
/LXJ only
JA4002
XKB3069-
COMPOSITE
VIDEO
OUTPUT
17P FFC
(XDD3307)
CN962
VKN1472
CN4005
VKN1244
13P FFC
(XDD3308-)
CN4007
9604S-23C
23P FFC
(XDD3302-)
CN9401
9607S-23F
CN2001
96045-17C
17P FFC
(XDD3305)
CN3101
96045-17C
CN2002
96045-19C
19P FFC
(XDD3303)
CN3102
96045-19C
E RHTS DISPLAY ASSY
(/LXJ:XWM3485)
(/SXJ5:XWM3486)
D 1/2,2/2 RHTS D-AMP ASSY
(/LXJ:XWM3490)
(/SXJ5:XWM3489)
UNIT
CN2
CN3201
B2P-VH
XDX3087-
CN3211
AKE7121 (5.1CH)
/XKE3061 (2.1CH)
JA3112
XKB3062
LINE_R
AUDIO IN
LINE_L
MIC (MAIN)
JA9002
XKN3018
MIC (SUB)/
MCACC
JA9001
XKN3018
HEAD PHONE
JA9100
AKN3019-
9300
GP1UE274XKC1

4.2 OVERALL BLOCK DIAGRAM




Blue : Control signal
Green : Analog Audio Signal
Black : Digital Audio Signal
Red : Voltage supply
Orange : Video Signal
Purple : Other signal
Note:
XV-DV282AP, DV181, DV585K and DV590K are non DSP model.
POWER LED
DSP model only
KEY
PLAY
FL DC +/-
VFDP
V+12(10)
D-AMP
D RHTS D-AMP ASSY
5.1ch only
except 2.1ch model
FRONT R
SURROUND R
SURROUND L
FRONT L
(FR for 2.1ch model)
SUBWOOFER
CENTER
(FL for 2.1ch model)
MOULATOR
IC3101
TAS5508B
PWM Modulator
-Volume
-Tone
-DRC
-Andrew
HP AMP
IC3901
POWER STAGE
100W model :
TAS5342L
IC3201
(except
2.1ch model)
IC3301
IC3401
60W model :
TAS5122
PWM1(FR)
PWM4
PWM3
PWM2
PWM8(SW)
PWM7
SD
RESET
PWM5(L)
PWM6(R)
LPF
IC3601
P.CO
NFIG
V+3R3
+B
LINE IN
SD
OTW
HP SEL
SCL
SDA
MUTE
RESET
PDN
PCON
R2121
R2130
R2118
R2128
NON-DSP model : open
DSP KARAOKE model : open
DSP model : short
NON-DSP model : necessary
DSP KARAOKE model : necessary
DSP model : unnecessary
SCLK
LRCLK
MCLK
DATA0
IC2103
V+3
R4203
R4202
NON-DSP model : short
DSP KARAOKE model : open
DSP model : open
ADDATA
MCKO
LCKO
BCKO
CONTROL between DSP/DIR and SYSCOM
FTDO
ASDAT1
ASDAT2
ASDAT3
LINE
F EUROSCART ASSY
SCART
(EU, RUSSIA model only)
SCART
G , B , R
Scart Circuit
DIR
AK4117VF
IC601
DSP
DSPC56371AF180
IC801
BCKO
LRCKO
MCKO
FDTI
OPT IN
24.576M
74HCU04
IC802
(DSP model only)
DSP
1.25V
IC901
3.3V
G RHTS DSP ASSY
from
DVDMAIN
Component Video
(LXJ model only)
Y, Cb, Cr
V
Composite
Y , C
V+3R3
IC1102
Hi-side
switch IC
+5BT
CONT/XFLAG from SUBCOM
IC1101
5V REG
V+6R8
+5USB
Hi-side
switch IC
CONT/XFLAG to SYSCOM
IC1103
NM
IN1
OUT
IC4501
IN2
Output Enable
from SYSCOM
DIGITAL OPT IN1
(DSP model only)
DIGITAL OPT OUT
(2.1ch model only)
PWR CONT
(from SYSCOM)
V+12(10)
SW+5
VE+3
NM
SW
V+5V
V+6R8
V+3R3
V+3
DVDPOWER
(from SYSTEM U-COM)
AC IN

4.3 DVD LOADER/DECODER BLOCK DIAGRAM



5. DIAGNOSIS

5.1 METHOD FOR DIAGNOSING DEGRADATION OF THE LDS ON THE PICKUP

Case when this diagnosis is required :
When playback of any disc, including a test disc (DVD: GGV1025, CD: STD-905), cannot be performed

How to diagnose

In the case mentioned above, degradation of the laser diodes (LDs) mounted on the Pickup PCB is suspected.
Measure the voltage between the two ends of one of the resistors mentioned below.

- **No playback of a DVD :**

  Measure the voltage between the two ends of R322 or R325 on the 09DVDM Assy. If the voltage is 0.4 V or higher, the 650-nm LD is degraded.

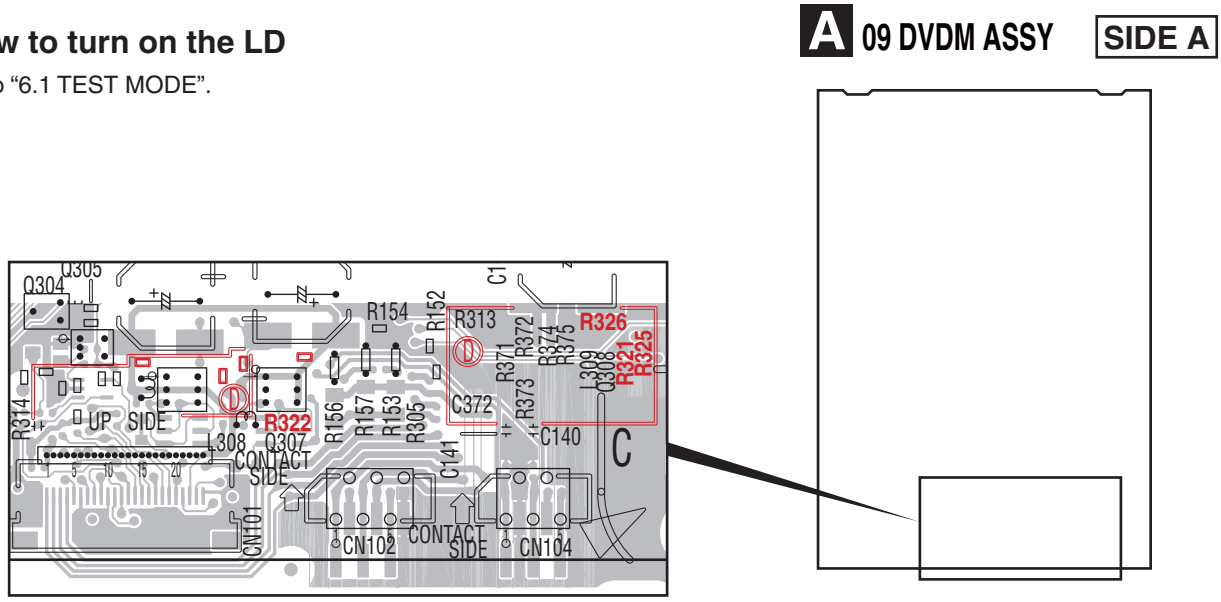
- **No playback of a CD :**

  Measure the voltage between the two ends of R321 or R326 on the 09DVDM Assy. If the voltage is 0.4 V or higher, the 780-nm LD is degraded.

If the measurements show degradation of an LD, replace the DVD MECHA Assy.

How to turn on the LD

Refer to “6.1 TEST MODE”.



5.2 DVD TROUBLE SHOOTING

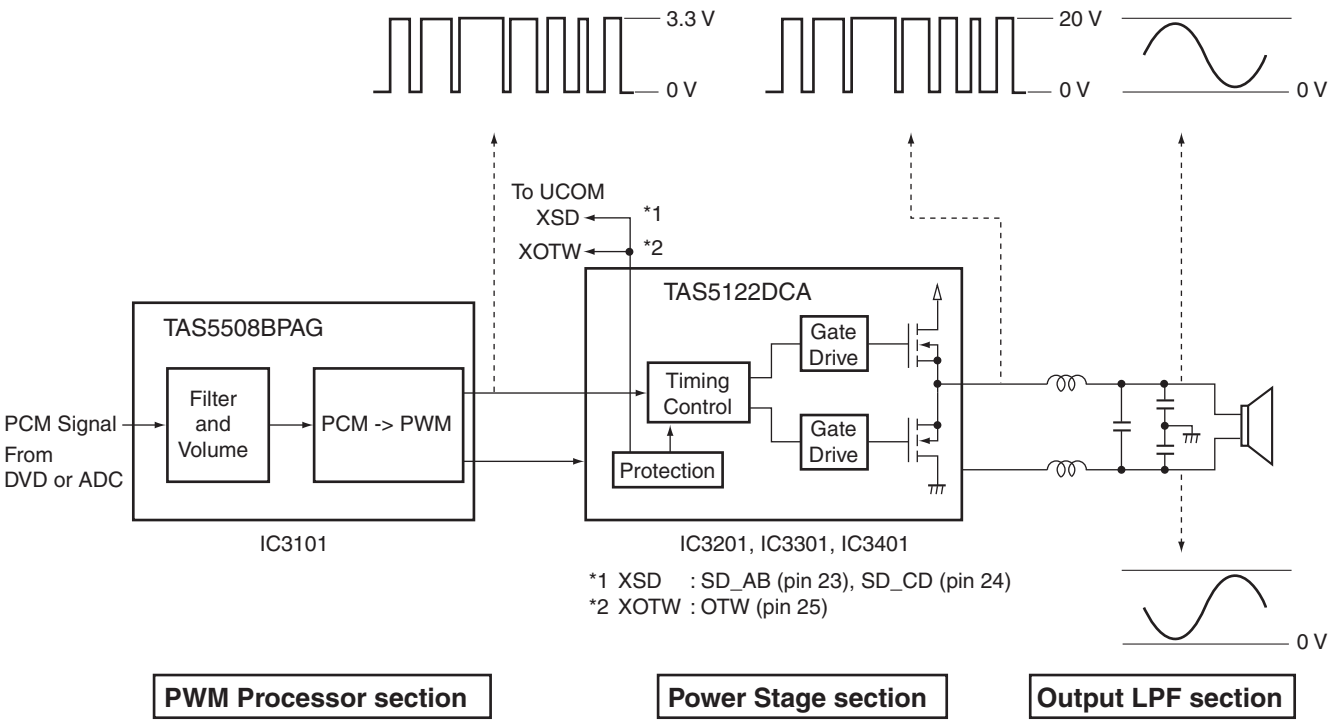
● Symptoms that may occur when any of the following ICs is in failure

IC	Symptoms
EEP ROM (09 DVDM Assy : IC204)	User's data cannot be stored in memory. The ID number is lost.
Flash ROM (09 DVDM Assy : IC203)	The power cannot be turned on. Downloading of the firmware cannot be performed.
DVD IC (09 DVDM Assy : IC201)	Any kind of symptoms (no power, a failure in any of the servo, video and audio systems, USB etc.) may be generated, because the DVD processing is performed by a single chip.
64M SDRAM (09 DVDM Assy : IC202)	No power. Block noise is generated during playback.

No.	Symptoms	Diagnosis Contents	Possible Defective Points
1	The power is not turned on.	Are wires of output connector (POWER SUPPLY Unit) and CN968 (09 DVDM Assy) disconnected or damaged ?	Connector / cable
		Check that the following voltage is output : CN968-pin 24 or pin 25 (09 DVDM Assy): 3.3 V	**POWER SUPPLY Unit**
2	An opening screen is not displayed on the monitor (The FL display lights. The mechanism does not work.)	Are the signals output from IC201-pin 97 (MDATA) and pin 98 (SCLK) on the 09 DVDM Assy ? (in the range of 0 to 3 V)	**09 DVDM Assy** DVD IC (IC201)
		Are the signals input into IC1001-pin 85 (MDATA) and pin 86 (SCLK) on the SYSMAIN Assy ? (in the range of 0 to 3 V)	**SYSMAIN Assy** UCOM (IC1001)
		Check that the following voltage are output : R1108 (V+5 V) on the SYSMAIN Assy: 5 V	**POWER SUPPLY Unit /** **SYSMAIN Assy** R1108
		Is a resonator (X201: 27 MHz) on the 09 DVDM Assy oscillating ?	**09 DVDM Assy** Crystal resonator (X201) DVD IC (IC201)
		• Is a signal input into IC203-pin26 (PCE#) on the 09 DVDM Assy ? (Is a signal "H" for 80 ms and then "L" after the power is turned on ?) -> Communication with flash ROM. • Are the signals input into IC202-pin 16 (DWE#), pin 19 (DCS#) and pin 38 (SDCLK) on the 09 DVDM Assy ? (Is a signal fluctuating ?) -> Communication with SDRAM	**09 DVDM Assy** DVD IC (IC201) Flash ROM (IC203) SDRAM (IC202)
		Is a signal output from IC203-pin 28 (PRD#) on the 09 DVDM Assy? (Is a signal fluctuating for several hundred ms after the power is turned on ?)	**09 DVDM Assy** Flash ROM (IC203)
		Is a signal input into IC1001-pin 11 (DVD ACK) on the SYSMAIN Assy ? (Is a signal fluctuating ?) -> Communication with FL Control IC	**09 DVDM Assy** DVD IC (IC201) **SYSMAIN Assy** UCOM (IC1001)
		Is a signal output from IC1001-pin 13 (XREADY) on the SYSMAIN Assy ? (Is a signal fluctuating in the range of 0 to 3.3 V ?)	**SYSMAIN Assy** UCOM (IC1001)
		Are the signals output from IC1001-pin 84 (SDATA) on the SYSMAIN Assy ? (in the range of 0 to 3.3 V)	**09 DVDM Assy** DVD IC (IC201) **SYSMAIN Assy** UCOM (IC1001)
		Are the signals of IC204-pin 5 (SDA) and pin 6 (SCL) on the 09 DVDM Assy fluctuating for one or two seconds after the power is turned?	**09 DVDM Assy** EEPROM (IC204)
3	An opening screen is not displayed on the monitor (The FL display lights. The mechanism works.)	Check the video signal path between DVD IC (09 DVDM Assy IC201) and video-out terminal (see the block diagram)	**09 DVDM Assy** Video circuit after DVD IC (IC201)

No.	Symptoms	Diagnosis Contents	Possible Defective Points
4	A tray cannot be opened. (An opening screen is displayed on the monitor)	Does the voltage of CN965-pin 1 and pin 2 on the 09 DVDM Assy change normally ? Pin 1 (CLOSE (TRIN)): Tray is fully closed: "L" Pin 3 (OPEN (TROUT)): Tray is fully opened: "L"	**DVD MECHA Assy** Switch (SW1)
		Is the signal input into IC101-pin 1 (TROPEN) on the 09 DVDM Assy? At open: 3.3 V, At close: 0 V	**09 DVDM Assy** DVD IC (IC201)
		Are the signals output from CN965-pin 5 and pin 4 on the 09 DVDM Assy ? Pin 5: Approx. 5 V during opening tray approx. 1 V during closing tray. Pin 4: Approx. 0 V during opening tray approx. 6 V during closing tray.	**09 DVDM Assy** FTS Driver IC (IC101)
		Are wires of CN964 and CN965 on the 09 DVDM Assy disconnected or damaged ?	Connector / cable
		Does the voltage of CN964-pin 5 on the 09 DVDM Assy change to 0 V by pressing the Push switch.	Push switch (SW2)
5	Playback impossible (no focusing)	Are the signals output from IC101-pin 16 (F+) and pin 15 (F–) on the 09 DVDM Assy ?	**09 DVDM Assy** FTS Driver IC (IC101)
		Does 650-nm LD emit light ? Does a pickup lens move up / down ? Does an actuator spring bend ?	Pickup
		Are plastic parts damaged ? Or is a shaft detached ? Is the turntable detached or tilted ?	Mechanism section (motor)
		Is flexible cable of CN965 on the 09 DVDM Assy disconnected or damaged ?	Flexible cable / connector
		Is signal output from IC201-pin 41 (FOSO) on the 09 DVDM Assy ? (Device control of about 1.4 V is output usually. It is fluctuated by about 250 mV with focus up / down.)	**09 DVDM Assy** DVD IC (IC201)
6	Playback impossible (Spindle does not turn)	Are the signals output from IC101-pin 12 (MOT_SPDL–) and pin 11 (MOT_SPDL+) on the 09 DVDM Assy ? Is pin 21 (STBY) fixed LOW ? (pin 21 is High at playback: 3 V)	**09 DVDM Assy** FTS Driver IC (IC101)
		Is there any part detached from the spindle motor ? Or Is there any foreign object lodged in it ?	Mechanism section (Spindle motor)
		Are wires of CN964 on the 09 DVDM Assy disconnected or damaged ?	Flexible cable / connector
		Is signal output from IC201-pin 36 (DMSO) on the 09 DVDM Assy ?	**09 DVDM Assy** DVD IC (IC201)
7	Playback impossible (Playback stops)	Does 650-nm LD deteriorate ? If the voltage at each both ends of R322 and R325 on the 09 DVDM Assy is 0.4 V or more, the 650-nm LD is definitely deteriorated.	650-nm LD deteriorated. (When playback of a DVD is impossible)
		Does 780-nm LD deteriorate ? If the voltage at each both ends of R321 and R326 on the 09 DVDM Assy is 0.4 V or more, the 780-nm LD is definitely deteriorated.	780-nm LD deteriorated. (When playback of a CD is impossible)
		Are there scratches or dirt on the disc ?	Disc
8	Picture disturbance during playback (block noise, freeze, other)	Are there scratches or dirt on the disc ? Is there a problem with the format of the disc ?	Disc
		Check the video signals. Composite video signal (IC401-pin 23) S video signal (IC401-pin 21, pin 26) RGB video signal (IC401-pin 16, pin 18, pin 20)	**09 DVDM Assy** DVD IC (IC201) Video IC (IC401)
9	No sound (Picture is normal)	Check the waveform (ALCK: IC201-pin 231), (ALRCK: IC201-pin 227), (ABCK : IC201-pin 230), (ASDATA0/1/2: IC201-pin 226/225/223). Check the waveform (ASPDIF: IC201-pin 215)	**09 DVDM Assy** DVD IC (IC201)

5.3 CIRCUIT DESCRIPTION OF DIGITAL AMP SECTION



PWM Processor section

The PCM signals output from the DVD decoder or AD converter are input to this section, and their volume and sound quality are digitally adjusted. At the output stage, after conversion from PCM to PWM, the signals are output to the Power stage.

Power Stage section

In this section, timing is controlled so that the MOSFETs on the high and low sides will not be turned on simultaneously. The voltage of the PWM signals are raised to drive the gates of the MOSFET, and the PWM signals to drive the speakers are output from the MOSFET at the output stage. Detection and protection functions against short-circuiting of the output signals and temperature exceeding the standard value are also provided.

If the detection and protection work, the ports of the power stage ICs become the following state.

Power Stage ICs No.	Protection Enable State
IC3201	SD_AB (pin 23) => L
IC3301	SD_CD (pin 24) => L
IC3401	OTW (pin 25) => L

Output LPF section

The carrier elements, high-frequency signals that are unnecessary for these speakers, are eliminated. The signals passed through the LPF will become sine-wave signals, as shown in the figure above.

5.4 SPECIFICATIONS FOR THE PROTECTION CIRCUITS FOR THE DIGITAL AMPLIFIER

The protection circuits for the Digital Amplifier are activated, following the specifications shown below. The error indication on the FL display shows the reason a protection circuit was activated.
Upon diagnosis of the Digital Amplifier, refer to the specifications for the protection circuits here and the overview of the Digital Amplifier circuitry.

1. Overview

The system microcomputer monitors the ports for shutdown requests (pin 23: SD_AB and pin 24: SD_CD) and the ports for abnormal-temperature detection (pin 25: /OTW) of the Power Stage ICs (IC3201, IC3301, and IC3401). As soon as any abnormality is detected, it shuts the unit down.
To notify the user of the possibility of a too high a volume, when the unit is turned on the next time, the volume level will be set to 0, and an error message will be displayed on the FL display.

2. Ports on the system microcomputer to be used for detection

Pin 71: SHUTDOWN
Low voltage at this pin means overcurrent or voltage too low (= V+B27) at a Power Stage IC.

Pin 78: XOTW
Low voltage at this pin means the temperature at the Power Stage ICs exceeded 125 °C.

Note: As one Power Stage IC is provided with two channels, three Power Stage ICs (in total 6 channels) are mounted in this unit. For abnormality detection, the unit implements a logical OR operation regarding these three ICs. Therefore, which IC is abnormal cannot be known directly. To find which IC is abnormal, it is required to check the PWM outputs (pins 35, 38, 47, 50) of the each power stage ICs (IC3201, IC3301, IC3401).

3. Detection timing

Start : Detection starts 500 ms after the PWRCONT port (pin 34) of the system microcomputer becomes active by your pressing the STANDBY/ON key.

Finish : When the STANDBY/ON key is pressed again (when the power-off process starts).

4. Operation of the protection circuits

The following three protection circuits are activated when the conditions shown below are met:

Overcurrent detection 1: Indication on the FL display: OC ERR 1
Conditions: If the SHUTDOWN ports, which are monitored every 10 ms, become low 7 times in succession

Overcurrent detection 2: Indication on the FL display: OC ERR 2
Conditions: The PCONFIG ports (pin 58), which are monitored every 30 ms, become more than 2 Vrms more than 45 % in one minute.

Abnormal temperature detection 1: Indication on the FL display: OVERTEMP
Conditions: If the XOTW ports, which are monitored every 10 ms, become low in succession for one minute.

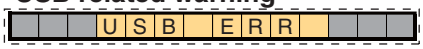
Abnormal temperature detection 2: Indication on the FL display: OVERTEMP
(Prerequisite: The XOTW ports, which are monitored every 10 ms, become low three times in succession.)
Conditions: The above prerequisite is upheld, and the conditions for an overcurrent detection are met.

5. Process when the protection circuits are activated

The unit is shut down within 30 ms after abnormality detection then the volume level is set to 0.
The unit can be turned on immediately after the shutdown.

5.5 ERROR AND WARNING MESSAGE

USB related warning



USB over current detect error (over 500 mA)

HDMI related warning

HDCP authentication failed after HDMI cable was connected.
If the set has no HDCP key, it causes this error.

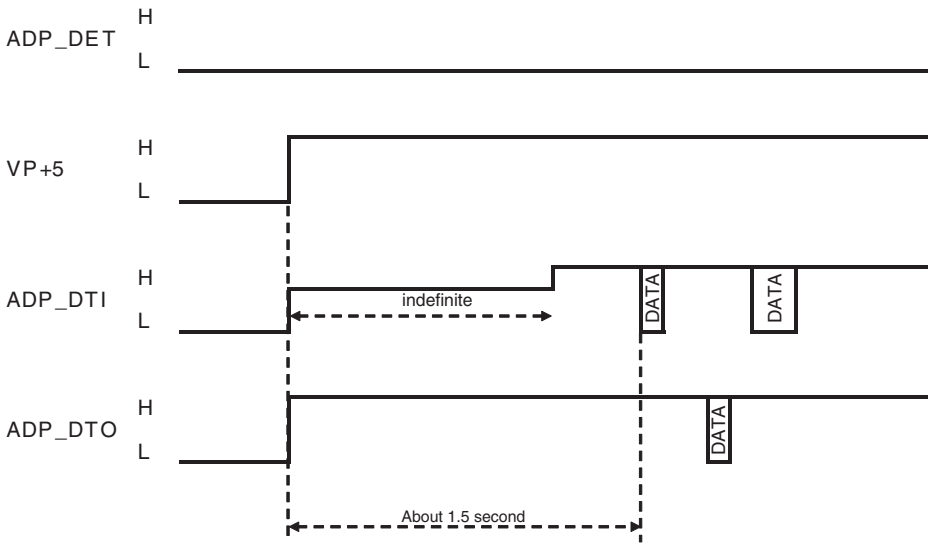
BT ADAPTER related warning

Power consumption by Bluetooth ADAPTER is too high to supply the power.
Reconnect the Bluetooth ADAPTER.

Source change to BT from source other than BT.

When cannot detect a device at BT function

ADAPTER PORT terminal sequence in BT AUDIO function

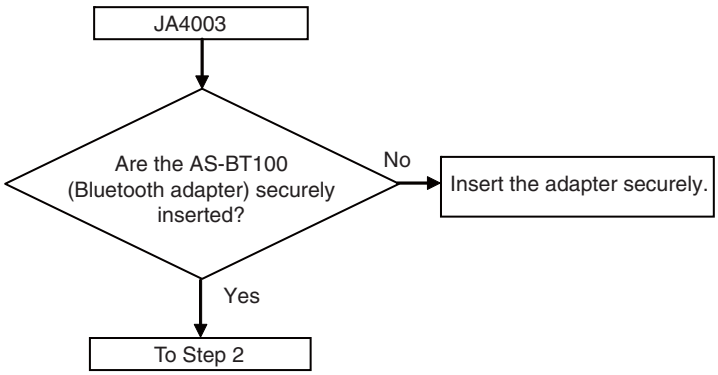


ADP_DET logic

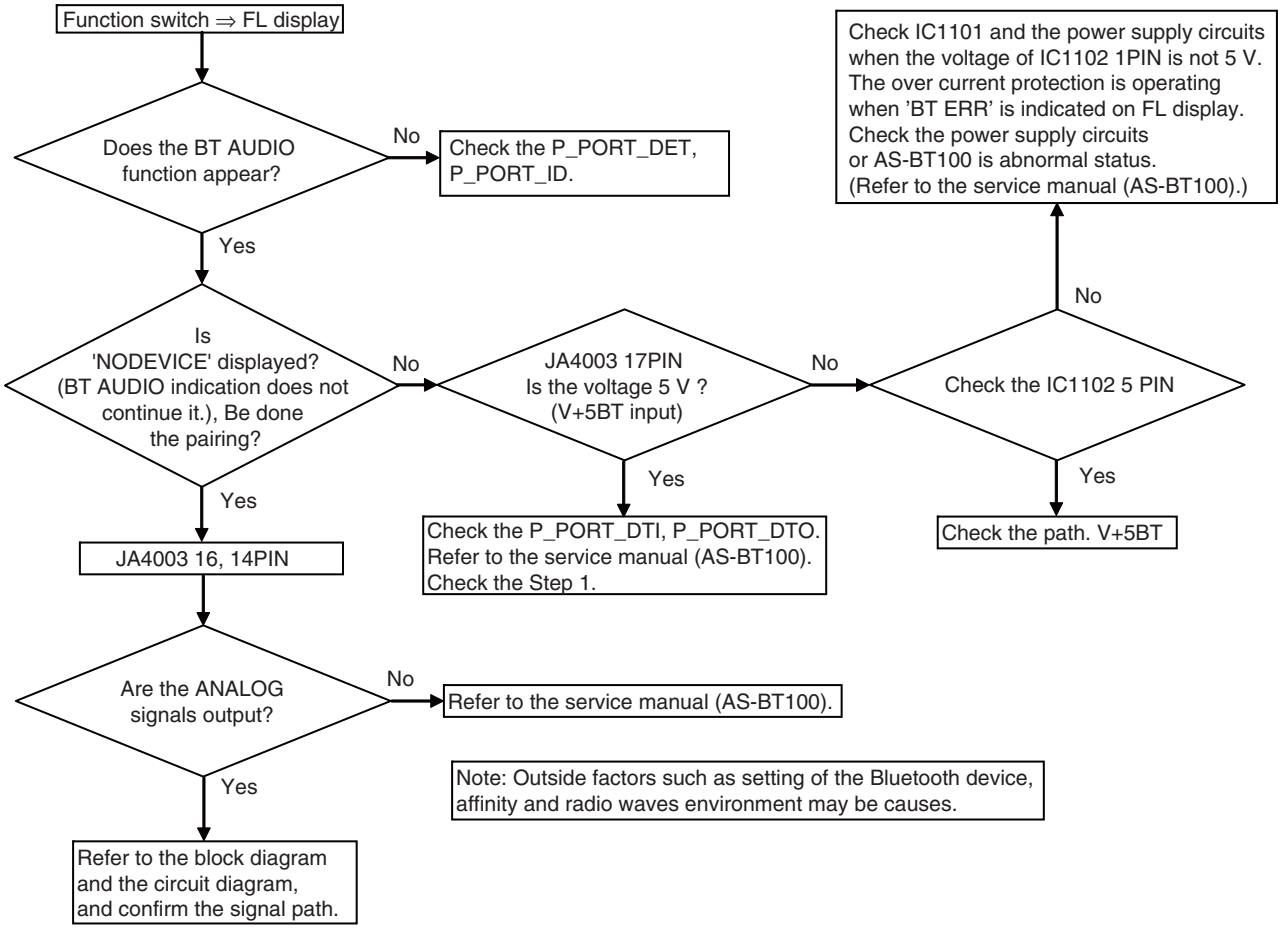
ADAPTER PORT	In non-connection	In connection
ADP_DET	H	L

5.6 ADAPTER PORT TROUBLESHOOTING

Step 1: Connect AS-BT100 (Bluetooth adapter)

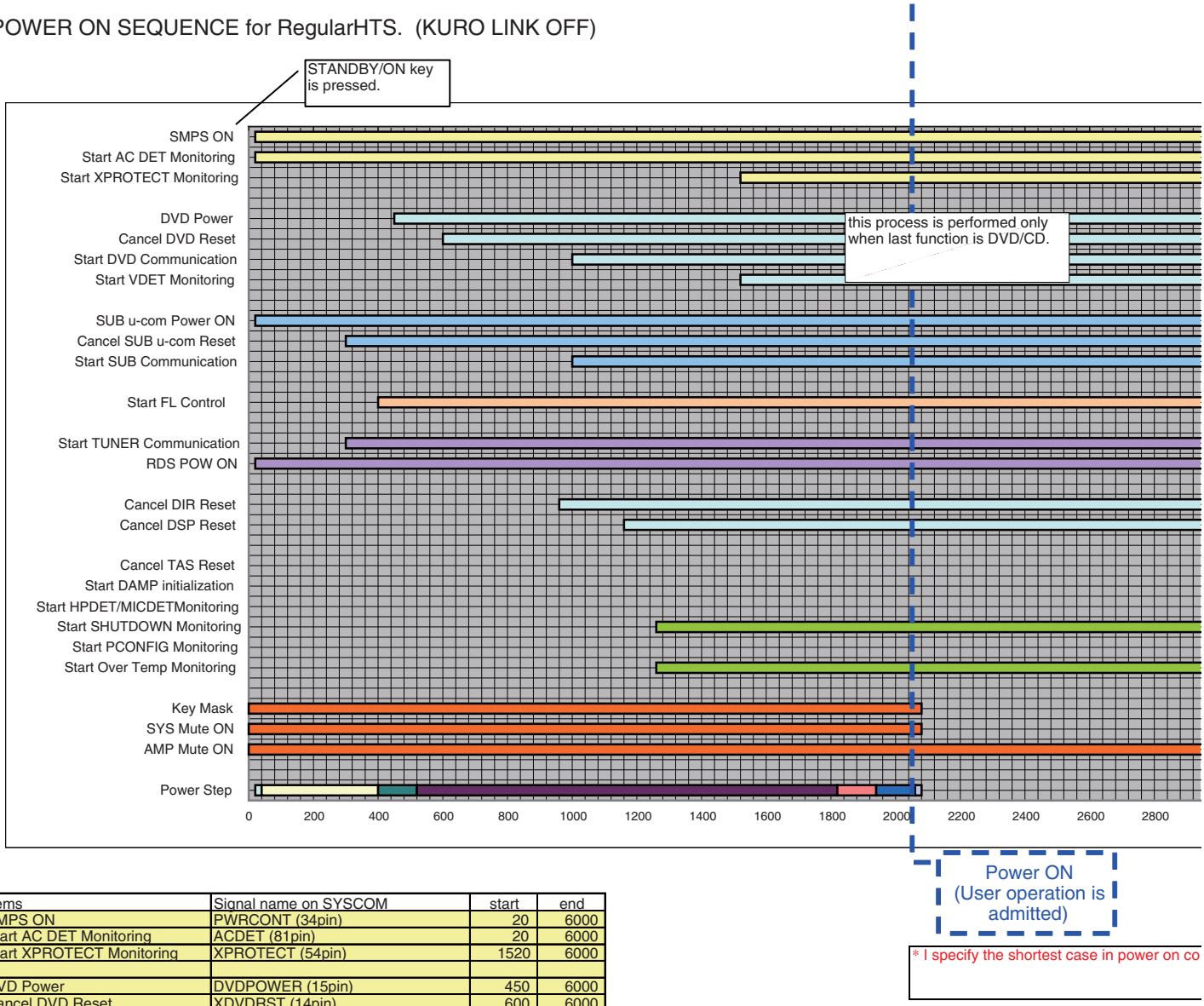


Step 2: Playback check



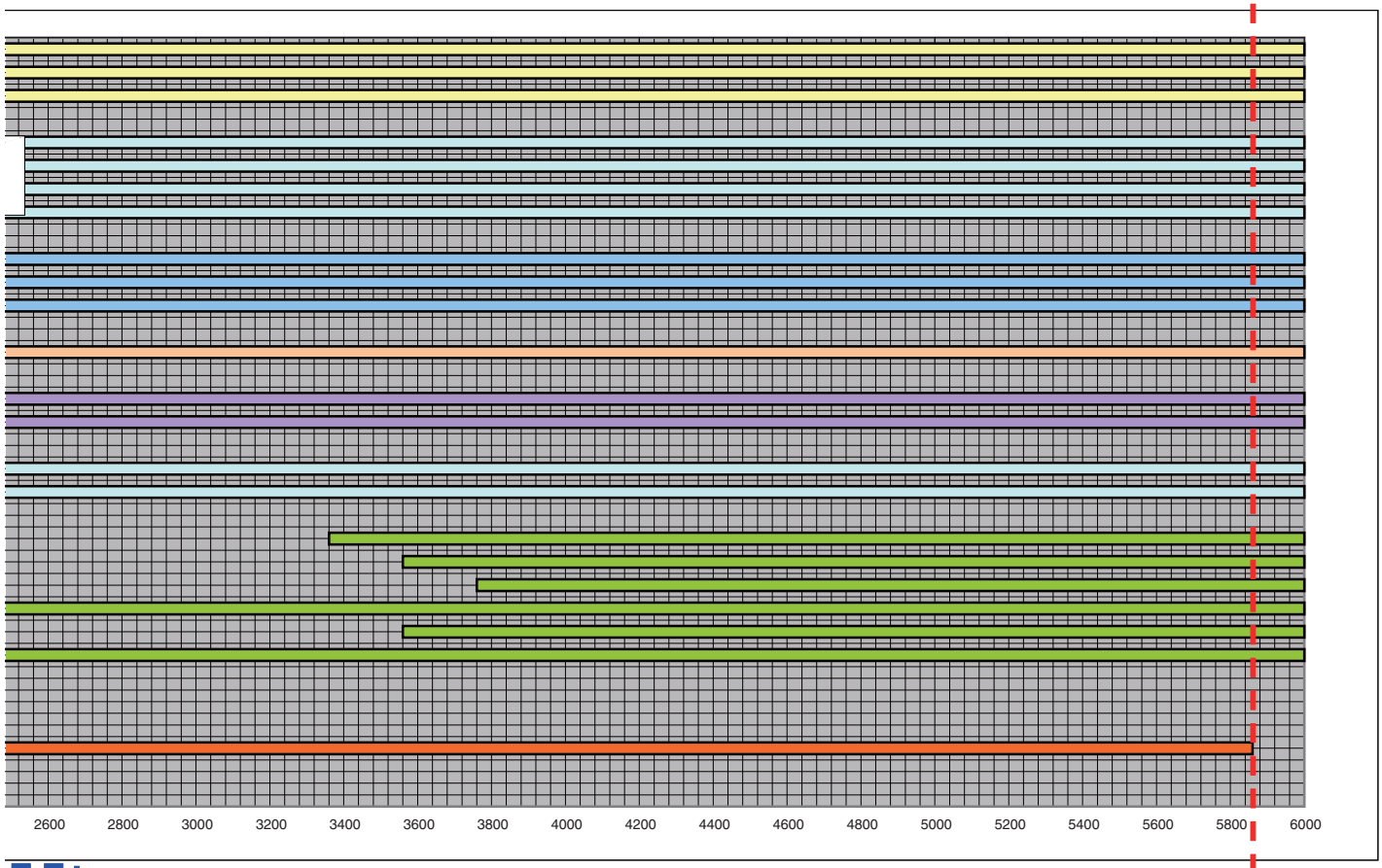
5.7 POWER ON SEQUENCE

POWER ON SEQUENCE for RegularHTS. (KURO LINK OFF)



Items	Signal name on SYSCOM	start	end
SMPS ON	PWRCONT (34pin)	20	6000
Start AC DET Monitoring	ACDET (81pin)	20	6000
Start XPROTECT Monitoring	XPROTECT (54pin)	1520	6000
DVD Power	DVDPOWER (15pin)	450	6000
Cancel DVD Reset	XDVDRST (14pin)	600	6000
Start DVD Communication	SDATA /MDATA /SCLK (84,85,86pin)	1000	6000
Start VDET Monitoring	VDET (53pin)	1520	6000
SUB u-com Power ON	SUBPOWER (17pin)	20	6000
Cancel SUB u-com Reset	SUB_RESET (16pin)	300	6000
Start SUB Communication	SDATA /MDATA /SCLK (84,85,86pin)	1000	6000
Start FL Control	XFLCS / FLDATA / FLCLK (38, 39, 40pin)	400	6000
Start TUNER Communication	TXIDATA /TXCLK /TXODATA /TXCE (3, 5, 6, 19pin)	300	6000
RDS POW ON	RDS POW (9pin)	20	6000
Cancel DIR Reset	XDIRRST (68pin)	960	6000
Cancel DSP Reset	XDSPRST (64pin)	1160	6000
Cancel TAS Reset	XDARST (76pin)	3360	6000
Start DAMP initialization	DASCK,DASDA (1, 2pin)	3560	6000
Start HPDET/MICDETMonitoring	HPDET /MIC DET (49,60pin)	3760	6000
Start SHUTDOWN Monitoring	XSHUTDWN (71pin)	1260	6000
Start PCONFIG Monitoring	PCONFIG (58pin)	3560	6000
Start Over Temp Monitoring	XOTW (78pin)	1260	6000
Key Mask	-	0	2080
SYS Mute ON	DMUTECHECK (22pin)	0	2080
AMP Mute ON	DSPMUTE (70pin)	0	5860
Power Step		20	

20	20	360	120	1300	120	120	20	
STEP0^1	STEP1^2	STEP2^3	STEP3^4	STEP4^5	STEP5^6	STEP6^7	STEP7^8	
	40	400	520	1820	1940	2060	2080	



ON
ation is
d)

st case in power on completion time.

sound is output

6. SERVICE MODE
6.1 TEST MODE

■ Test Mode Functional Specification

① Test mode entry

In the power ON state, press the [ESC] key and [TEST] key in order of the Test mode remote control unit.

- OSD displays test mode.

② LD ON

Enter the test mode.

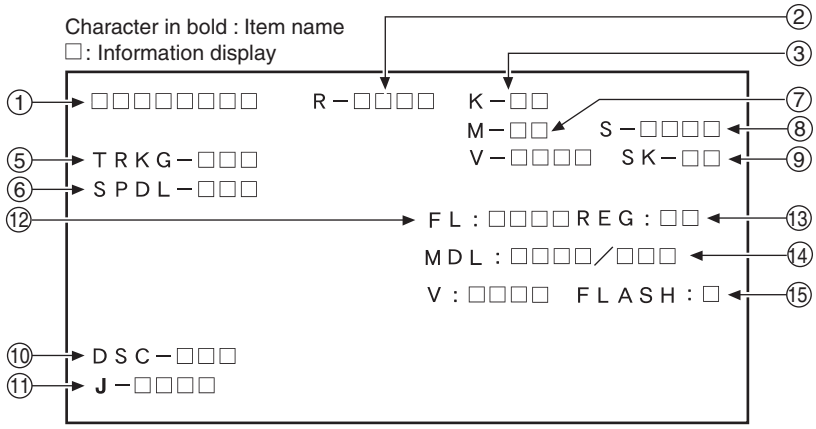
DVD : Press the [TEST] and [1] keys in order, and turn on the laser diode (650 nm).

CD : Press the [TEST] and [4] keys in order, and turn on the laser diode (780 nm).

③ Release the Test mode

- Turn off the power.
- Press the [ESC] key of the remote control unit and reset it.

6.2 DISPLAY SPECIFICATION OF THE TEST MODE



① **Address indication**
The address being traced is displayed in number.
(as for the DVD, indication of decimal number is possible.)
DVD : ID indication (hexadecimal number, 8 digits)
[* * * * * * * *]
CD : ID indication [* * * * * * * *]

② **Code indication of remote control unit [R – * * * *]**
In case of double code, display a 2nd code.

③ **Main unit keycode indication [K – * *]**

⑤ **Tracking status [TRKG – * * *]**
Tracking on : [ON]
Tracking off : [OFF]

⑥ **Spindle status [SPDL – * * *]**
CLV : [CLV]
Off : [OFF]

⑦ **Mechanism (loading) position value [M – * *]**
Unknown : [01] or [41]
Open state : [04]
Close state : [08]
During opening : [12]
During closing : [22]

⑧ **Slider position [S – * * * *]**
In Side Switch ON : [01]
In Side Switch OFF: [00]

⑨ **Output video system [V – * * * *]**
NTSC system : [NTSC]
PAL system : [PAL]
Automatic setting: [AUTO]
Scart terminal output [SK – * *]
(Display only the WY model which can do the output setting of scart terminal.)
VIDEO : [00]
S-VIDEO : [01]
RGB : [02]

⑩ **Disc sensing [DSC – * * *]**
The type of discs loaded is displayed.
[DVD], [CD]

⑪ **Jitter value [J – * * * *]**
Note: Don't use it.

⑫ **Version of the FL controller [FL: * * * *]**
Note: Don't use it.

⑬ **Region setting of the player [REG: *]**
Setting value : [1] to [6]

⑭ **Destination setting of the FL controller [MDL: * * * * / * * *]**
Four characters in the front represent code 01.
Three characters in the back represent the destination code.
J: Japan, K: North America, R: General Area,
LB: Taiwan, WY: Europe, TH: Thai, RAM: China

⑮ **Version of the flash ROM [V: * *. * *]**
Flash ROM size [FLASH = * *]

6.3 FUNCTIONAL SPECIFICATION OF THE SHORTCUT KEY

Only during normal playback, the following shortcut keys can be assigned by pressing a required key after pressing the ESC key of the remote control unit. To quit, press the ESC key

Command Contents	Conditions	Remote Control Key Name
Memory clear and region / revision indication		CLEAR (*1)
Average value measurement of DVD error rate		5 (*1)
CD error rate measurement		5 (*1)
Scart terminal output : VIDEO	Models equipped with Scart terminal	AUDIO
Scart terminal output : S-VIDEO		SUBTITLE
Scart terminal output : RGB		ANGLE
Progressive OFF	Only for progressive models	R_SKIP
Progressive ON		F_SKIP
HDMI Resolution : 1920 x 1080p	Only for HDMI models	PROGRAM
FL indication of ID number		STEREO (*1)
ZOOM ON (x4)		ZOOM
Service mode indication (error rate indication, etc.)		CHP/TIM (*1)
Model information indication		CHAP (*1)
Title search Input mode IN Title No. input Search execution		SIDE A (*1) Numbers (*1) PLAY (*1)
Region confimation mode		A.MON (*1) Numbers (*1)

*1 : Test mode remote control unit

• Service mode indication (ESC + CHP/TIM keys)

ID Address
The error rate is always displayed in exponential notation, e.g., *.* * e - *, for both DVDs and CDs.
EDC/ID/AV 1 error history (ID Address, EDC/ID Error, last eight errors)

• Calculation of the average error rate (ESC + "5" [Test mode remote control unit] keys)

The average of the last eight error rates is calculated and indicated in exponential notation. After the calculation is completed, "OK" or "NG" is displayed. If "NG" is displayed, the disc tray will open (for both DVDs and CDs)
For DVDs: OK with 5.0e-4 or less, for CDs: OK with 7.6e-3 or less

• Indication of model information (ESC + CHAP keys)

For details, see 6.4.

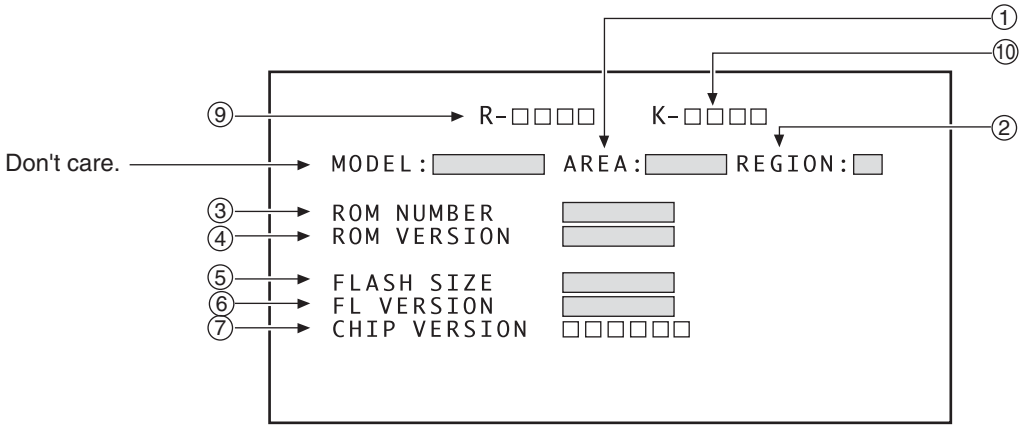
• Region confirmation mode (ESC + A.MON [Test mode remote control unit] + "1"-"6" [Test mode remote control unit] keys)

After you press the A.MON key while holding the ESC key pressed and then input the region number, if the number is different from that set in the unit, an error message is displayed, and the tray opens.

6.4 SPECIFICATION OF MODEL INFORMATION DISPLAY

To display model information : Press the ESC key then the CHAP key.
To close the model information display : Press the ESC key.

• Display contents



① **Destination indication**
Display it according to model information set from the FL controller.
② **Region No.**
③ **Part number**
④ **ROM version**
⑤ **Flash size**

⑥ **FL controller version**
⑦ **CHIP VERSION**

⑨ **Remote control code**
⑩ **Key code of Main unit**

6.5 FUNCTIONAL SPECIFICATION OF THE SERVICE MODE

• Display during Service Mode

To enter Service Mode, press the CHP/TIM key while holding the ESC key pressed.
To quit, press the ESC key.

Service mode display

① ID Address
② Error rate (always displayed), in exponential notation

ERROR RATE : * * * * * * *
(* * * *)
Number of error

• Calculation of the average error rate
For DVDs: OK with 5.0e-4 or less, for CDs: OK with 7.6e-3 or less

ex) For DVDs

• Step 1		• Step 2	
△△e - □		△△e -4	
△△e -6	: OK	3.0e -4	: OK
△△e -5	: OK	4.0e -4	: OK
△△e -4	: Refer to Step 2	5.0e -4	: OK
△△e -3	: NG	6.0e -4	: NG
△△e -2	: NG	7.0e -4	: NG

③ EDC/ID error history (ID Address, EDC/ID errors, last eight errors)

Note:
* Error of AV1 is not supported in this player.

Indication plan contents

Character in bold : Item name
□: Information display

6.6 SERVICE TEST MODE

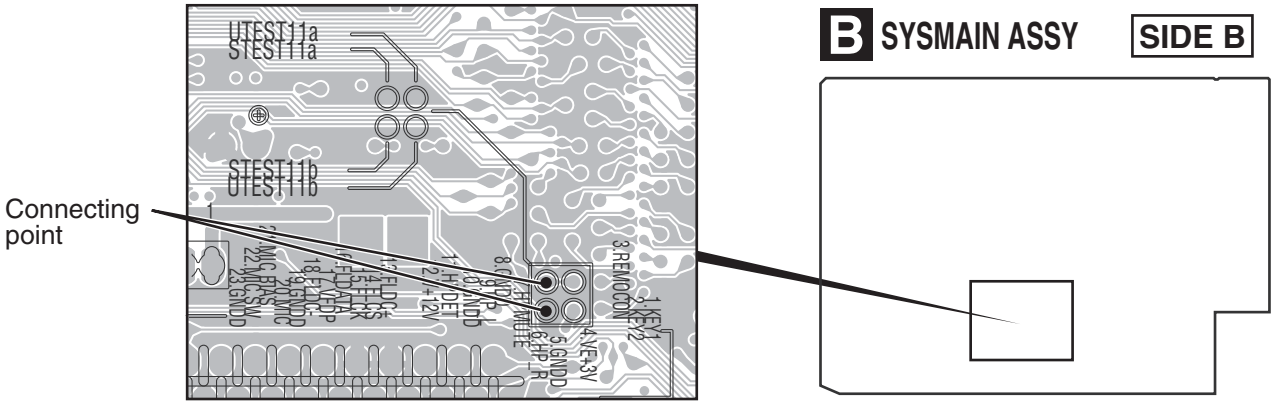
1. Configuration and conditions during checking

- Emergency shut down will not happen even if breakdown happens in the Service Test mode. (Just ignore it)
- POWER ON in test mode can be done in less than 1 minute even when emergency shut down happens when error is detected.
- Total power on time can be checked.

2. How to enter the Test Mode

- Test mode can also be entered in either of the following ways:
  1. Connect the power cord to the wall outlet with the STEST port (microcomputer terminal IC1001: pin 59) at GND. (See "Service Test Mode connecting point".)
  2. When power is on and VOL 0, Continually pressing the FUNCTION key and POWER key on the front panel for more than 8 seconds.
     *In case of method 2, "5. Error" is not displayed and the unit will be shut down for an emergency till enter Test mode.

■ Service Test Mode connecting point



3. Indications on the FL display when Test mode is entered

Initial function is HDMI1.
The set will automatically power on and the following display will appear.

- The FL display during TEST MODE entry is different depending on whether NORMAL POWER OFF occurred before entering the TEST MODE or EMERGENCY SHUT DOWN occurred due to error detection.
- Listening mode will become Ext.Stereo (5ch Stereo) mode so that multichannel output can be obtained.
- Even if Display Mode is Auto Display setting, FL display is displayed during test modes.

[After NORMAL POWER OFF]

[display]

POWER ON
⇩
VOL 0
⇩

[After AMP error]

[display]

PRTCT E
⇩
VOL 0
⇩
LINE 2S

[After DVD error]

[display]

DVDPRTCT
⇩
VOL 0
⇩
LINE 2S

[After EEPROM error]

[display]

EEP ERR
⇩
VOL 0
⇩
LINE 2S

[After ABNORMAL TEMP. DETECTION]

[display]

OVERTEMP
⇩
VOL 0
⇩
LINE 2S

[After OVERCURRENT DETECTION1]

[display]

OC ERR 1
⇩
VOL 0
⇩
LINE 2S

[After OVERCURRENT DETECTION2]

[display]

OC ERR 2
⇩
VOL 0
⇩
LINE 2S

* POWER OFF to get out from TEST MODE.
* When the TEST MODE is released, only the RAM which stores the error status will be initialized. (RAM that can be set by the user will not initialized.)

4. Operation

- Basically, operation is the same as the NORMAL MODE.
  However, the following display will be indicated when function is changed to show that the TEST MODE is in operation.

[Function]	[display]
DVD/CD	DVD/CDS
USB	USB S
USB	BT ADUIS
TUNER	TUNER S

	< DSP model >	< NonDSP model >	< NonDSP model > [MY,RUS model only]
LINE1 (OPT IN)	LINE 1S		
LINE2 (RCA IN)	LINE 2S	LINE S	LINE 1S
LINE3 (SCART IN)	[MY,RUS model only] LINE 3S		LINE 2S

[Only for models without DSP]

- When function is switched to LINE, SURROUND mode will switch to X-STEREO (5CH STEREO) just for the TEST MODE. (NORMAL MODE: 2CH STEREO)
  At this point, sound checking can't be done using HP.
  (HP operation cannot be guaranteed for X-STEREO (5CH STEREO))
  All functions, other than LINE can be used for sound checking using HP.

[Models with DSP]

- Change the SURROUND mode to X-STEREO (5 ch STEREO) mode for multi CH output.

5. Errors

- BREAKDOWN CATEGORY: Depends on the error displayed during POWER ON.

PRTCT E

Protect circuit is operating.

1. Depending on the different power supply abnormalities, V+12, V+3SUB, V+3R3, V+6R8, SW+5 short-circuit occured or V+12, V+3SUB, V+3R3, V+6R8, SW+5 has exceeded the stipulated standardized values.

2. In the system microP (AYW7271, AYW7270) somewhere, the XPROTECT(54Pin) line has either shorted to ground or has been disconnected.

DVDPRTCT

Abnormal DVD.

1. Depending on the power supply abnormalities, V+6R5, V+5V, V+3R3 short-circuit occured or V+6R8, V+5V, V+3 has exceeded the stipulated standardized values.
2. In the system microP (AYW7271, AYW7270) somewhere, the VDET line has either short to ground or disconnected.

EEP ERR

1. Communication line to the EEPROM could either be disconnected or short.
2. The EEPROM IC itself could be faulty.

OC ERR 1

OC ERR 2

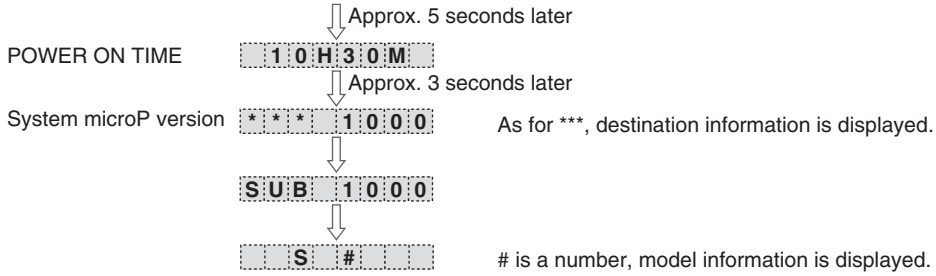
- If error display does not come on again when POWER ON in the NORMAL MODE, this could mean that the speaker terminal is short.
- If error display comes on, the following conditions are some possibilities:
  1. In the AMP ASSY, either one or more of the digital amp IC has broken down.
  2. Short-circuit occurred somewhere between the faulty IC(s) and speaker terminal.
  3. The XSD SHUTDOWN (71Pin) line has either short to ground or disconnected somewhere between the faulty digital amp IC and system microP (AYW7271, AYW7270).

O V E R T E M P

- No abnormality if "OVERTEMP" display does not come on when POWER ON in the NORMAL MODE again. (The TEMP could have just gone up temporarily. Try reducing the volume)
- When the "OVERTEMP" display comes on again, the following conditions are some possibilities:
  1. In the AMP ASSY, either one or more of the digital amp IC has broken down.
  2. The XOTW(78 Pin) line has either short to ground or disconnected somewhere between the faulty digital amp IC(s) and system microP (AYW7271, AYW7270).

6. Total Power on Time Display

- If FUNCTION key is pushed continuously for 5 sec during POWER ON, the system microp version display will come on after the total POWER ON time.



◆ Destination information
MY: Europe
KU: North America
DD: general
JJ: Japan
CN: China
LA: South and Central America
RUS: Russia
AU: Australia
THA: Thailand
DBD: Taiwan
MDX: the Middle and Near East

● Model information
1: BASE
2: BASE_ST
3: TALL
4: UPPER_ST
5: UPPER (TALL)
6: LCD match (2.1ch)
MODELERR:DUMMY

- Power-on time is always counted while the power is on, regardless of unit's functions and operations. However, it is not counted during Standby mode.
- The maximum countable power-on time is 255H59M (255 hours 59 minutes.) The indication will not advance beyond that.
- The accumulated power-on time basically cannot be cleared.

7. DISASSEMBLY

Note 1: Do NOT look directly into the pickup lens. The laser beam may cause eye injury.
Note 2: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Disassembly

[1] Bonnet, Tray Panel

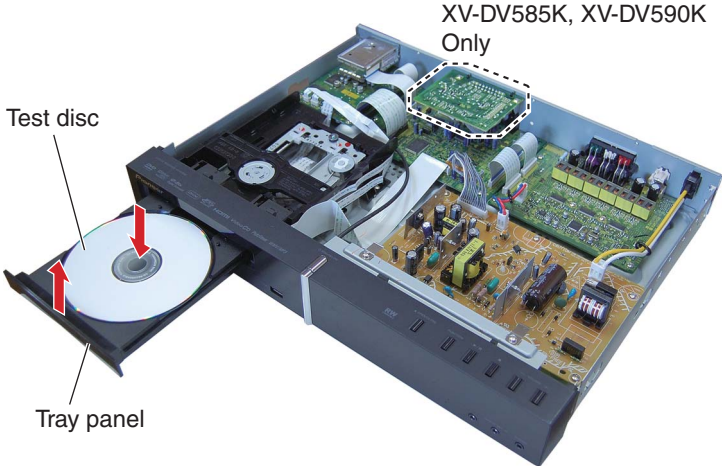
Remove the bonnet by removing the nine screws.

(1) Press the ⏻ STANDBY/ON button to turn on the power.

(2) Press the ⏏ OPEN/CLOSE button to open the tray.

(3) Remove the tray panel.
(4) Set the test disc.

XV-DV585K, XV-DV590K Only



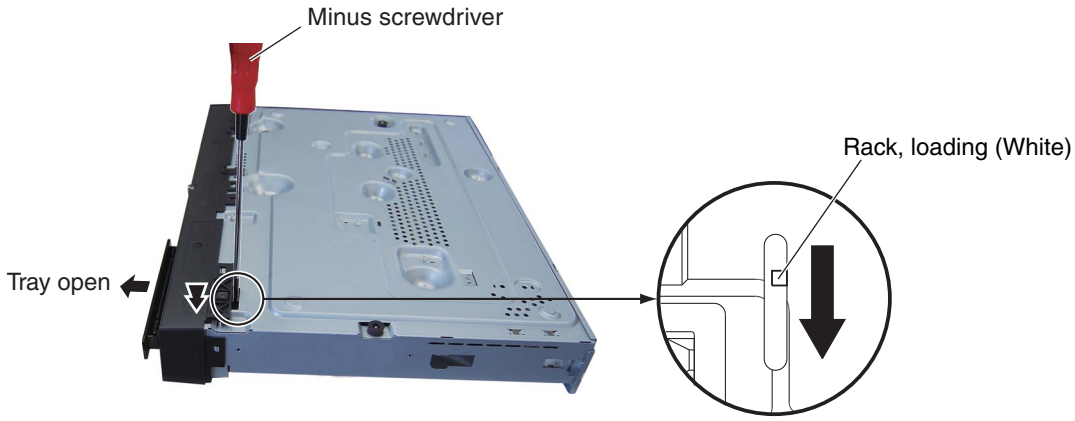
(5) Press the ⏏ OPEN/CLOSE button to close the tray. (Test disc is clamped.)

(6) Press the ⏻ STANDBY/ON button to turn off the power.
(7) Pull out the power cord.

How to open the tray when the power cannot be on

(1) Slide the rack, loading (White) toward the arrow direction by using a minus screwdriver to release the lock.
(2) Manually open the tray.

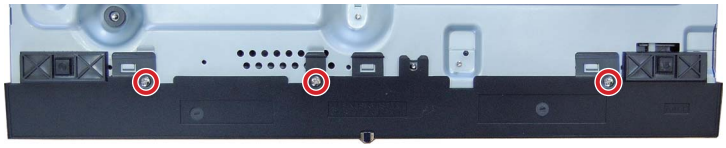
Note:
Please strongly pushing rack, loading (White) to release the lock because the tray doesn't go out easily.



• Bottom view

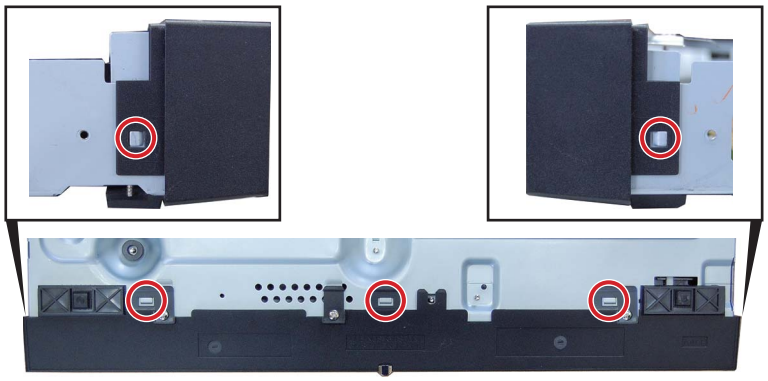
[2] Front Panel Section

(1) Remove the three screws. (BBZ30P080FNI)



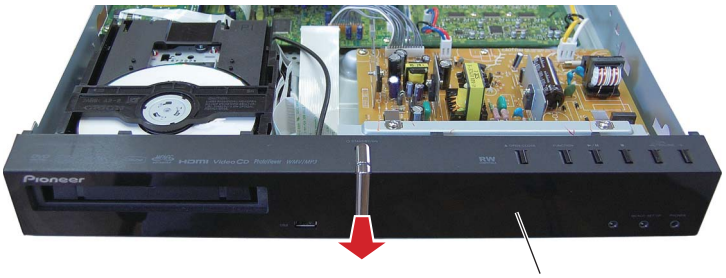
• Bottom view

(2) Unhook the five hooks.



• Bottom view

(3) Remove the front panel section.



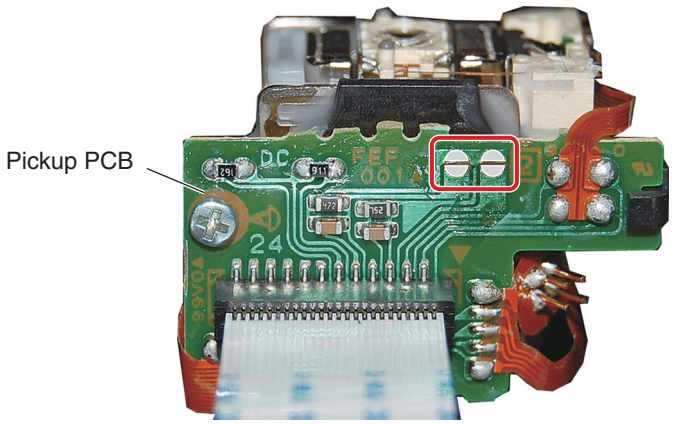
Note Ⓐ:
Do not use an electric screwdriver.
If the screw is over-tightened, the screw threads may be damaged.

• Bottom view

[3] DVD MECHA Assy

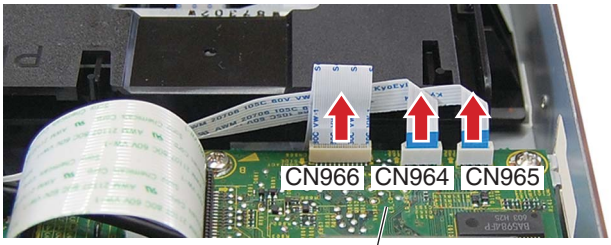
(1) Short-circuit two positions soldering.

Note:
After replacement, connect the flexible cable, then remove the soldered joint (open).



• Rear view

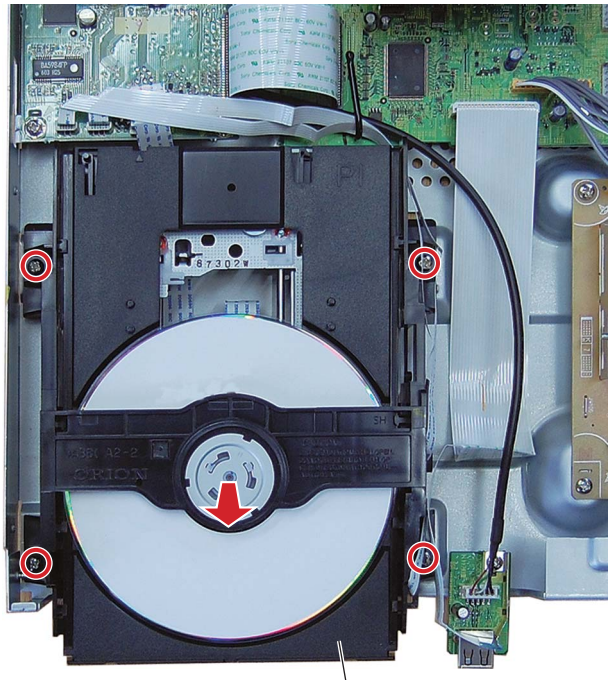
(2) Disconnect the three flexible cables.



• Rear view

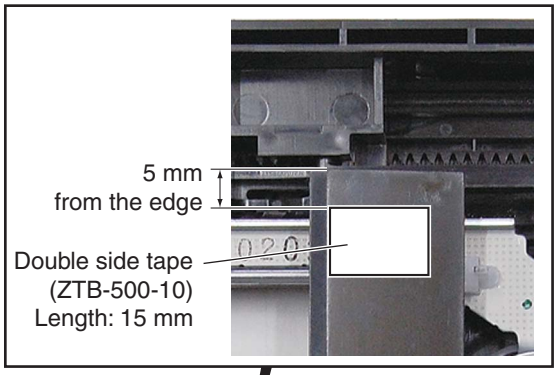
09 DVDM Assy

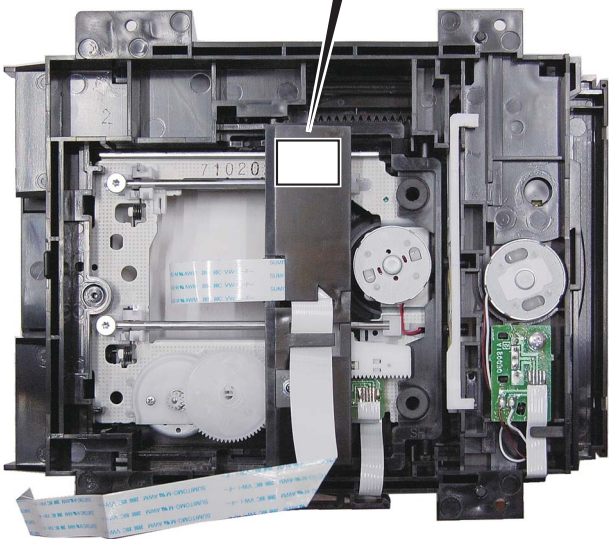
(3) Remove the four screws. (BBZ30P080FNI)
(4) Remove the DVD MECHA Assy.



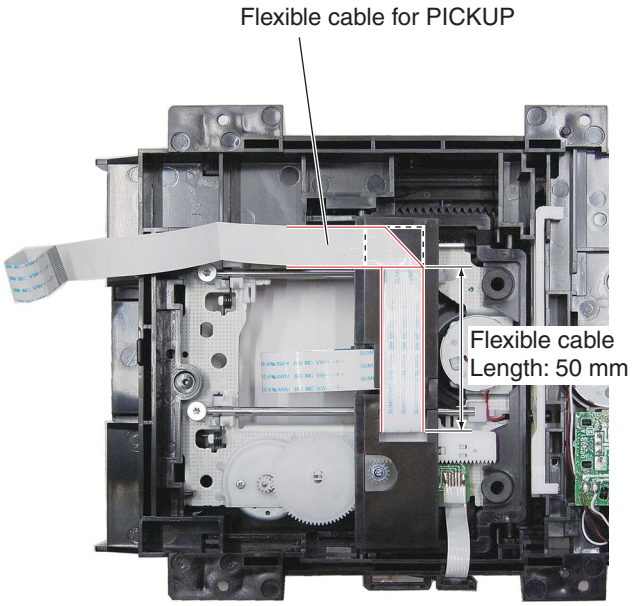
DVD MECHA Assy

Arrangement of The Flexible Cables

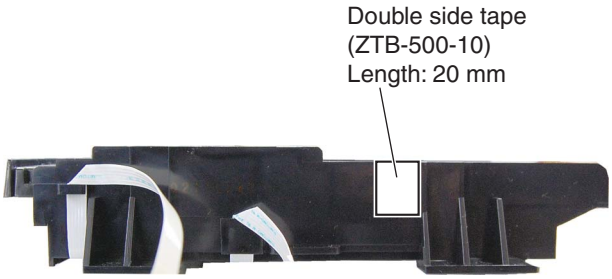




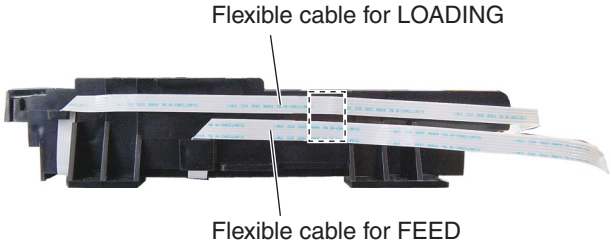
• Bottom view



• Bottom view



• Right view



• Right view

Removal of DVD MECHA Assy Parts

NOTE
Disassemble only the DVD MECHA Assy parts listed here. Minute adjustments are needed if the disassembly is done. If the repair is needed except listed parts, replace the DVD MECHA Assy.

1: TRAY (Refer to Fig. 1-A)
1. Set the Tray opened. (Refer to the **DISC REMOVAL METHOD AT NO POWER SUPPLY**)
2. Unlock the 2 supports ① and draw it while sagging the Tray.

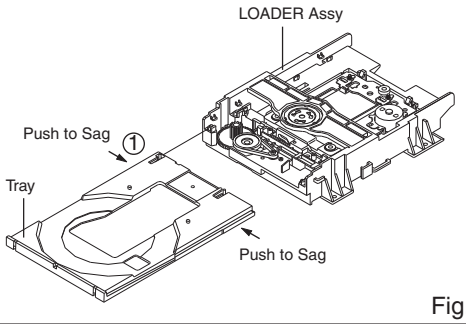


Fig. 1-A

NOTE
1. In case of the Tray installation, install them as the circled section of Fig. 1-B so that the each markers are met.

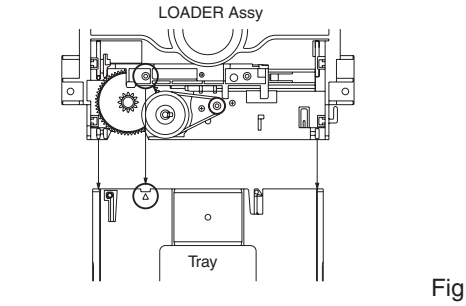


Fig. 1-B

2: TRAVERSE ASSY (Refer to Fig. 2-A)
1. Remove the screw ①.
2. Unlock the 2 supports ②.
3. Remove the Insulator (R) from the LOADER SUB Assy.
4. Remove the TRAVERSE Assy.

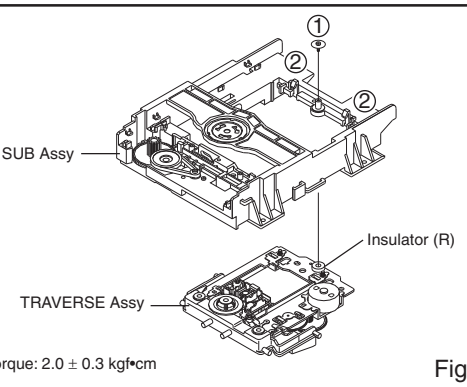


Fig. 2-A

NOTE
1. In case of the TRAVERSE Assy, install it from (1) to (4) in order. **(Refer to Fig. 2-B)**
2. In case of the TRAVERSE Assy installation, hook the wire on the LOADER Assy as shown Fig. 2-C.

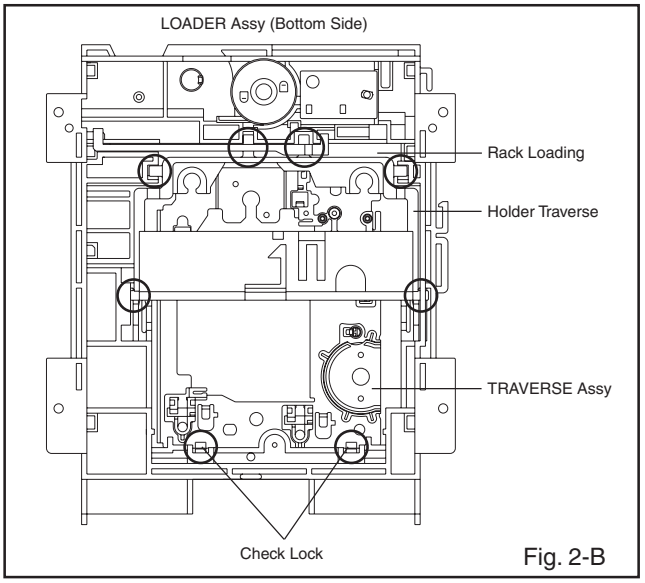


Fig. 2-B

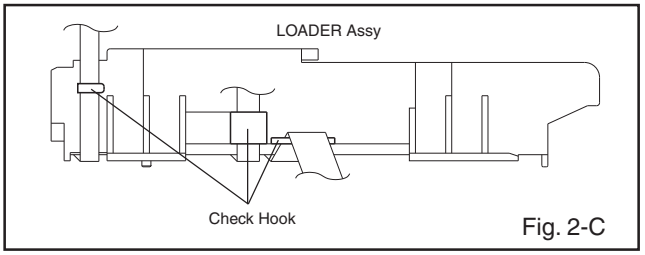


Fig. 2-C

3: LOADING MOTOR PCB Assy / LOADING BELT (Refer to Fig. 3-A)
1. Remove the Loading Belt.
2. Remove the screw ①.
3. Remove the LOADING MOTOR PCB Assy.
4. Remove the 2 screws ②.
5. Remove the Loading Motor.
6. Remove the Gear Pulley.

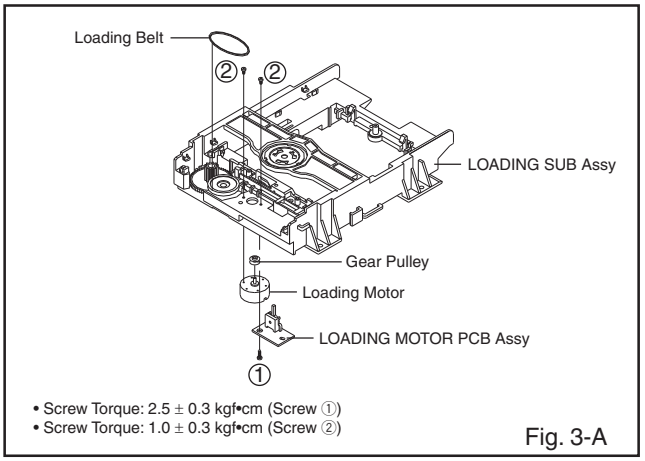


Fig. 3-A

NOTE

1. In case of the Pulley Motor installation, check if the value of the Fig. 3-B is correct.
2. When installing the wire of the LOADING MOTOR PCB Assy, install it correctly as Fig. 3-C.
   Manual soldering conditions
   • Soldering temperature: 320 ± 20 °C
   • Soldering time: Within 3 seconds
   • Soldering combination: Sn - 3.0 Ag - 0.5 Cu
3. When installing the LOADING MOTOR PCB Assy, install itcorrectly as Fig. 3-D.
4. In case of the LOADING MOTOR PCB Assy installation, hook the wire on the LOADER SUB Assy as shown Fig. 3-E.

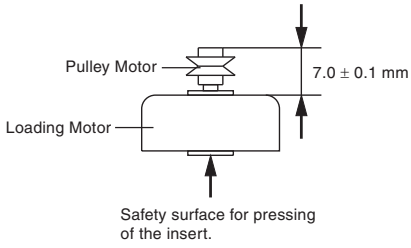


Fig. 3-B

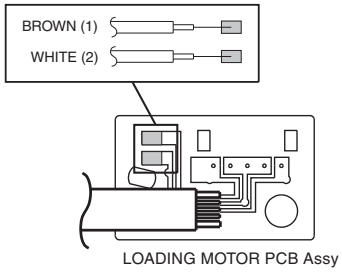


Fig. 3-C

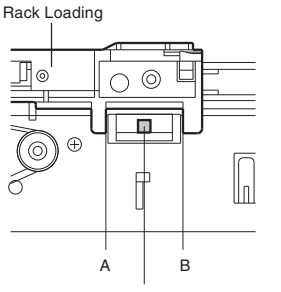


Fig. 3-D

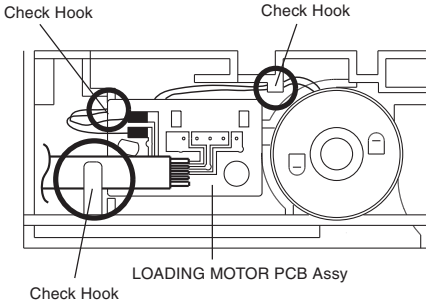


Fig. 3-E

4: RACK LOADING / MAIN GEAR / PULLEY GEAR (Refer to Fig. 4-A)

1. Unlock the support ② and remove the Gear Pulley.
2. Remove the Gear Main.
3. Press down the catcher ① and slide the Rack Loading.

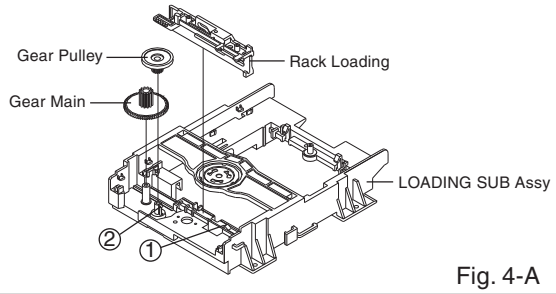


Fig. 4-A

NOTE

1. In case of the Rack Loading installation, hook the Rack Loading on the LOADER SUB Assy as shown Fig. 4-B.
2. When installing the Gear Main, take care the direction of up or down as shown Fig. 4-C.

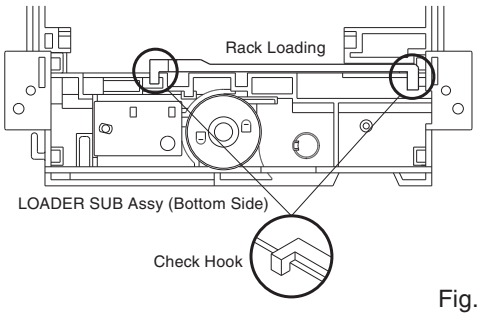


Fig. 4-B

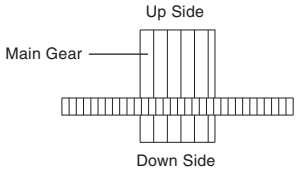


Fig. 4-C

5: CLAMPER ASSY (Refer to Fig. 5-A)

1. Press the Clamper and rotate the Plate Clamper clockwise, then unlock the 3 supports ①.
2. Remove the Plate Clamper, Magnet Clamper and Clamper.

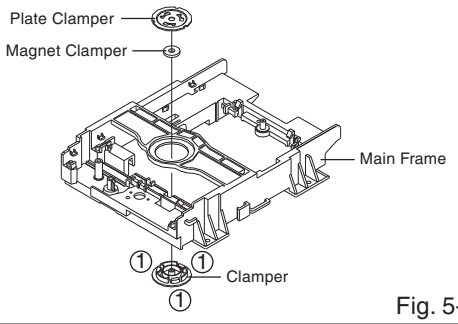


Fig. 5-A

NOTE

1. In case of the Clamper Assy installation, install correctly as Fig. 5-B.

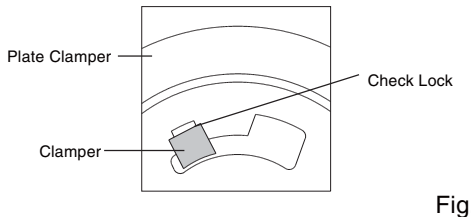


Fig. 5-B

6: HOLDER TRAVERSE/INSULATOR (F)/INSULATOR (R) (Refer to Fig. 6-A)

1. Remove the Holder Traverse.
2. Remove the 2 Insulator (F).
3. Remove the Insulator (R).

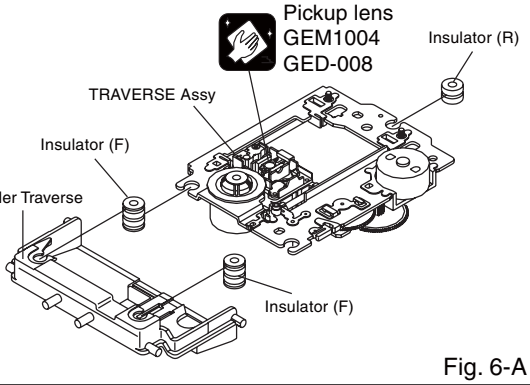


Fig. 6-A

NOTE

1. In case of the Insulator (F) installation, install correctly as Fig. 6-B.

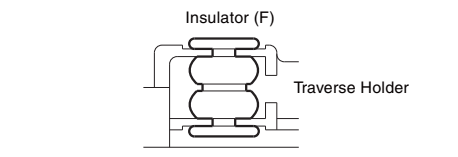


Fig. 6-B

7: SW PCB ASSY/GEAR MIDDLE/GEAR FEED/ RACK FEED ASSY/FEED MOTOR (Refer to Fig. 7-A)

1. Unlock the support ①.
2. Remove the Gear Middle.
3. Remove the screw ②.
4. Remove the Rack Feed Assy.
5. Remove the screw ③.
6. Remove the SW PCB Assy.
7. Remove the screw ④.
8. Remove the Gear Feed.
9. Remove the 2 screws ⑤.
10. Remove the Feed Motor.
11. Remove the Gear Motor.

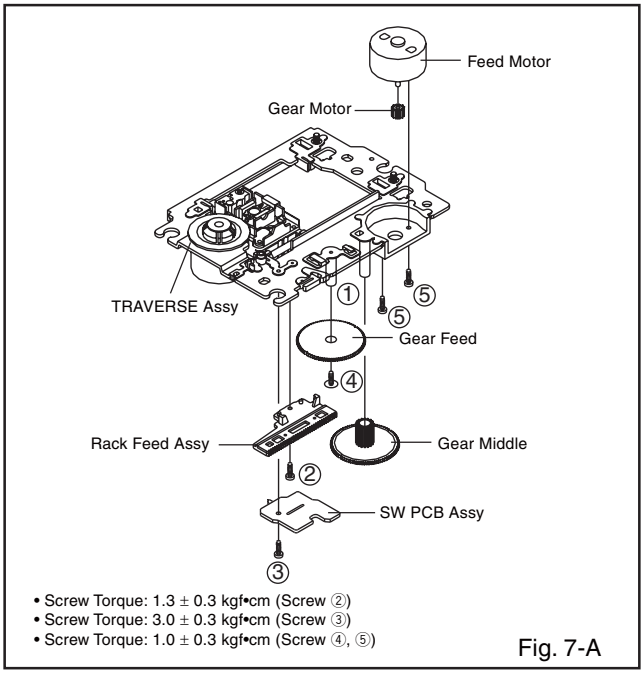


Fig. 7-A

NOTE

1. When installing the Rack Feed Assy, push both ends to align the teeth as shown Fig. 7-B. Then install it.
2. In case of the Gear Motor installation, check if the value of the Fig. 7-C is correct.
3. When installing the wire of the SW PCB Assy, install it correctly as Fig. 7-D.
   Manual soldering conditions
   • Soldering temperature: 320 ± 20 °C
   • Soldering time: Within 3 seconds
   • Soldering combination: Sn - 3.0 Ag - 0.5 Cu
4. After the assembly of the TRAVERSE Assy, hook the wire on the TRAVERSE Assy as shown Fig. 7-E.

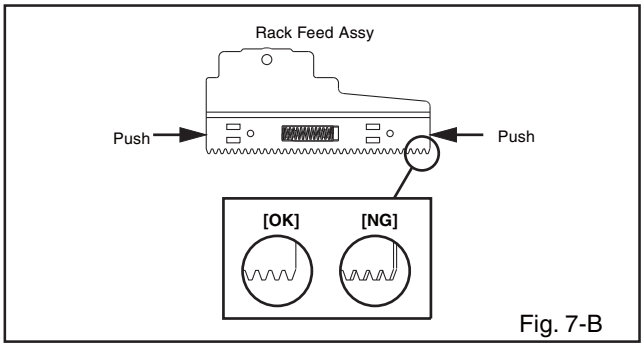


Fig. 7-B

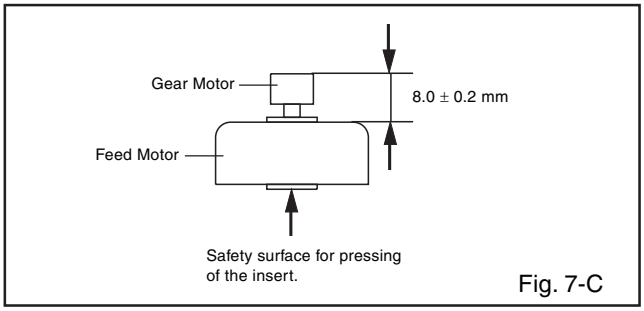


Fig. 7-C

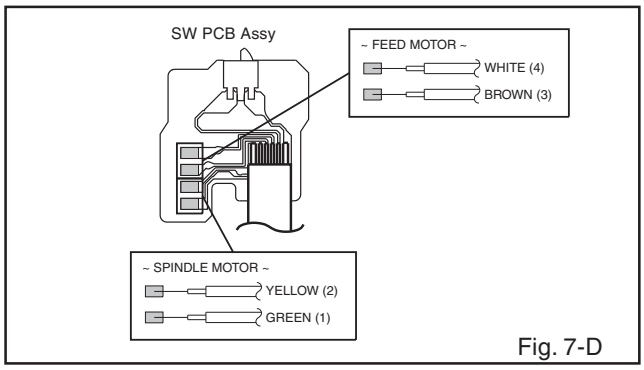
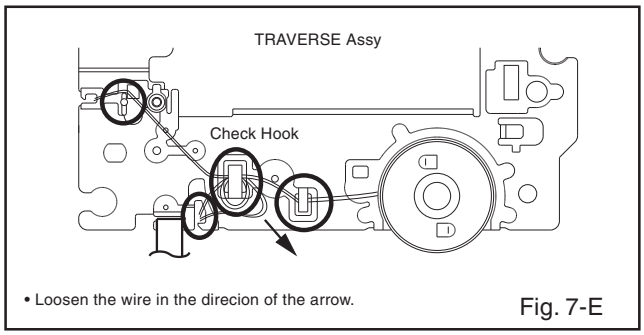


Fig. 7-D



• Loosen the wire in the direcion of the arrow.

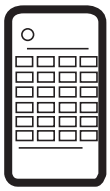
Fig. 7-E

8. EACH SETTING AND ADJUSTMENT
8.1 ID NUMBER AND ID DATA SETTING

Caution:
For the DVD players compatible with DVD-RW, for playback of a DVD-RW disc (CPRM) and for the DVD players possessing HDMI output, for HDCP process, it is necessary that an individual ID number and ID data are set for each player. If the ID number and ID data be not properly set in the manner described below, future operations cannot be guaranteed. The ID number is written on the yellow label at the rear panel of the player.
If there is no yellow label, before downloading FLASH ROM, take note of the ID number set following the procedures outlined in "ID Number Confirmation Mode" on the next page.
Note: Enter ID numbers while the unit is in Stop mode so that the values set will be immediately written to the flash ROM.

Setting an ID number or ID data is required in the following case:
If "No NUM", "NO DATA" or "HDMI ERR" is displayed on the FL display for a few seconds immediately after the power to the player is turned on or during Stop mode.

JIGS AND MEASURING INSTRUMENTS

 Service Remote Control Unit [GGF1381]	 DVD Data Disc [GGV1344]

■ ID Number Input Mode

① To enter ID Number Input Mode, with no ID number set, such as in a case of immediately after upgrading the firmware, press the ESC key then the STEREO key.

Note: If a previous ID number and ID data, such as a factory-preset ID number and ID data, are maintained, the unit enters ID Number Confirmation Mode when the above keys are pressed. However, if only an ID number is maintained, the unit enters ID Data Input Mode.

② Enter a 9-digit ID number. The ID number is also displayed on the FL display.

③ By pressing the CLEAR key without having input a number, you can exit this mode. Each press of this key after a number has been input deletes one digit.

```
[Player's ID Number Setting]
 ID Number ?
② - - - - - - - - -

③ <CLEAR>  Exit


 Input ID Number !
```

④ After entering all 9 digits, if you press the PLAY key, the unit enters Compare mode. Enter the same ID number again. Only if your two input numbers match, the ID number is set. Compare mode helps eliminate mistyping of the ID number.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ② without doing anything else.

⑤ After entering all 9 digits, if you press the SEARCH key, the unit unconditionally sets the input number as the ID number. Then the unit automatically enters Player's Data Input Mode. (The SEARCH key is not accepted after all 9 digits have been entered.)

```
[Player's ID Number Setting]
 ID Number ?
  0 0 0 0 0 0 0 0 1

④ <PLAY>       Compare Mode
⑤ <SEARCH>  Enter

 Input ID Number !
```

⑥ This display appears when the PLAY key is pressed in Step ④. Enter a 9-digit number to compare. The number is also displayed on the FL display.

⑦ By pressing the CLEAR key without having input a number, the unit returns to Step ② without doing anything else. Each press of this key after a number has been input deletes one digit.

```
[Player's ID Number Setting]
 ID Number ?
    0 0 0 0 0 0 0 0 1
 Compare
⑥    * * * * * * * * *


 Input ID Number !
```

⑧ After entering all 9 digits, if you press the PLAY key, the unit compares the numbers input in Steps ② and ⑥, and only if the numbers match, that number is set as the ID. Then the unit automatically enters ID DATA Input Mode. If the numbers do not match, the disc tray is opened, and the unit exits ID Number Input Mode.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ⑥ without doing anything else.

```
[Player's ID Number Setting]
 ID Number ?
    0 0 0 0 0 0 0 0 1
 Compare
    0 0 0 0 0 0 0 0 1

⑧ <PLAY>  Enter

 Input ID Number !
```

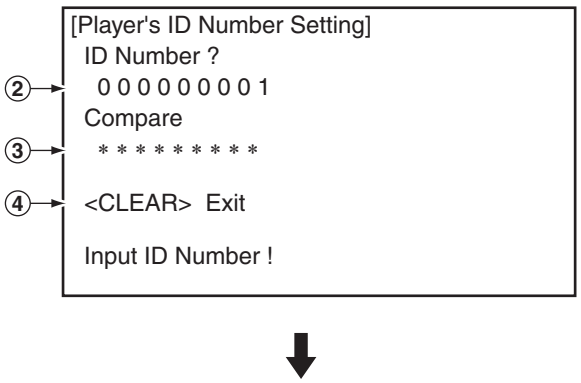
■ ID Number Confirmation Mode

① To enter ID Number Confirmation Mode after the ID number and the ID data are set, press the ESC key then the STEREO key.

② The ID number already set is displayed.
(It is also displayed on the FL display.)

③ Enter a 9-digit number for comparison. This is not required when you only wish to check the ID number visually.
(The number is also displayed on the FL display.)

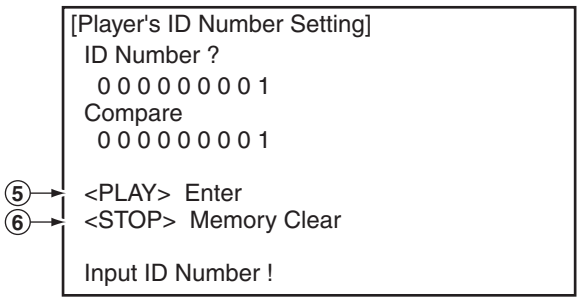
④ By pressing the CLEAR key without having input a number, you can exit this mode. Each press of this key after a number has been input deletes one digit.



⑤ After entering all 9 digits, if you press the PLAY key, the unit compares the number entered in Step ② with the ID number set, and only if the numbers match, the unit automatically exits ID Number Confirmation Mode. If an ID data has not been entered, the unit enters ID DATA Input Mode. If the numbers do not match, the disc tray is opened, and the unit exits ID Number Confirmation Mode.

Note: If you press the PLAY button before inputting a 9-digit ID number, the unit returns to Step ④ without doing anything else.

⑥ After entering all 9 digits, if you press the STOP key, the unit compares the number entered in Step ③ with the ID number set, and only if the numbers match, the unit automatically deletes the ID number and exits this mode. If the numbers do not match, the disc tray is opened, and the unit exits this mode. (The STOP key is not accepted after all 9 digits have been entered.)



• Indication of an ID number already set

An ID number already set is displayed in the following cases:

1) When the ESC key then the CLEAR key are pressed, user settings are cleared, then the ID number set is displayed on the screen. In this case, the ID number is not displayed on the FL display.
2) When the unit enters ID Number Confirmation Mode by your pressing the ESC key then the CLEAR key, the ID number set is displayed. In this case, the ID number is also displayed on the FL display.
If you only need to confirm the ID number, you can exit this mode by pressing the CLEAR key or turning off the power.

• Indication when no ID number is set

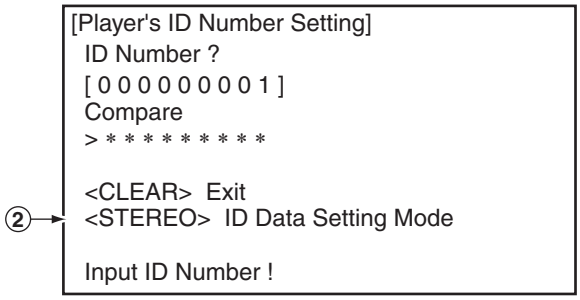
If no ID number is set, the message "No NUM" flashes on the screen and FL display for a few seconds after the power is turned on or during Stop mode.

ID DATA Input Mode

NOTE: Be sure to use a specified DVD (ID) DATA DISC.

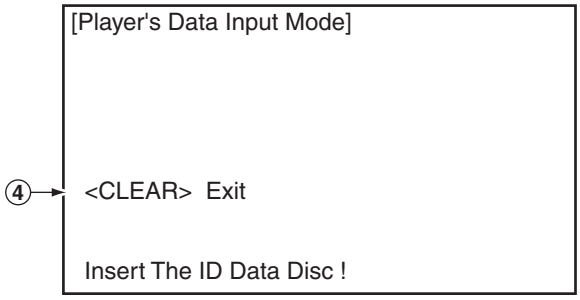
① To enter ID DATA Input Mode, with the ID number set, press the ESC key then the STEREO key.

② When the STEREO key is pressed, the unit enters ID DATA Input Mode.



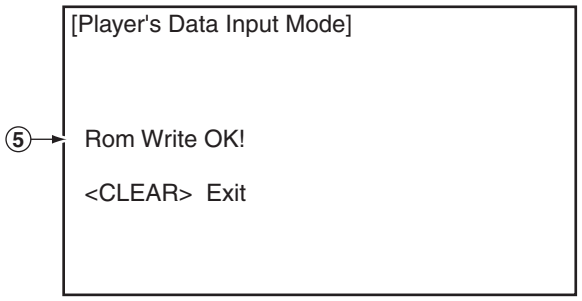
③ If the DVD DATA DISC is loaded in this mode, the unit automatically starts reading the data.
(If the DVD DATA DISC has already been loaded, the unit does not start reading the data. In this case, open then close the tray.)

④ To exit this mode, press the CLEAR key. While data are being read from the DVD DATA DISC, you cannot exit this mode.



⑤ When writing of the data read from the disc to flash ROM is completed, "Rom Write OK!" is displayed. After seeing this message, you can exit this mode by pressing the CLEAR key.

Note: Whether or not the data have been written to flash ROM can be confirmed by watching for the message "Rom Write OK!" being displayed after the disc is read.



⑥ If the data cannot be read from the disc, the unit will be exited ID Data Input Mode and proceed to the display of "**Pioneer**" logo.

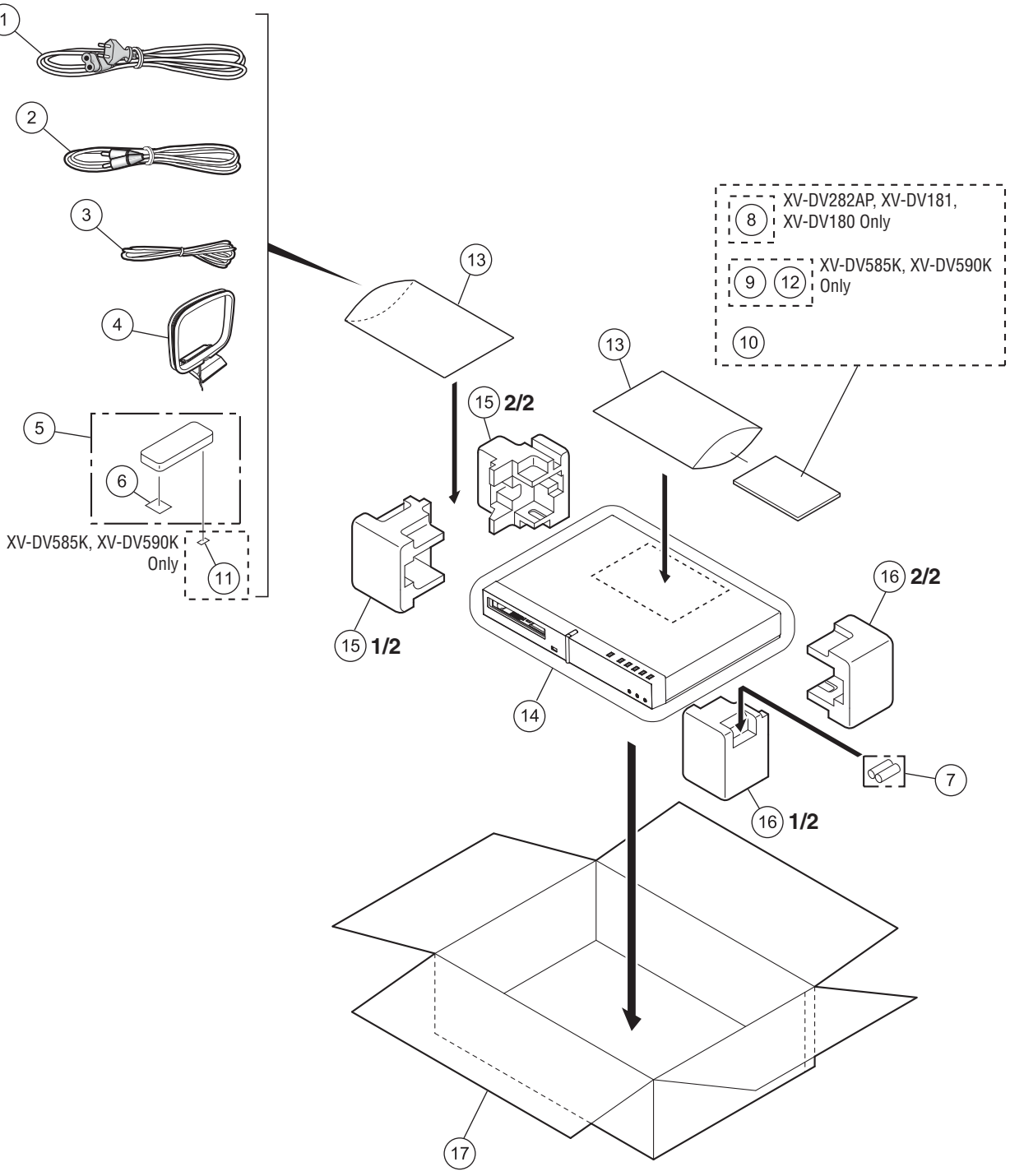
• Indication when the data have not been set

If no ID data are set after the ID number is changed, the message "NO DATA" flashes on the screen and FL display for a few seconds after the power is turned on or during Stop mode.

9. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" 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.*
- *Screws adjacent to ▼ mark on 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.)*

9.1 PACKING SECTION



(1) PACKING SECTION PARTS LIST

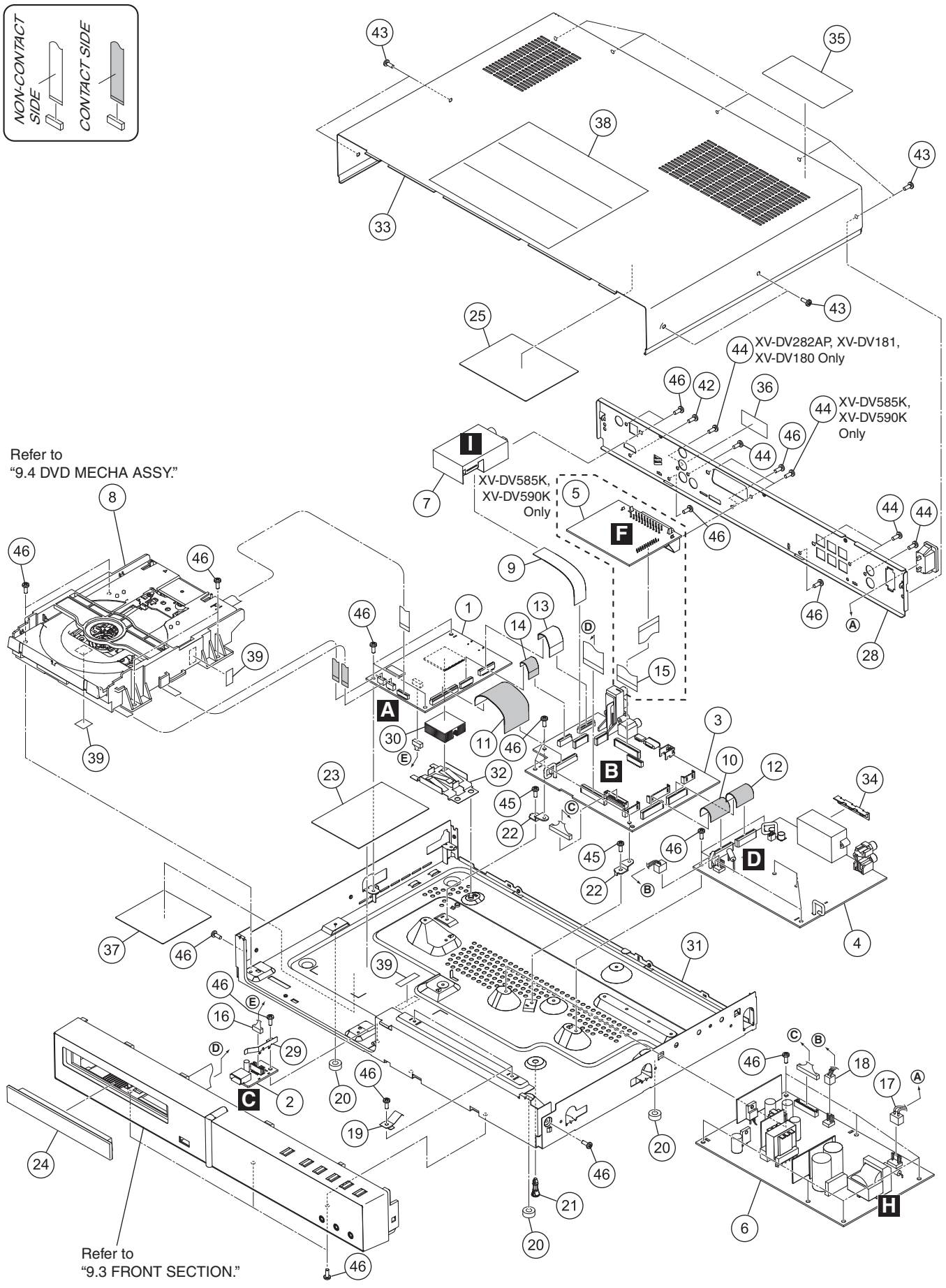
Mark	No.	Description	Part No.
⚠	1	Power Cord	ADG1127
	2	Video Cable (yellow plugs)	XDE3046
	3	FM Antenna	ADH7030
	4	AM Loop Antenna	ATB7013
	5	Remote Control	See Contrast table (2)
	6	Battery Cover	AZN8018
NSP	7	Dry Cell Battery (R6, AA)	XEX3005
	8	Operating Instructions (En, Zhtw)	See Contrast table (2)
	9	Operating Instructions (Ru)	See Contrast table (2)
	10	Setup Guide	See Contrast table (2)
	11	Label (WEEE)	See Contrast table (2)
NSP	12	Warranty Card EU	See Contrast table (2)
NSP	13	Polyethylene Bag (0.06 x 230 x 340)	AHG7117
	14	Packing Sheet	AHG7053
	15	Left Pad RHTS	XHA3191
	16	Right Pad RHTS	XHA3190
	17	Packing Case RHTS	See Contrast table (2)

(2) CONTRAST TABLE

XV-DV282AP/LXJ, XV-DV181/LXJ, XV-DV180/LXJ, XV-DV585K/SXJ5 and XV-DV590K/SXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	XV-DV282AP /LXJ	XV-DV181 /LXJ	XV-DV180 /LXJ	XV-DV585K /SXJ5	XV-DV590K /SXJ5
	5	Remote Control	XXD3185	XXD3186	XXD3186	XXD3185	XXD3185
	8	Operating Instructions (En, Zhtw)	XRE3233	XRE3233	XRE3233	Not used	Not used
	9	Operating Instructions (Ru)	Not used	Not used	Not used	XRC3451	XRC3451
	10	Setup Guide (9LAN)	XRE3244	Not used	Not used	Not used	XRE3244
	10	Setup Guide (8LAN)	Not used	XRE3238	Not used	Not used	Not used
	10	Setup Guide (5LAN)	Not used	Not used	XRE3242	XRE3242	Not used
	11	Label (WEEE)	Not used	Not used	Not used	ARW7322	ARW7322
NSP	12	Warranty Card EU	Not used	Not used	Not used	ARY7128	ARY7128
	17	Packing Case RHTS LX	XHD3913	Not used	Not used	Not used	Not used
	17	Packing Case RHTS	Not used	XHD3911	Not used	Not used	Not used
	17	Packing Case RHTS RX	Not used	Not used	XHD3906	Not used	Not used
	17	Packing Case RHTS SX	Not used	Not used	Not used	XHD3900	XHD3899

9.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

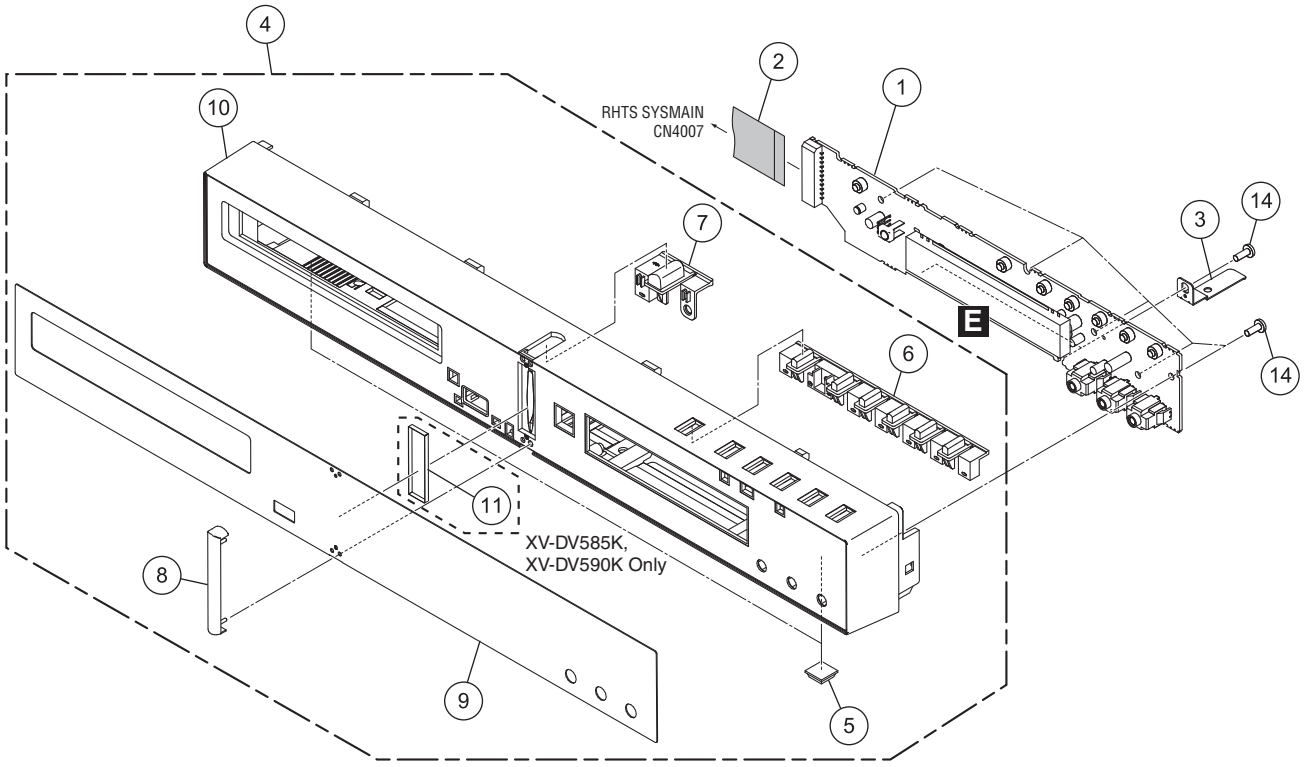
Mark	No.	Description	Part No.
	1	09 DVDM Assy	AWM8134
	2	RHTS USB Assy	XWZ4414
	3	RHTS SYSMAIN Assy	See Contrast table (2)
	4	RHTS D-AMP Assy	See Contrast table (2)
	5	EUROSCART Assy	See Contrast table (2)
⚠	6	POWER SUPPLY Unit	XWR3020
	7	FM/AM TUNER Unit	See Contrast table (2)
	8	DVD MECHA Assy	A2ZX01A650
	9	11P FFC/60V (J1910)	See Contrast table (2)
	10	19P FFC/60V (J1905)	XDD3303
	11	31P FFC/60V (J1909)	XDD3304
	12	17P FFC 1.25MM/60V (J1906)	XDD3305
	13	17P FFC/60V (J1907)	XDD3307
	14	13P FFC/60V (J1908)	XDD3308
	15	23P FFC/60V (J1911)	See Contrast table (2)
	16	5P Shielded Cable (J1902)	XDX3086
	17	2P Wire (J1901)	XDX3087
	18	Cable Assy (J1903)	XDX3068
	19	Earth Spring W5.1	ABH7240
NSP	20	Spacer	AEB7092
	21	Locking Card Spacer	AEC7372
	22	PCB Stay	VNE2489
NSP	23	Guide Sheet	XAK3603
	24	Tray Panel RHTS	XAK3653
NSP	25	Primary Barrier RHTS	XAK3685
	26	•••••	
	27	•••••	
	28	Rear Panel RHTS	See Contrast table (2)
	29	USB GND Bracket RHTS	XNG3203
	30	Heatsink WHTS	XNH3049
NSP	31	Chassis RHTS	XNA3086
NSP	32	Radiation Plate	XNG3183
	33	Bonnet WHTS (BOX)	XZN3219
	34	GND Plate W5.1	ABH7241
NSP	35	Laser Caution	PRW1608
NSP	36	ID Label Assy	VXW1012
NSP	37	Name Label RHTS	See Contrast table (2)
	38	POP Getter RHTS-IBD	See Contrast table (2)
NSP	39	Double Side Tape	ZTB-500-10
NSP	40	SISIR Label RHTS	See Contrast table (2)
	41	•••••	
	42	Screw	BSZ30P060FTC
	43	Screw	BBZ30P080FTB
	44	Screw	BPZ30P080FNI
	45	Screw	BBZ30P060FNI
	46	Screw	BBZ30P080FNI

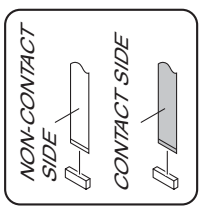
(2) CONTRAST TABLE

XV-DV282AP/LXJ, XV-DV181/LXJ, XV-DV180/LXJ, XV-DV585K/SXJ5 and XV-DV590K/SXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	XV-DV282AP /LXJ	XV-DV181 /LXJ	XV-DV180 /LXJ	XV-DV585K /SXJ5	XV-DV590K /SXJ5
	3	RHTS SYSMAIN Assy	XWZ4426	XWZ4454	XWZ4425	XWZ4434	XWZ4435
	4	RHTS D-AMP Assy	XWM3490	XWM3490	XWM3490	XWM3489	XWM3489
	5	EUROSCART Assy	Not used	Not used	Not used	AWU8291	AWU8291
	7	FM/AM TUNER Unit	XXX3088	XXX3088	XXX3088	XXX3085	XXX3085
	9	11P FFC/60V (J1910)	XDD3266	XDD3266	XDD3266	Not used	Not used
	9	15P FFC/60V (J1910)	Not used	Not used	Not used	XDD3306	XDD3306
	15	23P FFC/60V	Not used	Not used	Not used	XDD3267	XDD3267
	28	Rear Panel RHTS LXJ	XNC3668	XNC3664	XNC3657	Not used	Not used
	28	Rear Panel RHTS RU	Not used	Not used	Not used	XNC3656	XNC3655
NSP	37	Name Label RHTS	XAL3336	XAL3336	XAL3336	XAL3335	XAL3334
	38	POP Getter RHTS-IBD	XAX3789	XAX3765	XAX3763	Not used	Not used
	38	POP Getter RHTS-RU	Not used	Not used	Not used	XAX3787	XAX3762
NSP	40	SISIR Label RHTS	XAX3774	Not used	XAX3773	Not used	Not used
NSP	40	SISIR Label 181	Not used	XAX3809	Not used	Not used	Not used

9.3 FRONT PANEL SECTION





(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	RHTS DISPLAY Assy	See Contrast table (2)
	2	23P FFC/60V (J1904)	XDD3302
	3	Ground Bracket RHTS	XBH3020
	4	F/P Assy RHTS	See Contrast table (2)
NSP	5	Rubber Foot	VEB1325
	6	Button Function RHTS	XAD3283
	7	Button Power RHTS	See Contrast table (2)
NSP	8	Cosmetic RHTS	See Contrast table (2)
NSP	9	Display Window RHTS	See Contrast table (2)
NSP	10	Front Panel RHTS	See Contrast table (2)
NSP	11	Diffusion Sheet RHTS	See Contrast table (2)
	12	•••••	
	13	•••••	
	14	Screw	BPZ30P080FNI

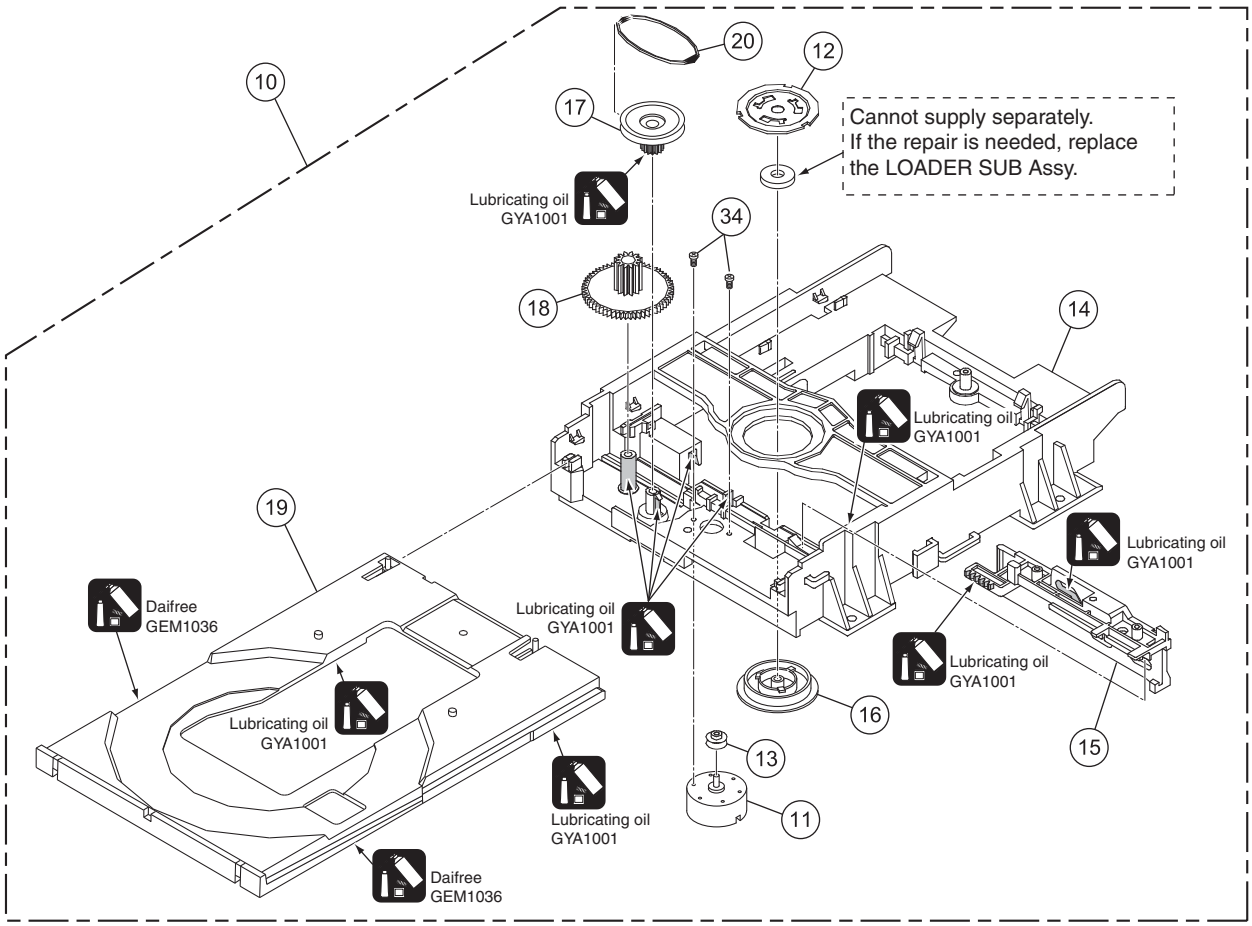
(2) CONTRAST TABLE

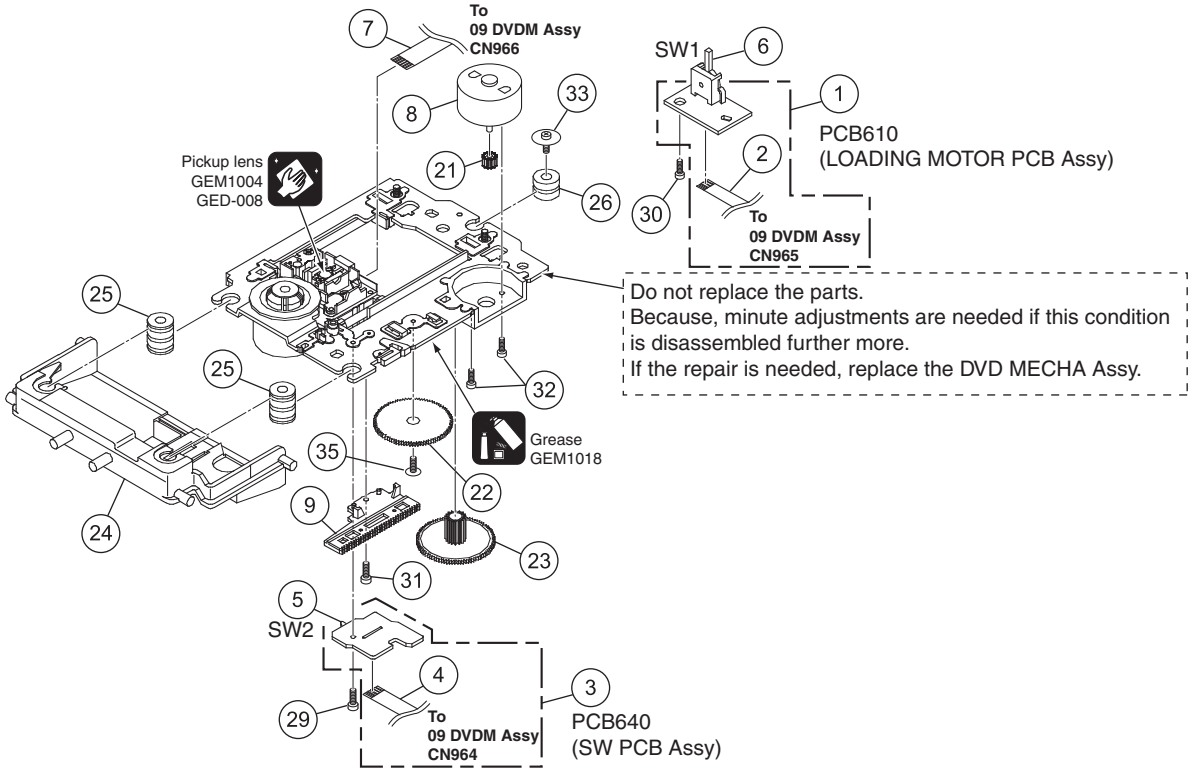
XV-DV282AP/LXJ, XV-DV181/LXJ, XV-DV180/LXJ, XV-DV585K/SXJ5 and XV-DV590K/SXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	XV-DV282AP /LXJ	XV-DV181 /LXJ	XV-DV180 /LXJ	XV-DV585K /SXJ5	XV-DV590K /SXJ5
	1	RHTS DISPLAY Assy	XWM3485	XWM3485	XWM3485	XWM3486	XWM3486
	4	F/P Assy RHTS IBD-L	XXG3430	XXG3429	XXG3428	Not used	Not used
	4	F/P Assy RHTS RU	Not used	Not used	Not used	XXG3427	XXG3426
	7	Button Power RHTS	XAD3284	XAD3284	XAD3284	XAD3285	XAD3285
NSP	8	Cosmetic RHTS	XAK3656	XAK3656	XAK3656	XAK3657	XAK3657
NSP	9	Display Window RHTS	XAK3662	XAK3662	XAK3662	XAK3654	XAK3654
NSP	10	Front Panel RHTS IBD	XMB3366	XMB3365	XMB3364	Not used	Not used
NSP	10	Front Panel RHTS RU	Not used	Not used	Not used	XMB3363	XMB3362
NSP	11	Diffusion Sheet RHTS	Not used	Not used	Not used	XAK3658	XAK3658

9.4 DVD MECHA ASSY

Note :
Check if the correct grease is applied for each position.



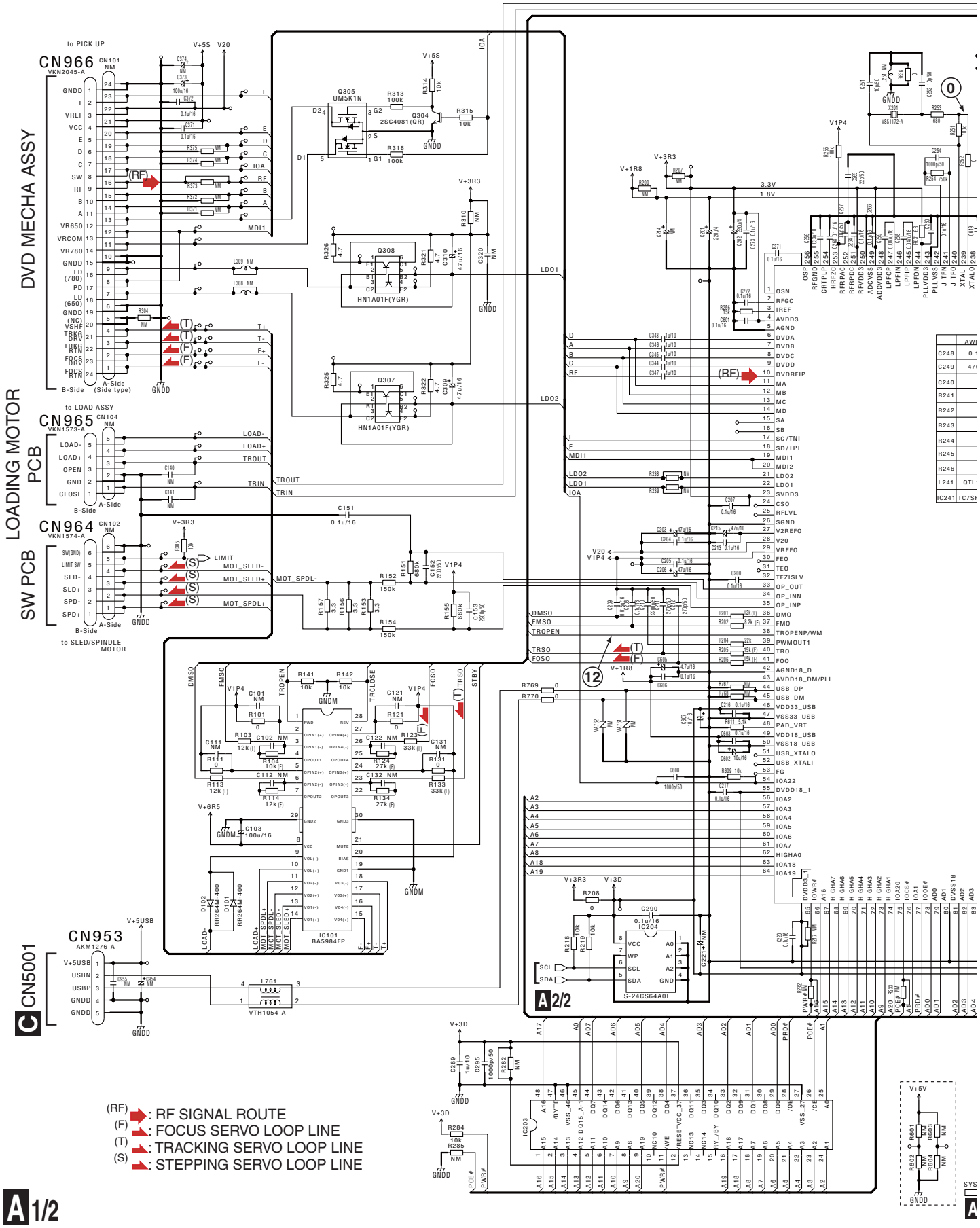


DVD MECHA ASSY PARTS LIST

Mark	No.	Description	Part No.
	1	LOADING MOTOR PCB Assy	A2ZX01A610
	2	Cord Jumper (5P)	12C1053601
	3	SW PCB Assy	A2ZX01A640
	4	Cord Jumper (6P)	12C1063201
	5	Switch (SW2)	0500101036
	6	Switch (SW1)	0515S32003
	7	Cord Jumper (24P)	122F003101
	8	FEED Motor	1515T98006
	9	Feed Rack Assy	92AAA0017A
	10	LOADER SUB Assy	92AAA0024A
	11	LOADING Motor	1515S98004
	12	Plate, Clamper	92P000023A
	13	Pulley, Motor	92P100097A
	14	Frame, Main	92P100119A
	15	Rack, Loading	92P100121A
	16	Clamper	92P100122A
	17	Gear, Pulley	92P100123A
	18	Gear, Main	92P100124A
	19	Tray	92P100151A
	20	Belt, Loading	92P200015A
	21	Gear, Motor	92P100088A
	22	Gear, Feed	92P100116A
	23	Gear, Middle	92P100117A
	24	Holder, Traverse	92P100125A
	25	Insulator (F)	92P200013A
	26	Insulator (R)	92P200016A
	27	•••••	
	28	•••••	
	29	Screw, Bind (2 x 8)	811022080U
	30	Screw, Tap tite (P)(2.6 x 8)	811022680U
	31	Screw, T-tite (B)(M1.7 x 5.0 P3)	813381750U
	32	Screw, Pan (M1.7 x 2.3 P3)	814011723U
	33	Screw, Tap tite (P)(2 x 8)	816112080U
	34	Screw, Pan (M1.7 x 3 P3)	814011730U
	35	Screw, Gear Feed	92P700007A

10. SCHEMATIC DIAGRAM

10.1 09 DVDM ASSY (1/2)



- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB 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.
- 0 : The power supply is shown with the marked box.

A 1/2 09 DVDM ASSY (AWM8134)

IC201

	AWM8134
C248	0.1u/16
C249	470p/16
C240	33
R241	33
R242	33
R243	10
R244	33
R245	33
R246	33
L241	QTL1013-A
IC241	TC7SH08FUS1

HDMI Block

JA931 AKP7224-A

HDMI OUTPUT

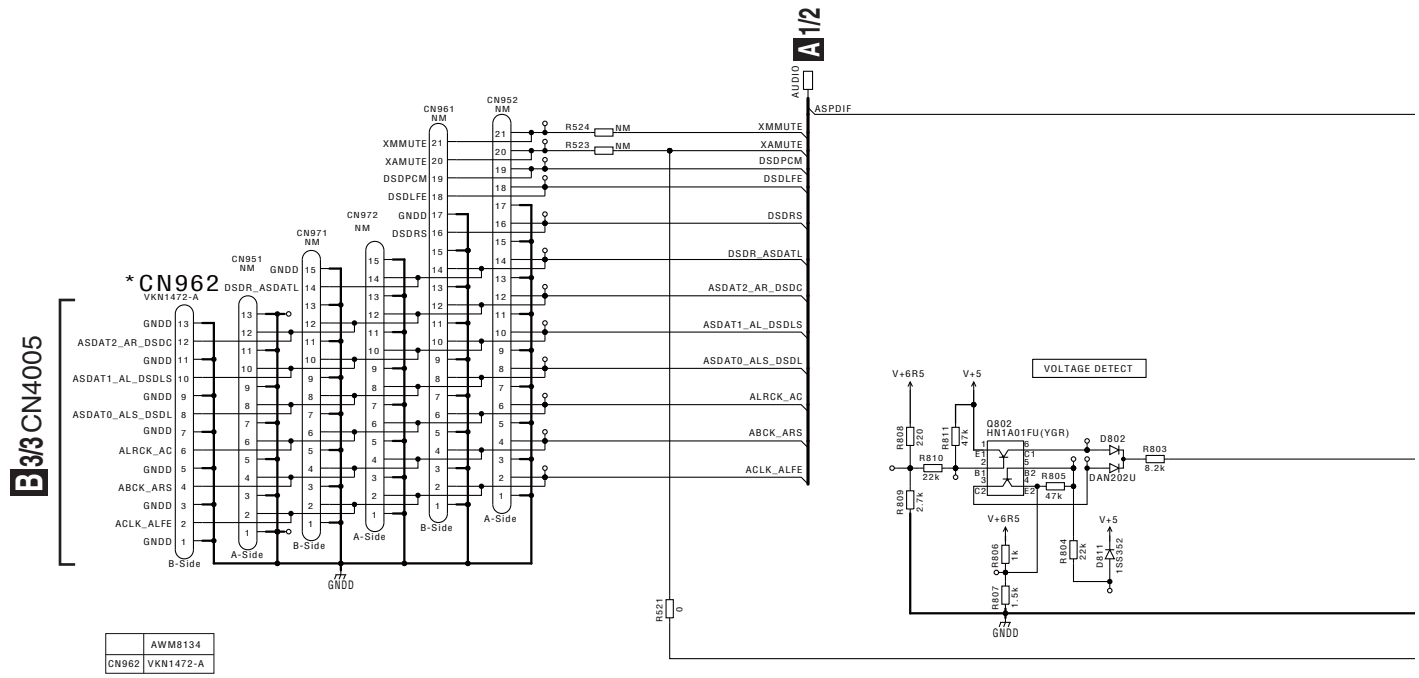
IC202 K4S641632N-LC75

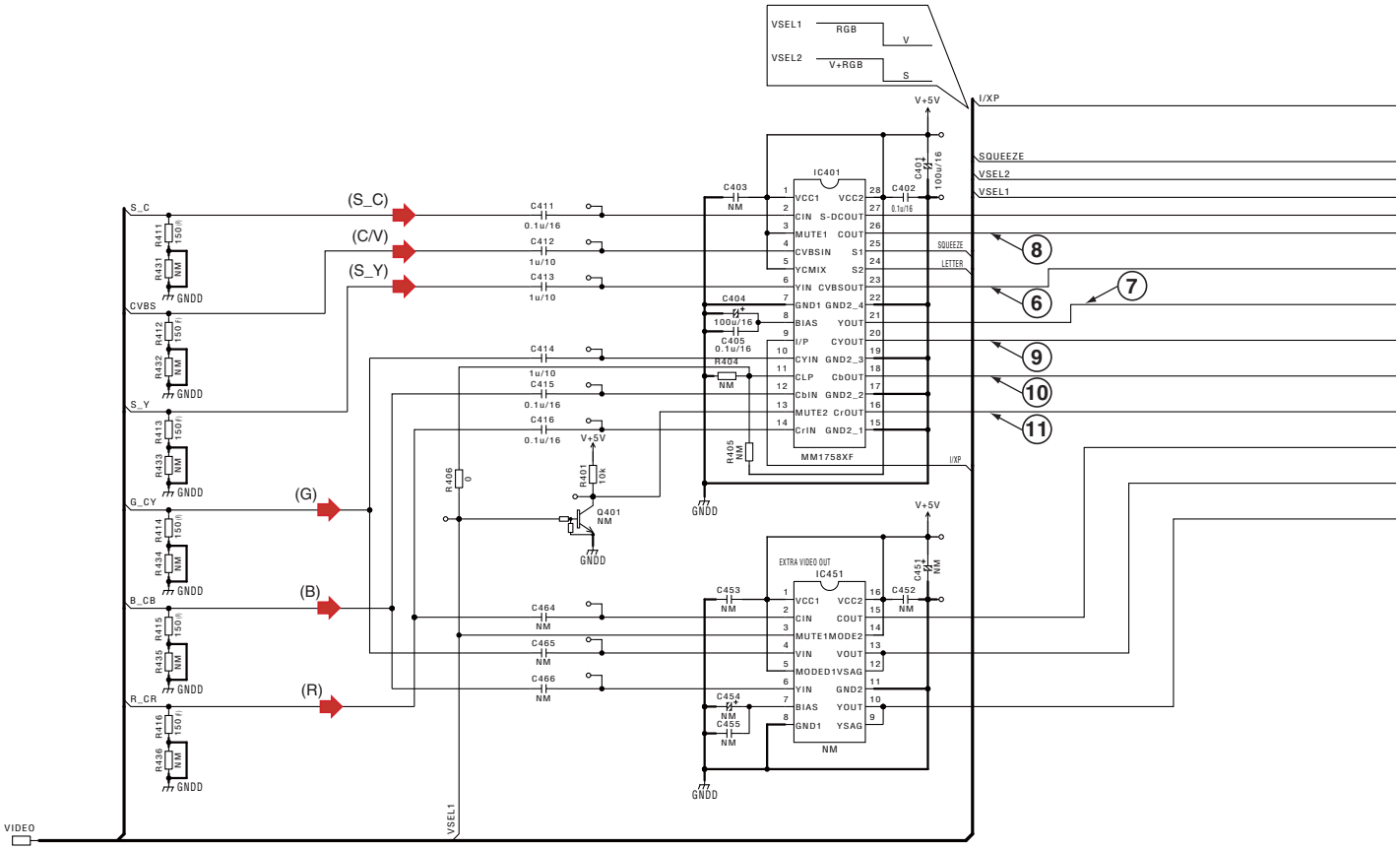
(AD) AUDIO VIDEO

(S_Y) (S_C) (C/V) (G/Y) (B/Cb) (R/Cr)

(C/V) : VIDEO SIGNAL ROUTE(C/V)
(S_Y) : VIDEO SIGNAL ROUTE (S_Y)
(S_C) : VIDEO SIGNAL ROUTE (S_C)
(R/Cr) : VIDEO SIGNAL ROUTE (R/Cr)
(G/Y) : VIDEO SIGNAL ROUTE (G/Y)
(B/Cb) : VIDEO SIGNAL ROUTE (B/Cb)
(AD) : AUDIO DATA SIGNAL ROUTE

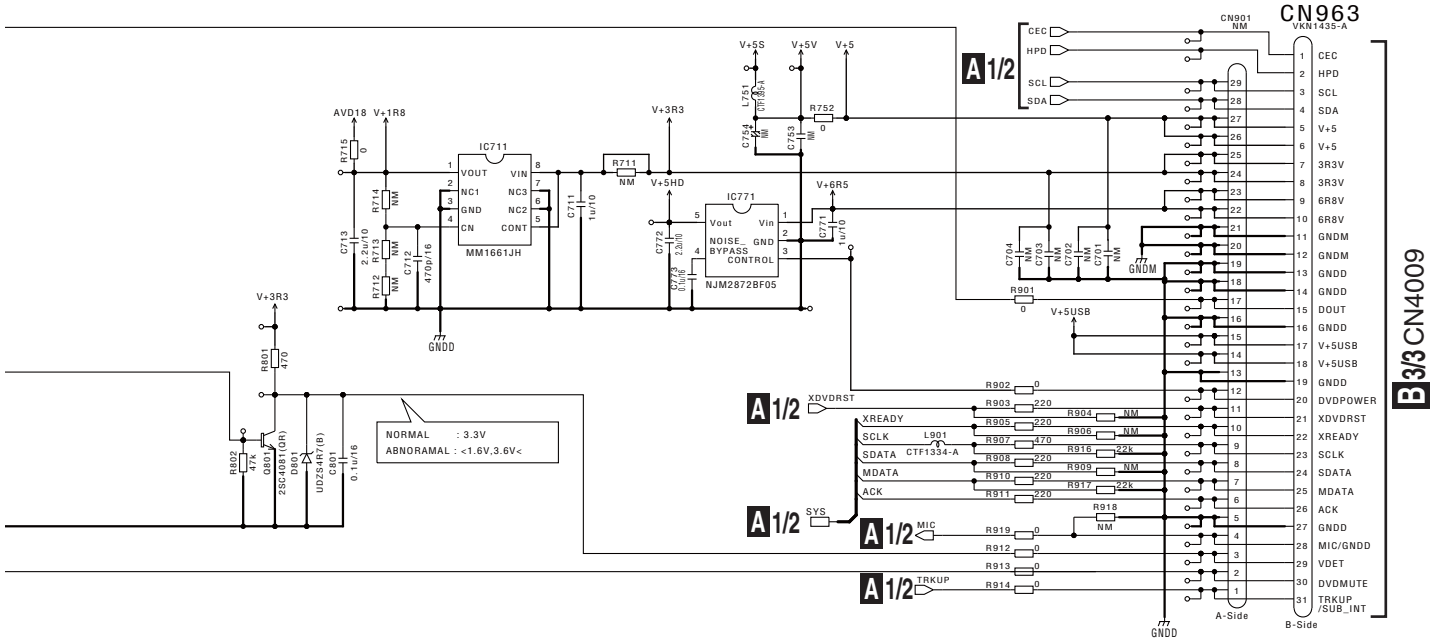
10.2 09 DVDM ASSY (2/2)

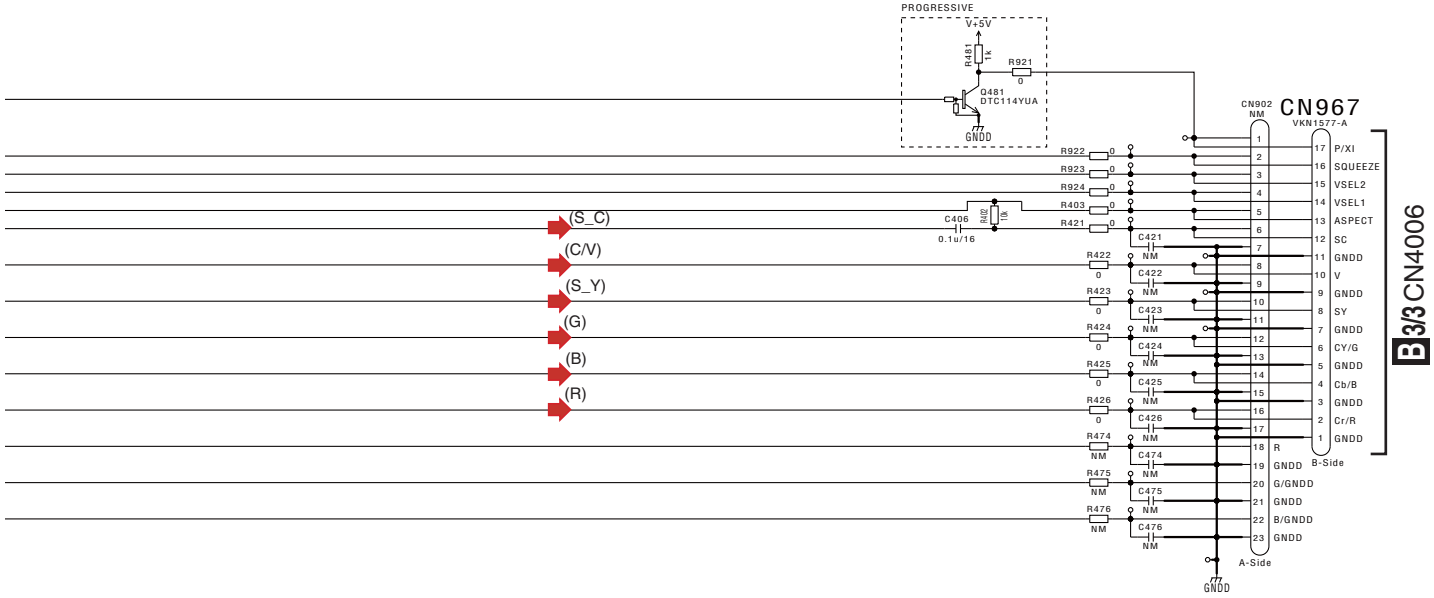




A 2/2

A2/2 09 DVDM ASSY (AWM8134)





(C/V) (S_Y) (S_C) (R) (G) (B) : VIDEO SIGNAL ROUTE(C/V)
: VIDEO SIGNAL ROUTE (S_Y)
: VIDEO SIGNAL ROUTE (S_C)
: VIDEO SIGNAL ROUTE (R)
: VIDEO SIGNAL ROUTE (G)
: VIDEO SIGNAL ROUTE (B)

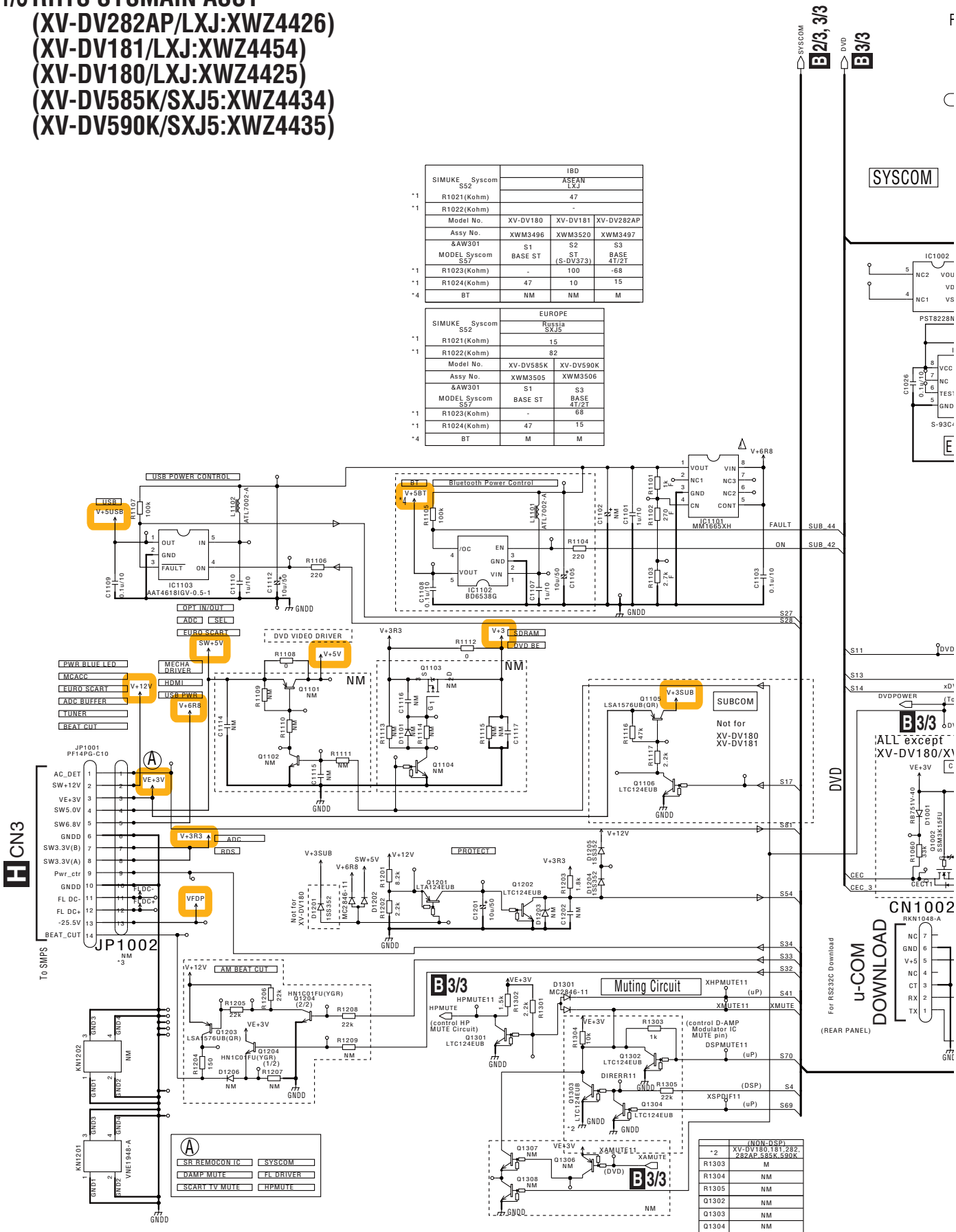
A2/2

10.3 RHTS SYSMAIN ASSY (1/3)

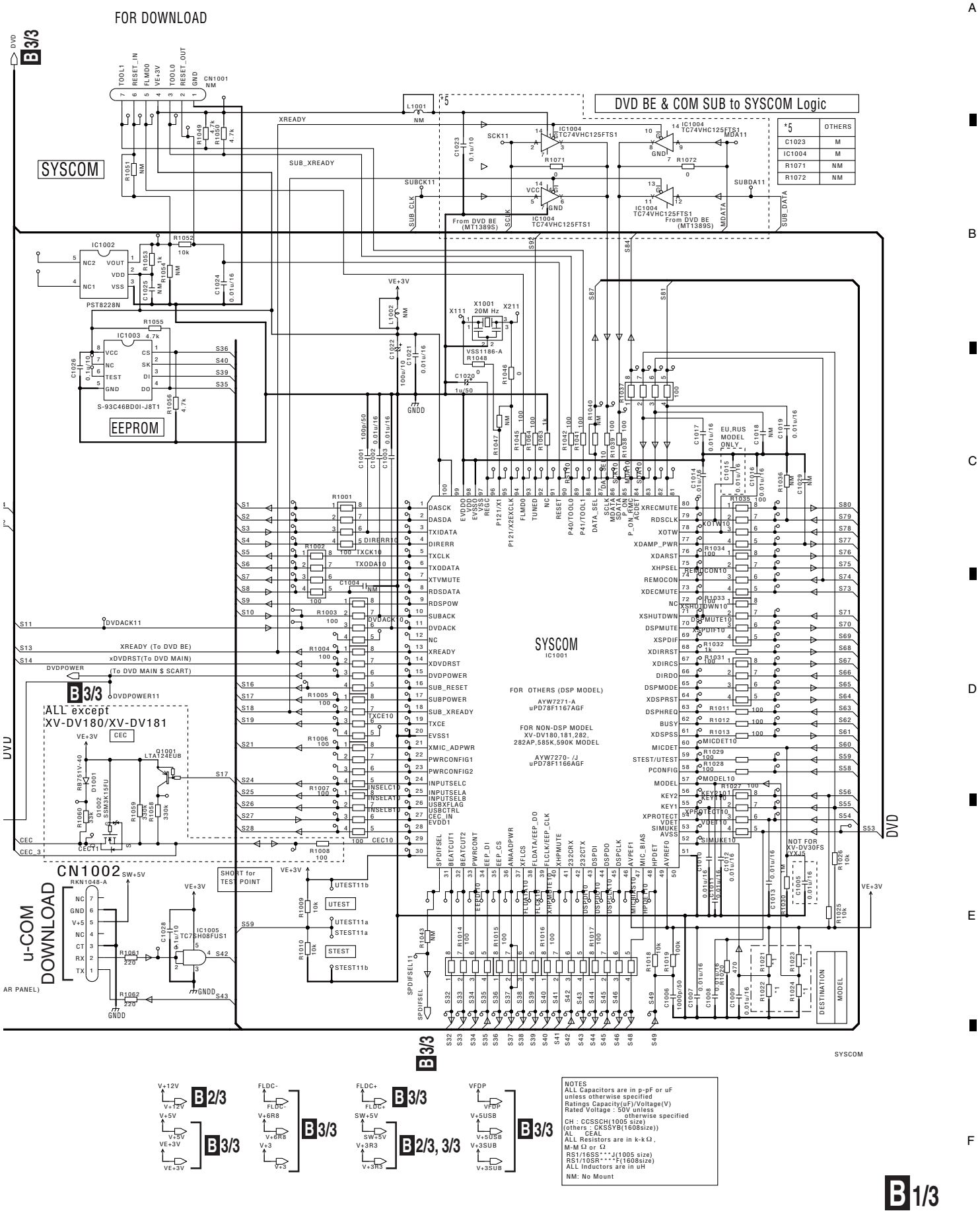
B 1/3 RHTS SYSMAIN ASSY
(XV-DV282AP/LXJ:XWZ4426)
(XV-DV181/LXJ:XWZ4454)
(XV-DV180/LXJ:XWZ4425)
(XV-DV585K/SXJ5:XWZ4434)
(XV-DV590K/SXJ5:XWZ4435)

SIMUKE Syscom S52	IBD ASEAN LXJ		
*1 R1021(Kohm)	47		
*1 R1022(Kohm)	-		
Model No.	XV-DV180	XV-DV181	XV-DV282AP
Assy No.	XWM3496	XWM3520	XWM3497
&AW301 MODEL Syscom S57	S1 BASE ST	S2 ST (S-DV373)	S3 BASE 4T/2T
*1 R1023(Kohm)	-	100	-68
*1 R1024(Kohm)	47	10	15
*4 BT	NM	NM	M

SIMUKE Syscom S52	EUROPE Russia SXJ5	
*1 R1021(Kohm)	15	
*1 R1022(Kohm)	82	
Model No.	XV-DV585K	XV-DV590K
Assy No.	XWM3505	XWM3506
&AW301 MODEL Syscom S57	S1 BASE ST	S3 BASE 4T/2T
*1 R1023(Kohm)	-	68
*1 R1024(Kohm)	47	15
*4 BT	M	M



	(NON-DSP)
*2	XV-DV180,181,282, 282AP,585K,590K
R1303	M
R1304	NM
R1305	NM
Q1302	NM
Q1303	NM
Q1304	NM

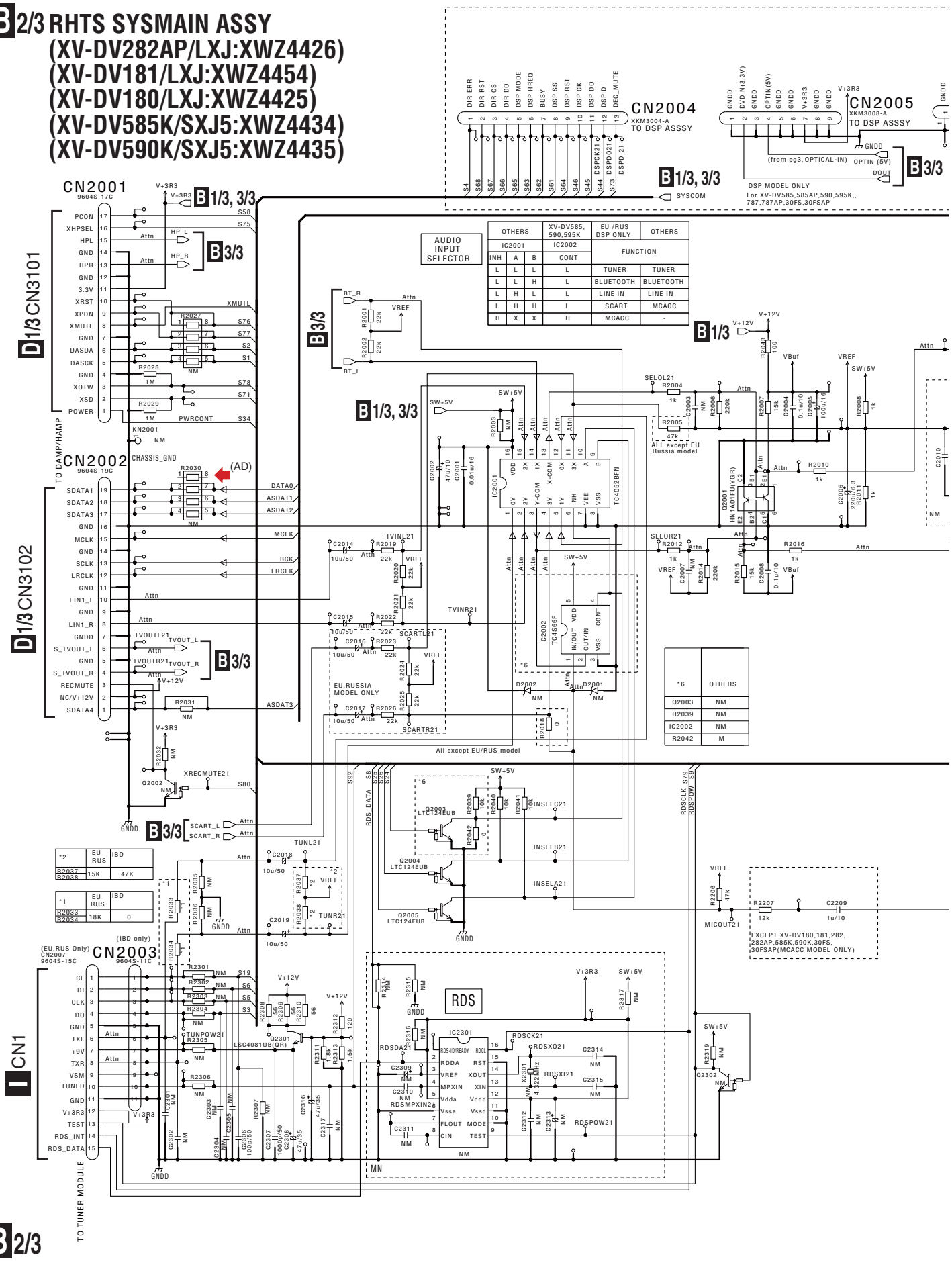


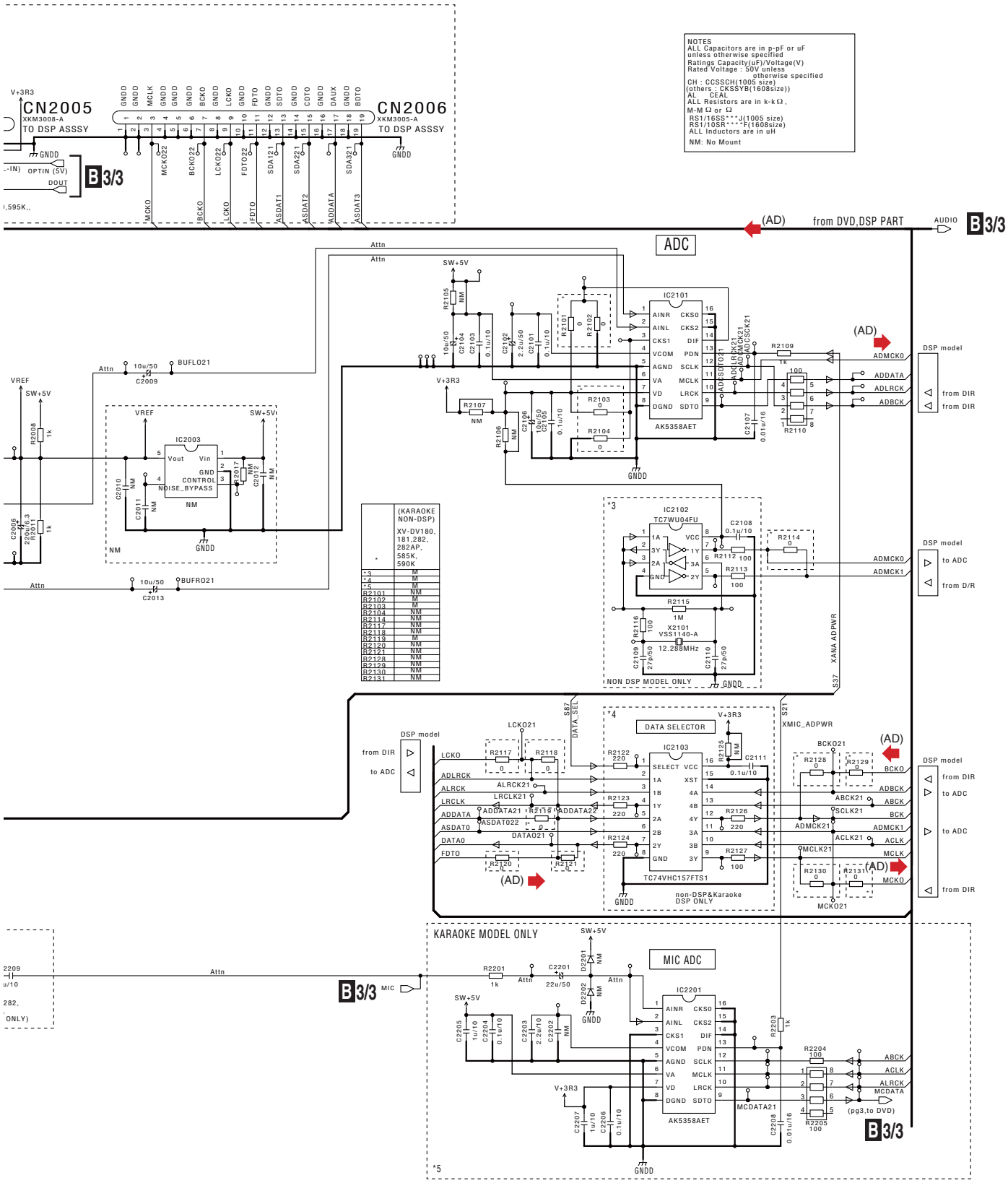
*5	OTHERS
C1023	M
IC1004	M
R1071	NM
R1072	NM

NOTES
ALL Capacitors are in p-pF or uF
unless otherwise specified
Ratings Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified
CH : CCSSCH(1005 size)
(others : CKSSYB(1608size))
AL : CEAL
ALL Resistors are in k-kΩ ,
M-MΩ or Ω
RS1/16S***J(1005 size)
RS1/10SR***F(1608size)
ALL Inductors are in uH
NM: No Mount

10.4 RHTS SYSMAIN ASSY (2/3)

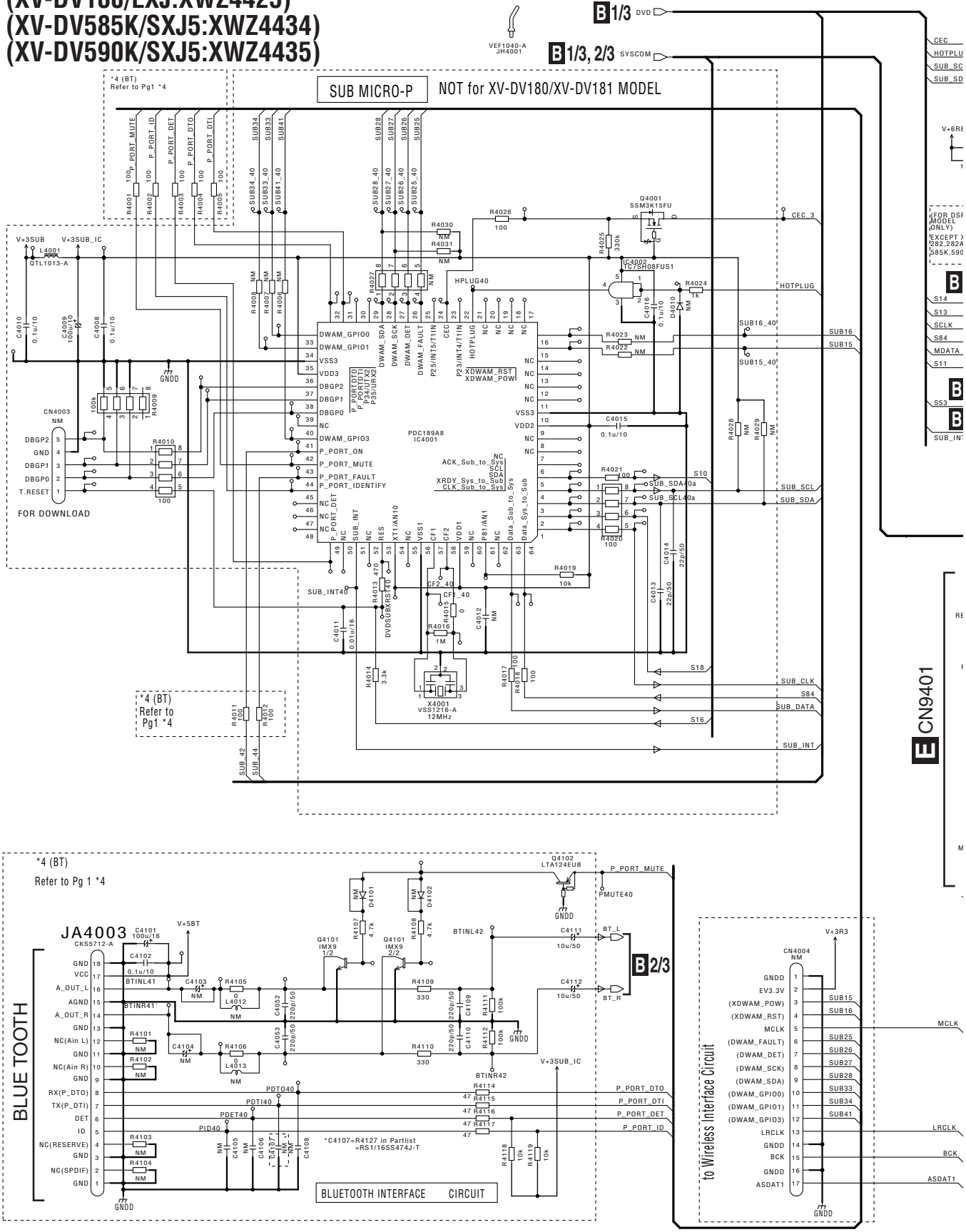
B 2/3 RHTS SYSMAIN ASSY
(XV-DV282AP/LXJ:XWZ4426)
(XV-DV181/LXJ:XWZ4454)
(XV-DV180/LXJ:XWZ4425)
(XV-DV585K/SXJ5:XWZ4434)
(XV-DV590K/SXJ5:XWZ4435)

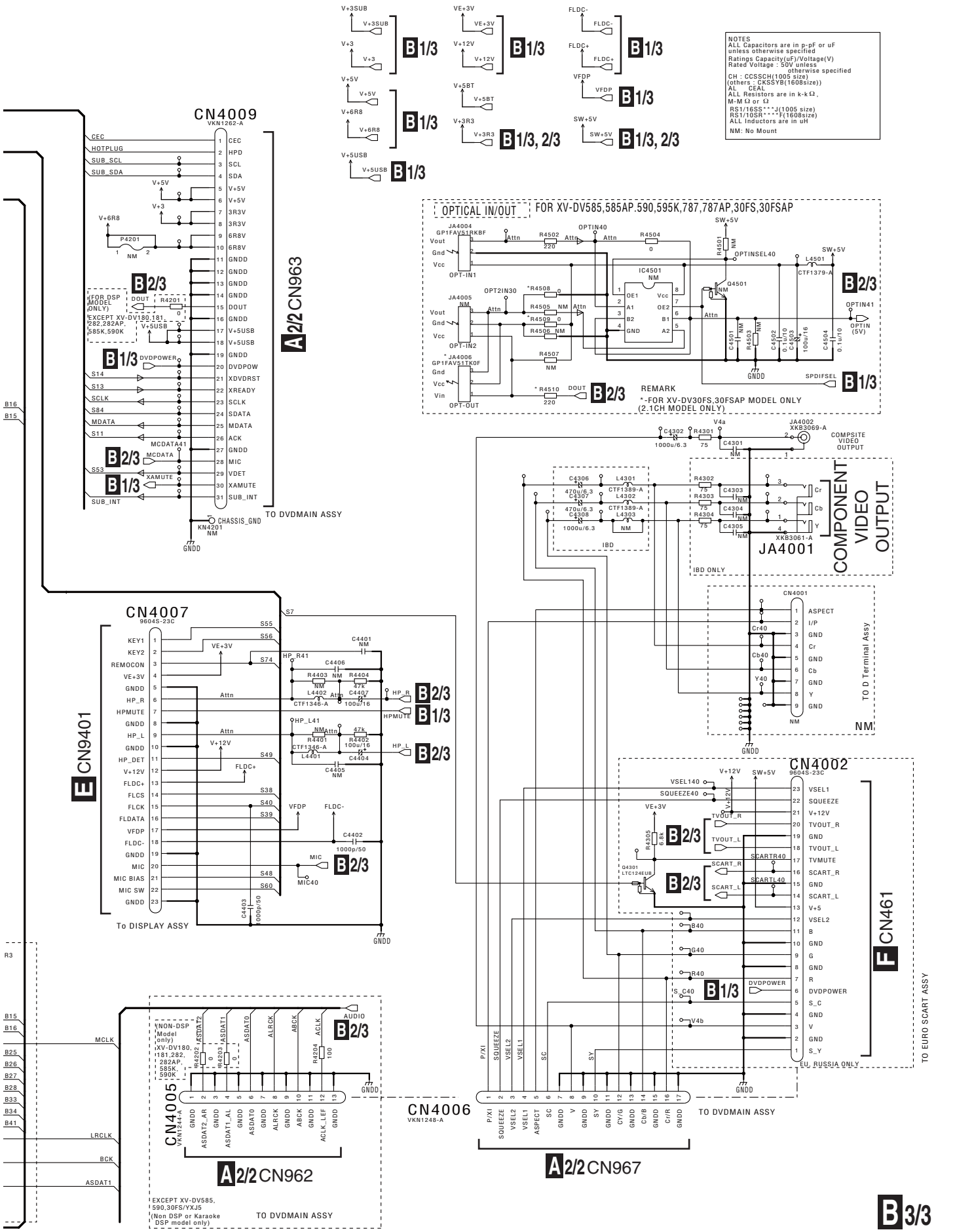



NOTES
ALL Capacitors are in p-pF or uF
unless otherwise specified
Ratings Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified
CH : CCSSCH(1005 size)
(others : CKSSYB(1608size))
AL : CEAL
ALL Resistors are in k-kΩ,
M-MΩ or Ω
RS1/16SS***J(1005 size)
RS1/10SR***F(1608size)
ALL Inductors are in uH
NM: No Mount
CN2005
XKM3008-A
TO DSP ASSSY
CN2006
XKM3005-A
TO DSP ASSSY
B3/3
(AD)
from DVD,DSP PART
AUDIO
ADC
IC2101
AK5358AET
IC2003
IC2102
TC7WU04FU
IC2103
TC74VHC157FTS1
X2101
VSS1140-A
12.288MHz
DATA SELECTOR
KARAOKE MODEL ONLY
MIC ADC
IC2201
AK5358AET
non-DSP&Karaoke
DSP ONLY
NON DSP MODEL ONLY
XANA ADPWR
XMIC_ADPWR
DSP model
from DIR
to ADC
from D/R
(KARAOKE
NON-DSP)
XV-DV180,
181,282,
282AP,
585K,
590K
(AD): AUDIO DATA SIGNAL ROUTE

10.5 RHTS SYSMAIN ASSY (3/3)

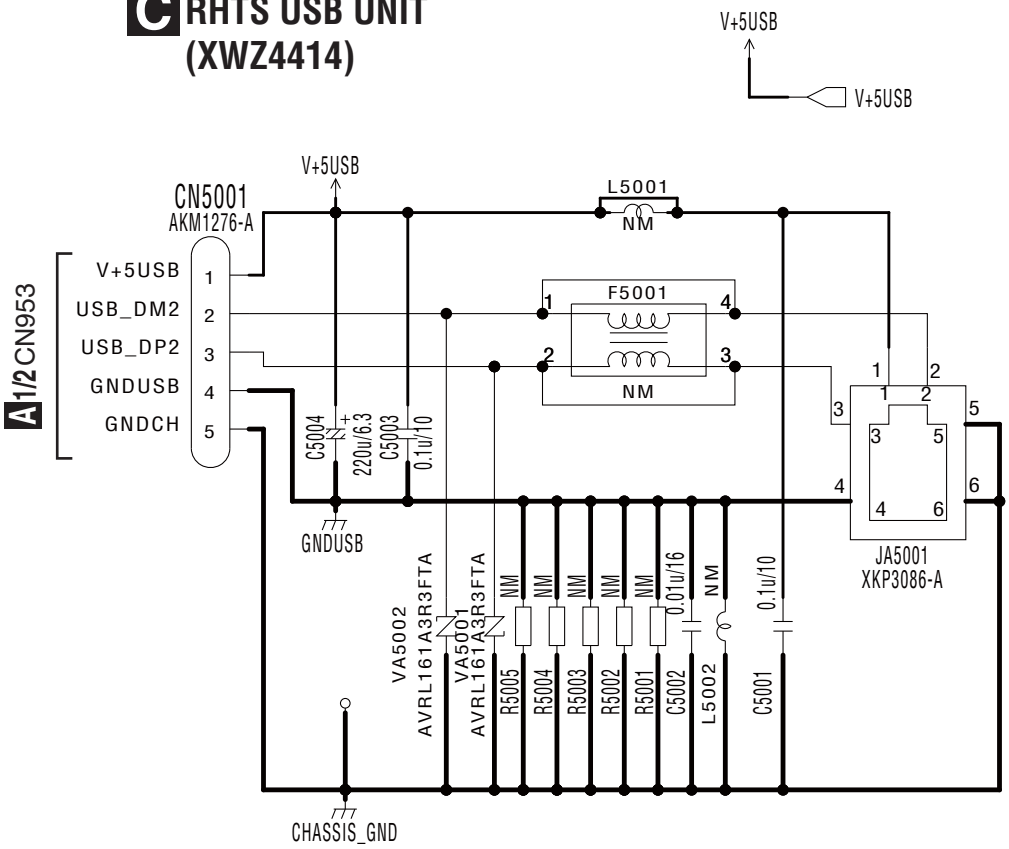
B 3/3 RHTS SYSMAIN ASSY
(XV-DV282AP/LXJ:XWZ4426)
(XV-DV181/LXJ:XWZ4454)
(XV-DV180/LXJ:XWZ4425)
(XV-DV585K/SXJ5:XWZ4434)
(XV-DV590K/SXJ5:XWZ4435)




NOTES
ALL Capacitors are in p-pF or uF unless otherwise specified
Ratings Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless otherwise specified
CH : CCSSCH(1005 size)
(others : CKSSYB(1608size))
AL CEAL
ALL Resistors are in k-k Ω, M-M Ω or Ω
RS1/16SS***J(1005 size)
RS1/10SR****F(1608size)
ALL Inductors are in uH
NM: No Mount
CN4009
VKN1262-A
CN4007
9604S-23C
CN4002
9604S-23C
CN4001
CN4005
VKN1244-A
CN4006
VKN1248-A
JA4001
JA4002
XKB3069-A
XKB3061-A
OPTICAL IN/OUT
FOR XV-DV585,585AP.590,595K,787,787AP,30FS,30FSAP
REMARK
*-FOR XV-DV30FS,30FSAP MODEL ONLY (2.1CH MODEL ONLY)
TO DVDMAIN ASSY
TO DISPLAY ASSY
TO D Terminal Assy
TO EURO SCART ASSY
EU, RUSSIA ONLY
COMPSITE VIDEO OUTPUT
COMPONENT VIDEO OUTPUT
IBD
IBD ONLY
NM
EXCEPT XV-DV585, 590,30FS/YXJ5 (Non DSP or Karaoke DSP model only)
(NON-DSP Model only) XV-DV180, 181,282, 282AP, 585K, 590K
(FOR DSP MODEL ONLY) EXCEPT XV-DV180,181, 282,282AP, 585K,590K
A 2/2 CN963
A 2/2 CN962
A 2/2 CN967
E CN9401
F CN461
B 1/3
B 2/3
B 1/3, 2/3
B 3/3

10.6 RHTS USB ASSY

C RHTS USB UNIT (XWZ4414)



NOTES
ALL Capacitors are in p-pF or uF
unless otherwise specified
Ratings Capacity(uF)/Voltage(V)
Rated Voltage : 50V unless
otherwise specified
CH : CCSSCH(1005 size)
(others : CKSSYB(1608size))
AL CEAL
ALL Resistors are in k-kΩ,
M-MΩ or Ω
RS1/16SS***J(1005 size)
RS1/10SR****F(1608size)
ALL Inductors are in uH
NM: No Mount

A

B

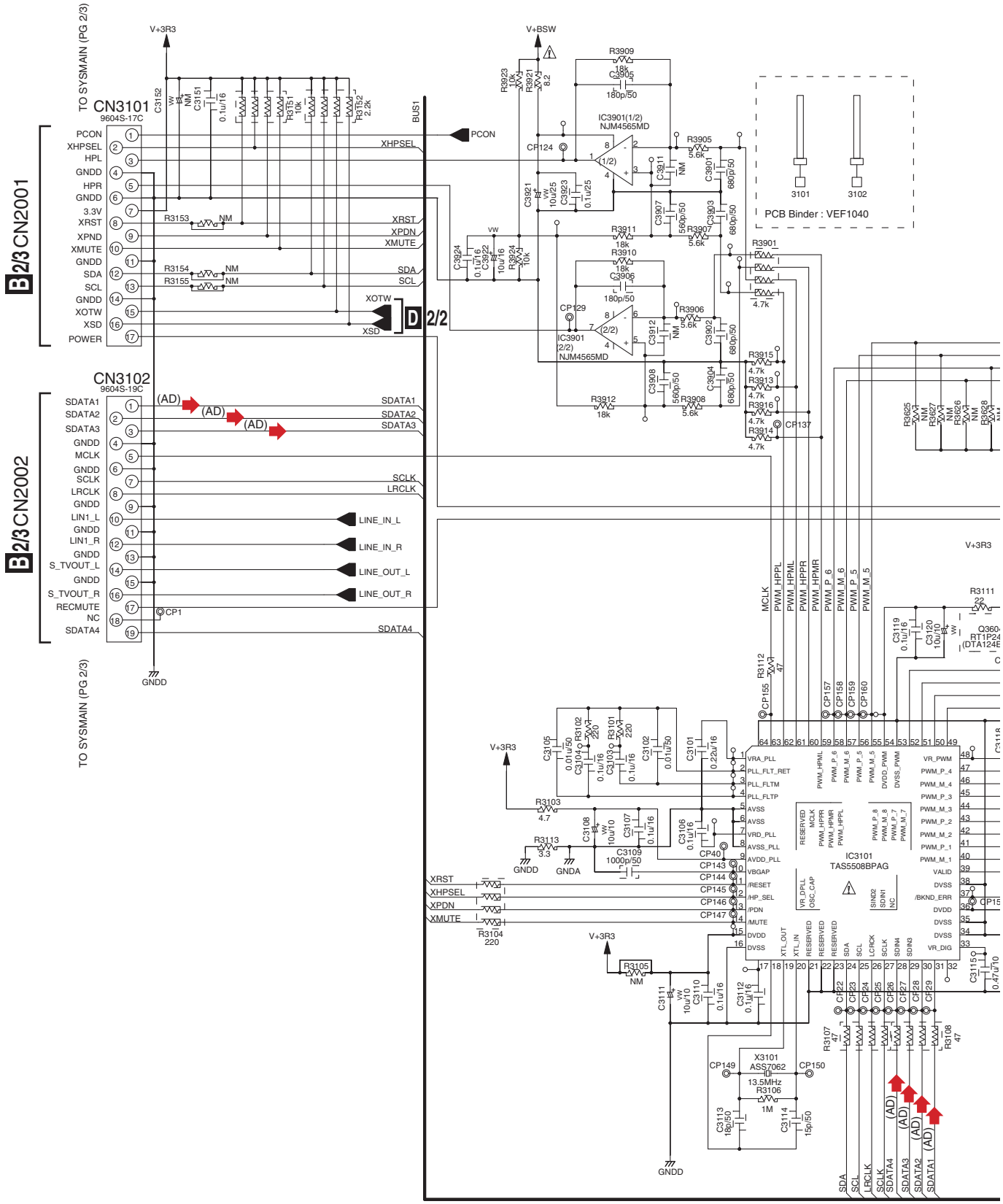
C

D

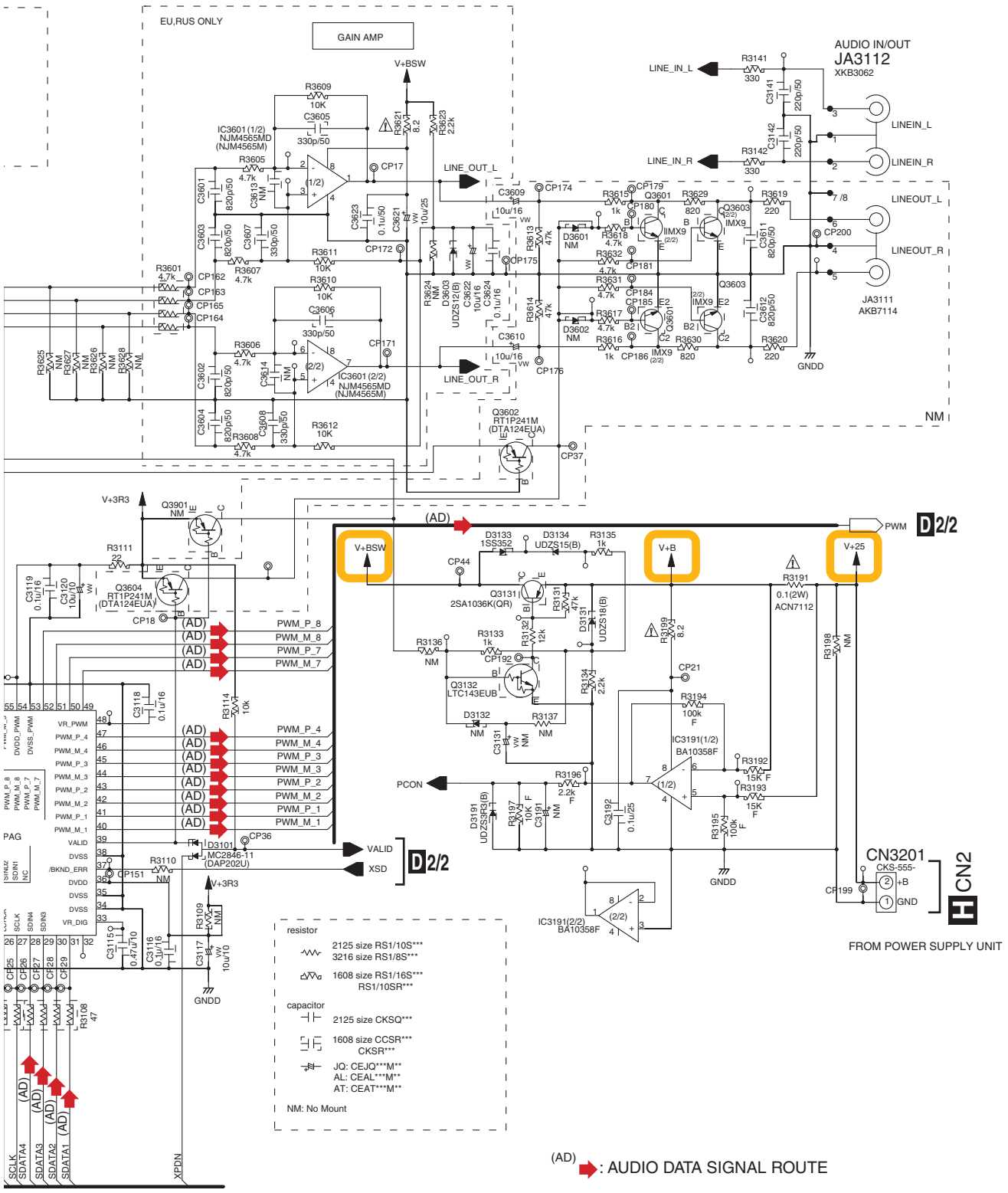
E

F

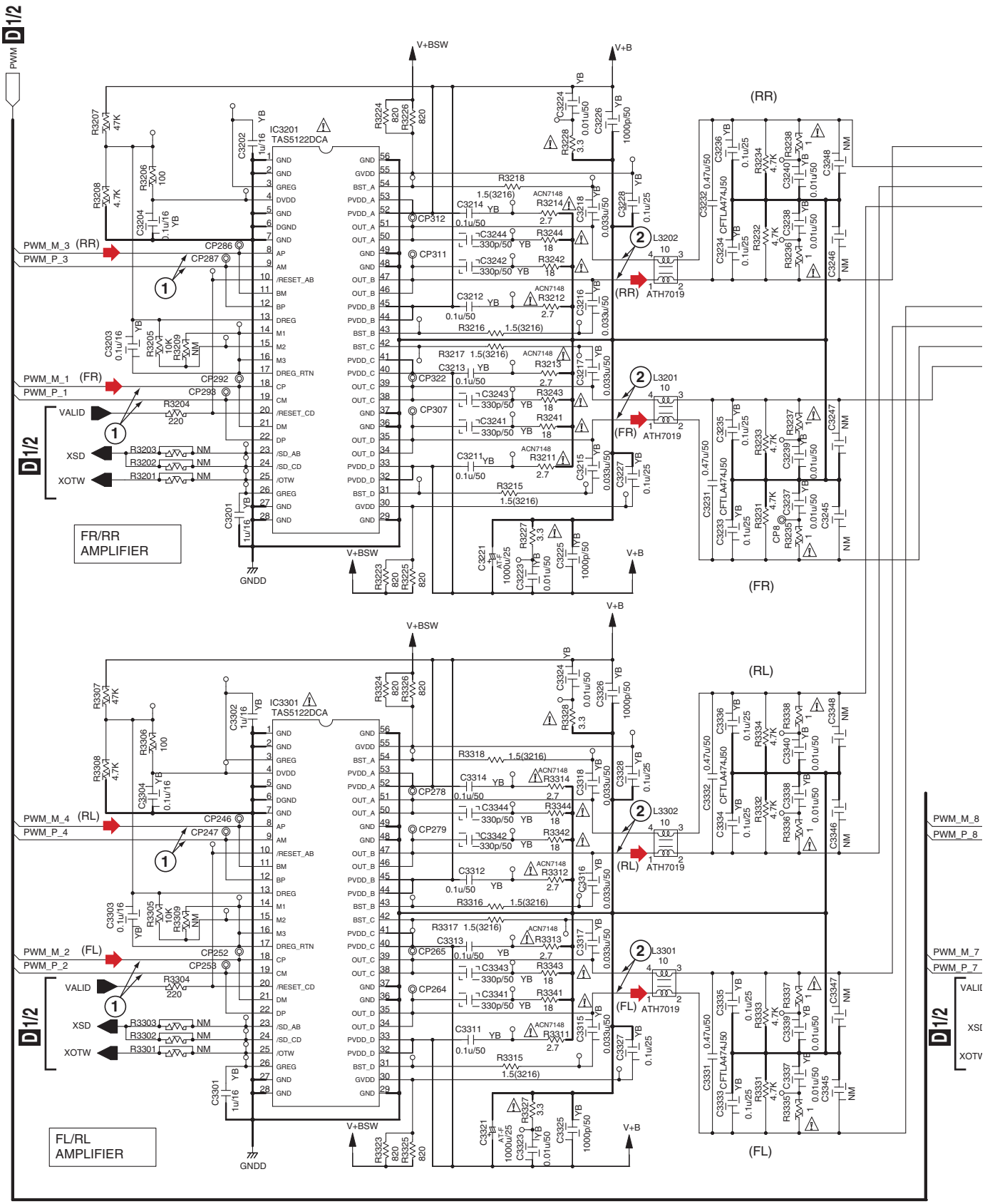
10.7 RHTS D-AMP ASSY (1/2)



D 1/2 RHTS D-AMP ASSY (/LXJ:XWM3490) (/SXJ5:XWM3489)



10.8 RHTS D-AMP ASSY (2/2)



LAYOUT NOTE :
L325X L335X L345X are PCB track inductors approx.
50mm long and 1mm wide

(RL) : AUDIO DATA SIGNAL ROUTE (Rear Lch)
(RR) : AUDIO DATA SIGNAL ROUTE (Rear Rch)
(FL) : AUDIO DATA SIGNAL ROUTE (Front Lch)
(FR) : AUDIO DATA SIGNAL ROUTE (Front Rch)
(SW) : AUDIO DATA SIGNAL ROUTE (Sub woofer ch)
(C) : AUDIO DATA SIGNAL ROUTE (Center ch)

D 2/2 RHTS D-AMP ASSY (/LXJ:XWM3490) (/SXJ5:XWM3489)

CN3211
1 RR+
2 RR-
3 RL+
4 RL-
5 SW+
6 SW-
7 C+
8 C-
9 FL+
10 FL-
11 FR+
12 FR-
13 GND
14 GND
AKE7121-
TO SPEAKER
TO SP

RR+ RR- RL+ RL- FL+ FL- FR+ FR-

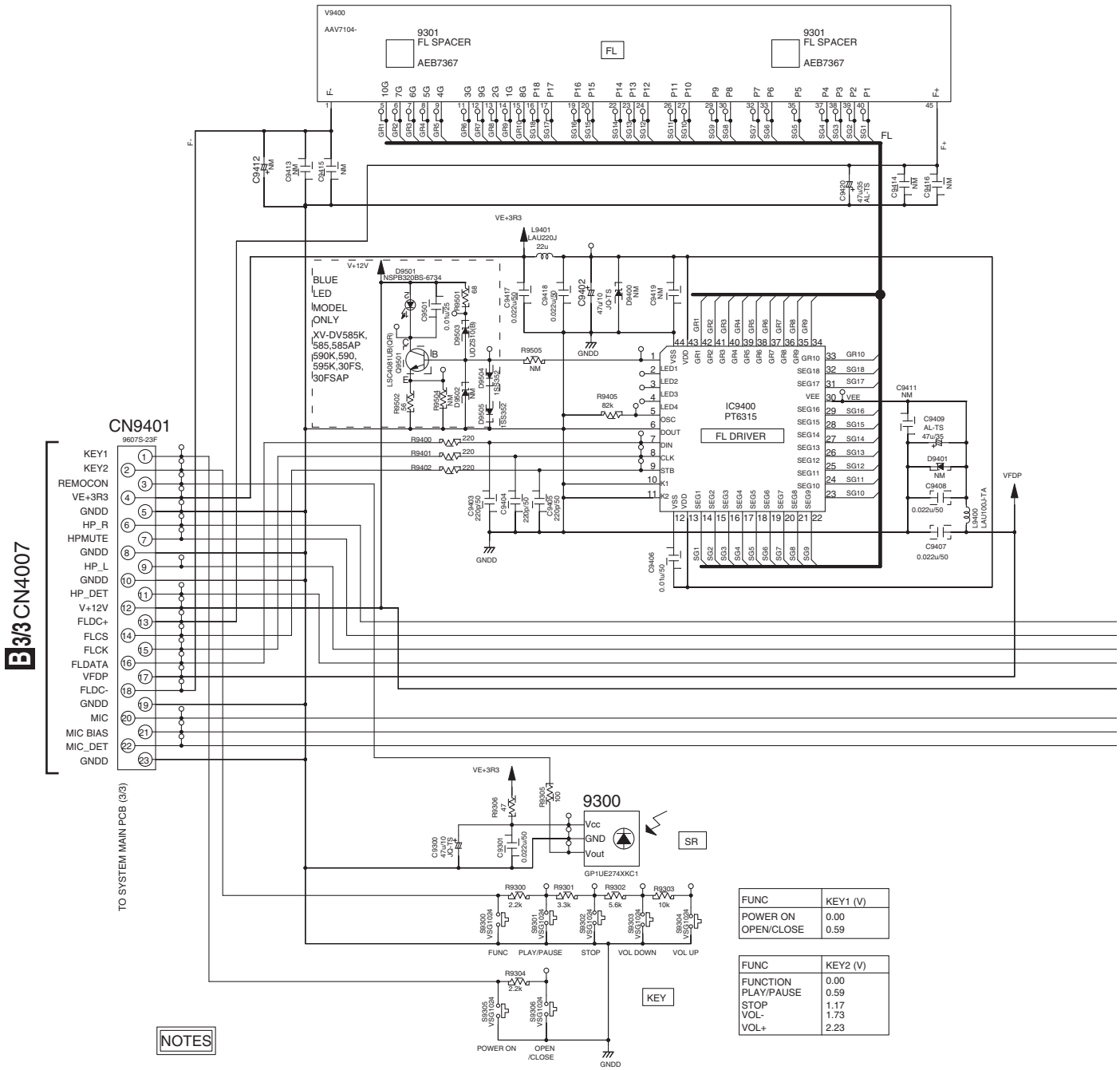
resistor
2125 size RS1/10S***
3216 size RS1/8S***
1608 size RS1/16S***
RS1/10SR***
capacitor
2125 size CKSQ***
1608 size CCSR***
CKSR***
JQ: CEJQ***M**
AL: CEAL***M**
AT: CEAT***M**
NM: No Mount

IC3401 TAS5122DCA
V+BSW
V+B
GNDD
PWM_M_8 (SW)
PWM_P_8
PWM_M_7 (C)
PWM_P_7
VALID
XSD
XOTW
D1/2
C/SW AMPLIFIER
L3402 ATH7019
L3401 ATH7019

NOTICE
R3211 to R3214,R3311 to R3314,R3411 to R3414 : ACN7148-(2.7Ω)(SUB:ACN7141-(2.7Ω)) (2W)

D 2/2

10.9 RHTS DISPLAY ASSY



FUNC	KEY1 (V)
POWER ON	0.00
OPEN/CLOSE	0.59

FUNC	KEY2 (V)
FUNCTION	0.00
PLAY/PAUSE	0.59
STOP	1.17
VOL-	1.73
VOL+	2.23

NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED

CKSRYB***K**
CCSRCH***J**

JQ : CEJQ***M**
AL : CEAL***M**
AT : CEAT***M**

ALL RESISTORS ARE IN Ω

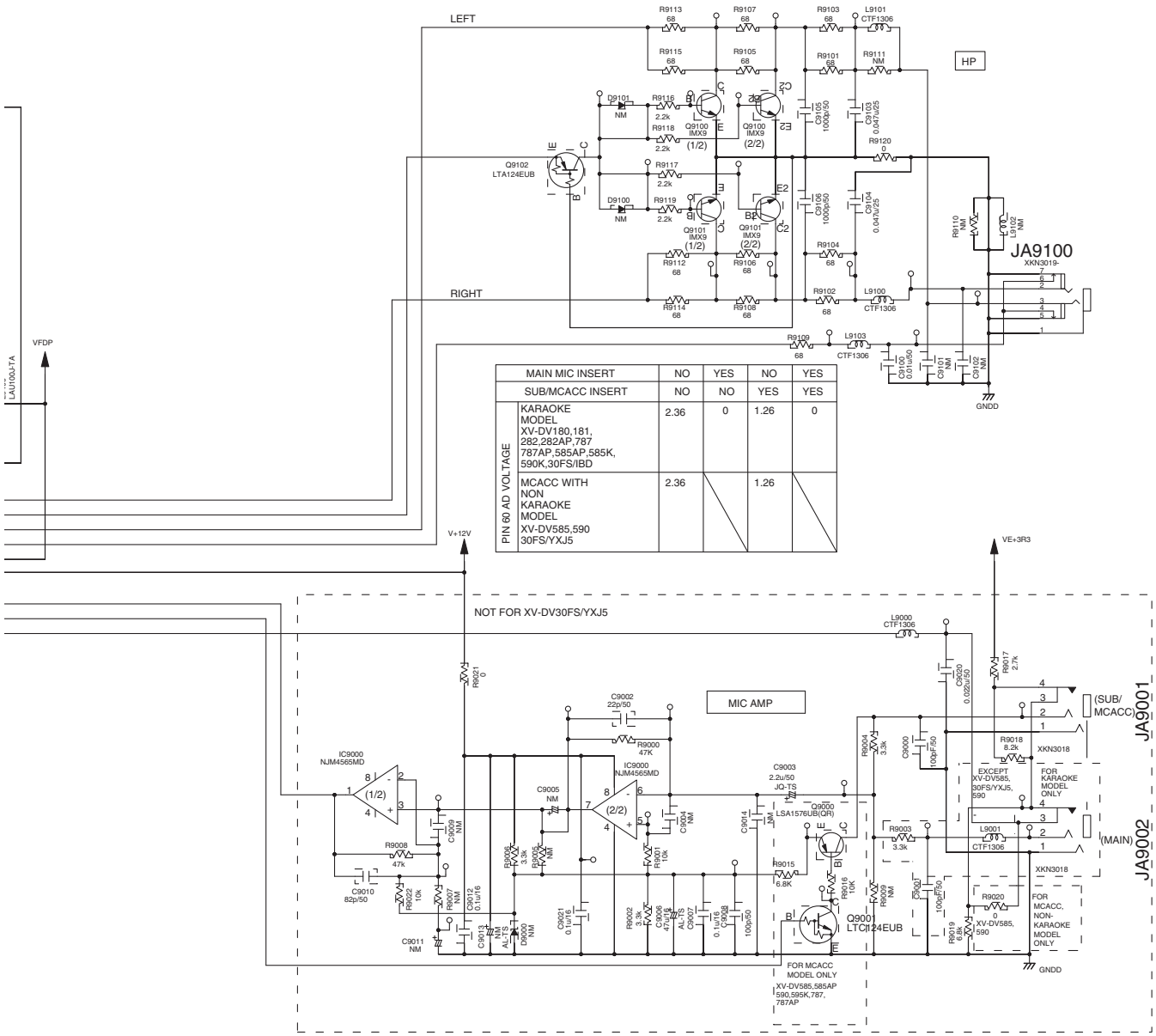
RS1/10SR***J

ALL INDUCTORS ARE IN μH

LAU***J-TA

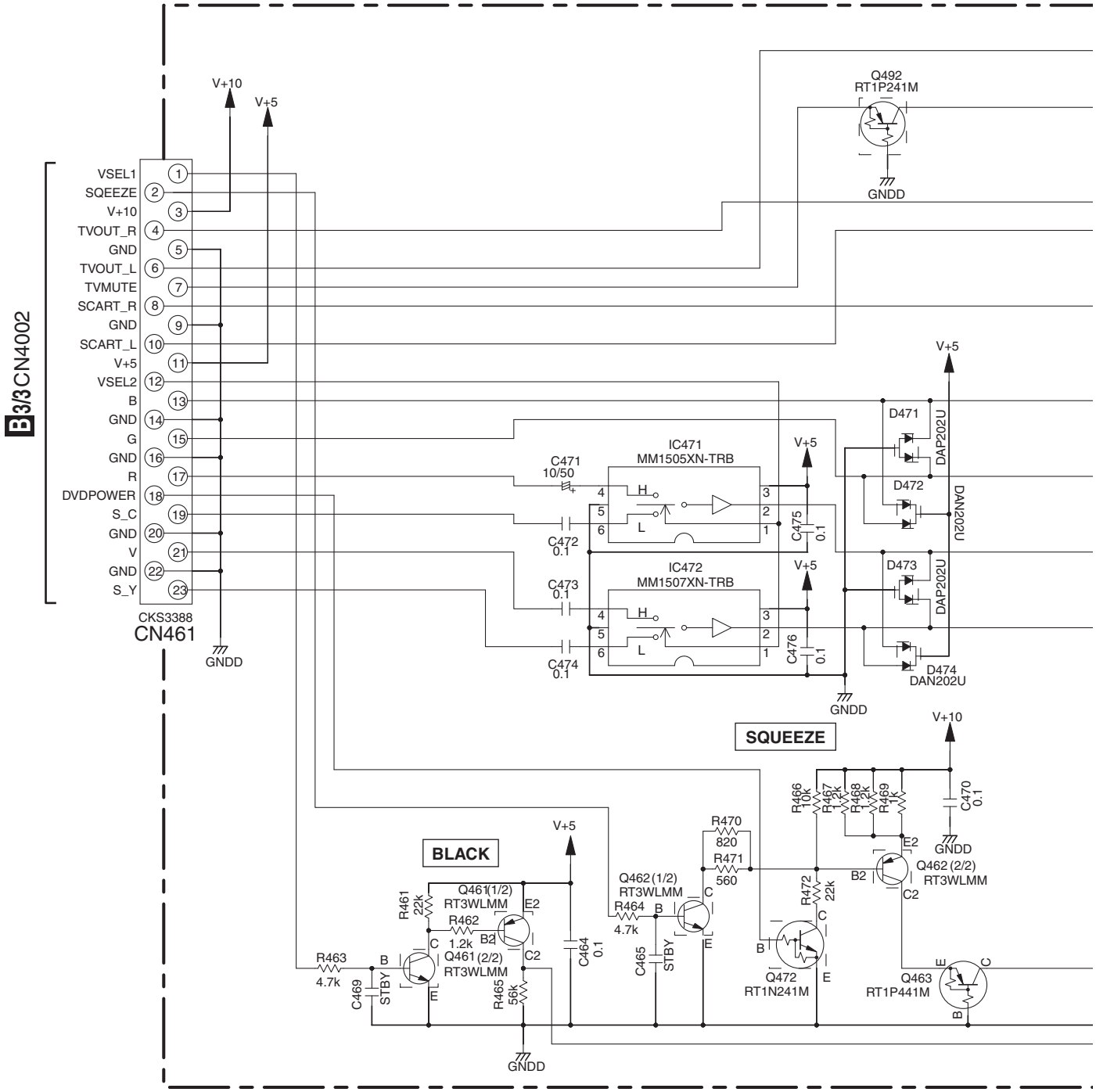
NM: No Mount

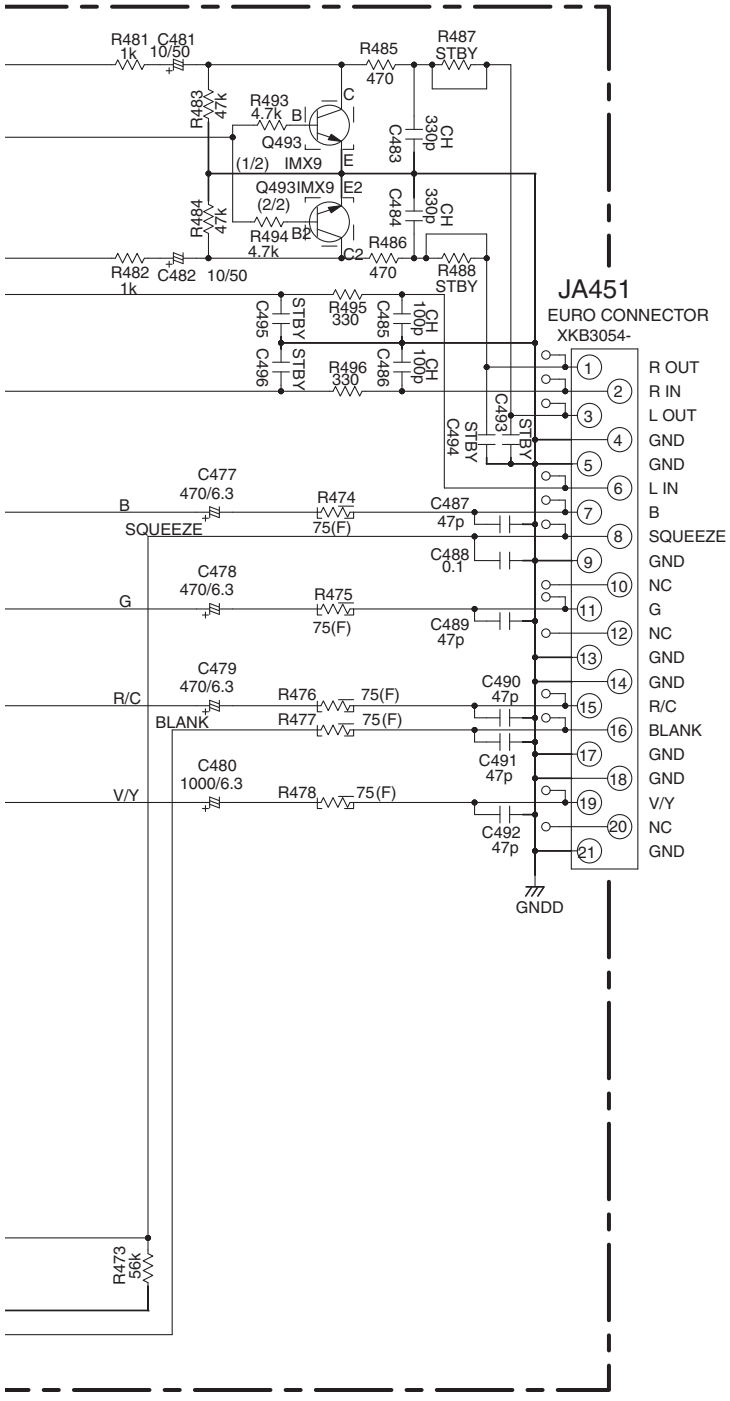
E RHTS DISPLAY ASSY (/LXJ:XWM3485) (/SXJ5:XWM3486)



MAIN MIC INSERT	NO	YES	NO	YES
SUB/MCACC INSERT	NO	NO	YES	YES
PIN 60 AD VOLTAGE — KARAOKE MODEL XV-DV180,181, 282,282AP,787 787AP,585AP,585K, 590K,30FS/IBD	2.36	0	1.26	0
PIN 60 AD VOLTAGE — MCACC WITH NON KARAOKE MODEL XV-DV585,590 30FS/YXJ5	2.36		1.26	

F EUROSCART ASSY (/SXJ5:AWU8291)





NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED

CKSRYB**K50

JQ : CEJQ**M**

AL : CEAL**M**

AT : CEAT**M**

ALL RESISTORS ARE IN Ω

RS1/16S***J

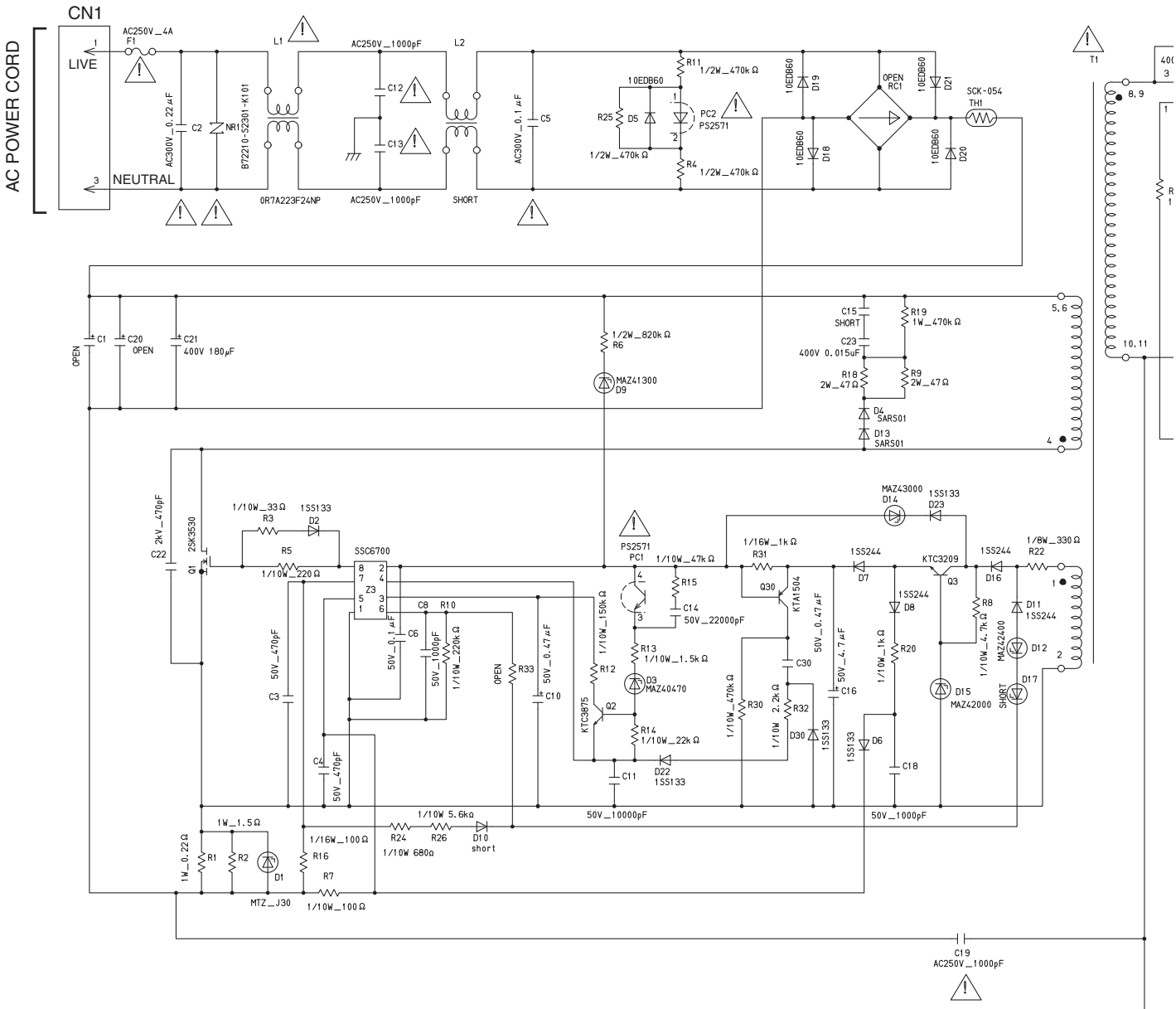
RS1/10S***J

ALL INDUCTORS ARE IN μH

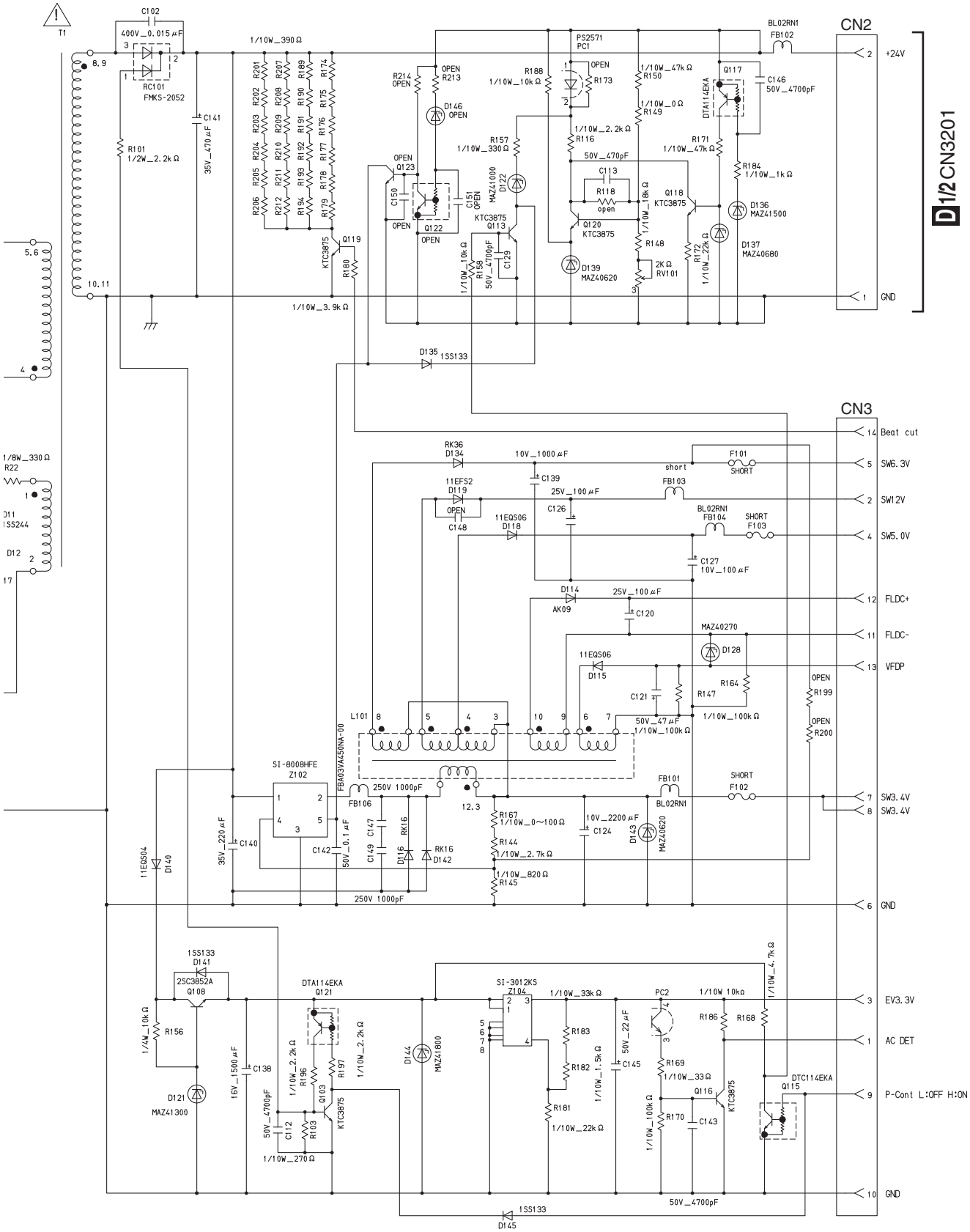
LCYA***J2520

NM: No Mount

10.11 POWER SUPPLY UNIT



H POWER SUPPLY UNIT (XWR3020)

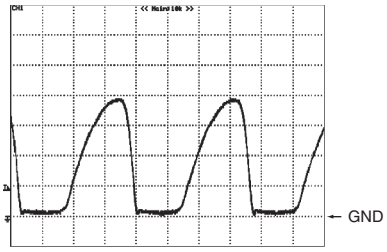


10.12 WAVEFORMS

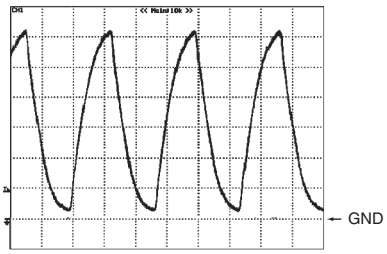
Note : The encircled numbers denote measuring point in the schematic diagram.

A 09 DVDM ASSY

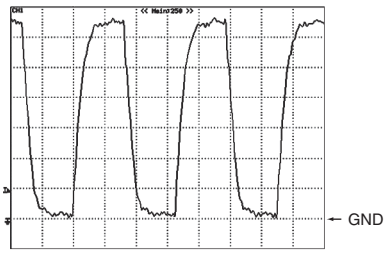
⓪ X201 [XTALO]
V: 0.5 V/div. H: 10 ns/div.
It must be mesured by High-impedance probe.



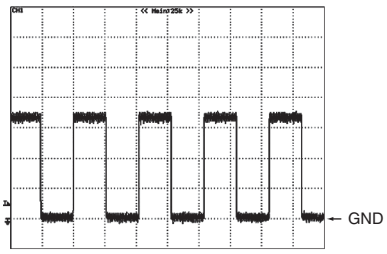
① IC201 - pin 231 [ACLK]
V: 0.5 V/div. H: 10 ns/div.
It must be mesured by High-impedance probe.



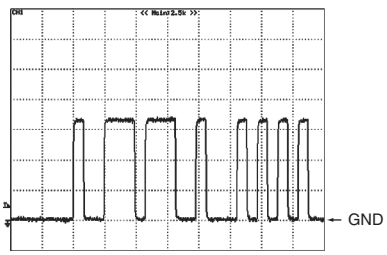
② IC201 - pin 230 [ABCK]
V: 0.5 V/div. H: 50 ns/div.
It must be mesured by High-impedance probe.



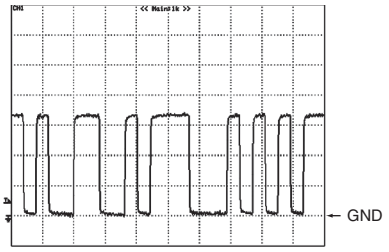
③ IC201 - pin 227 [ALRCK]
V: 1 V/div. H: 5 µs/div.
It must be mesured by High-impedance probe.



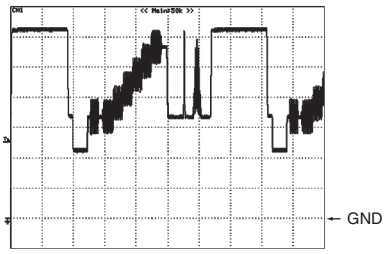
④ IC201 - pin 226, 225, 223 [ASDATA0/1/2]
V: 1 V/div. H: 500 ns/div.
It must be mesured by High-impedance probe.



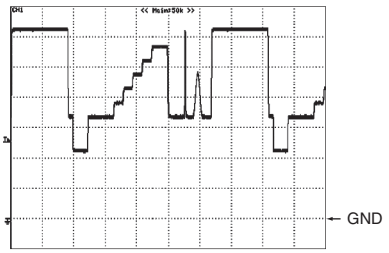
⑤ IC201 - pin 215 [ASPDIF]
V: 1 V/div. H: 200 ns/div.
It must be mesured by High-impedance probe.



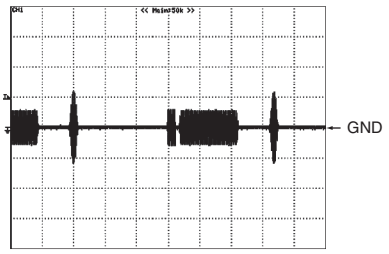
⑥ IC401 - pin 23 [CVBSOUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



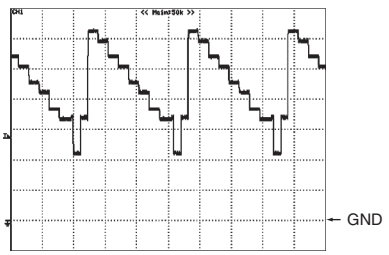
⑦ IC401 - pin 21 [YOUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



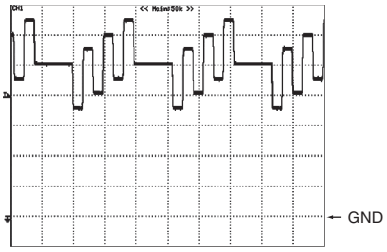
⑧ IC401 - pin 26 [COUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.1



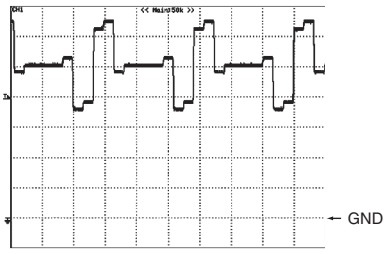
⑨ IC401 - pin 20 [CYOUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



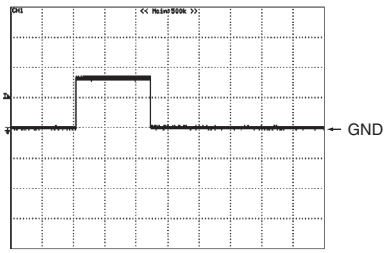
⑩ IC401 - pin 18 [CbOUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



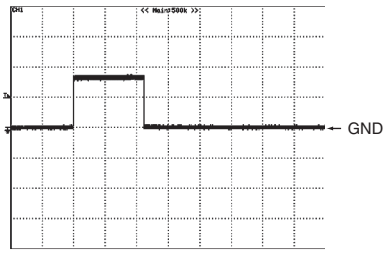
⑪ IC401 - pin 16 [CrOUT]
V: 0.5 V/div. H: 10 µs/div.
Playing DVD-REF-A1 Tr.2 Cp.19, Progressive output



⑫ IC201 - pin 38 [TROPEN]
V: 2 V/div. H: 500 ms/div.
Tray closing

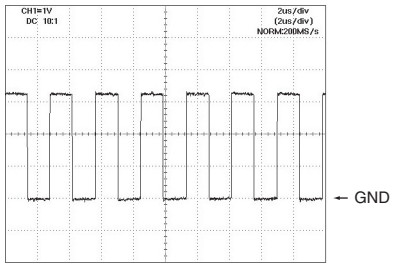


⑬ IC201 - pin 202 [TRCLOSE]
V: 2 V/div. H: 500 ms/div.
Tray opening

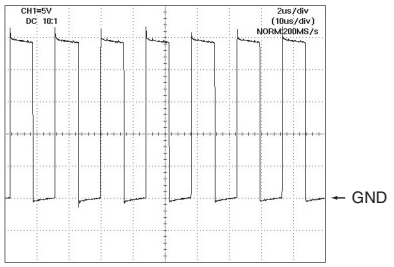


D RHTS D-AMP ASSY

① IC3201, IC3301, IC3401 [PWM_M, PWM_P]
V: 1 V/div. H: 2 μsec/div.



② IC3201, IC3301, IC3401 [OUT_A, B, C, D]
V: 5 V/div. H: 2 μsec/div.



11. PCB CONNECTION DIAGRAM
11.1 09 DVDM and RHTS USB ASSYS

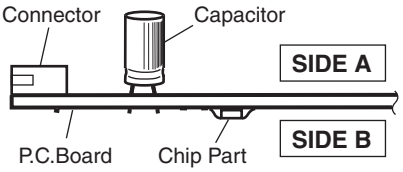
SIDE A

SIDE A

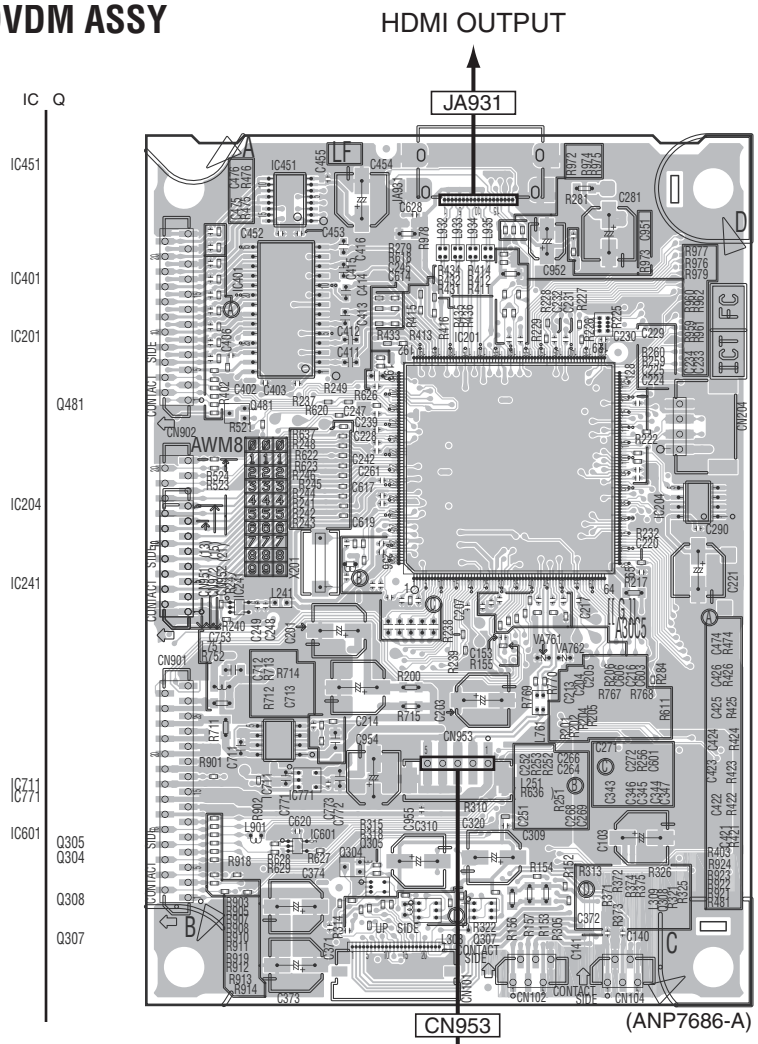
NOTE FOR PCB DIAGRAMS :

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

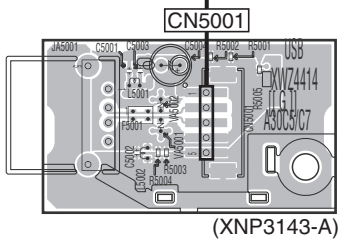
2. View point of PCB diagrams.



A 09 DVDM ASSY



C RHTS USB ASSY



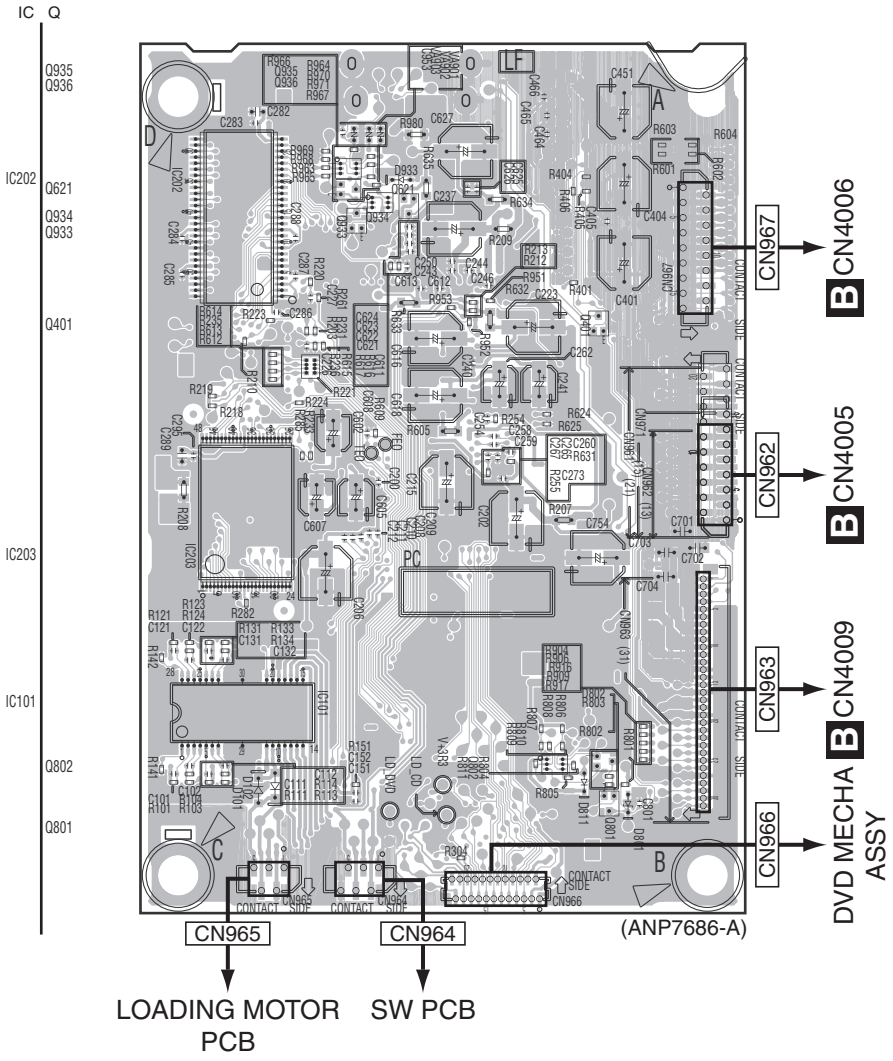
A C

A C

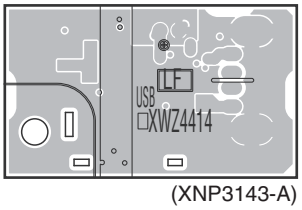
SIDE B

SIDE B

A 09 DVDM ASSY



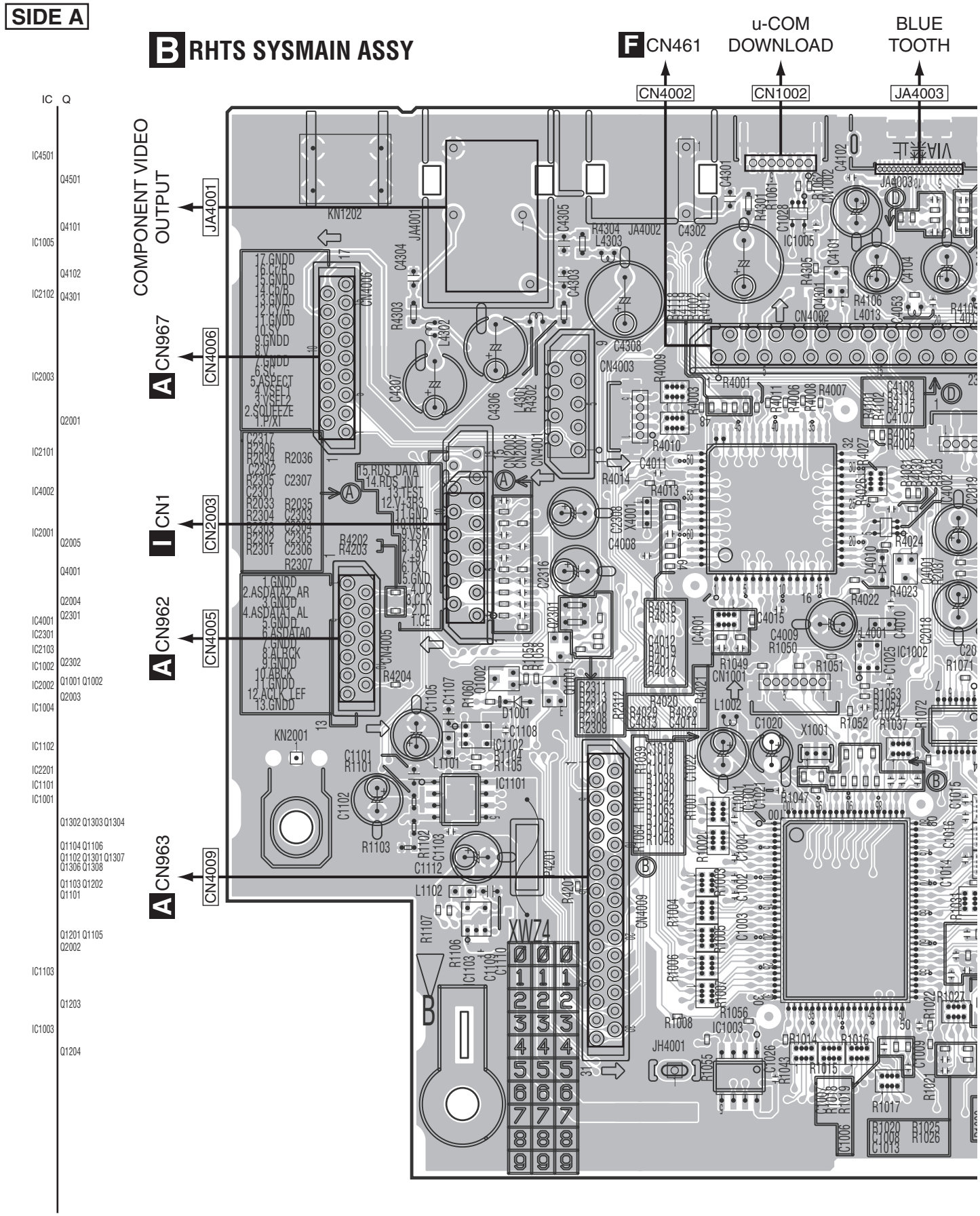
C RHTS USB ASSY



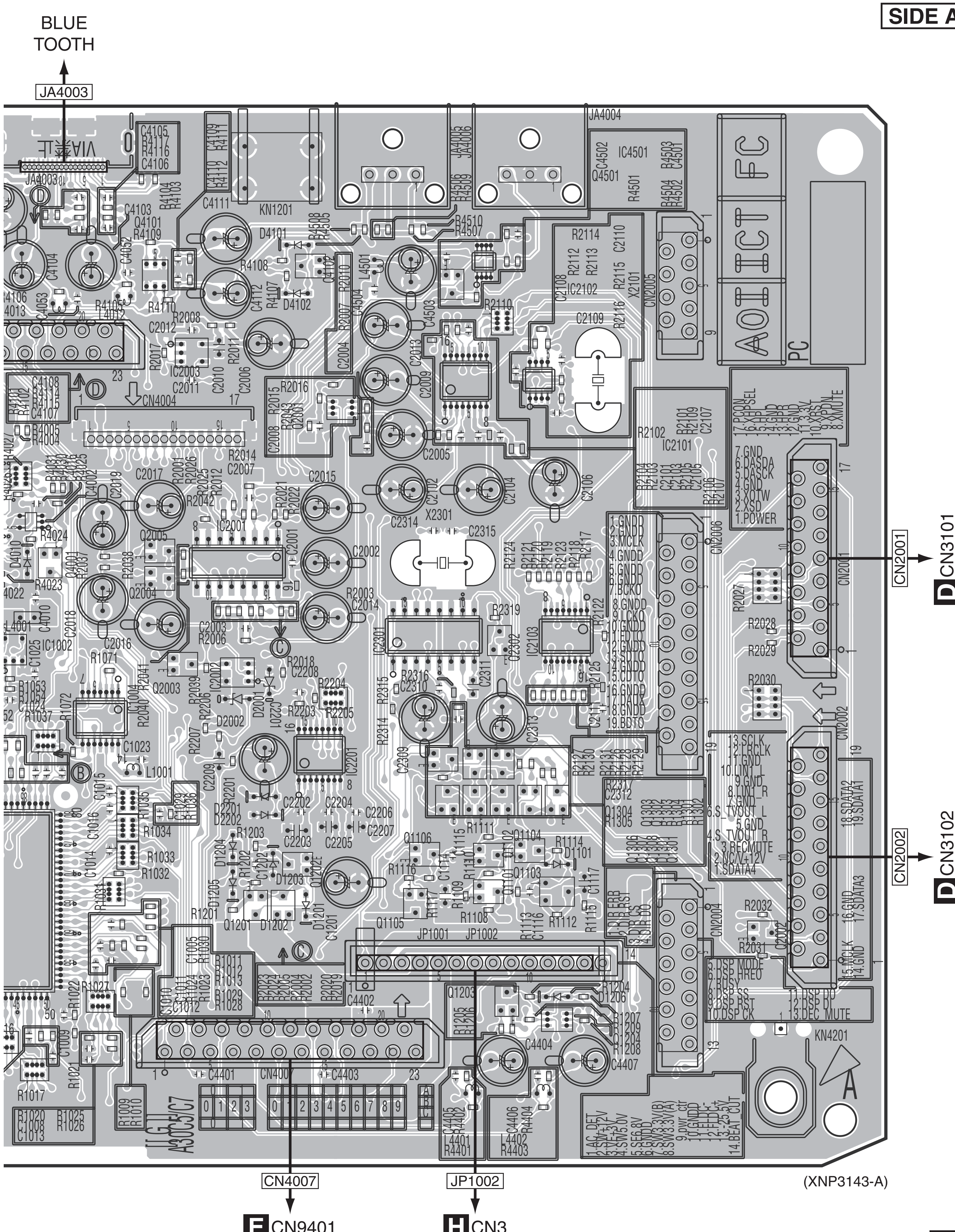
(XNP3143-A)

11.2 RHTS SYSMAIN ASSY

SIDE A

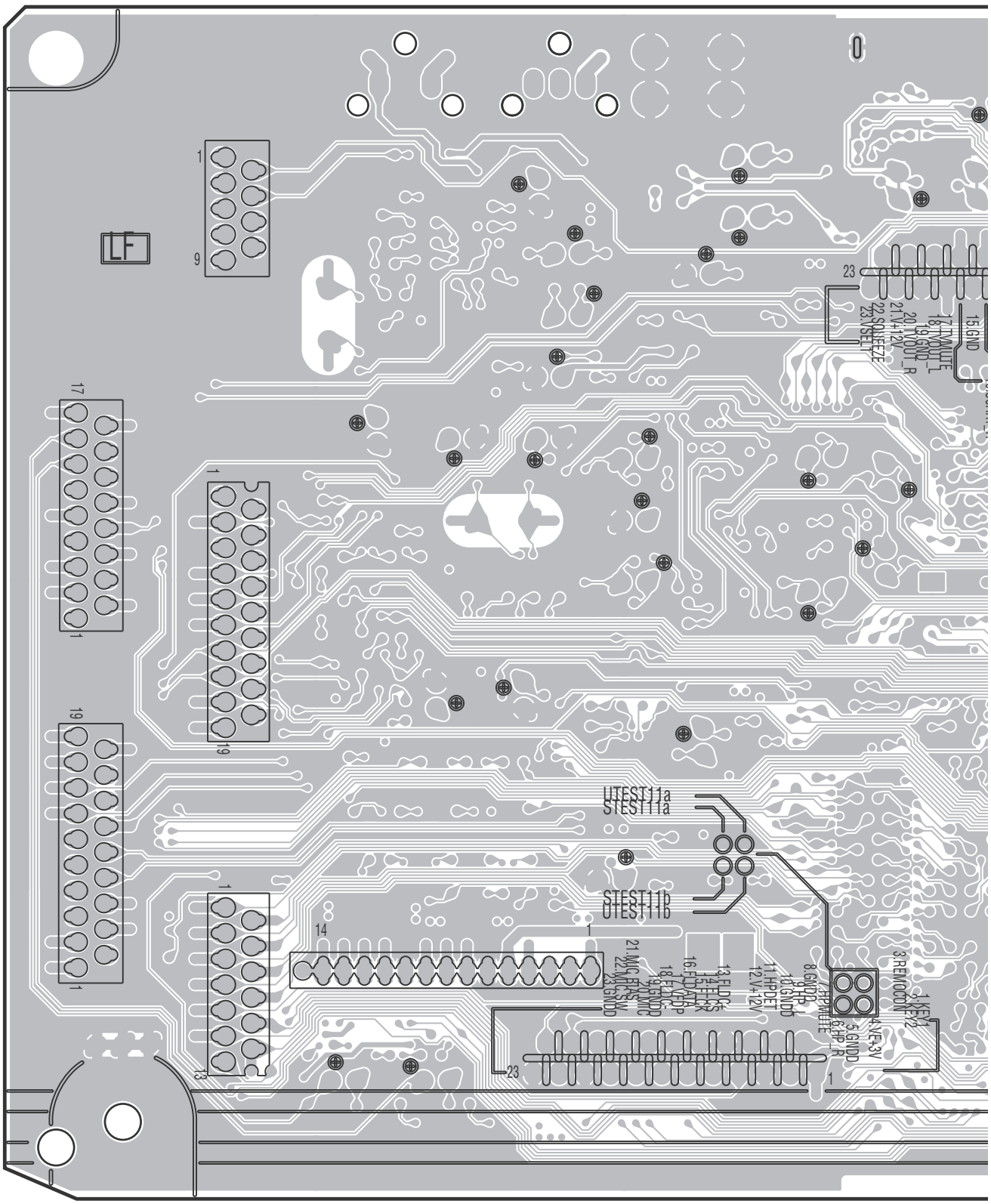


SIDE A


BLUE TOOTH
JA4003
CN2001
D CN3101
CN2002
D CN3102
CN4007
E CN9401
JP1002
H CN3
(XNP3143-A)

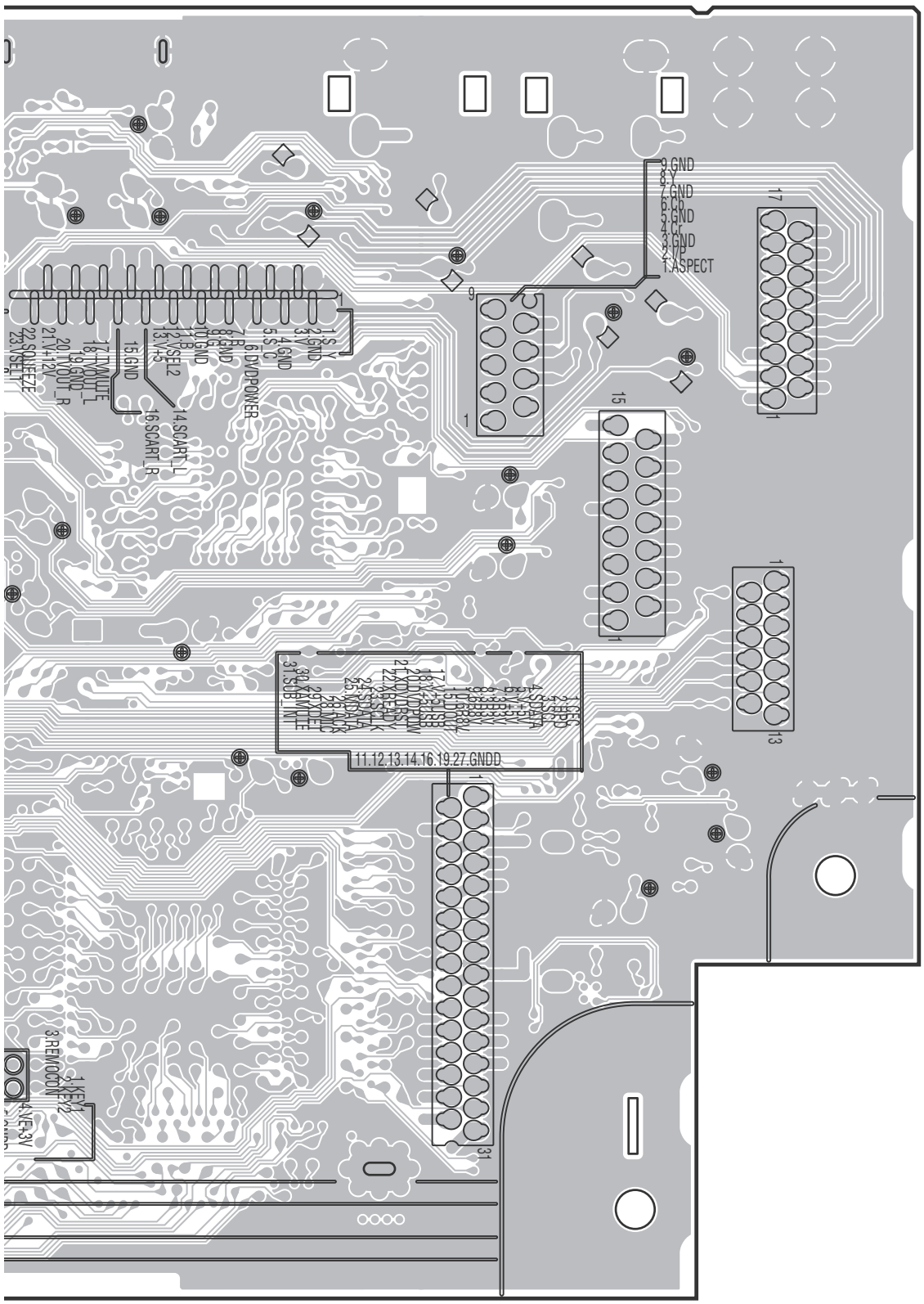
SIDE B

B RHTS SYSMAIN ASSY



(XNP3143-A)

SIDE B

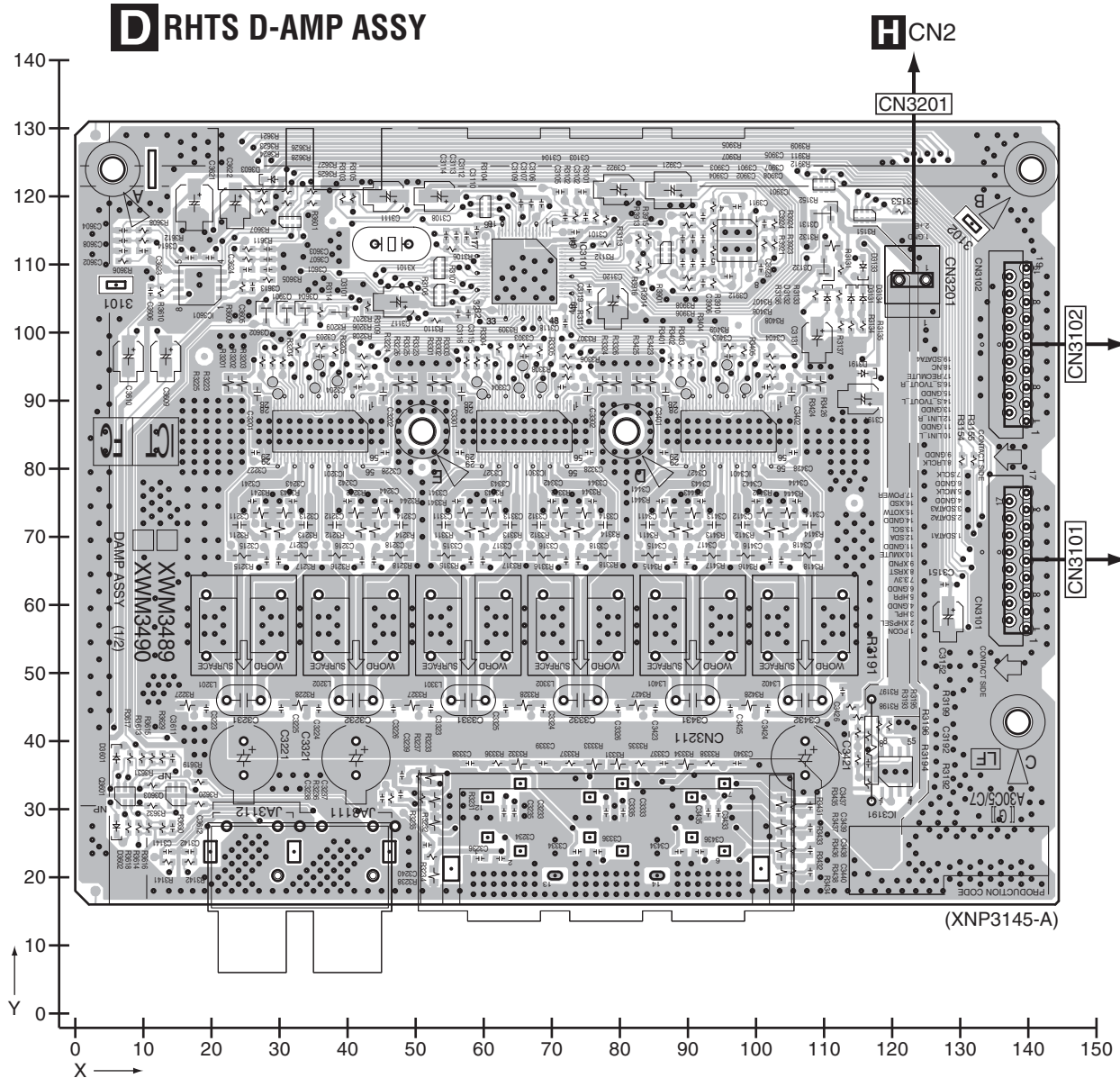

9.GND
8.Y
7.GND
6.Cb
5.GND
4.Cr
3.GND
2.VF
1.ASPECT
1.S_Y
2.GND
3.Y
4.GND
5.S_C
6.DVDPOWER
7.R
8.GND
9.G
10.GND
11.B
12.VSEL2
13.V+5
14.SCART_L
15.GND
16.SCART_R
17.TVMUTE_L
18.TVMUTE_R
19.GND
20.V+12V
21.V+12V
22.SQUEEZE
23.VSEL1
11.12.13.14.16.19.27.GNDD
1.KEY1
2.KEY2
3.REMOCON
4.VF+3V

11.3 RHTS D-AMP ASSY

SIDE A

SIDE A

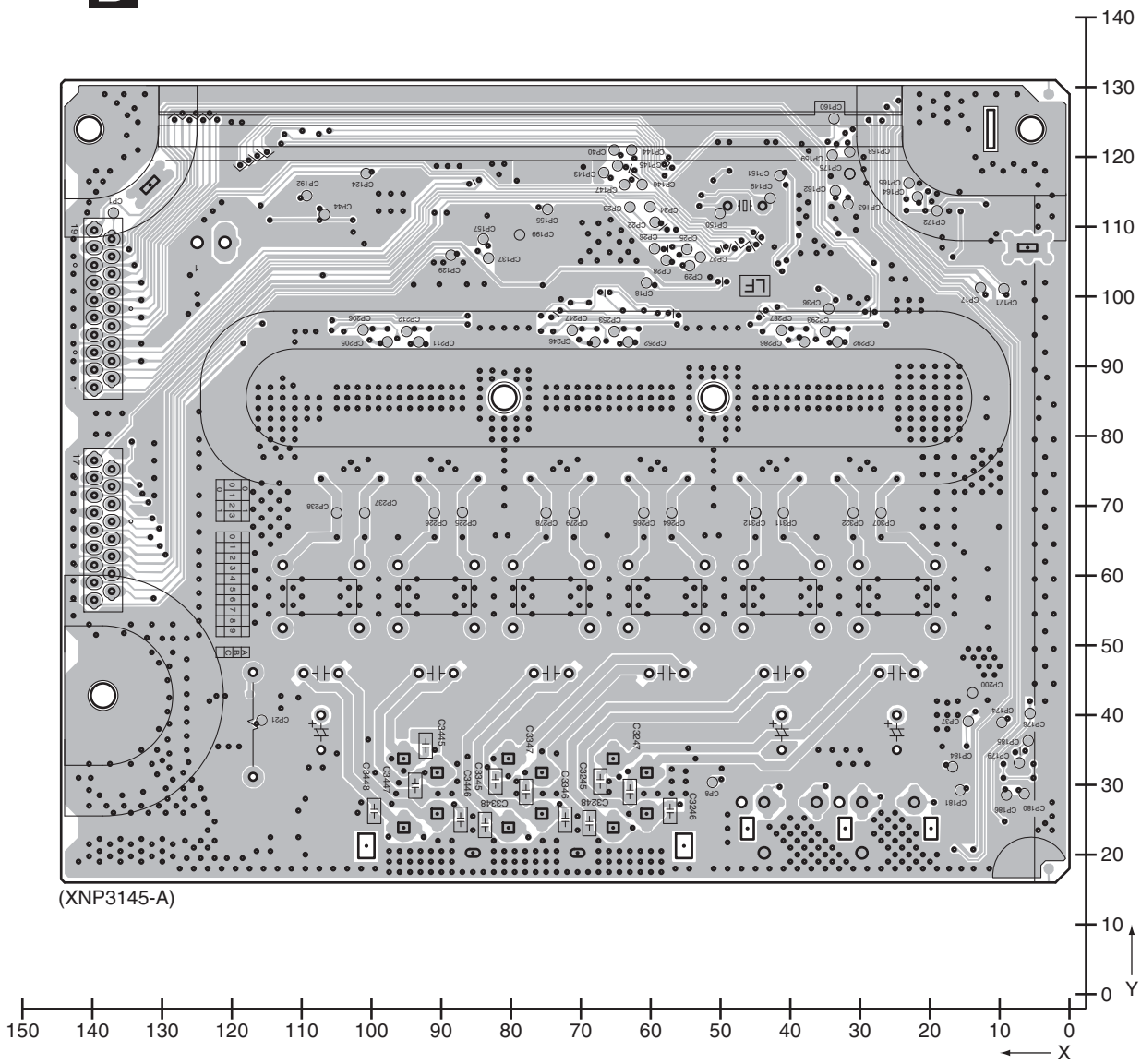
D RHTS D-AMP ASSY



SIDE B

SIDE B

D RHTS D-AMP ASSY

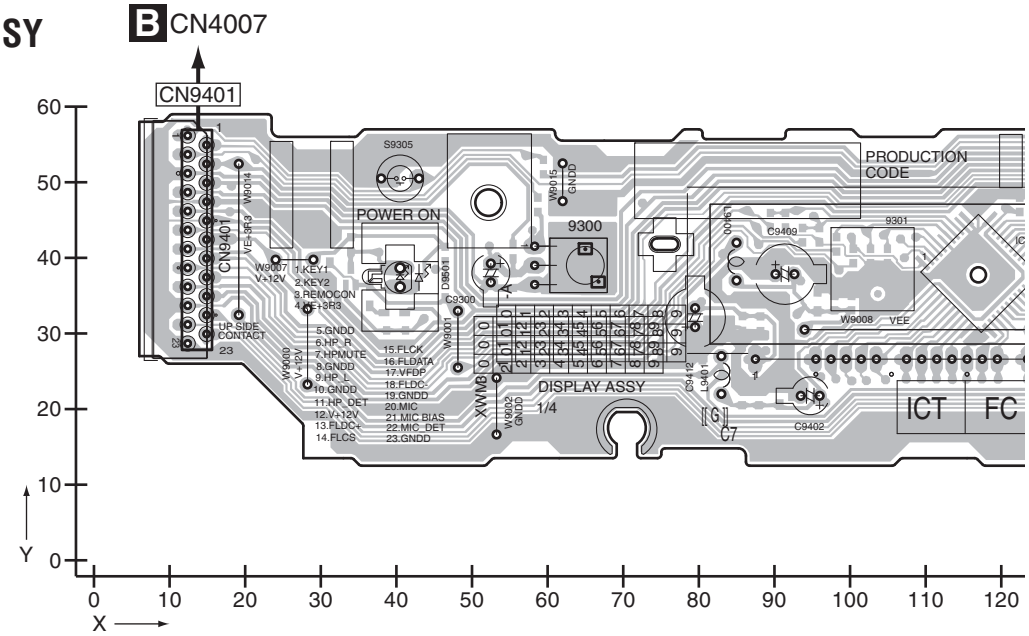


(XNP3145-A)

11.4 RHTS DISPLAY ASSY

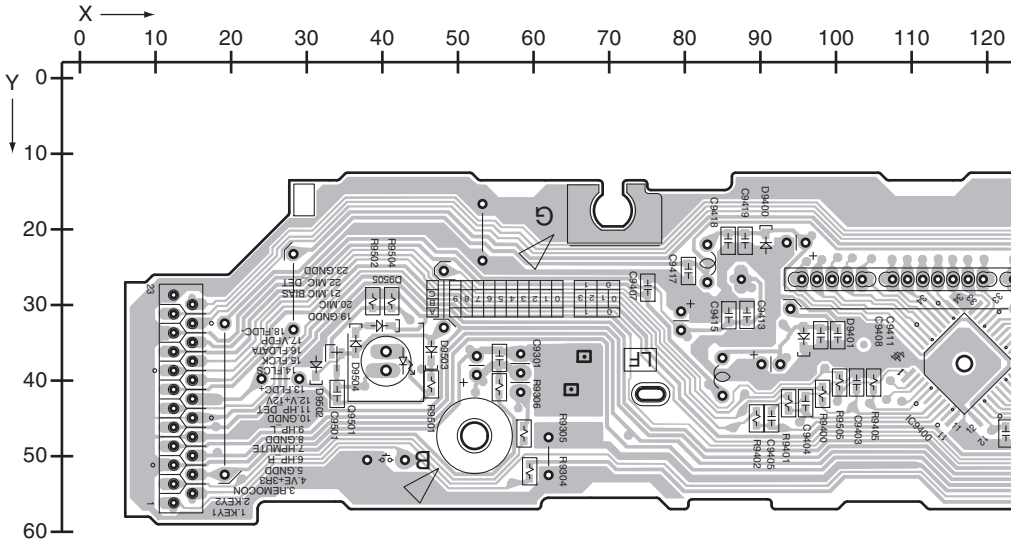
SIDE A

E RHTS DISPLAY ASSY

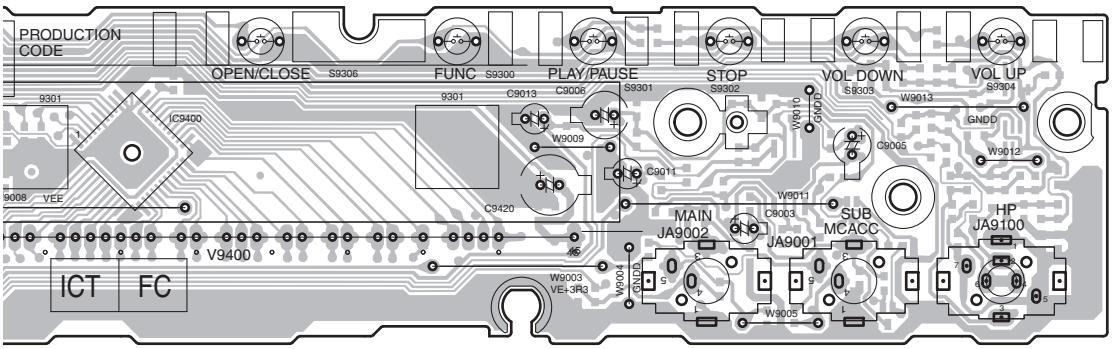


SIDE B

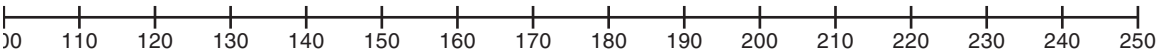
E RHTS DISPLAY ASSY



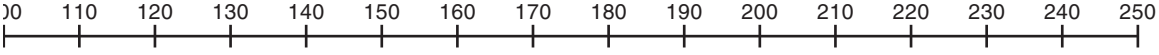
SIDE A

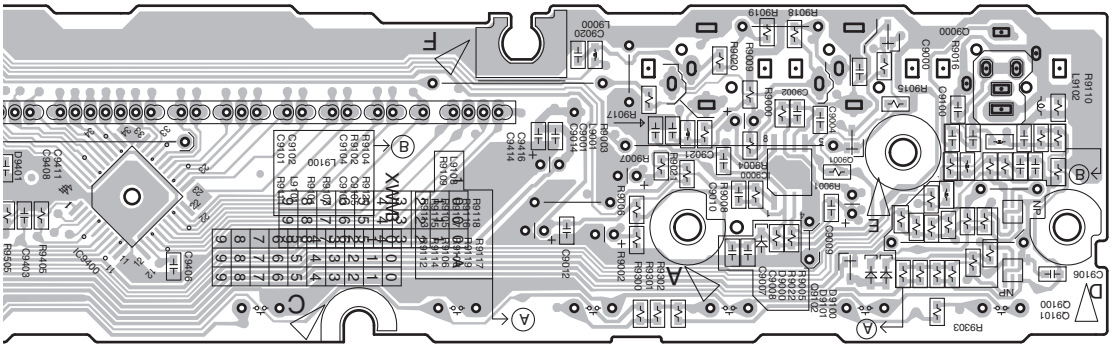


(XNP3144-B)



SIDE B





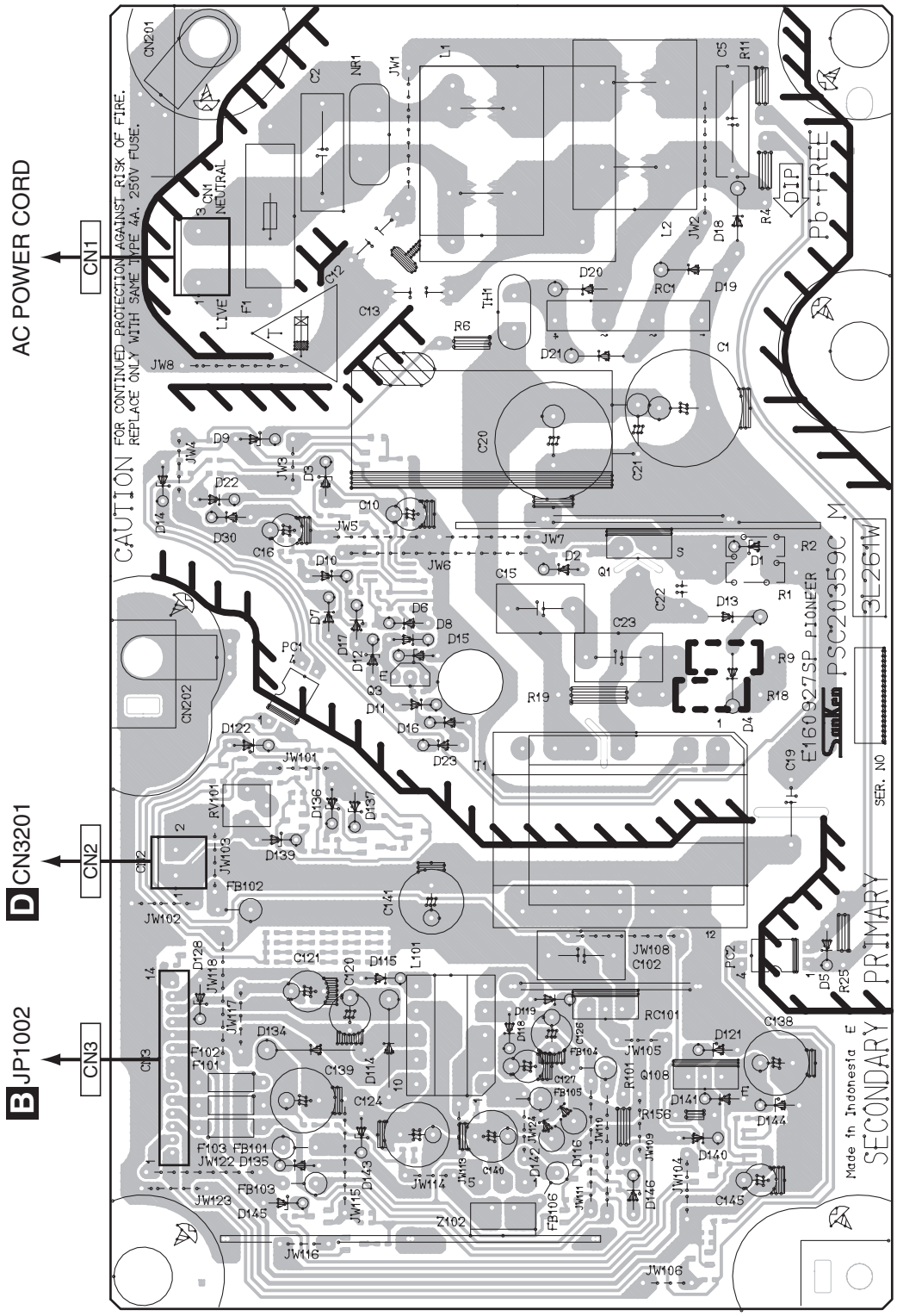
(XNP3144-B)

11.5 POWER SUPPLY UNIT

SIDE A

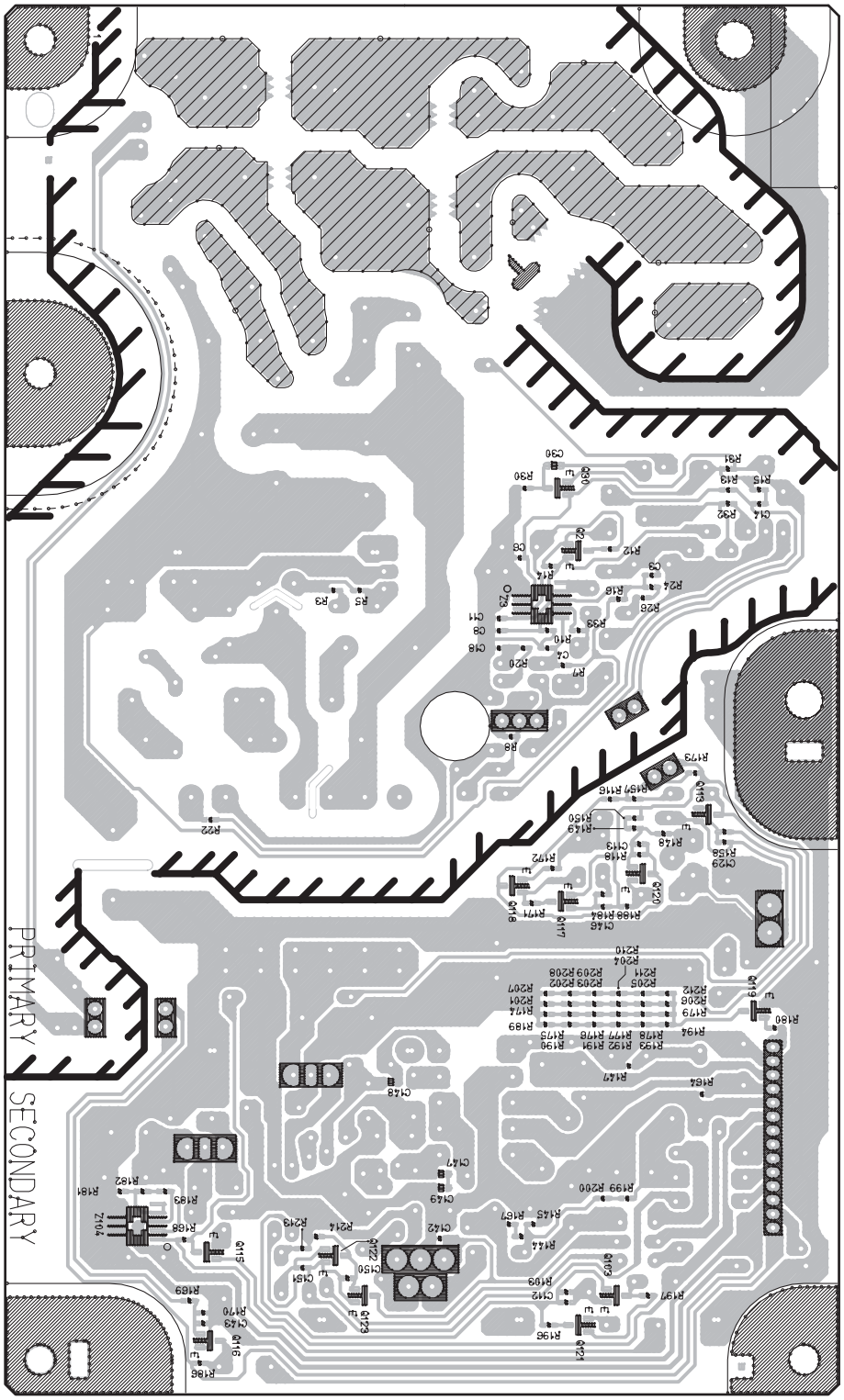
SIDE A

H POWER SUPPLY ASSY



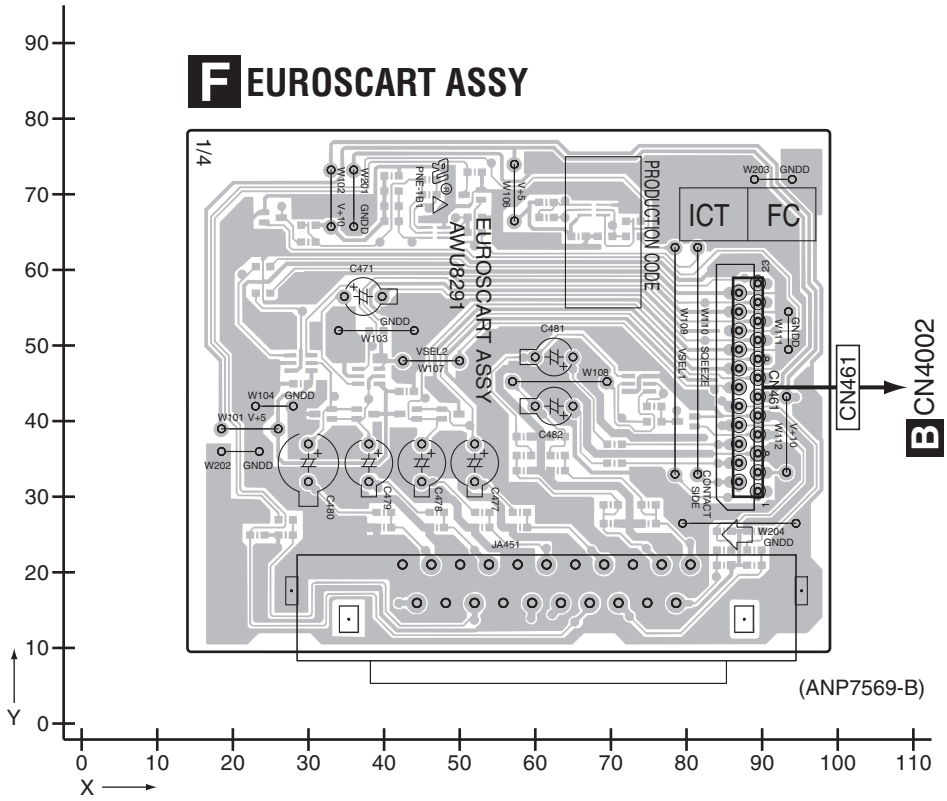
SIDE B

H POWER SUPPLY ASSY

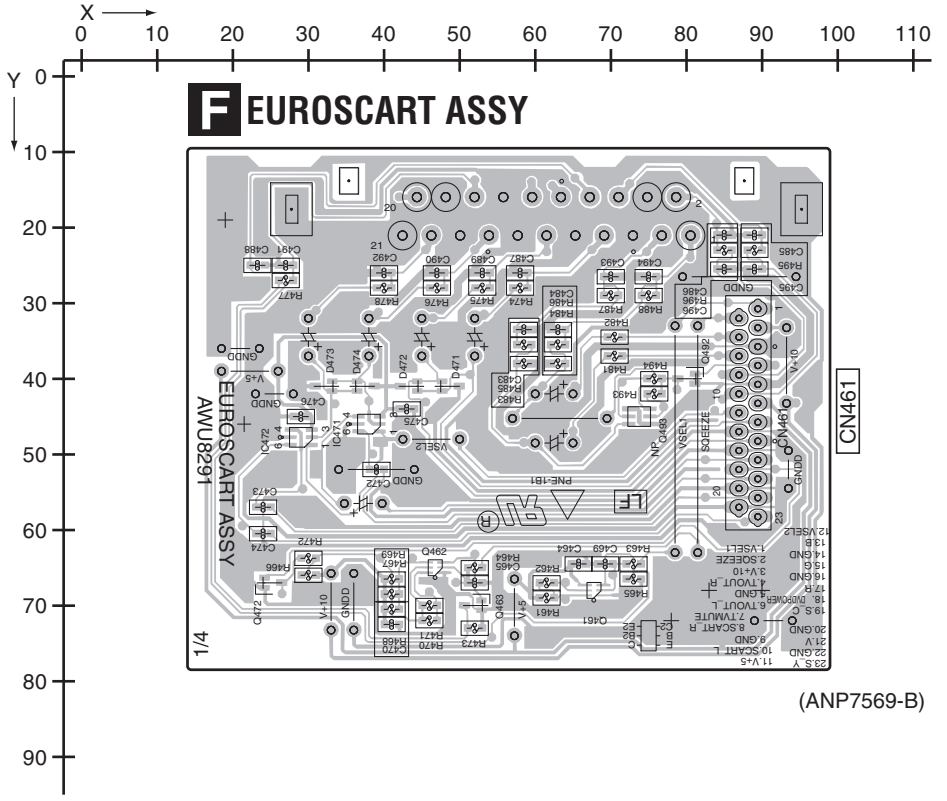


11.6 EUROSCART ASSY

SIDE A



SIDE B



12. PCB PARTS LIST

NOTES: ● *Parts marked by "NSP" 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.*

● *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47 k ohm (tolerance is shown by J = 5%, and K = 10%).

560 Ω → 56 × 10^1 → 561 ····· RD1/4PU 5 6 1 J
47 kΩ → 47 × 10^3 → 473 ····· RD1/4PU 4 7 3 J
0.5 Ω → R50 ····· RN2H R 5 0 K
1 Ω → 1R0 ····· RS1P 1 R 0 K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62 kΩ → 562 × 10^1 → 5621 ····· RN1/4PC 5 6 2 1 F

● *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

LIST OF ASSEMBLIES

Mark	Symbol and Description	XV-DV282AP /LXJ	XV-DV181 /LXJ	XV-DV180 /LXJ	XV-DV585K /SXJ5	XV-DV590K /SXJ5
	1..09 DVDM ASSY	AWM8134	AWM8134	AWM8134	AWM8134	AWM8134
	1..RHTS MAIN ASSY	XWM3497	XWM3520	XWM3496	XWM3505	XWM3506
	2..RHTS USB ASSY	XWZ4414	XWZ4414	XWZ4414	XWZ4414	XWZ4414
	2..RHTS SYSMAIN ASSY	XWZ4426	XWZ4454	XWZ4425	XWZ4434	XWZ4435
	1..RHTS DISPLAY ASSY	XWM3485	XWM3485	XWM3485	XWM3486	XWM3486
	1..RHTS D-AMP ASSY	XWM3490	XWM3490	XWM3490	XWM3489	XWM3489
NSP	1..NHTS JACK ASSY	Not used	Not used	Not used	AWM8034	AWM8034
	2..EUROSCART ASSY	Not used	Not used	Not used	AWU8291	AWU8291
⚠	1..POWER SUPPLY UNIT	XWR3020	XWR3020	XWR3020	XWR3020	XWR3020
	1..FM/AM TUNER UNIT	XXX3088	XXX3088	XXX3088	XXX3085	XXX3085

CONTRAST OF PCB ASSEMBLIES

B RHTS SYSMAIN ASSY (XV-DV181/XV-DV180)

XWZ4454 and XWZ4425 are constructed the same except for the following:

Mark	Symbol and Description	XWZ4454	XWZ4425
	R1023	RS1/16SS104J	Not used
	R1024	RS1/16SS103J	RS1/16SS473J

B RHTS SYSMAIN ASSY (XV-DV585K/XV-DV590K)

XWZ4434 and XWZ4435 are constructed the same except for the following:

Mark	Symbol and Description	XWZ4434	XWZ4435
	R1023	Not used	RS1/16SS683J
	R1024	RS1/16SS473J	RS1/16SS153J

D RHTS D-AMP ASSY

XWM3490 and XWM3489 are constructed the same except for the following:

Mark	Symbol and Description	XWM3490	XWM3489
	IC3601	Not used	NJM4565MD
	D3603	Not used	UDZS12(B)
	R3601	Not used	RAB4C472J
	R3605-R3608	Not used	RS1/10SR472J
	R3609-R3612	Not used	RS1/10SR103J

Mark	Symbol and Description	XWM3490	XWM3489
	R3621	Not used	RS1/10SR8R2J
	R3623	Not used	RS1/10SR222J
	C3601-C3604	Not used	CCSRCH821J50
	C3605-C3608	Not used	CCSRCH331J50
	C3621	Not used	CEVW100M25
	C3622	Not used	CEVW100M16
	C3623	Not used	CKSRYB104K50
	C3624	Not used	CKSRYB104K16

E RHTS DISPLAY ASSY

XWM3485 and XWM3486 are constructed the same except for the following:

Mark	Symbol and Description	XWM3485	XWM3486
	Q9501	Not used	LSC4081UB
	D9501	Not used	NSPB320BS-6734
	D9503	Not used	UDZS10(B)
	D9504, D9505	Not used	1SS352
	R9501	Not used	RS1/10SR680J
	R9502	Not used	RS1/10SR560J
	C9501	Not used	CKSRYB103K25

PCB PARTS LIST FOR XV-DV282AP/LXJ UNLESS OTHER WISE NOTED

A 09 DVDM ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC	101	BA5984FP
	IC	201	MT1389FE/S-L
	IC	202	K4S641632N-LC75
	IC	203	AYW7274
	IC	204	S-24CS64A0I
	IC	241,601	TC7SH08FUS1
	IC	401	MM1758XF
	IC	711	MM1661JH
	IC	771	NJM2872BF05
	Q	304,801	2SC4081
	Q	305	UM5K1N
	Q	307,308	HN1A01F
	Q	481,933	DTC114YUA
	Q	621	2SK2034
	Q	802	HN1A01FU
	Q	934	UMB1N
	D	101,102	RR264M-400
	D	801	UDZS4R7(B)
	D	802	DAN202U
	D	811	1SS352
	D	933	UDZS5R1(B)

MISCELLANEOUS

Mark	No.	Description	Part No.
	L	241 CHIP SOLID INDUCTOR	QTL1013
	L	751 INDUCTOR	CTF1395
	L	761 COIL	VTH1054
	L	901 INDUCTOR	CTF1334
	L	932-935 COIL	ATH7064
	JA	931 HDMI CONNECTOR	AKP7224
	X	201 CRYSTAL (27 MHz)	VSS1172
	CN	953 CONNECTOR	AKM1276
	CN	962 13P CONNECTOR	VKN1472
	CN	963 31P CONNECTOR	VKN1435
	CN	964 06P CONNECTOR	VKN1574
	CN	965 05P CONNECTOR	VKN1573
	CN	966 CONNECTOR	VKN2045
	CN	967 17P CONNECTOR	VKN1577

RESISTORS

Mark	No.	Description	Part No.
	R	103,113,114,201	RS1/16SS1202F
	R	104	RS1/16SS1002F
	R	123,133	RS1/16SS3302F
	R	124,134	RS1/16SS2702F
	R	153,156,157	RS1/8SQ3R3J
	R	202	RS1/16SS8201F
	R	205,206	RS1/16SS1502F
	R	208,209,281,634	RS1/8SQ0R0J
	R	221,225	RAB4CQ330J
	R	279	RS1/16SS2201F
	R	411-416	RS1/16SS1500F
	R	617	RS1/16SS2701F
	R	636	RS1/10SR0R0J
	R	715,752,978-980	RS1/8SQ0R0J
	Other Resistors		RS1/16SS###J

CAPACITORS

Mark	No.	Description	Part No.
	C	103,373,401,404	CEVW101M16
	C	151,200,204,205	CKSSYB104K16
	C	152,153,210	CKSSYB222K50
	C	201,202,223,237	CEVW221M4
	C	203,206,215,309	CEVW470M16
	C	207,208,213,216	CKSSYB104K16
	C	209	CKSSYB153K16
	C	211,212	CCSSCH271J50
	C	217,220,224,225	CKSSYB104K16
	C	226,240,283-288	CKSSYB103K16
	C	227	CCSSCH221J50
	C	228-234,239,243	CKSSYB104K16

Mark	No.	Description	Part No.
	C	241,602,607,952	CEVW100M16
	C	242	CKSSYB152K50
	C	244,246-248,250	CKSSYB104K16
	C	245,282,289	CKSRYB105K10
	C	249,712	CCSSCH471J16
	C	251,252	CCSSCH100D50
	C	254,267,295,608	CKSSYB102K50
	C	258,259	CKSSYB473K16
	C	260,261,264,266	CKSSYB104K16
	C	262,605	CEVW4R7M16
	C	265	CCSSCH220J50
	C	268,271-273,290	CKSSYB104K16
	C	269	CKSSYB333K10
	C	281,618	CEVW221M4
	C	310,616,627	CEVW470M16
	C	343-347,412-414	CKSRYB105K10
	C	371,372,402,405	CKSSYB104K16
	C	406,601,603,606	CKSSYB104K16
	C	411,415,416	CKSRYB104K16
	C	611	CKSSYB562K25
	C	612,613,617	CKSSYB104K16
	C	614	CCSSCH101J50
	C	619-621,623,625	CKSSYB104K16
	C	622,624,626	CKSSYB102K50
	C	628,773,801,951	CKSSYB104K16
	C	711,771	CKSRYB105K10
	C	713,772	CKSQYB225K10

B RHTS SYSMAIN ASSY (XWZ4426)

SEMICONDUCTORS

	IC	1001	AYW7270
	IC	1002	PST8228N
	IC	1003	S-93C46BD0I-J8T1
	IC	1004	TC74VHC125FTS1
	IC	1005,4002	TC7SH08FUS1
⚠	IC	1101	MM1665XH
	IC	1102	BD6538G
	IC	1103	AAT4618IGV-0.5-1
	IC	2001	TC4052BFN
	IC	2101,2201	AK5358AET
	IC	2102	TC7WU04FU
	IC	2103	TC74VHC157FTS1
	IC	4001	PDC189A8
	Q	1001,1201,4102	LTA124EUB
	Q	1002,4001	SSM3K15FU
	Q	1105,1203	LSA1576UB
	Q	1106,1202,1301,2004	LTC124EUB
	Q	1204	HN1C01FU
	Q	2001	HN1A01FU
	Q	2005	LTC124EUB
	Q	2301	LSC4081UB
	Q	4101	IMX9
	D	1001	RB751V-40
	D	1201,1204,1205	1SS352
	D	1202,1301	MC2846-11

MISCELLANEOUS

	L	1101,1102 CHIP SOLID INDUCTOR	ATL7002
	L	4001 CHIP SOLID INDUCTOR	QTL1013
	L	4301,4302 INDUCTOR	CTF1389
	L	4401,4402 INDUCTOR	CTF1346
	JA	4001 JACK	XKB3061
	JA	4002 JACK	XKB3069
	JA	4003 CONNECTOR	CKS5712
	KN	1201 SCREW PLATE	VNE1948
	X	1001 CERAMIC RESONATOR (20 MHz)	VSS1186
	X	2101 CRYSTAL (12.288 MHz)	VSS1140
	X	4001 CERAMIC RESONATOR (12 MHz)	VSS1216
	CN	1002 07P CONNECTOR	RKN1048
	CN	2001 CONNECTOR	9604S-17C
	CN	2002 CONNECTOR	9604S-19C
	CN	2003 CONNECTOR	9604S-11C
	CN	4005 13P CONNECTOR	VKN1244
	CN	4006 17P CONNECTOR	VKN1248
	CN	4007 CONNECTOR	9604S-23C
	CN	4009 31P CONNECTOR	VKN1262
	JH	4001 PCB BINDER	VEF1040
	JP	1001 CONNECTOR ASSY	PF14PG-C10

RESISTORS

	R	1001-1007,1014-1017	RAB4CQ101J
	R	1027,1031,1033-1035	RAB4CQ101J
	R	1037,2110,2205,4010	RAB4CQ101J
	R	1101	RS1/10SR1001F
	R	1102	RS1/10SR2700F
	R	1103	RS1/10SR2701F
	R	2311	RS1/8SQ182J
	R	2313	RS1/8SQ152J
	R	4009	RAB4CQ104J
	R	4020	RAB4CQ101J
	R	4301-4304	RS1/8SQ75R0F
	Other Resistors		RS1/16SS###J

CAPACITORS

	C	1001,2306	CCSSCH101J50
	C	1002,1003,1005	CKSSYB103K16
	C	1006,2307,4402,4403	CKSSYB102K50
	C	1007-1014,1016,1017	CKSSYB103K16
	C	1019,1021,1024,2001	CKSSYB103K16
	C	1020	CEAL1R0M50
	C	1022,4009	CEAT101M10
	C	1023,1026,1028,1103	CKSSYB104K10
	C	1101,1107,1110,2205	CKSRYB105K10
	C	1105,1112,1201,2009	CEAT100M50
	C	1108,1109,2004,2008	CKSSYB104K10
	C	2002	CEAT470M10
	C	2005,4101,4404,4407	CEAT101M16
	C	2006	CEAT221M6R3
	C	2013-2015,2018,2019	CEAT100M50
	C	2101,2103,2105,2108	CKSSYB104K10
	C	2102	CEAT2R2M50
	C	2104,2106,4111,4112	CEAT100M50
	C	2107,2208,4011	CKSSYB103K16
	C	2109,2110	CCSSCH270J50
	C	2111,2204,2206,4008	CKSSYB104K10
	C	2201	CEAT220M50
	C	2203	CKSQYB225K10
	C	2207	CKSRYB105K10
	C	2308,2316	CEAT470M35

Mark	No.	Description	Part No.
	C	4010,4015,4016,4102	CKSSYB104K10
	C	4013,4014	CCSSCH220J50
	C	4052,4053,4109,4110	CCSSCH221J50
	C	4302,4308	CEAT102M6R3
	C	4306,4307	CEAT471M6R3

B RHTS SYSMAIN ASSY (XWZ4454)

SEMICONDUCTORS

	IC	1001	AYW7270
	IC	1002	PST8228N
	IC	1003	S-93C46BD0I-J8T1
	IC	1005	TC7SH08FUS1
⚠	IC	1101	MM1665XH
	IC	1103	AAT4618IGV-0.5-1
	IC	2001	TC4052BFN
	IC	2101,2201	AK5358AET
	IC	2102	TC7WU04FU
	IC	2103	TC74VHC157FTS1
	Q	1201	LTA124EUB
	Q	1202,1301,2004,2005	LTC124EUB
	Q	1203	LSA1576UB
	Q	1204	HN1C01FU
	Q	2001	HN1A01FU
	Q	2301	LSC4081UB
	D	1202,1301	MC2846-11
	D	1204,1205	1SS352

MISCELLANEOUS

	L	1102 CHIP SOLID INDUCTOR	ATL7002
	L	4301,4302 INDUCTOR	CTF1389
	L	4401,4402 INDUCTOR	CTF1346
	JA	4001 JACK	XKB3061
	JA	4002 JACK	XKB3069
	KN	1201 SCREW PLATE	VNE1948
	X	1001 CERAMIC RESONATOR (20 MHz)	VSS1186
	X	2101 CRYSTAL RESONATOR (12.288 MHz)	VSS1140
	CN	1002 07P CONNECTOR	RKN1048
	CN	2001 CONNECTOR	9604S-17C
	CN	2002 CONNECTOR	9604S-19C
	CN	2003 CONNECTOR	9604S-11C
	CN	4005 13P CONNECTOR	VKN1244
	CN	4006 17P CONNECTOR	VKN1248
	CN	4007 CONNECTOR	9604S-23C
	CN	4009 31P CONNECTOR	VKN1262
	JH	4001 PCB BINDER	VEF1040
	JP	1001 CONNECTOR ASSY	PF14PG-C10

RESISTORS

	R	1001-1007,1014-1017	RAB4CQ101J
	R	1027,1031,1033-1035	RAB4CQ101J
	R	1037,2110,2205	RAB4CQ101J
	R	1101	RS1/10SR1001F
	R	1102	RS1/10SR2700F
	R	1103	RS1/10SR2701F
	R	2311	RS1/8SQ182J
	R	2313	RS1/8SQ152J
	R	4301-4304	RS1/8SQ75R0F
	Other Resistors		RS1/16SS###J

CAPACITORS

	C	1001,2306	CCSSCH101J50
	C	1002,1003,1005	CKSSYB103K16
	C	1006,2307,4402,4403	CKSSYB102K50
	C	1007-1014,1016,1017	CKSSYB103K16
	C	1019,1021,1024,2001	CKSSYB103K16
	C	1020	CEAL1R0M50
	C	1022	CEAT101M10
	C	1026,1028,1103,1109	CKSSYB104K10
	C	1101,1110,2205,2207	CKSRYB105K10
	C	1112,1201,2009	CEAT100M50
	C	2002	CEAT470M10
	C	2004,2008,2101,2103	CKSSYB104K10
	C	2005,4404,4407	CEAT101M16
	C	2006	CEAT221M6R3
	C	2013-2015,2018,2019	CEAT100M50
	C	2102	CEAT2R2M50
	C	2104,2106	CEAT100M50
	C	2105,2108,2111,2204	CKSSYB104K10
	C	2107,2208	CKSSYB103K16
	C	2109,2110	CCSSCH270J50
	C	2201	CEAT220M50
	C	2203	CKSQYB225K10
	C	2206	CKSSYB104K10
	C	2308,2316	CEAT470M35
	C	4302,4308	CEAT102M6R3
	C	4306,4307	CEAT471M6R3

B RHTS SYSMAIN ASSY (XWZ4434)

SEMICONDUCTORS

	IC	1001	AYW7270
	IC	1002	PST8228N
	IC	1003	S-93C46BD0I-J8T1
	IC	1004	TC74VHC125FTS1
	IC	1005,4002	TC7SH08FUS1
⚠	IC	1101	MM1665XH
	IC	1102	BD6538G
	IC	1103	AAT4618IGV-0.5-1
	IC	2001	TC4052BFN
	IC	2101,2201	AK5358AET
	IC	2102	TC7WU04FU
	IC	2103	TC74VHC157FTS1
	IC	4001	PDC189A8
	Q	1001,1201,4102	LTA124EUB
	Q	1002,4001	SSM3K15FU
	Q	1105,1203	LSA1576UB
	Q	1106,1202,1301,2004	LTC124EUB
	Q	1204	HN1C01FU
	Q	2001	HN1A01FU
	Q	2005,4301	LTC124EUB
	Q	2301	LSC4081UB
	Q	4101	IMX9
	D	1001	RB751V-40
	D	1201,1204,1205	1SS352
	D	1202,1301	MC2846-11

MISCELLANEOUS

	L	1101,1102 CHIP SOLID INDUCTOR	ATL7002
	L	4001 CHIP SOLID INDUCTOR	QTL1013
	L	4401,4402 INDUCTOR	CTF1346
	JA	4002 JACK	XKB3069
	JA	4003 CONNECTOR	CKS5712

Mark	No.	Description	Part No.
	KN 1201	SCREW PLATE	VNE1948
	X 1001	CERAMIC RESONATOR (20 MHz)	VSS1186
	X 2101	CRYSTAL RESONATOR (12.288 MHz)	VSS1140
	X 4001	CERAMIC RESONATOR (12 MHz)	VSS1216
	CN 1002	07P CONNECTOR	RKN1048
	CN 2001	CONNECTOR	9604S-17C
	CN 2002	CONNECTOR	9604S-19C
	CN 2007	CONNECTOR	9604S-15C
	CN 4002,4007	CONNECTOR	9604S-23C
	CN 4005	13P CONNECTOR	VKN1244
	CN 4006	17P CONNECTOR	VKN1248
	CN 4009	31P CONNECTOR	VKN1262
	JH 4001	PCB BINDER	VEF1040
	JP 1001	CONNECTOR ASSY	PF14PG-C10
RESISTORS			
	R 1001-1007,1014-1017		RAB4CQ101J
	R 1027,1031,1033-1035		RAB4CQ101J
	R 1037,2110,2205,4010		RAB4CQ101J
	R 1101		RS1/10SR1001F
	R 1102		RS1/10SR2700F
	R 1103		RS1/10SR2701F
	R 2311		RS1/8SQ182J
	R 2313		RS1/8SQ152J
	R 4009		RAB4CQ104J
	R 4020		RAB4CQ101J
	R 4301		RS1/8SQ75R0F
	Other Resistors		RS1/16SS###J
CAPACITORS			
	C 1001,2306		CCSSCH101J50
	C 1002,1003,1005		CKSSYB103K16
	C 1006,2307,4402,4403		CKSSYB102K50
	C 1007-1017,1019,1021		CKSSYB103K16
	C 1020		CEAL1R0M50
	C 1022,4009		CEAT101M10
	C 1023,1026,1028,1103		CKSSYB104K10
	C 1024,2001,2107,2208		CKSSYB103K16
	C 1101,1107,1110,2205		CKSRYB105K10
	C 1105,1112,1201,2009		CEAT100M50
	C 1108,1109,2004,2008		CKSSYB104K10
	C 2002		CEAT470M10
	C 2005,4101,4404,4407		CEAT101M16
	C 2006		CEAT221M6R3
	C 2013-2019,2104,2106		CEAT100M50
	C 2101,2103,2105,2108		CKSSYB104K10
	C 2102		CEAT2R2M50
	C 2109,2110		CCSSCH270J50
	C 2111,2204,2206,4008		CKSSYB104K10
	C 2201		CEAT220M50
	C 2203		CKSQYB225K10
	C 2207		CKSRYB105K10
	C 2308,2316		CEAT470M35
	C 4010,4015,4016,4102		CKSSYB104K10
	C 4011		CKSSYB103K16
	C 4013,4014		CCSSCH220J50
	C 4052,4053,4109,4110		CCSSCH221J50
	C 4111,4112		CEAT100M50
	C 4302		CEAT102M6R3

Mark	No.	Description	Part No.

C RHTS USB ASSY

MISCELLANEOUS

JA 5001	USB CONNECTOR	XKP3086
CN 5001	CONNECTOR	AKM1276
VA 5001,5002	SMD VARISTOR	AVRL161A3R3FTA

CAPACITORS

C 5001,5003		CKSSYB104K10
C 5002		CKSSYB103K16
C 5004		CEAT221M6R3

D RHTS D-AMP ASSY

MISCELLANEOUS

	IC 3101	(A,66,109) 8CH PWM PROCESSOR IC	TAS5508BPAG
	IC 3191	(A,121,36) OP-AMP IC	BA10358F
⚠	IC 3201	(A,36,86) DIGITAL AMP IC	TAS5122DCA
⚠	IC 3301	(A,66,86) DIGITAL AMP IC	TAS5122DCA
⚠	IC 3401	(A,96,86) DIGITAL AMP IC	TAS5122DCA
	IC 3901	(A,97,114) DUAL OP-AMP	NJM4565MD
	Q 3131	(A,110,118) TRANSISTOR	2SA1036K
	Q 3132	(A,110,110) TRANSISTOR	LTC143EUB
	D 3101	(A,39,103) DIODE	MC2846-11
	D 3131	(A,114,105) DIODE	UDZS18(B)
	D 3133	(A,116,110) DIODE	1SS352
	D 3134	(A,116,105) DIODE	UDZS15(B)
	D 3191	(A,116,94) DIODE	UDZS3R3(B)
	L 3201	(A,19,62) INDUCTORS	ATH7019
	L 3202	(A,36,62) INDUCTORS	ATH7019
	L 3301	(A,52,62) INDUCTORS	ATH7019
	L 3302	(A,69,62) INDUCTORS	ATH7019
	L 3401	(A,85,62) INDUCTORS	ATH7019
	L 3402	(A,102,62) INDUCTORS	ATH7019
	JA 3112	(A,33,15) JACK	XKB3062
	X 3101	(A,49,113) CRYSTAL (13.5 MHz)	ASS7062
	CN 3101	(A,140,57) CONNECTOR	9604S-17C
	CN 3102	(A,140,87) CONNECTOR	9604S-19C
	CN 3201	(A,125,108) PLUG	CKS-555
	CN 3211	(A,78,15) 6CH SPEAKER JACK(V0)	AKE7121
	3101	(A,6,107) PCB BINDER	VEF1040
	3102	(A,132,116) PCB BINDER	VEF1040

RESISTORS

	R 3101	(A,77,117)	RS1/10SR221J
	R 3102	(A,74,117)	RS1/10SR221J
	R 3103	(A,39,120)	RS1/10SR4R7J
	R 3104	(A,60,119)	RAB4C221J
	R 3106	(A,55,112)	RS1/10SR105J
	R 3107	(A,54,110)	RAB4C470J
	R 3108	(A,54,106)	RAB4C470J
	R 3111	(A,76,104)	RS1/10SR220J
	R 3112	(A,78,113)	RS1/10SR470J
	R 3113	(A,78,117)	RS1/10SR3R3J
	R 3114	(A,36,103)	RS1/10SR103J
	R 3131	(A,113,109)	RS1/10SR473J
	R 3132	(A,111,113)	RS1/8SQ123J
	R 3133	(A,112,106)	RS1/10SR102J
	R 3134	(A,114,101)	RS1/10SR222J
	R 3135	(A,116,101)	RS1/10SR102J

Mark	No.	Description	Part No.
	R 3141	(A,14,22)	RS1/10SR331J
	R 3142	(A,17,22)	RS1/10SR331J
	R 3151	(A,116,117)	RAB4C103J
	R 3152	(A,110,122)	RAB4C222J
⚠	R 3191	(A,117,31) RESISTOR (0.1 OHM,2W)	ACN7112
	R 3192	(A,117,34)	RS1/10SR1502F
	R 3193	(A,118,42)	RS1/10SR1502F
	R 3194	(A,115,37)	RS1/10SR1003F
	R 3195	(A,120,42)	RS1/10SR1003F
	R 3196	(A,115,41)	RS1/10SR2201F
	R 3197	(A,114,45)	RS1/10SR1002F
⚠	R 3199	(A,117,41)	RS1/10SR8R2J
	R 3204	(A,33,98)	RS1/10SR221J
	R 3205	(A,38,97)	RS1/10SR103J
	R 3206	(A,42,95)	RS1/10SR101J
	R 3207	(A,42,97)	RS1/10SR473J
	R 3208	(A,42,94)	RS1/10SR472J
⚠	R 3211	(A,28,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3212	(A,42,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3213	(A,30,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3214	(A,44,71) RESISTOR (2.7 OHM)	ACN7148
	R 3215	(A,25,67)	RS1/4SA1R5J
	R 3216	(A,39,67)	RS1/4SA1R5J
	R 3217	(A,34,67)	RS1/4SA1R5J
	R 3218	(A,48,67)	RS1/4SA1R5J
	R 3223	(A,25,93)	RS1/8SQ821J
	R 3224	(A,48,93)	RS1/8SQ821J
	R 3225	(A,23,93)	RS1/8SQ821J
	R 3226	(A,50,93)	RS1/8SQ821J
⚠	R 3227	(A,17,45)	RS1/8SQ3R3J
⚠	R 3228	(A,33,45)	RS1/8SQ3R3J
	R 3231	(A,53,31)	RS1/8SQ472J
	R 3232	(A,53,28)	RS1/8SQ472J
	R 3233	(A,52,35)	RS1/8SQ472J
	R 3234	(A,53,20)	RS1/8SQ472J
⚠	R 3235	(A,51,32)	RS1/10SR1R0J
⚠	R 3236	(A,46,32)	RS1/10SR1R0J
⚠	R 3237	(A,51,35)	RS1/10SR1R0J
⚠	R 3238	(A,52,23)	RS1/10SR1R0J
⚠	R 3241	(A,27,74)	RS1/8SQ180J
⚠	R 3242	(A,41,74)	RS1/8SQ180J
⚠	R 3243	(A,31,74)	RS1/8SQ180J
⚠	R 3244	(A,45,74)	RS1/8SQ180J
	R 3304	(A,62,98)	RS1/10SR221J
	R 3305	(A,68,97)	RS1/10SR103J
	R 3306	(A,72,95)	RS1/10SR101J
	R 3307	(A,72,97)	RS1/10SR473J
	R 3308	(A,72,94)	RS1/10SR472J
⚠	R 3311	(A,58,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3312	(A,72,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3313	(A,60,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3314	(A,74,71) RESISTOR (2.7 OHM)	ACN7148
	R 3315	(A,55,67)	RS1/4SA1R5J
	R 3316	(A,69,67)	RS1/4SA1R5J
	R 3317	(A,64,67)	RS1/4SA1R5J
	R 3318	(A,78,67)	RS1/4SA1R5J
	R 3323	(A,55,93)	RS1/8SQ821J
	R 3324	(A,78,93)	RS1/8SQ821J
	R 3325	(A,53,93)	RS1/8SQ821J

Mark	No.	Description	Part No.
	R 3326	(A,80,93)	RS1/8SQ821J
⚠	R 3327	(A,50,45)	RS1/8SQ3R3J
⚠	R 3328	(A,66,45)	RS1/8SQ3R3J
	R 3331	(A,80,37)	RS1/8SQ472J
	R 3332	(A,65,37)	RS1/8SQ472J
	R 3333	(A,76,37)	RS1/8SQ472J
	R 3334	(A,90,37)	RS1/8SQ472J
⚠	R 3335	(A,83,37)	RS1/10SR1R0J
⚠	R 3336	(A,62,37)	RS1/10SR1R0J
⚠	R 3337	(A,73,37)	RS1/10SR1R0J
⚠	R 3338	(A,93,37)	RS1/10SR1R0J
⚠	R 3341	(A,57,74)	RS1/8SQ180J
⚠	R 3342	(A,71,74)	RS1/8SQ180J
⚠	R 3343	(A,61,74)	RS1/8SQ180J
⚠	R 3344	(A,75,74)	RS1/8SQ180J
	R 3404	(A,92,98)	RS1/10SR221J
	R 3405	(A,98,97)	RS1/10SR103J
	R 3406	(A,102,95)	RS1/10SR101J
	R 3407	(A,102,97)	RS1/10SR473J
	R 3408	(A,102,94)	RS1/10SR472J
⚠	R 3411	(A,88,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3412	(A,102,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3413	(A,90,71) RESISTOR (2.7 OHM)	ACN7148
⚠	R 3414	(A,104,71) RESISTOR (2.7 OHM)	ACN7148
	R 3415	(A,85,67)	RS1/4SA1R5J
	R 3416	(A,99,67)	RS1/4SA1R5J
	R 3417	(A,94,67)	RS1/4SA1R5J
	R 3418	(A,108,67)	RS1/4SA1R5J
	R 3423	(A,85,93)	RS1/8SQ821J
	R 3424	(A,108,93)	RS1/8SQ821J
	R 3425	(A,83,93)	RS1/8SQ821J
	R 3426	(A,110,93)	RS1/8SQ821J
⚠	R 3427	(A,83,45)	RS1/8SQ3R3J
⚠	R 3428	(A,99,45)	RS1/8SQ3R3J
	R 3431	(A,104,31)	RS1/8SQ472J
	R 3432	(A,104,24)	RS1/8SQ472J
	R 3433	(A,104,27)	RS1/8SQ472J
	R 3434	(A,104,21)	RS1/8SQ472J
⚠	R 3435	(A,106,31)	RS1/10SR1R0J
⚠	R 3436	(A,106,24)	RS1/10SR1R0J
⚠	R 3437	(A,106,27)	RS1/10SR1R0J
⚠	R 3438	(A,106,21)	RS1/10SR1R0J
⚠	R 3441	(A,87,74)	RS1/8SQ180J
⚠	R 3442	(A,101,74)	RS1/8SQ180J
⚠	R 3443	(A,91,74)	RS1/8SQ180J
⚠	R 3444	(A,105,74)	RS1/8SQ180J
	R 3901	(A,87,112)	RAB4C472J
	R 3905	(A,90,117)	RS1/10SR562J
	R 3906	(A,90,107)	RS1/10SR562J
	R 3907	(A,90,116)	RS1/10SR562J
	R 3908	(A,90,108)	RS1/10SR562J
	R 3909	(A,94,119)	RS1/10SR183J
	R 3910	(A,94,107)	RS1/10SR183J
	R 3911	(A,94,116)	RS1/10SR183J
	R 3912	(A,94,112)	RS1/10SR183J
	R 3913	(A,83,114)	RS1/10SR472J
	R 3914	(A,84,110)	RS1/10SR472J
	R 3915	(A,84,114)	RS1/10SR472J
	R 3916	(A,83,110)	RS1/10SR472J
⚠	R 3921	(A,101,113)	RS1/10SR8R2J

Mark	No.	Description	Part No.
	R 3923	(A,103,113)	RS1/10SR103J
	R 3924	(A,103,116)	RS1/10SR103J
CAPACITORS			
	C 3101	(A,74,115)	CKSRYB224K16
	C 3102	(A,75,117)	CKSRYB103K50
	C 3103	(A,75,121)	CKSRYB104K16
	C 3104	(A,71,121)	CKSRYB104K16
	C 3105	(A,72,117)	CKSRYB103K50
	C 3106	(A,69,119)	CKSRYB104K16
	C 3107	(A,67,119)	CKSRYB104K16
	C 3108	(A,54,120)	CEVW100M10
	C 3109	(A,66,119)	CKSRYB102K50
	C 3110	(A,59,115)	CKSRYB104K16
	C 3111	(A,46,120)	CEVW100M10
	C 3112	(A,58,114)	CKSRYB104K16
	C 3113	(A,56,114)	CCSRCH180J50
	C 3114	(A,55,114)	CCSRCH150J50
	C 3115	(A,58,103)	CKSRYB474K10
	C 3116	(A,56,103)	CKSRYB104K16
	C 3117	(A,48,105)	CEVW100M10
	C 3118	(A,72,101)	CKSRYB104K16
	C 3119	(A,76,107)	CKSRYB104K16
	C 3120	(A,79,104)	CEVW100M10
	C 3141	(A,14,24)	CCSRCH221J50
	C 3142	(A,17,24)	CCSRCH221J50
	C 3151	(A,128,63)	CKSRYB104K16
	C 3192	(A,117,37)	CKSRYB104K25
	C 3201	(A,27,91)	CKSQYB105K16
	C 3202	(A,45,91)	CKSQYB105K16
	C 3203	(A,36,97)	CKSRYB104K16
	C 3204	(A,42,92)	CKSRYB104K16
	C 3211	(A,24,72)	CKSQYB104K50
	C 3212	(A,38,72)	CKSQYB104K50
	C 3213	(A,34,72)	CKSQYB104K50
	C 3214	(A,48,72)	CKSQYB104K50
	C 3215	(A,28,67)	CKSRYB333K50
	C 3216	(A,42,67)	CKSRYB333K50
	C 3217	(A,30,67)	CKSRYB333K50
	C 3218	(A,44,67)	CKSRYB333K50
	C 3221	(A,25,40) ELECT. CAPACITOR	CEAT102M25
	C 3223	(A,19,45)	CKSRYB103K50
	C 3224	(A,36,45)	CKSRYB103K50
	C 3225	(A,30,45)	CKSRYB102K50
	C 3226	(A,47,45)	CKSRYB102K50
	C 3227	(A,27,82)	CKSRYB104K25
	C 3228	(A,46,82)	CKSRYB104K25
	C 3231	(A,27,46)	CFTLA474J50
	C 3232	(A,44,46)	CFTLA474J50
	C 3233	(A,65,30)	CKSRYB104K25
	C 3234	(A,63,23)	CKSRYB104K25
	C 3235	(A,63,30)	CKSRYB104K25
	C 3236	(A,60,23)	CKSRYB104K25
	C 3237	(A,48,32)	CKSRYB103K50
	C 3238	(A,45,32)	CKSRYB103K50
	C 3239	(A,48,35)	CKSRYB103K50
	C 3240	(A,52,25)	CKSRYB103K50
	C 3241	(A,26,75)	CKSRYB331K50
	C 3242	(A,40,75)	CKSRYB331K50
	C 3243	(A,32,75)	CKSRYB331K50
	C 3244	(A,46,75)	CKSRYB331K50
	C 3301	(A,57,91)	CKSQYB105K16
	C 3302	(A,75,91)	CKSQYB105K16
	C 3303	(A,66,97)	CKSRYB104K16
	C 3304	(A,72,92)	CKSRYB104K16
	C 3311	(A,54,72)	CKSQYB104K50
	C 3312	(A,68,72)	CKSQYB104K50
	C 3313	(A,64,72)	CKSQYB104K50
	C 3314	(A,78,72)	CKSQYB104K50
	C 3315	(A,58,67)	CKSRYB333K50
	C 3316	(A,72,67)	CKSRYB333K50
	C 3317	(A,60,67)	CKSRYB333K50
	C 3318	(A,74,67)	CKSRYB333K50
	C 3321	(A,41,40) ELECT. CAPACITOR	CEAT102M25
	C 3323	(A,52,45)	CKSRYB103K50
	C 3324	(A,69,45)	CKSRYB103K50
	C 3325	(A,63,45)	CKSRYB102K50
	C 3326	(A,80,45)	CKSRYB102K50
	C 3327	(A,57,82)	CKSRYB104K25
	C 3328	(A,76,82)	CKSRYB104K25
	C 3331	(A,60,46)	CFTLA474J50
	C 3332	(A,77,46)	CFTLA474J50
	C 3333	(A,81,30)	CKSRYB104K25
	C 3334	(A,74,24)	CKSRYB104K25
	C 3335	(A,78,30)	CKSRYB104K25
	C 3336	(A,77,24)	CKSRYB104K25
	C 3337	(A,87,37)	CKSRYB103K50
	C 3338	(A,58,37)	CKSRYB103K50
	C 3339	(A,69,37)	CKSRYB103K50
	C 3340	(A,97,37)	CKSRYB103K50
	C 3341	(A,56,75)	CKSRYB331K50
	C 3342	(A,70,75)	CKSRYB331K50
	C 3343	(A,62,75)	CKSRYB331K50
	C 3344	(A,76,75)	CKSRYB331K50
	C 3401	(A,87,91)	CKSQYB105K16
	C 3402	(A,105,91)	CKSQYB105K16
	C 3403	(A,96,97)	CKSRYB104K16
	C 3404	(A,102,92)	CKSRYB104K16
	C 3411	(A,84,72)	CKSQYB104K50
	C 3412	(A,98,72)	CKSQYB104K50
	C 3413	(A,94,72)	CKSQYB104K50
	C 3414	(A,108,72)	CKSQYB104K50
	C 3415	(A,88,67)	CKSRYB333K50
	C 3416	(A,102,67)	CKSRYB333K50
	C 3417	(A,90,67)	CKSRYB333K50
	C 3418	(A,104,67)	CKSRYB333K50
	C 3421	(A,107,40) ELECT. CAPACITOR	CEAT102M25
	C 3423	(A,85,45)	CKSRYB103K50
	C 3424	(A,102,45)	CKSRYB103K50
	C 3425	(A,96,45)	CKSRYB102K50
	C 3426	(A,113,47)	CKSRYB102K50
	C 3427	(A,87,82)	CKSRYB104K25
	C 3428	(A,106,82)	CKSRYB104K25
	C 3431	(A,93,46)	CFTLA474J50
	C 3432	(A,110,46)	CFTLA474J50
	C 3433	(A,95,30)	CKSRYB104K25
	C 3434	(A,89,24)	CKSRYB104K25
	C 3435	(A,93,30)	CKSRYB104K25
	C 3436	(A,92,24)	CKSRYB104K25

Mark	No.	Description	Part No.
	C 3437	(A,108,31)	CKSRYB103K50
	C 3438	(A,108,24)	CKSRYB103K50
	C 3439	(A,108,27)	CKSRYB103K50
	C 3440	(A,108,21)	CKSRYB103K50
	C 3441	(A,86,75)	CKSRYB331K50
	C 3442	(A,100,75)	CKSRYB331K50
	C 3443	(A,92,75)	CKSRYB331K50
	C 3444	(A,106,75)	CKSRYB331K50
	C 3901	(A,91,114)	CCSRCH681J50
	C 3902	(A,91,110)	CCSRCH681J50
	C 3903	(A,89,114)	CCSRCH681J50
	C 3904	(A,89,110)	CCSRCH681J50
	C 3905	(A,92,117)	CCSRCH181J50
	C 3906	(A,92,107)	CCSRCH181J50
	C 3907	(A,92,114)	CCSRCH561J50
	C 3908	(A,92,110)	CCSRCH561J50
	C 3921	(A,88,121)	CEVW100M25
	C 3922	(A,80,121)	CEVW100M16
	C 3923	(A,101,110)	CKSRYB104K25
	C 3924	(A,101,116)	CKSRYB104K16

E RHTS DISPLAY ASSY

MISCELLANEOUS

IC	9000	(B,204,35) DUAL OP-AMP	NJM4565MD
IC	9400	(B,117,38) FL DRIVER IC	PT6315
Q	9100	(B,234,40) TRANSISTOR	IMX9
Q	9101	(B,234,48) TRANSISTOR	IMX9
Q	9102	(B,212,48) CHIP DIGITAL TRANS.	LTA124EUB
L	9000	(B,178,19) INDUCTOR	CTF1306
L	9001	(B,191,30) INDUCTOR	CTF1306
L	9100	(B,232,31) INDUCTOR	CTF1306
L	9101	(B,228,34) INDUCTOR	CTF1306
L	9103	(B,225,38) INDUCTOR	CTF1306
L	9400	(A,85,37) AXIAL INDUCTOR	LAU100J
L	9401	(A,83,27) AXIAL INDUCTOR	LAU220J
JA	9001	(A,213,21) MIC JACK	XKN3018
JA	9002	(A,193,21) MIC JACK	XKN3018
JA	9100	(A,232,21) MINITURE JACK	XKN3019
V	9400	(A,88,27) FL TUBE	AAV7104
S	9300	(A,158,53) SWITCH	VSG1024
S	9301	(A,176,53) SWITCH	VSG1024
S	9302	(A,194,53) SWITCH	VSG1024
S	9303	(A,212,53) SWITCH	VSG1024
S	9304	(A,230,53) SWITCH	VSG1024
S	9305	(A,43,51) SWITCH	VSG1024
S	9306	(A,132,53) SWITCH	VSG1024
CN	9401	(A,12,56) CONNECTOR	9607S-23F
	9301	FL SPACER	AEB7367
	9300	(A,65,39) REMOTE RECEIVER UNIT	GP1UE274XKC1

RESISTORS

R	9000	(B,203,27)	RS1/10SR473J
R	9001	(B,210,35)	RS1/10SR103J
R	9002	(B,184,44)	RS1/10SR332J
R	9003	(B,193,30)	RS1/10SR332J
R	9004	(B,199,31)	RS1/10SR332J
R	9006	(B,184,40)	RS1/10SR332J
R	9008	(B,200,38)	RS1/10SR473J
R	9017	(B,185,25)	RS1/10SR272J
R	9018	(B,205,16)	RS1/10SR822J
R	9019	(B,201,16)	RS1/10SR682J
R	9021	(B,190,35)	RS1/10SR0R0J
R	9022	(B,202,43)	RS1/10SR103J
R	9101	(B,231,34)	RS1/10SR680J
R	9102	(B,237,30)	RS1/10SR680J
R	9103	(B,233,34)	RS1/10SR680J
R	9104	(B,240,30)	RS1/10SR680J
R	9105	(B,223,42)	RS1/10SR680J
R	9106	(B,224,48)	RS1/10SR680J
R	9107	(B,225,42)	RS1/10SR680J
R	9108	(B,226,48)	RS1/10SR680J
R	9109	(B,223,38)	RS1/10SR680J
R	9112	(B,219,48)	RS1/10SR680J
R	9113	(B,219,41)	RS1/10SR680J
R	9114	(B,221,48)	RS1/10SR680J
R	9115	(B,221,42)	RS1/10SR680J
R	9116	(B,228,41)	RS1/10SR222J
R	9117	(B,231,45)	RS1/10SR222J
R	9118	(B,230,41)	RS1/10SR222J
R	9119	(B,228,47)	RS1/10SR222J
R	9120	(B,240,35)	RS1/10SR0R0J
R	9300	(B,184,53)	RS1/10SR222J
R	9301	(B,187,53)	RS1/10SR332J
R	9302	(B,189,53)	RS1/10SR562J
R	9303	(B,224,53)	RS1/10SR103J
R	9304	(B,60,52)	RS1/10SR222J
R	9305	(B,59,47)	RS1/10SR101J
R	9306	(B,55,41)	RS1/10SR470J
R	9400	(B,98,42)	RS1/10SR221J
R	9401	(B,94,43)	RS1/10SR221J
R	9402	(B,90,45)	RS1/10SR221J
R	9405	(B,105,40)	RS1/10SR823J

CAPACITORS

C	9000	(B,213,21)	CCSRCH101J50
C	9001	(B,189,29)	CCSRCH101J50
C	9002	(B,205,27)	CCSRCH220J50
C	9003	(A,197,28)	CEJQ2R2M50
C	9006	(A,181,43)	CEAL470M16
C	9007	(B,196,45)	CKSRYB104K16
C	9008	(B,198,45)	CCSRCH101J50
C	9010	(B,197,38)	CCSRCH820J50
C	9012	(B,175,42)	CKSRYB104K16
C	9020	(B,176,19)	CKSRYB223K50
C	9021	(B,195,33)	CKSRYB104K16
C	9100	(B,226,26)	CKSRYB103K50
C	9103	(B,235,34)	CKSRYB473K25
C	9104	(B,235,30)	CKSRYB473K25
C	9105	(B,237,34)	CKSRYB102K50
C	9106	(B,239,48)	CKSRYB102K50
C	9300	(A,53,39)	CEJQ470M10
C	9301	(B,56,37)	CKSRYB223K50
C	9402	(A,96,22)	CEJQ470M10
C	9403	(B,103,40)	CCSRCH221J50
C	9404	(B,96,43)	CCSRCH221J50
C	9405	(B,92,45)	CCSRCH221J50
C	9406	(B,123,47)	CKSRYB103K50
C	9407	(B,75,28)	CKSRYB223K50

Mark	No.		Description	Part No.
C	9408	(B,98,34)		CKSRYB223K50
C	9409	(A,90,38)	ELECTR. CAPACITOR	CEAL470M35
C	9417	(B,81,26)		CKSRYB223K50
C	9418	(B,86,22)		CKSRYB223K50
C	9420	(A,171,34)	ELECTR. CAPACITOR	CEAL470M35

F EUROSCART ASSY (/SXJ5)

MISCELLANEOUS

IC	471	(B,38,46)	VIDEO SW IC	MM1505XN
IC	472	(B,29,48)	VIDEO SW IC	MM1507XN
Q	461	(B,68,68)	CHIP TRANSISTOR	RT3WLMM
Q	462	(B,47,65)	CHIP TRANSISTOR	RT3WLMM
Q	463	(B,52,70)	DIGITAL TR(SC-70)	RT1P441M
Q	472	(B,25,67)	TRANSISTOR	RT1N241M
Q	492	(B,80,40)	DIGITAL TR(SC-70)	RT1P241M
Q	493	(B,74,45)	TRANSISTOR	IMX9
D	471	(B,49,41)	DIODE	MC2846-11
D	472	(B,43,41)	DIODE	MC2848-11
D	473	(B,32,41)	DIODE	MC2846-11
D	474	(B,38,41)	DIODE	MC2848-11
JA	451	(A,62,8)	CONNECTOR	XKB3054
CN	461	(A,89,31)	CONNECTOR	CKS3388

RESISTORS

R	461	(B,62,69)		RS1/16S223J
R	462	(B,62,67)		RS1/16S122J
R	463	(B,73,65)		RS1/16S472J
R	464	(B,52,65)		RS1/16S472J
R	465	(B,73,67)		RS1/16S563J
R	466	(B,30,66)		RS1/16S103J
R	467	(B,41,69)		RS1/16S122J
R	468	(B,41,71)		RS1/16S122J
R	469	(B,41,67)		RS1/16S102J
R	470	(B,46,72)		RS1/16S821J
R	471	(B,46,70)		RS1/16S561J
R	472	(B,30,64)		RS1/16S223J
R	473	(B,52,73)		RS1/16S563J
R	474	(B,58,28)	CHIP RESISTOR	RS1/16S75R0F
R	475	(B,53,28)	CHIP RESISTOR	RS1/16S75R0F
R	476	(B,47,28)	CHIP RESISTOR	RS1/16S75R0F
R	477	(B,27,27)	CHIP RESISTOR	RS1/16S75R0F
R	478	(B,40,28)	CHIP RESISTOR	RS1/16S75R0F
R	481	(B,71,37)		RS1/16S102J
R	482	(B,71,35)		RS1/16S102J
R	483	(B,59,38)		RS1/16S473J
R	484	(B,63,38)		RS1/16S473J
R	485	(B,59,36)		RS1/16S471J
R	486	(B,63,36)		RS1/16S471J
R	493	(B,76,42)		RS1/16S472J
R	494	(B,76,40)		RS1/16S472J
R	495	(B,89,23)		RS1/16S331J
R	496	(B,85,23)		RS1/16S331J

CAPACITORS

C	464	(B,66,65)		CKSRYB104K50
C	470	(B,41,73)		CKSRYB104K50
C	471	(A,35,57)		CEAT100M50
C	472	(B,39,52)		CKSRYB104K50
C	473	(B,24,57)		CKSRYB104K50
C	474	(B,24,61)		CKSRYB104K50
C	475	(B,43,44)		CKSRYB104K50
C	476	(B,29,45)		CKSRYB104K50
C	477	(A,52,37)	ELECT. CAPACITOR	CEAT471M6R3
C	478	(A,45,37)	ELECT. CAPACITOR	CEAT471M6R3
C	479	(A,38,37)	ELECT. CAPACITOR	CEAT471M6R3
C	480	(A,30,37)	ELECT. CAPACITOR	CEAT102M6R3
C	481	(A,65,49)		CEAT100M50
C	482	(A,65,42)		CEAT100M50
C	483	(B,59,34)		CCSRCH331J50
C	484	(B,63,34)		CCSRCH331J50
C	485	(B,89,21)		CCSRCH101J50
C	486	(B,85,21)		CCSRCH101J50
C	487	(B,58,26)		CCSRCH470J50
C	488	(B,23,25)		CKSRYB104K50
C	489	(B,53,26)		CCSRCH470J50
C	490	(B,47,26)		CCSRCH470J50
C	491	(B,27,25)		CCSRCH470J50
C	492	(B,40,26)		CCSRCH470J50

H POWER SUPPLY UNIT

POWER SUPPLY UNIT has no service part.

I FM/AM TUNER UNIT

FM/AM TUNER UNIT has no service part.