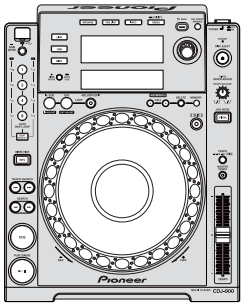
Pioneer

Service Manual



CDJ-900

ORDER NO.
RRV4000

MULTI PLAYER

CDJ-900

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

Model	Type	Power Requirement	Remarks
CDJ-900	CUXJ	AC 120 V	
CDJ-900	SYXJ8	AC 220 V to 240 V	
CDJ-900	FLXJ	AC 110 V to 240 V	
CDJ-900	KXJ5	AC 220 V to 240 V	
CDJ-900	AXJ5	AC 220 V	

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

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K-IZE OCT. 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

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

Laser Pickup specifications and Laser characteristics

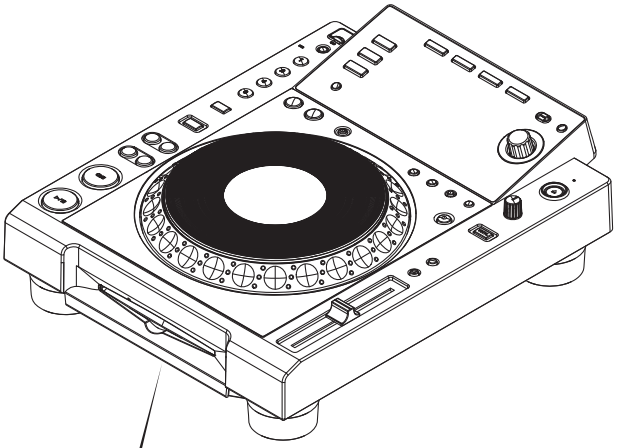
For CD	Wave length (typ)	: 790 nm
	Operation output	: 4 mW CW, Class 1
	Maximum output	: Class 1 (Under fault condition)

Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S8902) for detecting loading completion is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch is not in LPS1 terminal side (when the mechanism is not clamped and LPS1 signal is high level.)
   Thus, the interlock will no longer function if the switch is deliberately set to LPS1 terminal side.
   (if LPS1 signal is low level).
   In the test mode * the interlock mechanism will not function.
   Laser diode oscillation will continue, if pin 5 of AN22022A (IC7004) on the SRV Assy is connected to GND, or else the terminals of Q7002 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

LABEL CHECK



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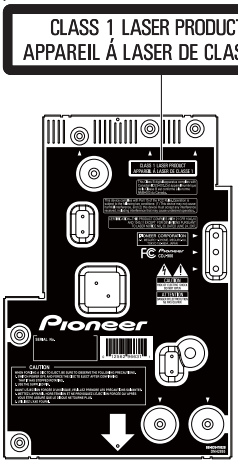

CUXJ

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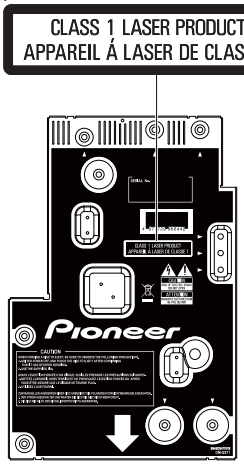

SYXJ8

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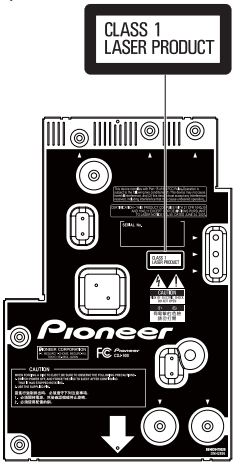

FLXJ

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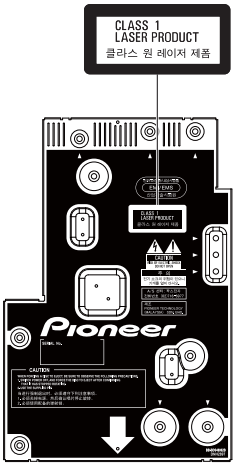

KXJ5

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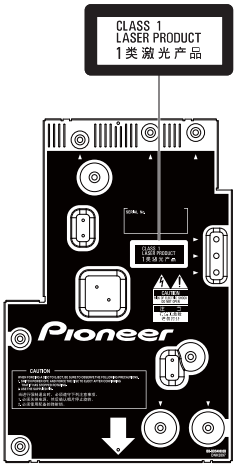

AXJ5

[Important Check Points for Good Servicing]

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

1. Product safety

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

① Use specified parts for repair.

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

② Do not perform modifications without proper instructions.

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

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

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

④ Make sure the screws are tightly fastened.

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

⑤ Make sure each connectors are correctly inserted.

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

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

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

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

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

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

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

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

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

⑩ Safe environment should be secured during servicing.

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

2. Adjustments

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

3. Lubricants, Glues, and Replacement parts

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

4. Cleaning

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

5. Shipping mode and Shipping screws

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

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5 6 7 8

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 NOTES ON FLASH ROM

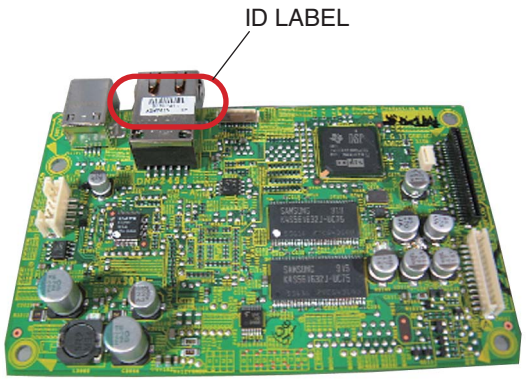
NEVER replace the FLASH ROM (IC114) on the MAIN Assy during servicing.
If the FLASH ROM is assumed to be defective, replace the whole MAIN Assy.
This FLASH ROM contains data that can only be written in at the factory.
An IEEE 802.3-based MAC address specific to this unit has been written.

1.3 NOTES ON PANEL CPU AND GUI CPU

After the PANEL CPU (IC8005) or GUI CPU (IC4002) is replaced, update its program.
The built-in PANEL CPU and GUI CPU contains a FLASH ROM and will not operate without a program.
For updating, proceed as follows:
1. Insert the USB flash memory device that contains the program.
2. While holding the USB STOP key pressed, turn on the unit.
   Hold the USB STOP key pressed until the “Pioneer” logo disappears.
3. Updating starts.

1.4 NOTES ON LINK CONNECTOR

If the LINK connector (JA1301) is replaced during a repair of the MAIN Assy, detach the ID LABEL (AXW7015) from the old connector then attach it to the new connector.
As an IEEE 802.3-based MAC address specific to this unit has been printed on the ID LABEL (AXW7015) be sure to attach it.



MAIN Assy

1.5 REPAIR OF THE JACB ASSY

When repairing the JACB Assy, note the following:
On part of the initial-lot JACB Assy, the DCN1186 (470 ohms, Part description No. 471) is mounted as the resistors (R8820–8823, 8839–8844, 8855, and 8856). In such a case, mount a new DCN1186 during replacement. (See the section 10.6 JACB ASSY.)

This applies only to the initial-lot products for the destinations SYXJ8 and FLXJ.
For products for other destinations, replace with the DCN1185 (330 ohms, Part description No. 331), as described in the circuit diagram.

2. SPECIFICATIONS
2.1 SPECIFICATIONS

Power requirements..... AC 120 V, 60 Hz (CUXJ)
AC 220 V to 240 V, 50 Hz/60 Hz (SYXJ8, AXJ5)
AC 110 V to 240 V, 50 Hz/60 Hz (FLXJ)
AC 220 V, 60 Hz (KXJ5)
Power consumption..... 26 W
Power consumption (standby)..... 0.4 W
Main unit weight..... 3.9 kg
External dimensions.....305 mm (W) x 115.6 mm (H) x 385 mm (D)
Tolerable operating temperature.....+5 °C to +35 °C
Tolerable operating humidity..... 5 % to 85 % (no condensation)

Analog audio output (AUDIO OUT L/ R)
Output terminal..... RCA terminal
Output Level..... 2.0 Vrms (1 kHz)
Frequency response..... 4 Hz to 20 kHz
S/ N ratio.....115 dB
Total harmonic distortion..... 0.003 %

Digital audio output (DIGITAL OUT)
Output terminal..... RCA terminal
Output type..... Coaxial digital (S/ PDIF)
Output level..... 0.5 Vp-p (75 Ω)
Output format..... 44.1 kHz, 24 bit/ 16 bit

USB downstream section (USB)
Port..... Type A
Power supply..... 5 V/ 500 mA or less

USB upstream section (USB)
Port..... Type B

LAN (PRO DJ LINK)
Rating.....100Base-TX

Control output (CONTROL)
Port..... Mini-jack

- The articles concerning free repairs, etc., indicated on the warranty do not apply to the rekordbox music management software. Before installing or using rekordbox, carefully read the articles in Software end user license agreement.

- The specifications and design of this product are subject to change without notice.

2.2 DISCS / FILES PLAYABLE

Playable discs

Discs including the following marks on the disc label, package or jacket can be played.

Types of discs that can be played and marks

	
CD	CD-TEXT
	
CD-R	CD-RW

Discs playable on this player are as shown below.

- CD-R/-RW discs recorded in music CD (CD-DA) format
- CD-R/-RW disc containing music files (MP3/AAC/WAV/AIFF)

❖ Discs that cannot be played

- DTS-CD
- Photo CDs
- Video CDs
- CD Graphics (CD-G) discs
- Unfinalized CDs
- DVD-R/-RW
- DVD+R/+RW
- DVD-R DL (dual layer)
- DVD+R DL (dual layer)
- DVD-Video discs
- DVD-Audio discs
- DVD-RAM discs
- DualDisc

❖ Playback of discs created on a computer

Depending on the application's settings and the computer's environment settings, it may not be possible to play discs created on a computer. Record discs in a format playable on the CDJ-900. For details, contact your application's selling agent.
It may not be possible to play discs created on a computer due to the disc's properties, scratches or dirt, or poor recording quality (dirt on the recording lens, etc.).

❖ Creating backup discs

When CD-R/-RW discs are paused or left in the pause mode at cue points for long periods of time, it may become difficult to play the disc at that point, due to the properties of the disc. Also, when a specific point is looped repeatedly an extremely large number of times, it may become difficult to play that point.
When playing valuable discs, we recommend making backup discs.

❖ Regarding copy protected CDs

This player is designed to conform to the specifications of the audio CD format. This player does not support the playback or function of discs that do not conform to these specifications.

❖ About 8 cm single CDs

8 cm single CDs cannot be played on the CDJ-900. Do not mount 8 cm adapters on CDs and play them on the CDJ-900. The adapter could fall off as the disc spins, damaging the disc or the player.

❖ About CD-Text

The CDJ-900 supports CD-Text. Titles, album names and artist names recorded in CD-Text are displayed. When multiple text data is recorded, the first text data is displayed. The supported character codes are shown below.

- ASCII
- ISO-8859
- MS-JIS
- Mandarin Chinese character code

About CD playback

Music files (MP3/AAC/WAV/AIFF) recorded on CD-R/-RW discs can be played.

Folder layers	Max. 8 levels (files in folders beyond the 8th level cannot be played)
Max. number of folders	2 000 folders per disc (folders beyond the 2 000th folder cannot be displayed)
Max. number of files	• 999 files for each file format • 3 000 files per disc (files beyond the 3 000th folder cannot be displayed)

When there are many folders or files, some time may be required for loading.

About USB devices

Music files (MP3/AAC/WAV/AIFF) recorded on USB devices can be played. Such data as disc identification information, cue points, loop points and hot cues can be recorded on USB devices.

Folder layers	Max. 8 levels (files in folders beyond the 8th level cannot be played)
Max. number of folders	Unlimited (folders beyond the 10 000th folder within a single folder cannot be displayed)
Max. number of files	Unlimited (files beyond the 10 000th file within a single folder cannot be displayed)
Supported file systems	FAT, FAT32 and HFS+

- The CDJ-900 supports such USB mass storage class USB devices as external hard discs, portable flash memory drives and digital audio players. External DVD/CD drives and other optical disc devices cannot be used.
- When there are many folders or files, some time may be required for loading.
- If multiple partitions are set for the USB device, the device may not be recognized.

❖ Cautions on using USB devices

- Some USB devices may not operate properly. Please note that Pioneer will accept no responsibility whatsoever for loss of data recorded on USB devices.
- USB hubs cannot be used.
- USB devices equipped with flash card readers may not operate.
- If a current above the allowable level is detected in the CDJ-900's USB port, it could happen that a warning message is displayed, the power to the USB device is cut off and signal transfer is stopped. To restore normal operation, remove USB devices connected to the player, then press **USB STOP**. Avoid reusing the USB device for which the excess current was detected. If normal operation is not restored after performing the above operation (if signals are not transferred), try turning off the player's power then turning it back on.
- Depending on the USB device you are using, the desired performance may not be achieved.

About MP3 files

MP3 files can have a constant bit rate (CBR) or a variable bit rate (VBR). Both types of files can be played on the CDJ-900, but the search and super fast search functions are slower with VBR files. If your priority is operability, we recommend recording MP3 files in CBR.
The CDJ-900 supports MP3 files in the formats shown below.

Compatible formats	MPEG-1	Audio Layer-3 sampling frequencies of 32 kHz, 44.1 kHz and 48 kHz, and bit rates of 32 kbps – 320 kbps are supported.
	MPEG-2	Audio Layer-3 sampling frequencies of 16 kHz, 22.05 kHz and 24 kHz, and bit rates of 16 kbps – 160 kbps are supported.
Track information		ID3 tag versions 1.0, 1.1, 2.2, 2.3 and 2.4 are supported. Titles, album names, artist names, etc., are displayed here.
File extension		.mp3

About AAC files

- AAC is the abbreviation of "Advanced Audio Coding", a basic format of audio compression technology used for MPEG-2 and MPEG-4.
- The file format and extension of AAC data depends on the application used to create the data.
- In addition to AAC files encoded with iTunes® and with the extension ".m4a", files with the extensions ".aac" and ".mp4" can also be played on the CDJ-900. However, copyright protected AAC files purchased for example at the iTunes Music Store cannot be played. Also, some files may not be playable, depending on the iTunes version used to encode them.
- The CDJ-900 supports AAC files in the formats shown below.

Compatible formats	MPEG-4 AAC LC	Sampling frequencies of 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz and 48 kHz, and bit rates of 16 kpbs – 320 kbps are supported.
Track information	aac	ID3 tag versions 1.0, 1.1, 2.2, 2.3 and 2.4 are supported. Titles, album names, artist names, etc., are displayed here.
	Extensions other than aac	Meta tags (embedded tags) are supported. Titles, album names, artist names, etc., are displayed here.
File extension	.m4a, .aac and .mp4	

About WAV files

The CDJ-900 supports WAV files in the formats shown below.

Compatible formats	The 16-/24-bit non-compressed PCM format and sampling frequencies of 44.1 kHz and 48 kHz are supported.
Track information	LST chunk Titles, album names, artist names, etc., are displayed here.
File extension	.wav

About AIFF files

The CDJ-900 supports AIFF files in the formats shown below.

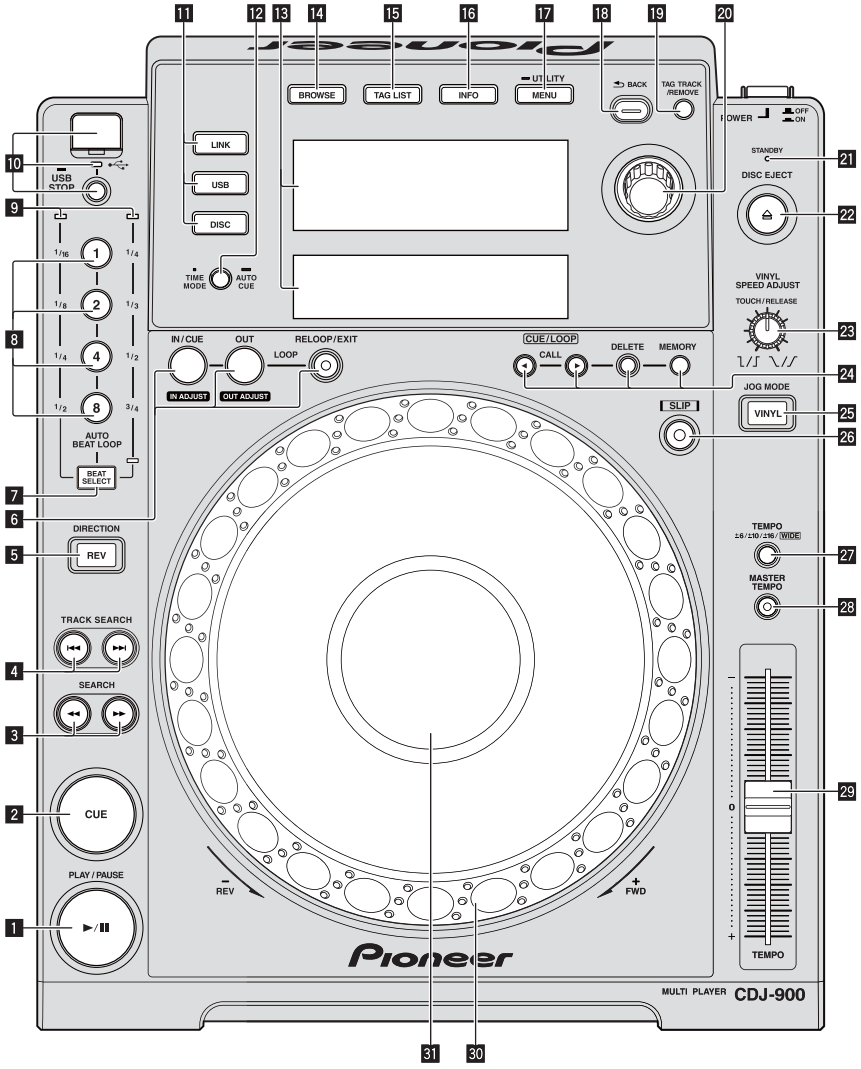
Compatible formats	The 16-/24-bit non-compressed PCM format and sampling frequencies of 44.1 kHz and 48 kHz are supported. Titles, album names, artist names, etc., are displayed here.
File extension	.aif, .aiff

About rekordbox

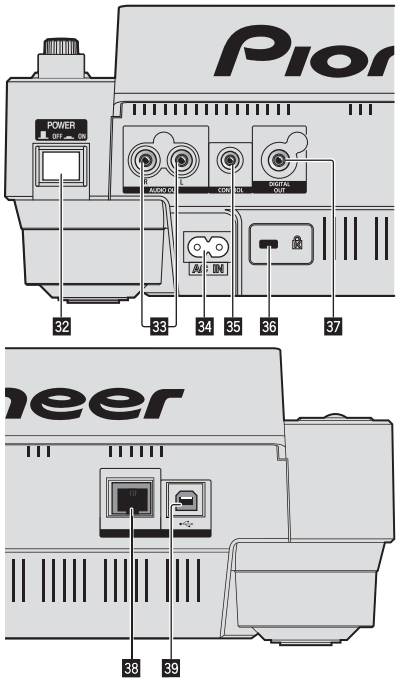
- rekordbox is an application for managing music files which are used for DJ play with a Pioneer DJ Player (i.e. CDJ-2000, CDJ-900).
  Data that has been detected and measured, as well as any points which have been set and stored using rekordbox, can be used in combination with a Pioneer DJ Player (i.e. CDJ-2000, CDJ-900) to achieve outstanding DJ performance.
- Install rekordbox from the included CD-ROM onto a computer.

2.3 PANEL FACILITIES

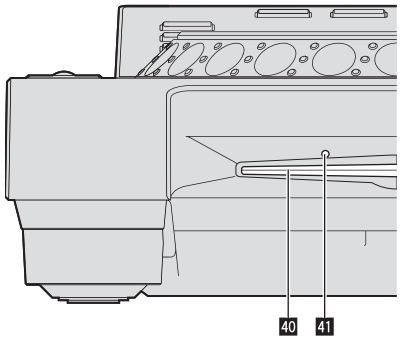
Control Panel



Rear Panel



Front Panel



Control Panel

1 PLAY/PAUSE►/❚❚ and PLAY/PAUSE►/❚❚ indicator
This lights when playing tracks and flashes when in the pause mode.

2 CUE and CUE indicator
This lights when a cue point is set (except during track searching), and flashes when a new cue point can be set in the pause mode.

3 SEARCH◄◄/►►

4 TRACK SEARCH|◄◄/►►|

5 DIRECTION REV and REV indicator

6 LOOP IN/CUE (IN ADJUST) , LOOP OUT (OUT ADJUST) , RELOOP/EXIT

7 BEAT SELECT

8 AUTO BEAT LOOP (1, 2, 4, 8)

9 Beat select indicator
The indicator for the row selected by pressing [**BEAT SELECT**] lights.

10 USB device insertion slot, USB indicator and USB STOP

11 LINK, USB, DISC

12 TIME MODE/AUTO CUE

13 Main unit display

14 BROWSE

15 TAG LIST

16 INFO

17 MENU/UTILITY

18 BACK

19 TAG TRACK/REMOVE

20 Rotary selector
When selecting tracks or setting items, the cursor moves when the rotary selector is turned. Press the rotary selector to enter.

21 STANDBY indicator
This lights when in the standby mode.

22 DISC EJECT⏏ and DISC EJECT indicator

23 VINYL SPEED ADJUST

24 CUE/LOOP CALL◄/► , DELETE , MEMORY

25 JOG MODE, VINYL mode indicator and CDJ mode indicator
The mode switches between VINYL and CDJ each time this is pressed. The indicator lights when the VINYL mode is selected.

26 SLIP

27 TEMPO ±6/±10/±16/WIDE

28 MASTER TEMPO

29 TEMPO

30 Jog dial (– REV/+ FWD)

31 Jog dial display section

Rear Panel

32 POWER ▂ON ▉OFF
Press to turn the power on and off.

33 AUDIO OUT L/R

34 AC IN

35 CONTROL

36 Kensington security slot

37 DIGITAL OUT

38 LINK

39 USB

Front Panel

40 Disc insertion slot

41 Disc force eject pin insertion hole

About ejecting discs by force

- If the disc cannot be ejected by pressing [**DISC EJECT⏏**], the disc can be ejected forcibly by inserting the disc force eject pin all the way into the disc force eject pin insertion hole on the main unit's front panel.
- When forcibly ejecting a disc, be sure to do so following the procedure below.

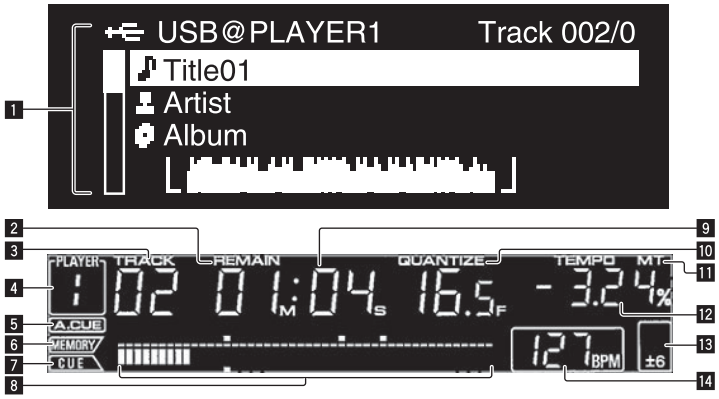
1 Press [POWER] and wait at least 1 minute after the set's power has turned off.

Never forcibly eject a disc directly after turning off the set's power. Doing so is dangerous for the reasons described below.
The disc will still be spinning when ejected and could hit your fingers, etc., causing injury.
Also, the disc clamp will rotate in an unstable way, and the disc could get scratched.

2 Use the included disc force eject pin. (Do not use anything else.)

The included disc force eject pin is mounted on the CDJ-900's bottom panel. When the pin is inserted all the way into the insertion hole, the disc is ejected 5 mm to 10 mm out of the disc insertion slot. Grasp the disc with your fingers and pull it out.

Main unit display



1 Information display section
Up to 63 characters can be displayed for each item. The characters that can be displayed are letters A to Z, numbers 0 to 9 and certain symbols. Any other characters are displayed as "?".

2 REMAIN
This lights when the time display is set to the remaining time.

3 TRACK
This indicates the track number (01 – 99).

4 PLAYER
This indicates the player number (1 – 4) assigned to this CDJ-900.

5 A. CUE
This lights when auto cue is set.

6 MEMORY
Cue and loop points recorded on USB devices are displayed as marks.

7 CUE
The positions of currently set cue and loop points are displayed as marks.

8 Playing address display
The track is displayed as a bar graph. When the remaining time is displayed, the display turns off from the left side. The entire graph flashes slowly when there are less than 30 seconds remaining in the track, then begins flashing rapidly when less than 15 seconds remain.

9 Time display (minutes, seconds and frames)
There are 75 frames to a second.

10 QUANTIZE
This lights red when [**QUANTIZE**] is turned on.
When [**QUANTIZE**] is turned on, the loop point is automatically set to the beat position nearest the position at which [**LOOP IN**/**CUE** (**IN ADJUST**)], [**LOOP OUT** (**OUT ADJUST**)] or [**AUTO BEAT LOOP**] (**1**, **2**, **4**, **8**) was pressed.
The Quantize function will not work (the indicator is off) under the following conditions:
- When playing tracks recorded on discs
- When playing music files that have not been analyzed with rekordbox
- In the pause mode

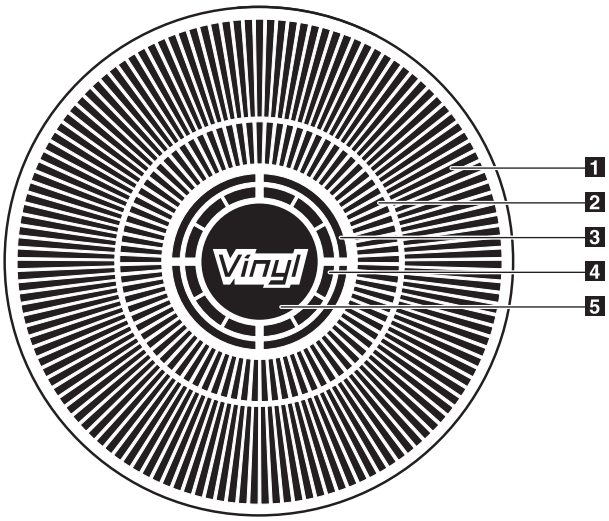
11 MT
This lights when the master tempo is set.

12 Playing speed display
The number changes according to the position of [**TEMPO**].

13 Playing speed adjustment range display
This indicates the range in which the playing speed can be adjusted with respect to the original playing speed recorded on the medium.

14 BPM
Displays BPM (Beats Per Minute) of the track currently being played.

Jog dial display section



1 Operation display
This indicates the playing position, with one revolution equal to 135 frames. It turns during playback and stops in the pause mode.

2 Cue point display/SLIP play display

3 Audio memory status display
This flashes when the audio memory is being written. It stops flashing, remaining lit, when writing is completed.
The operations below may not be possible while the audio memory is being written.
- Setting Cue Point during playback (Real Time Cue)

The display also flashes when there is not enough memory due to scratch play.

4 Jog touch detection display
When the jog mode is set to VINYL, the top of the jog dial lights when pressed.

5 VINYL
This lights when the jog mode is set to VINYL.

3. BASIC ITEMS FOR SERVICE
3.1 CHECK POINTS AFTER SERVICING

Items to be checked after servicing / CDJ

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. Audio and operations must be normal.
3	Play back a CD. (track search)	Audio, Search and operations must be normal.
4	Check the connection of each interface.	
	Play back data contained in the device connected to USB A.	Audio, Search and operations must be normal.
	USB B	The device must be recognized by the PC.
	LINK	The PC must be linked.
5	Check output signals while the JOG dial or TEMPO slider is being operated.	Audio and operations must be normal.
6	Check the keys on the unit.	Check whether a product can be operated properly by buttons on the product.
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. CD test disc (STD-905)	The error rates must be less than 3.0×10^{-3}. (This procedure can determine if the drive is degraded.)

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

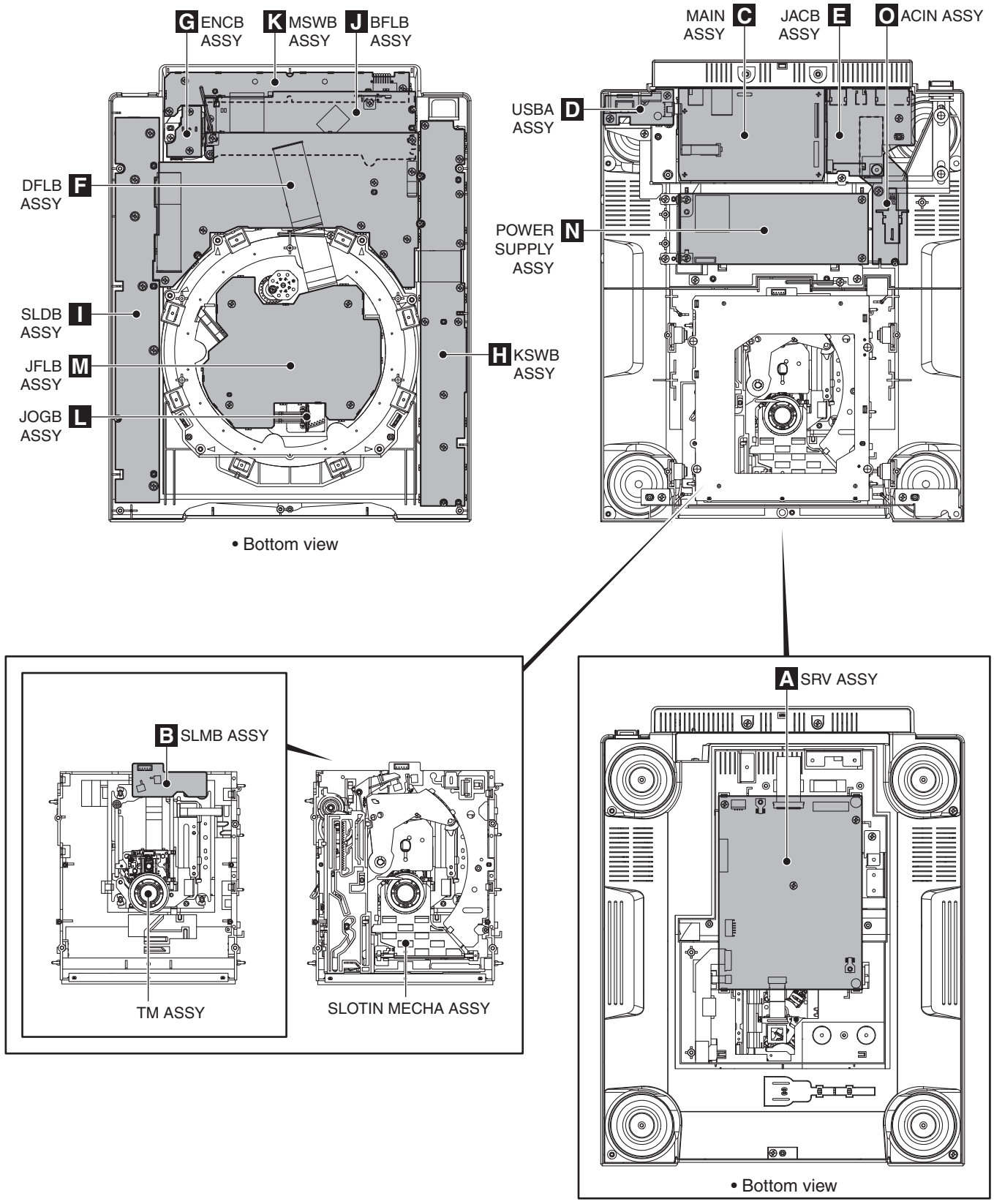
Item to be checked regarding audio
Distortion
Noise
Volume too low
Volume too high
Volume fluctuating
Sound interrupted

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	Refer to “9.5 SLOTIN MECHA SECTION”.
	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	CDJ-900 /CUXJ	CDJ-900 /SYXJ8	CDJ-900 /FLXJ	CDJ-900 /KXJ5	CDJ-900 /AXJ5
NSP	1..DFLA ASSY	DWM2361	DWM2361	DWM2361	DWM2361	DWM2361
	2..KSWB ASSY	DWS1416	DWS1416	DWS1416	DWS1416	DWS1416
	2..SLDB ASSY	DWS1417	DWS1417	DWS1417	DWS1417	DWS1417
	2..SLMB ASSY	DWS1418	DWS1418	DWS1418	DWS1418	DWS1418
	2..DFLB ASSY	DWX3021	DWX3021	DWX3021	DWX3021	DWX3021
	2..ENCB ASSY	DWX3022	DWX3022	DWX3022	DWX3022	DWX3022
	2..JACB ASSY	DWX3023	DWX3023	DWX3023	DWX3023	DWX3023
NSP	1..JFLA ASSY	DWM2362	DWM2356	DWM2356	DWM2356	DWM2356
	2..ACIN ASSY	DWR1461	DWR1462	DWR1462	DWR1462	DWR1462
	2..MSWB ASSY	DWS1415	DWS1415	DWS1415	DWS1415	DWS1415
	2..JFLB ASSY	DWX3024	DWX3024	DWX3024	DWX3024	DWX3024
	2..BFLB ASSY	DWX3025	DWX3025	DWX3025	DWX3025	DWX3025
	2..JOGB ASSY	DWX3026	DWX3026	DWX3026	DWX3026	DWX3026
	1..MAIN ASSY	DWX3019	DWX3019	DWX3019	DWX3019	DWX3019
	1..SRV ASSY	DWX3020	DWX3020	DWX3020	DWX3020	DWX3020
	1..USBA ASSY	DWX3044	DWX3044	DWX3044	DWX3044	DWX3044
⚠	1..POWER SUPPLY ASSY	DWR1463	DWR1463	DWR1463	DWR1463	DWR1463
NSP	1..SLOTIN MECHA ASSY	DXA2121	DXA2121	DXA2121	DXA2121	DXA2121
	1..TM ASSY 03-S	VXX3125	VXX3125	VXX3125	VXX3125	VXX3125

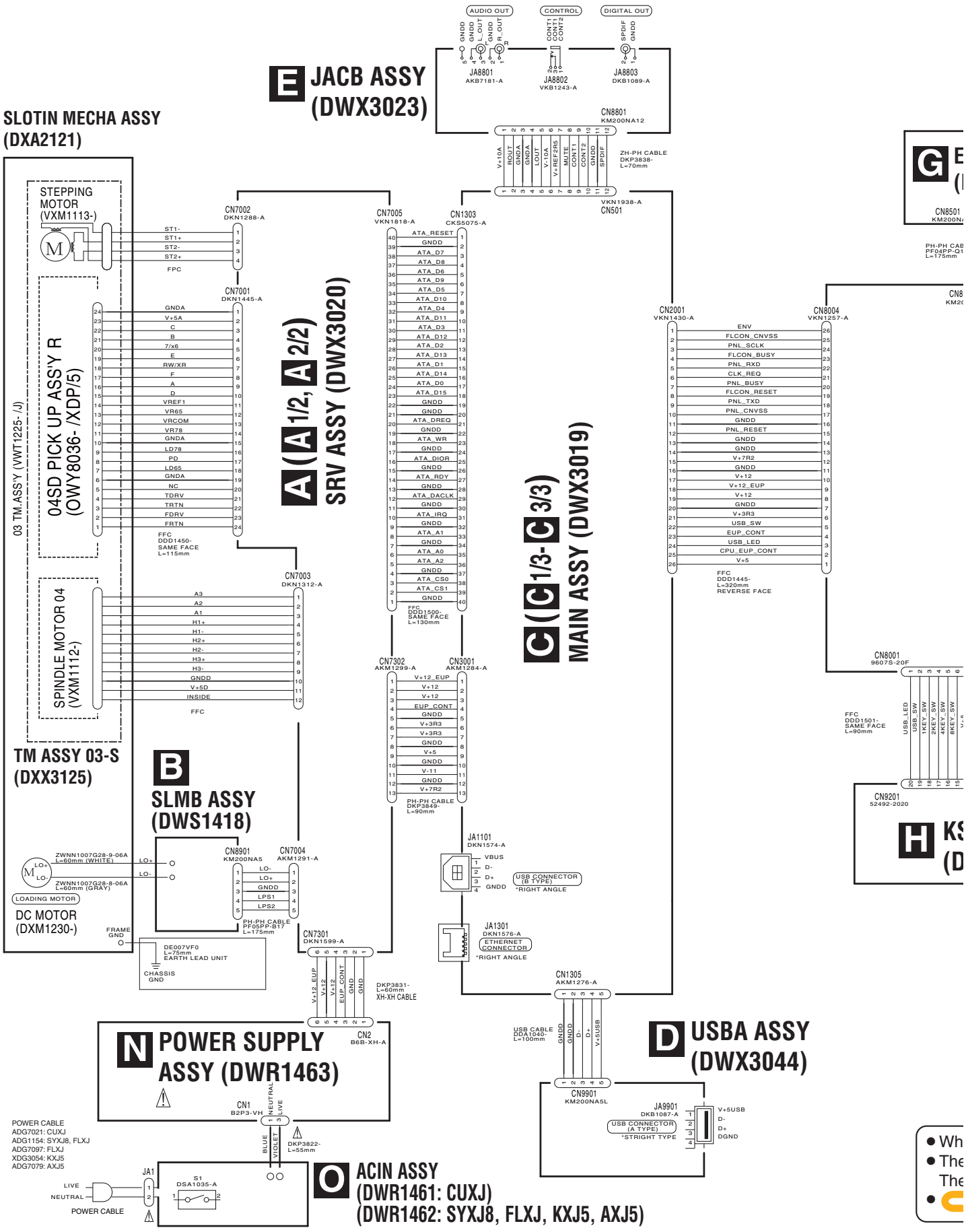
3.3 JIGS LIST

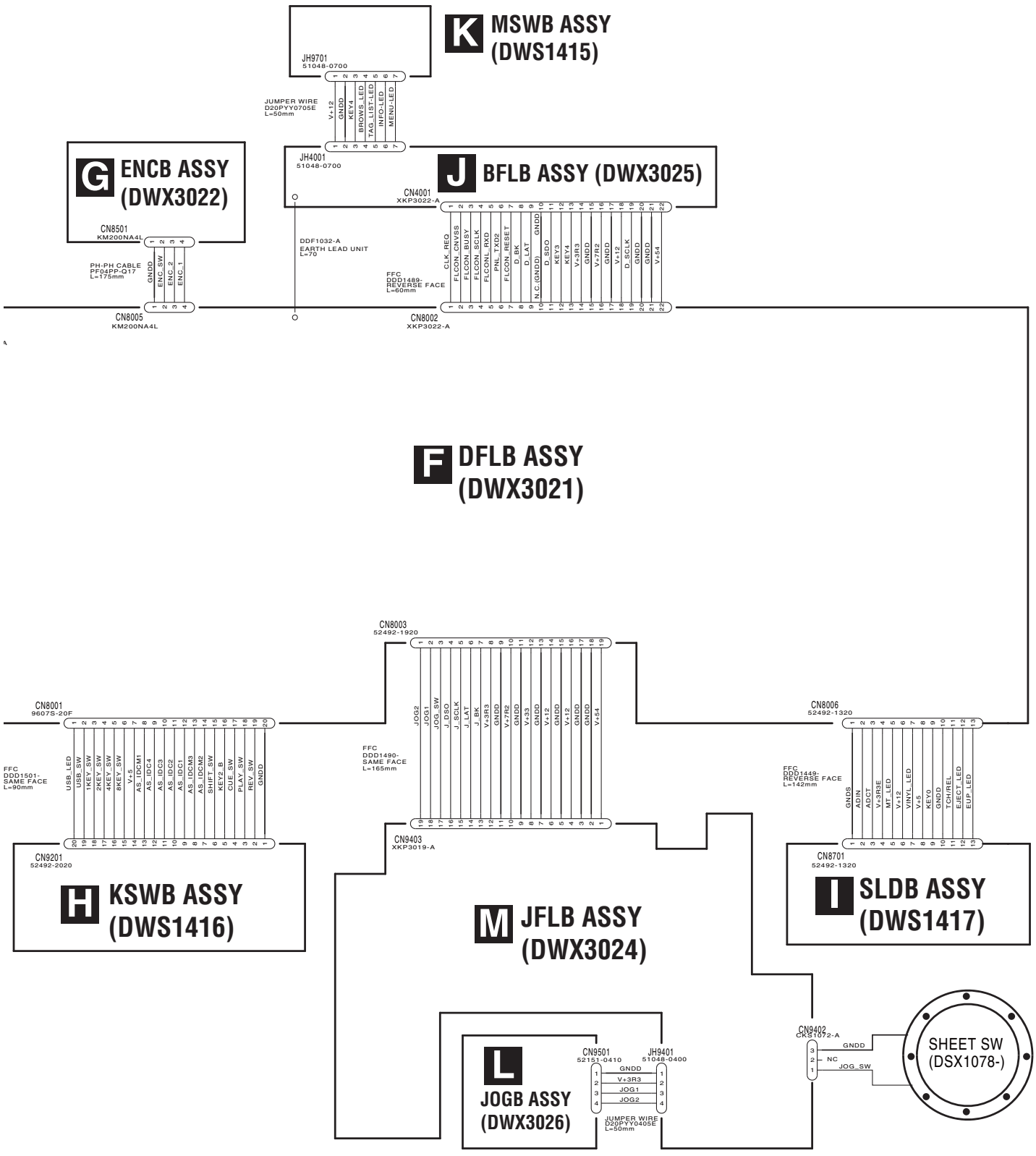
Lubricants and Glues List

Name	Part No.	Remarks
Lubricating oil	GYA1001	Refer to “9.4 JOG DIAL SECTION”, “9.5 SLOTIN MECHA SECTION”.
Lubricating oil	ZLB-HFD1600	Refer to “9.2 EXTERIOR SECTION”, “9.4 JOG DIAL SECTION”.
Dyfree	GEM1036	Refer to “9.5 SLOTIN MECHA SECTION”.

4. BLOCK DIAGRAM

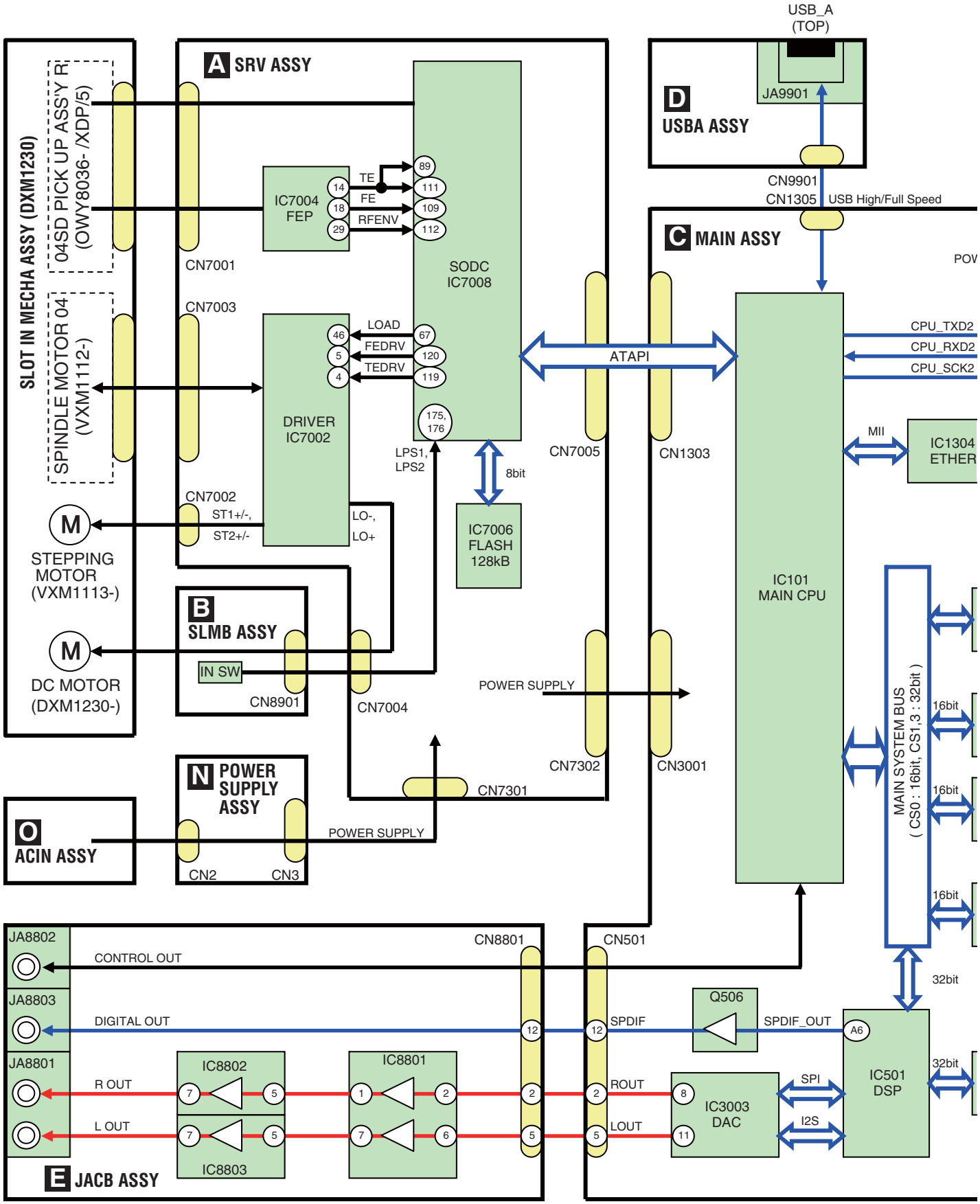
4.1 OVERALL WIRING DIAGRAM

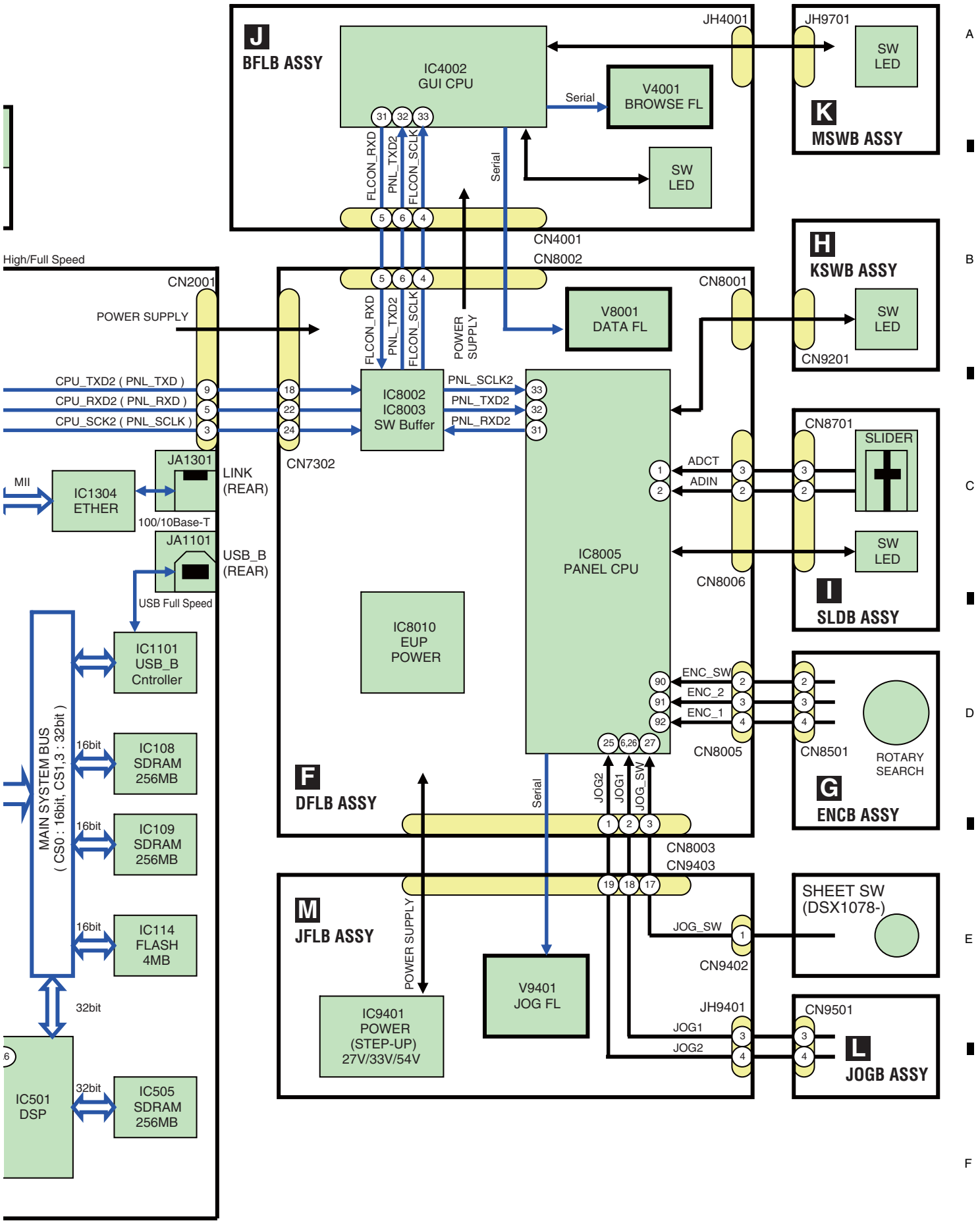




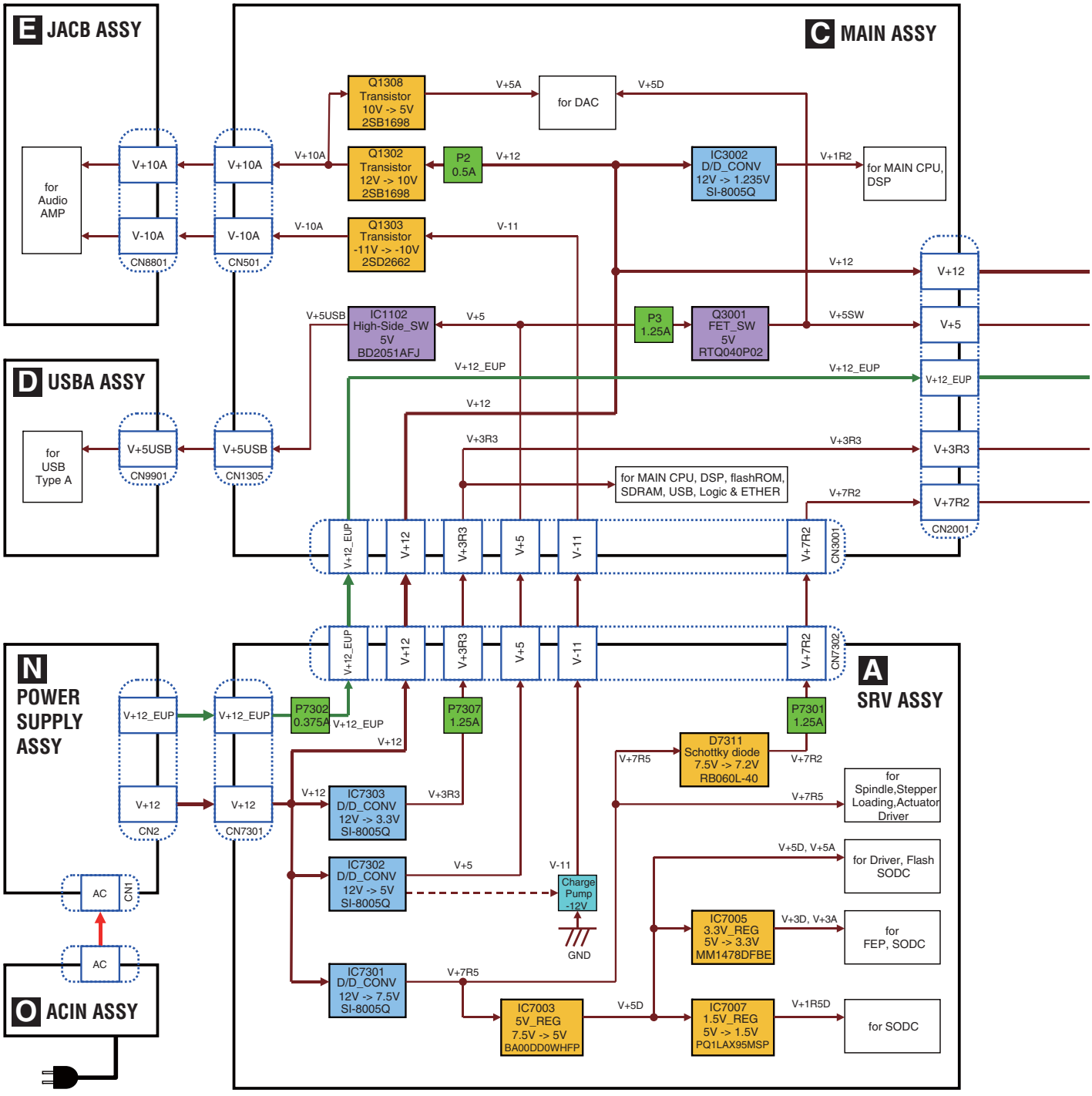
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- : The power supply is shown with the marked box.

4.2 SIGNAL BLOCK DIAGRAM



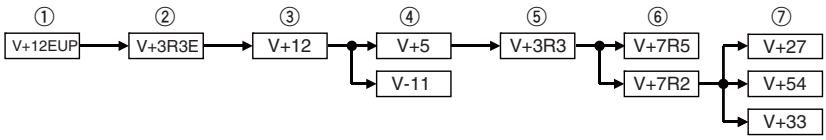

J
BFLB ASSY
IC4002
GUI CPU
Serial
V4001
BROWSE FL
SW
LED
JH4001
JH9701
K
MSWB ASSY
FLCON_RXD
PNL_TXD2
FLCON_SCLK
Serial
CN4001
CN8002
High/Full Speed
CN2001
POWER SUPPLY
V8001
DATA FL
CN8001
H
KSWB ASSY
CN9201
CPU_TXD2 (PNL_TXD)
CPU_RXD2 (PNL_RXD)
CPU_SCK2 (PNL_SCLK)
IC8002
IC8003
SW Buffer
PNL_SCLK2
PNL_TXD2
PNL_RXD2
CN7302
CN8701
SLIDER
ADCT
ADIN
JA1301
LINK
(REAR)
MII
IC1304
ETHER
100/10Base-T
JA1101
USB_B
(REAR)
IC8005
PANEL CPU
CN8006
I
SLDB ASSY
USB Full Speed
IC8010
EUP
POWER
ENC_SW
ENC_2
ENC_1
CN8005
CN8501
ROTARY
SEARCH
G
ENCB ASSY
IC1101
USB_B
Cntroller
MAIN SYSTEM BUS
(CS0 : 16bit, CS1,3 : 32bit)
16bit
IC108
SDRAM
256MB
IC109
SDRAM
256MB
IC114
FLASH
4MB
32bit
F
DFLB ASSY
JOG2
JOG1
JOG_SW
CN8003
CN9403
M
JFLB ASSY
POWER SUPPLY
V9401
JOG FL
SHEET SW
(DSX1078-)
JOG_SW
CN9402
IC9401
POWER
(STEP-UP)
27V/33V/54V
JH9401
JOG1
JOG2
CN9501
L
JOGB ASSY
IC501
DSP
32bit
IC505
SDRAM
256MB

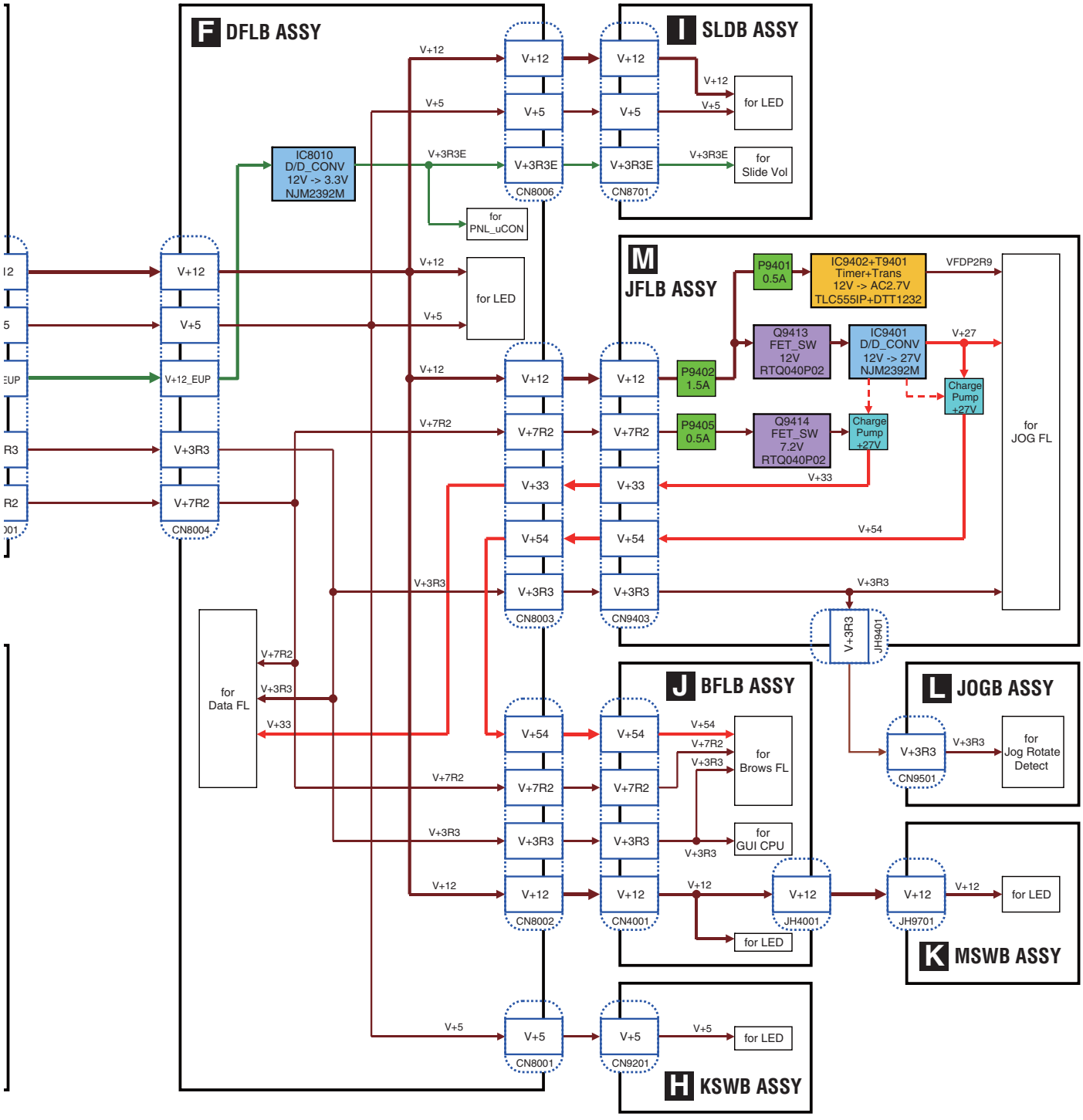
4.3 POWER SUPPLY BLOCK DIAGRAM



Power supply setup sequence

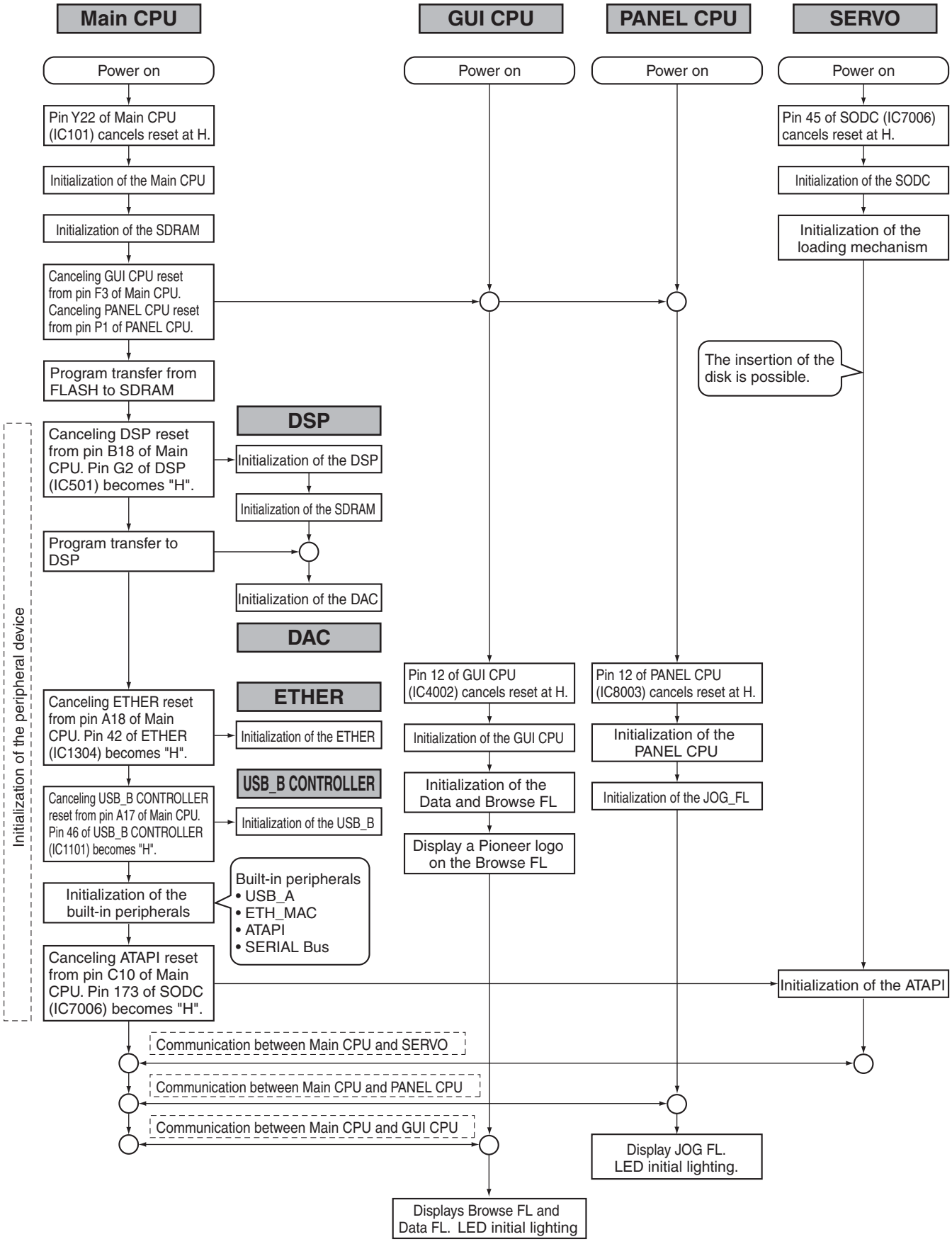
Show the power supply controlling the setup order by a circuit.



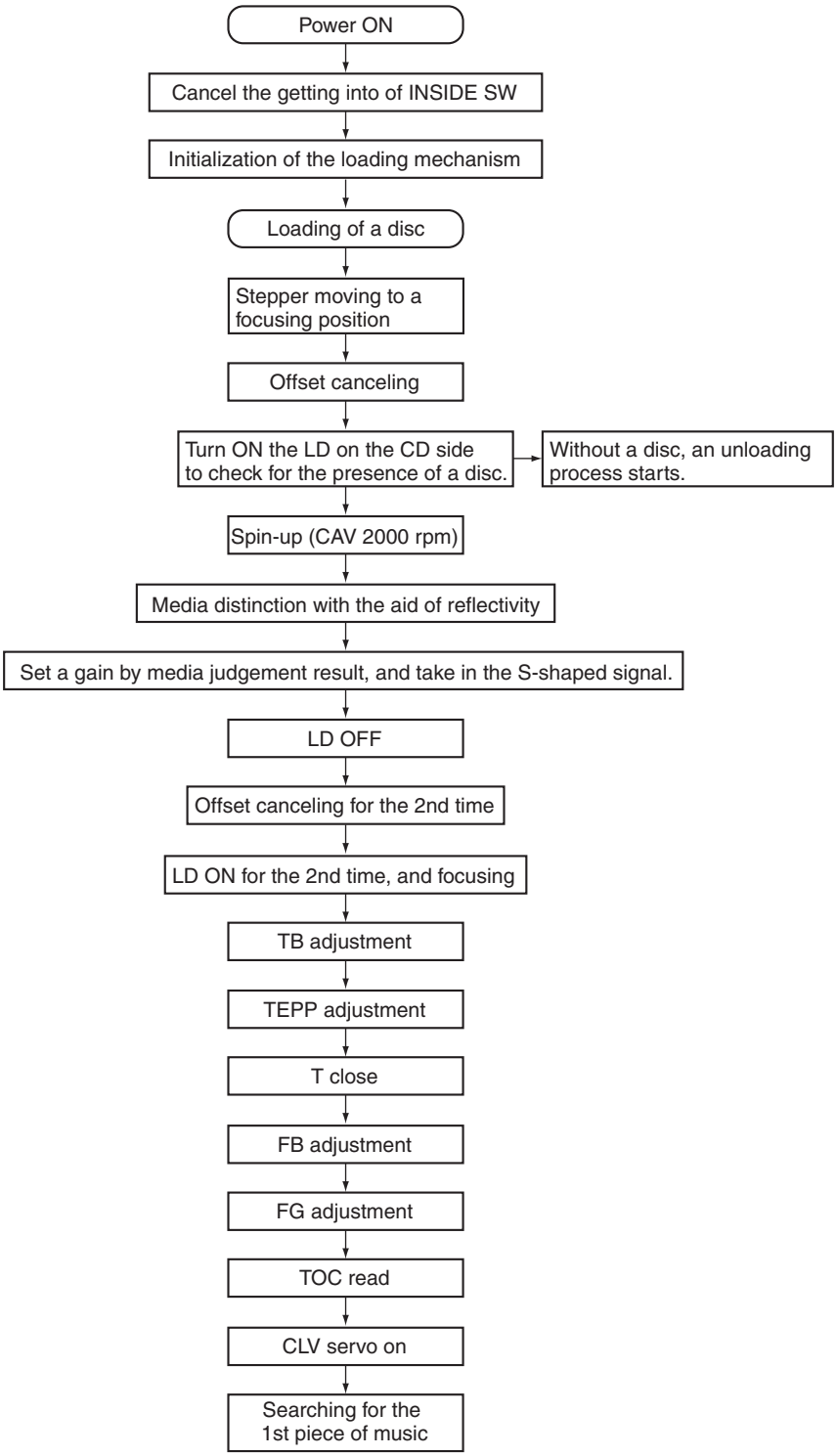

F DFLB ASSY
I SLDB ASSY
M JFLB ASSY
J BFLB ASSY
L JOGB ASSY
K MSWB ASSY
H KSWB ASSY
IC8010 D/D_CONV 12V -> 3.3V NJM2392M
for PNL_uCON
for LED
for Slide Vol
CN8006
CN8701
CN8004
CN8003
CN9403
CN8002
CN4001
CN8001
CN9201
P9401 0.5A
IC9402+T9401 Timer+Trans 12V -> AC2.7V TLC555IP+DTT1232
VFDP2R9
for JOG FL
P9402 1.5A
Q9413 FET_SW 12V RTQ040P02
IC9401 D/D_CONV 12V -> 27V NJM2392M
V+27
Charge Pump +27V
P9405 0.5A
Q9414 FET_SW 7.2V RTQ040P02
Charge Pump +27V
JH9401
JH4001
JH9701
CN9501
for Data FL
for Brows FL
for GUI CPU
for Jog Rotate Detect
V+12
V+5
V+3R3E
V+12_EUP
V+3R3
V+7R2
V+33
V+54

5. DIAGNOSIS
5.1 POWER ON SEQUENCE

■ Power-on Sequence



■ Set up Sequence of Servo Section



5.2 TROUBLESHOOTING

In this section, causes of failure, diagnostics points, and corrective measures can be searched for according to symptoms. Before disassembling this unit, it is recommended to infer a failure point by performing a auto device check/alarm port and referring to the error code.

Note: Alarm port is the Test port on the MAIN Assy.
(Location is referred to the Schematic diagram and PCB Connection diagram.)

For the relationship of each power-supply and signal system, see “4.3 POWER SUPPLY BLOCK DIAGRAM.”
If software of the product is updated before performing diagnostics, check that software updating has been performed properly before proceeding to diagnostics.
If software updating has not been performed properly, update the software, following the instructions in [7] Firmware update of “6.3 DETAILS ON SERVICE MODE.”

Contents

The waveform numbers described in this section correspond to the “10.15 WAVEFORMS.”

[0] Prior Confirmation

[0-1] Checking in Service Mode

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	—		Check the failure points in auto device check / alarm port.	See the section describing locations of defects in this manual.	6.SERVICE MODE

[0-2] Checking Cables

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Disconnection, breakage, or loose connection of cables	Cables	Check that all the cables are securely connected. Check that there is no breakage in the cables.	Securely connect the cables. If a cable is broken, replace it.	4.1 OVERALL CONNECTION DIAGRAM

[1] Failure in Startup

[1-1] No power

Even after the unit is turned on, no indication is displayed nor can loading by the DRIVE Assy be performed.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective power supply	SRV Assy	Check V+12.	If V+12 is not checked, go to step 2. If V+12 is checked, go to step 3.	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Defective power supply/Protector breakage	SRV Assy	Check V+12EUP. Check also if the protector (P7302) is broken.	If the protector is broken, replace the protector. If the V+12EUP voltage is not output, the SW power-supply IC may be defective. Replace it.	4.3 POWER SUPPLY BLOCK DIAGRAM
3	Signal errors	SRV Assy	Check the EUP_CONT signal.	If the signal is “L,” check the output from the SW power-supply IC. If V+12 is not output, the SW power-supply IC may be defective. Replace it. If the signal is “H,” check if the signal logics are the same as those for normal status shown in the table in the rightmost column. If either of the signal logics is not the same, check the mounting status of the IC8001 or IC8008 on the DFLB Assy, which corresponds to the wrong signal logic. If it is correctly mounted, then it may be defective. Replace it.	Refe to “Signal logic during EUP mode.”

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
4	Defective power supply/Protector breakage	SRV Assy	Check V+7R2, V+5, V+3R3 and check whether protector (P7302) does not break. V+7R2 => P7310 V+3R3 => P7307 Refer to 4.3 POWER SUPPLY BLOCK DIAGRAM.	If the protector is broken, replace the protector. Check the mounting statuses of the regulator IC and its peripheral parts for each power supply. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM

Reference: Signal logic during EUP mode

	Normal mode	EUP mode
EUP_CONT	L	H or open
PANEL CPU(IC8005) pin28	H	L
CPU_EUP_CONT	X	L

X : Not Concerned

[1-2] Startup stops with the "Pioneer" logo displayed on the screen. (See *1.)

If startup stops in such a status, the upstream and downstream communications between the MAIN CPU and PANEL CPU/GUI CPU could not be established.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Version upgrade failed.	—	Version upgrade of the software for the DRIVE unit may have failed.	If upgrading failed, startup stops with the "Pioneer" logo displayed on the screen, and the LED for the USB STOP key flashes repeatedly. See "6. SERVICE MODE."	6.SERVICE MODE
2	—	MAIN Assy	Check a failure point at the status check (alarm) port of the MAIN Assy.	If there is a point that has been judged as in failure, see "6. SERVICE MODE" in this section.	6.SERVICE MODE

[2] Display (DATA FL/BROWS FL/JOG FL/LED)

The DATA FL, BROWS FL and the LEDs (LINK, USB, DISC, BROWS, TAG LIST, INFO, MENU) are controlled by the GUI CPU (IC4002).
The JOG FL and the other LEDs are controlled by the PANEL CPU (IC8005).

[2-1] Any of the DATA, BROWS, and JOG FLs are not lit.

All types of driver power to be supplied are produced at the JFLB Assy.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Breakage of protectors	JFLB Assy/ SRV Assy	Check V+12 and check whether protectors do not break. JFLB Assy => P9402/P9405 SRV Assy => P7310	If the protector is broken, replace the protector.	4.3 POWER SUPPLY BLOCK DIAGRAM

[2-2] Neither the DATA nor BROWS FL is lit.

Driver power to be supplied to the DATA and BROWS FLs is produced at the JFLB Assy.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	JFLB Assy	Check supply voltages (V+33/V+54) of the FL.	If the presence of power is confirmed, check the connections to these FLs. If the presence of power is not confirmed, check the mounting statuses of the power circuit (IC9401) and its peripheral parts. If there is any problem, correct it.	4.3 POWER SUPPLY BLOCK DIAGRAM

[2-3] The BROWS FL does not light.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	BFLB Assy	Check the power-supply voltages (V+3R3/V+7R2/V+54) of the FL.	If the presence of power is not confirmed, check the mounting statuses of the regulator IC and its peripheral parts for each power supply. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Signal errors	BFLB Assy	Check the output signal and connection of communication line of BROWS FL in the BFLB Assy. • B_SCLK • B_BK • B_LAT • B_DSO	If no signal is output, the GUI CPU (IC4002) port may be damaged. Replace it. If soldering is improper, resolder it.	10.10 BFLB ASSY
3	Defective parts of FL		If the symptom persists after the above corrections,	Replace the BROWS FL.	—

[2-4] The DATA FL does not light.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	DFLB Assy	Check the power-supply voltages (V+3R3/ V+7R2/V+33) of the FL.	If the presence of power is not confirmed, check the mounting statuses of the regulator IC and its peripheral parts for each power supply. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Signal errors	DFLB Assy	Check the waveforms and connection of the FL communication line in the DFLB Assy. • D_SCLK • D_BK • D_LAT • D_DSO	If no signal is output, the GUI CPU (IC4002) port may be damaged. Replace it. If soldering is improper, resolder it.	10.7 DFLB and ENCB ASSYS 10.10 BFLB ASSY
3	Defective parts of FL		If the symptom persists after the above corrections,	Replace the DATA FL.	—

[2-5] The JOG FL does not light.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Breakage of protectors	JFLB Assy	Check if the protector (P9401) is broken.	If the protector is broken, replace the protector.	—
2	Defective power supply	JFLB Assy	Check the power-supply voltages (V+3R3/ VFDP2R9_F1/VFDP2R9_F2/V+27) of the FL.	If the presence of power is not confirmed, check the mounting statuses of the regulator IC and its peripheral parts for each power supply. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM
3	Signal errors	JFLB Assy	Check the connection of the FL communication line in the JFLB Assy. • J_SCLK • J_BK • J_LAT • J_DSO	If no signal is output, the GUI CPU (IC4002) port may be damaged. Replace it. If soldering is improper, resolder it.	10.13 JFLB ASSY 10.10 BFLB ASSY
4	Defective parts of FL		If the symptom persists after the above corrections,	Replace the JOG FL.	—

[2-6] The LED does not light.

LED (LINK, USB, DISC, BROWS, TAG LIST, INFO and MENU)

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Signal errors	BFLB Assy	Check that the control signal for the LED in question is output from the GUI CPU (IC4002).	If no signal is output, the GUI CPU (IC4002) port may be damaged. Replace it. If soldering is improper, resolder it.	-
2	Defective parts of LED	BFLB Assy	Check that the forward voltage (2.2 - 2.7 V) is present at both ends of the LED.	If the forward voltage is not present, then the LED itself is defective. Replace it.	-
3	Defective parts of transistor	BFLB Assy	If the symptom persists after the above corrections,	The transistor is defective. Replace it.	-

LED (except for the USB STOP indicator) on KSWB Assy does not light.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Breakage of protectors	MAIN Assy	Check if the protector (P3) is broken.	If the protector is broken, replace the protector.	-
2	-	-	The LEDs (except for the USB STOP indicator) on the KSWB Assy are lit dynamically in a matrix pattern. Check if the unlit LED belongs to a certain line/column group, referring to the circuit diagrams.	If it does not belong to a group, then that LED may be defective. Replace it. If it belongs to a group, then the LED-drive signal for that group is defective. Go to [2].	10.8 KSWB ASSY (Schematic diagram)
3	Signal errors	DFLB Assy	Check that the control signal for the LED in question is output from the PANEL CPU (IC8005).	If no signal is output, the PANEL CPU (IC8005) port may be damaged. Replace it. If soldering is improper, resolder it.	-
4	-	-	If the symptom persists after the above corrections,	The transistor is defective. Replace it.	-

USB STOP indicator does not light.
This LED is controlled by the MAIN CPU (IC101).

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Breakage of protectors	MAIN Assy	Check if the protector (P3) is broken.	If the protector is broken, replace the protector.	-
2	Defective parts of LED	BFLB Assy	Check that the forward voltage (2.2 - 2.7 V) is present at both ends of the LED.	If the forward voltage is not present, then the LED itself is defective. Replace it.	-
3	Defective connection/ Signal errors	MAIN Assy/ DFLB Assy/ KSWB Assy	Check the connection of the LED control signal.	If the signal is not output even if the connections are properly made, the port on the MAIN CPU (IC101) may be damaged. Replace it.	-
4	-	-	If the symptom persists after the above corrections,	The transistor is defective. Replace it.	-

Other LED does not light.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Breakage of protectors	Related point	Check the drive voltage of the unlit LED. For the 5-V-driven LEDs, check if the protector (P3) is broken.	If the protector is broken, replace the protector.	-
2	Signal errors	-	Check that the signal for the LED in question is output from the PANEL CPU (IC8005).	When there is not output signal, check the connection of the PANEL CPU (IC8005). If the connection is OK, the port may be damaged. Replace it.	-
3	Defective parts of LED	-	Check that the forward voltage (2.2 - 2.7 V) is present at both ends of the LED.	If the forward voltage is not present, then the LED itself is defective. Replace it.	-
4	Defective parts of transistor	-	If the symptom persists after the above corrections,	The transistor is defective. Replace it.	-

[3] Operations (Keys/variable controls/JOG)

As operations of all keys, variable controls, and JOG dial can be checked in Service mode.

[3-1] No key functions

The PLAY, CUE, AUTO BEAT LOOP, BEAT SELECT, REV, LOOP IN, LOOP OUT, or RELOOP key does not function.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Loose connection /Defective SW	Related point	Check if there is loose connection on the signal line from the PANEL CPU (IC8005) up to the SW.	If there is no loose connection and if the signal does not become L when the SW is pressed, that SW is defective. Replace it.	-
2	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check the connection of the PANEL CPU (IC8005). If the connection is OK, the port may be damaged. Replace it.	-
Other keys (except for the USB STOP key) do not function. The signals from other keys are analog and connected to multiple switches.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Loose connection /Defective SW	Related point	Check if there is loose connection on the signal line from the PANEL CPU (IC8005) up to the SW.	If the SWs connected to the signal line function properly and if the connections are properly made, the SWs may be defective. Replace them.	-
2	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check the connection of the PANEL CPU (IC8005). If the connection is OK, the port may be damaged. Replace it.	-
The USB STOP key does not function. The USB STOP key is controlled by the MAIN CPU.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Loose connection /Defective SW	KSWB Assy/ MAIN Assy	Check if there is loose connection on the signal line from the MAIN CPU (IC101) up to the SW.	If there is no loose connection and if the signal does not become L when the SW is pressed, that SW is defective. Replace it.	-
2	Defective MAIN CPU (IC101)	MAIN Assy	If the symptom persists after the above corrections,	The MAIN CPU (IC101) is defective. Replace it.	-

[3-2] Rotary selector not controllable

No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective rotary selector	ENCB Assy	Check if the signals from the ENC_1, ENC_2, and ENC_SW signal lines are normal when the rotary selector is turned or pressed.	If the signals are not normal, check the connections of the signal lines. If the connections are properly made, the encoder selector may be defective. Replace it.	10.7 DFLB and ENCB ASSYS
2	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check a mounting state of PANEL CPU(IC8005). If the mounting is OK, the PANEL CPU is damaged. Replace it.	-

[3-3] Variable controls not controllable

Tempo slider not controllable					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Loose connection	SLDB Assy /DFLB Assy	Check if there is loose connection on the signal line from the PANEL CPU (IC8005) to the tempo slider (VR8701).	If the connections of signal line are improper, resolder it.	-
2	Defective tempo slider	SLDB Assy	Check the waveforms of signal lines (ADCT/ADIN) .	If the voltage of the signal line (ADIN) does not change between 3.3 V and 0 V, the tempo slider (VR8701) may be defective. Replace it.	-
3	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check a mounting state of PANEL CPU(IC8005). If the mounting is OK, the port may be damaged. Replace it.	-

VINYL SPEED ADJUST not controllable					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Loose connection	SLDB Assy /DFLB Assy	Check if there is loose connection on the signal line from the PANEL CPU (IC8005) to the SPEED ADJUST(VR8702).	If the connections of signal line are improper, resolder it.	-
2	Defective VOL	SLDB Assy	Check the waveforms of signal lines (TCH/REL).	If the voltage of the signal line (TCH/REL) does not change between 3.3 V and 0 V, the VINYL SPEED ADJUST (VR8702) may be defective. Replace it.	-
3	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check a mounting state of PANEL CPU(IC8005). If the mounting is OK, the port may be damaged. Replace it.	-

[3-4] Abnormalities regarding the JOG dial

After the JOG Assy is disassembled then reassembled, be sure to check that the load value for the JOG dial is within the specified range.

Turning of the JOG dial is not detected					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective photo interrupter	JOGB Assy/ JFLB Assy/ DFLB Assy	Check the waveforms of signal lines (JOG1/JOG2).	If no waveform can be confirmed, the photo interrupter (PC9501) may be defective. Replace it.	-
2	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check a mounting state of PANEL CPU (IC8005). If the mounting is OK, the port may be damaged. Replace it.	-
Pressing on the JOG dial cannot be detected.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective SHEET SW	JFLB Assy /DFLB Assy	Check the waveform of the signal on the signal line (JOG_SW) when the JOG dial is pressed.	If the signal on the signal line (JOG_SW) is not set to L when the JOG dial is pressed, the SHEET SW (DSX1078-A) may be defective. Replace it.	-
2	Defective PANEL CPU (IC8005)	DFLB Assy	If the symptom persists after the above corrections,	Check a mounting state of PANEL CPU(IC8005). If the mounting is OK, the port may be damaged. Replace it.	-
Noise is heard when the JOG dial is turned.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective JFLB Assy or gears	JOG Assy	Check if the JOG FL of the JFLB Assy has been shifted upward from the holder.	The JOG FL may interfere with JOG A. Replace the JFLB Assy.	-
			There may be any scratches on the 3 gears or some foreign object between the gears.	If there are any scratches, replace the scratched gear with a new one. If there is any foreign object, remove it then replace the gears with new ones. Gears to be replaced: Load gear, Gear A, Gear B	-
The JOG dial turns too freely. (The load value for the JOG dial is outside the specified range.)					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Improper adjustment or assembly of the JOG dial	JOG Assy	Check that the load value for the JOG dial is within the specified range, referring to “Measuring method” in “8.1 JOG Dial Rotation Load Adjustment.”	If it is outside the specified range, adjust the position of the Adjust Plate to change the load value for the JOG dial, referring to “How to Adjust” in “8.1 JOG Dial Rotation Load Adjustment.”	8.1 JOG Dial Rotation Load Adjustment.
				During the above adjustment, if the upper-limit adjustment position of the Adjust Plate is reached, oil may have been spattered on the Adjust Plate. Replace the washer, gear, and cam plate with new ones, then reassemble.	-
Resistance to turning the JOG dial is too strong. (The load value for the JOG dial is outside the specified range.)					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Improper adjustment of the JOG dial or defective washer, gear, or cam plate	JOG Assy	Check that the load value for the JOG dial is within the specified range, referring to “Measuring method” in “8.1 JOG Dial Rotation Load Adjustment.”	If it is outside the specified range, adjust the position of the Adjust Plate to change the load value for the JOG dial, referring to “How to Adjust” in “8.1 JOG Dial Rotation Load Adjustment.”	8.1 JOG Dial Rotation Load Adjustment.
				During the above adjustment, if the lower-limit adjustment position of the Adjust Plate is reached, shavings from the worn-out washer may have increased the friction. Replace the washer, gear, and cam plate with new ones, then reassemble.	-

[4] USB (Type A/Type B)

[4-1] No communication via the USB connector (Type A)

Check the following, with a USB device connected to the USB A connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connections	USBA Assy /MAIN Assy	Check the connection of the USB communication line.	If connection is improper, resolder it. If connection is proper, go to step [2].	-
2	V+5_USB_HOST _VBUS is defective.	MAIN Assy	Check V+5_USB of the USB power supply.	If V+5_USB cannot be confirmed, check V+5. If the V+5 is OK, then go to [3]. If V+5_USB can be confirmed, go to [4].	-
3	The USB PAWED IC is defective. /Signal errors	MAIN Assy	Check the CPU_USB_HSTPWREN and CPU_USB_HSTPWRFL signals from the USB POWER HIGHT SIDE SW(IC1102)	If the CPU_USB_HSTPWREN signal does not become H, check the connection. If the connection is OK, then the MAIN CPU (IC101) is defective. Replace it. If the CPU_USB_HSTPWRFL signal does not become H, the USB POWER HIGH SIDE SW (IC1102) is in a state of shutdown caused by abnormally high temperature. Check the connection. If the connection is OK, then the port may be damaged. Replace it.	10.5 MAIN ASSY(3/3), USBA ASSY
4	Defective MAIN CPU	MAIN Assy	If the symptom persists after the above corrections,	The MAIN CPU (IC101) is defective. Replace it.	-

[4-2] No communication via the USB connector (Type B)

Check the following, with a USB device connected to the USB B connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connections		Check the connection of the signal lines (USB_D+/USB_D-).	If connection is improper, resolder it.	-
2	Defective USB CONTROLLER		If the symptom persists after the above corrections,	The USB CONTROLLER (IC1101) may be defective. Replace it.	-

[5] LAN

[5-1] No LAN communication

Check the following, with a peripheral device connected to the Ethernet connector.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connections	MAIN Assy	Check the connection of the periphery circuit of ETHER PHY CHIP (IC1304).	Check the connections of the communication line. If connection is improper, resolder it.	-
2	Defective ETHER PHY CHIP or MAIN CPU	MAIN Assy	If the symptom persists after the above corrections,	The ETHER PHY CHIP (IC1304) may be defective. Replace it. If the symptom persists, the MAIN CPU (IC101) may be defective. Replace it.	-

[6] AUDIO OUT

[6-1] No sound

The analog audio signal is not output.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	MAIN Assy /JACB Assy	Check the voltages for audio (V+10A/V-10A/ REF2R5). Check also if the protector (P2) is broken.	If the protector is broken, replace the protector. • If V+10A is not output, check the mounting statuses of Q1302 and Q1304. If there is any problem, correct it. • If V-10A is not output, check the mounting statuses of Q1303 and Q1305. If there is any problem, correct it. • If VREF2R5 is not output, go to [3].	-
2	Loose connections	MAIN Assy /JACB Assy	Check the connection of the audio signal lines (ROUT/LOUT).	If connection is improper, resolder it.	-
3	Signal errors	MAIN Assy	Check the voltages for DAC (IC3003) (V+5A/V+5D). Check also if the protector (P3) is broken.	If the protector is broken, replace the protector. If V+5A is not supplied, see “4.3 POWER SUPPLY BLOCK DIAGRAM”, then check the mounting statuses of peripheral parts. If there is any problem, correct it. If the mounting is OK, the parts be defective. Replace it.	-
4			Check the input signal of the DAC(IC3003). • DSP_SPICLK • DSP_DATA • DSP_SPISIMO • DSP_SPICS • DSP_MCLK • DSP_LRCK2 • DSP_BCLK2	If input of any of the signals cannot be confirmed, check the connections. If soldering is improper, resolder it. If soldering is properly made, then the DSP (IC501) may be defective. Replace it.	10.4 MAIN ASSY(2/3)

The digital audio signal is not output.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Loose connections	JACB Assy	Check the digital audio signal (SPDIF) and its connection.	If connection is improper, resolder it. If the SPDIF signal cannot be recognized, go to Step [3].	-
2	Signal errors	MAIN Assy	Check the digital audio signal (SPDIF_OUT).	If the SPDIF_OUT signal can be recognized, then the transistor (Q506) may be defective. Check the connection. If no problem is found, replace the transistor. If the SPDIF_ OUT signal cannot be recognized, check the connection. If soldering is improper, resolder it.	10.4 MAIN ASSY(2/3)
3		MAIN Assy	If the symptom persists after the above corrections,	Replace the DSP (IC501).	-

[7] CONTROL

[7-1] Improper fader operation after fader start

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Signal errors	JACB Assy	Check the waveforms of the control signals (CONT1/CONT2) from the CN8801 on the JACB Assy.	If the signal cannot be recognized, the JACB Assy may be defective. Check the soldering at the JACB Assy then resolder it, if necessary. If the signal can be recognized, go to Step [2].	10.15 WAVEFORMS ㊼, ㊽
2	Signal errors	MAIN Assy	Check the waveforms of the control signals (CONT00/CONT01/CONT02) from the MAIN Assy.	If the input signal can be recognized, then the MAIN CPU (IC101) may be defective. Replace it. If the input signal cannot be recognized, the communication line or the peripheral devices may be loosely connected. Resolder the terminals.	-

[8] DRIVE ASSY

[8-1] Improper operation of the loading mechanism

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Improper soldering	Cables	Check that the wires between the loading motor and the SLMB Assy are securely soldered. Check also the wires are not broken.	If soldering is improper, resolder it. If the wires are broken, replace them.	-
2	Defective power supply	SRV Assy	Check the power voltages. (V+7R5, V+5D, V+3D, V+3A, V+1R5 and VHALF)	For any power-supply section that does not output the voltage, check the mounting statuses of the regulator IC and its peripheral parts. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM
3	Signal errors	SRV Assy	Check the waveforms of the LPS1 and LPS2 signal lines. (The LPS1 and LPS2 signals becomes L when the SW is set to ON.)	If the signal waveform is not proper, the loading detection SWs (S8901/S8902) may be improperly soldered or defective. If soldering is improper, resolder them. If the symptom persists, replace the defective parts.	10.1 SRV ASSY (1/2) 10.15 WAVE-FORMS ②, ③

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
4	Signal errors	SRV Assy	Check the waveforms of the MUTE1 and MUTE2 signals. (During loading, the MUTE1 signal is L and the MUTE2 signal is H.)	If the signal waveform is not proper, check the mounting statuses of the DRIVER IC (IC7002) and SODC (IC7008) terminals. If they are properly mounted, then the SODC (IC7008) may be defective. Replace it.	10.1 SRV ASSY(1/2)
5	Signal errors	SRV Assy	Check the LOAD signal.	DRIVER IC (IC7002) and SODC (IC7008) may be improperly soldered or defective. Resolder them, if necessary. If the symptom persists, replace SODC (IC7008).	10.1 SRV ASSY (1/2) 10.15 WAVE-FORMS ④
6		CD drive	If the symptom persists after the above corrections,	Replace the SRV Assy.	-

No loading (There is an abnormal noise.)

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Improper assembling	CD drive	Check if the loading arm has shifted on the SWs on the SMLB Assy.	If the loading arm has shifted on the loading detection SWs (S8901/S8902), correct the position of the loading arm. If the soldered SWs are lifted off the board, resolder them.	-
2	Signal errors	SRV Assy	Open the bottom plate of the DRIVE UNIT then check the waveforms on the LPS1 and LPS2 signal lines.	The loading detection SWs (S8901 and S8902) may be improperly soldered or defective. Resolder them, if necessary. If the symptom persists, replace them.	10.1 SRV ASSY (1/2) 10.15 WAVE-FORMS ②, ③

[8-2] The stepper does not work.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	SRV Assy	Check the power voltages (V+7R5, V+5D, V+3D, V+3A, V+1R5 and VHALF).	Check the connection of the parts at the periphery of the regulator IC that does not output the voltage. If the symptom persists after a corrective action, the power supply block is defective. Replace it.	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Signal errors	SRV Assy	Check the INSIDE signal. (The INSIDE SW becomes L when the INSIDE SW is set to ON.)	If the signal is not proper, check the connections. If connections are properly made, replace the traverse mechanism.	10.1 SRV ASSY(1/2)
3	Signal errors	SRV Assy	Check that the MUTE1 signal becomes H after loading is completed.	DRIVER IC (IC7002) and SODC (IC7008) may be improperly soldered or defective. Resolder them, if necessary. If the symptom persists, replace SODC (IC7008).	10.1 SRV ASSY(1/2)
4	Signal errors	SRV Assy	Check that a sine-wave signal is input to Pins 29 and 30 of DRIVER IC (IC7002).	DRIVER IC (IC7002) and SODC (IC7008) may be improperly soldered or defective. Resolder them, if necessary. If the symptom persists, replace SODC (IC7008).	10.1 SRV ASSY (1/2) 10.15 WAVE-FORMS ⑨, ⑩
5	Defective parts	CD drive Assy	If the symptom persists after the above corrections,	Replace the parts in the order of (1) DRIVER IC (IC7002), (2) SRV Assy, then (3) traverse mechanism.	-

[8-3] No CD playback

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Any foreign matter attached	CD drive Assy	Check if the objective lens is dirty.	Remove any dirt or dust from the lens.	-
2	Defective pickup	SRV Assy	Check the LD current value. Measure the actuator resistance value.	Refer to the “5.3 Failure Judgment of the Pickup Assy.”	5.3 Failure Judgment of the Pickup Assy
3	-	Service mode	If the symptom persists after the above corrections, check operations of the CD drive in Service mode.	Check operations of the CD drive, referring to the procedures described in “6. SERVICE MODE.” If the CD drive functions improperly, see “[10] SERVICE MODE” in this section.	6. Service mode

[9] EUP Mode

[9-1] Mode shift error in Standby mode

Shifting to EUP mode is not possible.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective PANEL CPU	DFLB Assy	Check that the signal from Pin 28 of the PANEL CPU (IC8005) changes from H to L during mode shift.	The PANEL CPU (IC8005) may be defective. Check the soldering of the PANEL CPU and its periphery. If the soldering is OK, then replace it.	Refe to “Signal logic during EUP mode.”
2	Disconnection, breakage, or loose connection of cables	SRV Assy	Check that the signal from EUP_CONT (Pin 3 of the CN7301) changes from L to H during mode shift.	The signal line cable may be defective. If it is loosely connected, securely connect it. If it is broken, replace it.	
3	Defective SW power supply	SW power supply	If the symptom persists after the above corrections,	The SW power-supply is defective. Replace it.	-

EUP mode cannot be exited.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective PANEL CPU	DFLB Assy	Check that the signal from Pin 28 of the PANEL CPU (IC8005) changes from L to H during mode shift.	The PANEL CPU (IC8005) may be defective. Check the soldering of the PANEL CPU and its periphery. If the soldering is OK, then replace it.	Refe to “Signal logic during EUP mode.”
2	Disconnection, breakage, or loose connection of cables	SRV Assy	Check that the signal from EUP_CONT (Pin 3 of the CN7301) changes from H to L during mode shift.	The signal line cable may be defective. If it is loosely connected, securely connect it. If it is broken, replace it.	
3	Defective SW power supply	SW power supply	If the symptom persists after the above corrections,	The SW power-supply is defective. Replace it.	-

Reference: Signal logic during EUP mode

	Normal mode	EUP mode
EUP_CONT	L	H or open
PANEL CPU(IC8005) pin28	H	L
CPU_EUP_CONT	X	L

X : Not Concerned

[10] SERVICE MODE

[10-1] The measured error rate is outside the specified range in Player Operation mode.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Scratches or dirt on the disc	DISC	First, whether the cause is attributable to the disc or to the player must be distinguished. Check if the recording surface of the disc is dirty.	If it is clearly dirty, replace it with a CD of good condition.	-
2	Scratches or dirt on the disc	DISC	Measure the error rate, using the same disc that produced the bad error rate but using the addresses in a different area. If the error rate measured in a different area is OK, the CD is defective.	If the error rate measured in a different area is OK, the CD is defective. Replace the CD with one in good condition. If no error rate measured in various areas throughout the entire surface of the CD is OK, go to [3].	-
3	Any foreign matter attached	Traverse mechanism	Check if any foreign matter, such as shavings, dirt, or dust, is attached to the lens of the Pickup Assy.	Clean the lens.	-
4	Improper assembly	Traverse mechanism	Check that the traverse mechanism has been securely installed.	If it has not, reinstall it properly.	-
5	Improper assembly	Traverse mechanism	Check that the loading mechanism Assy has been securely installed.	If it has not, reinstall it properly.	-
6	Any foreign matter attached	Traverse mechanism	Check for any foreign matter on the spindle table.	Remove any foreign matter.	-
7	Any foreign matter attached	Traverse mechanism	Check if any foreign matter is attached to the magnet portion of the Pickup Assy.	Remove any foreign matter.	-
8	Signal errors	SRV Assy	Check that the waveforms of the RF, ARF_P, and ARF_N signals form clear eye patterns.	If their waveforms are not of the same quality, check the mounting status of the FEP (IC7004). If it is correctly mounted, then it may be defective. Replace it.	10.15 WAVEFORMS ①
9	Signal errors	SRV Assy	Check that the signal from RW/XR (Pin 7 of CN7001) is H during playback.	Check the mounting status of the SODC (IC7008). If it is properly mounted, then the port may be damaged. Replace it.	10.1 SRV ASSY(1/2)
10	Defective pickup	Traverse mechanism	If the symptom persists after the above corrections,	See “5.3 Failure Judgment of the Pickup Assy” for details.	5.3 Failure Judgment of the Pickup ASSY

[10-2] The drive does not work during Test Operation mode.

The LD does not emit light.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Defective pickup	-	Check the LD current and measure the resistance value of the actuator.	See “5.3 Failure Judgment of the Pickup Assy” for details.	5.3 Failure Judgment of the Pickup ASSY

The spindle motor does not rotate.					
No.	**Cause**	**Diagnostics Point**	**Item to be Checked**	**Corrective Action**	**Reference**
1	Signal errors	SRV Assy	Check that the MUTE1 signal becomes H after loading is completed.	If the signal is not output, check the mounting statuses of the DRIVER IC (IC7002) and SODC (IC7008) terminals. If they are properly mounted, then the SODC (IC7008) may be defective. Replace it.	10.1 SRV ASSY(1/2)
2	Signal errors	SRV Assy	Check that the SPDLEC signal is a PWM signal with 1.65 V at the center.	If the signal is not output, check the mounting statuses of the DRIVER IC (IC7002) and SODC (IC7008) terminals. If they are properly mounted, then the SODC (IC7008) may be defective. Replace it.	10.1 SRV ASSY(1/2)
3	Signal errors	SRV Assy	Check that the SLIN1 signal to Pin 29 of IC7002 is 3.3 V when disc rotation is at full speed.	If the signal is not input, check the connections. If soldering is improper, resolder it.	10.1 SRV ASSY(1/2) 10.15 WAVE-FORMS ⑨

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
4	Defective power supply	SRV Assy	Check the power voltages (V+5A, VREF1, VREF2 and VHALF).	If V+5A is not output, check the mounting statuses of the regulator IC of the power-supply section that produces that voltage and its peripheral parts. If they are properly mounted, then the parts may be defective. Replace them. Other voltages (VREF1, VREF2, and VHALF) are produced at the FEP (IC7004). If these voltages are not output, check the mounting status of the FEP. If it is properly mounted, then the part may be defective. Replace it.	4.3 POWER SUPPLY BLOCK DIAGRAM
5	Defective parts	-	If the symptom persists after the above corrections,	The DRIVER IC (IC7002) is defective. Replace it.	-

In-focus not possible

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective pickup	SRV Assy	Check the LD current and measure the resistance value of the actuator.	Refer to the "5.3 Failure Judgment of the Pickup Assy."	5.3 Failure Judgment of the Pickup ASSY
2	Defective power supply	SRV Assy	Check the power voltages (V+7R5, V+5D, V+3D, V+3A, V+1R5 and VHALF).	For any power-supply section that does not output the voltage, check the mounting statuses of the regulator IC and its peripheral parts. If they are properly mounted, then the parts may be defective. Replace them.	4.3 POWER SUPPLY BLOCK DIAGRAM
3	Signal errors	SRV Assy	Check that the MUTE1 signal becomes H after loading is completed.	DRIVER IC (IC7002) and SODC (IC7008) may be improperly soldered or defective. Resolder them, if necessary. If the symptom persists, replace SODC (IC7008).	10.1 SRV ASSY(1/2)
4	Signal errors	Traverse mechanism	Check that the spindle motor is rotating at a speed of 2,000 rpm. (A rotation speed of 2,000 rpm is required for focusing in.)	If it does not rotate, see [The spindle motor does not rotate.] in this section.	-
5	Signal errors	SRV Assy	Check that 18 pulses are generated per rotation in the SPDLFG signal.	If the signal is output, check the mounting status of the FEP (IC7004) terminal. If it is properly mounted, then the part may be defective. Replace it. If the signal is not output, check the mounting status of the SODC (IC7008) terminal. If it is properly mounted, then the part may be defective. Replace it.	10.1 SRV ASSY(1/2) 10.15 WAVEFORMS ⑬
6	Signal errors	SRV Assy	Check the FE signal. (Check that an S-shaped signal is output when a waveform of the FEDRV signal is rising after it drops down from 1.65 V.)	If the output waveform is proper, check the mounting status of the SODC (IC7008) terminal. If it is properly mounted, then go to [7]. If the output waveform is not proper, check the mounting status of the FEP (IC7004) terminal. If it is properly mounted, then the part may be defective. Replace it.	10.1 SRV ASSY(1/2) 10.15 WAVEFORMS ⑤
7	Signal errors	SRV Assy	Check that the FEDRV signal fluctuates with 1.65 V at the center.	If the output waveform is proper, check the mounting status of the DRIVER IC (IC7002) terminal. If it is properly mounted, then the part may be defective. Replace it. If the output waveform is not proper, check the mounting status of the SODC (IC7008) terminal. If it is properly mounted, then the part may be defective. Replace it.	10.1 SRV ASSY(1/2) 10.15 WAVEFORMS ⑥
8	Defective parts	SRV Assy	If the symptom persists after the above corrections,	Replace the parts in the order of (1) FEP (IC7004), (2) SODC (IC7008), (3) DRIVER IC (IC7002), (4) SRV Assy, then (5) traverse mechanism.	-

No tracking close

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	-	Traverse mechanism	Check that focusing is in. (If focusing is out, tracking close is not possible.)	See "In-focus not possible" above.	-
2	Signal errors	SRV Assy	Check that the E and F signals fluctuate with 2.2 V at the center.	If no signal is output, check the mounting status of the CN7001 connector. If soldering is improper, resolder it. If the symptom persists after this correction, replace the traverse mechanism.	10.1 SRV ASSY(1/2) 10.15 WAVE-FORMS ⑭, ⑮
3	Signal errors	SRV Assy	Check that the TE signal fluctuates with 1.65 V at the center.	If the output waveform is proper, check the mounting status of the SODC (IC7008) terminal. If it is properly mounted, then go to [4]. If the output waveform is not proper, check the mounting status of the FEP (IC7004) terminal. If it is properly mounted, then the part may be defective. Replace it.	10.1 SRV ASSY(1/2) 10.15 WAVEFORMS ⑦
4	Signal errors	SRV Assy	Check that the TEDRV signal fluctuates with 1.65 V at the center, and that a pulse-like signal is output during tracking close.	If the output waveform is proper, check the mounting status of the SODC (IC7008) terminal. If it is properly mounted, then the part may be defective. Replace it. If the output waveform is not proper, check the mounting status of the DRIVER IC (IC7002) terminal. If it is properly mounted, then the part may be defective. Replace it.	10.1 SRV ASSY(1/2) 10.15 WAVEFORMS ⑪
5	Defective parts	SRV Assy	If the symptom persists after the above corrections,	Replace the parts in the order of (1) FEP (IC7004), (2) SODC (IC7008), (3) DRIVER IC (IC7002), (4) SRV Assy, then (5) traverse mechanism.	-

[10-3] If any problem is generated during upgrading of the software

If upgrading fails, an error indication will be displayed on the FL display.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Upgrading fails	-	Symptoms that may appear when the unit is turned on after upgrading failed: • If the files for upgrading are invalid: The unit will start up in the normal manner. • If the upgrading process fails during the process for the MAIN CPU: "E-7024" will be displayed. • If the upgrading process fails during the process for the GUI: Nothing will be displayed. • If the upgrading process fails during the process for the PANEL: "E-7022" will be displayed. • If the upgrading process fails during the process for the DRIVE: "E-7001" will be displayed.	Refer to the "6. SERVICE MODE."	6.SERVICE MODE [4] Error display list [7] Firmware update

[11] Error Codes

How to respond when an error code is displayed on the FL DISPLAY is described below.

E-7001: DISC DRIVE ERROR
• The ATAPI drive does not work properly.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	SRV Assy	Check the power voltages (V+7R5, V+5D, V+3D, V+3A and V+1R5D) in the SRV Assy.	If no power is supplied, check the mounting statuses of the regulator ICs (IC7003/IC7005/IC7007) and their peripheral parts. If soldering is improper, resolder it. If the symptom persists after this correction, replace the parts.	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Loose connection	SRV Assy	Check the connections of the signal line of ATA_RESET.	If the connection is properly made and the signal is output from the MAIN CPU (IC101,) then the port on the SODC (IC7008) may be damaged. Replace it. If the connection is properly made but the signal is not output from the MAIN CPU (IC101,) then the MAIN CPU (IC101) may be damaged. Replace it.	10.1 SRV ASSY(1/2)
3	Clock signal error	SRV Assy	Check that the clock signal (16.9344 MHz) is input to SODC(IC7008).	If no clock signal is output, check the mounting status of the OSC (X7001) and its peripheral chips. If they are properly mounted, then the parts may be defective. Replace them.	10.1 SRV ASSY(1/2)
4	Signal errors	SRV Assy	Check the communication waveforms of SODC (IC7008) and FLASH ROM IC (IC7006).	If there is any waveform that does not change between H and L, communication between the FLASH ROM IC (IC7006) and SODC (IC7008) may not be established. Check their mounting statuses. If soldering is improper, resolder them.	10.1 SRV ASSY(1/2)
5	Defective parts	SRV Assy	If the symptom persists after the above corrections,	Replace the SRV Assy.	-

E-7010: DSP DEVICE ERROR
• The program cannot be written to the DSP (IC501) when the unit is turned on.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	MAIN Assy	Check the power voltages (V+3R3_DSP and V+1R2_DSP) of DSP (IC501).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	
2	Defective clock signal	MAIN Assy	Check that the clock signal (16.394 MHz) is input to DSP (IC501).	If it is not, the crystal oscillator (X503) and their peripheral chips may be defective or their mounting statuses may be improper. Resolder the parts. If the symptom persists after this correction, replace the parts.	10.4 MAIN ASSY(2/3)
3	Defective power supply	MAIN Assy	Check the power voltages (V+3R3_DSP) of SDRAM (IC505) for DSP (IC501).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	-
4	Signal errors	MAIN Assy	Check that the DSP710_RST signal that is input to the DSP (IC501) is "H."	If it is not "H," check the mounting status of the pull-up resistor (R526). If it is properly mounted, then the mounting status of the IC123 may be improper. Resolder it. If the symptom persists after this correction, replace it.	10.4 MAIN ASSY(2/3) 10.3 MAIN ASSY(1/3)
5	Signal errors	MAIN Assy	Check the connection of bus line between the DSP (IC501) and SDRAM (IC505).	If the waveform is not proper, check the mounting status of the SDRAM (IC505) and the connections of the BUS lines. If no problem is found, replace the parts.	10.4 MAIN ASSY(2/3)

E-7020: USB-B DEVICE ERROR
• The USB-B controller does not work properly.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	MAIN Assy	Check the power voltage (V+3R3_USB_ IO) of USB_B CONTROLLER (IC1101).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	-
2	Signal errors	MAIN Assy	Check that the USB_RST signal that is input to the USB_B CONTROLLER (IC1101) is "H."	If it is not "H," check the mounting status of the pull-up resistor (R1110). If it is properly mounted, then the mounting status of the IC123 may be improper. Resolder it. If the symptom persists after this correction, replace it.	10.5 MAIN ASSY(3/3), USBA ASSY 10.3 MAIN ASSY(1/3) 10.15 WAVE-FORMS ㉗
3	Defective parts	MAIN Assy	Check the mounting status of the USB_B CONTROLLER IC (IC1101).	If it is properly mounted, then replace the USB_B CONTROLLER (IC1101).	10.5 MAIN ASSY(3/3), USBA ASSY

E-7021: PHY DEVICE ERROR
• ETHER PHY CHIP (IC1304) does not work properly.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	MAIN Assy	Check the power voltage (V+3R3_ETH) of ETHER PHY CHIP (IC1304).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	-
2	Clock signal error	MAIN Assy	Check that the clock signal (25 MHz) is input to ETHER PHY CHIP (IC1304).	If it is not, the crystal oscillator (X1302) and their peripheral chips may be defective or their mounting statuses may be improper. Resolder the parts. If the symptom persists after this correction, replace the parts.	10.5 MAIN ASSY(3/3), USBA ASSY 10.15 WAVE-FORMS ㉛, ㊱
3	Signal errors	MAIN Assy	Check that the ETHER_RST signal that is input to the ETHER PHY CHIP (IC1304) is "H."	If it is not "H," check the mounting status of the pull-up resistor (R1390). If it is properly mounted, then the mounting status of the IC123 may be improper. Resolder it. If the symptom persists after this correction, replace it.	10.5 MAIN ASSY(3/3), USBA ASSY 10.3 MAIN ASSY(1/3) 10.15 WAVE-FORMS ㉗
4	Defective parts	MAIN Assy	Check the mounting status of the ETHER PHY CHIP (IC1304).	If it is properly mounted, then replace the ETHER PHY (IC1304).	10.5 MAIN ASSY(3/3), USBA ASSY

E-7022: PANEL CPU ERROR
• PANEL CPU (IC8005) does not work properly.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	Defective power supply	DFLB Assy	Check the power voltage (V+3R3E) of PANEL CPU (IC8005).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	4.3 POWER SUPPLY BLOCK DIAGRAM
2	Clock signal error	DFLB Assy	Check that the clock signal (15.975 MHz) is input to PANEL CPU (IC8005).	If it is not, the crystal oscillator (X8001) and their peripheral chips may be defective or their mounting statuses may be improper. Resolder the parts. If the symptom persists after this correction, replace the parts.	10.7 DFLB, ENCB ASSY 10.15 WAVE-FORMS ㊼
3	Defective power supply	DFLB Assy	Check the power voltage (V+12EUP) of DFLB Assy.	If V+12EUP is output, check the mounting statuses of the IC8010 and its peripheral parts. If they are properly mounted, then the parts may be defective. Replace them. If V+12EUP is not output, check the connections of the power line.	4.3 POWER SUPPLY BLOCK DIAGRAM
4	Signal errors	DFLB Assy	Check the communication waveforms. PNL_SCLK2 PNL_BUSY PNL_TXD2 PNL_RXD2	If the waveforms are not proper, check the connections of the communication line. If the PNL_SCLK2 waveform is not proper, check the mounting statuses of the IC8001 and IC8002 and their peripheral parts. If the PNL_TXD or PNL_RXD waveform is not proper, check the mounting statuses of the IC8003 and its peripheral parts.	4.2 SIGNAL BLOCK DIAGRAM 10.7 DFLB, ENCB ASSY
5	Defective parts	DFLB Assy	If the symptom persists after the above corrections,	Replace the PANEL CPU (IC8005).	-

E-7024: MAIN CPU ERROR
• C/FLASH IC (IC114) does not work properly.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	-	MAIN Assy	First, whether the cause is attributable to the MAIN CPU (IC101) or to the SDRAM (IC108 /109) must be distinguished at the status check (alarm) port.	If the MAIN CPU (IC101) is in failure, go to [2]. If the SDRAM (IC108/109) is in failure, go to [4].	6. SERVICE MODE [6] Output of the alarm port
2	Defective power supply	MAIN Assy	Check the power voltage (V+1R2) of MAIN CPU (IC101).	If power is not supplied, check the connections of the power line. If V+3R3E is supplied, go to [2]. If V+3R3E is not supplied, go to [3].	4.3 POWER SUPPLY BLOCK DIAGRAM
3	Clock signal error	MAIN Assy	Check the waveform of system clock (26.965 MHz) is input to MAIN CPU (IC101).	If it is not, the crystal oscillator (X105) and their peripheral chips may be defective or their mounting statuses may be improper. Resolder the parts. If the symptom persists after this correction, replace the parts.	10.3 MAIN ASSY(1/3) 10.15 WAVE-FORMS ㊳
4	Signal errors	MAIN Assy	Check that the signals of the CPU_RST line is H.	If it is not "H," check the mounting status of the pull-up resistor (R159). If it is properly mounted, then the mounting status of the RESET IC (IC102) may be improper. Resolder it. If the symptom persists after this correction, replace it.	10.3 MAIN ASSY(1/3)
5	Defective power supply	MAIN Assy	Check the power voltage (V+3R3_CPU) of SDRAM (IC108 and IC109).	If power is not supplied, check the connections of the power line.	-
6	Clock signal error	MAIN Assy	Check that the CPU_CLKOUT signal (108 MHz) is output from the MAIN CPU (IC101) and then input to the SDRAM (IC108/109).	Check that the CPU_CLKOUT signal is input to the SDRAM (IC108/109). If it is input, check the mounting statuses of the SDRAM (IC108/109). If they are properly mounted, then the parts may be defective. Replace them. If the signal is not input, check the connections for the CPU_CLKOUT signal.	10.3 MAIN ASSY(1/3)
7	Defective parts	MAIN Assy	Check the mounting status of the SDRAM(IC108/109).	If it is properly mounted, then replace the MAIN CPU (IC101).	10.3 MAIN ASSY(1/3)

E-7201: TOC READ ERROR
• TOC data cannot be read from a disc.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	-	Traverse mechanism	Measure the error rate in Player Operation mode of Service mode in order to distinguish whether the cause is attributable to the disc or to the player. For measurement, play back the reading point at which reading resulted in an error, by listening to the sound.	See [10] SERVICE MODE for details.	"[10]SERVICE MODE" of this section

E-8709: COMMUNICATION ERROR
• Communication between the PANEL CPU (IC8005), GUI CPU (IC4002) and MAIN CPU (IC101) is not possible.

No.	Cause	Diagnostics Point	Item to be Checked	Corrective Action	Reference
1	-	MAIN Assy /DFLB Assy	Check the connections of communication line between the MAIN CPU (IC101) and PANEL CPU (IC8005) and GUI CPU (IC4002).	If connection is improper, resolder it.	4.2 SIGNAL BLOCK DIAGRAM

5.3 FAILURE JUDGEMENT OF THE PICKUP ASSY

● **LD power after passing through the objective lens [mW]**
SPEC: 0.147 ± 0.02
Check method: Measure the LD power, using an optical power meter.
Failure judgment: A value out of the range of the specifications is judged as failure.

● **Actuator resistance value [ohms]**
Specifications on the focus side: 3.4 ± 0.5
Specifications on the tracking side: 4.1 ± 0.6
Check method: Disconnect* the FFC connected to the CN7001 on the focus side then measure the resistance value between FFC pins 23 and 24.
Disconnect* the FFC connected to the CN7001 on the tracking side then measure the resistance value between FFC pins 21 and 22.
*Short-circuit the LD short-circuit pad.
Failure judgment: A value out of the range of the specifications is judged as failure.

● **LD current [mA]**
SPEC: TYP70 MAX80
Check method: Measure the LD current at the probe pad on the SRV Assy, using a tester.

[Check procedure]
1. For details on how to emit light from the LD, see the description on Drive Operation in Service mode.
2. With the LD OFF, apply the probes of a tester to the reference probe pad. (V+5 and LDI, see Fig. 1.)
Note: Be careful not to apply the probes to the pads with LD ON. If you do so, the LD may be damaged.
3. With the probes applied to the above-mentioned pads, turn the LD ON to measure the voltage between them.
4. After measurement, turn the LD OFF (ALL OFF) then pull the probes away.
5. Divide the measured voltage value by 12 ohms (resistance value), and calculate current value.

Failure judgment: If the calculated current value exceeds the maximum value, the LD has been degraded

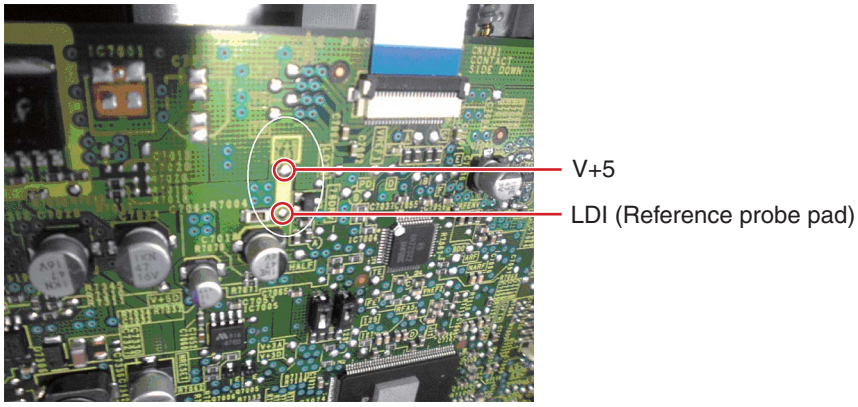


Fig. 1 SRV Assy

5.4 CONNECTION CHECK WITH THE PC

[1. USB B connector]

Whether communication between the PC connected via the USB B connector and this unit is properly performed or not can be confirmed on the PC.

Note: Installation of the driver software is not necessary.

■ Use Device Manager for checking.

If the PC and this unit are properly connected, the components of this unit are added in Device Manager (under Hardware) as devices.

If all components are properly displayed, the PC and this unit are properly communicating via the USB connector.

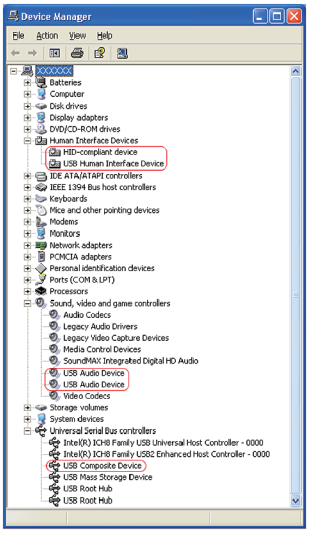
In a case of Windows XP:

Start, Control Panel, System, Hardware, then Device Manager

Devices to be added:

- Universal Serial Bus controllers
  - USB Composite Device
- Under “Sound, video and game controllers”
  - USB Audio Device
- Human Interface Devices
  - HID-compliant device
  - USB Human Interface Device

A communication check may be easily performed if connection is made with Device Manager displayed on the PC screen.



[2. LINK]

Whether communication between the PC connected via the LINK connector and this unit is properly performed or not can be confirmed on this unit.

Note: Use a Category 5 cable or a cable with higher specifications for connection.
Either a straight or cross LAN cable can be used when the unit is directly connected with the PC, but when the unit is connected with the PC via a hub, be sure to use a straight cable.

■ Use the MENU/UTILITY key of this unit to check linkage.

The linkage between the PC and this unit can be confirmed with LINK STATUS under [MENU/UTILITY].

How to display LINK STATUS

1. Hold the MENU/UTILITY key pressed for at least 1 sec.
   The [UTILITY] screen will be displayed.
2. Select LINK STATUS, using the rotary selector.
3. With LINK STATUS selected, connect the PC and this unit, using the LINK cable.
4. Check the LINK STATUS display.

	① Not connected	② While connection is being made	③ When connected properly
Indication	NOT CONNECT	CONNECTING	CONNECTED

If the indication changes from ① to ② then ③, the link is properly established.

If the cable is disconnected, the indication returns to ①.

5. After checking is completed, press the MENU/UTILITY key.
   The screen displayed before the MENU/UTILITY key was pressed will be restored

6. SERVICE MODE

6.1 OUTLINE OF THE SERVICE MODE

The following service modes are prepared for this unit.

① Confirmation of the button input and an indication function.
It is the mode which checks each input and display function of a button, a JOG dial, the slider volume, and a encoder.

② Check mode of the load of JOG dial.
It is the mode which measures the load when rotating JOG dial.

③ Indication of various information
It is a mode displaying information such as a version and an error history, a device normal / abnormality judgment.

④ Error display list
An error code and the contents are shown.

⑤ Confirmation of movement of the drive unit
It is the mode which checks operation of a mechanism and servo of drive unit.

⑥ Output of the alarm port
Explanation of the meaning of output of status terminal on a MAIN Assy.

⑦ Firmware update.
Explanation of the method of firmware update.

6.2 ABOUT THE DEVICE OF CDJ-900

Device Name	Function	Part No.	Ref No.	Assy
MAIN CPU	Main control	R5S77641N300BG	IC101	MAIN Assy
FLASH	Memory for MAIN CPU (Firmware)	DYW1775	IC114	MAIN Assy
SDRAM	Memory for MAIN CPU (Work)	K4S561632J-UC75	IC108, IC109	MAIN Assy
DSP	Audio DSP	D710E001BZDHA275	IC501	MAIN Assy
SDRAM	Memory for DSP (Work)	K4S561632J-UC75	IC505	MAIN Assy
USB_B CONTROLLER	CONTROLLER for USB-B (function)	M66291GP	IC1101	MAIN Assy
ETHER PHY	PHY for LINK	RTL8201CP-LF	IC1304	MAIN Assy
GUI CPU	LED, DATA_FL, & BROWSE_FL control	R5F363AENFA-U0	IC4002	BFLB Assy
PANEL CPU	Button input, LED & JOG_FL control	M3030RFCPFP	IC8005	DFLB Assy
SODC	Disc drive control	MN103S71F	IC7008	SRV Assy
FLASH	Memory for DRIVE CONTROLLER	DYW1776	IC7006	SRV Assy

Two or more FLASH and SDRAM are mounted in the main body.
Please diagnose it after confiming whether it is a device that agrees with purpose again.

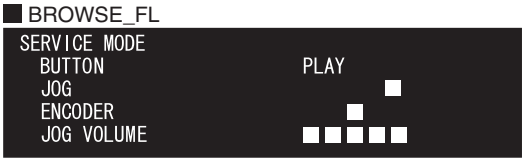
6.3 DETAILS ON SERVICE MODE

[1] Confirmation of the button input and an indication function

When it spends a power supply while pushing a TEMPO button and a MEMORY button simultaneously, It is displayed in the BROWSE_FL, "SERVICE MODE", and enters into this mode. (Please continue pushing until "Pioneer LOGO"screen disappears.)
When it enters this mode, the TAG-TRACK button is pushed, and the screen is sent as follows, the following status displays are done.
In this mode, the input of each button, JOG, volume, etc. is normal, and it can check that a display can also be performed normally. In addition, indication turns on while I push a button.

Caution: In this status display, if a VINYL SPEED ADJUST VOLUME is turned to the limit of the right, it will shift to "the load measurement mode of JOG." (Refer to the following clause.)

■ BROWSE_FL

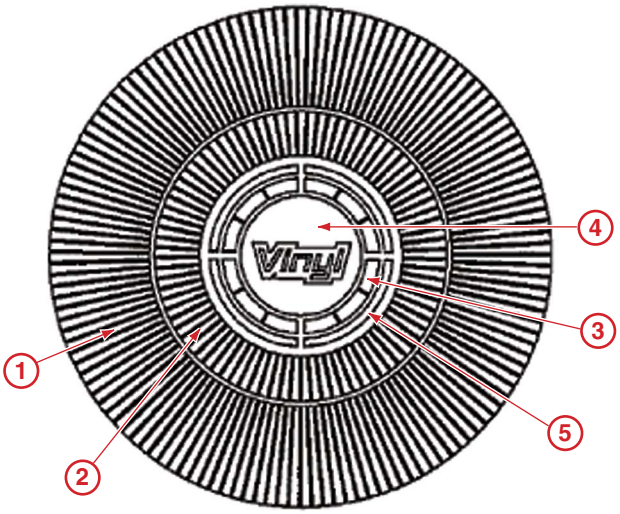


■ DATA_FL

BUTTON : The pushed button name is displayed.
JOG : The point moves according to the direction that JOG turned.
ENCODER : The point moves according to the direction that ENCODER switch turned.
TEMPO SLIDER VOLUME : If a TEMPO slider knob is moved to the - side, a bar display will increase.
JOG VOLUME : If a VINYL SPEED ADJUST VOLUME is turned to the right, a bar display will increase.

Button, Switch	Light up LED	Status display of BROWSE_FL(BUTTON)	Other Displays
PLAY/PAUSE	PLAY/PAUSE	PLAY	
CUE	CUE	CUE	
IN/CUE/IN ADJUST	IN/CUE/IN ADJUST	IN	
OUT/OUT ADJUST	OUT/OUT ADJUST	OUT	
RELOOP/EXIT	RELOOP/EXIT	RELOOP	
TRACK REV (I◄◄)		PREVIOUS I◄◄	
TRACK FWD (►►I)		NEXT ►►I	① (Refer to the display pattern of JOG FL)
SEARCH REV (◄◄)		REV ◄◄	② (Refer to the display pattern of JOG FL)
SEARCH FWD (►►)		FWD ►►	⑤ (Refer to the display pattern of JOG FL)
JOG MODE	VINYL	JOG MODE	④ (Refer to the display pattern of JOG FL)
TEMPO	STANDBY	TEMPO RANGE	
MASTER TEMPO	MASTER TEMPO	MASTER TEMPO	
TIME MODE/AUTO CUE		TIME/ACUE	
DELETE	All LED lights up	DELETE	All JOG-FL lights up
MEMORY		MEMORY	
EJECT	EJECT	EJECT	
CUE/LOOP CALL ◄		◄ CALL	
CUE/LOOP CALL ►		CALL ►	
JOG TOUCH	JOG TOUCH	JOG TOUCH SW	③ (Refer to the display pattern of JOG FL)
AUTO BEAT LOOP 1	AUTO BEAT LOOP 1	AUTO LOOP 1	
AUTO BEAT LOOP 2	AUTO BEAT LOOP 2	AUTO LOOP 2	
AUTO BEAT LOOP 4	AUTO BEAT LOOP 4	AUTO LOOP 4	
AUTO BEAT LOOP 8	AUTO BEAT LOOP 8	AUTO LOOP 8	
BEAT SELECT	AUTO BEAT LOOP (LEFT)	BEAT SELECT	
SLIP	AUTO BEAT LOOP (RIGHT)	SLIP	
TEMPO SLIDER			Increase and decrease (■ MARK of DATA_FL)
JOG (FWD)		JOG ■ MARK Right movement (10 points by one rotation)	
JOG (REV)		JOG ■ MARK Left movement (10 points by one rotation)	
VINYL SPEED ADJUST VOLUME		JOG VOLUME ■ MARK Increase and decrease (10 points)	*It becomes "Measurement of the JOG dial load" mode if it turns to the right completely.
DIRECTION (Reverse)	REV	REV	
USB_STOP_SW (ON)	USB Access	USB STOP	
LINK	LINK	LINK	
USB	USB	USB	
DISC	DISC	DISC	
BROWSE	BROWSE	BROWSE	
TAG LIST	TAG LIST	TAG LIST	
INFO	INFO	INFORMATION	
MENU	MENU	MENU	
BACK			Display pattern changes(Refer to the display pattern of BROWSE_FL)
TAG TRACK			
ROTARY SELECTOR (SW)		ENCODER PUSH	
ROTARY SELECTOR (FWD ROTATE)		ENCODER ■ MARK Right movement (Max 10 points)	
ROTARY SELECTOR (REV ROTATE)		ENCODER ■ MARK Left movement (Max 10 points)	

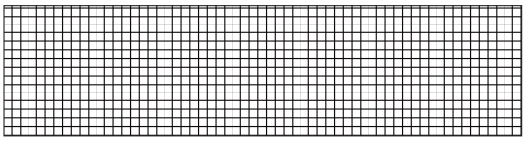
Display pattern of JOG FL



The display pattern of BROWSE_FL

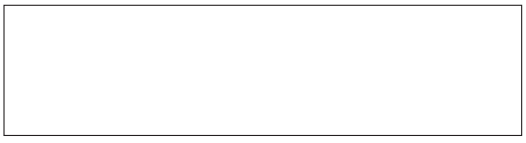
When I push the TAG-TRACK button from above status indication more and send a screen, I display three kinds of patterns to BROWSE_FL as follows.
If the BACK button is pushed, a display will return a previous page.
(In DATA_FL, it becomes all putting out lights except the case of all-points light.)

Lattice pattern



All turning off

All turning on



[2] Check mode of the load of JOG dial

Measurement

It is the mode which judges the load (light/heavy) when rotating JOG dial numerically objective.
It goes into "[1] Confirmation of the button input and a indication function", and it will become this mode if a VINYL SPEED ADJUST VOLUME is turned to the limit of the right.

It goes into this mode, and a number will be displayed if JOG dial is turned with sufficient vigor.
The rotation direction -- right-handed rotation and left-handed rotation -- either is O.K.
The meaning of the numerical value displayed is as follows.

TOP SPEED: Top speed (let the time of turning one rotation in 1.8 second be 1 speed)
TIME: Time taken for rotation to fall to 1.5 speed from 3 speed

It is necessary to make it rotate top speed to 7.0 or more times to measure the rotation fall time required.
Not more than 7.0 times faster in the display " 00M:00S 00.0F " to be flashing a warning.

In addition, when it carries out continuously several times, about time, 2nd henceforth takes and displays an average of a maximum of 99 times.
Measurement which absorbed variation by this can be performed.

■ BROWSE_FL

```
SERVICE MODE          JOG LOAD          OK
      SPEED TIME              SPEED TIME
 1.   8.96  150        4.    ---   --
 2.   9.57  153        5.    ---   --
 3.   ---   --       AVR.   9.26  151
```

Input data twice.

■ DATA_FL

```
00 00:00:00
                                    2
```

← The numerical value written to the right end shows the number of times of an input.

■ BROWSE_FL

```
SERVICE MODE          JOG LOAD          OK
      SPEED TIME              SPEED TIME
 1.   8.96  150        4.    9.57  147
 2.   9.57  153        5.    9.92  150
 3.   9.57  156      AVR.   9.51  151
```

Input data 5 times.

■ DATA_FL

```
00 00:00:00
                                    5
```

■ BROWSE_FL

```
SERVICE MODE          JOG LOAD          OK
      SPEED TIME              SPEED TIME
 6.   8.68  153        9.   10.28 147
 7.   9.57  156       10.   9.57  156
 8.   7.12  153      AVR.   9.28  152
```

Input data 10 times.

Measurement to 99 times and calculation of average value can be performed by the highest.

■ DATA_FL

```
00 00:00:00
                                   10
```

Judgment result

If time is in a certain uniformity range, I display it with "OK" in the line of title, but display "NG" if I do not enter.
This judgment value is 170 ± 20 msec.

Record of a judgement

If USB memory is inserted and MASTER TEMPO button is pushed, a measurement result can write out as a CSV file of the name "JOGLOAD_900.CSV."
In addition, data is added whenever it pushes MASTER TEMPO button.
Moreover, the MAC address is filled in as solid identification.

● MAC_ADDR:00-E0-36-00-84-40

NO.	TOP SPEED	TIME(msec)
1	7.71	138
2	8.17	138
3	7.61	138
4	9.25	141
5	8.81	135
6	8.41	138
7	8.68	141
8	7.12	141
9	8.17	138
10	8.68	135
11	8.17	138
12	8.54	132
13	7.82	135
AVR	8.24	137(NG)

(judge : 150ms <= Time <= 190ms)

[3] Indication of various information

If a power supply is switched on, pushing "TEMPO" "CUE/LOOP CALL ◄" button simultaneously with a button, it will be displayed on FL display part as "SERVICE MODE", and will go into this mode.
(Please continue pushing until "Pioneer LOGO" screen disappears.)
It goes into this mode, and if a TAG-TRACK button is pushed and a screen is sent, the contents of a display will change as follows. Moreover, it can return with BACK button.

① Version information

■ BROWSE_FL

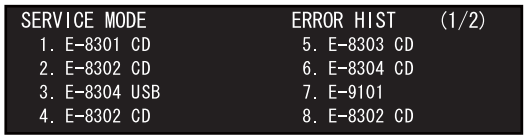
■ DATA_FL

The version number of CPU/microcomputer carried in this machine is displayed.
The MAC Address of Ethernet simultaneously built in this machine is also displayed.

MAIN : The CPU which controls a main
GUI : The Microcomputer which controls LED, DATA_FL, & BROWSE_FL.
PANEL : The microcomputer which controls a button input, LED & JOG_FL.
DSP : Audio DSP
DRIVE : The controller which controls a disc drive.

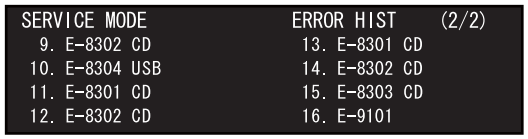
② Error history

■ BROWSE_FL



■ DATA_FL

■ BROWSE_FL



■ DATA_FL

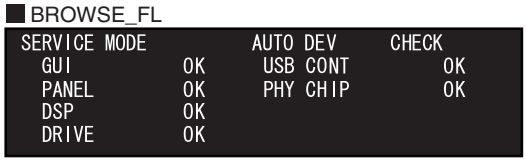
16 pieces are divided into two screens and the error history generated in the past is displayed. “1” becomes the newest error code.
The 16 newest pieces are displayed.
The screen is selected with the BACK button or TAG TRACK button.
Moreover, the item which follows an error code expresses a media. (The error which is not related to media is blank.)

USB : USB device (MEMORY/HDD)
CD : DRIVE - CD media (CDDA/CD-ROM)

About contents of an error code, please refer to "[4] Error display list".

③ Auto device diagnosis

■ BROWSE_FL



■ DATA_FL

The result which judged normal/abnormalities of each device is displayed at the time of power supply ON and initialization.

GUI : The Microcomputer which controls LED, DATA_FL, & BROWSE_FL.
PANEL : The microcomputer which controls a button input, LED & JOG_FL.
DSP : Audio DSP
DRIVE : The controller which controls a disc drive.
USB CONT : USB DEVICE (Type B) controller
PHY CHIP : The controller which controls the physical layer of Ethernet.

Please refer to "[6] Output of the alarm port" for details.

④ Factory reset

■ BROWSE_FL

■ DATA_FL

■ BROWSE_FL

■ DATA_FL

It is used to return the contents set up by UTILITY to a factory-shipments state, or clear an error history.
If TIME MODE button is pushed on this screen, it will return to the following states.

<<UTILITY>>
- PLAYER NO = AUTO
- AUTO CUE LEVEL = -60 dB
- AUTO STANDBY = ON
- LIBRARY CREATOR = LIBRARY
- HISTORY NAME = "HISTORY"
- MIDI Ch = 1
- DIGITAL OUT = 24 bit
- SLIP FLASHING = ON
- QUANTIZE = OFF

<<The state of a key>>
- TIME MODE = REMAIN
- AUTO CUE = OFF
- JOG MODE = CDJ

<<Error history>>
- ALL CLEAR

Switching on a power supply can also perform, pushing a USB-STOP button and EJECT button simultaneously, in order to perform Factory reset.
However, an error history is not cleared at this time.

⑤ Drive operation / error rate measurement

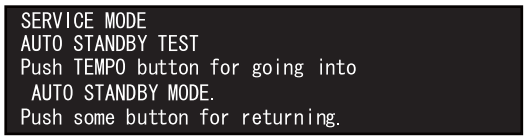
■ BROWSE_FL

■ DATA_FL

The state of the drive at the time of servo test operation and the measurement result of an error rate are displayed.
Refer to "[5] Confirmation of movement of a drive unit" for the details of operation.

⑥ A check of auto standby

■ BROWSE_FL



■ DATA_FL

Usually, there are no media to reproduce, and when prolonged operation is not performed, it shifts to the auto standby mode.
However, in this mode, it can shift to the auto standby mode immediately.
-> Push the TEMPO button.

If operation excluding the following from the state of being in the auto standby mode is performed,
- Push the USB STOP button
- JOG rotation (except for touching the Table top)
- Turn the VINYL SPEED ADJUST VOLUME
- Move the TEMPO slider

It will return from the auto standby mode.

Since a return is the same processing as power supply ON, the service mode is ended.

[4] Error display list

Time display shows "E-XXXX: DISC DRIVE ERROR".

Note: An alarm port is a function which outputs a pulse from the test port (STATUS TEST POINT) of Main CPU and tells an unusual part by the number of pulses.

Error Code	Display Word	Contents	Remarks		Alarm port correspon-dence
E-7001	DISC DRIVE ERROR	The ATAPI drive doesn't function normally.			○
E-7010	DSP DEVICE ERROR	The DSP doesn't function normally. The program isn't available for download.			○
E-7020	USB-B DEVICE ERROR	The USB-B controller doesn't function normally.	*		○
E-7021	PHY CHIP ERROR	The ETHER PHY doesn't function normally.	*		○
E-7022	PANEL CPU ERROR	The PANEL CPU doesn't function normally.	*	It becomes this error when communication with MAIN CPU & PANEL CPU is not materialized in the abnormalities in wire connection etc. It becomes this error when update of PANEL CPU goes wrong. MAIN CPU detects and an error code is transmitted to GUI CPU.	○
E-7024	MAIN CPU ERROR	The MAIN CPU doesn't function normally.	*	It becomes this error when update of MAIN CPU goes wrong. MAIN CPU transmits an error code to GUI CPU by emergency mode.	
E-7101	INTERRUPT EXCEPTION	The abnormalities which are not expected on a MAIN CPU occurred.			
E-7201	TOC READ ERROR	TOC Data can't be read.			
E-8301	PLAYER ERROR	Abnormalities occurred during starting.			
E-8302	PLAYER ERROR	Abnormalities occurred during playback.			
E-8303	PLAYER ERROR	Other abnormalities occurred.			
E-8304	DECODE ERROR	It is the file which cannot be performed normally.			
E-8305	DATA FORMAT ERROR	It is the file which cannot be performed normally.			
E-8306	NO FILE	The registered file does not exist.			
E-8709	COMMUNICATION ERROR	Neither PANEL CPU & GUI CPU nor the communication between MAIN CPU can be done.	*	When the communication with MAIN CPU is not materialized by the abnormalities of connection, GUI CPU displays an error code spontaneously. When MAIN CPU does not operate completely, it will be in this mode.	
E-9101	MECHANICAL TIMEOUT	Mechanism operation was not completed within regulation time.			

* New

[5] Confirmation of movement of the drive unit

It is within "[3] Indication of Various Information" mode, and the following control becomes possible when the screen of "⑤ the drive operation/error rate measurement" is chosen.
This mode consists of "player operation mode" and "test operation mode."

<Player operation mode>
Basic operation of Servo, such as setup, play, pause, and track search, is carried out.
Moreover, measurement of an error rate can also be performed.

<Test operation mode>
Servo operation is finely controllable gradually.

* It becomes player operation mode and shifts to test operation mode by the key input in the beginning.
* The command treated here is for mainly testing a mechanism and a servo system, and is not for DJ functions, such as scan and tempo.

Function	Main unit button
<Player operation mode>	
Servo All Off (Stop)	TIME
Play(Trace) / Pause	PLAY/PAUSE
Track Search Fwd/Rev	TRACK SEARCH FWD/REV
Error Rate Count	CUE
Eject	EJECT
Mode Change (-> Test operation mode)	MASTER TEMPO
<Test operation mode>	
Servo All Off	TIME
Slider Move Fwd	SEARCH FWD
Slider Move Rev	SEARCH REV
Step command	CUE/LOOP CALL NEXT(►)
Mode Change (->Player operation mode)	MASTER TEMPO

■ Player operation mode command

Play(Trace) / Pause

If it is in a stop state, it will set up and play. Moreover, if it is in a play state, whenever it will push a button, a pause and a play are carried out by turns.
It is displayed on a drive state display part as "PLAY or PAUSE."
Track number and time under present trace are displayed. (It becomes a display of four times speed.)
Note: In this mode, even if it inserts a disc, an automatic setup is not carried out.
Moreover, a play is not carrying out audio reproduction, but is tracing the signal side of a disk.

Track Search F/R

Search a track displayed by a FWD / REV course and do pause.
It is indicated with [SEARCH] in the drive condition indication part.
Note: A track search is not possible in CD-ROM (MP3/AAC/WAV/AIFF).

Error Rate Count

I measure an error rate from a present position doing a play/pause for about 20 seconds and display a measurement result in FL. Usually, a track to measure is made to search and this button is inputted from a pause state.
For example, it is displayed as "3.56E-4 O.K." etc.
If an error rate is less than 3.00E-3, it will be displayed as O.K. If an error rate is larger than 3.00E-3, it will be displayed as NG.
Measurement with the managed disc at the time of factory shipments is a premise.
The product does not judge whether they are inferior goods at the time of service.

Eject

A disc is ejected. It is indicated with [EJECT] in the indication part.

Mode Change (It shifts to the Test opalation mode.)

If the MASTER TEMPO button is pushed into player operation mode, MASTER TEMPO LED will light up, and it will shift to the below-mentioned "test operation mode." It is indicated with [TEST MODE] in the indication part.

■ Test operation mode command

Servo operation is finely controllable gradually.
Keep in mind a test operation mode command that it may give a damage to a player as mistaking the usage.
Please operate this mode after making a disc a set completion state.
Note: Operate it after you take a state of loading in.

Servo All Off

When servo is ON, all servo will be turned off if the TIME button is pushed.
It is indicated with [ALL OFF] in the indication part.

Slider Move Fwd

You send about 1.8 mm sliders to a circumference direction whenever you push a SEARCH FWD button.
It is indicated with [SLIDER FWD] in the indication part.

Slider Move Rev

You send about 1.8 mm sliders to an internal circumference direction whenever you push a SEARCH REV button.
It is indicated with [SLIDER REV] in the indication part.

Step command

Perform the serial movement of the setup by a step.
If a CUE/LOOP CALL NEXT (►) button is pushed, it will step up (even if it pushes PREV (◄) button, the stripes of the step down are not carried out). Operation and a display of each step are as follows.

Step	Action	Indication Part
STEP0 :	Servo All Off	ALL OFF
STEP1 :	Laser diode on	LD ON
STEP2 :	Disc presence judgment	DISC SEARCH
STEP3 :	Spindle on (2000 rpm)	SPINDLE ON
STEP4 :	Disc sense	DISC SENSE
STEP5 :	Focus serve on	FOCUS ON
STEP6 :	Tracking servo on	TRACKING ON
STEP7 :	Focus position coarse adjustment	FOCUS POSITION
STEP8 :	Focus gain adjustment	FOCUS GAIN
STEP9 :	Tracking gain adjustment	TRACKING GAIN
STEP10 :	Address lead start	ADDRESS READ

CUE/LOOP CALL NEXT (►) button : step up
Note: Spindle on rotates by 2000 rpm CAV.
It cuts in the CLV four times speed at the address lead and it changes.

Mode Change (The end of the test movement mode)

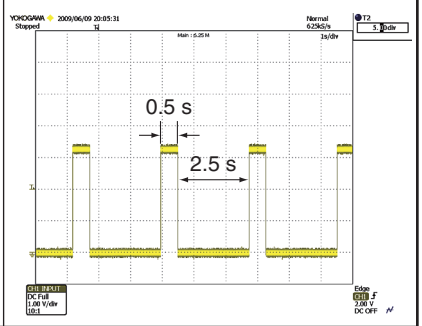
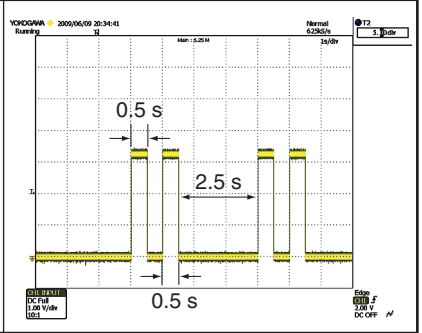
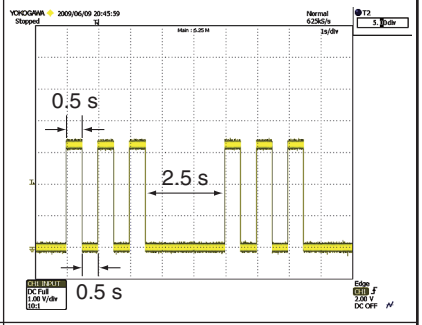
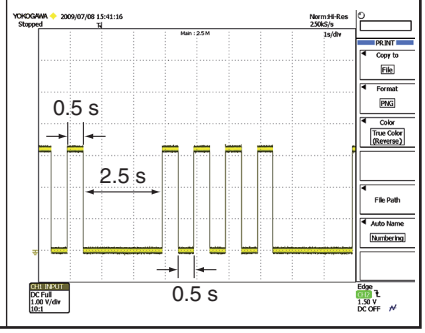
If the MASTER TEMPO button is pushed into "test operation mode", MASTER TEMPO LED will light out, and it will shift to the above-mentioned "player operation mode." It is indicated with [PLAYER MODE] in the indication part.

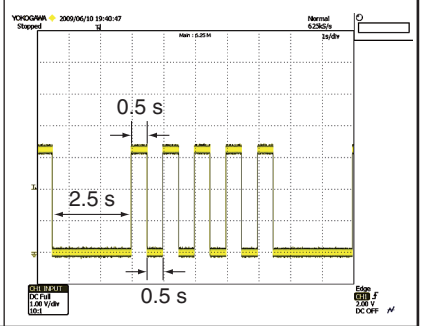
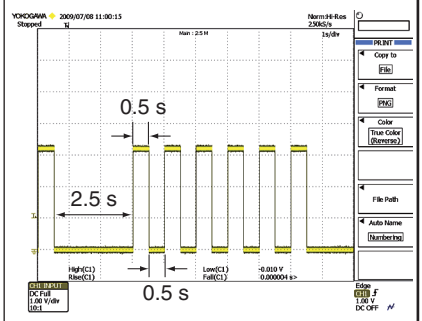
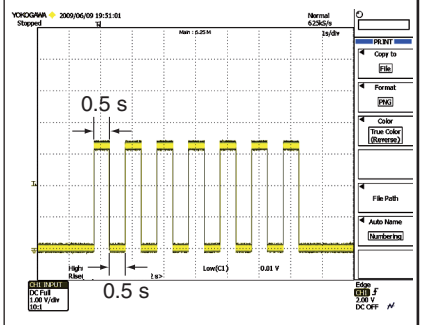
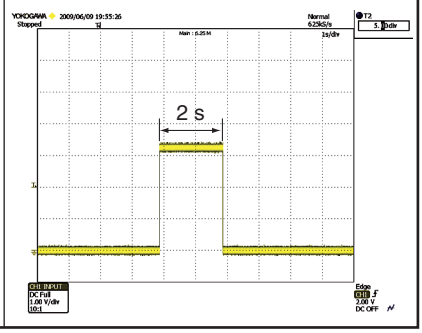
[6] Output of the alarm port

Although "Normal/abnormalities of each device at the time of power supply ON and initialization" can be judged by Auto device diagnosis of a "[3] Indication of various information", the test port output on a main board can also be checked. When a defect is detected by the device by power supply ON, an alarm port (STATUS TEST POINT) performs the following pulse outputs.

	Alarm Port			Service Mode/Auto Device Diagnostic Display		Normal Error Display
	Detection	Remarks	Output Pattern	Display	Remarks	
MAIN CPU						
Flash (for Main CPU)	×	If Flash is NG, the boot program itself does not operate.		×	←	
SDRAM (for Main CPU)	○		(0.5sHI->0.5sLOW) x once ->2sLOW->Afterward,repetition	×	If SDRAM is NG, the service program itself does not operate.	
Peripheral with built-in MAIN CPU						
IDE (DRIVE)	○		(0.5sHI->0.5sLOW) x 7 times ->2sLOW->Afterward,repetition	○		E-7001
USB-A	—	Since it is MAIN CPU built-in, it is hard to consider that peripheral one of these becomes out of condition at pinpoint. It cannot judge whether all have fault in the course to a connector.		—	←	
LAN				—		
External peripheral						
USB-B CONTROLLER	○		(0.5sHI->0.5sLOW) x 4 times ->2sLOW->Afterward,repetition	○		E-7020
ETHER PHY	○		(0.5sHI->0.5sLOW) x 3 times ->2sLOW->Afterward,repetition	○		E-7021
Device communicated with MAIN CPU						
PANEL CPU	○		(0.5sHI->0.5sLOW) x 5 times ->2sLOW->Afterward,repetition	△	Although detection is possible in communi-cation failure, since it does not put into the service mode, a check is correctly impossible.	E-7022
DSP	○		(0.5sHI->0.5sLOW) x twice ->2sLOW->Afterward,repetition	○		E-7010
SDRAM (for DSP)	×	If SDRAM is NG, it cannot communicate with Main CPU.		×	←	
GUI CPU	○		(0.5sHI->0.5sLOW) x 6 times ->2sLOW->Afterward,repetition	△	Although detection is possible in communi-cation failure, since it cannot display on FL, a check is correctly impossible.	
Altogether normal			After 2sHI as LOW			

Output waveforms of the alarm port

Defective Point	Waveform
Defective MAIN CPU/FLASH ROM Pulse ×1	
Defective DSP Pulse ×2	
Defective ETHER AHY CHIP Pulse ×3	
USB_B CONTROLLER Pulse ×4	

Defective Point	Waveform
Communication failure with the PANEL CPU Pulse ×5	
Communication failure with the GUI CPU Pulse ×6	
ATA communication failure with the SODC Pulse ×7	
Normal operation	

[7] Firmware update

The device and updater file name for update is the following.

	Device	File Name	Remarks
MAIN	Main CPU	C900MAIN.UPD	Motorola formal text
GUI	GUI CPU	C900GUI.UPD	Motorola formal text
PANEL	PANEL CPU	C900PANL.UPD	Motorola formal text
DRIVE	SODC	C900DRIV.UPD	Motorola formal text

A version is not contained in a file name.
Since the character sequence containing a version etc. is added to the head of each file, it can check by the editor, viewer, etc.

■ When USB memory is used

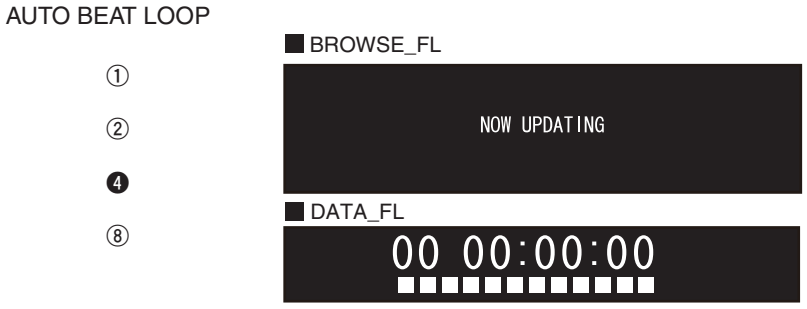
Please use USB memory formatted by FAT/FAT32. It does not correspond to HFS+.

① A file to update is copied to USB memory.
(One files will be copied if it is one pieces. Two files will be copied if it is two pieces. ……)

② Please turn on a power supply, pushing both the buttons of MEDIA SELECT/USB and RELOOP.
(Please continue pushing until "Pioneer LOGO" screen disappears.)
It is displayed the message of "Connect a USB storage device to the USB port." , USB memory is inserted in USB port of the front or the back. (If USB memory is put and it goes into the mode, a message will not be displayed but update will start immediately.)

③ Update is automatically performed in the order of "GUI -> DRIVE -> MAIN -> PANEL".
The message of "NOW UPDATING" is displayed as follows during update.
And, the status of each microcomputer and each CPU is displayed with AUTO BEAT LOOP-LED.

GUI : AUTO BEAT LOOP[1] File exists = Lighting / Update is progressing = Blinking / Update end = Turning off
(* Approx. 1 minute)
DRIVE : AUTO BEAT LOOP[2] File exists = Lighting / Update is progressing = Blinking / Update end = Turning off
(* Approx. 1 minute)
MAIN : AUTO BEAT LOOP[4] File exists = Lighting / Update is progressing = Blinking / Update end = Turning off
(* Approx. 2 minutes)
PANEL : AUTO BEAT LOOP[8] File exists = Lighting / Update is progressing = Blinking / Update end = Turning off
(* Approx. 1 minute)
* Firmware update time.



④ AUTO BEAT LOOP-LED of the device is turned off when there is no file, and the update is not done.

⑤ Since the message of "Firmware update is completed.Turn the power off before using." will be displayed if update is completed, please return on a power supply.

When CD-R/RW is used

① A file to update is copied to CD-R/RW.
(One files will be copied if it is one pieces. Two files will be copied if it is two pieces. ……)

② Please turn on a power supply, pushing both the buttons of MEDIA SELECT/DISC and RELOOP.
(Please continue pushing until "Pioneer LOGO" screen disappears.)
Insert CD-ROM, if the message "Insert CD-ROM disc" is displayed.

③ The rest is the same as that of the case where USB memory is used.

Recovery when failing

When update of each CPU goes wrong and the power supply has been turned off on the way, subsequent normal operation becomes impossible. In this case, the recovery (emergency) mode which only updates operates.
In addition, please carry out by USB memory in recovery. CD-ROM cannot be used.

① Failure of a MAIN
When the message of "MAIN firmware update failed." is displayed or the power supply has been turned off on the way, if a power supply is returned on again, the error code of "E-7024: MAIN CPU ERROR" will be displayed.
In this case, update will be possible if it usually carries out again using a passage MEDIA SELECT/USB button and RELOOP button.
In addition, only MAIN is updated even if files other than MAIN are in USB memory.
If the unit cannot be recovered after a retrial of downloading, a part may be defective. Replace the whole MAIN Assy.
(This is because provision of a FLASH ROM in which a specific MAC address has been written is not possible.
For details, see section"1.2 NOTES ON FLASH ROM").

② Failure of a GUI
When the message of "GUI firmware update failed." is displayed or the power supply has been turned off on the way, if a power supply is returned on again, the error code of "E-7023: GUI CPU ERROR" will be displayed.
In this case, update will be possible if it usually carries out again using a passage MEDIA SELECT/USB button and RELOOP button.
In addition, if files other than GUI are contained in USB memory, it will usually pass and all they will be updated.
If the unit cannot be recovered after a retrial of downloading, a part may be defective. Replace the IC4002 (GUI CPU).

③ Failure of a PANEL
When the message of "PANEL firmware update failed." is displayed or the power supply has been turned off on the way, if a power supply is returned on again, the error code of "E-7022: PANEL CPU ERROR" will be displayed.
In this case, how to the update mode to enter differs from usual.
Please continue pushing a button 10 seconds or more until it turns on a power supply and the message of "Connect a USB storage device to the USB port." is displayed, pushing only a USB-STOP button.
In addition, if files other than PANEL are contained in USB memory, it will usually pass and all they will be updated.
If the unit cannot be recovered after a retrial of downloading, a part may be defective. Replace the IC8005 (PANEL CPU).

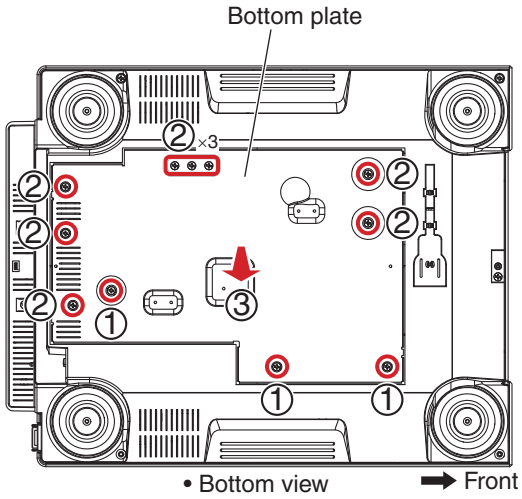
④ Failure of a DRIVE
When the message of "DRIVE firmware update failed." is displayed or the power supply has been turned off on the way, if a power supply is returned on again, the error code of "E-7001: DISC DRIVE ERROR" will be displayed.
In such a case, the unit cannot be recovered by a retrial of downloading. Replacement of IC7006 (FLASH ROM) is required.

7. DISASSEMBLY

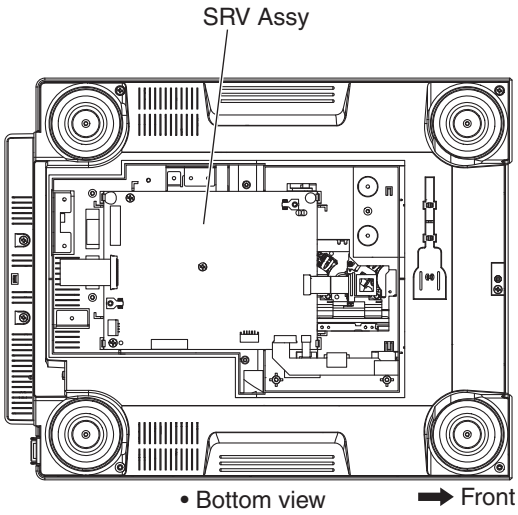
Note:
(1) Do NOT look directly into the pickup lens. The laser beam may cause eye injury.
(2) Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Diagnosis of SRV Assy

(1) Remove the three screws. (BPZ30P080FNI)
(2) Remove the eight screws. (BBZ30P060FTC)
(3) Remove the bottom plate.



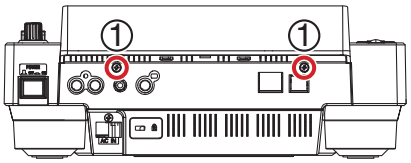
Diagnosis



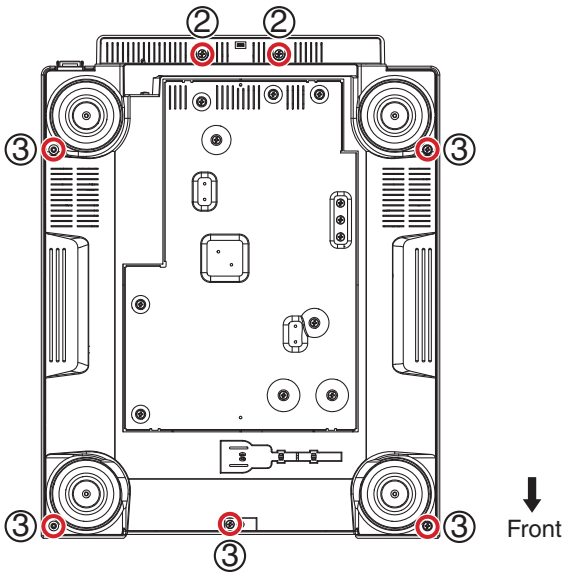
Diagnosis of MAIN Assy

[1] Control Panel Section

(1) Remove the two screws. (BBZ30P060FTB)
(2) Remove the two screws. (BPZ30P200FTB)
(3) Remove the five screws. (BPZ30P080FNI)

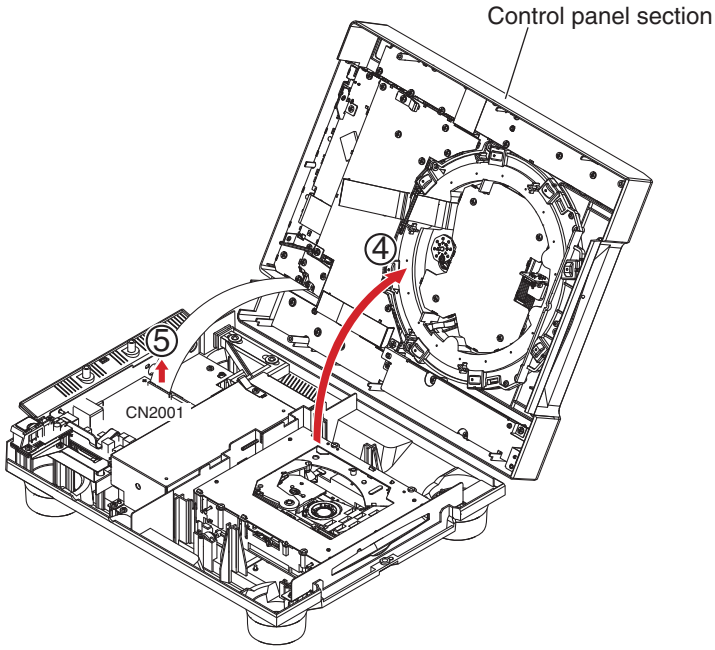


• Rear view



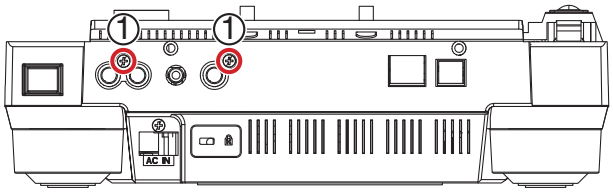
• Bottom view

(4) Remove the control panel section.
(5) Disconnect the flexible cable.



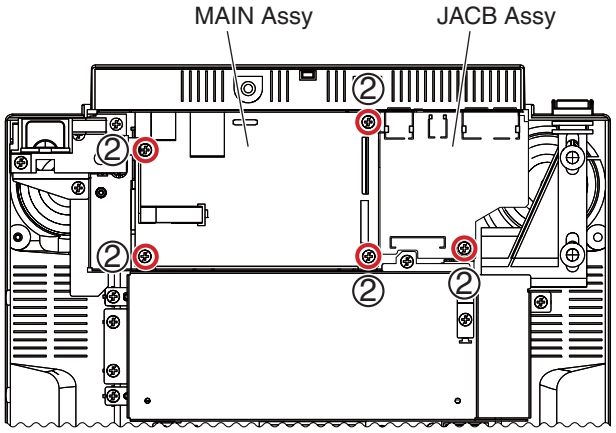
[2] MAIN and JACB Assemblies

(1) Remove the two screws. (BPZ30P080FTB)



• Rear view

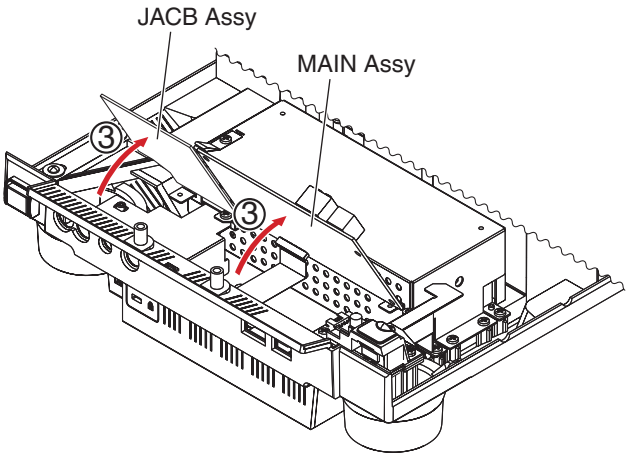
(2) Remove the five screws. (BBZ30P060FTC)



(3) Stand the MAIN and JACB Assemblies.

Diagnosis

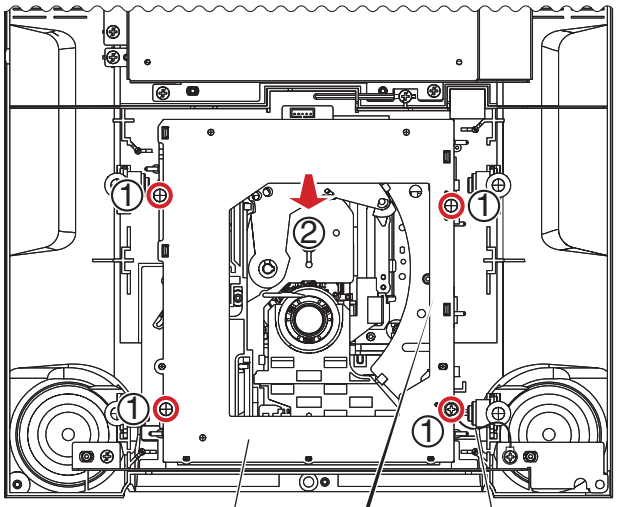
Even if you do not lift the PC board,
a diagnosis is possible on a part side.



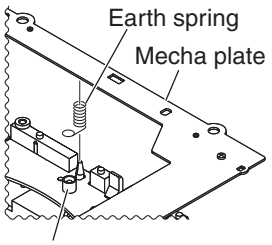
Slotin Mechanism Section

[1] Mecha Plate

(1) Remove the four screws. (BPZ30P080FNI)
(2) Remove the mecha plate.

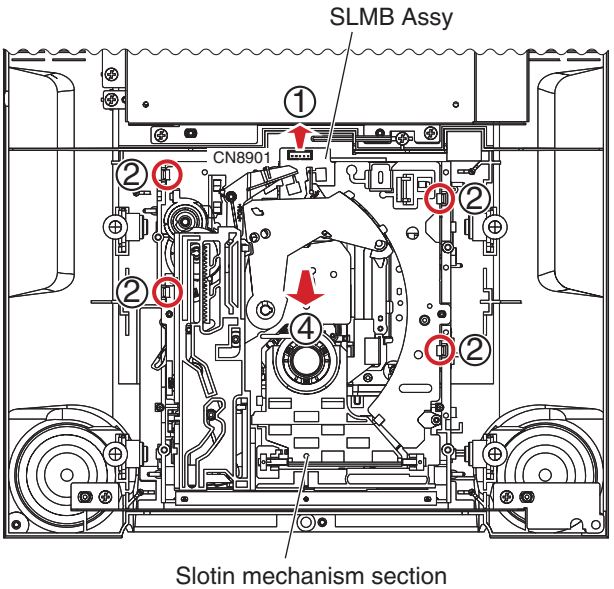


Note of earth spring
- Be sure not to lose it.
- Be careful to the installation places.
- Confirm it by viewing.



[2] Slotin Mechanism Section

(1) Disconnect the one connector.
(2) Unhook the four hooks.
(3) Release the jumper wires, as required.
(4) Remove the slotin mechanism section.

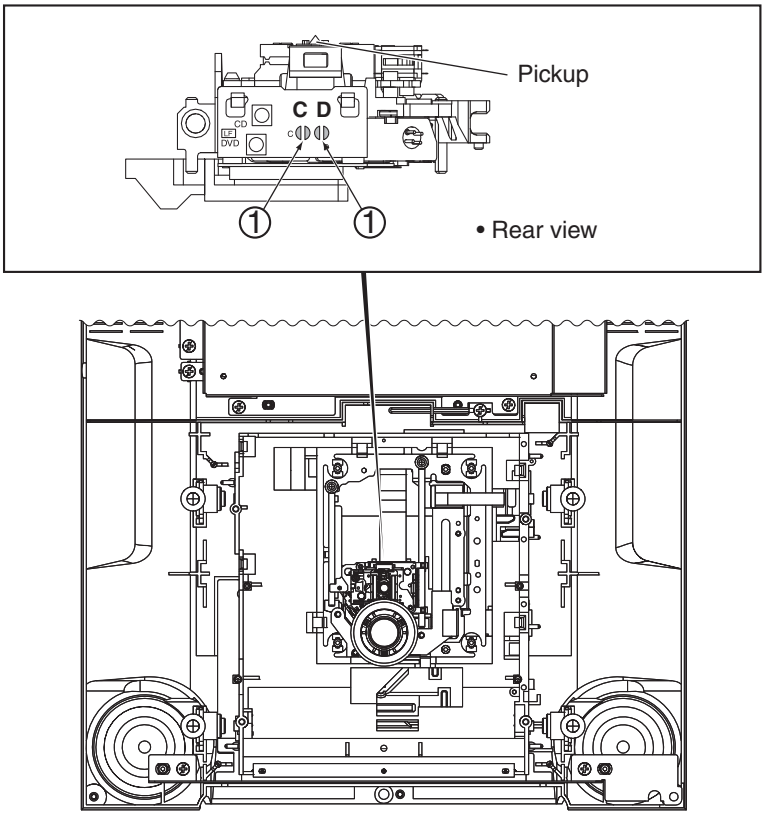


TM Assy-03S

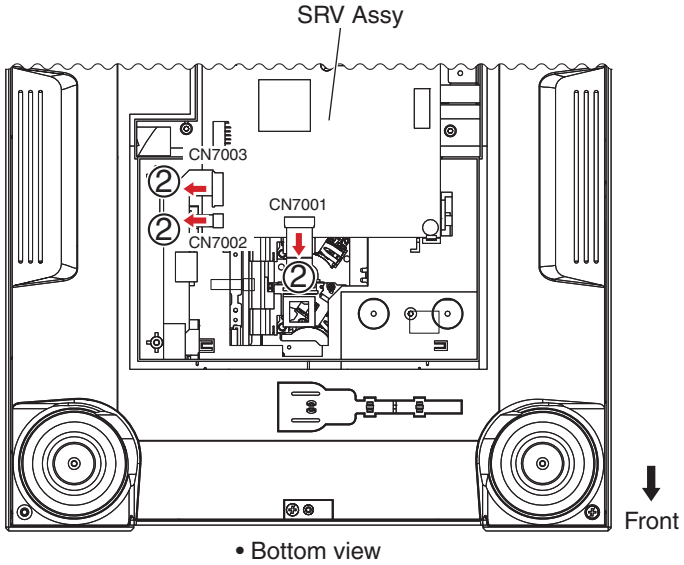
[1] Float Base Section

(1) Short-circuit two positions of C and D soldering. (short)

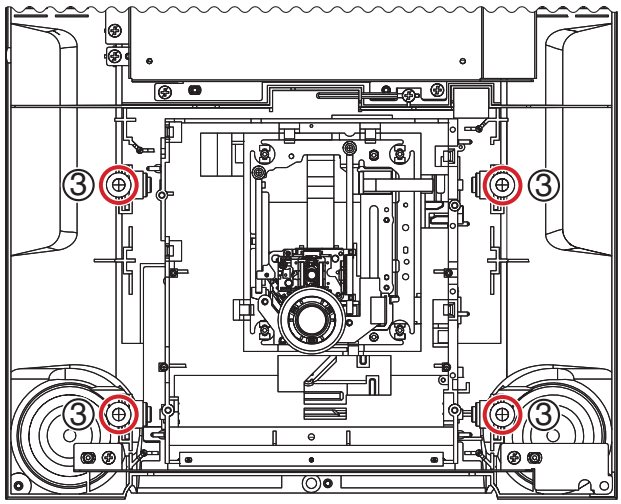
Note:
After working, connect the flexible cable, then remove the soldered joint (open).



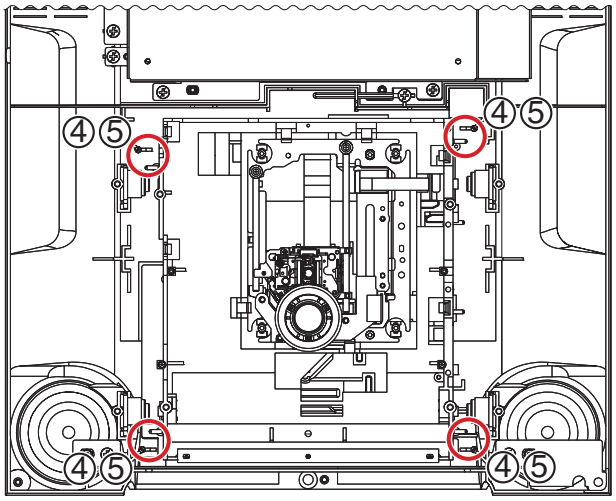
(2) Disconnect the three flexible cables.

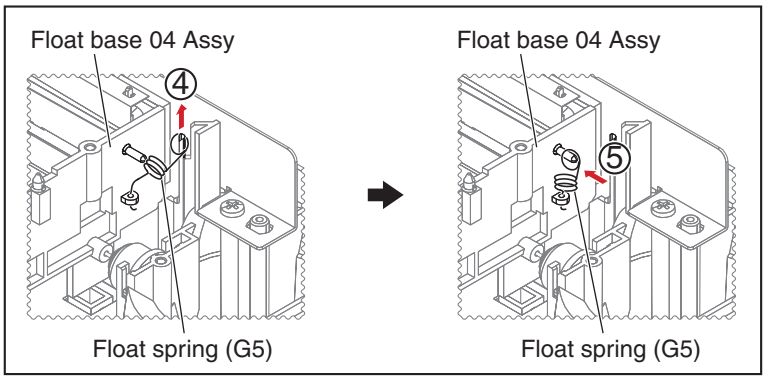


(3) Remove the four DM screws. (DBA1260)

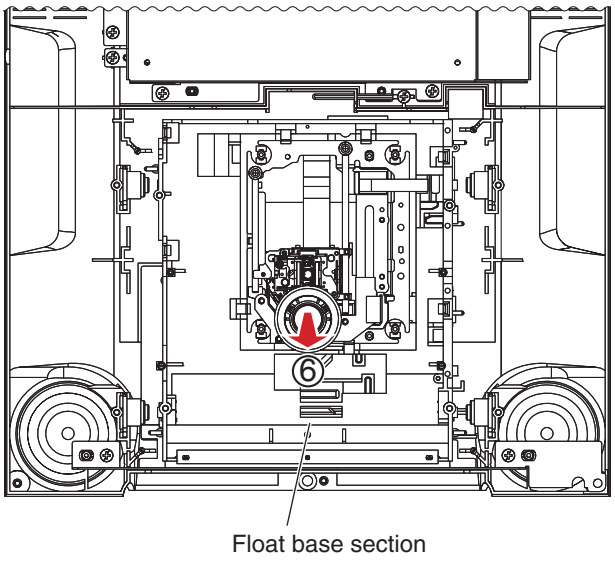


(4) Remove the four float springs (G5).
(5) Hook the four float springs (G5) to the four hooks of the float base 04 Assy.



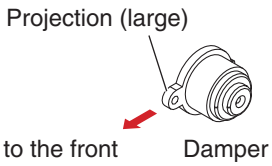


(6) Remove the float base section.



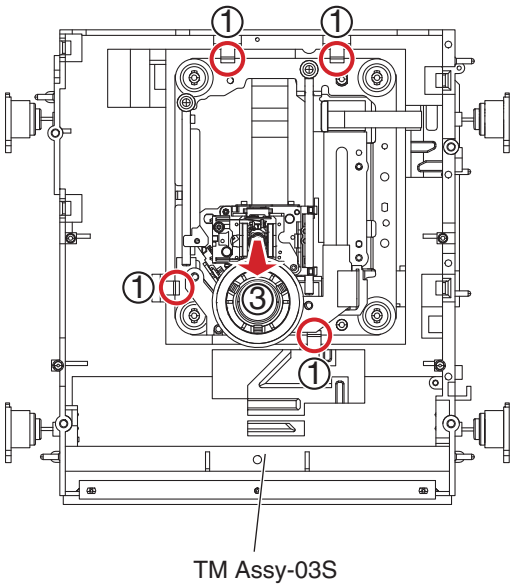
Direction of the dampers when attaching them

When attaching the dampers, place them so that their projections (large) face front.

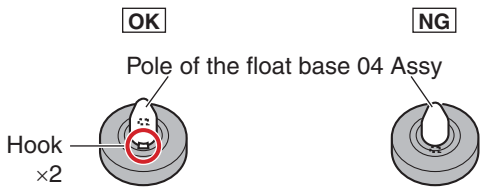


[2] TM Assy-03S

(1) Unhook the four hooks.
(2) Release the flexible cables, as required.
(3) Remove the TM Assy-03S.



Note on the float rubber installation

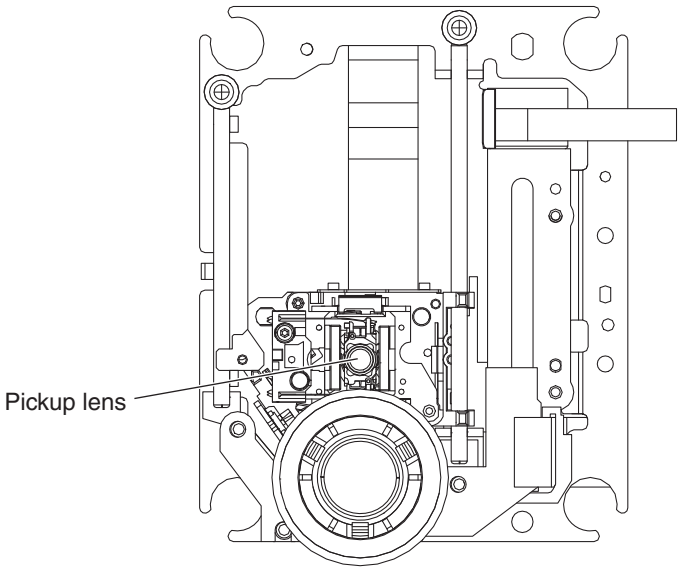


A

Cleaning the pickup lens

Before shipment, be sure to clean the pickup lens, using the following cleaning materials:

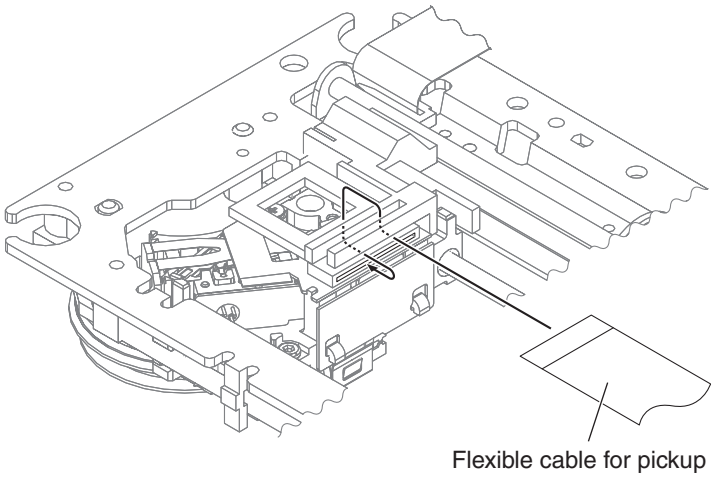
Cleaning liquid : GEM1004
Cleaning paper: GED-008



B

C

Arrangement of the flexible cable for pickup



• Bottom view

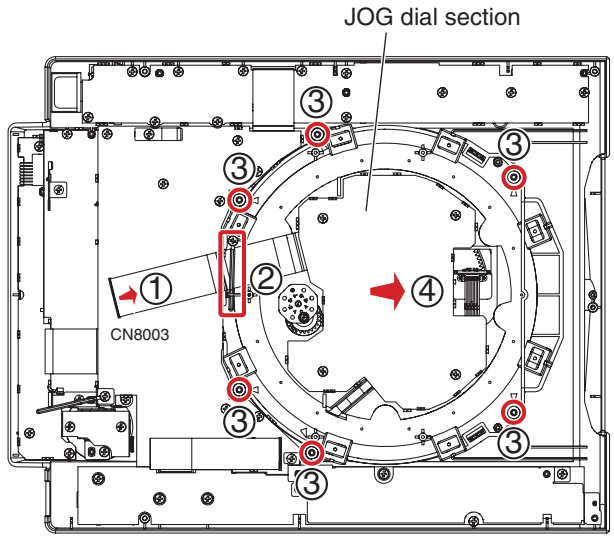
D

E

F

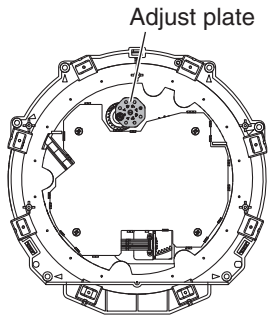
JOG Dial Section

(1) Disconnect the flexible cable.
(2) Release the cord clamper.
(3) Remove the six screws. (BPZ30P080FNI)
(4) Remove it while pulling JOG dial section in front side.



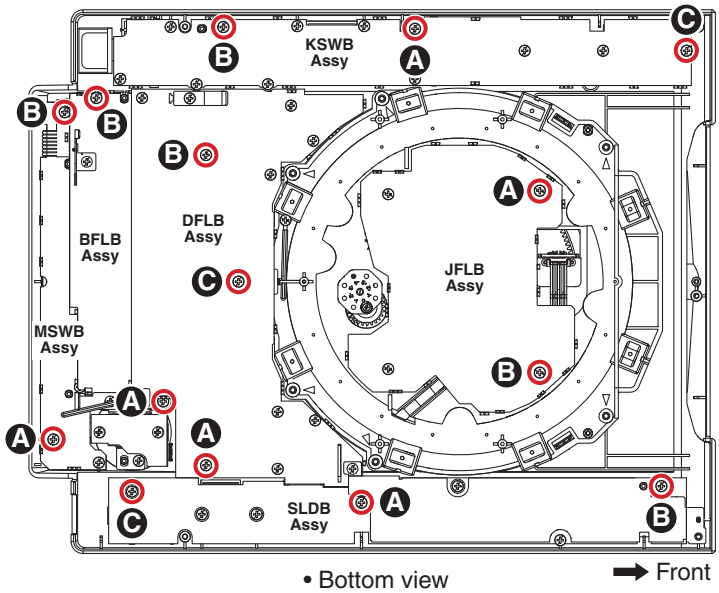
Position of the Adjust plate

About details of Adjustment etc., refer to the "8.1 JOG DIAL ROTATION LOAD ADJUSTMENT".

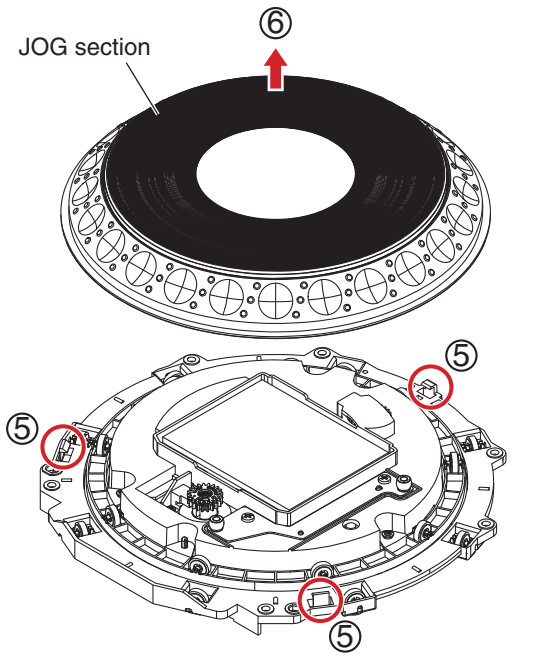


Screw tightening order

The other screws are random order.

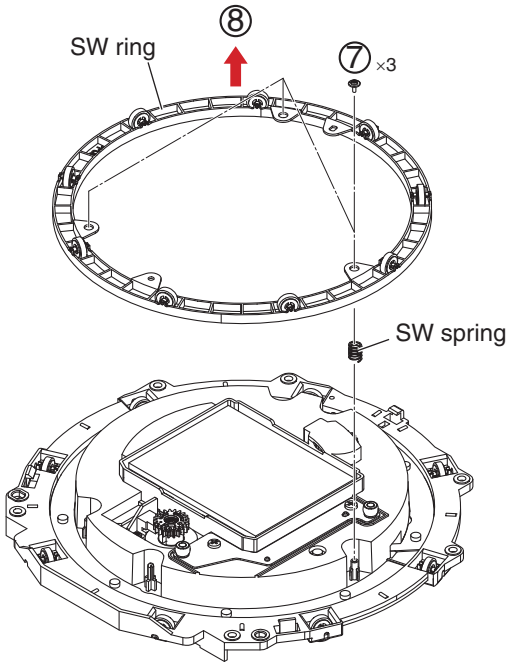


(5) Unhook the three hooks.
(6) Remove the JOG section.



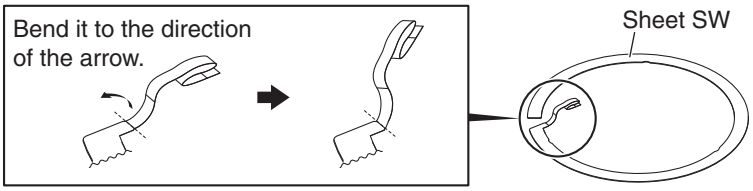
(7) Remove the three screws. (DBA1265)
(8) Remove the SW ring.

Note:
Be careful not to lost SW spring.



Notes on replacing the Sheet SW

Styling of the Sheet SW

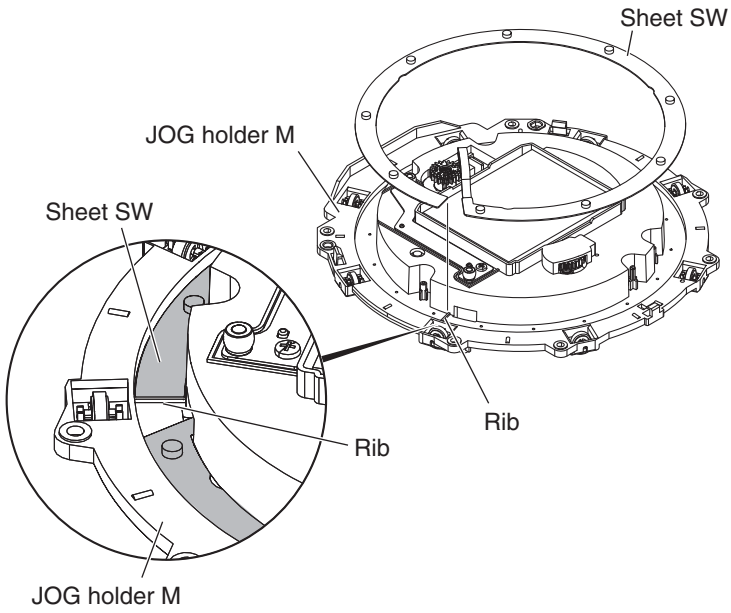


Notes on replacing the Sheet SW

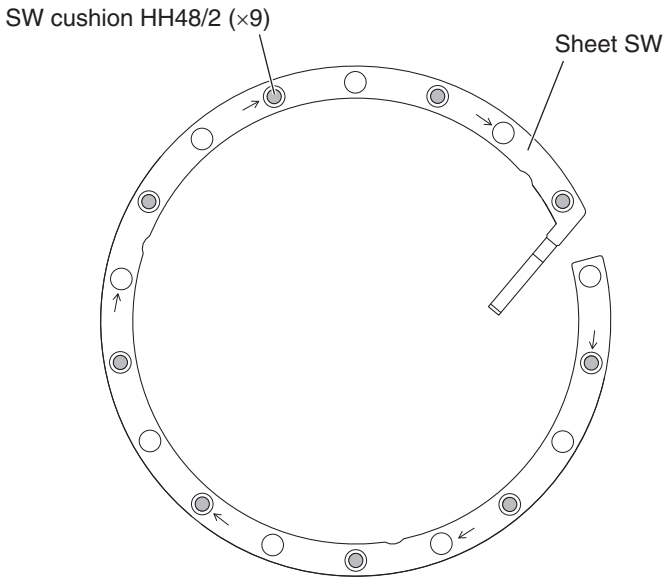
Pasting position of the Sheet SW

Notes:

1. Be careful not to warp the sheet SW.
2. Remove any dirt on the JOG holder M to which the sheet SW is to be adhered. If some adhesive for the old sheet SW remains on the JOG holder M, completely remove it with a cloth moistened with alcohol.
3. Do NOT place the sheet SW so that it is mounted on the rib of JOG holder.
4. When adhering the sheet SW, be careful not to trap air bubbles in it. If air bubbles are formed, remove the sheet SW and adhere a new sheet SW. Do NOT reuse the removed sheet SW.
5. When making a connection, be sure to first release the lock of the connector then securely relock the connector after making the connection.



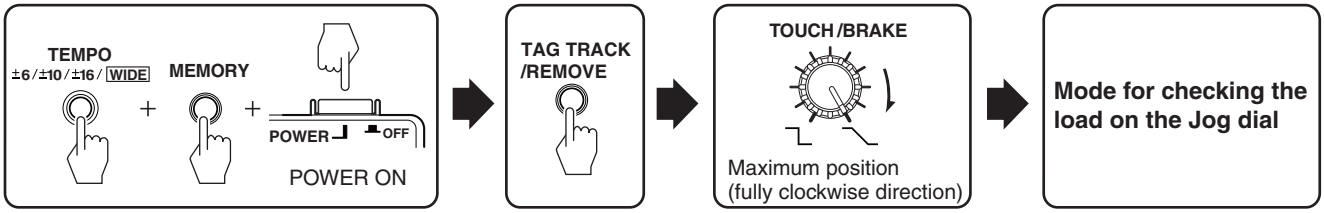
Pasting position of the SW cushion HH48/2



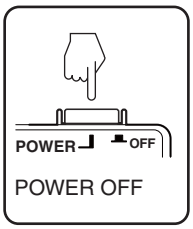
8. EACH SETTING AND ADJUSTMENT
8.1 JOG DIAL ROTATION LOAD ADJUSTMENT

JOG Check Mode : ON

• It is the mode which judges the load (light/-- heavy) numerically when rotating the JOG dial.



JOG Check Mode : CANCEL



[Measuring method]

1. The adjustment value of adjust plate is adjusted to "0" (Refer to Fig. 2).
2. Enters the mode for checking the load on the Jog dial.
3. The jog dial is mightly rotated. Moreover, the direction of the rotation is clockwise.
4. The rotation speed and time are displayed in BROWSE FL (Refer to Fig. 1).
   The time required so that the rotation may decrease from 3 X speed to 1.5 X speed when maximum speed is only 7 X speed or more is displayed.
   The average of the rotation decrease time of 5 times in all is confirmed in spec or less.
   Spec: 170 ± 20 msec.
5. When the rotation decreace time is coming off from spec, the adjustment value of adjust plate is changed, and it does from 2 of above-mentioned to 4.

■ BROWSE_FL

SERVICE MODE			JOG LOAD		OK
	SPEED	TIME		SPEED	TIME
1.	8.96	150	4.	———	——
2.	9.57	153	5.	———	——
3.	———	——	AVR.	9.26	151

■ DATA_FL

00 00:00:00
2

Fig. 1 Example of displaying FL

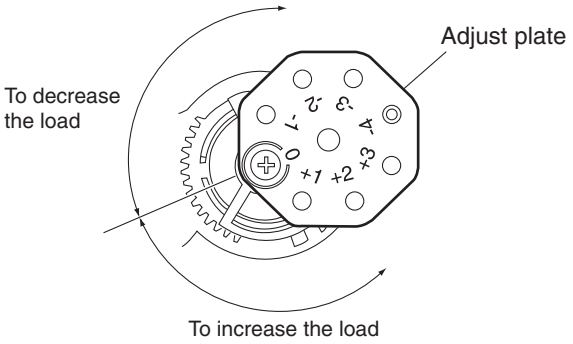


Fig. 2 Adjust plate

[Load adjustment method]

Remove the screw fixing the adjust plate, then screw it into the hole corresponding to the value (-1, -2, -3, -4, +1, +2 or +3) for a load to be added:
-1, -2, -3, -4 : To decrease the load
+1, +2, +3 : To increase the load

8.2 ITEMS FOR WHITCH USERS SETTING IS AVAILABLE

The following data have been set in each IC.

Item for Which User's Setting is Available	Setting Value (The factory default settings are indicated in bold.)	Part No.	Part Name	Ref No.	Assy	Content to be Stored
QUANTIZE	ON/**OFF**	DYW1775	Flash ROM	IC114	MAIN	UTILITY setting
SLIP FLASHING	**ON**/OFF					
PLAYER NO	**AUTO**, 1–4					
AUTO CUE LEVEL	-36dB/-42dB/-48dB/ -54dB/**-60dB**/-66dB/ -72dB/-78dB					
AUTO STANDBY	**ON**/OFF					
LIBRARY CREATOR	**LIBRARY**/FOLDER					
HISTORY NAME	–					
DIGITAL OUT	16 bit/**24 bit**					
MIDI CHANNEL	**1**–16					
TIME MODE	TIME/**REMAIN**	DYW1775	Flash ROM	IC114	MAIN	Statuses of keys
AUTO CUE	ON/**OFF**					
JOG MODE	**CDJ**/VINYL					

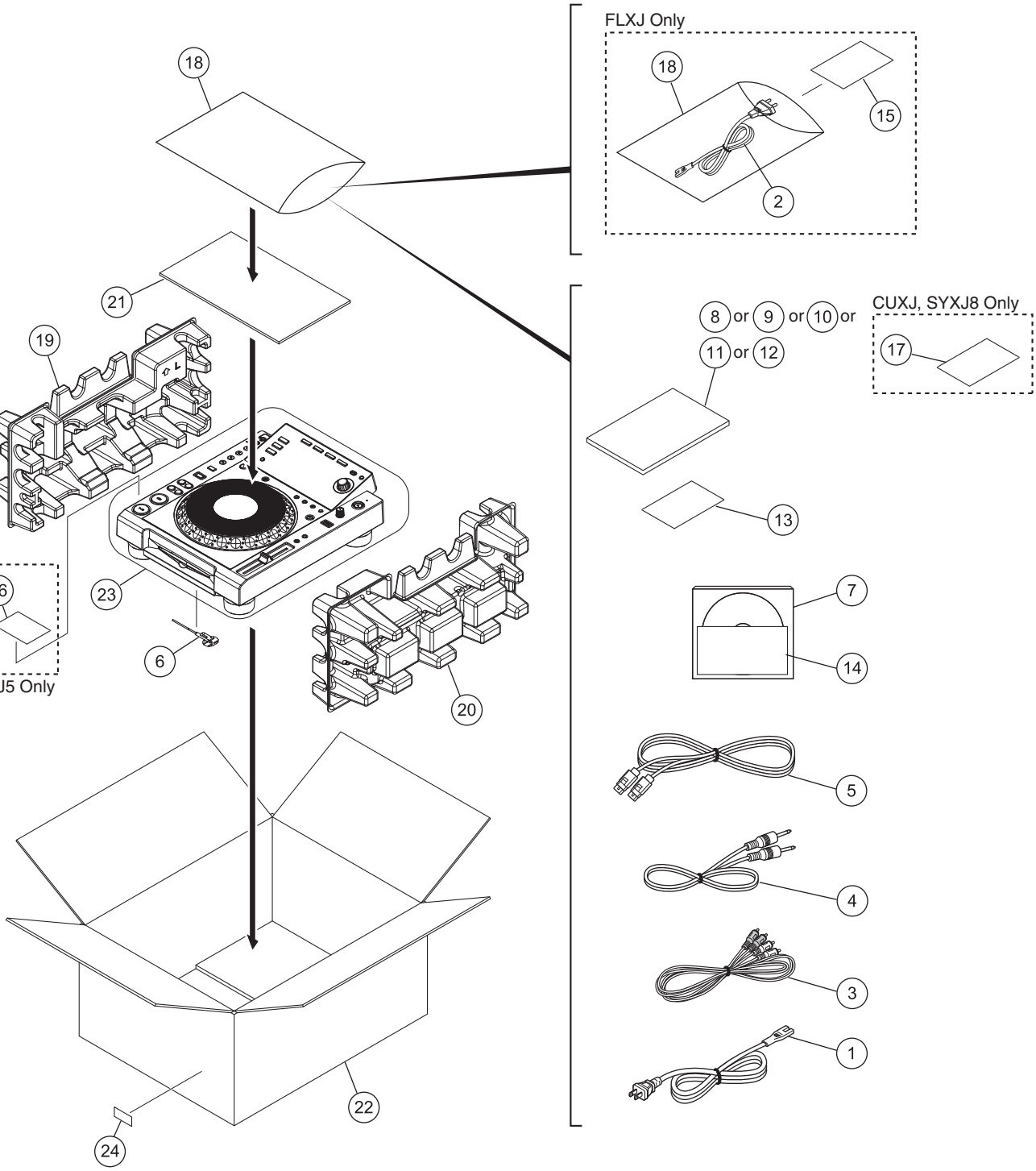
8.3 UPDATING OF THE FIRMWARE AND RECOVERY

For details on updating of firmware and recovery of the main unit, see [7] UPDATING OF FIRMWARE in “6.3 DETAILS ON SERVICE 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

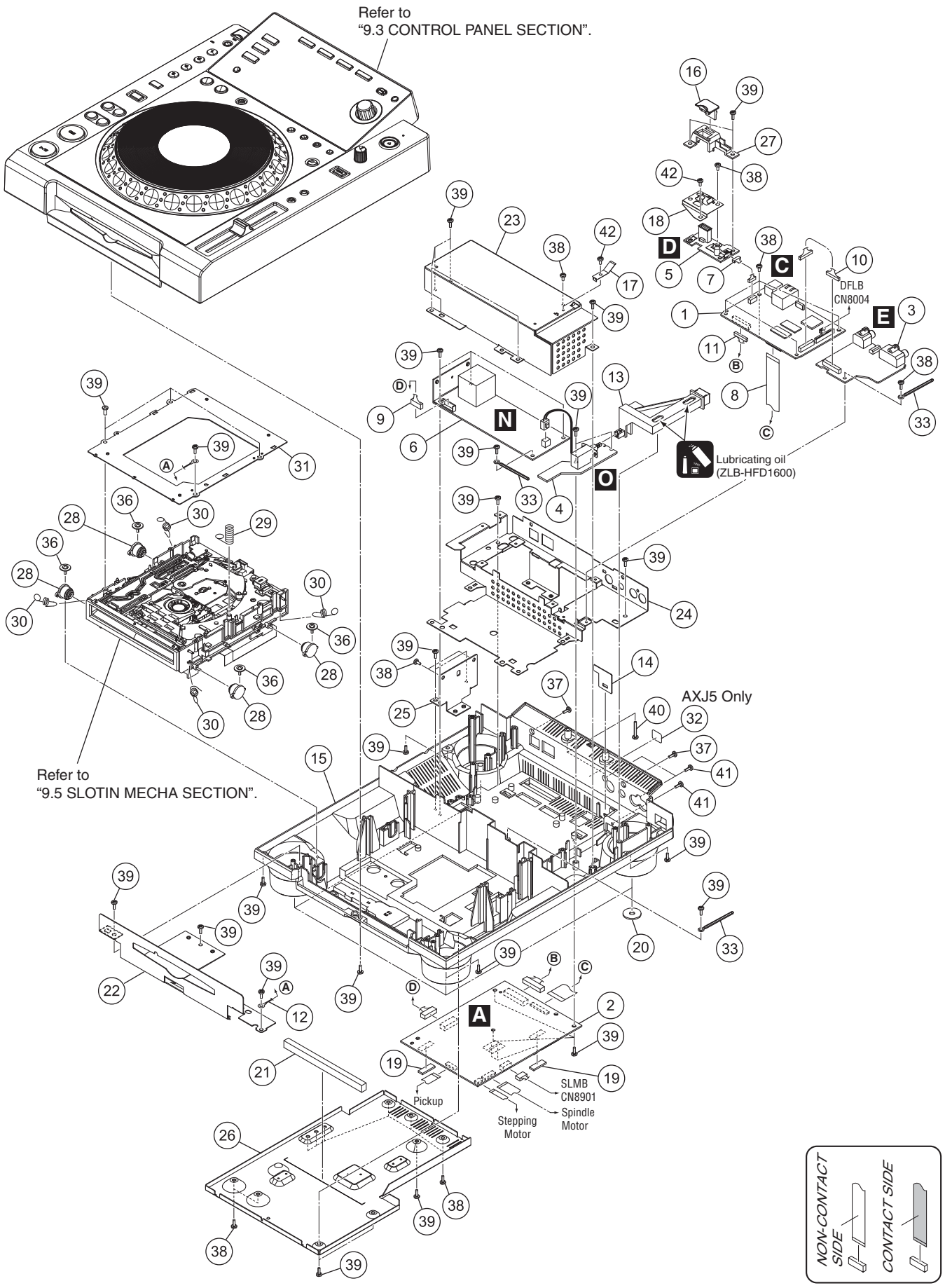
Mark	No.	Description	Part No.
⚠	1	Power Cable	See Contrast table (2)
⚠	2	Power Cable	See Contrast table (2)
	3	Audio Cable (L = 1.5 m)	XDE3045
	4	Control Cord (L = 1 m)	XDE3063
	5	LAN Cable (1M UTP)	DDE1130
	6	Disc Force Eject Pin	DEX1008
	7	CD-ROM (rekord box)	DXX2598
	8	Operating Instructions	See Contrast table (2)
	9	Operating Instructions	See Contrast table (2)
	10	Operating Instructions	See Contrast table (2)
	11	Operating Instructions	See Contrast table (2)
	12	Operating Instructions	See Contrast table (2)
	13	Information Sheet	DRM1338
NSP	14	License Key Label	DXA2190
	15	Caution Card SB	See Contrast table (2)
	16	Recycle Label M	See Contrast table (2)
NSP	17	Warranty Card	See Contrast table (2)
NSP	18	Polyethylene Bag (0.06 x 230 x 340)	AHG7117
	19	Pad L	DHA1792
	20	Pad R	DHA1793
	21	Accessory Pad	DHA1803
	22	Packing Case	See Contrast table (2)
	23	Packing Sheet	RHC1023
	24	Serial Label	VRW1629

(2) CONTRAST TABLE

CDJ-900/CUXJ, SYXJ8, FLXJ, KXJ5 and AXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	CDJ-900 /CUXJ	CDJ-900 /SYXJ8	CDJ-900 /FLXJ	CDJ-900 /KXJ5	CDJ-900 /AXJ5
⚠	1	Power Cable	ADG7021	ADG1154	ADG1154	XDG3054	ADG7079
⚠	2	Power Cable	Not used	Not used	ADG7097	Not used	Not used
	8	Operating Instructions (En, Fr)	DRB1486	Not used	Not used	Not used	Not used
	9	Operating Instructions (En, Fr, De, It, Nl, Es, Ru)	Not used	DRB1484	Not used	Not used	Not used
	10	Operating Instructions (En, Es, Zhtw)	Not used	Not used	DRB1487	Not used	Not used
	11	Operating Instructions (Ko)	Not used	Not used	Not used	DRB1489	Not used
	12	Operating Instructions (ZHcn, En)	Not used	Not used	Not used	Not used	DRB1488
	15	Caution Card SB	Not used	Not used	ARM7064	Not used	Not used
	16	Recycle Label M	Not used	Not used	Not used	DRW2307	Not used
NSP	17	Warranty Card	ARY7043	ARY7107	Not used	Not used	Not used
	22	Packing Case	DHG2806	DHG2805	DHG2807	DHG2810	DHG2808

9.2 EXTERIOR SECTION



(1) EXTERIOR SECTION PARTS LIST

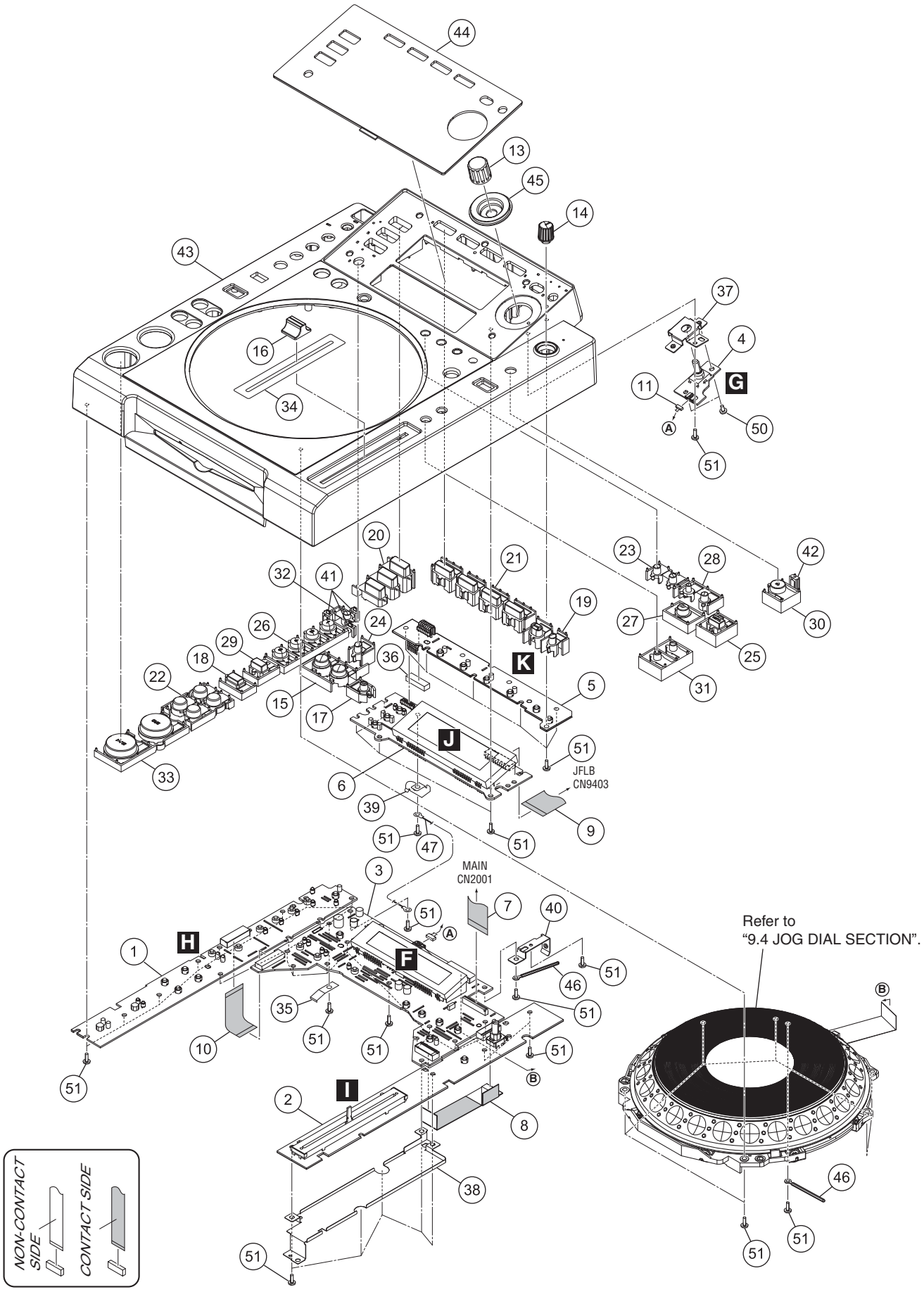
Mark	No.	Description	Part No.
	1	MAIN Assy	DWX3019
	2	SRV Assy	DWX3020
	3	JACB Assy	DWX3023
	4	ACIN Assy	See Contrast table (2)
	5	USBA Assy	DWX3044
⚠	6	POWER SUPPLY Assy	DWR1463
	7	USB Cable	DDA1040
	8	40P FFC	DDD1500
	9	Connector Assy 6P	DKP3831
	10	Connector Assy 12P	DKP3838
	11	Connector Assy 13P	DKP3849
NSP	12	Earth Lead Unit	DE007VF0
	13	Power Knob	DAC2484
	14	Lock Plate	DNH2905
⚠	15	Chassis	See Contrast table (2)
	16	USB Cover	DNK4999
	17	Earth Plate	DBK1224
	18	USB Earth Plate	DBK1351
NSP	19	Silicon Rubber D5 L	DEB1456
	20	Cushion	DEC3177
	21	Bottom Packing	DEC3186
	22	Front Plate	DNH2869
	23	Shield Case	DNH2872
	24	Main PCB Stay	DNH2874
	25	Heatsink	DNH2885
	26	Bottom Plate	See Contrast table (2)
	27	USB Holder	DNK5423
	28	Damper	CNV6011
	29	Earth Spring	DBH1398
	30	Float Spring (G5)	DBH1494
	31	Mecha Plate	DNH2642
NSP	32	CCC S & E Label	See Contrast table (2)
	33	Cord Clamper (Steel)	RNH-184
	34	•••••	
	35	•••••	
	36	DM Screw (FTC)	DBA1260
	37	Screw	BBZ30P060FTB
	38	Screw	BBZ30P060FTC
	39	Screw	BPZ30P080FNI
	40	Screw	BPZ30P200FTB
	41	Screw	BPZ30P080FTB
	42	Screw	BSZ30P060FTC

(2) CONTRAST TABLE

CDJ-900/CUXJ, SYXJ8, FLXJ, KXJ5 and AXJ5 are constructed the same except for the following:

Mark	No.	Symbol and Description	CDJ-900 /CUXJ	CDJ-900 /SYXJ8	CDJ-900 /FLXJ	CDJ-900 /KXJ5	CDJ-900 /AXJ5
	4	ACIN Assy	DWR1461	DWR1462	DWR1462	DWR1462	DWR1462
⚠	15	Chassis	DNK5358	DNK5352	DNK5359	DNK5362	DNK5360
	26	Bottom Plate	DNH2895	DNH2871	DNH2896	DNH2899	DNH2897
NSP	32	CCC S & E Label	Not used	Not used	Not used	Not used	DRW2310

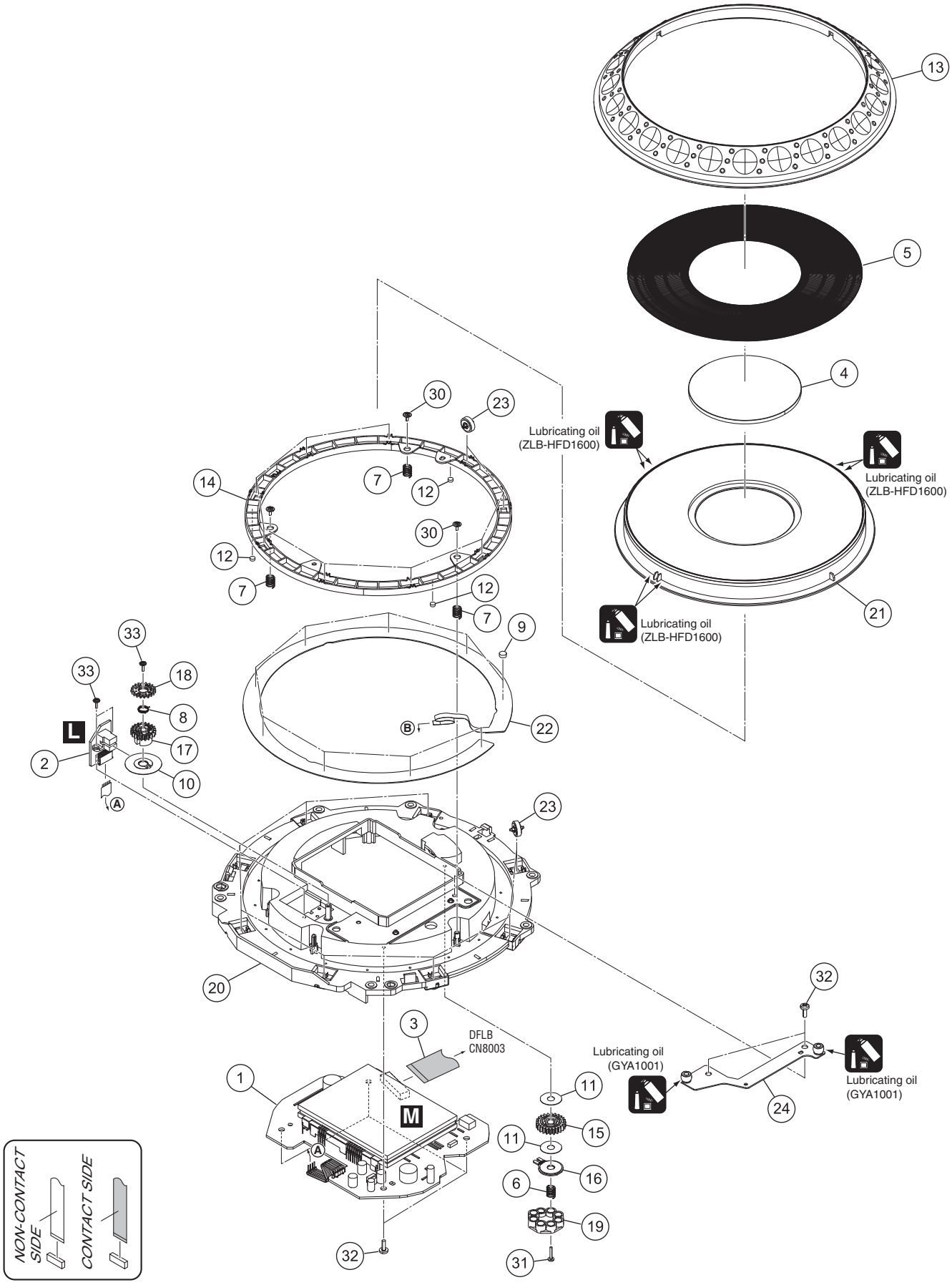
9.3 CONTROL PANEL SECTION



CONTROL PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	KSWB Assy	DWS1416
	2	SLDB Assy	DWS1417
	3	DFLB Assy	DWX3021
	4	ENCB Assy	DWX3022
	5	MSWB Assy	DWS1415
	6	BFLB Assy	DWX3025
	7	26P FFC	DDD1445
	8	13P FFC	DDD1449
	9	22P FFC	DDD1489
	10	20P FFC	DDD1501
	11	Connector Assy	PF04PP-Q17
	12	•••••	
	13	Rotary Knob C	DAA1194
	14	Dial Knob	DAA1246
	15	Loop Knob	DAC2066
	16	Slide Knob	DAC2067
	17	Reloop Knob	DAC2291
	18	Reverse Knob	DAC2364
	19	Menu Button	DAC2490
	20	Media Select Button	DAC2491
	21	Mode Select Button	DAC2492
	22	Set Button (SEARCH)	DAC2495
	23	Set Button (CALL)	DAC2497
	24	Time Button	DAC2498
	25	Vinyl Knob	DAC2542
	26	Auto Beat Roop Knob	DAC2543
	27	Quick Return Knob	DAC2544
	28	DEL MEMO Knob	DAC2545
	29	Beat Select Button	DAC2546
	30	Eject Button	DAC2548
	31	Tempo Button	DAC2549
	32	USB Stop Button	DAC2550
	33	Play Knob	DAC2596
	34	Slide Sheet 1C	DAH2404
	35	Earth Plate	DBK1224
	36	FFC Guard	DEC2586
	37	Encoder Stay	DNF1840
	38	Earth Plate	DNH2875
	39	Earth Plate S	DNH2906
	40	Earth Plate L	DNH2907
	41	USB Lens	DNK5353
	42	EUP Lens	DNK5408
⚠	43	Control Panel	DNK5440
	44	Display Panel	DNK5442
	45	Encoder Ring	DNK5489
	46	Cord Clamper (Steel)	RNH-184
	47	Earth Lead Unit	DDF1032
	48	•••••	
	49	•••••	
	50	Screw	BBZ30P060FTC
	51	Screw	BPZ30P080FNI

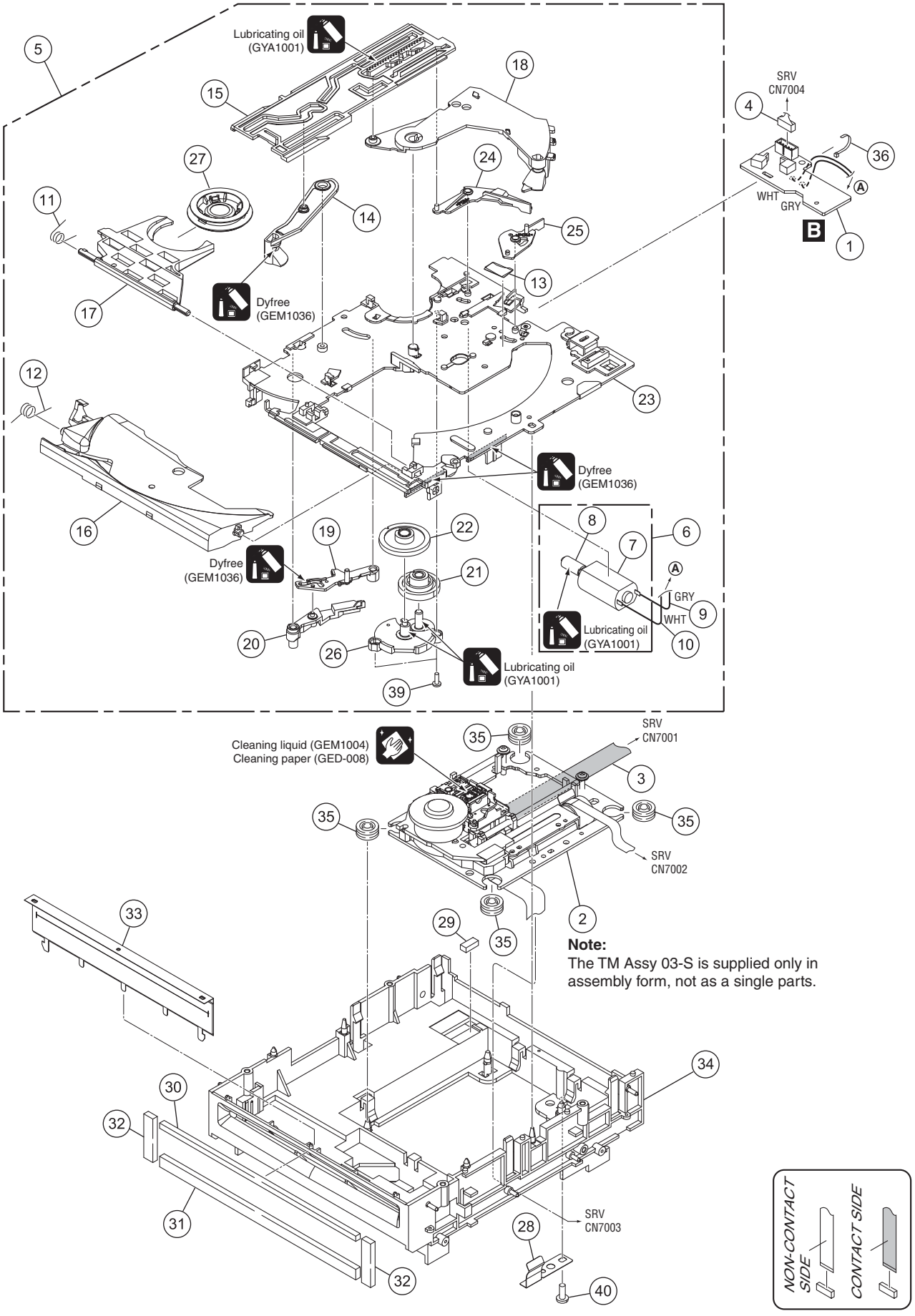
9.4 JOG DIAL SECTION



JOG DIAL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	JFLB Assy	DWX3024
	2	JOGB Assy	DWX3026
	3	19P FFC	DDD1490
	4	JOG Panel	DAH2609
	5	JOG Plate M	DAH2690
	6	Load Spring	DBH1680
	7	SW spring	DBH1681
	8	Encoder Spring	DBH1710
	9	SW Cushion HH48/2	DEC2538
	10	Encoder Plate	DEC2889
	11	Washer	DEC3137
	12	Ring Cushion L24/2.0	DEC2958
	13	JOG B	DNK4068
	14	SW Ring	DNK5233
	15	Load Gear	DNK5236
	16	Smoother	DNK5237
	17	Gear A	DNK5241
	18	Gear B	DNK5242
	19	Adjust Plate	DNK5300
	20	JOG Holder M	DNK5356
	21	JOG Dial A	DNK5357
	22	Sheet SW	DSX1078
	23	Roller A Assy	DXB2010
	24	JOG Stay Assy	DXB2015
	25	•••••	
	26	•••••	
	27	•••••	
	28	•••••	
	29	•••••	
	30	Screw (FE)	DBA1265
	31	Screw	BPZ20P100FTC
	32	Screw	BPZ30P080FNI
	33	Screw	IPZ20P060FTC

9.5 SLOTIN MECHA SECTION



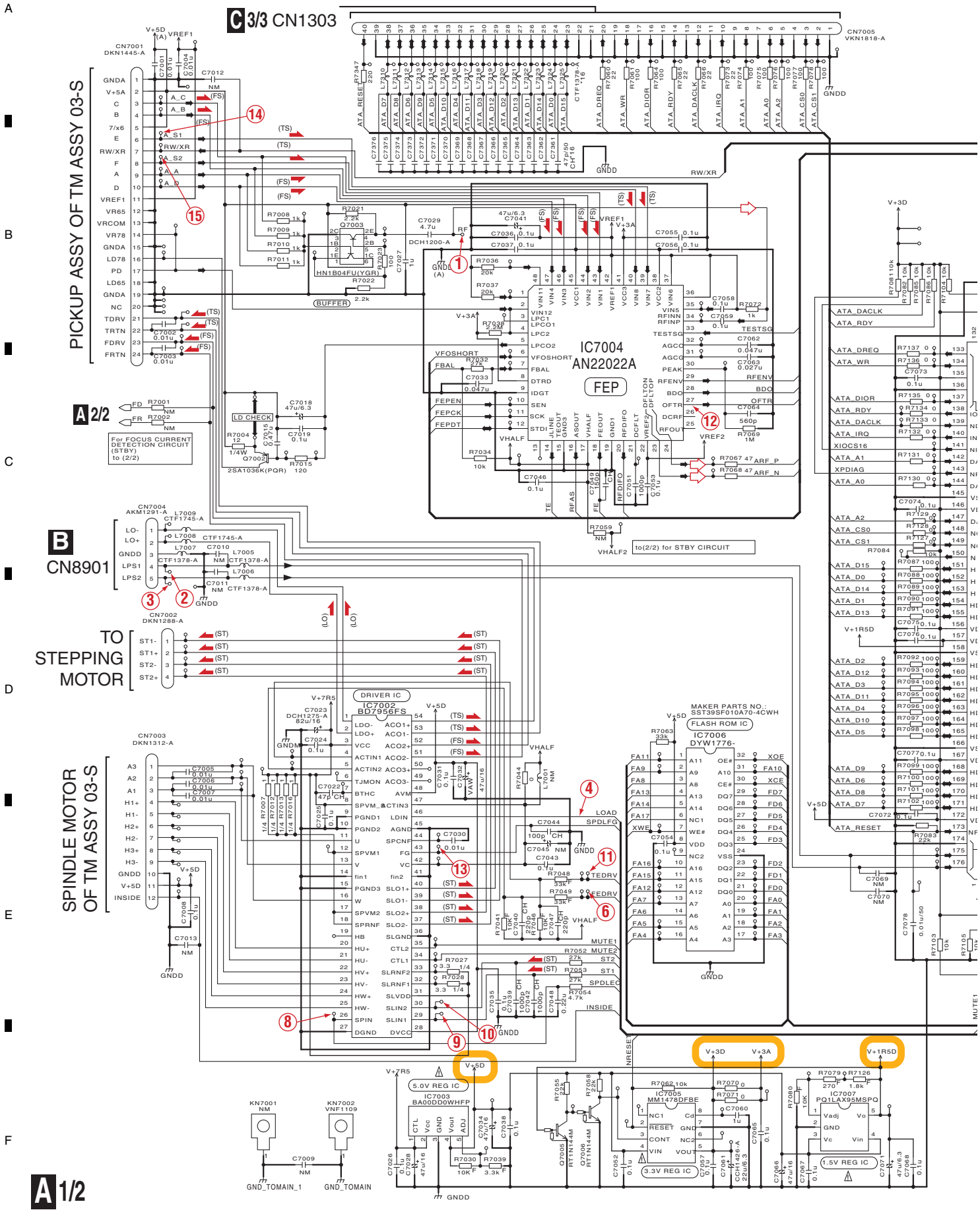
Note:
The TM Assy 03-S is supplied only in assembly form, not as a single parts.

SLOTIN MECHA SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	SLMB Assy	DWS1418
	2	TM Assy 03-S	VXX3125
	3	24P FFC	DDD1450
	4	Connector Assy	PF05PP-B17
NSP	5	SLOTIN MECHA Assy	DXA2121
	6	DC Motor Assy-S	DXX2510
NSP	7	DC Motor S	DXM1230
NSP	8	Worm Gear	DNK3910
	9	Lead Wire	ZWNN1007G28-8-06A
	10	Lead Wire	ZWNN1007G28-9-06A
	11	Clamp Spring	DBH1374
	12	Guide Spring	DBH1375
	13	SW. Lever Spacer SV	DEC2831
	14	Loading Lever	DNK3406
	15	Main Cam	DNK3407
	16	Disc Guide	DNK3478
	17	Clamp Arm	DNK3576
	18	Eject Lever	DNK3684
	19	Lever AP	DNK3835
	20	Lever BP	DNK3836
	21	Loading Gear	DNK3911
	22	Drive Gear	DNK3912
	23	Loading Base SV	DNK4369
	24	SW Lever SV1	DNK4370
	25	SW Lever SV2	DNK4371
	26	Gear Holder SV	DNK4372
	27	Clamper 04 Assy	DXB1859
	28	FPC Guard	DBK1282
	29	Spacer POR (T3)	DEB1566
	30	Vessel Cushion A	DEC2852
	31	Vessel Cushion B	DEC2853
	32	Vessel Cushion C	DEC2854
	33	Front Sheet	DED1132
	34	Float Base 04 Assy	DXB1838
	35	Floating Rubber	VEB1351
	36	Binder (SKB090BK)	ZCA-SKB90BK
	37	•••••	
	38	•••••	
	39	Screw	BPZ20P060FTC
	40	Screw	BPZ30P080FNI

10. SCHEMATIC DIAGRAM

10.1 SRV ASSY (1/2)



A 1/2 SRV ASSY (DWX3020)

005
1818-A

A 2/2

FCS_A

For FOCUS CURRENT DETECTION CIRCUIT (STBY) to (2/2)

SODC

MN103S71F
IC7008

Channel1 select of Driver IC(IC7002)		○: ACTIVE	×: MUTE			
MU1(35p)	MU2(36p)	LOADING	SLIDER	FOCUS	TRACKING	SPINDLE/MODE
H	H	×	○	○	○	○ short brake
H	L	×	○	○	○	○ reversed brake
L	H	○	×	×	×	×
L	L	×	×	×	×	×

NOTES

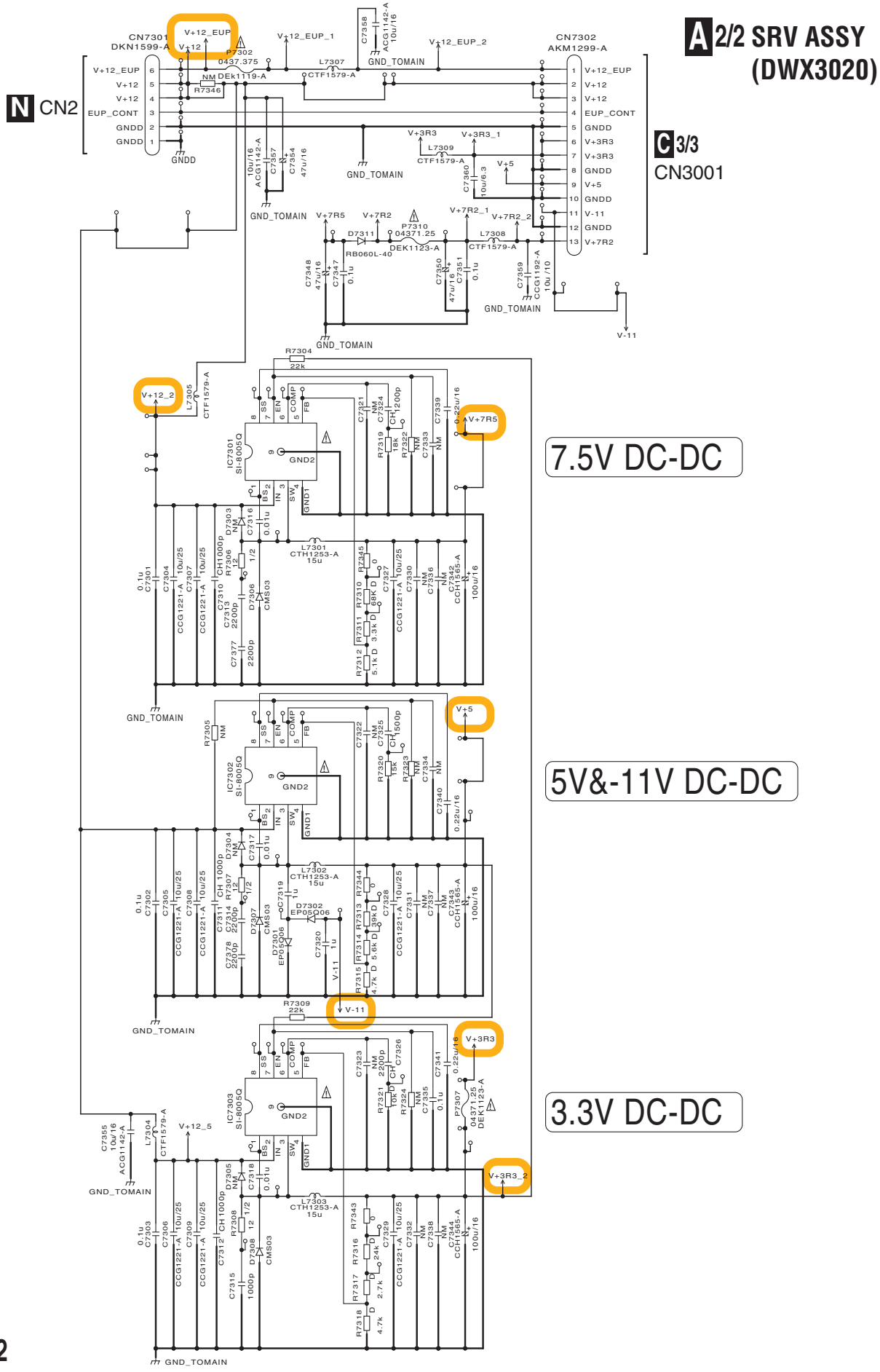
NM	NO MOUNT
1/4	RS1/4SA***J
	RS1/10SR***J
F	RS1/10SR****F
	CKSRYB
CH	CCSRCH
	CEHVW
VAW	CEHVAW
GND_TOMAIN	CIRCUIT GND
GNDD	CIRCUIT GND

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.

: RF Signal Route
(FS) : Focus Servo Signal Route
(TS) : Tracking Servo Signal Route
(SP) : Spindle Motor Signal Route
(ST) : Stepping Motor Signal Route
(LO) : Loading Motor Signal Route

A 1/2

10.2 SRV ASSY (2/2) and SLMB ASSY



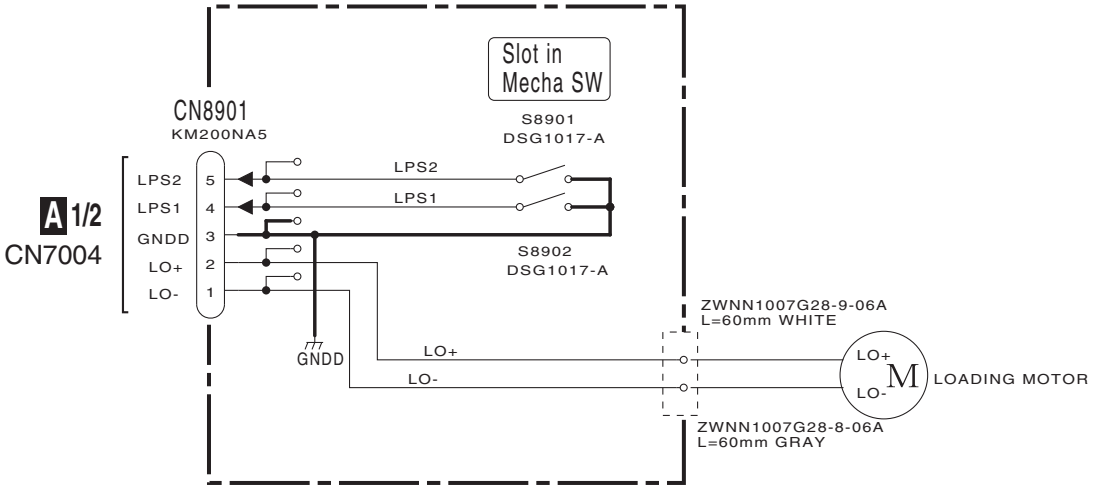
CAUTION
FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE No.
0437.375
MFD. BY LITTELFUSE INC. FOR P7302
04371.25
MFD. BY LITTELFUSE INC. FOR P7307,P7310

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.

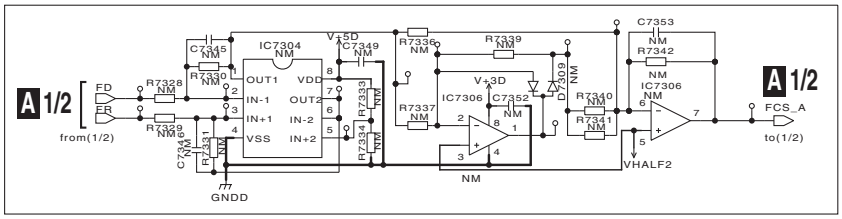
NOTES

NM	NO MOUNT
	RS1/10SR***J
D	RS1/10SR****D
1/2	RST1/2SP***J
	CKSRYB(1608) or CKSQYB(2125)
CH	CCSRCH
	CEHVW
GNDD	CIRCUIT GND
GND_TOMAIN	CIRCUIT GND

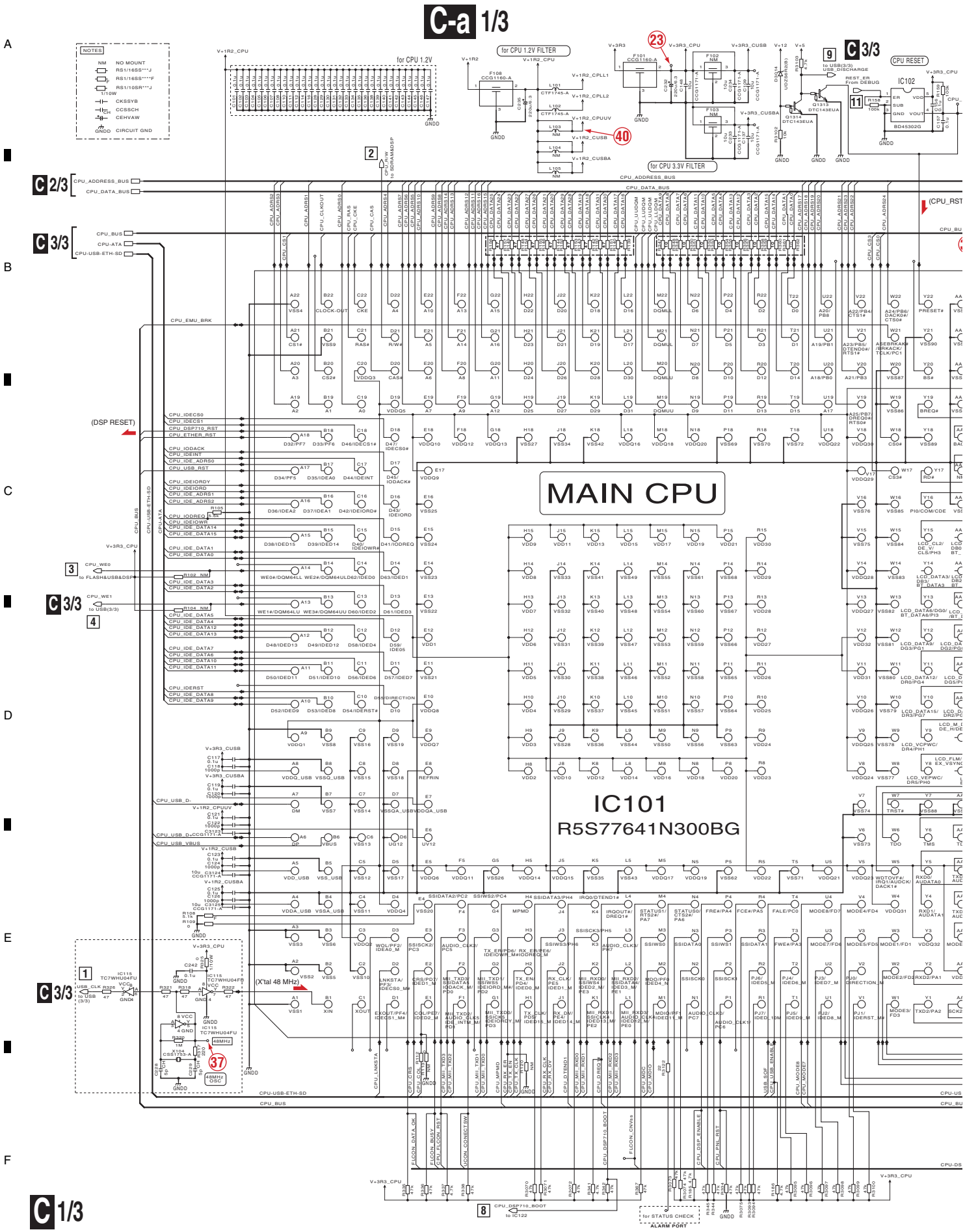
B SLMB ASSY (DWS1408)



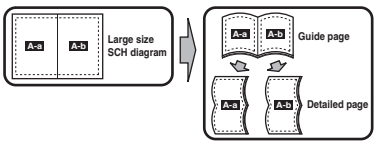
For FOCUS CURRENT DETECTION CIRCUIT (STBY)



10.3 MAIN ASSY (1/3)



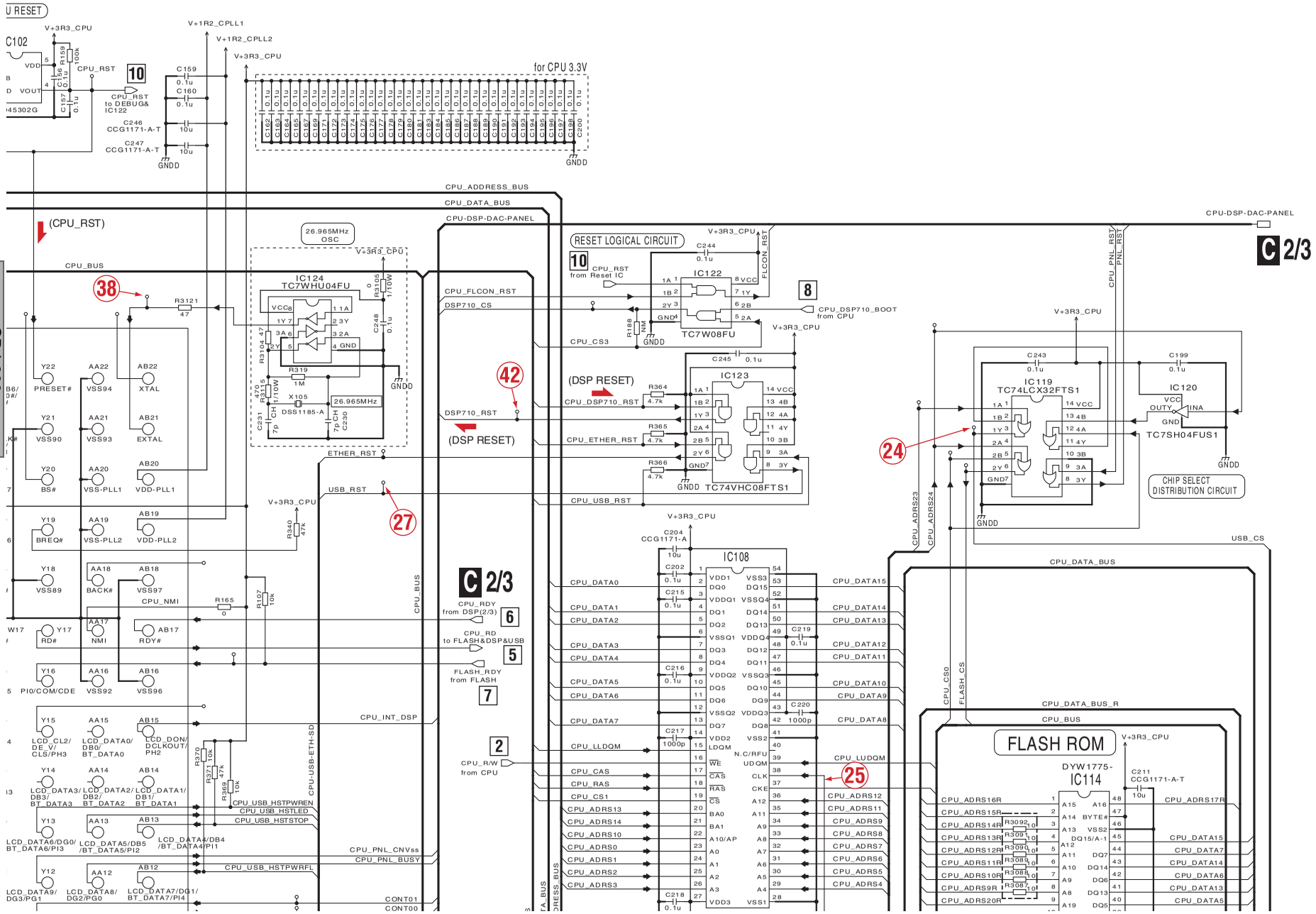
C 1/3 MAIN ASSY (DWX3019)

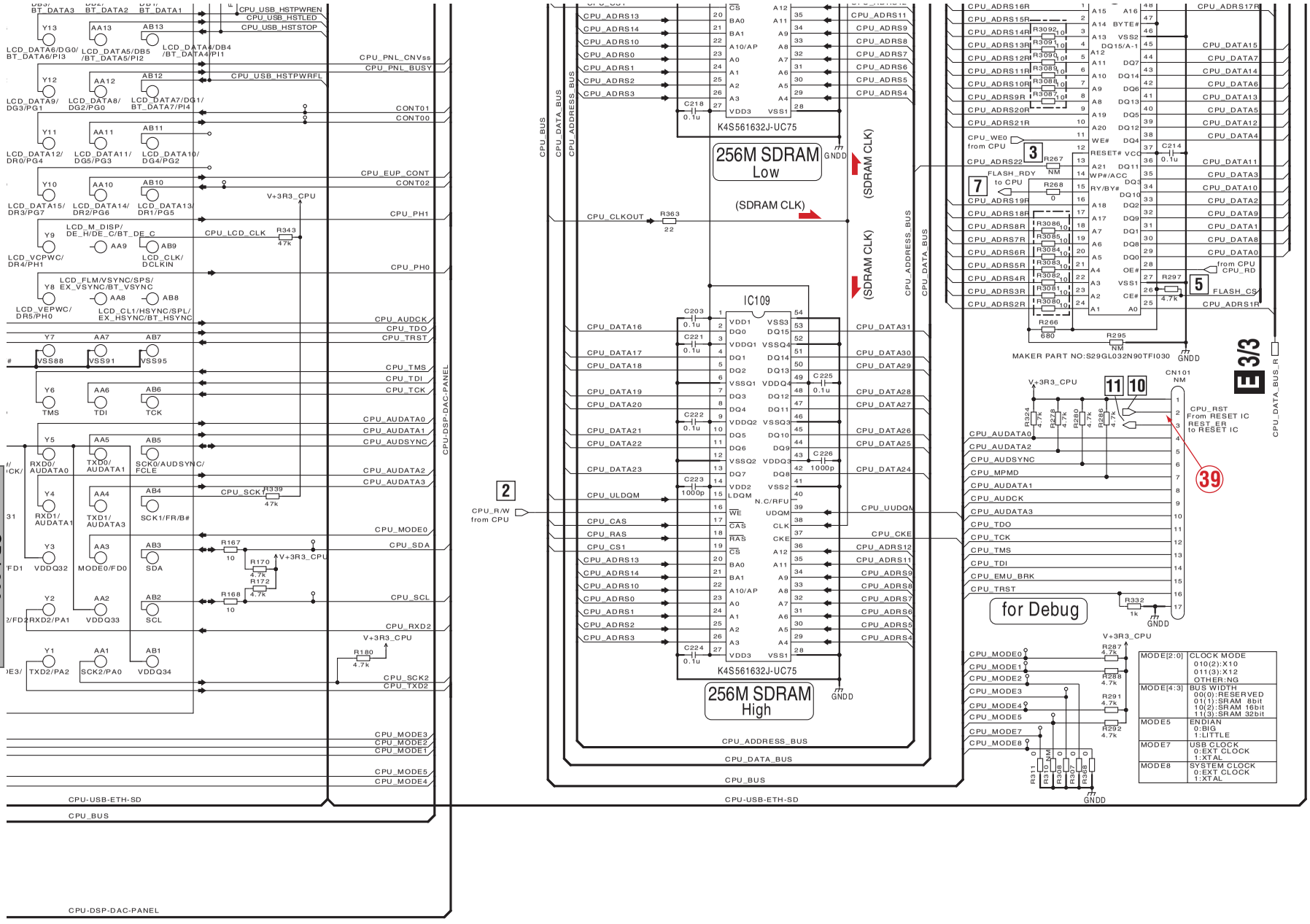


C 3/3

C 2/3

E 3/3


U RESET
V+3R3_CPU
V+1R2_CPLL1
V+1R2_CPLL2
for CPU 3.3V
CPU_RST
CPU_RST to DEBUG& IC122
CPU_ADDRESS_BUS
CPU_DATA_BUS
CPU-DSP-DAC-PANEL
(CPU_RST)
CPU_BUS
26.965MHz OSC
IC124 TC7WHU04FU
X105 DSS1185-A 26.965MHz
RESET LOGICAL CIRCUIT
IC122 TC7W08FU
IC123 TC74VHC08FTS1
CPU_DSP710_BOOT from CPU
CPU_CS3
CPU_FLCON_RST
DSP710_CS
DSP710_RST
(DSP RESET)
CPU_DSP710_RST
CPU_ETHER_RST
CPU_USB_RST
ETHER_RST
USB_RST
IC119 TC74LCX32FTS1
IC120 TC7SH04FUS1
CHIP SELECT DISTRIBUTION CIRCUIT
CPU_ADRS23
CPU_ADRS24
USB_CS
CPU_DATA_BUS_R
CPU_BUS
FLASH ROM
DYW1775-
IC114
CPU_CS0
FLASH_CS
IC108
CPU_DATA0
CPU_DATA1
CPU_DATA2
CPU_DATA3
CPU_DATA4
CPU_DATA5
CPU_DATA6
CPU_DATA7
CPU_DATA8
CPU_DATA9
CPU_DATA10
CPU_DATA11
CPU_DATA12
CPU_DATA13
CPU_DATA14
CPU_DATA15
CPU_LLDQM
CPU_LUDQM
CPU_CAS
CPU_RAS
CPU_CS1
CPU_ADRS0
CPU_ADRS1
CPU_ADRS2
CPU_ADRS3
CPU_ADRS4
CPU_ADRS5
CPU_ADRS6
CPU_ADRS7
CPU_ADRS8
CPU_ADRS9
CPU_ADRS10
CPU_ADRS11
CPU_ADRS12
CPU_ADRS13
CPU_ADRS14
CPU_ADRS15
CPU_ADRS16
CPU_ADRS17
CPU_ADRS20
CPU_ADRS9
CPU_ADRS10
CPU_ADRS11
CPU_ADRS12
CPU_ADRS13
CPU_ADRS14
CPU_ADRS15
CPU_ADRS16
CPU_ADRS17
CPU_ADRS20
CPU_RDY from DSP(2/3)
CPU_RD to FLASH&DSP&USB
FLASH_RDY from FLASH
CPU_R/W from CPU
CPU_INT_DSP
CPU_NMI
CPU_USB_HSTPWREN
CPU_USB_HSTLED
CPU_USB_HSTSTOP
CPU_USB_HSTPWRFL
CPU_PNL_CNVss
CPU_PNL_BUSY
CPU-USB-ETH-SD
CONT01
CONT00
C 2/3
C 2/3

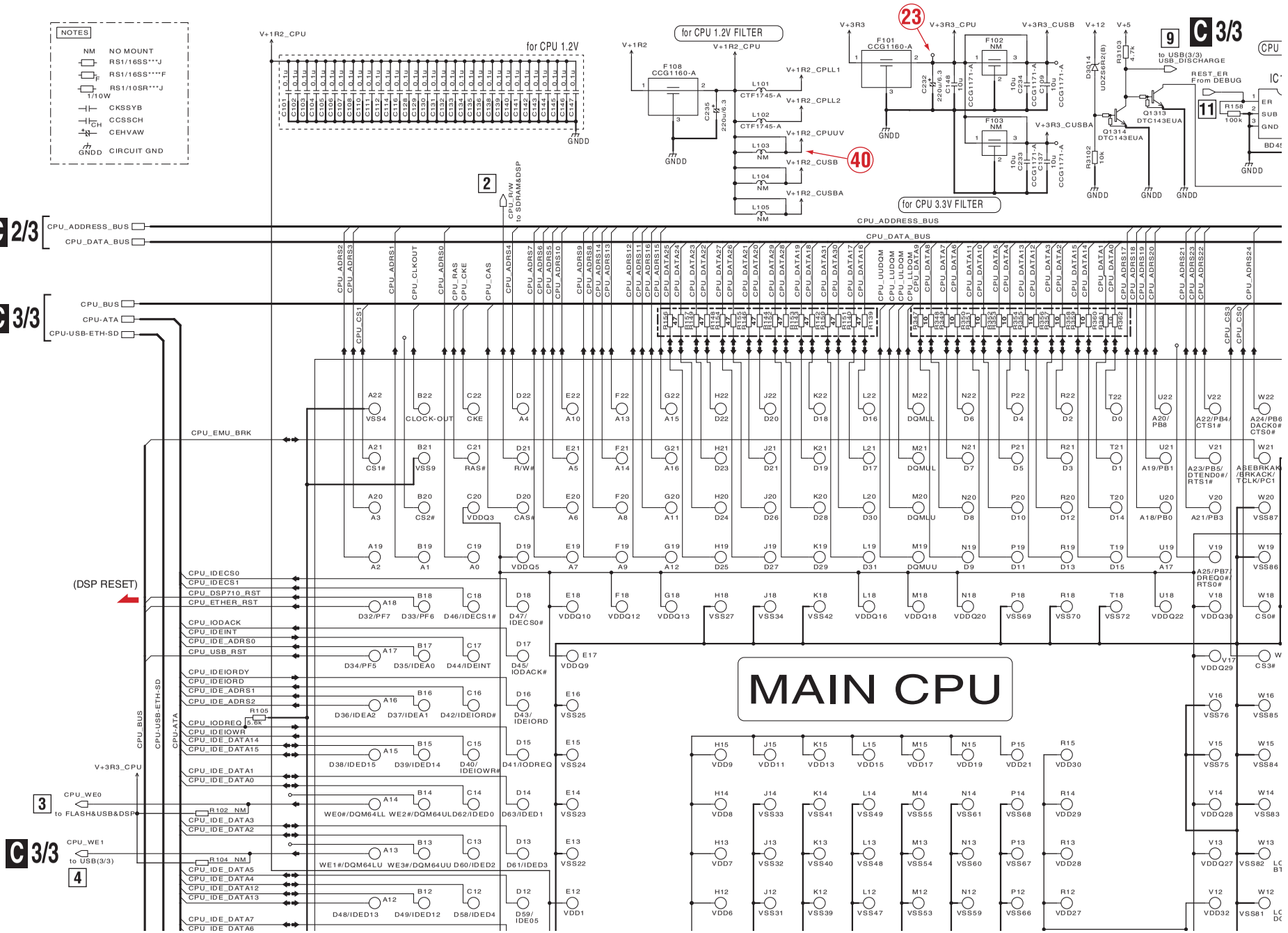

CDJ-900
CPU
CPU-USB-ETH-SD
CPU-DSP-DAC-PANEL
CPU_BUS
CPU_ADDRESS_BUS
CPU_DATA_BUS
256M SDRAM Low
256M SDRAM High
K4S561632J-UC75
IC109
(SDRAM CLK)
MAKER PART NO:S29GL032N90TFI030
for Debug
CPU_USB_HSTPWREN
CPU_USB_HSTLED
CPU_USB_HSTSTOP
CPU_USB_HSTPWRFL
CPU_PNL_CNVss
CPU_PNL_BUSY
CONT01
CONT00
CPU_EUP_CONT
CONT02
CPU_PH1
CPU_PH0
CPU_AUDCK
CPU_TDO
CPU_TRST
CPU_TMS
CPU_TDI
CPU_TCK
CPU_AUDATA0
CPU_AUDATA1
CPU_AUDSYNC
CPU_AUDATA2
CPU_AUDATA3
CPU_MODE0
CPU_SDA
CPU_SCL
CPU_RXD2
CPU_SCK2
CPU_TXD2
CPU_MODE3
CPU_MODE2
CPU_MODE1
CPU_MODE5
CPU_MODE4
CPU_SCK1
CPU_LCD_CLK
V+3R3_CPU
CPU_R/W from CPU
CPU_RST From RESET IC REST_ER to RESET IC
FLASH_RDY to CPU
CPU_WE0 from CPU
FLASH_CS
from CPU CPU_RD
CPU_MODE0
CPU_MODE1
CPU_MODE2
CPU_MODE3
CPU_MODE4
CPU_MODE5
CPU_MODE7
CPU_MODE8
MODE[2:0] CLOCK MODE 010(2):X10 011(3):X12 OTHER:NG
MODE[4:3] BUS WIDTH 00(0):RESERVED 01(1):SRAM 8bit 10(2):SRAM 16bit 11(3):SRAM 32bit
MODE5 ENDIAN 0:BIG 1:LITTLE
MODE7 USB CLOCK 0:EXT CLOCK 1:XTAL
MODE8 SYSTEM CLOCK 0:EXT CLOCK 1:XTAL
E 3/3
39

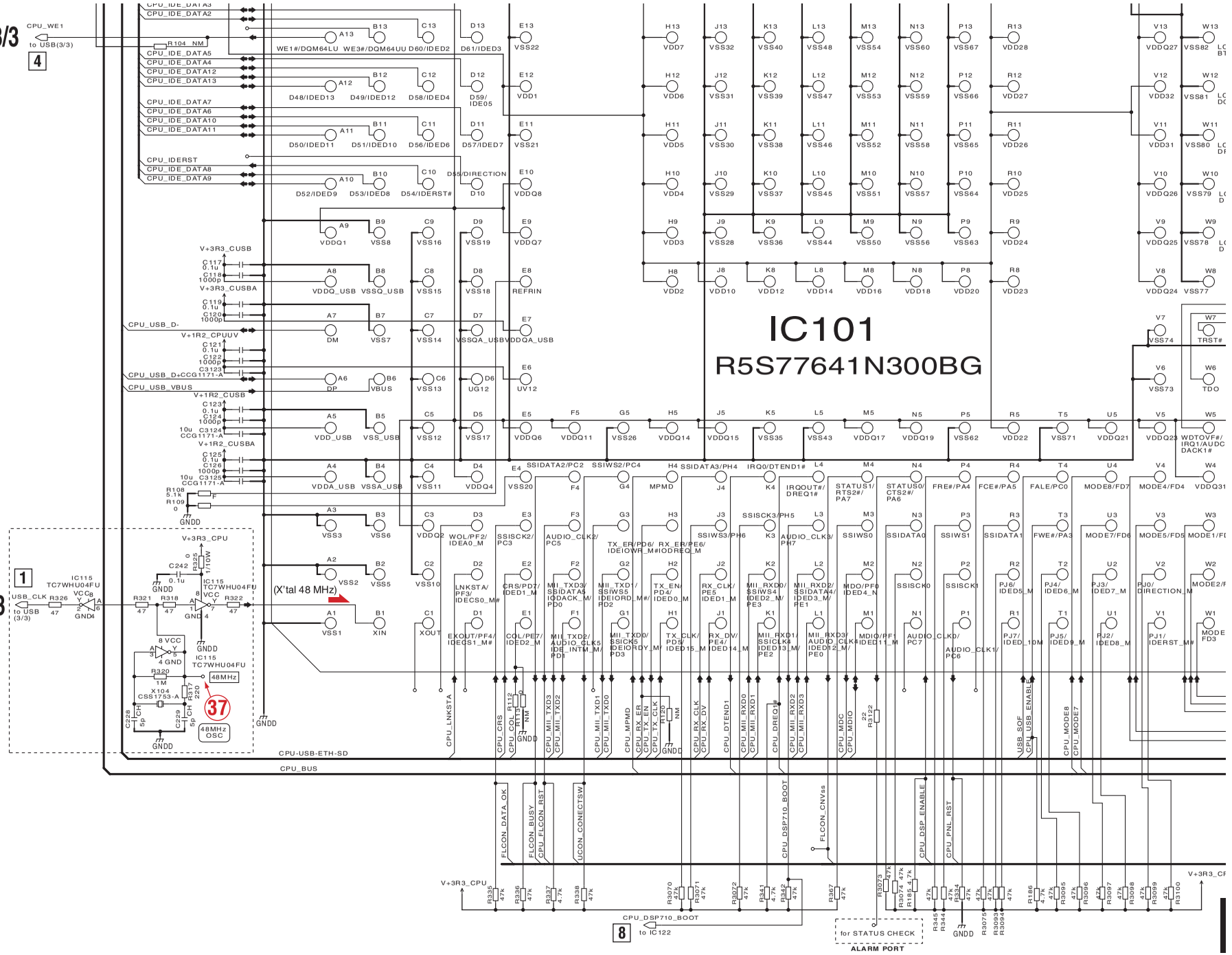
C-b 1/3

85

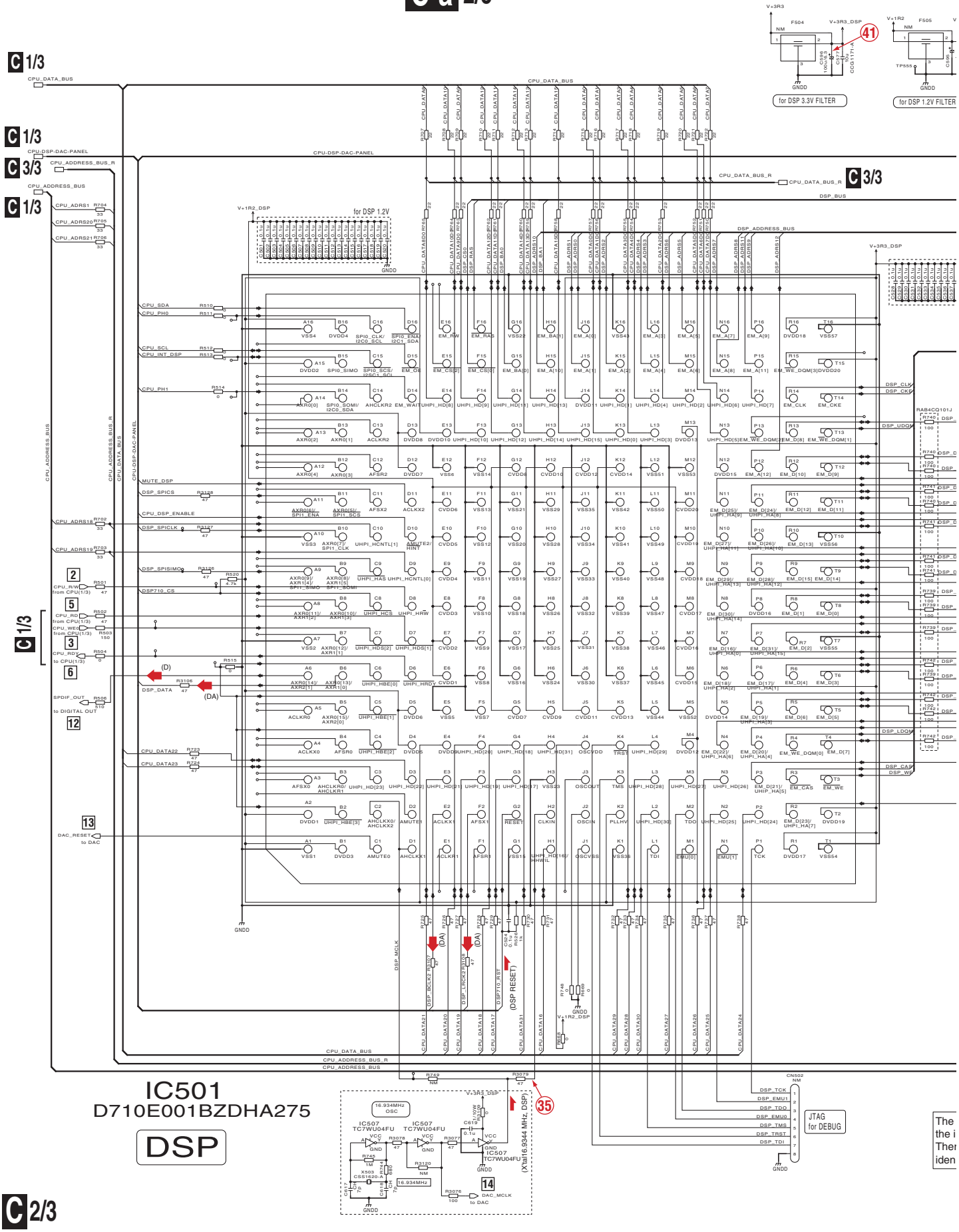
A-a A-b

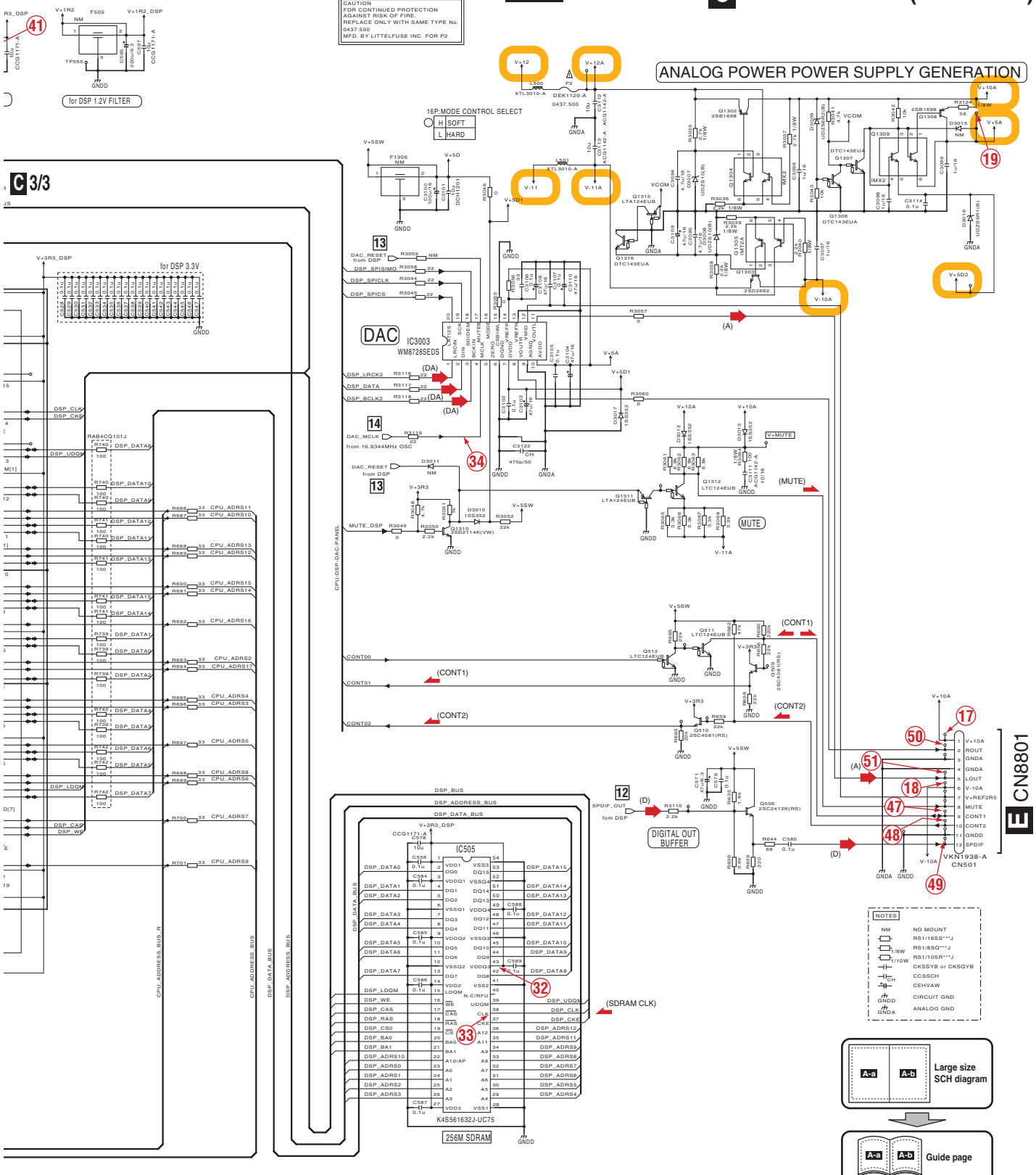
C 1/3 MAIN ASSY (DWX3019)




IC101
R5S77641N300BG
C 3/3
CPU_WE1
to USB(3/3)
4
R104 NM
CPU_IDE_DATA3
CPU_IDE_DATA2
CPU_IDE_DATA5
CPU_IDE_DATA4
CPU_IDE_DATA12
CPU_IDE_DATA13
CPU_IDE_DATA7
CPU_IDE_DATA6
CPU_IDE_DATA10
CPU_IDE_DATA11
CPU_IDERST
CPU_IDE_DATA8
CPU_IDE_DATA9
WE1#/DQM64LU
WE3#/DQM64UU
D60/IDED2
D61/IDED3
D48/IDED13
D49/IDED12
D58/IDED4
D59/ IDE05
D50/IDED11
D51/IDED10
D56/IDED6
D57/IDED7
D52/IDED9
D53/IDED8
D54/IDERST#
D55/DIRECTION
D10
V+3R3_CUSB
V+3R3_CUSBA
V+1R2_CPUUV
V+1R2_CUSB
V+1R2_CUSBA
CPU_USB_D-
CPU_USB_D+
CCG1171-A
CPU_USB_VBUS
C117 0.1u
C118 1000p
C119 0.1u
C120 1000p
C121 0.1u
C122 1000p
C123 0.1u
C124 1000p
C125 0.1u
C126 1000p
10u C3124
10u C3125
R108 5.1K
R109 0
GNDD
VDDQ_USB
VSSQ_USB
REFRIN
DM
DP
VBUS
VDD_USB
VSS_USB
VDDA_USB
VSSA_USB
VSSQA_USB
VDDQA_USB
VDDQ1
VSS8
VSS16
VSS19
VDDQ7
VDDQ8
VSS15
VSS18
VSS7
VSS14
VSS13
UG12
UV12
VSS12
VSS17
VDDQ6
VDDQ11
VSS26
VDDQ14
VDDQ15
VSS35
VSS43
VDDQ17
VDDQ19
VSS62
VDD22
VSS71
VDDQ21
VDDQ23
VSS11
VDDQ4
VSS20
VSS3
VSS6
VDDQ2
VSS10
VSS2
VSS5
VSS1
XIN
XOUT
(X'tal 48 MHz)
V+3R3_CPU
IC115 TC7WHU04FU
USB_CLK
to USB (3/3)
R326
R321
R318
R322
C242 0.1u
R325 1/10W
GND4
8 VCC
4 GND
R320 1M
X104 CSS1753-A
R317 220
C228 5p
C229 5p
48MHz
48MHz OSC
37
1
C 3/3
CPU-USB-ETH-SD
CPU_BUS
CPU_LNKSTA
CPU_CRS
CPU_COL
CPU_MII_TXD3
CPU_MII_TXD2
CPU_MII_TXD1
CPU_MII_TXD0
CPU_MPMD
CPU_RX_ER
CPU_TX_EN
CPU_TX_CLK
CPU_RX_CLK
CPU_RX_DV
CPU_DTEND1
CPU_MII_RXD0
CPU_MII_RXD1
CPU_DREQ0
CPU_MII_RXD2
CPU_MII_RXD3
CPU_MDC
CPU_MDIO
USB_SOF
CPU_USB_ENABLE
CPU_MODE8
CPU_MODE7
FLCON_DATA_OK
FLCON_BUSY
CPU_FLCON_RST
UCON_CONECTSW
CPU_DSP710_BOOT
FLCON_CNVss
CPU_DSP_ENABLE
CPU_PNL_RST
V+3R3_CPU
CPU_DSP710_BOOT
8
to IC122
for STATUS CHECK
ALARM PORT
GNDD

10.4 MAIN ASSY (2/3)





(DA) : Audio Data Signal Route

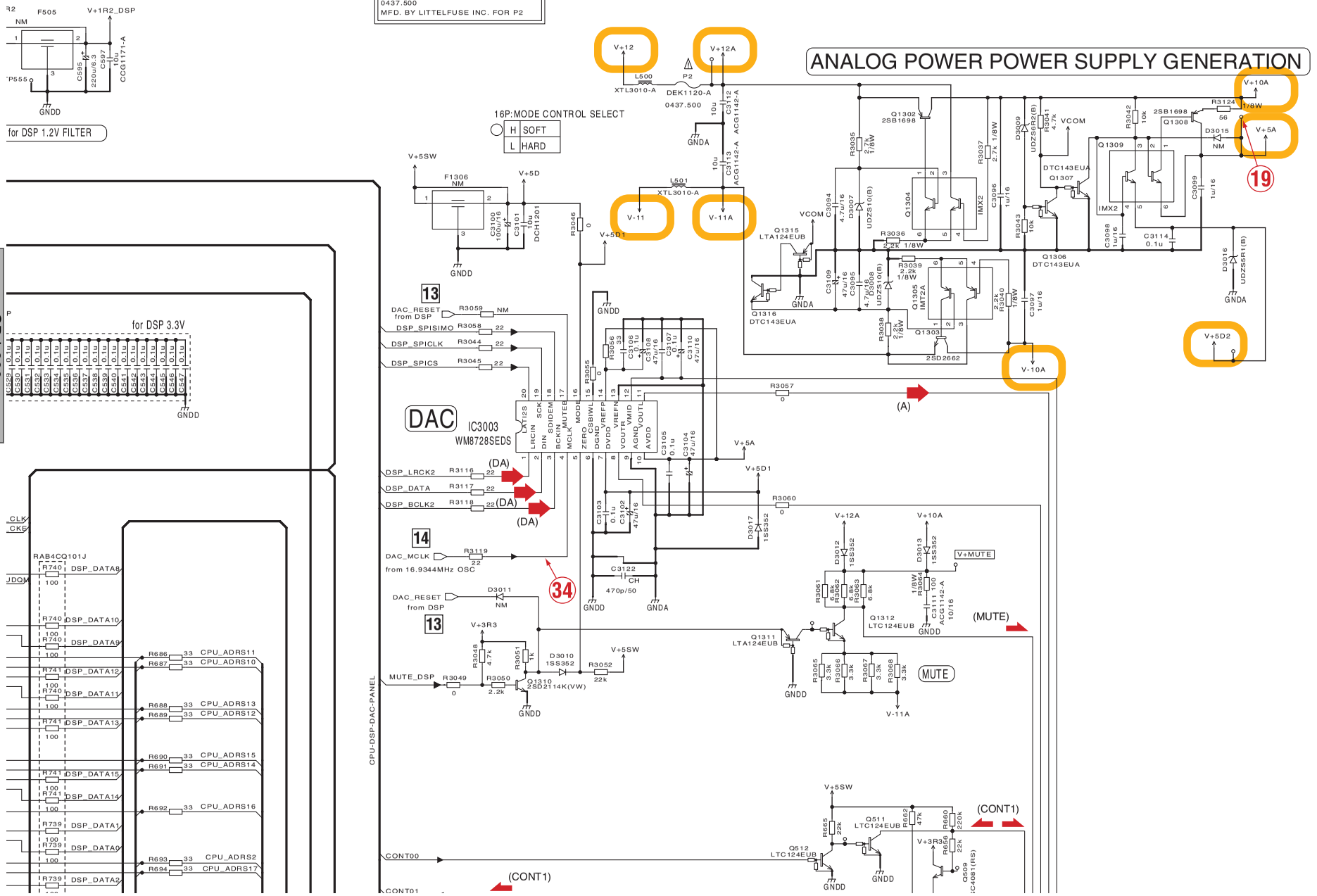
(A) : Analog Audio Signal Route

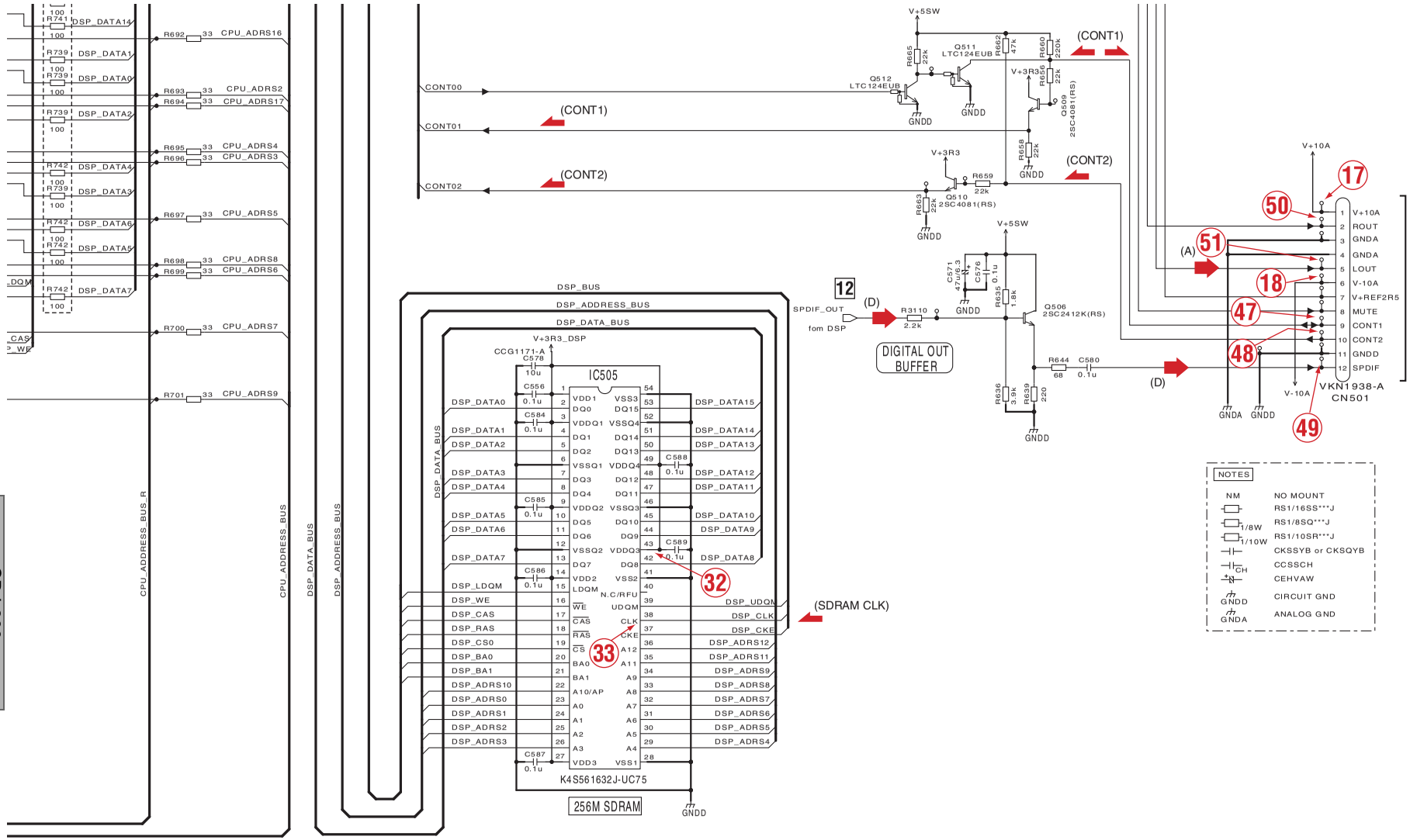
(D) : Digital Data Signal Route

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.

CAUTION
FOR CONTINUED PROTECTION
AGAINST RISK OF FIRE.
REPLACE ONLY WITH SAME TYPE No.
0437.500
MFD. BY LITTELFUSE INC. FOR P2

ANALOG POWER POWER SUPPLY GENERATION



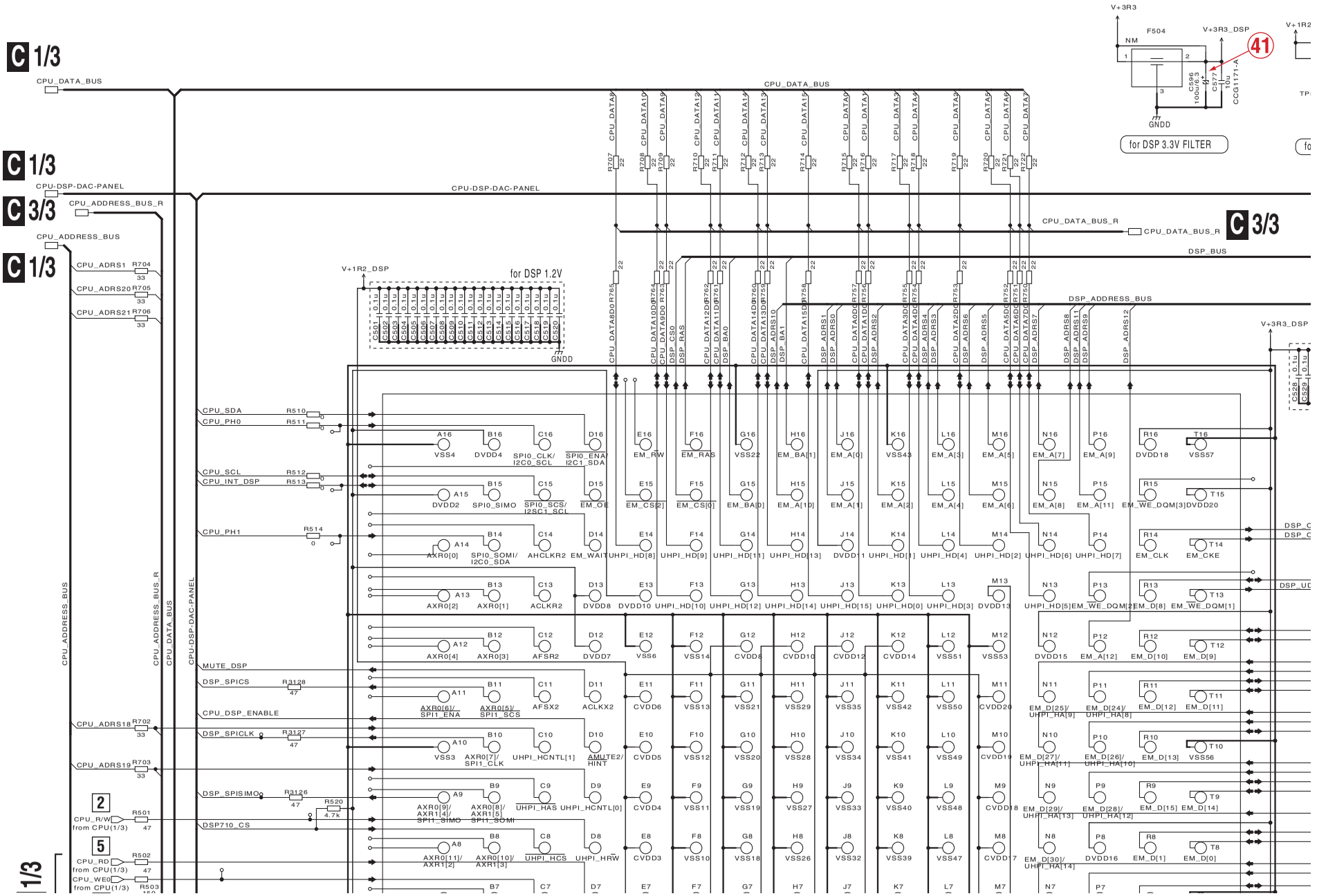


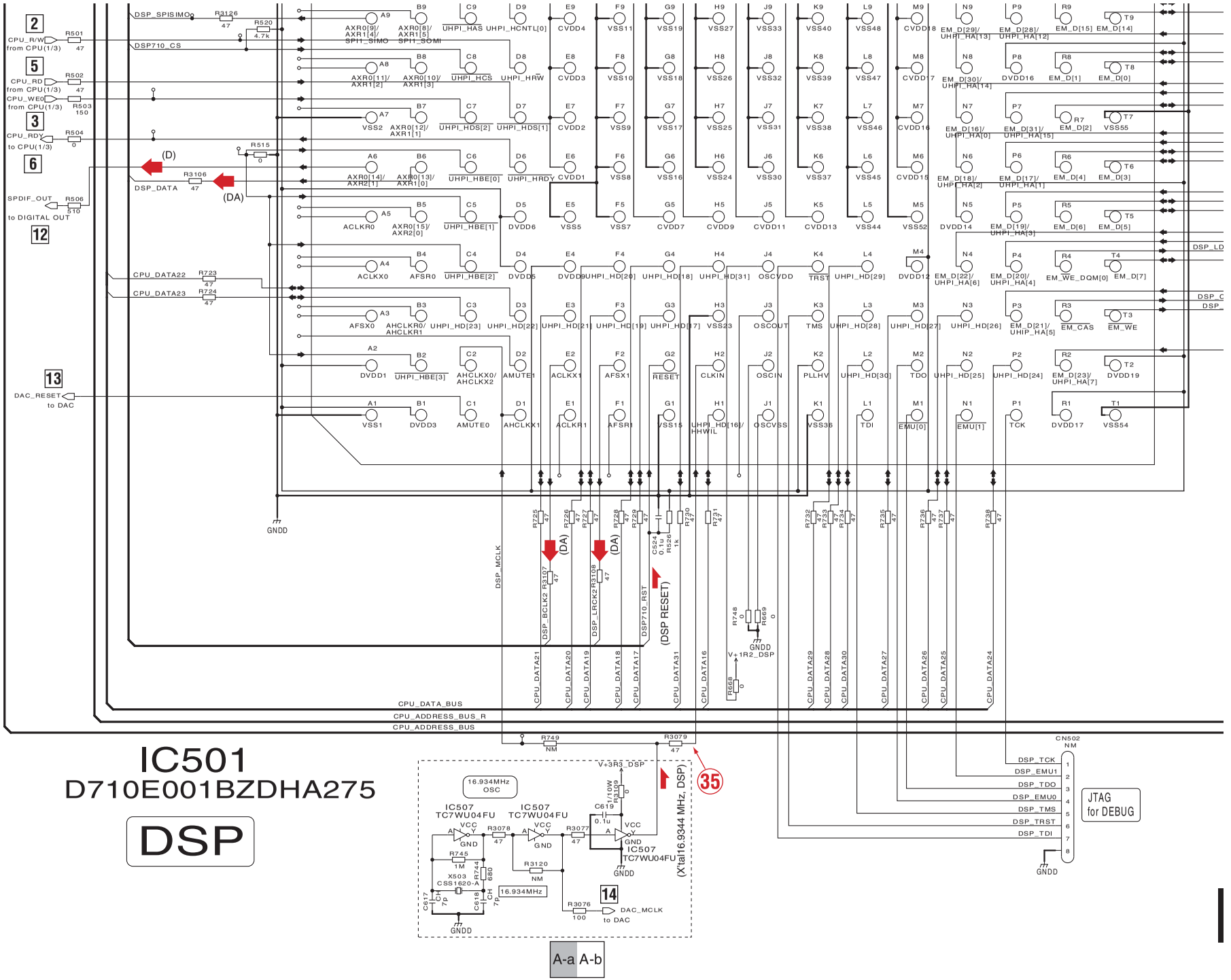
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

(DA) : Audio Data Signal Route

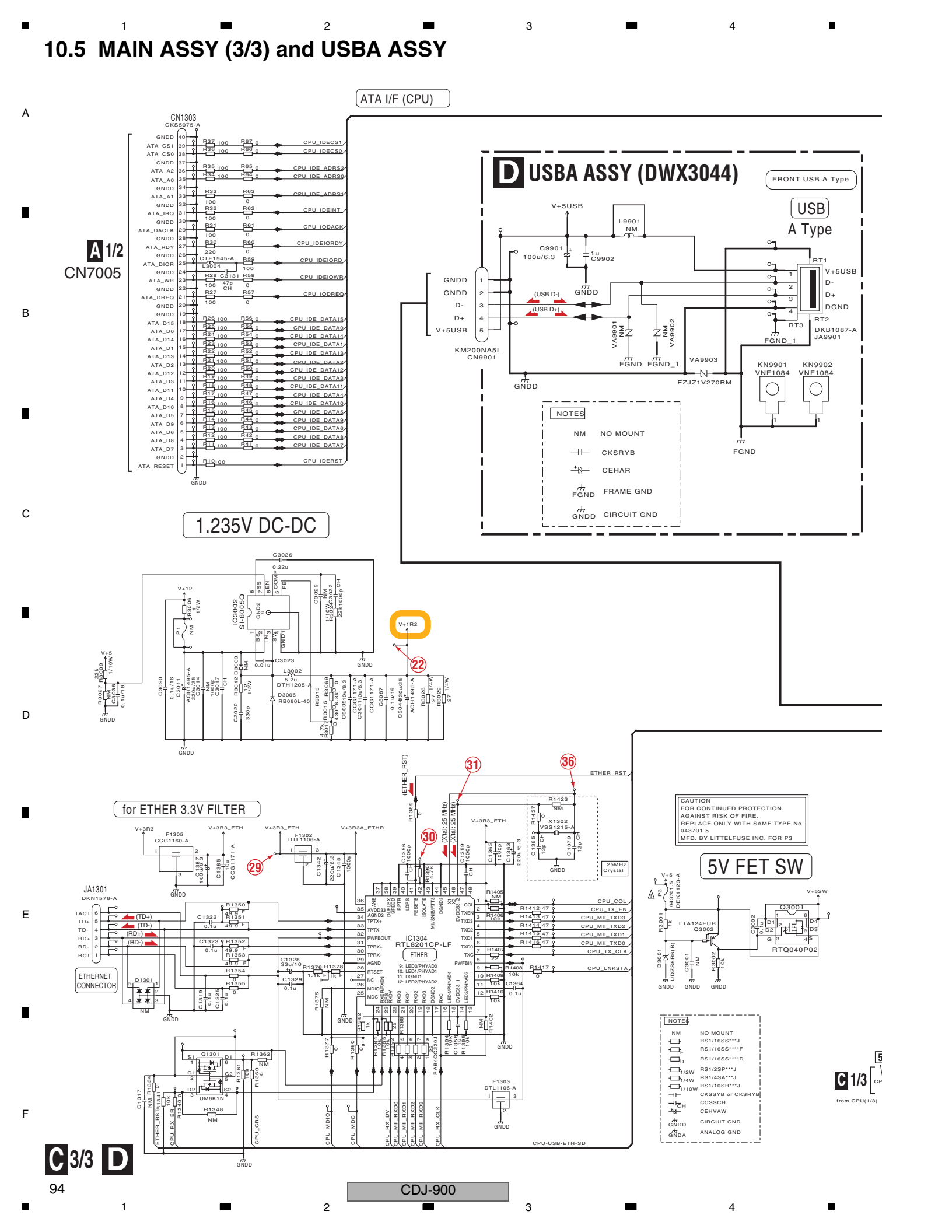
(A) : Analog Audio Signal Route

(D) : Digital Data Signal Route

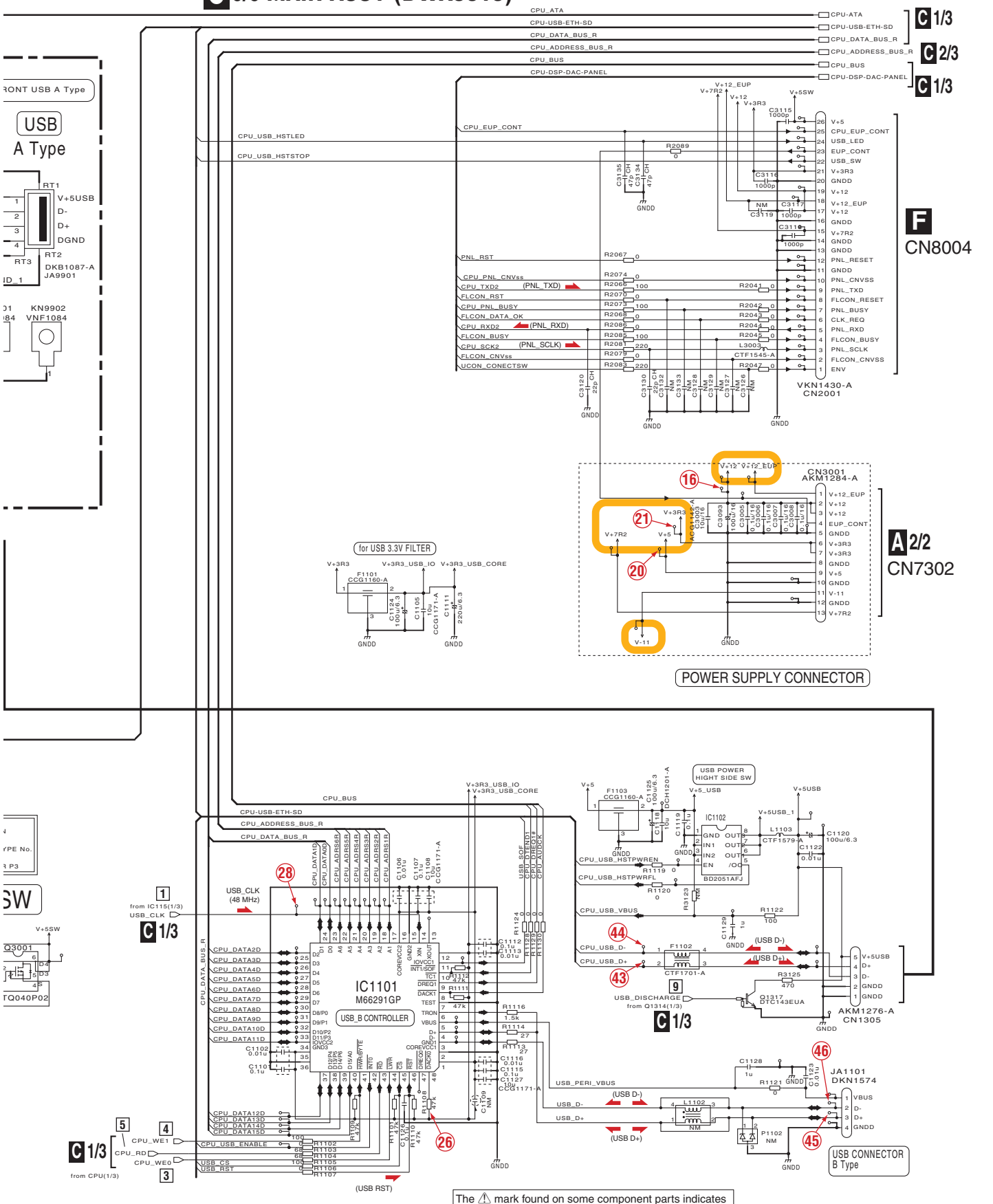

C 1/3
C 1/3
C 3/3
C 1/3
C 3/3
CPU_DATA_BUS
CPU-DSP-DAC-PANEL
CPU_ADDRESS_BUS_R
CPU_ADDRESS_BUS
CPU_ADRS1
CPU_ADRS20
CPU_ADRS21
CPU_ADRS18
CPU_ADRS19
CPU_DATA_BUS_R
DSP_BUS
DSP_ADDRESS_BUS
V+1R2_DSP
for DSP 1.2V
V+3R3
V+3R3_DSP
for DSP 3.3V FILTER
GNDD
CPU_SDA
CPU_PH0
CPU_SCL
CPU_INT_DSP
CPU_PH1
MUTE_DSP
DSP_SPICS
CPU_DSP_ENABLE
DSP_SPICLK
DSP_SPISIMO
DSP710_CS
CPU_R/W
CPU_RD
CPU_WE0
EM_RW
EM_RAS
EM_CS[2]
EM_CS[0]
EM_OE
EM_WAIT
EM_CLK
EM_CKE
EM_WE_DQM[3]
EM_WE_DQM[2]
EM_WE_DQM[1]
EM_WE_DQM[0]
SPI0_CLK/ I2C0_SCL
SPI0_ENA/ I2C1_SDA
SPI0_SIMO
SPI0_SCS/ I2SC1_SCL
SPI0_SOMI/ I2C0_SDA
AHCLKR2
ACLKR2
AFSR2
ACLKX2
AFSX2
AMUTE2/ HINT
UHPI_HCNTL[1]
UHPI_HAS
UHPI_HCNTL[0]
UHPI_HCS
UHPI_HRW
AXR0[0]
AXR0[1]
AXR0[2]
AXR0[3]
AXR0[4]
AXR0[5]/ SPI1_SCS
AXR0[6]/ SPI1_ENA
AXR0[7]/ SPI1_CLK
AXR0[8]/ AXR1[5] SPI1_SOMI
AXR0[9]/ AXR1[4]/ SPI1_SIMO
AXR0[10]/ AXR1[3]
AXR0[11]/ AXR1[2]
UHPI_HD[8]
UHPI_HD[9]
UHPI_HD[10]
UHPI_HD[11]
UHPI_HD[12]
UHPI_HD[13]
UHPI_HD[14]
UHPI_HD[15]
UHPI_HD[0]
UHPI_HD[1]
UHPI_HD[2]
UHPI_HD[3]
UHPI_HD[4]
UHPI_HD[5]
UHPI_HD[6]
UHPI_HD[7]
EM_A[0]
EM_A[1]
EM_A[2]
EM_A[3]
EM_A[4]
EM_A[5]
EM_A[6]
EM_A[7]
EM_A[8]
EM_A[9]
EM_A[10]
EM_A[11]
EM_A[12]
EM_D[0]
EM_D[1]
EM_D[8]
EM_D[9]
EM_D[10]
EM_D[11]
EM_D[12]
EM_D[13]
EM_D[14]
EM_D[15]
EM_D[24]/ UHPI_HA[8]
EM_D[25]/ UHPI_HA[9]
EM_D[26]/ UHPI_HA[10]
EM_D[27]/ UHPI_HA[11]
EM_D[28]/ UHPI_HA[12]
EM_D[29]/ UHPI_HA[13]
EM_D[30]/ UHPI_HA[14]
VSS4
VSS22
VSS43
VSS51
VSS53
VSS57
VSS56
DVDD2
DVDD4
DVDD8
DVDD10
DVDD11
DVDD13
DVDD15
DVDD16
DVDD17
DVDD18
DVDD20
CVDD6
CVDD10
CVDD12
CVDD14
CVDD19
CVDD20
CVDD4
CVDD3
VSS6
VSS14
VSS21
VSS29
VSS35
VSS42
VSS50
VSS3
VSS5
VSS12
VSS20
VSS28
VSS34
VSS41
VSS49
VSS11
VSS19
VSS27
VSS33
VSS40
VSS48
VSS10
VSS18
VSS26
VSS32
VSS39
VSS47
41
2
5
1/3


IC501
D710E001BZDHA275
DSP
DSP_SPISIMO
DSP710_CS
CPU_R/W from CPU(1/3)
CPU_RD from CPU(1/3)
CPU_WE0 from CPU(1/3)
CPU_RDY to CPU(1/3)
SPDIF_OUT to DIGITAL OUT
DSP_DATA
(D)
(DA)
CPU_DATA22
CPU_DATA23
DAC_RESET to DAC
GNDD
DSP_MCLK
DSP_BCLK2
DSP_LRCK2
DSP710_RST
(DSP RESET)
V+1R2_DSP
CPU_DATA_BUS
CPU_ADDRESS_BUS_R
CPU_ADDRESS_BUS
16.934MHz OSC
IC507 TC7WU04FU
V+3R3_DSP
(X'tal 16.9344 MHz, DSP)
16.934MHz
DAC_MCLK to DAC
CN502 NM
DSP_TCK
DSP_EMU1
DSP_TDO
DSP_EMU0
DSP_TMS
DSP_TRST
DSP_TDI
JTAG for DEBUG
A-a
A-b

10.5 MAIN ASSY (3/3) and USBA ASSY



C 3/3 MAIN ASSY (DWX3019)



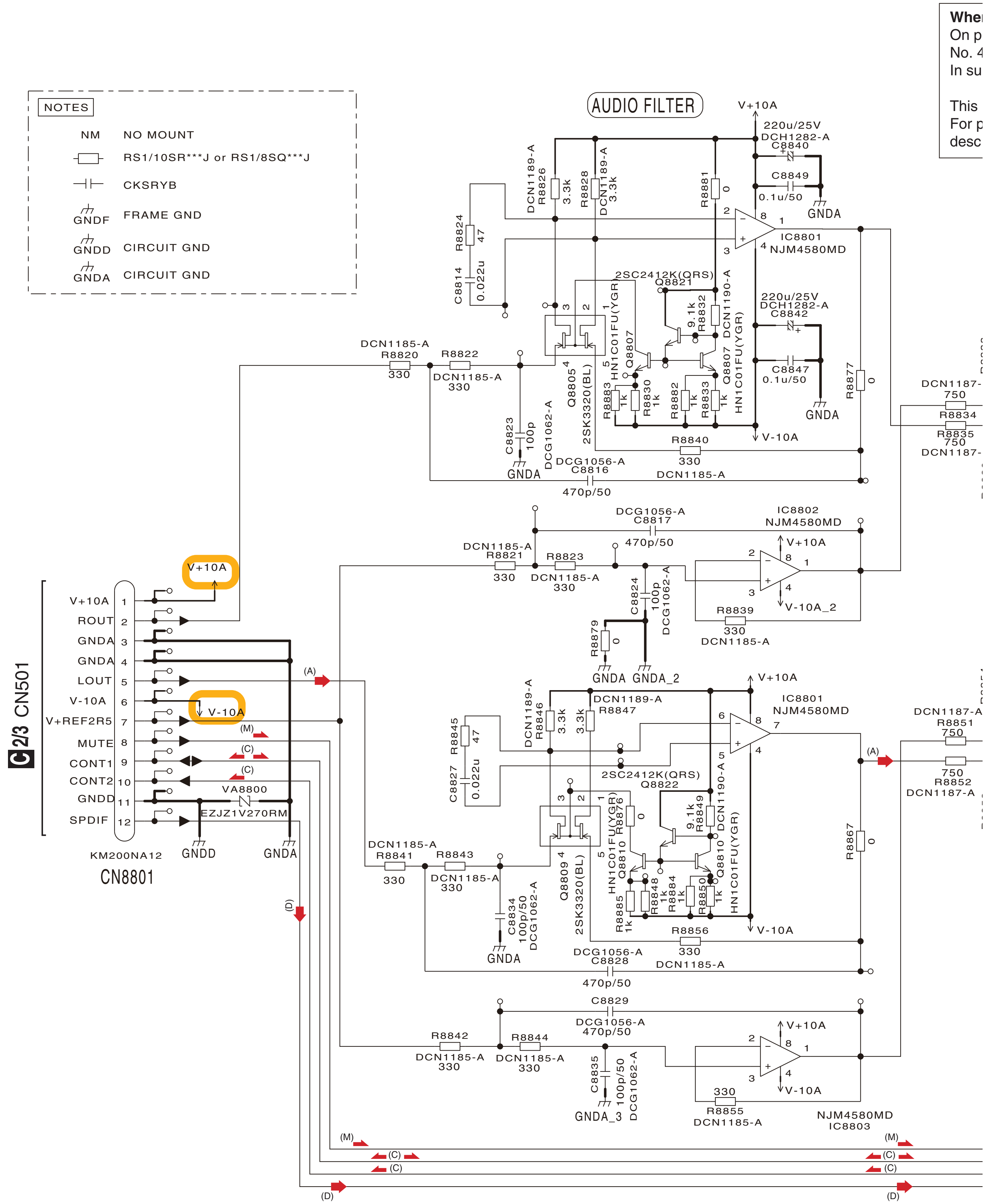
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

C 3/3 D

10.6 JACB ASSY

NOTES

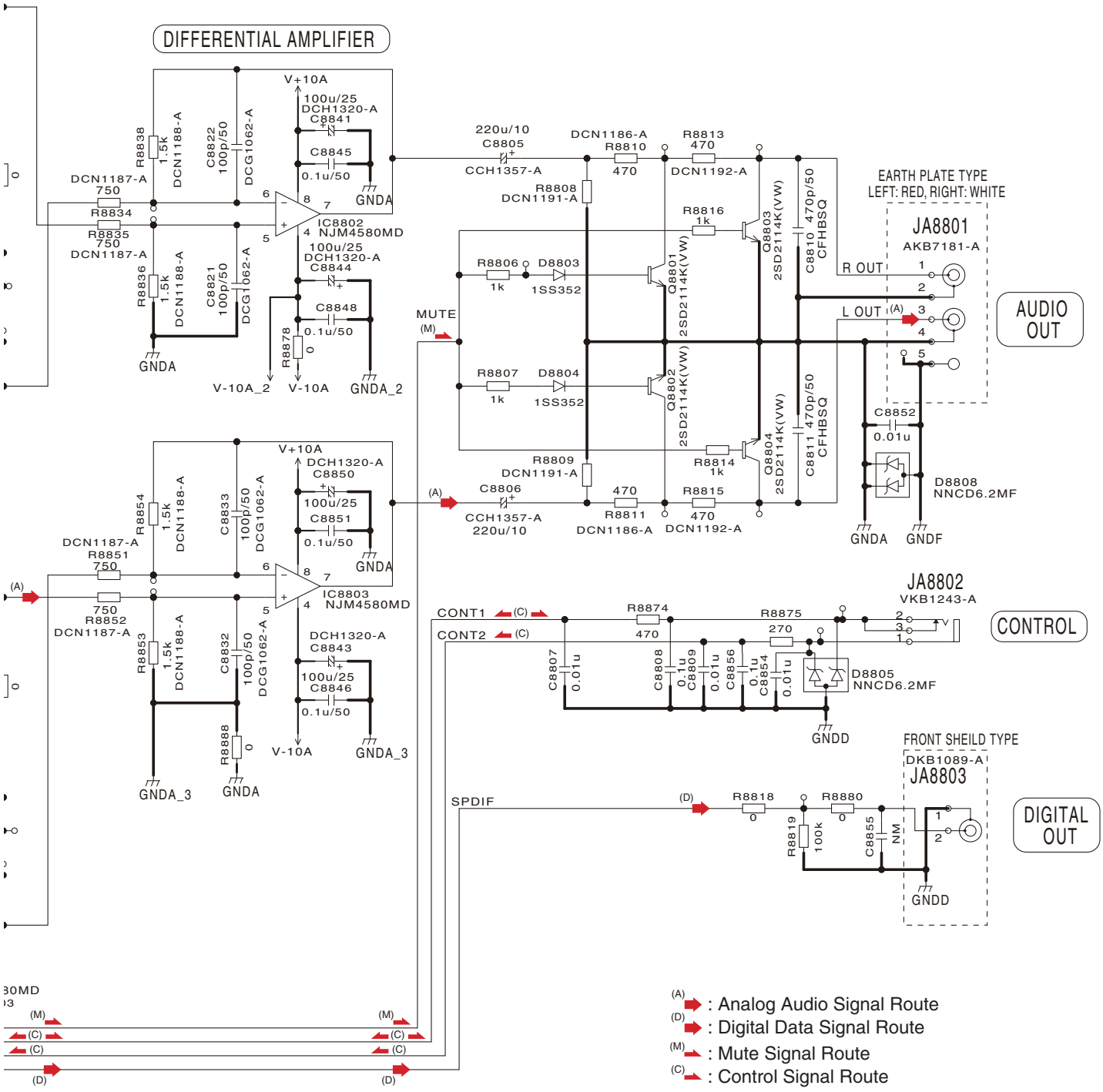
NM	NO MOUNT
(resistor symbol)	RS1/10SR***J or RS1/8SQ***J
(capacitor symbol)	CKSRYB
GNDF	FRAME GND
GNDD	CIRCUIT GND
GNDA	CIRCUIT GND



AUDIO FILTER
V+10A
V-10A
IC8801
NJM4580MD
IC8802
NJM4580MD
IC8803
NJM4580MD
2SC2412K(QRS)
Q8821
Q8822
HN1C01FU(YGR)
Q8807
Q8810
2SK3320(BL)
Q8805
Q8809
220u/25V
DCH1282-A
C8840
C8842
C8849
C8847
0.1u/50
GNDA
GNDA_2
GNDA_3
GNDD
DCN1185-A
DCN1189-A
DCN1190-A
DCN1187-A
DCG1056-A
DCG1062-A
470p/50
100p
330
750
R8834
R8835
R8851
R8852
V+10A
ROUT
GNDA
LOUT
V+REF2R5
MUTE
CONT1
CONT2
GNDD
SPDIF
KM200NA12
CN8801
VA8800
EZJZ1V270RM
C 2/3 CN501

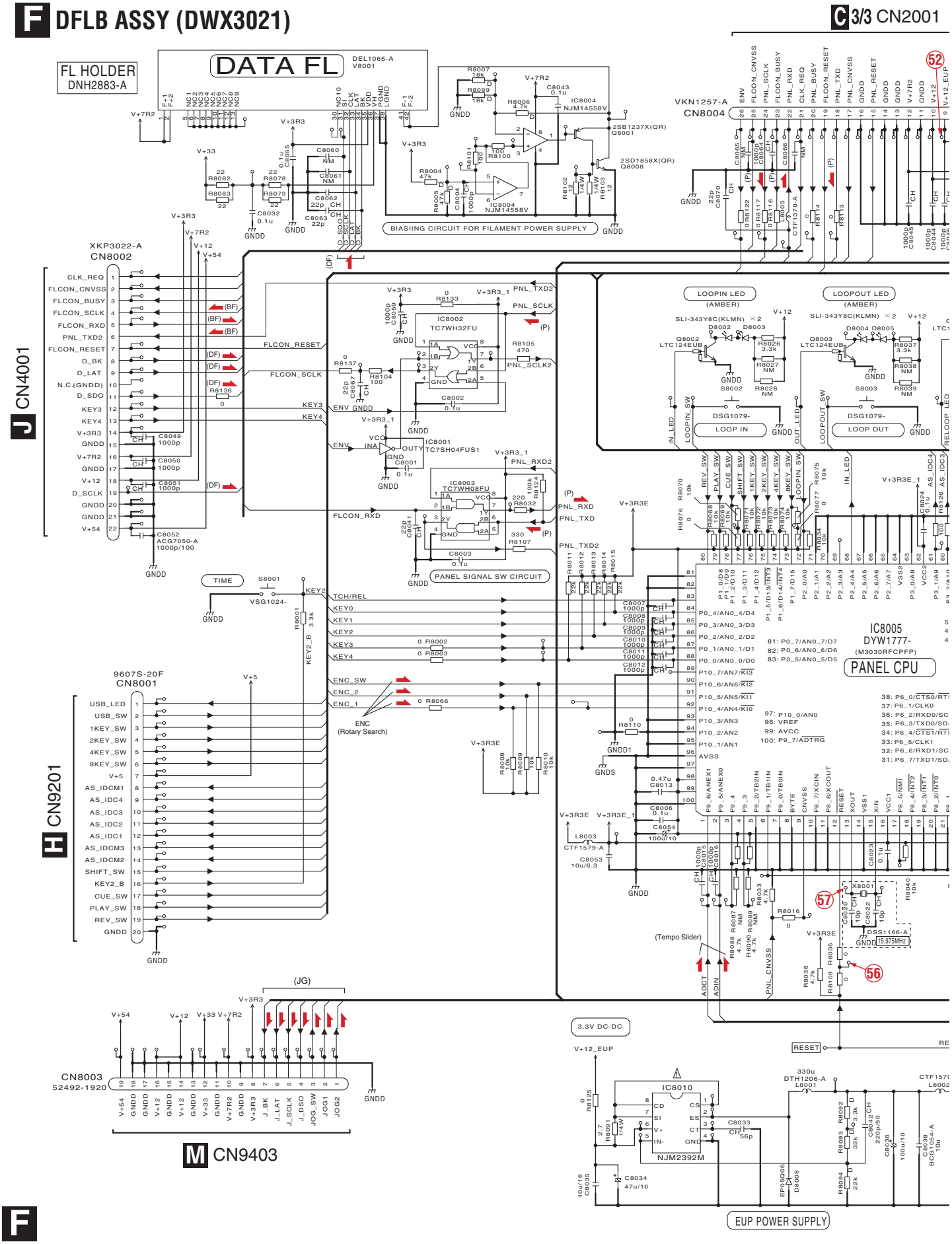
When repairing the JACB ASSY, note the following:
On part of the initial-lot JACB ASSY, the DCN1186-A (470 ohms, Part description No. 471) is mounted as the resistors (R8820–8823, 8839–8844, 8855, and 8856). In such a case, mount a new DCN1186-A during replacement.

This applies only to the initial-lot products for the destinations SYXJ8 and FLXJ. For products for other destinations, replace with the DCN1185-A (330 ohms, Part description No. 331), as described in the circuit diagram.



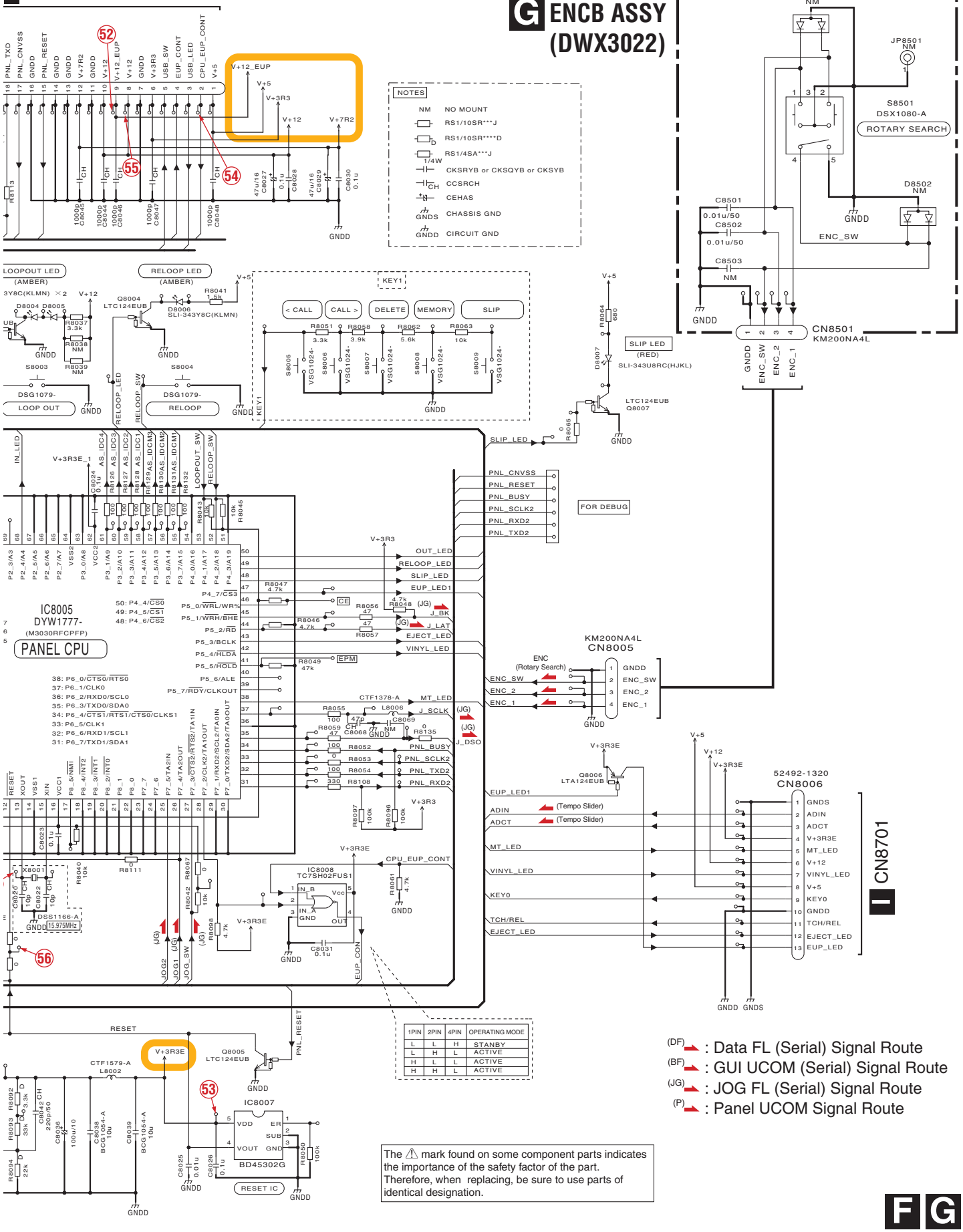
10.7 DFLB and ENCB ASSYS

F DFLB ASSY (DWX3021)

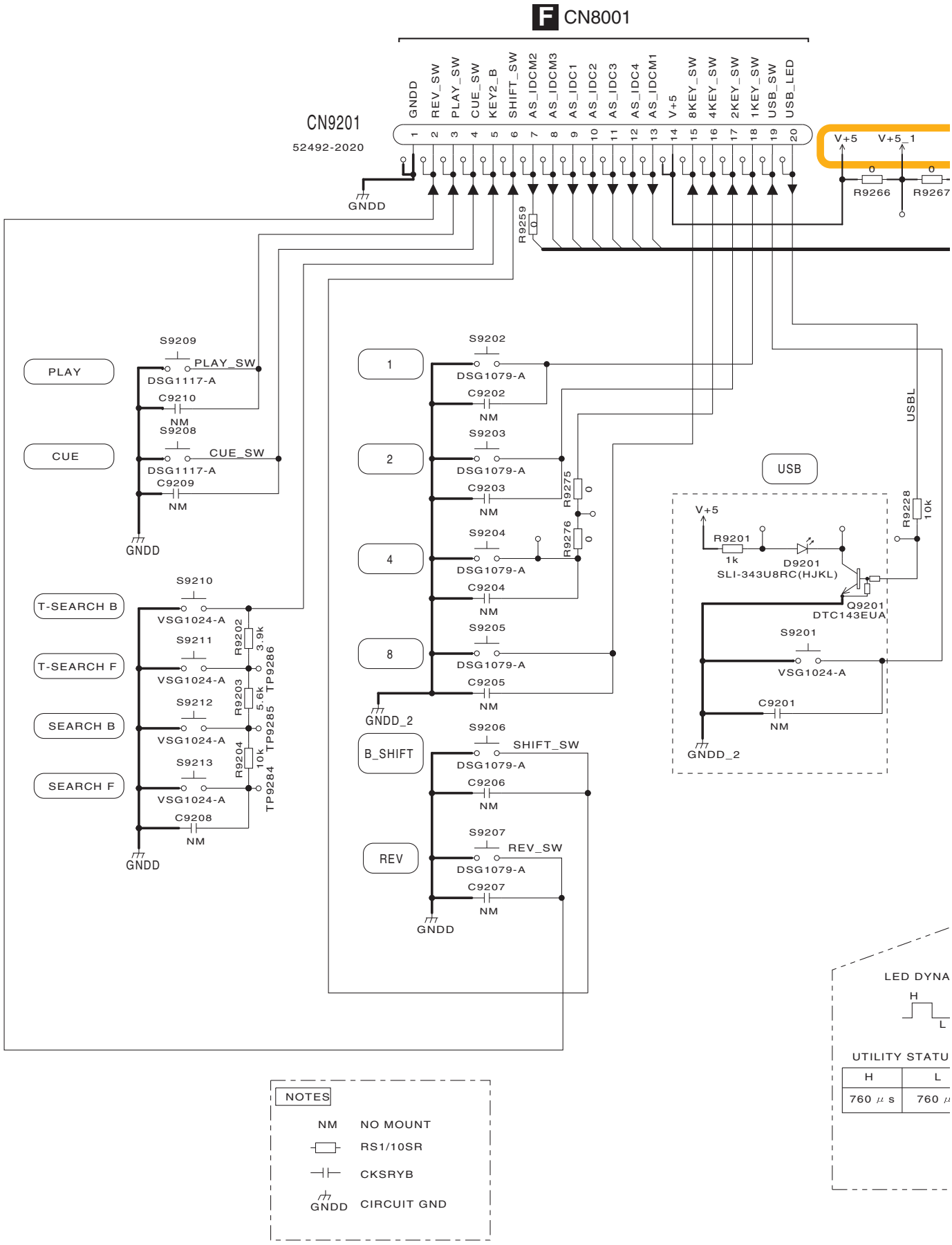


C 3/3 CN2001

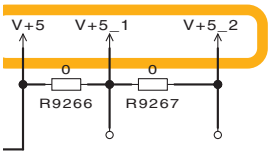
G ENCB ASSY (DWX3022)

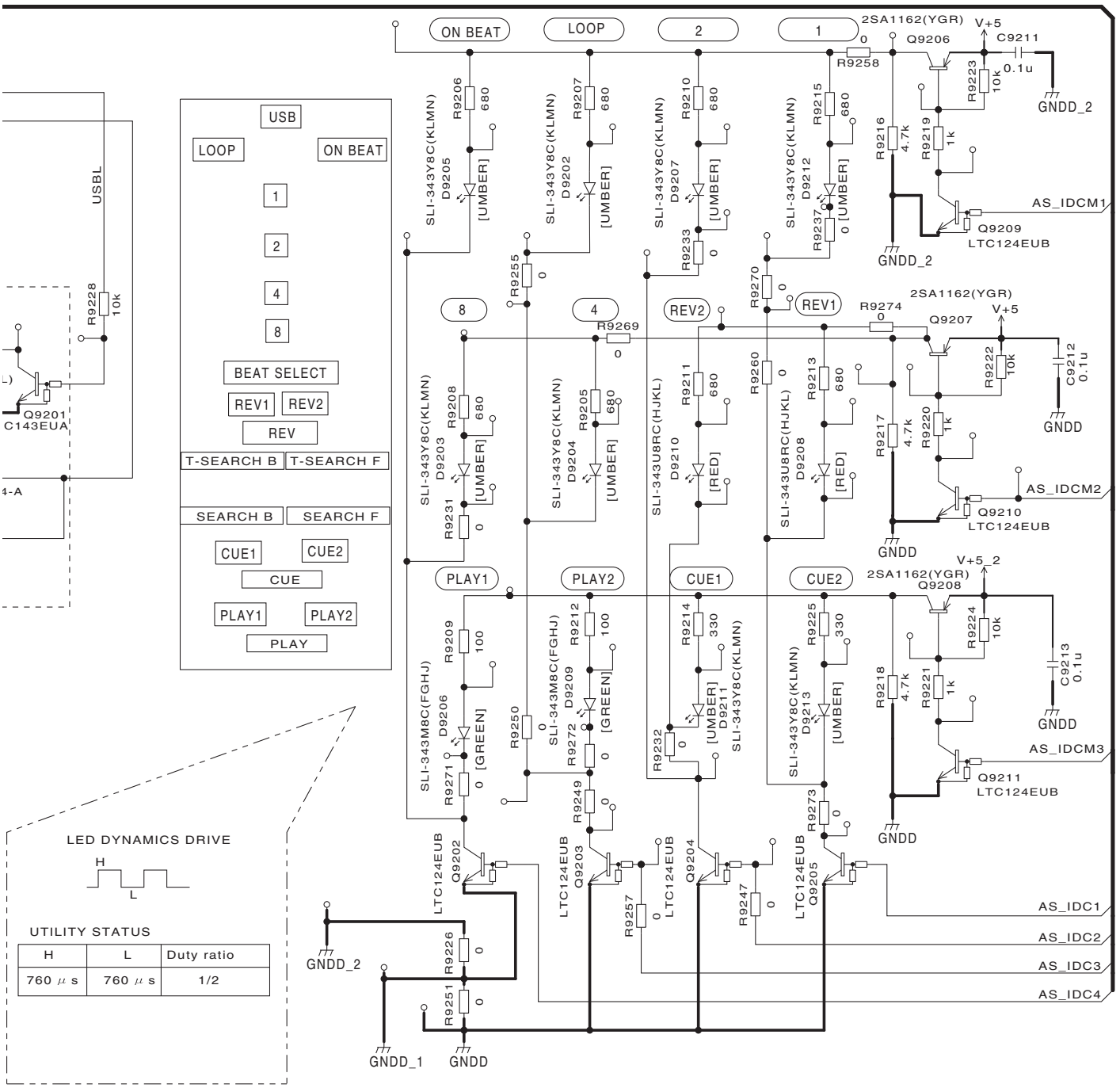


10.8 KSWB ASSY

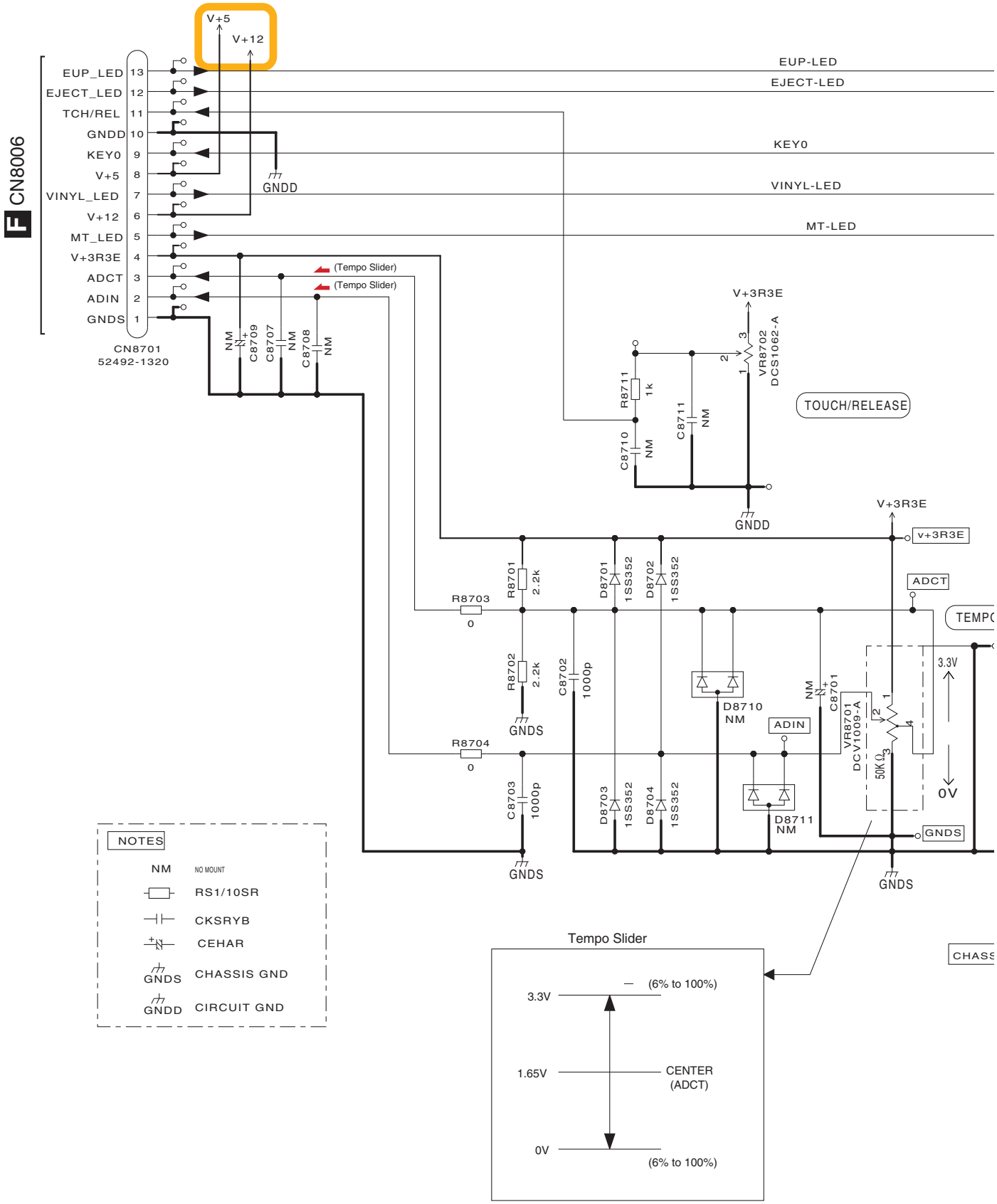


H KSWB ASSY (DWS1416)

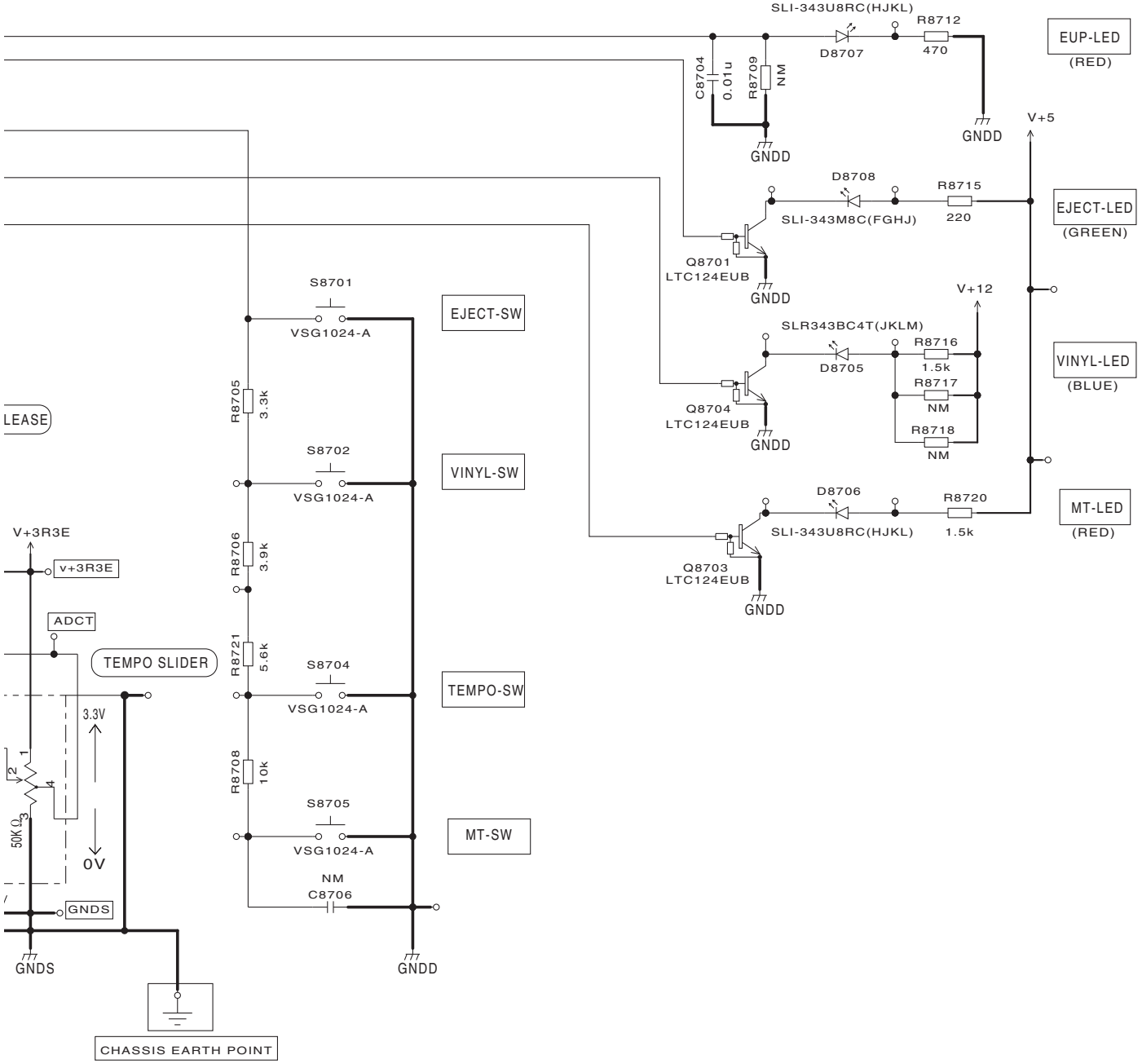




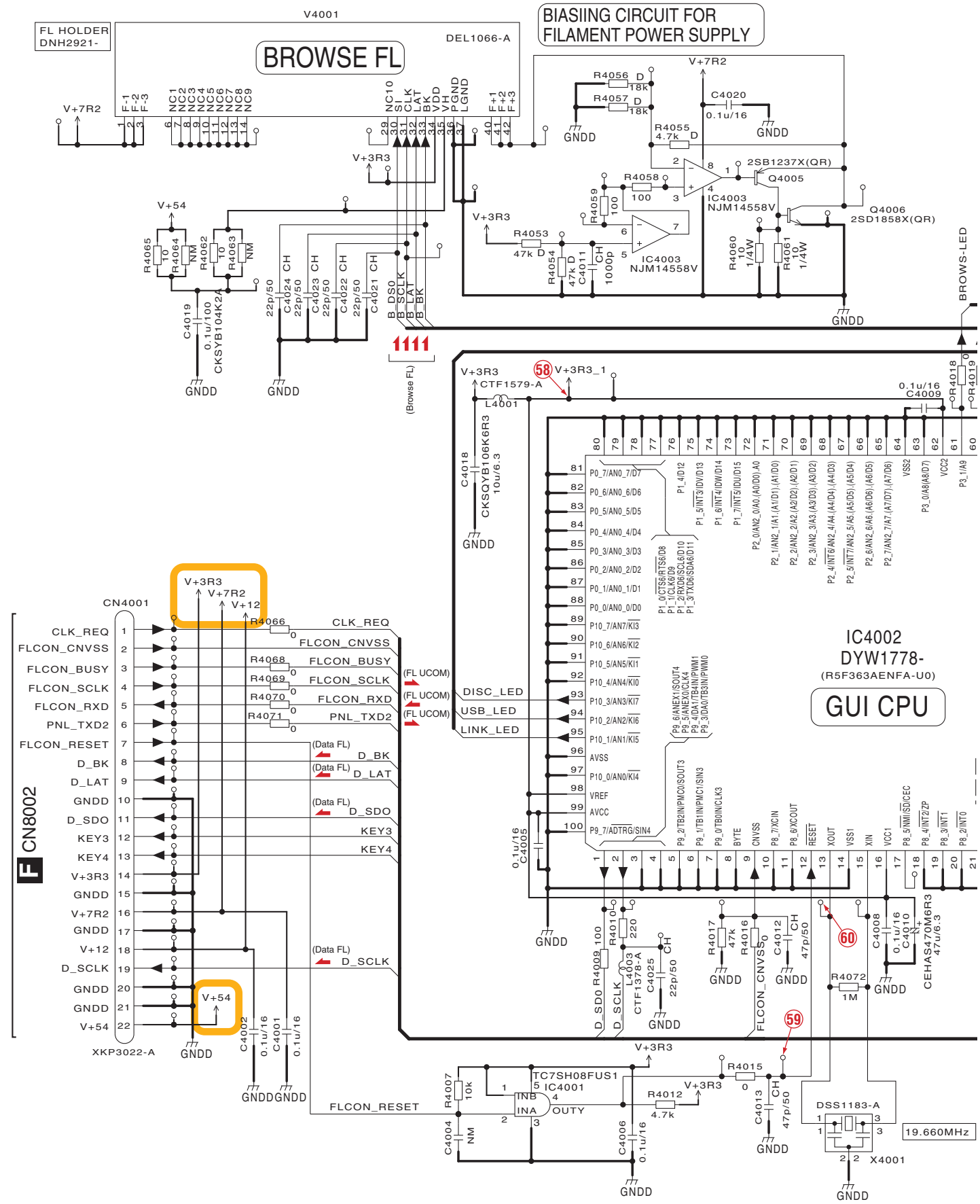
10.9 SLDB ASSY

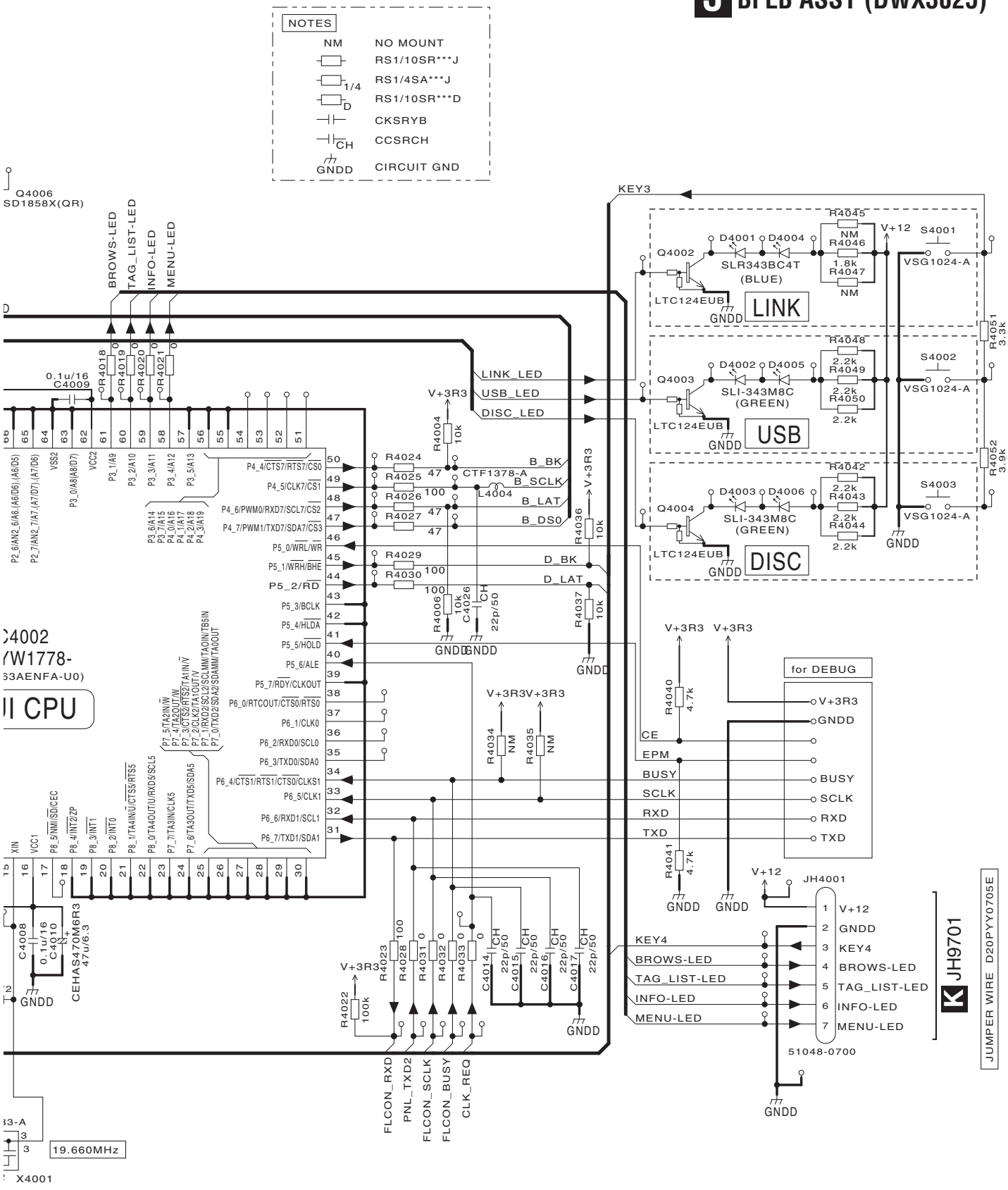


SLDB ASSY (DWS1417)

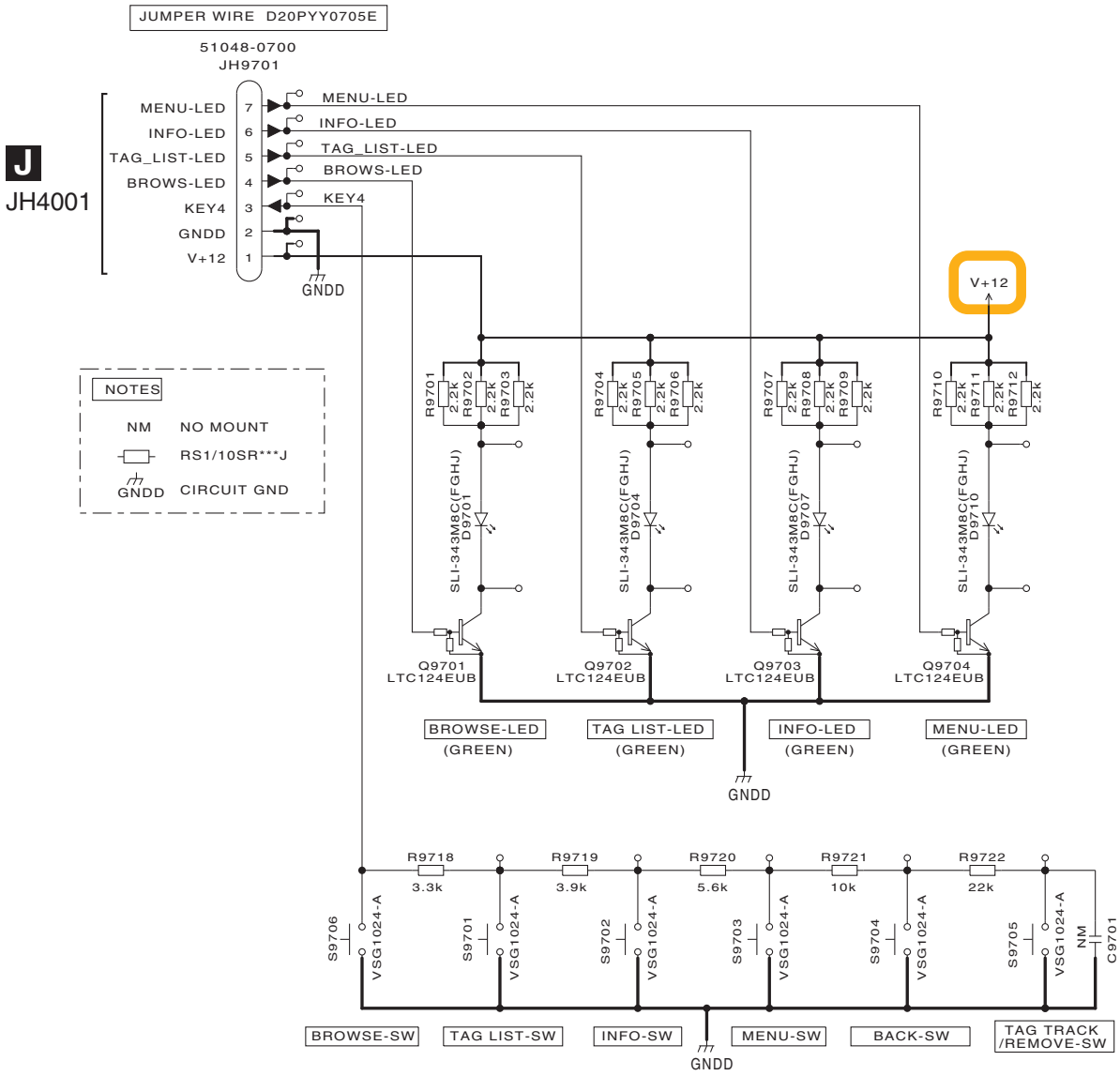


10.10 BFLB ASSY

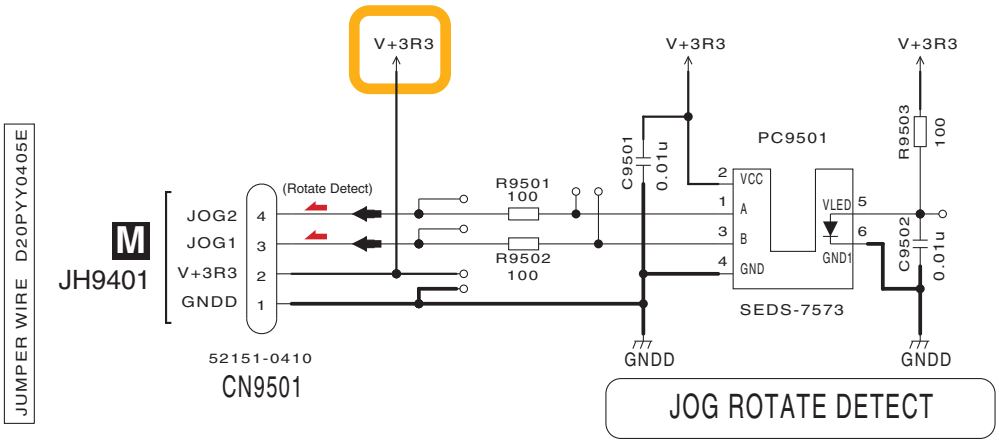



NOTES
NM NO MOUNT
RS1/10SR***J
RS1/4SA***J
RS1/10SR***D
CKSRYB
CCSRCH
GNDD CIRCUIT GND
Q4006
SD1858X(QR)
BROWS-LED
TAG_LIST-LED
INFO-LED
MENU-LED
LINK_LED
USB_LED
DISC_LED
KEY3
V+3R3
V+12
LINK
USB
DISC
Q4002
Q4003
Q4004
SLR343BC4T (BLUE)
SLI-343M8C (GREEN)
LTC124EUB
D4001
D4004
D4002
D4005
D4003
D4006
S4001
S4002
S4003
VSG1024-A
B_BK
B_SCLK
B_LAT
B_DS0
D_BK
D_LAT
CTF1378-A
L4004
for DEBUG
CE
EPM
BUSY
SCLK
RXD
TXD
JH4001
JH9701
JUMPER WIRE D20PYY0705E
51048-0700
KEY4
BROWS-LED
TAG_LIST-LED
INFO-LED
MENU-LED
FLCON_RXD
PNL_TXD2
FLCON_SCLK
FLCON_BUSY
CLK_REQ
19.660MHz
X4001
CEHAS470M6R3
47u/6.3
GNDD

K MSWB ASSY (DWS1415)



L JOGB ASSY (DWX3026)



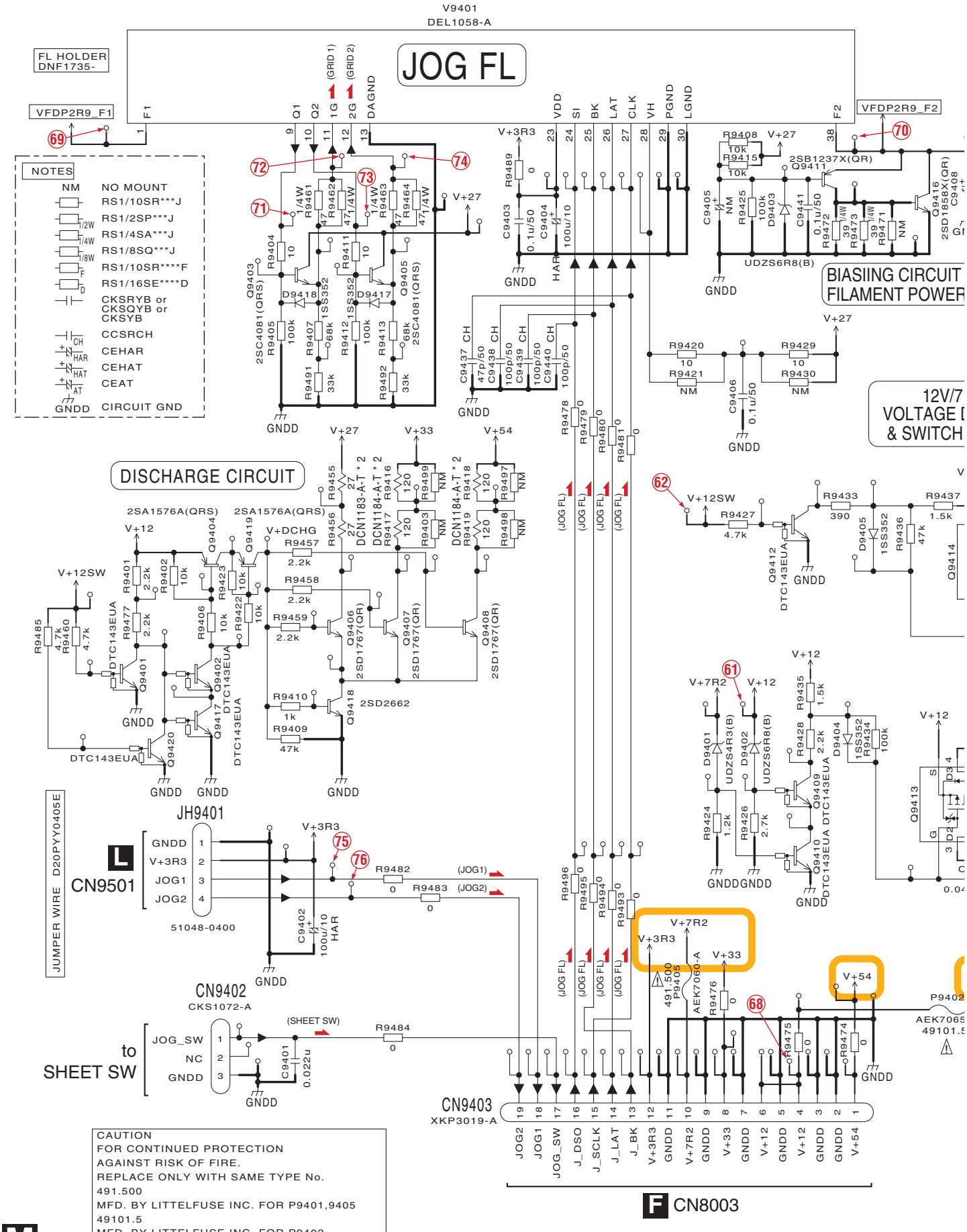
NOTES

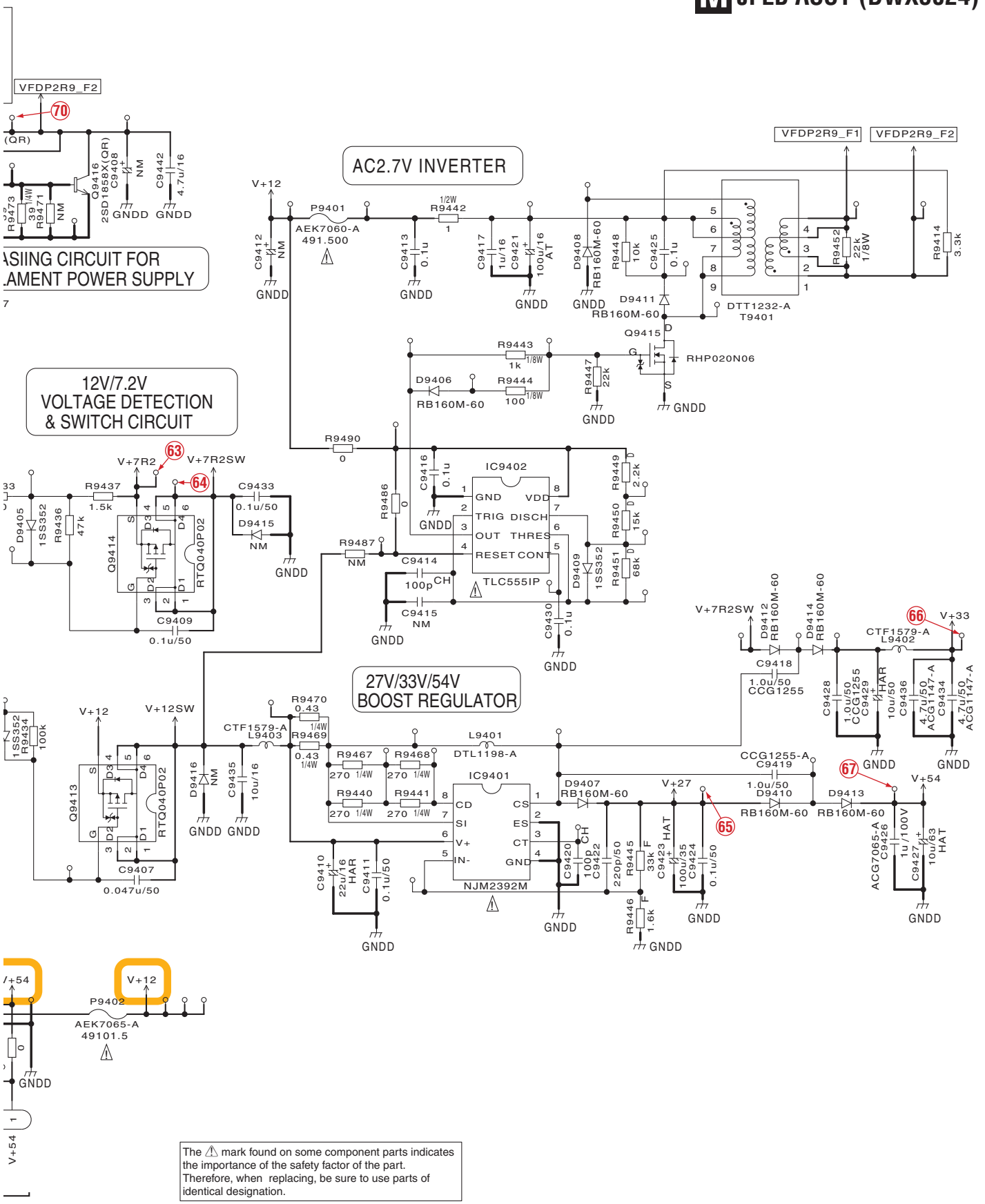
RS1/10SR***J

CKSRYB

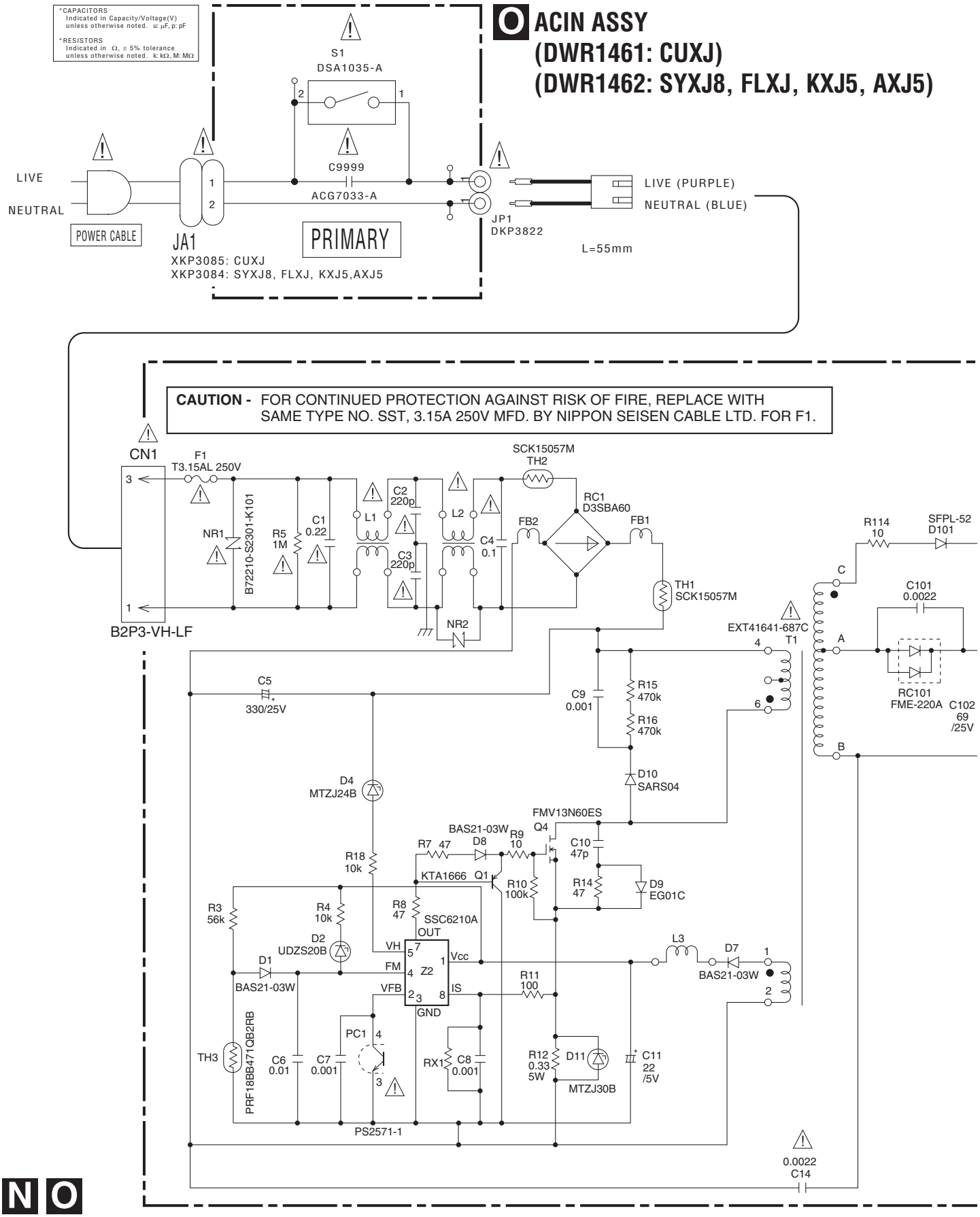
GNDD CIRCUIT GND

10.13 JFLB ASSY




AC2.7V INVERTER
12V/7.2V
VOLTAGE DETECTION
& SWITCH CIRCUIT
27V/33V/54V
BOOST REGULATOR
ASIING CIRCUIT FOR
AMENT POWER SUPPLY
VFDP2R9_F2
VFDP2R9_F1
V+12
V+7R2
V+7R2SW
V+12SW
V+27
V+33
V+54
GNDD
P9401
AEK7060-A
491.500
P9402
AEK7065-A
49101.5
IC9402
TLC555IP
IC9401
NJM2392M
DTT1232-A
T9401
RHP020N06
RTQ040P02
RB160M-60
DTL1198-A
CTF1579-A
L9402
L9403
L9401
CCG1255
CCG1255-A
ACG1147-A
ACG7065-A
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.

10.14 POWER SUPPLY and ACIN ASSYS

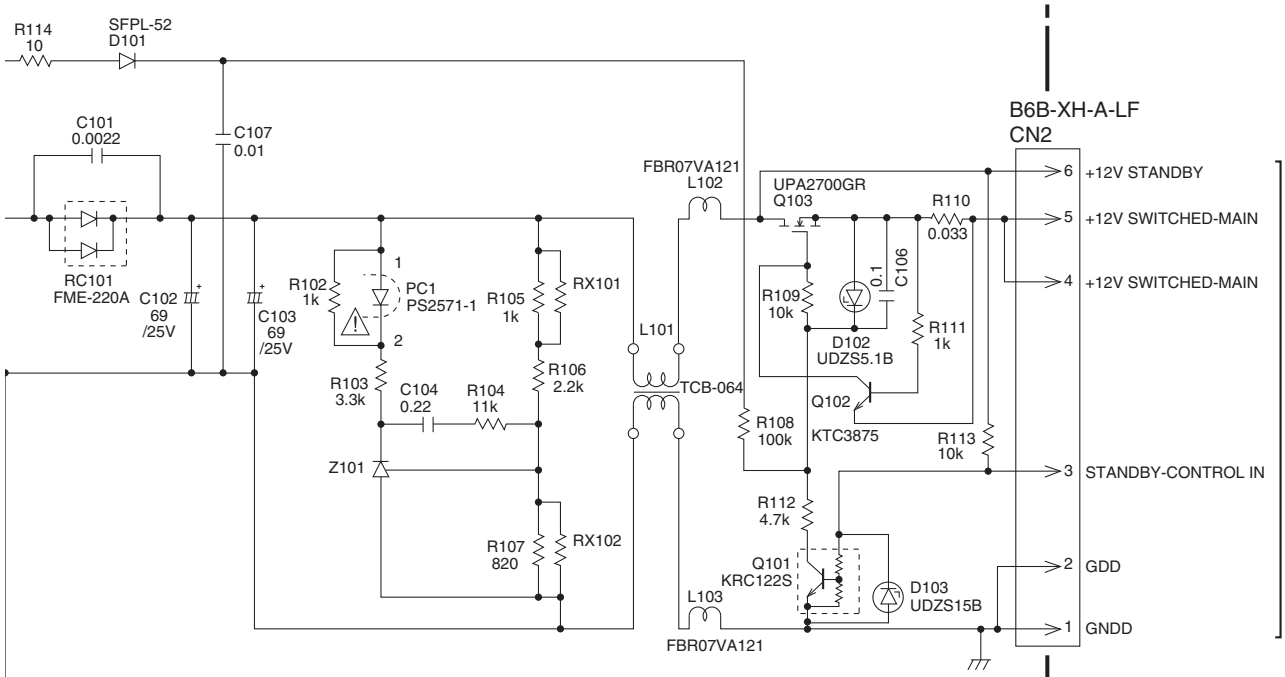


N O

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.

, AXJ5)

N POWER SUPPLY ASSY (DWR1463)



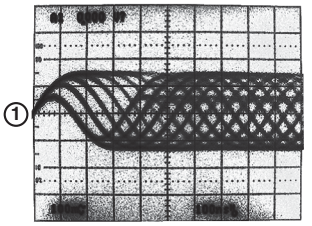
10.15 WAVEFORMS

NOTE: The encircled numbers denote measuring point in the schematic diagram and PCB diagram.

A SRV ASSY

PLAY (Disc: STD-905)

① **TP-RF (RF)**



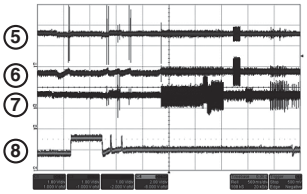
SETUP

⑤ **TP-FE (FE)**
V: 1.0 V/div. H: 500 msec/div.

⑥ **TP-FEDRV (FEDRV)**
V: 1.0 V/div. H: 500 msec/div.

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 500 msec/div.

⑧ **IC7002-pin 26 (SPIN)**
V: 2.0 V/div. H: 500 msec/div.



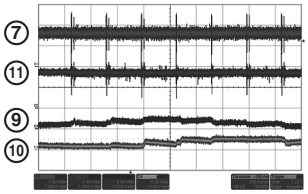
SEARCH

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 20.0 msec/div.

⑪ **TP-TEDRV (TEDRV)**
V: 1.0 V/div. H: 20.0 msec/div.

⑨ **IC7002-pin 29 (SLIN1)**
V: 5.0 V/div. H: 20.0 msec/div.

⑩ **IC7002-pin 30 (SLIN2)**
V: 5.0 V/div. H: 20.0 msec/div.

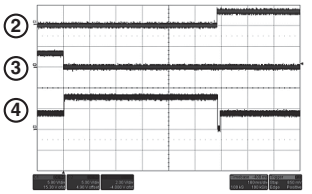


LOAD IN

② **TP-LPS1 (LPS1)**
V: 5.0 V/div. H: 100 msec/div.

③ **TP-LPS2 (LPS2)**
V: 5.0 V/div. H: 100 msec/div.

④ **IC7002-pin 46 (LOAD)**
V: 2.0 V/div. H: 100 msec/div.



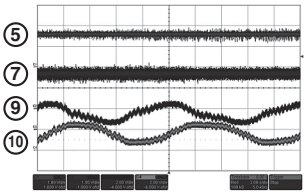
PLAY

⑤ **TP-FE (FE)**
V: 1.0 V/div. H: 2.0 sec/div.

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 2.0 sec/div.

⑨ **IC7002-pin 29 (SLIN1)**
V: 2.0 V/div. H: 2.0 sec/div.

⑩ **IC7002-pin 30 (SLIN2)**
V: 2.0 V/div. H: 2.0 sec/div.



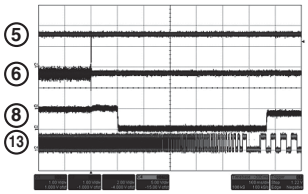
STOP

⑤ **TP-FE (FE)**
V: 1.0 V/div. H: 100 msec/div.

⑥ **TP-FEDRV (FEDRV)**
V: 1.0 V/div. H: 100 msec/div.

⑧ **IC7002-pin 26 (SPIN)**
V: 2.0 V/div. H: 100 msec/div.

⑬ **IC7002-pin 43 (SPDFLG)**
V: 5.0 V/div. H: 100 msec/div.

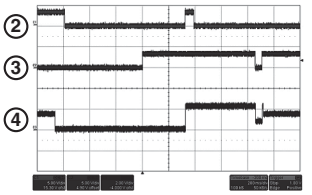


LOAD OUT

② **TP-LPS1 (LPS1)**
V: 5.0 V/div. H: 200 msec/div.

③ **TP-LPS2 (LPS2)**
V: 5.0 V/div. H: 200 msec/div.

④ **IC7002-pin 46 (LOAD)**
V: 2.0 V/div. H: 200 msec/div.



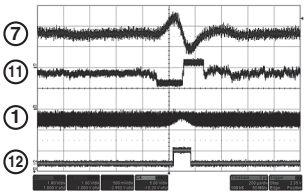
PAUSE

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 200 µsec/div.

⑪ **TP-TEDRV (TEDRV)**
V: 1.0 V/div. H: 200 µsec/div.

① **TP-RF (RF)**
V: 500 mV/div. H: 200 µsec/div.

⑫ **TP-OFTR (OFTR)**
V: 5.0 V/div. H: 200 µsec/div.



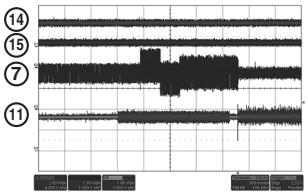
T CLOSE

⑭ **TP-E (E)**
V: 2.0 V/div. H: 100 msec/div.

⑮ **TP-F (F)**
V: 2.0 V/div. H: 100 msec/div.

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 100 msec/div.

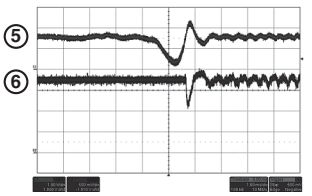
⑪ **TP-TEDRV (TEDRV)**
V: 1.0 V/div. H: 100 msec/div.



IN FOCUS

⑤ **TP-FE (FE)**
V: 1.0 V/div. H: 100 msec/div.

⑥ **TP-FEDRV (FEDRV)**
V: 500 mV/div. H: 100 msec/div.



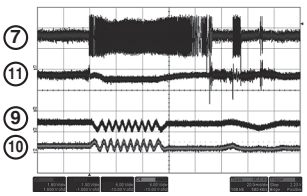
TRACK SEARCH

⑦ **TP-TE (TE)**
V: 1.0 V/div. H: 20.0 msec/div.

⑪ **TP-TEDRV (TEDRV)**
V: 1.0 V/div. H: 20.0 msec/div.

⑨ **IC7002-pin 29 (SLIN1)**
V: 5.0 V/div. H: 20.0 msec/div.

⑩ **IC7002-pin 30 (SLIN2)**
V: 5.0 V/div. H: 20.0 msec/div.



C MAIN ASSY

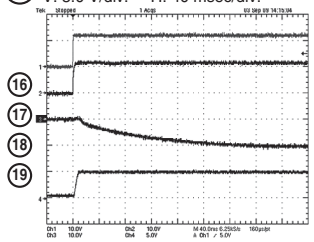
MODE: POWER ON

⑯ **TP-V+12 (V+12)**
V: 10.0 V/div. H: 40 msec/div.

⑰ **TP-V+10A (V+10A)**
V: 10.0 V/div. H: 40 msec/div.

⑱ **CN501-pin 6 (V-10A)**
V: 10.0 V/div. H: 40 msec/div.

⑲ **Q1309-pin 6 (V+5A)**
V: 5.0 V/div. H: 40 msec/div.



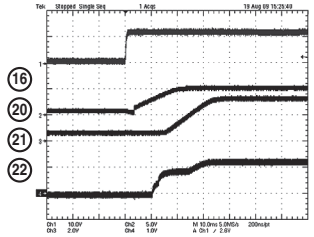
MODE: POWER ON Trigger: CH4, 3.4 V

⑯ **TP-V+12 (V+12)**
V: 10.0 V/div. H: 10 msec/div.

⑳ **TP-V+5 (V+5)**
V: 5.0 V/div. H: 10 msec/div.

㉑ **TP-V+3R3 (V+3R3)**
V: 2.0 V/div. H: 10 msec/div.

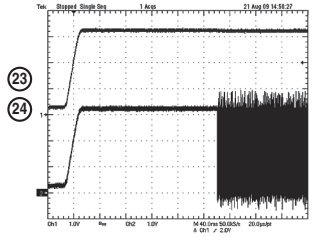
㉒ **TP-V+1R2 (V+1R2)**
V: 1.0 V/div. H: 10 msec/div.



MODE: POWER ON Trigger: CH1, 2 V

㉓ **F101-pin2 (V+3R3_CPU)**
20 MHz FILTER
V: 1.0 V/div. H: 40 msec/div.

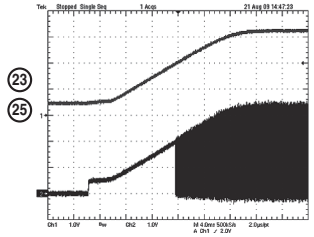
㉔ **IC119-pin 6 (FLASH_CS)**
V: 1.0 V/div. H: 40 msec/div.



MODE: POWER ON Trigger: CH1, 2 V

㉓ **F101-pin2 (V+3R3_CPU)**
20 MHz FILTER
V: 1.0 V/div. H: 4.0 msec/div.

㉕ **IC108-pin 38 (CPU_CLKOUT)**
V: 1.0 V/div. H: 4.0 msec/div.



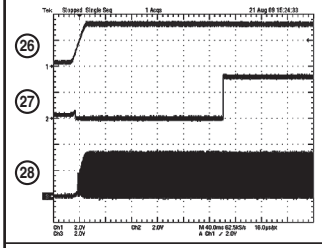
C MAIN ASSY

MODE: POWER ON Trigger: CH1, 2 V

(26) **Foot of R1108 (V+3R3_USB_CORE)**
V: 2.0 V/div. H: 40 msec/div.

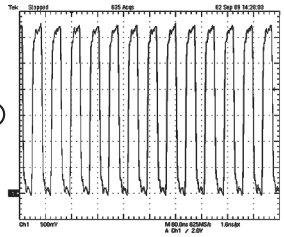
(27) **IC123-pin 8 (USB_RST)**
V: 2.0 V/div. H: 40 msec/div.

(28) **IC1101-pin 14 (X'tal (USB_CLK))**
V: 2.0 V/div. H: 40 msec/div.



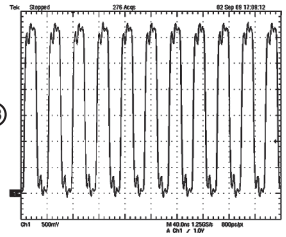
MODE: IDLING Trigger: CH1, 2 V

(35) **Foot of R3079 (CLKIN)**
V: 500 mV/div. H: 80.0 nsec/div.



MODE: IDLING Trigger: CH1, 1 V

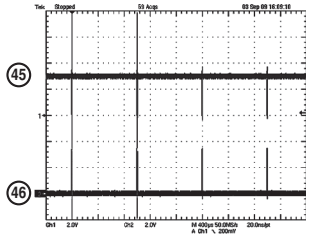
(38) **Foot of R3121 (X'TAL)**
V: 500 mV/div. H: 40.0 nsec/div.



MODE: IDLING (USB connect) Trigger: CH1, 200 mV

(45) **JA1101-pin 3 (USB_D+)**
V: 2.0 V/div. H: 400 µsec/div.

(46) **JA1101-pin 2 (USB_D-)**
V: 2.0 V/div. H: 400 µsec/div.

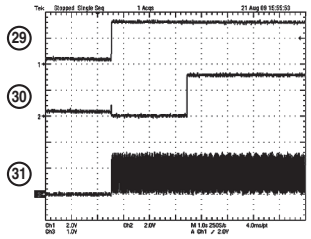


MODE: POWER ON Trigger: CH1, 2 V

(29) **F1302-pin 1 (V+3R3_ETH)**
V: 2.0 V/div. H: 1.0 sec/div.

(30) **IC1304-pin 42 (ETHER_RST)**
V: 2.0 V/div. H: 1.0 sec/div.

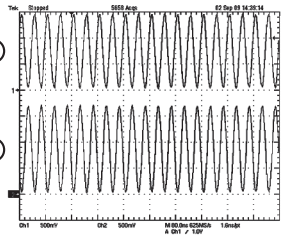
(31) **IC1304-pin 46 (X'tal)**
V: 1.0 V/div. H: 1.0 sec/div.



MODE: IDLING Trigger: CH1, 1 V

(36) **IC1304-pin 45 (X1)**
V: 500 mV/div. H: 80.0 nsec/div.

(31) **IC1304-pin 46 (X2)**
V: 500 mV/div. H: 80.0 nsec/div.



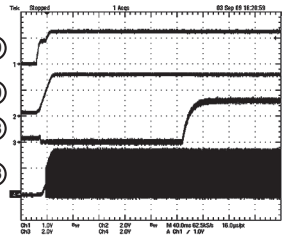
MODE: IDLING Trigger: CH1, 1 V

(39) **Foot of L103 (V+1R2_CPU) 20 MHz FILTER**
V: 1.0 V/div. H: 40.0 msec/div.

(40) **Foot of TP106 (V+3R3_CPU)**
V: 2.0 V/div. H: 40.0 msec/div.

(23) **F101-pin 2 (CPU_RST)**
V: 2.0 V/div. H: 40.0 msec/div.

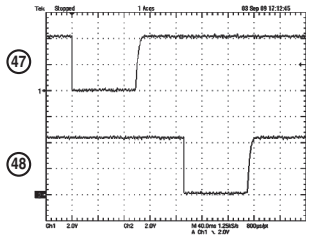
(38) **Foot of R3121 (X'TAL)**
V: 2.0 V/div. H: 40.0 msec/div.



MODE: FADER START & BACK CUE
Trigger: CH1, 2.0 V

(47) **CN501-pin 9 (CONT1)**
V: 2.0 V/div. H: 40 msec/div.

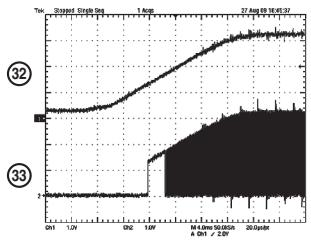
(48) **CN501-pin 10 (CONT2)**
V: 2.0 V/div. H: 40 msec/div.



MODE: POWER ON Trigger: CH1, 2 V

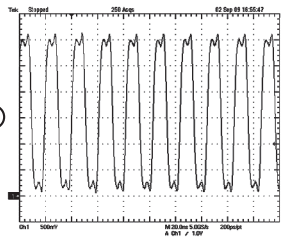
(32) **IC505-pin 43 (V+3R3_DSP)**
V: 1.0 V/div. H: 4.0 msec/div.

(33) **IC505-pin 38 (DSP_CLK)**
V: 1.0 V/div. H: 4.0 msec/div.



MODE: IDLING Trigger: CH1, 1 V

(28) **IC1101-pin 14 (USB_CLK)**
V: 500 mV/div. H: 20.0 nsec/div.



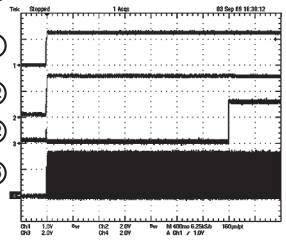
MODE: IDLING Trigger: CH1, 1 V

(41) **Foot of TP3005(V+1R2_CPU) 20 MHz FILTER**
V: 1.0 V/div. H: 400 msec/div.

(22) **Foot of C596 (V+1R2)**
V: 2.0 V/div. H: 400 msec/div.

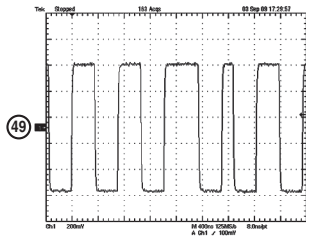
(42) **Foot of TP168 (DSP710_RST)**
V: 2.0 V/div. H: 400 msec/div.

(35) **Foot of R3079 (CLKIN)**
V: 2.0 V/div. H: 400 msec/div.



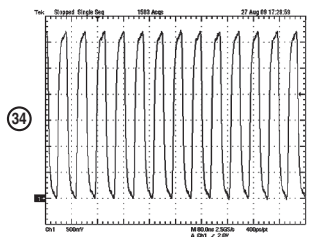
MODE: IDLING Trigger: CH1, 100 mV

(49) **CN501-pin 12 (SPDIF)**
V: 200 mV/div. H: 400 nsec/div.



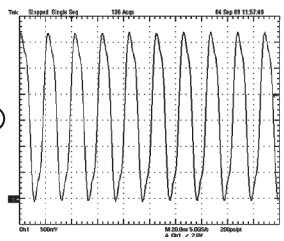
MODE: IDLING Trigger: CH1, 2 V

(34) **IC3003-pin 4 (DAC_MCLK)**
V: 500 mV/div. H: 80.0 nsec/div.



MODE: IDLING Trigger: CH1, 2 V

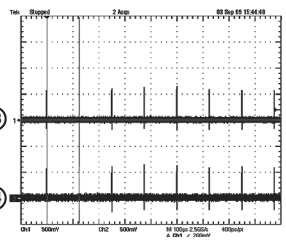
(37) **IC115-pin 5 (USB_CLK)**
V: 500 mV/div. H: 20.0 nsec/div.



MODE: IDLING (USB connect) Trigger: CH1, 200 mV

(43) **F1102-pin 2 (CPU_USB_D+)**
V: 500 mV/div. H: 100 µsec/div.

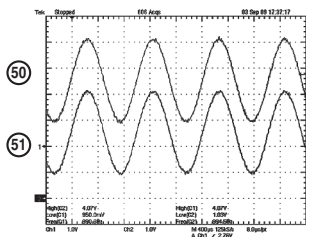
(44) **F1102-pin 1 (CPU_USB_D-)**
V: 500 mV/div. H: 100 µsec/div.



MODE: PLAY (1k 0dB) Trigger: CH1, 2.5 V

(50) **CN501-pin 2 (ROUT)**
V: 1.0 V/div. H: 400 µsec/div.

(51) **CN501-pin 5 (LOUT)**
V: 1.0 V/div. H: 400 µsec/div.



F DFLB ASSY

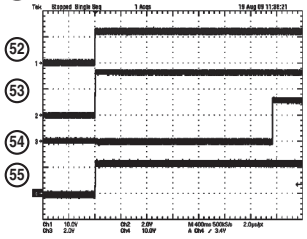
MODE: POWER ON Trigger: CH4, 3.4 V

(52) **TP-V+12_EUP (V+12_EUP)**
V: 10.0 V/div. H: 400 msec/div.

(53) **IC8007-pin 5 (V+3R3E)**
V: 2.0 V/div. H: 400 msec/div.

(54) **CN8004-pin 2 (EUP_CONT)**
V: 2.0 V/div. H: 400 msec/div.

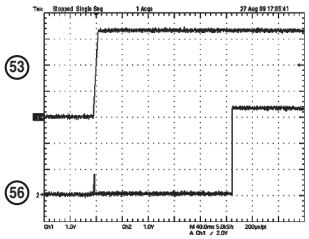
(55) **TP-V+12 (V+12)**
V: 10.0 V/div. H: 400 msec/div.



MODE: POWER ON Trigger: CH1, 2 V

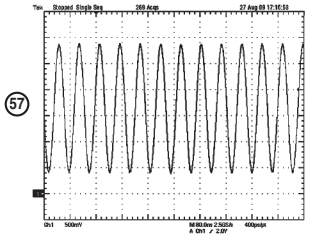
(53) **IC8007-pin 5 (V+3R3E)**
V: 1.0 V/div. H: 40.0 msec/div.

(56) **Foot of R8109 (PNL_RESET#)**
V: 1.0 V/div. H: 40.0 msec/div.



MODE: IDLING Trigger: CH1, 2 V

(57) **IC8005-pin 13 (XOUT)**
V: 500 mV/div. H: 80.0 nsec/div.

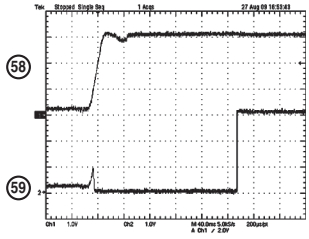


J BFLB ASSY

MODE: POWER ON Trigger: CH1, 2 V

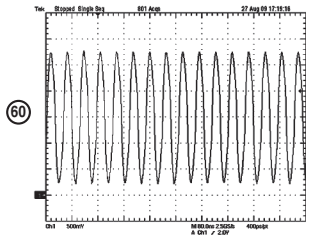
(58) **J4002 (V+3R3_1)**
V: 1.0 V/div. H: 40.0 msec/div.

(59) **IC4002-pin 12 (RESET)**
V: 1.0 V/div. H: 40.0 msec/div.



MODE: IDLING Trigger: CH1, 2 V

(60) **IC4002-pin 13 (XOUT)**
V: 500 mV/div. H: 80.0 nsec/div.



M JFLB ASSY

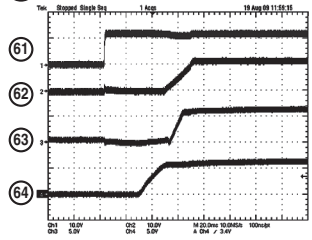
MODE: POWER ON Trigger: CH4, 3.4 V

(61) **D9402 Cathode (V+12)**
V: 10.0 V/div. H: 20 msec/div.

(62) **TP-V+12SW (V+12SW)**
V: 10.0 V/div. H: 20 msec/div.

(63) **Q9414-pin 4 (V+7R2)**
V: 5.0 V/div. H: 20 msec/div.

(64) **TP-V+7R2SW (V+7R2SW)**
V: 5.0 V/div. H: 20 msec/div.



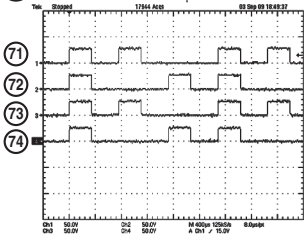
MODE: IDLING Trigger: CH1, 15 V

(71) **TP-Q1 (Q1)**
V: 50 V/div. H: 400 µsec/div.

(72) **TP-1G (1G)**
V: 50 V/div. H: 400 µsec/div.

(73) **TP-Q2 (Q2)**
V: 50 V/div. H: 400 µsec/div.

(74) **TP-2G (2G)**
V: 50 V/div. H: 400 µsec/div.



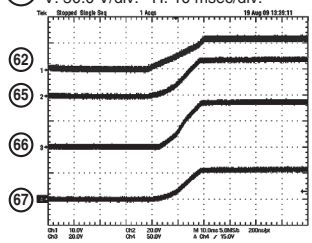
MODE: POWER ON Trigger: CH4, 15 V

(62) **TP-V+12SW (V+12SW)**
V: 10.0 V/div. H: 10 msec/div.

(65) **TP-V+27 (V+27)**
V: 20.0 V/div. H: 10 msec/div.

(66) **Foot of L9402 (V+33)**
V: 20.0 V/div. H: 10 msec/div.

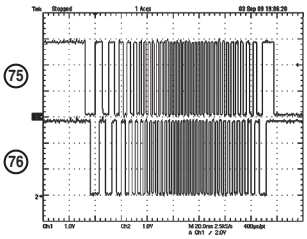
(67) **TP-V+54 (V+54)**
V: 50.0 V/div. H: 10 msec/div.



MODE: JOG SPIN Trigger: CH1, 2 V

(75) **TP-JOG1 (JOG1)**
V: 1.0 V/div. H: 20 msec/div.

(76) **TP-JOG2 (JOG2)**
V: 1.0 V/div. H: 20 msec/div.

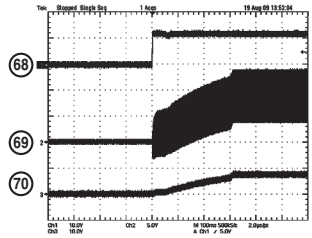


MODE: POWER ON Trigger: CH1, 5 V

(68) **CN9403-pin 4 (V+12)**
V: 10.0 V/div. H: 100 msec/div.

(69) **TP-VFDP2R9_F1 (VFDP2R9_F1)**
V: 5.0 V/div. H: 100 msec/div.

(70) **TP-VFDP2R9_F2 (VFDP2R9_F2)**
V: 10.0 V/div. H: 100 msec/div.



A

B

C

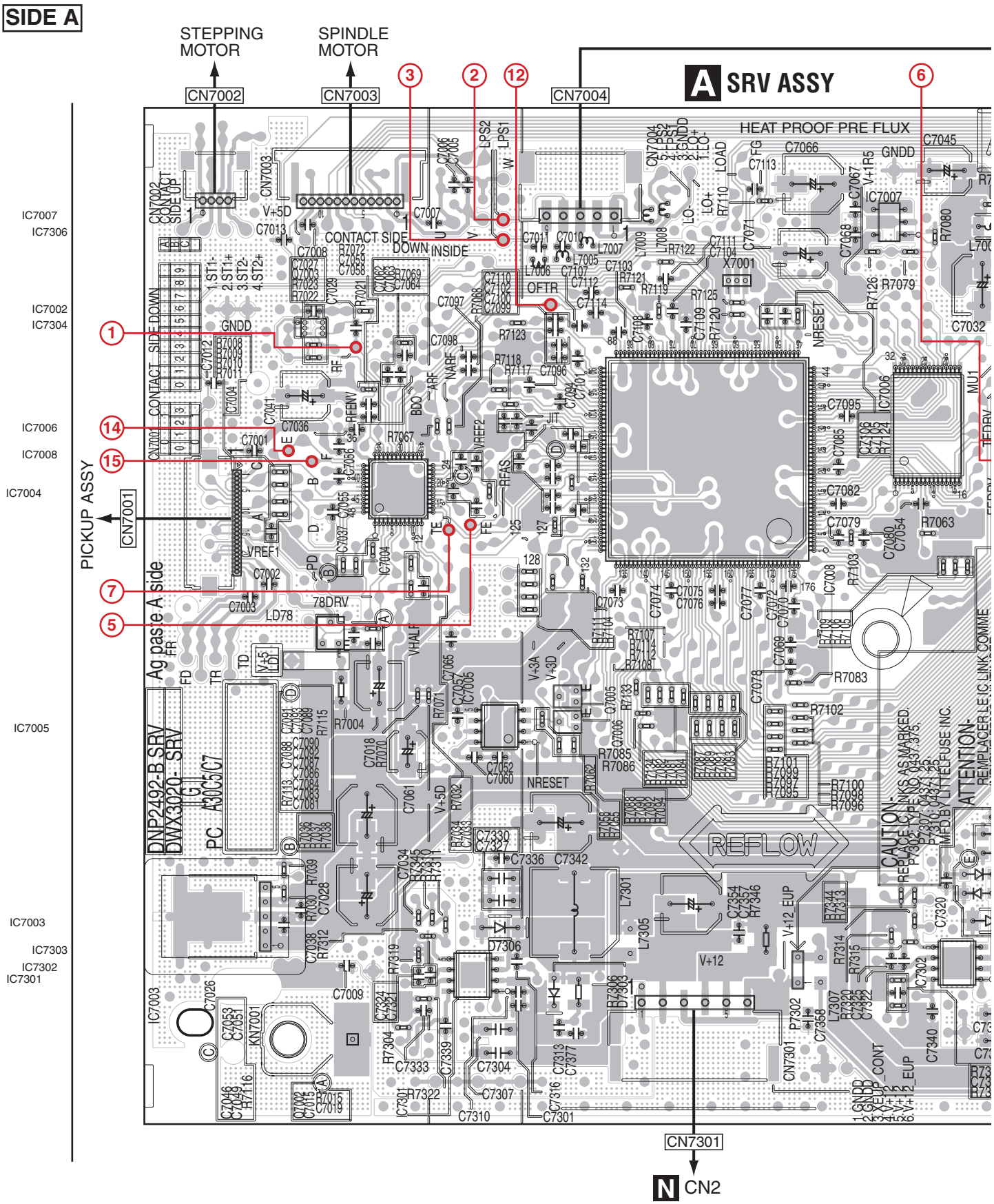
D

E

F

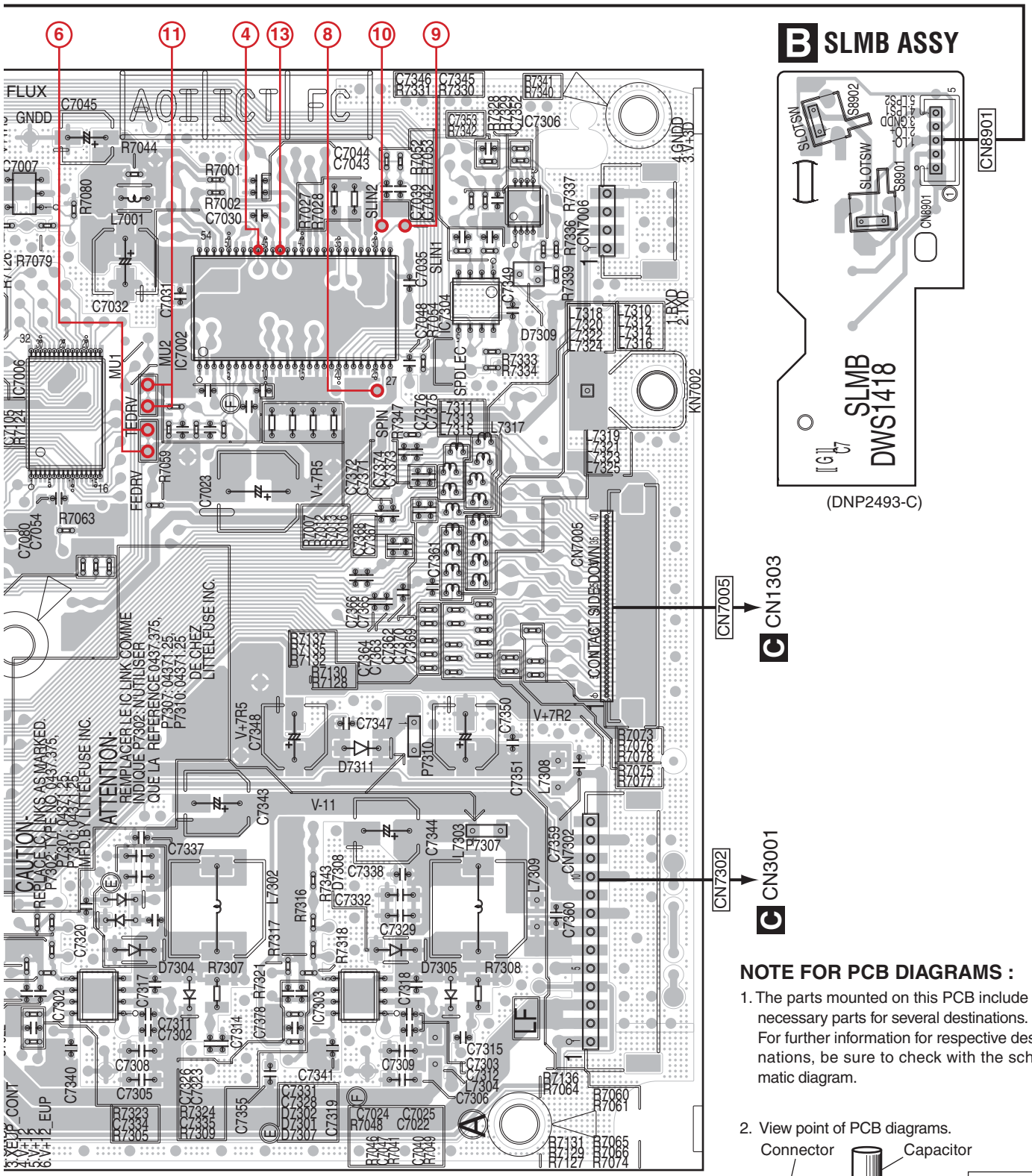
11. PCB CONNECTION DIAGRAM

11.1 SRV and SLMB ASSYS



NOTE: The encircled numbers denote measuring point.

SIDE A



B SLMB ASSY

(DNP2493-C)

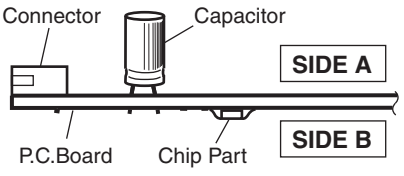
CN7005 → **C** CN1303

CN7302 → **C** CN3001

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.

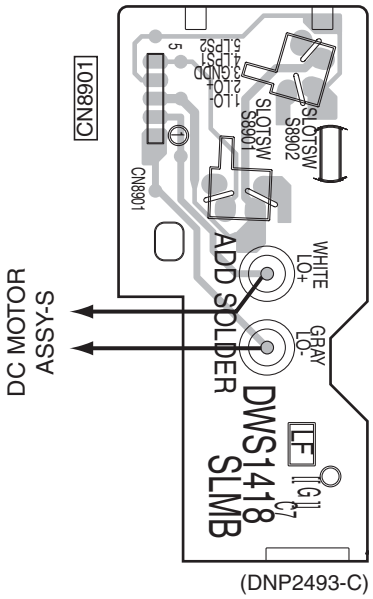
2. View point of PCB diagrams.



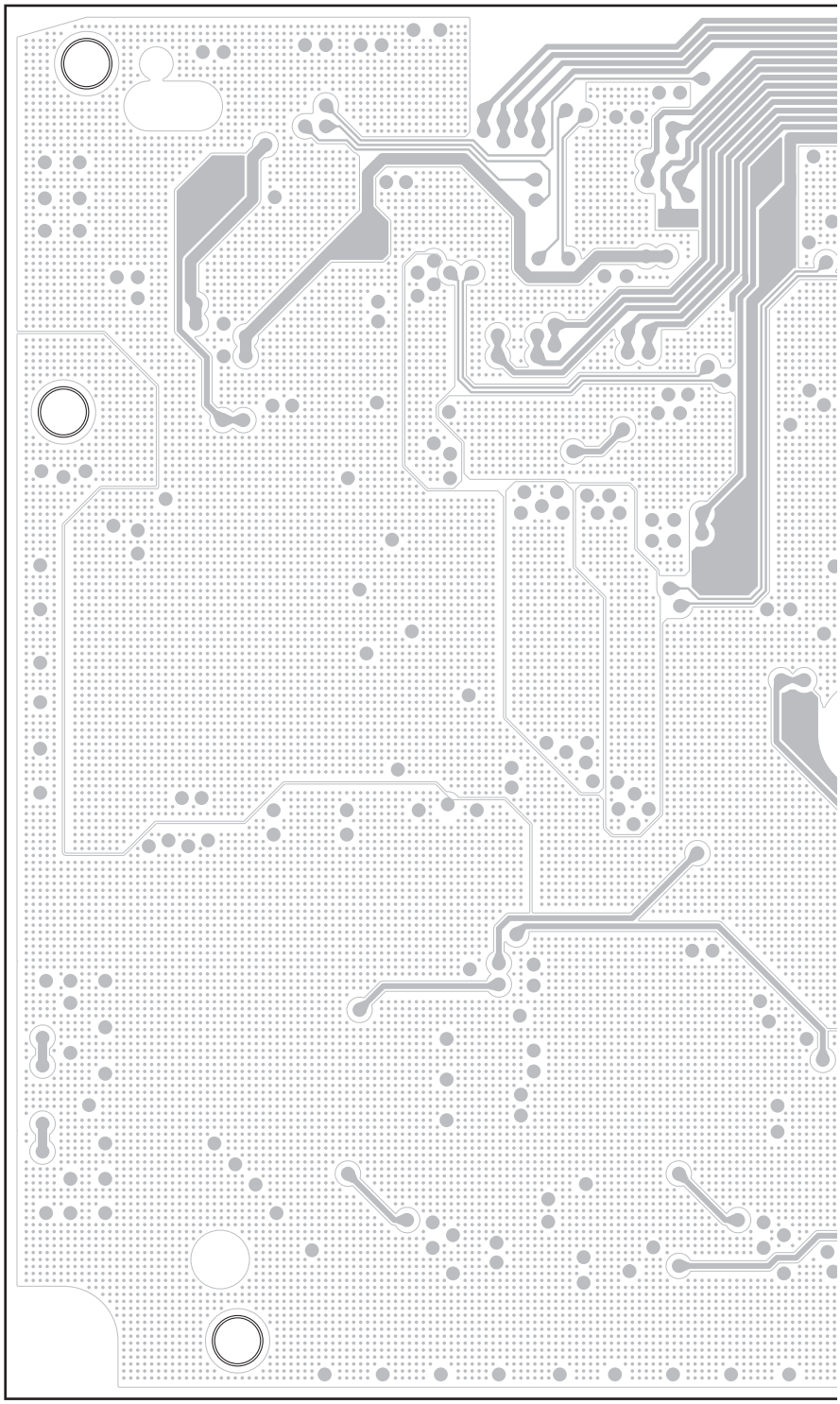
A B

SIDE B

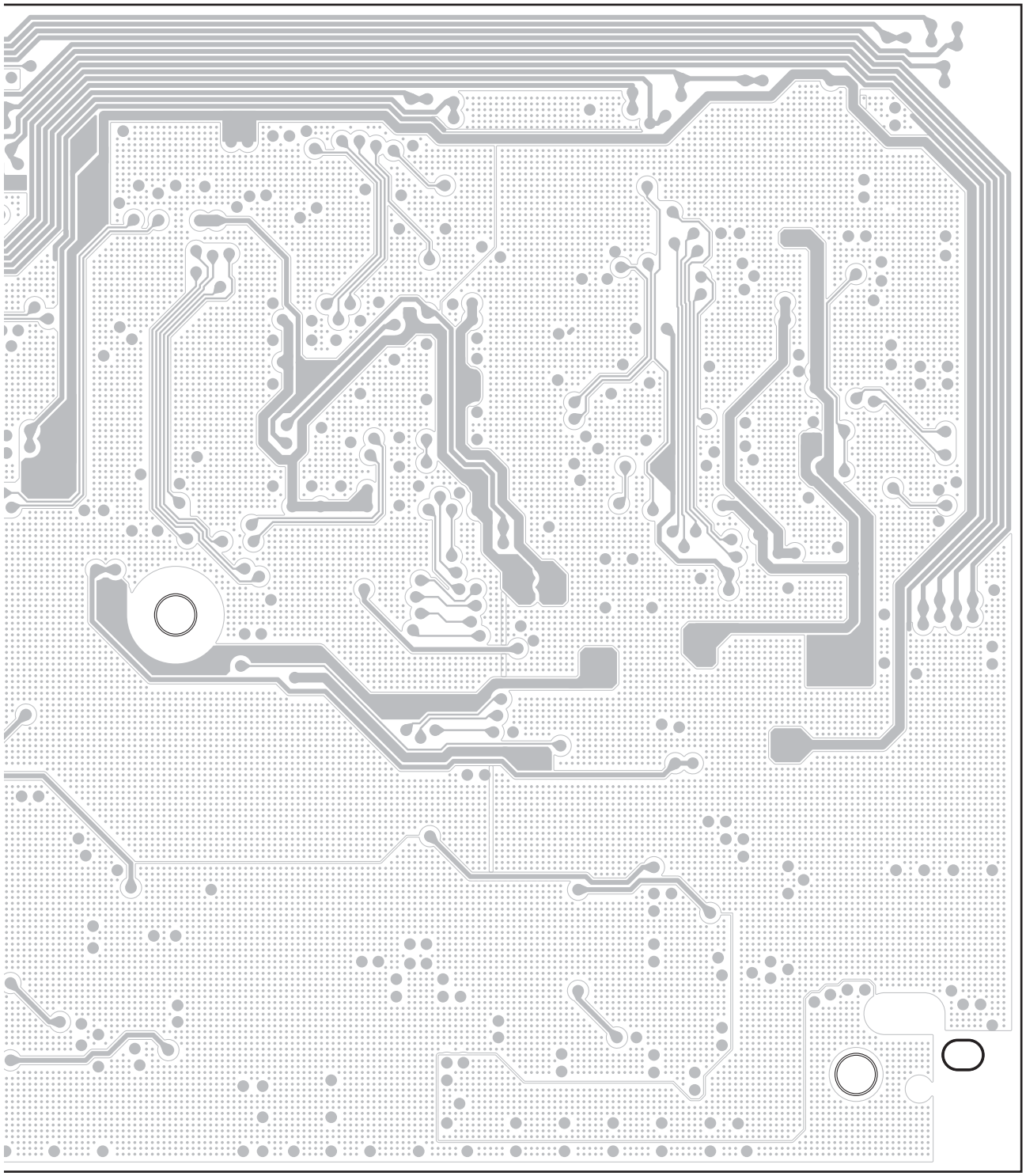
B SLMB ASSY



A SRV ASSY



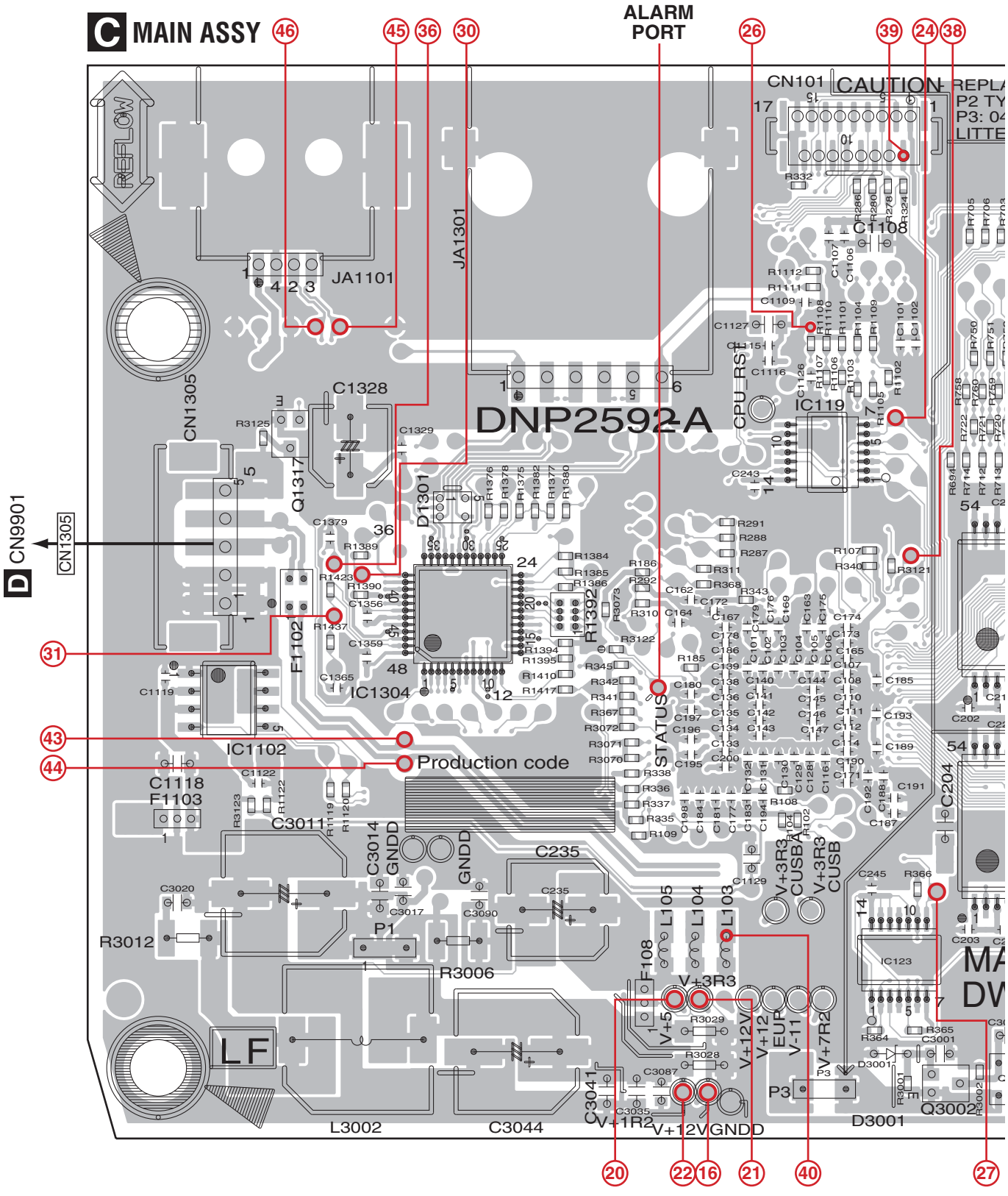
SIDE B



(DNP2492-B)

11.2 MAIN ASSY

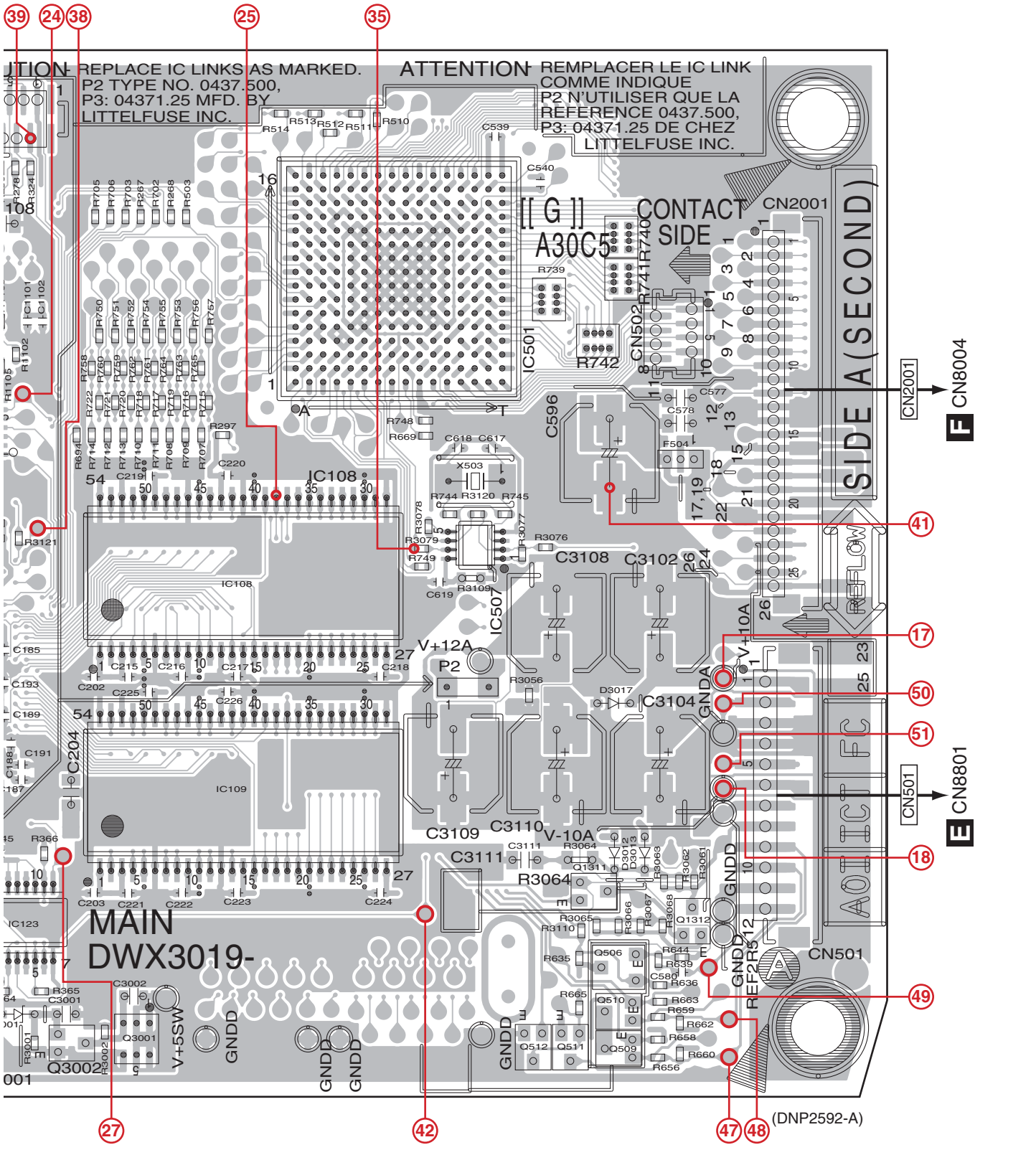
SIDE A



IC1102 Q1317 IC1304 IC119 IC123 Q3002

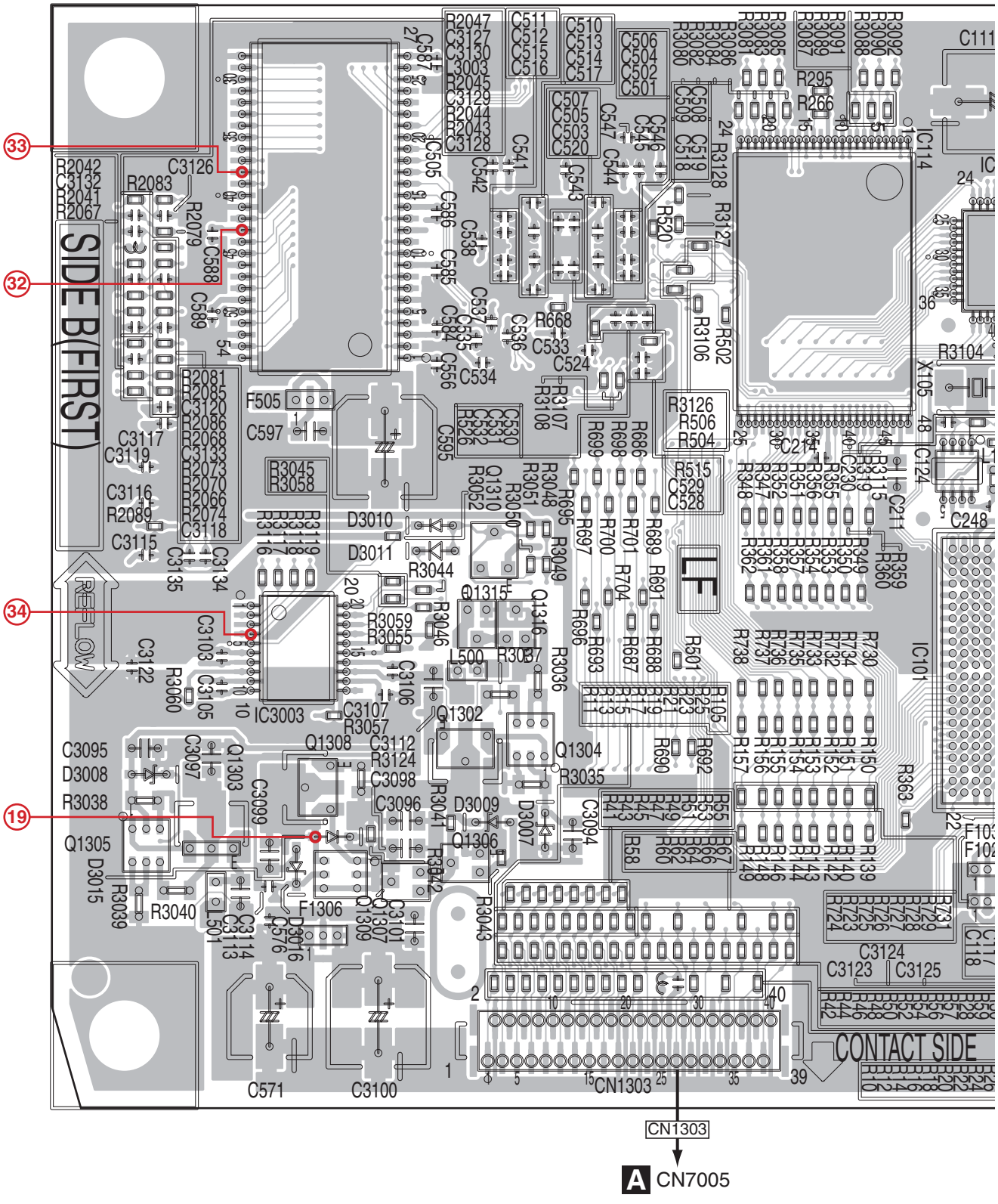
NOTE: The encircled numbers denote measuring point.

SIDE A



SIDE B

C MAIN ASSY

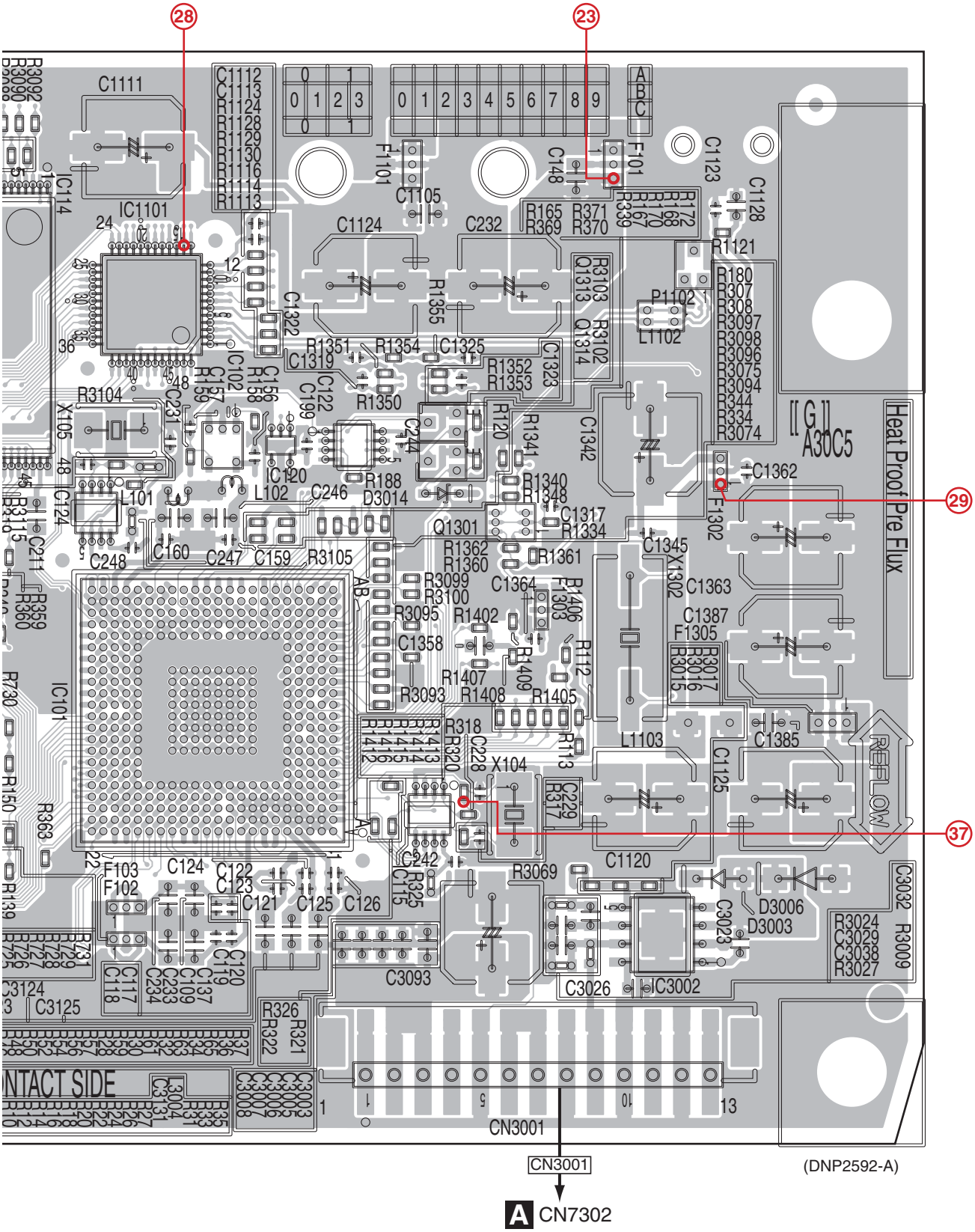


IC505 IC114 IC124
IC3003
Q1310
Q1315 Q1316
Q1308
Q1302 Q1304
Q1305 Q1303 Q1307 Q1306

C

NOTE: The encircled numbers denote measuring point.

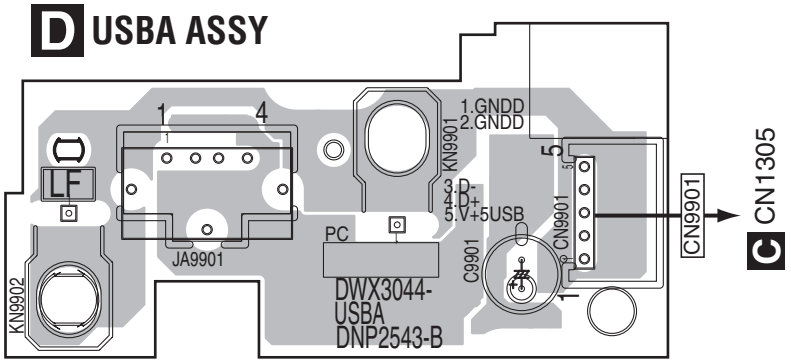
SIDE B



11.3 USBA and JACKB ASSYS

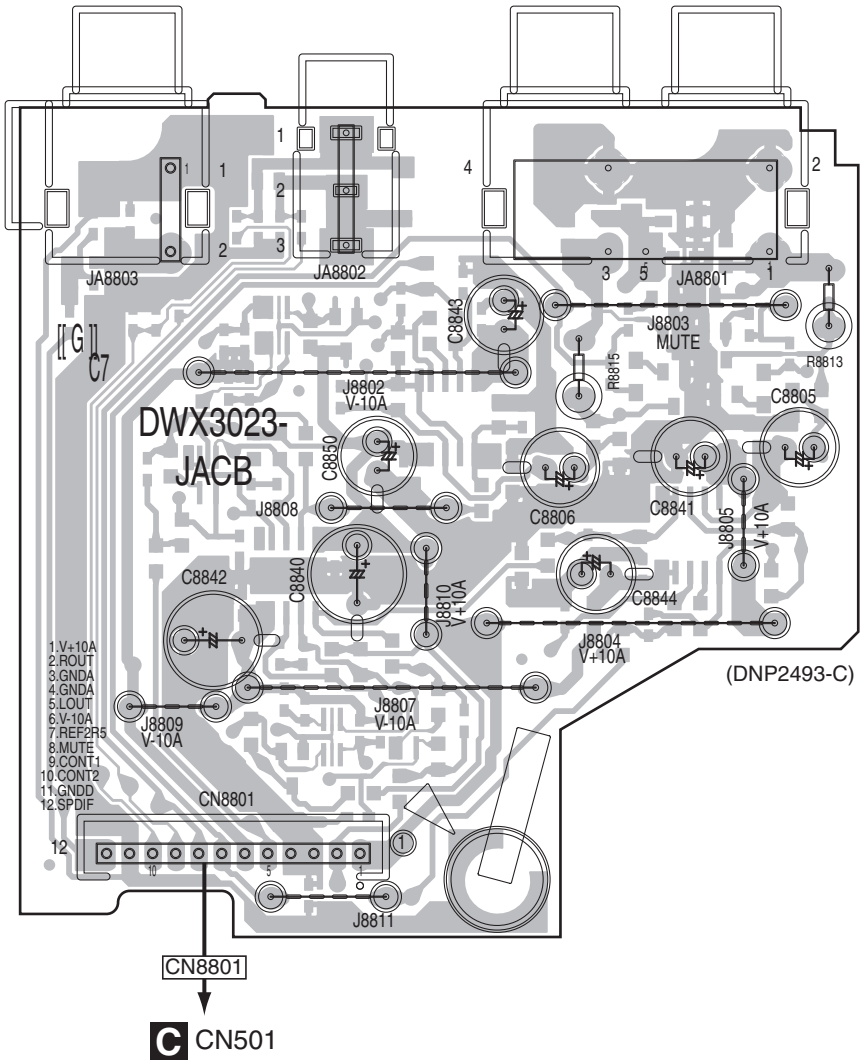
SIDE A

D USBA ASSY



(DNP2543-B)

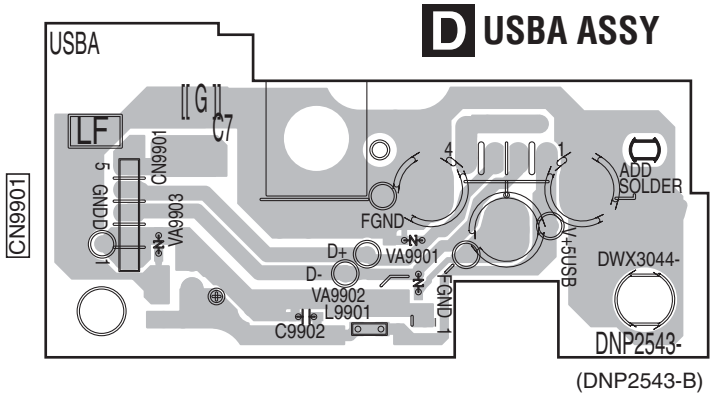
E JACB ASSY



(DNP2493-C)

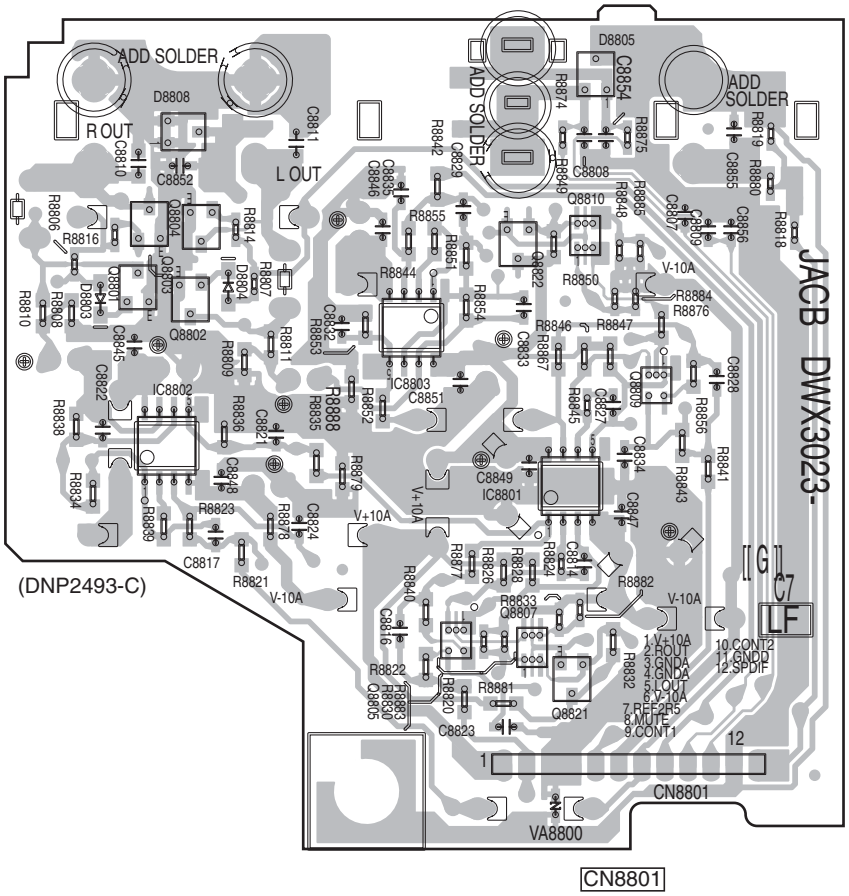
D E

D USBA ASSY



(DNP2543-B)

E JACB ASSY



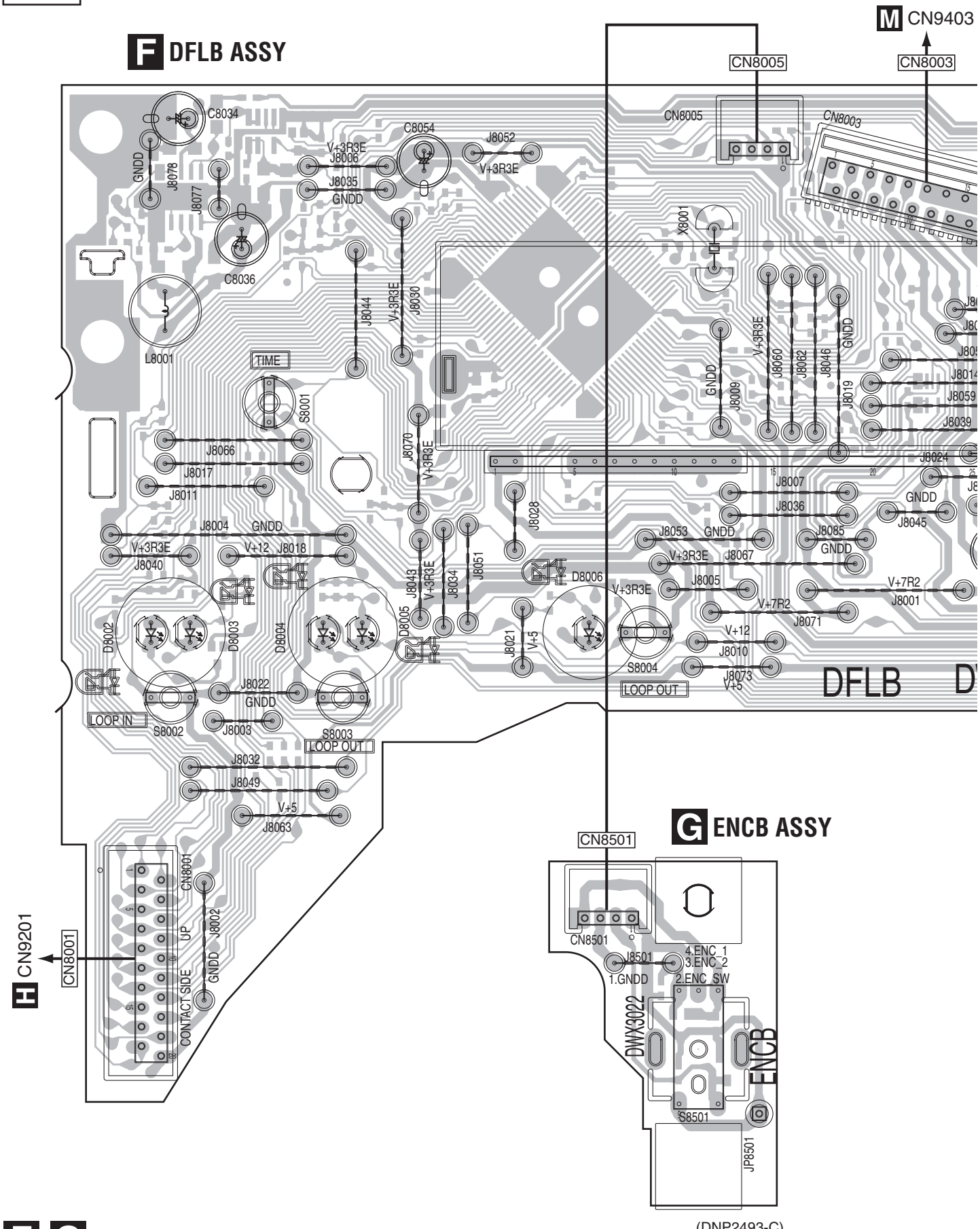
(DNP2493-C)

CN8801

Q8803 Q8804
Q8822 Q8810
Q8801 Q8802
IC8803
Q8809
IC8802
IC8801
Q8805 Q8807
Q8821

11.4 DFLB and ENCB ASSYS

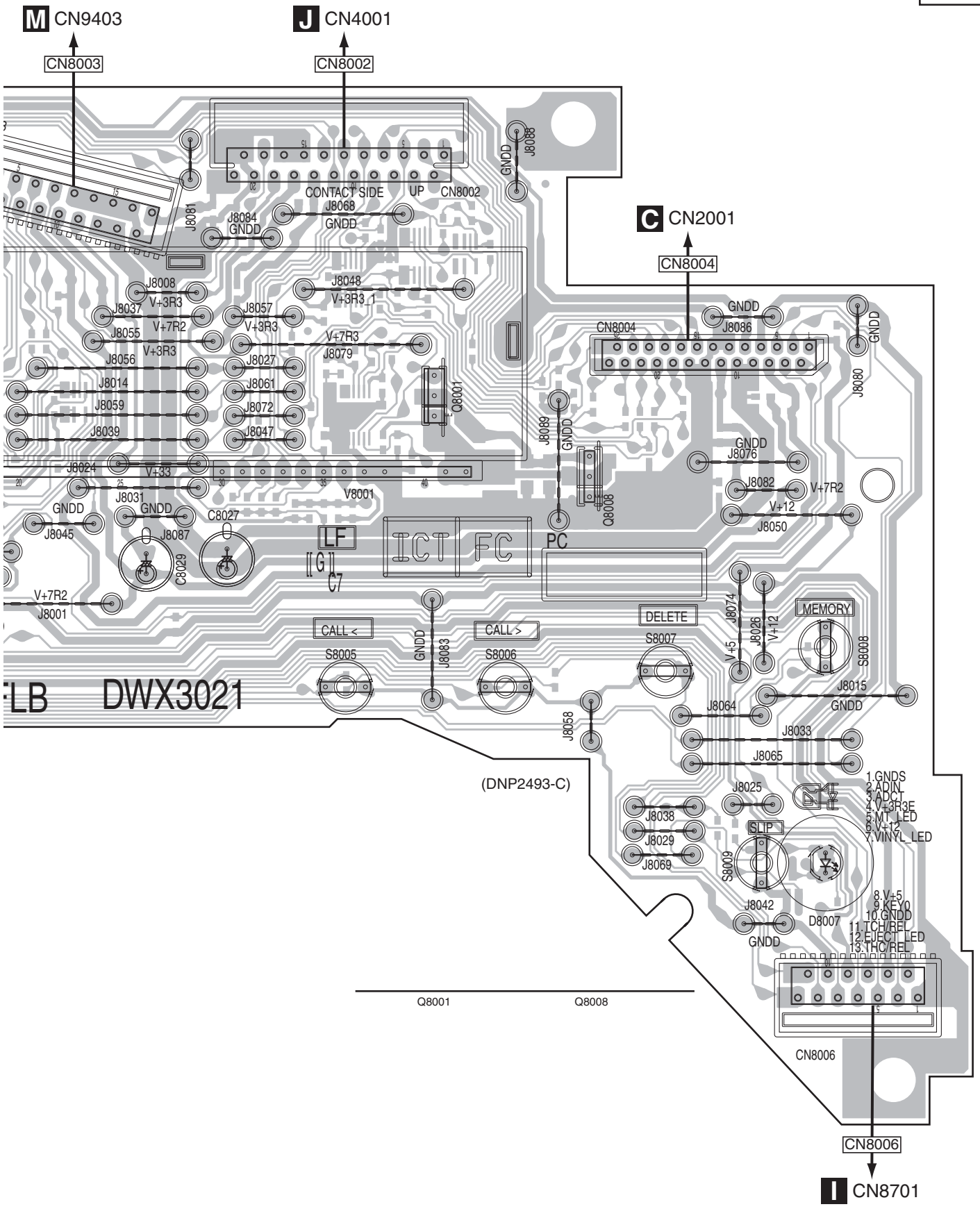
SIDE A

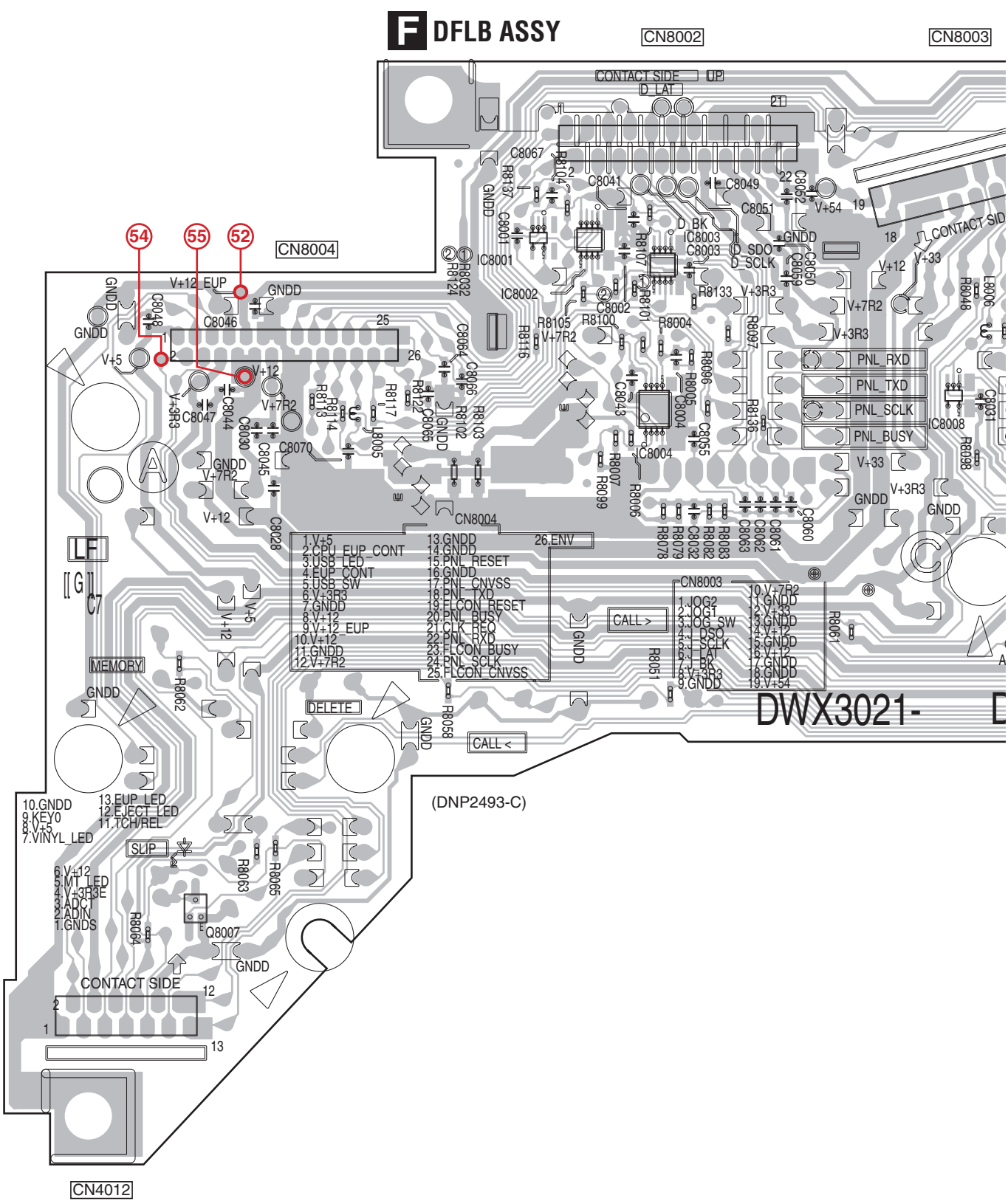


(DNP2493-C)

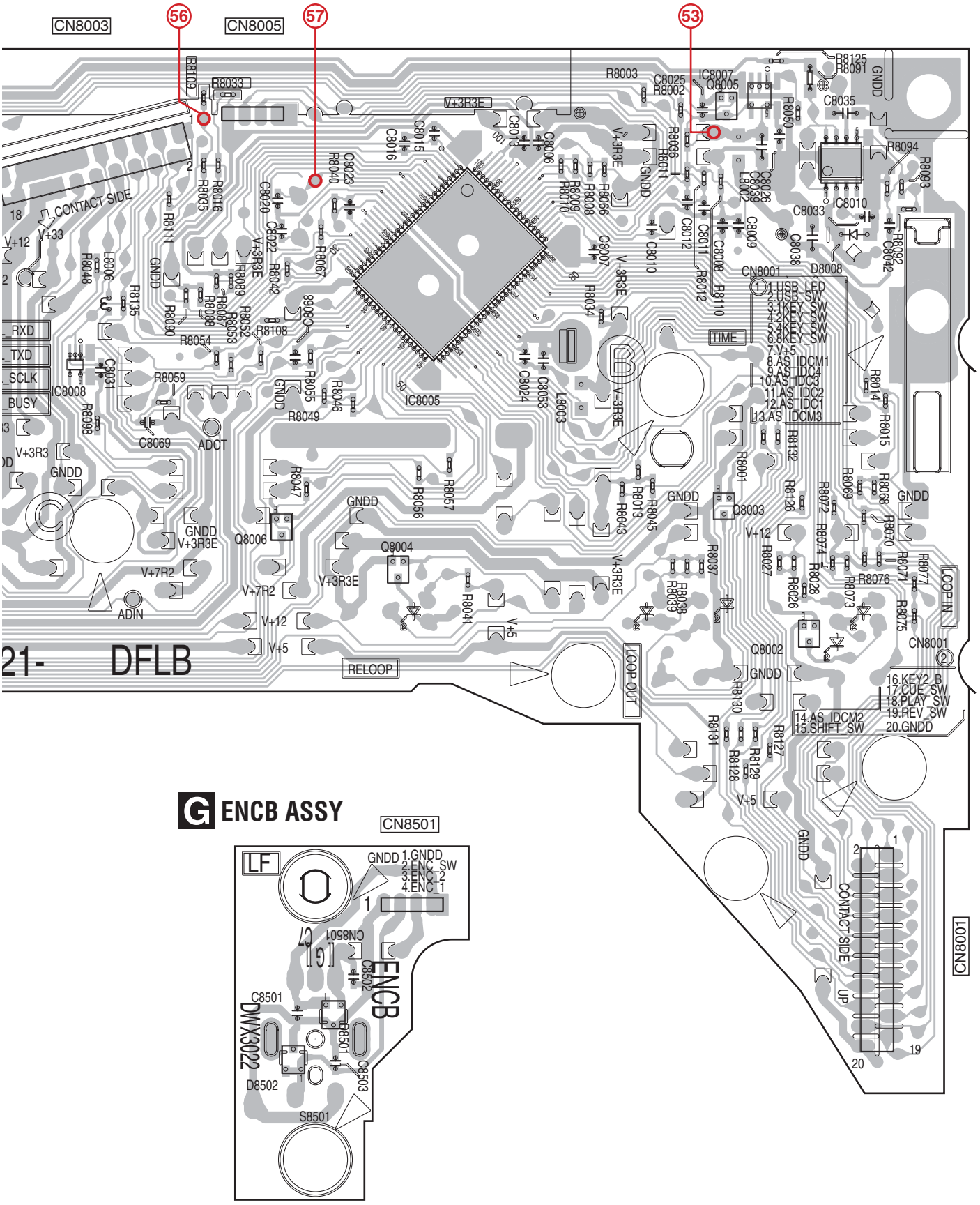
F G

SIDE A


M CN9403
CN8003
J CN4001
CN8002
CONTACT SIDE
UP
CN8002
C CN2001
CN8004
CN8004
J8088
GNDD
J8081
J8084
GNDD
J8068
GNDD
J8008
V+3R3
J8037
V+7R2
J8055
V+3R3
J8056
J8014
J8059
J8039
J8048
V+3R3_1
J8057
V+3R3
J8027
J8061
J8072
J8047
V+7R3
J8079
Q8001
J8086
GNDD
J8080
GNDD
J8089
GNDD
Q8008
J8076
GNDD
J8082
V+7R2
V+12
J8050
J8024
V+33
J8031
GNDD
J8045
GNDD
C8027
J8087
C8029
V8001
LF
[G]
C7
PC
V+7R2
J8001
DELETE
J8074
V+5
J8026
V+12
MEMORY
S8008
CALL <
S8005
GNDD
J8083
CALL >
S8006
S8007
J8015
GNDD
J8064
J8033
J8065
J8058
(DNP2493-C)
J8025
J8038
J8029
J8069
SLIP
S8009
1.GNDS
2.ADIN
3.ADCT
4.V+3R3E
5.MT_LED
6.V+12
7.VINYL_LED
8.V+5
9.KEY0
10.GNDD
11.TCH/REL
12.EJECT_LED
13.THC/REL
J8042
GNDD
D8007
Q8001
Q8008
CN8006
CN8006
I CN8701
LB DWX3021



NOTE: The encircled numbers denote measuring point.



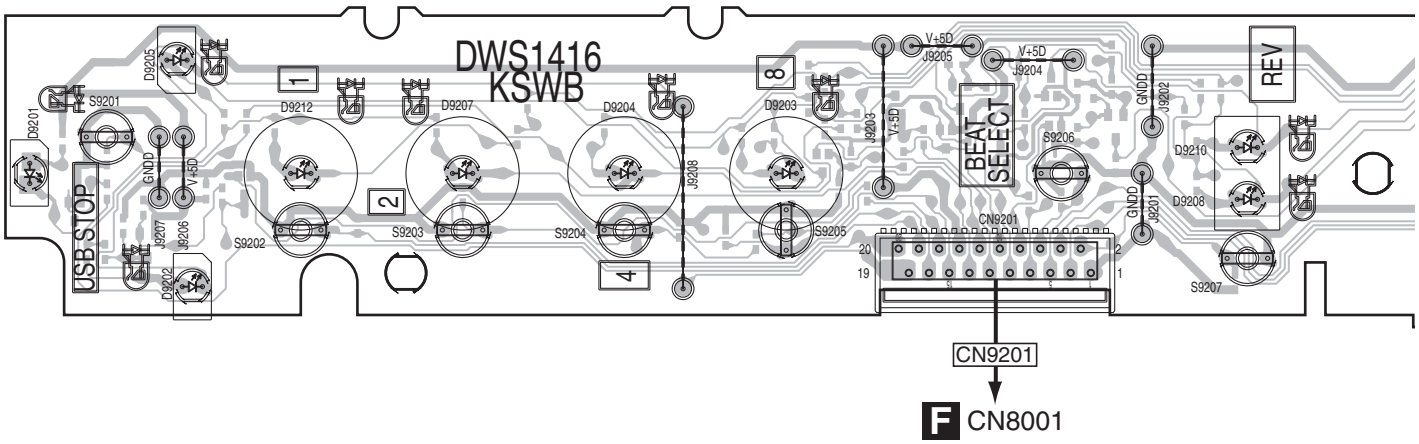
G ENCB ASSY

(DNP2493-C)

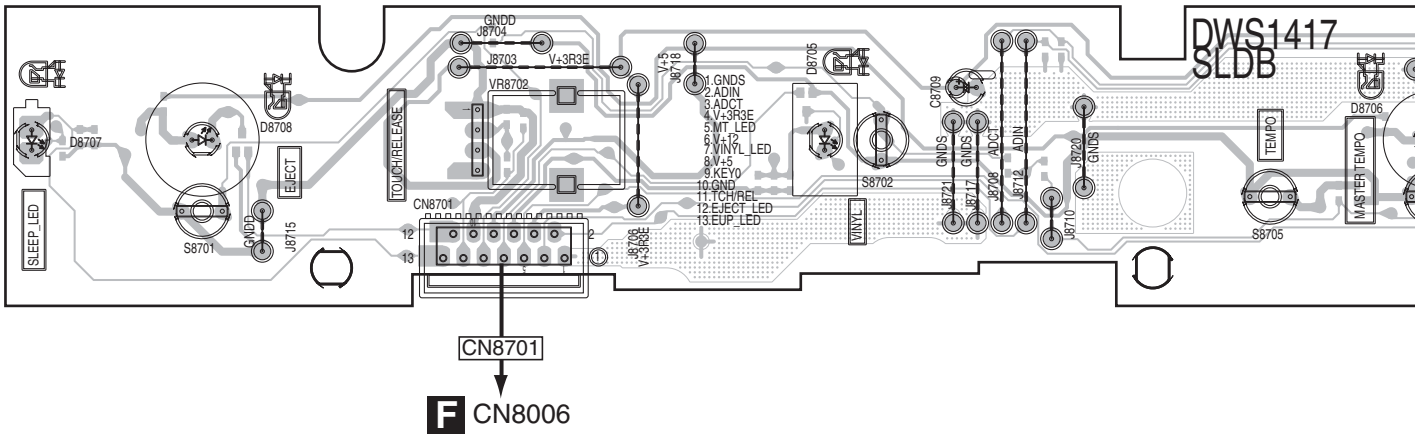
11.5 KSWB and SLDB ASSYS

SIDE A

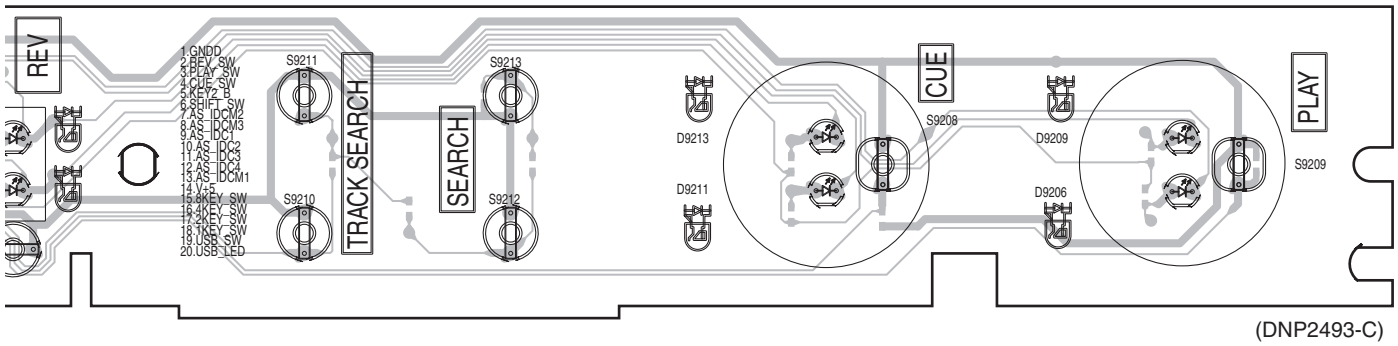
H KSWB ASSY



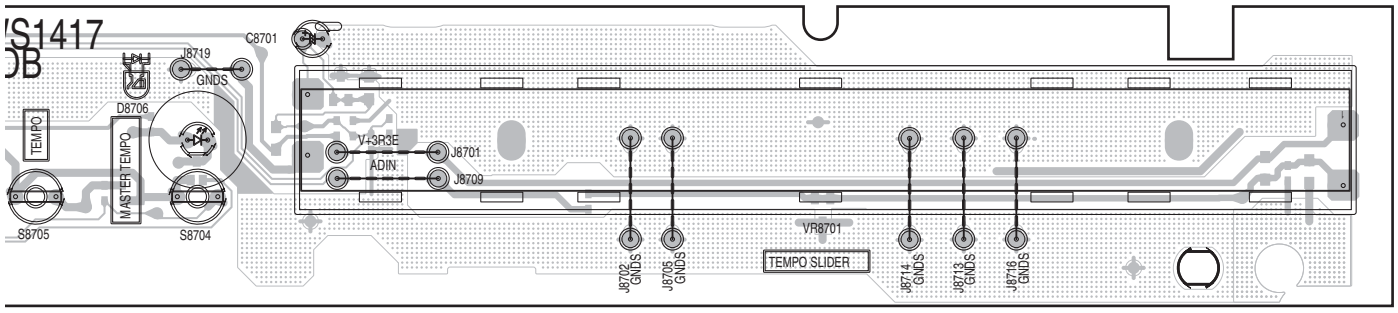
I SLDB ASSY



SIDE A



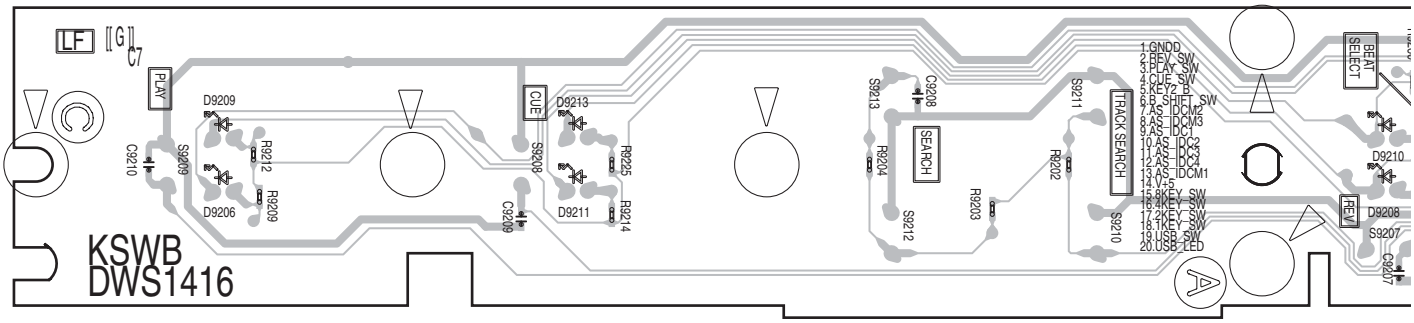
(DNP2493-C)



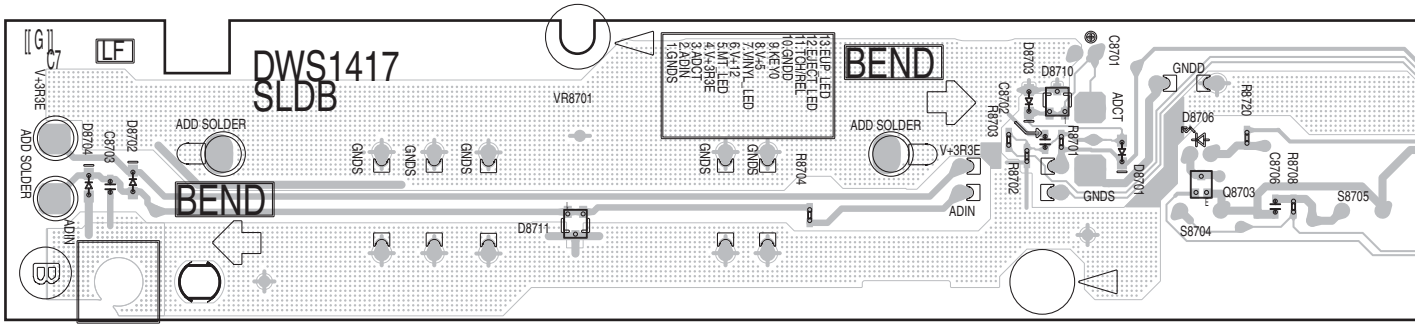
(DNP2493-C)

SIDE B

H KSWB ASSY

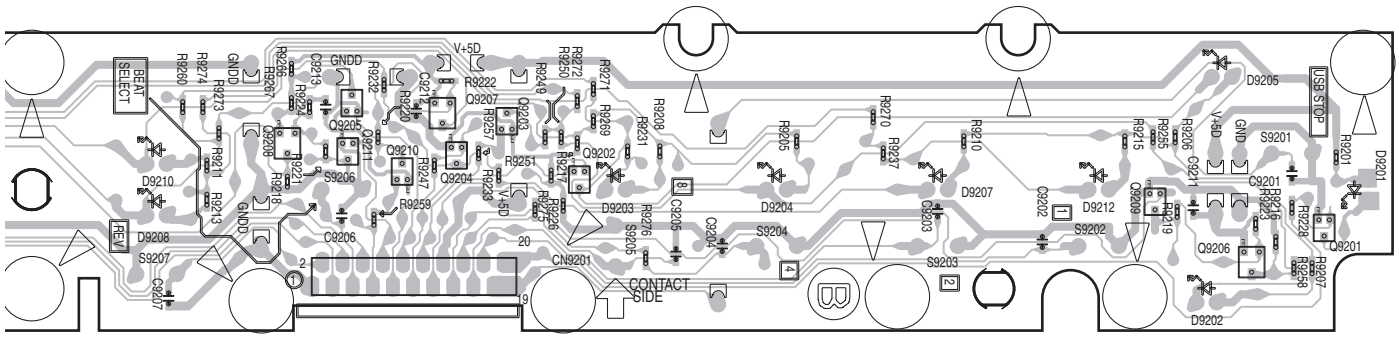


I SLDB ASSY



Q8703

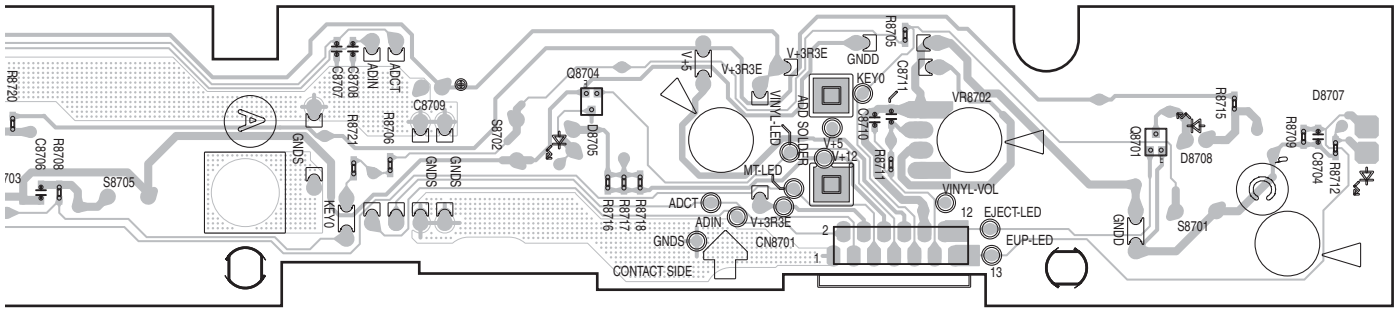
SIDE B



(DNP2493-C)

CN9201

Q9205 Q9207 Q9203 Q9209 Q9201
Q9208 Q9211 Q9210 Q9204 Q9202 Q9206



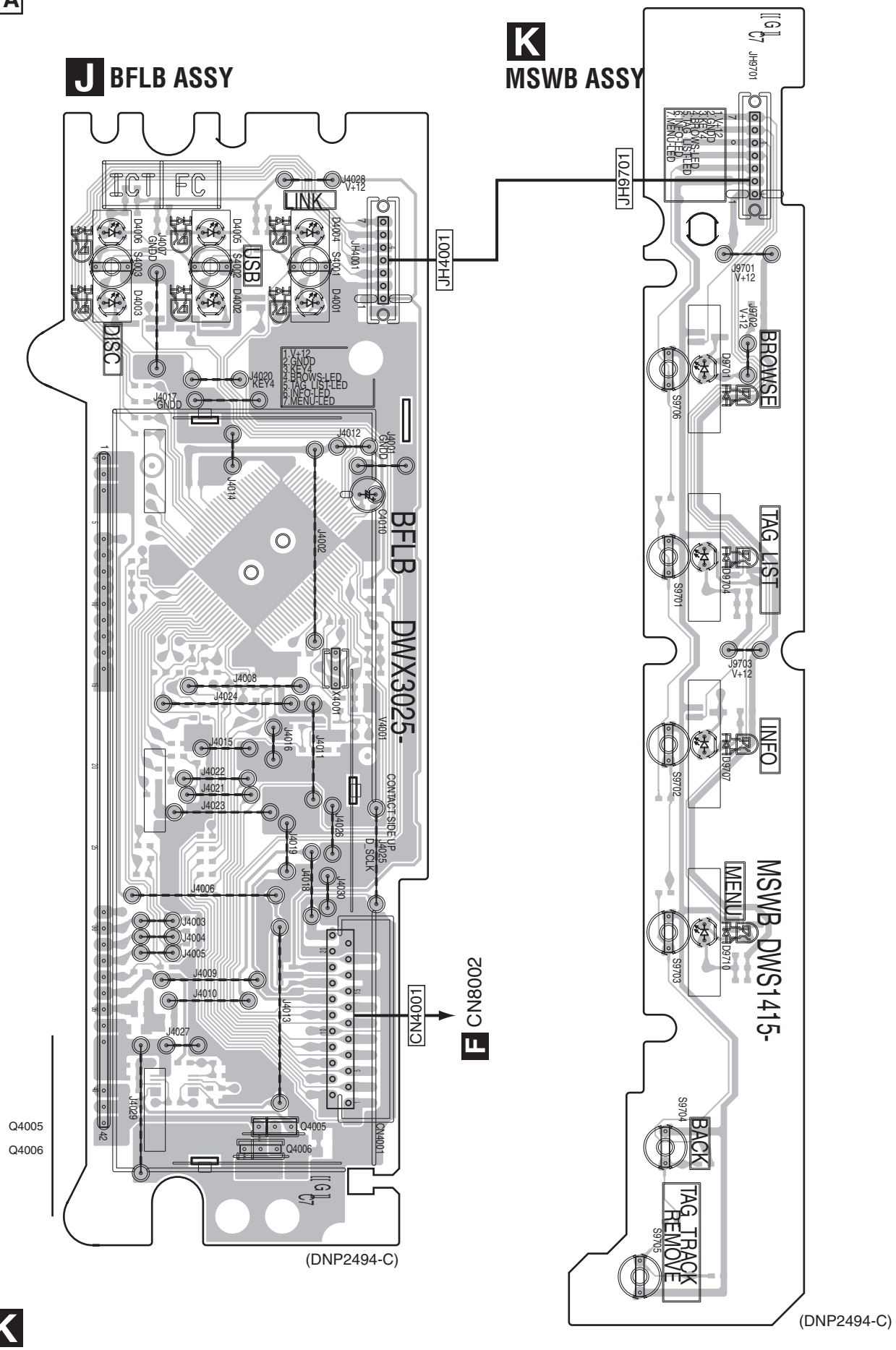
(DNP2493-C)

CN8701

Q8704 Q8701

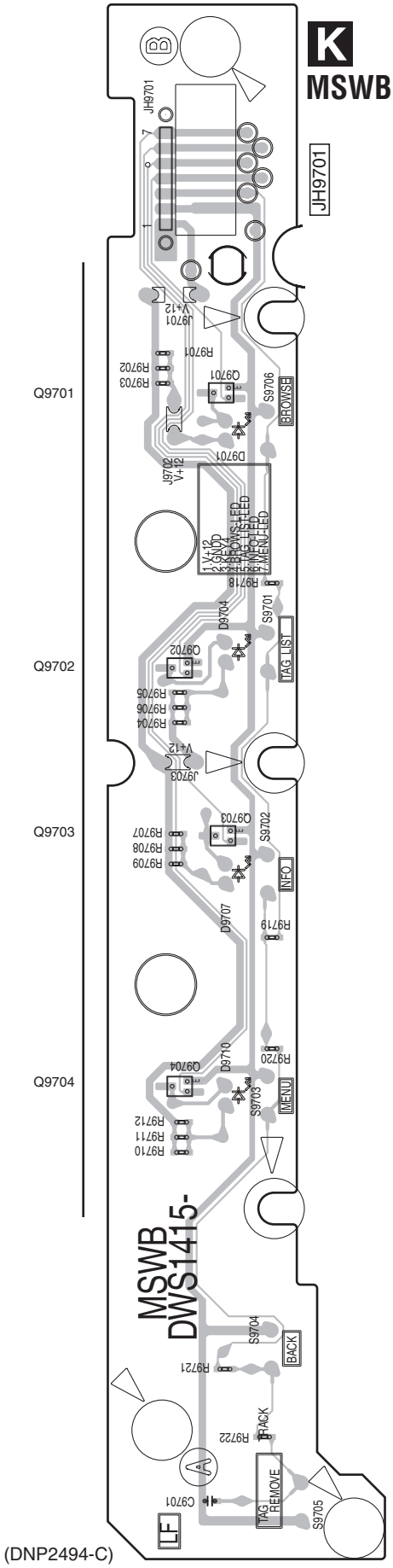
11.6 BFLB and MSWB ASSYS

SIDE A

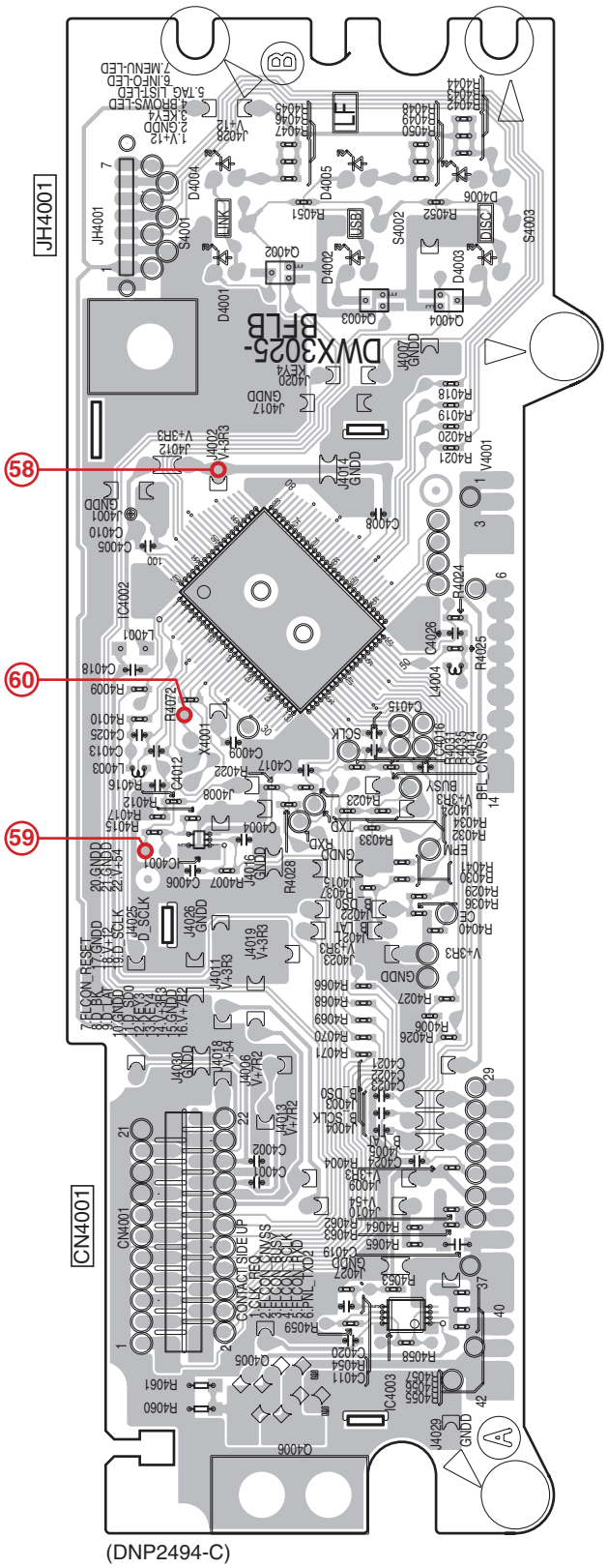


NOTE: The encircled numbers denote measuring point.

K MSWB ASSY

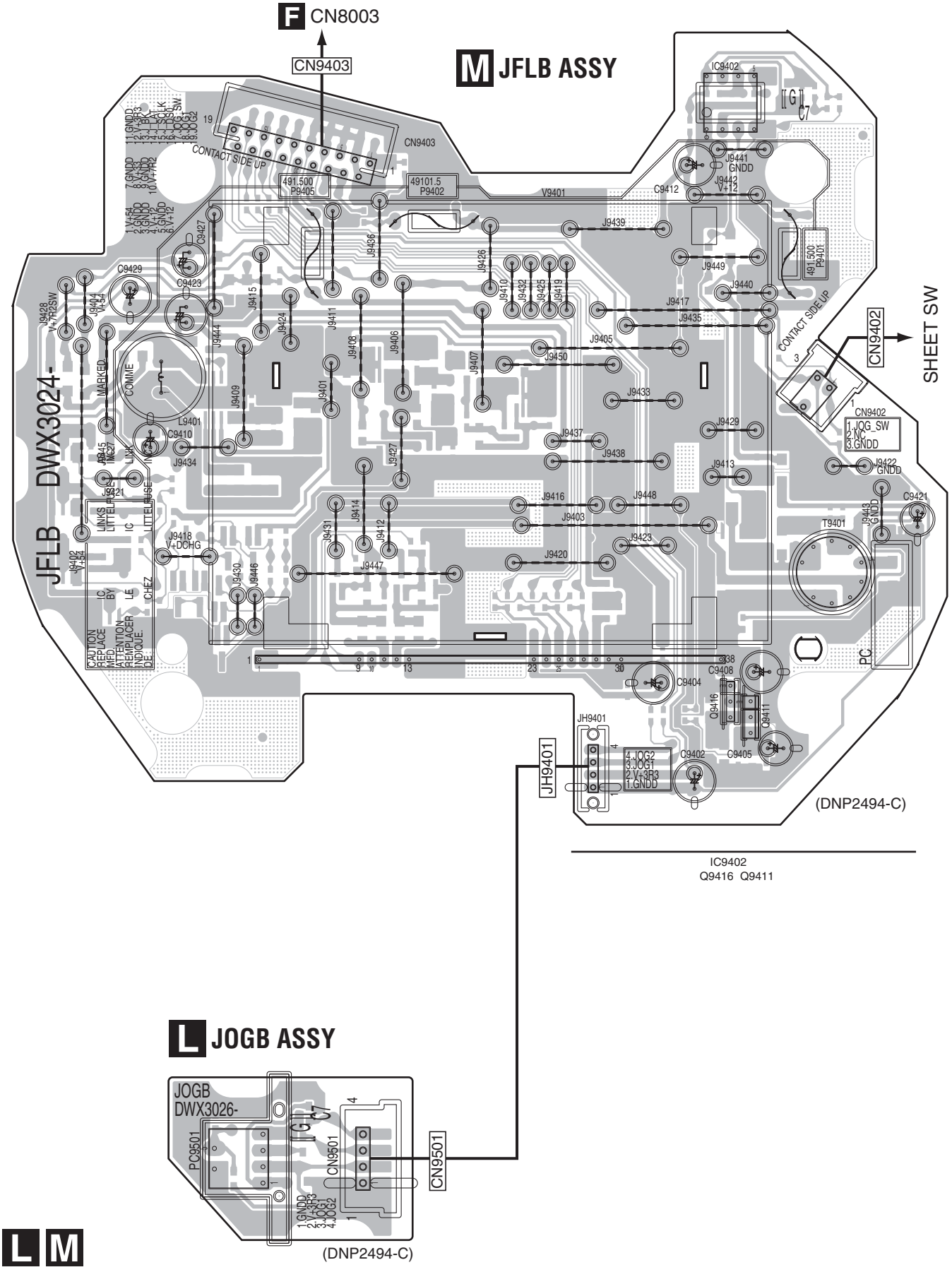


J BFLB ASSY



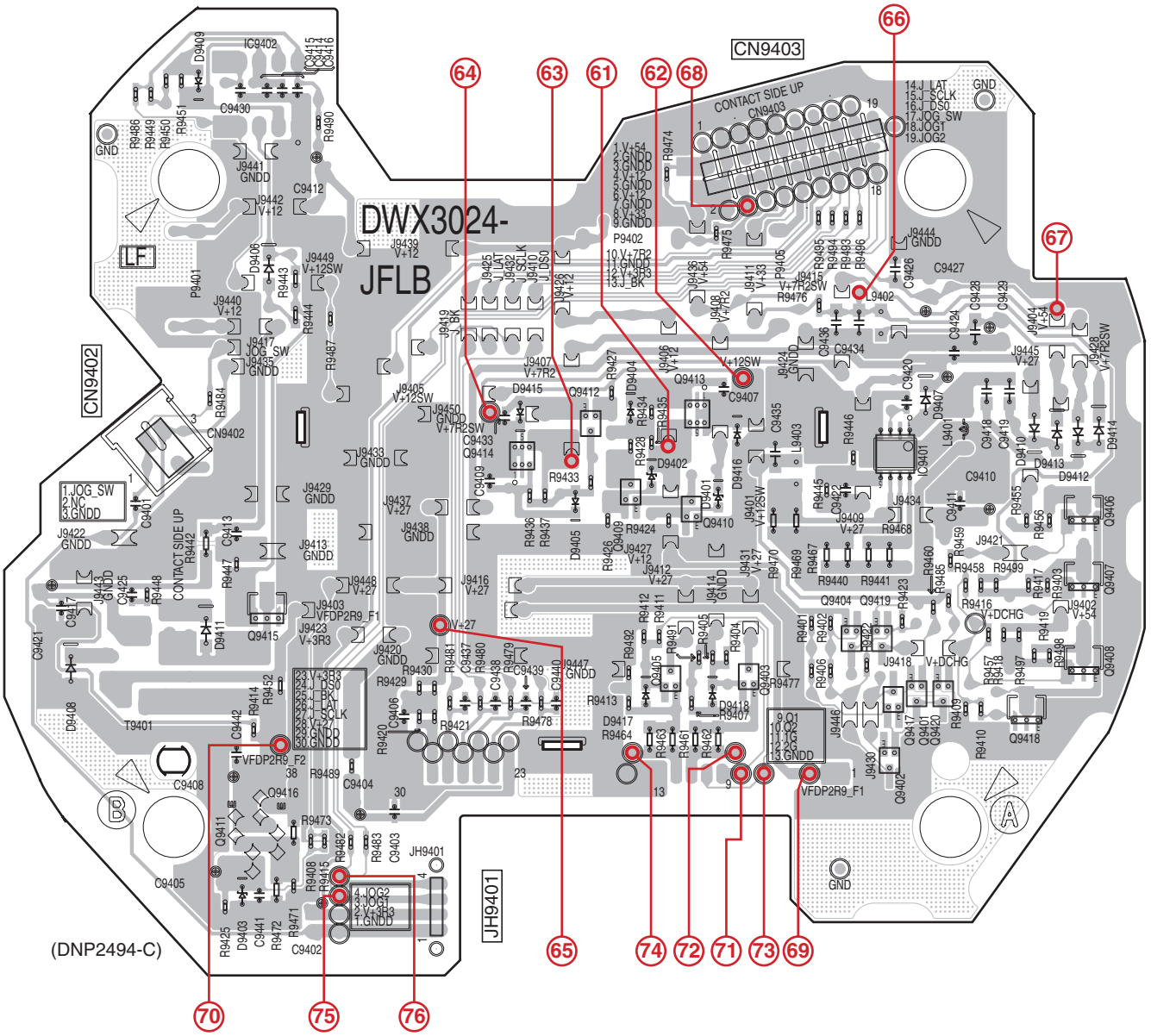
11.7 JOGB and JFLB ASSYS

SIDE A



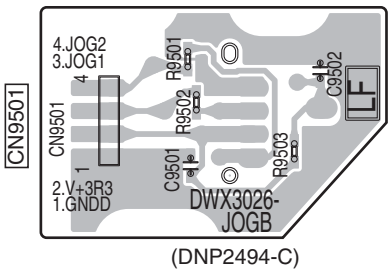
M JFLB ASSY

NOTE: The encircled numbers denote measuring point.



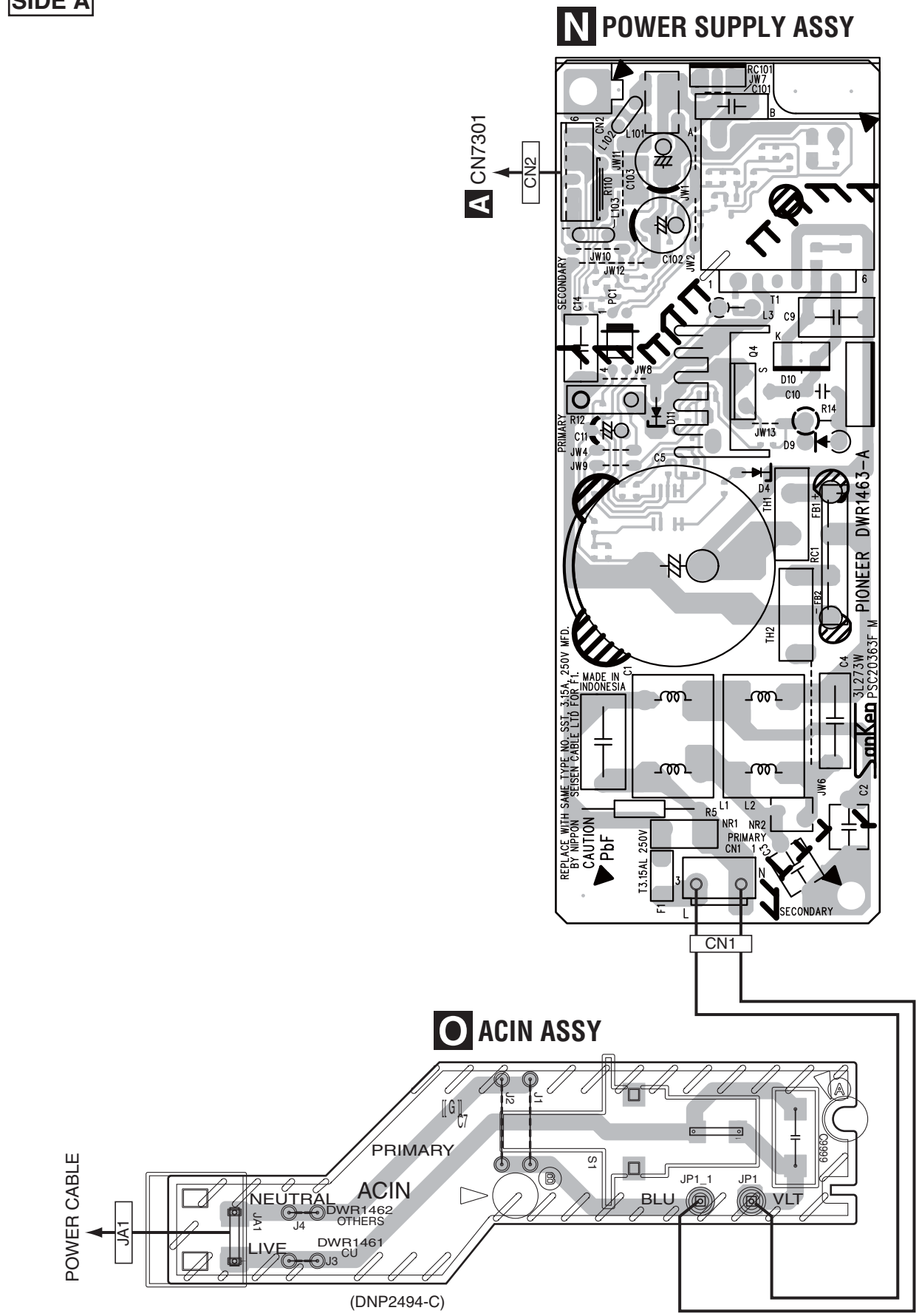
Q9414 Q9412 Q9413 IC9401 Q9406
Q9409 Q9410 Q9404 Q9419 Q9420 Q9407
Q9415 Q9405 Q9403 Q9417 Q9401 Q9418 Q9408
Q9402

L JOGB ASSY

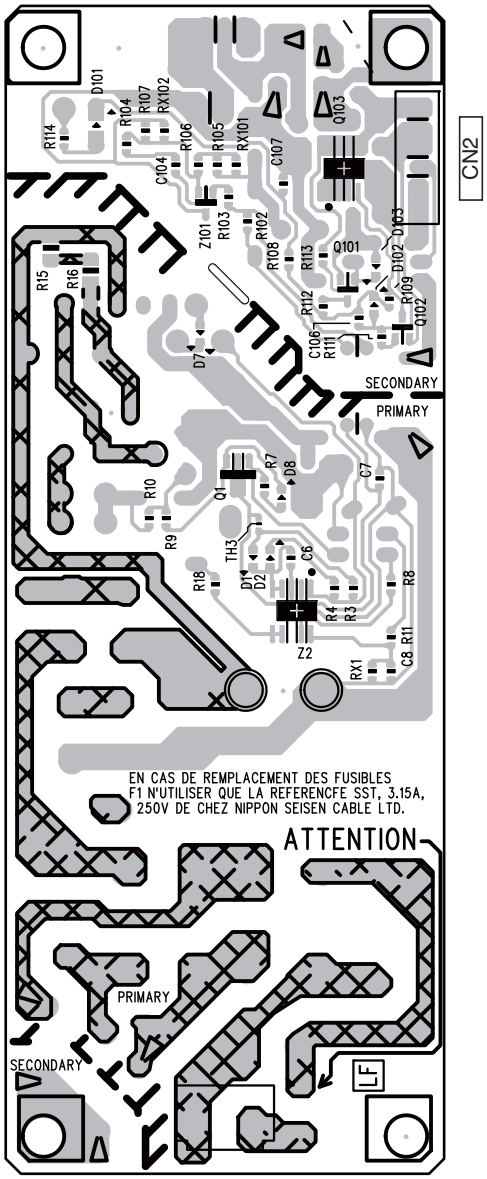


11.8 POWER SUPPLY and ACIN ASSYS

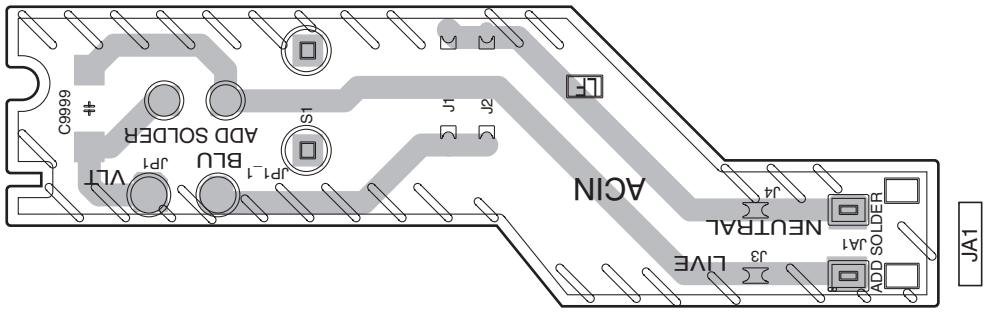
SIDE A



N POWER SUPPLY ASSY



O ACIN ASSY



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 × 10¹*	→	*561* ····· *RD1/4PU [5][6][1] J*
47 kΩ	→	*47 × 10³*	→	*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 × 10¹*	→	*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

Mark	No.	Description	Part No.
		LIST OF ASSEMBLIES	
NSP	1	..DFLA ASSY	DWM2361
	2	..KSWB ASSY	DWS1416
	2	..SLDB ASSY	DWS1417
	2	..SLMB ASSY	DWS1418
	2	..DFLB ASSY	DWX3021
	2	..ENCB ASSY	DWX3022
	2	..JACB ASSY	DWX3023
NSP	1	..JFLA ASSY (CUXJ)	DWM2362
NSP	1	..JFLA ASSY (SYXJ8, FLXJ, KXJ5, AXJ5)	DWM2356
	2	..ACIN ASSY (CUXJ)	DWR1461
	2	..ACIN ASSY (SYXJ8, FLXJ, KXJ5, AXJ5)	DWR1462
	2	..MSWB ASSY	DWS1415
	2	..JFLB ASSY	DWX3024
	2	..BFLB ASSY	DWX3025
	2	..JOGB ASSY	DWX3026
	1	..MAIN ASSY	DWX3019
	1	..SRV ASSY	DWX3020
	1	..USBA ASSY	DWX3044
⚠	1	..POWER SUPPLY ASSY	DWR1463

Mark	No.	Description	Part No.
		A SRV ASSY	
		SEMICONDUCTORS	
	IC	7002	BD7956FS
⚠	IC	7003	BA00DD0WHFP
	IC	7004	AN22022A
⚠	IC	7005	MM1478DFBE
	IC	7006	DYW1776
⚠	IC	7007	PQ1LAX95MSPQ
	IC	7008	MN103S71F
⚠	IC	7301-7303	SI-8005Q
	Q	7002	2SA1036K(PQR)
	Q	7003	HN1B04FU
	Q	7005,7006	RT1N144M
	D	7301,7302	EP05Q06
	D	7306-7308	CMS03
	D	7311	RB060L-40
		MISCELLANEOUS	
	L	7005-7007,7310-7325 INDUCTOR	CTF1378
	L	7008,7009 INDUCTOR	CTF1745
	L	7301-7303 INDUCTOR	CTH1253
	L	7304,7305,7307-7309 INDUCTOR	CTF1579
	KN	7002 EARTH METAL FITTING	VNF1109
	X	7001 CERAMIC RESONATOR	DSS1157
	CN	7001 24P FFC CONNECTOR	DKN1445
	CN	7002 4P CONNECTOR	DKN1288
	CN	7003 CONNECTOR	DKN1312
	CN	7004 CONNECTOR	AKM1291
	CN	7005 40P CONNECTOR	VKN1818
	CN	7301 XH CONNECTOR (6P)	DKN1599
	CN	7302 CONNECTOR	AKM1299
⚠	P	7302 PROTECTOR (0.375 A)	DEK1119
⚠	P	7307,7310 PROTECTOR (1.250 A)	DEK1123
		RESISTORS	
	R	7004	RS1/4SA120J
	R	7007,7012,7013,7016	RS1/4SA1R0J
	R	7027,7028	RS1/4SA3R3J
	R	7030,7041,7046,7080	RS1/10SR1002F
	R	7039	RS1/10SR3301F
	R	7048,7049	RS1/10SR3302F
	R	7079	RS1/10SR2700F
	R	7118	RS1/10SR1502F
	R	7126	RS1/10SR1801F
	R	7306-7308	RST1/2SP120J
	R	7310	RS1/10SR6802D
	R	7311	RS1/10SR3301D
	R	7312	RS1/10SR5101D
	R	7313	RS1/10SR3902D
	R	7314	RS1/10SR5601D
	R	7315,7318	RS1/10SR4701D
	R	7316	RS1/10SR2402D
	R	7317	RS1/10SR2701D
	R	7321	RS1/10SR1002D
	Other Resistors		RS1/10SR###J
		CAPACITORS	
	C	7001-7007,7030,7078	CKSRYB103K50
	C	7008,7019,7024-7026	CKSRYB104K16

Mark	No.	Description	Part No.
	C	7015	CKSRYB474K10
	C	7018,7041,7071	CEHVW470M6R3
	C	7022,7361-7376	CCSRCH470J50
	C	7023	DCH1275
	C	7027,7060,7079,7085	CKSRYB105K10
	C	7028,7034,7066,7348	CEHVW470M16
	C	7029	DCH1200
	C	7031,7035-7038,7043	CKSRYB104K16
	C	7032	CEHVAW470M16
	C	7033,7062	CKSRYB473K50
	C	7039,7042,7310-7312	CCSRCH102J50
	C	7040,7047	CCSRCH221J50
	C	7044,7099,7113	CCSRCH101J50
	C	7046,7052-7059,7065	CKSRYB104K16
	C	7048,7339-7341	CKSRYB224K16
	C	7049	CCSRCH151J50
	C	7051,7089,7097,7098	CKSRYB102K50
	C	7061	CCH1426
	C	7063,7100	CKSRYB273K25
	C	7064	CKSRYB561K50
	C	7067,7068,7072-7077	CKSRYB104K16
	C	7080,7091,7107	CKSRYB103K50
	C	7081,7082,7090,7092	CKSRYB104K16
	C	7083,7084	CKSRYB471K50
	C	7086,7088	CKSRYB182K50
	C	7087,7313,7314,7377	CKSRYB222K50
	C	7093	CKSRYB122K50
	C	7094,7096,7101,7103	CKSRYB104K16
	C	7095,7106	CKSRYB105K10
	C	7102,7105,7315	CKSRYB102K50
	C	7104,7108-7110,7112	CKSRYB104K16
	C	7111	CKSRYB333K16
	C	7301-7303,7335	CKSRYB104K25
	C	7304-7309,7327-7329	CCG1221
	C	7316-7318	CKSRYB103K50
	C	7319,7320	CKSRYB105K16
	C	7324	CCSRCH122J50
	C	7325	CCSRCH152J50
	C	7326	CCSRCH222J50
	C	7342-7344	CCH1565
	C	7347,7351	CKSRYB104K16
	C	7350,7354	CEHVW470M16
	C	7355,7357,7358	ACG1142
	C	7359	CCG1192
	C	7360	CKSQYB106K6R3
	C	7378	CKSRYB222K50

B SLMB ASSY

MISCELLANEOUS

	S	8901,8902 PUSH SWITCH	DSG1017
	CN	8901 PLUG (5P)	KM200NA5

C MAIN ASSY

SEMICONDUCTORS

	IC	101	R5S77641N300BG
	IC	102	BD45302G
	IC	108,109,505	K4S561632J-UC75
NSP	IC	114	DYW1775
	IC	115,124	TC7WHU04FU
	IC	119	TC74LCX32FTS1
	IC	120	TC7SH04FUS1
	IC	122	TC7W08FU
	IC	123	TC74VHC08FTS1
	IC	501	D710E001BZDHA275
	IC	507	TC7WU04FU
	IC	1101	M66291GP
	IC	1102	BD2051AFJ
	IC	1304	RTL8201CP-LF
⚠	IC	3002	SI-8005Q
	IC	3003	WM8728SEDS
	Q	506	2SC2412K
	Q	509,510	2SC4081
	Q	511,512,1312	LTC124EUB
	Q	1301	UM6K1N
	Q	1302,1308	2SB1698
	Q	1303	2SD2662
	Q	1304,1309	IMX2
	Q	1305	IMT2A
	Q	1306,1307,1313,1314	DTC143EUA
	Q	1310	2SD2114K
	Q	1311,1315,3002	LTA124EUB
	Q	1316,1317	DTC143EUA
	Q	3001	RTQ040P02
	D	3001	UDZS5R6(B)
	D	3006	RB060L-40
	D	3007,3008	UDZS10(B)
	D	3009,3014	UDZS6R2(B)
	D	3010,3012,3013,3017	1SS352
	D	3016	UDZS5R1(B)

MISCELLANEOUS

	L	101,102 INDUCTOR	CTF1745
	L	500,501 CHIP SOLID INDUCTOR	XTL3010
	L	1103 INDUCTOR	CTF1579
	L	3002 POWER INDUCTOR	DTH1205
	L	3003,3004 INDUCTOR	CTF1545
	F	101,108,1101,1103 EMI FILTER	CCG1160
	F	1102 FILTER	CTF1701
	F	1302,1303 EMI FILTER	DTL1106
	F	1305 EMI FILTER	CCG1160
	JA	1101 USB CONNECTOR B	DKN1574
	JA	1301 RJ45 MODULAR JACK	DKN1576
	X	104 RESONATOR	CSS1753
	X	105 CRYSTAL (26.965 MHz)	DSS1185
	X	503 RESONATOR	CSS1620
	X	1302 CRYSTAL (25 MHz)	VSS1215
	CN	501 CONNECTOR	VKN1938
	CN	1303 CONNECTOR	CKS5075
	CN	1305 CONNECTOR	AKM1276
	CN	2001 26P CONNECTOR	VKN1430
	CN	3001 CONNECTOR	AKM1284
NSP		0 ID LABEL ASSY	AXW7015
⚠	P	2 PROTECTOR (0.500 A)	DEK1120
⚠	P	3 PROTECTOR (1.250 A)	DEK1123

RESISTORS

	R	108	RS1/16SS5101F

Mark	No.	Description	Part No.
	R	325,3105,3109	RS1/10SR0R0J
	R	739-742	RAB4CQ101J
	R	1350-1353	RS1/16SS49R9F
	R	1376	RS1/16SS1101F
	R	1378	RS1/16SS1001F
	R	1392	RAB4CQ220J
	R	3006	RST1/2SP1R0J
	R	3009,3024	RS1/10SR223J
	R	3012	RST1/2SP120J
	R	3015	RS1/16SS6801D
	R	3016	RS1/16SS4300D
	R	3017	RS1/16SS4701D
	R	3028,3029	RS1/4SA270J
	R	3035,3037	RS1/8SQ272J
	R	3036,3038-3040	RS1/8SQ222J
	R	3064	RS1/8SQ101J
	R	3115	RS1/10SR471J
	R	3124	RS1/8SQ560J
	Other Resistors		RS1/16SS###J

CAPACITORS

	C	101-108,110-112	CKSSYB104K10
	C	109,137,148,204	CCG1171
	C	114,116,117,119	CKSSYB104K10
	C	118,120,122,124	CKSSYB102K50
	C	121,123,125	CKSSYB104K10
	C	126,217,220,223	CKSSYB102K50
	C	128-136,138-147	CKSSYB104K10
	C	156,157,159,160	CKSSYB104K10
	C	162-165,167,169	CKSSYB104K10
	C	171-181,183-200	CKSSYB104K10
	C	202,203,214-216	CKSSYB104K10
	C	211,233,234,246	CCG1171
	C	218,219,221,222	CKSSYB104K10
	C	224,225,242-245	CKSSYB104K10
	C	226,1345,1356,1359	CKSSYB102K50
	C	228,229	CCSSCH5R0C50
	C	230,231,617,618	CCSSCH7R0D50
	C	232,235,595,1111	CEHVAW221M6R3
	C	247,577,578,597	CCG1171
	C	248,501-520,524	CKSSYB104K10
	C	528-547,556,576	CKSSYB104K10
	C	571	CEHVAW470M6R3
	C	580,584-589,619	CKSSYB104K10
	C	596,1120,1124,1125	CEHVAW101M6R3
	C	1101,1107,1112,1115	CKSSYB104K10
	C	1102,1106,1113,1116	CKSSYB103K16
	C	1105,1108,1127,1385	CCG1171
	C	1118,3101	DCH1201
	C	1119,1126,1319,1322	CKSSYB104K10
	C	1122,1123	CKSSYB103K16
	C	1128,1129,1358	CKSRYB105K10
	C	1323,1325,1329,1364	CKSSYB104K10
	C	1328	CEHVAW330M10
	C	1342,1363	CEHVAW221M6R3
	C	1362,3115-3118	CKSSYB102K50
	C	1365,1379	CCSSCH120J50
	C	1387	CEHVAW101M6R3
	C	3002,3005-3008,3038	CKSRYB104K16
	C	3003,3111-3113	ACG1142
	C	3011,3044	ACH1495
	C	3017,3032	CCSRCH102J50
	C	3020	CKSRYB331K50
	C	3023	CKSRYB103K50
	C	3026	CKSRYB224K10
	C	3035,3041,3123-3125	CCG1171
	C	3087,3090	CKSRYB104K16
	C	3093,3100	CEHVAW101M16
	C	3094,3095	CKSQYB475K16
	C	3096-3099	CKSQYB105K16
	C	3102,3104,3108-3110	CEHVAW470M16
	C	3103,3105-3107	CKSSYB104K16
	C	3114	CKSSYB104K10
	C	3120,3130	CCSSCH220J50
	C	3122	CCSSCH471J50
	C	3131,3134,3135	CCSSCH470J50

D USBA ASSY

MISCELLANEOUS

	JA	9901	USB CONNECTOR A
	KN	9901,9902	WRAPPING TERMINAL
	CN	9901	L-PLUG (5P)
	VA	9903	VARISTORS

CAPACITORS

	C	9901	CEHAR101M6R3
	C	9902	CKSRYB105K10

E JACB ASSY

SEMICONDUCTORS

	IC	8801-8803	NJM4580MD
	Q	8801-8804	2SD2114K
	Q	8805,8809	2SK3320
	Q	8807,8810	HN1C01FU
	Q	8821,8822	2SC2412K
	D	8803,8804	1SS352
	D	8805,8808	NNCD6.2MF

MISCELLANEOUS

	JA	8801	PIN JACK (2P)
	JA	8802	JACK
	JA	8803	1P JACK
	CN	8801	PLUG (12P)
	VA	8800	VARISTORS

RESISTORS

	R	8808,8809	DCN1191
	R	8810,8811,8820-8823	DCN1186
	R	8813,8815	DCN1192
	R	8826,8828,8846,8847	DCN1189
	R	8832,8849	DCN1190
	R	8834,8835,8851,8852	DCN1187
	R	8836,8838,8853,8854	DCN1188
	R	8839-8844,8855,8856	DCN1186
	R	8867,8876-8879,8881	RS1/8SQ0R0J
	R	8888	RS1/8SQ0R0J
	Other Resistors		RS1/10SR###J

CAPACITORS

	C	8805,8806	CCH1357

Mark	No.	Description	Part No.
	C	8807,8809,8852,8854	CKSRYB103K50
	C	8808,8845-8849,8851	CKSRYB104K50
	C	8810,8811	CFHBSQ471J50
	C	8814,8827	CKSRYB223K50
	C	8816,8817,8828,8829	DCG1056
	C	8821-8824,8832-8835	DCG1062
	C	8840,8842	DCH1282
	C	8841,8843,8844,8850	DCH1320
	C	8856	CKSRYB104K50

F DFLB ASSY

SEMICONDUCTORS

	IC	8001	TC7SH04FUS1
	IC	8002	TC7WH32FU
	IC	8003	TC7WH08FU
	IC	8004	NJM14558V
	IC	8005	M3030RFCPFP
	IC	8007	BD45302G
	IC	8008	TC7SH02FUS1
⚠	IC	8010	NJM2392M
	Q	8001	2SB1237X
	Q	8002-8005,8007	LTC124EUB
	Q	8006	LTA124EUB
	Q	8008	2SD1858X
	D	8002-8006	SLI-343Y8C(KLMN)
	D	8007	SLI-343U8RC(HJKL)
	D	8008	EP05Q06

MISCELLANEOUS

	L	8001 RADIAL LEAD INDUCTOR	DTH1206
	L	8002,8003 INDUCTOR	CTF1579
	L	8005,8006 INDUCTOR	CTF1378
	V	8001 VFD	DEL1065
	S	8001,8005-8009 SWITCH	VSG1024
	S	8002-8004 TACT SWITCH	DSG1079
	X	8001 CRYSTAL RESONATOR	DSS1166
	CN	8001 CONNECTOR	9607S-20F
	CN	8002 CONNECTOR	XKP3022
	CN	8003 CONNECTOR 19P	52492-1920
	CN	8004 26P CONNECTOR	VKN1257
	CN	8005 L-PLUG (4P)	KM200NA4L
	CN	8006 CONNECTOR 13P	52492-1320
	0	FL HOLDER D	DNH2883

RESISTORS

	R	8004,8005	RS1/10SR4702D
	R	8006	RS1/10SR4701D
	R	8007,8099	RS1/10SR1802D
	R	8091	RS1/4SA2R7J
	R	8092	RS1/10SR3301D
	R	8093	RS1/10SR3302D
	R	8094	RS1/10SR2202D
	R	8102,8103	RS1/4SA120J
	Other Resistors		RS1/10SR###J

CAPACITORS

	C	8001-8003,8006,8023	CKSRYB104K16
	C	8004,8007-8012,8015	CCSRCH102J50
	C	8013	CKSRYB474K10
	C	8016,8044-8051,8059	CCSRCH102J50
	C	8020,8022	CCSRCH100D50
	C	8024,8026,8028	CKSRYB104K16
	C	8025	CKSRYB103K50
	C	8027,8029,8034	CEHAS470M16
	C	8030-8032,8043,8055	CKSRYB104K16
	C	8033	CCSRCH560J50
	C	8035	CKSYB106K16
	C	8036,8054	CEHAS101M10
	C	8038,8039	BCG1054
	C	8041,8062,8063,8067	CCSRCH220J50
	C	8042	CCSRCH221J50
	C	8052	ACG7050
	C	8053	CKSQYB106K6R3
	C	8064	CCSRCH102J50
	C	8068	CCSRCH470J50
	C	8070	CCSRCH220J50

G ENCB ASSY

MISCELLANEOUS

	S	8501 ENCODER SW	DSX1080
	CN	8501 L-PLUG (4P)	KM200NA4L

CAPACITORS

	C	8501,8502	CKSRYB103K50

H KSWB ASSY

SEMICONDUCTORS

	Q	9201	DTC143EUA
	Q	9202-9205,9209-9211	LTC124EUB
	Q	9206-9208	2SA1162
	D	9201,9208,9210	SLI-343U8RC(HJKL)
	D	9202-9205,9207	SLI-343Y8C(KLMN)
	D	9206,9209	SLI-343M8C(FGHJ)
	D	9211-9213	SLI-343Y8C(KLMN)

MISCELLANEOUS

	S	9201,9210-9213 SWITCH	VSG1024
	S	9202-9207 TACT SWITCH	DSG1079
	S	9208,9209 TACT SWITCH	DSG1117
	CN	9201 CONNECTOR 20P	52492-2020

RESISTORS

	All Resistors		RS1/10SR###J

CAPACITORS

	C	9211-9213	CKSRYB104K16

I SLDB ASSY

SEMICONDUCTORS

	Q	8701,8703,8704	LTC124EUB
	D	8701-8704	1SS352
	D	8705	SLR343BC4T(JKLM)
	D	8706,8707	SLI-343U8RC(HJKL)
	D	8708	SLI-343M8C(FGHJ)

MISCELLANEOUS

	VR	8701 VR	DCV1009
	VR	8702 POTENTIOMETER	DCS1062

Mark	No.	Description	Part No.
	S	8701,8702,8704,8705 SWITCH	VSG1024
	CN	8701 CONNECTOR 13P	52492-1320
		RESISTORS	
		All Resistors	RS1/10SR###J
		CAPACITORS	
	C	8702,8703	CKSRYB102K50
	C	8704	CKSRYB103K50

J BFLB ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	IC	4001	TC7SH08FUS1
	IC	4002	R5F363AENFA-U0
	IC	4003	NJM14558V
	Q	4002-4004	LTC124EUB
	Q	4005	2SB1237X
	Q	4006	2SD1858X
	D	4001,4004	SLR343BC4T(JKLM)
	D	4002,4003,4005,4006	SLI-343M8C(FGHJ)
		MISCELLANEOUS	
	L	4001 INDUCTOR	CTF1579
	L	4003,4004 INDUCTOR	CTF1378
	V	4001 VFD	DEL1066
	S	4001-4003 SWITCH	VSG1024
	X	4001 CERAMIC RESONATOR	DSS1183
	CN	4001 CONNECTOR	XKP3022
		0 FL HOLDER B	DNH2921
	JH	4001 7P CABLE HOLDER	51048-0700
		RESISTORS	
	R	4053,4054	RS1/10SR4702D
	R	4055	RS1/10SR4701D
	R	4056,4057	RS1/10SR1802D
	R	4060,4061	RS1/4SA100J
		Other Resistors	RS1/10SR###J
		CAPACITORS	
	C	4001,4002,4005,4006	CKSRYB104K16
	C	4008,4009,4020	CKSRYB104K16
	C	4010	CEHAS470M6R3
	C	4011	CCSRCH102J50
	C	4012,4013	CCSRCH470J50
	C	4014-4017,4021-4026	CCSRCH220J50
	C	4018	CKSQYB106K6R3
	C	4019	CKSYB104K2A

K MSWB ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
	Q	9701-9704	LTC124EUB
	D	9701,9704,9707,9710	SLI-343M8C(FGHJ)
		MISCELLANEOUS	
	S	9701-9706 SWITCH	VSG1024
		RESISTORS	
		All Resistors	RS1/10SR###J
		MISCELLANEOUS	
	JH	9701 7P CABLE HOLDER	51048-0700

L JOGB ASSY

Mark	No.	Description	Part No.
		MISCELLANEOUS	
	CN	9501 4PJUMPER CONNECTOR	52151-0410
		RESISTORS	
		All Resistors	RS1/10SR###J
		MISCELLANEOUS	
	PC	9501 PHOTO INTERRUPTER	SEDS-7573
		CAPACITORS	
	C	9501,9502	CKSRYB103K50

M JFLB ASSY

Mark	No.	Description	Part No.
		SEMICONDUCTORS	
⚠	IC	9401	NJM2392M
⚠	IC	9402	TLC555IP
	Q	9401,9402,9409,9410	DTC143EUA
	Q	9403,9405	2SC4081
	Q	9404,9419	2SA1576A
	Q	9406-9408	2SD1767
	Q	9411	2SB1237X
	Q	9412,9417,9420	DTC143EUA
	Q	9413,9414	RTQ040P02
	Q	9415	RHP020N06
	Q	9416	2SD1858X
	Q	9418	2SD2662
	D	9401	UDZS4R3(B)
	D	9402,9403	UDZS6R8(B)
	D	9404,9405,9409,9417	1SS352
	D	9406-9408,9410-9414	RB160M-60
	D	9418	1SS352
		MISCELLANEOUS	
	L	9401 POWER INDUCTOR	DTL1198
	L	9402,9403 INDUCTOR	CTF1579
	V	9401 FL INDICATOR TUBE	DEL1058
	T	9401 POWER TRANSFORMER	DTT1232
	CN	9402 CONNECTOR	CKS1072
	CN	9403 CONNECTOR	XKP3019
		0 FL HOLDER	DNF1735
	JH	9401 4P CABLE HOLDER	51048-0400
	P	9401,9405 PROTECTOR (500 mA)	AEK7060
	P	9402 PROTECTOR (1.5 A)	AEK7065
		RESISTORS	
	R	9416-9419	DCN1184
	R	9440,9441,9467,9468	RS1/4SA271J
	R	9442	RST1/2SP1R0J
	R	9443	RS1/8SQ102J
	R	9444	RS1/8SQ101J
	R	9445	RS1/10SR3302F
	R	9446	RS1/10SR1601F
	R	9449	RN1/16SE2201D
	R	9450	RN1/16SE1502D
	R	9451	RN1/16SE6802D
	R	9452	RS1/8SQ223J

Mark	No.	Description	Part No.
	R 9455,9456		DCN1183
	R 9461-9464		RS1/4SA470J
	R 9469,9470		RS1/4SAR43J
	R 9472,9473		RS1/4SA390J
	Other Resistors		RS1/10SR###J

CAPACITORS

C 9401		CKSRYB223K16
C 9402,9404		CEHAR101M10
C 9403,9406,9409,9411		CKSRYB104K50
C 9407		CKSRYB473K50
C 9410		CEHAR220M16
C 9413,9416,9424,9425		CKSRYB104K50
C 9414,9420,9438-9440		CCSRCH101J50
C 9417		CKSRYB105K16
C 9418,9419,9428		CCG1255
C 9421		CEAT101M16
C 9422		CKSRYB221K50
C 9423		CEHAT101M35
C 9426		ACG7065
C 9427		CEHAT100M63
C 9429		CEHAR100M50
C 9430,9433,9441		CKSRYB104K50
C 9434,9436		ACG1147
C 9435		CKSYB106K16
C 9437		CCSRCH470J50
C 9442		CKSQYB475K16

N POWER SUPPLY ASSY

There is no service parts.

O ACIN ASSY (DWR1461)

MISCELLANEOUS

⚠	JA 1	AC INLET 1P	XKP3085
⚠	S 1	SWITCH	DSA1035
⚠	JP 1	CONNECTOR ASSY 2P	DKP3822

CAPACITORS

⚠	C 9999		ACG7033

O ACIN ASSY (DWR1462)

MISCELLANEOUS

⚠	JA 1	AC INLET 1P	XKP3084
⚠	S 1	SWITCH	DSA1035
⚠	JP 1	CONNECTOR ASSY 2P	DKP3822

CAPACITORS

⚠	C 9999		ACG7033