AlphaTheta

Service Manual

DDJ-FLX4

ORDER NO.
RRV4731

DJ Controller

DDJ-FLX4

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

Model	Type	Power Requirement	Remarks
DDJ-FLX4	SXJ	DC 9V (USB power adapter), DC 5 V (USB bus power)	
	SXEG	DC 9V (USB power adapter), DC 5 V (USB bus power)	
	XJCN	DC 9V (USB power adapter), DC 5 V (USB bus power)	
	XEGCN	DC 9V (USB power adapter), DC 5 V (USB bus power)	

THIS SERVICE MANUAL SHOULD BE USED TOGETHER WITH THE FOLLOWING MANUAL(S).

Model	Order No.	Remarks
DDJ-FLX4	RRV4732	SCHEMATIC DIAGRAM, PCB CONNECTION DIAGRAM, PCB PARTS LIST

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K-ZZZ SEPT. 2022

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 safety 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 safety, you should not risk trying to do so and refer the repair to a qualified service technician.

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

1.2 NOTES ON REPLACING

The part listed below is difficult to replace as a discrete component part.
When the part listed in the table is defective, replace whole Assy.

Assy Name	Parts that is Difficult to Replace			
	Ref No.	Part No.	Function	Remarks
MAIN Assy	IC2902	MIMXRT1062DVJ6B@V	MAIN UCOM	BGA package
	IC3602	MFI343S00176@V	MFi AUTHENTICATION IC	MFi certified chip
	IC3606	DPO2036DBB@V	CC PROTECTION IC	IC with heat-pad
	IC3609	FAN23SV06PAMPX@V	DC/DC CONVERTER	IC with heat-pad
	U3601	DWX4414	Bluetooth MODULE	LGA package
	JA3201, JA3202	DKN1694	USB C JACK	Through hole reflow terminal

■ About the service parts of the DECK1 Assy and the PNL2 Assy

The service parts of the DECK1 Assy and the PNL2 Assy are supplied with multiple boards connected by jumper leads.
The DECK1 Assy consists of DECK1 and BRWS boards connected by jumper leads. The PNL2 Assy consists of PNL2 and TEMPS1 boards connected by jumper leads.
These four boards are not supplied by itself as the service parts. The slide volume, the rotary VR, the rotary encoder and the tact switch on these boards should be replaced by itself as much as possible.

■ Lubrication during reassembly of the Jog dial

When reassembling the Jog dial after replacing the Jog dial or Control panel, be sure to apply grease to the shaft and shaft bearing of the Jog dial. For details on how to lubricate, see "Procedure for applying grease during reassembly of the Jog dial" in "7. DISASSEMBLY."
Be sure to use the specified grease.

■ Parts that require simultaneous replacement

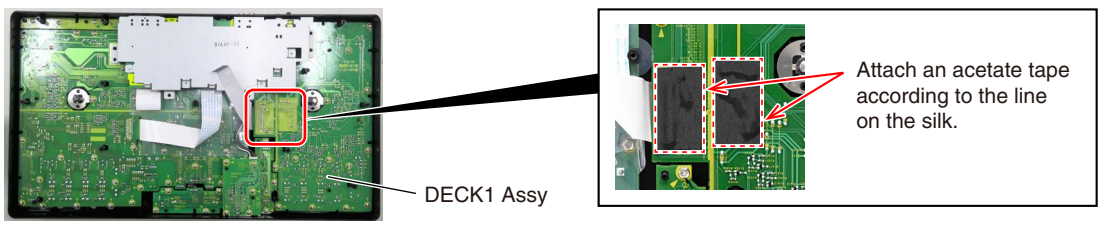
Two photo interrupters are provided for detection of Jog Dial rotations.
When replacement of photo interrupters is required because of abnormalities in detected waveforms, etc., be sure to replace both photo interrupters at the same time.

Corresponding Part No. : ITR9606/F17@V
Parts that require simultaneous replacement : PC1401, PC1402 (DECK1 Assy), PC2401, PC2402 (PNL2 Assy)

After replacement, confirm it is correctly attached according "6.4 PHOTO INTERRUPTER INSTALLATION CHECK."

■ Attaching acetate tape to DECK1 Assy

If the acetate tape is peeled off during PCB replacement or repair, attach a new acetate tape.
(25 mm x 45 mm) x 2

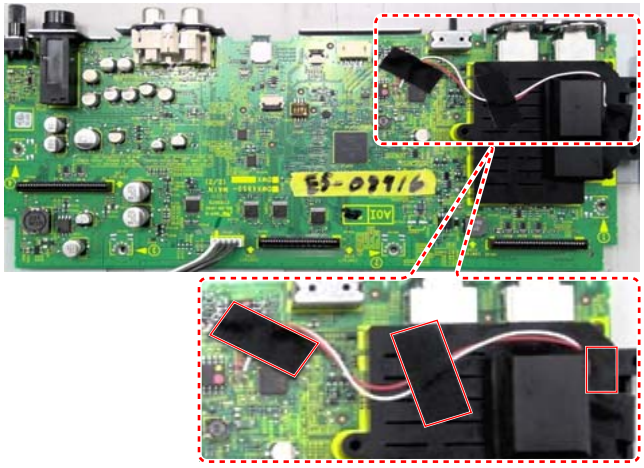


1.3 SERVICE NOTICE

■ About the first lot of MAIN Assy and the service parts

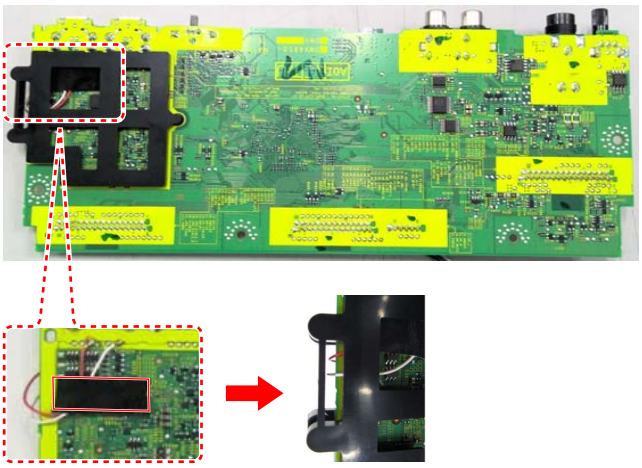
The first lot of MAIN Assy is wired manually in some areas according to production reasons. The number of units to be targeted will be approximately 100,000.
Manual wiring is done on both sides of MAIN Assy. That work is also required when installing the safety covers (both side).
So for a while, the service parts for MAIN Assy will be supplied with DEA1151 [DDJ-FLX4 MAIN PCB SERVICE Assy].
The new parts will be available in 2023. Until then, order DEA1151.
Refer to the following figure for more information on DEA1151 [DDJ-FLX4 MAIN PCB SERVICE Assy].

SIDE A



Acetate tape pasting
(PCB: 1 point, Cover (SIDE A): 2 points)

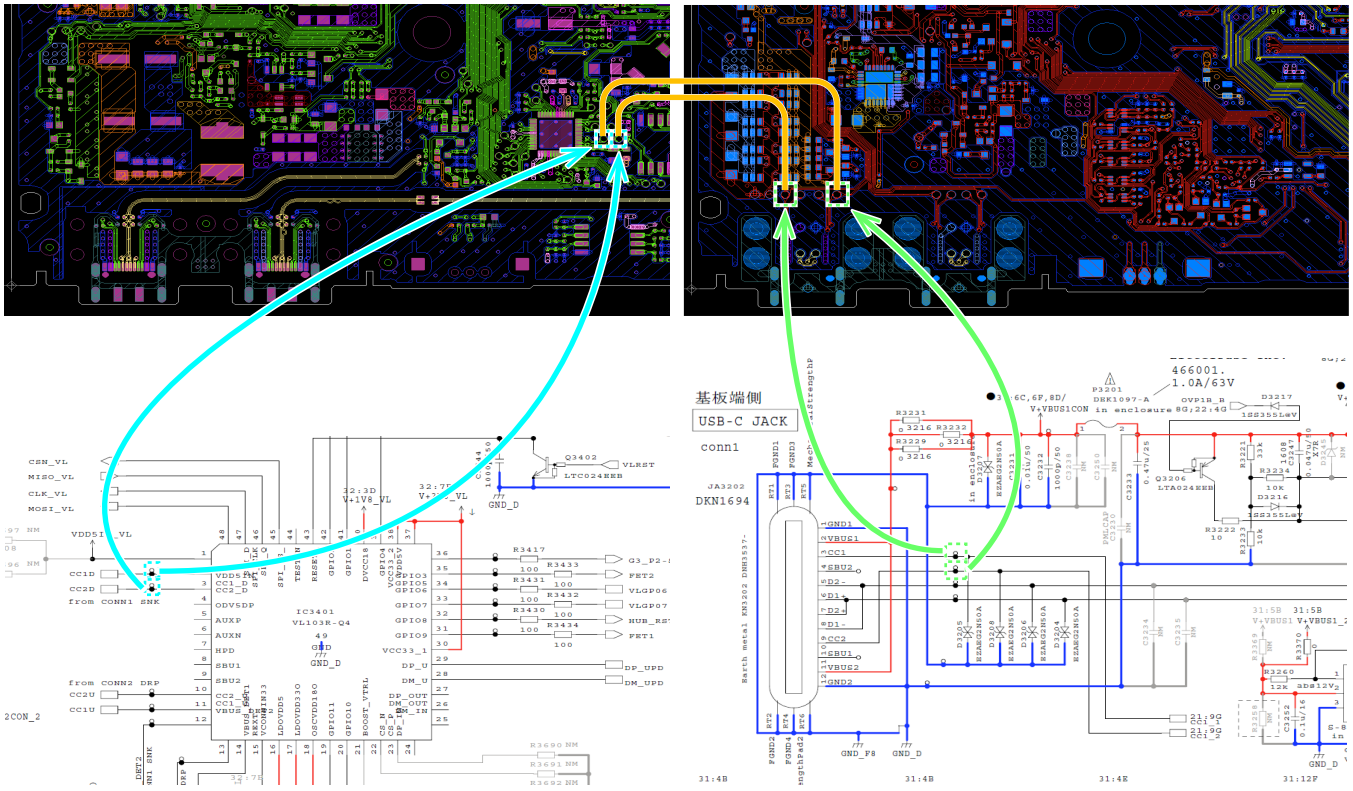
SIDE B



Acetate tape pasting

Attaching the Cover (SIDE B)

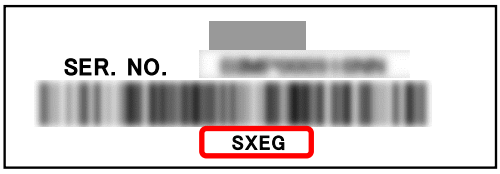
Wire processing point (PCB diagram, Schematic diagram)



■ Distinguish between Malaysian and Chinese products

This product is manufactured in Malaysia and China. The Destination symbol of "SXJ" or "XJCN" is assigned to products produced in Malaysia, and the code of "SXEG" or "XEGCN" is assigned to products produced in China.
The same parts can be used for service parts in the unit. Some parts of the packing part such as individual packing case and Quick Start Guide etc. have differences.
The serial label on the unit can be used to identify the product. Malaysian production is printed as "DDJ-FLX4/SXJ" or "DDJ-FLX4/XJCN", China production is printed as "SXEG" or "XEGCN".

[Serial label attached to product from Malaysia]



[Serial label attached to product from China]

■ Monitoring of power supply and voltage

This unit always monitors for power supply and voltage. After an error is detected, this unit will shut itself off immediately and all indicators are turned off. After the unit shuts itself off because of an error, the defective point may produce heat, which may be dangerous. Therefore, disconnect the USB cable and wait for a while before turning the unit back on.
Repair the unit according to the diagnostic procedures described in "5.4 MONITORING OF POWER SUPPLY AND VOLTAGE".

■ About Crossfader calibration not performed error

If the Crossfader has not been calibrated, the [BEAT SYNC] buttons on the left and right decks will flash as an error message at startup. The calibration value is stored in the FLASH ROM (IC3001) in the MAIN Assy. If you replace the MAIN Assy or FLASH ROM (IC3001), be sure to perform Crossfader calibration in Test mode after replacement.

■ About confirmation of user settings

This product has user setting items. Check the settings before repair.
Use the Check Sheet (on "8.6 USER SETABLE ITEMS"), to which you can transcribe the settings.
The settings are stored in the FLASH ROM (IC3001) in the MAIN Assy.
For checking and changing the settings, see "Changing the settings" in the Instruction Manual.

■ How to modify when the rattling of the product is occurred

- Place the 9 points (■) of the control panel under the block (Height more than 25 mm and Diameter around φ20 mm is recommended), and attach the chassis part according to the screw tightening order manually.
  (The block is available at the home center, etc.)(Refer to "7 DISASSEMBLY" about the screw tightening order.)
- When there is no block, place the whole surface of the control panel to the curing mat, and attach the chassis part according to the screw tightening order manually.
- Take care not to press the screwdriver strongly to the product in any case.
- Do not use the electric screwdriver.

DDJ-FLX4

2. SPECIFICATIONS

General - Main Unit

Rated power supply
- When a USB power adapter is used ..... DC 9 V, 3 A
- When using USB bus power ..... DC 5 V, 500 mA

Main unit weight ..... 2.1 kg (4.9 lbs.)
Max. dimensions (W x D x H) ..... 482 x 272.8 x 59.2 mm (18.98" x 10.74" x 2.33")
Tolerable operating temperature ..... +5 °C to +35 °C (41 °F to +95 °F)
Tolerable operating humidity ..... 5 % to 85 % (no condensation)

Audio Section

Sampling rate ..... 48 kHz
A/D, D/A converter ..... 24 bits
Frequency characteristic
- USB, MIC ..... 20 Hz to 20 kHz

S/N ratio (rated output, A-WEIGHTED)
- USB ..... 103 dB

Total harmonic distortion (20 Hz to 20 kHzBW)
- USB ..... 0.005 %

Input impedance
- MIC ..... 3 kΩ or higher

Output impedance
- MASTER ..... 1 kΩ or less
- Headphones ..... 10 Ω or less

Rated output level / Load impedance
- MASTER ..... 2.1 Vrms/10 kΩ

Input / Output terminals

MIC input terminal
- 1/4" TS jack ..... 1 set

MASTER output terminal
- RCA pin jacks ..... 1 set

Headphones output terminal
- 3.5 mm stereo mini jack ..... 1 set

USB port
- USB Type-C ..... 2 set

Bluetooth® section
- Wireless system ..... Bluetooth Low Energy
  Maximum transmission distance ... Approximately 10 m* in unobstructed circumstances

Frequency band used ..... 2.4 GHz
Modulation method ..... FH-SS (Frequency hopping spread spectrum)

* Transmission distances are a guideline. Transmission distance ..... may change depending on the surrounding environment.

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

■ Accessories

- USB cable
  (DDE1157)

- Quick Start Guide
  (DDJ-FLX4/SXJ: DRH1716)
  (DDJ-FLX4/SXEG: DRH1751)
  (DDJ-FLX4/XJCN: DRH1717)
  (DDJ-FLX4/XEGCN: DRH1752)

- Precautions for use
  (DDJ-FLX4/SXJ: DRH1718)
  (DDJ-FLX4/SXEG: DRH1753)
  (DDJ-FLX4/XJCN: DRH1719)
  (DDJ-FLX4/XEGCN: DRH1754)

- Warranty (for some regions)*

* Only products in North America and Europe.

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

Items to be checked after servicing

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

No.	Procedure	Check points
1	Confirm the firmware version in 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 source, such as PC input, Mic input, Fader, and VOL inputs that specific source for checking.	The customer complain must not be reappeared. Audio and operations must be normal.
3	Check the analog audio input (MASTER, Headphones). Connect to a PC / Mac with the DJ app (rekordbox) installed via USB and play audio.	Audio (noise etc.) must be normal. Refer to "5.8 OPERATION CHECK WITH rekordbox".
4	Check the MIC input audio.	Audio and operations must be normal.
5	Check operations of the operating elements and LEDs in Test mode.	Operation of each button/Jog dial /LED/VOL/fader/switch/rotary encoder must be normal.
6	Check Bluetooth connection with mobile device.	Refer to ""5.7 Bluetooth CONNECTION CHECK".
7	Check of power supply to mobile devices.	Refer to ""5.6 USB C TERMINAL CONNECTION CHECK".
8	Confirm user setting contents.	Being repaired to the contents before repairing.
9	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

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

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

3.2 JIGS LIST

■ Jigs List

Jig Name	Part No.	Purpose of use / Remarks
USB cable (DDE1157)	GGP2001	For PC connection (USB Type-C to C Cable)

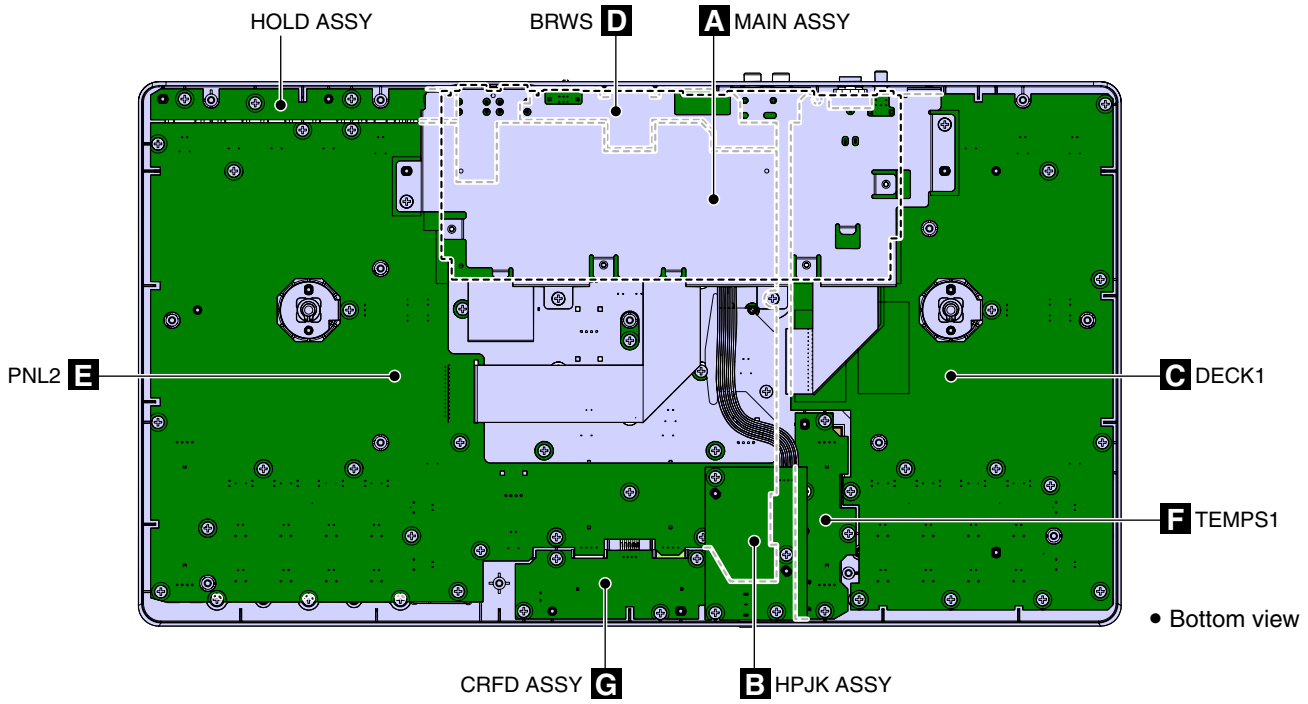
■ Lubricants and Glues List

Name	Part No.	Remarks
Lubricating oil (FLOIL GP-1PT)	GEM1100	Used for Jog dial shafts and bearings. Refer to "7. DISASSEMBLY".
Acetate tape	GYH1035	Used for DECK1 Assy. Refer to "7. DISASSEMBLY".

■ DDJ-FLX4 Service check sheet

Check contents	Check target	Operation part, Setting	Display part	Status	Check
Test mode —	—	[HP CUE MASTER] + [HP CUE CH1] + USB connect (Power ON)	—	Enter the Test mode	
Version indication	Firmware	—	Ones place : Left Performance pad [1] to [8], [HOT CUE] mode First decimal place : CH level indicator Second decimal place : Right Performance pad [1] to [8], [HOT CUE] mode	Firmware version indication	☐ Ver.___
Elements check		Deck section Right [SHIFT] Left [SHIFT]	—	Press ➡ Next mode Press ➡ Previous mode	☐ ☐
LED light ON brightly, Button (illuminated) operation		Control panel	All LED	Switch the mode ➡ Light ON brightly	☐
	Button (illuminated)	Deck section [IN] Left/Right [OUT] Left/Right [BEAT SYNC] Left/Right [CUE] Left/Right [Play/pause ►/❚❚] Left/Right [HOT CUE] mode Left/Right [PAD FX1] mode Left/Right [BEAT JUMP] mode Left/Right [SAMPLER] mode Left/Right Performance Pad [1] Left/Right Performance Pad [2] Left/Right Performance Pad [3] Left/Right Performance Pad [4] Left/Right Performance Pad [5] Left/Right Performance Pad [6] Left/Right Performance Pad [7] Left/Right Performance Pad [8] Left/Right	[IN] Left/Right [OUT] Left/Right [BEAT SYNC] Left/Right [CUE] Left/Right [Play/pause ►/❚❚] Left/Right [HOT CUE] mode Left/Right [PAD FX1] mode Left/Right [BEAT JUMP] mode Left/Right [SAMPLER] mode Left/Right Performance Pad [1] Left/Right Performance Pad [2] Left/Right Performance Pad [3] Left/Right Performance Pad [4] Left/Right Performance Pad [5] Left/Right Performance Pad [6] Left/Right Performance Pad [7] Left/Right Performance Pad [8] Left/Right	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐ ☐/☐
		Mixer section HP CUE [MASTER] HP CUE [1]/[2] [SMART CFX] [SMART FADER]	HP CUE [MASTER] HP CUE [1]/[2] [SMART CFX] [SMART FADER]	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐ ☐/☐ ☐ ☐
		Effect section BEAT FX ON/OFF	BEAT FX ON/OFF	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐
All LEDs light ON dimly		Browse section Rotary selector	All LED	Press ➡ Light ON dimly	☐
All LEDs light OFF		Browse section Rotary selector	All LED	Press ➡ Light OFF	☐
Button / Switch / Rotary encoder	Button (non-illuminated)	Browse section [LOAD] Left/Right	[CUE] Left/Right	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐
		Deck section [4 BEAT/EXIT] Left/Right [CUE/LOOP CALL ◄] Left/Right [CUE/LOOP CALL ►] Left/Right	[IN] Left/Right [OUT] Left/Right [BEAT SYNC] Left/Right	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐/☐ ☐/☐ ☐/☐
		Effect section [BEAT FX SELECT] [BEAT ◄] [BEAT ►]	BEAT FX ON/OFF HP CUE [1] HP CUE [2]	Press ➡ Light OFF ➡ Press ➡ Light ON (repeat) Release ➡ CH2 level indicator bottom line Light ON (Light OFF while pressed)	☐ ☐ ☐
	Switch	Effect section BEAT FX CH SELECT	Right PAD mode button	[1] select ➡ [HOT CUE][SAMPLER] light ON only [2] select ➡ [PAD FX1][SAMPLER] light ON only [1&2] select [BEAT JUMP][SAMPLER] light ON only All position select ➡ [SAMPLER] flashing	☐ ☐ ☐ ☐
		Rear panel Android MONO/STEREO	Right Performance Pad [1] [2] [3]	[STEREO] select ➡ Performance Pad [1] [3] light ON [MONO] select ➡ Performance Pad [2] [3] light ON All position select ➡ Performance Pad [3] flashing	☐ ☐ ☐
	Rotary encoder	Browse section Rotary selector	Left PAD mode button Left Performance Pad [1] Left Performance Pad [2]	Lighting point moves according to rotation Rotate clockwise/counterclockwise once ➡ Light OFF Press ➡ Light OFF	☐ ☐ ☐
			Linked LED	All buttons press ➡ flashing	☐
Knob / Fader / Jog dial	Knob	Mixer section CH1/CH2 TRIM	CH level indicator Left/Right Performance Pad [1]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐/☐ ☐/☐
		CH1/CH2 EQ HI	CH level indicator Left/Right Performance Pad [2]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐/☐ ☐/☐
		CH1/CH2 EQ MID	CH level indicator Left/Right Performance Pad [3]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐/☐ ☐/☐
		CH1/CH2 EQ LOW	CH level indicator Left/Right Performance Pad [4]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐/☐ ☐/☐
		CH1/CH2 CFX	CH level indicator Left/Right Performance Pad [5]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐/☐ ☐/☐
		MIC LEVEL	CH level indicator Left Performance Pad [6]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐ ☐
		HEADPHONES MIX	CH level indicator Left Performance Pad [7]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐ ☐
		HEADPHONES LEVEL	CH level indicator Left Performance Pad [8]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐ ☐
		MASTER LEVEL	CH level indicator Right Performance Pad [6]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐ ☐
		Effect section LEVEL/DEPTH	CH level indicator Right Performance Pad [7]	The number of lit CH level indicator changes according to the position of the knob Turned the knob to both ends ➡ Light OFF	☐ ☐
	Fader	Deck section TEMPO slider Left/Right	CH level indicator Left/Right [BEAT SYNC]	The number of lit CH level indicator changes according to the position of the fader Position detection of both ends of fader ➡ Light OFF	☐/☐ ☐/☐
		Mixer section CH1/CH2 Channel fader	CH level indicator HP CUE [1]/[2]	The number of lit CH level indicator changes according to the position of the fader Position detection of both ends of fader ➡ Light OFF	☐/☐ ☐/☐
		Crossfader	CH level indicator Bluetooth MIDI indicator	The number of lit CH level indicator changes according to the position of the fader Position detection of both ends of fader ➡ Light OFF	☐ ☐
	Jog dial	Deck section Jog dial Left/Right	[OUT] Left/Right [IN] Left/Right	1 turn clockwise ➡ Light OFF Touch detection ➡ Light OFF	☐/☐ ☐/☐
			Linked LED	All operations completed ➡ Flashing	☐
Test mode 3 —	—	[HP CUE CH1] + [HP CUE CH2] + USB connect (Power ON)	—	Enter the Test mode	
Version indication	PD UCOM firmware	—	Ones place : Left Performance pad [1] to [8], [HOT CUE] mode First decimal place : CH level indicator	PD UCOM firmware version indication	☐ Ver.___

3.3 PCB LOCATIONS



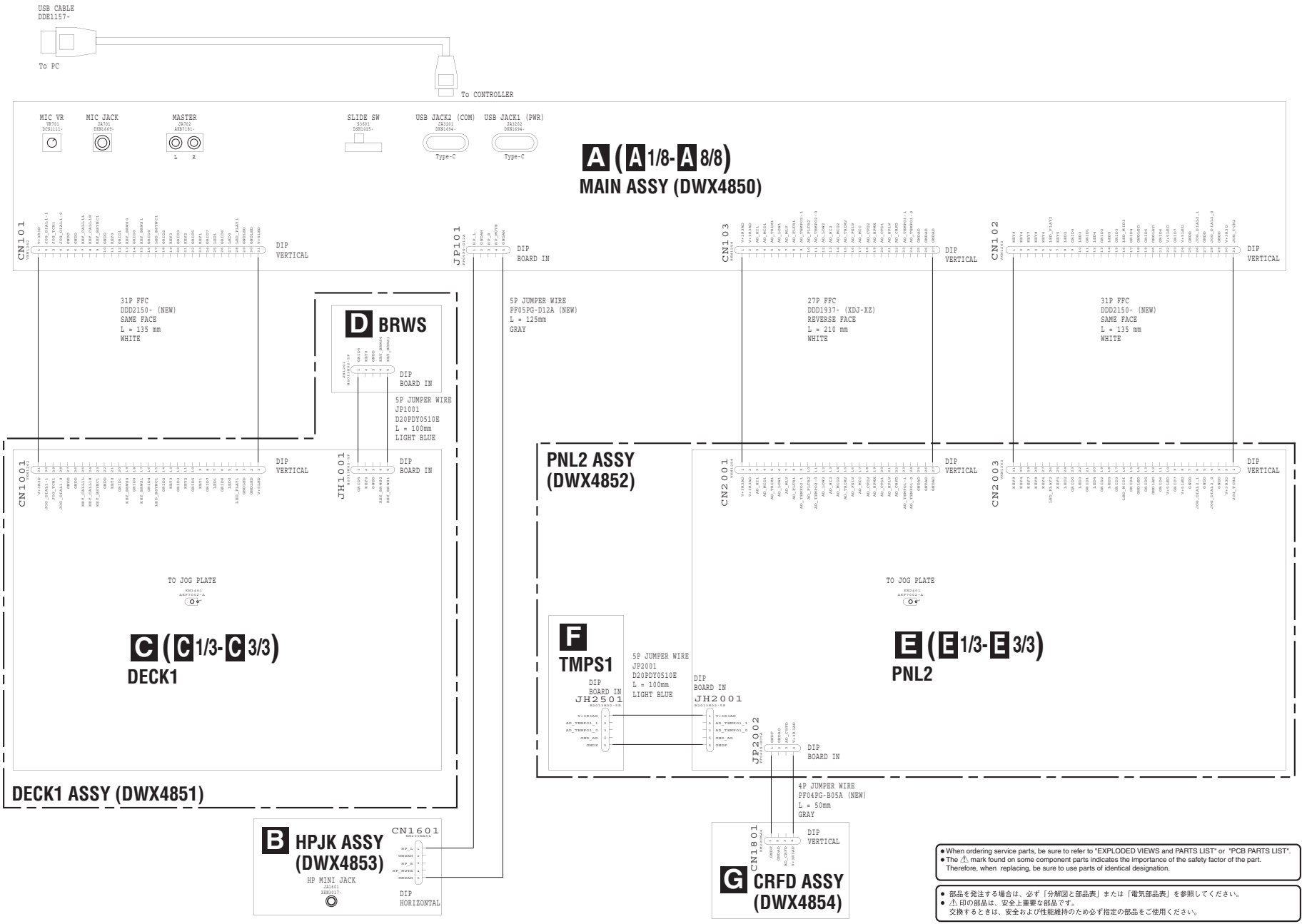
NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
	1	..MAIN ASSY	DWX4850
NSP	1	..PNL1 ASSY	DWM2864
	2	..DECK1 ASSY ※	DWX4851
NSP	3	..DECK1	• • • • •
NSP	3	..BRWS	• • • • •
	2	..HPJK ASSY	DWX4853
	2	..CRFD ASSY	DWX4854
	2	..HOLD ASSY	DWX4855
	1	..PNL2 ASSY ※	DWX4852
NSP	2	..PNL2	• • • • •
NSP	2	..TEMPS1	• • • • •

※ The service parts of the DECK1 Assy and the PNL2 Assy are supplied with multiple boards connected by jumper leads. The DECK1 Assy consists of DECK1 and BRWS boards connected by jumper leads. The PNL2 Assy consists of PNL2 and TEMPS1 boards connected by jumper leads.
These four boards are not supplied by itself as the service parts.

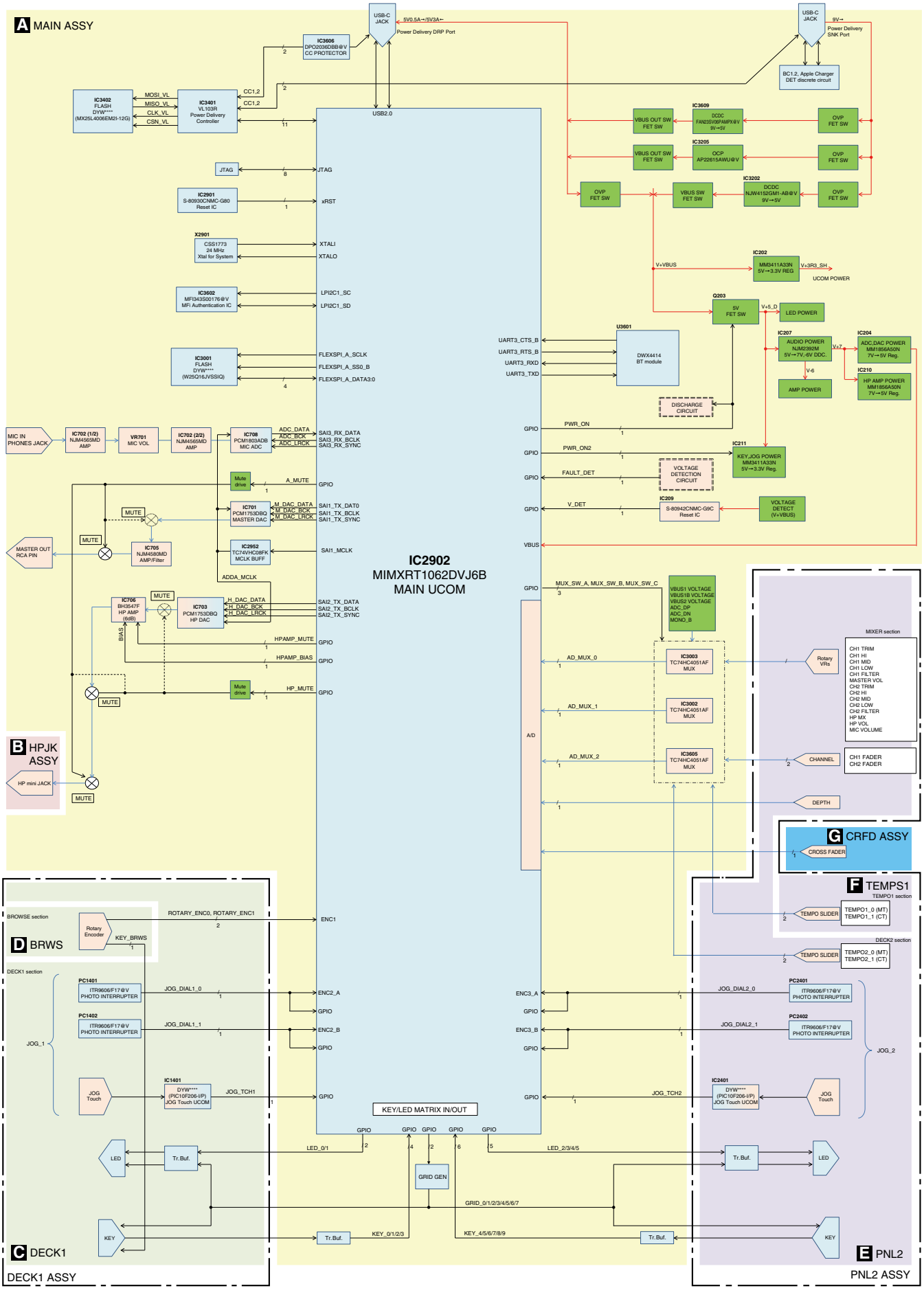
4. BLOCK DIAGRAM



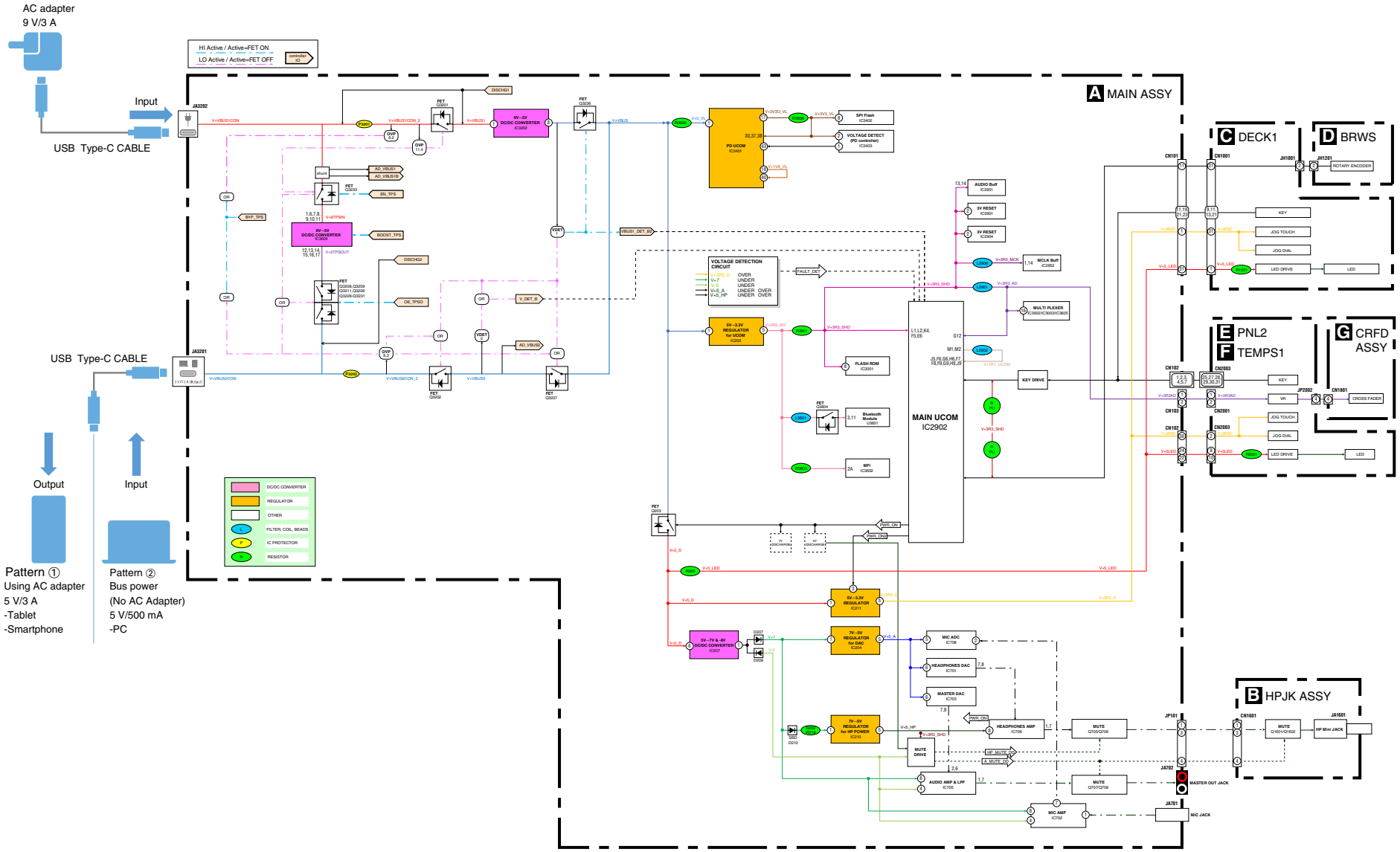
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

- 部品を発注する場合は、必ず「分解図と部品表」または「電気部品表」を参照してください。
- ⚠ 印の部品は、安全上重要な部品です。
  交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。

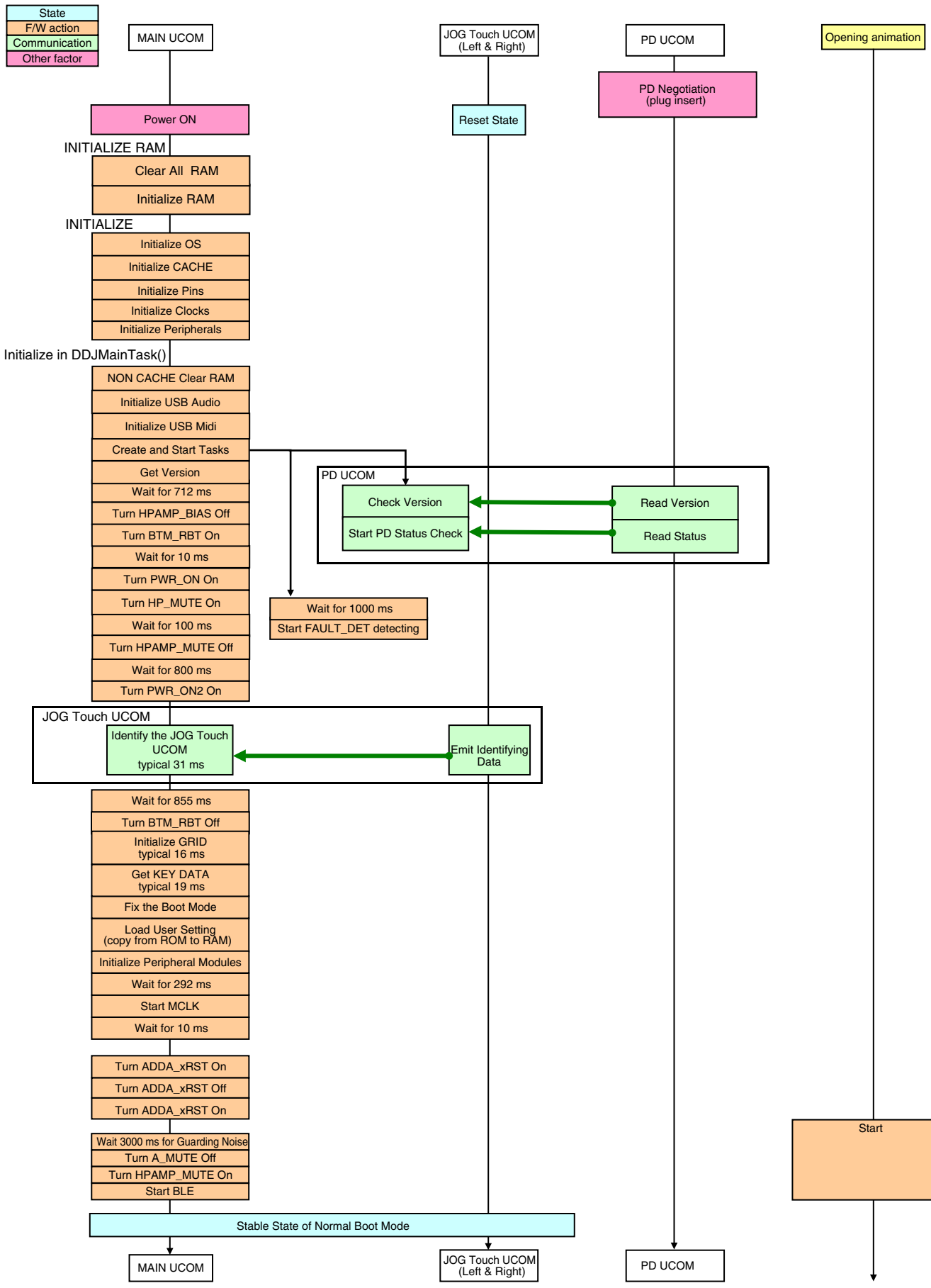
4.2 OVERALL BLOCK DIAGRAM (SIGNAL)



4.3 POWER BLOCK DIAGRAM



5. DIAGNOSIS
5.1 POWER ON SEQUENCE



5.2 MATRIX INFORMATION

: DSG1153 : DSX1138 : LTL17KRN8D@V

: DSG1079 : DSH1058- x2 : LTL17KYRN5D-P@V

: LTL17KGH5D-P

■ Matrix

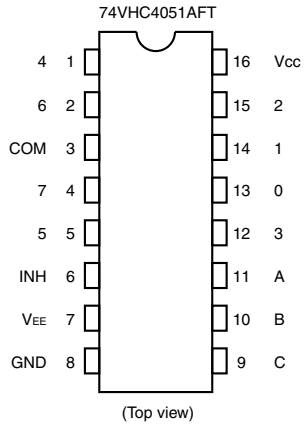
	8GRID	GRID0	GRID1	GRID2	GRID3	GRID4	GRID5	GRID6	GRID7
PNL1 (DECK1)	KEY0	SHIFT1	IN1	OUT1	4BEAT1		BROWS PUSH		
	KEY1	PLAY1①	CUE1①	HOT CUE1	PAD FX1-1	PLAY1②	CUE1②	BEAT JUMP1	SAMPLER1
	KEY2	PAD1-1①	PAD1-2①	PAD1-3①	PAD1-4①	PAD1-1②	PAD1-2②	PAD1-3②	PAD1-4②
	KEY3	PAD1-5①	PAD1-6①	PAD1-7①	PAD1-8①	PAD1-5②	PAD1-6②	PAD1-7②	PAD1-8②
PNL2	KEY4	IN2	OUT2	4BEAT2	LOAD1	LOAD2	HP MASTER	HP CUE1	HP CUE2
	KEY5	PAD2-1①	PAD2-2①	PAD2-3①	PAD2-4①	PAD2-1②	PAD2-2②	PAD2-3②	PAD2-4②
	KEY6	PAD2-5①	PAD2-6①	PAD2-7①	PAD2-8①	PAD2-5②	PAD2-6②	PAD2-7②	PAD2-8②
	KEY7	CUE2①	PLAY2①	HOT CUE2	PAD FX1-2	CUE2②	PLAY2②	BEAT JUMP2	SAMPLER2
	KEY8	FX ON	◄ BEAT	BEAT ►	FX SELECT	SELECT SW1	SELECT SW2	SMART CFX	SMART FADER
	KEY9	SYNC2	SHIFT2					◄ CALL2	CALL2 ►
PNL1 (DECK1)	LED0	IN1	OUT1	HOT CUE1	PAD FX1-1	CUE1		BEAT JUMP1	SAMPLER1
	LED1	PAD1-1	PAD1-2	PAD1-3	PAD1-4	PAD1-5	PAD1-6	PAD1-7	PAD1-8
PNL2	LED2	IN2	OUT2	BEAT SYNC2	CH1 LV1	CH1 LV2	CH1 LV3	CH1 LV4	CH1 LV5
	LED3	HOT CUE2	PAD FX1-2	BEAT JUMP2	SAMPLER2	SMART CFX	SMART FADER	HP CUE1	HP CUE2
	LED4	PAD2-1	PAD2-2	PAD2-3	PAD2-4	PAD2-5	PAD2-6	PAD2-7	PAD2-8
	LED5	HP MASTER	FX ON	CUE2	CH2 LV3	CH2 LV4	CH2 LV1	CH2 LV2	CH2 LV5

■ Direct

PNL1 (DECK1)	KEY	KEY_BRWS0	KEY_BRWS1	KEY_CALL1L	KEY_CALL1R	KEY_BSYNC1
	LED	LED_PLAY1	LED_BSYNC1			
PNL2	LED	LED_PLAY2	LED_MIDI			

■ VR Assignment

IC2902 RT1062 Pin	Route	DDJ-FLX4	Signal name	Response request		MUX_SW C	MUX_SW B	MUX_SW A
G12	AD port direct	CROSS FADER	AD_CRFD	high (Direct)				
H12	AD port direct	DEPTH	AD_DEPTH	high (Direct)				
H14	AD port direct	TEMPO 1 (position)	AD_TEMPO1_0	Slow				
H13	AD port direct	TEMPO 1 (center)	AD_TEMPO1_1	Slow				
M13	AD port direct	TEMPO 2 (position)	AD_TEMPO2_0	Slow				
L13	AD port direct	TEMPO 2 (center)	AD_TEMPO2_1	Slow				
	Via IC3003 MUX0	EQ MID 2	AD_EQ_M2	Middle	0	0	0	0
		EQ HI 2	AD_EQ_H2	Middle	1	0	0	1
		EQ MID 1	AD_EQ_M1	Middle	2	0	1	0
		EQ HI 1	AD_EQ_H1	Middle	3	0	1	1
		TRIM 1	AD_TRIM1	Slow	4	1	0	0
		TRIM 2	AD_TRIM2	Slow	5	1	0	1
		HEADPHONE VOLUME	AD_HPLV	Slow	6	1	1	0
		MASTER VOLUME	AD_MLV	Slow	7	1	1	1
	Via IC3002 MUX1	FILTER 2	AD_FILTER2	Middle	0	0	0	0
		EQ LOW 2	AD_EQ_L2	Middle	1	0	0	1
		CHANNEL FADER 2	AD_FD2	Middle	2	0	1	0
		CHANNEL FADER 1	AD_FD1	Middle	3	0	1	1
		EQ LOW 1	AD_EQ_L1	Middle	4	1	0	0
		MIC VOLUME	AD_MIC	Slow	5	1	0	1
		FILTER 1	AD_FILTER1	Middle	6	1	1	0
		HPMX	AD_HPMX	Slow	7	1	1	1
	Via IC3605 MUX2	VBUS1 VOLTAGE	AD_VBUS1	Slow	0	0	0	0
					1	0	0	1
		MIC_IN_TRG	MIC_IN_TRG	Slow	2	0	1	0
		VBUS1B VOLTAGE	AD_VBUS1B	Slow	3	0	1	1
		VBUS2 VOLTAGE	AD_VBUS2	Slow	4	1	0	0
		MONO_B	MONO_B	Slow	5	1	0	1
		ADC_DP	ADC_DP	Slow	6	1	1	0
		ADC_DN	ADC_DN	Slow	7	1	1	1



Truth table

Control Inputs				"ON" Channel
Inhibit	C	B	A	
L	L	L	L	0
L	L	L	H	1
L	L	H	L	2
L	L	H	H	3
L	H	L	L	4
L	H	L	H	5
L	H	H	L	6
L	H	H	H	7
H	X	X	X	None

5.3 TROUBLESHOOTING

In this section, causes of failure, diagnostics points, and corrective measures can be searched for according to symptoms.
Before disassembling the product, it is recommended to check the LED indications in "5.5 ERROR INDICATION" to estimate where the abnormality is occurring.
For the relationship of each power-supply and signal system, refer to "4.3 POWER 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 "8.2 UPDATING OF THE FIRMWARE".

Contents

[0] Prior Confirmation
[1] Failure in Startup (The product does not turn on)
[2] Displays
[3] Operations
[4] USB connection
[5] AUDIO OUT
[6] AUDIO IN
[7] Bluetooth connection

Waveform numbers and voltage confirmation-point numbers described in this section correspond to the numbers on the Circuit diagrams and PCB diagrams.
Be sure to check the failure points, as well as check for failure in their peripheral circuits.

[0] Prior Confirmation

[0-1] Checking in the Test mode

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	—	Test mode	Check the defective part.	If problems are found, refer to the respective sections in this section.	6.1 TEST MODE

[0-2] Checking Internal Wires

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Disconnection, breakage, or poor connection of internal wires	Relevant part	Check that all the wires are securely connected. Check that there is no breakage in the wires.	Securely connect the wires. If a wire is broken, replace it. ※ If the FFC is disconnected, check the silk on the board and make sure the direction of the connection is correct.	4.1 OVERALL WIRING DIAGRAM

[1] Failure in Startup (The product does not turn on)

[1-1] Failure in the power system (for bus power)

In a case that the product is not started after connecting the USB cable (all LEDs cannot light ON)

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Failure in the power system (1)	MAIN Assy V+VBUS2CON TEST POINT	Check that the voltage of V+VBUS2CON is in the range of 4.75 to 5.25 V.	If the voltage is outside the range of 4.75 to 5.25 V, failure in the PC USB output voltage, USB cable, USB jack (JA3201) or the USB-PD control circuit (IC3606, IC3401) and their peripheral circuits may be defective. If replacing the PC and USB cable does not fix the problem, replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE 10.20 WAVEFORMS (2. Start up of Bus power)
2	Failure in USB bus power	MAIN Assy V+VBUS2CON_2	Check that the Source terminal of FET (Q3202)(4Pin, V+VBUS2CON_2) voltage is lower than that of V+VBUS2CON by approximately 0.1 to 0.2 V.	If the voltage is 0 V, the IC protector (P3202) may be broken. Replace the IC protector (P3202) or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
3	Poor connection / Defective parts	MAIN Assy V+VBUS2 TEST POINT	Check that the V+VBUS2 voltage is in the range of 4.0 to 6.2 V.	The FET (Q3202) or FET control circuit may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
4	Poor connection / Defective parts	MAIN Assy V+VBUS	Check that the Source terminal of FET (Q3237)(4Pin, V+VBUS) voltage is in the range of 4.0 to 6.2 V.	The FET (Q3237) or FET control circuit may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
5	Power failure in the MAIN UCOM	MAIN Assy V+3R3_SH TEST POINT	Check that the V+3R3_SH voltage is higher than 3.0 V.	Regulator (IC202) or the parts that is connected to V+3R3_SH on the MAIN Assy may be defective, or connection may be poor. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
6	Power failure in the MAIN UCOM	MAIN Assy PWR_ON TEST POINT	In a case that the voltage of V+3R3_SH is 3.0 V or higher. Check the PWR_ON signal and make sure that Q203 (5V FET SW) is functioning properly.	If the PWR_ON signal is "L", V+5_D will not be output, because Q203 is not switched to ON. The monitoring circuit may have been activated. ➡[No. 7] If the PWR_ON signal is "H", the monitoring circuit is not activated. Check the voltages of all power ICs. If they are normal, refer to "[1-3] Failure in the microcomputer system".	4.3 POWER BLOCK DIAGRAM 10.19 VOLTAGES
7	Power failure in the MAIN UCOM	MAIN Assy FAULT_DET TEST POINT	Check if the monitoring circuit has been activated.	If the FAULT_DET signal is "L", the monitoring circuit has been activated. ➡[No. 8] If the FAULT_DET signal is "H", the monitoring circuit is not activated. Check the voltages of all power ICs. If they are normal, refer to "[1-3] Failure in the microcomputer system".	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE
8	Failure in the power system (2) Identification of defective power system	MAIN Assy	Disable the voltage monitoring circuit forcibly and check the voltage of each power supply.	The voltage monitoring circuit can be disabled by removing R267 (0 ohm) on FAULT_DET circuit. Refer to the notes in "5.4 MONITORING OF POWER SUPPLY AND VOLTAGE" before proceeding to further diagnostics. To identify the section with improper voltage, check the voltage at each point on the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE 10.19 VOLTAGES

[1-2] Failure in the power system (for USB-PD)

In a case that the product is not started after connecting the USB cable (all LEDs cannot light ON)

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Failure in the power system (1)	MAIN Assy V+VBUS1CON TEST POINT	Check that the voltage of V+VBUS1CON is in the range of 4.75 to 9.45 V.	If the voltage range is other than 4.75 to 9.45 V, the output voltage of the USB-PD compatible power is defective, PD communication is defective, USB cable, USB jack (JA3202) or USB-PD control circuit (IC3607, IC3401) and peripheral circuits may be defective. If the problem persists even after replacing the USB-PD compatible power or USB cable, replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE 10.20 WAVEFORMS (1. Start up of PD)
2	Failure in the power system (2)	MAIN Assy V+VBUS2CON TEST POINT	Check that the voltage of V+VBUS2CON is in the range of 8.55 to 9.45 V.	If the voltage range is other than 8.55 to 9.45 V, the USB-PD control circuit (IC3607, IC3401, IC3402) and their peripheral circuits may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE 10.20 WAVEFORMS (1. Start up of PD)

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
3	Failure in the USB-PD power	MAIN Assy V+VBUS1CON_2	Check that the Source terminal of FET (Q3201)(4Pin, V+VBUS1CON_2) voltage is lower than that of V+VBUS1CON by approximately 0.1 to 0.2 V.	If the voltage is 0 V, the IC protector (P3201) may be broken. Replace the IC protector (P3201) or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
4	Poor connection / Defective parts	MAIN Assy V+VBUS1 TEST POINT	Check that V+VBUS1 voltage is lower than that of V+VBUS1CON_2 by approximately 0.1 to 0.2 V.	The FET (Q3201) or FET control circuit may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
5	Poor connection / Defective parts	MAIN Assy V+VBUS	Check that the Source terminal of FET (Q3236)(4Pin, V+VBUS) voltage is higher than 4.0 V.	The DC/DC converter (IC3202), DC/DC converter peripheral circuit, FET (Q3236), or FET control circuit may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
6	Power failure in the MAIN UCOM	MAIN Assy V+3R3_SH TEST POINT	Check that V+3R3_SH voltage is higher than 3.0 V.	It is possible that the regulator (IC202) or parts connected to V+3R3_SH in the MAIN Assy may be defective, or connection may be poor. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM
7	Power failure in the MAIN UCOM	MAIN Assy PWR_ON TEST POINT	In a case that the voltage of V+3R3_SH is 3.0 V or higher. Check the PWR_ON signal and make sure that Q203 (5V FET SW) is functioning properly.	If the PWR_ON signal is "L", V+5_D will not be output, because Q203 is not switched to ON. The monitoring circuit may have been activated. ➡[No. 8] If the PWR_ON signal is "H", the monitoring circuit is not activated. Check the voltages of all power ICs. If they are normal, refer to "[1-3] Failure in the microcomputer system".	4.3 POWER BLOCK DIAGRAM 10.19 VOLTAGES
8	Power failure in the MAIN UCOM	MAIN Assy FAULT_DET TEST POINT	Check if the monitoring circuit has been activated.	If the FAULT_DET signal is "L", the monitoring circuit has been activated. ➡[No. 9] If the FAULT_DET signal is "H", the monitoring circuit is not activated. Check the voltages of all power ICs. If they are normal, refer to "[1-3] Failure in the microcomputer system".	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE
9	Failure in the power system (3) Identification of defective power system	MAIN Assy	Disable the voltage monitoring circuit forcibly and check the voltage of each power supply.	The voltage monitoring circuit can be disabled by removing R267 (0 ohm) on FAULT_DET circuit. Refer to the notes in "5.4 MONITORING OF POWER SUPPLY AND VOLTAGE" before proceeding to further diagnostics. To identify the section with improper voltage, check the voltage at each point on the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 5.4 MONITORING OF POWER SUPPLY AND VOLTAGE 10.19 VOLTAGES

[1-3] Failure in the microcomputer system

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Power failure in the MAIN UCOM	MAIN Assy V+3R3_SHD	Check the power (V+3R3_SHD) of the MAIN UCOM (IC2902).	Check the power and voltage are normal. Check the power circuit and the parts, such as coils (beads), resistors, and capacitors. If no problem was found with the parts, power circuit, and conduction between the power supply and GND, the MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 10.19 VOLTAGES
2	MAIN UCOM Reset circuit error	MAIN Assy CPU_xRST TEST POINT	Check the reset terminal (M7 Pin CPU_xRST) of the MAIN UCOM (IC2902).	The reset terminal (M7 Pin) is usually "High". If it is "Low", check if the voltage at V+3R3_SHD is 3.0 V or less. Check the reset circuit, resistors, capacitors, and the Reset IC (IC2901). Replace the part or replace the MAIN Assy.	—
3	MAIN UCOM X'tal error	MAIN Assy X2901-1Pin	Check the oscillation waveform of the X'tal (X2901).	If the waveform is abnormal, check the resistors, the capacitor, and X'tal on the oscillation signal circuit. If there is no problem with these parts, the MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	10.20 WAVEFORMS ⑤
4	MAIN UCOM startup error	MAIN Assy	After the product has started up, check the LED lights ON. (For example, some LEDs light ON or flash, but the product does not startup normally)	Perform the re-update to the firmware. If the problem does not clear, the MAIN UCOM (IC2902), SPI Flash (IC3001) or their peripheral parts may be defective. Replace the part or replace the MAIN Assy.	5.5 ERROR INDICATION 8.2 UPDATING OF THE FIRMWARE

[2] Display

[2-1] Any one of the LEDs does not light ON

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Defective LED, Defective LED signal circuit (Direct control part)	Periphery of the abnormal LED	Check the potential difference between the two ends of the LED.	Each LED: About 2.0 V If the difference is abnormal, the signal circuits at the periphery of the corresponding LED, resistors, or the LED itself may be defective.	—

[2-2] Several LEDs do not light ON or abnormal light ON

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Defective LED signal circuit, Defective MAIN UCOM	MAIN Assy	Check the control signal (GRID*, LED*) of the target LED.	If only the LED connected to the same grid, segment, or both does not light ON, there is probably defective part in the signal circuit of that grid or segment. Check the parts connected to the signal circuit.	—
2	Defective LED drive transistor	DECK1 Assy, PNL2 Assy	Check the LED drive transistors.	If the signal waveform is abnormal, the transistor may be defective.	—
3	Defective LED	Periphery of the abnormal LED	Check the potential difference between the two ends of the LED.	Each LED: About 2.0 V If the difference is abnormal, the LED itself may be defective.	—

[3] Operations

Operation of other than MIC ATT. (Attenuator) knob operating elements can be confirmed in Test mode.
If the MIC ATT. (Attenuator) knob do not function, refer to "[6] AUDIO IN".

[3-1] Tact switch does not work

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy, Periphery of the abnormal button	Check the control signal (GRID*, KEY*) of the target tact switch.	In case of the matrix key The signal usually indicates High/Low repeat in grid cycle when a tact switch set to ON, and "High" (about 3.3 V) when it sets to OFF. If the signal is abnormal, tact switch is defective, signal circuit, FFC or the connector may be defective. In case of the direct key The signal usually indicates "Low" (about 0 V) when a tact switch set to ON, and High (about 3.3 V) when it sets to OFF. If the signal is abnormal, tact switch is defective, signal circuit, FFC or the connector may be defective.	5.2 MATRIX INFORMATION
2	Defective MAIN UCOM	MAIN Assy	The problem has not improved until the above.	The MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	—

[3-2] Rotation of Rotary selector does not work

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Defective BROWSE	DECK1 Assy BROWSE_ENC0 BROWSE_ENC1 TEST POINT	Check the rotation detection signal of the BROWSE (BROWSE_ENC0/1).	Turning the Rotary selector produces 0 V and 3.3 V square waves. If the signal is abnormal, signal circuit, resistors or Rotary selector may be defective.	—
2	Defective MAIN UCOM	MAIN Assy	The problem has not improved until the above.	The MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	—

[3-3] Rotary volume/Slide volume does not work

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection / Defective parts	MAIN Assy, PNL2 Assy, CRFD Assy	Check the signal of the target volume controller. For the signals connected to the multiplexer (IC3002, IC3003), check the AD signal (3Pin of the multiplexer) after switching the controller.	If the voltage of the signal circuit does not change in the range of 0 V to 3.3 V when the volumes or faders are operated, the corresponding operating controller, signal circuit, multiplexer (IC3002, IC3003), FFC, connector, resistors, or capacitors may be defective. If the voltage of the AD_TEMPO1_1/2_1 signal circuit is not 1.65 V, or if the voltage of the AD_TEMPO1_0/2_0 signal circuit does not change in the range of 0 V to 3.3 V when the TEMPO slider is moved, the TEMPO slider, signal circuit, FFC, connector, resistors or capacitors may be defective.	5.2 MATRIX INFORMATION
2	Defective MAIN UCOM	MAIN Assy	The problem has not improved until the above.	The MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	—

[3-4] Troubles related to the Jog dial

After the Jog dial Assy is disassembled then reassembled, be sure to check that the load value for the Jog dial is within the specified range. Refer to the "6.3 JOG DIAL LOAD MEASUREMENT".

[3-4-1] Turning of the Jog dial is not detected

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy TEST POINT	Check the rotation detection signal of the jog dial (JOG_DIAL1_0/1_1, JOG_DIAL2_0/2_1).	If the waveform is abnormal, signal circuit, resistors, capacitors and the photo interrupters (PC1401, PC1402, PC2401, PC2402) may be defective.	10.20 WAVEFORMS ㉗, ㉘
2	Poor installation of the photo interrupter	DECK1 Assy, PNL2 Assy TEST POINT	Check the phases of the rotation detection signal waveforms (JOG_DIAL1_0/1_1, JOG_DIAL2_0/2_1) of the Jog dial are identical to those described in "6.4 PHOTO INTERRUPTER INSTALLATION CHECK" when the Jog dial is turned.	If the waveforms are normal but the phases are not correct, the photo interrupters (PC1401, PC1402, PC2401, PC2402) may be mounted incorrectly.	6.4 PHOTO INTERRUPTER INSTALLATION CHECK 10.20 WAVEFORMS ㉗, ㉘
3	Defective MAIN UCOM	MAIN Assy	The problem has not improved until the above.	The MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	—

[3-4-2] Touching of the Jog dial is not detected, or touching is detected although the Jog dial is not touched

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy	Check the signal level of 4Pin of JOG Touch UCOM (IC1401/IC2401).	The signal is "H" while the Jog dial is not touched and becomes "L" when it is touched. If it is abnormal ➡[No. 2] If it is normal ➡[No. 5]	10.20 WAVEFORMS ㉕, ㉖
2	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy	Check the signal level of 3Pin of JOG Touch UCOM (IC1401/IC2401).	The signal produces a pulse waveform in the frequency range of 900 to 1100 kHz while the Jog dial is not touched and a pulse waveform in the frequency range of 400 to 700 kHz while it is touched. If it is normal, JOG Touch UCOM (IC1401/IC2201) may be defective. If the signal produces a pulse waveform in the frequency range of 900 to 1100 kHz regardless of the jog dial's being touched or not ➡[No. 3] For another abnormal ➡[No. 4]	10.20 WAVEFORMS ㉕, ㉖
3	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy	Check the connection between Jog dial top face plate and JOG Touch UCOM (IC1401/IC2401). As the surface of the Plate is coated, a conduction check must be performed on the plate side surface facing the Jog dial through their gap.	Possible causes are poor connection between the aluminum plate of the Jog dial and the KN1401/KN2401 for grounding, or poor connection or a defective part in the circuits between KN1401/KN2401 and JOG Touch UCOM (IC1401/IC2401).	—
4	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy	Check the connection between KN1401/KN2401 and JOG Touch UCOM (IC1401/IC2401).	Poor connection or a defective part in the circuits between the KN1401/KN2401 and JOG Touch UCOM (IC1401/IC2401).	—
5	Poor connection / Defective parts	DECK1 Assy, PNL2 Assy	Check the connection between JOG Touch UCOM (IC1401/IC2401) and MAIN UCOM (IC2902).	If the connection is normal, the MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy.	—

[3-4-3] Jog dial turns too freely (The load value for the Jog dial is outside the specified range)

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Incorrectly assembly of the Jog dial	Jog dial part	Check the load value for the Jog dial is within the specified range, referring to "6.3 JOG DIAL LOAD MEASUREMENT".	If the load value is outside the specified range, detach the Jog dial then reapply grease. Refer to "Procedure for applying grease during reassembly of the Jog dial" in "7. DISASSEMBLY".	6.3 JOG DIAL LOAD MEASUREMENT 7. DISASSEMBLY

[3-4-4] Jog dial turns too heavily (The load value for the Jog dial is outside the specified range)

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Incorrectly assembly of the Jog dial	Jog dial part	Check the load value for the Jog dial is within the specified range, referring to "6.3 JOG DIAL LOAD MEASUREMENT".	If the load value is outside the specified range, perform manual running-in rotations of the Jog dial. Refer to "Procedure for applying grease during reassembly of the Jog dial" in "7. DISASSEMBLY".	6.3 JOG DIAL LOAD MEASUREMENT 7. DISASSEMBLY

[4] USB connection

[4-1] The product cannot be recognized by the PC when connected to the PC via "USB port (for device connection)" connection

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Startup error	MAIN Assy	Check if the LED illumination works when the product is started. Also, check that the USB cable is connected to the "USB port (for device connection)".	If the LED illumination does not work, refer to "[1-1] Failure in the power system (for bus power)".	[1-1] Failure in the power system (for bus power)
2	Defective MAIN UCOM	MAIN Assy	Check the soldering of the USB jack (JA3201).	If no problem is found, either the startup of the MAIN UCOM (IC2902) or the MAIN UCOM (IC2902) itself may be defective. Refer to "[1-3] Failure in the microcomputer system".	[1-3] Failure in the microcomputer system

[4-2] The product does not start even if the USB power adapter (mobile battery) is connected to the "USB port (power only)".

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Startup error	MAIN Assy	Check if the LED illumination works when the product is started. Also, check that the connection destination of the USB cable is "USB port (power only)" and check that the specifications of the USB power adapter (mobile battery) are compatible with a maximum voltage of 24 V or less and DC9V3A.	If the LED illumination does not work, refer to "[1-2] Failure in the power system (for USB-PD)".	[1-2] Failure in the power system (for USB-PD)
2	Defective MAIN UCOM	MAIN Assy	Check the soldering of the USB jack (JA3202).	If no problem is found, either the startup of the MAIN UCOM (IC2902) or the MAIN UCOM (IC2902) itself may be defective. Refer to "[1-3] Failure in the microcomputer system".	[1-3] Failure in the microcomputer system

[4-3] The mobile device connected to the "USB port (for device connection)" is not charged

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection	MAIN Assy, USB power adapter, USB cable	Check that a USB power adapter (mobile battery) that supports a maximum voltage of 24 V or less and DC9V3A is correctly connected to the "USB port (power only)".	USB power adapter (mobile battery) or USB cable parts may be defective, or connection may be poor. Use the correct parts according to the Instruction Manual.	Instruction Manual
2	Poor connection / Defective parts	MAIN Assy V+VBUS1CON TEST POINT	Check that the V+VBUS1CON voltage is in the range of 8.55 to 9.45 V.	If the voltage is outside the range of 8.55 to 9.45 V, failure in the USB-PD control circuit (IC3607, IC3401, IC3402) and their peripheral circuits may be defective. Replace the part or replace the MAIN Assy.	[1-2] Failure in the power system (for USB-PD)
3	Poor connection / Defective parts	MAIN Assy V+9TPSIN	Check that the Source terminal of V+9TPSIN voltage is lower than that of V+VBUS1CON by approximately 0.1 to 0.2 V.	If V+9TPSIN voltage is 0 V, the "USB port (for device connection)" USB cable, USB jack (JA3201), USB-PD control IC (IC3606, IC3401), FET (Q3252) and its peripheral circuits are defective. If replacing the device or cable does not fix the problem, replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 10.20 WAVEFORMS (3. Charging)
4	Poor connection / Defective parts	MAIN Assy V+5TPSOUT	Check that the V+5TPSOUT voltage is in the range of 4.75 to 6.2 V.	If the V+5TPSOUT voltage is outside the range of 4.75 to 6.2 V, failure in the DC/DC CONVERTER (IC3609) and their peripheral circuits may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 10.20 WAVEFORMS (3. Charging)
5	Poor connection / Defective parts	MAIN Assy V+VBUS2CON TEST POINT	Check that the V+VBUS2CON voltage is in the range of 4.75 to 6.2 V.	If the V+VBUS2CON voltage is outside the range of 4.75 to 6.2 V, failure in the FET (Q3208, Q3209, Q3211, Q3226, Q3228, Q3229, Q3230, Q3231) and their peripheral circuits may be defective. Replace the part or replace the MAIN Assy.	4.3 POWER BLOCK DIAGRAM 10.20 WAVEFORMS (3. Charging)

[5] AUDIO OUT

[5-1] MASTER OUT is not output

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
0	Wrong setting of the application installed on the PC	The application setting of the PC	Check the output setting of the application installed on the PC is correct.	The sound will not output if the output setting of the application is not correct.	Instruction Manual
1	Volume position	Volume position	Operate each volume while referring to Instruction manual and check if the volume position is correct.	If each volume is not in the correct position, no sound will be output.	Instruction Manual
2	—	MAIN Assy MAS_DAC_L MAS_DAC_R TEST POINT	Check the audio output signal of the DAC output signal for MASTER OUT (MAS_DAC_L, MAS_DAC_R).	If the signal is being output ➡[No. 3] If the signal is not ➡[No. 4]	10.20 WAVEFORMS ⑪, ⑫
3	Poor connection / Defective parts	MAIN Assy M_DAC_DATA TEST POINT	Check the digital data signal of the DAC data signal for MASTER OUT (M_DAC_DATA).	If the signal is abnormal, the signal circuit connection is poor, resistors, capacitor or the MAIN UCOM (IC2902) may be defective. Replace the MAIN UCOM (IC2902) or replace the MAIN Assy. If the signal is normal, the AUDIO DAC (IC703) and its peripheral circuits are not operating normally. Replace the part.	10.20 WAVEFORMS ⑨
4	Poor connection of Mute signal/ Defective parts	MAIN Assy A_MUTE_DD TEST POINT	Check the signal level of the Audio mute (A_MUTE_DD).	A_MUTE_DD signal is usually "Low" (about -6 V, muting canceled). If it is "High" (3 V or more), the mute function is activated, and no sound is output. The signal circuit connection is poor, the mute circuit (Q708, Q717) or the mute drive circuit (Q709, Q710, Q711, Q713) may be defective.	—
5	Poor connection of Mute signal/ Defective parts	MAIN Assy A_MUTE TEST POINT	Check the signal level of the Audio mute (A_MUTE).	When normal, it will be "Low" (about 0 V, muting canceled). If it is "High" (about 3.3 V), the mute function is activated, and no sound is output. The signal circuit connection is poor, the transistor (Q709) or the MAIN UCOM (IC2902) may be defective.	—
6	Poor connection of MASTER OUT/Defective parts	MAIN Assy	Check the audio signal between 7Pin and 8Pin of the AUDIO DAC (IC703) for MASTER OUT to the MASTER output terminal (JA702).	If it is abnormal, the signal circuit connection is poor, resistors, capacitors, transistors, OP Amp (IC705) or the output terminal may be defective.	—

[5-2] Headphones output is not output

Check first MASTER OUT is normal. If the MASTER OUT is abnormal, refer to "[5-1]" and "[5-2]".

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
0	Wrong setting of the application installed on the PC	The application setting of the PC	Check the output setting of the application installed on the PC is correct.	The sound will not output if the output setting of the application is not correct.	Instruction Manual
1	Volume position	Volume position	Operate each volume while referring to Instruction manual and check if the volume position is correct.	If each volume is not in the correct position, no sound will be output.	Instruction Manual
2	—	MAIN Assy HP_DAC_L HP_DAC_R TEST POINT	Check the audio signal of the DAC output signals for HP (HP_DAC_L, HP_DAC_R).	If the signal is being output ➡[No. 4] If the signal is not ➡[No. 5]	10.20 WAVEFORMS ⑬, ⑭
3	Poor connection / Defective parts	MAIN Assy H_DAC_DATA TEST POINT	Check the digital data signal of the DAC data signal for HP (H_DAC_DATA).	If the signal is abnormal, the signal circuit connection is poor, resistors, capacitor or the MAIN UCOM (IC2902) may be defective. Replace the MAIN UCOM (IC2902) or replace the MAIN Assy. If the signal is normal, the AUDIO DAC (IC701) and its peripheral circuits are not operating normally. Replace the part.	—
4	Poor connection / Defective parts	MAIN Assy IC706-3Pin, 5Pin	Check the audio input signals of HP AMP(IC706) 3Pin and 5Pin.	If the input signal is abnormal, the audio signal circuit connection is poor, resistor, or capacitor may be defective. Replace the part. When the input signal is normal ➡[No. 6]	—
5	Poor connection of Mute signal/ Defective parts	MAIN Assy HPAMP_MUTE TEST POINT	Check the HP AMP mute signal (HPAMP_MUTE) level.	When normal, it will be "High" (about 3.3 V). If it is "Low" (about 0 V), the mute function is activated, and no sound is output. If the mute signal is "High" and normal, the HP AMP (IC706) or the mute circuit (Q705, Q706) may be defective.	—

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
6	Poor connection / Defective parts	HPJK Assy	Check the audio signal from CN1601 of HPJK Assy to HP output terminal (JA1601).	If it is abnormal, the signal circuit connection is poor, the wire material, connectors, resistors, capacitors, output terminals or the mute circuit (Q1601, Q1602) may be defective.	—

[6] AUDIO IN

[6-1] MIC INPUT signal is not output

Check first AUDIO OUT is normal. If the AUDIO OUT is abnormal, refer to "[5] AUDIO OUT".

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Volume position	Volume position	Operate each volume while referring to Instruction manual and check if the volume position is correct.	If each volume is not in the correct position, no sound will be output.	Instruction Manual
2	Poor connection / Defective parts	MAIN Assy MIC_IN TEST POINT	Check if there is an audio signal on the MIC input signal (MIC_IN).	If no signal is detected, the input terminal or the MIC cable may be defective. If the signal is detected ➡[No. 3]	—
3	Poor connection / Defective parts	MAIN Assy MIC_ADC TEST POINT	Check if there is an audio signal in ADC input signal for MIC (MIC_ADC).	If no signal is detected, the signal circuit connection is poor, resistors, capacitors, OP Amps or MIC volume (VR701) may be defective. If the signal is detected ➡[No. 4]	—
4	Poor connection / Defective parts	MAIN Assy ADC_DATA TEST POINT	Check the ADC data signal for MIC (ADC_DATA) digital data signal.	If the waveform is normal, the MAIN UCOM (IC2902) may be defective. Replace the part or replace the MAIN Assy. If the waveform is abnormal, the signal circuit connection is poor, resistors, capacitors, the AUDIO ADC (IC708) or the MAIN UCOM (IC2902) may be defective.	—

[7] Bluetooth connection

[7-1] Bluetooth cannot connect

No.	Cause/Symptoms	Diagnostics point	Item to be checked	Defect point identification/Corrective action	Reference
1	Poor connection / Defective parts	MAIN Assy V+3R3_BTM	Check that the Drain terminal of FET (Q3604)(1-2Pin, 5-6Pin, V+3R3_BTM) voltage is lower than that of V+3R3_SH by approximately 0.1 to 0.2 V.	The FET (Q3604) or FET control circuit may be defective. Replace the part or replace the MAIN Assy.	—
2	Poor connection / Defective parts	MAIN Assy BTM_RBT U3601-12Pin	Check that the voltage at the base terminal (BTM_RBT) of the digital transistor (Q3603) is 0 V and the voltage at the collector terminal is equal to V+3R3_BTM.	The digital transistor (Q3603), BT module (U3601), MAIN UCOM (IC2902), damping resistance on the communication line connection is poor or may be defective. Replace the part or replace the MAIN Assy.	—
3	Poor connection / Defective parts	MAIN Assy IC3601-4Pin	Check that the 32.768 kHz oscillation signal is output from the output terminal (4Pin) of the inverter IC (IC3601).	It is possible that the inverter IC (IC3601), crystal oscillator (X3601), or peripheral circuit may be defective, or connection may be poor. Replace the part or replace the MAIN Assy.	—
4	Poor connection / Defective parts	MAIN Assy U3601-19Pin TEST POINT	Check that the voltage of 19Pin of BT module (U3601) is equal to V+3R3_BTM.	The wiring/parts of the BT module (U3601) may be defective, or connection may be poor. Replace the part or replace the MAIN Assy.	—
5	Poor connection / Defective parts	MAIN Assy U3601-15 to 18Pin	Check if there is a problem with the continuity of the serial communication line between the BT module (U3601) and the MAIN UCOM (IC2902).	The BT module (U3601), MAIN UCOM (IC2902), or damping resistance on the communication line may be defective, or connection may be poor. Replace the part or replace the MAIN Assy.	—

5.4 MONITORING OF POWER SUPPLY AND VOLTAGE

1 FAULT_DET

MAIN UCOM (IC2902) of this unit always monitors for power and voltage failure of the unit and will shut the unit off immediately after an error is detected.

● **Content to be monitored**
Power supply voltage reduction and power supply voltage rise generated by short-circuiting between any power-supply IC and GND or excess current inside the MAIN Assy.
Power to be monitored: V+5_A, V+5_HP, V+7, V-6, V+3R3_D

● **MAIN UCOM detection terminal and its terminal voltage**
TP terminal of FAULT_DET signal of MAIN Assy.
Normal: Approximately 3.3 V
Abnormal: 0 V

● **Timing of monitoring start**
1000 ms after CPU_xRST changed from L to H

● **Timing upon judgment as a failure**
50 ms after the abnormally was detected

● **LED indication when an error is generated**
All LEDs are light OFF.

● **Restoration method**
If the unit shuts itself down because an error is detected, disconnect the USB cable after perform diagnosis, wait for a while and then connect the USB cable on again.

● **Diagnostic procedure**
① Disconnect the USB cable.
② Check with the tester whether the monitoring voltage is short-circuited to the GND. If it is short-circuited, repair the abnormal part and check it becomes normal voltage.
③ Remove R267 (0 ohm) from the MAIN Assy. ※ This step will disable power monitoring.
④ Reconnect the USB cable.
⑤ As the unit is turned on in a normal way, check each voltage in this state.
※ Because power will be forcibly supplied even if any voltage is abnormal, if abnormal voltage continues, defective point may produce heat, which may be dangerous. Therefore, during diagnosis, be sure to disconnect the USB cable several seconds after they are connected so that forcible powering will not continue.
⑥ If voltage of any power IC is abnormal, circuit that uses that power or power IC itself may be defective.
⑦ Repair the defective part then check that the power and voltage of the repaired part becomes normal.
⑧ Install R267 of MAIN Assy. ※ This step will enable power monitoring.

2 V_DET_B

Circuit of this unit monitors for power and voltage failure from USB and will shut the unit off immediately after an error is detected.

● **Content to be monitored**
Power supply voltage abnormality such as voltage reduction from USB.
Power to be monitored: V+VBUS1_2 and V+VBUS2

● **MAIN UCOM detection terminal and its terminal voltage**
TP terminal of V_DET_B signal of MAIN Assy.
Normal: LOW (0 V)
Abnormal (V+VBUS1_2: 4.0 V or less and V+VBUS2: 4.2 V or less): Hi (3.3 V)

● **Timing of monitoring start**
The moment CPU_xRST changes from L to H (3.3 V)

● **Timing upon judgment as a failure**
1 ms after the abnormally was detected

● **LED indication when an error is generated**
All LEDs are light OFF.

● **Restoration method**
If the unit shuts itself down because an error is detected, disconnect the USB cable after perform diagnosis, wait for a while and then connect the USB cable on again.

● **Diagnostic procedure**
① Check the V+VBUS1_2 and V+VBUS2 voltages with the USB connection.
② If there is an abnormality in the voltage, it is possible that there is a problem with the power adapter, cable, etc..

3 V+VBUS1CON_2

Circuit of this unit monitors for power and voltage failure from USB and will shut the unit off immediately after an error is detected.

● **Content to be monitored**
Power supply voltage abnormality such as overvoltage from USB.
Power to be monitored: V+VBUS1CON_2

● **MAIN UCOM detection terminal and its terminal voltage**
TP terminal of OVP1B_B signal of MAIN Assy.
Normal: Hi (4 to 9 V)
Abnormal: LOW (0 V)

● **Timing of monitoring start**
Monitoring starts immediately after startup

● **Timing upon judgment as a failure**
Confirmed immediately after an abnormality occurs

● **LED indication when an error is generated**
All LEDs are light OFF.

● **Restoration method**
If the unit shuts itself down because an error is detected, disconnect the USB cable after perform diagnosis, wait for a while and then connect the USB cable on again.

● **Diagnostic procedure**
① Check the V+VBUS1CON_2 voltage with the USB connection.
② If there is an abnormality in the voltage, it is possible that there is a problem with the power adapter etc..

4 V+VBUS2CON_2

Circuit of this unit monitors for power and voltage failure from/to USB and will shut the unit off immediately after an error is detected.

● **Content to be monitored**
Power supply voltage abnormality such as overvoltage from USB.
Power to be monitored: V+VBUS2CON_2

● **MAIN UCOM detection terminal and its terminal voltage**
TP terminal of OVP2_B signal of MAIN Assy or Q3205 collector.
Normal: Hi (4 to 5 V)
Abnormal: LOW (0 V)

● **Timing of monitoring start**
Monitoring starts immediately after startup

● **Timing upon judgment as a failure**
Confirmed immediately after an abnormality occurs

● **LED indication when an error is generated**
All LEDs are light OFF.

● **Restoration method**
If the unit shuts itself down because an error is detected, disconnect the USB cable after perform diagnosis, wait for a while and then connect the USB cable on again.

● **Diagnostic procedure**
① Check theV+VBUS2CON_2 voltage with the USB connection.
② If there is an abnormality in the voltage, it is possible that there is a problem with the power adapter etc..

5 V+5TPSOUT

Circuit of this unit monitors for power and voltage failure to USB and will shut the unit off immediately after an error is detected.

● **Content to be monitored**
Power supply voltage abnormality such as overvoltage to USB.
Power to be monitored: V+5TPSOUT

● **MAIN UCOM detection terminal and its terminal voltage**
TP terminal of OVP2_TPS_B signal of MAIN Assy.
Normal: Hi (4 to 9 V)
Abnormal: LOW (0 V)

● **Timing of monitoring start**
Monitoring starts immediately after startup

● **Timing upon judgment as a failure**
Confirmed immediately after an abnormality occurs

● **LED indication when an error is generated**
All LEDs are light OFF.

● **Restoration method**
If the unit shuts itself down because an error is detected, disconnect the USB cable after perform diagnosis, wait for a while and then connect the USB cable on again.

● **Diagnostic procedure**
① Connect the AC adapter to the USB terminal (for power supply only) and the PC etc. to the USB terminal (for device connection), and check the V + 5 TPSOUT voltage while supplying power.
② If an abnormality is found in the voltage, it is possible that the circuit or power supply IC that uses the power supply is defective.

5.5 ERROR INDICATION

Error cause	error indication	
Crossfader calibration not performed	The left and right [BEAT SYNC] buttons flash. 	at startup
PD UCOM firmware (DYW2313) and MAIN UCOM firmware (DYW2287) do not match	The left and right [IN] buttons flash. 	at startup
MFi chip communication error	The left and right [OUT] buttons flash. 	at startup
Power supply from USB port for power supply is 5 V	The left and right [IN] and [OUT] buttons flash. 	at startup
VBUS voltage value is less than the specified value (4.489 V)	The left and right [Pad 6] flashes. 	at startup
JOG Touch UCOM identification error	For CH1: All CH1 level indicators light up. For CH2: All CH2 level indicators light up. 	in Test mode

5.6 USB-C TERMINAL CONNECTION CHECK

- **Check rekordbox operation on PC / Mac**
  Refer to "5.8 OPERATION CHECK WITH rekordbox".

- **Check power supply to mobile devices**
  ① Connect mobile device to the USB port (for device connection) via a USB cable.
  ② Connect mobile device to the USB port (for power supply) via a USB cable.
  ③ Make sure the charging mark is displayed on mobile device.

  ※ Use a USB power adapter that has a maximum voltage of 24 V or less and less and DC 9 V/3 A.

5.7 Bluetooth CONNECTION CHECK

This product can be connected to a mobile device via Bluetooth.
This section describes how to connect using rekordbox for iOS / Android.

■ Getting started with rekordbox for iOS/Android

You need to have rekordbox for iOS / Android installed on the mobile device you want to connect to.

rekordbox for iOS

① Scan the QR code or visit the URL to open the App Store.
② Install rekordbox for iOS.

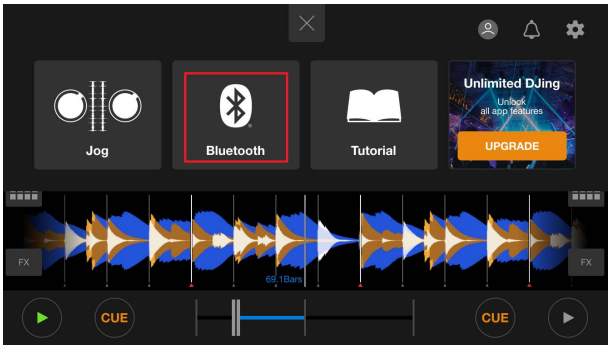
rekordbox for Android

① Scan the QR code or visit the URL to open Google Play.
② Install rekordbox for Android.

■ Connecting via Bluetooth

① Connect your USB power adapter or mobile battery to the unit's USB port (for power supply) using the supplied USB cable to turn the unit on.
② Start rekordbox for iOS/Android and turn your mobile device screen horizontal to close the browse screen.
③ Tap  at the top-center of the screen.

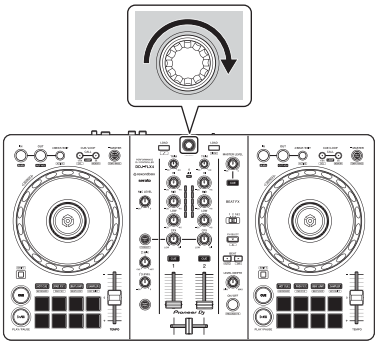
④ Tap  .



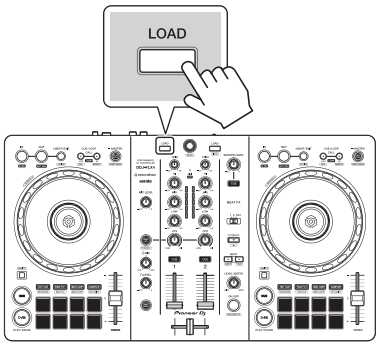
⑤ Tap [DDJ-FLX4].

■ Loading an audio track onto a deck

① Turn the rotary selector to select a track.



② Press the [LOAD] button for deck 1 (left).



■ Playing a track

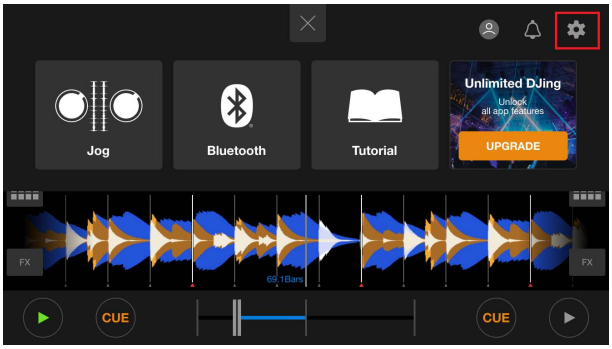
① Set the positions of the knobs etc. as follows:
- [TRIM] knob: turned fully counterclockwise
- EQ [HI/MID/LOW] knobs: center position (12 o' clock)
- [CFX] knob: center position
- Channel fader: bottom position
- [MASTER LEVEL] knob: turned fully counterclockwise
- Crossfader: center position

② Press the [PLAY/PAUSE ►/❚❚] button to play the track.
③ Turn the [TRIM] knob.
Adjust the [TRIM] knob so the channel level indicator lights up orange at the loudest part of the track.
④ Move the channel fader to the top.
⑤ Adjust the volume of the speakers to a level you are happy with.

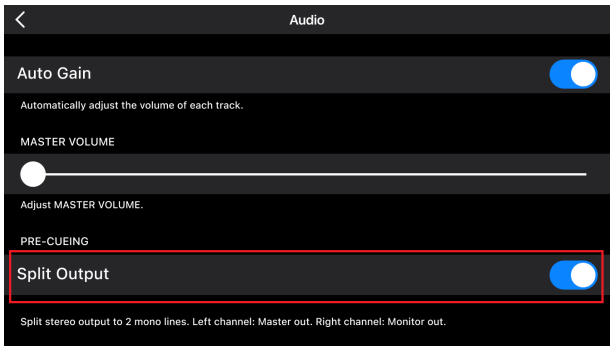
■ Monitoring with headphones when using a Bluetooth connection

① Connect a split cable (not supplied) to your mobile device.
② Connect the speaker to the left channel of the split cable and headphones to the right channel.
③ Start rekordbox for iOS/Android and turn your mobile device screen horizontal to close the browse screen.
④ Tap  at the top-center of the screen.

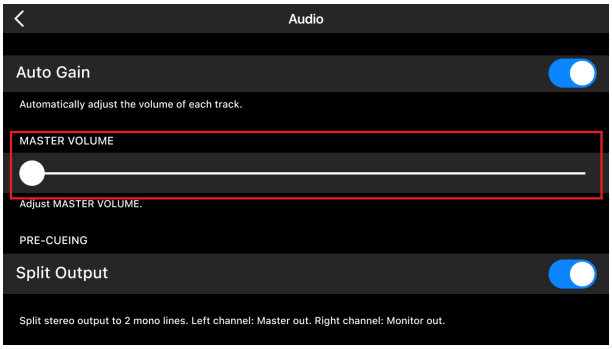
⑤ Tap  to open the [Settings] screen.



⑥ Tap [Audio] > [PRE-CUEING] > [Split Output] to turn it on.



⑦ Press the headphones [CUE] button of channel 1 on the unit.
⑧ Tap [Audio] > [PRE-CUEING] to adjust the volume.



5.8 OPERATION CHECK WITH rekordbox

Procedure for confirming basic operation by rekordbox for Mac/Windows is as below.
For details, refer to Instructions Manual.

rekordbox for Mac/Windows

■ Installing rekordbox for Mac/Windows

Installing (Mac)

① Unzip the downloaded rekordbox for Mac/Windows software file.
② Double-click the unzipped software file to launch the installer.
③ Read the terms of the License Agreement carefully and if you agree to them, click [Agree].
④ When the screen for completing the installation appears, click [Close] to end the installation.

Installing (Windows)

① Unzip the downloaded rekordbox for Mac/Windows software file.
② Double-click the unzipped software file to launch the installer.
③ Read the terms of the License Agreement carefully and if you agree to them, select [Agree], then click [Next].
④ Click [Finish] to complete the installation.

■ Starting rekordbox for Mac/Windows

For Mac

In Finder, open the [Applications] folder, then double-click the [rekordbox 6] > [rekordbox.app] icon.

For Windows 11

In the [Start] menu, open the [All apps] screen, then click the [rekordbox 6] icon under [Pioneer].

For Windows 10

In the [Start] menu, click the [rekordbox 6] icon under [Pioneer].

■ Checking audio setup

Check that the [Audio] settings in [Preferences] in rekordbox for Mac/Windows are set as follows:

For Mac

[Audio]: [DDJ-FLX4]
[Output channels]:
[Master Output]: [DDJ-FLX4 : MASTER + audio device name on Mac]
[Headphones Output]: [DDJ-FLX4 : PHONES]

For Windows

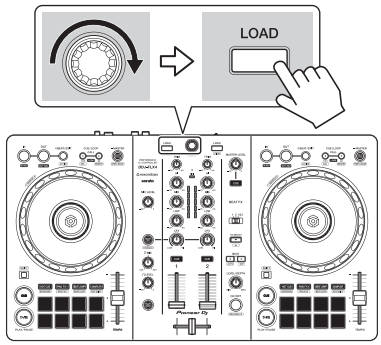
[Audio]: [DDJ-FLX4 WASAPI]
[Output channels]:
[Master Output]: [DDJ-FLX4 WASAPI : MASTER + audio device name on PC]
[Headphones Output]: [DDJ-FLX4 WASAPI : PHONES]

■ Adding music files into your Collection

① Click [Collection] on the tree view.
A list of tracks in your [Collection] is displayed.
② Open Finder (Mac) or Explorer (Windows) and drag music files, or folders containing music files, into the track list. Music files are added into the [Collection] and analysis for the music files begins.

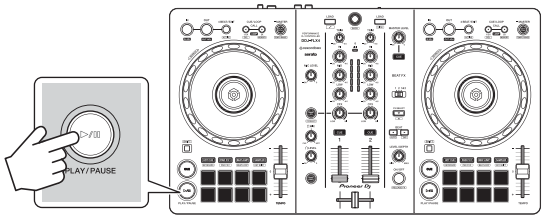
■ Loading an audio track onto a deck

Turn the rotary selector to select a track in your [Collection] and press the [LOAD] button for deck 1 (left).

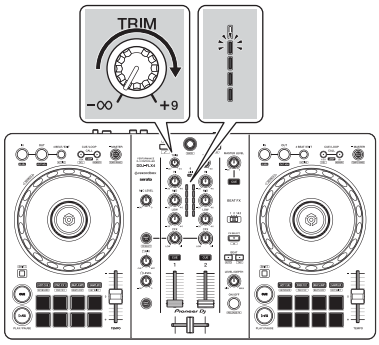


■ Playing a track

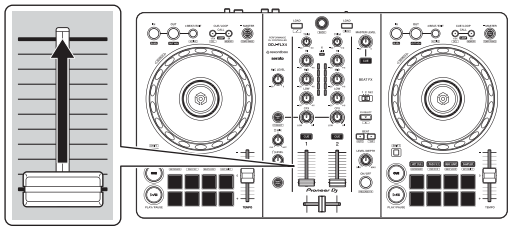
① Set the positions of the knobs, etc. as follows:
• [TRIM] knob: turned fully counterclockwise
• EQ [HI/MID/LOW] knobs: center position (12 o' clock)
• [CFX] knob: center position
• Channel fader: bottom position
• [MASTER LEVEL] knob: turned fully counterclockwise
• Crossfader: center position
② Press the [PLAY/PAUSE►/❚❚] button to play the track.



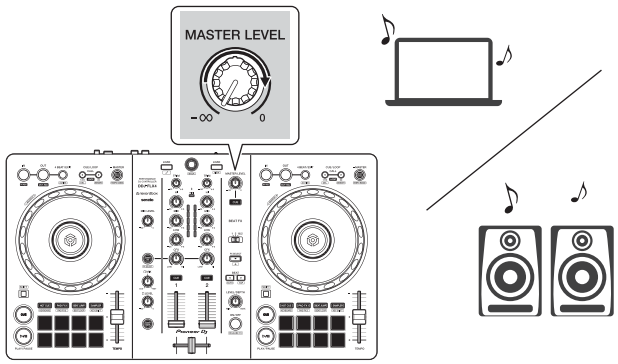
③ Turn the [TRIM] knob.



④ Move the channel fader to the top.



⑤ Turn the [MASTER LEVEL] knob to adjust the volume of the speakers to a level you are happy with.



■ Monitoring with headphones

① Set the positions of knobs, etc. as shown below.
- [HEADPHONES MIX] knob: Center
- [HEADPHONES LEVEL] knob: Turned fully counterclockwise

② Press the headphones [CUE] button for channel 1.

③ Turn the [HEADPHONES LEVEL] knob.
Adjust the headphones volume to a level you are happy with.

6. SERVICE MODE
6.1 TEST MODE

Description of Test modes

The following test modes are provided for this product:

Test mode 1
1-1: Firmware version check mode
1-2: All LEDs lighting and Check mode for self-illuminating buttons
1-3: Check mode for buttons, switches, rotary encoder
1-4: Check mode for knobs, faders, Jog dials
1-5: Factory reset mode
1-6: A/D conversion value fluctuation range check mode
1-7: Crossfader calibration mode
1-8: Jog dial load measurement mode
1-9: Photo interrupter check mode

Test mode 2
2-1: Check mode for Bluetooth connection

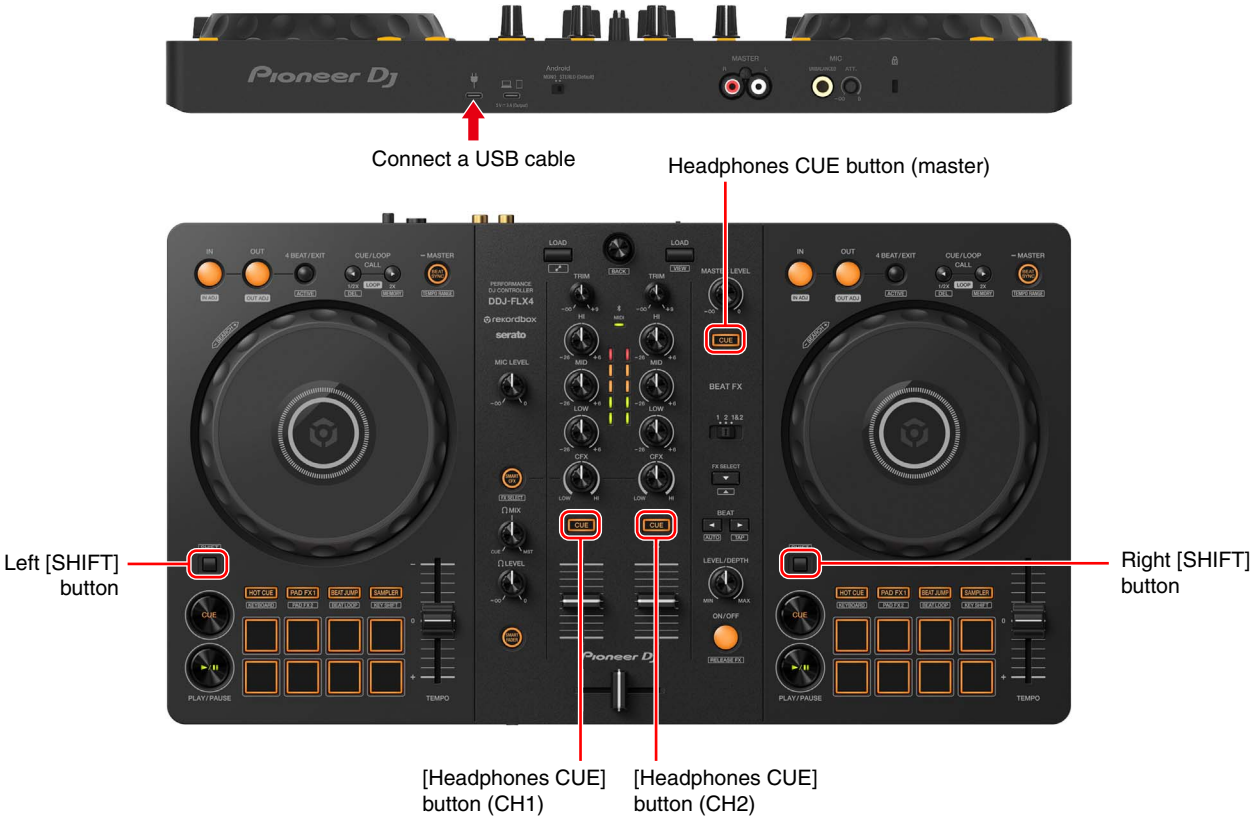
Test mode 3
3-1: Check mode for PD UCOM firmware version

The following items are posted under different titles. Refer to each.
1-7: Crossfader calibration mode ➡ "6.2 CROSSFADER CALIBRATION"
1-8: Jog dial load measurement mode ➡ "6.3 JOG DIAL LOAD MEASUREMENT"
1-9: Photo interrupter check mode ➡ "6.4 PHOTO INTERRUPTER INSTALLATION CHECK"

The following items are not used in the service.
1-6: A/D conversion value fluctuation range check mode

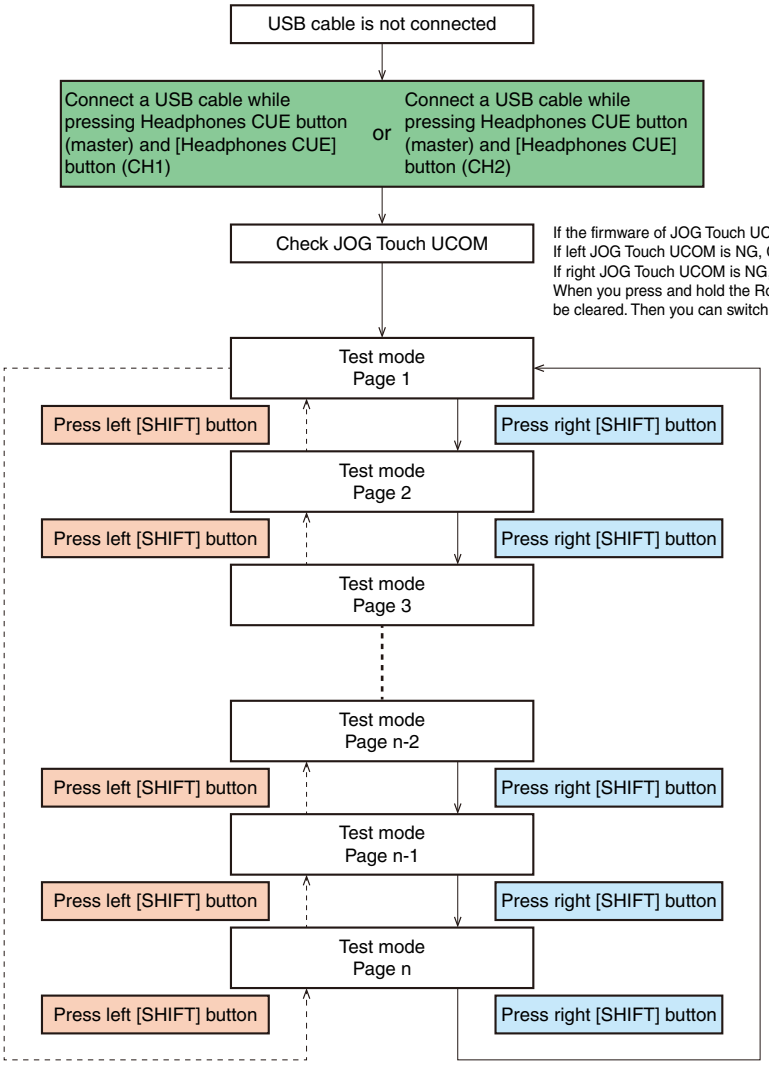
■ How to enter to Test mode

Test mode 1: Connect a USB cable while pressing Headphones CUE button (master) and [Headphones CUE] button (CH1).
Test mode 2: Connect a USB cable while pressing Headphones CUE button (master) and [Headphones CUE] button (CH2).
Test mode 3: Connect a USB cable while pressing [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2).



■ How to switch the pages in the Test mode

Left [SHIFT] button: Previous Page
Right [SHIFT] button: Next Page



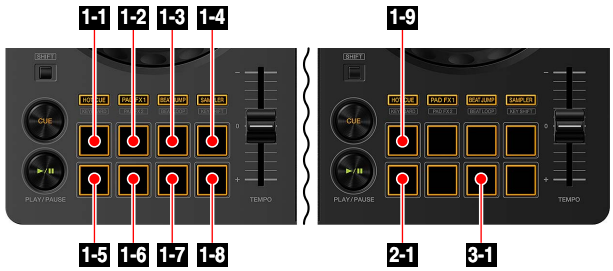
If the firmware of JOG Touch UCOM is not for DDJ-FLEX4, a caution will appear after the Test mode starts.
If left JOG Touch UCOM is NG, CH1 level indicator will light ON.
If right JOG Touch UCOM is NG, CH2 level indicator will light ON.
When you press and hold the Rotary selector for BROWSE for more than 5 seconds, the caution will be cleared. Then you can switch to the Test mode.

[Indication of the page position in Test mode]

When you press [SHIFT] button to switch the other Page, the LED corresponding to each Page will flash*1.
After the LED flashing is over and lights OFF, the process of each Page will start.

*1: 250 ms cycle ON/OFF x4 times

Page No. LED	Page Name
1-1	Firmware version check mode
1-2	All LEDs lighting and Check mode for self-illuminating buttons
1-3	Check mode for buttons, switches, rotary encoder
1-4	Check mode for knobs, faders, Jog dials
1-5	Factory reset mode
1-6	A/D conversion value fluctuation range check mode
1-7	Crossfader calibration mode
1-8	Jog dial load measurement mode
1-9	Photo interrupter check mode
2-1	Check mode for Bluetooth connection
3-1	Check mode for PD UCOM firmware version



Test mode Contents

1-1: Firmware version check mode

This is mode to indicate the version of the firmware. The version is indicated using LEDs.

※ When all horizontal LEDs light OFF, it means zero (0).

1-2: All LEDs lighting and Check mode for self-illuminating buttons

This is mode that all LEDs light ON.
This mode combines check of Self-illuminating buttons.
When entering this mode, all LEDs light ON.
When you press a lit button, LED embedded in the button light OFF. When you press the unlit button again, the LED lights ON.
First LED from the bottom of CH 2 level indicator light OFF while any button is pressed and held. When you release the button, first LED from the bottom of CH 2 level indicator lights ON.

[Target of test]

The target of test is controls and LEDs indicated in magenta (■) in the figure below.

When check of all target controls is completed, All LEDs flash.
Pressing [BEAT ◄] and [BEAT ►] buttons at the same time return to the initial status.

Dim lighting and lighting OFF

When the Rotary selector for BROWSE is pressed while all LEDs light ON, all LEDs are lit dimly.
When the Rotary selector for BROWSE is pressed while all LEDs light dimly, all LEDs are unlit.

1-3: Check mode for buttons, switches, rotary encoder

This mode is check of buttons, switches, and rotary encoder.
When entering this mode, all corresponding LEDs for each control light ON.
When you push/operate each target of button/switch/knob, the corresponding LED light OFF. When you push the button again, the corresponding LED lights ON.
First LED from the bottom of CH 2 level indicator light OFF while any button is pressed and held. When you release the button, first LED from the bottom of CH 2 level indicator lights ON.
When check of all target controls is completed, these LEDs flashes.
Pressing [BEAT ◄] and [BEAT ►] buttons at the same time return to the initial status.

[Target of test]

The target of test is controls indicated in magenta (■) in the figure below.
The Corresponding LED is controls indicated in green (■) in the figure below.
Check of [SHIFT] button excludes from check target. Because it can be checked by moving of page in the Test mode.

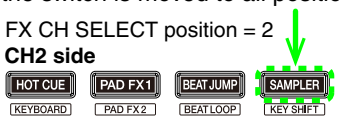
[Detail of Corresponding LED]

The correspondence between each control and LED is as follows.

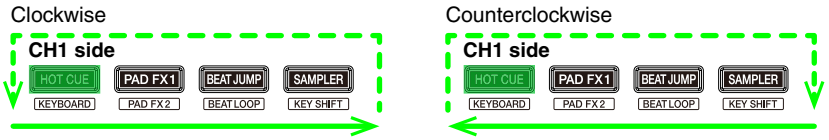
Control to check		Operation	Corresponding LED
L1	CH1 4 BEAT/EXIT	Push	CH1 IN
L2	CH1 CUE/LOOP CALL ◄	Push	CH1 OUT
L3	CH1 CUE/LOOP CALL ►	Push	CH1 BEAT SYNC
L4	CH1 LOAD	Push	CH1 CUE
R1	CH2 4 BEAT/EXIT	Push	CH2 IN
R2	CH1 CUE/LOOP CALL ◄	Push	CH2 OUT
R3	CH1 CUE/LOOP CALL ►	Push	CH2 BEAT SYNC
R4	CH2 LOAD	Push	CH2 CUE
R5	FX CH SELECT	Slide	CH2 HOT CUE*1 CH2 PAD FX1*1 CH2 BEAT JUMP*1 CH2 SAMPLER*1
R6	FX SELECT	Push	FX ON/OFF
R7	BEAT ◄	Push	CH1 Headphones CUE (channel)
R8	BEAT ►	Push	CH2 Headphones CUE (channel)
C1	Rotary encoder for BROWSE	Rotate Push	CH1 HOT CUE*2 CH1 PAD FX1*2 CH1 BEAT JUMP*2 CH1 SAMPLER*2 CH1 Pad 1*2 CH1 Pad 2
C2	ALL buttons	-	CH2 level indicator*3
C3	Android MONO / STEREO Select	Slide	CH2 Pad 1*4 CH2 Pad 2*4 CH2 Pad 3*4

*1: When entering this mode, [PAD MODE] buttons light ON in the figure below.
By sliding the switch, lighting position of LED indicated in green in [PAD MODE] buttons are moved.

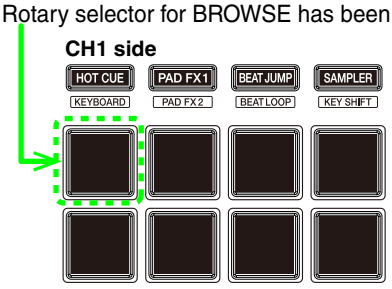
When the switch is moved to all positions, CH2 [SAMPLER] button will light OFF.



*2: When entering this mode, [HOT CUE] button lights ON.
By rotating the Rotary selector for BROWSE, lighting position of LED indicated in yellow in CH1 [PAD MODE] buttons are moved.
When Rotary selector for BROWSE has been rotated one revolution clockwise or counterclockwise, CH1 [Pad 1] is light OFF.



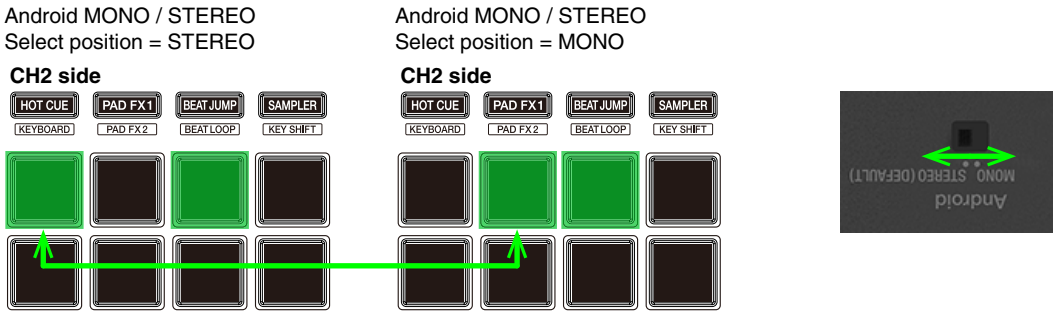
When Rotary selector for BROWSE has been rotated one revolution clockwise or counterclockwise, CH1 [Pad 1] is light OFF.



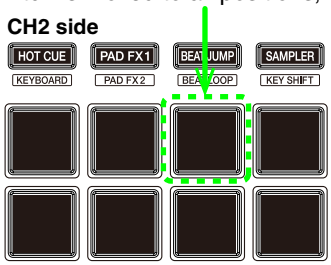
If the Rotary selector for BROWSE is rotated too many times, built-in microcomputer can not judge properly.

*3: LED from the bottom of CH2 level indicator light OFF while any button is pressed and held.
When the button is released, first LED from the bottom of CH2 level indicator lights ON.

*4: When entering this mode, Pads light ON in the figure below.
By sliding the switch, lighting position of LED indicated in green in Pads is moved.



When the switch is moved to all positions, CH2 [Pad 3] will light OFF.



1-4: Check mode for knobs, faders, Jog dials

This is mode to check knobs, faders, and Jog dials.
When each control is tested and judged to be OK (*1, *2, *3, *4), the corresponding LED lights OFF.
When check of all target controls is completed, these LEDs flashes.
Pressing [BEAT ◄] and [BEAT ►] buttons at the same time return to the initial status.

[Target of test]

The target of test is controls indicated in magenta (■) in the figure below.
The Corresponding LED is controls indicated in green (■) in the figure below.

[Detail of Corresponding LED]

The correspondence between each control and LED is as follows.

Control to check		Operation	Corresponding LED
L1	CH1 JOG	Touch Rotate*1	CH1 IN CH1 OUT
L2	CH1 TEMPO	Slide*3	CH1 BEAT SYNC
L3	CH1 TRIM	Rotate*2	CH1 Pad 1
L4	CH1 EQ HIGH	Rotate*2	CH1 Pad 2
L5	CH1 EQ MID	Rotate*2	CH1 Pad 3
L6	CH1 EQ LOW	Rotate*2	CH1 Pad 4
L7	CH1 CFX	Rotate*2	CH1 Pad 5
L8	CH1 Channel fader	Slide*3	CH1 Headphones CUE (channel)
L9	MIC LEVEL	Rotate*2	CH1 Pad 6
L10	HEADPHONES MIX	Rotate*2	CH1 Pad 7
L11	HEADPHONES LEVEL	Rotate*2	CH1 Pad 8

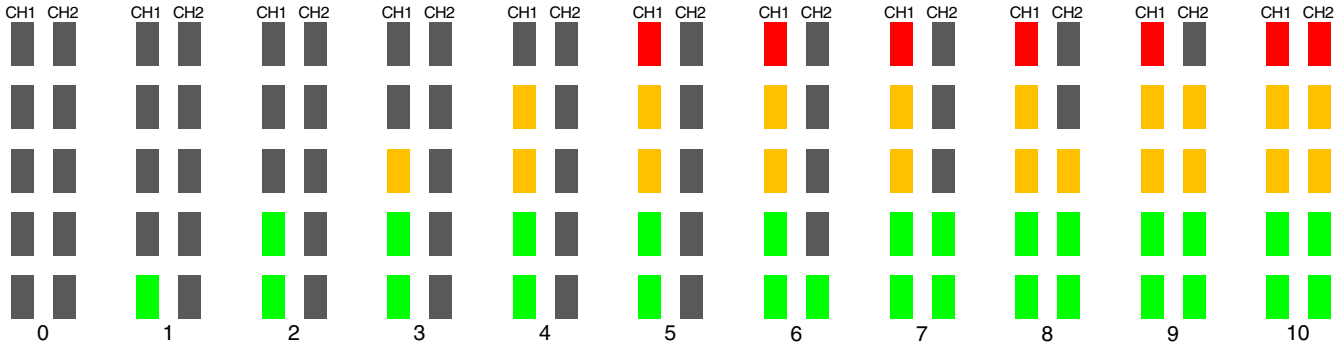
Control to check		Operation	Corresponding LED
R1	CH2 JOG	Touch Rotate*1	CH2 IN CH2 OUT
R2	CH2 TEMPO	Slide*3	CH2 BEAT SYNC
R3	CH2 TRIM	Rotate*2	CH2 Pad 1
R4	CH2 EQ HIGH	Rotate*2	CH2 Pad 2
R5	CH2 EQ MID	Rotate*2	CH2 Pad 3
R6	CH2 EQ LOW	Rotate*2	CH2 Pad 4
R7	CH2 CFX	Rotate*2	CH2 Pad5
R8	CH2 CH FADER	Slide*3	CH2 Headphones CUE (channel)
R9	MASTER LEVEL	Rotate*2	CH2 Pad 6
R10	LEVEL/DEPTH	Rotate*2	CH2 Pad 7
C1	Crossfader	Slide*3	Bluetooth MIDI indicator
C2	ALL	-	CH level indicator*4

*1: When Jog dial has been rotated one revolution clockwise, corresponding LED is light OFF.
If a Jog dial is rotated counterclockwise or rotated many times, built-in microcomputer can not judge properly.

*2: When a knob is turned clockwise or counterclockwise, CH level indicators light ON.
Total number of LEDs to be lit depends on knob's position*4. Once the knob has been turned fully clockwise and fully counterclockwise*5, corresponding LED is light OFF.

*3: When a slider is slid, CH level indicators light ON.
Total number of LEDs to be lit depends on slider's position*4. Once the fader has been slid to bottom position and top position*5, corresponding LED is light OFF.

*4: The order in which the LEDs light up is as follows.
However, the lighting order is reversed only for the TEMPO slider.



*5: If built-in microcomputer has read the following thresholds from A/D converter, it is judged as OK.

Control to check	Lower limit detection	Upper limit detection
TEMPO TRIM EQ HIGH EQ MID EQ LOW CFX	Less than 51	More than 972
Channel fader	Less than 26	More than 965
MIC LEVEL HEADPHONES MIX HEADPHONES LEVEL MASTER LEVEL LEVEL/DEPTH Crossfader	Less than 51	More than 972

1-5 : Factory reset mode

This mode is to initialize settings to factory default values.
When both of CH1 and CH2 [BEAT SYNC] buttons are pressed and held for over one second, the LEDs of these buttons will light ON.
Once factory reset is completed, all Pads will light up.
When factory reset fails, CH1 and CH2 [BEAT SYNC] buttons will flash.

The following settings will be reset back to the factory default.

Setting Items	Factory default setting value
Demo mode	ON (After 10 min)
Back Spin Length	Normal
Fader Start	ON
Crossfader Reverse	Disable
Crossfader Cut Lag	7

Note: Even if the factory reset is done, the Crossfader calibration data will not be reset.

2-1 : Check mode for Bluetooth connection

This is mode to check connection between the Unit and a smartphone via Bluetooth.
When entering this mode, Bluetooth MIDI indicator and all Pads flashes. Bluetooth function is disabled.
When any left pad is pressed, Bluetooth function is turned on. Pad to be pressed lights ON.
Device name to be displayed on a smartphone is changed depending on pad to be pressed.

Channel	Pad	Device name	Channel	Pad	Device name
1	1	DDJ-FLX4_1	2	1	DDJ-FLX4_9
	2	DDJ-FLX4_2		2	DDJ-FLX4_10
	3	DDJ-FLX4_3		3	DDJ-FLX4_11
	4	DDJ-FLX4_4		4	DDJ-FLX4_12
	5	DDJ-FLX4_5		5	DDJ-FLX4_13
	6	DDJ-FLX4_6		6	DDJ-FLX4_14
	7	DDJ-FLX4_7		7	DDJ-FLX4_15
	8	DDJ-FLX4_8		8	DDJ-FLX4_16

Once connection between the unit and a smartphone via Bluetooth is established, Bluetooth MIDI indicator lights up.
In order to change device name to be displayed on a smartphone, Disconnect USB cable from the unit. Then enter this mode again.

3-1: Check mode for PD UCOM firmware version

This is mode to indicate the version of the PD UCOM firmware. The version is indicated using LEDs.

※ When all horizontal LEDs light OFF, it means zero (0).

6.2 CROSSFADER CALIBRATION

This mode is for performing calibration of the Crossfader.

[Operation procedures]

When entering the Crossfader calibration mode, left [Pad 8] and right [Pad 5] are light ON.
And [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2) are light ON.

Move Crossfader to left edge, then press left [Pad 8].
➡ Left [Pad 4] and [Pad 8] will light ON.
The minimum value of Crossfader is stored at this time.

Move Crossfader to right edge, then press right [Pad 5].
➡ Right [Pad 1] and [Pad 5] will light ON.
The maximum value of Crossfader is stored at this time.

Press [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2) at the same time.
➡ Left [SAMPLER] and right [HOT CUE] buttons will light ON.
Finish to store the Crossfader calibration value

Note: Even if the factory reset is done, the Crossfader calibration data will not be reset.

■ Error indication

When an error occurs, left [HOT CUE] and right [SAMPLER] buttons will flash.

[The probable error]

- It occurs when [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2) are pressed without setting the maximum and minimum values
- It occurs when the relationship between the magnitudes of the maximum and minimum values is wrong
- It occurs when the fluctuation of the Crossfader value acquired via A/D converter is 4 or more

When the error occurred and the re-calibration is performed, press [SHIFT] button to re-entry this mode.

[Indication when the calibration is not being performed]

If calibration is not performed, left and right [BEAT SYNC] buttons will flash.

The timing [BEAT SYNC] buttons flash:

At normal start up, Crossfader calibration mode of Test mode, or Utility mode.

6.3 JOG DIAL LOAD MEASUREMENT

This is the measurement mode of the load of Jog dial.
Perform this operation only if you have replaced the Jog dial.
When switch for the Crossfader calibration mode, left [IN] button, [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2) light ON.

[Procedure of operations]

1. Spin the Jog dial swiftly.
   When the rotation speed of the Jog dial exceeds 7x speed, the time required for slowdown will be evaluated whether it is in the range or not.
   To start measurement, the Jog dial must be set to at least 7x speed. If the speed is less than 7x, Pad LEDs (8 Pads) will flash several times.

   Top speed : Top speed (when normal speed is defined as one rotation in 1.8 s)
   Time required for slowdown : Time required for the Jog dial to decrease its rotation speed from 3x to 1.5x speed

2. The number of sessions will be indicated up to four sessions on LED as follows.
   The end of 1st session ➡ [HOT CUE] button lights ON
   The end of 2nd session ➡ [PAD FX] button lights ON
   The end of 3rd session ➡ [BEAT JUMP] button lights ON
   The end of 4th session ➡ [SAMPLER] button lights ON
   After the end of 4th session I Remain unchanged

   The measurement can be continued five sessions and more, however the number of sessions will not be indicated.
   When the session is completed, the result will be indicated on LED.
   The specified values for Production criterion and Service criterion are the same.
   [Production criterion: 100 ms ±40 ms]
   [Service criterion: 100 ms ±40 ms]

3. [OUT] button will light ON if the measurement results meet the production criterion and will flash if it does not.
   [BEAT SYNC] button will light ON if the measurement results meet the service criterion and will flash if it does not.

   If the measurement result is NG, Pad LED indicates as follows.
   Heavy (compared to the production criterion) ➡ [Pad 5] lights ON
   Light (compared to the production criterion) ➡ [Pad 6] lights ON
   Heavy (compared to the service criterion) ➡ [Pad 7] lights ON
   Light (compared to the service criterion) ➡ [Pad 8] lights ON

   When [Headphones CUE] button (CH1) and [Headphones CUE] button (CH2) are pressed at the same time, the history of measurements are cleared.

[OUT] button will light ON if the measurement results meet the production criterion and will flash if it does not.

[BEAT SYNC] button will light ON if the measurement results meet the service criterion and will flash if it does not.

Flashes when the speed is less than 7x.

Indicates the results of up to four measurements.

Light ON when the result compared to the service criterion is Heavy.

Light ON when the result compared to the service criterion is Light.

Light ON when the result compared to the production criterion is Heavy.

Light ON when the result compared to the production criterion is Light.

6.4 PHOTO INTERRUPTER INSTALLATION CHECK

This is mode to check the status of Photo interrupter.
When switch for this mode, right [IN] button lights ON.

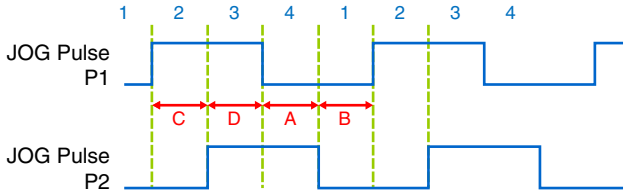
[Procedure of operations]

1. Spin the Jog dial swiftly.
   To start measurement, the Jog dial must be set to at least 10x speed. If the speed is less than 10x, no result will be indicated.

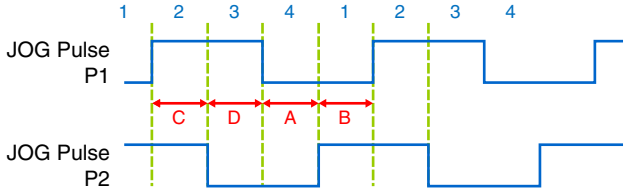
2. The number of sessions will be indicated up to four sessions on LED as follows.
   The end of 1st session ➡ [HOT CUE] lights ON
   The end of 2nd session ➡ [PAD FX] lights ON
   The end of 3rd session ➡ [BEAT JUMP] lights ON
   The end of 4th session ➡ [SAMPLER] lights ON
   After the end of 4th session ➡ Remain unchanged

3. [BEAT SYNC] button will light ON if the measurement result is OK and will flash if it does not.

Clockwise

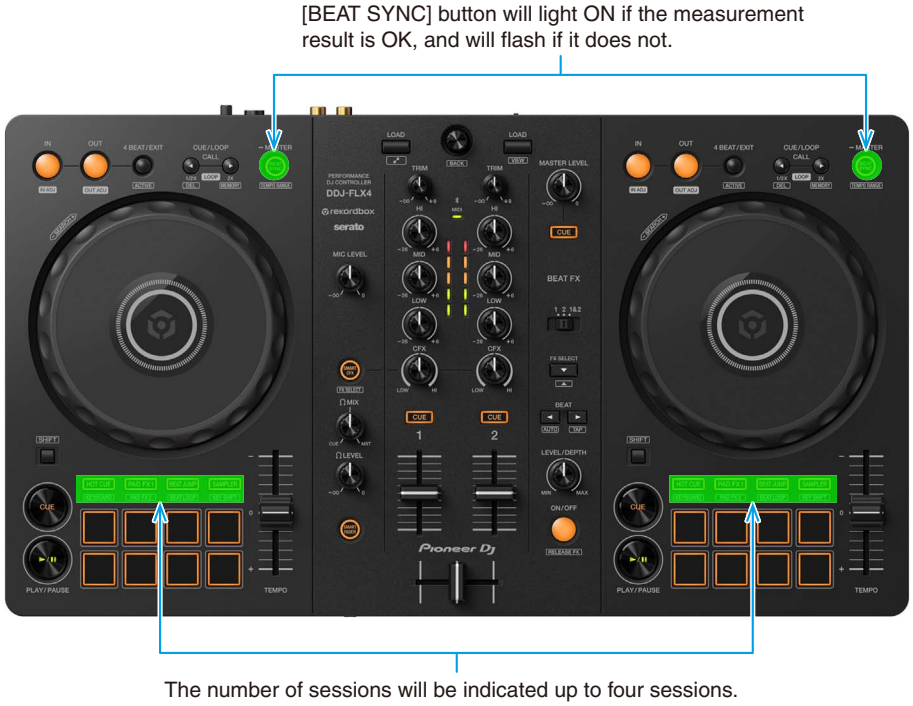


Counterclockwise



Measure the time (A to D) in in each range of the speed: x21~x19/ x16~x14/ x11~x9/ x6~x4.
OK ➡ If all of the following conditions are satisfied, [BEAT SYNC] button will light ON
- Phase relations are normal
- The minimum value of A to D for all ranges is 10 µs or greater
- The time of [x11~x9] (Clockwise: "B"; Counterclockwise: "A") is 200 µs or greater

NG ➡ If even one of the above conditions is not satisfied, [BEAT SYNC] button will flash.



6.5 ABOUT THE DEVICE

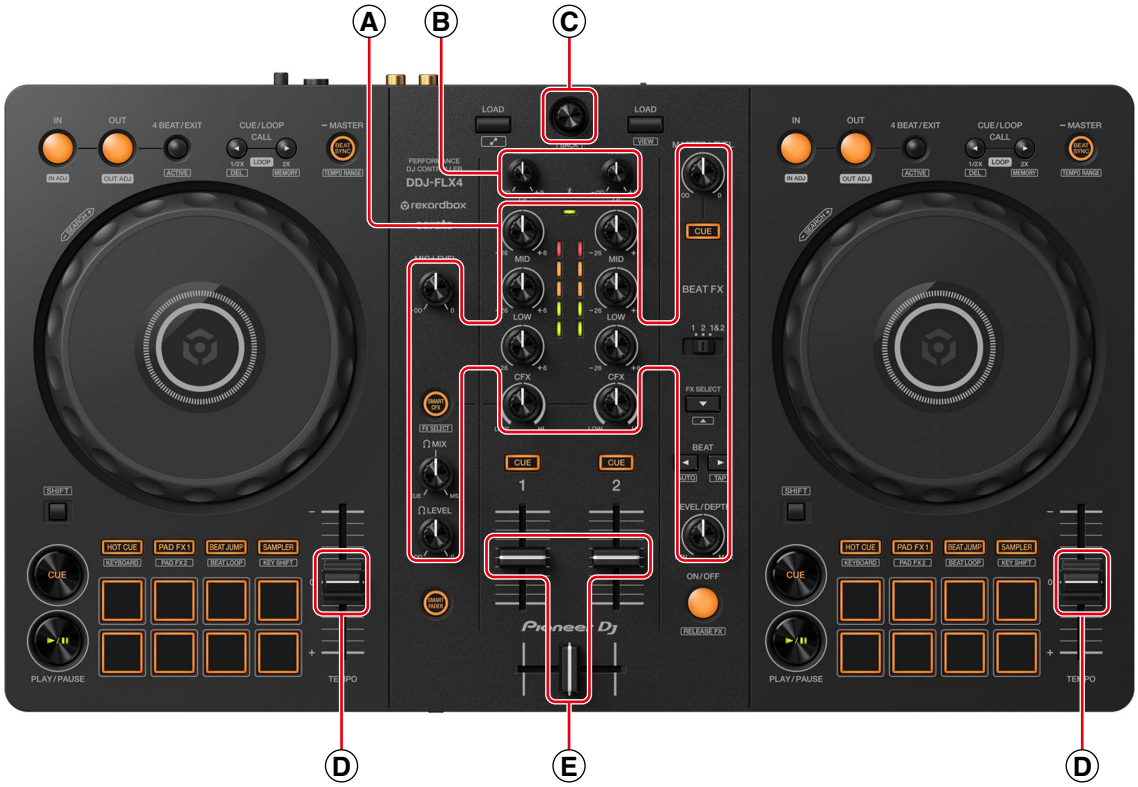
Device Name	Function	Part No.	Ref No.	Assy
MAIN UCOM (RT UCOM)	Element, LED, USB, Audio control	MIMXRT1062DVJ6B@V	IC2902	MAIN
SPI Flash	Flash memory for MAIN UCOM	DYW※※※※	IC3001	MAIN
PD UCOM (PD Controller)	Power Delivery controller	VL103R-Q4@V (NSP)	IC3401	MAIN
SPI Flash	Flash memory for PC Controller	DYW※※※※	IC3402	MAIN
AUDIO ADC	AD converter for MIC input	PCM1803ADB	IC708	MAIN
AUDIO DAC	DA converter for MASTER output	PCM1753DBQ	IC701	MAIN
	DA converter for HP output	PCM1753DBQ	IC703	MAIN
AUDIO AMP	HP amplifier IC	BH3547F	IC706	MAIN
MFi AUTHENTICATION IC	MFi certified IC	MFI343S00176@V	IC3602	MAIN
CC PROTECTION IC	CC pin protection IC	DPO2036DBB@V	IC3606	MAIN
DC/DC CONVERTER	DC/DC converter for V+7A / V-6A Op amplifier	NJM2392M	IC207	MAIN
	DC/DC converter for V+VBUS Main unit power supply	NJW4152GM1-AB@V (NSP)	IC3202	MAIN
	DC/DC converter for V+5TPSOUT device power supply	FAN23SV06PAMPX@V	IC3609	MAIN
Regulator	V+3R3_SH Regulator for MAIN UCOM	MM3411A33N	IC202	MAIN
	V+3R3_D Regulator for ADC / photo interrupter	MM3411A33N	IC211	MAIN
	V+5_A ADC/DAC regulator	MM1856A50N	IC204	MAIN
	V+5HP AHP regulator	MM1856A50N	IC210	MAIN
High side SW	High side switch for power supply path	AP22615AWU@V	IC3205	MAIN
JOG Touch UCOM	JOG touch detection	DYW※※※※	IC1401	PNL1
		DYW※※※※	IC2401	PNL2
Photo Interrupter	JOG rotation detection	ITR9606/F17@V	PC1401, PC1402	PNL1
			PC2401, PC2402	PNL2

Note on DYW※※※※
The "※※※※" part of the part number changes each time the firmware is updated.

7. DISASSEMBLY

Note: Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Knobs and Volumes Location



A	B	C	D	E
DAA1324 ×13	DAA1476 ×2	DAA1273	DNK6769 ×2	DAC2685 ×3 + DAC3539 ×3 + DNK6009 ×3
White / Black	White / Black	Black	White / Black	DAC2685 — White; DAC3539 — Black; DNK6009 — White

Disassembly

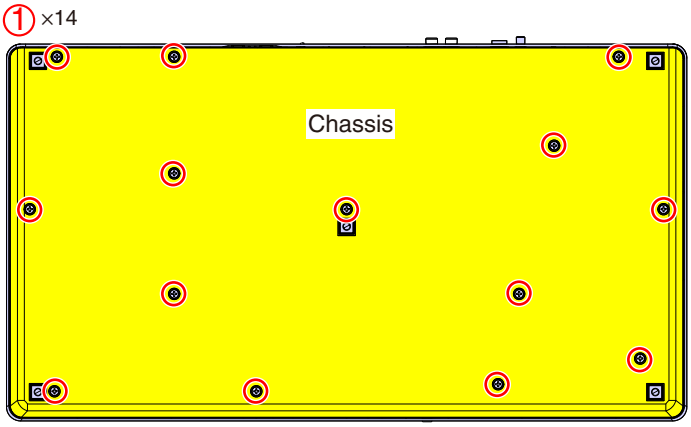
[1] Bottom Section

[1-1] Chassis

① Remove the 14 screws and then remove the Chassis.
(BPZ30P100FTB)

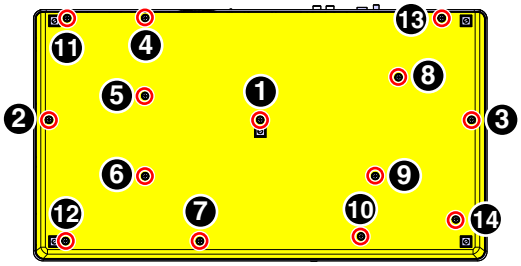
Caution:
Be sure to use the following screw at the reassembling!

BPZ30P100FTB



• Bottom view

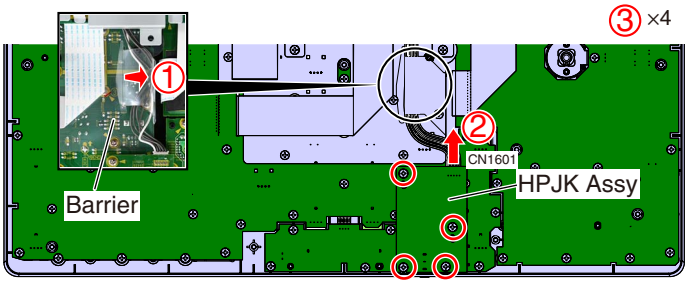
Screw tightening order



[1-2] HPJK and MAIN Assys

• HPJK Assy

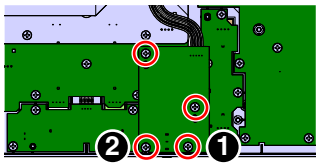
① Unhook the hook and then release the jumper wire.
② Disconnect the one connector.
(CN1601)
③ Remove the 4 screws and then remove the HPJK Assy.
(BPZ30P080FTC)



• Bottom view

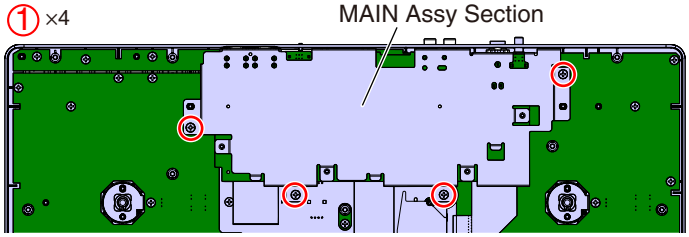
Screw tightening order

The other screws are random order.



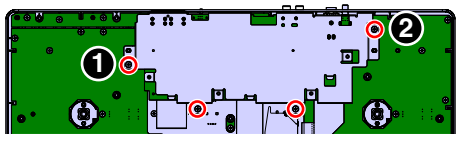
• MAIN Assy

① Remove the 4 screws and then remove the MAIN Assy.
(BPZ30P080FTC)



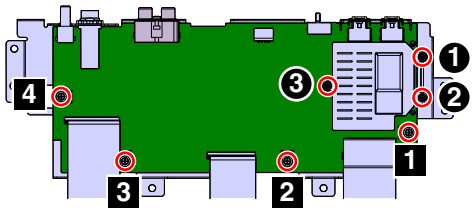
Screw tightening order

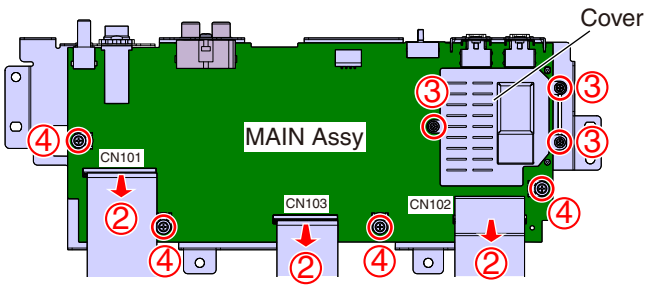
The other screws are random order.



② Disconnect the 3 FFCs.
(CN101-103)
③ Remove the 3 screws and then remove the Cover.
(IPZ20P060FTC)
④ Remove the 4 screws.
(ASZ26P050FTC)

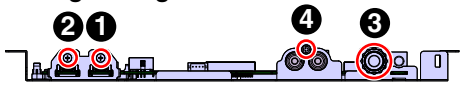
Screw tightening order

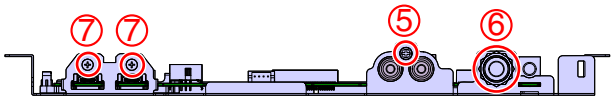




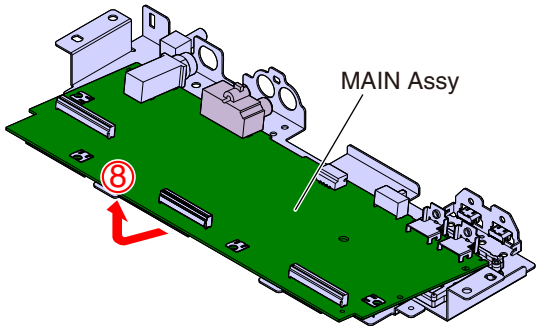
⑤ Remove the one screw.
(PPZ30P080FTB)
⑥ Remove the one nut.
(NKX2FNI)
⑦ Remove the 2 screws.
(DBA1340)
⑧ Pull out the MAIN Assy toward you and remove it.

Screw tightening order





• Rear view

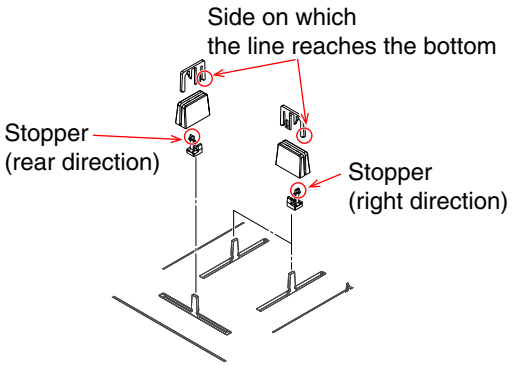


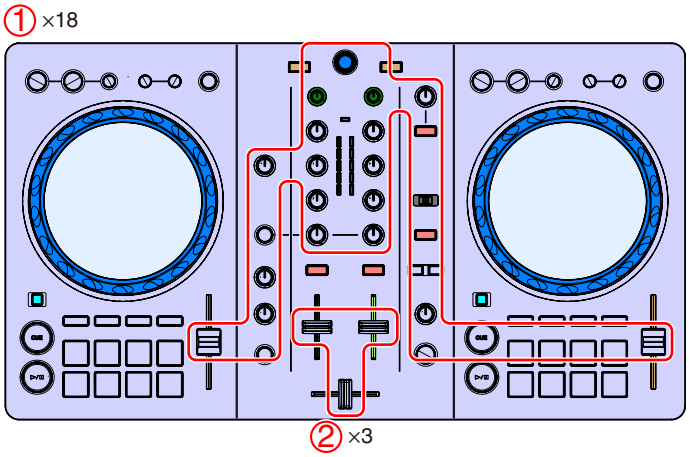
[2] Control panel Section

[2-1] Knobs

① Remove all knobs.
② Remove the 3 Slider knobs 2, 3 knobs, 3 Stopper/SLDs.
(See next page.)

The reference of the direction

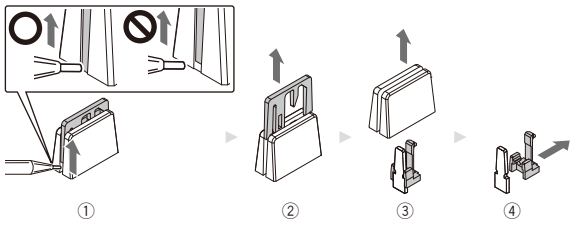




■ Assembly / Reassembly of the Slider Knob 2, Knob, and Stopper/SLD

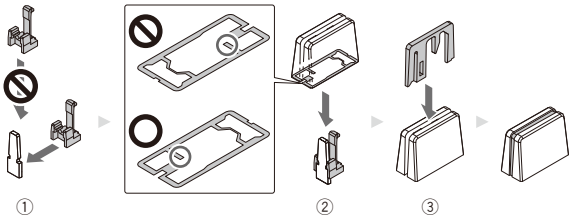
-Disassembly-

① Lift the lower end of the Slider knob 2, using a pointed tool.
② Pull the Slider knob 2 out upward.
③ Pull the Knob out upward.
④ Pull the Stopper/SLD out horizontally.



-Reassembly-

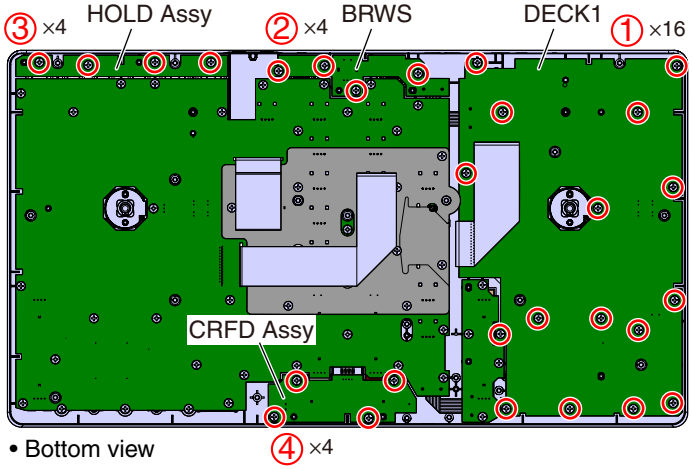
① Insert the Stopper/SLD horizontally.
② Insert the Knob, paying attention to its orientation.
③ Insert the Slider knob 2, paying attention to its orientation.



[2-2] Each PCBs

• DECK1, BRWS, HOLD Assy and CRFD Assy

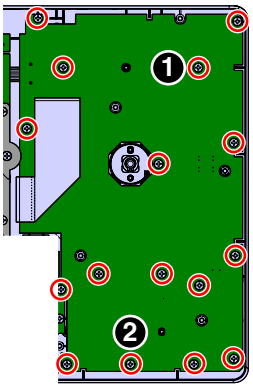
① Remove the 16 screws and then remove the DECK1.
(BPZ30P080FTC)
② Remove the 4 screws and then remove the BRWS.
(BPZ30P080FTC)
③ Remove the 4 screws and then remove the HOLD Assy.
(BPZ30P080FTC)
④ Remove the 4 screws and then remove the CRFD Assy.
(BPZ30P080FTC)

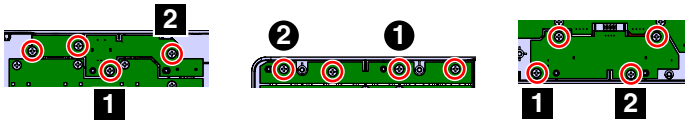


• Bottom view

Screw tightening order

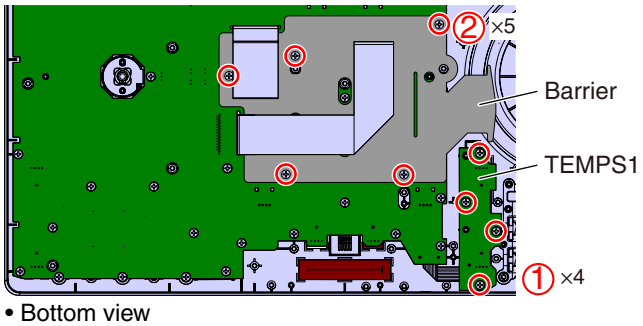
The other screws are random order.





• TEMPS1 and PNL2

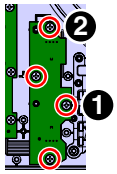
① Remove the 4 screws and then remove the TEMPS1.
(BPZ30P080FNI)
② Remove the 5 screws and then remove the Barrier.
(BPZ30P080FNI)



• Bottom view

Screw tightening order

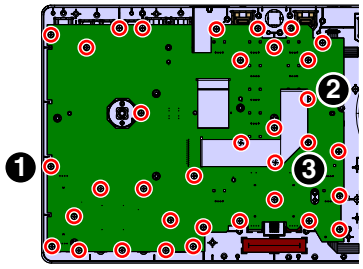
The other screws are random order.

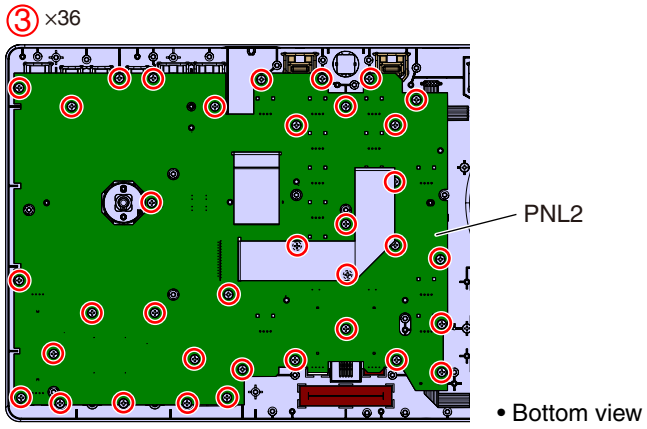


③ Remove the 36 screws and then remove the PNL2.
(BPZ30P080FTC)

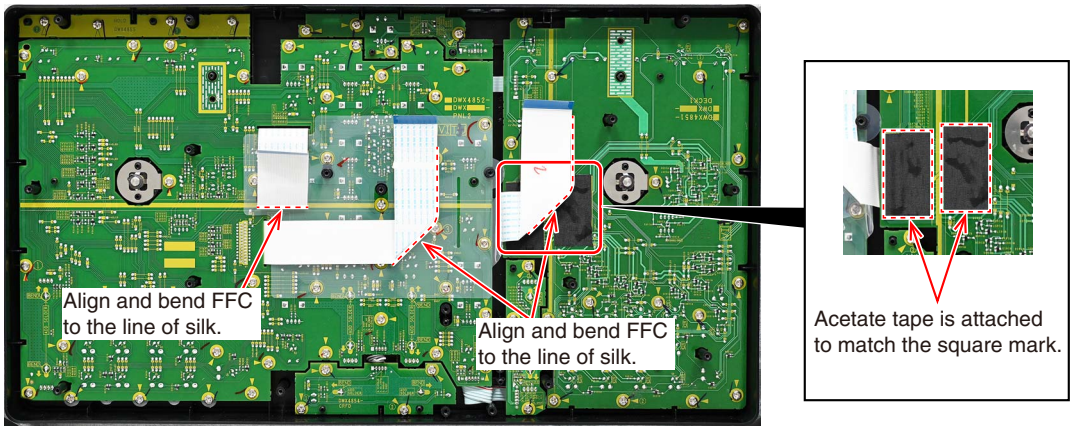
Screw tightening order

The other screws are random order.





■ FFC styling



[2-3] Jog dial Section

When you remove the Jog dial Section, it is not necessary to remove each PCB assemblies.
Figures show only right deck side, but the left deck side is similar, too.

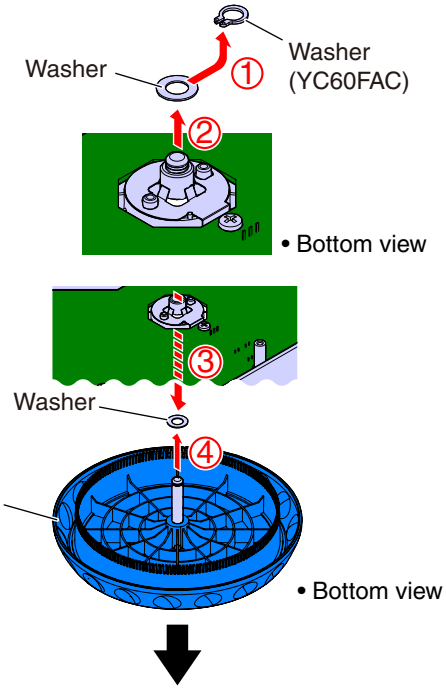
① Remove the washer.
(YC60FAC)
② Remove the washer.
(WA62D095D050)
③ Remove the Jog dial Section.
④ Remove the washer.
(WA62D095D050)

● Note for assembling

Wipe off the old grease and apply new grease.
(See "Procedure for applying grease during reassembly of the Jog dial".)

● About disassembly/assembly of washer (YC60FAC)

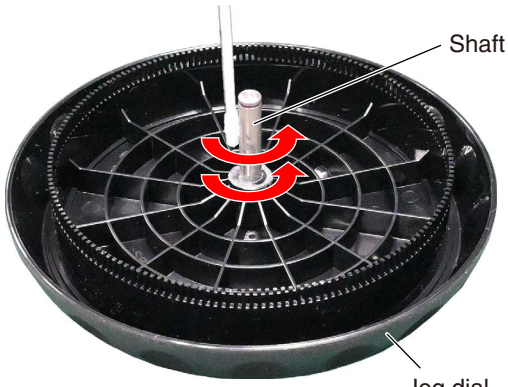
Use a jig. (Snap ring pliers with a thin tip are recommended)



Procedure for applying grease during reassembly of the Jog dial

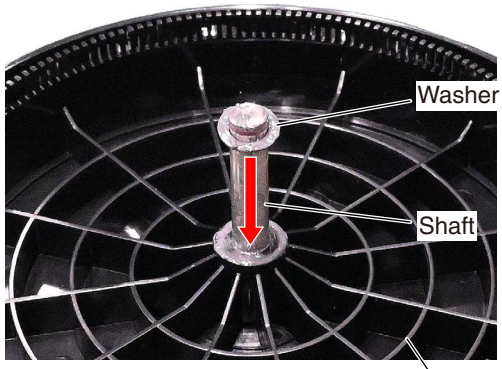
Note: If you remove the Jog dial, wipe off the grease on both the Jog dial side and the bearing side of the Control panel, and apply new grease according to the following procedure.
Grease to be used: GEM1100

① Apply one round to the tip and base of the Jog dial shaft.



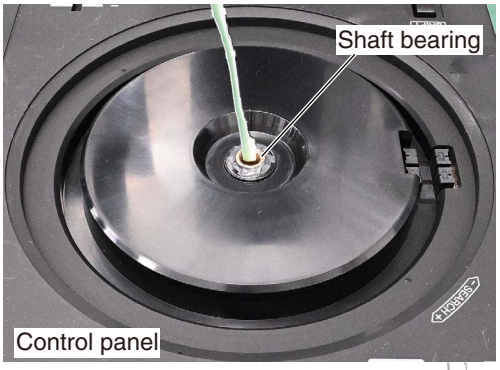
• Bottom view

② Insert the washer to the shaft and drop it toward the base of the shaft.
(WA62D095D050)

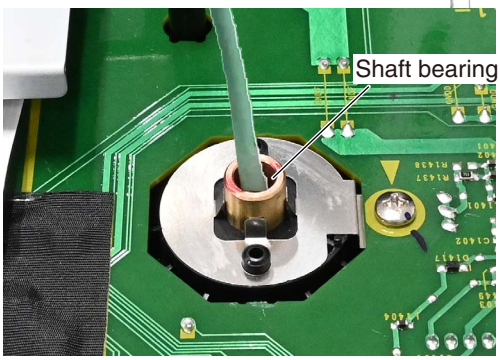


• Bottom view

③ Apply grease lightly to the shaft bearing of the Control panel up to a depth of approximately 10 mm from the upper-panel side. Then turn the Control panel over and apply grease from the opposite side in the same manner.



• Top view

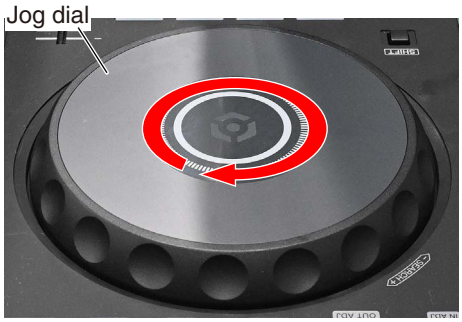


• Bottom view

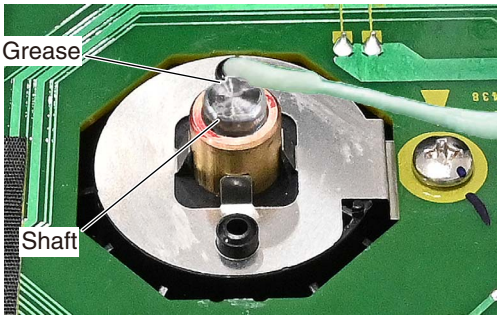
④ Turn the Control panel over again and apply a small amount to the top surface of the shaft bearing.

• Top view

⑤ Insert the Jog dial in the shaft bearing while turning it.

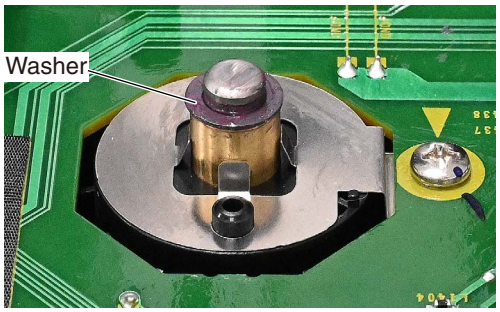


⑥ Turn the Control panel over, and then wipe off the excess grease.



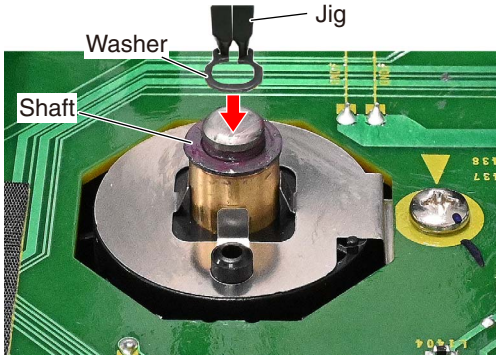
• Bottom view

⑦ Insert the Washer to the shaft.
(WA62D095D050)



• Bottom view

⑧ Fit the Washer on the groove of the shaft.
(YC60FAC)



• Bottom view

Washer must be fit rightly on the shaft groove without slanting, etc.

OK

NG

⑨ Turn the Control panel over, and then check if the Jog dial rotates properly.

⑩ Perform manual running-in rotations of the Jog dial, as follow to procedure below.

1 Turn the Jog dial manually 50 rotations.

2 Perform failure judgment of the Jog dial.
See "6.3 JOG DIAL LOAD MEASUREMENT".

3-1 In the case of failure because of excessive load, repeat the following procedure until a good result is obtained in failure judgment. Manually turn the Jog dial 50 rotations then perform failure judgment of the Jog dial again.

3-2 In the case of failure because of insufficient load, apply grease again.
(Repeat the above procedures from Step ①.)

※ After removing the Jog dial, wipe off the grease tentatively.

8. EACH SETTING AND ADJUSTMENT
8.1 NECESSARY ITEMS TO BE NOTED

After repairing, be sure to check the version of the firmware, and if it is not the latest one, update to the latest version.
Perform each item when the following parts are replaced.

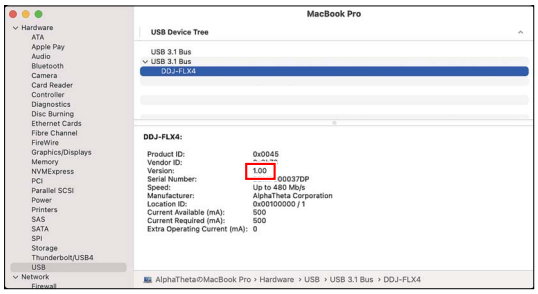
• IC/PCB Assy storing firmware, Utilities mode setting value, Crossfader calibration value Flash memory IC3001 / MAIN Assy	➡ • Crossfader calibration (6.2 CROSSFADER CALIBRATION) • Confirmation of the version of the firmware • Updating to the latest version of the firmware (8.2 UPDATING OF THE FIRMWARE) (8.3 UPDATING OF THE POWER DELIVERY FIRMWARE) • WRITING THE SERIAL NUMBER OF THE UNIT (8.4 WRITING THE SERIAL NUMBER OF THE UNIT) (8.5 SERIAL NUMBER CHECK METHOD) • Restore user settings to original user settings if possible (8.6 USER SETABLE ITEMS)
• Jog dial	➡ • Jog dial load measurement (6.3 JOG DIAL LOAD MEASUREMENT)
• Crossfader related parts	➡ • Crossfader calibration (6.2 CROSSFADER CALIBRATION)
• Photo interrupter/PCB Assy PC1401, PC1402 / DECK1 Assy PC2401, PC2402 / PNL2 Assy	➡ • Photo interrupter installation check (6.4 PHOTO INTERRUPTER INSTALLATION CHECK)

8.2 UPDATING OF THE FIRMWARE

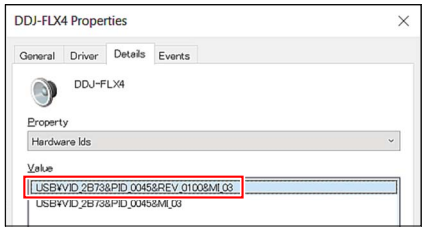
A. Checking the current firmware version of DDJ-FLX4

1. Connect your DDJ-FLX4 to your PC/Mac using a USB cable.
2. Check the Firmware Version.

• For Mac:
Click Apple menu > [About This Mac] > [System Report] > [Hardware] > [USB] and check the version displayed for the DDJ-FLX4.



• For Windows:
① Right-click the Start button and select [Device Manager] from the displayed menu.
② Open Properties of [Sound, video and game controllers] > [DDJ-FLX4] and select the Details tab.
③ Select [Hardware Ids] from the [Property] drop-down menu.
④ The x part of “USB¥VID_2B73&PID_0045&REV_xxxx” displayed is the firmware version.
(For example, USB¥VID_2B73&PID_0045&REV_0100 means the firmware version is 1.00.)



B. Checking the downloaded file

1. Unzip the downloaded file.

• For Mac:
Save the downloaded file [DDJ-FLX4_vxxx_MAC.zip] to a folder such as desktop and unzip it.
The [DDJ-FLX4_vxxx_MAC.dmg] file is generated when the file is unzipped and then double click it to mount.

• For Windows:
Save the downloaded file [DDJ-FLX4_vxxx_Win.zip] to a folder such as desktop and unzip it.

2. Check the unzipped file.

• For Mac:
The [DDJ-FLX4_vxxx_MAC] folder is generated when the file is extracted. Please ensure the following file is included in the folder.
[DDJ-FLX4_vxxx.app]

• For Windows:
The [DDJ-FLX4_vxxx_WIN] folder is generated when the file is unzipped. Please ensure the following file is included in the folder.
[DDJFLX4UpdateProgram.exe]
[ddjflx4hid.dll]
[ddjflx4__vxxx.bin]

xxx is the new version number of the firmware.
Depending on your computer settings, the extension such as .exe or .app may not be displayed.

C. Preparing for the update on the DDJ-FLX4

1. Connect the DDJ-FLX4 to your PC/Mac.
   Connect your DDJ-FLX4 to your PC/Mac using a USB cable.

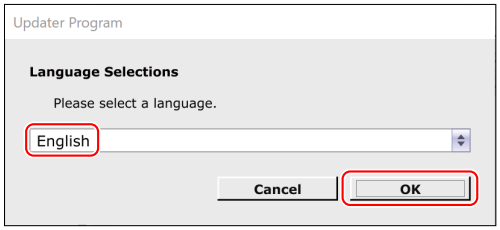
D. Updating the firmware through your PC/Mac

1. Updating procedures
   Before updating, close all the applications running on PC/Mac.

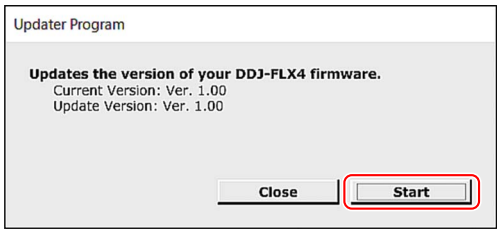
   <STEP1> Open the updater program.
   • For Mac:
   Double click [DDJ-FLX4_vxxx.app].

   • For Windows:
   Double click [DDJFLX4UpdateProgram.exe].

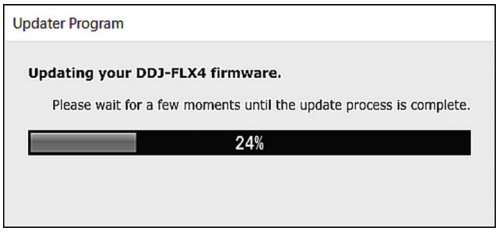
   <STEP2> Select a language.
   Select a language you want to use and click “OK.”



   <STEP3> Check the firmware version.
   Ensure that the version is x.xx. Click “Start.” (The figure below is an example.)
   Do not disconnect the USB cable during the update.
   Please use an AC adaptor to power your laptop during update.

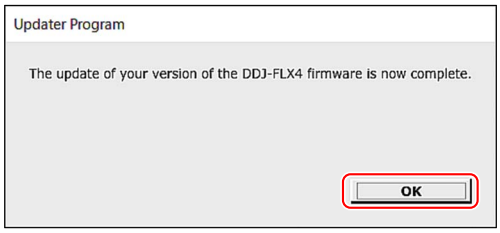


   <STEP4> During the update
   Please wait until the progress bar reaches to the right end.



   While the update is in progress, the level indicator of DDJ-FLX4 blinks.

<STEP5> The update process is complete.
If the message below is displayed, click “OK.”



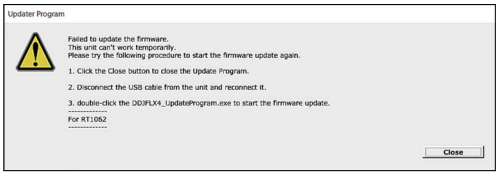
<STEP6> Reboot the DDJ-FLX4.
After the update is complete, the DDJ-FLX4 will automatically reboot.

E. Checking the firmware version

Check the firmware version of the DDJ-FLX4 as described in “A. Checking the current firmware version of DDJ-FLX4”. When you find the version you wanted, the firmware update is successfully complete.

Tips: When you fail to update the firmware

If you fail to update, click “Close,” disconnect the USB cable, and start from “C. Preparing for the update on the DDJ-FLX4”.



[Reference information]

This updater program has been verified to operate on the operating systems below.
Mac: macOS Monterey 12 / macOS BigSur 11 / macOS Catalina 10.15
Windows: Windows 11 / Windows10

Approximately 2 minutes is required for the update.
The images may differ from the ways described in this Manual.

8.3 UPDATING OF THE POWER DELIVERY FIRMWARE

Introduction

● This updater program has been verified to operate on the operating systems below.
Windows 11 / Windows 10

● Installing updater program
Double-click "VL100MPTool_Setup_V1.0.0.36n_20200512.exe" and follow the on-screen instructions to install the updater program.

● Things to prepare
- USB power adapter
- Two USB cables(A to C)
- [DDJ-FLX4_PD_vxx.bin]
  xx is the latest version number of the firmware.

(Note)
- The upload program and upload files will be posted on the WCS: Service Information Website.
  When updating the firmware, we will notify you by issuing a service information.
- Currently, there are no plans to release the upload program and upload files to general users. It is planned to be offered only on service routes.

Checking the current firmware version

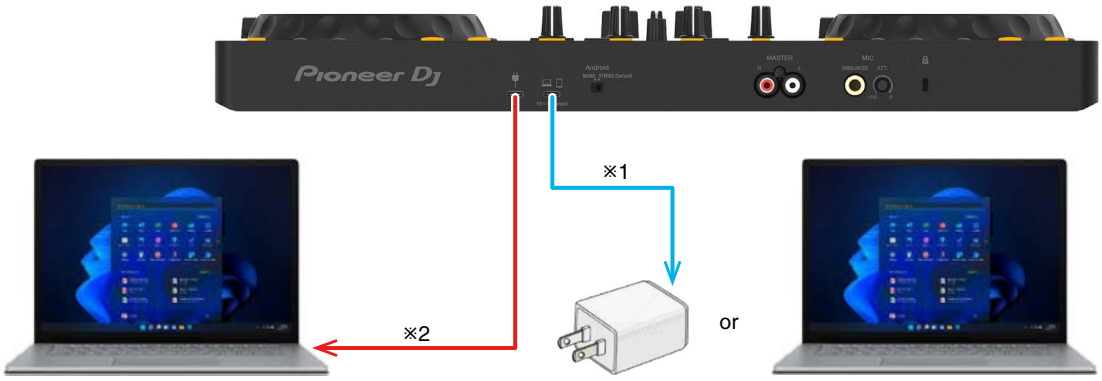
It can be checked in Test mode 3. The Power Delivery firmware version at MP release is 9.8.

Preparations for updating firmware

1. While pressing both [IN] and [BEAT SYNC] buttons on the DECK 1 side, connect a USB power adapter or PC/Mac to the [USB port (for device connection)] on the DDJ-FLX4. (※1)
   The USB cable used for connection should be an A to C cable.

2. All [PAD MODE] buttons for DECK 1 and DECK 2 will blink.

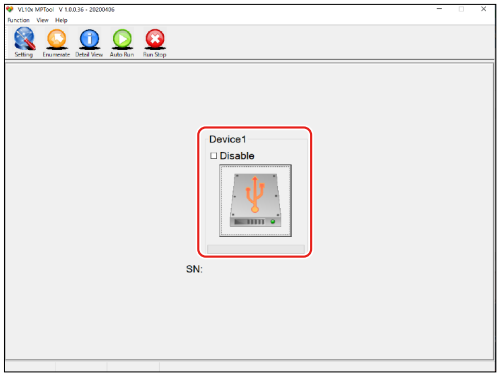
3. Connect a PC to the [USB port (for power supply)] on the DDJ-FLX4. (※2)
   The USB cable used for connection should be an A to C cable.



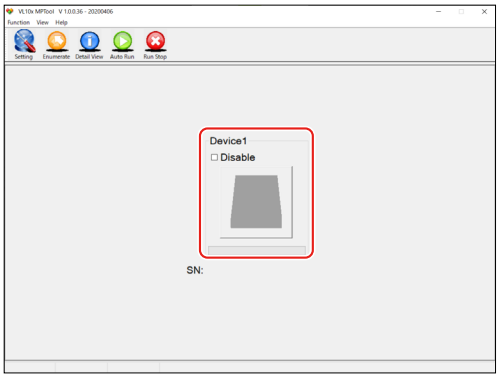
Program Update Procedures

1. Start the installed update program (VL100MPTool.exe).
   If the connection is correct, the USB symbol in the center will be orange.

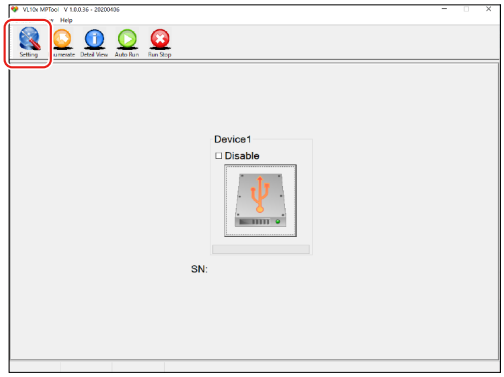
OK



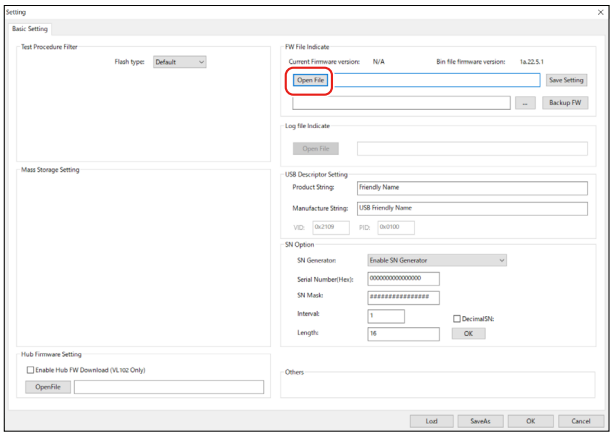
NG



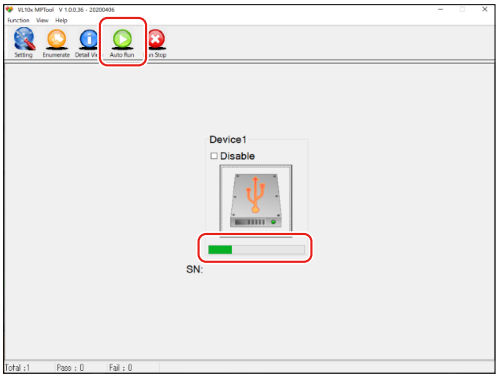
2. Click "Setting" in the upper left corner of the screen.



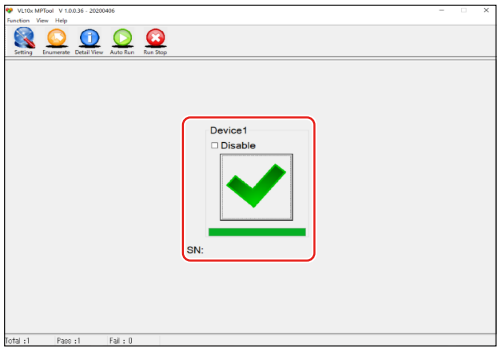
3. Click "Open File" in "FW File Indicate" in the upper right corner of the screen.



4. Select the [DDJ-FLX4_PD_vxx.bin] file and click [OK] in the lower right corner of the Setting screen.
5. Click the "Auto Run" button to check the progress on the progress bar in the center.



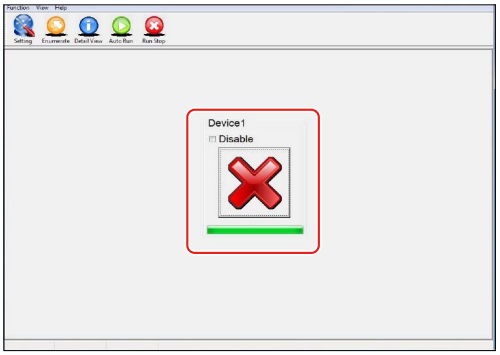
6. When the progress bar reaches the far right and "✓ (pass)" is displayed, the update is complete.



7. Restart DDJ-FLX4 after the update is complete.

When you fail to update the firmware

If the following screen is displayed, the update has failed.



Exit the update program and perform the update again by trying the following :

- This may fail depending on the orientation of the USB connector (front or back).
  Change the direction of the USB connector connected to the [USB port (for device connection)] on the DDJ-FLX4 side.
- Reconnect the devices in the order listed.

8.4 WRITING THE SERIAL NUMBER OF THE UNIT

This unit is connected to a PC via USB, and operations are performed from the PC.

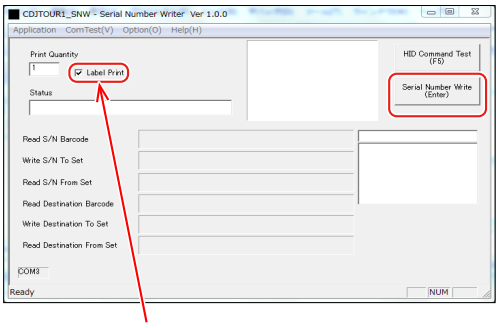
Preparations

① Download the software for writing the serial number from WCS.
② Save the unzipped folder to your PC.
The contents of the unzipped folder are as follows.

- Ini folder
- Log folder
- DDJFLX4_SNW.exe
- device.ini
- hidcom.dll
- UsbMidi.dll

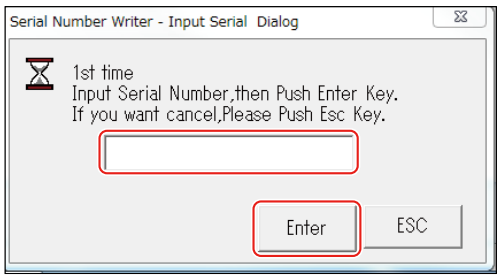
Procedure

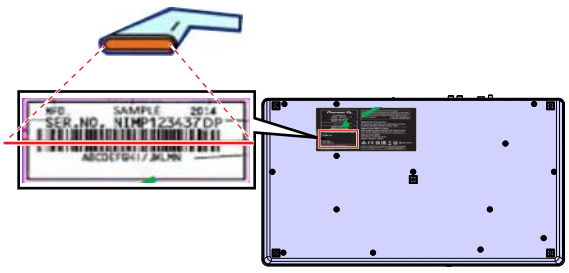
① Turn on the PC and double-click "DDJFLX4_SNW.exe" in the folder to start it.
② Connect the USB port (for device connection) of this unit and the PC with a USB cable.
③ Click [Serial Number Write (Enter)] to display the serial number input dialog (first time).



Uncheck the Label Print check button

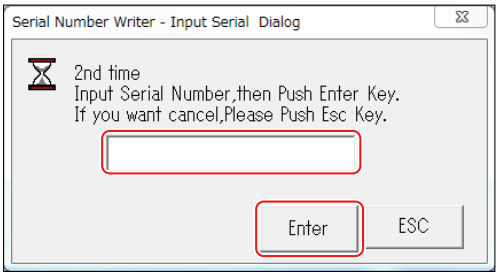
④ Enter the serial number manually or scan the label on the bottom of the unit with a barcode reader and click [Enter].
Please note that "" is required before the serial number (12 digits) when entering it manually. (If forgot, displayed error)
If you use a barcode reader, connect it to your PC in advance.



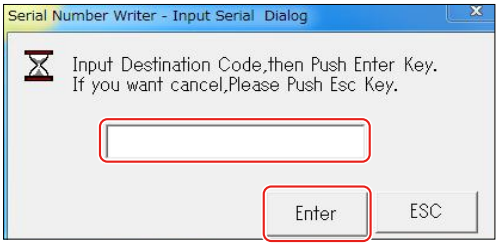


Reference diagram

⑤ The serial number input dialog (second time) will be displayed again. As in step ④, enter the serial number manually or read it with a barcode reader, and click [Enter].



⑥ Next, the Destination code input dialog is displayed. Check the Destination symbol on the serial label and enter either "SXJ", "SXEG", "XJCN", or "XEGCN". Then click [Enter].



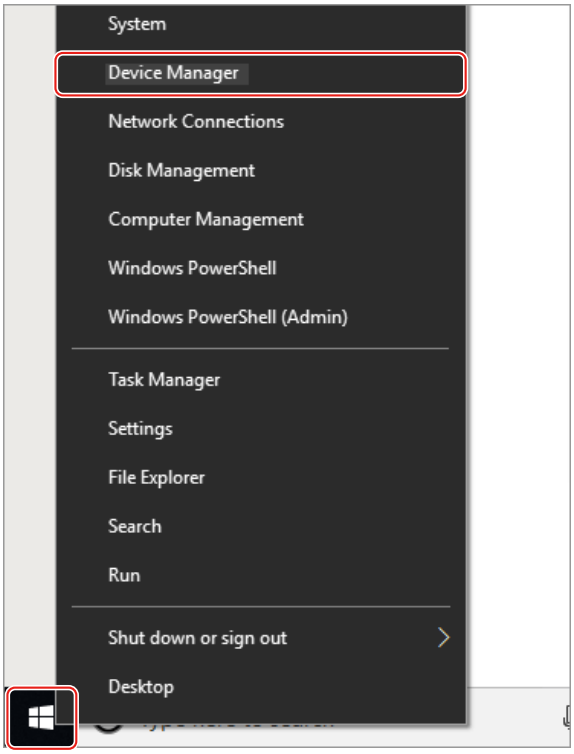
⑦ If the writing is successful, "OK" will be displayed after a while.

Writing the serial number is now complete.
This unit is in test mode and cannot check the serial number.
Check the serial number according to "8.5 SERIAL NUMBER CHECK METHOD".

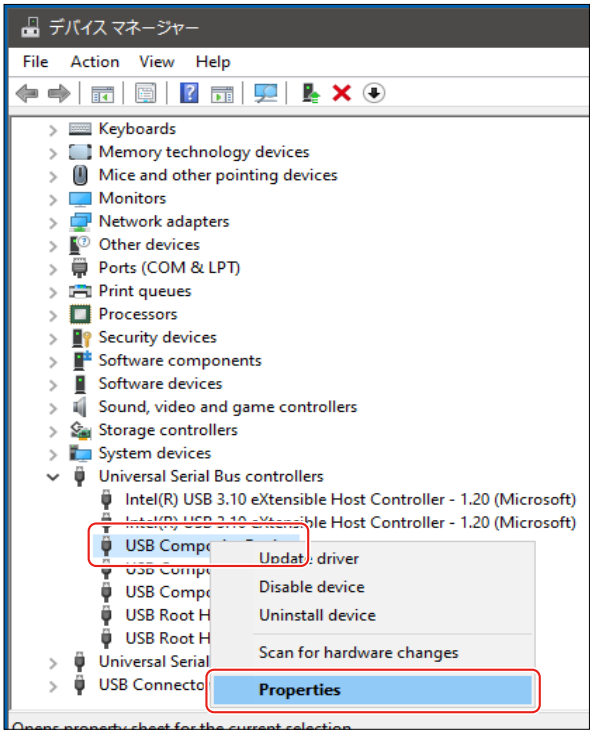
8.5 SERIAL NUMBER CHECK METHOD

After writing the serial number, turn off the power by removing the USB connection between the product and the Windows PC. Connect the product and Windows PC via USB again, and turn on the power.

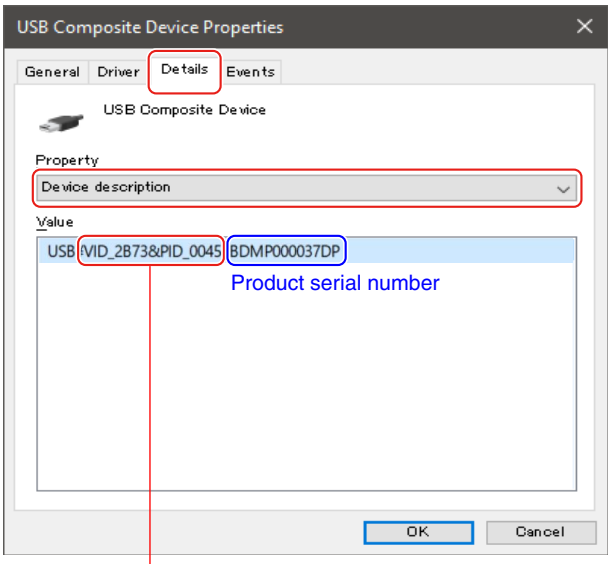
① Right-click the Start button and select [Device Manager] from the displayed menu.



② Open Properties of [Universal Serial Bus Controller] > [USB Composite Device].



③ Select the Details tab and select [device instance path] from the drop-down menu.



Check that it is "VID_2B73&PID_0045".
(DDJ-FLX4 ID)

If not, in device manager
Select another [USB Composite Device].

8.6 USER SETABLE ITEMS

This unit is provided with user settable items, as shown below.
Although no serious operational problems occur even if data for such user settable items are cleared during repair, it is recommended that you take note of those settings before starting repair.
Use the Check Sheet, to which you can transcribe the settings.

If the corresponding part or board Assy is replaced for repair, change the user resettable settings to those noted on the Check Sheet before starting repair. If resetting is not possible, when returning the repaired product, be sure to tell the customer that the User settings have been cleared and will have to be reset, as required.

Item for Which User's Setting is Available	Setting Value (The factory default settings are indicated in red letters.)	Part Name	Content to be Stored
Back Spin Length	Short / Normal / Long	IC3001 (MAIN Assy)	Utilities mode
Fader Start	Enabled / Disabled		
Fader Start	Enabled / Disabled		
Crossfader Cut Lag	1 to 53 (Initial setting: 8)		
Demo mode	Disabled Enabled (Demo mode starts when you don't use the unit for 1 minute.) Enabled (Demo mode starts when you don't use the unit for 5 minutes.) Enabled (Demo mode starts when you don't use the unit for 10 minutes.)		

■ Launching Utilities mode

Be sure to close your DJ application and then launch Utilities mode.

① Disconnect the USB cable.
② Hold both the [SHIFT] and [PLAY/PAUSE ►/❚❚] buttons on the left deck and connect the USB cable.
Utilities mode launches.
③ Change the settings.
When you change the settings, they will be saved. While saving, the bottom row of Performance Pads on the left deck flashes. If you disconnect the USB cable while the pads are flashing, settings may not be saved.
④ Disconnect the USB cable to turn off the unit.
Utilities mode turns off.

■ Sheet for confirmation of the user setting

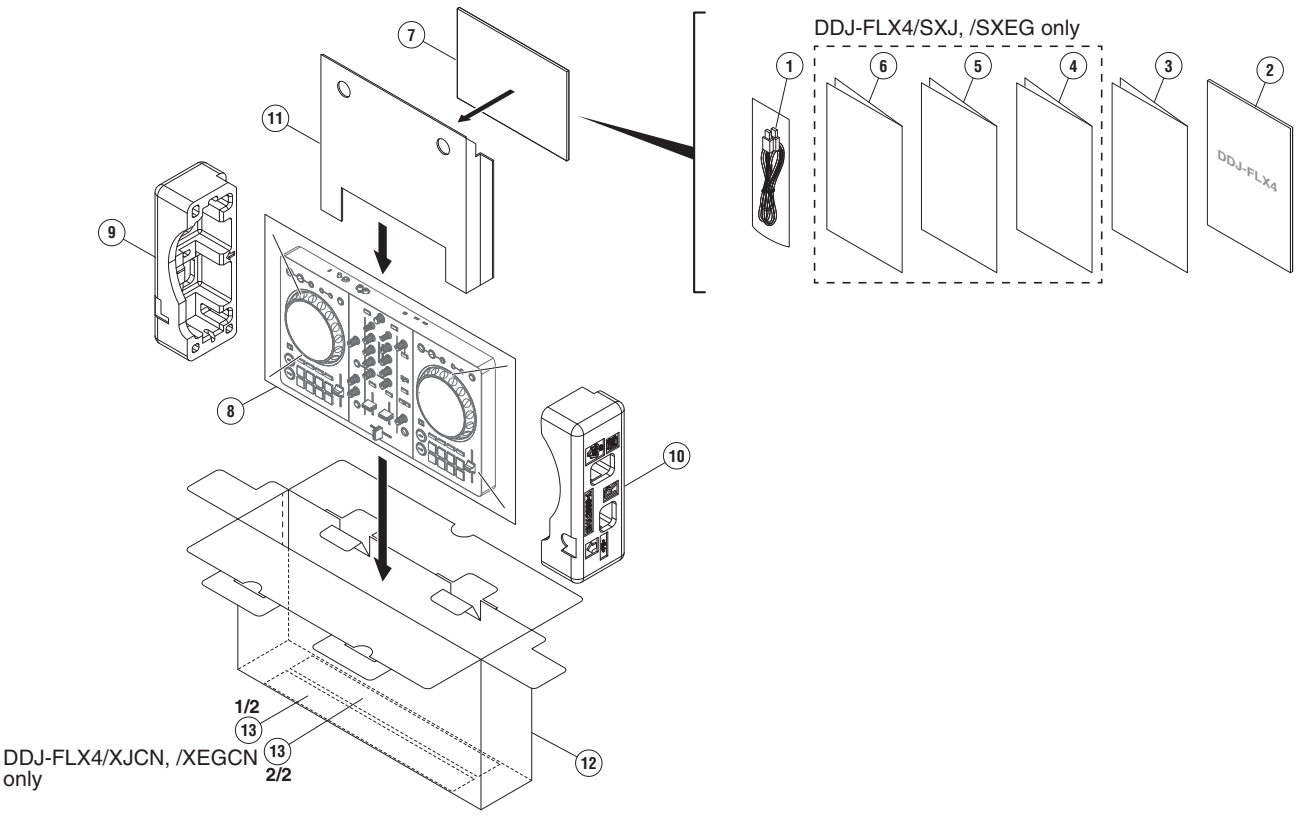
Back Spin Length			Fader Start		Crossfader Reverse	
Short	Normal	Long	Enabled	Disabled	Enabled	Disabled

Crossfader Cut Lag	Demo mode			
	Disabled	Enabled (1)	Enabled (5)	Enabled (10)

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	USB Cable	DDE1157
	2	Quick Start Guide	See Contrast table (2)
	3	Precautions for Use	See Contrast table (2)
NSP	4	Warranty Card (Europe)	See Contrast table (2)
NSP	5	Warranty Card (North America)	See Contrast table (2)
NSP	6	Leaflet	See Contrast table (2)
NSP	7	Polyethylene Bag	AHG7117
	8	Packing Sheet	AHG7053
	9	Packing Pad	DHA2029
	10	Packing Pad	DHA2030
	11	Partition	DHC1113
	12	Packing Case	See Contrast table (2)
NSP	13	Label	See Contrast table (2)

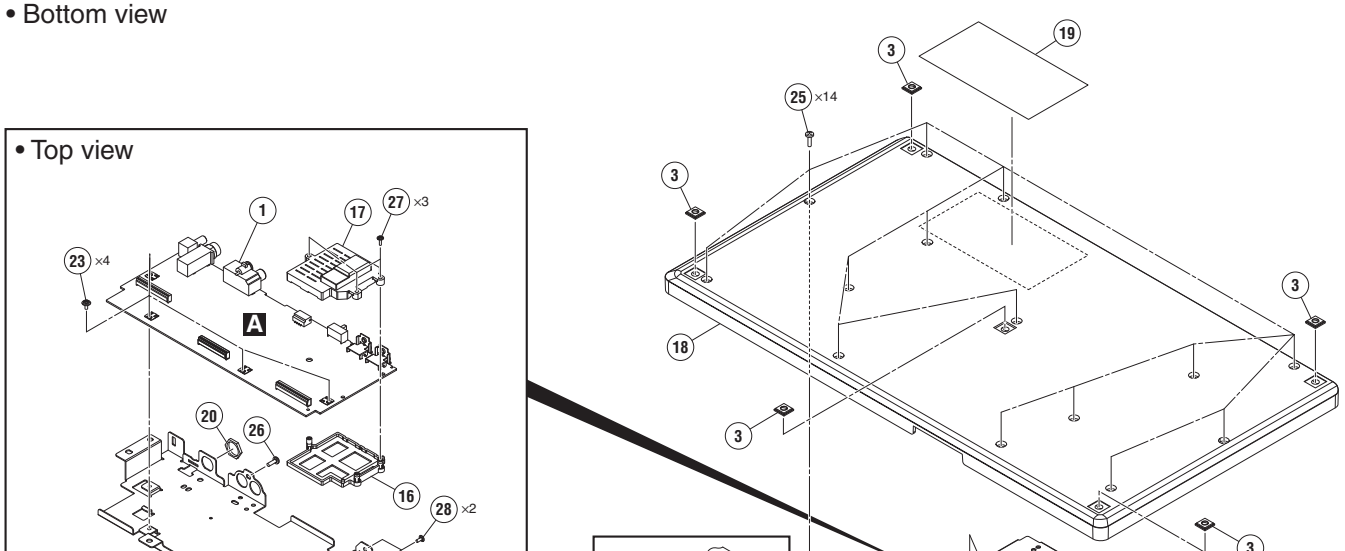
(2) CONTRAST TABLE

DDJ-FLX4/SXJ, SXEG, XJCN and XEGCN are constructed the same except for the following:

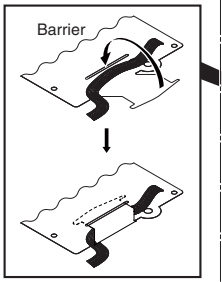
Mark	No.	Symbol and Description	DDJ-FLX4/SXJ	DDJ-FLX4/SXEG	DDJ-FLX4/XJCN	DDJ-FLX4/XEGCN
	2	Quick Start Guide	DRH1716	DRH1751	DRH1717	DRH1752
	3	Precautions for Use	DRH1718	DRH1753	DRH1719	DRH1754
NSP	4	Warranty Card (Europe)	DRY1274	DRY1277	Not used	Not used
NSP	5	Warranty Card (North America)	DRY1278	DRY1279	Not used	Not used
NSP	6	Leaflet	DRH1742	DRH1755	Not used	Not used
	12	Packing Case	DHG3880	DHG3881	DHG3880	DHG3881
NSP	13	Label	Not used	Not used	DRW3042	DRW3058

9.2 EXTERIOR SECTION

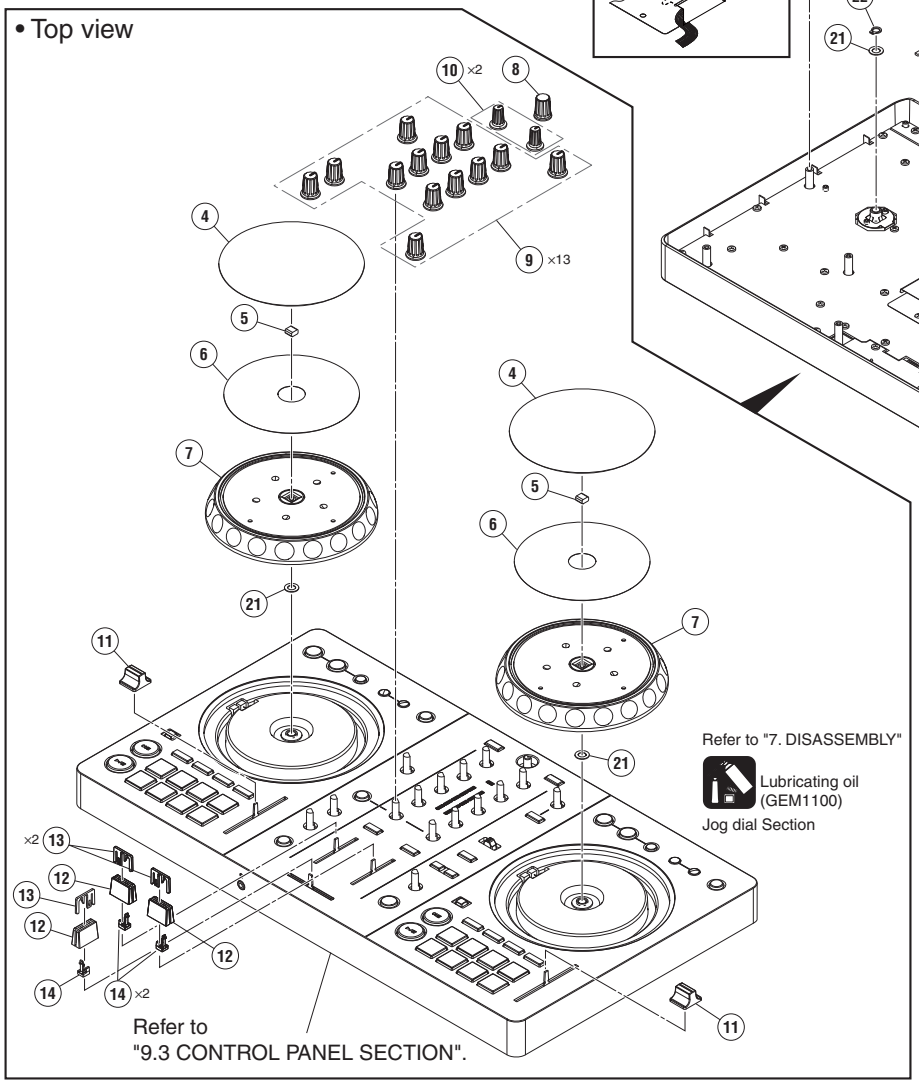
• Bottom view



• Top view



• Top view



(1) EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	MAIN Assy	DWX4850
	2	HPJK Assy	DWX4853
	3	Rubber Foot	VEB1349
	4	Plate	DAH3400
	5	Gasket	DEC4059
	6	DS Tape	DEH1143
	7	Jog Dial	DNK7115
	8	Dial Knob S (B)	DAA1273
	9	Knob/PLS	DAA1324
	10	Knob	DAA1476
	11	Knob	DNK6769
	12	Knob	DAC3539
	13	Slider Knob 2	DAC2685
	14	Stopper/SLD	DNK6009
	15	Stay	DNH3553
	16	Cover	DNK7158
	17	Cover	DNK7114
	18	Chassis	DNK7116
NSP	19	Name Label	See Contrast table (2)
	20	Nut (M12)	NKX2FNI
	21	Washer	WA62D095D050
	22	Washer	YC60FAC
	23	Screw	ASZ26P050FTC
	24	Screw	BPZ30P080FTC
	25	Screw	BPZ30P100FTB
	26	Screw	PPZ30P080FTB
	27	Screw	IPZ20P060FTC
	28	Screw (M3*5)	DBA1340

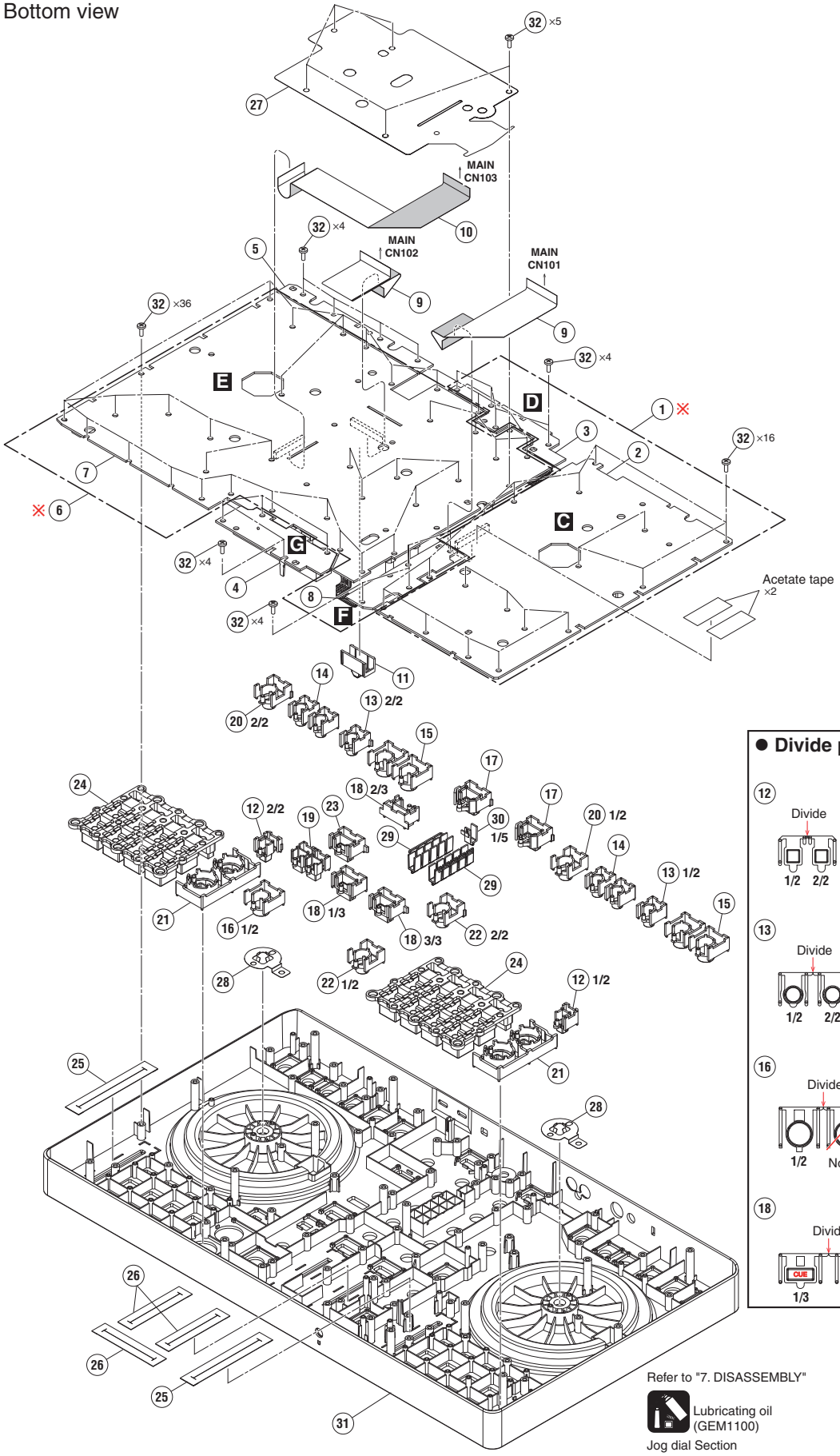
(2) CONTRAST TABLE

DDJ-FLX4/SXJ, SXEG, XJCN and XEGCN are constructed the same except for the following:

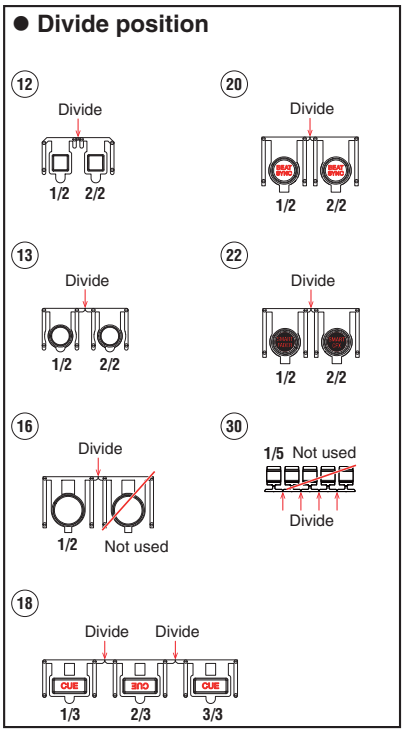
Mark	No.	Symbol and Description	DDJ-FLX4/SXJ	DDJ-FLX4/SXEG	DDJ-FLX4/XJCN	DDJ-FLX4/XEGCN
NSP	19	Name Label	DAL1389	DAL1397	DAL1390	DAL1398

9.3 CONTROL PANEL SECTION

• Bottom view



● Divide position



CONTROL PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	1..DECK1 Assy ※	DWX4851
NSP	2	2..DECK1	• • • • •
NSP	3	2..BRWS	• • • • •
	4	CRFD Assy	DWX4854
	5	HOLD Assy	DWX4855
	6	1..PNL2 Assy ※	DWX4852
NSP	7	2..PNL2	• • • • •
NSP	8	2..TEMPS1	• • • • •
	9	FFC	DDD2150
	10	FFC	DDD1937
	11	SW Cap	DAC2753
	12	Button S (Black)	DAC2663
	13	Button/TMP	DAC2845
	14	Button/CAL	DAC3020
	15	Button/LOP	DAC3074
	16	Button/LOP	DAC3074
	17	Button	DAC3151
	18	Button	DAC3380
	19	Button	DAC3381
	20	Button	DAC3408
	21	Button	DAC3418
	22	Button	DAC3684
	23	Button	DAC3685
	24	Button	DEB2101
	25	Packing/TMP	DEC3392
	26	Sheet	DEC3795
	27	Barrier	DEC4060
	28	Plate/CND	DNH3137
	29	Lens	DNK6946
	30	Lens	DNK7124
	31	Control Panel	DNK7117
	32	Screw	BPZ30P080FTC

※ The service parts of the DECK1 Assy and the PNL2 Assy are supplied with multiple boards connected by jumper leads. The DECK1 Assy consists of DECK1 and BRWS boards connected by jumper leads. The PNL2 Assy consists of PNL2 and TEMPS1 boards connected by jumper leads.
These four boards are not supplied by itself as the service parts.