PROJECTOR

EIKI

Service Manual

EIP-UJT100

Rev.00

DLP DIGITAL PROJECTOR rev.00

Revision	Description	Date
Rev.00	Preliminary	5/13/2015

CONTENTS

1. COMPLIANCE OF SAFE REPAIR

Be sure to read this Service Manual before providing services.

In the projector, full consideration is taken to ensure the safety for fire, electric shock, injury, harmful radiation, and substance. Therefore, observe the notice described in this Service Manual so that safety is kept when providing services. Moreover, be sure to observe the notice described in the Instruction Manual.

Pay attention to the following during service inspection.

1-1 Cautions during disassembling and assembling

1. This equipment contains parts under high voltage. When making repairs, etc. Be sure to pull out the power plug beforehand to insure safety.
2. Parts may be very hot immediately after use. Make sure the equipment has cooled off sufficiently before carrying out repairs.
3. Make sure that parts and screws and wiring, etc. are returned to their original positions. Tube, tape and other insulation materials have been used for safety reasons. The internal wiring has been designed to avoid direct contact with hot parts or parts under high voltage when using clamps or other tools.
4. The parts used in this device have special safety features such as flame-resistance and anti-voltage properties. When replacing parts, always use parts supplied from the factory.
5. After finishing operations make sure that all parts and wires have been returned to their original position and that there has been no deterioration of the area around the location that was worked on.
6. Be sure to use an earth band (wrist band) during repair and inspection.

1-2 Lamp

During current conduction, the lamp is in the high-temperature state. In this case, pay careful attention because a high voltage is used. When replacing a lamp, replace it after confirming that the lamp has cooled sufficiently.

1-3 Lens

Do not look into the lens during projection. This damages your eyes.

2. SPECIFICATIONS

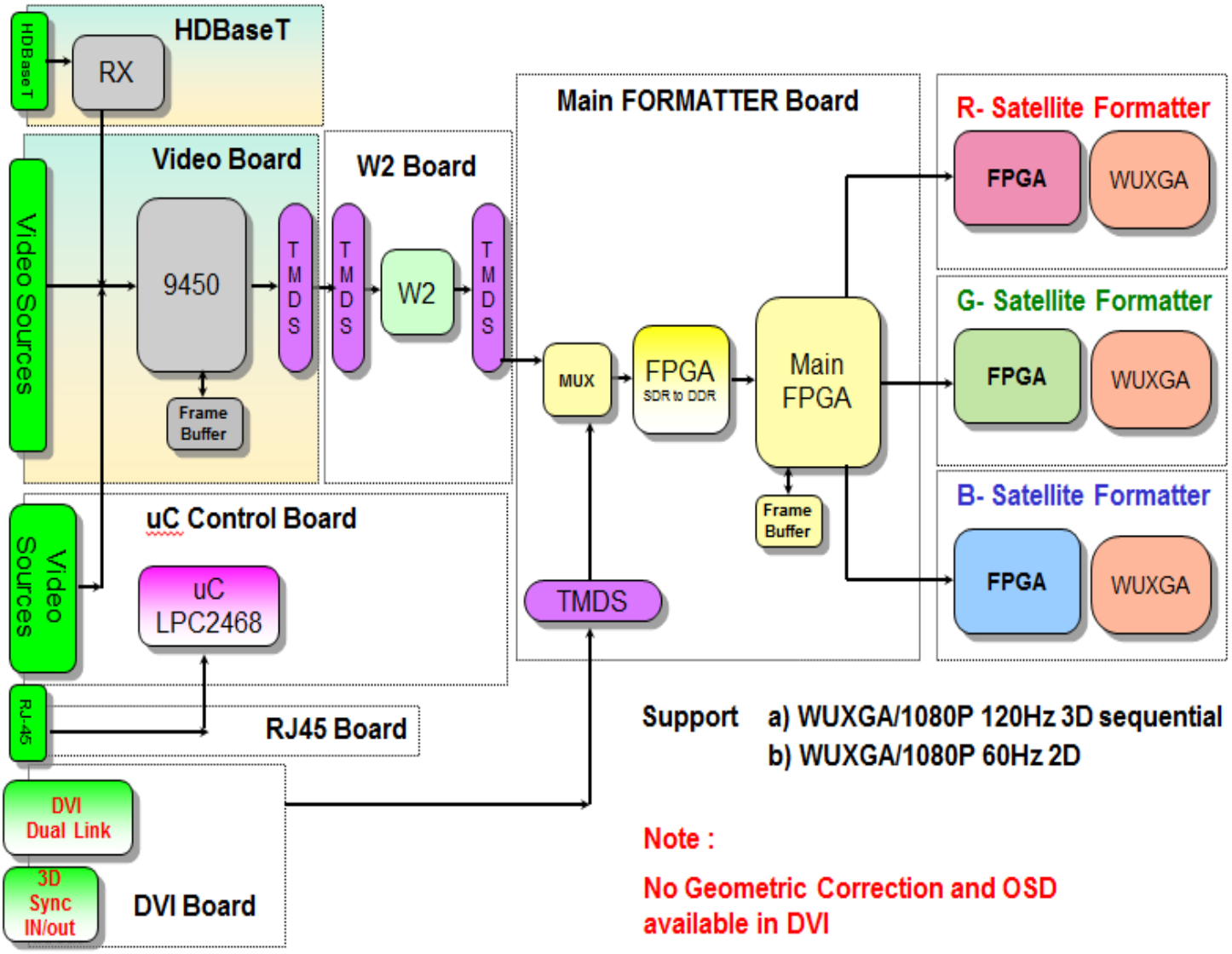
This section provides technical information about the projector's performance.

2-1 Specifications

Model	EIP-UJT100		
Display Type	DLP		
Native Resolution	WUXGA (1920 x 1200)		
Maximum Resolution	WUXGA (1920 x 1200)@60Hz		
Lamp Life and Type	2000hours(Normal 465W), 2500hours(ECO 360W)		
Aspect Ratio	Native, Unscaled, 5:4, 4:3, 16:10, 16:9, 1.88, 2.35 and Letterbox		
Lens Shift Range	V(-25%~50%), H(+/-10%)		
Keystone Correction	Vertical: +/-20° Horizontal:+/-35°		
Synchronization	Vertical: 23.98 - 120 Hz		
	Horizontal: 15.63 - 91.15kHz		
Edge Blending	Yes (built-in)		
Video Compatibility	SDTV(480i/576i), EDTV (480p/576p), HDTV (720p, 1080i/p), NTSC/NTSC 4.43 PAL B/G/H/I/ M/N 60, SECAM		
I/O Connection Ports	HDMIx1, RGB/H/Vx1, YPbPrx1, VGAx1, DVI-Dx1, SDIx1, HDBaseTx1, SYNC INx1, SYNC OutX1, R/C INx1, 12V-Triggerx2, RS-232x1, LANx1		
Projection Method	Table Top, Ceiling Mount (Front or Rear)		
Dimensions (W x D x W)	550x505x250mm (21.7"x19.9"x9.8")		
Weight (Without Lens)	37kg (81.4lbs)		
Power Supply	AC 100-240V, 50/60Hz		
Power Consumption	Input Voltage	Normal Mode	ECO Mode
	220V	1140W	895W
	110V	1230W	955W
	Standby: 5W (LAN ON)		
Standard Accessories	AC Power Cord(USA) x2, AC Power Cord(EU) x1, AC Power Cord (China) x1 Remote Control x1, Owner's Manual (CD) x1, Quick Start Guide x1 RoHS Card for China x1, QC Pass Card for China x1, Warranty Card for China x1 Warranty Card for USA x1, Battery AA x2, Wired Remote Cable x1		
Optional Accessories	Interchangeable Lens (x6)		
	Replacement Lamp		
	Replacement Filter		

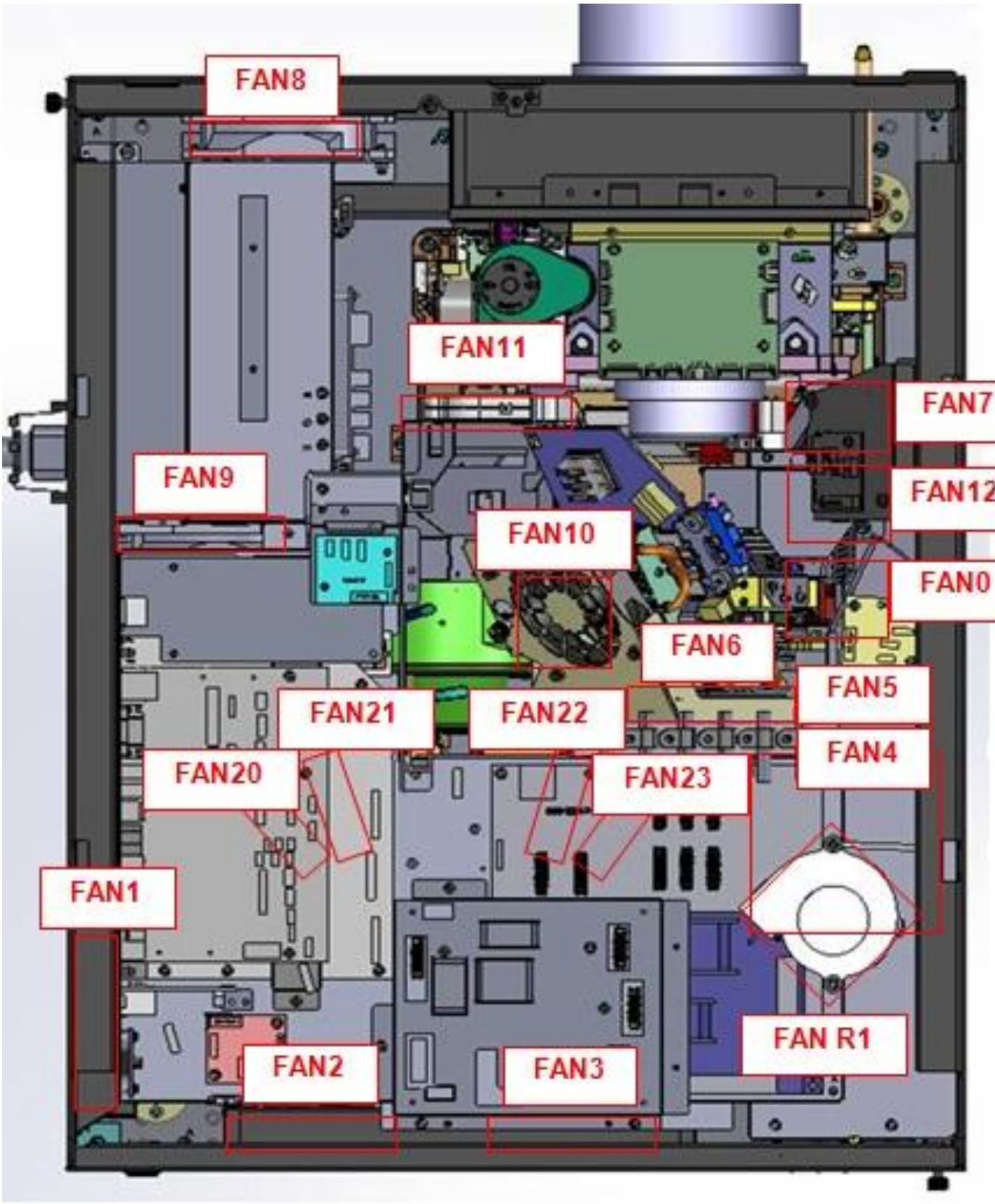
2-2 Block Diagram

EIP-UJT100 ALL Boards' Function Block Diagram



2-3 Fan Location

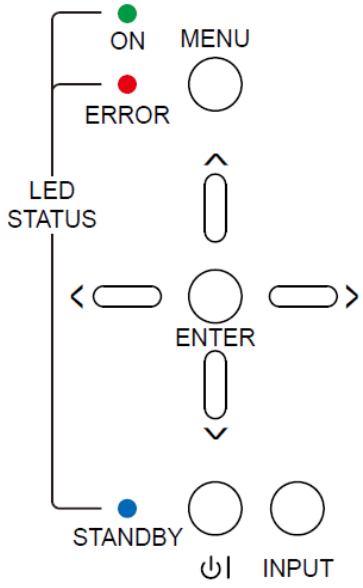
Fan. No	Connector		TYPE	Function	Normal	Eco
FAN0	FANS E BD(CN635)	3PIN	AFB0612HC-F00	RDMD cooling	3500 RPM	2900 RPM
FAN1	FANS E BD(CN635)	4PIN	AFB1212H-SM09	Exhaust	2000 RPM	1500 RPM
FAN2	FANS E BD(CN635)	5PIN	AFB1212H-SM09	Exhaust	1800 RPM	1500 RPM
FAN3	FANS E BD(CN635)	6PIN	AFB1212H-SM09	Exhaust	1800 RPM	1500 RPM
FAN4	FANS B BD(CN636)	3PIN	BFB1212L-SZ57	Prism cooling	1200 RPM	900 RPM
FAN5	FANS B BD(CN636)	4PIN	BFB1212L-SZ57	Engine flow inlet	1200 RPM	900 RPM
FAN6	FANS B BD(CN636)	5PIN	AFB0812HD-AF00	GDMD cooling	2300 RPM	2000 RPM
FAN7	FANS B BD(CN636)	6PIN	BFB0612HB-SE13	RDMD front cooling	2500 RPM	2500 RPM
FAN8	FANS C BD(CN637)	3PIN	AFB1212H-SM09	Power/ballast cooling	2200 RPM	1200 RPM
FAN9	FANS C BD(CN637)	4PIN	AFB1212H-SM09	Power/ballast cooling	2200 RPM	1200 RPM
FAN10	FANS C BD(CN637)	5PIN	AFB0812HD-AF00	BDMD cooling	3500 RPM	2000 RPM
FAN11	FANS C BD(CN637)	6PIN	BFB0612HB-SE13	BDMD front cooling	3500 RPM	2500 RPM
FAN12	FANS D BD(CN638)	3PIN	BFB0712HD-SE04	Prism cooling	2800 RPM	2400 RPM
FAN20	CN646(PWM)OnBoard	4PIN	BFB0712HD-SP01	Lamp burner	4400 RPM	2800 RPM
FAN21	CN647(PWM)OnBoard	5PIN	BFB0712HD-SP01	Lamp burner	3300 RPM	2000 RPM
FAN22	CN648(PWM)OnBoard	6PIN	BFB0712HD-SP01	Lamp burner	3800 RPM	2500 RPM
FAN23	CN649(PWM)OnBoard	7PIN	BFB0712HD-SP01	Lamp burner	2800 RPM	1800 RPM
FAN-R1	Main Formatter BD (CN4)	3PIN	BFB0712LD-SE00	FPGA cooling	2800 RPM	2800 RPM


FAN8
FAN11
FAN7
FAN9
FAN12
FAN10
FAN0
FAN6
FAN5
FAN21
FAN22
FAN4
FAN20
FAN23
FAN1
FAN R1
FAN2
FAN3

3. TROUBLESHOOTING

3-1. Control Keys and LED Indicators

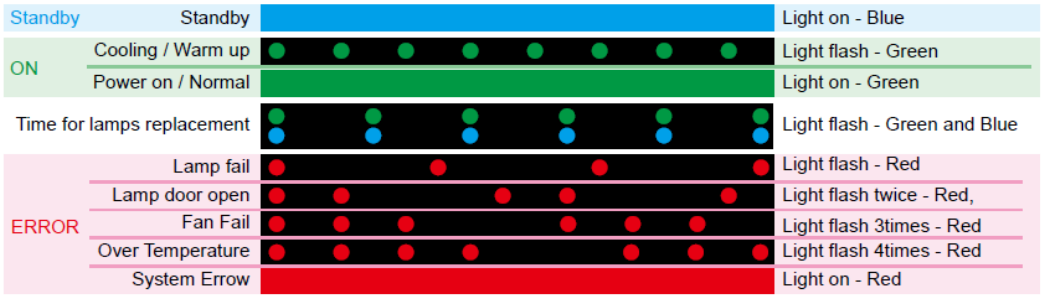
Control Keys



- **(POWER)**
  Turn on/off the projector (Press few seconds to off the projector).
- **INPUT**
  Select the input source, press the button once to select next source option, the sequence of the source is HDBaseT, HDMI, DVI-D, VGA, Y/Pb/Pr, 5 BNC, 3G-SDI.
- **MENU**
  Press the button to open or close the OSD menu.
- **ARROW BUTTONS (▲▼◀▶)**
  Use the four buttons to move the cursor on OSD, select the item or adjust the setting
- **ENTER**
  Use the button to confirm the changes you made and to show ZOOM/FOCUS OSD. When you press the button again, LENS SHIFT OSD appears.

- **STANDBY (LED-Blue)**
  The indicator that shows the projector's standby status.
- **ON (LED-Green)**
  Displays the projector's power status.
- **ERROR (LED-Red)**
  Displays the cause of problem (i.e. temperature, fan, lamp or system) that has led to projector malfunction.

LED Indicators



Remark:

The time period of each step in the above LED blinking pattern is 0.5 second, e.g., for "Cooling / Warm up" state, the green LED will ON for 0.5 second, and then OFF 0.5 second, and then repeat the above LED pattern

3-2. RS-232 Settings

Interface and Requirements

The RS-232 Commands use only ASCII characters which can be entered using a typical terminal emulator like Windows HyperTerminal with the following setting:

Bits per second: 19200 (Delta Mode: 115200)
Data bits: 8
Parity: None
Stop bits: 1
Flow control: None

Note that each input character will be echoed on the terminal by MCU and there is no need to set the local echo "ON" with the terminal setting.

- **When using "Delta Mode" to operate projector, please use baud rate "115200" to set and communicate.**

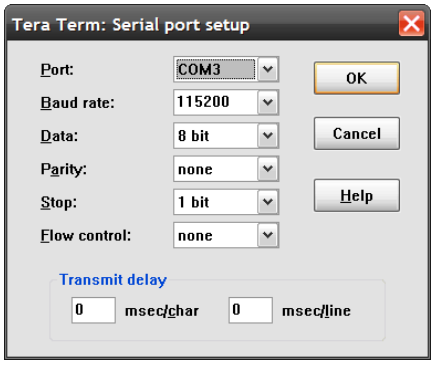
- **When using "Normal Mode" to operate projector, please use baud rate "19200" to set and communicate.**

A. Use RS-232 comment to Retrieve Error Code

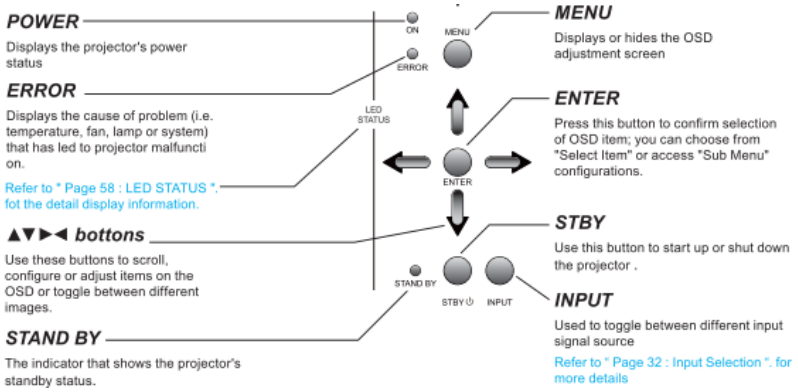
Step0. A. Connect the AC power of the projector and have the projector in standby mode.

Step1. A. Connect the RS-232 cable between the projector and the PC.

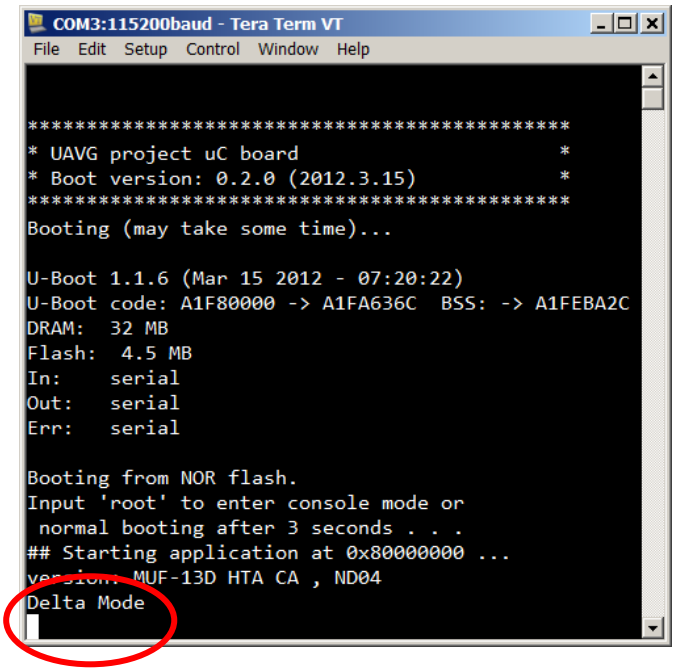
B. Open a terminal program (e.g. Tera Term) with the following setting, baud rate 115200, Databit: 8, Parity: none, Stop: 1 bit, Flow control: none.



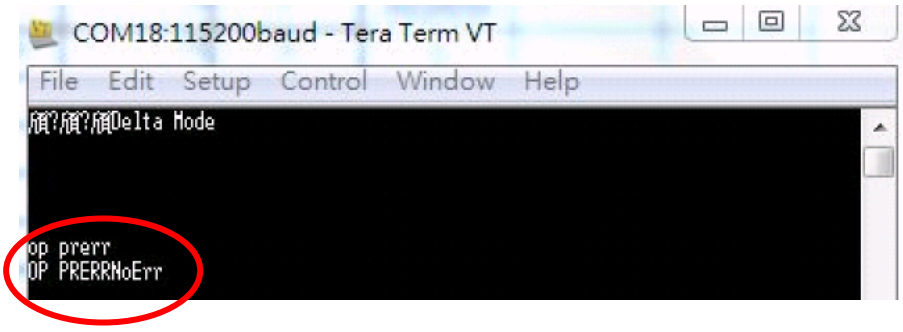
C. Press keypad "Menu" + "Input" (for 3 seconds). And, RS-232 mode systems will feedback "Delta Mode".



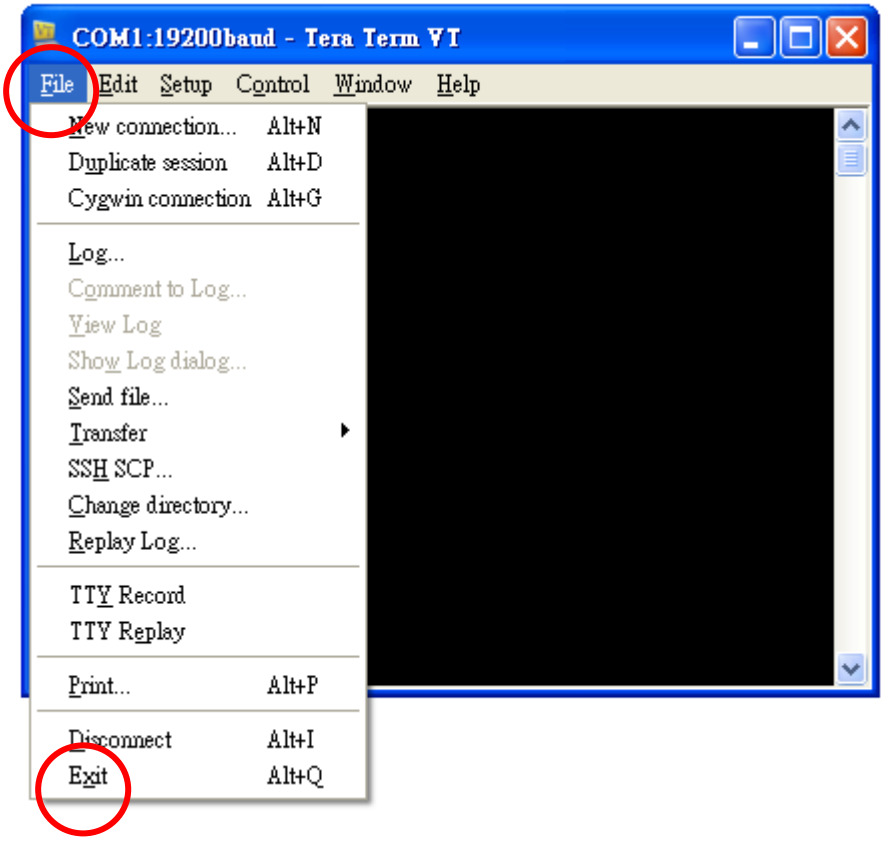
If terminal show “Delta Mode”, it is entry Delta UART Mode



D. Please key in “op prerr”, and then it will show all accumulated history error codes.
And, the first error code will be the current root cause of defective symptom. Then, please go to error code list to contrast to actual root cause.



E. After getting and confirm the error code from RS-232 tera term systems, please select "File", and then go to select "Exit".
And, the RS-232 tera term system will be closed and exit.



F. After exit the RS-232 tera term system, please turn off the projector. And, then turn on the projector again. The projector will go back to the normal mode.

B. Use the RJ-45 comment to Retrieve Error Code

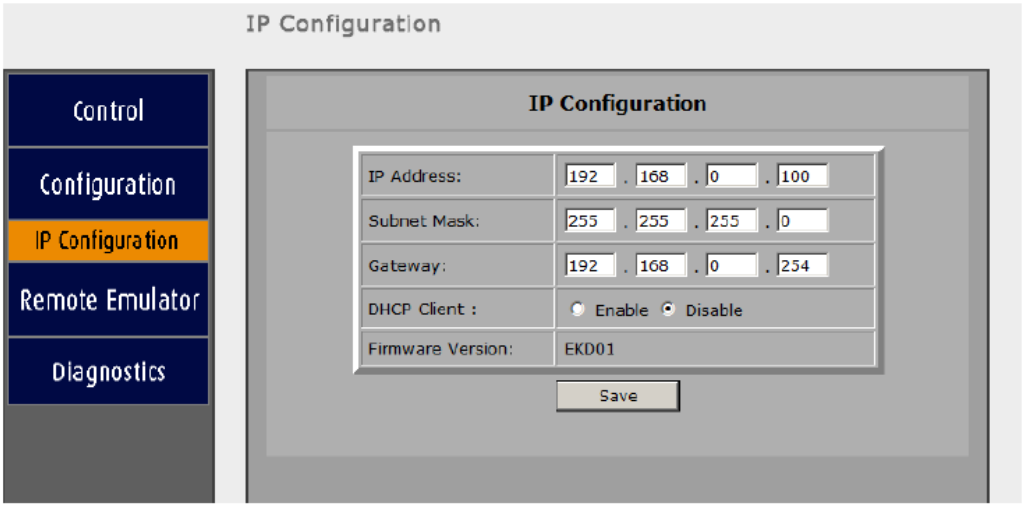
A. Connect the AC power of the projector and have the projector in standby mode.
B. Connect the RJ-45 cable between the projector and the PC. And make sure that the two LEDs of the RJ-45 module are lit after connecting the RJ-45 cable between the PC and the projector. If the LEDs are not lit, please send the RS command “eco.net.pow = 0” on the terminal to turn on the RJ-45 module.
C. Properly setup the IP for the PC and make sure that the PC and the projector are in the same subnet. For example, the default IP of the projector is 192.168.0.100. So the IP of the PC should be set as 192.168.0.99 for example.
D. Key in the projector IP on the web browser (the recommended web browser is IE 6.0 or later version, the default IP is 192.168.0.100) to see the embedded webpage. The IP can be accessed via the RS command “op net.ipaddr ?” with a terminal program.

Set up Internet Protocol (TCP/IP) Properties in your PC as below:

Recommended PC setting
IP Address : 192.168.0. 99.
Subnet : 255.255.255.0

Default settings for the projector
IP Address : 192.168.0.100
Subnet : 255.255.255.0

Open a web browser on your PC and type the IP address of the projector (192.168.0.100), IP configuration will be shown on the web page.



Set the IP address and subnet mask and click SAVE to confirm the configuration. Projector Web Control will show below message for confirmation.

Advance Diagnostics
This page is to diagnose the projector. Okay is displayed under normal condition. Error code is displayed if there is an error in the projector. If any abnormal code, please contact with the service center.

When you get the Web interface, please select "Advanced Diagnostics" to get "error code". They are defined as below table.

Error Code Message – Troubleshooting and what parts need to replace

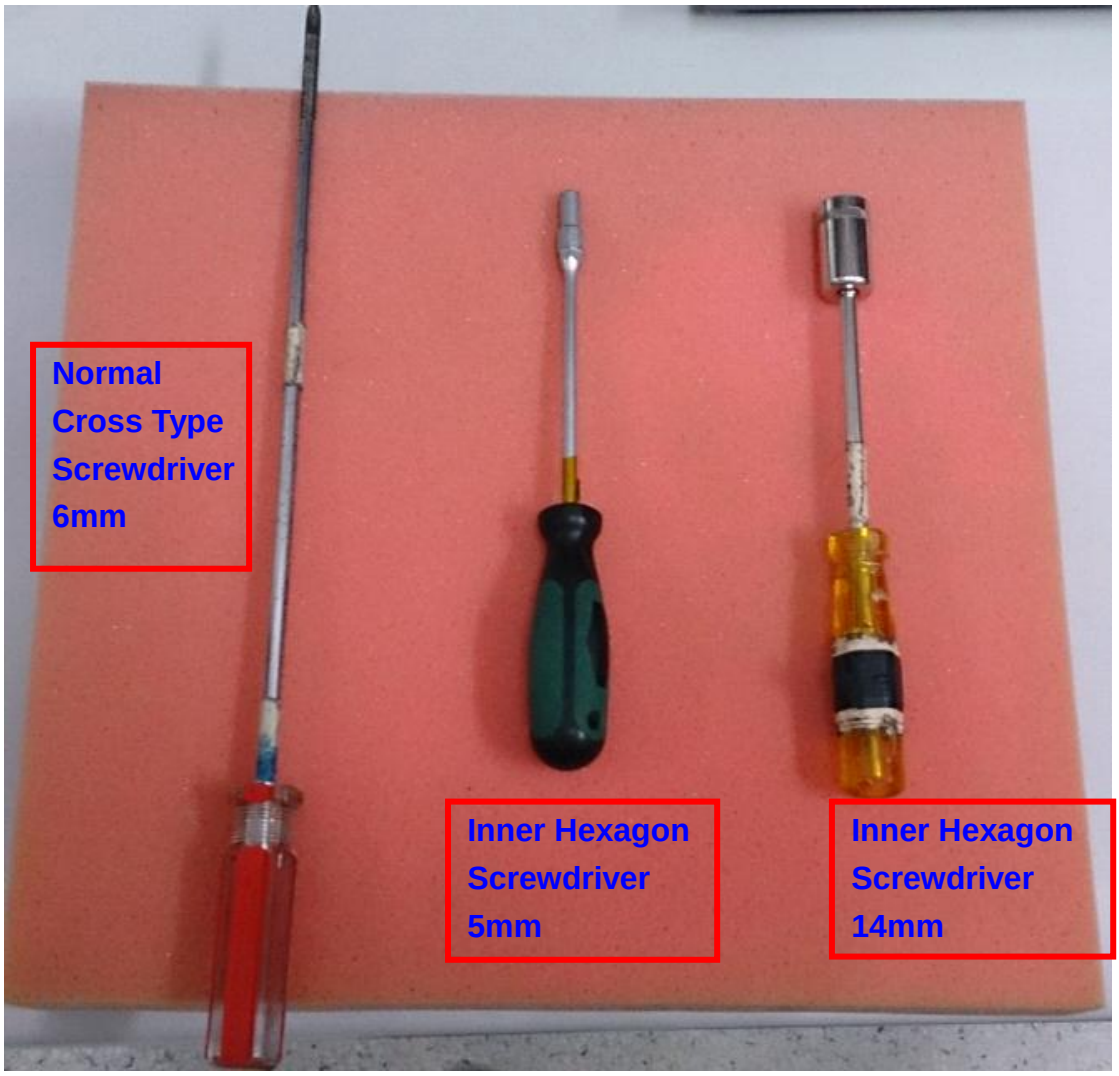
0	**ErrMsgOverTempInlet:** –Temp. is over spec. Check if there is anything blocks in inlet or replace Inlet thermal sensor.
1	**ErrMsgOverTempDMD** – Temp. is over spec. Check or replace DMD thermal sensor.
2	**ErrMsgOverTempLamp1**– Check or replace Lamp 1 thermal sensor state.
3	**ErrMsgOverTempLamp2**– Check or replace Lamp 2 thermal sensor state.
4	**ErrMsgOverTempBallast1**–Check and replace Ballast1 thermal state.
5	**ErrMsgOverTempBallast2** –Check and replace Ballast2 thermal state.
6	**ErrMsgFanInitError**–Anyone fan could be error when power on. Thus, check and replace error fan you find out. And, try to replace fan board.
7	**ErrMsgFan0RotateError** – Fan0 gets error during projector working. Check and replace fan 0.
8	**ErrMsgFan1RotateError** – Fan1 gets error during projector working. Check and replace fan 1.
9	**ErrMsgFan2RotateError** – Fan2 gets error during projector working. Check and replace fan 2.
10	**ErrMsgFan3RotateError** – Fan3 gets error during projector working. Check and replace fan 3.
11	**ErrMsgFan4RotateError** – Fan4 gets error during projector working. Check and replace fan 4.
12	**ErrMsgFan5RotateError** – Fan5 gets error during projector working. Check and replace fan 5.
13	**ErrMsgFan6RotateError** – Fan6 gets error during projector working. Check and replace fan 6.
14	**ErrMsgFan7RotateError** –Fan7 gets error during projector working. Check and replace fan 7.
15	**ErrMsgDMDInitFail** –Check and replace main formatter board, formatter board and DMD chip.
16	**ErrMsgLampInitFail** –Check and replace ballast 1.
17	**ErrMsgLampLitFail** –Check and replace Lamp 1.
18	**ErrMsgBallastUartError** –Check and replace ballast 1 and power board.
19	**ErrMsgExGpioFail** –Check and replace video or uc control board.
20	**ErrMsgInterLockOpen**–Check and confirm Interlock.
21	**ErrMsgGF9450NoResponse** –Check and replace video board.

22	**ErrMsgSystemI2cFail** –Check and replace all board.
23	**ErrMsgSoftwareI2cFail** –Check and replace all board.
24	**ErrMsgEepromFail** –Check and replace uc control board.
25	**ErrMsgEdidFail**–Check and replace video board.
26	**ErrMsgEepVersionFail**–Check and replace video board.
27	**ErrMsgRstGennum** –Check and replace video board.
28	**ErrMsgFan8RotateError** –Fan8 gets error during projector working. Check and replace fan 8.
29	**ErrMsgFan9RotateError** –Fan9 gets error during projector working. Check and replace fan 9.
30	**ErrMsgFan10RotateError** –Fan10 gets error during projector working. Check and replace fan 10.
31	**ErrMsgFan11RotateError** –Fan11 gets error during projector working. Check and replace fan 11.
32	**ErrMsgLamp2LitFail** —Check and replace Lamp 2.
33	**ErrMsgBallast2UartError** —Check and replace ballast 2 and power board.
34	**ErrMsgGtInletTp** —Check or replace Inlet thermal sensor.
35	**ErrMsgGtDmdTp** –Check or replace DMD thermal sensor.
36	**ErrMsgInletTempSensorFail**—Reserved & None for this model.
37	**ErrMsgDMDTempSensorFail** –Reserved & None for this model.
38	**ErrMsgGeoSystemFail** – Check and replace the W2 board.
39	**ErrMsgNormal** —Reserved & None for this model.
40	**ErrMsgFan12RotateError** —Fan12 gets error during projector working. Check and replace fan 12.
41	**ErrMsgFan13RotateError** — Reserved & None for this model.
42	**ErrMsgFan14RotateError** — Reserved & None for this model.
43	**ErrMsgFan15RotateError** — Reserved & None for this model.
44	**ErrMsgFan16RotateError** — Reserved & None for this model.
45	**ErrMsgFan17RotateError** — Reserved & None for this model.
46	**ErrMsgFan18RotateError** — Reserved & None for this model.
47	**ErrMsgFan19RotateError** — Reserved & None for this model.
48	**ErrMsgFan20RotateError** —Fan20 gets error during projector working. Check and replace fan 20.
49	**ErrMsgFan21RotateError** —Fan21 gets error during projector working. Check and replace fan 21.
50	**ErrMsgFan22RotateError** –Fan22 gets error during projector working. Check and replace fan 22.

51	**ErrMsgFan23RotateError** –Fan23 gets error during projector working. Check and replace fan 23.
52	**ErrMsgFanR1RotateError** –FanR1 gets error during projector working. Check and replace fan R1.

4. KEY PART REPLACEMENT & WIRE DRESSING

Service Tool of disassembly whole projector as below:



4-1 Top Cover

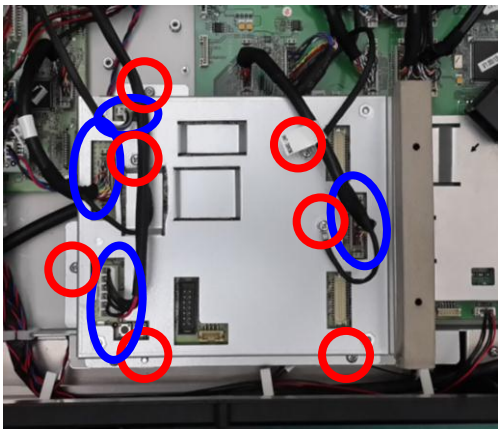
Put the projector on the table.

Take out the sponge from the projector. And, loosen 1 screw on the front cover. (Torque: 70~80 Nm)

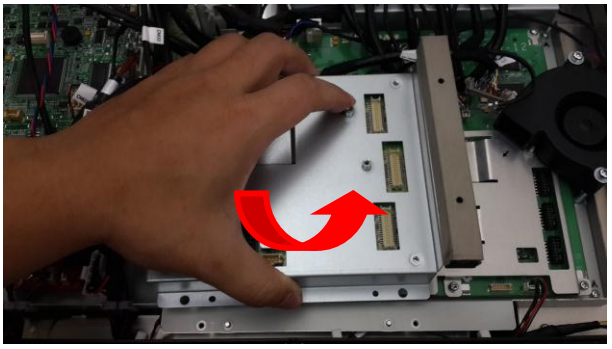
Loosen 3 screws on the back of top cover. (Torque: 70~80 Nm)

Open the top cover.

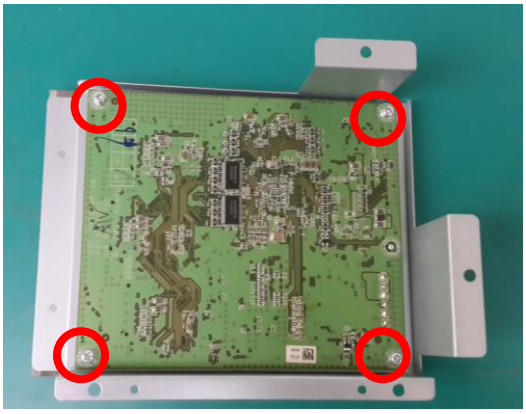
4-2 W2 Board



Loosen 7 screws and unplug 4 connectors on the W2 Board. (Torque: 50~60 Nm)

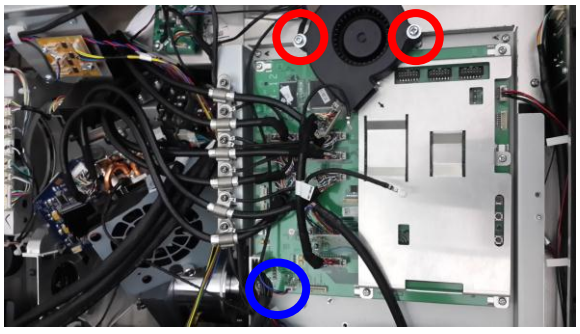


Take out the W2 module.

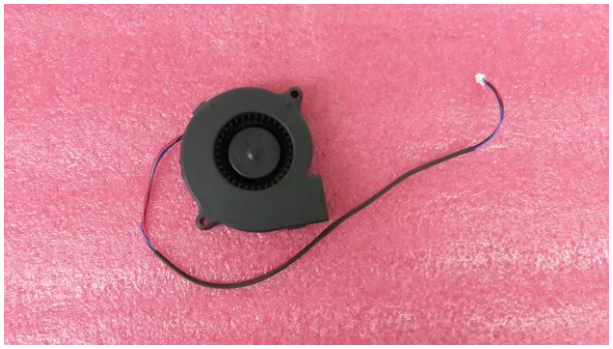


Take out the cover and loosen 4 screws on the W2 Board. (Torque: 50~60 Nm)

Take out the W2 Board.

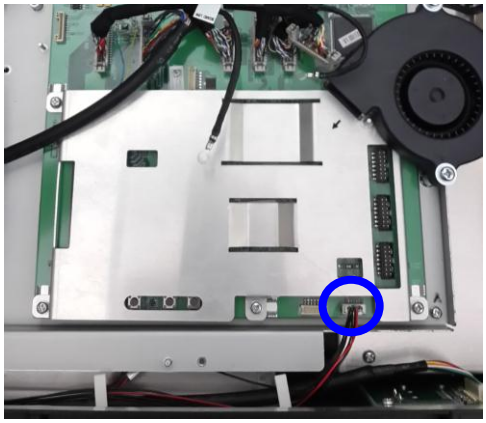


Loosen 2 screws and unplug 1 connector (CN4) on the Main formatter Board. (Torque: 50~60 Nm)

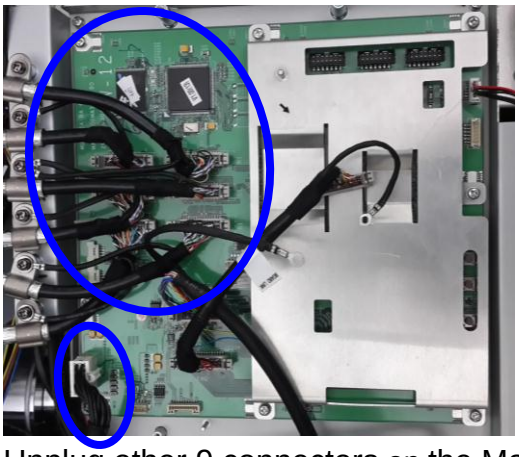


Then, take out the fan.

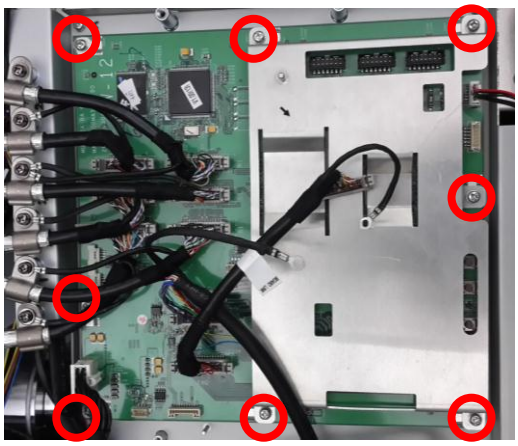
4-3 Main Formatter Board



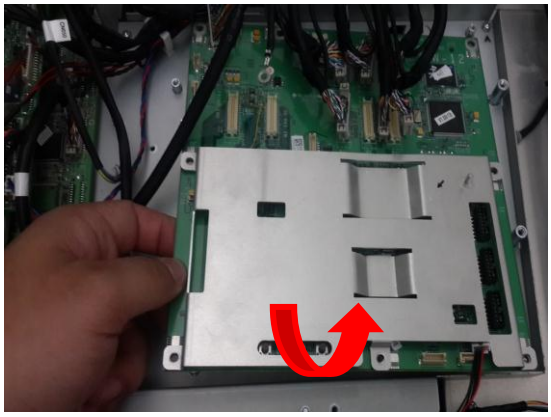
Unplug 1 connector on the Main formatter Board.



Unplug other 9 connectors on the Main formatter Board.

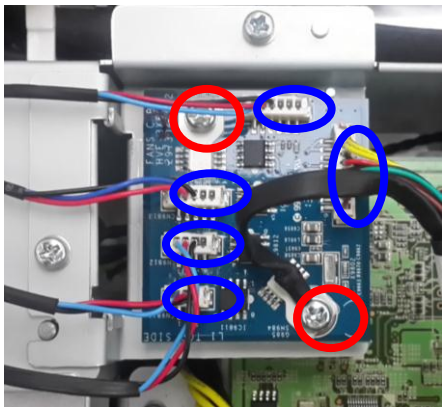


Loosen 8 screws on the Main formatter Board. (Torque: 50~60 Nm)

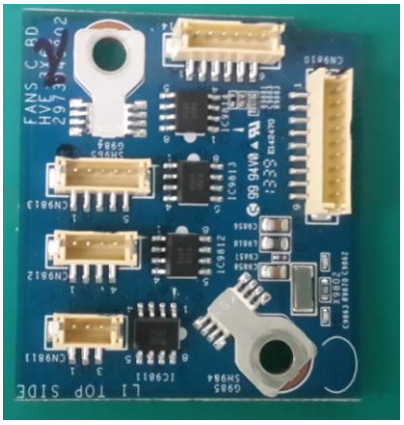


Take out the Main formatter Board.

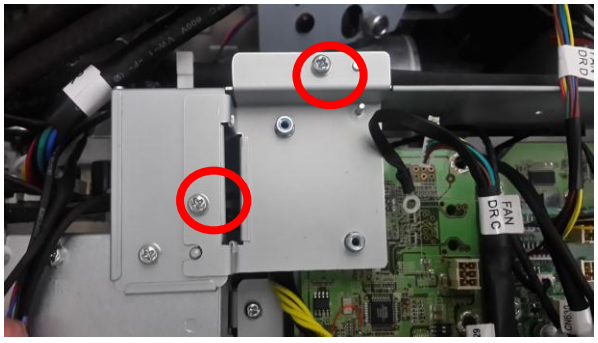
4-4 Fan C Board & IO Port



Unplug 5 connectors and loosen 2 screws on the Fan C Board. (Torque: 50~60 Nm)



Take out the Fan C Board.



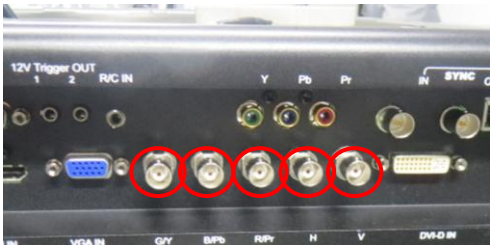
Loosen 2 screws on the bracket.

Take out the bracket.

Use 5mm inner hexagonal screwdriver to loose 6 inner hexagonal screws on the RS-232, VGA and DVI port of left cover. (Torque: 30~40 Nm)

Loosen 2 screws on the 3 RCA YPbPr port of left cover. (Torque: 50~60 Nm)

Use 5mm inner hexagonal screwdriver to loose 1 inner hexagonal screw on the HDMI port of left cover. (Torque: 50~60 Nm)

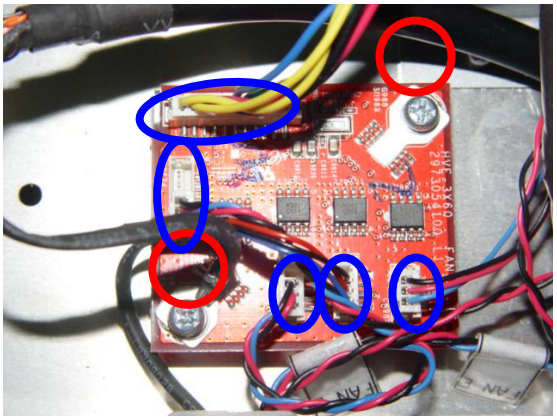


Use 14mm inner hexagonal screwdriver to loose 5 inner hexagonal screws on the 5 BNC G/Y B/Pb R/Pr H V port of left cover. (Torque: 40~50 Nm)

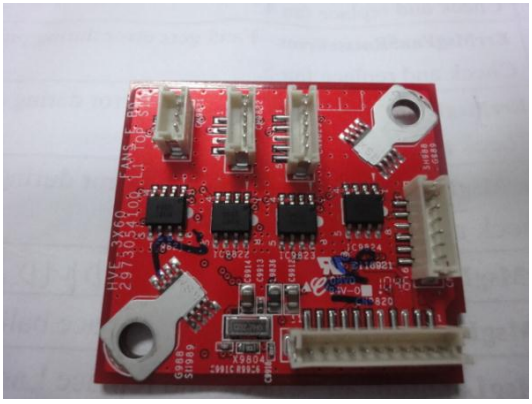
Use 14mm inner hexagonal screwdriver to loose 2 inner hexagonal screws on the 3G SDI port of left cover. (Torque: 40~50 Nm)

Loosen 1 screw on the LAN port of left cover. (Torque: 90~100 Nm)

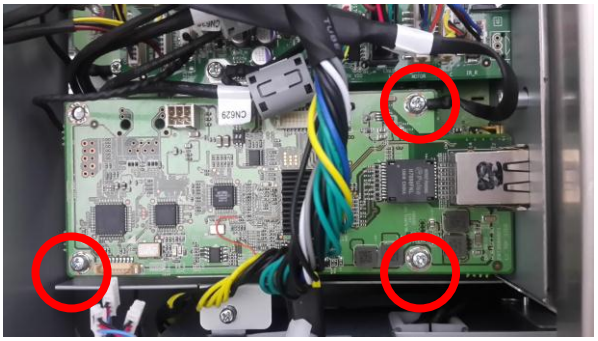
4-5 Fan E Board & HD BaseT Board & Micor control Board & RJ-45 Board



Loosen 2 screws and unplug 5 connectors on the Fan E Board. (Torque: 50~60 Nm)

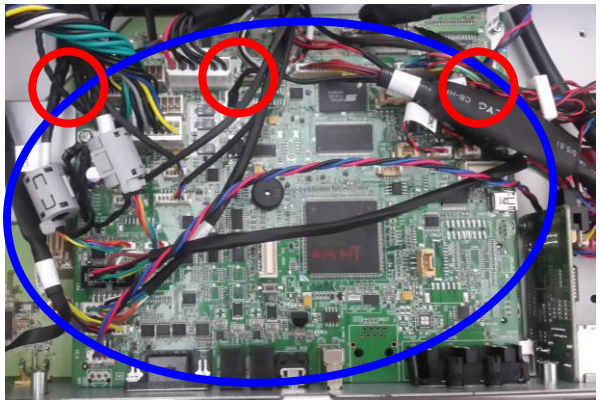


Take out the Fan E Board.

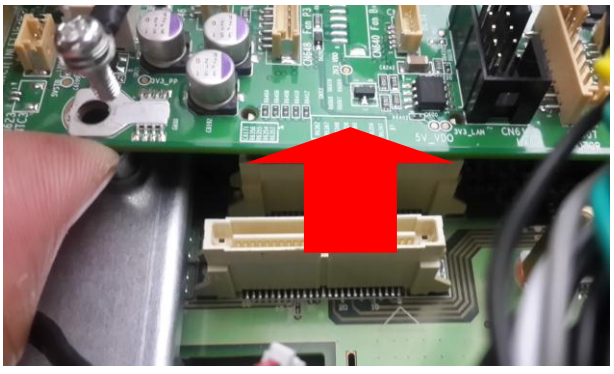


Loosen 3 screws on the HDBaseT Board. (Torque: 50~60 Nm)

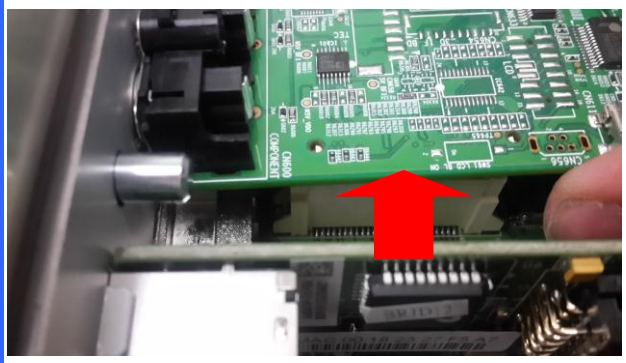
Take out the HDBaseT Board.



Unplug 23 connectors and loosen 3 screws on the Micor control board. (Torque: 50~60 Nm)

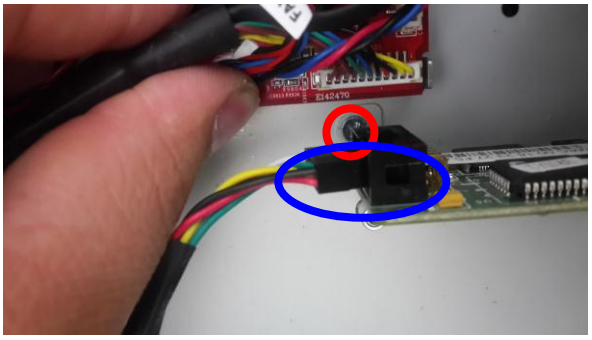


Disconnect the left connector under Micro control board.



Disconnect the right connector under Micro control board.

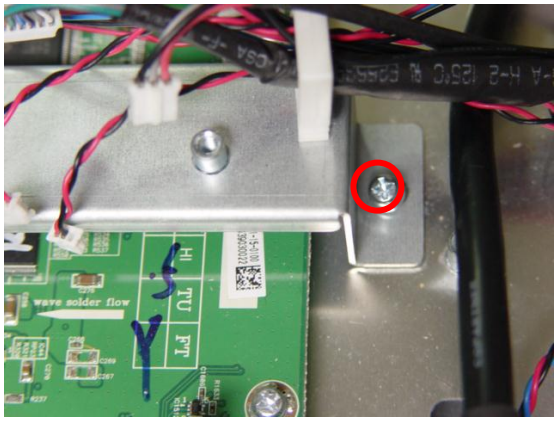
Take out the Micro control board.



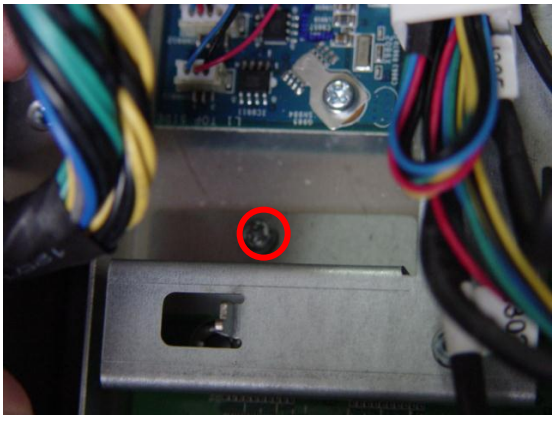
Unplug 1 connector and loosen 1 screw on the RJ-45 board. (Torque: 50~60 Nm)

Take out the RJ-45 Board.

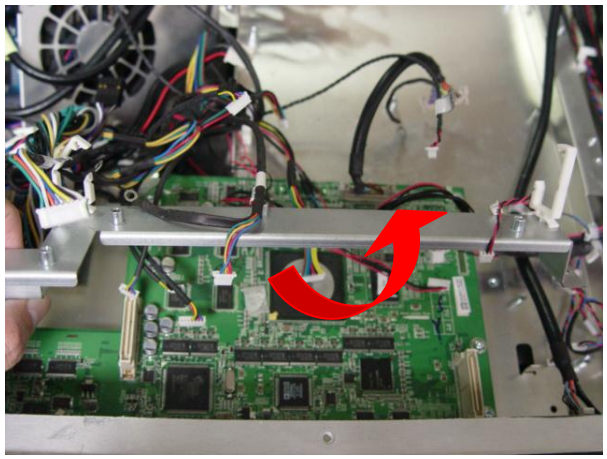
4-6 Video Board & DUAL Link DVI (3D) Board



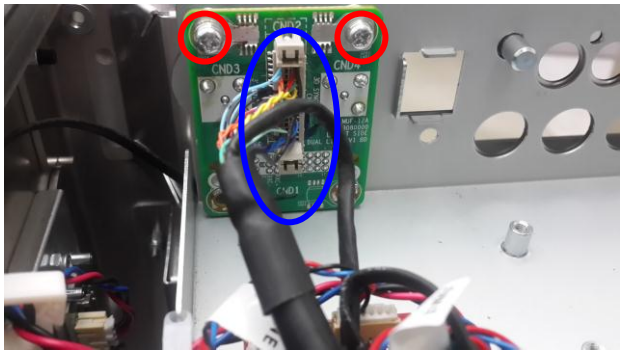
Loosen 1 screw under the right of the brace of video Board. (Torque: 50~60 Nm)



Loosen 1 screw under the left of the brace of video Board. (Torque: 50~60 Nm)

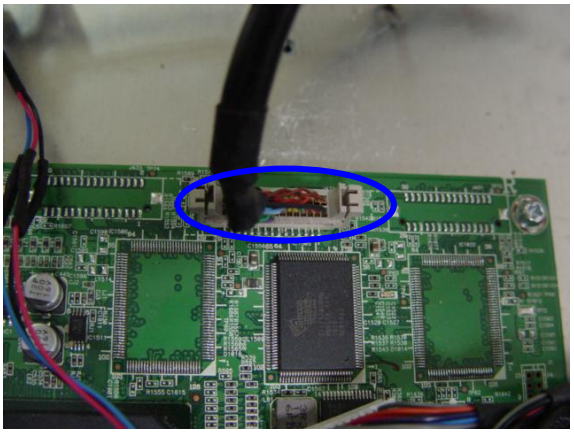


Take out the brace.

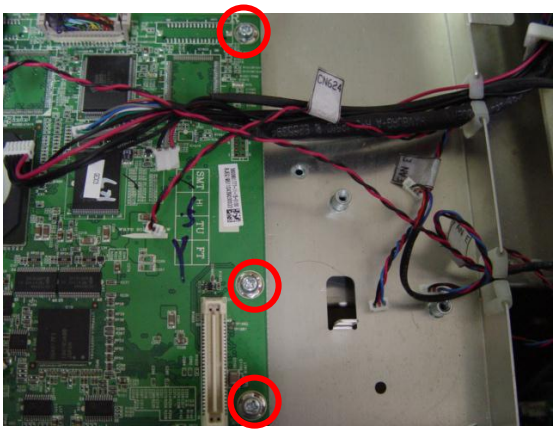


Unplug 1 connector and loosen 2 screws on the DUAL Link DVI (3D) Board.
(Torque: 50~60 Nm)

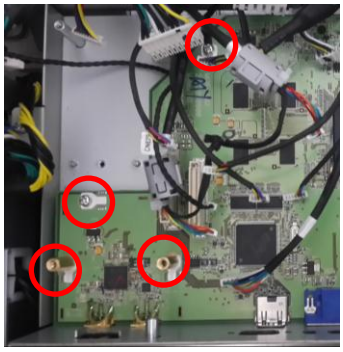
Take out the DUAL Link DVI (3D) Board.



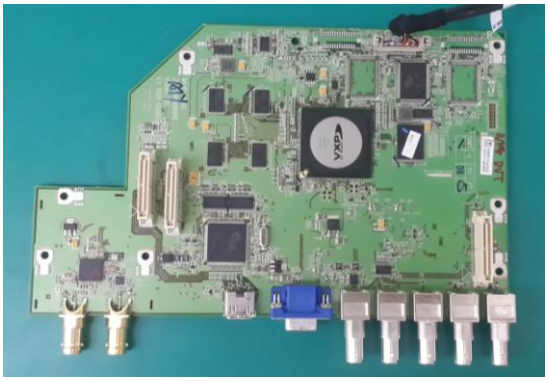
Unplug 1 connector on the video Board.



Loosen 3 screws on the right side of the video Board. (Torque: 50~60 Nm)

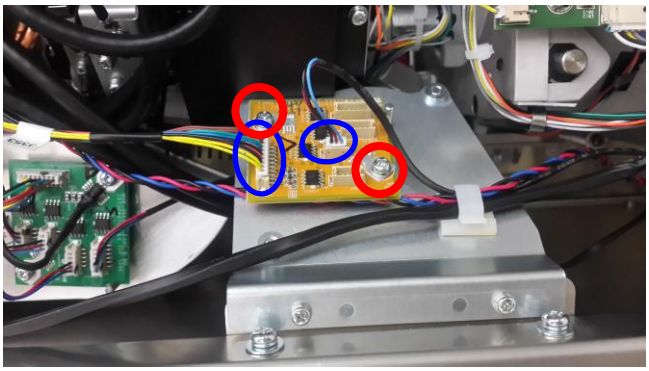


Loosen 4 screws on the left side of the video Board. (Torque: 50~60 Nm)

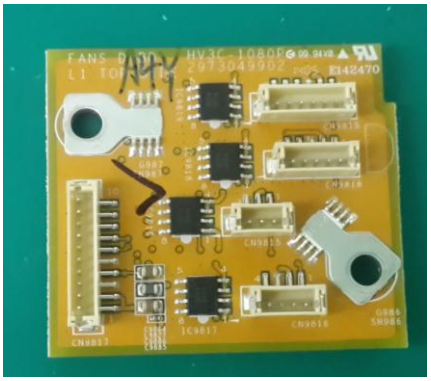


Take out the video Board.

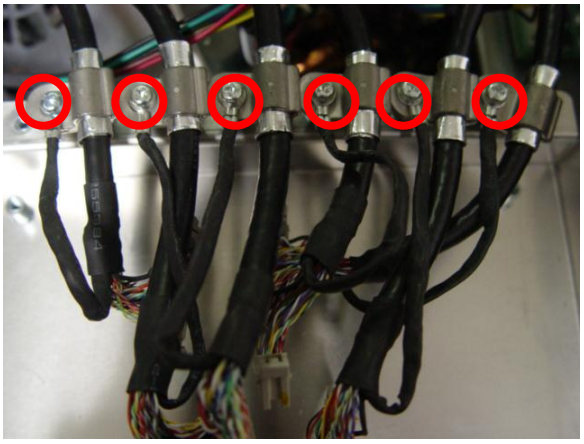
4-7 Fan D Board & Bracket Plate



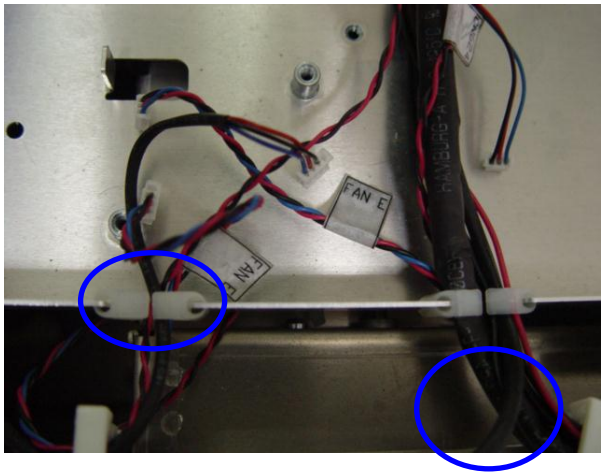
Unplug the 2 connectors and loosen 2 screws on the Fan D Board. (Torque: 50~60 Nm)



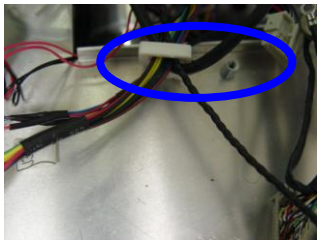
Take out the Fan D Board.

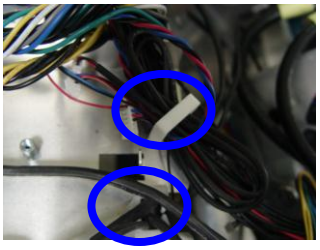


Loosen 6 screws on the FIP signal cable in the bracket. (Torque: 50~60 Nm)

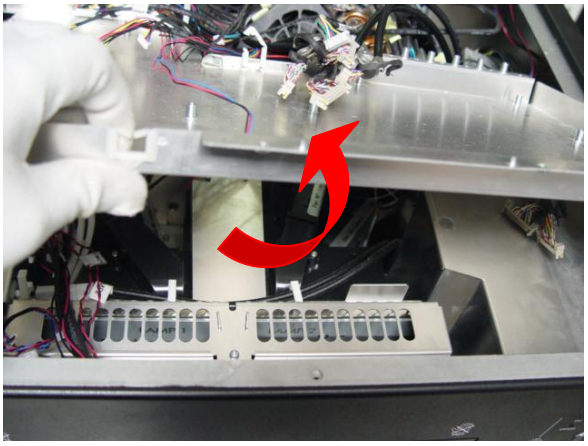


Take out the 2 group cables from concave space in the bracket.



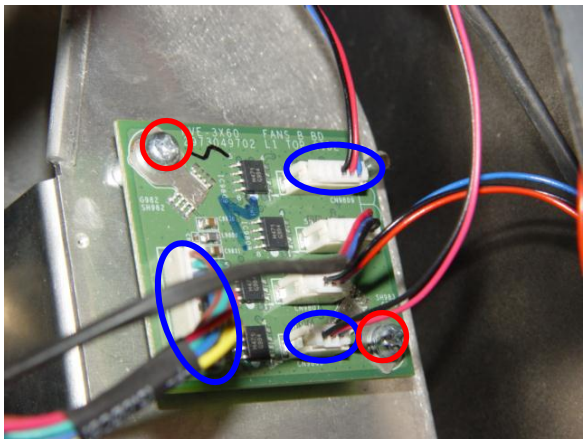


Take out the 2 group cables from fasten tie and 1 group cables concave space in the bracket.



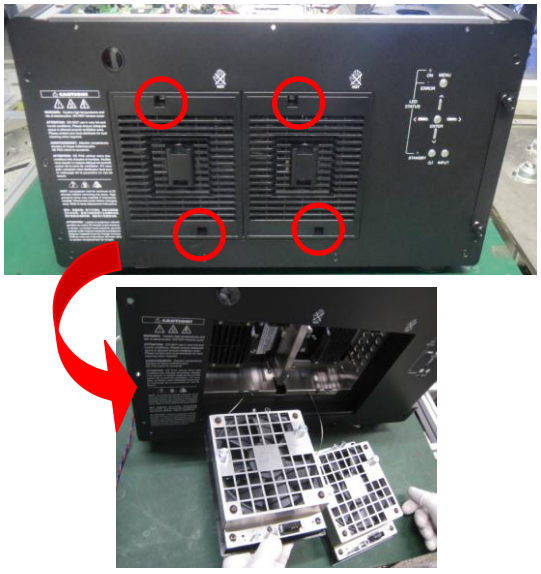
Take out the bracket.

4-8 Fan B Board & Lamp 1 & Lamp 2 & Fan 2 & Fan 3

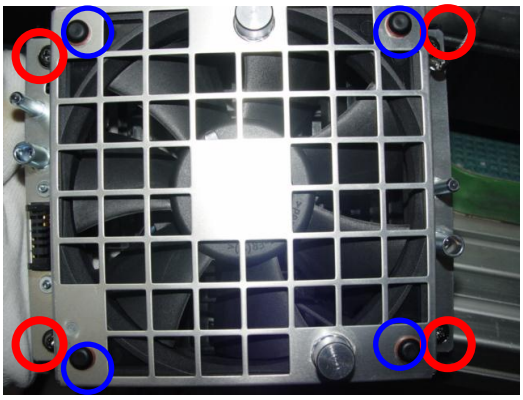


Unplug the 5 connectors, and loosen 2 screws on the Fan B Board. (Torque: 50~60 Nm)

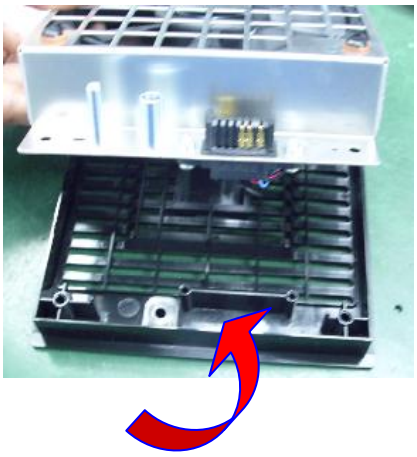
Take out the Fan B Board.



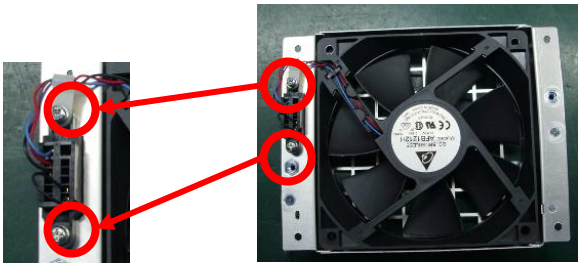
Loosen 4 screws on the Fan 2 & Fan 3 module of back cover. And, open the Fan 2 & Fan 3 module.
(Torque: 70~80 Nm)



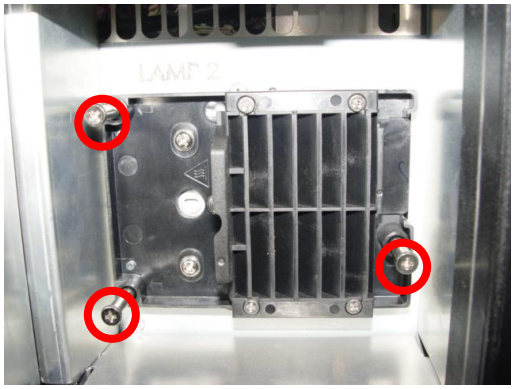
Take out the Fan 3 module. And, loosen 4 screws on it and open the cover, then loosen 4 plastic pin. (Torque: 110~120 Nm)



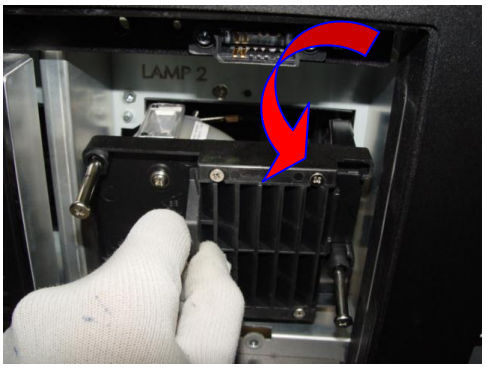
Open Fan 3 module.



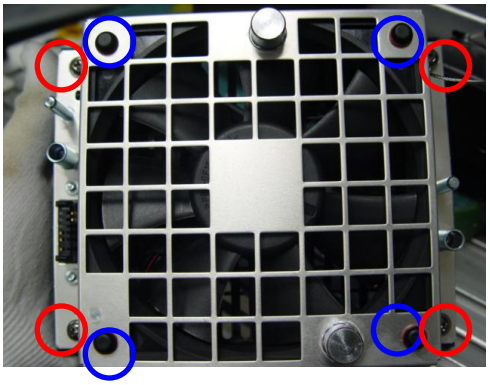
Loosen 2 screws on the Fan 3, and then take off Fan 3. (Torque: 50~60 Nm)



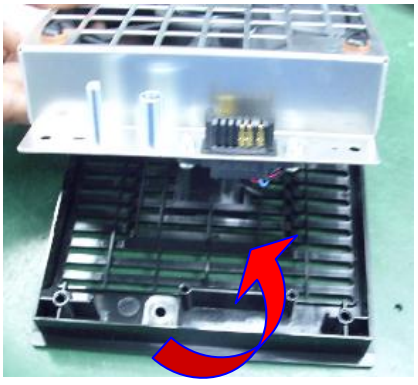
Loosen 3 screws on Lamp 2 module. (Torque: 70~80 Nm)



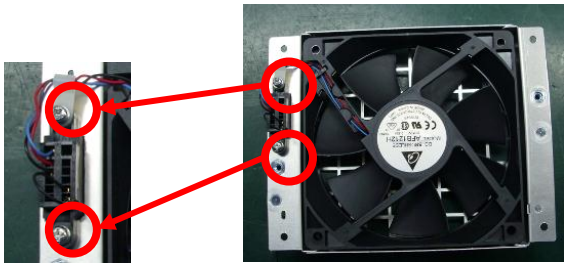
Take out the Lamp 2 module.



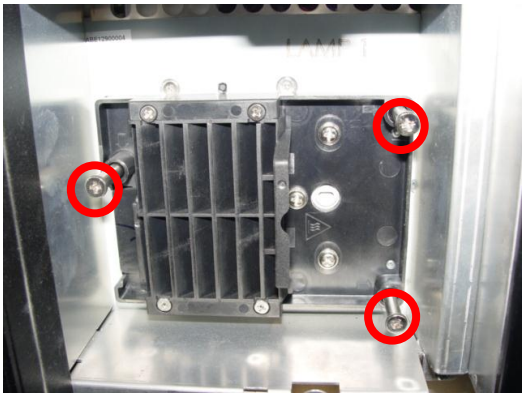
Take out the Fan 2 module. And, loosen 4 screws on it and open the cover, then loosen 4 plastic pin. (Torque: 110~120 Nm)



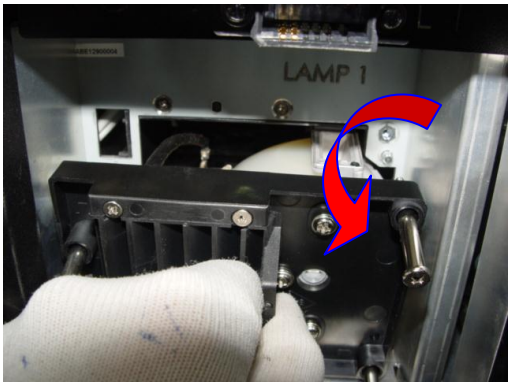
Open Fan 2 module.



Loosen 2 screws on the Fan 2, and then take off Fan 2.



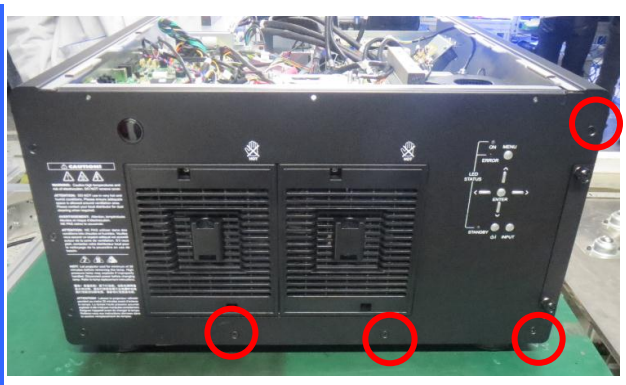
Loosen 3 screws on Lamp 1 module. (Torque: 70~80 Nm)



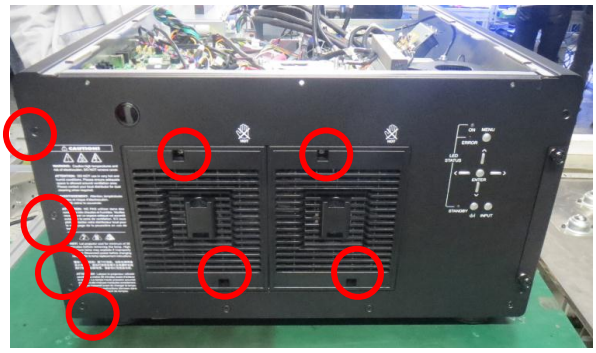
Take out the Lamp 1 module.

Take off the Lamp1 & Lamp 2 module.

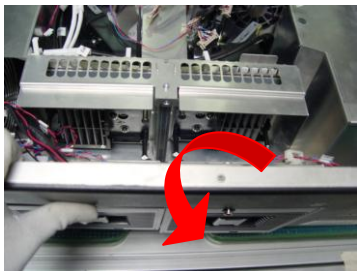
4-9 Back Cover & Keypad & Rear IR Board



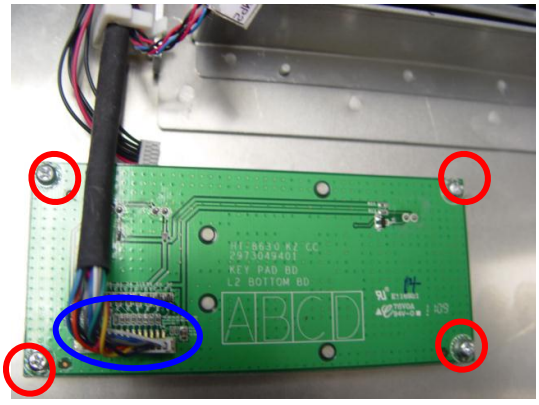
Loosen 4 screws on the right and bottom side of cover.



Loosen 8 screws on the left side of cover and two Fan modules.



Take off the back cover.

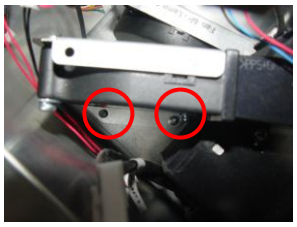


Loosen 4 screws and unplug 1 connector on the rear cover. (Torque: 50~60 Nm)

Loosen 1 screw and unplug 1 connector on the rear cover. (Torque: 50~60 Nm)

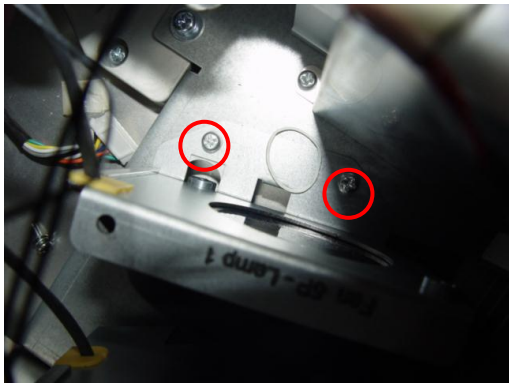
Take off the Keypad & Rear IR Board.

4-10 Fan 20 & Fan 21 & Fan 22 & Fan 23

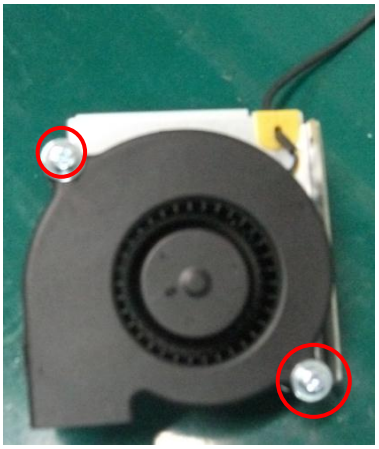


Loosen 3 screws on the Fan 20. (Torque: 50~60 Nm)

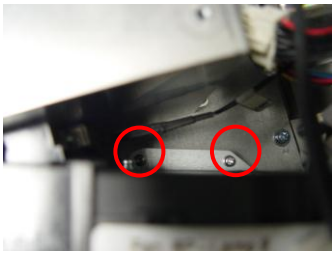
Loosen 2 screws on the Fan 20. Then, take off Fan 20. (Torque: 50~60 Nm)

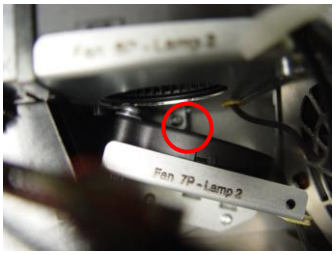


Loosen 2 screws on the Fan 21. (Torque: 50~60 Nm)



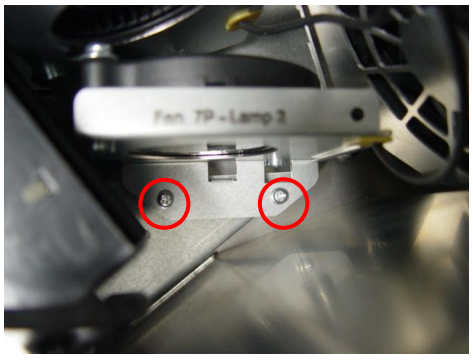
Loosen 2 screws on the Fan 21. Then, take off Fan 21. (Torque: 50~60 Nm)



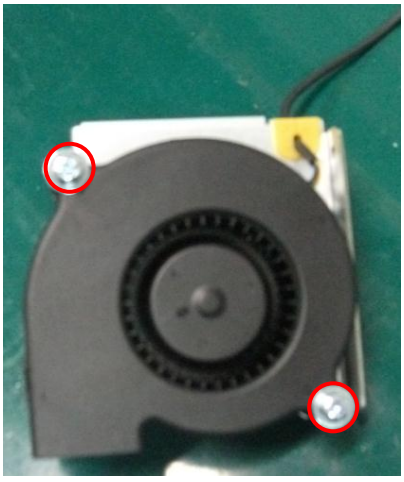


Loosen 3 screws on the Fan 22. (Torque: 50~60 Nm)

Loosen 2 screws on the Fan 22. Then, take off Fan 22. (Torque: 50~60 Nm)

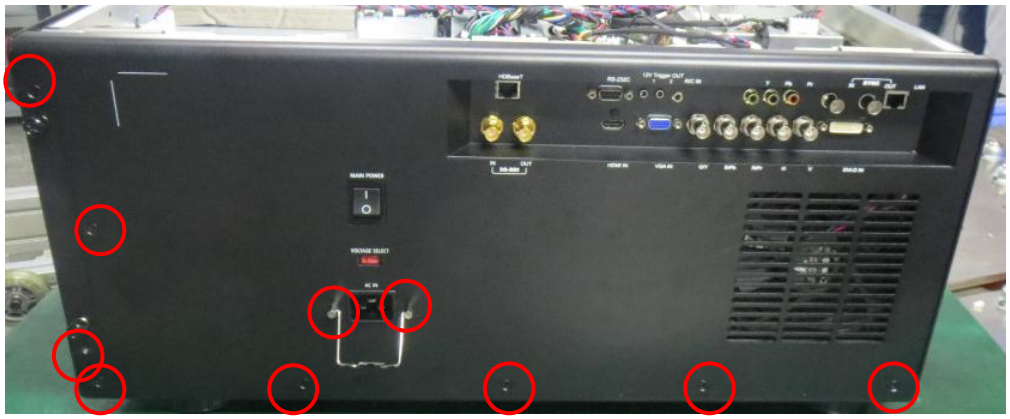


Loosen 2 screws on the Fan 23. (Torque: 50~60 Nm)

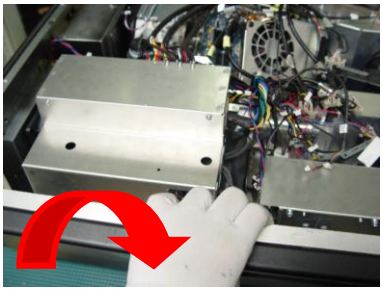


Loosen 2 screws on the Fan 23. Then, take off Fan 23. (Torque: 50~60 Nm)

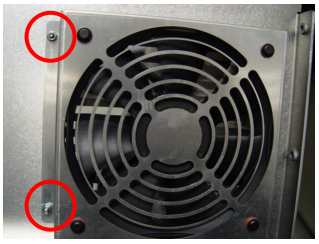
4-11 Left Cover & Fan 1

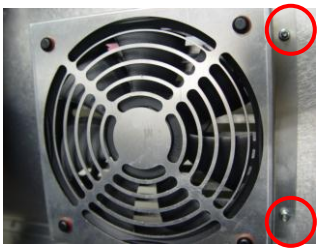


Loosen 10 screws on the left cover. (Torque: 70~80 Nm)

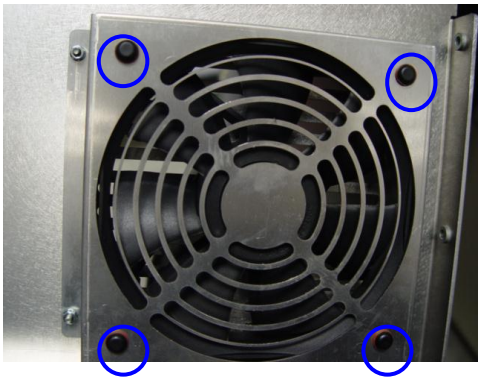


Take off the left cover.

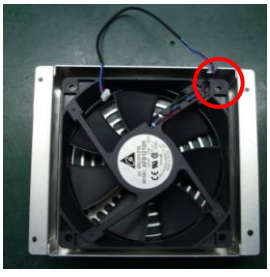




Loosen 4 screws on the Fan 1 module of left cover. (Torque: 60~70 Nm)

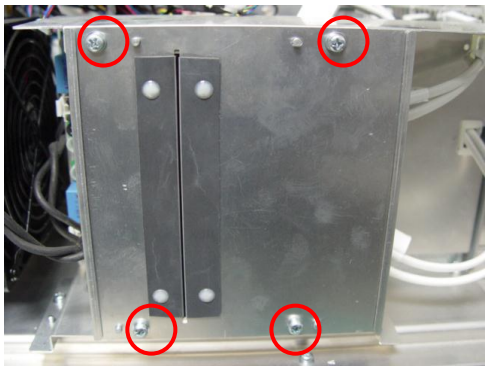


Loosen 4 plastic pin on the Fan 1 module of left cover.

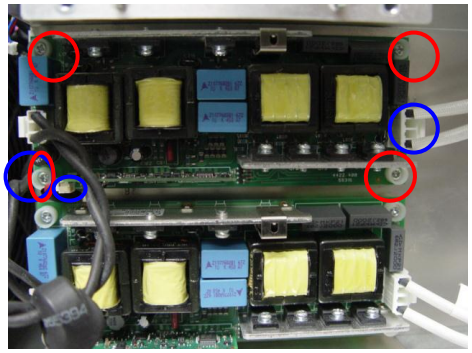


Unplug the cable from bracket and take off the Fan 1.

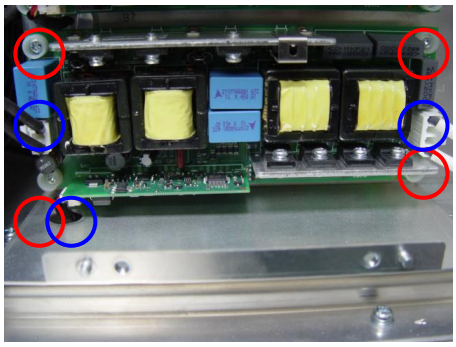
4-12 Ballast & DC-DC Board & AC Filter Board & Power Board & Fan 8 & Fan 9



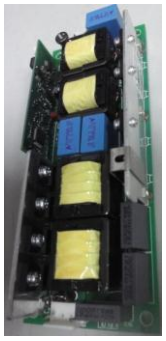
Loosen 4 screws on the ballast module cover and then take off it. (Torque: 50~60 Nm)



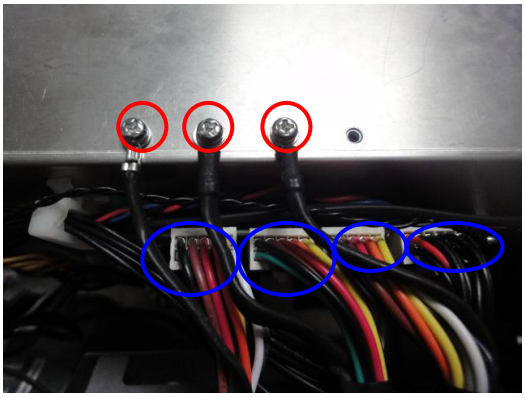
Unplug 3 connectors and Loosen 4 screws on ballast. Then, take off it. (Torque: 50~60 Nm)



Unplug 3 connectors and Loosen 4 screws on ballast. Then, take off it. (Torque: 50~60 Nm)



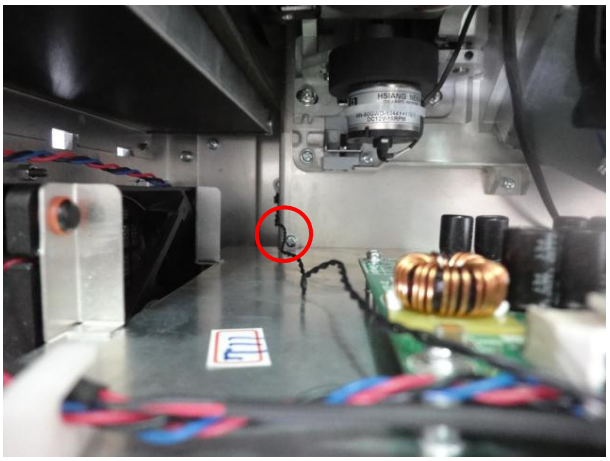
Take out the two ballasts.



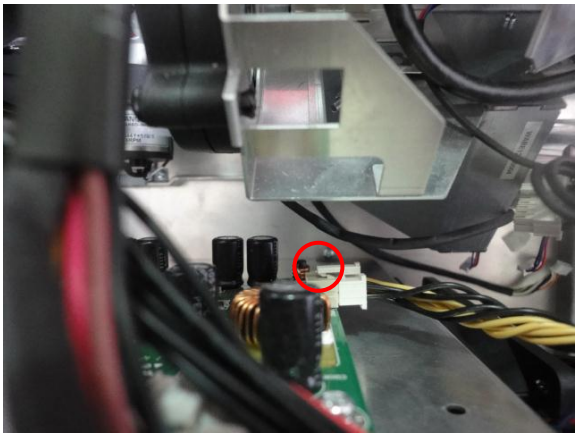
Loosen 3 screws and unplug 4 connectors on the power module and DC-DC Board. (Torque: 50~60 Nm)

Unplug 1 connector and 2 group cables fasten tie on the power module and DC-DC Board.

Loosen 2 screws on the top of power module. (Torque: 50~60 Nm)



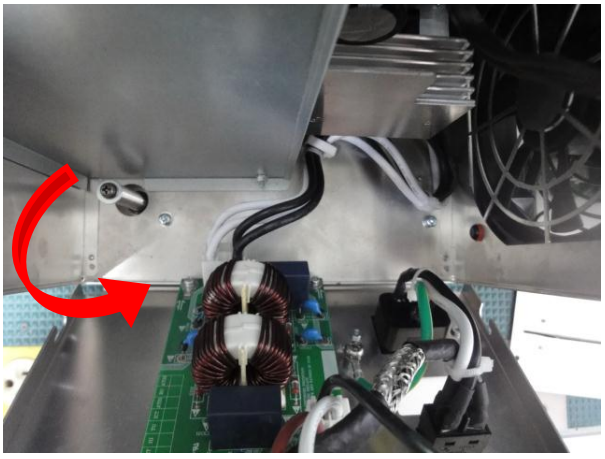
Loosen 1 screw on the left bottom of power module. (Torque: 70~80 Nm)



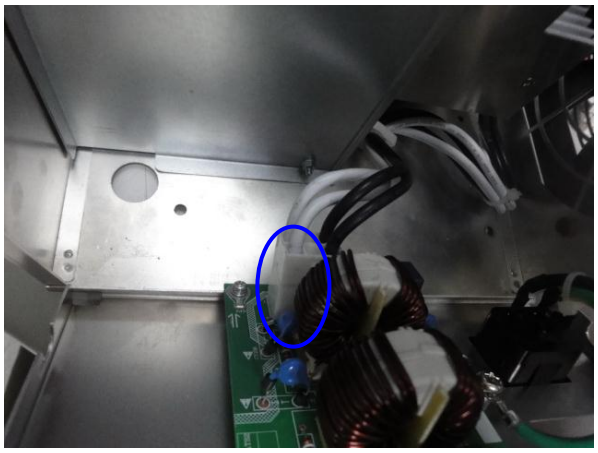
Loosen another 1 screw on the right bottom of power module. (Torque: 70~80 Nm)

Raise the power module.

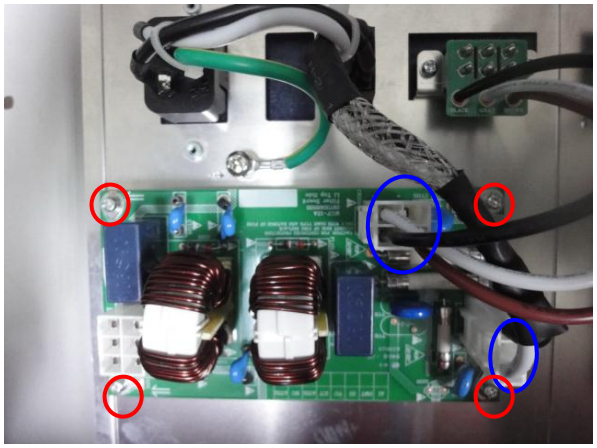
Take off the power module.



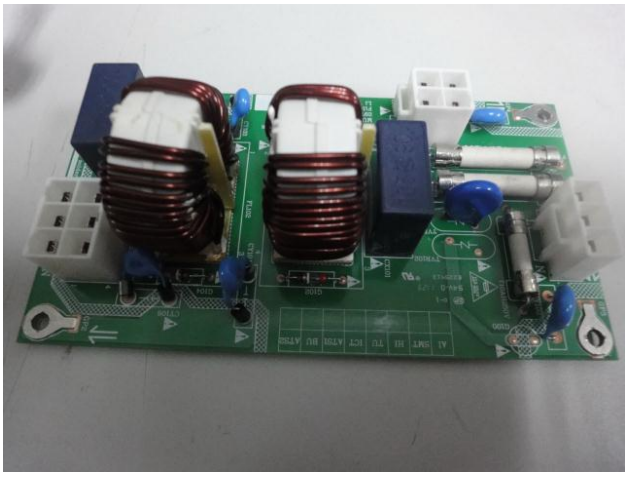
Open the power module.



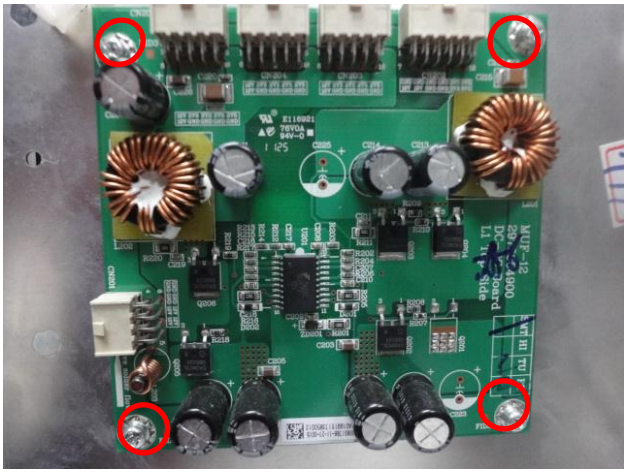
Unplug 1 connector from AC filter Board.



Unplug 2 connectors and loosen 4 screws on the AC filter Board. (Torque: 50~60 Nm)

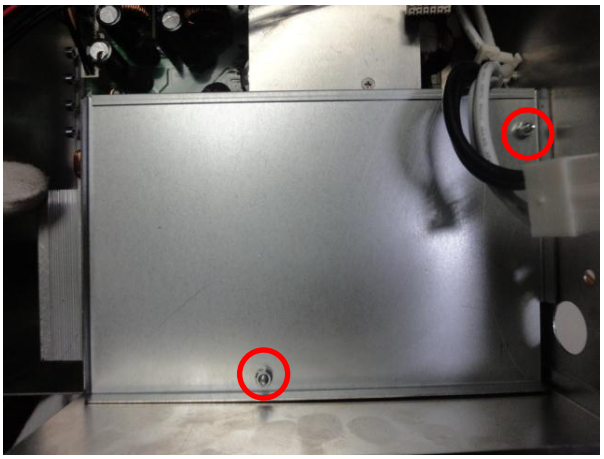


Take off the AC filter Board.

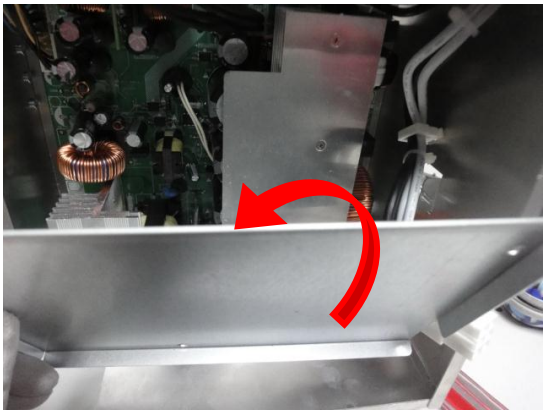


Loosen 4 screws on the DC-DC Board. (Torque: 50~60 Nm)

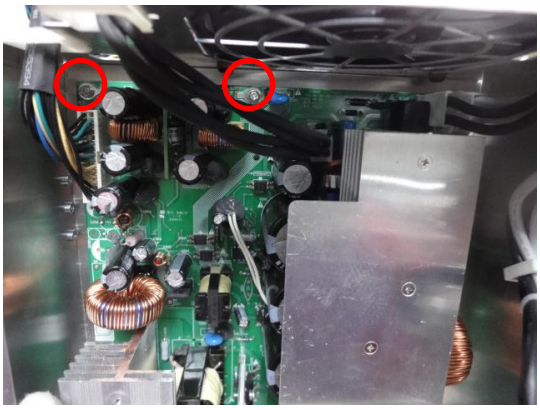
Take off the DC-DC Board.



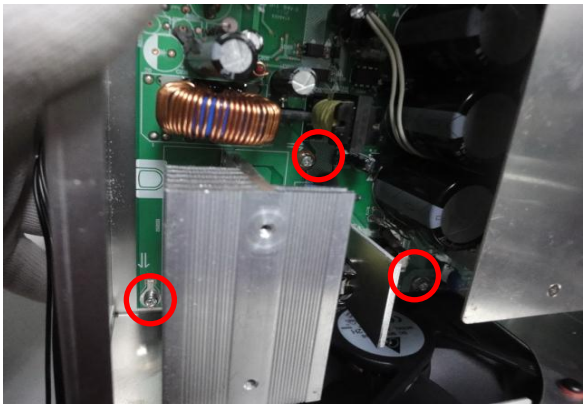
Loosen 2 screws on the inside bracket from power module. (Torque: 50~60 Nm)



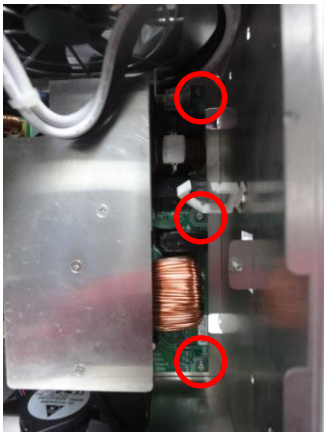
Take off the bracket.



Loosen 2 screws on the top left side of power Board. (Torque: 50~60 Nm)

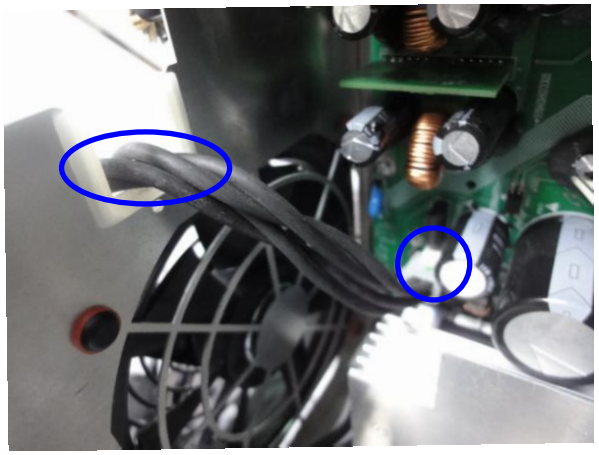


Loosen 3 screws on the bottom left side of power Board. (Torque: 50~60 Nm)

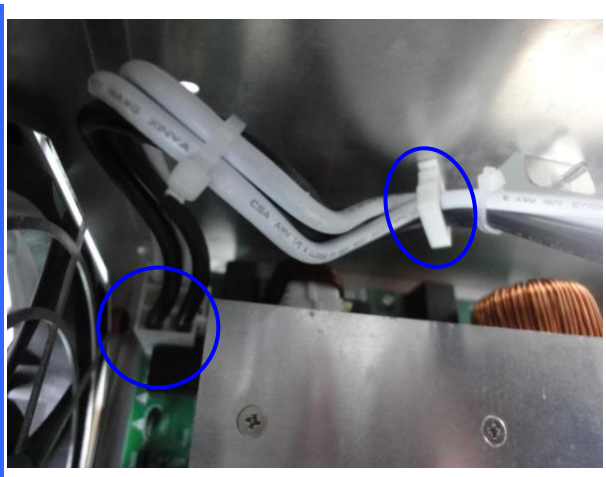


Loosen 3 screws on the left side of power Board. (Torque: 50~60 Nm)

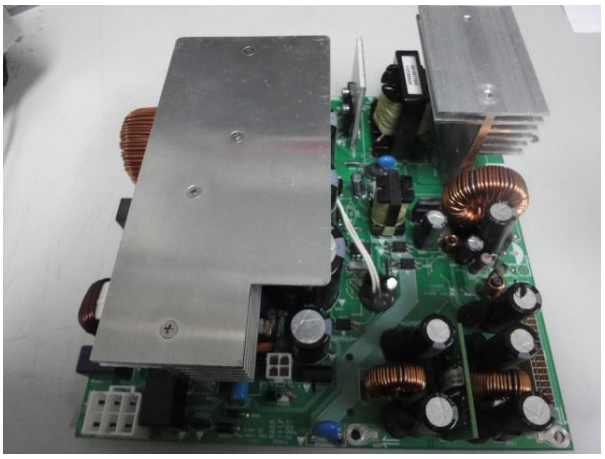
Unplug 1 connector on power Board and cable from concave of power module.



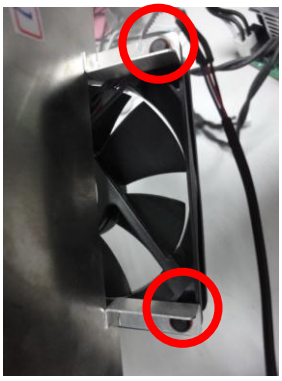
Unplug 1 connector on power Board and cable from concave of power module.



Unplug 1 connector on power Board and cable from fasten tie of power module.

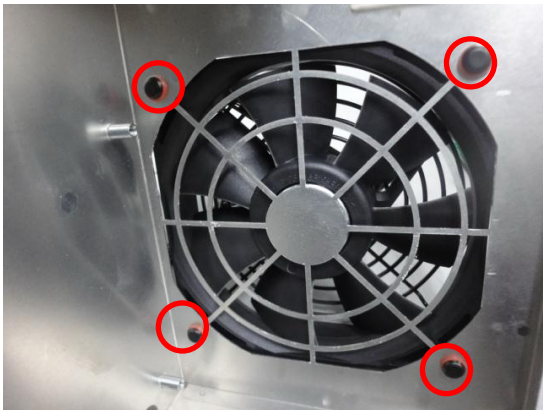


Take off the power Board.



Loosen 4 plastic pin on the Fan 8 of power module.

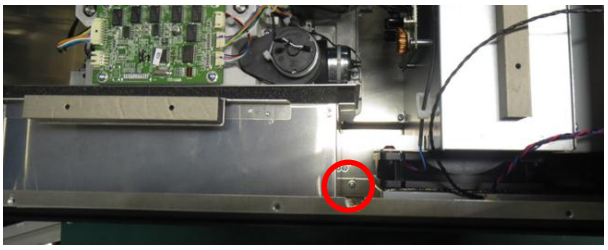
Take off the Fan 8.



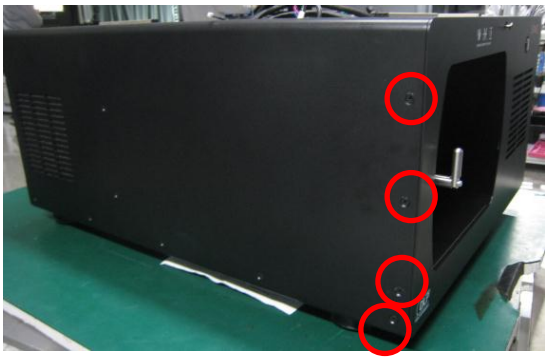
Loosen 4 plastic pin on the Fan 9 of power module.

Take off the Fan 9.

4-13 Front Cover & Front IR Board

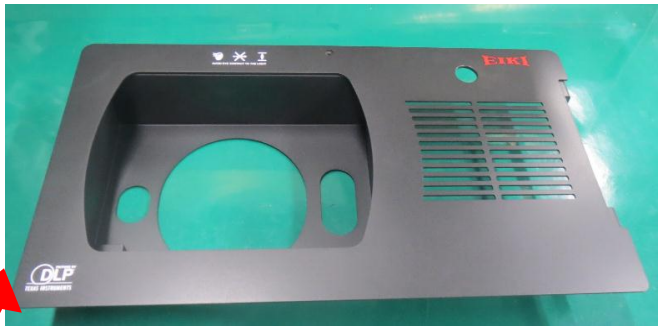


Loosen 1 screw on right bottom side of front cover. (Torque: 50~60 Nm)

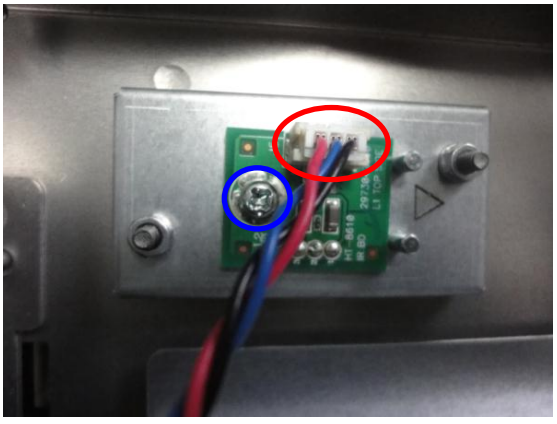


Loosen 4 screws on the right side of right cover. (Torque: 70~80 Nm)

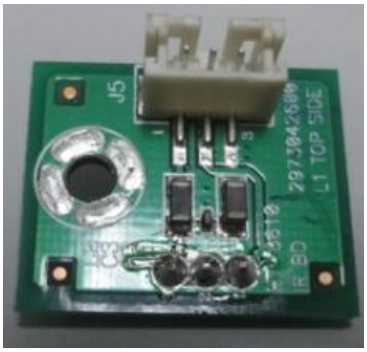
Take off the front cover.



Front Cover

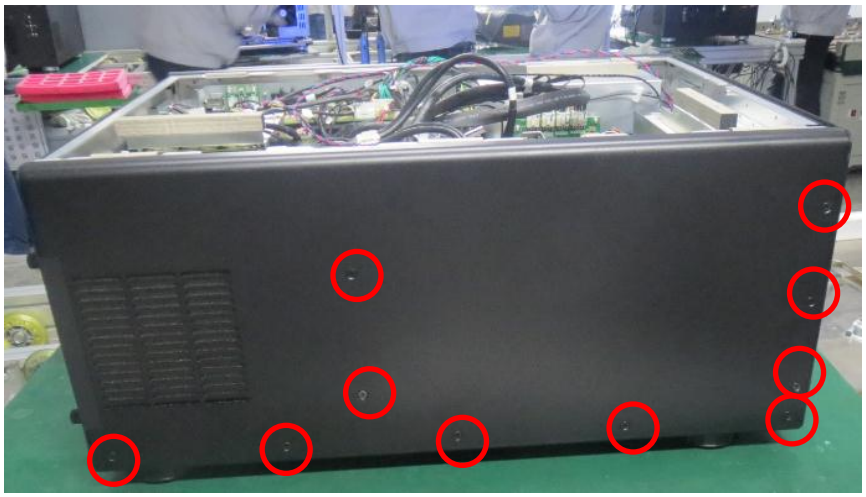


Unplug 1 connector and loosen 1 screw on front IR Board. (Torque: 50~60 Nm)

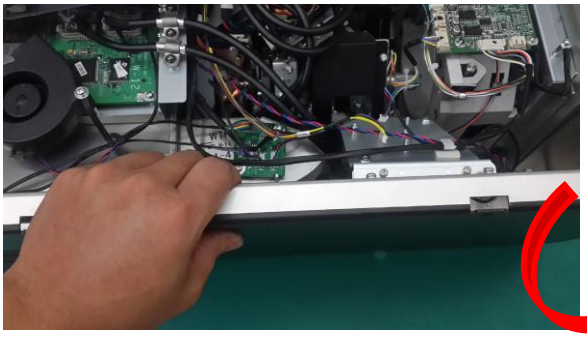


Take off the front IR Board.

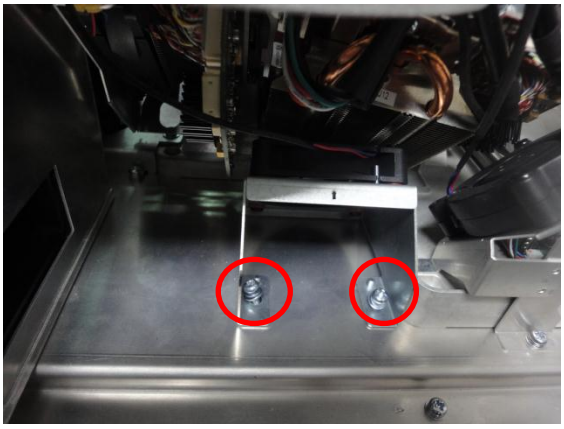
4-14 Right Cover & Fan 0



Loosen 10 screws on the right cover. (Torque: 70~80 Nm)



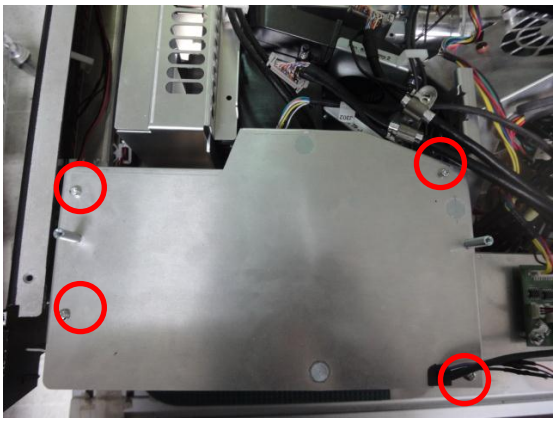
Take off the right cover.



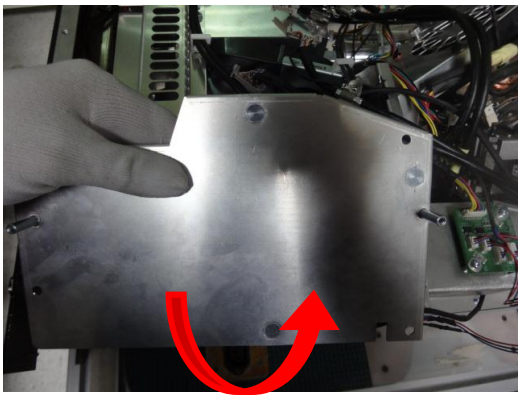
Right Cover

Loosen 2 screws on the bracket of Fan 0. (Torque: 50~60 Nm)

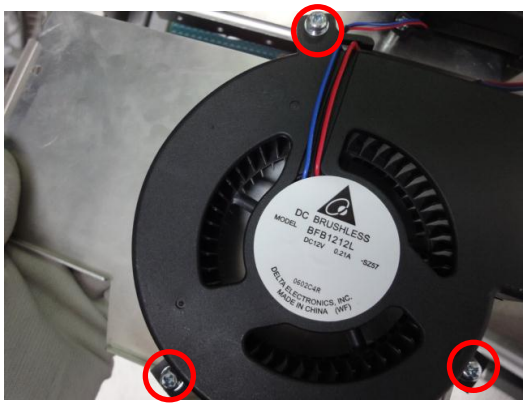
Loosen 4 plastic pin on the bracket of Fan 0, then take off the Fan0.



Loosen 4 screws on the cover of Fan 4. (Torque: 50~60 Nm)

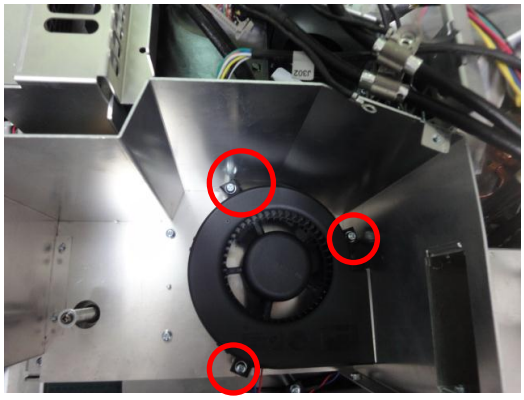


Take off the Fan 4 cover.



Loosen 3 screws on the Fan 4. (Torque: 50~60 Nm)

Take off the Fan 4.

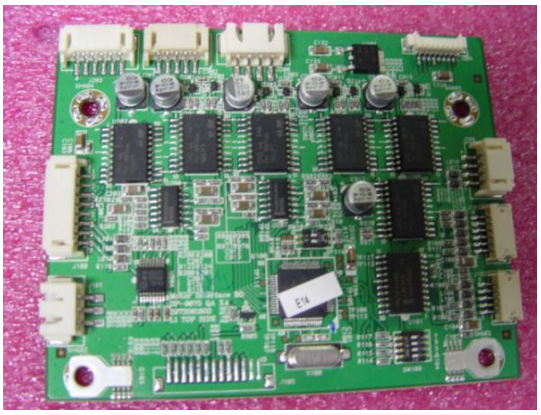


Loosen 3 screws on the Fan 5. (Torque: 50~60 Nm)

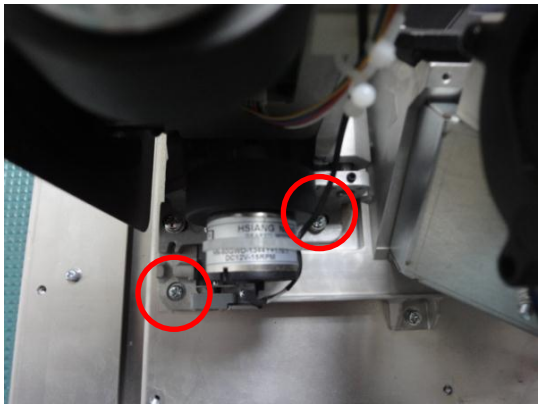
Take off the Fan 5.

4-15 Motor Driver Board & Lens Mount

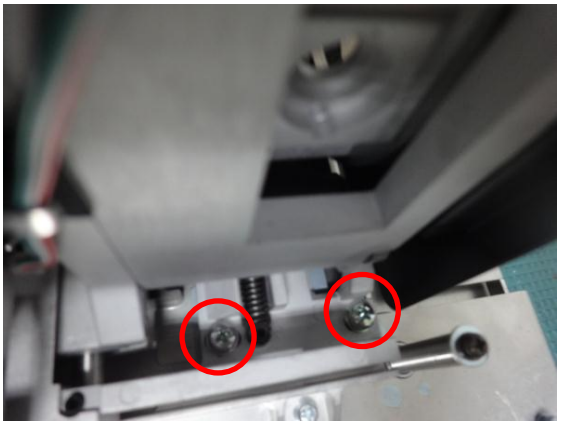
Loosen 4 screws and unplug 10 connectors on the Motor Driver Board. (Torque: 50~60 Nm)



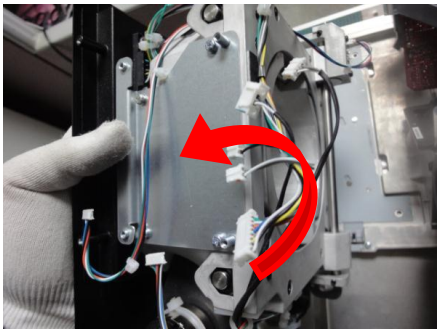
Take off the Motor Driver Board.



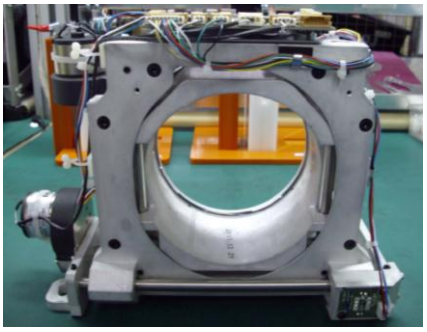
Loosen 2 screws on the left side of Lens Mount. (Torque: 50~60 Nm)



Loosen other 2 screws on the right side of Lens Mount. (Torque: 50~60 Nm)

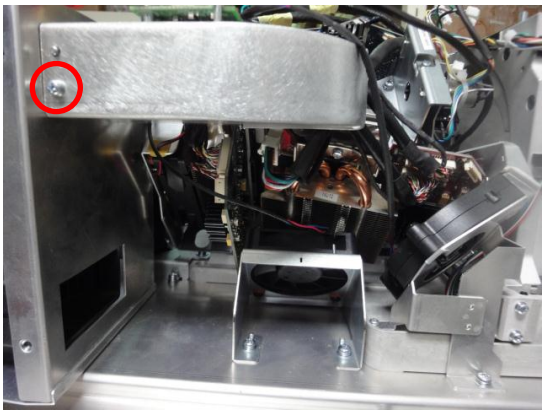


Take off the Lens Mount

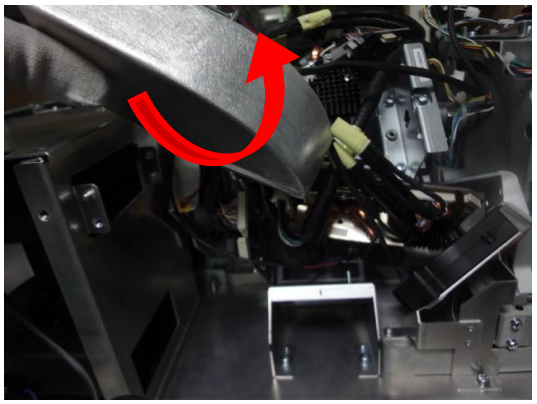


Lens Mount

4-16 Prism Flow Channel & Light Shutter & FIP (Optical Engine)

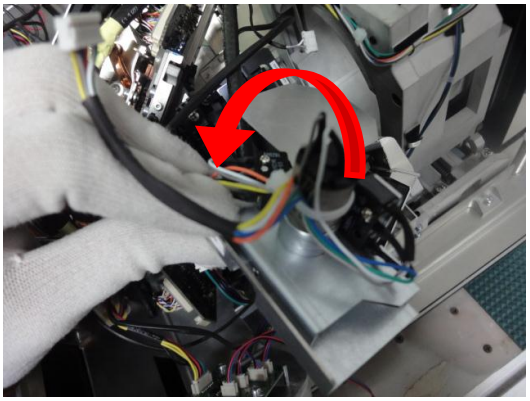


Loosen 1 screw on the prism flow channel. (Torque: 50~60 Nm)

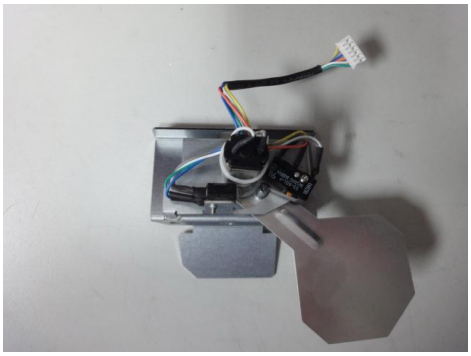


Take off the prism flow channel.

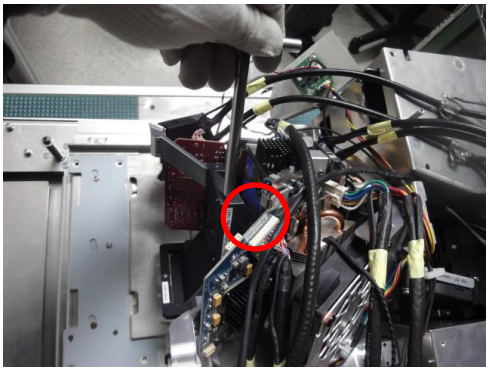
Loosen 2 screws on the Light shutter. (Torque: 50~60 Nm)



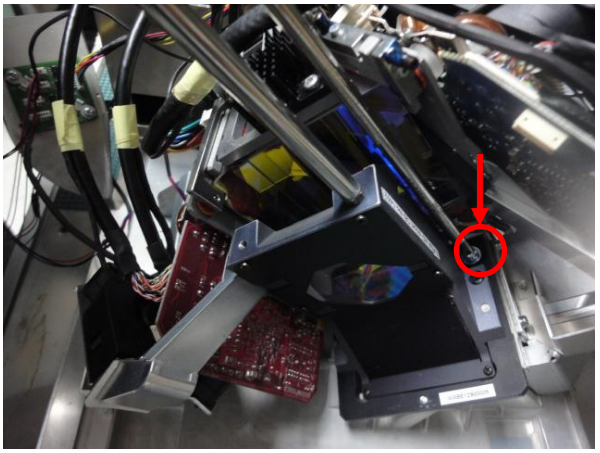
Take off the Light shutter.



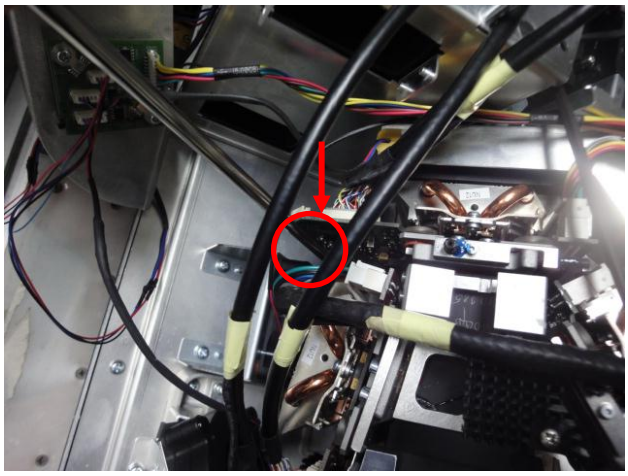
Light shutter.



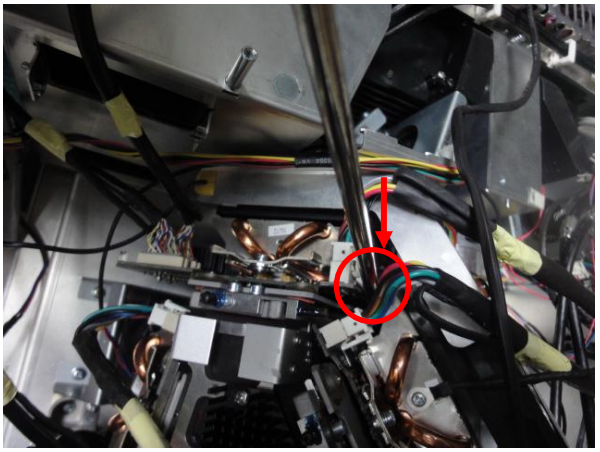
Use T-type tool to screw up the FIP tightly.



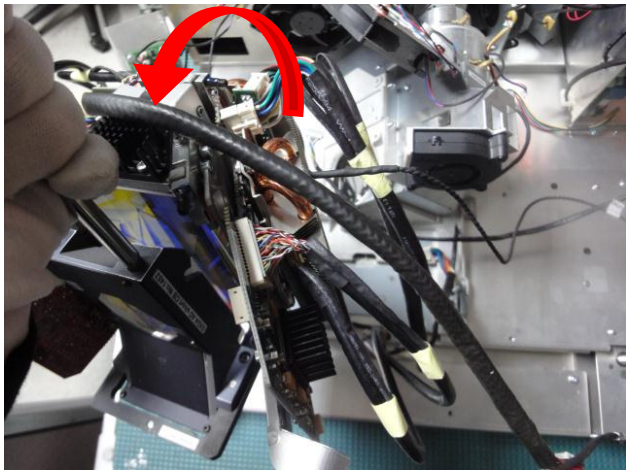
Loosen first screw on the bottom side of FIP. (Torque: 70~80 Nm)



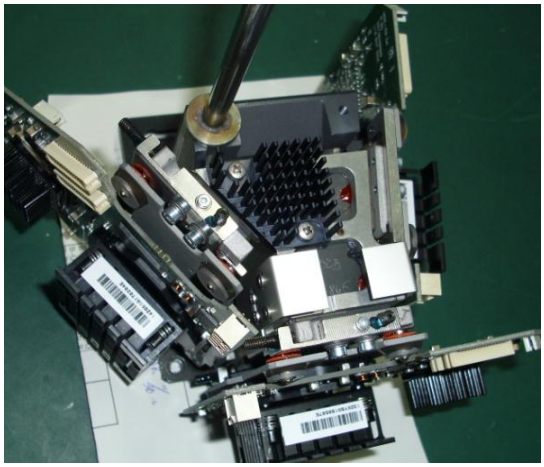
Loosen second screw on the bottom side of FIP. (Torque: 70~80 Nm)



Loosen third screw on the bottom side of FIP. (Torque: 70~80 Nm)

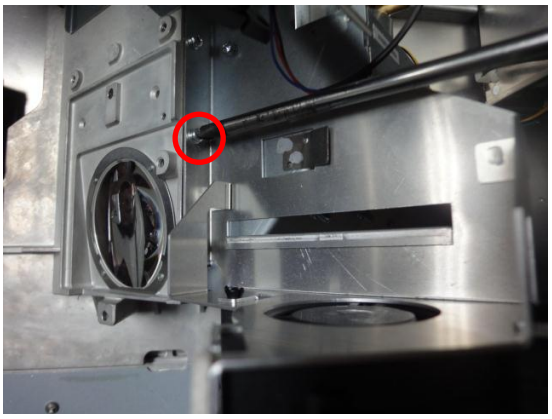


Take off the FIP.

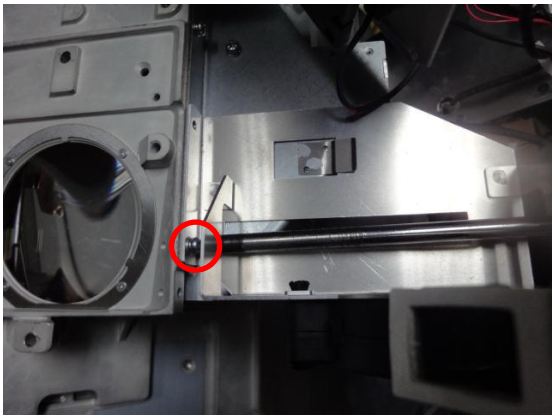


FIP (Optical Engine)

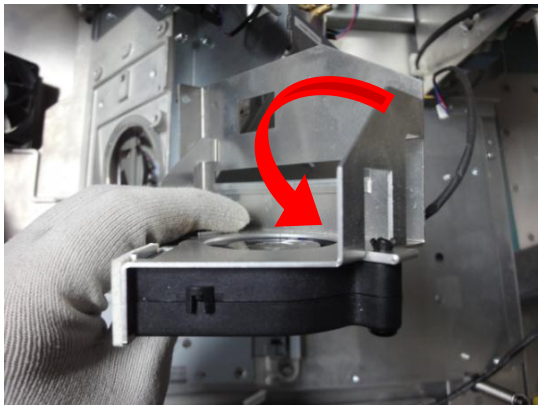
4-17 Illumination & Fan 6 & Fan 7 & Fan 10 & Fan 11



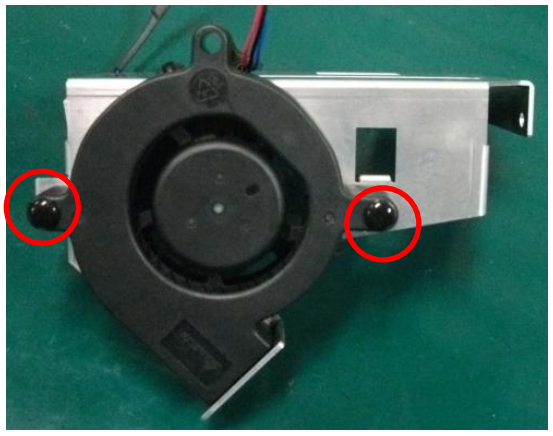
Loosen first screw on the bottom side of Fan 11 bracket. (Torque: 50~60 Nm)



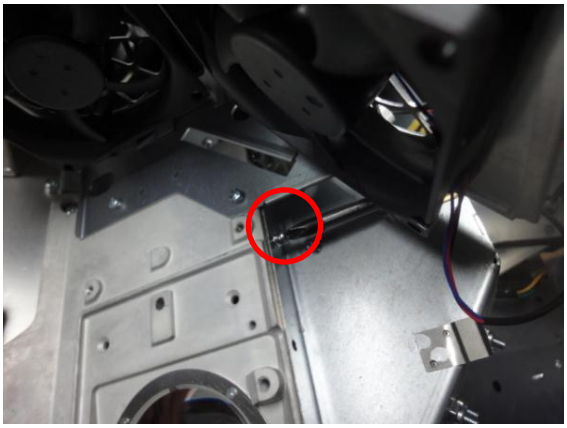
Loosen second screw on the bottom side of Fan 11 bracket. (Torque: 50~60 Nm)



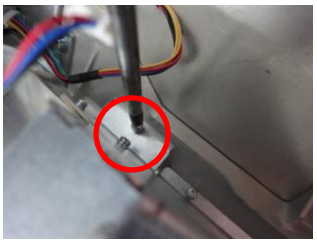
Take off the Fan 11 module.

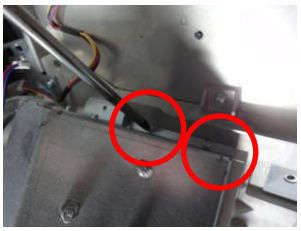


Loosen 2 plastic pins on the Fan 11 bracket. And, take off the Fan11.

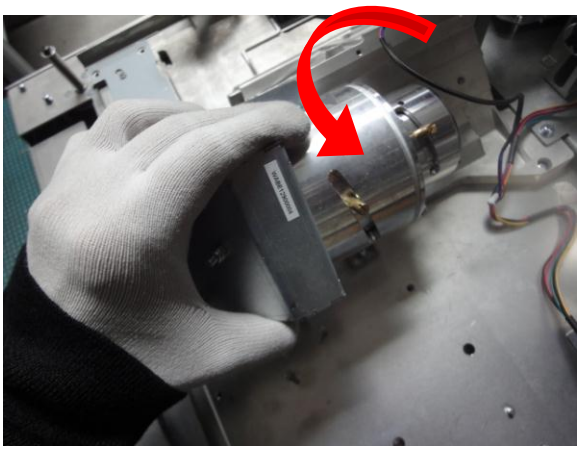


Loosen 1 screw on the left bottom side of the illumination. (Torque: 50~60 Nm)

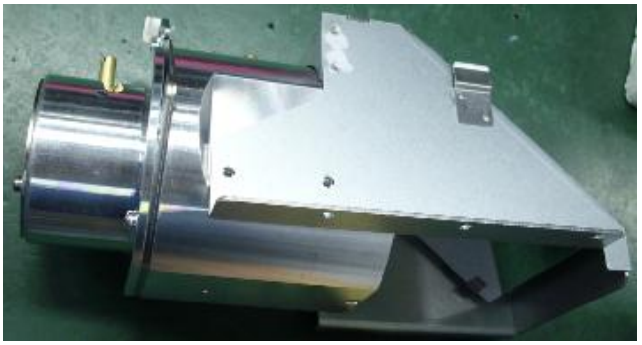




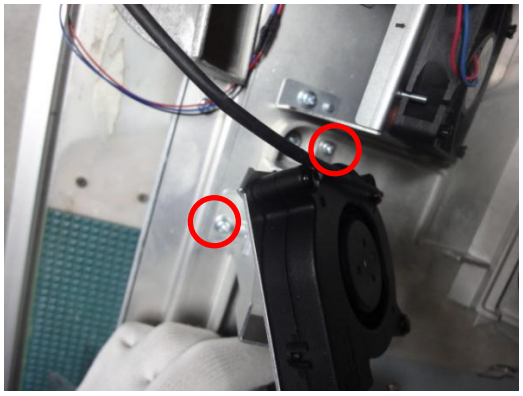
Loosen 3 screws on the right bottom side of the illumination. (Torque: 50~60 Nm)



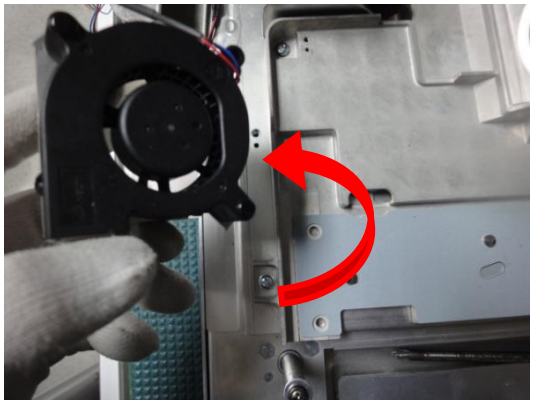
Take off the illumination.



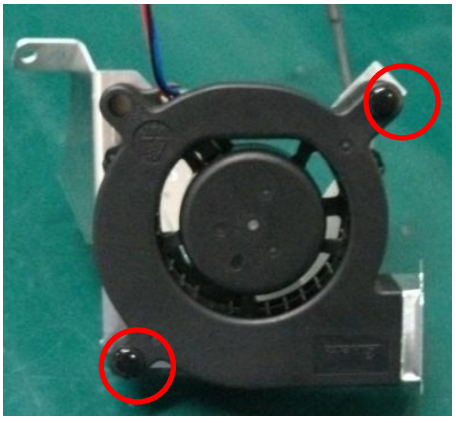
Illumination



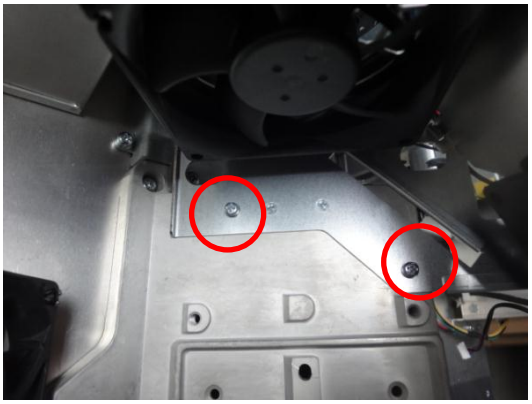
Loosen 2 screws on the bottom side of the Fan 7 bracket. (Torque: 50~60 Nm)



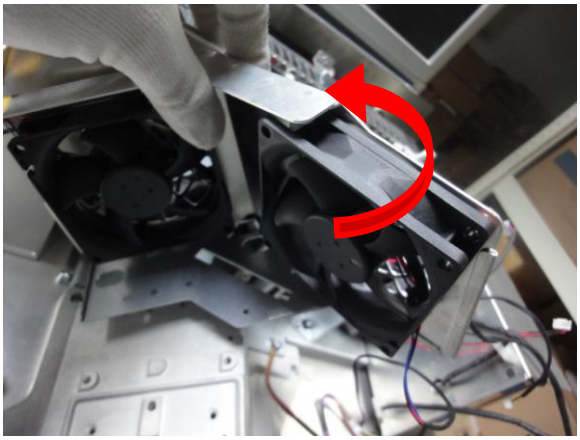
Take off the Fan 7 module. (Torque: 50~60 Nm)



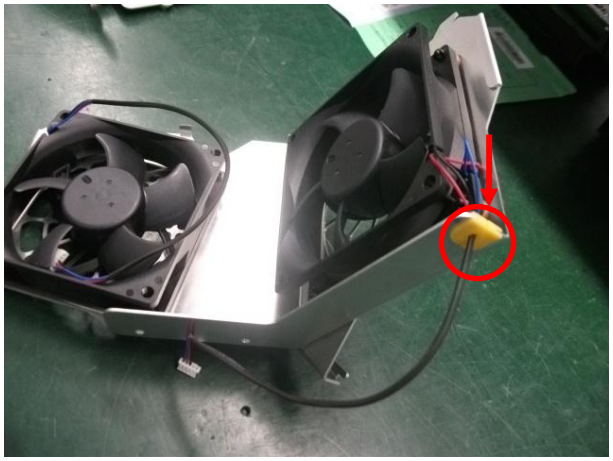
Loosen 2 plastic pins on the Fan 7 bracket. And, take off the Fan 7.



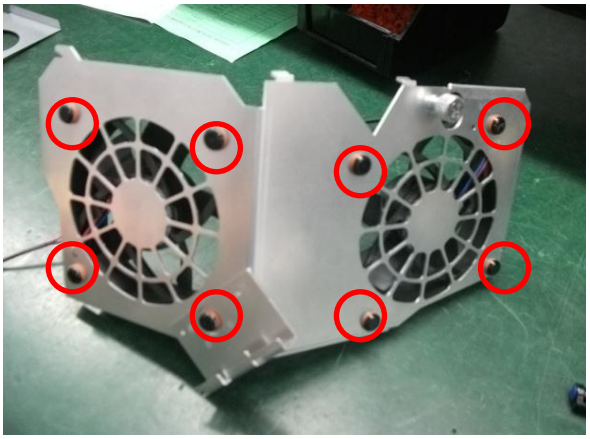
Loosen 2 screws on the bottom side of the Fan 6 & Fan 10 bracket. (Torque: 50~60 Nm)



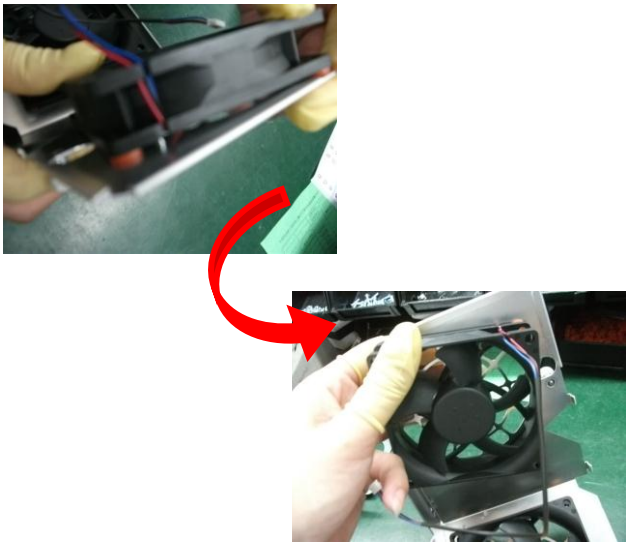
Take off the Fan 6 & Fan 10 module.



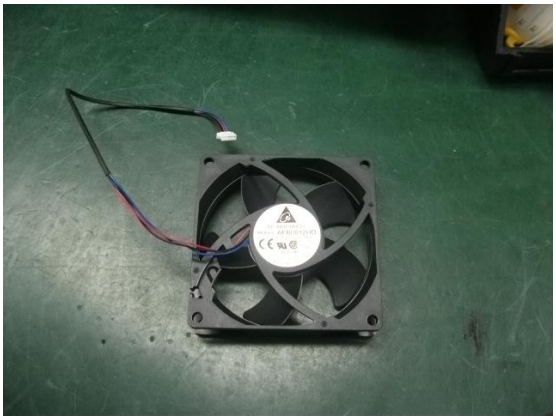
Unplug the cable from Fan 6 location of yellow concave.



Loosen eight plastic pins on the Fan 6 & Fan 10 bracket.



Fan 6 & Fan 10 from bracket.

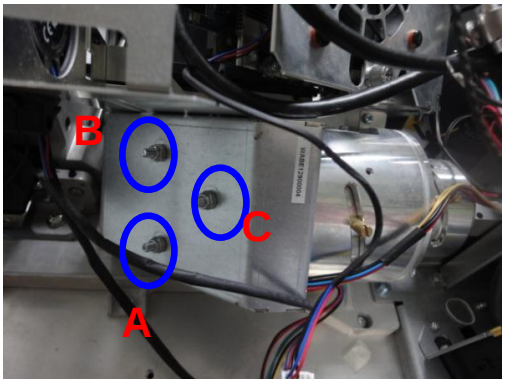


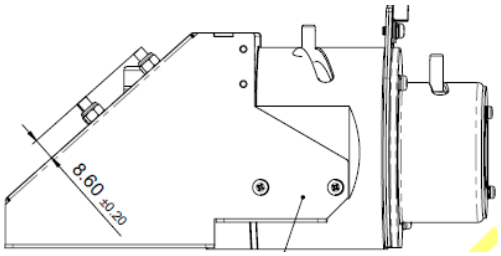
Fan 6 & Fan 10

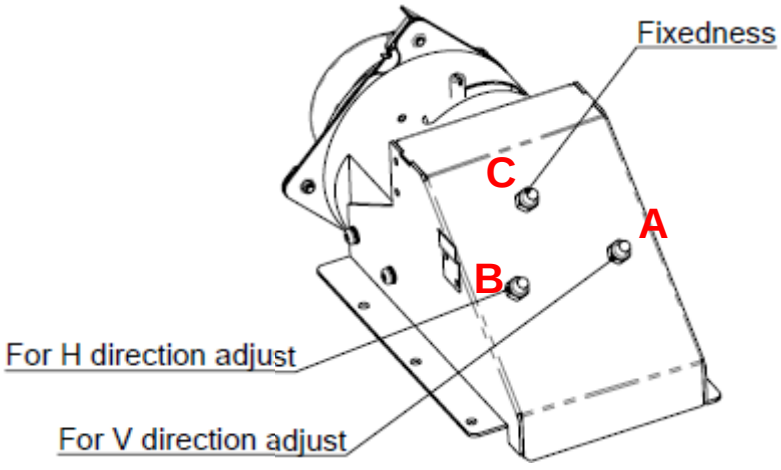
5. ADJUSTMENT

5-1. Folding Mirror Adjusting

1. Use 7 mm Hex-Sleeve screwdriver to adjust.
2. Check the full-white image where color band is, and slight adjust fixed-nut to remove it.
3. When finish adjusted, add TB1401B glue on the nuts to fix it.







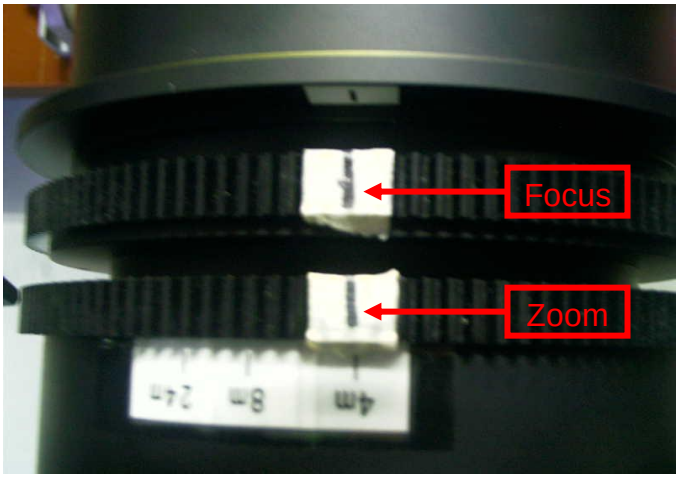
(1) To adjust nut A to move the image vertically

(2) To adjust nut B to move the image horizontally

(3) Nut C is to confirm the reflector default position (The distance from bracket to top of screw is 8.6 ± 0.2)

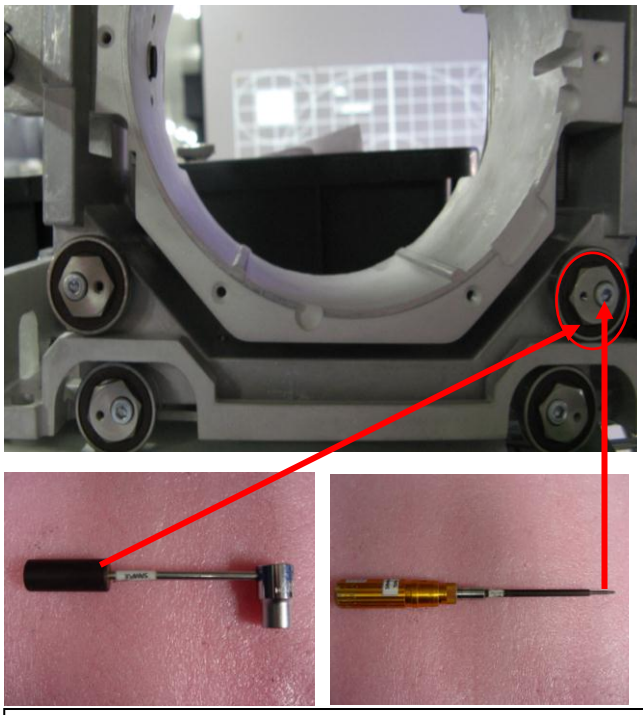
5-2. Focus Adjusting

(A)



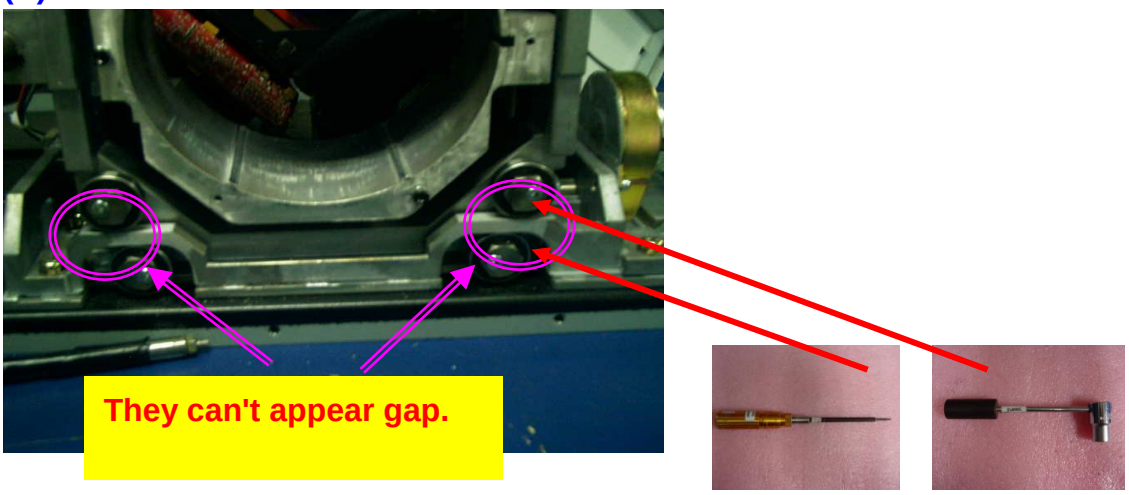
Rotate the ring of Zoom & Focus. Because it makes the distance is 4 m from screen to Lens and make sure image is square by moving projector, please make three label mark to align the one line.

(B)



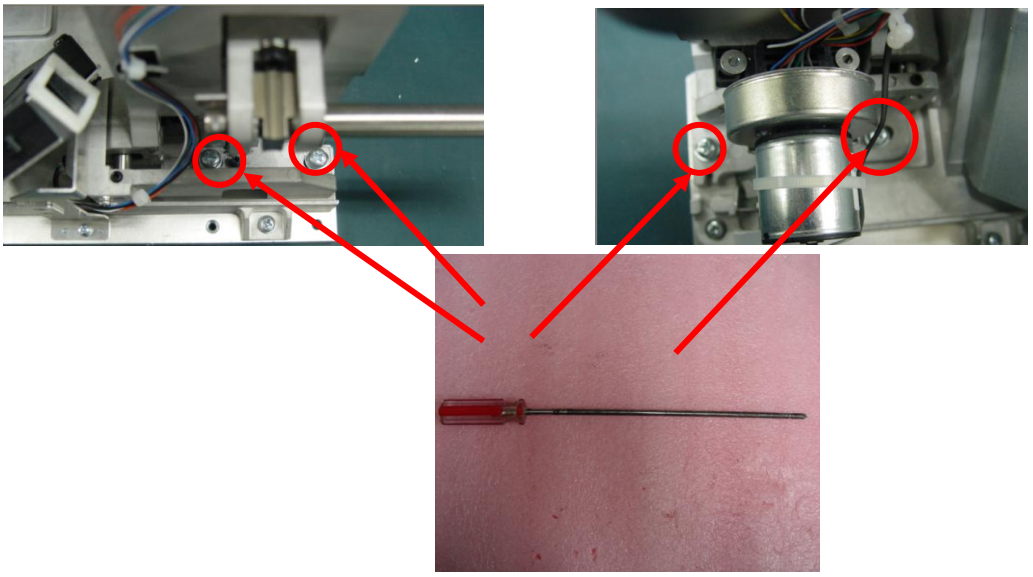
Switch to “ME” testing pattern to adjust focus. Use 13 mm Inner Hexagon Sleeve Screwdriver and 2.5 mm Inner Hexagon Screwdriver to adjust the top and right adjusting screws of Lens Mount to make top and bottom focus of whole image clearly. And, then adjust flare to make pixel of whole image clearly.

(C)



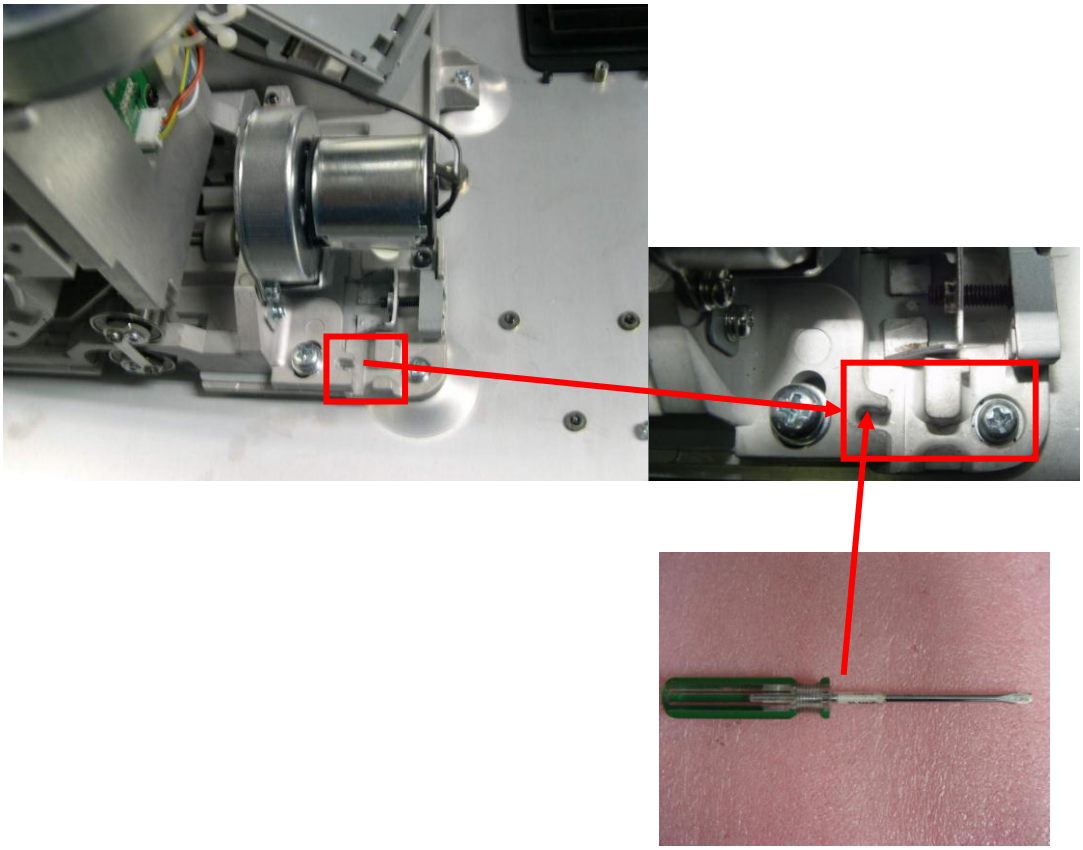
Use 13 mm Inner Hexagon Sleeve Screwdriver and 2.5 mm Inner Hexagon Screwdriver (12 kg-f-cm) to screw up tightly 4 pcs rotating wheels of fixing focus screws. The surface of rotating wheels will touch the brace. But, they can't appear gap and the rotating wheel still slide.

(D)



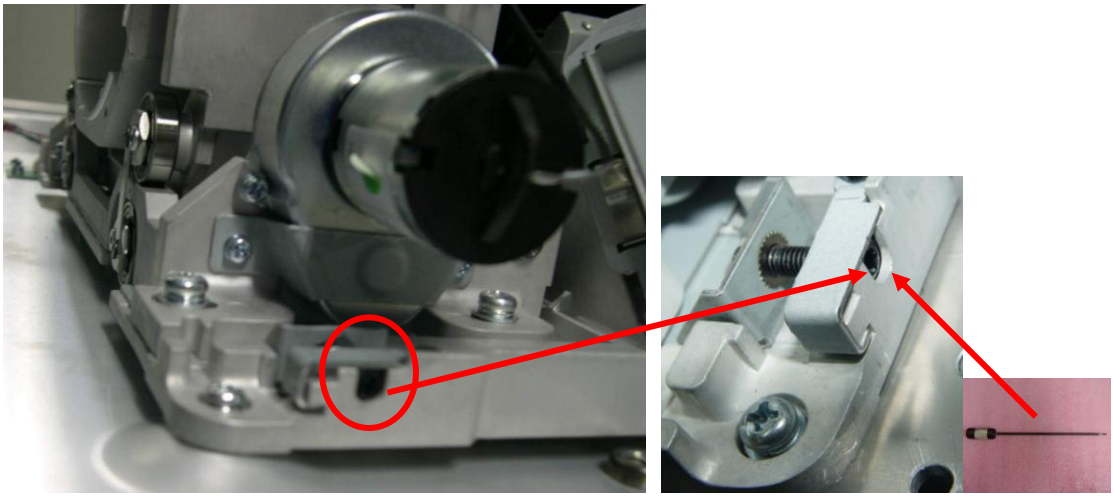
Before adjusting right and left image focus, please use M5 cross screwdriver to loose slightly 4 pcs fixing Lens Mount screws (Please don't loose too much because Lens Mount will shake).

(E)



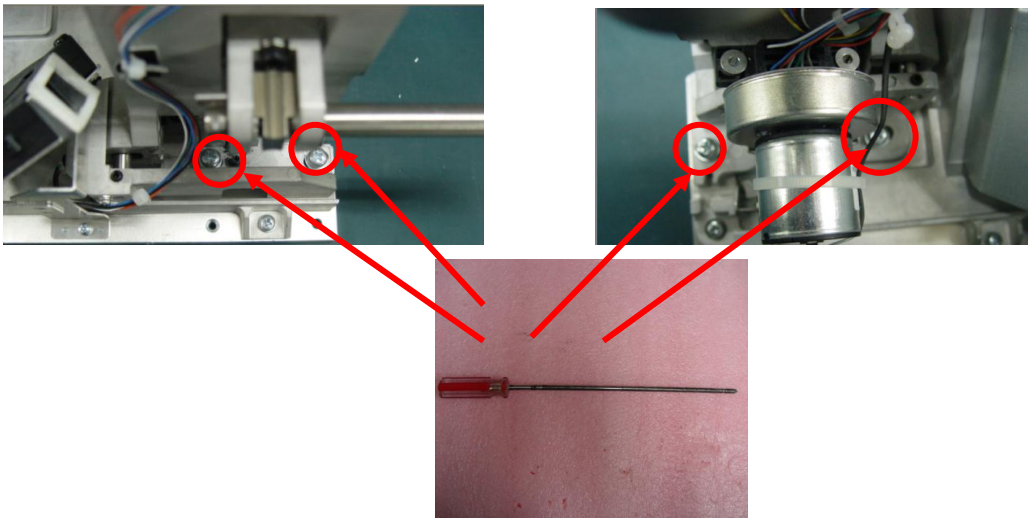
After loosing slightly 4 pcs fixing Lens Mount screws, please use flat screwdriver to adjust left and right focus of whole image clearly. And, then adjust flare to make pixel of whole image clearly.

(F)



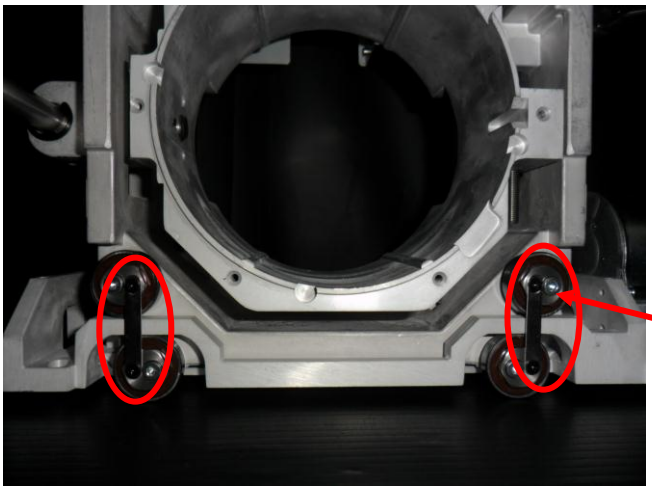
Please use 3 mm inner hexagon screwdriver to adjust front and back focus of whole image clearly. And, then adjust flare to make pixel of whole image clearly.

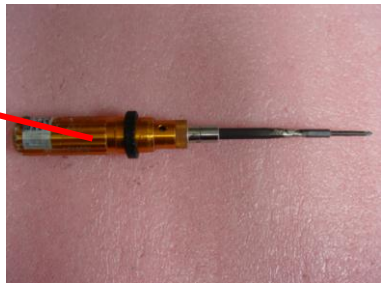
(G)



After adjusting all position focus of whole image, please use M5 cross screwdriver (10 kg-f-cm) to screw up tightly 4 pcs fixing Lens Mount screws. If the focus move or fail, while you screw up Lens Mount. Please re-adjust all steps again.

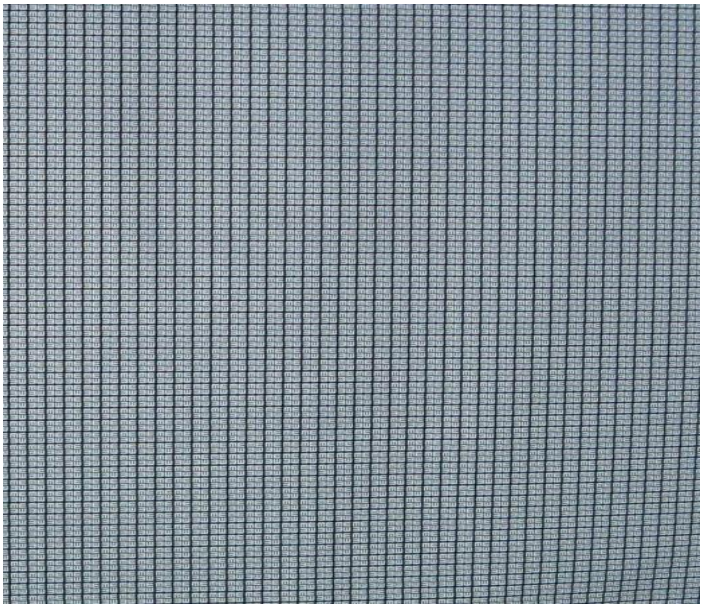
(H)





Please use 3.5mm cross torque screwdriver (4 kg-f-cm) to screw up the 2 pcs shaft on 4 pcs rotating wheels to fasten them.

(I)



Please use “ME” pattern to confirm all position focus and flare of whole image clearly.

6. MAINTENANCE

6-1 Cleaning the projector

6-1-1 Cleaning the Cabinet

Refer to the following guide to clean the projector cabinet.

a. Wipe off dust with a clean dampened cloth.

b. Moisten the cloth with warm water and mild detergent and wipe the cabinet.

c. Rinse all detergent from the cloth and wipe the projector again.

CAUTION

To prevent discoloration or fading of the case, do not use abrasive alcohol-based cleaners.

6-1-2 Cleaning the Lens

Refer to the following guide to clean the projector lens.

a. Apply a little optic lens cleaner to a clean, lint free cloth (do not apply the cleaner directly to the lens).

b. Lightly wipe the lens in a circular motion.

CAUTION

Do not use abrasive cleaners or solvents.

To prevent discoloration or fading, avoid getting cleaner on the projector case.

6-1-3 Replace the Filters

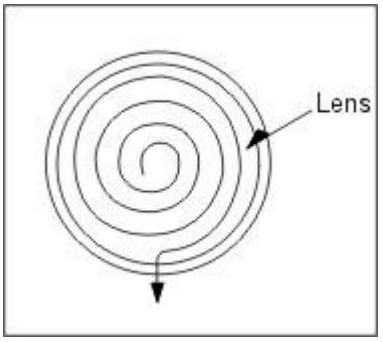
Dirty filter may reduce the air flowing into the projector and the temperature in the projector may rise as a result. This may activate the protection mechanism or damage the components. Suggest changing the filter each 2,000 hours. If the environment is quite dirty, you can check the filter status each 500 hours. If the filter is still too dirty, please directly exchange it.

6-1-4 Cleaning the Optical Parts

Carry out cleaning of the main unit and interior when replacing the lamp or making inspections.
The glass cleaner used with the following parts is as follows.

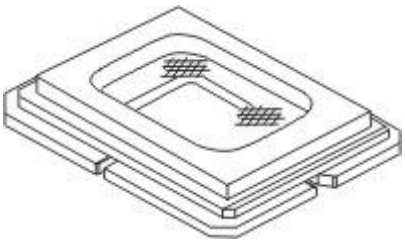
a) Cleaning the Projection Lens:
*When dust and fingerprints, etc. are on the lens surface, use the designated glass cleaner to remove as shown in the figure at the right. For fingerprints and other soiling that are difficult to remove with a dry cloth, use a designated glass cleaner which has been moistened in water and then use a dry cloth to dry it off.
*The projection lens surface has a special coating. Do not use detergents or solvents on the surface.

(a)



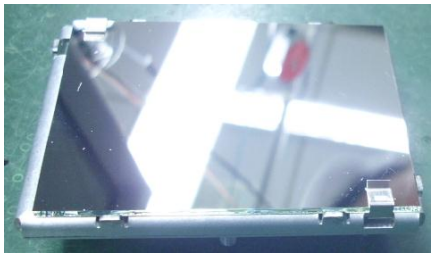
b) Cleaning the DMD:
*The DMD surface is glass and can be cleaned. However, avoid scratches as these can have a direct influence on the image.
*In case of dust on the DMD surface use an air cleaner (with a device to prevent static, if possible) to clean off the surface.
*In case of fingerprints, etc., add a small amount of water to the designated glass cleaner and wipe off in one direction. Then use the designated dry glass cleaner to wipe off in the same direction.
*Do not use absolute alcohol or other substances that could leave streaks after drying.

(b)



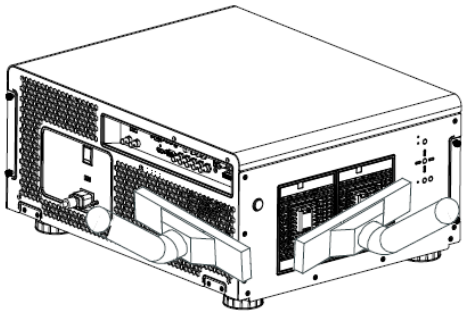
c) Cleaning the Reflecting Mirror:
*Be careful not to touch the reflecting mirror. The surface is composed of vapor deposition silver and touching it directly with the hands can lead to burnishing.
*Do not clean other than with air.

(c)



d) Cleaning the Main Unit:
*Clean with a soft fuzz-free cloth. In case of severe soiling, use a well-wrung cloth dipped in a neutral agent to remove soiling and then finish with a dry cloth.
*Do not clean with thinner, benzene or similar agents as this could lead to deterioration or peeling of paint.
*In case of dust in suction or exhaust holes or the interior, disassemble the main unit and use air to remove the dust from the inside.

(d)



6-2 Replacing Consumable Parts

During the course of normal usage, consumable parts become worn out resulting in reduced performance. The following guides detail how to replace the various consumable parts within the projector quickly and safely. Before replacing any of the parts, please take note of the following:

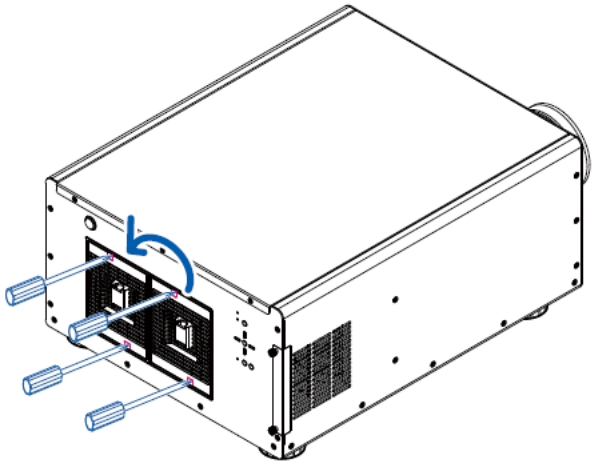
a. Ensure that the projector is turned off and disconnected from the power supply.
b. Ensure that the projector is in a clean, stable position before replacing parts.
c. Allow at least one hour after shutdown for the projector to cool before attempting to replace any consumable parts.
d. Do not interchange Lamp 1 and Lamp 2 after the projector has been used once.
e. Doing so will not allow the projector to display the correct lamp usage hours.

Lamp Replacement

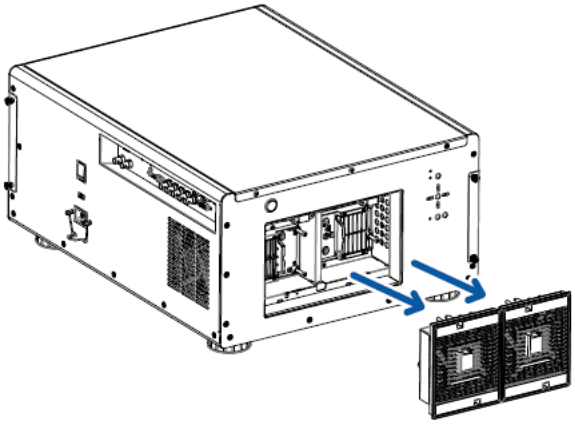
The lifecycle of ordinary projection lamp typically lasts for 2000 hours before requiring replacement (different lamp configurations will affect lamp life). From the OSD Menu, you can check how long the lamp has been used. You should also replace the lamp when the projected image gets noticeably darker. Contact your local dealer to purchase new certified lamps.

1. Turn off the projector and unplug the power cord. Let the projector cool for approximately 45 minutes before removing the lamp module for replacement.
   When you turn off the projector, the lamp inside the projector will still be very hot (approximately 200 ~ 300°C). If you attempt to replace the lamp without allowing the projector to cool, you could risk scalding yourself. This is why you should wait for no less than 45minutes for the lamp to cool down in order to perform the replacement safely.

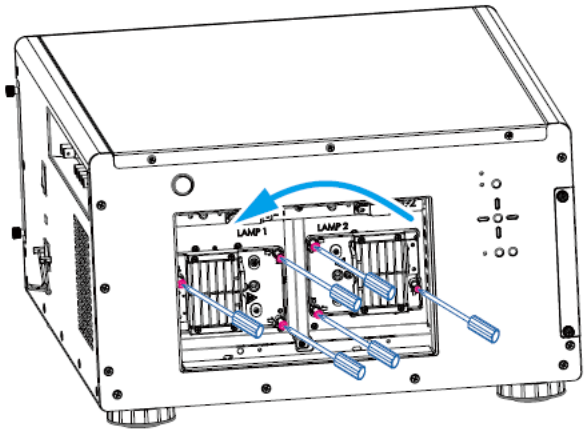
2. Loosen the Projector lamp cover.



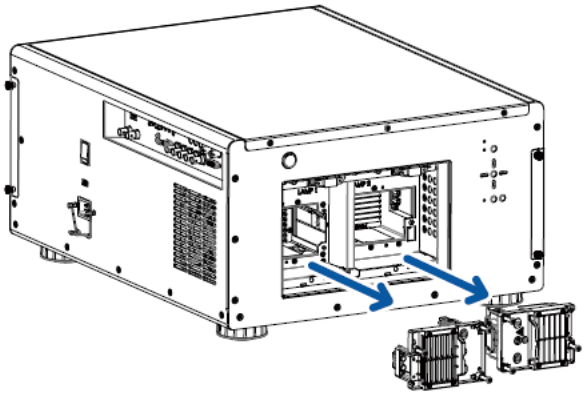
3. Remove the lamp cover.



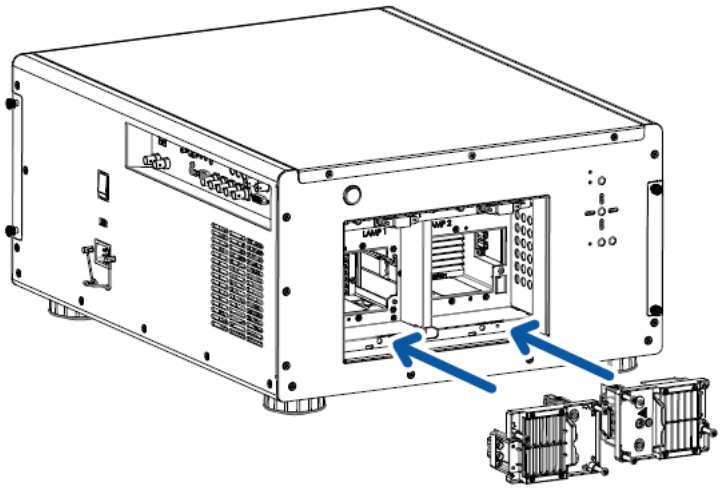
4. Use a screw driver to loosen the screws as shown in the illustration.

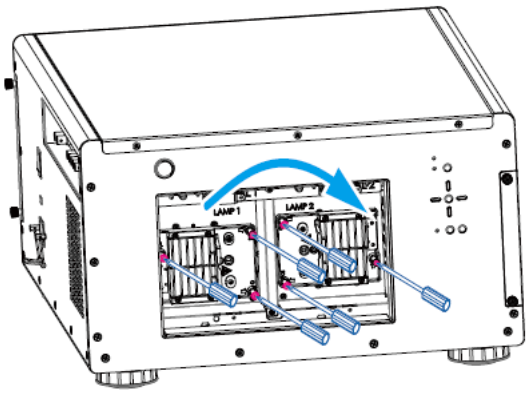


5. Grasp the metal rod on the lamp cover and pull the lamp out.

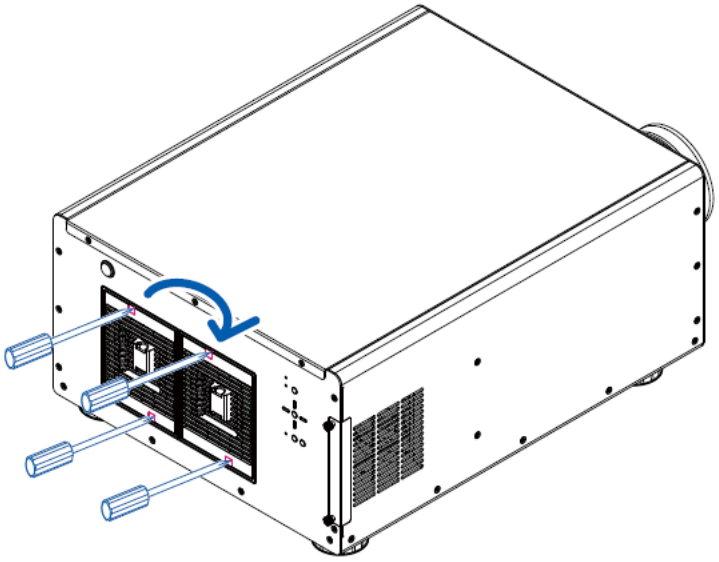


6. Insert the new lamp in the direction shown in the illustration into the lamp assembly; tighten the two screws using a screw driver and make sure the lamp is firmly secured to prevent the lamp from shaking or poor contact.





7. Replace the lamp cover and firmly secure the two screws on the lamp cover.



ORDER REPLACEMENT Lamp

Replacement Lamp can be ordered through your dealer. When ordering a lamp, give following information to the dealer. Replacement lamp P/N: AH-D31010

8. Reconnect power to the projector and reset the lamp usage timer.

Lamp 1 Time

Display the lamp 1 usage time. When you change the new lamp.

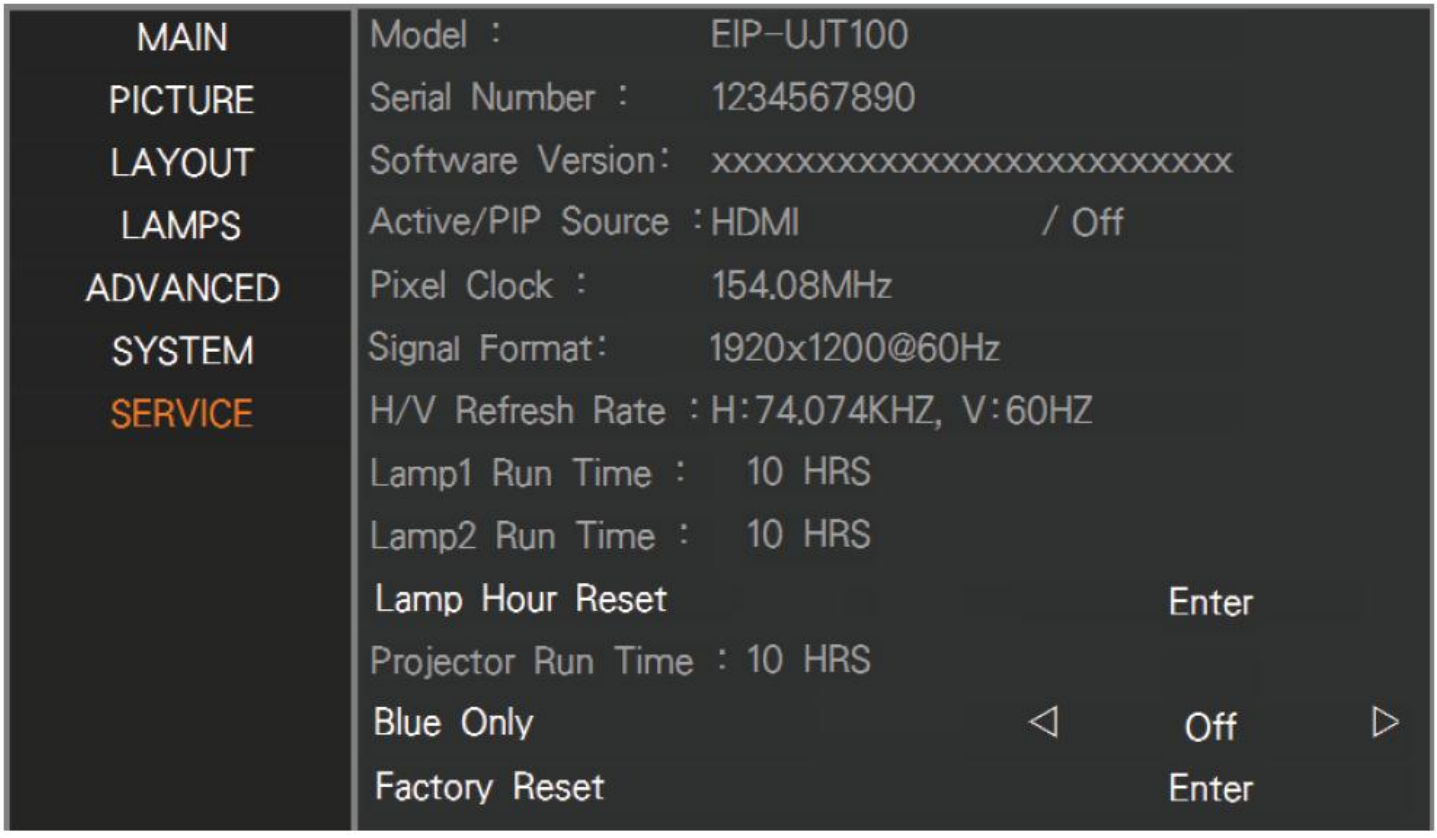
Lamp 2 Time

Display the lamp 2 usage time. When you change the new lamp.

Lamp Hour Reset

Use this function to reset the hours for lamp1 and lamp2 to zero.

After replacing the lamp, remember to reset the lamp hours to ensure the accuracy of lamp hours displayed in the OSD Menu.



6-4 Replacing the Filter

Filters Replacement

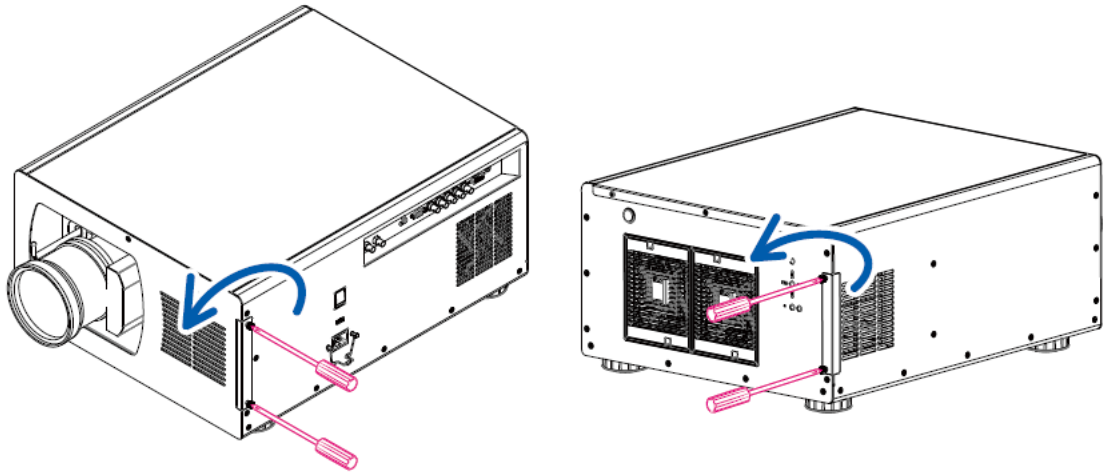
The interval of the filter replacement is affected by the dustiness. Check the filters periodically for better performance.

Note:

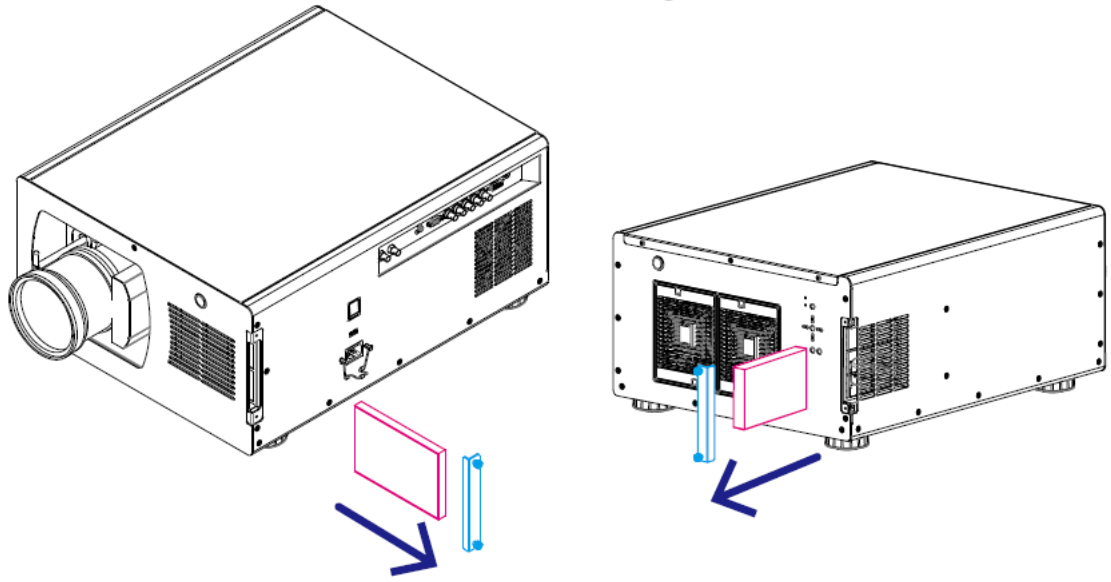
Dirty filter may reduce the air flowing into the projector and the temperature in the projector may rise as a result. This may activate the protection mechanism or damage the components.

Check, clean and replace the filter periodically.

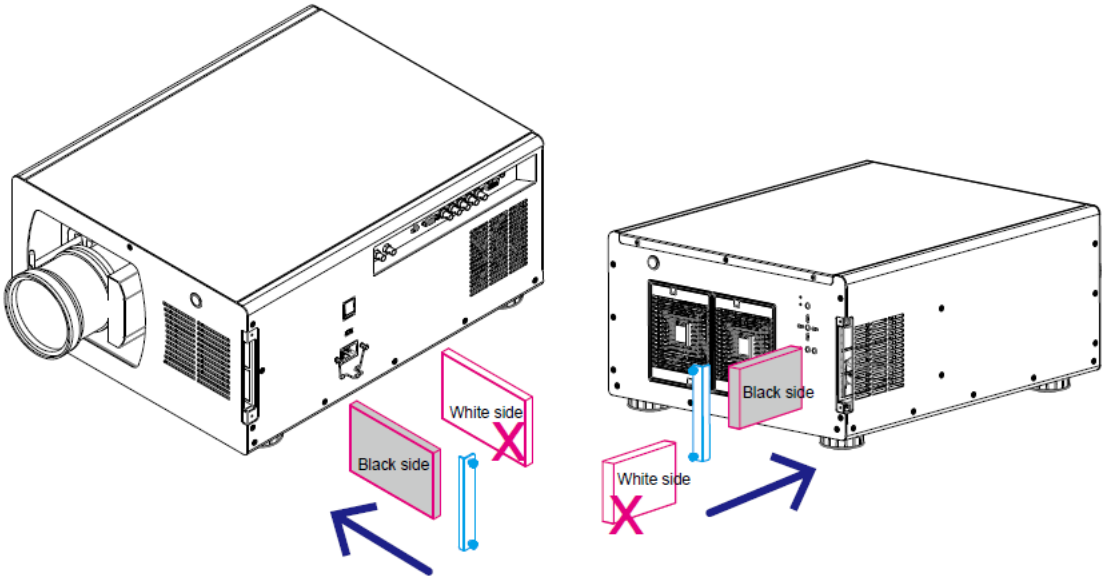
1. Loosen the screws on the filter cover.



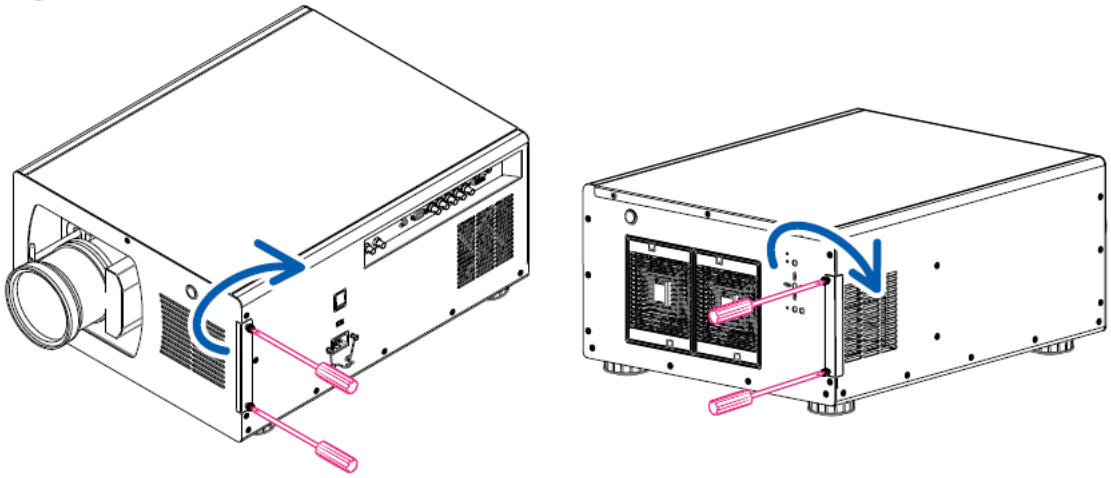
2. Remove the filter cover and follow the drawing direction to take out the old filters.



3. Insert the new filters into the machine.



4. Tighten the filter cover.



ORDER REPLACEMENT Filter

Replacement filter can be ordered through your dealer. When ordering a filter, give following information to the dealer.

Replacement Filter (Side Rear): 3243270701
Replacement Filter (Front) : 3243411700

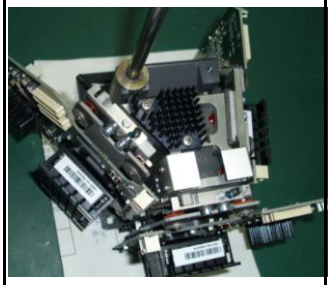
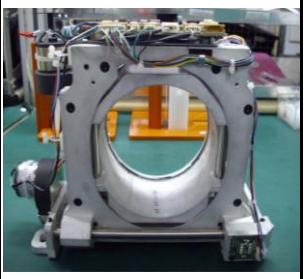
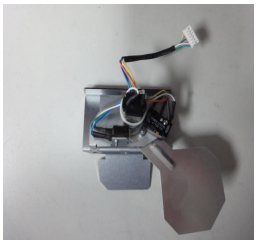
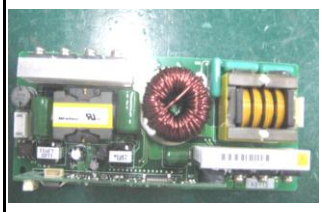
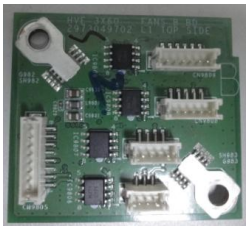
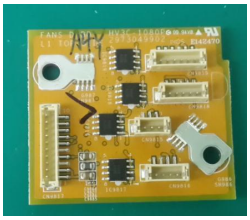
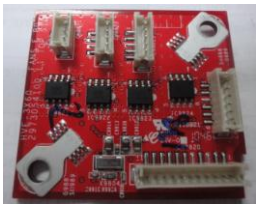
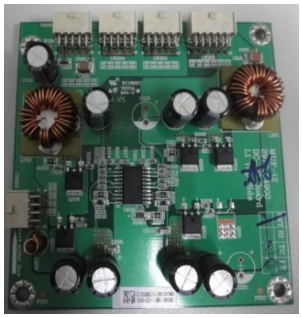
7. SPARE PARTS LIST & SPARE PARTS PHOTO

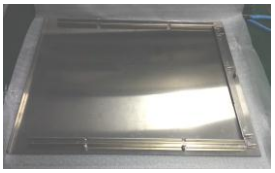
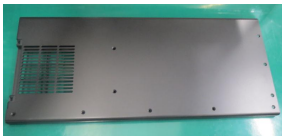
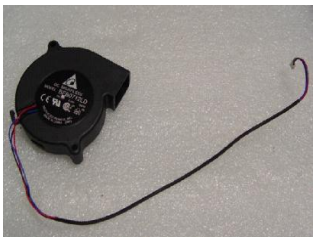
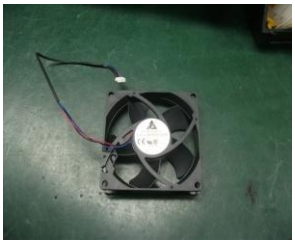
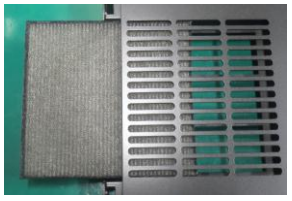
Spare part list for EIP-UJT100

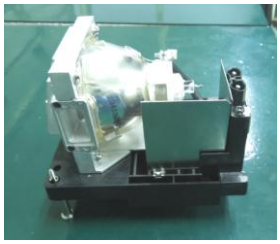
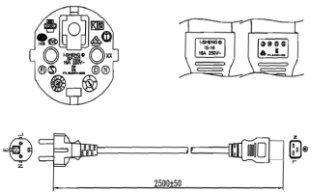
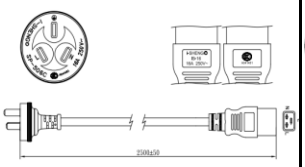
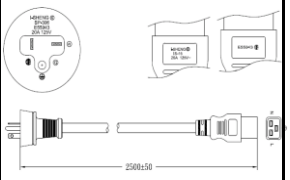
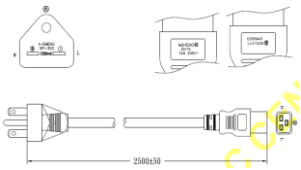
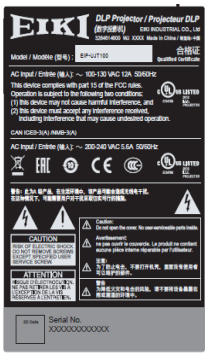
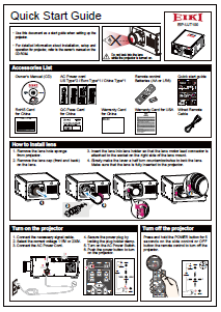
ITEM	TYPE	DESCRIPTION	P/N
Optical			
1	FIP	ASSY OPTICAL ENGINE WUXGA MUF-13D	3797822500-SEK
2	DMD	DMD LVDS 0.96" 1920*1200 SPD DC3 R	5059716581
3	Illumination	ASSY ILLUMINATION MUF-13D	3797758000-SEK
Chassis			
4	Lens Holder	ASSY LENS HOLDER MUF13D	3797801400-SEK
5	Shutter	ASSY UNIT SHUTTER MUF-13D	3797758200-SEK
Ballast			
6	Ballast	UNIT BALLAST 465W MUF-13D	3797803300-SEK
PCBA			
7	Board	ASSY PWB FAN DRIVER B MUF-13D	5600601095
8	Board	ASSY PWB FAN DRIVER C MUF-13D	5600601098
9	Board	ASSY PWB FAN DRIVER D MUF-13D	5600601348
10	Board	ASSY PWB FAN DRIVER E MUF-13D	5600601550
11	Board	ASSY PWB DUAL LINK DVI BOARD MUF-13D	5600602509
12	Board	ASSY PWB MICRO CONTROL BOARD MUF-13D	5600603034
13	Board	ASSY PWB MAIN FORNATTER BOARD MUF-13D	5600603035
14	Board	ASSY PWB VIDEO BOARD MUF-13D	5600603036
15	Board	ASSY PWB W2_TMDS BOARD MUF-13D	5600602106
16	Board	ASSY PWB KEYPAD BOARD MUF-13D	5600601317
17	Board	ASSY PWB DC-DC BOARD (ADP-75AJ A)	5600601786
18	Board	ASSY PWB AC FILTER BOARD (ADP-J007)	5600602003
19	Board	ASSY PWB SLIDE SW BOARD MUF-13D	5600602011
20	Board	ASSY PWB POWER BOARD (ADP-1018AJ)	5600602042
21	Board	ASSY PWB MOTOR DRIVER BOARD MUF-13D	5600601833
22	Board	ASSY PWB RJ-45 BOARD MUF-13D	5600603037
23	Board	ASSY PWB HD BASET BOARD MUF-13D	5600603038
24	Board	ASSY PWB IR BOARD MUF-13D (Front/Rear)	5600603039

Cabinet			
25	Cabinet	COVER AL TOP PAINT BLK MUF-13D	3456222601
26		COVER AL FRONT PAINT BLK MUF-13D	3456222401
27		COVER AL REAR EIKI PAINT BLK MUF-13D	3456229201
28		COVER AL LEFT SIDE PAINT BLK MUF-13D	3456222301
29		COVER AL RIGHT SIDE PAINT BLK MUF-13D	3456222501
Fan			
30	Fan 2 & 3	DC FAN ASSY FAN 2 & 3 MUF-13D	3620049311
31	Fan R1	DC FAN ASSY FAN R1 MUF-13D	3620713011
32	Fan 7 & Fan 11	DC FAN ASSY FAN 7 & 11 MUF-13D	3620646211
33	Fan 23	DC FAN ASSY FAN 23 MUF-13D	3620792611
34	Fan 22	DC FAN ASSY FAN 22 MUF-13D	3620792411
35	Fan 21	DC FAN ASSY FAN 21 MUF-13D	3620792511
36	Fan 20	DC FAN ASSY FAN 20 MUF-13D	3620792311
37	Fan 1 & 9	DC FAN ASSY FAN 1 & 9 MUF-13D	3620049611
38	Fan 6 & Fan10	DC FAN ASSY FAN 6 MUF-13D	3620866511
39	Fan 8	DC FAN ASSY FAN 8 MUF-13D	3620017011
40	Fan 4	DC FAN ASSY FAN 4 MUF-13D	3620050411
41	Fan 5	DC FAN ASSY FAN 5 MUF-13D	3620050511
42	Fan 12	DC FAN ASSY FAN 12 MUF-13D	3620713611
43	Fan 0	DC FAN ASSY FAN 0 MUF-13D	3620647711
Dust Filter			
44	Dust Filter	ASSY FILTER (SIDE REAR) MUF-13D	3243270701
45	Dust Filter	ASSY FILTER (FRONT) MUF-13D	3243411700
Lamp			
46	Lamp	ASSY LAMP MODULE MUF-13D	3797801500-SEK
Accessory			
47	Remote	ASSY REMOTE UNIT MUF-13D HTACA (26 Keys)	5041845100 -SEK
48	Power Code	AC POWER CORD (EU 2500mm)	3090285300
49	Power Code	AC POWER CORD (CN 2500mm)	3090316600

50	Power Code	AC POWER CORD (US-125V 2500mm)	3090330400
51	Power Code	AC POWER CORD (US-250V 2500mm)	3090338200
52	Label	ID label - EIP-UJT 100	3264614600
53	Box	ASSY CARTON BOX ACCESSORY (646*373*77)	3518103400
54	CD-ROM	ASSY CD-ROM MUF-13D EA HA	3534325400
55	QSG	QUICK START GUIDE MUF-13D EA HA	5014012200
Packing			
56	Carton	CARTON CASE (808*678*439)	3512822900
57	Carton	CARTON INNER TUBE (789*660*420)	3515282700
58	EPE	CUSHION BLOCK EPE (Top Front)	3501721600
59	EPE	CUSHION BLOCK EPE (Top Rear)	3501721700
60	EPE	CUSHION BLOCK EPE (Bottom)	3501721800

No.01	No.02	No.03	No.04	No.05
				
No. 06	**No. 07**	**No. 08**	**No. 09**	**No. 10**
				
No.11	**No.12**	**No.13**	**No.14**	**No.15**
				
No.16	**No.17**	**No.18**	**No.19**	**No.20**
				

No.21	No.22	No.23	No.24	No.25
				
No.26	**No.27**	**No.28**	**No.29**	**No.30**
				
No.31	**No.32**	**No.33**	**No.34**	**No.35**
				
No.36	**No.37**	**No.38**	**No.39**	**No.40**
				
No. 41	**No. 42**	**No. 43**	**No. 44**	**No. 45**
				

No. 46	No. 47	No. 48	No. 49	No. 50
				
No. 51	**No. 52**	**No. 53**	**No. 54**	**No. 55**
				
No. 56	**No. 57**	**No. 58**	**No. 59**	**No. 60**
				

APPENDIX. TIMING TABLE

Signal Format	Resolution	Frame Rate	3 RCA	5BNC	HD15-RGBHV	HD15 YUV	HDMI				SDI
			Y-Pr-Pb	Y-Pr-Pb			RGB	YUV 8 bit	YUV 10 bit	YUV 12 bit	
PC	640x480	59.94		V	V		V				
	640x480	74.99		V	V		V				
	640x480	85		V	V		V				
	800x600	60.32		V	V		V				
	800x600	75		V	V		V				
	800x600	85.08		V	V		V				
	848x480	47.95		V	V		V				
	848x480	59.94		V	V		V				
	1024x768	60		V	V		V				
	1024x768	75		V	V		V				
	1024x768	85		V	V		V				
	1280x720	47.95		V	V		V				
	1280x1024	60.02		V	V		V				
	1280x1024	75.02		V	V		V				
	1280x1024	85.02		V	V		V				
	1600x1200	60		V	V		V				
	1920x1080	47.95		V	V		V				
	1680x1050	59.94		V	V		V				
	1920x1200	50		V	V		V				
	1920x1200	59.94		V	V		V				
	1920x1200	60		V	V		V				
	1400x1050	60		V	V		V				
	1366x768	60			V		V				
	1440x900	60			V		V				
	1280x768	60			V		V				
	1280x800	60			V		V				
	1280x960	60			V		V				
Apple Mac	640x480	66.59			V		V				
	832x624	74.54			V		V				
NTSC	NTSC {M, 4.43)	59.94									
PAL	PAL (B, G, H, I)	50									
	PAL (N)	50									
	PAL (M)	59.94									
SECAM	SECAM (M)	50									

SDTV	RGBS	50									
	480i	59.94	V								V
	1440x480i	60					V	V	V	V	
	1440x576i	50					V	V	V	V	
	576i	50	V								V
EDTV	480p	59.94	V	V	V	V	V	V	V	V	
	576p	50	V	V	V	V	V	V	V	V	
HDTV	1035i	60	V	V	V	V	V	V	V	V	V
	1080i	50	V	V	V	V	V	V	V	V	V
	1080i(Aus)	50	V	V	V	V	V	V	V	V	V
	1080i	59.94	V	V	V	V	V	V	V	V	V
	1080i	60	V	V	V	V	V	V	V	V	V
	720p	50	V	V	V	V	V	V	V	V	V
	720p	59.94	V	V	V	V	V	V	V	V	V
	720p	60	V	V	V	V	V	V	V	V	V
	1080p	23.98	V	V	V	V	V	V	V	V	V
	1080p	24	V	V	V	V	V	V	V	V	V
	1080p	25	V	V	V	V	V	V	V	V	V
	1080p	29.97	V	V	V	V	V	V	V	V	V
	1080p	30	V	V	V	V	V	V	V	V	V
	1080p	50	V	V	V	V	V	V	V	V	V
	1080p	59.94	V	V	V	V	V	V	V	V	V
	1080p	60	V	V	V	V	V	V	V	V	V
new for SDI	1080sf	30									V
	1080sf	25									V

SDI Format

Timing	SDI Link mode	Signal Standards	Color Encode	Sampling Structure	Bit Depth
NTSC	SD	SMPTE 259M-C 270Mbps SD	YCbCr	4:2:2	10
PAL	SD	SMPTE 259M-C 270Mbps SD	YCbCr	4:2:2	10
1035i60	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080i59	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080i60	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080P30	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080P25	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080i50	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080P24	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
720P60	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
720P50	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080Sf25	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080Sf30	HD	SMPTE 292M 1.5Gbps HD	YCbCr	4:2:2	10
1080P50	3G Level A	SMPTE 424M 3Gbps	YCbCr	4:2:2	10
1080P59	3G Level A	SMPTE 424M 3Gbps	YCbCr	4:2:2	10
1080P60	3G Level A	SMPTE 424M 3Gbps	YCbCr	4:2:2	10
1080P50	3G Level B	SMPTE 424M 3Gbps	YCbCr	4:2:2	10
1080P59	3G Level B	SMPTE 424M 3Gbps	YCbCr	4:2:2	10
1080P60	3G Level B	SMPTE 424M 3Gbps	YCbCr	4:2:2	10

Test Cable: Belden 1694A

DVI dual-link for 3D

Signal Type	Resolution	Frame rate	DVI single-link	DVI dual-link	3D	Reference
PC	1920x 1080	120Hz		V	V	
	1920x 1080	100Hz		V	V	
	1920x1200	120Hz		V	V	Reduced Blanking
	1920x1200	100Hz		V	V	Reduced Blanking
	1920x 1080	60Hz	V			
	1920x1200	60Hz	V			Reduced Blanking