

PJ24-04-0001

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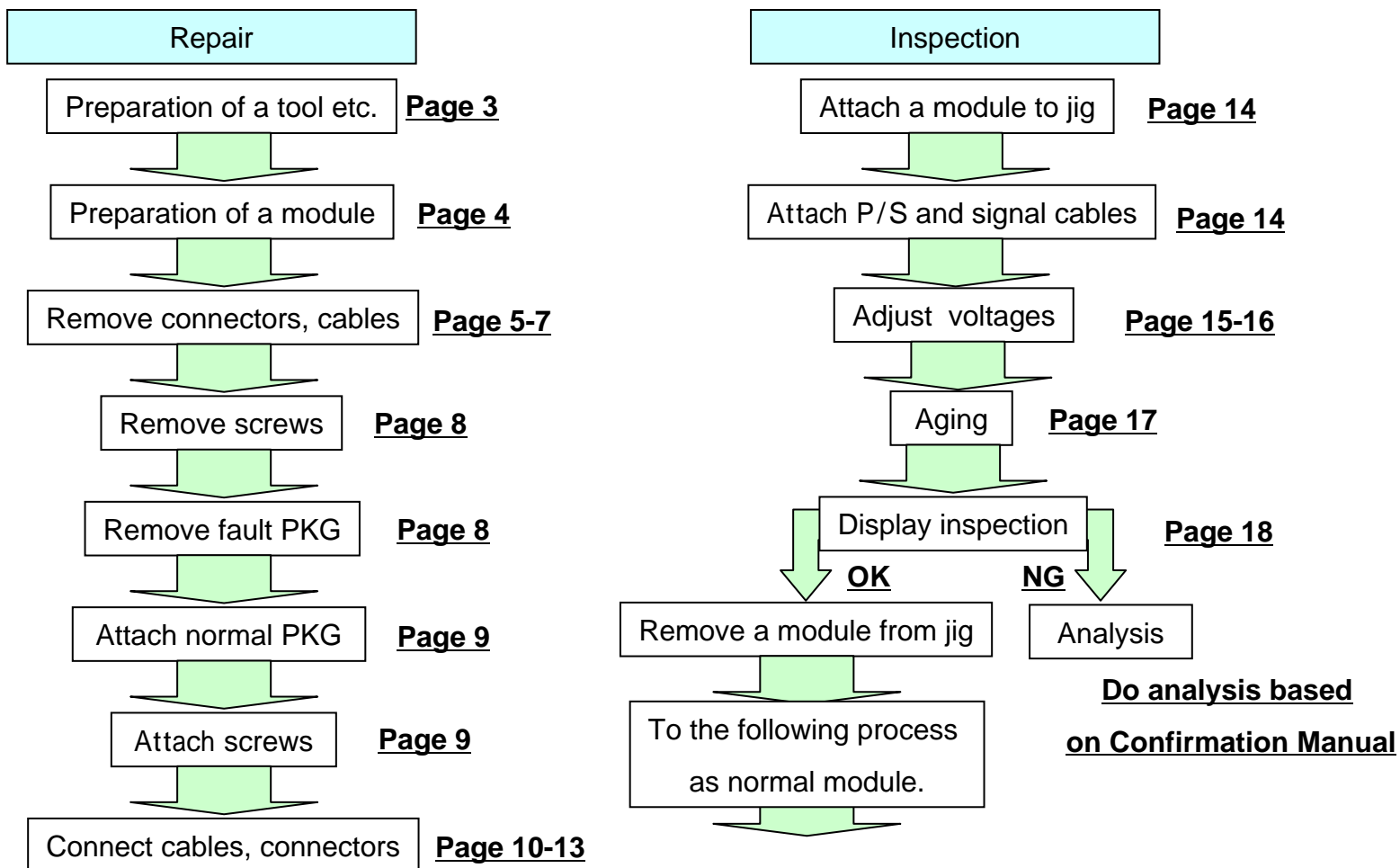
This document is used only for your analyzing or repairing NEC PDP module.

The disclosure to any other parties is prohibited.

**NEC Plasma Display
NP42D3MF01/NP42D4MF01
Repair Manual Ver.1**

NEC Plasma Display Corporation

Repair Flow Chart



Preparation of tools

Tools, JIGs

a) Plus Driver

-----At the time of the desorption of PKG

b) Wristband for static electricity countermeasure

-----At the time of the electronic parts handling of PKG etc.

c) Signal generator (PC etc)

-----At the time of voltage adjustment and display inspection

d) Power supply

-----At the time of voltage adjustment and display inspection

e) The jigs for module installation

-----At the time of standing a module upright and checking picture.

f) Tester -----At the time of a short check and voltage adjustments

g) Cushions

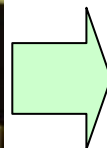
-----At the time of PKG exchange etc.

Cautions

Please always wear a wristband for the destructive prevention by static electricity in the case of PKG desorption.

Preparation of module

Put a cushion on bench and put a module for repair on it.

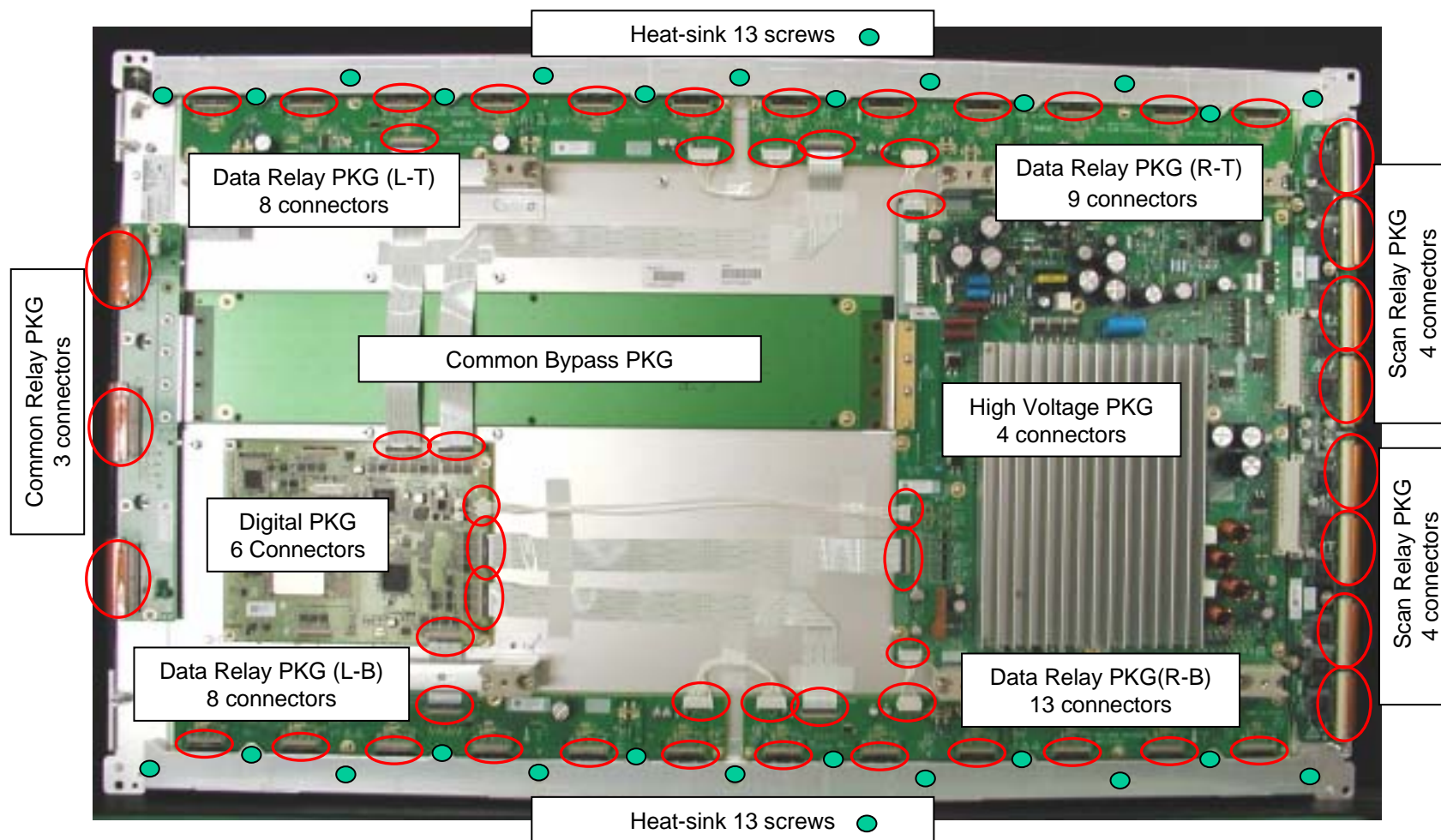


Cautions

When you put a glass side downward on cushion, please install a cushion to wear the whole glass side.

Repair 1 Remove connectors, cables (1)

Remove connectors for object repair PKG



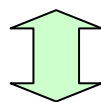
Cautions Please be careful of the handling of a cable and a connector enough.
Remove the heatsink on the data relay PKG before removing the data relay PKG.

Repair 1 Remove connectors, cable (2)

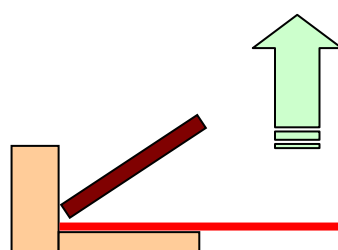
How to remove connectors

Flat Cable (Type A)

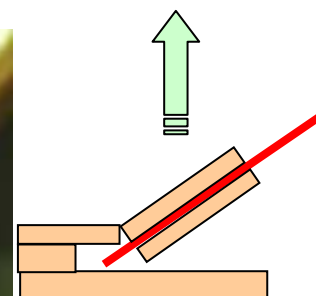
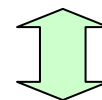
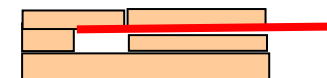
The state of the connector locked



The state of the connector unlocked



Flat Cable (Type B)



Cautions Since how to remove differs, please be careful with the type of a connector.

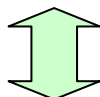
Moreover, if the handling of a connector is mistaken, please be careful since you may break.

Repair 1 Remove connectors, cable (3)

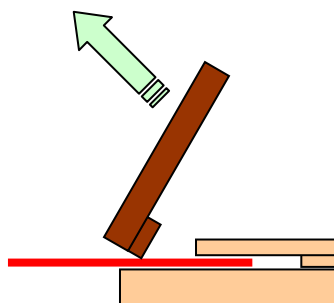
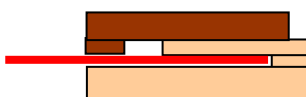
How to remove connectors

Flat Cable (Type C)

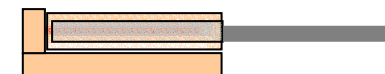
The state of
the connector
locked



The state of
the connector
unlocked



Cable (Type D)



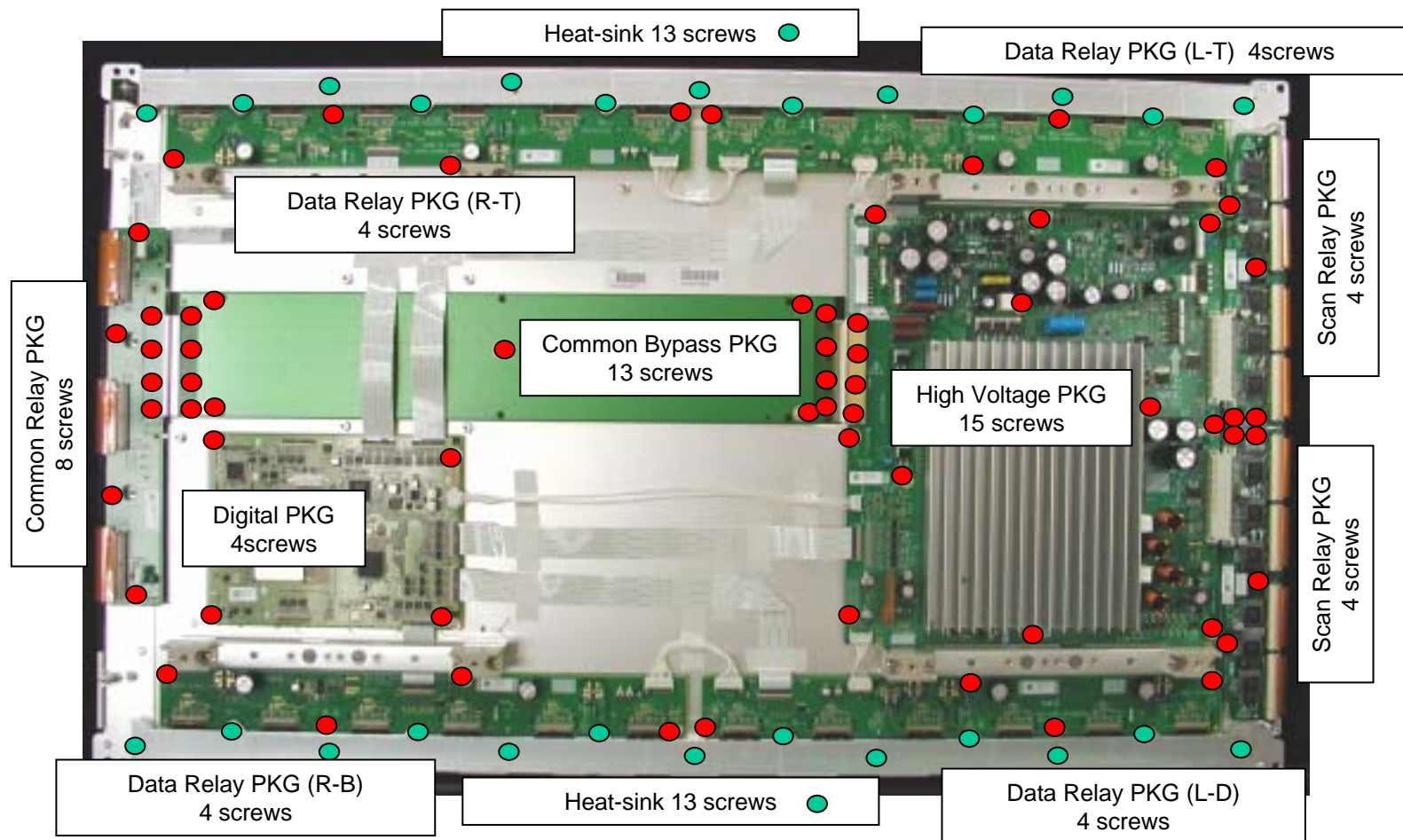
Cautions Since how to remove differs, please be careful with the type of a connector.

Moreover, if the handling of a connector is mistaken, please be careful since you may break.

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Repair 2 Remove PKGs

Remove object PKG for repair

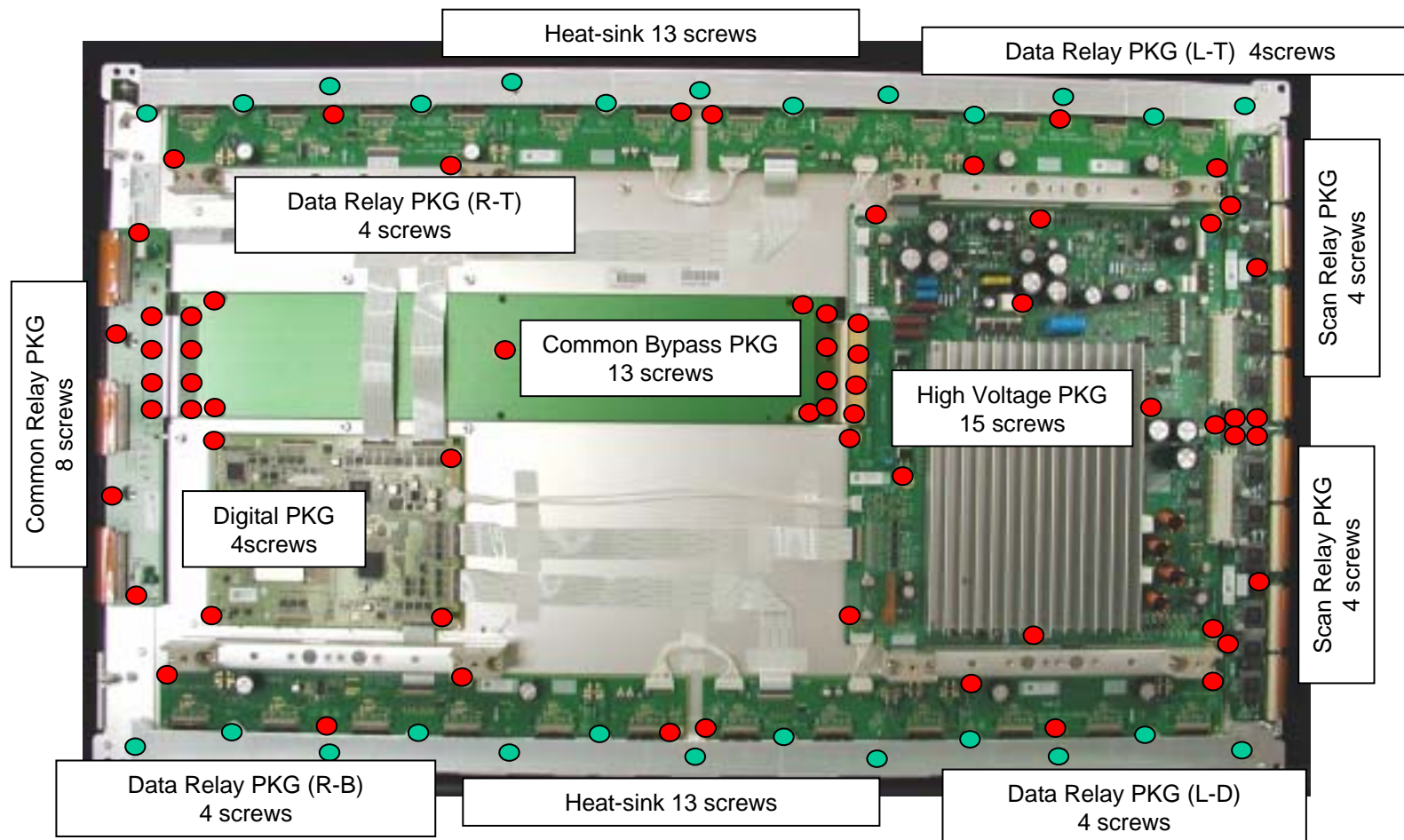


Cautions Please be careful to drop neither a driver nor a screw on PKGs and cables.

Please be careful not to come out metal wastes at attachment and removal of a screw since they become the cause of failure. When you remove the data relay PKG, please remove a heat sink before it.

Repair 3 Attach normal PKGs

Attach normal PKGs

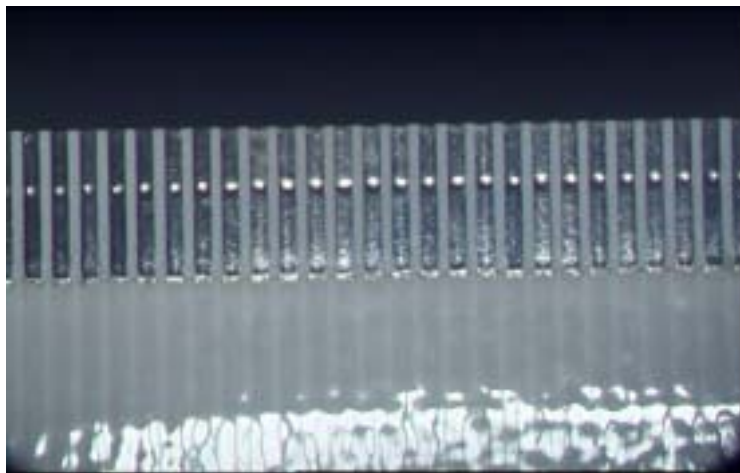


Cautions Please be careful not to stress each PKGs, connectors, and cables at the time of attachment. When you attach the data relay PKG, please attach a heat sink after that.

Repair4 Connector connection(1)

Check the state of cables and a connectors (sockets)

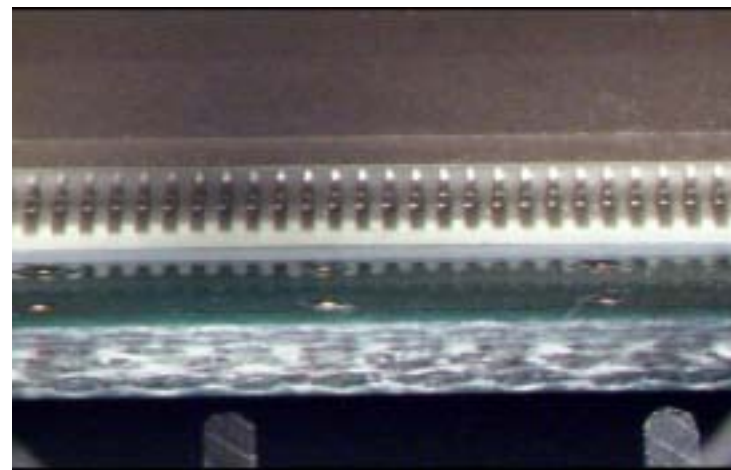
FLAT CABLE (Type A)



Cautions

Please check whether there is any debonding of or disconnection, short in connector electrode etc.

Socket (Type A)

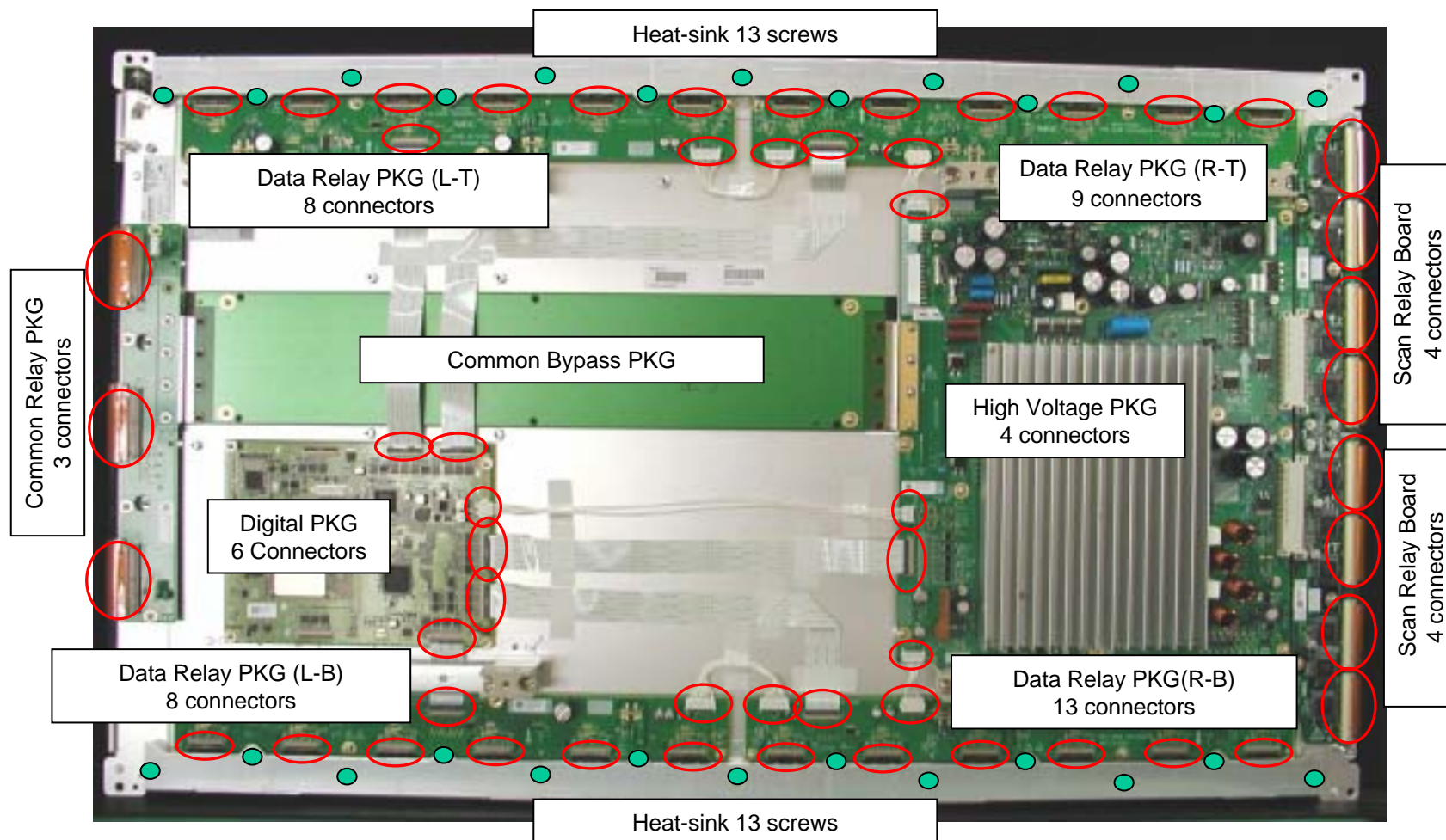


Cautions

Please check whether there is any foreign substance in connector electrode etc.

Repair 4 Connector connection(2)

Insert cables and lock connectors



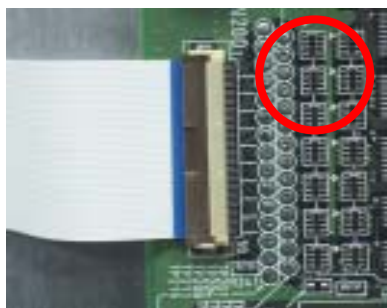
Cautions

Please check that connector connection of red line parts are made normally.

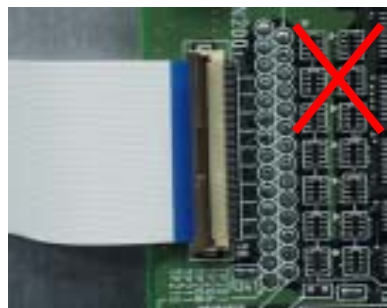
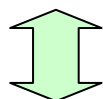
Repair 4 Connector connection(3)

Connecting condition

HIGH VOLTAGE PKG (Photo)
- DIGITAL PKG

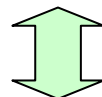
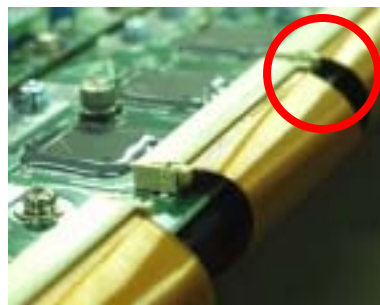


The state of
the connector
locked

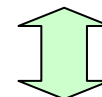


The state of
the connector
unlocked

SCAN RELAY PKG (Photo)
- FLEXIBLE CABLE



COMMON RELAY PKG (Photo)
- FLEXIBLE CABLE

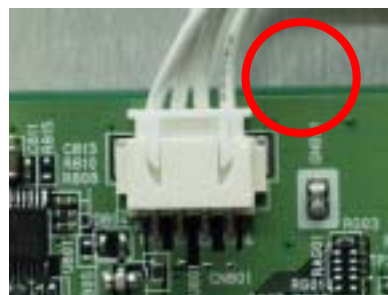


Repair 4 Connector connection(4)

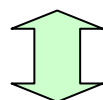
Connecting condition

DIGITAL PKG (Photo)

- HIGH VOLTAGE PKG



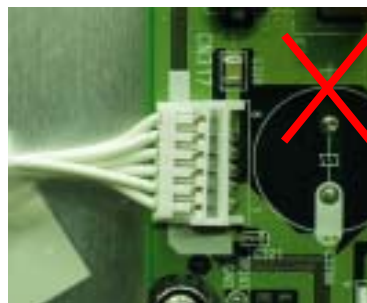
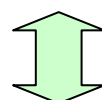
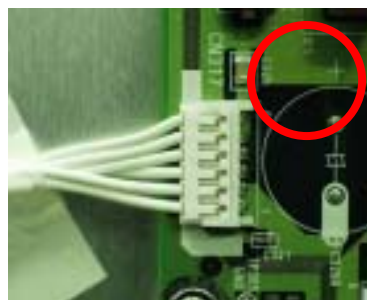
The state of
the connector
locked



The state of
the connector
unlocked

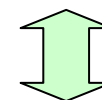
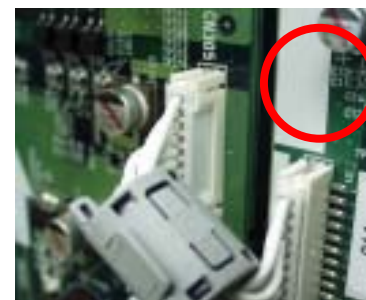
HIGH VOLTAGE PKG (Photo)

- DATA RELAY PKG



HIGH VOLTAGE PKG (Photo)

- SCAN RELAY PKG (Photo)



Preparation before electrify

Installation to jigs



Cautions

Please do not stand a module on a bench etc directly.

----- It becomes the cause of destruction such as tears of flexible cable (TCP).

Please check that connector connection from the main power supply is ensured.

-----It becomes the cause of destruction of high voltage PKG etc.

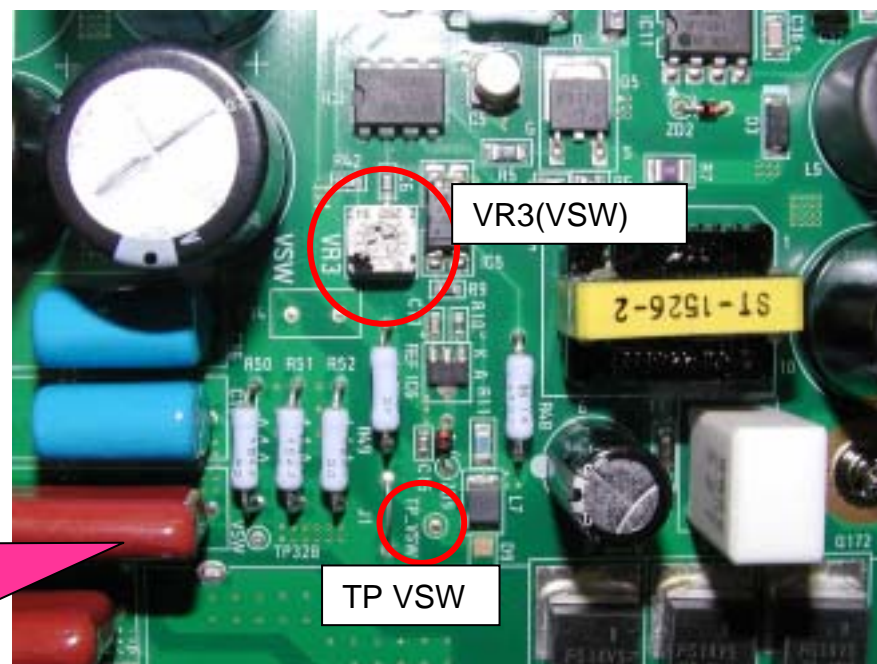
Please adjust the setting voltage of a module.

----- When setting voltage is not protected, it is predicted that a picture becomes unusual.

Voltage Adjustment (1)

VSW Adjustment

Adjust the VSW with VR3 between test pad (TP VSW) and GND on High Voltage PKG.
However, adjustment accuracy is plus/minus 0.5V.

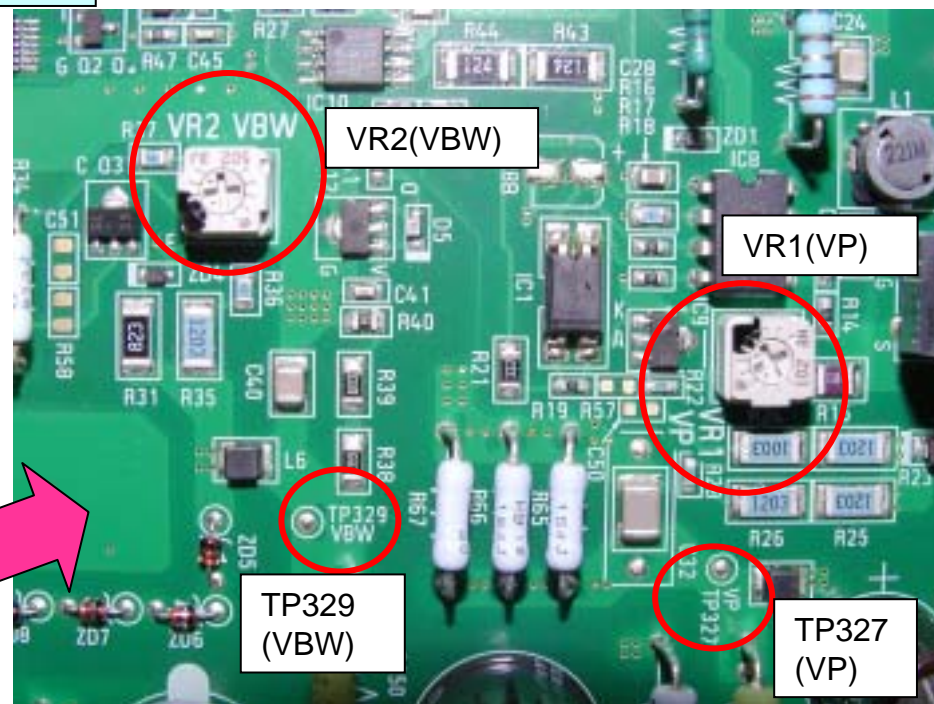


(Cautions) Refer to the view of the voltage value display label (P3) of the analysis manual for adjustment voltage value . Moreover, GND should use nearby chassis.

Voltage Adjustment (2)

VBW ,VP Adjustment

Adjust the VBW with VR2 between test pad (TP329) and GND on High Voltage PKG.
However, adjustment accuracy is plus/minus 0.5V.

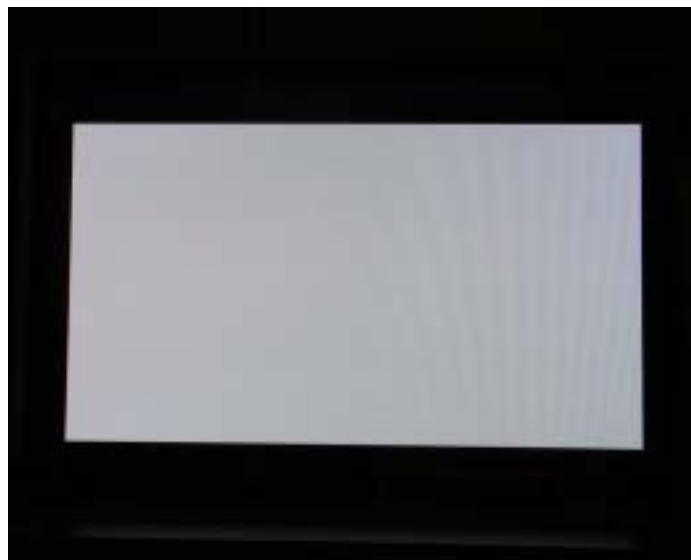


Adjust the VP with VR1 between test pad (TP327) and GND on High Voltage PKG.
However, adjustment accuracy is plus/minus 0.5V.

(Cautions) Refer to the view of the voltage value display label (P3) of an analysis manual for adjustment voltage value. Moreover, GND should use nearby chassis.

A check of operation (1)

Aging



All screen white displays

Aging conditions

Please age by all screen white displays for at least 30 minutes.

Cautions

Please age neither by the window nor fixed patterns, such as a crossing hatch.

A check of operation (2)

Display inspection



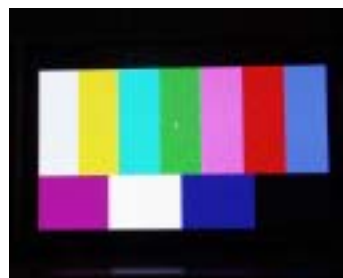
Red



Green



Blue



Color Bar



Gray Scale

Display inspection conditions

Please perform a display check by display of all screen red, all screen green, all screen blue, a color bar, and gray scale.

Cautions

When dark defects and bright defects were accept by the inspection after long-term storage, please age by all screen white displays about 1 more hour furthermore.

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The storage method

Cautions

(1) Please keep a module in the interior of a room which maintained normal temperature.

(2) When you place a carton box, please put the long neighborhood on the bottom like the following photo left.

Please do not turn down the short neighborhood (the following photograph right) and the long neighborhood which the handle attached, or do not place for lying prone.

