

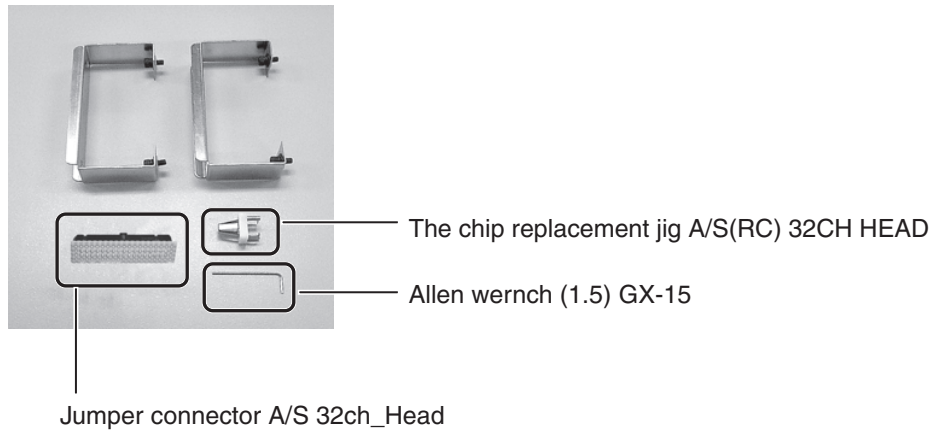
32.Recording head unit (PT-R4300E/S)

32-1.Procedure for replacing and adjusting the 32ch LD block (PT-R4300E/S)

32-1-1.Preparation

Jigs, tools

- Jumper connector A/S 32ch_Head: 86401386-00
- Allen wernch (1.5) GX-15: 70585359-00
- The chip replacement jig A/S(RC) 32CH HEAD: U1154037-00
- Wrist band: Commercial item



CAUTION

- * Wear the wrist band and connect the wrist band to the ground point during LD replacement.

32-1-2.Attention for the LD replacement. (PT-R4300E/S)

(1) About electro-static.

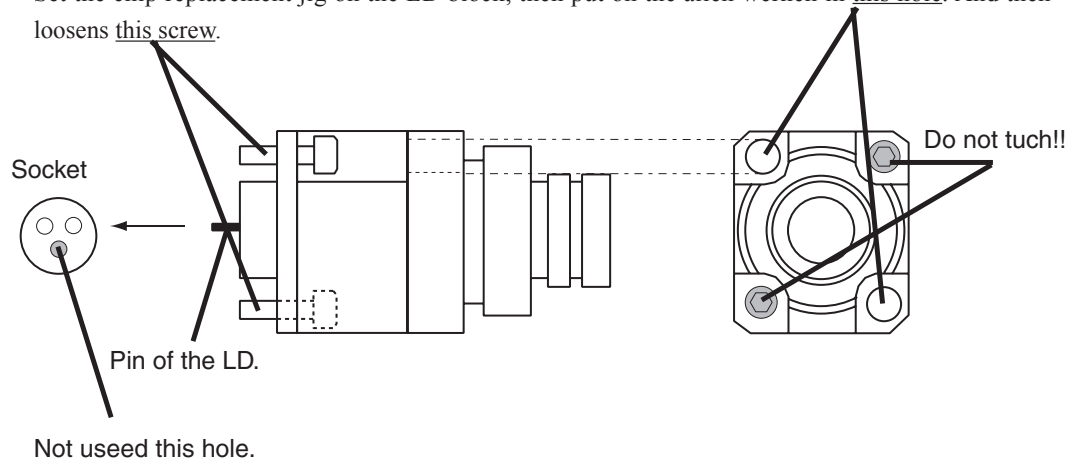
The laser diode is very sensitive to static electricity. There is a possibility that longevity shortens very much when suffering.

⚠ CAUTION

- * Wear the wrist band and connect the wrist band to the ground point during LD replacement.

(2) About LD block.

Do not touch the screw directed the following halftone screen when you replace the LD block.
Set the chip replacement jig on the LD block, then put on the allen wrench in this hole. And then loosens this screw.



And, LD has two pins, but socket has three holes. One of the hole is not used.

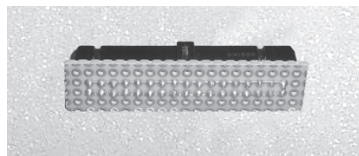
New LD block has short pin which is anti-static electricity. (Refer to the replacement procedure.) Wear the wrist band then remove that pin for the safety.

(3) About LD unique data

Each LD have unique data which is rated current (Iopd) of the LD. After replace the LD, Iopd data is needed to input.

(4) About the processing of the connection board when LD replacement.

When LD is replaced, jumper connector should be putted on the connection board on the RH. When LD is replaced, LD driver box is moved. At that time LD driver cables are unplugged. They are connected to each LD. Each LD are not grounding when unplug the cables. In that case, there is a possibility that longevity shortens very much when suffering the electro-static.



Jumper connector A/S 32ch_Head

32-1-3.Replacement procedure (PT-R4300E/S)

- (1) Turn on the power and initialize machine.
- (2) Move the RH to the AWAY side 300mm.
 - Recording head test / RH positioning [300mm]
- (3) Turn off the power to the machine.

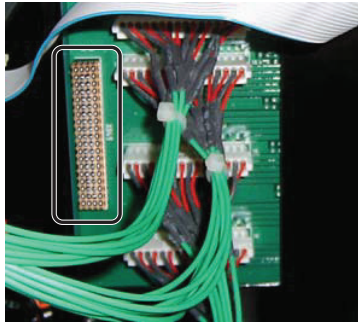
CAUTION

- * Performing the procedures escribed below while the power is ON could severely injure your eyes. Therefore, ALWAYS be sure to turn OFF the power.

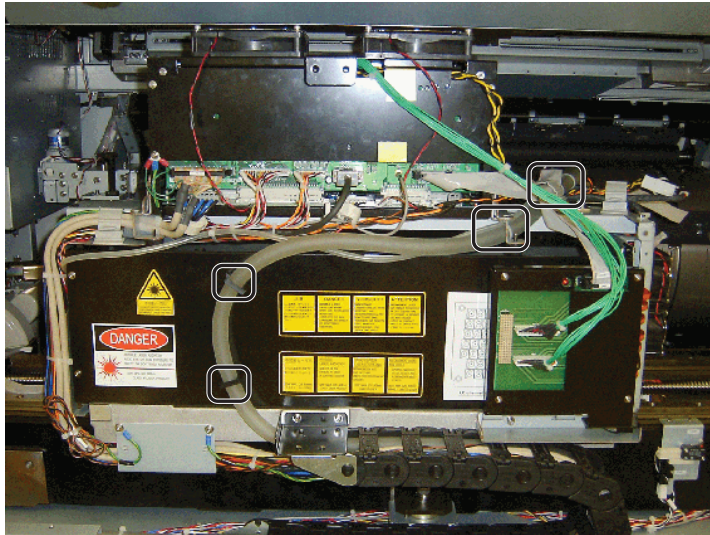
- (4) Connect the jumper connector to the RH conection board.

CAUTION

- * This connector maintains identical electric potentials between all the pins on the LD block. De-
taching cables from the LD block without first attaching this connector to the RH connection
board could cause electro-static damage to the LD.

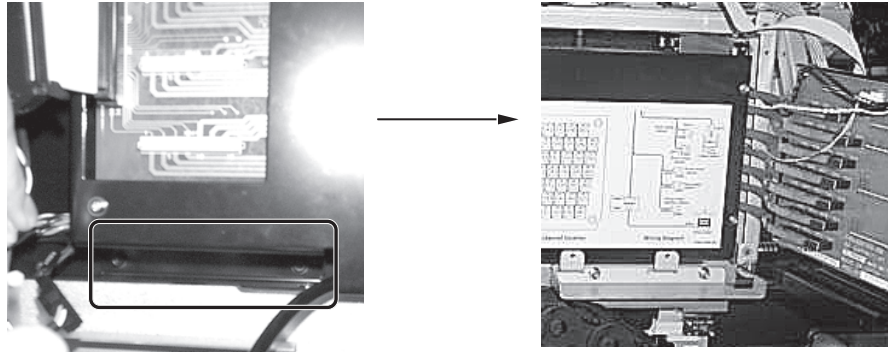


- (5) Remove the gas suction hose from the main unit after releasing the clamps.

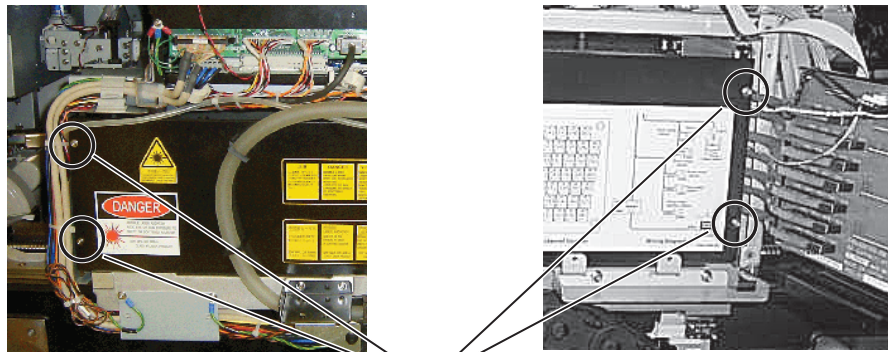


C.Replacement & Adjustment

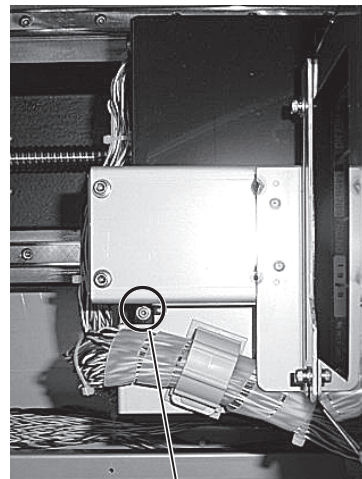
- (6) Remove the 2 screws securing the connection board, and then lift the board to the right.



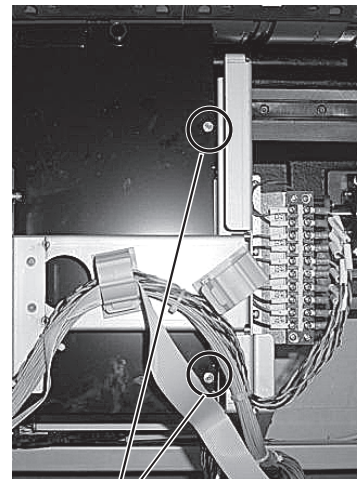
- (7) Remove the head cover. This cover is fixed by 7 screws.



4 screws at front.



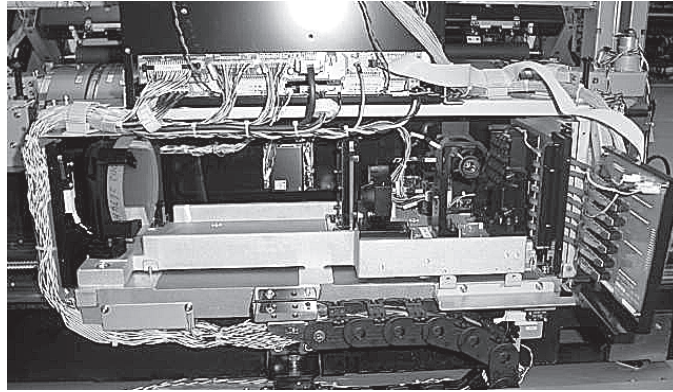
1 screw on left side on top.



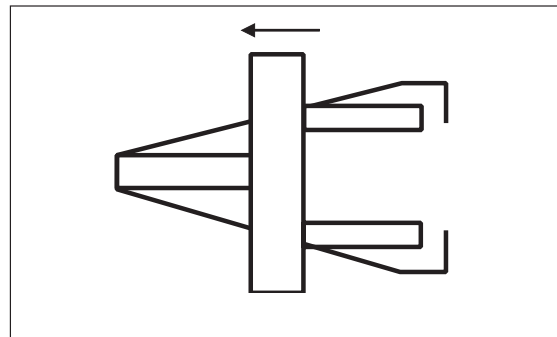
2 screws on right side on top.

C.Replacement & Adjustment

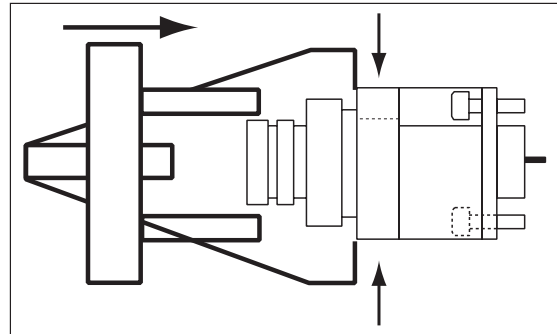
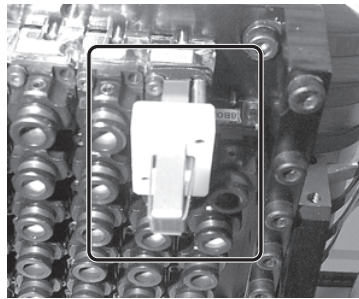
- (8) Detach the head cover. (Through out to front side.)



- (9) Move the white acrylic part on the chip replacement jig to the arrow side which is drawing right side.



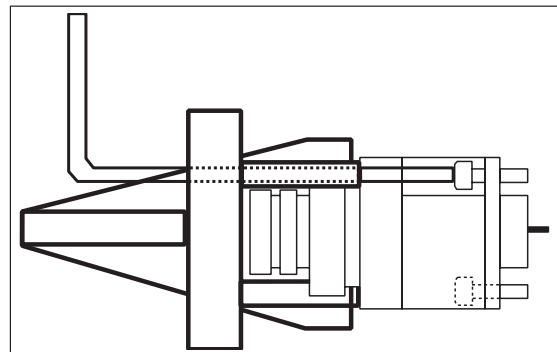
- (10) Attach the chip replacement jig to the LD block like a right side drawing. Then move the white acrylic part on the chip replacement jig to the arrow side which is drawing right side.



- (11) Put on the allen wrench in the hole of the chip replacement jig. And then take off the fixing screw on the LD block.

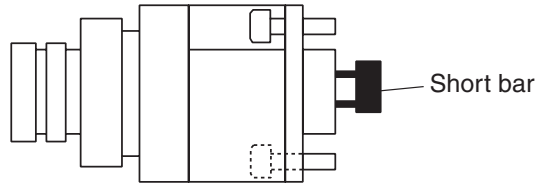
CAUTION

- * Whenever you remove an LD chip, be sure to use the Allen wrench provided with the chip replacement jig. Using a conventional Allen wrench could damage the screw head.



C.Replacement & Adjustment

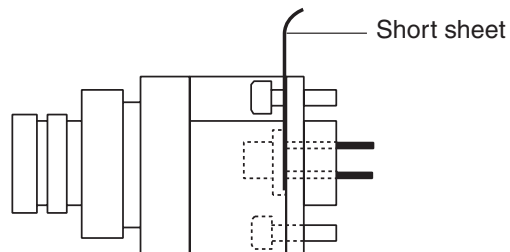
- (12) Put the short bar on the replaced LD block. That short bar is include the new LD block unit.



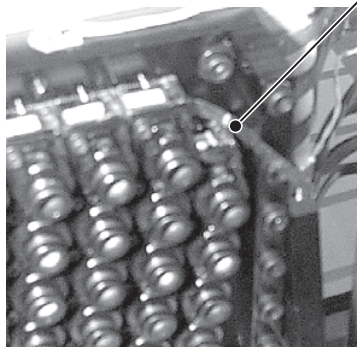
- (13) Attach the chip replacement jig to the new LD chip, and then mount it on the LD base. In this time, cleanup the LD base and LD block by air.

⚠ CAUTION

- * At this time, be sure to confirm that there is no dust between the contact surfaces of the new LD chip and the LD base. Any gaps between these contact surfaces may amplify small initial deviations in the resulting light path up to 200 times. If there is any dust between the contact surfaces when the LD chip is mounted on its base, it could cause a calibration error or require higher current. New LD block has the short-circuit sheet jig on the pins. Do not remove the short-circuit sheet jig before securing the LD chip with a screw. Failure to heed this instruction could damage the LD chip with static electricity.



- (14) After finish to attach the LD block, then pull out that sheet from the chip.



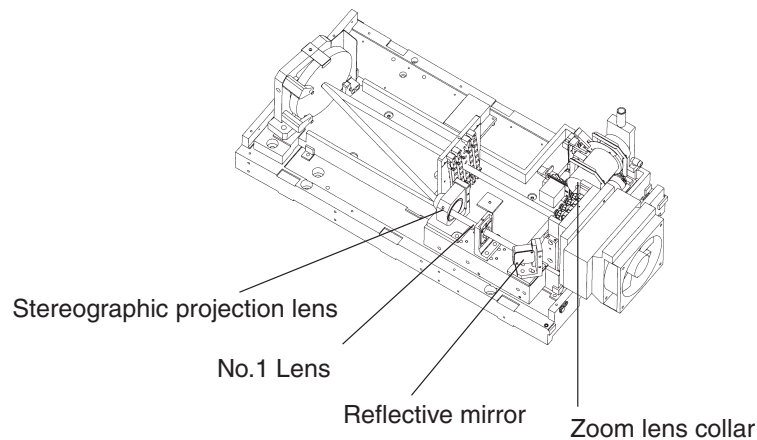
C.Replacement & Adjustment

- (15) Since the following components the recording head can be easily contaminated, be sure to clean them completely.

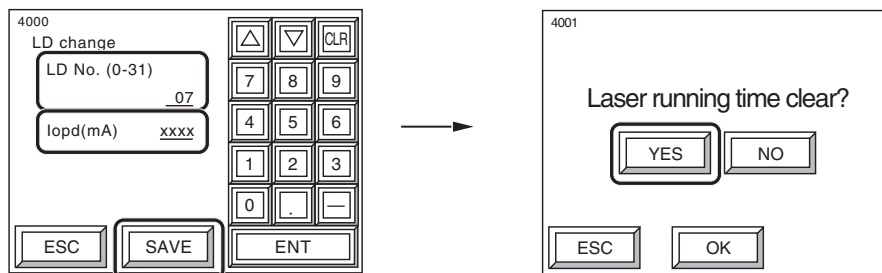
- Stereographic projection lens
- No.1 Lens
- Reflective mirror
- Zoom lens collar

⚠ CAUTION

- * For cleaning, use a mixed solution of alcohol and ethanol at a ratio of 1:2.
For cleaning the lens surface, use a lens cleaning paper, not a cotton swab. Using a cotton swab could mar the lens surface.

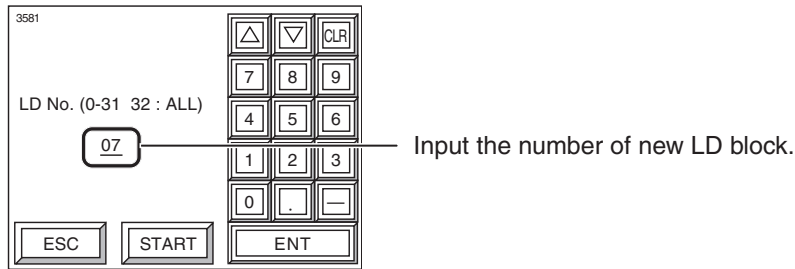


- (16) Secure all the cables and plates as they were previously.
- (17) After finish the befor procedure, remove the LD short-circuit connector jig from the connection board. Forgetting to remove the jig above will damage the LD block and/or boards (connection board and head drive boards).
- (18) Turn ON the power to initialize.
- (19) Input the Iopd value which is written on the new LD block data sheet. Then clear the [Laser runningtime].
- Recording head / RH parameter / LD exchange



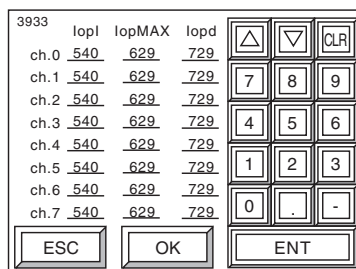
- (20) Perform the [Laser caribration] to necessary resolution for only the replaced laser diode channel.

- Recording head / RH test / Laser caribration / Select dpi / [Select ch]



- (21) Confirm the IopI value.

- Recording head / RH parameter / Reference laser power / Select dpi

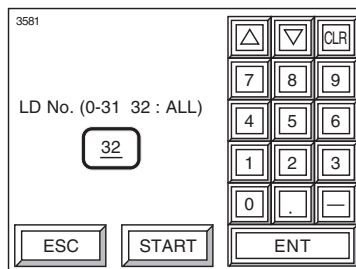


- (22) Perform the [Laser caribration] to necessary resolution for only the all laser diode channel.

- Recording head / RH test / Laser caribration / Select dpi / [32: ALL]

⚠ CAUTION

- * Make sure to perform the [Laser caribration] all ch. If machine exposed by half ch mode, machine does not return to all ch exposure mode by shingle ch laser caribration. And error is occurred if expose by un-caribrated resolution.



⚠ Caribration time is 1 to 2 minute.

- (23) Check if there is any problem with the exposed results.

- Focus adjustment
- Zoom adjustment
- Exposure power adjustment