

# Replacing the Laser Diode (Luce 10-1064)



LaserLab Solution for Laser Technologies  
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Instruction manual : replacing the laser diode

- 1) Unscrew the screw (1-2-3-4-5-6) of the pumping unit cover[fig.1]

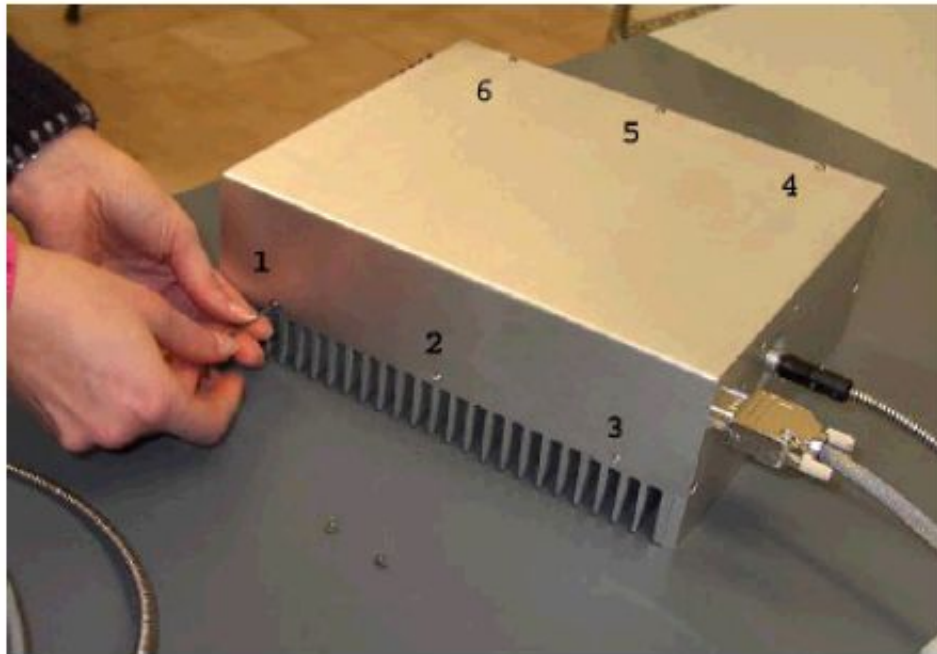


fig.1

- 2) Take off the pumping unit cover[fig.2]

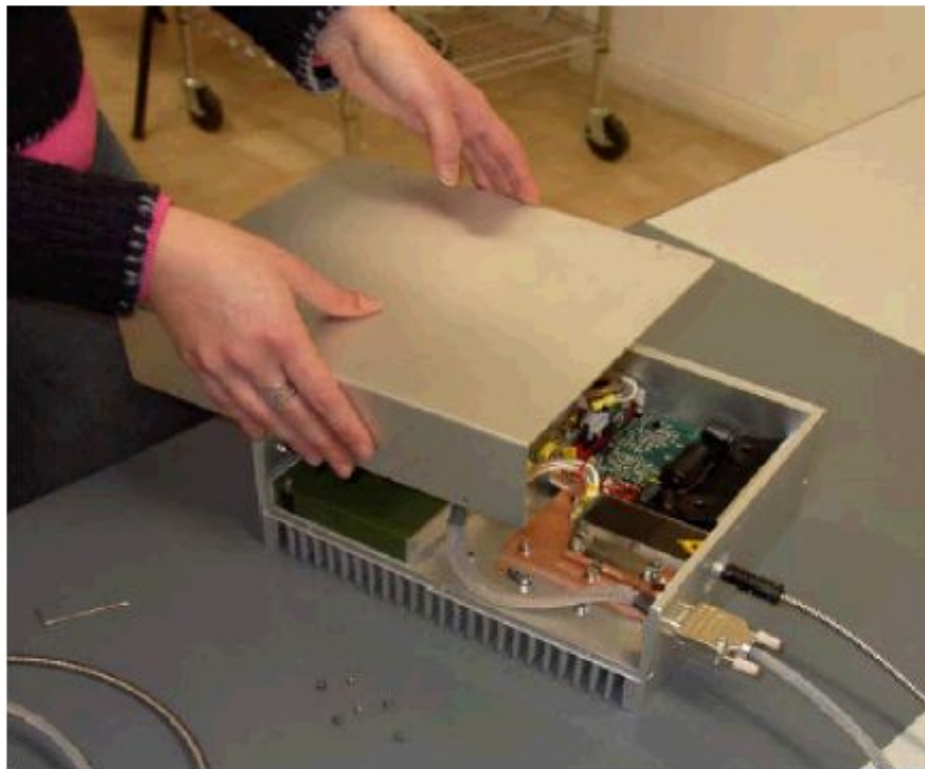


fig. 2



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**CAUTION!**

The diode laser is a static sensitive device.

Use anti-static wear, or grounding wrist strap, or other anti-static precautions.

Do not touch the diode laser contacts if the diode laser is not shorting

A shorting connector for the laser diode module is include in the pumping unit;it's clamped by screw 7.[fig.3]

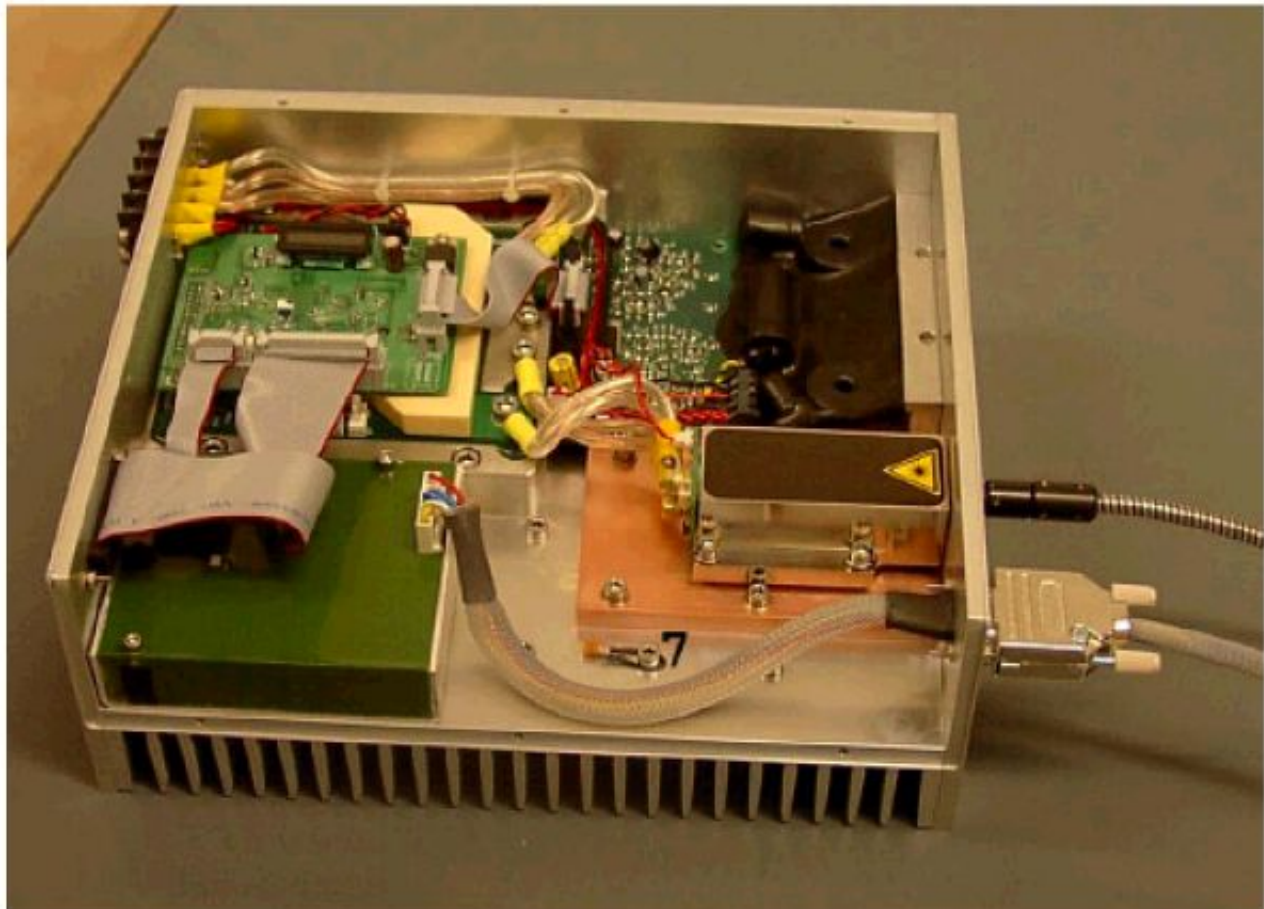


fig.3



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3) Unscrew the screw (7) in fig. 4 to remove the shorting connectoe [fig.4]

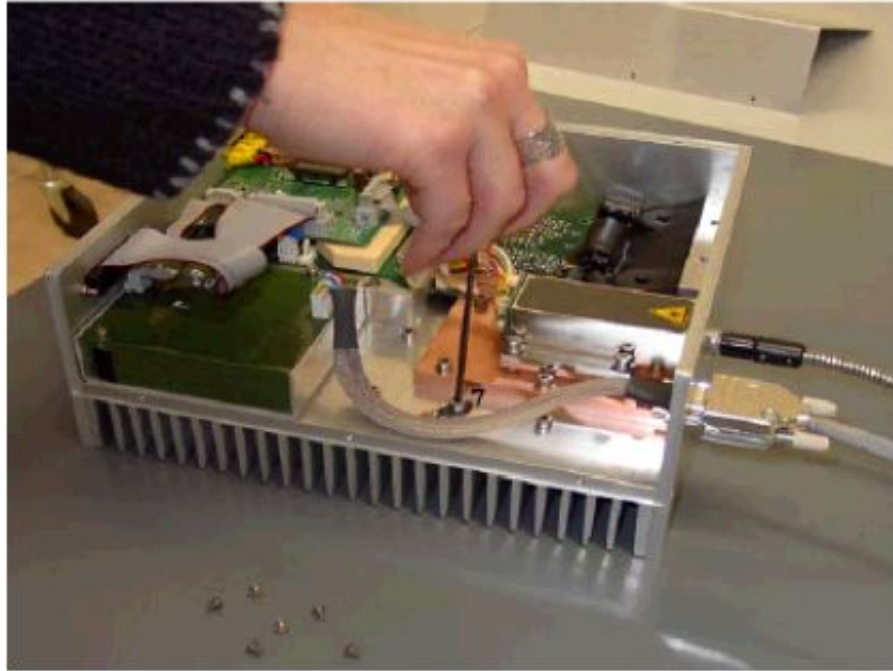


fig. 4

4) Insert the shorting connector to protect the laser diode as shown [fig.5]

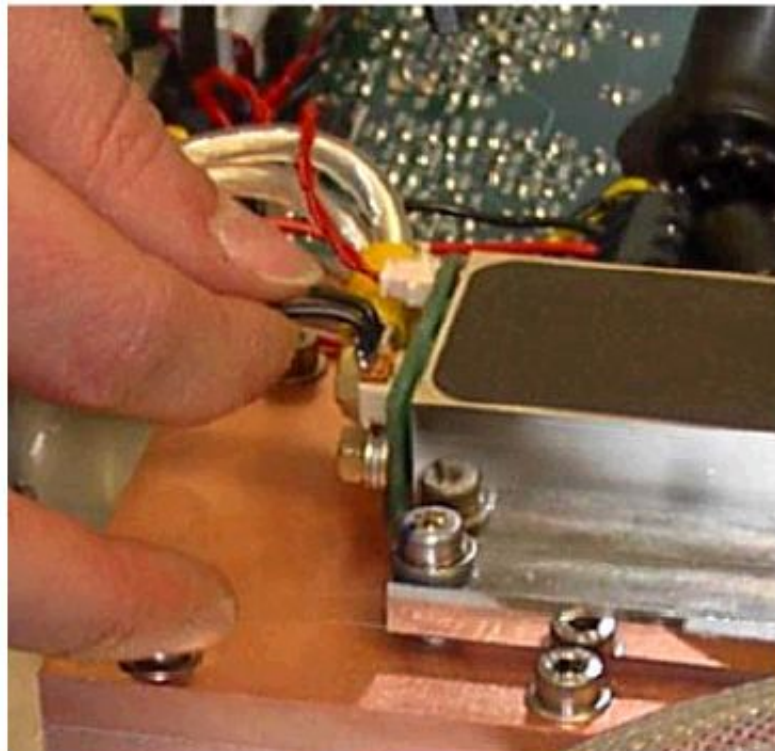


fig. 5

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5) Detach the optical fiber from the diode laser using one hand to hold the fiber while unscrewing the SMA ring-nut [fig.6]

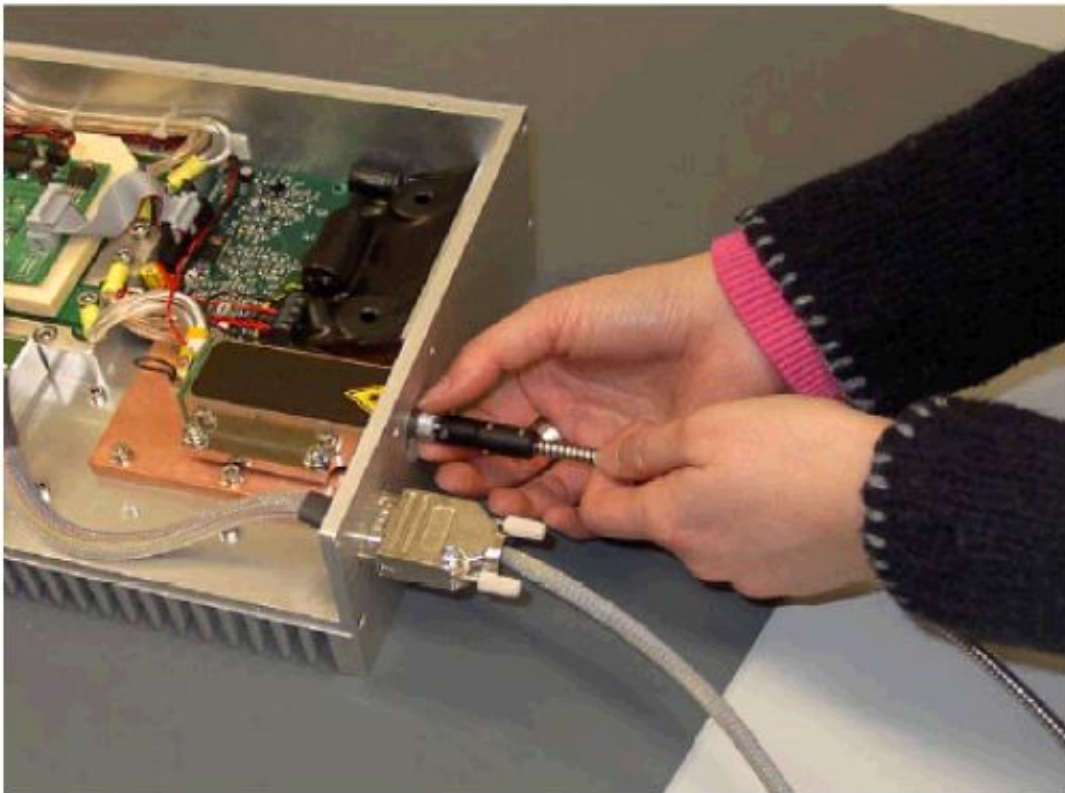


fig. 6

6) Put the protection cap on the optical fiber end [fig. 7]



fig. 7



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7) Put the SMA protection cap on the diode laser module [fig. 8]



fig 8

8) Disconnect the thermistor contact [fig.9]

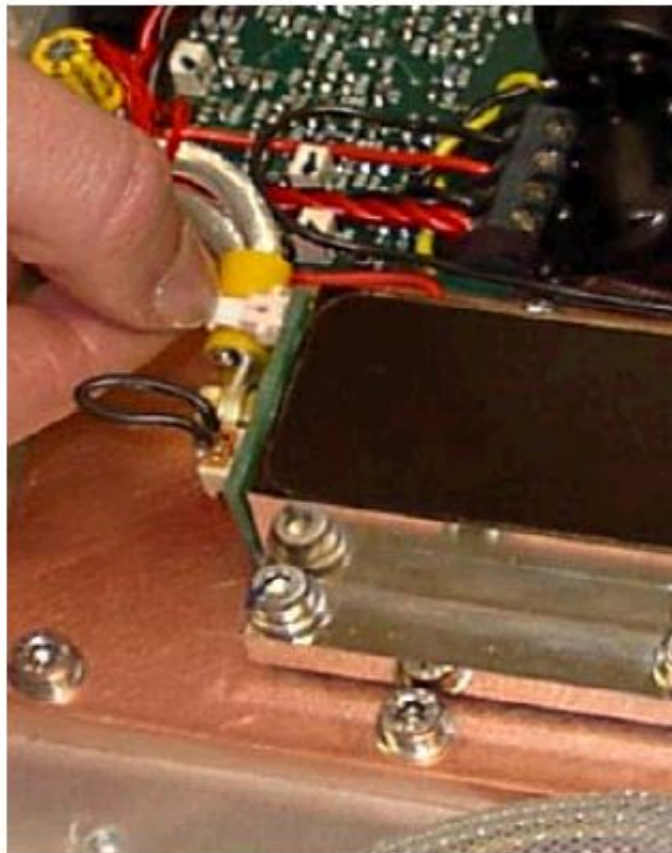


fig. 9

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9) Unscrew the two M4 brass nuts and remove the diode power supply contacts [fig. 10-11]

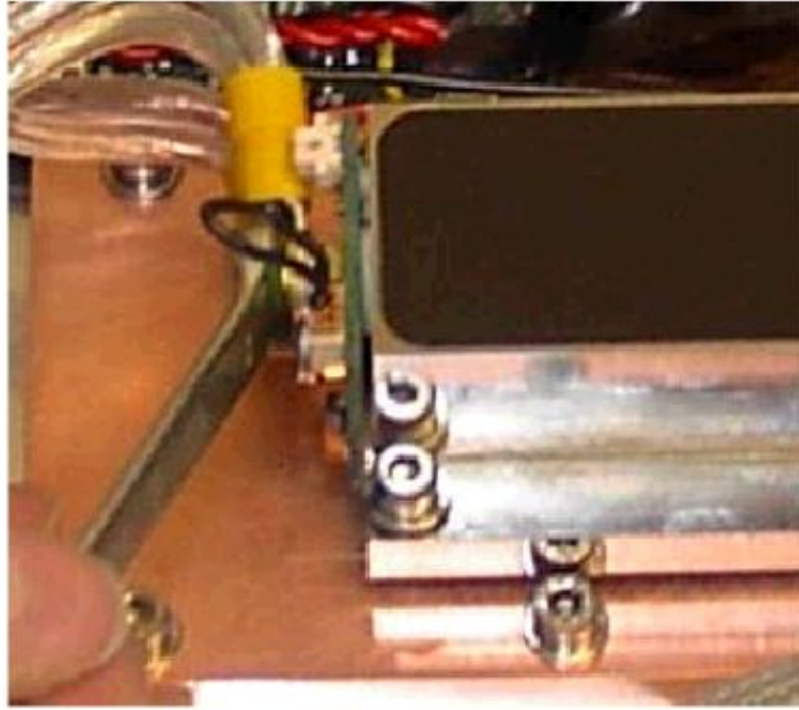


fig. 10

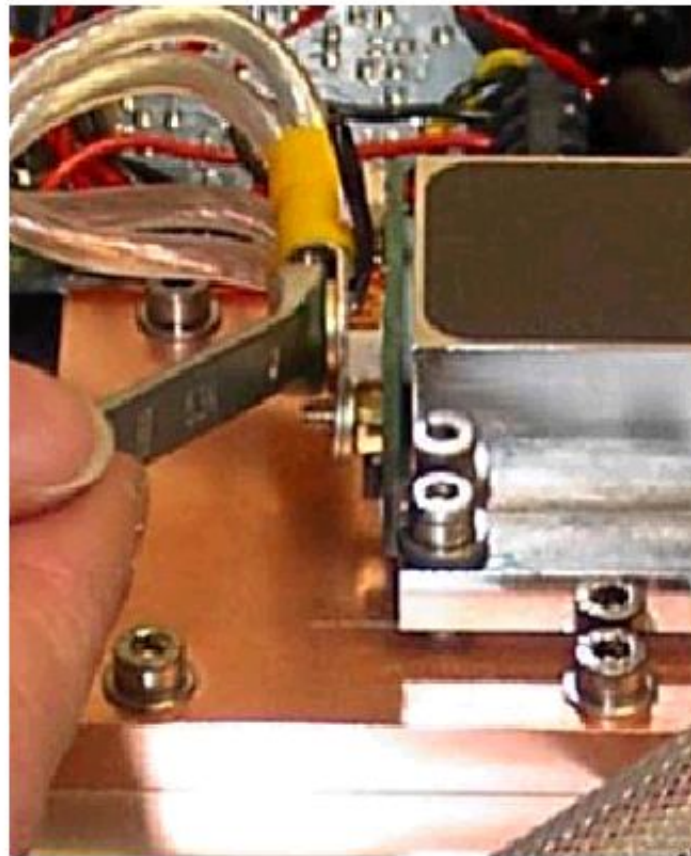


fig. 11



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10) Unscrew the screws which hold the Peltier power supply black and red cables [fig.12]

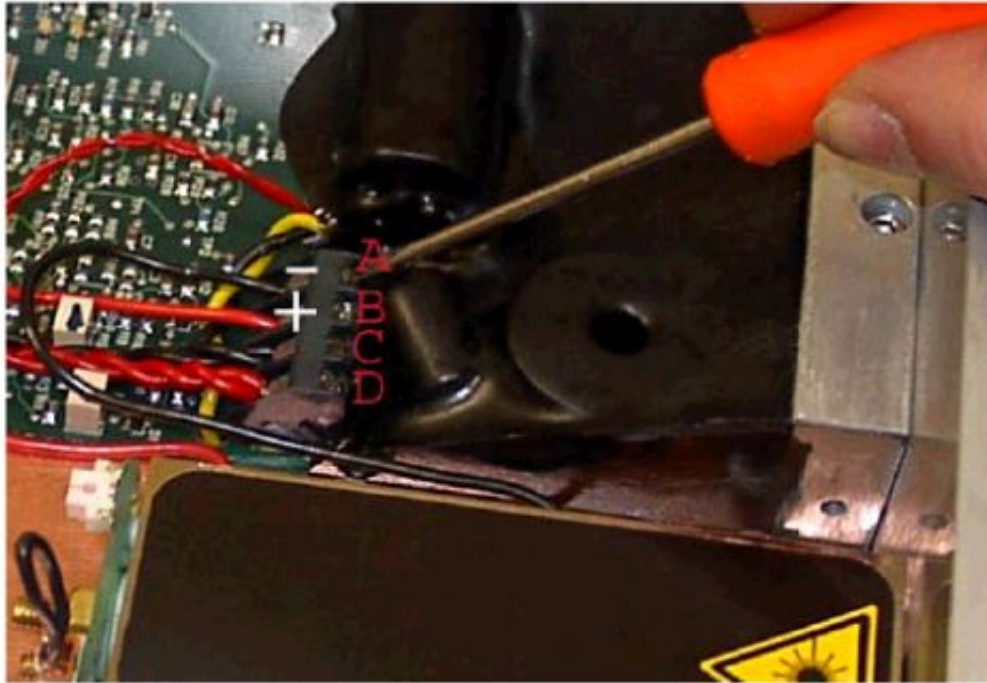


fig. 12

11) Unscrew the screws which hold the Peltier power supply black and red cables [fig.13]

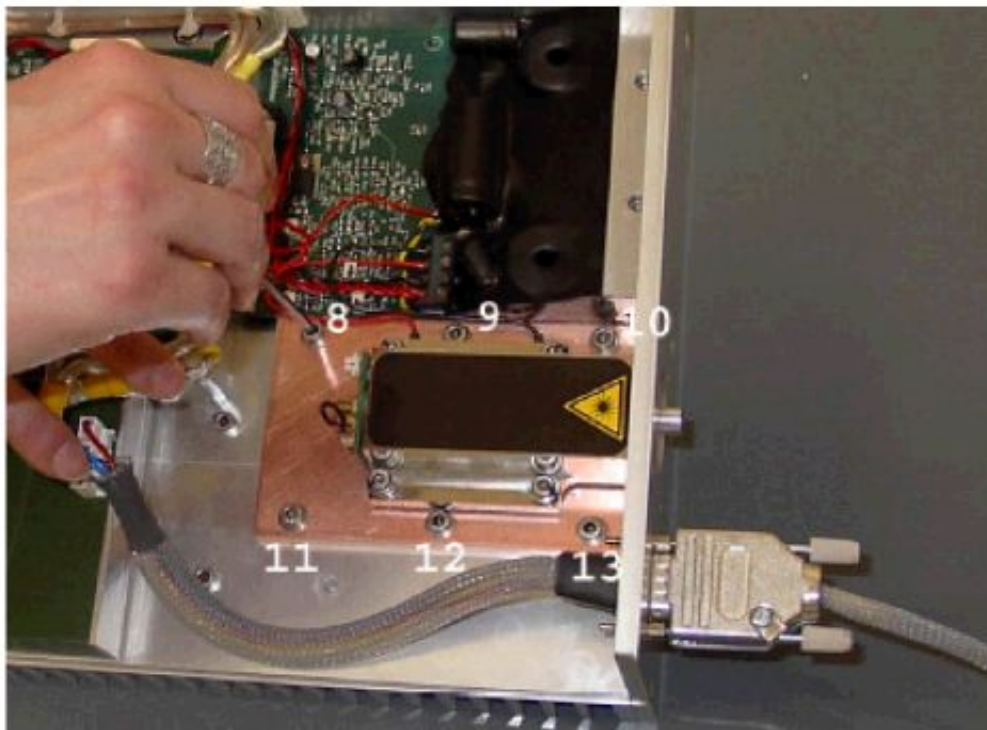


figure. 13

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**CAUTION!**

Do not unscrew the screws (14-15-16-17)! [fig.14]

It may damage the device

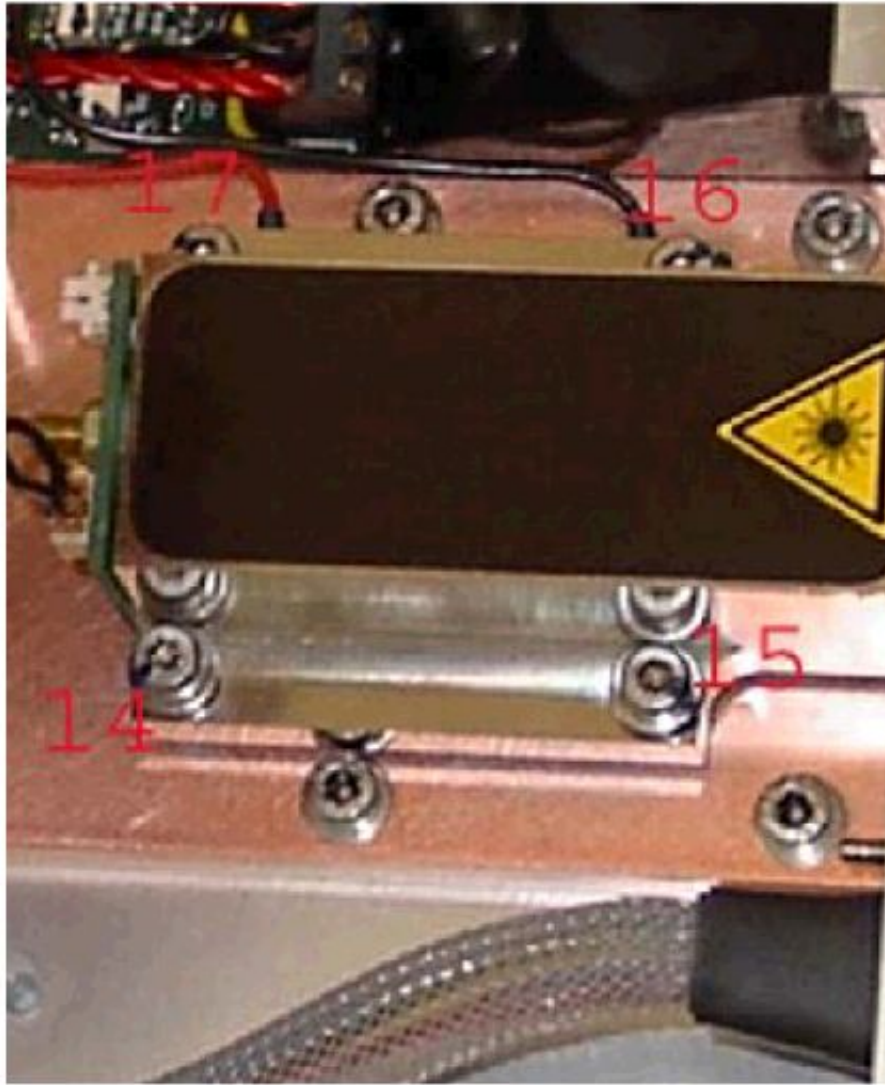


figure. 14



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12) Put a new diode laser in place of the old one [fig.15]

**CAUTION!**

The diode laser is a static sensitive device.

Use anti-static wear, or grounding wrist strap, or other anti-static precautions.

Do not remove the shorting contact until replacement operations are not finished.

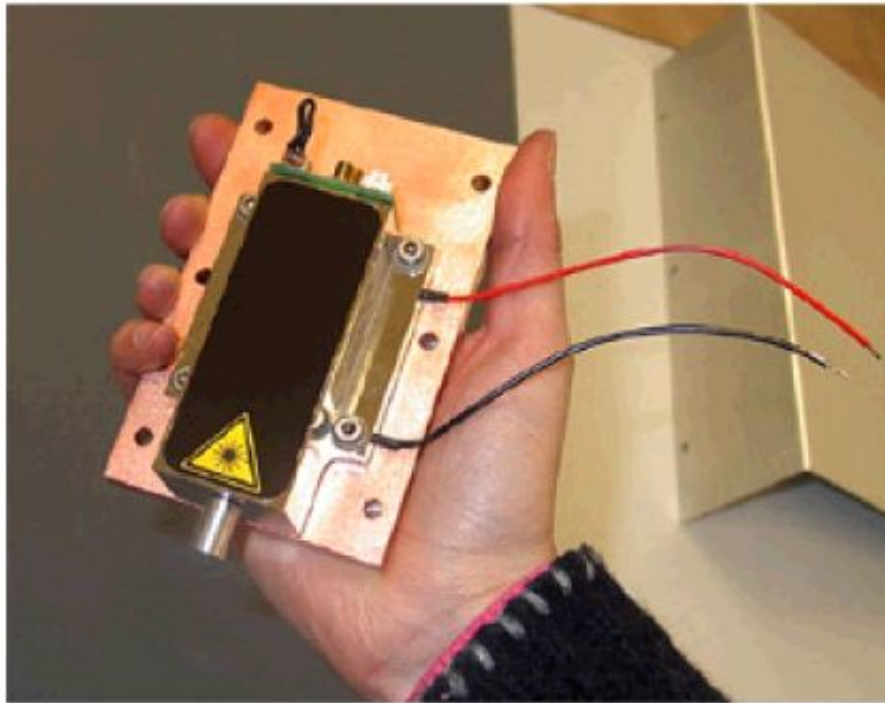


fig. 15

Redo all the described operations in reverse order:

13) Put on screws (8-9-10-11-12-13) of the diode laser copper plate.[as fig.13]

14) Fix the Peltier black and cables as before. [as fig.12]

15) Connect the power supply diode laser contact and screwing the corresponding M4 brass nuts. [as fig.10-11]

16) Connect the thermistor cable. [as fig.9]

17) Take off the SMA cap and connect the optical fiber (with the same procedure as before). [as fig.8 and fig.6]

18) Disconnect the shorting connector from the laser diode module. [as fig.5]

19) Put the pumping unit cover in place and screw the corresponding screws (1-2-3-4-5-6). [as fig.2 and fig.1]