

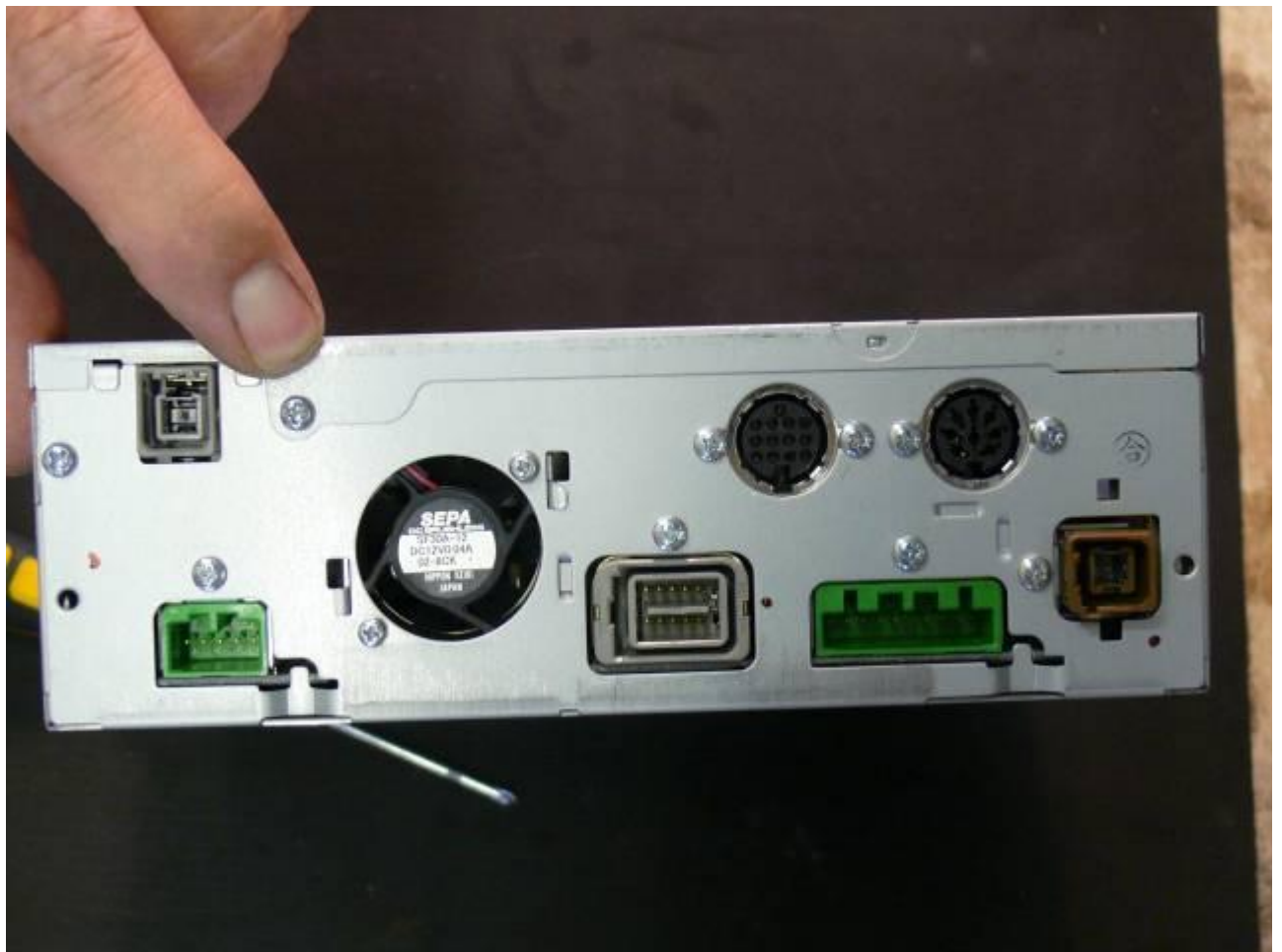
Instructions for replacing the laser light in a Volvo DVD Drive

Prepared by Ian Wilson, July 2008 for Swedespeed User Forum – may be freely copied.

This guidance is offered with no warranty whatsoever. The whole process requires care and cleanliness. You undertake it at your own risk.

I have not shown the steps in removing the unit from the car because this will be unique to each model.

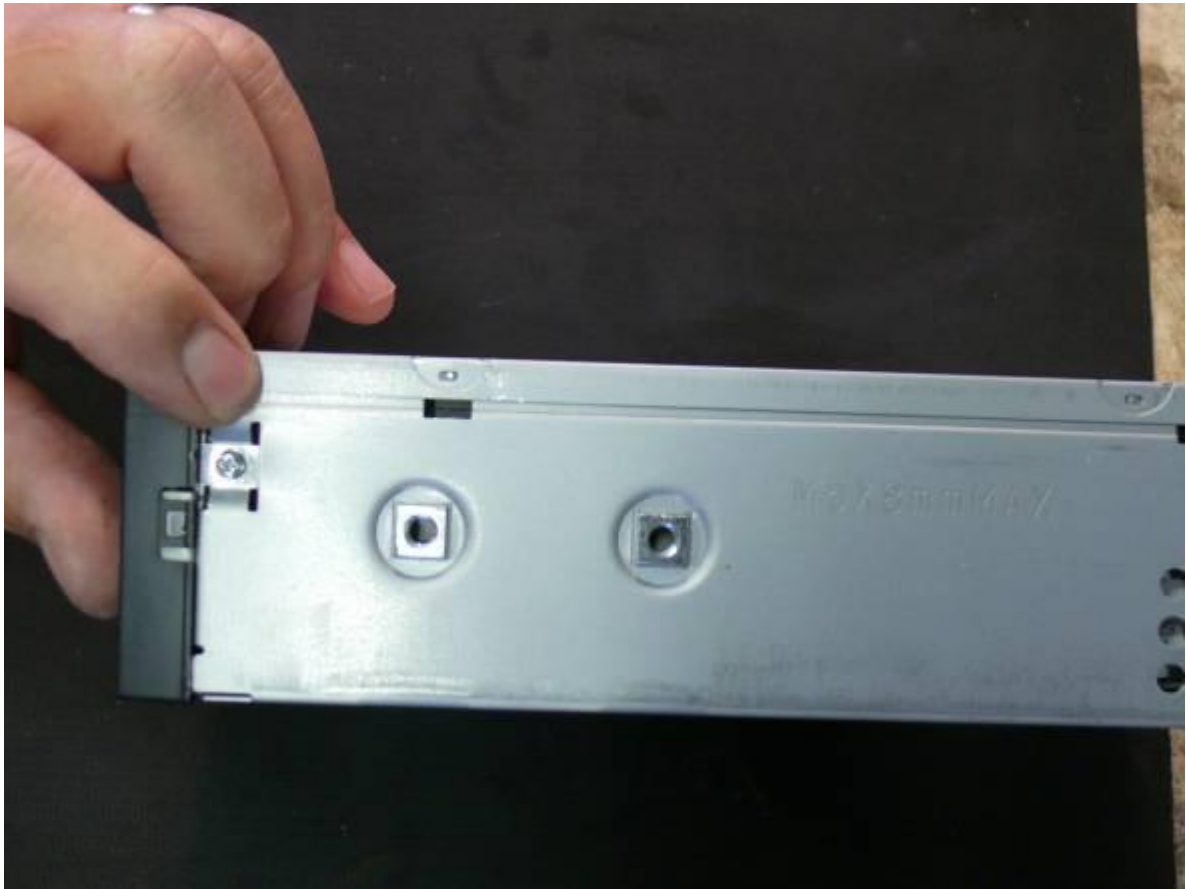
The Top cover is held by this screw



These notches can be used to prise the top cover off. Use a flat bladed screwdriver and twist – gently.

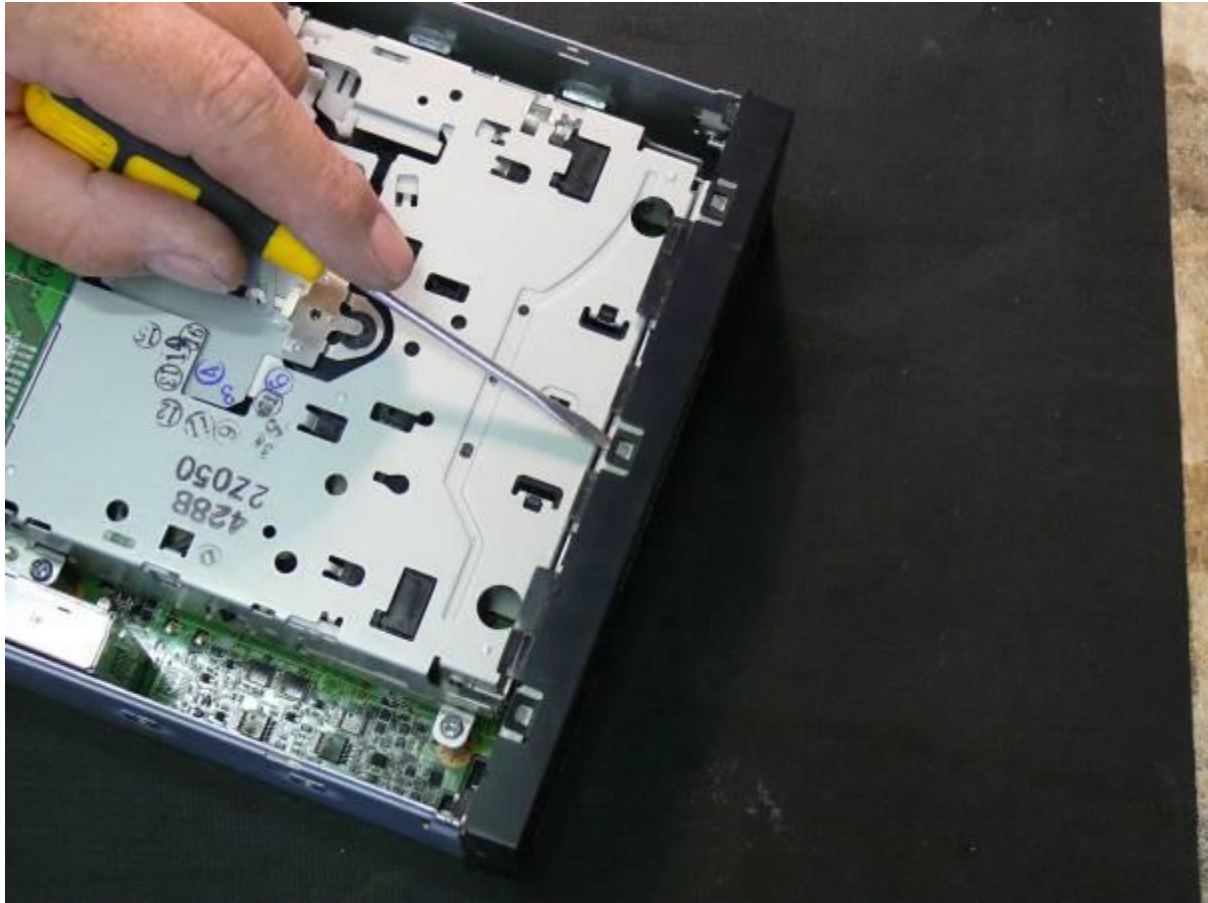


Front cover is held by these screws, one each side.

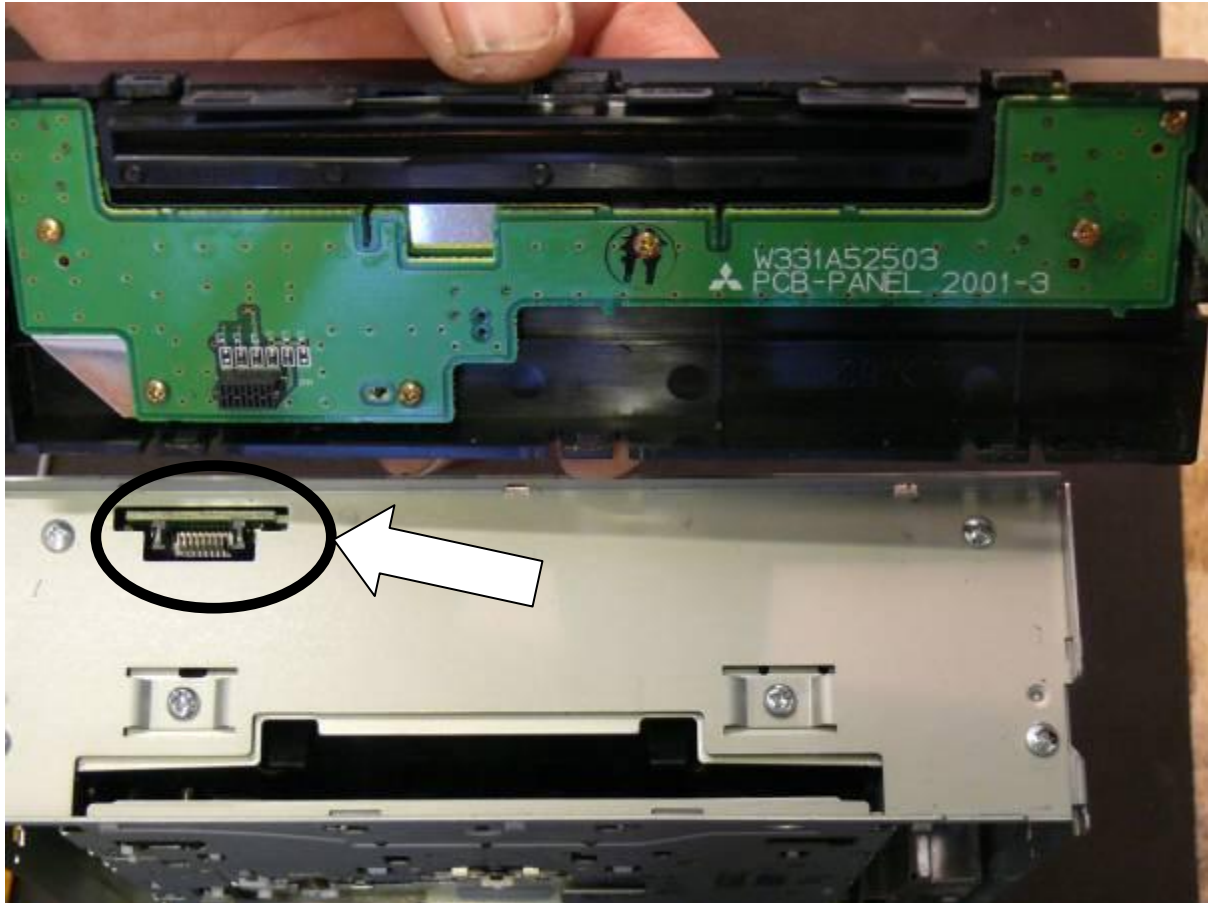


Remove the top cover.

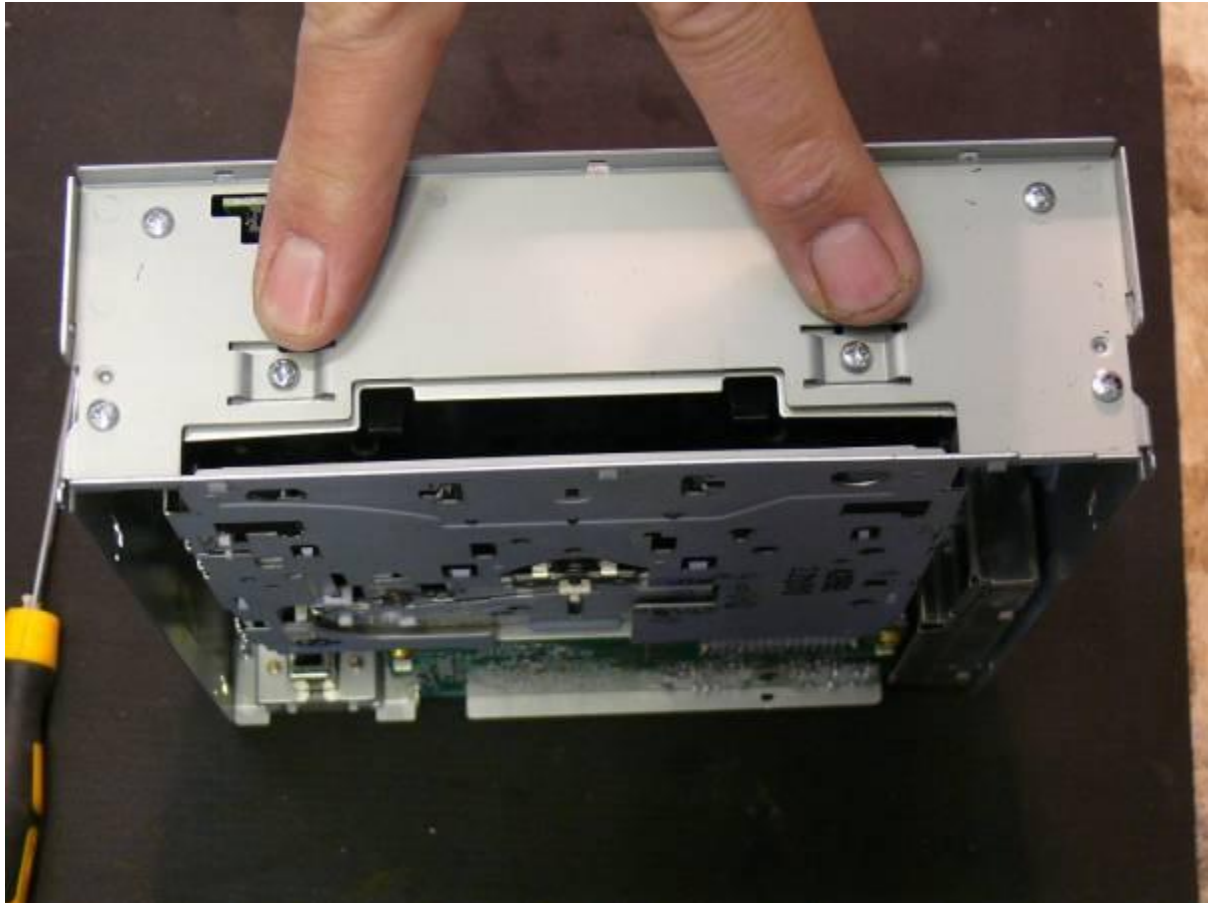
These hold the front cover. Use a small screwdriver to prise off. Care required.



Note the small connector that connects the front cover to the chassis.



These screws need to be removed, they hold the DVD carrier to the internal chassis.



Remove these four screws. Two either side of the connectors.



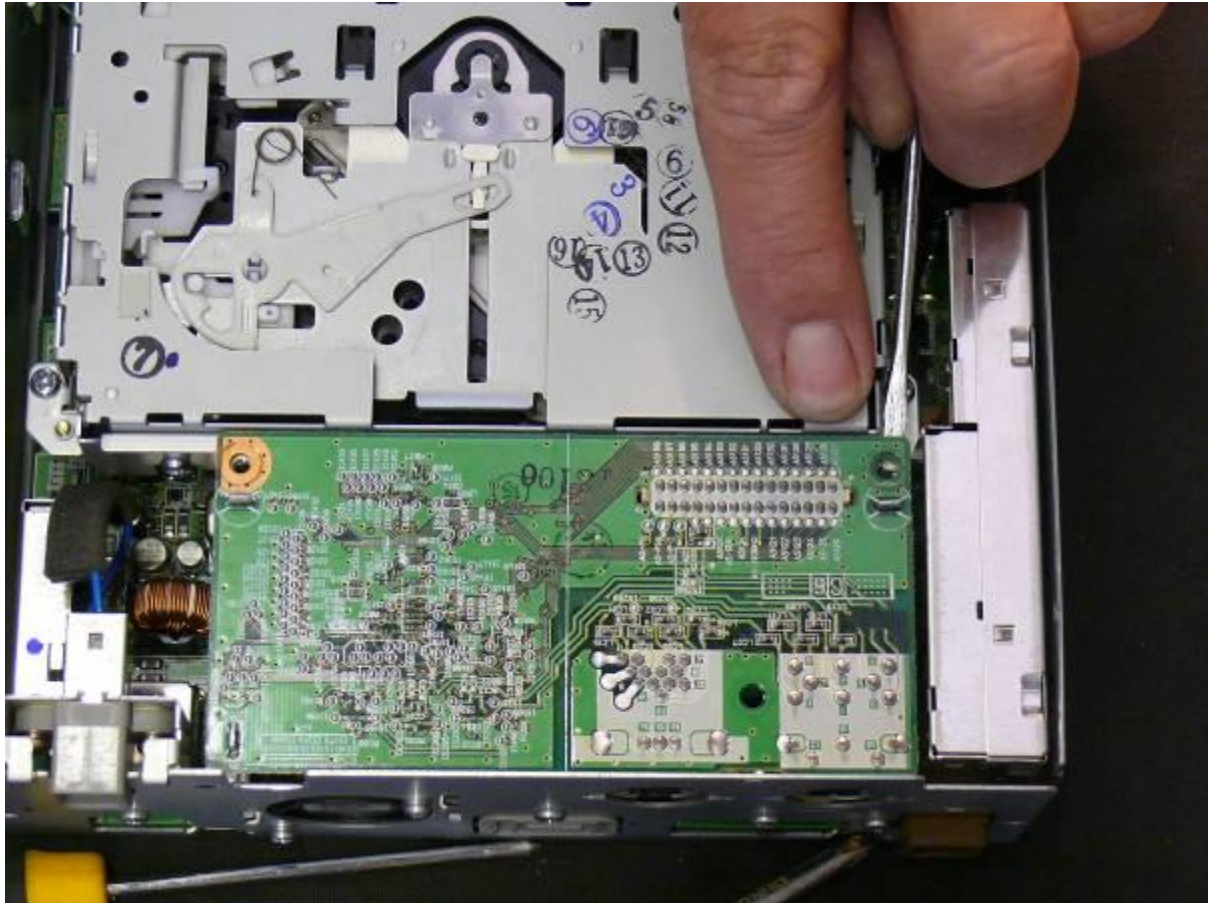
Remove these screws that hold the circuit board to the chassis. Do not remove CB yet!



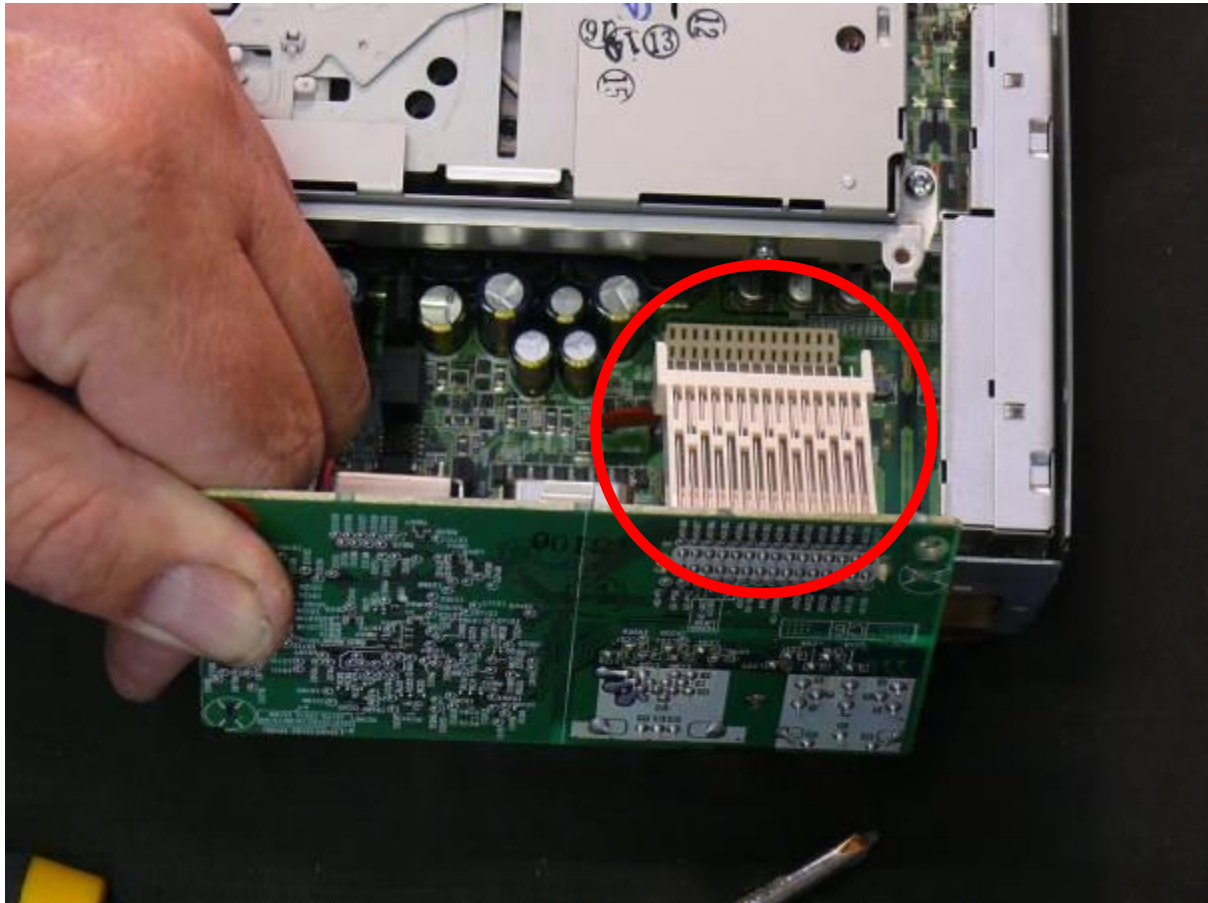
Check these tabs. Mine were twisted to hold the CB. If necessary twist gently to align with the slots in the CB.



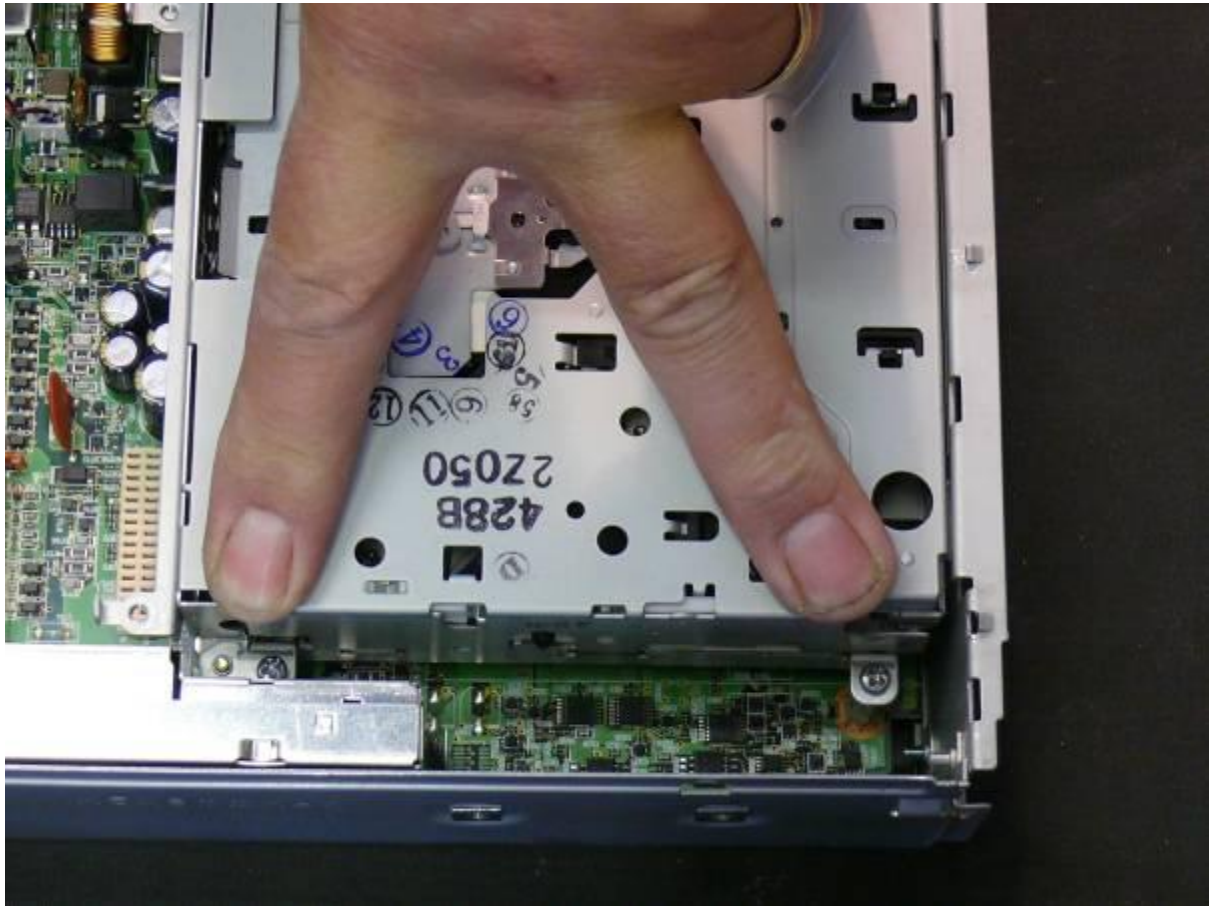
Prise the CB from the chassis from this corner. Great care is required



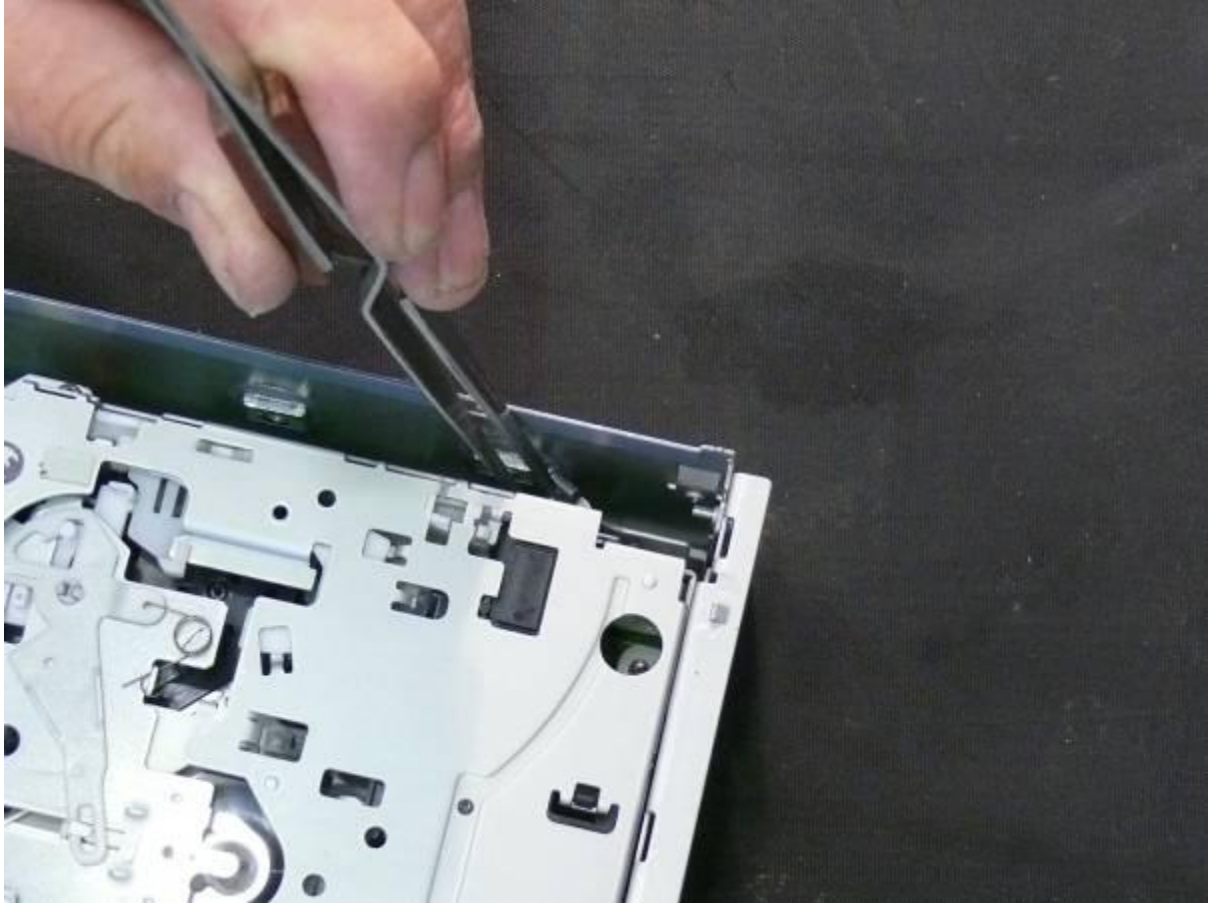
Here you can see the CB being removed. Note the plug connector that connects the CB to the “motherboard”.



There are four screws holding the DVD mechanism to the chassis. Here you see two, there are a similar two on the other side. Remove.

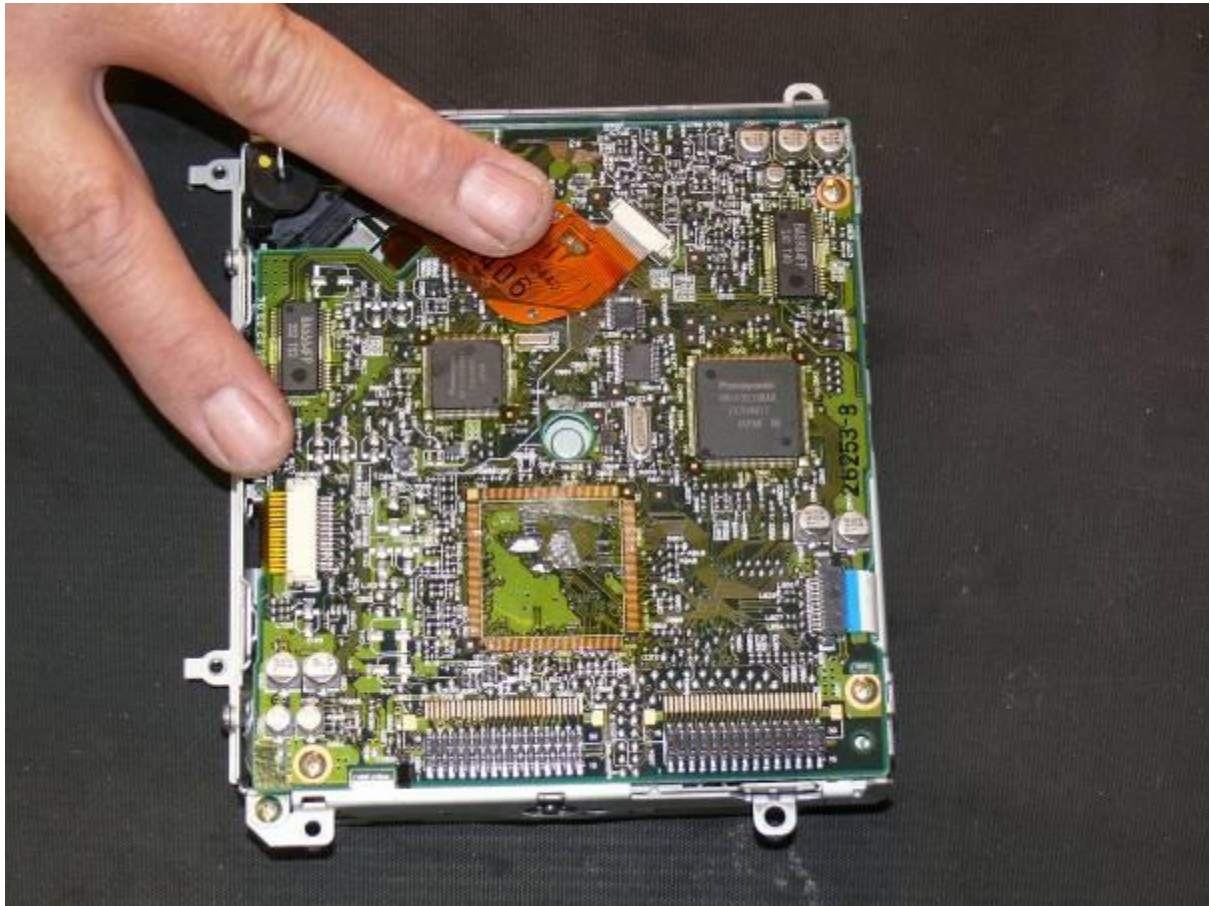


Removing the screws holding the DVD mechanism. A pair of tweezers can be useful here.

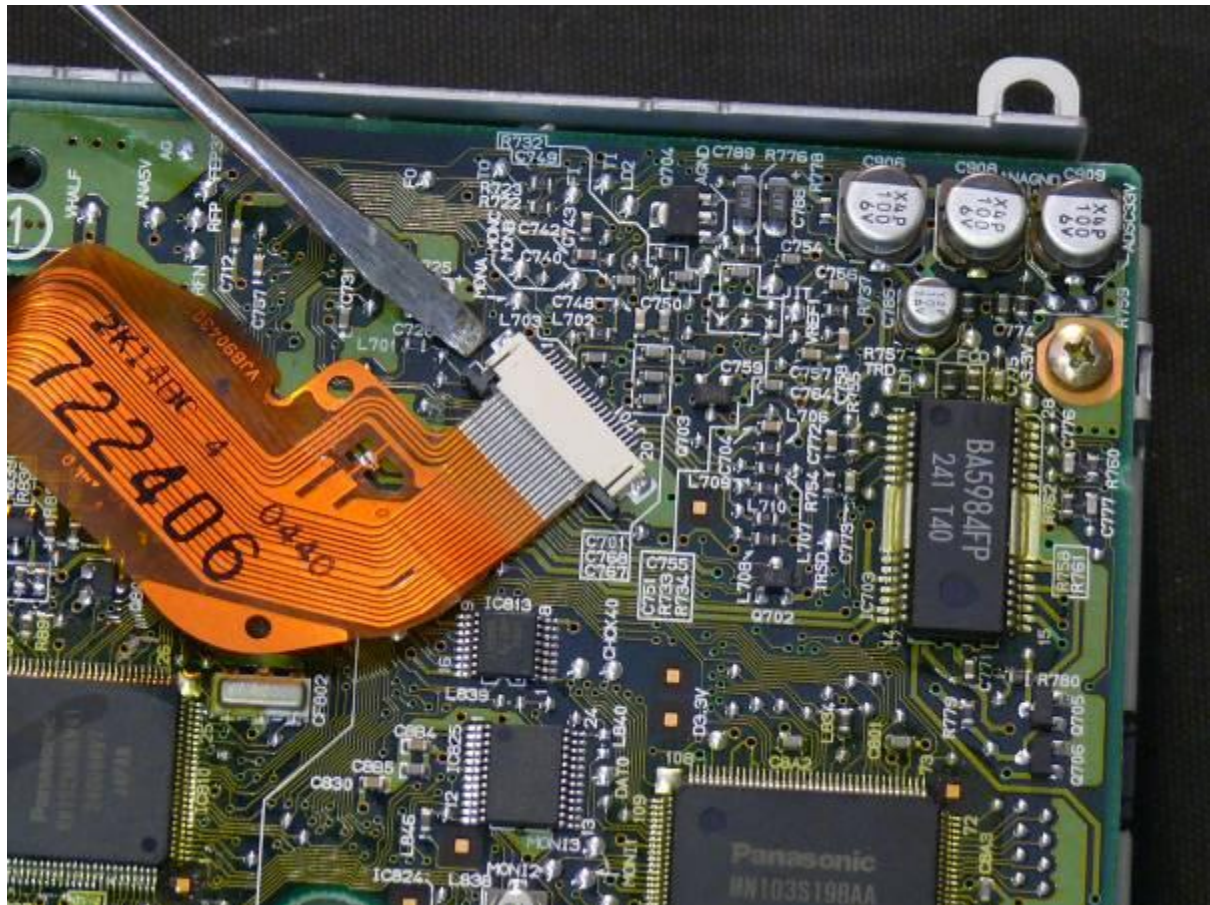


After removal of the 4 screws the DVD drive mechanism can be prised from the chassis. There are 2 connector blocks which will unplug as you remove the mechanism. See later photograph for a view of the connector blocks.

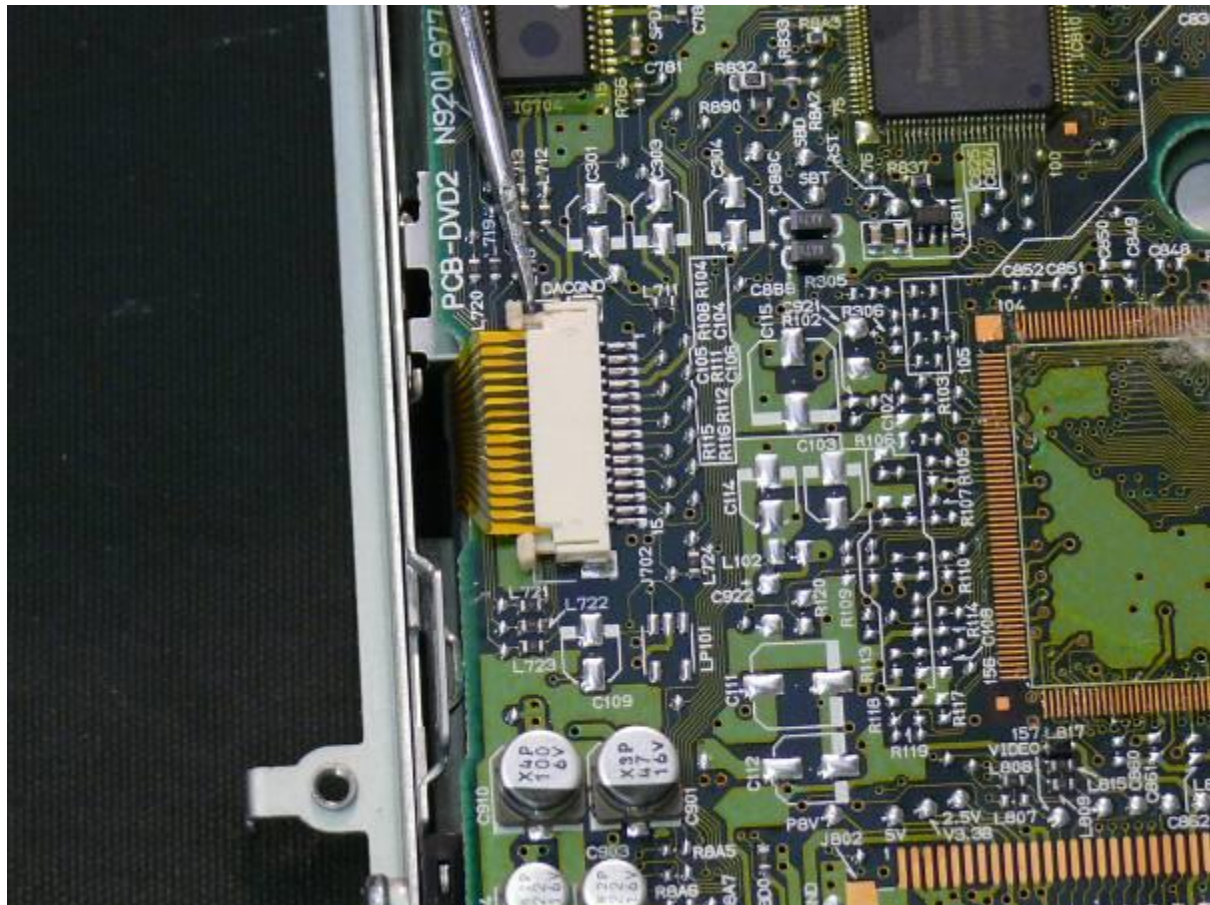
These two connectors need to be removed before the DVD circuit board can be removed from the drive mechanism.



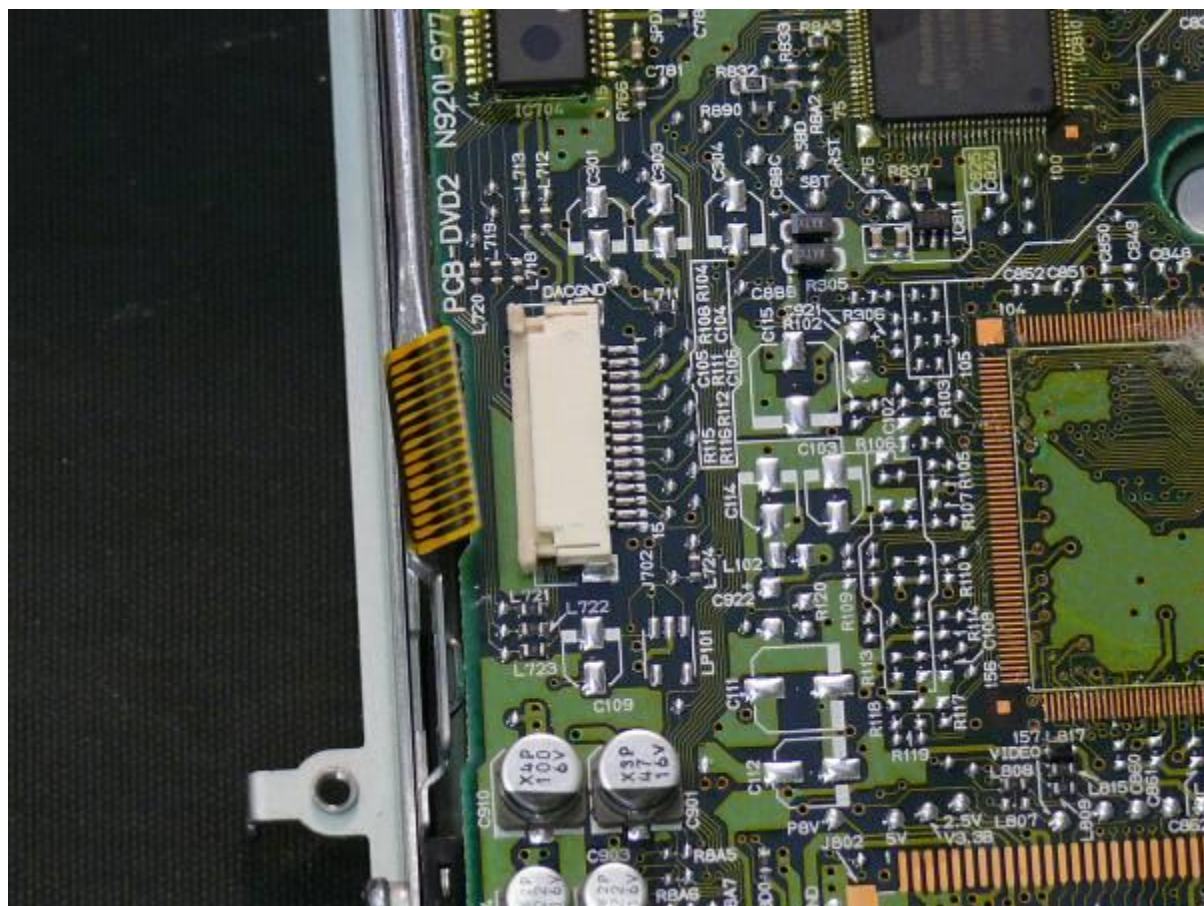
Close up view of one ribbon connector. The end of the screwdriver is pointing to the very small clamp that holds the ribbon cable. These need to be gently prised out to free the ribbon cable.



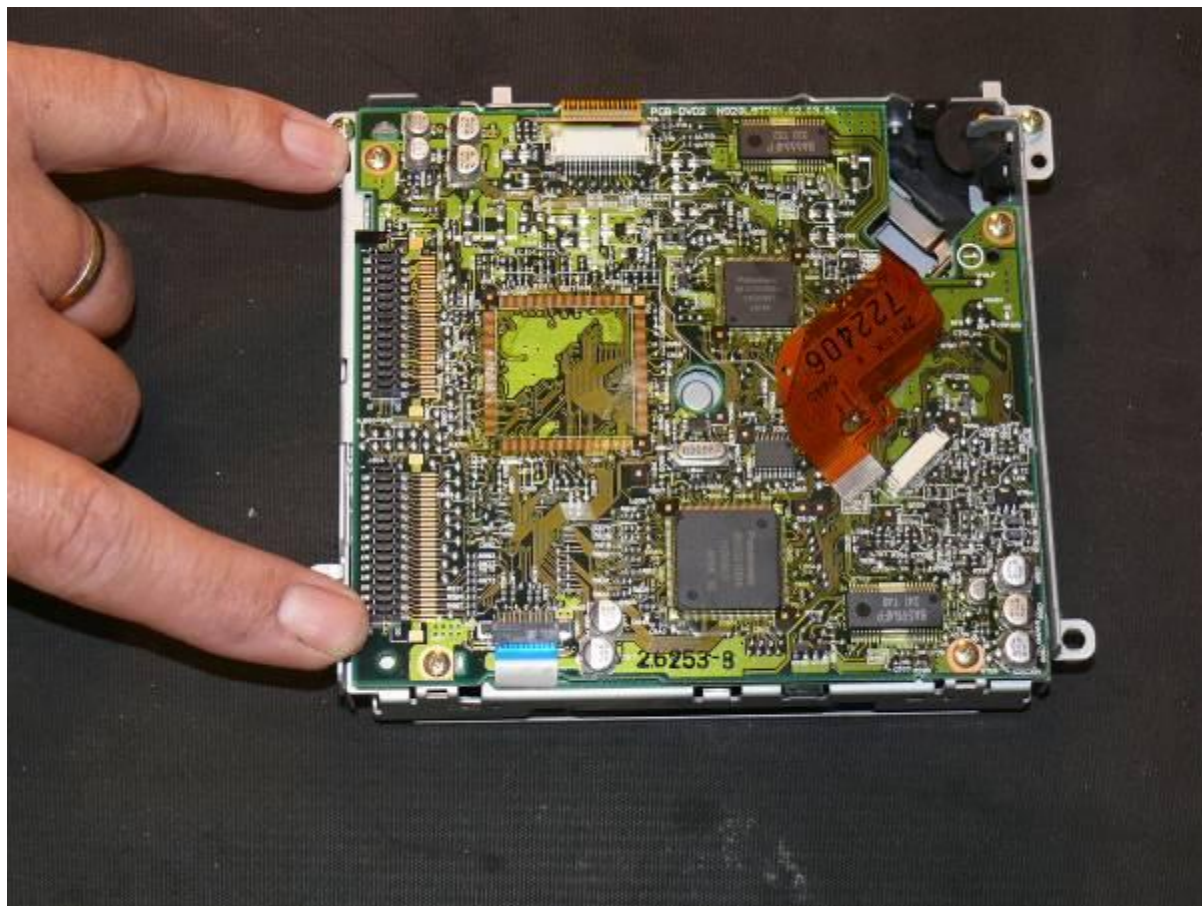
Here we have the second ribbon connector. This picture shows the ribbon clamp more clearly. It is in the “out” position ready for the ribbon cable to be removed.



Here the ribbon cable has been removed from the connector.

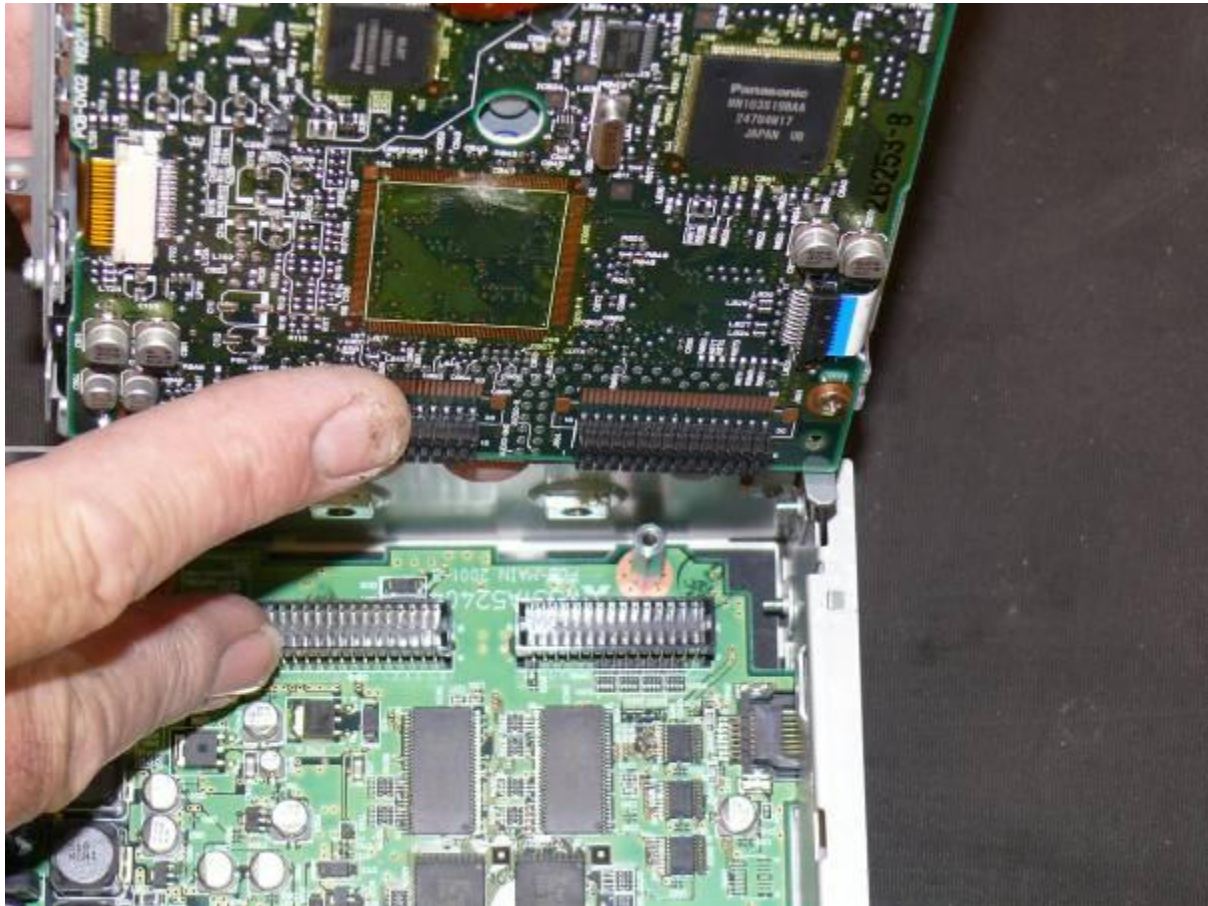


These screws hold the CB to the chassis. They must be removed.

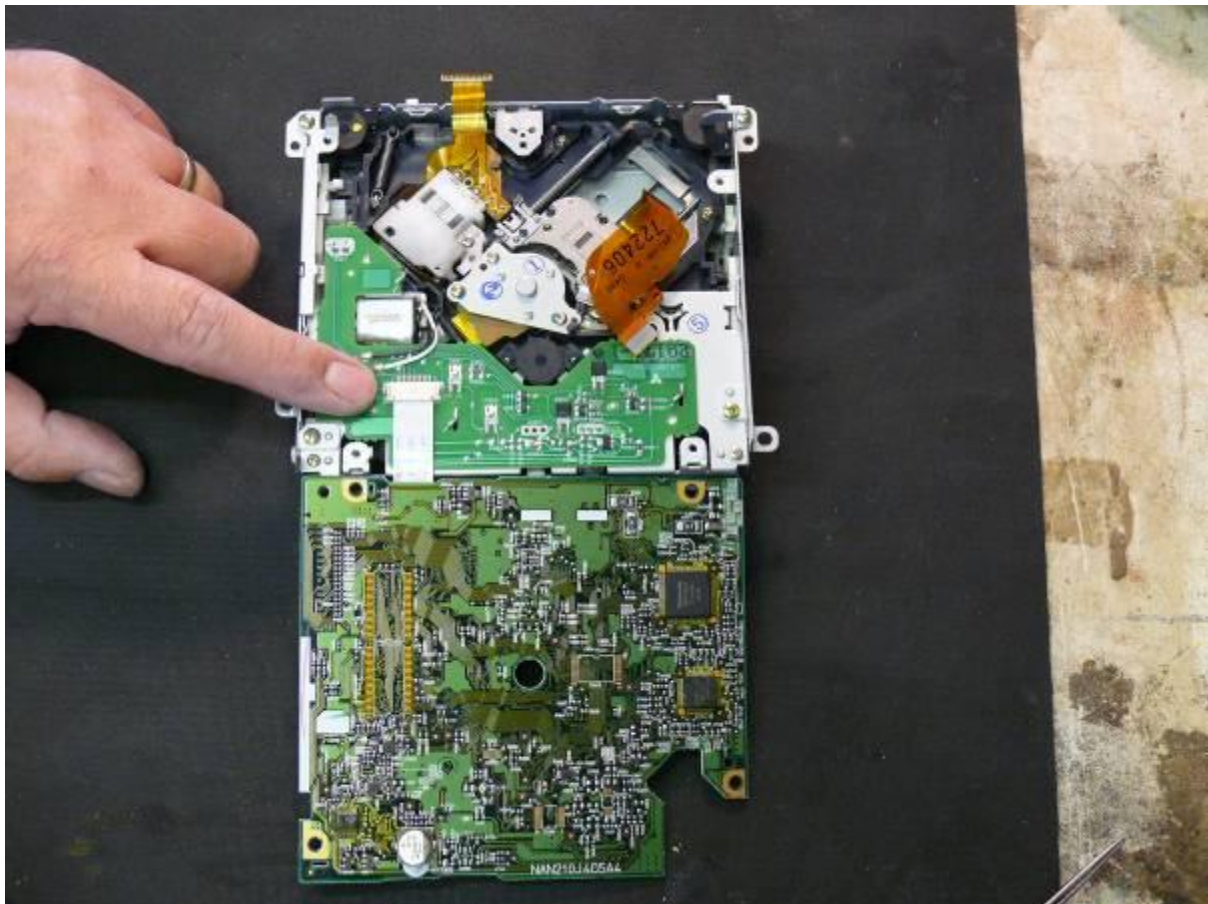


This picture also shows the block connectors that connect the CB to the DVD drive. They can be seen between my fingers.

At this stage the CB can be lifted from the drive – but take care – there is still on ribbon cable connected.



This cable has the clamp mounted on the underside of the CB, hence the CB needs to be “hinged” up to gain access to the ribbon connector – visible at the end of my finger. Remove the clamp using the same process as before. Remove the cable.



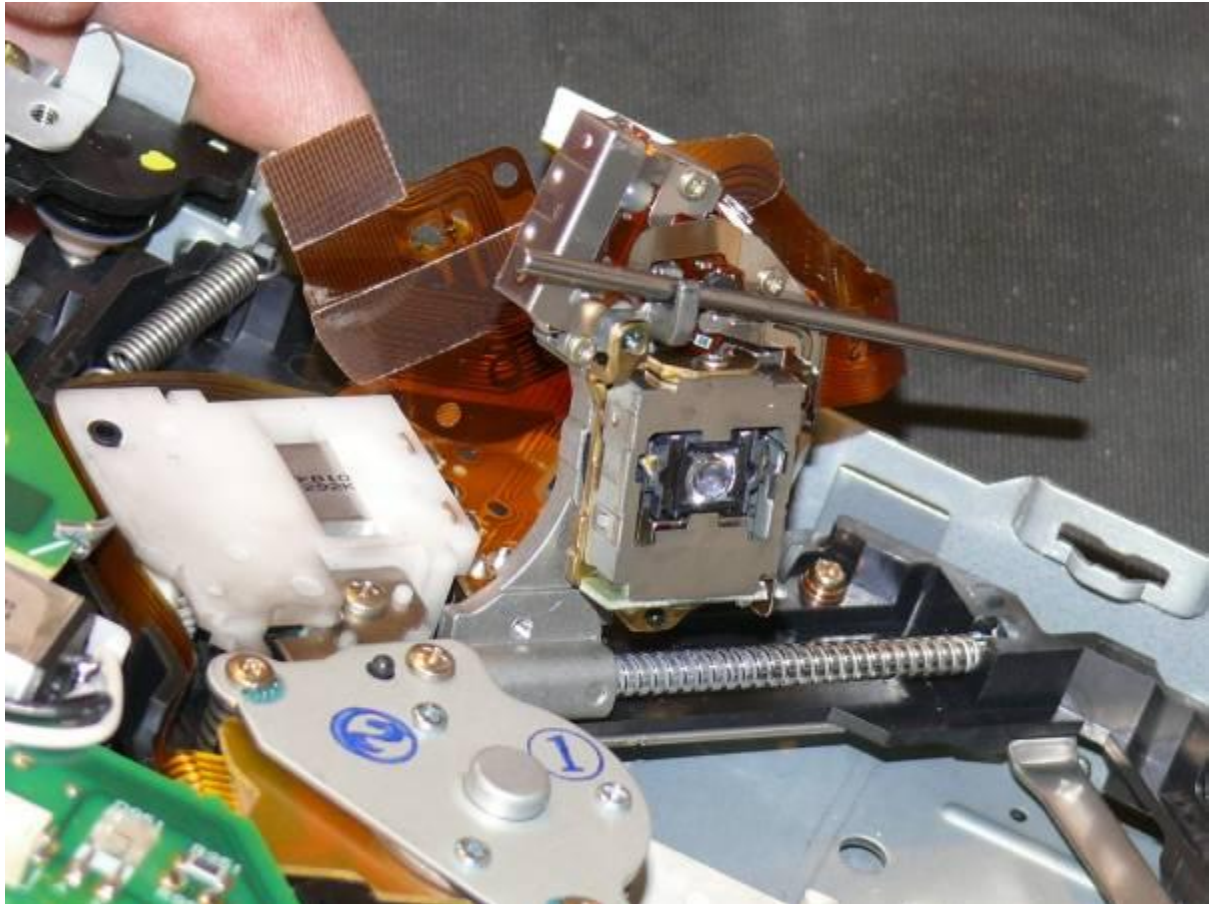
This next stage is not strictly required, however I found it easier this way and less risky.

The screw indicated holds the clip that holds slide bar for the laser light. Remove the two screws (black) and lift out the clip.



Here the retaining clip for the laser unit guide bar is being removed.



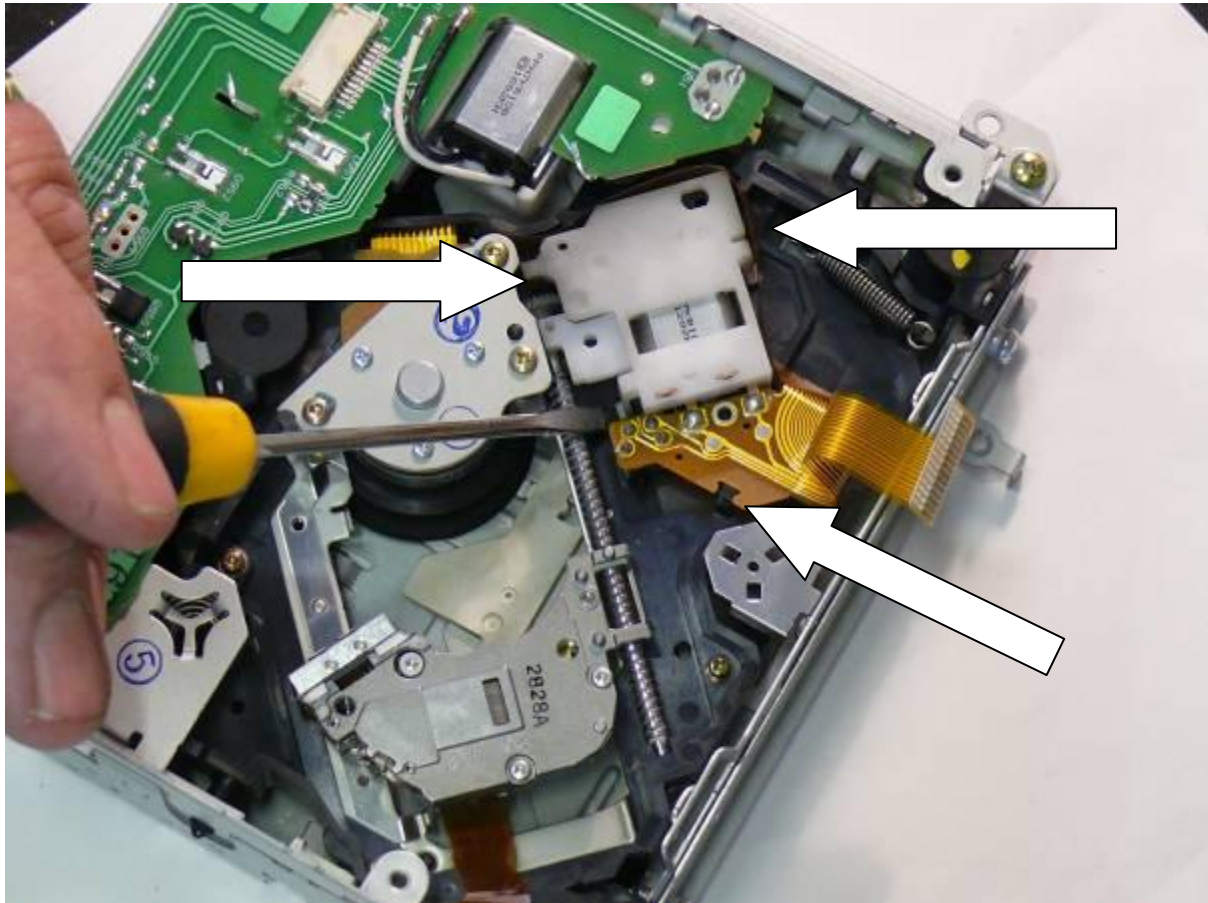


This screw holds the motor mount for the laser light. The picture clearly shows the worm drive that moves the laser light radially across the DVD.

Remove the screw.



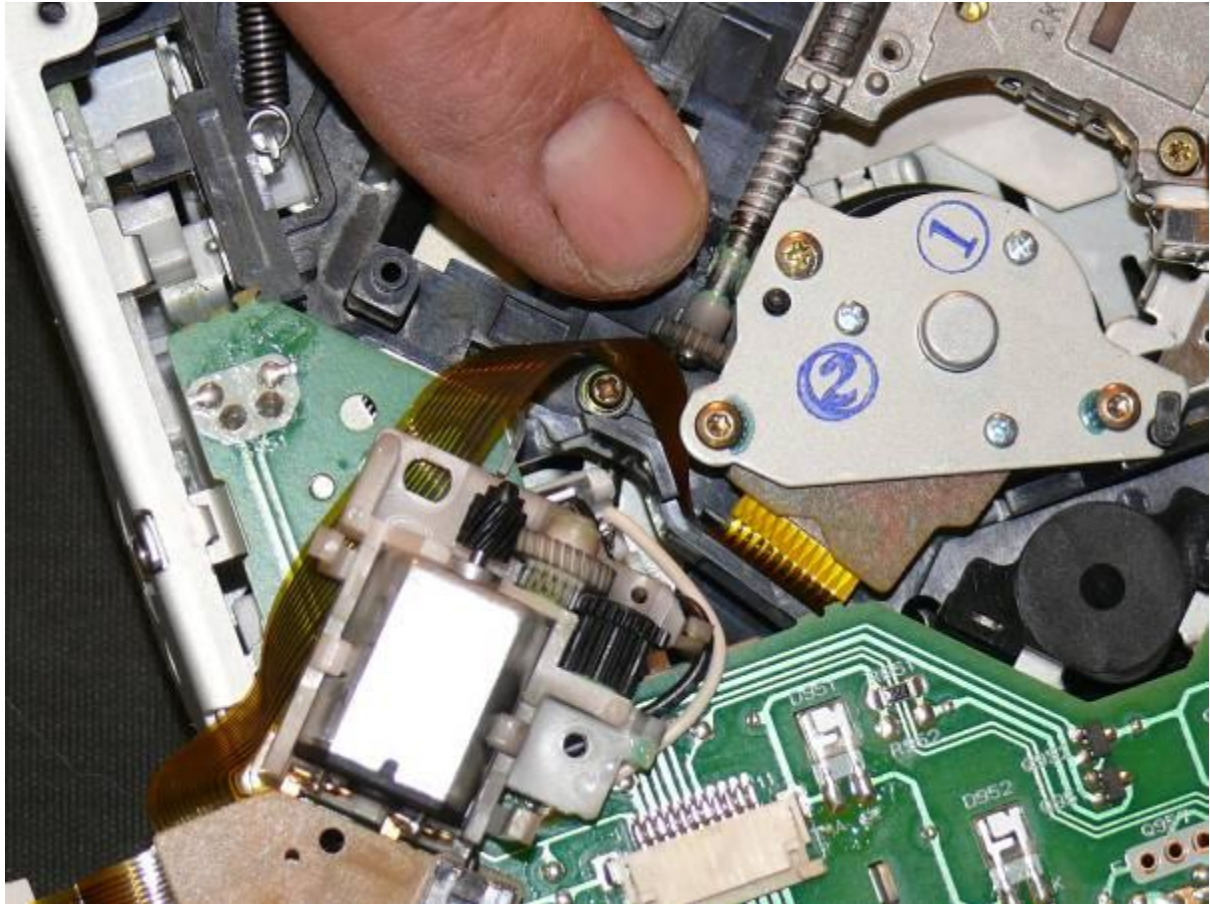
Carefully prise the motor unit from the chassis. The clips are difficult to see. I have indicated their position in the photograph.



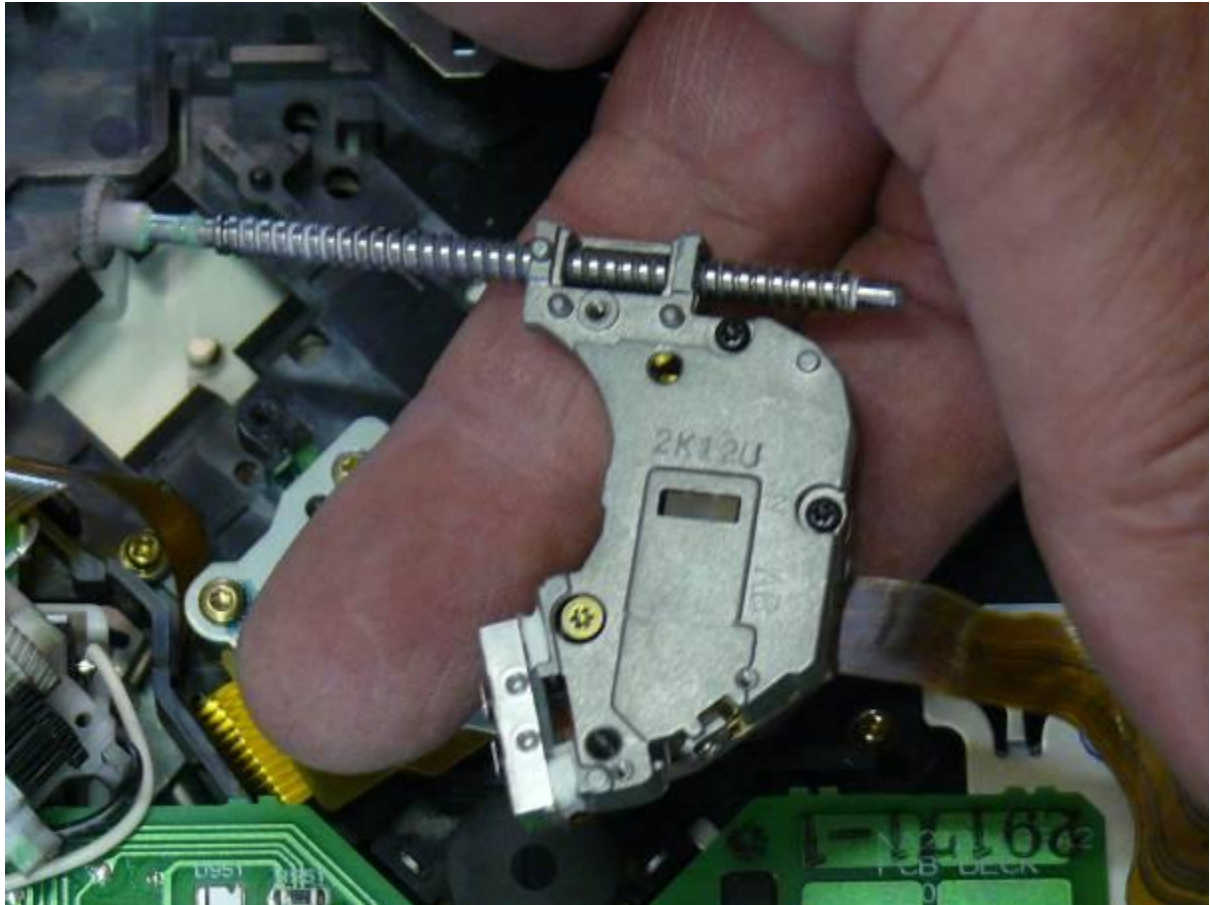
Prise out the motor mount (care required). Note that it is still connected via a ribbon cable that I did not remove. Just gently put the motor to one side.

The motor mount (and motor) is clearly visible in the photograph. Take care – the centre (white) gear has no retainer and so can drop from the mount and be easily lost.

With the motor mount removed a small clip holds the worm drive in the chassis.



And here, at last, the laser light is being lifted from the drive.



Just for the record, and to show the numbers, here are the two laser units, old and new. I have already fitted the worm gear to the new laser unit.



That's it!

Reassembling is a reversal of this process.