

What's inside? CD-DVD

One of the devices available perhaps everyone - is a device for reading optical disc - a CD or DVD ROM. This can be a computer DVD drive and portable CD player and radio with ability to listen to CDs and music center. The most annoying is that quite often these drives fail. You can certainly include a broken DVD drive repair but the cost of repair is nearly equal to the cost of the device itself, so it is not always economically profitable. Let's try to understand their inner workings, and perhaps this information will help you repair or simply be useful. So the design of CD DVD and BD drives are fundamentally the same they differ only in the laser beam itself - its wavelength and focusing precision. The principle of operation of similar devices for reproducing records where the needle is moving on the surface of the plate enters the recess and forces the membrane to oscillate with the only difference that here is used a laser beam which is subjected microglobuline on the surface of the information layer is reflected from them and enters the photodetector causing the appearance at its output a logical zero or a unit, depending on the pulse duration. Let's look at our drive and see how it works. We see the pan we placed the disc itself is driven by a conventional brushed motor through ronnaw or gear transmission. The extreme positions of the tray are defined by the respective closed or open contacts which he presses with special projections. Here lies the first common cause of faults is permanently stuck closed or jammed or oxidized contact due to which the actuator receives a signal to stop the engine tray and starts reading the disk. The engine driving the compact disc with friction lining on the spindle so that the disk could not slip under acceleration and braking. And directly laser head with a rack and pinion or worm gear may move in a direction from the disk center to its edge, and Vice versa. It is necessary to dwell on the device itself head. A centered laser diode red color in CD and DVD drives and blue to blue ray. Above him is a focusing lens are suspended on the elastic wires inside the coils - so that the feeding voltage to the coils - it is possible in a small range to change the focusing point of the beam for greater accuracy of reading. And here I want to mention several possible malfunctions of the first pollution of a lens in which the disks cease to be read or the drive they did not see it although normally spins.

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