

DISC DRIVE AND OPTICAL DISC DRIVE

ABSTRACT OF THE DISCLOSURE

An easily manufacturable optical disc drive that provides for accurate writing and reading of information signals to and from a disc loaded therein by maintaining
5 the horizontal balance of its base during operation, and that provides for smooth loading and unloading of a disc. The optical disc drive includes a base formed of a single metal plate of 1.4-1.8 mm thickness. Major components of the base (i.e., a disc rotation driving mechanism, an optical pickup and a pickup feeding mechanism) are disposed on the base in such a way that the total weight of these components is nearly
10 evenly distributed on the base. The optical pickup is adapted to move across an optical disc between its inner and outer circumferences, while the optical disc is rotated by the disc rotation driving mechanism. The base is supported by a plurality (i.e., at least three) of supporting members, each with an elastic support piece. These supporting members are disposed symmetrically with respect to a center line of the
15 base along the direction of the optical pickup's movement. The symmetrical disposition of these supporting members, together with the vibration absorbing nature of the elastic support pieces and the balanced weight distribution on the base, eliminates weight shifts/imbalance caused by the optical pickup movement, thereby maintaining the horizontal balance of the base at all time during operation of the
20 optical disc drive. The ease of manufacture can be achieved by selecting even numbers (e.g., four) of the supporting members for the base.

Fig. 4