



'A' Cable Grounding Change for Disk Subsystems

A lack of grounding on the disk 'A' cable sometimes causes a variety of error conditions, such as Unit Select problems, incorrect addressing, and servo clock or ECC errors. Many installations will not have these problems; they are most prevalent in daisy-chained or dual-ported configurations.

In the past, pins 30 and 60 of the SMD disk 'A' cable were considered spares, and were used for grounding between the disk controller and the disk drive. These pins are now used as Tag 4 and an Extended Cylinder Bit, leaving the 'A' cable without ground connections.

As a result of this pin reassignment, the SMD Disk Specification has been changed such that only shielded cables with proper ground attachments are now recommended for all controller-to-disk connections, regardless of the equipment configuration. Proper operation of ZETACO Disk Controllers can be ensured only by the use of shielded cables with pigtail grounding leads, or shielded cables with a separate ground braid as described below.

If you have not experienced any of the problems outlined above, there is no need to alter your existing cabling. For current installations with any of the above problems, the solution depends on the type of existing cabling.

If flat ribbon cables are in use, wrapping a 5/8" ground braid around each 'A' cable, at the rate of one turn per foot, and grounding the ends at the computer chassis, the disk drive, and between daisy-chained drives, MAY clear up the problems. However, the best course of action is to replace the flat ribbon with shielded cables that have pigtail grounding leads.

If shielded cables without pigtail grounding leads are in use, adding a 5/8" ground braid cable from the computer chassis to the disk drive (then between daisy-chained drives) should clear up the problems.

All of ZETACO's FCC-shielded disk cables manufactured after August 1, 1986 have pigtail grounding leads for connection to the computer chassis and the disk drive, or between drives. Reference the disk drive manufacturer's manual for directions on how to properly connect them.

To ensure proper grounding and system operation, use the ZETACO FCC cabling designed for your requirement. Contact a ZETACO Sales Representative for part numbers, pricing and delivery.