



## OPERATOR INTERFACE PRODUCTS APPLICATION NOTE

Subject: Mounting and Grounding

AN# 1042A

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Description: General Mounting and Grounding Information of Xycom OIF Products

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Several important factors should be addressed before mounting a Xycom terminal into an enclosure.

First, the location of the enclosure is important. It should be in an area free of high EMI. If high levels of EMI exist, proper shielding precautions should be made.

Another issue is grounding. A wide variety of problems can occur when proper grounding techniques are not used. A ground path from the Xycom chassis to the enclosure chassis is recommended. A ground wire connected from any hex screw on the metal portion of the terminal chassis (not one of the front panel mounting studs) to the enclosure ground will insure that no ground potential exists between them. If the terminal is mounted in an enclosure door, the ground wire from the terminal should run to the door. Then an additional ground wire should run from the enclosure door to the enclosure chassis. It is important to note that the enclosure chassis and the AC line should have a common ground. Another grounding issue is the PLC communications cable. The cable itself should be shielded. The communications cable should be grounded on the Xycom terminal side. The PLC side of the cable should not be grounded as this may cause a ground loop condition to exist.

Finally, in accordance with National Electrical Code specifications, it is recommended that te high voltage and low voltage cabling be separated and dressed apart. In particular, the AC cables and switch wiring should not be in the same conduit with the PLC communication cables and video cables.