

# Engineering Standards and Technology

## Grounding Recommendations

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### Panels

Patch only panels with an IFC cable, containing no metallic materials, does not need the cable grounded at the panel.

If the panel itself needs to be grounded, scrape some paint from the panel and the frame at the point of contact where a ground wire running from the frame to the panel makes contact. If an isolation kit was used when the frame was mounted to the floor, the frame will need a ground wire from the frame to a common ground.

Patch and splice panels with an OSP armored cable, where the metallic armoring (shield) is entering from the exterior of the building to the panel, will need to be grounded at the panel.

After the shielding has been removed back to the green cable clamp used for mounting the cable to the panel, install a shield bonding clamp to the metallic shield. Then, connect a ground wire from the bonding clamp to the appropriate building ground.

No metallic material should make contact with the panel when not grounding to the frame.

### Cabinets

Patch only cabinets, with a non-armored cable being spliced outside the cabinet, the cabinet will need to be the only thing grounded.

Using the ground bar mounted in the cabinet, install a ground wire from the ground bar to a ground rod. The ground rod will also be used to ground any metallic armored (shielded) cable that will be spliced to the terminated cable coming from the cabinet.

Patch and splice cabinet, with an OSP armored cable where the metallic armoring (shield) is continuous entering into the cabinet will need to be grounded to the cabinet ground bar.

After the shielding has been removed from the cable entering the cabinet back to the liquid tight strain relief fitting, attach a shield bond to the metallic shield and install a ground wire from the bond to the cabinet ground bar. The ground bar will need to be installed with a ground wire connecting the ground bar to the ground rod.

Patch and splice cabinet with ground box will be grounded the same as the patch and splice cabinet, with an additional ground wire being installed from the cabinet ground bar to the ground box ground bar.

### Wall Boxes

Exterior and interior wall boxes can be grounded using the wall box ground lug.

A ground wire will need to be installed from the lug to the appropriate ground; this could be a ground rod, building steel, water pipe or the buildings common ground. If armored cable enters the panel, it will need to be grounded using the same steps as OSP cabinets.

Clearfield's ground bonding kit part number is FMA-JZZ.