
Grounding Instructions

Non-Lightning Prone Areas

Standalone System:

Standalone systems in non-lightning prone areas require no ground rod. The case of the controller must be grounded from the conduit nipple of the transformer to earth or safety ground in accordance with the local or National Electrical Code.

Standalone systems are defined as individual controllers installed and connected only to valves and sensors. If multiple controllers are connected together in any way, such as but not limited to sharing master valves, flow meters, or communications, this is not a standalone system. The only exception is that standalone controllers may share the same AC power line wiring.

Central Communications or Shared Systems (Non-Standalone)

Install one 5/8" x 8' grounding rods per irrigation controller (see diagram). Do not connect multiple controllers to the same ground rod. The top of each rod should be installed inside of a 10" round valve box. If a pedestal is being mounted, the ground rod may be installed through the pedestal base. The ground rod should be installed as close as practical to the controller. Under no circumstances shall the rods be shortened.

Use brass clamps specifically designed to secure the copper wire to the grounding rods. Sand both the rod and the inside of the clamp to remove all oxide from the contact surfaces.

Connect a # 6 AWG solid copper wire from the copper rod to the field common (white wires in the black harness) of the controller.

WARNING: Never connect the ground rod or the white wire (field common) to the black wire (flow return) of the black wiring harness. This will disable the over current protection, and could result in damage to the controller.

Lightning Prone Areas

All Systems, Standalone, and Central Communications Systems:

Install one 5/8" x 8' grounding rod, one TP-1 Transient Protection Board, and one TP-110 Surge Protector per irrigation controller (see diagram). Do not connect multiple controllers to the same ground rod. The top of each rod should be installed inside of a 10" round valve box. If a pedestal is being mounted, the ground rod may be installed through the pedestal base. The ground rod should be installed as close as practical to the controller. Under no circumstances shall the rods be shortened.

Use brass clamps specifically designed to secure the copper wire to the grounding rods. Sand both the rod and the inside of the clamp to remove all oxide from the contact surfaces.

Connect a #6 AWG solid copper wire from ground lug of the TP-1 to the copper rod. There should be no kinks or sharp bends in the wire.

As an alternative to clamping, each wire may be wrapped around the rod and brazed in place. Braze the wire to the rod for at least one circumference of the rod.

Lightning Warranty:

This standard warranty will be extended to cover lightning damage if the controllers and/or central system is installed in accordance with our installation instructions for each item installed, the National Electric Code, and these grounding instructions.

