ZoneBarrier range

Din rail mount protection system

CAUTION

IMPORTANT SAFETY INSTRUCTIONS

1. Never install telephone wiring during a lightning storm.
2. This product is intended for INDOOR USE ONLY.
3. Secondary Protectors are intended for use on the equipment side of a listed UL 497 Protector.
4. Primary Protectors are intended for use at the cable point of entry.
5. Risk of Electric Shock- Protector is not to be used without the arrestor assembly installed.
6. The Protector is a one or two pair Protector. Applications that use more will not function.

Installation

1. Read and understand all instructions.
2. The ZBS modules can be installed individually, mounting to any flat surface using the two screw holes. ZBS modules can also be installed on a Din Rail.

In planning an installation, location of the ZBS unit in close proximity to the correct ground point is essential for protection performance. The correct ground point is defined as the ground reference used by the system to be protected. In most applications this is AC power ground. MINIMIZE the distance between the ZBS unit and the identified ground point to the INCH.

Stand-alone installation

3. To install the ZBS unit as a stand-alone unit, attach a ground wire (minimum #10 AWG for Primary Protector, minimum #14AWG for Secondary Protector) to the ring terminal provided. Using the self tapping screw provided, attach the ring terminal to the base of the unit. Using screws (or bolts) as appropriate, mount the unit to the flat surface (see figure 1).

MOUNTING AND GROUNDING ON A DIN RAIL

4. To install a ZBS surge protector on a Din Rail, locate the Din Rail foot over the Din Rail and securely push the brass clip onto the Din Rail. Rotate downward and push the ZBS onto the Din Rail until the latch snaps on to the rail. (see figure 2).

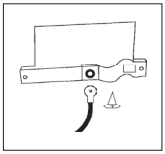

Figure 1

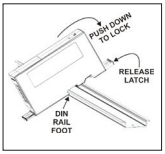

Figure 2

To remove a module, gently pull the release latch forward and rotate the ZBS upward off of the Din Rail. The surge protector is now securely grounded to the Din Rail. An existing or customer supplied Din Rail can be used providing the rail is securely connected to the correct ground (see grounding section).

5. The 19" Din Rail assembly can be mounted onto any surface using the four mounting slots provided. The 19" Din Rail assembly will hold up to 16 ZBS surge protectors. Use the same 19" Din Rail assembly for 19" rack mounting. The 5" Din Rail assembly is used for mounting up to 4 ZBS surge protectors. Mount the rail to any surface using the two mounting holes provided. NOTE: The Din Rail must be grounded, see grounding section.
6. Any combination of ZBS modules can be employed as required.
7. Connect the incoming line to the port marked "unprotected" on the ZBS module. Run cable from the ZBS port marked "protected" to the equipment to be protected. Additional instructions are provided below for connecting to terminal strips. Note: Always use the supplied patch cable on the protected side of the suppressor. Patch cable wire size must not exceed #24AWG.
8. Connect a green ground wire from the Din Rail or from the ZBS unit to the identified grounding point (see grounding section). Primary Protectors require a minimum #10AWG, Secondary Protectors require a minimum #14AWG.

CAUTION

The current limiting feature of telephone suppressors could be rendered inoperable if the supressor is improperly installed.

9. Save these instructions.

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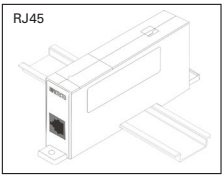
Grounding
The Din Rail grounding stud must be connected to the ground reference used by the system being protected. In a computer room environment this grounding point may be the ground bar in the AC power panel. Ground leads longer than 12" are not recommended.

⚠	**WARNING:** The grounding lead must be as short as is practically possible. Minimize length to the inch. The ground wire should be a minimum #14AWG for Secondary Protector applications and Primary Protector applications require a minimum #10AWG.

Independent grounds
Surge protection devices must **not be connected** to independently derived grounds.

Wiring instructions
All ZoneBarriers are clearly labeled with one end marked "Protected" and one end marked "Unprotected". Connect field cables to the unprotected side. Connect cables from equipment to be protected to the end marked protected.

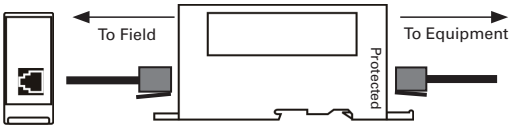
Models



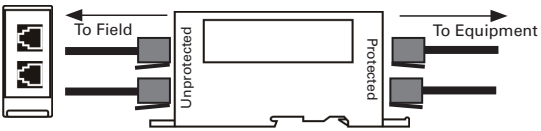
RJ45/Coaxial interface ZoneBarriers:

1. Simply connect the patch cable between the protected side of the ZoneBarrier and the equipment to be protected.
2. Connect the field cable to the unprotected side of the ZoneBarrier
3. NOTE: All RJ45 models universally accept RJ11 jacks

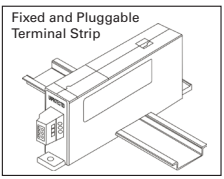
Examples



RJ45 Protector — ZB24540 illustrated



RJ45 Protector — ZB24550 dual port illustrated



ZoneBarriers with pluggable headers

Modules that use removable Terminal Strip connectors are keyed to be inserted one way only. Do not force a connector into its header the incorrect way.

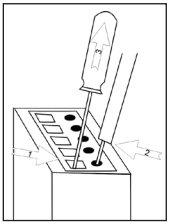
All ZoneBarriers with cage clamp terminals (fixed and pluggable)

The cage clamp mechanism used on these modules offers THE MOST SECURE wire connection available. The quality of connection is significantly better than standard screw terminals.

1 Insert a small screwdriver into the rectangular hole. Push screwdriver in and lever away from circular hole with moderate force.
This will open the wire cage clamp

2 Insert stripped wire into circular hole.

3 Remove screwdriver. The wire is now secure.

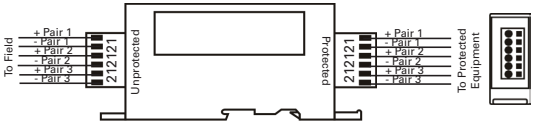


Cage clamp terminal strip ZoneBarrier models

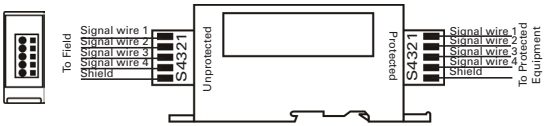
These models are available in 2-wire, 3-wire, 4-wire 5-wire and 6-wire versions. Each end of the ZoneBarrier is clearly marked with the terminals use (see below).

1. Connect field wiring to the labeled terminals on the unprotected side of the ZoneBarrier.
2. Connect the equipment wiring to the correspondingly labeled terminals on the protected side of the ZoneBarrier.

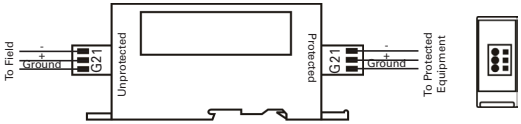
Examples



6-wire protector — ZB24542 illustrated



4-wire + shield protector — ZB24509 illustrated



2-wire + ground protector — ZB24518 illustrated

Useful information - on voltage ratings

Vbo Ratings	
ZB24528	6V
ZB24543	40 - 50V
ZB24544	40 - 55V
ZB24545	100 - 125V
ZB24546	20 - 25V
ZB24558	19 - 21V
ZB24588	19 - 21V
ZB91264	19 - 21V
ZB90651	60 - 80V

If devices are received damaged, please notify the transportation company.
Please retain all containers and packing materials for inspection.

NOTE:
The protected device should also have AC suppression or it will still be vulnerable to transients from the incoming AC power. This can show up as failures on the communication interface.

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