

SMARTSERIES

HIGH SPEED NETWORK SURGE PROTECTION

RJ45-S



MODEL: RJ45-S

INSTALLATION MANUAL

THOR

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The Thor Technologies RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION is a 100/1000MB RJ45 Ethernet Cat5 (and above) protector with PoE support.

It simply installs in-line on an RJ45 Cat5 (and above) cable. Originally Installed Cabling must be Ethernet Cat5 (and above).

The RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION can be Din Rail mounted

The RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION has two RJ45 female jacks, so the in-line installation is a very easy and straight forward.

It protects any Ethernet devices like switches, routers, laptops / PCs, IP Camera, and IP Phones etc. from potential damaging surges caused by line induced spikes and surges, static electricity and earth potential rise incidents.

Moreover, because of PoE feature it allows PoE enabled devices to remain powered while still being protected against damaging spikes and surges.

IMPORTANT

Things are crucial and should not be missed when using the RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION Ethernet surge protector:

1. Correct positioning: **IN** jack on the unprotected part of cable and **OUT** jack on the protected side of cable. Reversed installation will still allow network traffic and operation but there will be no surge protection at all!
2. For any surge protection device to operate efficiently proper grounding is of paramount importance. Proper grounding: please note the yellow/green ground wire. This wire must be connected to proper electrical ground (earth) in the building and kept to being as short as possible from the connection point on the RJ45 S to the earth point in the building or external point being used.
3. If connecting to Phone Systems
Data cabling systems normally use RJ45 connectors. These have eight pins. Many analogue phones, however, are fitted with an RJ11 connector. These are smaller and have four pins. It's easy to insert an RJ11 plug into an RJ45 socket and it will probably work for a voice connection if the other end of the link has the right wiring or the correct adapter. **DO NOT DO THIS** because it may damage the RJ45 socket. The right way to use an RJ11 connector in a data cabling system is use an RJ11 to RJ45 adapter or cable RJ12 6P/4C to RJ45 8P/4C.



You should use either a cable RJ12 6P/4C to RJ45 8P/4C or an RJ45 8P8C Male TO RJ11 6P4C Female F/M Adapter

The RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION is designed to protect individual LAN Lines / Products. Best results are on a single connection, but this may not be practical in larger installations. The maximum recommended number of single EARTH wire RJ45 S SINGLE SMARTSERIES NETWORK PROTECTION units to be connected to a common earth point is 8 (see images on the other pages for suggested wiring methods).

Note 1: If more than 8 units are to be connected it is strongly suggested that you need to run a separate earth bonding wire (or consider using a rack unit **RJ45-16 16WAY**.)

Note 2: The screw, star washer and nut must be "M4" to meet earth wiring regulations. Recommend stainless steel 304 or 316.

WIRING EARTH PINS ON MULTIPLE UNITS TO A SINGLE WIRE

The EARTH wire should be positioned at a central point to provide as much as possible a balanced earth path.

The nut and washer locking the individual earth wire lugs must be individually tightened to be as tight as physically possible. Each lug must be secured by an individual washer and nut.

Note: The Earth path must have the least resistance and maximum contact to be effective. It is not recommended to just wire an earth lug and combine all the individual RJ45 S Earth lugs as a single connection on a screw support by one washer and nut.

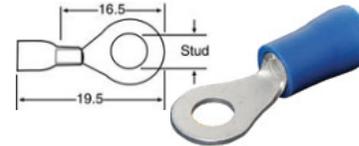
RECOMMENDED SPECIAL HARDWARE PARTS FOR EARTHING



- Product Code: CLIPSAL 463SAS or similar brand



- 24/0.20 Green/Yellow Tinned Earth Heavy Duty Hook Up Cable
- 32 strand, 17AWG heavy duty, high current tinned copper wire with a PVC insulator suitable for indoor 240V and heavy duty wiring.
- Size: 1 x 32/0.20
- Voltage Rating: 300V AC
- Current Rating: 10 Amps
Outside Diameter: 2.55mm



- Blue 4mm Ring Crimp Pk 10
- Wire: 1.5 - 2.5mmØ
- Stud: 4mm
- Max. voltage: 600V



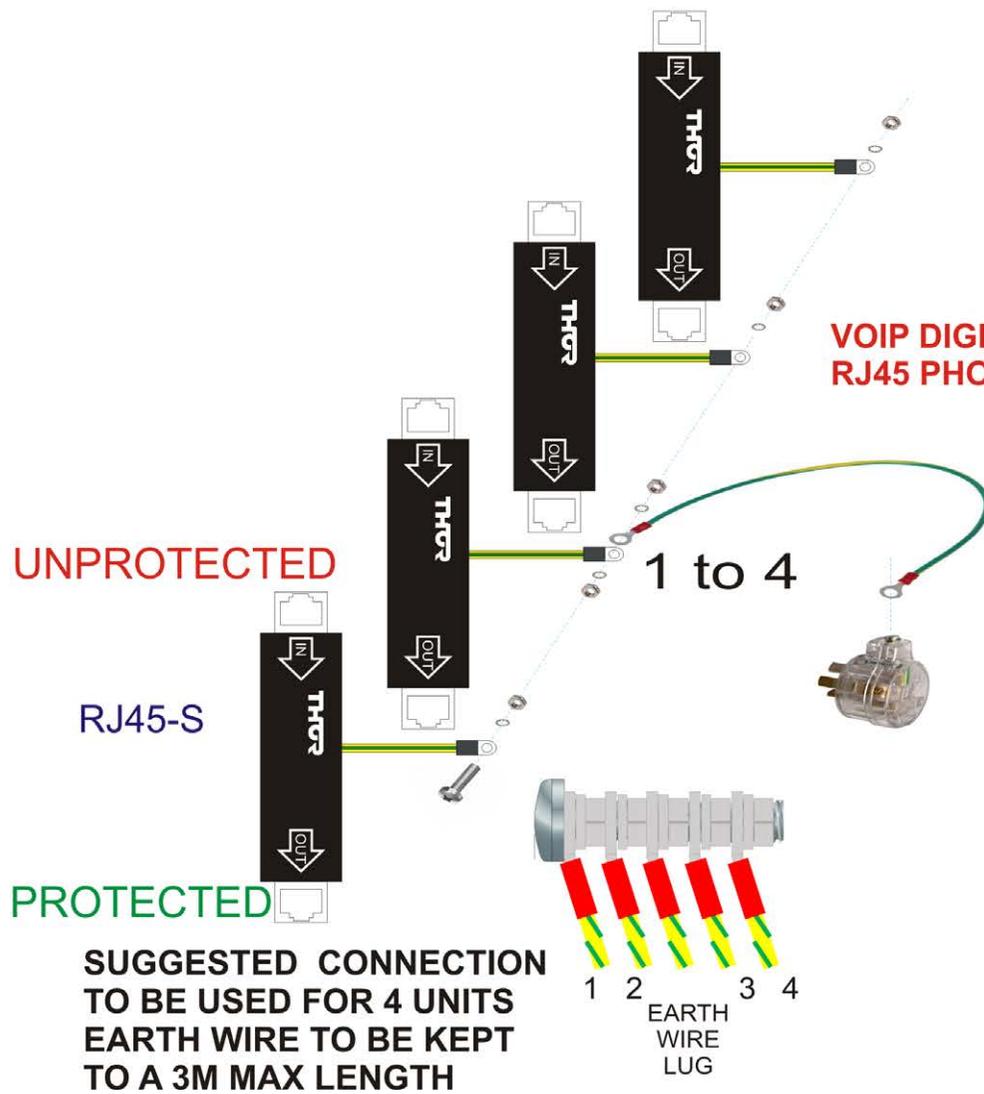
- Stainless Steel AS304 or Similar
 - ⊕ SCREW M4 12mm - 50mm depending on the number of units being installed to earth wire
 - ⊕ Single 12mm or 16mm#
 - ⊕ Dual 16mm or 20mm#
 - ⊕ Quad (4) 25mm or 30mm#
 - ⊕ Octo (8) 50mm#
 - # Larger size recommended
- STAR SHAKE PROOF WASHER to Suit M4 Screw
- NUT M4 - Max Thickness 3.2mm or you may need longer screws

SINGLE INSTALLATION WITH DUAL PROTECTION

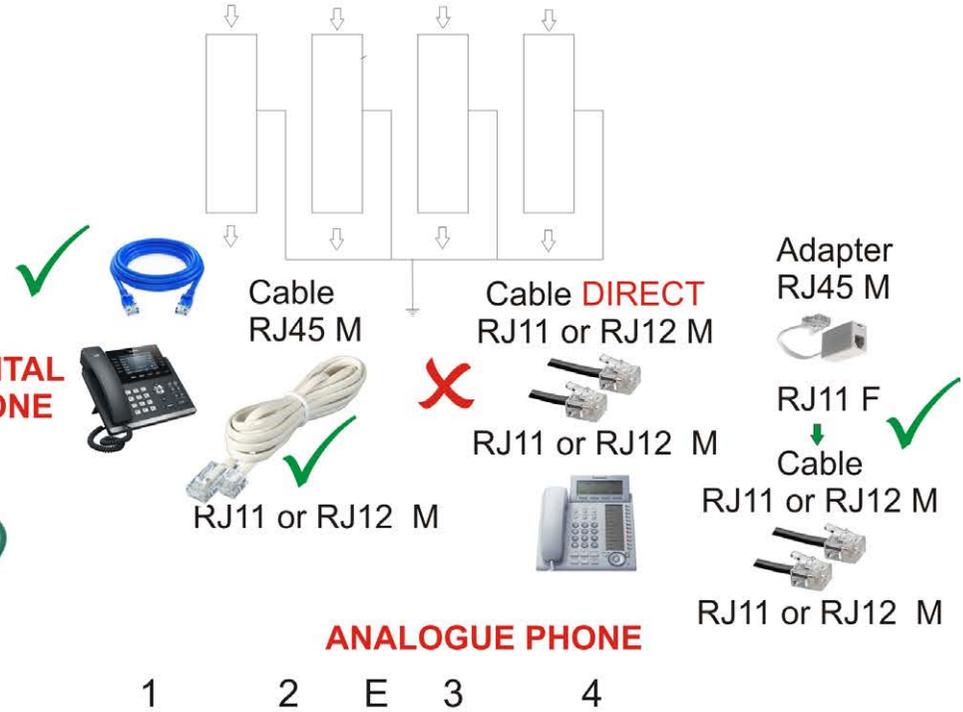


For product only protection follow wiring guide as per '1' for protection at both ends follow wiring guide for both '1 & 2'

4 UNIT INSTALLATION

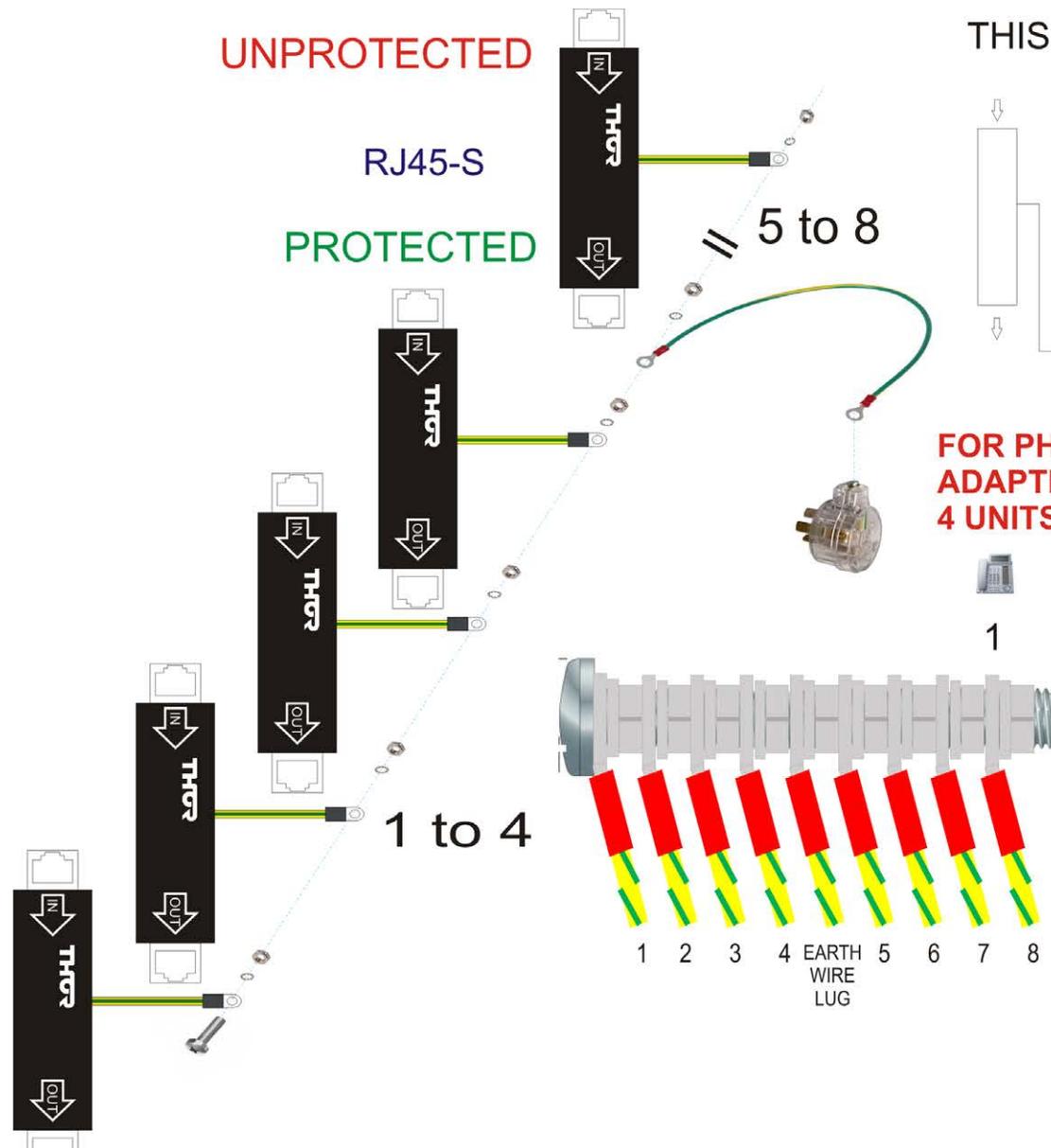


THIS UNIT CAN BE DIN RAIL MOUNTED

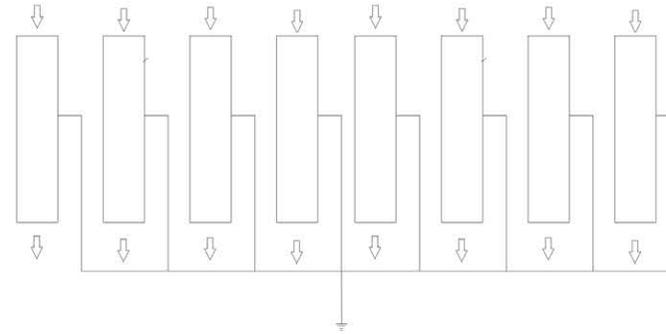


IT IS NOT RECOMMENDED THAT YOU CONNECT THE RJ11 M OR RJ 12 M CONNECTOR DIRECTLY INTO THE LAN-RJ45-S... THIS MAY DAMAGE PINS 1 & 8 IN THE SOCKET

8 UNIT INSTALLATION



THIS UNIT CAN BE DIN RAIL MOUNTED



FOR PHONE CONNECTION SPECIAL CABLES AND/OR ADAPTER IS RECOMMENDED SEE DRAWING FOR 4 UNITS ON THE PREVIOUS PAGE FOR THE INFORMATION



SUGGESTED CONNECTION TO BE USED FOR 8 UNITS EARTH WIRE TO BE KEPT TO A 3M MAX LENGTH

THOR

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AUSTRALIAN DESIGNED
AND ENGINEERED
Made in China