



## LPS® TP Series

### INSTALLATION INSTRUCTIONS

The **LPS® TP Series** are Surge Protective Device (SPD) for Unshielded Twisted Pair Cables. The Standard Clamping voltage is:

- ▶ 220V for TP-2TEL & TP-4TEL
- ▶ 9.5V for TP-Cat 6 & TP-4/5
- ▶ 22V for TP-4/12
- ▶ 30V for TP-4/24

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### INSTALLATION PROCEDURES AND SAFETY PRECAUTIONS

1. Do not install during thunderstorm.
2. Turn off power supply to all equipment to be protected.
3. Verify that the equipment chassis is earthed.

4. Connect the ground wire cable lug of the SPD to the metal chassis of equipment by:
  - i. Removing a screw on the metal chassis that is within reach of the ground wire.
  - ii. Removing any paint around the screw hole.
  - iii. Tighten screw with ground wire cable lug under it.
  - iv. If equipment has no metal chassis, connect the ground wire to the nearest power socket earth/earthed metal equipment rack/earthed metal bracket which support the equipment.

5. Cut and ensure that the incoming Data Line is less than 1 metre away from the equipment.

6. Strip about 50 mm of cable jacket to expose wires.

7. Strip about 6 mm of wire insulator to expose conductor and then:

8. **For TP-2TEL:**  
Connect the two (2) incoming Data Lines to the

two (2) L in the centre of LINE terminal of the SPD. Then, connect the two (2) equipment data lines to the two (2) L in the centre of EQUIPMENT terminal of the SPD following the same procedures used in steps 6 and 7.

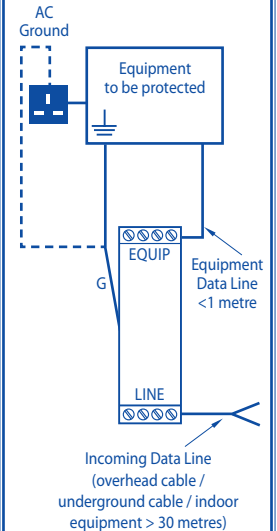
9. **For TP-4TEL, TP-4/5  
TP-4/12 and TP-4/24:**

Connect the four (4) incoming Data Lines to the four (4) LINE terminal of the SPD. Then, connect the four (4) equipment Data Lines to the four (4) EQUIPMENT terminal of the SPD following the same procedures used in steps 6 and 7.

10. **For TP-Cat 6:**  
Plug in the RJ45 Connector of the incoming Cat 6 Cable to the LINE RJ45 modular jack. Then connect a jumper cable with RJ45 Connector to the EQUIPMENT RJ45 modular jack of the SPD.

11. Apply power to the now protected equipment.

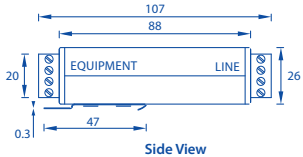
### IMPORTANT NOTES



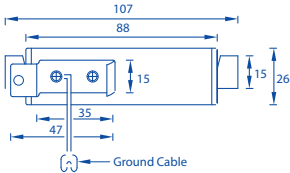
- ▶ All LPS Product must be connected to Power Earth, directly or indirectly.
- ▶ All connecting leads must be as short and as straight as possible. The SPD must be less than 300 mm away from the equipment to be protected.

*(Lines protected)*

<b>TP-2TEL</b>	- 2 Centre Terminals
<b>TP-4TEL</b>	- 4 Terminals
<b>TP-4/5</b>	- 4 Terminals
<b>TP-4/12</b>	- 4 Terminals
<b>TP-4/24</b>	- 4 Terminals



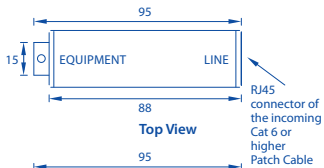
Side View



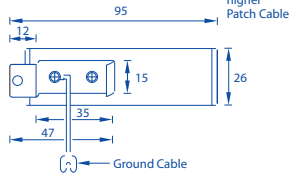
Back View

*(Lines Protected)*

<b>TP-Cat 6</b>	- Pins 1, 2, 3, 6: Signal
	- Pins 4, 5, 7, 8: Power



Top View



Back View

## TROUBLE-SHOOTING

1. Check to see if the equipment is turned on.
2. Inspect all connections.
3. Remove and by-pass SPD and verify proper operation. If the system comes back online without the SPD installed, it would most probably be that the SPD has been damaged by excessive surge. Replace the SPD as soon as possible with a new SPD. It is not advisable to run the system without SPD.



## 5 YEARS LIMITED WARRANTY

The LPS® Surge Protective Devices (SPD) manufactured by Lightning Protection System Sdn. Bhd. of 42-4, Jalan Kuchai Maju 10, Kuchai Entrepreneur's Park, 58200 Kuala Lumpur, Malaysia, meets the ISO 9001 Quality Management System.

LPS® warrants to the original purchaser that the LPS® products shall be free of defects in design, material or workmanship. LPS® will, at its option, repair or replace, free of charge, any properly installed LPS® SPD device that is damaged by lightning induced surge for a period of five years. This warranty does not cover damaged associated with improper installation sustained over voltage, vandalism, theft, normal wear and tear, obsolescence, abuse, unauthorised modification or alteration, misuse, or catastrophic events. Except as expressly provided by this warranty, LPS® disclaims liability for any incidental, indirect, special or consequential damages arising out of the sale or use of any LPS® SPD products (including without limitation lost of business profits, loss of data and all freight, mileage, travel time and insurance charges associated with warranty coverage claims). All claims must be made within thirty (30) days and warranty seals must not be tampered.

Kindly take note that customer has to send the 'damaged' LPS® SPD back to our Marketing Office and to collect it at own expense for product warranty claims.



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