# MTL RackShield range

# **Communication Transient Voltage Surge Suppressor**

# INTRODUCTION

The RackShield is a modular data/telephone communications transient suppression system specifically designed to protect the communication I/O ports on sensitive equipment from the harmful effects of transient voltages and surges caused either externally by sources such as lightning and utility load switching or internally by electrostatic discharge (ESD) or even a user's own equipment. The RackShield Series can incorporate up to 12 protection modules that can be individually configured to meet a wide variety of standard communications protocols including RS232, RS422, RS485, Lease Line Telephone Networks (LLTN) and Public Switched Telephone Networks (PSTN).

# IMPORTANT SAFETY INSTRUCTIONS



# WARNING

Never install external data communication wiring during a lightning storm.



# WARNING

This product is intended for INDOOR USE ONLY.

# INSTALLATION

- 1. Read and understand all instructions.
- Slide modules into any open bay and press firmly to ensure that the module locks into place.
- To remove module apply pressure to the release mechanism under the unit and gently pull out.
- Mount the enclosure in a 19" rack or to the wall by removing and rotating the mounting brackets.
- Route the data communication line(s) from the equipment and connect the line to the "OUT" connector(s) on the enclosure.
- Route the line side of the data communication line(s) and connect this line to the "IN" connector(s) on the enclosure.
- 7. Be sure to keep the protected and unprotected lines separated.
- 8. Connect the ground to the enclosure ground stud (see grounding section).

# 9. SAVE THESE INSTRUCTION

Modules easily slide-in to the RackShield and



Eaton Electric Limited,

Great Marlings, Butterfield, Luton Beds, LU2 8DL, UK. Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283 E-mail: mtlenquiry@eaton.com www.mtl-inst.com

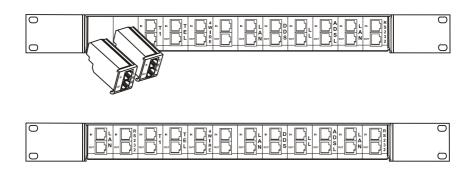
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ground automatically (provided that the rack housing ground wire is connected to the same reference used by the system being protected).

Please refer to the section on grounding.



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## **GROUNDING**

All transients are taken to the RackShield enclosure ground stud.

The RackShield ground must be connected to the same AC ground reference used by the system being protected. The RackShield must also be located as close as possible to the system being protected. (i.e. communication adapter, CRT, etc.) The ground lead should be as short as possible. It must be at least No. 14AWG wire with no bends of less that a two inch radius

The RackShield ground stud must be connected to the same reference point used by the AC power line transient suppressor. This is the power safety ground wire (green wire) such as in an AC receptacle.

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

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

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# CROUSE-HINDS

#### **AUSTRALIA**

MTL Instruments Pty Ltd, 10 Kent Road, Mascot, New South Wales, 2020, Australia Tel: +61 1300 308 374 Fax: +61 1300 308 463

#### BeNeLux

MTL Instruments BV Ambacht 6, 5301 KW Zaltbommel The Netherlands Tel: +31 (0) 418 570290 Fax: +31 (0) 418 541044

#### CHINA

Cooper Electric (Shanghai) Co. Ltd 955 Shengli Road, Heqing Industrial Park Pudong New Area, Shanghai 201201 Tel: +86 21 2899 3817 Fax: +86 21 2899 3992 E-mail: mtl-cn@eaton.com

### FRANCE

MTL Instruments sarl, 7 rue des Rosiéristes, 69410 Champagne au Mont d'Or France Tel: +33 (0)4 37 46 16 53 Fax: +33 (0)4 37 46 17 20

lei: +33 (0)4 37 46 16 53 Fax: +33 (0)4 37 46 17 20 E-mail: mtlfrance@eaton.com

### GERMANY

MTL Instruments GmbH, Heinrich-Hertz-Str. 12, 50170 Kerpen, Germany Tel: +49 (0)22 73 98 12- 0 Fax: +49 (0)22 73 98 12- 2 00 E-mail: csckerpen@eaton.com

#### INDIA MTL India

No.36, Nehru Street, Off Old Mahabalipuram Road Sholinganallur, Chennai- 600 119, India Tel: +91 (0) 44 24501660 /24501857 Fax: +91 (0) 44 24501463 E-mail: mtlindiasales@eaton.com

# ITALY

MTL Italia srl, Via San Bovio, 3, 20090 Segrate, Milano, Italy Tel: +39 02 959501 Fax: +39 02 95950759 E-mail: chmninfo@eaton.com

### JAPAN Cooper Crouse-Hinds Japan KK,

MT Building 3F, 2-7-5 Shiba Daimon, Minato-ku, Tokyo, Japan 105-0012
Tel: +81 (0)3 6430 3128 Fax: +81 (0)3 6430 3129 E-mail: mtl-jp@eaton.com

#### NORWAY

Norex AS Fekjan 7c, Postboks 147, N-1378 Nesbru, Norway

Tel: +47 66 77 43 80 Fax: +47 66 84 55 33

#### RUSSIA

Cooper Industries Russia LLC Elektrozavodskaya Str 33 Building 4 Moscow 107076, Russia

Tel: +7 (495) 981 3770 Fax: +7 (495) 981 3771

E-mail: mtlrussia@eaton.com

## SINGAPORE

Cooper Crouse-Hinds Pte Ltd No 2 Serangoon North Avenue 5, #06-01 Fu Yu Building Singapore 554911

Tel: +65 6 645 9864 / 5 Fax: +65 6 487 7997 E-mail: sales.mtlsing@eaton.com

# SOUTH KOREA

Cooper Crouse-Hinds Korea 7F. Parkland Building 237-11 Nonhyun-dong Gangnam-gu, Seoul 135-546, South Korea.

Tel: +82 6380 4805 Fax: +82 6380 4839 E-mail: mtl-korea@eaton.com

### UNITED ARAB EMIRATES

Cooper Industries/Eaton Corporation Office 205/206, 2nd Floor SJ Towers, off. Old Airport Road, Abu Dhabi, United Arab Emirates

Tel: +971 2 44 66 840 Fax: +971 2 44 66 841 E-mail: mtlgulf@eaton.com

### UNITED KINGDOM

Eaton Electric Limited, Great Marlings, Butterfield, Luton Beds LU2 8DL

Tel: +44 (0)1582 723633 Fax: +44 (0)1582 422283 E-mail: mtlenquiry@eaton.com

### AMERICAS

Cooper Crouse-Hinds MTL Inc. 3413 N. Sam Houston Parkway W. Suite 200, Houston TX 77086, USA Tel: +1 281-571-8065 Fax: +1 281-571-8069 E-mail: mtl-us-info@eaton.com



### Eaton Electric Limited,

Great Marlings, Butterfield, Luton Beds, LU2 8DL, UK. Tel: + 44 (0)1582 723633 Fax: + 44 (0)1582 422283 E-mail: mtlenquiry@eaton.com www.mtl-inst.com

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# EUROPE (EMEA):

+44 (0)1582 723633 mtlenquiry@eaton.com

# THE AMERICAS:

+1 800 835 7075 mtl-us-info@eaton.com

## ASIA-PACIFIC:

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