

# Connecting 552-GS2 to CL1300 Series

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## *Quick Start Guide for MDOT SHA*



**Important**—This is a Class A device and is intended for use in a light industrial environment. It is not intended nor approved for use in an industrial or residential environment.

Part Number: 50000045, Rev. A  
Revised: November 15, 2019

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- This device contains no user serviceable parts. The equipment shall be returned to Patton Electronics for repairs or repaired by qualified service personnel.
- Do not work on the system or connect or disconnect cables during periods of lightning activity.
- This product will not provide complete protection should your equipment or building be subject to a direct lightning hit.

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## 1.0 Introduction

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There are many threats to CopperLink CL1300 Series devices: lightning, AC power induction, electrostatic discharge, ground potential differences, EMI/RFI interference and more. The Patton Model 552 has been designed to greatly reduce these risks.

Patton's Connect-IT Model 552 (see **figure 1**) connects directly between twisted-pair CopperLink Line cables and their respective I/O ports. Grounding is accomplished using an external ground strap that provides a separate unit-ground to chassis-ground connection. By shunting threatening voltages directly to chassis ground, the Model 552-GS ensures data integrity and protects connected equipment from damage.



**Figure 1.** Connect-IT Model 552-GS2

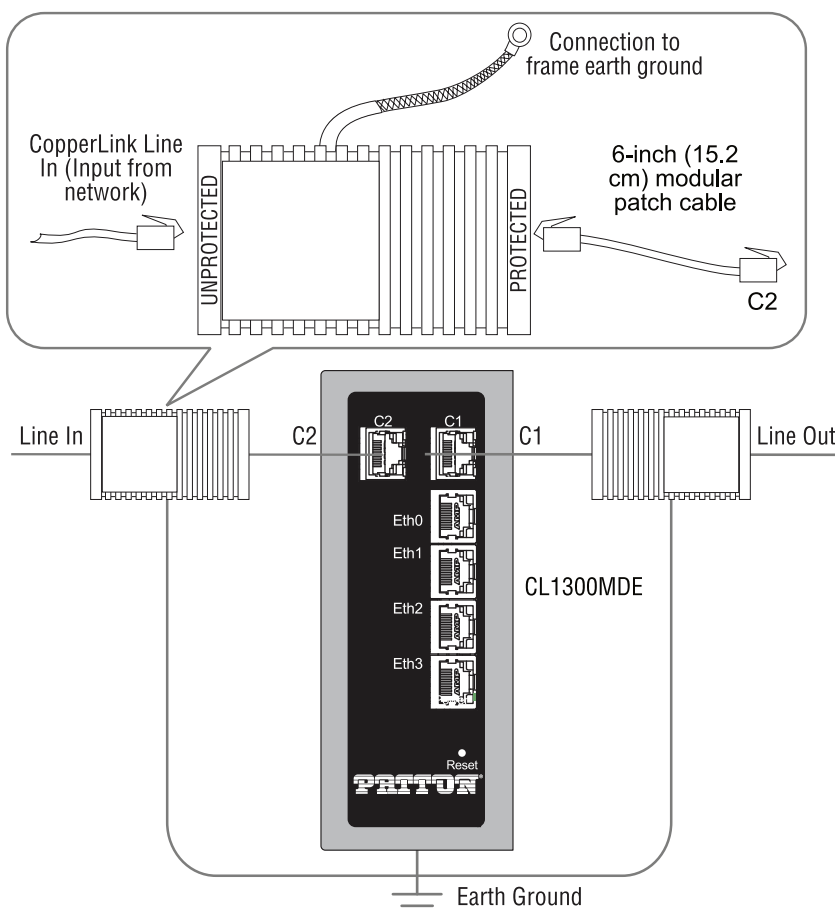
Refer to the following sections to install the 552-GS2 onto the appropriate CL1300 Series device:

- Section “Installing the 552-GS2 surge protectors to CL1300MDE” on page 3.
- Section “Installing the 552-GS2 surge protectors to CL1300R” on page 4.

## 2.0 Installing the 552-GS2 surge protectors to CL1300MDE

Do the following:

1. If it is already connected, unplug (disconnect) the existing connection between the CopperLink Line In cable and the CL1300MDE's C2 port (see **figure 2**).
2. Connect the Line In cable to the side of the 552 labeled *UNPROTECTED*.
3. Connect the 6-inch (15.2 cm) modular patch cable between the side of the 552 labeled *PROTECTED* and the CL1300MDE port C2.
4. If possible, attach the braided ground strap's ring terminal to the same earth grounding source as the CL1300MDE is using. Otherwise use a grounding electrode such as a ground rod, water pipe, building steel, etc.



**Figure 2.** Connecting the 552-GS2 to a CL1300MDE



CAUTION

Do not over-tighten the ground connection.

5. If it is already connected, unplug (disconnect) the existing connection between the CopperLink Line Out cable and the CL1300MDE's *C1* port.
6. Connect the Line Out cable to the side of the 552 labeled *UNPROTECTED*.
7. Connect the 6-inch (15.2 cm) modular patch cable (supplied) between the side of the 552 labeled *PROTECTED* and the CL1300MDE port *C1*.
8. If possible, attach the braided ground strap's ring terminal to the same earth grounding source as the CL1300MDE is using. Otherwise use a grounding electrode such as a ground rod, water pipe, building steel, etc.

Congratulations! The surge protectors are installed.

If there are additional CL1300MDE devices to protect, repeat steps 1 through 8 until all 552-GS2 surge protectors have been installed according to the topology that is being used. Then go to section "Connecting the 10/100Base-T Ethernet Interfaces" in the *CopperLink™ Model CL1300MDE Long Range Ethernet Extender User Manual*.

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### 3.0 Installing the 552-GS2 surge protectors to CL1300R

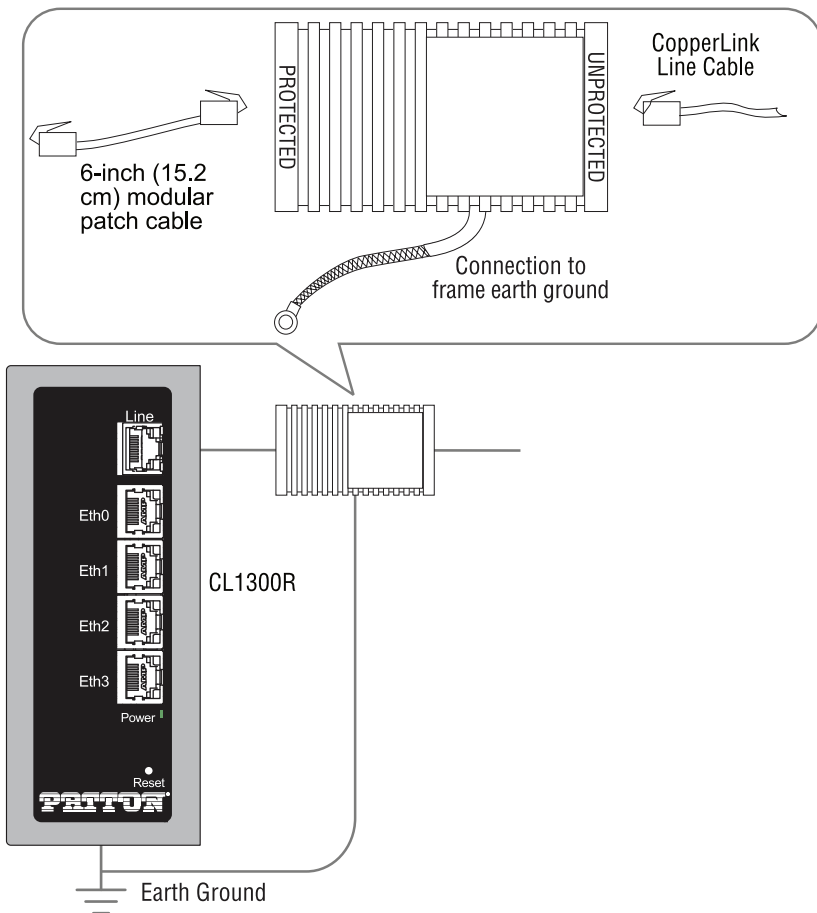
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Do the following:

1. If it is already connected, unplug (disconnect) the existing connection between the CopperLink Line cable and the CL1300R's *Line* port (see **figure 3**).
2. Connect the Line cable to the side of the 552 labeled *UNPROTECTED*.
3. Connect the 6-inch (15.2 cm) modular patch cable (supplied) between the side of the 552 labeled *PROTECTED* and the CL1300R's *Line* port.
4. If possible, attach the braided ground strap's ring terminal to the same earth grounding source as the CL1300R is using. Otherwise use a grounding electrode such as a ground rod, water pipe, building steel, etc.

Congratulations! The surge protector is installed.

If there are additional CL1300R devices to protect, repeat steps 1 through 8 until all 552-GS2 surge protectors have been installed according to the topology that is being used. Then go to section "2.1, Connect the Ethernet Interface" in the *CopperLink™ Model CL1300 Long Range Ethernet Extender Quick Start Guide*.



**Figure 3.** Connecting the 552-GS2 to a CL1300R



Do not over-tighten the ground connection.

## 4.0 Additional Information

For further information, refer to the following guides:

- *Model 552 Series High Speed Telco Surge Protectors User Manual (07M552-E)* at <https://www.patton.com/manuals/index.asp?model=552>

- *CopperLink Model CL1300MDE Long Range Ethernet Extender User Manual* (07MCL1300MDE) at <https://www.patton.com/manuals/CL1300MDE.pdf>
- *CopperLink Model CL1300 Long Range Ethernet Extender Quick Start Guide* (07MCL1300-QS) at <https://www.patton.com/manuals/CL1300-qs.pdf>

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## 5.0 Customer and Technical Support

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Toll-Free VoIP support: call ***sip:support@patton.com*** with a VoIP SIP phone

Online support: ***www.patton.com***

E-mail support: ***support@patton.com***—answered within 1 business day

Telephone support:

|                  |             |                    |                 |                                                  |
|------------------|-------------|--------------------|-----------------|--------------------------------------------------|
| <b>Standard</b>  | USA         | +1 (301) 975-1007  | Monday - Friday | 8:00 am to 5:00 pm<br>EST (1300 to 2200 UTC/GMT) |
| <b>Alternate</b> | Switzerland | +41 (0)31-985-2555 | Monday - Friday | 8:00 am - 5:00 pm<br>CET (0900 to 1800 UTC/GMT)  |
| <b>Fax</b>       | USA         | +1 (301) 869-9293  |                 |                                                  |
|                  | Switzerland | +41 (0)31-985-2526 |                 |                                                  |

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## 6.0 Trademark, & Compliance Information

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### 6.1 CE Notice

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The CE symbol on your Patton Electronics equipment indicates that it is in compliance with the Electromagnetic Compatibility (EMC) directive and the Low Voltage Directive (LVD) of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

### 6.2 FCC Compliance

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The 552 Series of surge protectors have been tested and found to comply with FCC Parts 15 and 68. A label on the device bears the

Part 68 registration number.

1. This equipment complies with Part 68 of the Federal Communications Commission Rules. On the outside surface of this equipment is a label that contains, among other information, the FCC registration number. This information must be provided to the telephone company.
2. If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But, if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

3. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications in order to maintain uninterrupted service.
4. If trouble is experienced with any of the Model 552 Series, please contact Patton Electronics Company at 301-975-1000. If the equipment is causing harm to the network, the telephone company may request you to remove the equipment from the network until the problem is resolved.
5. Repairs are to be made only by Patton Electronics Company or its licenses. Unauthorized repairs void registration and warranty.
6. This equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information).

### **6.3 Industry Canada Notice**

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**NOTICE:** The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. **Caution:** Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

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## 7.0 Authorized European Representative

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**European Compliance Services Limited**  
Milestone House  
Longcot Road  
Shrivenham  
SN6 8AL, UK

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## 8.0 Copyright statement

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## 9.0 Trademarks statement

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The term *CopperLink* is a trademark of Patton Electronics Company. All other trademarks presented in this document are the property of their respective owners.



In accordance with the requirements of council directive 2002/96/EC on Waste of Electrical and Electronic Equipment (WEEE), ensure that at end-of-life you separate this product from other waste and scrap and deliver to the WEEE collection system in your country for recycling.