

Power Injector | Quick Install Guide



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To the Installer

This guide provides specifications, features and guidelines for the installer to use during installation. It is assumed that the technician is familiar with Ethernet LAN-based networking concepts.

Document Conventions

Before operating any equipment, review this document for any hazards associated with installation and use of the device. Also, review standard practices for preventing accidents.



Indicates tips, hints and special requirements.



Care is required. Disregarding cautions can cause data loss or equipment damage.



Indicates a potentially dangerous condition or procedure that only Symbol-trained personnel should attempt to correct or perform.



Safety Information

- Only qualified personnel can install and remove the Power Injector.
- The power cord must have regulatory agency approval for the specific country in which it is used (i.e., UL, CSA, VDE, etc.).
- The power cord must be a three-conductor type (two current carrying conductors; one ground conductor) terminated on one end by an IEC 60320 appliance coupler (for connection to the Power Injector), and on the other end by a plug containing a ground (earth) contact.
- The power cord must be rated for a minimum of 250VAC RMS operation, with a minimum rated current capacity of 5A [or a minimum wire gauge of 18AWG (0.75mm²)].
- Power Injectors installed in Australia require power cords with a minimum wire gauge of 16AWG (1.31mm²).
- The AC wall socket-outlet must be near the Power Injector and easily accessible.
- The Power Injector **Data** and **Data & Power** interfaces are qualified as SELV (Safety Extra-Low Voltage) circuits according to IEC 60950. These interfaces can only be connected to SELV interfaces on other equipment.

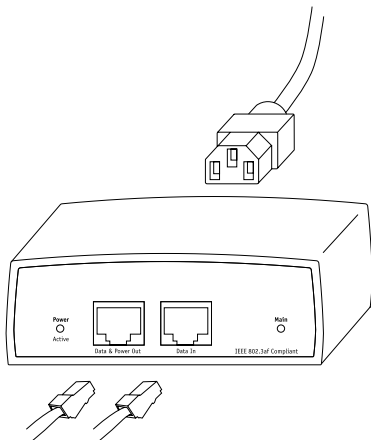


Warnings

- Read the installation instructions before connecting the Power Injector to its power source.
- Follow basic electricity safety measures whenever connecting the Power Injector to its power source.
- The Power Injector **Data In** and **Data & Power Out** ports are shielded RJ-45 data sockets. Only RJ-45 data connectors may be connected to these sockets.

Introduction

The *Power Injector 1 Port* delivers power and data to a connected LAN device. The Power Injector uses non-data wire pairs in a standard Ethernet cable, to deliver 48VDC to the connected device.



Specifications

Environmental Specifications

<i>Mode</i>	<i>Temperature</i>	<i>Humidity</i>
Operating	0°C to 50°C, (32°F to 122°F)	10% to 90% (no condensation allowed)
Storage	-20°C to 70°C, (-4°F to 158°F)	10% to 90% (no condensation allowed)

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Electrical Specifications

Input Voltage	90VAC to 264VAC (47Hz-63Hz)
Maximum Input Current at 110VAC	.34A
Maximum Input Current at 240VAC	.17A
Maximum Output Power	15.4W
Nominal Output Voltage	48VDC

Ethernet Interface

Input (Data In):	Ethernet 10/100Base-T (RJ-45 female socket)
Output (Data & Power Out):	Ethernet 10/100Base-T, plus 48VDC (RJ-45 female socket, with DC voltage on wire pairs 7-8 and 4-5)

Installation

Preparing for Site Installation

The Power Injector may be free standing on an even horizontal surface or wall mounted using the back wall holders.

- Do not cover or block the airflow to the Power Injector. Keep the Power Injector away from excessive heat, humidity, vibration and dust.
- The Power Injector is not a repeater and does not amplify the Ethernet data signal. For best performance, ensure that the Power Injector is placed as close as possible to the network data port. Do not configure the cable length between the Ethernet network source, the Power Injector, and the endpoint beyond 100 meters (328ft).

Installing the Power Injector

1. Connect the Power Injector to an AC outlet (100VAC to 240VAC).
2. Connect a cable between the network data port and the Power Injector **Data In** jack.
3. Connect the cable between the Power Injector **Data & Power Out** jack and the network end device.

The Power Injector has no power switch and operates as soon as AC power is applied.

Main LED steady green indicates that power is active.

Active LED steady green indicates that power is connected and active to the remote end device.

Troubleshooting

- Ensure AC power is applied to the Power Injector, using an operational AC power cable with an appropriate ground connection.
- Verify standard 4-pair (8-wire) CAT-5 Ethernet cables for this configuration.
- Verify that the Ethernet cables are not reversed.
- Verify that the total Ethernet cable length is less than 100 meters (328ft).
- Verify that a power ready Ethernet end device is connected.
- Verify that you are not using any crossover cable between the Power Injector output port and the load device.
- Verify that there is no short over any of the twisted pair cables or the RJ-45 connectors.

Customer Support

Symbol Technologies provides its customers with prompt and accurate customer support. Use the Symbol Support Center as the primary contact for any technical problem, question or support issue involving Symbol products. If the Symbol Customer Support specialists cannot solve a problem, access to all technical disciplines within Symbol becomes available for further assistance and support. Symbol Customer Support responds to calls by email, telephone or fax within the time limits set forth in individual contractual agreements.

When contacting Symbol Customer Support, please provide the following information:

- Serial number of unit
- Model number or product name
- Software type and version number

North American Contacts

Inside North America, contact Symbol at:

For sales and product information:

Symbol Technologies, Inc.

One Symbol Plaza

Holtsville, New York 11742-1300

Telephone: 1-631-738-2400/1-800-SCAN 234

Fax: 1-631-738-5990

For product support and service:

Symbol Global Support Center:

Telephone: 1-800-653-5350, +1-631-738-6213 (Outside North America)

Fax: 631-563-5410

Email: support@symbol.com

International Contacts

Outside North America, contact Symbol at:

Symbol Technologies, Inc.

Symbol Place

Winnersh Triangle, Berkshire, RG41 5TP

United Kingdom

Telephone: 0800-328-2424 (Inside UK), +44 118 945 7529 (Outside UK)

For other sales offices use the Symbol Services Web site for contact information

http://www.symbol.com/services/howto/howto_contact_us.html

Web Support Sites

Comprehensive On-line support is available at the MySymbolCare Web site.

Registration is free and a variety of services can be linked through this web-portal.

MySymbolCare

<http://www.symbol.com/services/msc>

Symbol Services Homepage

<http://www.symbol.com/services>

Symbol Software Updates

<http://www.symbol.com/services/downloads>

Symbol Developer Program Web site

<http://devzone.symbol.com>

Symbol Knowledge Base

<http://kb.symbol.com/register.asp>

Additional Information

Obtain additional information by contacting Symbol at:

Telephone: 1-800-722-6234 (Inside North America),

+1-631-738-5200 (Inside/Outside North America)

<http://www.symbol.com/>

Regulatory Information

All Symbol devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to Symbol Technologies equipment, not expressly approved by Symbol Technologies, could void the user's authority to operate the equipment.

Radio Frequency Interference Requirements

Symbol Technologies Inc.



Tested to Comply
With FCC Standards

For Home or Office Use

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference

in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CE Marking and European Economic Area (EEA)

Statement of Compliance

Symbol Technologies, Inc., hereby declares that this device is in compliance with all the applicable Directives, 89/336/EEC, 73/23/EEC. A Declaration of Conformity may be obtained from <http://www2.symbol.com/doc/>

Copyright

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Patents

This product is covered by one or more of the following U.S. and foreign Patents: U.S. Patent No.

4,593,186; 4,603,262; 4,607,156; 4,652,750; 4,673,805; 4,736,095; 4,758,717; 4,760,248;
 4,806,742; 4,816,660; 4,845,350; 4,896,026; 4,897,532; 4,923,281; 4,933,538; 4,992,717;
 5,015,833; 5,017,765; 5,021,641; 5,029,183; 5,047,617; 5,103,461; 5,113,445; 5,130,520;
 5,140,144; 5,142,550; 5,149,950; 5,157,687; 5,168,148; 5,168,149; 5,180,904; 5,216,232;
 5,229,591; 5,230,088; 5,235,167; 5,243,655; 5,247,162; 5,250,791; 5,250,792; 5,260,553;
 5,262,627; 5,262,628; 5,266,787; 5,278,398; 5,280,162; 5,280,163; 5,280,164; 5,280,498;
 5,304,786; 5,304,788; 5,306,900; 5,324,924; 5,337,361; 5,367,151; 5,373,148; 5,378,882;
 5,396,053; 5,396,055; 5,399,846; 5,408,081; 5,410,139; 5,410,140; 5,412,198; 5,418,812;
 5,420,411; 5,436,440; 5,444,231; 5,449,891; 5,449,893; 5,468,949; 5,471,042; 5,478,998;
 5,479,000; 5,479,002; 5,479,441; 5,504,322; 5,519,577; 5,528,621; 5,532,469; 5,543,610;
 5,545,889; 5,552,592; 5,557,093; 5,578,810; 5,581,070; 5,589,679; 5,589,680; 5,608,202;
 5,612,531; 5,619,028; 5,627,359; 5,637,852; 5,664,229; 5,668,803; 5,675,139; 5,693,929;
 5,698,835; 5,705,800; 5,714,746; 5,723,851; 5,734,152; 5,734,153; 5,742,043; 5,745,794;
 5,754,587; 5,762,516; 5,763,863; 5,767,500; 5,789,728; 5,789,731; 5,808,287; 5,811,785;
 5,811,787; 5,815,811; 5,821,519; 5,821,520; 5,823,812; 5,828,050; 5,848,064; 5,850,078;
 5,861,615; 5,874,720; 5,875,415; 5,900,617; 5,902,989; 5,907,146; 5,912,450; 5,914,478;
 5,917,173; 5,920,059; 5,923,025; 5,929,420; 5,945,658; 5,945,659; 5,946,194; 5,959,285;
 6,002,918; 6,021,947; 6,029,894; 6,031,830; 6,036,098; 6,047,892; 6,050,491; 6,053,413;
 6,056,200; 6,065,678; 6,067,297; 6,082,621; 6,084,528; 6,088,482; 6,092,725; 6,101,483;
 6,102,293; 6,104,620; 6,114,712; 6,115,678; 6,119,944; 6,123,265; 6,131,814; 6,138,180;
 6,142,379; 6,172,478; 6,176,428; 6,178,426; 6,186,400; 6,188,681; 6,209,788; 6,209,789;
 6,216,951; 6,220,514; 6,243,447; 6,244,513; 6,247,647; 6,308,061; 6,250,551; 6,295,031;
 6,308,061; 6,308,892; 6,321,990; 6,328,213; 6,330,244; 6,336,587; 6,340,114; 6,340,115;
 6,340,119; 6,348,773; D305,885; D341,584; D344,501; D359,483; D362,453; D363,700;
 D363,918; D370,478; D383,124; D391,250; D405,077; D406,581; D414,171; D414,172;
 D418,500; D419,548; D423,468; D424,035; D430,158; D430,159; D431,562; D436,104.

Invention No. 55,358; 62,539; 69,060; 69,187 (Taiwan); No. 1,601,796; 1,907,875;
 1,955,269 (Japan); European Patent 367,299; 414,281; 367,300; 367,298; UK 2,072,832; France
 81/03938; Italy 1,138,713 (3/02)

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