SAFETY PRECAUTIONS

ELECTRICAL HAZARD

- This equipment must be installed and serviced only by qualified personnel. Such work should be performed only after reading the CAN-ETH User manual in its entirety.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Apply appropriate personal protective equipment and follow safe electrical practices.
- Turn off all power supplying the equipment in which the CAN-ETH is to be installed before installing, wiring or removing the CAN-ETH.
- Always use a properly rated voltage sensitive device to confirm that power is off.
- The successful operation of this equipment depends upon proper handling, installation, and operation. Neglecting fundamental installation requirements may lead to personal injury as well as damage to electrical equipment or other property.

Failure to follow these instructions could result in death or serious injury!

INTRODUCTION

Package Contents
- CAN-ETH unit
- Quick start reference guide
- 2-pin terminal block plug

Documentation and Additional Resources
This Quick start reference guide must be used in conjunction with the CAN-ETH User manual.

The CAN-ETH User manual and supplemental software packages can be downloaded from the CAN-ETH web site: http://www.proconx.com/caneth

Quick start checklist
- Obtain a copy of the CAN-ETH User manual and read it properly and in its entirety.
- Mount the unit.
- Connect the power. Do not connect yet CAN bus or serial ports.
- Configure the Ethernet communications settings with a web browser (using an Ethernet crossover cable) or with a terminal program like HyperTerminal (using a null modem cable).
- Configure the CAN bus settings.
- Configure the serial line communication settings.
- Configure the operational aspects of the device.
- Wire CAN bus.
- Wire serial line interfaces.

Installation

Regulatory notes

1. The CAN-ETH is suitable for use in non-hazardous locations only.
2. The CAN-ETH is not authorized for use in life support devices or systems.
3. Wiring and installation must be in accordance with applicable electrical codes in accordance with the authority having jurisdiction.
4. This is a Class A device and intended for commercial or industrial use. This equipment may cause radio interference if used in a residential area; in this case it is the operator’s responsibility to take appropriate measures.
5. The precondition for compliance with EMC limit values is strict adherence to the guidelines specified in the CAN-ETH User manual. This applies in particular to the area of grounding and shielding of cables.

FCC Notice (USA only)
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada Notice (Canada only)
This Class A digital apparatus complies with Canadian ICES-003.

Before connecting anything

1. Before installing or removing the unit or any connector, ensure that the system power and external supplies have been turned off.
2. Check the system supply voltage with a multimeter for correct voltage range and polarity.
3. Connect the power supply cable and switch on the system power. Check if the Power LED is lit.
4. Turn off system power.
5. Connect all I/O cables.
6. Once you are certain that all connections have been made properly, restore the power.

Power terminals pin assignment

Before connecting power please follow the rules in the section called “SAFETY PRECAUTIONS” and the section called “Before connecting anything”.

Make sure that the polarity of the supply voltage is correct before connecting any device to the serial and CAN ports! A wrong polarity can cause high currents on the ground plane between the V+ power supply pin and the CAN port and serial port ground pins, which can cause damage to the device.

Documentation

This document is a reference guide only and must be used in conjunction with the CAN-ETH User manual.
### Ethernet and IP configuration

Before configuring the CAN-ETH, obtain a unique static IP address, subnet mask, and default gateway address from your network. If you assigned a static IP address to your computer in step 1, you must restore your computer’s original settings before reconnecting to your network.

#### Gateway IP address

<table>
<thead>
<tr>
<th>Gateway IP address</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>169.254.0.10</td>
<td>Example IP address for APIPA range</td>
</tr>
</tbody>
</table>

### CAN connector pin assignment

Pinout as per CiA DS-102. Please observe the wiring, grounding and shielding instructions described in the User manual!

#### CAN-ETH pin assignment:

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TX+ Non-inverting transmit signal</td>
</tr>
<tr>
<td>2</td>
<td>TX- Inverting transmit signal</td>
</tr>
<tr>
<td>3</td>
<td>RXD Receive data in</td>
</tr>
<tr>
<td>4</td>
<td>TXD Transmit data out</td>
</tr>
<tr>
<td>5</td>
<td>GND Signal ground</td>
</tr>
<tr>
<td>6</td>
<td>NC</td>
</tr>
<tr>
<td>7</td>
<td>NC</td>
</tr>
<tr>
<td>8</td>
<td>NC</td>
</tr>
<tr>
<td>9</td>
<td>NC</td>
</tr>
</tbody>
</table>

### LED indicators

A LED test is exercised at power-up, cycling each LED off, green and then red for approximately 0.25 seconds. At the same time the power-status LED turns green and power applied to the device is indicated.

#### LED indicators conditions:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Device operational but has a fault listed which requires replacement. Flashing sequence and rate of Status 1 LED indicates fault class.</td>
</tr>
<tr>
<td>2</td>
<td>Device operational but has an unrecoverable fault; may need replacing. Flashing sequence and rate of Status 2 LED indicates fault class.</td>
</tr>
</tbody>
</table>

### Maintenance and Troubleshooting

#### Maintenance

The CAN-ETH does not require maintenance, nor does it contain any user-serviceable components. Please consult the User manual for instructions.

#### Troubleshooting

If power to the CAN-ETH is lost, all values reset to zero.