

INSTALLATION GUIDE FOR THE E-ACVDRLY-xxx AC Voltage Detector



INTRODUCTION

The NTI E-ACVDRLY-xxx detects voltage (50-250VAC) when connected to an E-16D/5D/2D, E-MINI-LXO, E-MICRO-T(RHP) or E-1W(P)(SYSTEM). A 2-wire sensor cable (6 foot cable included), is used to connect to a SYSTEM, which can be configured to send alerts based on the presence or lack of AC voltage.

The E-ACVDRLY-xxx includes an internal relay that closes when sensing voltage above 60VAC, and opens when sensing 55VAC and below.

E-ACVDRLY-515 includes a NEMA 5-15 Plug for connection to a standard 120V NEMA 5-15 receptacle.

E-ACVDRLY-C14 includes a 250V IEC C14 Socket for connection to a 250V IEC C13 receptacle.

Features:

- Monitors the presence of 50-250VAC
- 2-position screw-terminal connection
- Supports 2-wire sensor cable up to 1000 ft¹ (6 foot cable included)
- RoHS and CE certified

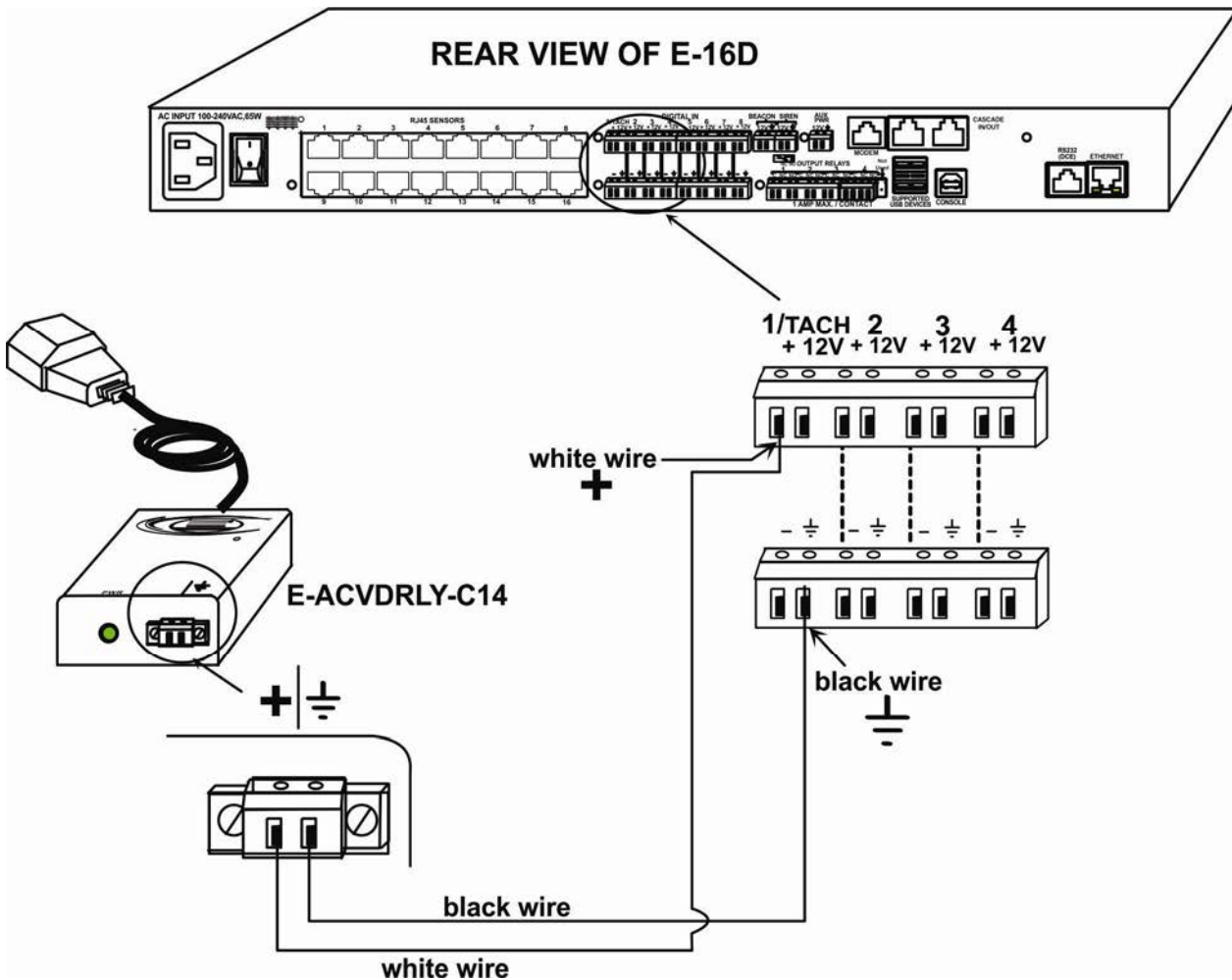
MATERIALS SUPPLIED

- E-ACVDRLY-yyy Voltage Detector (yyy= 515 or C14)
- E-2W-6 (6 foot 2-wire sensor cable)

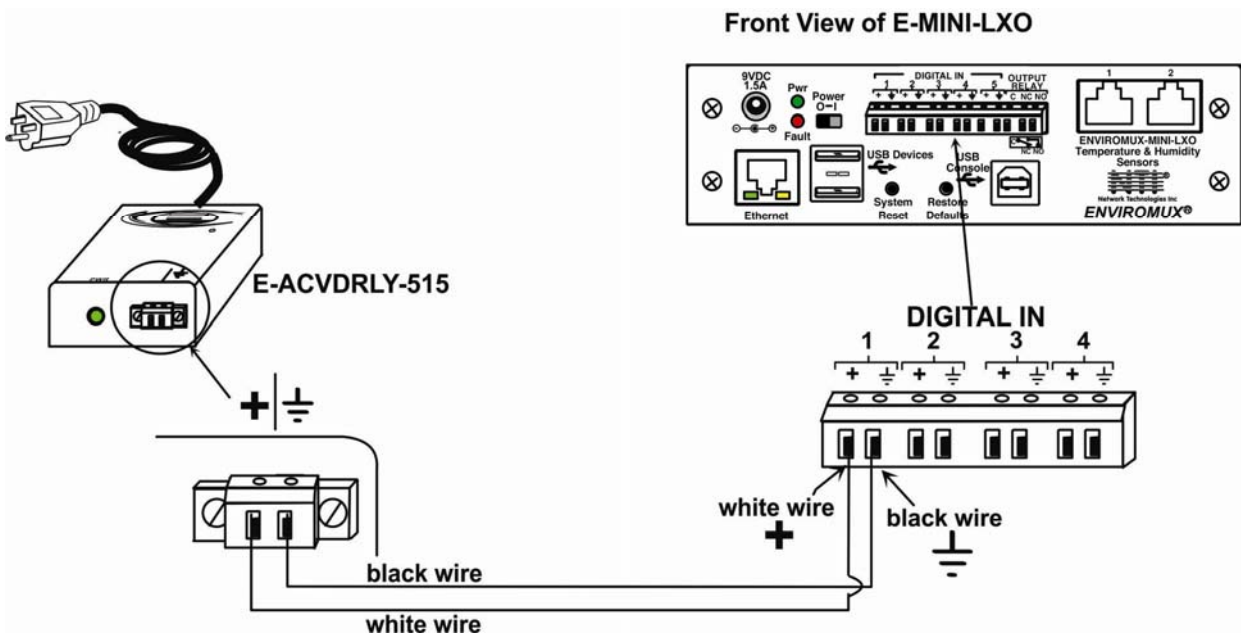
INSTALLATION

Place the E-ACVDRLY-xxx where it can be plugged into an AC power source (50-250VAC). Connect a 2-wire (16-26 AWG) cable up to 1000 feet long between the + and ground (⏏) terminals on the Voltage Detector and the same labeled "DIGITAL IN" terminals on the SYSTEM.

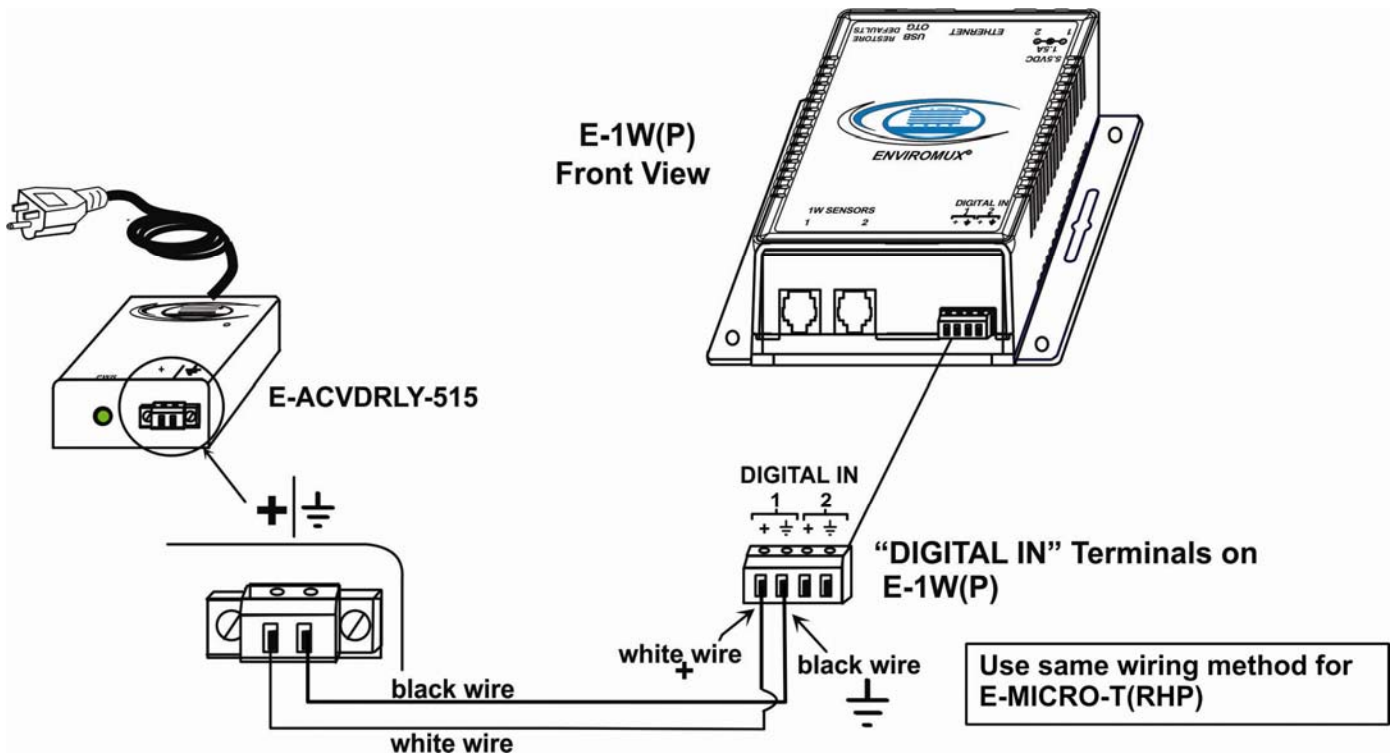
¹ When using 2-wire cables longer than 100 ft, be careful to route cables away from AC wiring, lighting sources, electric motors, or other electrical devices.



Wire connections for E-16D



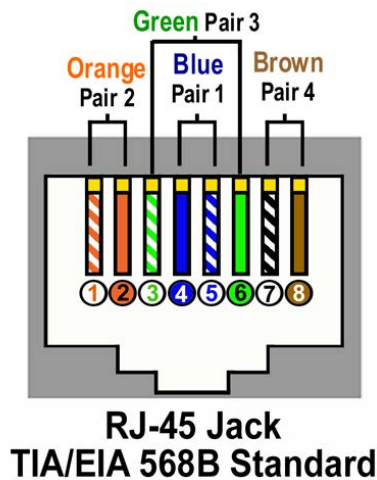
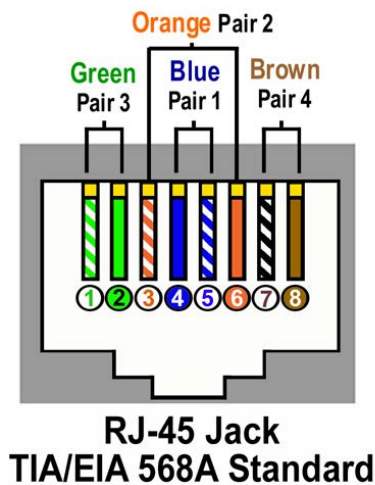
Wire connections for E-2D/5D/MINI-LXO

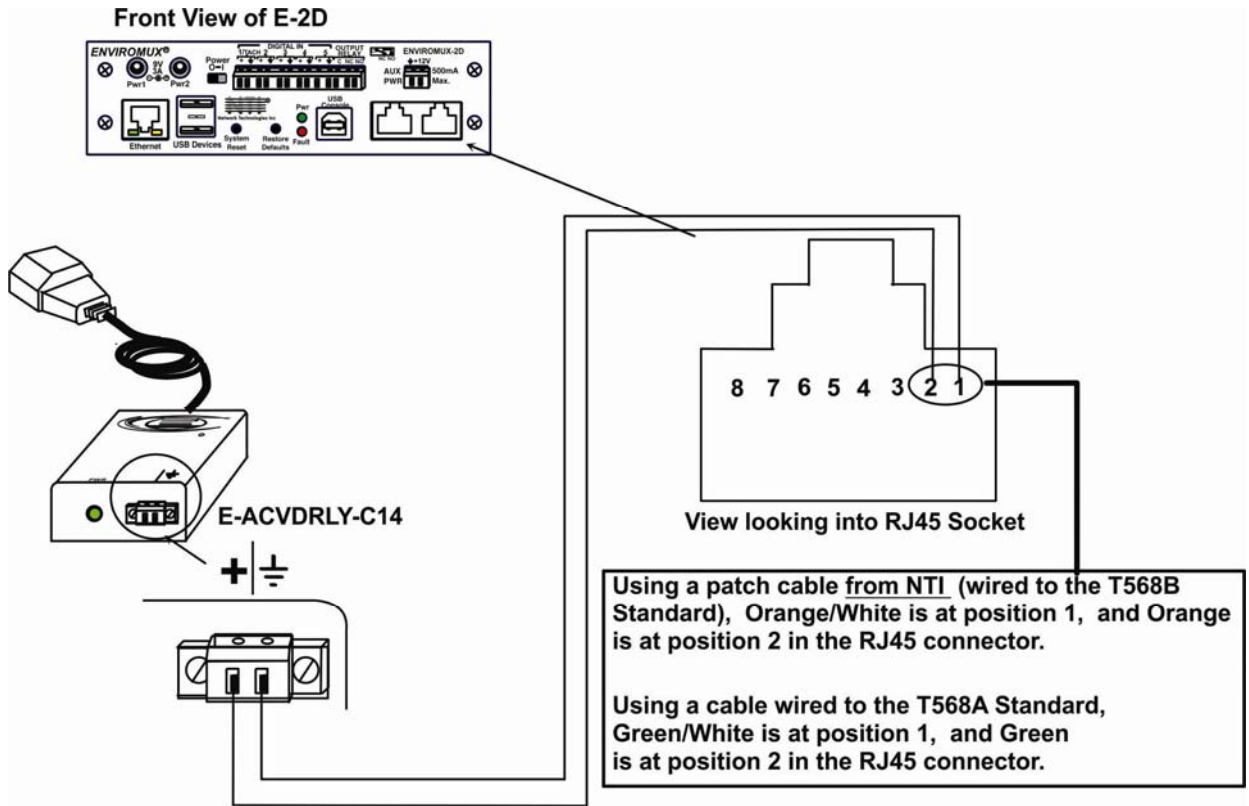


Wire connections for E-MICRO-T(RHP) or E-1W(P)

The E-ACVDRLY-xxx can also be connected to the "RJ45 SENSORS" sockets of the E-16D/5D/2D. When using a CAT5 patch cable to make connection, you must first determine what wiring standard the cable has been made to. Make connections based on the chart below.

| TERMINAL ON E-ACVDRLY-xxx | | RJ45 Socket Pin # | Cable Wire Color (T568A Standard) | Cable Wire color (T568B Standard) |
|---------------------------|---|-------------------|-----------------------------------|-----------------------------------|
| + | → | 2 | Green | Orange |
| ⊖ | → | 1 | Green/White | Orange/White |





Wire connections for E-16D/5D/2D using RJ45 Sensor sockets

OPERATION

The E-ACVDRLY-xxx is designed to **close** the circuit between the “+” and “ $\frac{1}{2}$ ” terminals when AC voltage is greater than 50VAC and will open the circuit when AC voltage is less than 45VAC. The “PWR” LED on E-ACVDRLY-xxx will illuminate when the circuit is closed.

The circuit status can be monitored by the SYSTEM. Each SYSTEM can be configured to send alert notifications when the circuit opens or closes. Configuration of the E-ACVDRLY-xxx is done on the “Digital Input Configuration” page of the E-16D/5D/2D web interface and the Configuration page for the listed sensor in the E-MINI-LXO web interface. Configuration for the E-MICRO-T(RHP) and E-1W(P) is done on the Configure Alert page. A sample configuration page from the web interface for each product is shown below.

Please refer to the appropriate section of the SYSTEM manual for additional information on the configuration pages.

Digital Input Configuration

| | |
|--|---|
| Digital Input Settings | |
| Description | <input type="text" value="Digital Input #2"/> <small>Descriptive name for the digital input</small> |
| Group | <input type="text" value="1"/> <small>▼</small> <small>Select which group the digital input belongs to</small> |
| Normal Status | <input type="text" value="Closed"/> <small>▼</small> <small>Select the normal status for the digital input</small> |
| Refresh Rate | <input type="text" value="20"/> <input type="text" value="Sec"/> <small>▼</small> <small>The refresh rate at which the digital input view is updated</small> |
| + Alert Settings | |
| + Data Logging | |
| <input type="button" value="Save"/> | |
| Alert Simulation | |
| <input type="button" value="Simulate Alert"/> <input type="button" value="Clear Alert"/> | |

Configuration page for E-16D/5D/2D or E-MINI-LXO

Configure Alert

| | |
|-------------------------------------|---|
| Alert Settings | |
| Associated Sensor | <input type="text" value="Digital Input #1"/> <small>Sensor associated to this alert</small> |
| Groups | <input type="checkbox"/> Group 1 <input type="checkbox"/> Group 2 <input type="checkbox"/> Group 3 <input type="checkbox"/> Group 4 <input type="checkbox"/> Group 5 <input type="checkbox"/> Group 6 <input type="checkbox"/> Group 7 <input type="checkbox"/> Group 8 |
| Trigger Event | <input type="text" value="Closed"/> <small>▼</small> |
| Alert Delay | <input type="text" value="0"/> (sec) <small>Duration the sensor must be out of thresholds before alert is generated</small> |
| Auto Acknowledge | <input type="checkbox"/> <small>Automatically acknowledge alert when sensor returns to normal status</small> |
| Notify on return to normal | <input type="checkbox"/> <small>Send a notification when this sensor returns to normal status</small> |
| Notify Again Time | <input type="text" value="0"/> (min) <small>Time after which alert notifications will be sent again</small> |
| Enable Syslog | <input type="checkbox"/> <small>Send alerts for this event via syslog</small> |
| Enable SNMP Traps | <input type="checkbox"/> <small>Send alerts for this event via SNMP traps</small> |
| Enable E-mail Alerts | <input type="checkbox"/> <small>Send alerts for this event via e-mail</small> |
| Enable SMS Alerts | <input type="checkbox"/> <small>Send alerts for this event via SMS messages</small> |
| <input type="button" value="Save"/> | |

Configuration page for E-MICRO-T(RHP) or E-1W(P)

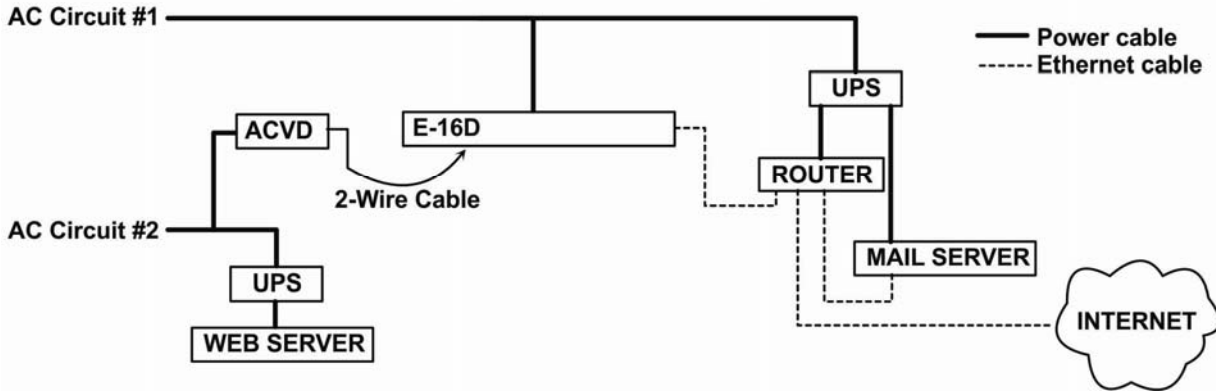
INSTALLATION NOTES

- It is not necessary to install an E-ACVDRLY-xxx to monitor the AC circuit which provides power to the E-16D/-5DB / -2DB. These models have built-in power monitoring and battery backup and will send an alert in the event of a power failure.
- In order for the ENVIROMUX System to send an e-mail alert, the attached network components (routers, mail server, etc.) must have power. If you are using the SYSTEM and E-ACVDRLY-xxx to monitor the AC circuit providing power to any of these network components, be sure they will not lose power during a fault condition. (See image below.)

Note: Because of the low 500mA rating, the E-ACVDRLY-xxx is not recommended for inductive or capacitive loads (even very small loads), because the inrush current is likely to exceed the 500mA rating.

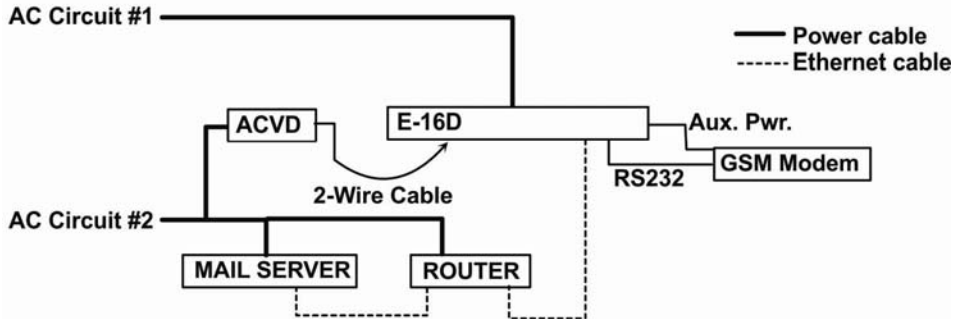
FYI: In the images below, the E-5DB \-2DB are indicated because they include the battery backup feature to provide sensing and alert communication in the event of a SYSTEM power failure.

E-16D \-5DB \-2DB Installation #1



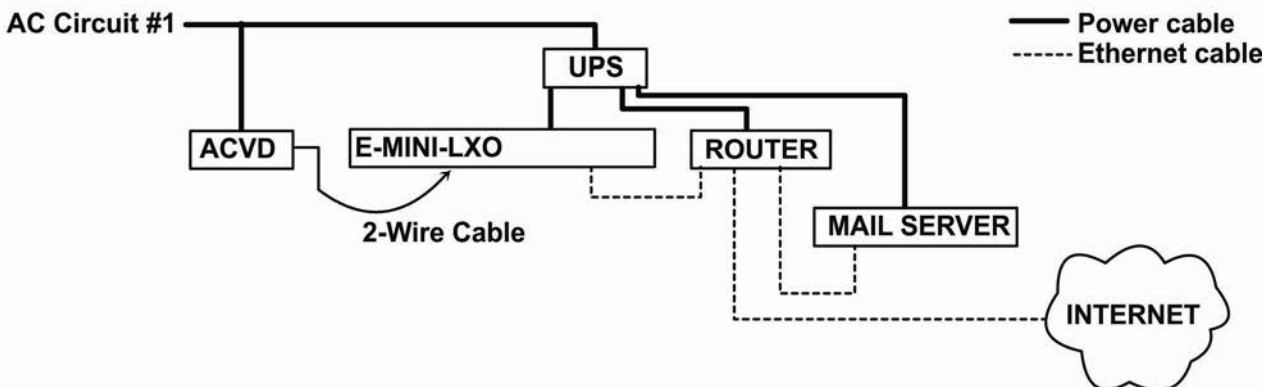
- If your network components will lose power during the AC fault condition, use an alternate means to send alerts such as a GSM Modem (E-GSM) or Auto Voice Dialer (E-AVDS). The E-GSM and E-AVDS are powered by the “Aux Pwr” port on the E-16D/-5D(B)/-2D(B). (See image below.)

E-16D \-5DB \-2DB Installation #2



- If you are using the E-ACVDRLY-xxx to monitor the AC Circuit which provides power to the E-MINI-LXO or any of the necessary network equipment (router, mail server, etc.), be sure they will not lose power during the AC fault condition. (See image below.) The method below would also be best suited for E-5D/ -2D (models without battery backup).

E-MINI-LXO Installation



TECHNICAL SPECIFICATIONS

| DESCRIPTION | SPECIFICATION |
|--|---|
| Input Voltage Range | 0-250VAC |
| Power | Powered by 35-250VAC via power cord (25mA Max.) |
| Output Relay Maximum Switching Current | 500mA |
| Output Relay Maximum Hold-off Voltage | 250VDC |
| Size (In.) W x D x H | 2x2.5x1.312 |

Note: Because of the low 500mA rating, the E-ACVDRLY-xxx is not recommended for inductive or capacitive loads (even very small loads), because the inrush current is likely to exceed the 500mA rating.

COPYRIGHT

Copyright © 2009,2018 Network Technologies Inc All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written consent of Network Technologies Inc, 1275 Danner Drive, Aurora, OH 44202.

CHANGES

The material in this guide is for information only and is subject to change without notice. Network Technologies Inc reserves the right to make changes in the product design without reservation and without notification to its users.

WARRANTY INFORMATION

The warranty period on this product (parts and labor) is two (2) years from date of purchase. Please contact Network Technologies Inc at (800) 742-8324 or 330-562-7070 for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.