

INSTALLATION GUIDE FOR THE ENVIROMUX-ACVD-xxx ENVIROMUX-ACVDRLY-xxx AC Voltage Detector



INTRODUCTION

The NTI ENVIROMUX-ACVD(RLY)-xxx detects voltage (50-250VAC) when connected to an ENVIROMUX-SEMS-16(U), ENVIROMUX-16D/5D/2D, or ENVIROMUX-MINI-LXO(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.

Models available:

Model	Use With	Cord Type
ENVIROMUX-ACVD-515	All ENVIROMUX-SEMS-16(U) and ENVIROMUX-16D made before 5/31/13	NEMA 5-15 Plug
ENVIROMUX-ACVD-515M	ENVIROMUX-MINI(-LXO),ENVIROMUX-SEMS-2D,ENVIROMUX-2D\5D and ENVIROMUX-16D made after 5/31/13	NEMA 5-15 Plug
ENVIROMUX-ACVD-C14	All ENVIROMUX-SEMS-16(U) and ENVIROMUX-16D made before 5/31/13	250V IEC C14 Socket
ENVIROMUX-ACVD-C14M	ENVIROMUX-MINI(-LXO),ENVIROMUX-SEMS-2D,ENVIROMUX-2D\5D and ENVIROMUX-16D made after 5/31/13	250V IEC C14 Socket
ENVIROMUX-ACVDRLY-515	Any ENVIROMUX Series Environment Monitoring System or other monitoring devices that use dry contact sensors.	NEMA 5-15 Plug
ENVIROMUX-ACVDRLY-C14	Any ENVIROMUX Series Environment Monitoring System or other monitoring devices that use dry contact sensors.	250V IEC C14 Socket

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

Note: The ENVIROMUX-ACVD-515M and ENVIROMUX-ACVD-C14M are only compatible with ENVIROMUX-MINI units made on or after 11/1/07 (see label on the bottom of your ENVIROMUX-MINI). If your ENVIROMUX-MINI was made prior to 11/1/07, please order model ENVIROMUX-ACVD(RLY)-515 or ENVIROMUX-ACVD(RLY)-C14. Failure to use the correct voltage detector will result in inaccurate alert reports.

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

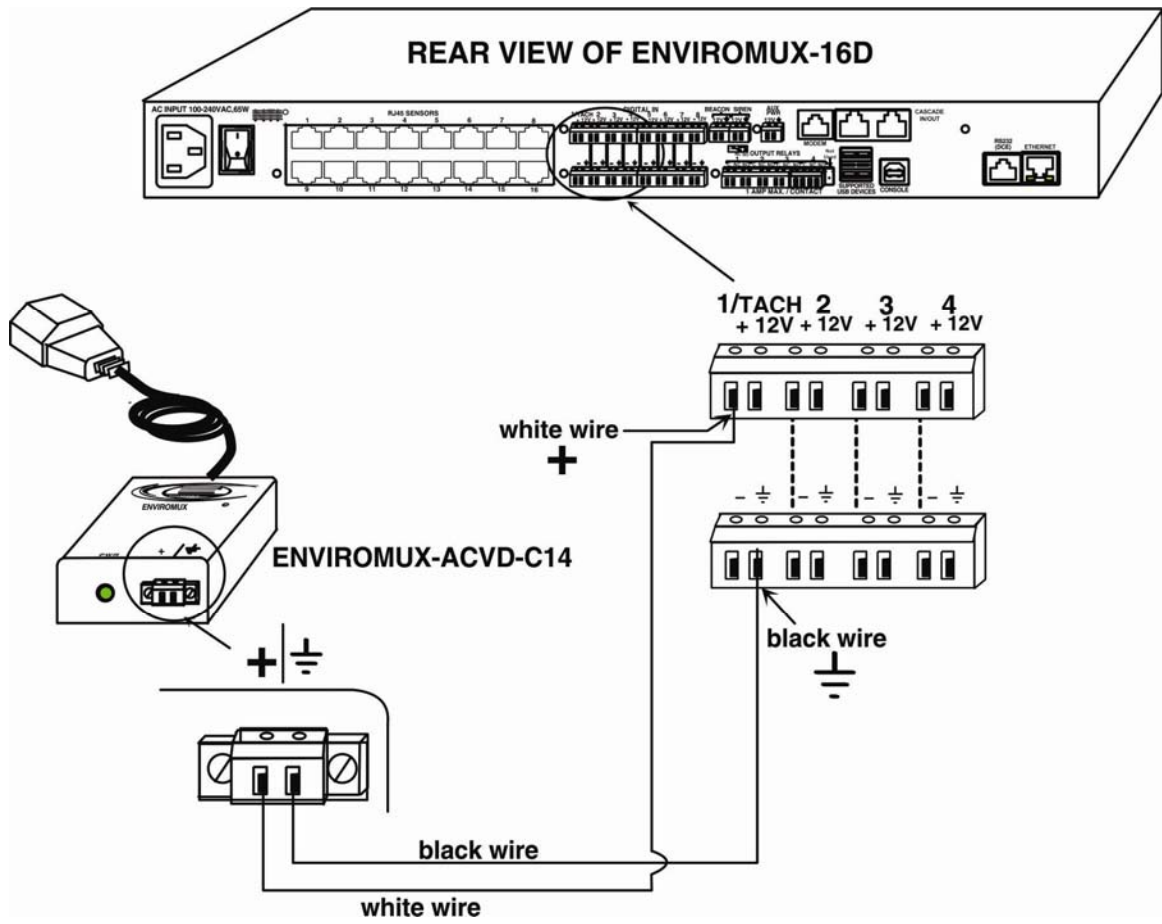
MATERIALS SUPPLIED

- ENVIROMUX-ACVD-xxx Voltage Detector (xxx= 515,515M,C14, or C14M)
-OR-
- ENVIROMUX-ACVDRLY-yyy Voltage Detector (yyy= 515 or C14)
- ENVIROMUX-2W-6 (6 foot 2-wire sensor cable)
- Installation Guide

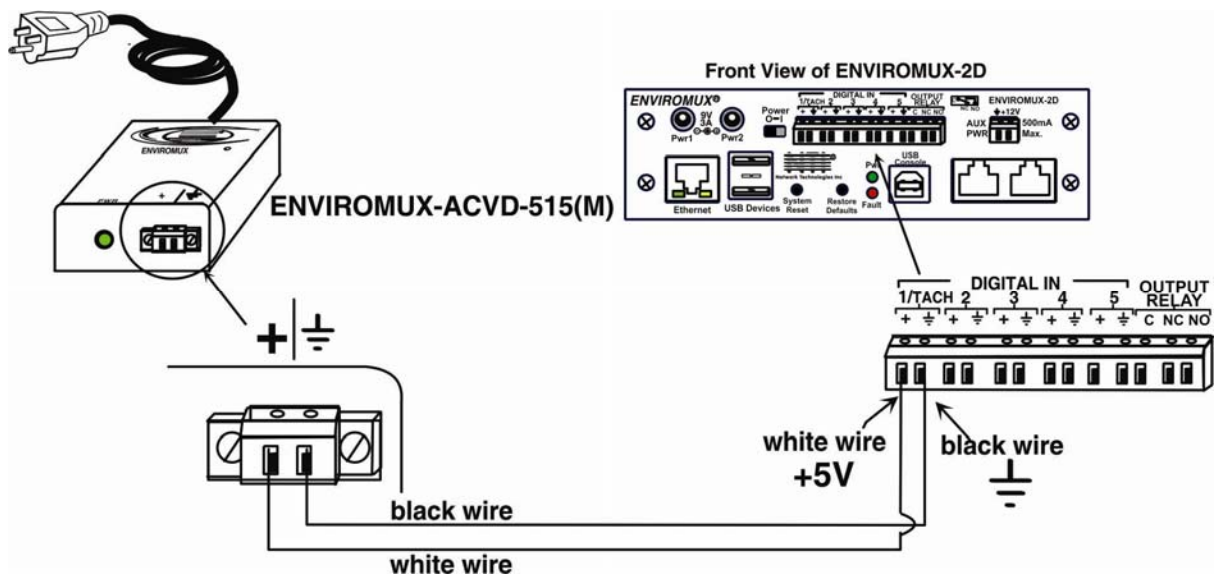
INSTALLATION

Place the ENVIROMUX-ACVD/-ACVDRLY-xxx where it can be plugged into an AC power source (50-250VAC). Connect a 2-wire cable 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.



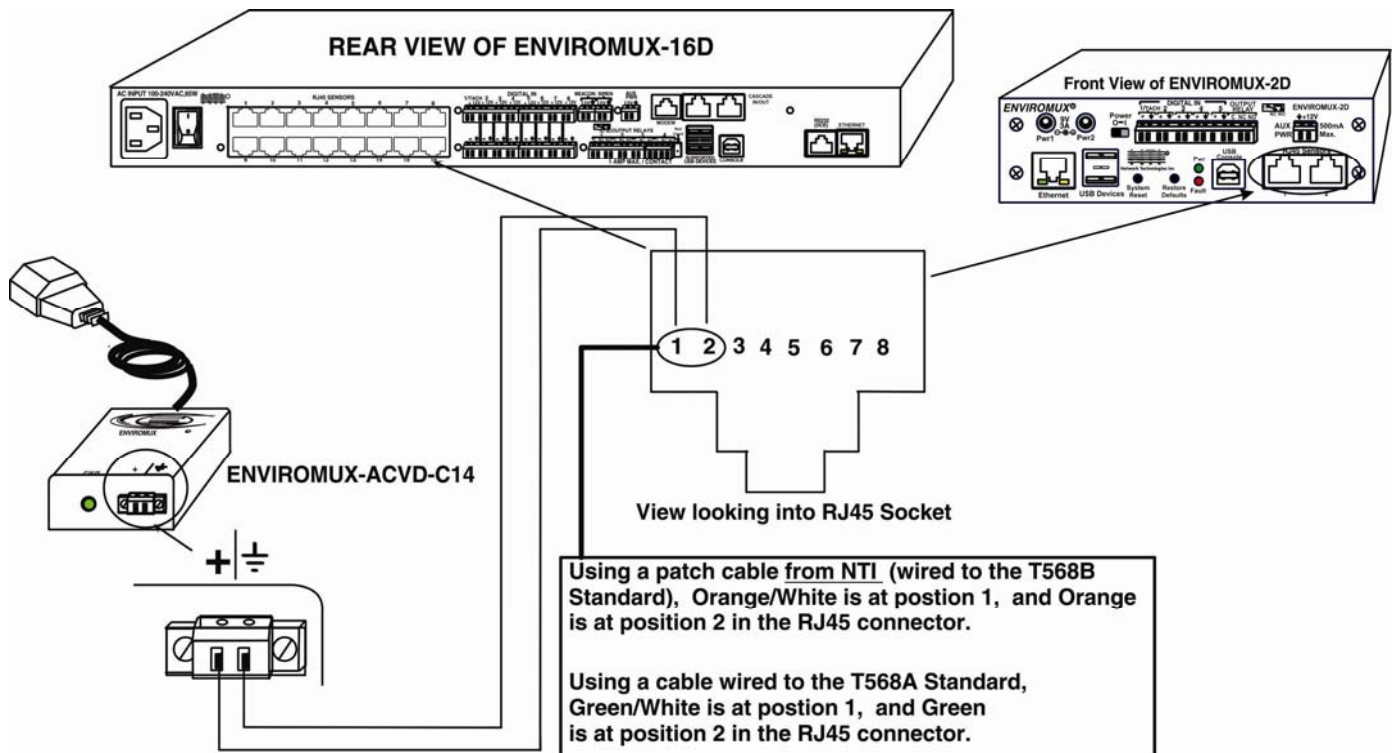
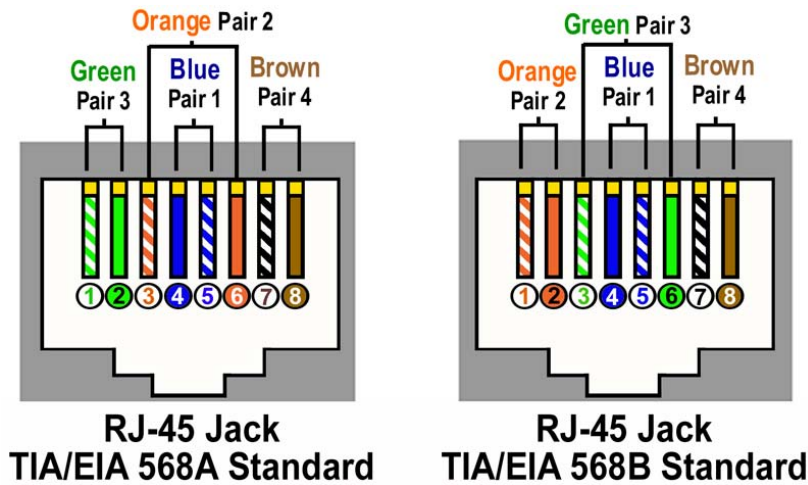
Wire connections for ENVIROMUX-16D



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

The ENVIROMUX-ACVD(RLY)-xxx can also be connected to the “RJ45 SENSORS” (“SEMS Sensors” on ENVIROMUX-SEMS-2D) sockets. 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 ENVIROMUX-ACVD(RLY)-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 ENVIROMUX-SEMS-16(U)/ENVIROMUX-16D/5D/2D using RJ45 Sensor sockets

OPERATION

The ENVIROMUX-ACVD(RLY)-xxx is designed to **close or open** the circuit between the “+” and “ \perp ” terminals according to the table below. The “PWR” LED on ENVIROMUX-ACVD(RLY)-xxx will illuminate when the circuit is closed.

Model	Circuit closes when AC voltage is:	Circuit opens when AC voltage is:
ENVIROMUX-ACVD-xxx	Greater than 65VAC	Less than 12VAC
ENVIROMUX-ACVDRLY-xxx	Greater than 50VAC	Less than 45VAC

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 ENVIROMUX-ACVD(RLY)-xxx is done on the “Digital Input Configuration” page of the ENVIROMUX-SEMS-16(U) and ENVIROMUX-16D/5D/2D web interface and the Configuration page for the listed sensor in the ENVIROMUX-MINI-LXO and ENVIROMUX-SEMS-2D web interface. 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

Type: Digital Input

Description: IPMI Rack - Front door Group: Group #5

Disable alerts for this sensor

Normal Status

Normal Status: Closed

Sampling

Sampling Period: 2 Sec Add to Data Log File

Add reading to log file every: 60 Min

Alert Settings

Alert Delay: 1 Sec Notify again after: 4 Hours

Notify when return to normal

Automatically acknowledge alert when condition clears

Alert Notifications

Enable E-mail Alerts Enable SNMP Traps Enable SMS Alerts

Enable Syslog Alerts Enable Siren Alerts Enable Alarm Beacon

E-mail Subject: _____

Outputs

Associate output: (M) #1 On alert: close the output contact

On return to normal: open the output contact

Apply Status Remove

Test Alerts: Simulate Alert Clear

Configuration page for ENVIROMUX-SEMS-16(U) (using Digital Inputs)

Digital Input Configuration

Digital Input Settings

Description: Digital Input #2

Descriptive name for the digital input

Group: 1

Select which group the digital input belongs to

Normal Status: Closed

Select the normal status for the digital input

Refresh Rate: 20 Sec

The refresh rate at which the digital input view is updated

Alert Settings

Data Logging

Save

Alert Simulation

Simulate Alert Clear Alert

Configuration page for ENVIROMUX-MINI-LXO/ ENVIROMUX-SEMS-2D/ENVIROMUX-16D/5D/2D

Voltage Sensor Configuration

Type: RJ45 Connector: (S1) #16

Description: _____ Group: Group #1

Disable alerts for this sensor

Normal Status

Normal Status: Closed

Enable Tamper Alert Tamper Normal Status: Closed

Sampling

Sampling Period: 1 Sec Add to Data Log File

Add Reading to Log File Every: 60 Min

Alert Settings

Alert Delay: 3 Sec Notify again after: 24 Hours

Notify when return to normal

Automatically acknowledge alert when condition clears

Alert Notifications

Enable E-mail Alerts Enable SNMP Traps Enable SMS Alerts

Enable Syslog Alerts Enable Siren Alerts Enable Alarm Beacon

E-mail Subject: _____

Outputs

Associate Output: _____ On alert: close the output contact

On return to normal: open the output contact

Block output command on tamper alert

Apply Status Remove

Test Alerts: Simulate Alert Clear

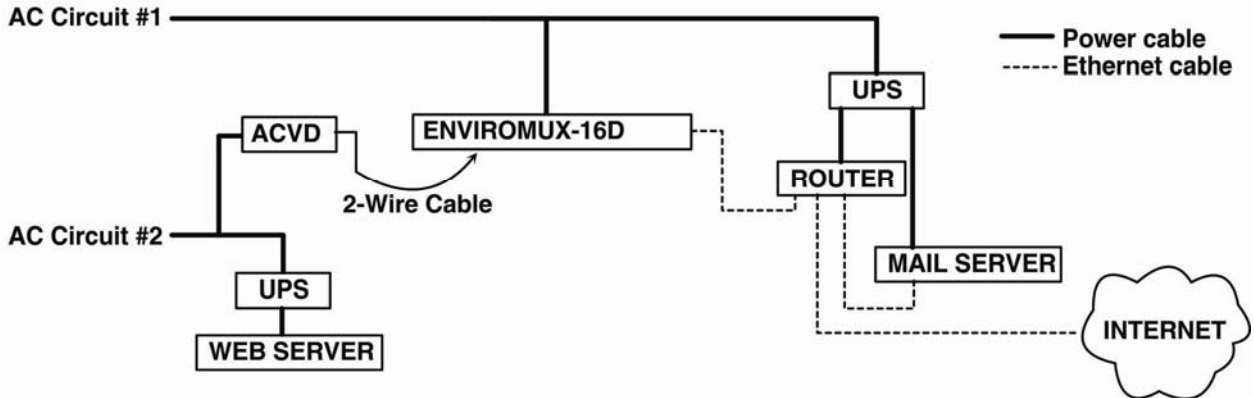
Configuration page for ENVIROMUX-SEMS-16(U) (using RJ45 Sensor Inputs)

INSTALLATION NOTES

- It is not necessary to install an ENVIROMUX-ACVD-xxx to monitor the AC circuit which provides power to the ENVIROMUX-SEMS-16(U) or ENVIROMUX-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 ENVIROMUX-ACVD-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.)

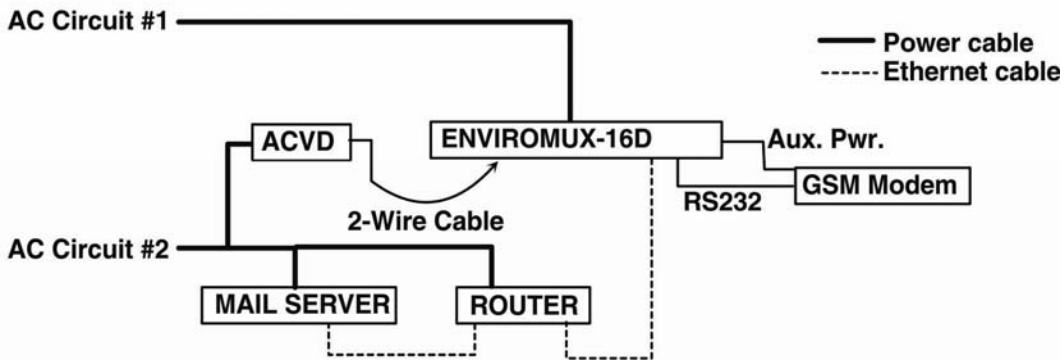
FYI: In the images below, the ENVIROMUX-5DB \-2DB are indicated because they include the battery backup feature to provide sensing and alert communication in the event of a SYSTEM power failure.

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



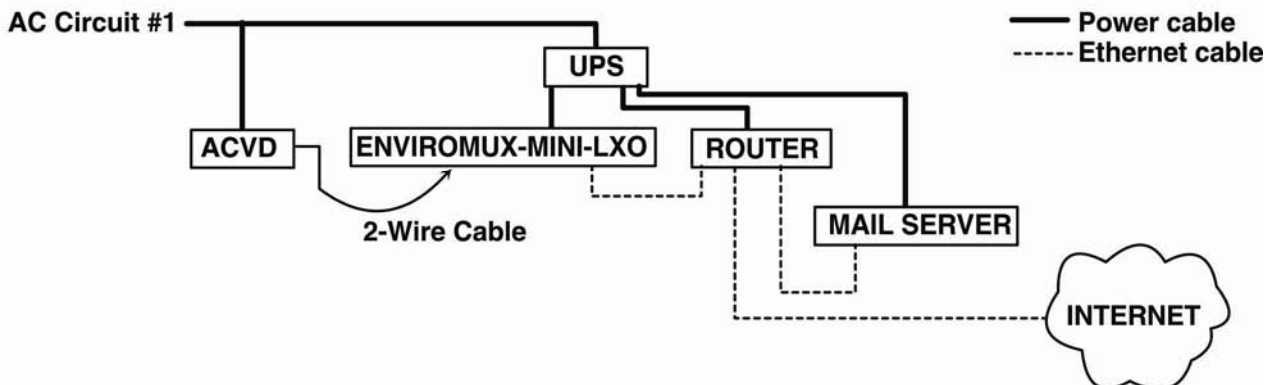
- If your network components will lose power during the AC fault condition, use an alternate means to send alerts such as a GSM Modem (ENVIROMUX-GSM) or Auto Voice Dialer (ENVIROMUX-AVDS). The ENVIROMUX-GSM and ENVIROMUX-AVDS are powered by the "Aux Pwr" port on the ENVIROMUX-SEMS-16/ENVIROMUX-16D/-5D(B)/-2D(B).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

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



- If you are using the ENVIROMUX-ACVD-xxx to monitor the AC Circuit which provides power to the ENVIROMUX-MINI 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 ENVIROMUX-5D/ -2D (models without battery backup).

ENVIROMUX-MINI-LXO Installation



TECHNICAL SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Input Voltage Range	0-250VAC
Power	Powered by 35-250VAC via power cord (25mA Max.)
Size (In.) W x D x H	
ENVIROMUX-ACVD-xxx	2x2.5x1
ENVIROMUX-ACVDRLY-xxx	2x2.5x1.312

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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.