NETWORK TECHNOLOGIES INCORPORATED
1275 Danner Dr Tel:330-562-7070
Aurora, OH 44202 Fax:330-562-1999
www.networktechinc.com

ENVIROMUX® Series

Wiring Instruction For:

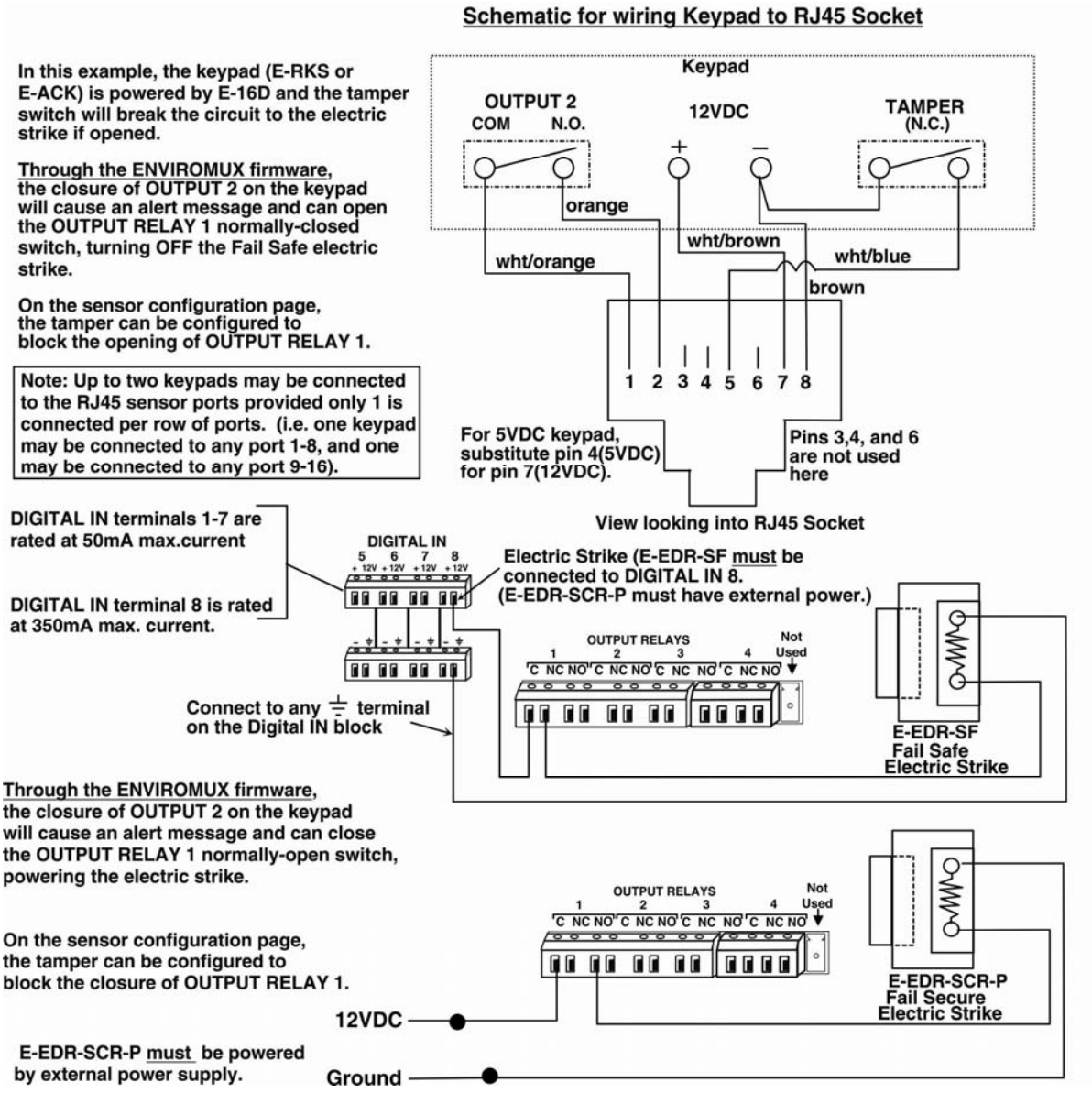
E-RKS REMOTE STATION KEYPAD
E-ACK(-V2)(P) SERIES DIGITAL KEYPAD
E-EDR-SF FAIL SAFE STRIKE
E-EDR-SCR-P FAIL SECURE STRIKE

The ENVIROMUX devices listed above are intended for connection to an NTI E-16D/5D/2D or an E-MINI-LXO (SYSTEM). For additional instruction on their proper use and operation, see any manuals that came with them and the manual provided with your SYSTEM.

Wiring instruction for connection to these SYSTEMs can be found below and on the pages that follow.

For the purposes of these illustrations, the "Keypad" can be either the E-RKS or E-ACK(-V2).

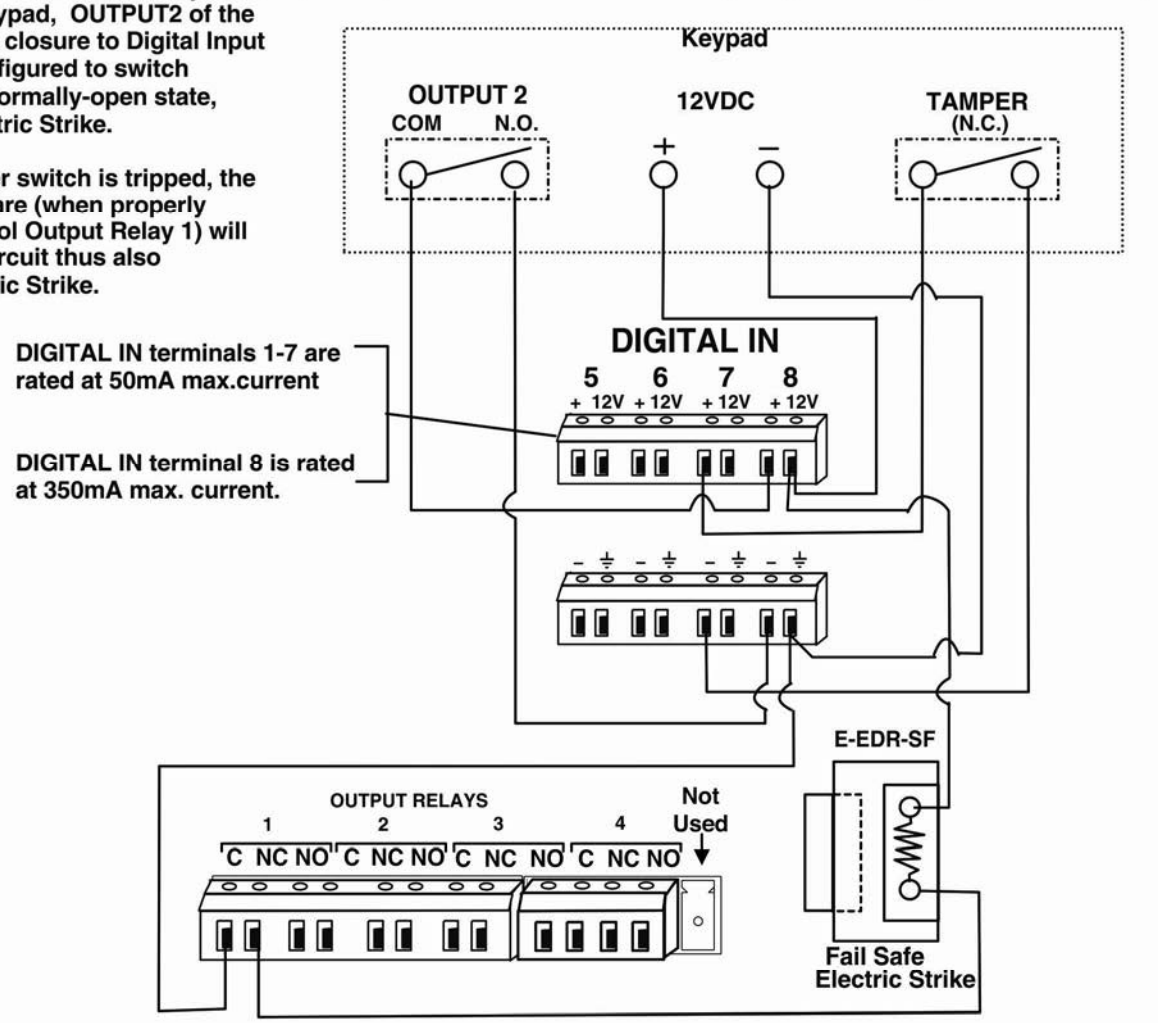
Wiring Connections for E-16D



In this example, when the correct key-code is entered at the keypad, OUTPUT2 of the keypad will provide closure to Digital Input 8 which can be configured to switch Output Relay 1 to normally-open state, turning off the Electric Strike.

If the keypad tamper switch is tripped, the ENVIROMUX software (when properly configured to control Output Relay 1) will close the ground circuit thus also powering the Electric Strike.

Example of schematic for wiring Keypad to Digital In Terminals



DIGITAL IN 8 can be set to switch the Output Relay contact to normally open when receiving a signal, opening the strike. DIGITAL IN 7 can switch back to normally-closed, locking the strike.

Keypad and Electric Strike (E-EDR-SF) must be connected to DIGITAL IN 8, or external power supply.

In the wiring example above, using an Output Relay and with the ENVIROMUX properly configured, tampering with the keypad would automatically lock the Strike and only the administrator would be able to unlock it by either acknowledging the alert or by manually changing the Output Relay state in the web interface. The only other way to power OFF the strike would be to power OFF the ENVIROMUX and wait for the backup battery to fully discharge.

New Sensor Configuration

Example of possible sensor configuration settings for Output 1 connection at Digital Input

Digital Input Settings

Description	Keypad Descriptive name for the digital input
Normal Status	Open Select the normal status for the digital input
Refresh Rate	20 Sec The refresh rate at which the digital input view is updated
State Open	Door Secure Descriptive name for open state
State Close	Door Open Descriptive name for close state

Group Settings

Schedule Settings

Alert Settings

Disable Alerts	☐ Disable alert notifications for this digital input
Alert Delay	1 Sec Duration the digital input must be out of normal status before alert is generated
Notify Again Time	30 Min Time after which alert notifications will be sent again
Notify on return to normal	☐ Send a notification when this digital input returns to normal status
Auto acknowledge	☑ Automatically acknowledge alert when digital input returns to normal status
Enable Syslog Alerts	☐ Send alerts for this digital input via syslog
Enable SNMP Traps	☐ Send alerts for this digital input via SNMP traps
Enable E-mail Alerts	☑ Send alerts for this digital input via e-mail
E-mail Subject	Clean Room Access Initiated Subject of e-mails sent for alerts
Select IP Camera	None Available Select IP camera for image capture on alert
Attach IP camera capture to e-mail	☐ Attach captured image from selected IP camera to alert e-mail
Save image to USB	☐ Save captured image from selected IP camera to USB Flash
Enable SMS Alerts	☑ Send alerts for this digital input via SMS
Send custom SMS	☑ Replace standard SMS with a customized message
Customized SMS	Clean Room has been accessed. Customized SMS message sent for alerts
Enable Siren	☐ Turn on the siren when digital input goes to alert
Enable Beacon	☐ Turn on the beacon when digital input goes to alert
Associated Output Relay	E-16D-S1 Output Relay 1 Name of the output relay that can be controlled by this digital input
Output Relay status on alert	Active Status of the output relay when going to alert
Output Relay status on return from alert	Inactive Status of the output relay when returning from alert
Change Global Alert Status on triggering this sensor	No Alert Changes

Digital Input Configuration

Example of possible sensor configuration settings for Tamper connection at Digital Input

Digital Input Settings

Description	Cleanroom Keypad Tam Descriptive name for the digital input
Normal Status	Open Select the normal status for the digital input
Refresh Rate	5 Sec The refresh rate at which the digital input view is updated
State Open	Normal Descriptive name for open state
State Close	Breach Descriptive name for close state

Group Settings

Schedule Settings

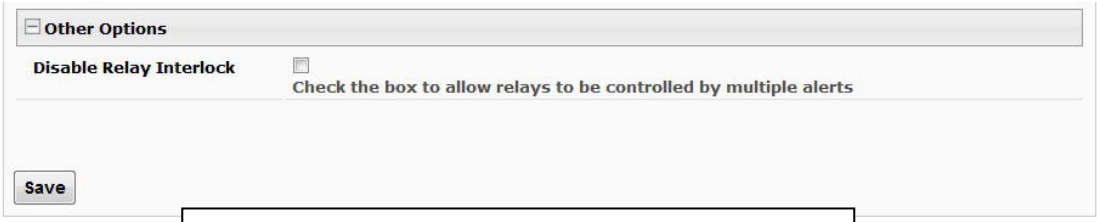
Alert Settings

Disable Alerts	☐ Disable alert notifications for this digital input
Alert Delay	1 Sec Duration the digital input must be out of normal status before alert is generated
Notify Again Time	10 Min Time after which alert notifications will be sent again
Notify on return to normal	☑ Send a notification when this digital input returns to normal status
Auto acknowledge	☐ Automatically acknowledge alert when digital input returns to normal status
Enable Syslog Alerts	☐ Send alerts for this digital input via syslog
Enable SNMP Traps	☐ Send alerts for this digital input via SNMP traps
Enable E-mail Alerts	☑ Send alerts for this digital input via e-mail
E-mail Subject	Clean Room Keypad Cover Off Subject of e-mails sent for alerts
Select IP Camera	None Available Select IP camera for image capture on alert
Attach IP camera capture to e-mail	☐ Attach captured image from selected IP camera to alert e-mail
Save image to USB	☐ Save captured image from selected IP camera to USB Flash
Enable SMS Alerts	☐ Send alerts for this digital input via SMS
Send custom SMS	☑ Replace standard SMS with a customized message
Customized SMS	Clean Room keypad unathorized Access Customized SMS message sent for alerts
Enable Siren	☐ Turn on the siren when digital input goes to alert
Enable Beacon	☐ Turn on the beacon when digital input goes to alert
Associated Output Relay	E-16D-S1 Output Relay 1 Name of the output relay that can be controlled by this digital input
Output Relay status on alert	Inactive Status of the output relay when going to alert
Output Relay status on return from alert	Active Status of the output relay when returning from alert

If you remove the default checkmark from Auto acknowledge, then even if someone tries to override the keypad control over the strike, the strike will not deactivate until the alert is acknowledged by the administrator.

You will need to Disable the Relay Interlock (under Administration-System- Other Options) in order to associate the same output relay with two sensors.

Otherwise, you can wire to have a second output relay break the circuit when the keypad tamper switch closes.



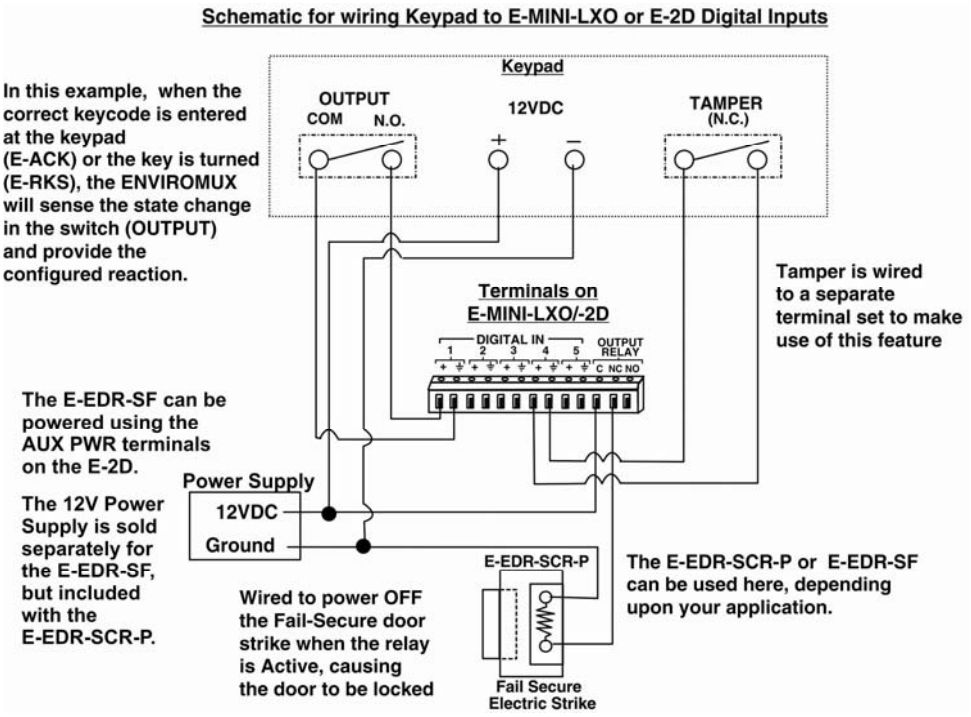
Uncheck the Disable Relay Interlock under System menu

Wiring Connections for E-MINI-LXO/ E-2D / E-5D

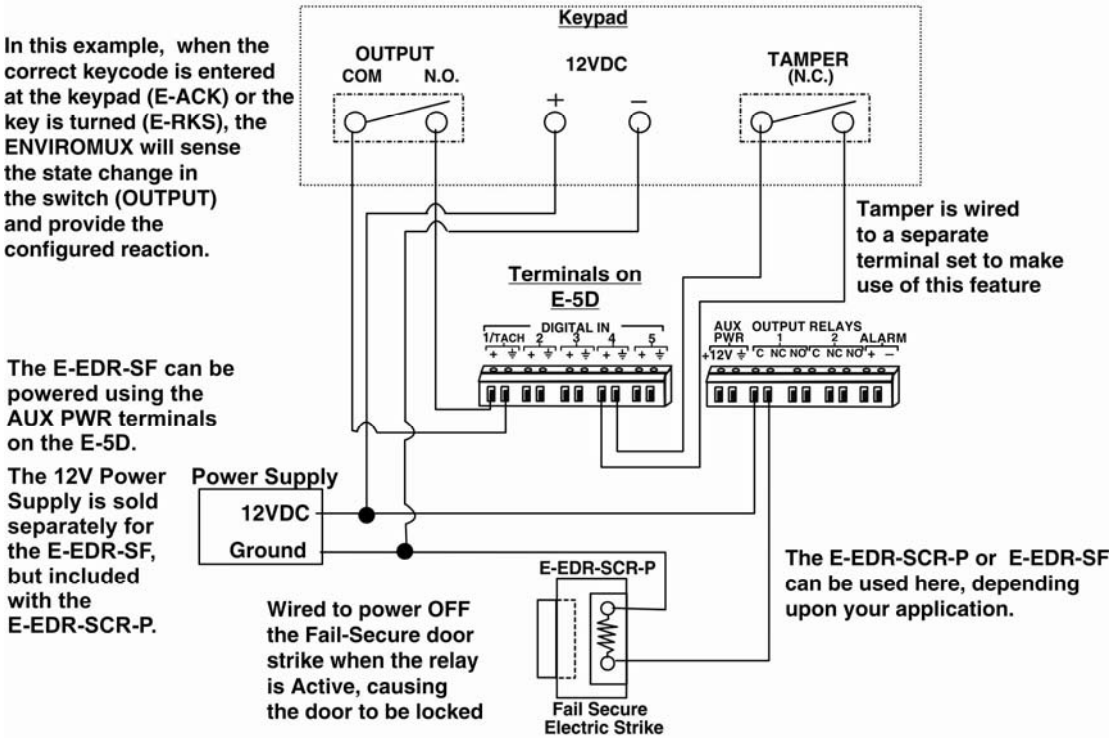
The E-MINI-LXO, E-2D and E-5D will also provide sensing and switching functions for the E-RKS,E-ACK(-V2), E-EDR-SF, or E-EDR-SCR-P.

An example of how these components can be connected can be seen here. When sold for use with the E-MINI-LXO, E-2D or E-5D, the model numbers include a "P" and are shipped with a 12V power supply.

Schematic for wiring Keypad to E-MINI-LXO or E-2D Digital Inputs

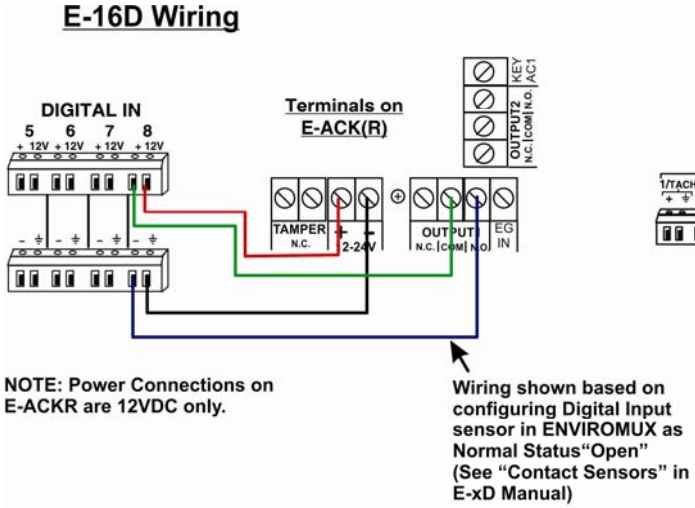


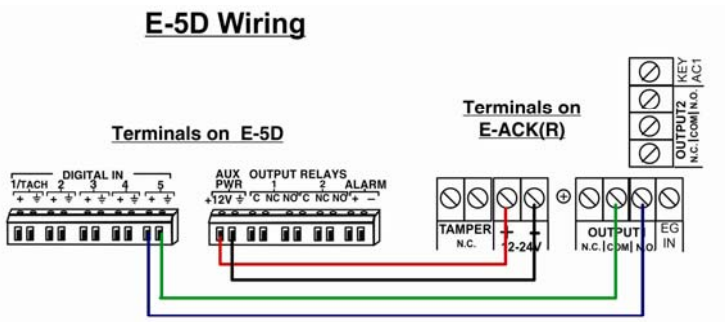
Schematic for wiring Keypad to E-5D Digital Inputs

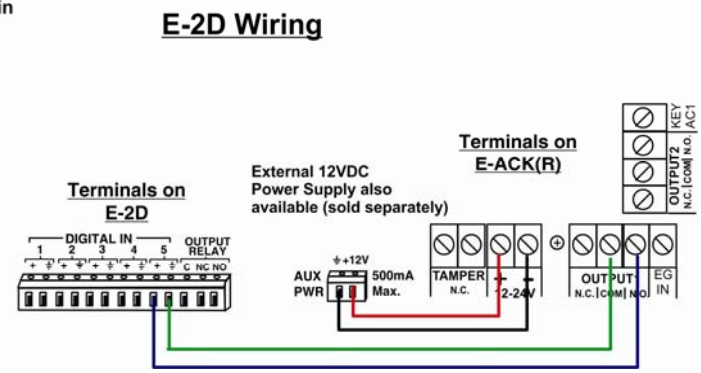


Wiring Connections for other ENVIROMUX Keypads

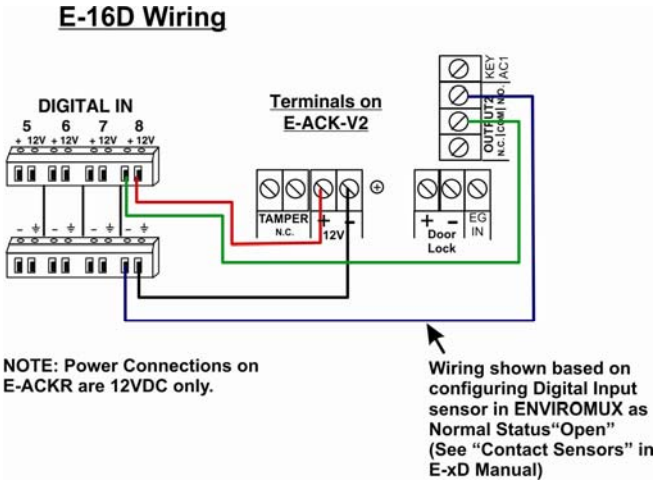
E-ACK(R)

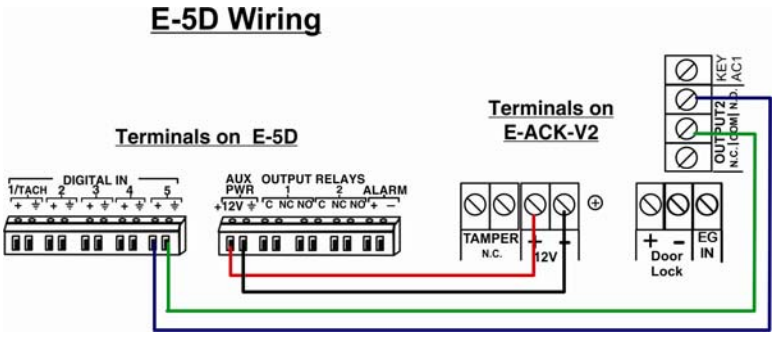


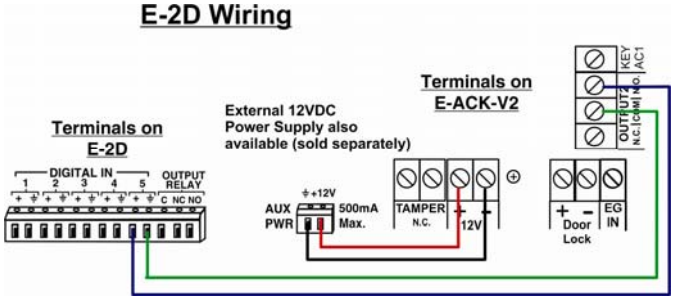


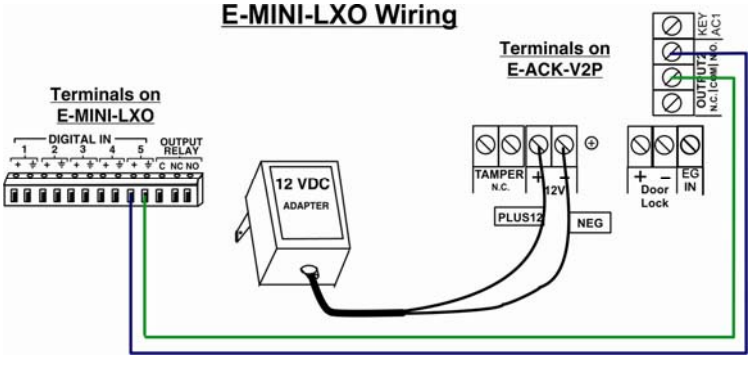


E-ACK-V2

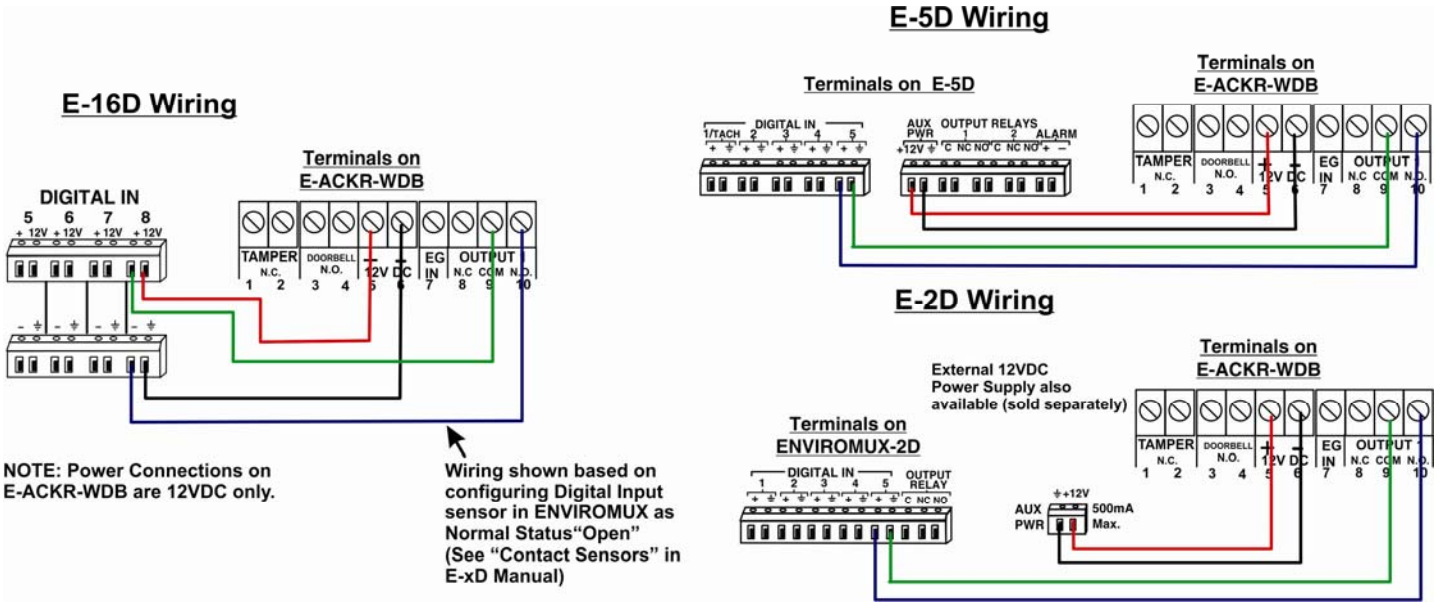




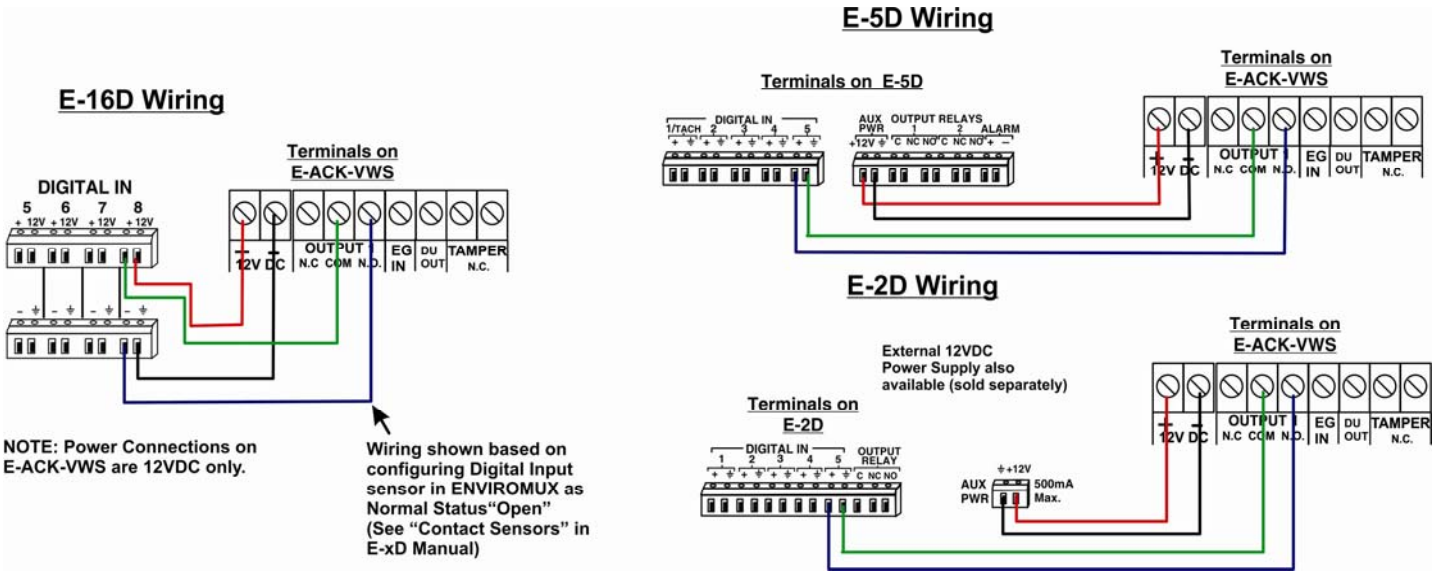




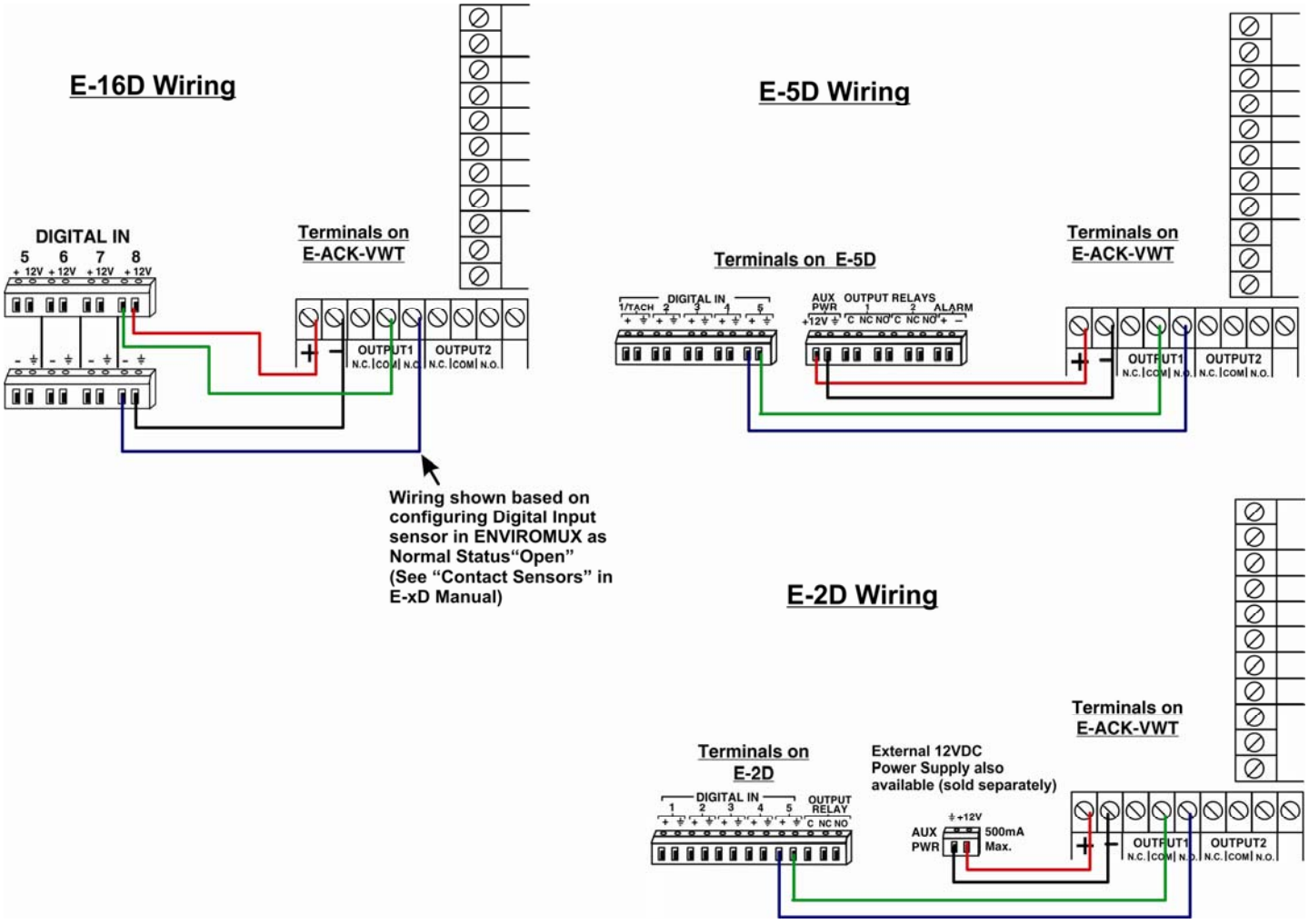
E-ACKR-WDB



E-ACK-VWS

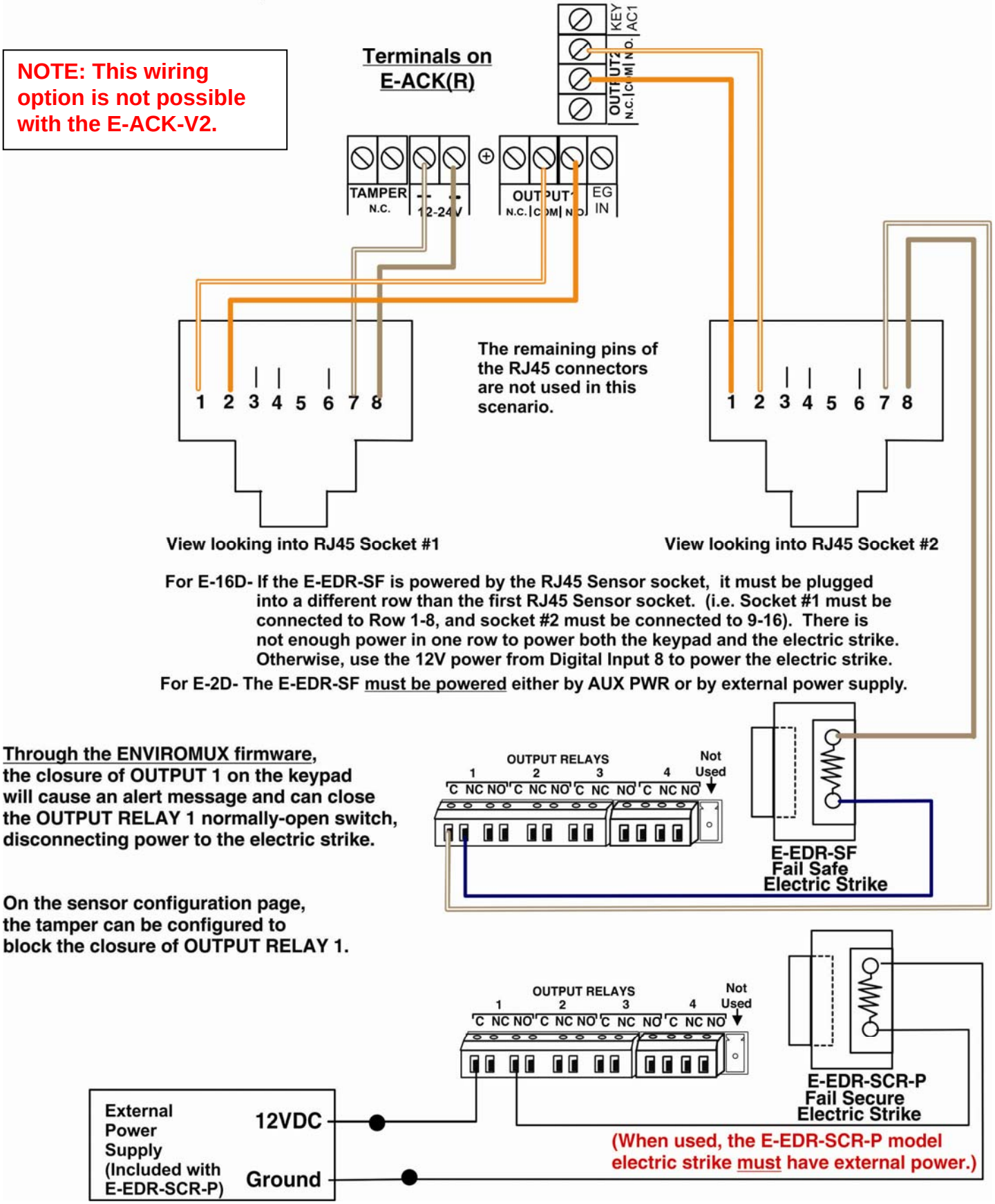


E-ACK-VWT


E-16D Wiring
DIGITAL IN
5 6 7 8
+ 12V + 12V + 12V + 12V
Terminals on
E-ACK-VWT
OUTPUT1
N.C. COM N.C.
OUTPUT2
N.C. COM N.O.
Wiring shown based on configuring Digital Input sensor in ENVIROMUX as Normal Status"Open" (See "Contact Sensors" in E-xD Manual)
E-5D Wiring
Terminals on E-5D
Terminals on
E-ACK-VWT
DIGITAL IN
1/TACH 2 3 4 5
AUX OUTPUT RELAYS
PWR 1 2 ALARM
+12V C NC NO C NC NO + –
OUTPUT1
N.C. COM N.O.
OUTPUT2
N.C. COM N.O.
E-2D Wiring
Terminals on
E-2D
Terminals on
E-ACK-VWT
External 12VDC
Power Supply also
available (sold separately)
DIGITAL IN
1 2 3 4 5
OUTPUT
RELAY
C NC NO
AUX
PWR
+12V
500mA
Max.
OUTPUT1
N.C. COM N.O.
OUTPUT2
N.C. COM N.O.

To use RJ45 Sensor sockets to connect a keypad for using the Enable/Disable Global Alerts feature, two RJ45 Sensors sockets will be needed. Two keycodes on the keypad for two different sensor configurations. First code will effect Output 1, second to effect Output 2. (See "Using Enable/Disable Global Alerts Feature" in E-xD Manual)

NOTE: This wiring option is not possible with the E-ACK-V2.



For E-16D- If the E-EDR-SF is powered by the RJ45 Sensor socket, it must be plugged into a different row than the first RJ45 Sensor socket. (i.e. Socket #1 must be connected to Row 1-8, and socket #2 must be connected to 9-16). There is not enough power in one row to power both the keypad and the electric strike. Otherwise, use the 12V power from Digital Input 8 to power the electric strike.

For E-2D- The E-EDR-SF must be powered either by AUX PWR or by external power supply.

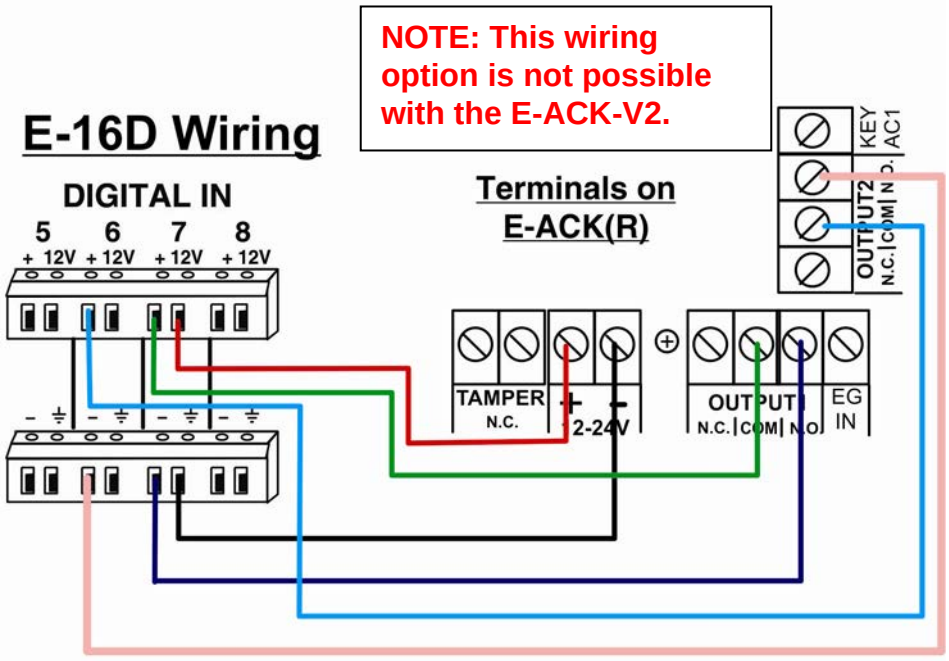
Through the ENVIROMUX firmware, the closure of OUTPUT 1 on the keypad will cause an alert message and can close the OUTPUT RELAY 1 normally-open switch, disconnecting power to the electric strike.

On the sensor configuration page, the tamper can be configured to block the closure of OUTPUT RELAY 1.

(When used, the E-EDR-SCR-P model electric strike must have external power.)

When using two Digital Inputs instead of two RJ45 Sensors, the keypad can be wired as shown below.

NOTE: This wiring option is not possible with the E-ACK-V2.



NOTE: Power Connections on E-ACKR are 12VDC only.

Power Consumption

Device	Current Draw (mA@12VDC)
E-ACK	75
E-ACK-V2	140
E-ACKR	150
E-ACKR-WDB	150
E-ACK-VWS	95
E-ACK-VWT	100
E-EDR-SCR-P	450
E-EDR-SF	200

Warranty Information

The warranty period on this product (parts and labor) is two (2) years from the date of purchase. Please contact Network Technologies Inc at **(800) 742-8324** (800-RGB-TECH) or **(330) 562-7070** or visit our website at http://www.networktechinc.com for information regarding repairs and/or returns. A return authorization number is required for all repairs/returns.

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.

Man133 Rev 10/22/19