212i Wiring Diagrams

212i Keypad

Wiring Diagrams & Specifications

Note: This product is designed to be installed and serviced by security and lock industry professionals.

212i Wire Harness

<table>
<thead>
<tr>
<th>Wire</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>Not Used</td>
</tr>
<tr>
<td>White/Blue</td>
<td>Output 3 V- (50mA sink)</td>
</tr>
<tr>
<td>White/Red</td>
<td>Output 2 V- (50mA sink)</td>
</tr>
<tr>
<td>Orange</td>
<td>Output 4/Panic V- (50mA sink)</td>
</tr>
<tr>
<td>Brown</td>
<td>REX Input</td>
</tr>
<tr>
<td>White/Orange</td>
<td>REX Input</td>
</tr>
<tr>
<td>White/Black</td>
<td>K (In) Keypad Active</td>
</tr>
<tr>
<td>White/Yellow</td>
<td>K (out)</td>
</tr>
<tr>
<td>Black</td>
<td>Ground (Output Only)</td>
</tr>
<tr>
<td>Red</td>
<td>V+ (Output Only)</td>
</tr>
</tbody>
</table>

Note: The red wire is the same voltage as your power supply. If you’re using AC, this voltage is rectified (DC).

SPECIFICATIONS:

MECHANICAL:
BOARD DIMENSIONS: 1.80"W x 2.845"H x 1.125"D

ELECTRICAL:
VOLTAGE: 12-24 Volts AC/DC (No Jumper Required)
CURRENT:
8mA@12VDC typical;
35mA with relay energized.
16mA@24VDC typical;
45mA with relay energized.
21mA@12VAC typical;
74mA with relay energized.
43mA@24VAC typical;
91mA with relay energized.

Note: Keypads using the 293 Relay Board, need an additional 30mA for each relay energized.

OUTPUTS:
Main Relay: 5 Amp, Form C @ 24VDC with 10 Amp surge.
Outputs 2, 3, and 4 are 50mA negative voltage outputs

ENVIRONMENTAL:
TEMPERATURE: -20°F TO 130°F (-28°C TO 54°C)
Indoor Only

TECHNICAL SUPPORT

DEALERS/INSTALLERS ONLY! End users must contact the dealer/installer for support. If the keypad still does not work after troubleshooting, please call the Technical Services department at 1-800-421-1587.

TECHNICAL NOTES

This product was re-designed using a new manufacturing technology, which changed the physical appearance of the keypad electronics. The LED’s changed to surface mount chip LED’s mounted on bottom of the circuit board which eliminates the need for the wire harnesses. It is also possible to control the red and green chip LED’s externally, with an alarm panel for example, by using connector J1. See the diagram for details. Also, the voltage selection jumper on the main circuit board is no longer required.

To prevent electrical kick back voltage from damaging the keypad, when using an electrical locking device, you MUST install the transorb as close as possible to the lock. Wire the transorb in parallel with the lock power terminals.

Also, to avoid ESD (electro-static discharge) from interfering with the operation of the keypad, ground the negative terminal of the keypad to earth ground. If you cannot ground the power supply, then you must ground the keypad housing.

The manufacturer recommends using a filtered and regulated power supply.

• Packing Checklist
212i Keypad
10 Conductor Wire Harness (1)
4 Conductor Wire Harness (1)
Slotted screws (2)
Security Screws (2)
Transorb (1)
Features & Programming Guide
Warranty Guide
293 Auxiliary Relay Board

The 293 plug-on relay board converts voltage outputs to 1 Amp, Form C relays and provides screw terminals for all inputs and outputs. The 293 fits into a standard 2" electrical box with the keypad.

Basic Access Control with an Electromagnetic Door Lock

12-24VDC

Basic Access Control with an Electric Door Strike

Shunting a Normally Closed Zone and Wiring a Request to Exit Device (REX)
To control the LED's externally cut the four traces in the box underneath connector J1. Before connecting the alarm panel's LED control lines to J1 verify the traces are cut. To verify, measure continuity between the end of the wire on the wire harness and the square pad on the circuit board below the box corresponding to the wire you're measuring. Permanent damage to the keypad may result if voltage is connected to J1 when the traces are not cut.
The diagram above shows how to connect two keypads to control a single door. Entering your code on keypad 2 unlocks the maglock directly. When you enter your code on keypad 1, it triggers the REX input of keypad two, which unlocks the door. Please note that user codes must be programmed into both keypads.

**LIMITED WARRANTY**

This Nortek Security & Control product is warranted against defects in material and workmanship for twenty four (24) months. *This warranty extends only to wholesale customers* who buy direct from Nortek Security & Control or through Nortek Security & Control’s normal distribution channels. Nortek Security & Control does not warrant this product to consumers. Consumers should inquire from their selling dealer as to the nature of the dealer’s warranty, if any. *There are no obligations or liabilities on the part of Nortek Security & Control LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.* All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. *This Nortek Security & Control LLC Warranty is in lieu of all other warranties express or implied.*

All products returned for warranty service require a Return Authorization Number (RA#). Contact Returns at 1-855-546-3351 for an RA# and other important details.