

Keypad Retrofit Instructions For TriNET MUX Keyless Entry

Using this Guide

This guide explains how to retrofit a newer model of a TriMark keypad to your legacy TriMark keyless entry system. System functionality has changed greatly since your installation's development. Current systems are much more compact and easier to troubleshoot. Unfortunately, these changes have made a direct replacement for legacy systems impossible. Despite the changes, the outward appearance of the keypads has not changed. Physically, the newer hardware will be an exact replacement. There is a work-around that is detailed in this guide to make the newer electronics work perform almost exactly as your original keypad used to. To ensure that your installation is done correctly, you'll need to identify your system's configuration.

Finding the Configuration

There are 4 possible configurations for your keyless entry system. These configurations determine how your control module responds to different inputs. For RV's, the most common configuration is D. There are two ways to identify your configuration. Both methods will require access to the control module. Contact your RV's manufacturer for the location of the control module if you have not already found it.

Method 1 identifies how your keypad controls your system by watching which secure commands control which doors.

Method 2 requires you to remove your control module from the RV and open the cover from the center of the circuit board. Under the cover, there is a DIP switch that sets the configuration.



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Method 1

If your current keypad has any functionality left, or if you can remember how it behaved, identify which doors respond to these commands. Before using each command, make sure all doors are locked either manually or with the keypad (hold 1/2 for 2 seconds).

“Secure 5/6” command (enter your access code, and press the 5/6 button, or 3 for doorbell keypads). If:

Only Some Compartments Unlock—Configuration is either C or D

Nothing Happens—Configuration is either A or B, but could be C or D if nothing is plugged into ports J7, J8, or J10.

Next, enter a “Secure 3/4” (Access code + 3/4 button, or 2 button for doorbell keypads). If:

Only Entry Door unlocks—RV does not have power-locking cargo bays, use configuration A

Entry and all compartment doors unlock—Configuration is either A, B, or D

Only compartments unlock—Configuration is C

Next, enter a “Secure 1/2” (Access code + 1/2 button, or 1 button for doorbell keypads). If:

Entry door unlocks—Configuration is either B, C, or D

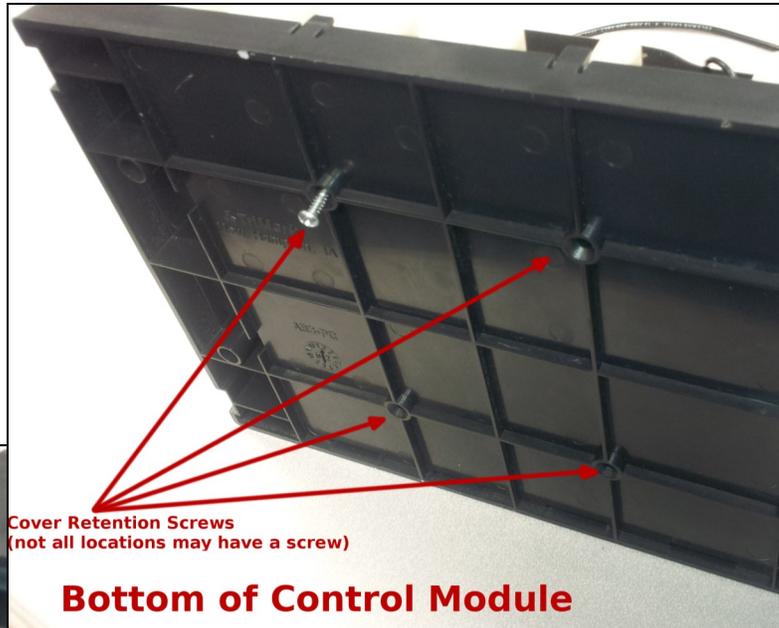
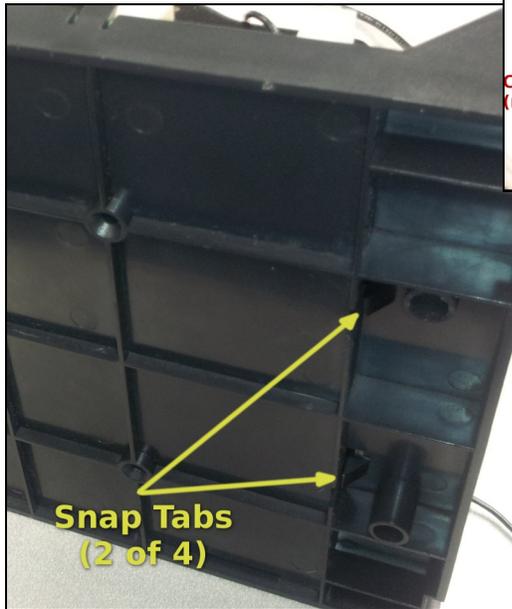
Nothing Happens—Configuration is A

These steps should be enough to determine your configuration. If you have a malfunctioning button or an inactive keypad, then you’ll need to use method 2 to determine your module’s configuration.

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Method 2

To see inside the control module, the module will need to be removed from the surface it is mounted to so that the retaining screw(s) underneath can be removed.



There are 4 snap-lock tabs that are holding the cover in place in addition to the retaining screw(s). Press the tabs in to release the cover from the base and expose the entire circuit board. You may need to release the tabs one at a time.

Once open, locate the DIP switch. One side of the DIP switch will have numbers, the other side will have the word "on" printed on it. Any white switches pressed towards the numbers are off. Make a note of the positions of switch numbers 1 and 2.



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These are the configurations possible for the TriNET MUX Control Module:

SWITCH SETTINGS [SW1,SW2]	CONFIGURATION
OFF,OFF	CONFIG A
OFF,ON	CONFIG B
ON,OFF	CONFIG C
ON,ON	CONFIG D

Installing the New Keypad

Now that you've determined your system's configuration, you are ready to wire your new keypad to function with your keyless entry system. The next four pages are guides for your installation. Each one is based on your configuration. Find the correct guide for your configuration and follow the instructions to properly wire your new keypad. When you are finished, your new keypad should function nearly identically to your original.

This retrofit replaces your current J2 connector with a fully-populated one. As you are splicing the new keypad harness to the new J2 connector, compare it with your original J2 connector (if was is installed). Any wires on your original J2 connector should be cut and spliced into the same position on the new J2 connector. Some keypad wires may also be using the same wires. It is safe to splice both the keypad and the original wire to the same terminal on the new J2 connector. (i.e. Your Config D module uses pin 6 on the original J2 connector. Your keypad splices into pin 6 on the new J2 connector. You should then also remove the wire from Pin 6 on the original connector and splice it to Pin 6 on the new J2 connector with the keypad wire so that full system functionality is preserved).

Because of some software changes that were necessary for the hardware upgrades. One or two features may be different or missing entirely. One difference that is consistent among all configurations is that the "Secure 5/6" operation no longer controls anything.

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Config **A**

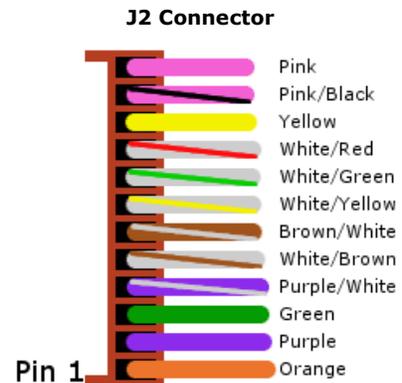
Discrete keypad used with MUX I/O module Configuration A

The discrete keypad can be used with the multiplex I/O module through J2 connector to lock and unlock the doors. The keypad provides a ground signal to the IO module similar as an interior lock or unlock switch.

The definition of pins 1-6 depends on the DIP switch setting:

Configuration A [SW 1 off / SW 2 off]

- Pin 1 (Orange): Locks all doors
- Pin 2 (Purple): Unlocks all doors
- Pin 3 (Green): Not Assigned
- Pin 4 (Purple/White): Not Assigned
- Pin 5 (White/Brown): Not Assigned
- Pin 6 (Brown/White): Not Assigned

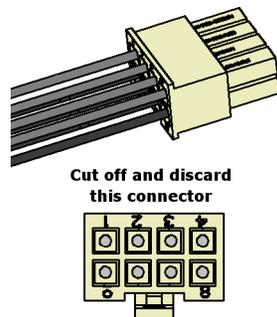


The list below shows the color-codes for the keypad wires.

Wire Identification:

- Red / White Wire – 12V pass-through output (relay coil)
- White / Green Wire - lock all
- White / Red Wire – unlock with 1/2 secure operation (entry doors)
- Brown Wire—unlock with 3/4 secure operation (bank 1)
- Purple Wire – Output actuated with 9/0 secure operation (dome lights or doorbell)
- Red Wire - system power, 12-14V
- Black Wire - system ground
- Yellow Wire - Learn mode wire (temporarily ground this wire to set a new authority code)

To properly connect the keypad, cut off and discard the small connector from your extension harness. Next, connect the wires from the keypad to the new connector as follows:



Keypad Wire	J2 Connector Wire
Red/White	No Connection
White/Green	Orange (1)
White/Red	Purple (2)
Brown	No Connection
Purple	White/Green (8)
Yellow	No Connection

IMPORTANT: The **RED** keypad wire must be connected to a +12V power source. Some wires can be spliced into, refer to UM16 to see which wires can be used to provide +12V. The **BLACK** keypad wire must be grounded.

Discrete Keypad Component Part Number Options:

- 24297-02 eGRAB handle electronics
- 22577-08 plastic bezel embedded keypad, vertical
- 22577-09 plastic bezel embedded keypad, horizontal
- 20493-01 J2 connector

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Config B

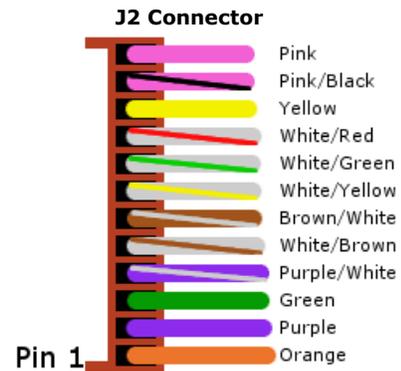
Discrete keypad used with MUX I/O module Configuration B

The discrete keypad can be used with the multiplex I/O module through J2 connector to lock and unlock the doors. The keypad provides a ground signal to the IO module similar as an interior lock or unlock switch.

The definition of pins 1-6 depends on the DIP switch setting:

Configuration B [SW 1 off / SW 2 on]

- Pin 1 (Orange): Locks all doors
- Pin 2 (Purple): Unlocks all doors
- Pin 3 (Green): Locks all Compartment Doors (banks A-D)
- Pin 4 (Purple/White): Unlocks all Compartment Doors (banks A-D)
- Pin 5 (White/Brown): Locks Entry Only
- Pin 6 (Brown/White): Unlocks Entry Only

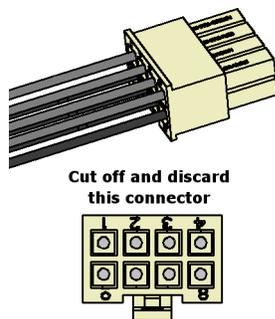


The list below shows the color-codes for the keypad wires:

Wire Identification:

- Red / White Wire – 12V output (relay coil)
- White / Green Wire - lock all
- White / Red Wire – unlock with 1/2 secure operation (entry doors)
- Brown Wire—unlock with 3/4 secure operation (bank 1)
- Purple Wire – Output actuated with 9/0 secure operation (dome lights or doorbell)
- Red Wire - system power, 12-14V
- Black Wire - system ground
- Yellow Wire - Learn mode wire (temporarily ground this wire to set a new authority code)

To properly connect the keypad, cut off and discard the small connector from your extension harness. Next, connect the wires from the keypad to the new connector as follows:



Keypad Wire	J2 Connector Wire
Red/White	No Connection
White/Green	Orange (1)
White/Red	Brown/White (6)
Brown	Purple/White (4)
Purple	White/Green (8)
Yellow	No Connection

IMPORTANT: The **RED** keypad wire must be connected to a +12V power source. Some wires can be spliced into, refer to UM16 to see which wires can be used to provide +12V. The **BLACK** keypad wire must be grounded.

Discrete Keypad Component Part Number Options:

- 24297-02 eGRAB handle electronics
- 22577-08 plastic bezel embedded keypad, vertical
- 22577-09 plastic bezel embedded keypad, horizontal

20493-01 J2 connector

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Config C

Discrete keypad used with MUX I/O module Configuration C

The discrete keypad can be used with the multiplex I/O module through J2 connector to lock and unlock the doors. The keypad provides a ground signal to the IO module similar as an interior lock or unlock switch.

The definition of pins 1-6 depends on the DIP switch setting:

Configuration C [SW 1 on / SW 2 off]

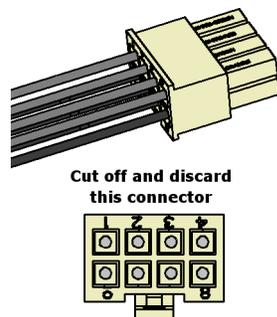
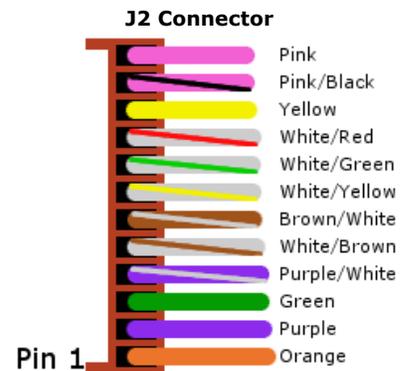
- Pin 1 (Orange): Locks all doors
- Pin 2 (Purple): Unlocks Entry door
- Pin 3 (Green): Unlocks Bank A
- Pin 4 (Purple/White): Unlocks Bank B
- Pin 5 (White/Brown): Unlocks Bank C
- Pin 6 (Brown/White): Unlocks Bank D

The list below shows the color-codes for the keypad wires:

Wire Identification:

- Red / White Wire – 12V output (relay coil)
- White / Green Wire - lock all
- White / Red Wire – unlock with 1/2 secure operation (entry doors)
- Brown Wire—unlock with 3/4 secure operation (bank 1)
- Purple Wire – Output actuated with 9/0 secure operation (dome lights or doorbell)
- Red Wire - system power, 12-14V
- Black Wire - system ground
- Yellow Wire - Learn mode wire (temporarily ground this wire to set a new authority code)

To properly connect the keypad, cut off and discard the small connector from your extension harness. Next, connect the wires from the keypad to the new connector as follows:



Keypad Wire	J2 Connector Wire
Red/White	No Connection
White/Green	Orange (1)
White/Red	Purple (2)
Brown	Green (3), Purple/White (4), White/Brown (5), and
Purple	No Connection
Yellow	No Connection

IMPORTANT: The **RED** keypad wire must be connected to a +12V power source. Some wires can be spliced into, refer to UM16 to see which wires can be used to provide +12V. The **BLACK** keypad wire must be grounded.

Discrete Keypad Component Part Number Options:

- 24297-02 eGRAB handle electronics
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- 22577-09 plastic bezel embedded keypad, horizontal

20493-01 J2 connector

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Config D

Discrete keypad used with MUX I/O module Configuration D

The discrete keypad can be used with the multiplex I/O module through J2 connector to lock and unlock the doors. The keypad provides a ground signal to the IO module similar as an interior lock or unlock switch.

The definition of pins 1-6 depends on the DIP switch setting:

Configuration D [SW 1 on / SW 2 on]

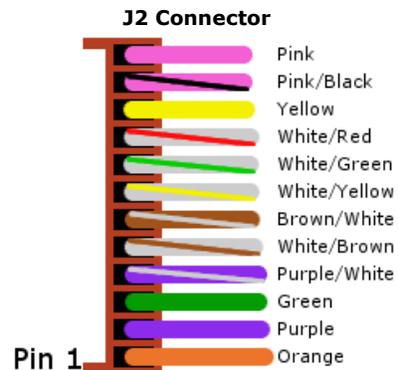
- Pin 1 (Orange): Locks all doors
- Pin 2 (Purple): Unlocks all doors
- Pin 3 (Green): Unlocks curb-side compartment doors (banks C-D)
- Pin 4 (Purple/White): Unlocks driver-side compartment doors (banks A-B)
- Pin 5 (White/Brown): Locks entry door(s)
- Pin 6 (Brown/White): Unlocks entry door(s)

The list below shows the color-codes for the keypad wires:

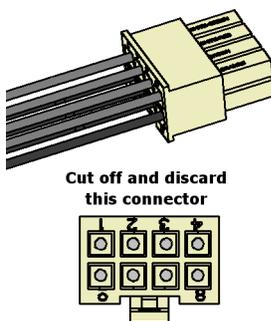
Wire Identification:

- Red / White Wire – 12V output (relay coil)
- White / Green Wire - lock all
- White / Red Wire – unlock with 1/2 secure operation (entry doors)
- Brown Wire—unlock with 3/4 secure operation (bank 1)
- Purple Wire – Output actuated with 9/0 secure operation (dome lights or doorbell)
- Red Wire - system power, 12-14V
- Black Wire - system ground
- Yellow Wire - Learn mode wire (temporarily ground this wire to set a new authority code)

To properly connect the keypad, cut off and discard the small connector from your extension harness. Next, connect the wires from the keypad to the new connector as follows:



Keypad Wire	J2 Connector Wire
Red/White	No Connection
White/Green	Orange (1)
White/Red	Brown/White (6)
Brown	Both Purple/White (4) and Green (3)
Purple	White/Green (8)
Yellow	No Connection



Cut off and discard this connector

IMPORTANT: The **RED** keypad wire must be connected to a +12V power source. Some wires can be spliced into, refer to UM16 to see which wires can be used to provide +12V. The **BLACK** keypad wire must be grounded.

Discrete Keypad Component Part Number Options:

- 24297-02 eGRAB handle electronics
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- 22577-09 plastic bezel embedded keypad, horizontal

20493-01 J2 connector

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