

e-ASK

electronic **A**ccess **S**ecurity **K**eyless-entry

OEM / Dealer / Installer Cargo Lock / Unlock Version Installation & Instructions

(UM04 ~ 18990-04)



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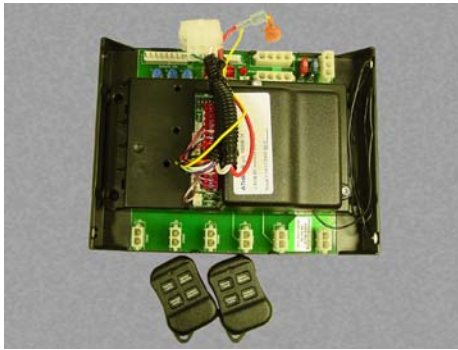
Introduction

This manual provides the necessary information for the proper installation and use of TriMark's **e-ASK** system. The **e-ASK** comes with the following components:

- **e-FOB** (radio frequency [RF] FOB transmitter and receiver)
- **e-PAD** (keypad user interface)
- **e-ASK** I/O module

The following pictures are provided to properly identify the components of this system.

**e-FOB with RF receiver,
2 FOB transmitters,
and wiring harnesses**



e-PAD keypad



e-ASK I/O module



e-FOB Operation and Features

The FOB transmitters and receiver are shipped programmed. After making all necessary wiring connections (see Appendix B, page II for wiring information), the **e-FOB** system will function as shown.



Button	Function
Entry Lock	Locks entry doors and arms security system.
Entry Unlock	Unlocks entry doors and disarms security system. Also activates the porch light.
Cargo Lock	Locks all compartment doors and arms security system.
Cargo Unlock	Unlocks all compartment doors and disarms security system. Also activates the compartment lighting.

Notes:

- While the engine is running only the entry unlock function of the **e-FOB** remains activated —other functions are deactivated.
- Both the **Entry Lock** and **Cargo Lock** must be pressed to arm the alarm system. Press the **Entry Unlock** or **Cargo Unlock** button to disarm the system and deactivate the alarm mode.

e-PAD Operation and Features



The **e-PAD** is shipped with default Authority and Access codes. Unless the OEM or dealer has changed the default codes, the Authority and Access codes are as follows:

Access code:

Digit 1	Digit 2	Digit 3	Digit 4	Digit 5
1 / 2	3 / 4	5 / 6	7 / 8	9 / 0

Authority code:

Digit 1	Digit 2	Digit 3	Digit 4	Digit 5
7 / 8	7 / 8	7 / 8	7 / 8	7 / 8

When all necessary wiring connections are made, the **e-PAD** system will function as indicated below:

Locking Doors

Press and hold down the (1 / 2) button for 1-2 seconds. An access code is not needed to lock the doors.

Secure Operations (requires access code to be entered)

Entering a valid 5-digit access code enables secure operations. After entering an access code, the keypad is enabled for 5 seconds and a sixth button press initiates a secure operation, such as unlocking the doors.

Notes:

- The authority code does not allow for secure operations. It is only used to assign access codes (see page 12 for information on setting authority and access codes).
- The secure keypad operations are set depending on the system configuration.

e-ASK Configuration

The **e-ASK** system can be configured in one of four ways, as defined by #1 and #2 DIP Switch settings on the I/O module.

The different configurations provide different button assignments for the 6th button press. The 6th button press refers to the button you press after a five-digit access code has been entered.

Following are the different configurations:

Configuration A [SW 1 off / SW 2 off]:

- Button (1 / 2): unassigned
- Button (3 / 4): unlocks all entry and compartment doors
- Button (5 / 6): unassigned
- Button (7 / 8): activates zone 6 unidirectional actuation
- Button (9 / 0): toggles Aux 1 output

Configuration B [SW 1 off / SW 2 on]:

- Button (1 / 2): Unlocks all entry door(s)
- Button (3 / 4): Unlocks all entry and compartment doors
- Button (5 / 6): Unassigned
- Button (7 / 8): Activates zone 6 unidirectional actuation
- Button (9 / 0): Toggles Aux 1 output

Configuration C [SW 1 on / SW 2 off]:

- Button (1 / 2): Unlocks all entry doors
- Button (3 / 4): Unlocks all doors assigned to relay bank A
- Button (5 / 6): Unlocks all doors assigned to relay bank B
- Button (7 / 8): Unlocks all doors assigned to relay bank C
- Button (9 / 0): Unlocks all doors assigned to relay bank D

Configuration D [SW 1 on / SW 2 on]:

- Button (1 / 2): Unlocks all entry doors
- Button (3 / 4): Unlocks all entry and compartment doors
- Button (5 / 6): Unlocks all curb side compartment doors (relay banks C-D)
- Button (7 / 8): Unlocks all driver side compartment doors (relay banks A-B)
- Button (9 / 0): Toggles Aux 1 output

Notes:

- See the table on page 8 for S2 DIP switch assignments.
- Configuration D is the default.

Additional Features

e-PAD / e-FOB Dome/Porch Light Activation

The dome/porch light is activated for a timed duration (5-60 seconds) whenever a keypad button is pressed or when system is unlocked from FOB transmitter or vehicle switch. The time duration is dependent on the trim pot A setting (see page 7).

The dome/porch light is deactivated with starting the engine.

e-PAD Protective Deactivating Security Feature

After repeated entering of incorrect codes (20 button presses without enabling), the keypad is deactivated for 1 minute. This helps prevent unauthorized access by entering random codes.

No beep will sound with button press while the system is disabled.

e-PAD Backlighting Power Management Feature

In order to provide continuous backlighting, but not drain the vehicle battery, the **e-PAD** deactivates backlighting if battery voltage is low.

If voltage is below 11 volts, then continuous backlighting is shutoff until the battery is fully charged. When continuous backlighting is off, the keypad still “wakes up” when a button is pressed. In this case, the backlighting is activated for only one minute.

e-ASK I/O Module Operation and Features

The I/O module, along with the RF receiver, controls the operation and functionality of e-ASK system.



DIP Switch Settings for Keypad Configurations

The following vehicle switch assignments of connector J2 (see Appendix B, page V), pins 1 thru 6 define system configuration. These are the I/O module outputs that correspond to the 6th button press operations. When a pin is grounded, its corresponding function is specified.

Configuration A [SW 1 off / SW 2 off]

- Pin 1: Locks all doors
- Pin 2: Unlocks all doors
- Pin 3: Unassigned
- Pin 4: Unassigned
- Pin 5: Unassigned
- Pin 6: Unassigned

Configuration B [SW 1 off / SW 2 on]

- Pin 1: Locks all doors
- Pin 2: Unlocks all doors
- Pin 3: Locks all compartment doors (banks A-D, not entry door relays)
- Pin 4: Unlocks all compartment doors (banks A-D, not entry door relays)
- Pin 5: Locks entry door(s)
- Pin 6: Unlocks entry door(s)

Configuration C [SW 1 on / SW 2 off]

- Pin 1: Locks all doors
- Pin 2: Unlocks entry door(s)
- Pin 3: Unlocks bank A compartment(s)
- Pin 4: Unlocks bank B compartment(s)
- Pin 5: Unlocks bank C compartment(s)
- Pin 6: Unlocks bank D compartment(s)

Configuration D [SW 1 on / SW 2 on]

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

Trim Pot Variable Resistors (Appendix B, page V)

These trim pots provide adjustable settings for timed outputs. Clock-wise rotation increases activation time.

- Trim pot A (R31) is assigned to dome/porch light activation (5-60 second range).
- Trim pot B (R32) is assigned to Auxiliary 1 output (0.5-5.0 minute range).
- Trim pot C (R33) is assigned to Auxiliary 2 compartment lighting output (0.5-5.0 minute range).

Notes:

- Trim pot settings are updated every 30 seconds.
- Trim pot adjustments may not be observed immediately.

S2 DIP Switches

The S2 DIP switch is located under the I/O module cover. Functional assignments are described below.

Switches 1 and 2

Switches 1 and 2 provide a functional assignment of how relay banks A-D are grouped. The following table shows the configuration type (A-D), DIP switch assignment, and subsequent relay assignment. Configuration D is standard.

Configuration	Switch 1	Switch 2	Relay bank grouping
A	Off	Off	1 group exists. All banks are grouped with entry door.
B	Off	On	2 groups exist. #1 entry group. #2 group to banks A, B, C, and D.
C	On	Off	5 groups exist. # 1 entry. #2 to bank A., #3 to bank B. #4 to bank C., and #5 to bank S.
D	On	On	3 groups exist. #1 entry group. #2 group to banks A and B. #3 group to banks C and D.

Switch 3

Switch 3 provides the ability to deactivate auto locking and unlocking via engine running input.

- Switch 3 ON: auto locking and unlocking activated.
- Switch 3 OFF: auto locking and unlocking deactivated.

Switch 4

Switch 4 provides the ability to designate the functionality of the Cargo Lock and Cargo Unlock buttons. Switch 4 ON is standard position.
Switch 4 ON: buttons lock and unlock compartment doors

- Switch 4 ON: buttons lock and unlock compartment doors
- Switch 4 OFF: the Cargo Lock button initiates the panic function. The Cargo Unlock button toggles the Auxiliary 1 output on/off. (See page 6)

S1 Learn Switch Connector

The Learn Switch Connector is used to reset the keypad to assign a new authority code. See page 12 for further information on teaching keypad a new authority code.

Status LED (Appendix B, page V)

LED flashes at power-up and provides short periodic pulses if voltage supply is low.

I/O Module Confirmation Features

The following table describes audio/visual activations at various conditions:

Outputs	Single Lock Confirmation	All Lock Confirmation	Alarm
Siren	Not used	Not used	1 minute or when shut off
Horn	1 chirp	2 chirps	Not used
Headlights	1 flash	2 flashes	1 minute or when shut off

Locking and Unlocking Confirmation

- After locking either the entry door or compartment doors from a **-FOB** transmitter, the headlights flash once and the horn sounds once. When the entry door and compartment doors are both locked within one minute, the headlights flash and horn sounds twice.
- Locking and unlocking confirmation is deactivated while engine is running.
- Confirmation may be shut off. (See page 9).

Door Ajar Confirmation

A triple siren chirp sounds if any compartment or entry door is open when the entry and compartment doors are locked. If a door is open, the alarm is not armed.

Deactivate Lock Confirmation

The system defaults to confirmation ON with power-up. Horn and headlight confirmation can be toggled off and on from the keypad.

1. Enter valid access code.
2. Hold down (9 / 0) button until double beep sounds. Release.
3. Press (1 / 2) button.

Note: Lights flash and horn honks to indicate that you are setting horn and headlight confirmation to ON.

Unidirectional Actuation Pulse Output (door opening, battery disconnect, etc.)

The J9 connector (Zone 6) actuation output provides a short pulse when it is activated via a vehicle switch, keypad (depends on system configuration), or FOB transmitter (depends on I/O module DIP switch #4 setting). This short pulse output is disabled while the engine is running.

Panic Mode (Not a standard function)

Available when S2 DIP Switch 4 OFF and DIP Switch 2 ON of the RF controller are OFF. Pressing and holding the Cargo Lock button of the e **-FOB** transmitter for 2 seconds activates panic mode. During panic mode, siren is continuously activated and headlights flash for a maximum of 1 minute. Compartment door control is eliminated while in panic mode.

To deactivate panic mode do one of the following:

- Unlock the vehicle via the FOB transmitter.
- Unlock the system via the keypad or vehicle switch.
- Start the engine.

Alarm Mode

After locking entry and compartment doors, the system is armed. The alarm is activated when entry door or compartment doors are opened, or by grounding the extra security input. The extra security input could be connected to external shock sensing, motion detection or other sensing device. When alarm is triggered, the siren is continuously activated and headlights flash for 1 minute.

To deactivate alarm mode:

- Unlock doors via FOB transmitter, keypad, or interior switch.
- Start the engine.

Timed Dome/Porch Light Activation

The dome/porch light is activated upon pressing any keypad button or by unlocking entry door via FOB transmitter. The activation duration is controlled via trim pot A (see page 7). Starting the engine deactivates the light.

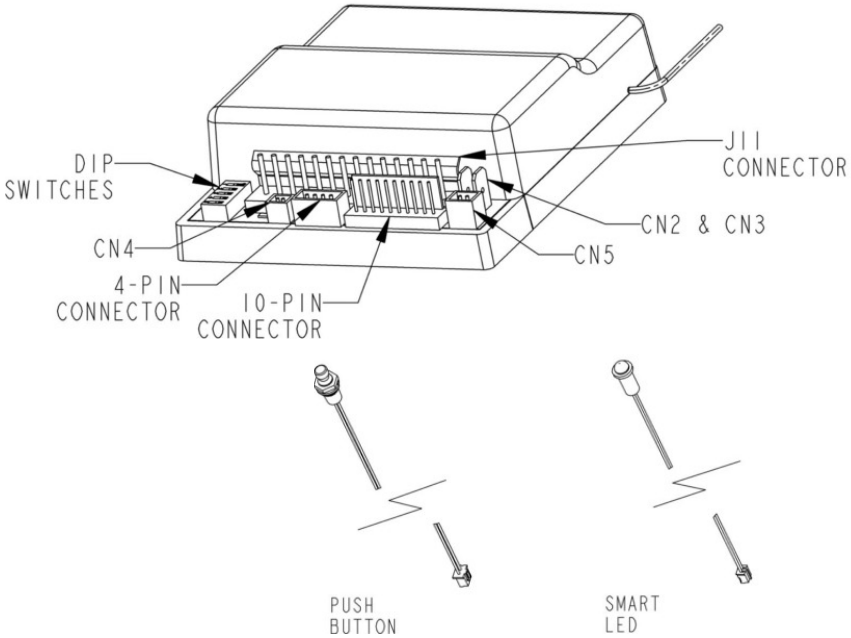
Compartment Light Activation

Compartment lights are activated upon unlocking compartment doors (bank A-D) or toggling vehicle switch. The activation duration is controlled via trim pot C (see page 7). Starting the engine deactivates the light.

Automatic Locking and Unlocking

When S2 DIP switch # 3 is ON auto-locking feature is activated. All doors are locked after the engine has been running for 5 seconds. Doors unlock when the engine is turned off. To deactivate this feature, move switch 3 to OFF. The alarm is not enabled/disabled by automatic locking/unlocking.

Teaching Additional Transmitter FOBs



1. Plug the smart LED into CN4 and the push button into CN5.
2. Connect the yellow wire with spade connector to +12 V (possibly red wire with spade connector).
3. Press and hold the push button switch until the LED assembly turns on and then off (about 5 seconds).
4. Press the Entry Lock button of each new FOB transmitter once. Up to 4 transmitters may be programmed at one time.
5. Disconnect the yellow wire and verify proper **e-FOB** transmitter and receiver reception.

Notes:

- If you place the system in learn mode and teach nothing, the system will exit in 10 seconds.
- If the 4-transmitter limit is exceeded, the system erases the earliest trained transmitter. To erase a lost remote, teach the remaining or new remotes a total of 4 times.
- It is recommended to teach all transmitters to be used at the same time. This eliminates the potential to erase an earlier trained transmitter.
- The memory for codes is NON-VOLATILE and will not be erased if power is removed.

Teaching Keypad New Authority / Access Codes

When you assign a new authority code, you delete the existing authority code as well as any access codes.

Note: The authority code you assign following these instructions also becomes an access code saved to the 1 / 2 button.

1. Cycle (short then open) the S1 pins of the I/O module learn connector (Appendix B, page V). There will be three-second beep.
2. Enter a new five-digit code—this will be your access and authority code.
3. **Enter the new code again.**
4. The existing code will only erase if you properly enter the new one.
5. The code is stored in position one.

Important: Authority and access codes should not be the same. If someone figures out an access code and discovers it to be an authority code as well, they can then create their own access code and gain entrance to your vehicle.

Once resetting the keypad, your next step should be to create a new access code and store it in position one so as to ensure the access code is no longer the same as the authority code.

Notes:

- The authority code is to be controlled by individuals (owners of vehicle, fleet manager, etc.) who manage the distribution of access codes to vehicle users.
- The authority code should be changed when the vehicle is sold.
- The authority code does not enable secure functions (lock/unlock doors, etc.)—it is only used to assign access codes.

The following area can be used to document the authority code:

Authority Code				
Digit 1	Digit 2	Digit 3	Digit 4	Digit 5

Assign New Access Codes

With a valid authority code (see page 3 or 12), an access code can be programmed with the following instructions.

1. Press the (5 / 6) button for 5 seconds, the keypad will beep. The backlighting LED of the keypad will flash indicating the learn mode.
2. Enter in the 5-digit authority code (see page 3 or 12). Keypad will provide a long beep that will stop after you have defined an access number.
3. Press and release the button that corresponds to the access number. For example, press (1/2) button for access #1 and press (3 / 4) button for access #2. During this activity you are defining 1 of 5 access numbers. A subsequent code will be assigned to this access #. The keypad will provide a confirmation beep after this single button press.
4. Enter in your new 5-digit access code. The keypad will provide confirmation beeps.
5. Re-enter new access code. The keypad will provide confirmation beeps.

Repeat process to assign additional access codes.

Up to 5 different access codes can be assigned at one time. As additional access codes are defined, pre-existing access codes are overwritten. For example, if a new access code is assigned for access #3, the previous access #3 code is no longer valid.

The following area can be used to document the access code assignments.

Access #	User Name	Digit 1	Digit 2	Digit 3	Digit 4	Digit 5
1						
2						
3						
4						
5						

Troubleshooting

Problem	Possible Solution
e-FOB Hints	
Button press does not provide correct operation	Verify power to the I/O module and RF receiver.
	Re-teach the FOB transmitter to the receiver. Ensure that only Lock button is pressed while in learn mode.
No operation or intermittent operation	Mount RF receiver away from enclosed metal areas and fully extend antennae.
	Check FOB transmitter battery voltage. Batteries need to be changed every 1-2 years depending on usage.
Alarm mode starts when powered up or unlock from keypad	Press Unlock Button of FOB transmitter Entry Unlock or Cargo Unlock
One particular e-FOB function does not work.	Check wire connection of affected function at RF module, wiring harness, and I/O module.
Zone 6 activated inadvertently	Verify that Zone 6 is not connected to the *button on the FOB transmitter.
	The *button can activate both outputs.
e-PAD Hints	
No response with button press	Verify power to the I/O module.
	Verify that keypad cable is connected. (rest of system will function).
Access code is not recognized	Verify that code has not been changed. Reassign keypad with instructions starting on page 12.
	Confirm use of an access code, not the authority code.
Continuous keypad backlighting is off until a button is pressed.	Vehicle battery voltage has dropped below 11 V.

Key FOB works correctly, keypad beeps, but no output	Cycle power to I/O module.
Unexpected, secure operation occurs	Verify DIP switches are set to correct configuration setting.
e-ASK I/O Hints	
No response in any system element	Verify power to the I/O module.
Lights and panic mode do not turn off with ignition start.	Verify that connector J11, pins 7, 8 and 9 are wired properly.
Output relay latches on or off.	Verify that power to relay comes from connector J12, pin 1.
	Cycle power to system. If condition continues, replace relay.

This product has been manufactured with methods to ensure high quality and to meet the high expectations of our customers. TriMark warrants this product to be free from workmanship defects and will remedy issues per TriMark's warranty policy.

Remote transmitter FOBs, batteries, and other equipment subject to normal wear and deterioration may need to be replaced periodically by dealer and/or end user and are not covered by this warranty. TriMark will not be liable for indirect, special, incidental or consequential damages.

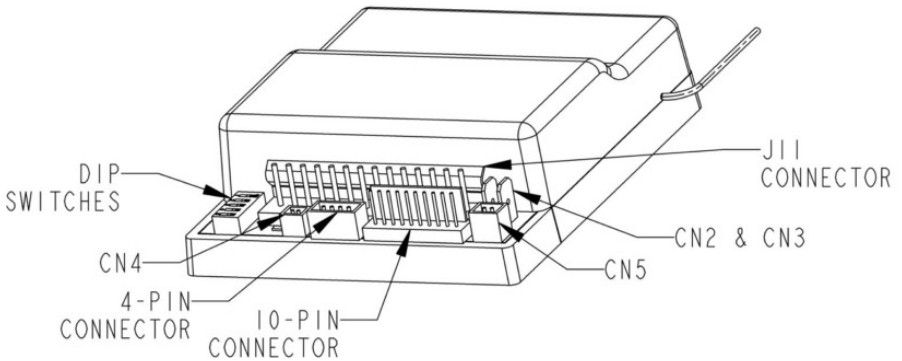
Contact TriMark for specific mounting details, such as drawings, placement suggestions, mounting hardware, etc.

Appendix A: Mounting e-ASK Components

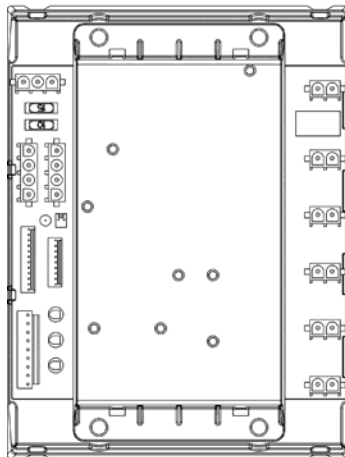
Contact TriMark for specific mounting details, such as drawings, placement suggestions, mounting hardware, etc.

General Mounting Guidelines:

- The RF receiver should be placed in an interior location that does not shield RF signals. You may need to try multiple locations to optimize reception. The antennae must be left fully extended and exposed. Minimize shielding from metal enclosures.
- Top surface of the I/O module has features that can be self-tapped with a #8-32 fastener. Fasteners should not be longer than 0.5 inches in thread length. These



I/O Module



Appendix B: Wiring Color Code Tables and Diagrams

The following tables and diagrams are provided to show color-coded wire and pin assignments for the **e-ASK** system.

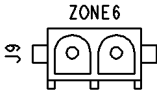
Wire Colors	J11 – 14-Pin Harness	
PURPLE / WHITE	CARGO UNLOCK BUTTON INPUT/OUTPUT. BUILT-IN RELAY, 12A	1
PURPLE / WHITE		2
WHITE / GREEN	ENTRY LOCK OUTPUT (N/C RELAY 30)	3
WHITE / BLACK	LOCK INPUT (N/C RELAY 87A)	4
YELLOW	CONNECT TO TEACH FOB TRANSMITTER	5
BLACK	GROUND	6
BROWN	UNASSIGNED	7
RED	+12 VDC POWER SOURCE	8
BLUE / WHITE	ENTRY UNLOCK INPUT (N/C RELAY 87 A)	9
WHITE / RED	UNLOCK OUTPUT (N/C RELAY 30)	10
PINK / BLACK	LOCK / UNLOCK POLARITY (N/O RELAY 87)	11
WHITE	UNASSIGNED	12
PINK	UNASSIGNED	13
PINK	UNASSIGNED	14



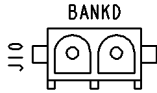
Wire Colors	10-Pin Harness	
ORANGE	UNASSIGNED	1
WHITE / BROWN	UNASSIGNED	2
BROWN / WHITE	CARGO LOCK	3
WHITE / YELLOW	UNASSIGNED	4
GRAY	UNASSIGNED	5
PURPLE / GREEN	UNASSIGNED	6
WHITE / BLUE	UNASSIGNED	7
BLUE	UNASSIGNED	8
GREEN	UNASSIGNED	9
PURPLE	UNASSIGNED	10
Wire Colors	4-Pin Harness	
WHITE / RED	UNLOCK INPUT FROM INTERIOR SWITCH (GND)	2
WHITE / GREEN	LOCK INPUT FROM INTERIOR SWITCH (GND)	4
0.250 Male Connectors		
CN2 & CN3	BUILT-IN STARTER KILL RELAY. NON-POLARIZED. 40A	
* DO NOT USE A TEST LIGHT ON THE MODULE'S 500mA OUTPUTS		



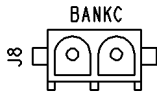
Table 2: Lock, Unlock, and Door Actuator Relay Output Connections



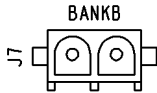
J9 CONNECTOR: Unidirectional Actuation Output (E.G. Door Opening Or Battery Disconnect)



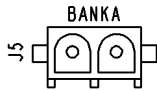
J10 CONNECTOR: Lock/Unlock Bank D



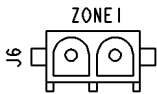
J8 CONNECTOR: Lock/Unlock Bank C



J7 CONNECTOR: Lock/Unlock Bank B



J5 CONNECTOR: Lock/Unlock Bank A



J6 CONNECTOR: Lock/Unlock Zone 1 (Entry)

- With the exception of Zone 6 output, each of the above relay banks provide positive and negative current flow for typical motorized actuators.
- Each output bank is rated for 15 amps—the sum of actuator current flow at each output should be less than 15 amps.
- Zone 1 is designated as an entry door output while the remaining banks are undesignated. These can be used for secure access of occupant doors, specialized compartments, baggage doors, or miscellaneous doors. See page 8 for further information on S2 DIP switch settings.
- The Zone 6 output is unidirectional and is intended for an actuating operation, such as opening the hood, gas cap door, or disconnecting the battery.

Note: Contact TriMark for further technical assistance and to ensure that actuators and relay assignments are appropriate. Correct installation will promote better reliability of the system. TriMark Corporation 641-394-3188.

Table 3: Other Vehicle Connections on I/O Board

Trimpot A

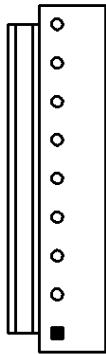
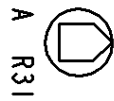
Sets Timed Dome/Porch Light Output (CW Increases Duration)

Trimpot B

Sets Timed Aux 1 output (CW Increases Duration)

Trimpot C

Sets Timed Aux 2 Compartment Light Output (CW Increases Duration)



J12 AUX OUTPUT

Relay Driver Outputs - Pin Assignments

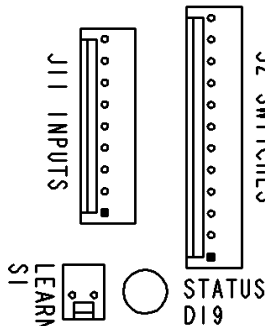
- PIN 1: +12 V
- PIN 2: Horn
- PIN 3: Headlight Or Marker Lights
- PIN 4: Interior Light / Porch light
- PIN 5: Auxiliary 1
- PIN 6: Auxiliary 2-Compartment Lights
- PIN 7: Entry Door Ajar
- PIN 8: Compartment Door Ajar
- PIN 9: Siren

NOTE: Pins 2-9 Sink To Ground Upon Activation. Pin 1 To Be Used As (+12 V) Opposite Side Of Relay Coil.

J11 INPUTS

Inputs For RF Receiver And Vehicle Status— Pin Assignments:

- PIN 9: Power/Ground (connect to +12 or ground, depends if pins 7 and 8 are sinks or sources)
- PIN 8: Engine Running
- PIN 7: Key Inserted
- PIN 6: Panic Mode From RF Receiver
- PIN 5: * Button from RF Receiver
- PIN 4: Unlock from RF Receiver
- PIN 3: Lock from RF Receiver
- PIN 2: +12 VDC to RF Receiver
- PIN 1: Ground to RF Receiver



J2 SWITCH

(Connect to ground to activate) Pin Assignments:

- PIN 12: Security System
- PIN 11: Compartment Door Ajar
- PIN 10: Entry Door Ajar
- PIN 9: Auxiliary 2 Toggle
- PIN 8: Auxiliary 1 Toggle
- PIN 7: Actuate Zone 6
- PIN 6: Depends On Dip Switch Config.
- PIN 5: Depends On Dip Switch Config.
- PIN 4: Depends On Dip Switch Config.
- PIN 3: Depends On Dip Switch Config.
- PIN 2: Depends On Dip Switch Config.
- PIN 1: Depends On Dip Switch Config.

S1 LEARN INPUT

Input To Reset Keypad Codes

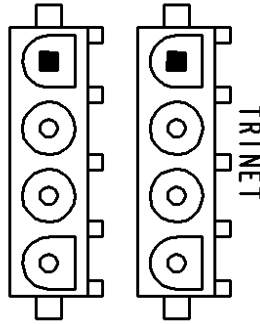
D19 STATUS LED

NOTE: PINS 1-6 Provide Different Locking And Unlocking Functions. Their Relay Bank Assignment Depends On S2 DIP Switch Setting. The Connection Of Both Pin 8 (Aux 1 Toggle) And Pin 7 (Actuate Zone 6) Is Not Recommended.



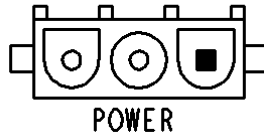
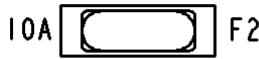
J3 AND J4 TriNet Keypad Connectors

- PIN 4: TriNet B
- PIN 3: TriNet A
- PIN 2: Ground
- PIN 1: +12 Volts



J1 CONNECTOR
Connect to a Reliable Power Source.

- PIN 3: GND
- PIN 2: GND
- PIN 1: +12 V



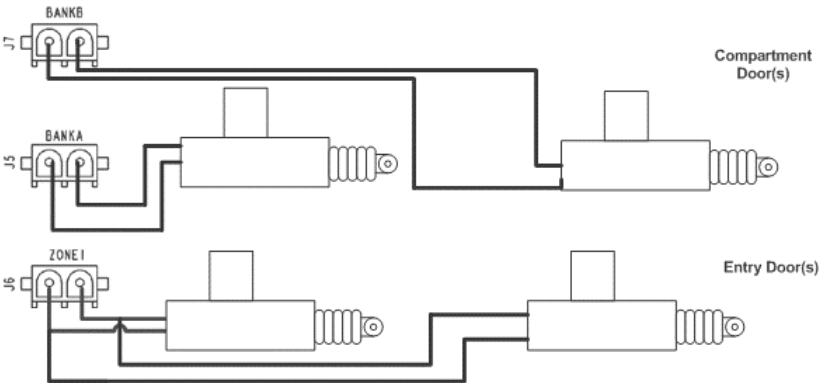
F2: RED

10-amp fuse protects TriNet Communications (Power And Communication) to the keypad.

F3: BLUE

15-amp fuse protects the power actuator outputs of the I/O module.

Diagram 1: Wiring Up Actuators to I/O Module



The cumulative current draw of actuators at each output bank should not exceed 15-amp rating.

Diagram 2: Auxiliary Outputs Wiring

Auxiliary outputs provide relay driver ground signal.

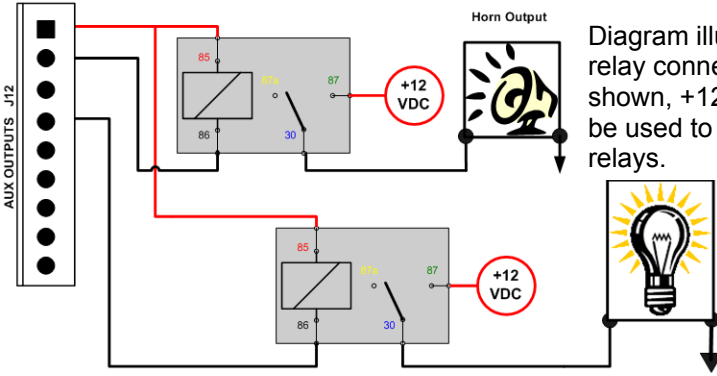
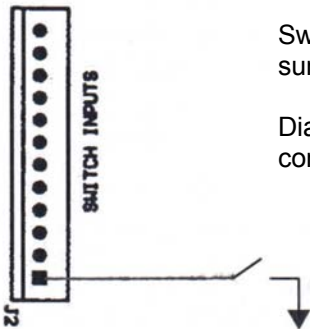


Diagram illustrates typical relay connectivity. As shown, +12 V pin should be used to power coil of relays.

Diagram 3: Switch Inputs Wiring

Switch inputs are activated when sunk to ground.

Diagram illustrates typical switch connectivity.



Notes

Notes



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