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e-ASK

Electronic Access Security Keyless-entry

e-FOB RF Keyless-entry System Instructions

FCC ID: TV2EF0B1

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Introduction

This manual provides the necessary information for the installation and use of TriMark's e-FOB transmitter/receiver system. Basic functions of the system include:

- Locking and unlocking entry doors
- Light activation
- Panic mode
- Auxiliary functions

The e-FOB system includes:

- Receiver
- 2 FOB transmitters
- 14-pin wire harness
- 10-pin wire harness
- 4-pin wire harness
- 2-pin wire harness
- Smart LED
- Push button switch

The receiver and FOB transmitters are shipped programmed. After making all necessary wiring connections (see appendix page IV), the e-FOB system will function as indicated in this manual.



e-FOB Operation and Features

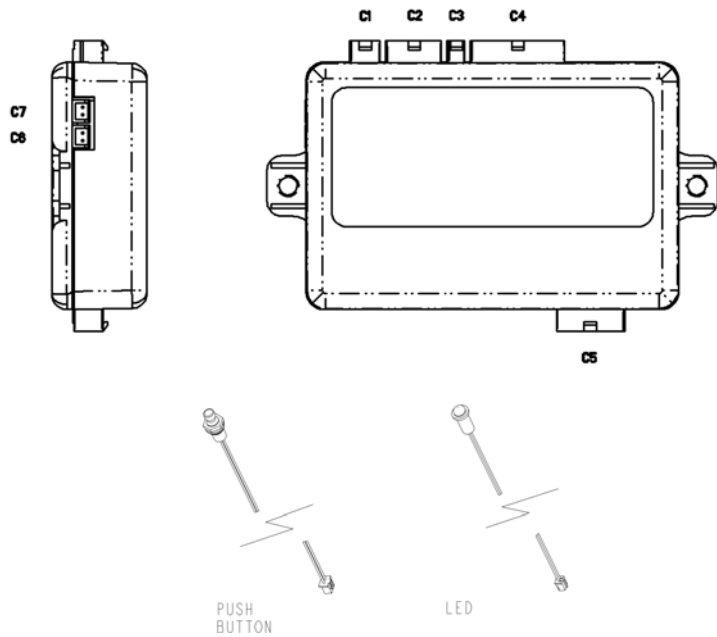


Button	Function
Lock	Locks all entry doors and arms security system.
Unlock	Unlocks entry doors and disarms security system. Also activates the porch light.
Horn Button	Activates panic mode when pressed and held for 2 seconds.
* Button	* Button function is OEM/dealer defined. Possible assignment include: interior/exterior lighting, awning extension/retraction, gas cap, hood, etc.

Notes:

- While the engine is running only the entry unlock function of the e-FOB remains activated —other functions are deactivated.
- For information on changing the default configuration, see Dip Switch Setting Assignment on page 4.

Teaching Additional Fob Transmitters



1. Plug the LED into C6 and the push button into C7 on the receiver.
2. Turn ignition off and unlock doors.
3. Press and release the programming button 3 times. The LED will turn on.
4. Press and release any button of each new FOB transmitter once. The LED will flash and the horn and siren will sound once. Up to 4 transmitters may be programmed at one time.

Notes:

- If you place the system in learn mode and teach nothing, the system will exit in 10 seconds.
- When new transmitters are taught, all old transmitters are erased.
- The memory for codes will not be erased if power is removed.
- As soon as the LED turns off, the system is fully functional.

Smart Led:

The smart LED indicates system status:

- Slow Flash = Armed
- Off = Disarmed
- Fast Flash = Alarm activated

Dip Switch Setting Assignment

The DIP Switch settings control additional functions. Power to the receiver should be disconnected and reconnected after a DIP switch is changed. Functional assignments are described below:

Switch	DIP SWITCH SETTINGS		
#1	Horn Button	ON = Single Horn Pulse	OFF = Panic Mode
#2	Left & Right Buttons Output	ON = Sustained	OFF = Pulse
#3	Double Button Output	ON = Sustained	OFF = Pulse
#4	Button Output	ON = Sustained	OFF = Pulse
#5	Headlights Supervision	ON = 0.25 sec. Pulse	OFF = 30 sec.
#6	Arm Alarm	ON = 1 lock button press	OFF = 2 lock button presses
#7	Automatic Lock/Unlock	ON = Enabled	OFF = Disabled
#8	Keypad #5 Output and fob long unlock	ON = Lights output for 5 min.	OFF = Aux2 output for 5 min.
#9	Keypad #5 Output and fob long unlock	ON = Output 0.25 sec. pulse	OFF = Output on for 5 min.
#10	3 rd Unlock Output	ON = staggered with lock	OFF = activated with unlock

DIP Switch #1: Horn/Panic Mode

- DIP switch #1 ON: the Horn button (center left) provides a pulse output.
- DIP switch #1 OFF: the Horn button (center left) actuates panic mode.

DIP Switch #2: Sustained Output

- DIP switch #2 ON: the middle left and right buttons provide sustained outputs. Output lasts as long as the button is pressed—up to 30 seconds. Middle left button activates horn output. Middle right button activates auxiliary output. Dip switch #1 must be OFF.
- DIP switch #2 OFF: see by DIP switch #1 for output.

DIP Switch #3: Double Button Output

- DIP switch #3 ON: the double button output lasts as long as the button is pressed—up to 30 seconds. Dip switch #1 & #2 must be OFF.
- DIP switch #3 OFF: see DIP switches #1 or #2 for output.

DIP Switch #4: Button Output

- DIP switch #4 ON: all button output lasts as long as the button is pressed—up to 30 seconds. No alarm is available in this configuration. Dip switch #1, #2, & #3 must be OFF.
- DIP switch #4 OFF: see DIP switches #1-#3 for output.

DIP Switch #5: Headlights Supervision

- DIP switch #5 ON: the headlights flash once on an unlock command.
- DIP switch #5 OFF: the headlights are actuated with the dome lights. Lights remain illuminated for 30 seconds with an unlock command. Arming the alarm or starting the car deactivates the lights immediately.

DIP Switch #6: Arm Alarm

- DIP switch #6 ON: a single lock press locks doors and arms alarm.
- DIP switch #6 OFF: first lock press locks doors. Second lock press arms alarm.

DIP Switch #7: Automatic Lock/Unlock

- DIP switch #3 ON: the auto-locking feature is activated. All doors are locked 5-seconds after ignition start. Doors unlock when the ignition is turned off. THIS FEATURE IS CANCELED if a door is open when the ignition is started. This protects against accidental locking of keys in the vehicle.
- DIP switch #3 OFF: Automatic lock/unlock feature is disabled.

DIP Switch #8: Keypad #5 Output and fob long unlock

- DIP switch #8 ON: the #5 keypad output provides a mirrored output to the headlights.
- DIP switch #8 OFF: the #5 keypad output provides a mirrored output to Aux2.

DIP Switch #9: Keypad #5 Output and fob long unlock

- DIP switch #8 ON: the keypad #5 output and fob long unlock provides a pulse output dependent upon DIP switch #8.
- DIP switch #8 OFF: the keypad #5 output and fob long unlock provides a 5 minute output dependent upon DIP switch #8.

DIP Switch #10: 3rd Unlock/Staggered Lock

- DIP switch #5 ON: the 3rd unlock output is staggered to the lock actuation to decrease peak current draw.
- DIP switch #5 OFF: the 3rd unlock output actuates with an unlock command.

Additional System Features

Light Activation

When the alarm is armed, the parking lights flash. With an unlock instruction; the dome light stays illuminated for 30 seconds. The headlight actuation is controlled by DIP switch #5.

2nd Unlock Output

Press and release the Unlock button twice for a pulse output.

Panic Mode

Pressing and holding the Horn button (center left) for 2 seconds activates panic mode. During panic mode, horn/siren is continuously activated and headlights and parking lights flash for 30 seconds. Pressing the lock or unlock button deactivates panic mode.

Vehicle Alarm

The alarm is armed when the doors are locked per DIP switch #8. When the alarm is armed, the parking lights flash and the horn/siren chirp. The smart LED flashes continuously.

The alarm is activated with a security trigger input or if the ignition is started. The horn, siren, parking lights and head lights flash for 30 seconds. The starter kill is activated for 30 minutes. Press the lock or unlock buttons to deactivate the alarm.

There is a 5 second delay before the system will recognize a security input. If a security input (door ajar switch, motion sensor, glass break sensor, etc.) is triggered while the alarm is armed, the security input must be turned off and then on before the alarm is activated. The horn and siren chirp 3 times if a security input is active when the alarm is armed.

Horn/Siren Chirp

The horn and siren chirp once when the alarm is armed. If the alarm has been set off since the last unlock command, the siren and horn chirp 4-times to indicate the alarm activity when the system is disarmed.

Starter Kill Feature

The starter kill feature is active for 30 minutes after the alarm is activated. Install a relay controlled by the starter kill feature between the ignition key switch and starter solenoid.

Troubleshooting

Problem Description	Possible Solution
e-FOB Hints	
Button press does not provide correct operation	Verify power to the RF receiver
	Replace FOB transmitter battery
	Re-teach the FOB transmitter to the receiver
No operation or intermittent operation	Mount RF receiver away from enclosed metal areas and fully extend antenna
	Check FOB transmitter battery voltage. Batteries need to be changed every 1-2 years depending on usage.
One particular e-FOB function does not work	Check wire connection of affected function at RF module and wiring harness

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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: The manufacturer is not responsible for any Radio or TV interference cause by unauthorized modifications to this equipment. Such modification could void the user's authority to operate the equipment.

Appendix: Installation and Mounting e-FOB System

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

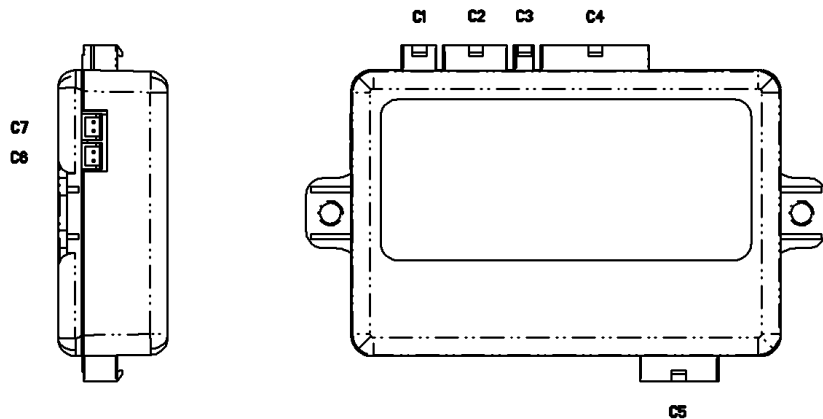
General Mounting Guidelines:

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.

Wiring color code tables and diagrams

The following tables and diagrams are provided to show color-coded wire and pin assignments for the e-FOB system. Connect all wires before plugging module into wiring harness.

RF RECEIVER



WIRE COLORS	CONNECTOR 1: 4-PIN HARNESS	
--	--	1
Yellow	Ignition Input	2
Black	Ground Input	3
Red	Power (+12V)	4
WIRE COLORS	CONNECTOR 2: KEYPAD HARNESS	
Integrated Harness		
WIRE COLORS	CONNECTOR 3: 2-PIN HARNESS	
Green/White	Lock Input (-)	1
Blue/White	Unlock Input (-)	2
WIRE COLORS	CONNECTOR 4: 14-PIN HARNESS	
White/Blue	(-) Security Trigger Input 3	1
Green/Black	Armed Output (-500 mA)	2
White/Yellow	Starter Kill Output (-500 mA)	3
Black/White	Lights Output (-500 mA)	4
Gray/White	Horn Output (-500 mA)	5
White/Pink	(-) Security Trigger Input 1	6
Gray	Siren Output (A/C)	7
Purple/Black	Aux. 2 Output (-500 mA)	8
Purple/White	Aux. Output (relay 15A)	9
Blue/White	2 nd Unlock Output (-500 mA)	10
Blue/Black	3 rd Unlock/Staggered Lock (-500mA)	11
White	Parking Lights (relay 15A)	12
White/Purple	(+)Security Trigger Input 2	13
Gray/Black	Siren Output (A/C)	14

WIRE COLORS	CONNECTOR 5: 10-PIN HARNESS	
Green/Black	Door Lock (N/C) (relay 30A)	1
--	--	2
Purple	Dome Light Output (relay 15A)	3
Pink	Dome Light (N/O) (relay 15A)	4
Pink/Black	Dome Light (N/C) (relay 15A)	5
Green/White	Door Lock (N/O) (relay 30A)	6
Green	Lock Output (relay 30A)	7
Blue/Black	Door Unlock (N/C) (relay 30A)	8
Blue/White	Door Unlock (N/O) (relay 30A)	9
Blue	Unlock Output (relay 30A)	10

* DO NOT USE A TEST LIGHT ON THE MODULE'S 500MA OUTPUTS

Wiring Connections for Basic System Functions

