e-*ASK*

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

e-*FOB* RF Keyless-entry System Instructions

(UM02 ~ 19571-02)

TriMark®

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Introduction

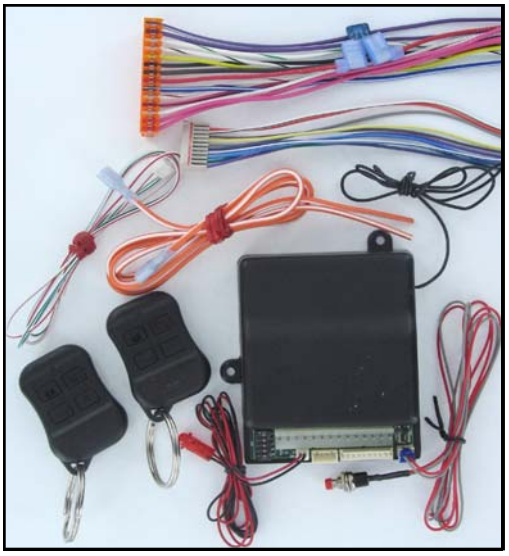
This manual provides the necessary information for the installation and use of Tri*Mark*'s **e-*FOB*** transmitter/receiver system. Basic functions of the system include:

- Locking and unlocking doors
- Light activation
- Panic mode
- Auxiliary functions based upon configuration (see page 4)

The **e-*FOB*** system includes:

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

The receiver and FOB transmitters are shipped programmed. After a proper installation as specified (see appendix page IV), the **e-*FOB*** system will function as indicated in this manual.



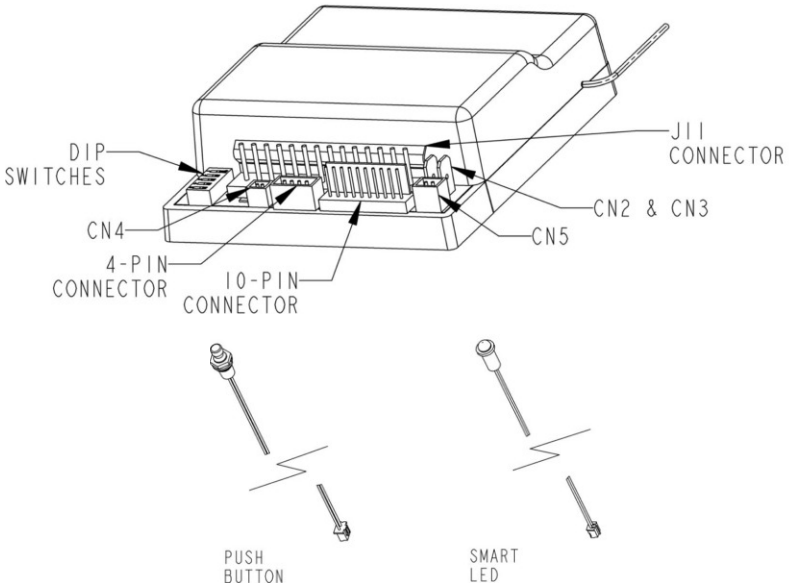
e-*FOB* Operation and Features

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	Activates panic mode when pressed and held for 2 seconds.
*** button auxiliary output**	***** 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 e-FOB Transmitters



1. Plug the smart LED into CN4 and the push button into CN5.
2. Apply +12 V to the yellow wire (J11, Pin 5). If the wire is connected to the vehicle harness, turn the ignition to **ON.**
3. Press and hold the push button switch until the LED assembly turns on and then off (about 5 seconds).
4. Press the Lock button of each new FOB transmitter once (do not hold button). 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:

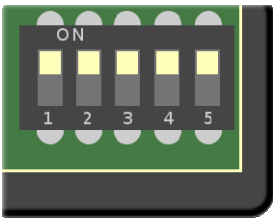
- If you place the system in learn mode and teach nothing, the system will exit in 10 seconds.
- If the 4-transmitter limit is exceeded, the system erases the earliest trained transmitter. To erase a lost remote, teach the remaining or new remotes a total of 4 times.
- It is recommended to teach all transmitters at the same time. This eliminates the potential to erase an earlier trained transmitter. Hold the FOBs at least 2 feet away from the controller during training.
- The memory for codes is NON-VOLATILE and will not be erased if power is removed.

Smart LED:

The smart LED indicates system status:

- Slow flash = Armed
- Off = Disarmed
- Solid on = Valet mode
- Fast flash = Alarm activated since last Unlock button press

DIP Switch Setting Assignment



The DIP Switch settings control additional functions. A DIP switch change is recognized after the Lock button is pressed.

Functional assignments are described below:

Switch	DIP Switch Settings		
#1	Lower Buttons - Sustained Output	ON = see Switch #2	OFF = Sustained Output
#2	Lower Left Button Output	ON = Panic Mode	OFF = Horn Pulse
#3	Automatic Lock/Unlock	ON = Enabled	OFF = Disabled
#4	Parking Light Supervision	ON = Enabled	OFF = Disabled
#5	Staggered Lock/Unlock	ON = Not staggered	OFF = Staggered

DIP Switch #1: Sustained Output Mode

- *DIP switch #1 ON:* Output of lower left button is controlled by DIP switch #2. Lower right button provides a pulse output.
- *DIP switch #1 OFF:* The lower buttons provide sustained outputs. Output lasts as long as the button is pressed, or up to 15 seconds. Doors must be unlocked to get a sustained output. Lower left button activates pink wires. Lower right button activates purple/white wires.

DIP Switch #2: Horn / “Panic Mode” Selection

- *DIP switch #2 ON:* The Horn button (lower left) activates panic mode and the horn chirps with each button press.
- *DIP switch #2 OFF:* The Horn button (lower left) provides a pulse output. There are no chirps when button is pressed.

DIP Switch #3: Automatic Lock/Unlock Mode

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

DIP Switch #4: Parking Light Supervision

- *DIP switch #4 ON:* the parking and headlights are actuated with the dome lights. Lights flash with a lock command. Lights remain illuminated for 30 seconds with an unlock command. Locking the doors or starting the vehicle deactivates the lights immediately.
- *DIP switch #4 OFF:* the parking and headlights flash once on a lock command and twice on an unlock command.

DIP Switch #5: Staggered Lock/Unlock Mode

- *DIP switch #5 ON:* the staggered locking output occurs with lock actuation.
- *DIP switch #5 OFF:* the staggered lock output is staggered to the lock actuation to decrease peak current draw.

Additional System Features

Light Activation

When the Lock button is pressed, the parking and headlights flash. With an unlock instruction; the dome light stays illuminated for 30 seconds. The parking and headlight actuation is controlled by DIP switch #4.

2nd Unlock Output (optional: extra installation required)

Press and hold the Unlock button until activation (2 seconds).
A sustained output is available through the white/brown wire on the 10-pin harness. *(See appendix page III for output definition.)*

Panic Mode

Pressing and holding the Horn button (lower left) for 2 seconds activates panic mode. During panic mode, horn/siren is continuously activated and headlights flash for 1 minute. Pressing the Unlock button deactivates panic mode.

Vehicle Alarm (when installed)

The alarm is armed when the doors are locked. If any outside door is opened while the alarm is set, the horn, siren, and lights flash for 1 minute. Press the Unlock button to deactivate the alarm.

Valet Mode (requires hook-up to ignition)

Some situations, such as valet parking, or leaving the vehicle at the dealer, require that alarm features be suspended. Placing the alarm in "Valet Mode" suspends audible features.

In-Vehicle Valet Activation

1. Turn the ignition to the ON position with your key (or connect the yellow wire *(J11 Pin-5)* to +12V).
2. Press the push button (CN5) until the LED (CN4) is continuously illuminated (less than 5 seconds).

Remote Valet Activation (must have "door ajar" sensors)

1. Open the primary entry door.
2. Turn the ignition to the ON position with your key.
3. Press the ***** button (lower right).

Note: Repeat activation to toggle valet mode off.

In the valet mode, the doors lock and unlock normally. Other features operate per the following list:

- Arming and disarming the system will produce no chirps.
- There is no alarm or starter kill feature.
- The ***** button and 2nd unlock auxiliary outputs do not actuate. This provides security to storage compartments.
- The panic feature actuates lights, but not horn and siren.

Deactivate Horn Chirp

The horn chirps with button press can be toggled on/off by pressing the Unlock button 4 times while the ignition is ON (yellow wire connected to 12 V). When the chirps are turned on, two confirmation chirps are heard. Three confirmation chirps are heard when the chirps are turned off.

Starter Kill Feature

Wire the starter through CN2 and CN3. Once installed this feature defeats the starter if the alarm is set off so that the vehicle cannot be stolen. DO NOT BYPASS THE IGNITION OR FUEL PUMP. In case of an emergency, the starter kill feature can be bypassed with the emergency override.

Alarm Emergency Override

To disarm the alarm in case of FOB transmitter loss:

1. Turn the ignition to the “ON” position (connect yellow wire to 12 V). Siren and horn stops.
2. Press the push button (CN5) until the lights stop flashing and the system disarms (2 seconds).

Troubleshooting

Problem Description	Possible Solution
Button press does not provide correct operation	Make sure Module is not in Valet Mode
	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.
Horn honks, siren sounds and lights flash when system is hooked up or battery power is returned.	Press Unlock button. Power was removed while the system was locked and armed.
	Perform Emergency Override as mentioned on Page 7
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. Tri*Mark* warrants this product to be free from workmanship defects and will remedy issues per Tri*Mark*'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. Tri*Mark* will not be liable for indirect, special, incidental or consequential damages.

Appendix: Installation and Mounting e-*FOB* System

Contact Tri*Mark* for specific mounting details, such as drawings, placement suggestions, mounting hardware, etc.

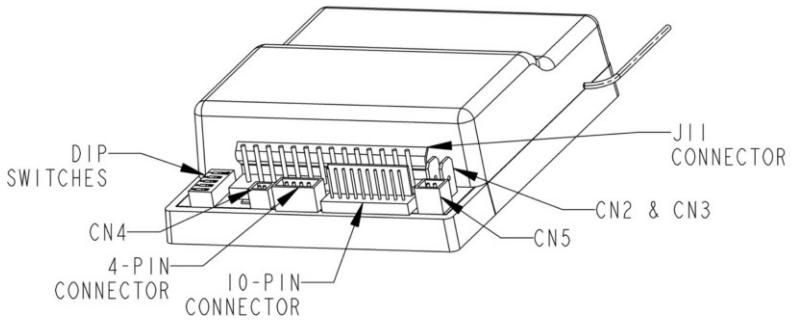
General Mounting Guidelines:

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	14-PIN HARNESS	
PURPLE / WHITE	AUX. *Button INPUT/OUTPUT. BUILT-IN RELAY, 12A.	1
PURPLE / WHITE	A FUSE IS RECOMMENDED	2
WHITE / GREEN	LOCK OUTPUT (N/C RELAY 30)	3
WHITE / BLACK	LOCK INPUT (N/C RELAY 87A)	4
YELLOW	CONNECT TO TRUE IGNITION	5
BLACK	CONNECT TO A CLEAN GROUND. SOLID CONNECTION IS A MUST	6
BROWN	SIREN (+) OUTPUT. UP TO 2 A CAPACITY. SHORT PROTECTED	7
RED	CONNECT TO A STRONG POWER SOURCE. USE A FUSE AT THE CONNECTION POINT.	8
BLUE / WHITE	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	PARKING LIGHTS OUTPUT (+12V; 15A, UP TO 50A INRUSH). CONNECT OF PARKING LIGHTS OF VEHICLE	12
PINK	DOME INPUT / OUTPUT; BUILT-IN RELAY, 12A.	13
PINK	A FUSE IS RECOMMENDED.	14

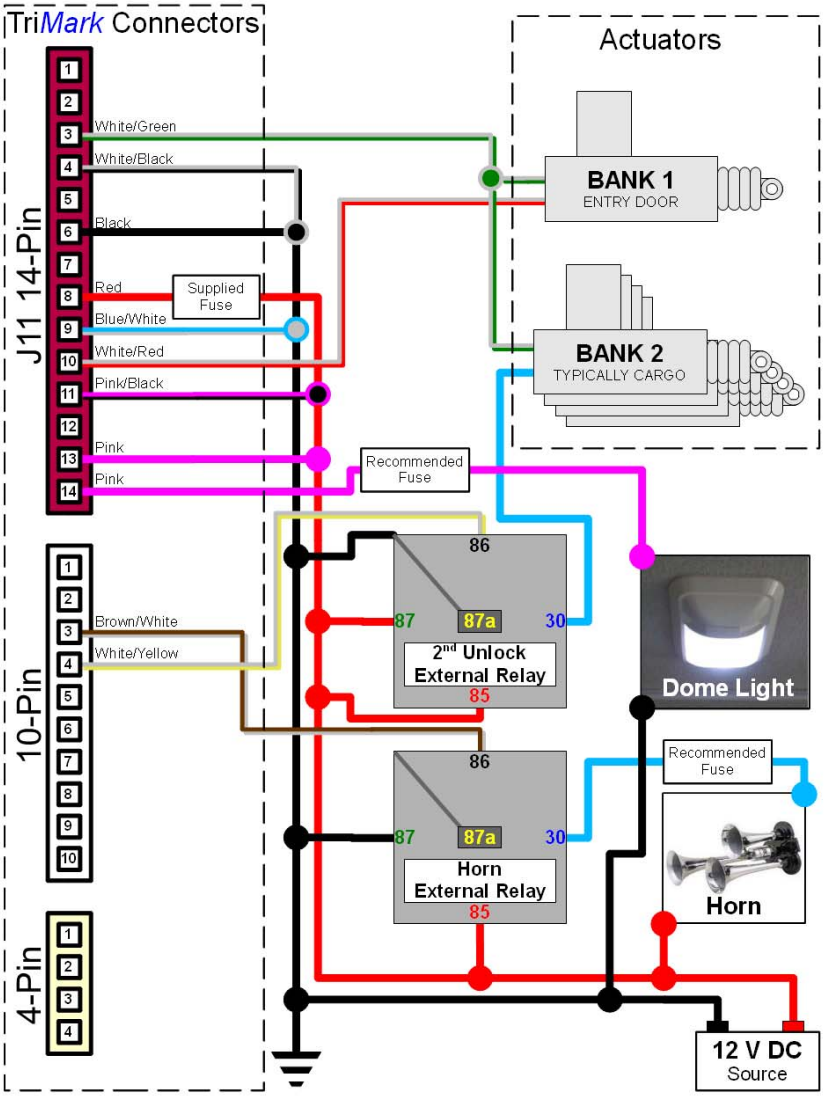
WIRE COLORS	10-PIN HARNESS	
ORANGE	ARMED OUTPUT (-) 500MA.	1
WHITE / BROWN	AUX. CHANNEL #2 FOR LONG UNLOCK BUTTON PRESS OUTPUT, (-) 500MA	2
BROWN / WHITE	HORN HONK OUTPUT, (-) 500MA	3
WHITE / YELLOW	2ND UNLOCK (-) 500MA.	4
GRAY	LIGHTS OUTPUT. (-) 500MA	5
PURPLE / GREEN	UNASSIGNED INPUT	6
WHITE / BLUE	STAGGERED LOCKING	7
BLUE	(-) SECONDARY TRIGGER INPUT. (TRUNK, HOOD)	8
GREEN	(-) DOOR TRIGGER INPUT	9
PURPLE	(+) DOOR TRIGGER INPUT	10
WIRE COLORS	**4-PIN HARNESS**	
WHITE / RED	UNLOCK INPUT FROM INTERIOR DOOR SWITCH (GND INPUT)	2
WHITE / GREEN	LOCK INPUT FROM INTERIOR DOOR SWITCH (GND INPUT)	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

Wiring Diagram –
Basic System Functions

Note: Additional actuators should only be installed as appropriate based on comparison of the relay's amp rating and the cumulative current draw of the actuators.

Output connection of the built-in 12A relay (Pink Wires: J11 P13 & P14) is not fuse protected. Adding an in-line fuse or routing through a fuse bank is strongly recommended.



Notes

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