e-ASK

electronic Access Security Keyless-entry

e-FOB RF Keyless-entry
System Instructions
(UM02 ~ 19571-02)
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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 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 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

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

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 smart LED into CN4 and the push button into CN5.
2. Apply +12 V to the yellow wire.
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.
Switch #1: Sustained Output
- 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—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
- DIP switch #2 ON: the Horn button (lower left) actuates panic mode and the horn chirps with each button press.
- DIP switch #2 OFF: the Horn button (lower left) provides a pulse output and there are no chirps with button press.

**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:

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

DIP Switch #1: Sustained Output
- 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—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 #3: Automatic Lock/Unlock
- DIP switch #3 ON: the auto-locking feature is activated. All doors are locked 5-seconds after engine start. 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 car 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
- 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.
2. Press the push button (CN5) until the LED is continuously
illuminated.

Remote Valet Activation
1. Open the driver’s door (must have door ajar switches).
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 con-
ected 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.

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).
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.

## Troubleshooting

<table>
<thead>
<tr>
<th>Problem Description</th>
<th>Possible Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Button press does not provide correct operation</td>
<td>Verify power to the RF receiver</td>
</tr>
<tr>
<td></td>
<td>Replace FOB transmitter battery</td>
</tr>
<tr>
<td></td>
<td>Re-teach the FOB transmitter to the receiver</td>
</tr>
<tr>
<td>No operation or intermittent operation</td>
<td>Mount RF receiver away from enclosed metal areas and fully extend antenna</td>
</tr>
<tr>
<td></td>
<td>Check FOB transmitter battery voltage. Batteries need to be changed every 1-2 years depending on usage.</td>
</tr>
<tr>
<td>Horn honks, siren sounds and lights flash when system is hooked up or battery power is returned.</td>
<td>Press Unlock button. Power was removed while the system was locked and armed.</td>
</tr>
<tr>
<td>One particular e-FOB function does not work</td>
<td>Check wire connection of affected function at RF module and wiring harness</td>
</tr>
</tbody>
</table>
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
<table>
<thead>
<tr>
<th>WIRE COLORS</th>
<th>14-PIN HARNESS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PURPLE / WHITE</td>
<td>AUX. *Button INPUT/OUTPUT. BUILT-IN RELAY, 12A.</td>
<td>1</td>
</tr>
<tr>
<td>PURPLE / WHITE</td>
<td>A FUSE IS RECOMMENDED</td>
<td>2</td>
</tr>
<tr>
<td>WHITE / GREEN</td>
<td>LOCK OUTPUT (N/C RELAY 30)</td>
<td>3</td>
</tr>
<tr>
<td>WHITE / BLACK</td>
<td>LOCK INPUT (N/C RELAY 87A)</td>
<td>4</td>
</tr>
<tr>
<td>YELLOW</td>
<td>CONNECT TO TRUE IGNITION</td>
<td>5</td>
</tr>
<tr>
<td>BLACK</td>
<td>CONNECT TO A CLEAN GROUND. SOLID CONNECTION IS A MUST</td>
<td>6</td>
</tr>
<tr>
<td>BROWN</td>
<td>SIREN (+) OUTPUT. UP TO 2 A CAPACITY. SHORT PROTECTED</td>
<td>7</td>
</tr>
<tr>
<td>RED</td>
<td>CONNECT TO A STRONG POWER SOURCE. USE A FUSE AT THE CONNECTION POINT.</td>
<td>8</td>
</tr>
<tr>
<td>BLUE / WHITE</td>
<td>UNLOCK INPUT (N/C RELAY 87A)</td>
<td>9</td>
</tr>
<tr>
<td>WHITE / RED</td>
<td>UNLOCK OUTPUT (N/C RELAY 30)</td>
<td>10</td>
</tr>
<tr>
<td>PINK / BLACK</td>
<td>LOCK / UNLOCK POLARITY (N/O RELAY 87)</td>
<td>11</td>
</tr>
<tr>
<td>WHITE</td>
<td>PARKING LIGHTS OUTPUT (+12V; 15A, UP TO 50A INRUSH). CONNECT OF PARKING LIGHTS OF VEHICLE</td>
<td>12</td>
</tr>
<tr>
<td>PINK</td>
<td>DOME INPUT / OUTPUT; BUILT-IN RELAY, 12A.</td>
<td>13</td>
</tr>
<tr>
<td>PINK</td>
<td>A FUSE IS RECOMMENDED</td>
<td>14</td>
</tr>
<tr>
<td>Wire Colors</td>
<td>10-Pin Harness</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td>Orange</td>
<td>Armed Output (-) 500mA.</td>
<td>1</td>
</tr>
<tr>
<td>White / Brown</td>
<td>Aux. Channel #2 for Long Unlock Button Press Output, (-) 500MA</td>
<td>2</td>
</tr>
<tr>
<td>Brown / White</td>
<td>Horn Honk Output, (-) 500MA</td>
<td>3</td>
</tr>
<tr>
<td>White / Yellow</td>
<td>2nd Unlock (-) 500MA.</td>
<td>4</td>
</tr>
<tr>
<td>Gray</td>
<td>Lights Output. (-) 500MA</td>
<td>5</td>
</tr>
<tr>
<td>Purple / Green</td>
<td>Unassigned Input</td>
<td>6</td>
</tr>
<tr>
<td>White / Blue</td>
<td>Staggered Locking</td>
<td>7</td>
</tr>
<tr>
<td>Blue</td>
<td>(-) Secondary Trigger Input. (Trunk, Hood)</td>
<td>8</td>
</tr>
<tr>
<td>Green</td>
<td>(-) Door Trigger Input</td>
<td>9</td>
</tr>
<tr>
<td>Purple</td>
<td>(+) Door Trigger Input</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wire Colors</th>
<th>4-Pin Harness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White / Red</td>
<td>Unlock Input from Interior Door Switch (GND Input)</td>
<td>2</td>
</tr>
<tr>
<td>White / Green</td>
<td>Lock Input from Interior Door Switch (GND Input)</td>
<td>4</td>
</tr>
</tbody>
</table>

**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 Connections for Basic System Functions

- WHITE / GREEN: Lock Output
- WHITE / BLACK: Lock Input
- WHITE / RED: Unlock Output
- BLUE / WHITE: Unlock Input
- PINK / BLACK: Lock / Unlock Polarity
- BLACK: Ground
- RED: +12 VDC Power Source
- WHITE / YELLOW: 2nd Press Unlock Secondary Doors Bank 2 (300 mA)
- BROWN / WHITE: Horn Horn Output (900 mA)
- PINK: Vehicle Light Input / Output
- PINK: Vehicle Light Input / Output
- MOTORIZED ACTUATOR DRIVER'S DOOR: BANK 1
- MOTORIZED ACTUATOR (SECONDARY DOORS: BANK 2)
- 2ND PRESS UNLOCK EXTERNAL RELAY BANK 2
- HORN EXTERNAL RELAY
- HORNS
- RECOMMENDED FUSE LOCATION
- 12 VDC Battery

Note: Additional Door Actuator(s) should only be installed as appropriate based on comparison of relay rating and cumulative current draw of actuator(s)