

# OEM UPGRADE SERIES

## VEHICLE SECURITY SYSTEM

Version 7.5

### Standard Features:

Combination LED / Valet switch  
Multi-tone siren (115dB)  
Dual stage impact detector  
Active or passive arming

### Optional Features:

Starter disable  
Flashing parking lights  
Dome light control  
Hood and trunk protection  
Back-up battery w/charging circuit

**Note:** *Some features may require additional parts and labor, and may not be appropriate for certain vehicles. Consult your authorized dealer.*

## System Operation

### ARMING OPERATION

To arm the system press the Lock button on the factory transmitter:

- The siren will chirp once.
- The parking lights will flash once.
- The LED will start flashing slowly after 5 seconds and the system will be armed.

30 seconds after Arming, if the system detects a bad sensor or an open zone, the siren will chirp and the parking lights will flash 4 times to indicate a zone is open. The system will ignore that input, but keep all other areas protected.

While Armed, the system will trigger if:

- The doors are opened.

- The shock sensor detects an impact to the vehicle.
- The hood or trunk is opened.\*

When triggered, the siren will sound, the horn will honk\*, and the parking lights will flash\* for 50 seconds.

If the same input triggers the system 4 times during a single arming cycle, the system will bypass that input, keeping the other zones protected, until the next time the system is armed.

If the shock sensor detects a light impact to the vehicle, the siren will chirp 3 times to warn away the potential intruder.

\*Optional Feature

### PASSIVE ARMING

The passive arming feature automatically arms the system after closing all doors. *The Passive Arming feature may be enabled during installation.*

To arm the system passively:

1. Turn the ignition key off.
2. Exit the vehicle and close all doors.
  - The LED flashes rapidly indicating that the system is preparing to arm. (The system can be armed manually any time.)
  - The siren will chirp 30 seconds after the last door is closed to indicate the system is armed. NOTE: Opening a door resets the passive arming timer.
  - The doors will lock.†

† If Passive Locking was added during installation.

**NOTE:** Enabling the Passive Locking features also enables the Passive Arming feature

## DISARMING OPERATION

To disarm the system press the Unlock button on the factory transmitter:

- The siren will chirp twice.
- The parking lights will flash twice.
- The doors will unlock.
- The dome light will turn on for 30 seconds (optional).

## TAMPER ALERT

If the alarm was triggered while away, the siren will chirp and the parking lights will flash 3 times on disarming for tamper alert.

The LED will flash to indicate the zone:

- 2 Flashes = Shock Sensor
- 3 Flashes = Hood/Trunk
- 4 Flashes = Door Input

## AUTO REARM

The Auto Rearm feature automatically re-arms and locks the doors (requires installation) in the event the system is disarmed. Opening the hood, trunk, door, or turning on the ignition cancels Auto Rearm. If the optional dome light feature is installed, a relay must be used to keep the Auto Rearm feature from being cancelled when the dome light turns on after disarming. *This feature may be enabled during installation.*

## IGNITION LOCK

The optional ignition locking feature automatically locks the doors after the ignition key is turned on. To avoid locking keys in the vehicle, the ignition locking feature will be cancelled if a door is open when the ignition is turned on. *This feature requires additional installation.*

## REMOTE PANIC

In the event of an emergency, the system's siren can be triggered to attract attention. To

activate the Panic feature, press the Lock button 4 times within 5 seconds:

- The siren will sound.
- The parking lights will flash.

Press the Unlock button to exit panic mode.

## EMERGENCY OVERRIDE

If the transmitter becomes lost or fails to operate, the system can be disarmed by using the emergency override feature.

To override the system:

1. Enter the vehicle.
  - The alarm will trigger.
2. Turn on the ignition key.
3. Press the Valet switch for 5 seconds (or 15 seconds if programmed).
  - The siren will chirp 5 times and enter valet mode.
  - The starter defeat will be bypassed.

## VALET MODE

When the system is placed into the Valet Mode the security system will be disabled.

To enter or exit valet mode:

1. Be sure the system is disarmed.
  2. Turn the ignition key on.
  3. Press and hold the valet switch for 5 seconds.
    - The siren will chirp 5 times to enter valet or 2 times to exit.
    - The LED will turn on solid indicating the system is in valet mode, or turn off indicating valet mode exit.
- NOTE: the LED remains off while the ignition is on.

## OPTIONAL AUXILIARY FUNCTION

To activate the auxiliary function press the Lock button 2 times within 3 seconds. This feature can be used to activate an optional trunk release or remote start module.

## OPTIONAL ANTI-CARJACK MODE

The optional anti-carjacking feature provides added security while driving. When selected, the anti-carjacking feature will activate whenever a door is opened while the ignition is on. *The Anti-Carjacking feature must be enabled during installation.*

If the carjack feature is triggered the warning stage will engage for 40 seconds:

- The LED will blink rapidly for 30 seconds.
- After 30 seconds the siren will chirp for 10 seconds.
- To deactivate the carjack feature during warning stage press the valet switch once.

If the carjack feature is not deactivated within 40 seconds, the full trigger will begin:

- The parking lights will flash, and the siren will sound for 5 minutes.
- The starter defeat will turn on and remain on until the carjack feature is deactivated.
- To deactivate the carjack feature during full trigger turn the ignition off, then back on and press the valet switch 5 times.

## LED STATUS INDICATIONS

- On Solid = Valet Mode
- Slow Flash = System Armed
- Rapid Flash when disarmed = Passive Arming
- Rapid Flash when ignition is on = Carjack Mode Activated
- 2 Flashes = Tamper Alert - Shock Sensor
- 3 Flashes = Tamper Alert - Hood/Trunk
- 4 Flashes = Tamper Alert - Door Trigger

## PARKING LIGHT INDICATIONS

- 1 Flash = System Armed
- 2 Flashes = System Disarmed
- 3 Flashes = Tamper Alert
- 4 Flashes = Open Zone Indication (after arming)

# Installation Instructions

## Before you begin the installation

- Read the INSTRUCTIONS!
- Always use a multi-meter when verifying vehicle wiring.
- Before mounting the product, verify with the customer the desired location for the LED/valet combo switch.
- Protect the vehicle by using fender covers.
- Always look before drilling. Make sure you will not cause damage to vehicle hoses, wire looms or physical damage to vehicle.

## Mounting the System Module

Mount the system module under the dash where it will be difficult for a potential thief to locate the module, and away from moving parts such as brake pedals, etc. Route the antenna wire away from wire looms, computer modules and metallic objects for better range.

## Mounting the Siren (optional)

For models supplied with the optional siren, mount in a suitable place under the hood that is away from hot or moving engine parts such as manifolds, fan belts, etc. Make sure the siren cannot be accessed from underneath the vehicle or through the grill. Face the siren down so that water cannot accumulate inside the siren bell. Protect wires running through the firewall using either tape or split loom tubing. If a new hole is needed, protect the wire from chaffing by installing a proper size grommet.

## 12-Pin Main Harness:

- **BLUE WIRE** - Trunk/Hood trigger (-). Connect the Blue wire to the trunk and/or optional hood pin switches. The switch must provide a ground when switch is opened.
- **GREEN WIRE** - Negative door trigger (-). Connect to the door switch wire that shows ground when the door is open.
- **VIOLET WIRE** - Positive door trigger (+). Connect to the door switch wire that shows +12V when the door is open. This type of door circuit is usually found on Ford vehicles.
- **BLACK/WHITE WIRE** - Dome Light or Door Lock output (-) 250mA. For dome light control, connect to the wire that activates the vehicle's dome light, usually the door pin switch wire. NOTE: The dome light output is usually connected to the same wire used for the door trigger input (See GREEN and VIOLET door trigger wires). The wire can be instead used to provide a lock output during passive arming, auto rearming, and when the ignition is turned on.
- **GRAY WIRE** - Auxiliary output (-) 500mA. Connect to a relay for an optional feature such as trunk release, etc.
- **WHITE WIRE** - Parking Light output (+) 10A relay. Connect to the vehicle's (+) parking light wire. If the vehicle's parking light circuit exceeds 10 amps a relay is required. For vehicle's with independent left and right parking light circuits, the parking light wires must be connected using diodes to keep the circuits separate. NOTE: Do not connect the WHITE wire to the vehicle's headlight circuit.

- **BROWN WIRES** - Horn/Siren wire input and output. For use with a siren, connect one BROWN wire to the siren's red wire and connect the other BROWN wire to ground. For use with the vehicle's horn, connect one BROWN wire to the horn wire and the other BROWN wire either a constant +12V source or ground depending on polarity required.
- **RED WIRE** - +12V Battery input. Connect the red fused wire on the main harness to a constant +12V source. This source wire should be at least 15 amp supply.
- **BLACK WIRE** - Ground input (-). Connect to a solid chassis ground that is clean and free of paint or dirt.
- **YELLOW WIRE** - +12V Ignition input. Connect to a main ignition wire at the ignition switch harness. This wire shows +12V when the ignition is on and while cranking. The voltage must not drop when the car is starting.
- **ORANGE WIRE** - Armed Output (-) 500mA. The ORANGE wire provides a ground when the unit is armed to activate a circuit disable relay or other device (i.e. window control module, etc.).

### **Starter Defeat Connectors**

Using a volt/ohm meter locate the starter wire (normally a heavier gauge wire) at the ignition switch. This wire will show +12V only during cranking. When this wire is cut the vehicle will be unable to start. Cut the BROWN starter disable wire (with the two female connectors), and connect one side to the vehicle's starter wire coming from the key switch. Connect the other BROWN wire to the wire going to the starter. Plug the female connectors on the BROWN wires to

the .250 male spade lugs on the module. With the BROWN wires connected to the module, the vehicle should be able to start.

### **Plug in Connectors**

#### **3-Pin White Arm/Disarm Input Connector:**

Plug-in connector port for the lock, unlock, and validation input wires. These inputs are used to provide arming and disarming commands to the system module. For negative trigger lock systems the wire loop next to the red LED connector must be cut.

- **YELLOW WIRE** - Disarm validation input (+/-). This wire prevents the system from disarming when the unlock switch on the door is pressed. When BLUE disarm input wire receives a positive pulse and the YELLOW wire input does not change state from positive to negative or negative to positive, the system WILL disarm. If the BLUE wire receives a positive pulse and the YELLOW wire changes from positive to negative or negative to positive, the system WILL NOT disarm. This wire must be connected to the proper vehicle wire before powering the alarm module in order to learn system polarity.
- **BLUE WIRE** - Disarm input (+). When the BLUE wire receives a positive pulse the system will disarm (see YELLOW wire above).
- **GREEN WIRE** - Arm input (+). When the GREEN wire receives a positive pulse the system will arm.

**2-Pin Red Connector:** Plug-in connector port for LED/Valet combo switch. Mount where the LED may be easily seen from either side of the vehicle.

**Wire Loop:** Door lock input polarity select wire. For positive trigger door lock systems no adjustment is required. For negative trigger lock systems cut this wire loop for proper arm/disarm operation.

## Programmable Features

| <u>Step</u> | <u>Function</u>      | <u>1 Chirp</u>      | <u>2 Chirps</u>         | <u>3 Chirps</u> |
|-------------|----------------------|---------------------|-------------------------|-----------------|
| 1.          | Valet Mode           | 15 seconds          | 5 seconds*              |                 |
| 2.          | Auto Rearm           | On                  | Off*                    |                 |
| 3.          | Parking Light Output | 25 seconds          | Flash 2x*               |                 |
| 4.          | Anti-Carjack Mode    | Enabled             | Off*                    |                 |
| 5.          | Shock Sensor         | Disabled            | Normal*                 |                 |
| 6.          | Dome Light Output    | Passive lock output | Passive & Ignition lock | Dome light*     |

## DIP Switch Features

| <u>Step</u> | <u>Function</u>        | <u>On</u> | <u>Off</u> |
|-------------|------------------------|-----------|------------|
| 1.          | Arming Mode            | Passive   | Active*    |
| 2.          | Arming Chirps          | Silent    | Normal*    |
| 3.          | Horn Mode              | Horn      | Siren*     |
| 4.          | Disarm Validation Wire | Off       | On*        |

\* default setting

## Entering Programming

To enter System Programming:

1. Turn ignition On, Off, On, Off, and leave ignition On.
2. Press the valet switch once.
  - The siren will chirp once to indicate entering program mode.
3. Press the valet switch the number times equal to the desired feature.
  - The LED will blink the number times equal to the feature number.
4. Press and hold the valet switch for 2 seconds to change the operating mode for that feature.
  - The siren will chirp 1, 2, or 3 times to indicate the new setting.
5. Turn off ignition to save changes.

## Complete Default Reset

This procedure will set all Programmable Features to factory default settings.

1. Enter System Programming.
2. Press and hold valet witch for 2 seconds.
  - The siren will chirp 3 times.

- The parking lights will flash 3 times.
  - All Programming options are now set to factory default settings.
2. Turn off ignition.

## Programmable Features

1. Valet Mode. Determines the length of time the Valet switch must be held while the ignition is on to override the alarm and put the system into valet mode.
2. Auto Rearm. Automatically rearms the system in case of accidental disarming. The hood/trunk must not be opened or auto rearm is bypassed.
3. Parking Light Operation. Selects whether the parking lights flash twice or remain on for 25 seconds after disarming the system.
4. Anti-Carjack Mode. Enables Anti-Carjacking operation. The Anti-Carjacking feature will automatically activate whenever a door is opened while the ignition is on.
5. Shock Sensor. Disables the system's shock sensor if only door and hood/trunk protection is desired.

6. **Dome Light/Passive Locking.** Allows the Dome Light wire to be used instead as an optional door lock output wire that can lock the doors when the system passively arms and also when the ignition is turned on. Ignition locking will not lock the doors if any door is open when the ignition is turned on.

### **DIP Switch Programmable Features**

1. **Arming Mode.** Selects between manual arming (Active), and automatic arming (Passive).

2. **Arming Chirps.** Normal or Silent Arming.

3. **Horn Mode.** Siren / Horn Chirps. When set for Horn Chirps the horn will honk when the alarm is armed, disarmed, and triggered, allowing the siren to NOT be installed. Button 3 turns the horn output into an AUX 2 output when using button 4 on a remote transmitter.

4. **Disarm Validation Wire.** When set for On, the system will not disarm if it senses a signal on the BLUE disarm wire and the YELLOW validation wire at the same time. When set for Off the YELLOW wire is not monitored, and the system will have a 15 second delay period after triggering where the alarm cannot be disarmed. This delay prevents the alarm from being instantly disarmed by simply pressing the unlock switch.

### **Test System and Adjust Shock Sensor**

Arm and disarm system, checking that the siren chirps and parking lights are functioning normally. Make sure that the programmed features are performing correctly, ie.: ignition locks, passive arming, passive locks, etc.

Test the doors and hood/trunk inputs (make sure all doors trigger the system, not just the driver's door).

Adjust the shock sensor. Turn the sensitivity screw clockwise to increase or counter clockwise to decrease sensitivity.

Arm the system and try starting the vehicle, it should not start.

Arm the system and disarm it using the emergency override feature.

If programmed to passively arm make sure that the system arms properly.

Check the range of the remote transmitters.

Tie up wire harness, and replace any under dash panels.

Make sure the customer has physical knowledge of the location of the valet/override switch.

### **Interfacing OEM Keyless Entry Systems**

This system is designed for operation as a keyless entry upgrade that is controlled using the vehicle's factory keyless entry transmitters. This system requires that the arm and disarm inputs must be connected to the factory door lock wires in order for the vehicle's transmitters to operate the system. Proper integration requires identifying the vehicle's door locking system and choosing the correct interface method for that system type. The following section will describe several different system types and provide a wiring diagram unique to each. A universal wiring diagram is also included for use with any vehicle not described in the following section.

To properly identify the door lock system type have a multimeter available and follow the steps below.

1. Locate the vehicle's door lock switch wires and connect the multimeter.
2. Determine the polarity of the switch wires (positive or negative trigger).
3. Press the lock and unlock buttons on the

factory keyless entry transmitter.

- If the multimeter does not show any change in polarity when locking or unlocking the doors using the factory transmitter, skip ahead to directions for *No Switch Feedback Type* or *Universal Basic*. If the multimeter shows a positive or negative pulse when using the factory transmitter, continue on to Step 5.
- For vehicles that show a positive or negative pulse when using the factory transmitters, it is necessary to determine the keyless entry system type. If all doors unlock each time the transmitter button is pressed, follow the directions for *Standard Type*. If the vehicle is equipped

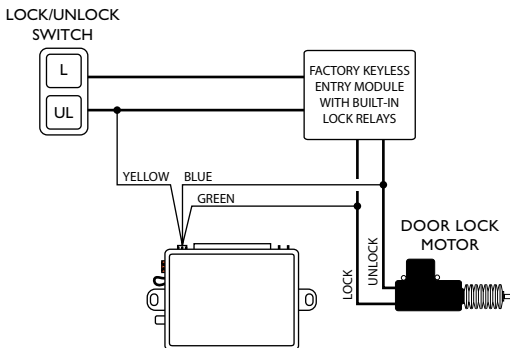
with a two-stage unlock feature that unlocks only the driver door upon first press of the unlock button and then unlocks all doors when pressed again, cut the unlock wire and continue to Step 6.

- If the driver door continues to unlock after the wire is cut but the passenger doors do not unlock, follow the directions for *Built-in Driver Unlock Relay Only*. If the doors no longer unlock, follow the direction for *Two-Step Type* or *Universal Two-Step Type*.

### No Switch Feedback Type

This system type shows no feedback on the door lock wires from the keyless entry module when the transmitter buttons are pressed. The door lock relays are usually

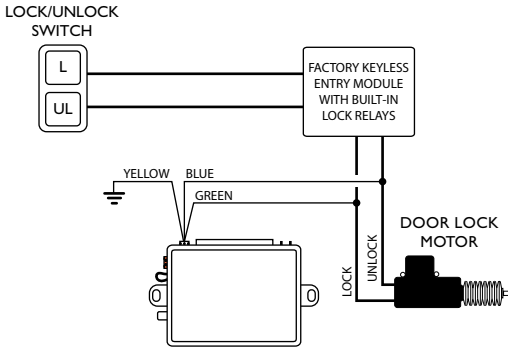
buit-into the keyless entry module in this system type. When connected as shown below the system will arm or disarm only with the keyless entry transmitter, and the door switches will have no affect on the security system.





## Universal Basic

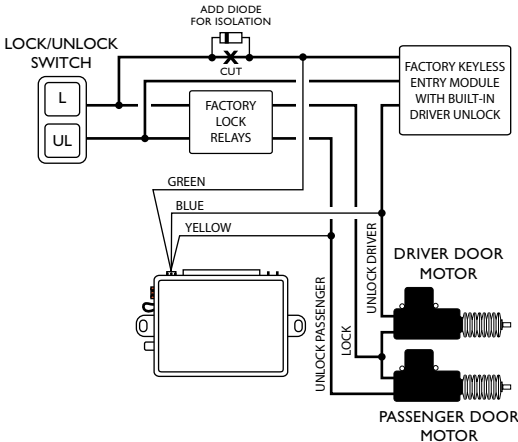
The universal basic connection type offers very easy connection to any keyless entry system, but is also the least secure method due to the lack of door lock switch isolation.



When connected as shown below, the system will arm or disarm with the keyless entry transmitters and with the door lock switches. If the vehicle is equipped with two-step unlocking, it is strongly advised to follow the directions for *Universal Two-Step* instead.

## Built-in Driver Unlock Relay Only

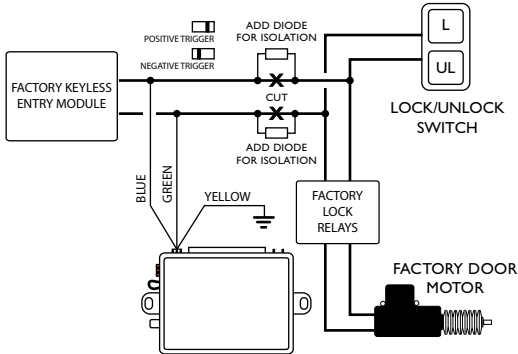
This system type, often found on GM vehicles (especially GM trucks), unlocks only the driver door on the first transmitter button press, and unlocks all doors on a second button press.



The door lock switches output a positive trigger, and the door lock relays are usually separate from the keyless entry module. In this system the keyless entry module features a built-in relay to unlock only the driver door.

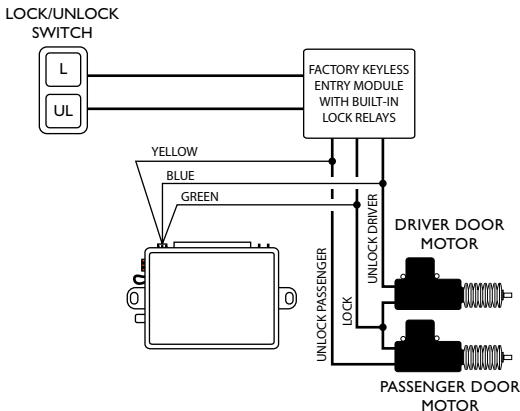
## Standard Type

The standard type connection works well with either positive or negative trigger keyless entry systems that unlock all doors with only one press on the keyless entry transmitter. When connected as shown below, the system will arm or disarm only with the keyless entry transmitter, and the door switches will have no affect on the security system.



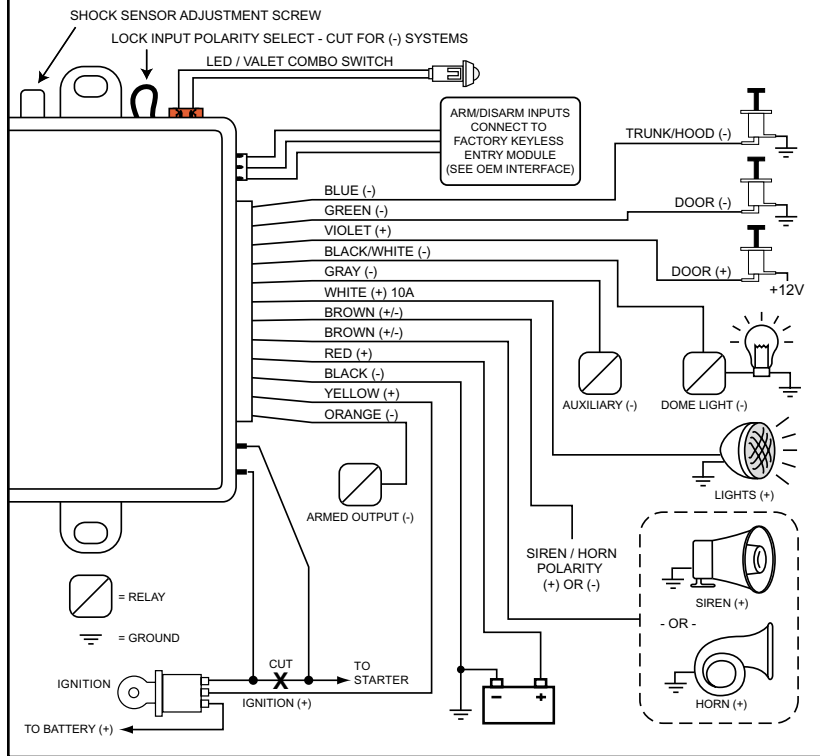
## Two Step Type

This system type offers very easy connection to any two-step keyless entry system, while maintaining a degree of isolation from the door lock switches. When connected as shown below, the system will arm with the keyless entry transmitter and the door lock switch. But it will disarm only with the keyless entry transmitter, and the door unlock switches will have no affect on the security system.



## **NOTES**

# WIRING DIAGRAM



## DIP SWITCH SETTINGS



DEFAULT POSITIONS

## RELAY WIRING DIAGRAMS

### POSITIVE TRIGGER NEGATIVE TRIGGER

