

MODEL MSBOOT / MSB200 VEHICLE SECURITY SYSTEM INSTALLATION MANUAL

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Before You Begin

- Be sure to read the manual thoroughly before beginning the installation to ensure a proper understanding of the MS3001 / MS3200 and its functions.
- 2. Verify system contents:

Main	

- ☐ Two 3-Button Remote Transmitters
- ☐ Siren (MS3001 only)
- ☐ Battery Backup Siren (MS3200 only)
- □ Harnesses
 - 14-Pin main harness
 - · 4-Pin auxiliary function harness
 - 2-Pin Status LED harness
 - · 2-Pin Override Switch harness
 - · Pre-wired starter kill relay socket with relay
- Discuss the location of the status LED and the Emergency Override Switch with the vehicle's owner.
- Discuss the optional features of the MS3001 / MS3200 and the features that must be programmed during installation, with the vehicle's owner.
- 5. Check all of the vehicle's operating systems before and after the installation.

Installation Tips

- 1. Use a Volt / Ohm meter to test all wires. **Do not** use a test light.
- 2. Good power and ground connections are essential for proper operation.
- 3. Route all wires from the engine compartment to the interior of the vehicle through a grommet and use electrical tape and split loom tubing for protection.
- 4. When adding optional accessories such as door locks, window modules, etc., be sure to fuse each additional accessory power lead separately from the main power source. This will insure that the security system power is retained in the event that an accessory malfunctions.
- Avoid extending the system's wires, the supplied wiring harnesses provide sufficient length to connect to the required vehicle circuits. If a wire must be extended, be sure to use the appropriate gauge wire in order to avoid a drop in current.
- Never bypass the fuses included in the MS3001 / MS3200 wiring harness. They are necessary safety items designed to protect both the system and the vehicle.
- Be sure to perform a full function test of all of the systems components to verify proper operation. Also, be sure to check all of the vehicle's operating systems before and after the installation.
- 8. For maximum security, disguise all system wires with black electrical tape and split loom tubing to prevent a thief from being able to identify the system wiring.

Mounting Components

Main Unit

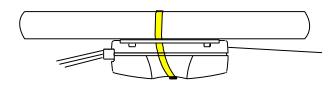
The main unit should be mounted in the interior of the vehicle. *Do not* mount the main unit in the engine compartment. For maximum security, avoid mounting the main unit where it will be easily accessible to a thief.

If you are mounting the unit under the dash board, be sure to mount the unit as high as possible and in a location where it will not interfere with the operation of the pedals.

Be sure to extend the antenna as high as possible so that optimum range can be achieved.

Before securing the unit, be sure that you have made all of the necessary jumper selections and perform a thorough function test of the system.

The case of the MS3001 / MS3200 is designed to be mounted using screws, or secured using wire ties through the wire tie mounting tabs on the bottom of the unit as shown below.



Siren (MS3001)

Mount the siren facing downward and away from sources of heat and face the opening downward to prevent water from collecting inside the housing. Be sure that the wires are not easily accessible from underneath the vehicle.

For maximum security, it is best to disguise all under hood system wires with factory style split loom tubing so that they cannot be easily identified by a thief.

Run all wires from the engine compartment into the interior of the vehicle through a grommet.

Battery Back-up Siren (MS3200)

The self contained, battery back-up siren included with the MS3200 security system is designed to sound for up to 1 full hour when the siren becomes disconnected from it's source of power. The override keys included with the siren, allow it to be turned off in case the vehicle's battery should need to be disconnected for servicing.

Mount the siren facing downward and away from sources of heat and face the opening downward to prevent water from collecting inside the housing. Verify that the override key switch located on the back of the siren can be easily accessed. Be sure that the wires are not easily accessible from underneath the vehicle.

For maximum security, it is best to disguise all under hood system wires with factory style split loom tubing so that they cannot be easily identified by a thief.

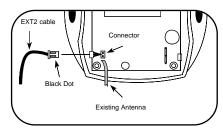
Run all wires from the engine compartment into the interior of the vehicle through a grommet.

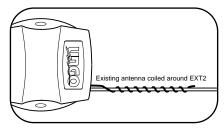
When testing the system, be sure to turn the siren key switch to the "on" position.

EXT2 Extended Range Antenna (optional)

The optional EXT2 is a tuned, coaxial antenna, designed to be used with the MS3001 / MS3200 security system to increase transmitter range. When properly installed, the EXT2 will add greater installation flexibility to the system, allowing the antenna to be placed high in the vehicle to achieve maximum range.

Open the cover of the MS3001 / MS3200 main unit and plug the 2-Pin EXT2 connector into the antenna port located directly on the alarm board, next to the existing antenna. Be sure that the side of the connector marked with a black dot (center conductor) is facing the side of the alarm opposite the alarm 14-Pin main connector.





Run the EXT2 cable through the same hole used for the existing antenna. Once you have replaced the cover, twist the existing antenna around the EXT2 cable to prevent any potential RF interference.

Route the EXT2 up as high as possible inside the vehicle and be sure to avoid running the exposed end of the cable along any wire harnesses.

Override Switch

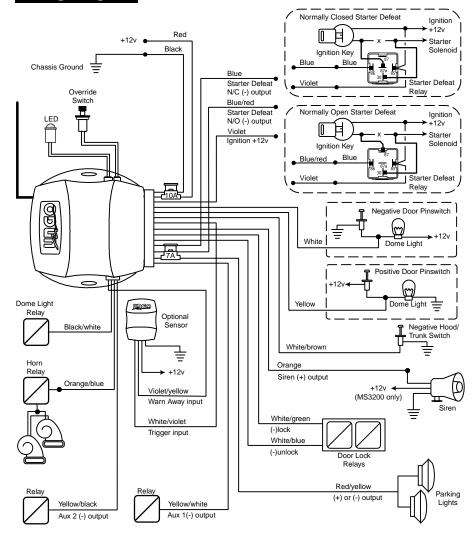
Mount the Override Switch in a location near the driver where it is easily accessible but not plainly visible. Plug the blue override switch connector into the blue 2-pin socket on the main unit.

Be sure that the switch cannot accidentally be pressed or damaged by movement of passengers or contents within the vehicle.

LED Status Indicator

Mount the status LED so that it is visible from both sides of the vehicle. Plug the white LED connector into white 2-pin socket on the Main Unit.

Wiring Diagram



Wiring Description

14-Pin Main Harness

Pin 1 - BLACK: Ground.

Connect to a solid chassis ground. Be sure to use a ring connector of proper size. Scrape away the paint at the grounding point.

Pin 2 - RED: Main Power (+12v) input [3A fuse].

Connect to constant +12v. A clean source of power is essential. This connection can be made at either the battery or at the constant power supply wire to the ignition switch. Be sure to install a fuse near the connection. **Do not** remove or bypass the fuse holder included on the wire harness.

Pin 3 - VIOLET: Ignition input (+12v) input.

Connect to a source that maintains +12v when the ignition key is in both the "on" and "start" positions.

Pin 4 - WHITE: Door Trigger (-) input.

Connect to negative door switch circuit. This circuit will show ground (-) when the door is open.

Pin 5 - YELLOW: Door Trigger (+12v) input.

Connect to positive door switch circuit. This circuit, commonly found in Ford vehicles, will show +12v when the door is open.

Pin 6 - WHITE/brown: Hood/Trunk Trigger (-) input.

Connect to negative output from hood and/or trunk switches.

Pin 7 - WHITE/violet: Optional Sensor (-) trigger input.

Connect to the negative trigger output from an optional sensor.

Pin 8 - ORANGE: Siren (+12v) output.

Provides +12v to drive the siren. Connect to the Red siren wire. Connect the Black siren wire to chassis ground.

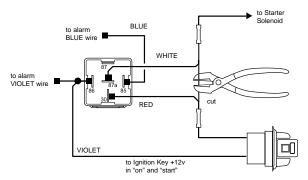
Pin 9 - WHITE/green: Door Lock (-) output.

Pin 10 - WHITE/blue: Door Unlock (-) output.

Connect these wires to relays to interface into the vehicle's power door lock system. For further information, see *Door Lock Diagrams*. For selection of 4-second pulse and Passive Door Locking, see *Jumper Settings*.

Pin 11 - BLUE: Starter Defeat Normally Closed (-) output.

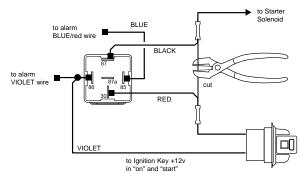
Provides a negative output while the alarm is Armed and during alarming to disable the vehicle's starter circuits. Connect to the provided Starter Kill Relay socket as shown.



In this configuration, the vehicle's starter will be disabled only when the system is armed and alarming. If power to the system is lost or the system becomes disconnected, the vehicle will be able to start.

Pin 12 - BLUE/red: Starter Defeat Normally Open (-) output.

Provides a negative output while the system is Disarmed to enable the starter circuits. Connect to the provided Starter Kill Relay socket as shown.



In this configuration, the vehicle will only start when the system is both connected and disarmed.

Pin 13 - RED/yellow: Parking Light (+/-) output [on-board relay, 7.5A Fuse].

Provides +12v or ground (-) to flash the parking lights. Do not connect this wire to parking light circuits that exceed 10 amps. For vehicles that have independent left and right parking light circuits, the parking light wires must be connected using diodes to keep the circuits separate. See *Jumper Settings* to select polarity.

Pin 14 - YELLOW/white: Auxiliary Function 1 negative output.

Provides negative (-) output. Output will stay on for as long as the Button is pressed.

4-Pin Auxiliary Function Harness

Pin 1 - YELLOW/black: Auxiliary Function 2 (-) output.

Provides a negative output to activate a relay. The output of this wire can be set to operate in one of two operating modes. See *Jumper Settings*.

Momentary Latched

- provides output for as long as the transmitter button is pressed.
- provides an output that stays active until the transmitter button is pressed again.

Possible uses of the latched output include: audio system valet, auxiliary lighting control, headlight operation, etc.

Pin 2 - ORANGE/blue: Alarming / Horn Honk (-) output.

Provides a negative output when the system is triggered to activate a relay. The output is selectable for continuous or pulsed operation. See *Jumper Settings*.

This wire can be connected to a relay to honk the vehicle's horn, or activate an auxiliary siren or air horns when the system is triggered.

Pin 3 - BLACK/white: Dome Light (-) output.

Illuminated Entry/Exit output. Provides a negative output to activate a relay to turn on the vehicle's dome light when the system is disarmed and when the ignition key is turned off. See *Jumper Settings*.

Pin 4 - VIOLET/ yellow: Warn Away (-) input.

Connect to the negative Warn Away output from an optional sensor.

Other Harnesses

For details on the Status LED and Override Switch, see *Mounting Components*.

Battery Back-up Siren (MS3200)

RED: Connect to constant +12v **BLACK:** Connect to chassis ground

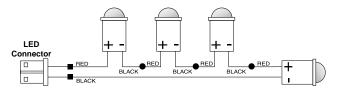
ORANGE: Positive (+) input, connect to the MS3200 Orange wire

ORANGE/blue: Negative (-) input, *not used*

For proper operation, the red and black wires must be connected. If either the red or black wires become disconnected, the siren will sound.

Extra LEDs

Up to 3 extra LEDs can be added. Cut the Red LED wire and connect in series as shown.



Jumper Settings

Jumper Selections

Parking Light Polarity. Selects the polarity (+/-) for the output of the on-board Parking Light relay.

Pin 1 + Pin 2 = positive Pin 2 + Pin 3 = negative

Auto Rearm. When the jumper is *off* the system will automatically rearm if no other activity is detected within one minute of Remote Disarming.

One minute after Remote Disarming, the system will alert you with a 10 second series of chirps, then arm. (If the Passive Door Locking feature is selected during the installation, the system will also relock the doors.)

Any of the following will cancel Automatic System Rearming:

- · Turn on the ignition.
- · Open the Trunk or Hood.
- Activate Auxiliary Function 1 or 2.

Automatic System Rearming is independent of Passive Arming and only takes place if the system was Armed (actively or passively) for at least 20 seconds and then Disarmed by the Remote Transmitter.

- **Horn Honk / Alarming Output.** Selects between a pulsed output to drive a horn relay or a constant output to drive air horns or additional sirens.
- Auxiliary 2 Output. Selects between Momentary or Latched output for Aux. 2.

When the jumper is *off*, *Momentary* operation is selected. The system will provide an output for as long as the Transmitter button is held.

When the jumper is *on*, *Latched* operation is selected. The system will provide an output that turns on when the transmitter button is pressed and turns off when the transmitter button is pressed again.

- Sensor Defeat with Auxiliary Function 1 (Dedicated Remote Start Mode). When the jumper is on, the sytem will ignore the Shock Sensor and Optional Sensor when the Auxiliary Function 1 is activated. The system will continue to ignore these sensors until the next time the system is armed.
- **Ignore Delayed Dome Light.** For use with vehicles equipped with a timed dome light circuit that stays on after door has been closed. When the jumper is *on*, the system will ignore the dome light circuit during arming to prevent the system from responding with an open zone indication each time the system is armed.
- **Passive Door Locking.** When the jumper is *on*, the system will automatically lock the doors with Auto Rearm and Passive Arming.
- **Door Lock / Unlock Pulse Width.** Selects between a 1-second and a 4-second output for door locking and unlocking. When the jumper is on, the door lock/unlock output will activate for 4 seconds for interfacing into vehicles equipped with vacuum door locking systems.

Accessing the Jumpers

Using a flathead screwdriver, carefully press in on the access tabs on the sides of the case until the hooks release.

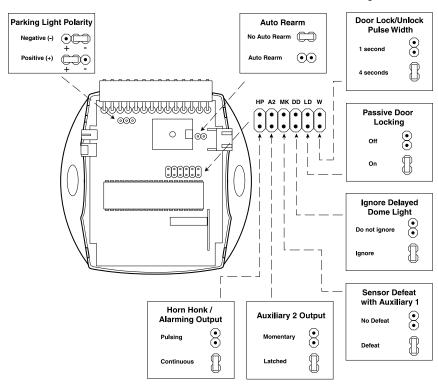
Take care not to push the tabs in too far or they may break.

Once you have made your selections, close the case by aligning the top and button halves of the case, making sure that the tabs are over their mounting holes.



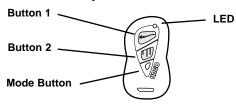


Setting the Jumpers



Remote Transmitters

Remote Transmitter Layout



Each system comes with 2 Remote Transmitters, pre-programmed to Arm and Disarm the system with chirp confirmation using Button 1.

Button 1 Arms and Disarms the system. This Button also locks and unlocks the doors when the system is in Valet Mode.

Button 2 controls the system's Auxiliary Function 1.

When the Arm/Disarm Button is pressed together with any other Transmitter Button, the system will Arm or Disarm *silently* (without chirp confirmation).

If the system was programmed to arm without chirp, pressing Buttons 1 and 2 together will arm the system with chirp.

The **Mode Button** will change the function of Buttons 1 and 2 when it is pressed, allowing Auxiliary Fuction 2 to be acessed.

Note also that the LED on the transmitter changes color when the Mode Button is pressed to indicate the current function of Buttons 1 and 2. The LED will stay on for 5 seconds, then turn off, returning Buttons 1 and 2 to their off settings.

It is also possible to set individual Remote Transmitters to arm and disarm the system using any of the Transmitter's function buttons, which is extremely useful when a Transmitter is used to control multiple systems. See *Adding a New Transmitter into the System*.

The button assignment of Arming and Disarming will not affect the operation of the Remote during Programming, Shock Sensor Adjustment, or any other system set-up function. The buttons used to control those features will remain as they are described in this manual, regardless of how the Transmitter is set up to arm and disarm the system.

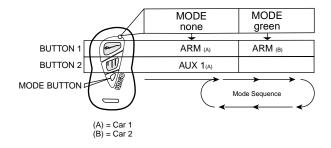
Two Car Operation

For your convenience, you may use a single transmitter to operate multiple vehicles. The Transmitter can be set to arm Car #1 with Button 1 and arm additional cars with the first available Buttons not being used by Car #1.

The following diagram illustrates how a single transmitter can operate a two-car system.

As stated, the Programming and set-up functions of Car #2's system *will not* be affected by this Transmitter configuration and will operate exactly as described in this manual.

The following diagram describes how it is possible to control a primary vehicle and a secondary vehicle using a single Transmitter.



Adding a New Transmitter into the System

- 1. Turn on the ignition.
- 2. Press and hold the Override switch.
 - . The status LED will turn on red.
- Within 5 seconds:

Continue holding the Override switch and Press Transmitter Button 1* For remote arming with chirp confirmation.

--- or ---

Release the Override switch and Press Transmitter Button 1*
For remote arming without chirp confirmation.

- The status LED will flash once quickly to confirm that the new Remote Transmitter has been added.
- 4. Turn off the ignition.

Deleting Transmitters (Adding a Remote Transmitter and Erasing All Other Remote Transmitters From the System)

- 1. Turn on the ignition.
- 2. Press and hold the Override switch.
 - . The status LED will turn on red.

Continue to hold the override switch.

- · After 5 seconds, the status LED will flash 4 times, then turn on red again.
- Within 5 seconds:

Continue holding the Override switch and Press Transmitter Button 1* For remote arming with chirp confirmation.

--- or ---

Release the Override switch and Press Transmitter Button 1* For remote arming without chirp confirmation.

- The status LED will flash once quickly to confirm that the new Remote Transmitter has been added.
- 4. Turn off the ignition.

^{*} The Button that is pressed will be the Arm/Disarm Button on that Remote Transmitter. You may program *any* of the Transmitter's buttons to arm and disarm the system at this point.

Programming

Arming Mode Selection (Passive or Active Arming)

Using the Remote Transmitter, you may select Passive Arming with chirp confirmation, Passive Arming without chirp confirmation, or Active Arming (Remote only).

To set the Arming Mode:

- 1. Turn the ignition on.
- 2. Within 4 seconds, press Transmitter Buttons 1 and 2 together.

First push: one chirp = Passive Arming with chirp

Second push: two chirps = Active Arming
Third push: three chirps = Passive without chirp

3. Turn off the ignition key to save your selection.

Ignition Controlled Door Locking / Unlocking.

Selects whether or not the system automatically locks the doors when the ignition is turned on. When selected, the Ignition Controlled Door Locking feature will automatically lock the doors 10 seconds after the ignition key is turned on and automatically unlock the doors when the ignition key is turned off.

To set Ignition Locking / Unlocking:

- 1. Turn the ignition on.
- 2. Within 4 seconds, press Transmitter Button 2.

The siren will chirp to indicate the setting.

one chirp = On two chirps = Off

- Press Transmitter Button 2 again to change the setting.
- 4. Turn off the ignition key to save your selection.

To prevent the keys from being locked inside the vehicle when Ignition Controlled Door Locking is on:

- The system will not lock the doors if any door is open when the ignition is turned on.
- The system will not lock the doors if any door is opened during the 10 second countdown.

System Initialization and Default Reset

Following this procedure will set all System Programming Parameters to factory default settings.

- 1. Turn the ignition on.
- 2. After 4 seconds, press and hold Buttons 1 and 2 together for 2+ seconds.

The siren will emit one chirp, indicating that the reset signal was received.

- 3. Turn ignition off.
 - · All System Programming parameters are now set to factory default settings.
 - · The Arming Mode is set to Remote Arming only.
 - The Valet Mode is off.
 - The Shock Sensor Trigger sensitivity is set to Level 4.
 - The Shock Sensor Warn-Away sensitivity is set to High.
- 4. Turn off the ignition key to save your selection.

Valet Mode

Allows you to temporarily disable the security system when the car is being serviced or turned over to a parking attendant.

To turn Valet Mode on or off:

- 1. Turn on the ignition.
- 2. Press and hold the override switch.
- 3. While holding the override switch, turn off the ignition.
 - The siren will chirp *once* to indicate you have turned Valet Mode on.
 - The siren will chirp twice to indicate you have turned Valet Mode off.
- 4. Release the override switch.

While Valet Mode is on, you can continue to lock and unlock you doors with the Remote Transmitters, as well as operate the Auxiliary Functions.

For added protection, when the doors are locked by the Remote Transmitter, the system's Starter Disable circuit will activate and the LED will emit double flashes until the system is unlocked by the Remote.

If the Remote Transmitter is lost, stolen, or becomes inoperable while the car is locked in Valet Mode, you can use the *Emergency Override* procedure to deactivate the Starter Disable circuit.

Tamper Alert

On Disarming, if the system responds with one long chirp and one short chirp, indicating the system was triggered, the LED will flash for 60 seconds to indicate the zone that triggered the system.

LED Flashes (60 seconds):

1 flash = door

2 flashes = Shock Sensor 3 flashes = optional sensor 4 flashes = hood/trunk

4 flasnes = nood

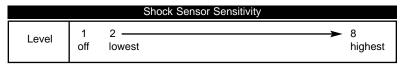
example: flash-flash-pause-flash-flash-pause = Shock Sensor

Shock Sensor

The MS3001 / MS3200's dual stage, on-board Shock Sensor is adjusted entirely through the use of the Remote Transmitter.

Trigger Sensitivity

The Trigger sensitivity is adjustable to 8 levels, including an "off" setting where the sensor is ignored.



To Adjust the Trigger sensitivity:

- 1. Turn the ignition key on.
- 2. Within 4 seconds, press Transmitter Button 1.
 - The siren will chirp (1 through 8) to indicate the current sensitivity level. The default shock sensitivity setting is 4.
- 3. Test the sensitivity. The siren will respond with a **short chirp** when shock is detected.
- 4. To make adjustments:

Press Button 1 to *increase* the sensitivity. Press Button 2 to *decrease* the sensitivity.

- The siren will chirp to indicate the sensitivity level each time the Button is pressed.
- If the sensitivity is set to Level 1, the Shock Sensor is off.
- 5. When you are satisfied with the sensitivity, turn off the ignition.

When the sensitivity is set to Level 1, the siren will emit 1 chirp, followed by 3 chirps each time the system is Armed to indicate that the Shock Sensor is off.

Warn Away Sensitivity

The sensitivity of the Shock Sensor's Light Impact Response can also be adjusted. There are two settings for Warn Away, **High** and **Low**. The default setting is **High**.

To Adjust the Warn-Away sensitivity:

- 1. Turn the ignition key on.
- Within 4 seconds, press The Mode Button followed by Button 1. The siren will chirp to indicate the setting:

One chirp = High Two chirps = Low

3. Press Button 1 again to change the setting.

Note: To turn off the shock sensor for one arming cycle, use the "Remote Shock Sensor Bypass (Dedicated Remote Start Mode)" feature available with the auxiliary function. See *Jumper Settings*.

Reference Chart

You can use this chart to quickly identify and interpret the MS3001 / MS3200 system's chirp indications and LED flashes.

Output	When	Status
1 chirp	arming	normal arming
1 + 3 chirps	arming	Shock Sensor sensitivity is off
1 + 4 chirps	arming	door, hood, or trunk is open
2 quick chirps	arming	Valet Mode is on
LED double flashes	Valet Mode	Starter Defeat Activated
2 chirps	disarming	normal disarming
1 Long + 1 Short Chirp	disarming	Tamper Alert - system was triggered
no LED flashes	after Tamper Alert	ignition
1 LED flash	after Tamper Alert	door
2 LED flashes	after Tamper Alert	Shock Sensor
3 LED flashes	after Tamper Alert	optional sensor
4 LED flashes	after Tamper Alert	hood or trunk
1 chirp	while armed	Warn Away
5 quick chirps	while armed	Dedicated Remote Start Mode activated
Double chirps (for 10 seconds)	1 minute after disarming	Automatic Rearming
LED flashing quickly	ignition key off	Passive Arming sequence started
Two chirps	ignition key off	Full Time System Diagnostics
1 LED flash	after Full Time Sys. Diag.	door
2 LED flashes	after Full Time Sys. Diag.	Shock Sensor
3 LED flashes	after Full Time Sys. Diag.	optional sensor
4 LED flashes	after Full Time Sys. Diag.	hood or trunk

Full Time System Diagnostics

The system continuously monitors all protected zones, even when it is not armed, and warns you if it detects a problem when you turn off the ignition.

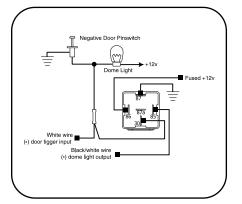
- 1. Turn off the ignition.
- 2. If the siren chirps twice, the system has detected a problem.
- 3. The status LED will flash to indicate the zone where the problem has been detected.

1 flash = door 2 flashes = Shock Sensor 3 flashes = optional sensor 4 flashes = hood / trunk

Dome Light Control Relay Diagrams

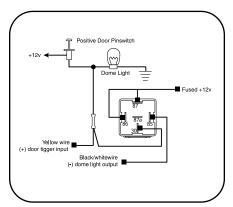
Dome Light Control - Negative Polarity

For vehicle's with a negative polarity dome light, connect a relay and wire as shown below.



Dome Light Control - Positive Polarity

For vehicle's with a positive polarity dome light, connect a relay and wire as shown below.



Auxiliary Function 2 Output

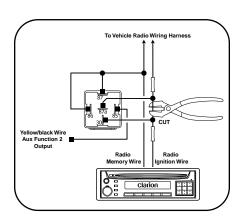
The Auxiliary Function 2 Output can be set for momentarty or latched operation allowing custom operation of vehicle systems such as:

Remote Control of Audio System (Latched Operating Mode)

This enables the user to listen to the vehicle's audio or video system for extended periods without need of the vehicle's ignition key.

When the Aux 2 function is pressed, the radio will turn on until the Aux 2 function is pressed again.

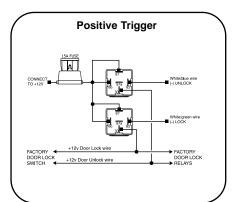
Normal operation of the audio system using the ignition key is unaffected.

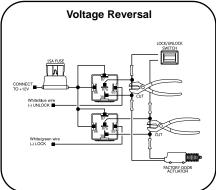


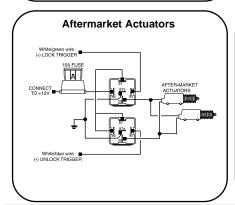
Door Lock Diagrams

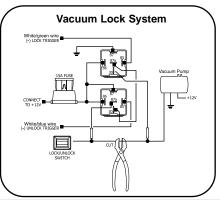
White/green = (-) Lock White/blue = (-) Unlock

Negative Trigger White/green wire (-) LOCK TRIGGER White/Bush wire (-) Unu.Ock TRIGGER FACTORY (-) Door lock wire FACTORY DOOR LOCK SWITCH (-) Door unlock wire RELAYS









Optional DLRM - Door Lock Relay Module

The optional DLRM is a factory door lock integration module with built-in relays for use with high current positive trigger door locking systems (like those found on some older GM models) and voltage reversal door locking systems (also known as 5-wire systems, found on many Ford vehicles and some GM models). The DLRM can also be used with aftermarket actuators for vehicles not equipped with power door locks. Some late model Chrysler, Ford, and Mazda vehicles use lower voltage systems requiring the use of resistors. For details on integration with these systems, please call the Ungo dealer technical support hotline.

DLRM Wiring Description:

5-pin Harness

 White
 Lock #87a
 normally closed common

 Green
 Lock #30
 common

 Blue
 Unlock #30
 normally closed common

 Brown
 Unlock 87a
 common

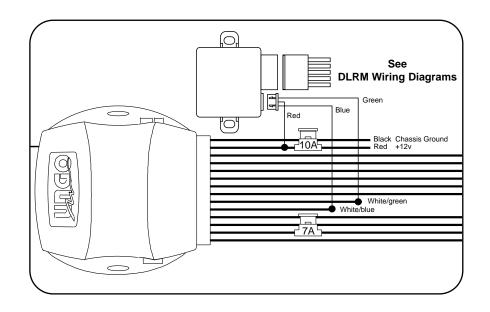
 Violet
 Lock & Unlock #87
 normally open

3-pin Harness

Green Lock (-) trigger Red +12V input Blue Unlock (-) trigger

Installation:

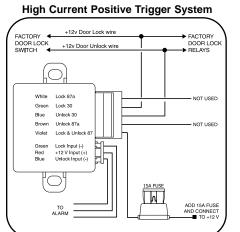
Connect the small Green wire from the DLRM to the White/green wire (pin 9) from the alarm. Connect the small Blue wire from the DLRM to the White/blue wire (pin 10) from the alarm. Connect the small Red wire to Red wire (pin 2) from the alarm.

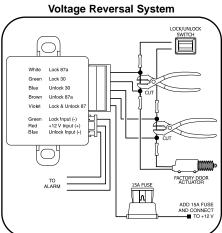


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DLRM Wiring Diagrams

Be sure to add a fuse to the violet wire of the 5-pin harness and connect to a constant source of power separate from the alarm's power wire. <u>DO NOT connect the DLRM Violet wire to alarm's main power lead.</u>





White Lock 87a Green Lock 30 Blue Unlock 30 Blue Unlock 87a Violet Lock (Index 87 Violet Lock (Index 87) ADD 15A FUSE AND CONNECT TO ALARIM TO +12V

Adding Aftermarket Actuators

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