

2250
2250M

INSTALLATION GUIDE

Advanced Remote Vehicle Starter With Alarm System

***AUTOMATIC AND MANUAL
TRANSMISSION MODELS***

WWW.ULTRASTARTERS.COM

See website for a full size printable version of this manual.

**WARNING!! NEVER INSTALL A
AUTOMATIC REMOTE STARTER
IN A MANUAL TRANSMISSION VEHICLE
SERIOUS INJURY OR DEATH CAN RESULT**

TECH SUPPORT

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FCC/ID Notice

This device complies with Part 15 of the FCC rules. Operation is subject to the following 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.

CAUTION: Changes or modifications not expressly approved by the part responsible for compliance void the user's authority to operate this device.

2250 Wiring Diagram	Page 3
Pre-Installation	Page 4
Components	
Recommended Pre-Installation Procedures	
Recommended Install Procedures	
Wire Connectors	Page 5
6 Pin Connector	
14 Pin Connector	
3 Pin Red Connector	
4 Pin Blue Connector	
Jumper Selections	
Installation	Page 6
Basic Installation - Quick start	
Plugging In The Module	
Auto Tach Learn	
Shock Sensor Programming	
Programming	Page 7-11
Program Overview & System Reset	
Program Menu 1 (User Settings)	
Program Menu 2 (Alarm Settings)	
Program Menu 3 (Starter Settings)	
Program Menu 4 (Tach Settings)	
Other Features And Operations	Page 12
Reservation Mode	
Transmitter Programming	
Battery Replacement	
Service Mode	
System Operation	Page 14-15
Relay Diagrams	Page 16

DIAGNOSTICS

PARK LIGHTS	STATUS LED	DIAGNOSTIC CODE
3 Flashes	Series of 3 Flashes	Door Opened "M" Models
3 Slow Flashes	No Flashes	Attempted Start - In Service Mode
4 Slow Flashes	Series of 4 Flashes	Not in Reservation Mode "M" unit
5 Flashes	Series of 5 Flashes	Hood Pin Grounded (Open)
5 Slow Flashes	Series of 5 Flashes	Brake Pedal Shutdown
6 Flashes	Series of 6 Flashes	Ignition On During Start Attempt
6 Slow Flashes	Series of 6 Flashes	Hood Pin Grounded
7 Flashes	Series of 7 Flashes	Tach Lock-Out
8 Flashes	Series of 8 Flashes	3 Start Attempts with no start

If the remote starter has a failed start attempt or if a safety input is activated the Diagnostic Memory will store up to four shutdowns in memory. This information can then be accessed to determine the source of the shutdown.

To Enter Diagnostic Mode:

Step 1 - Turn the ignition on wait two seconds then turn off. Press the Program Button and release.

Step 2 - The system will respond with three park light flashes and the siren will chirp the same number of times as the events in memory. (Maximum four events, four chirps)

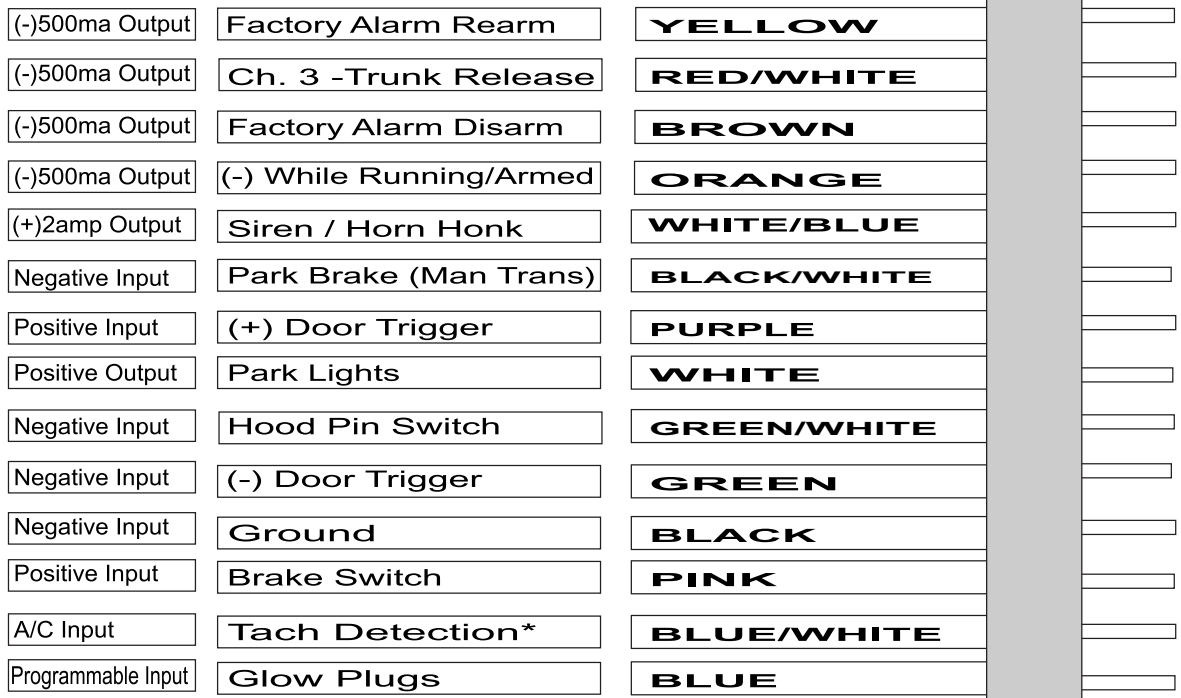
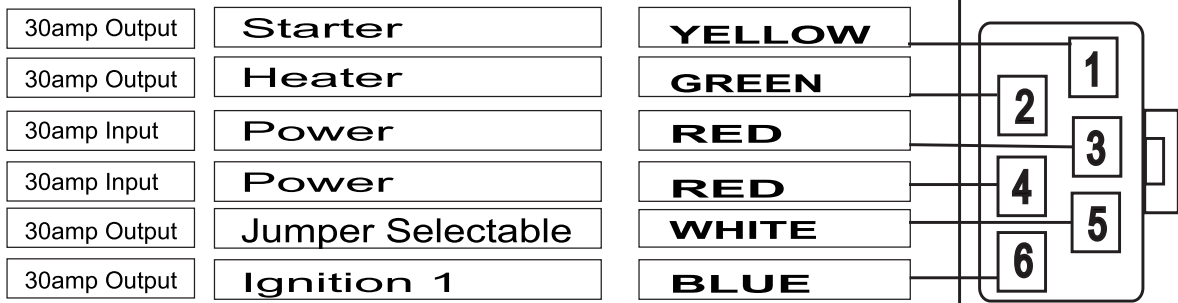
NOTE: If the siren does not chirp, there are no events in memory.

Step 3 - Press the Program Button once to view the last shut down code. The siren will chirp once to confirm code one. (If the siren does not chirp, there are no codes in memory).

Step 4 - The LED's on the antenna will flash a code corresponding to a shut down trigger. Press the Program Button again to check the second code. The siren will chirp twice to confirm code two.

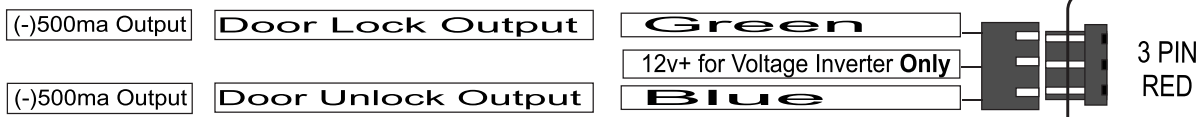
Step 5 - To **Clear Diagnostic Memory**. While in Diagnostic Mode press and hold the Program Button for five seconds. The park lights will flash and the siren will chirp once.

Note: Once diagnostic memory has 4 improper shutdown events in memory, the system will not record any further shutdown events until the system memory has been cleared.



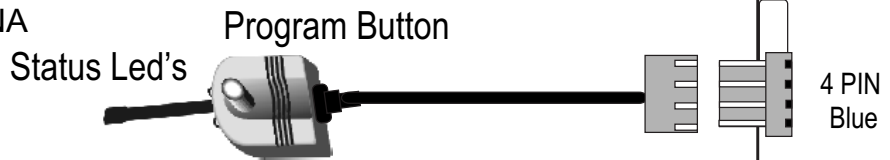
*This input is a optional connection for "TL" models. This input is programmable and may need to be programmed for Tachless operation. See Page 11.

SIDE VIEW

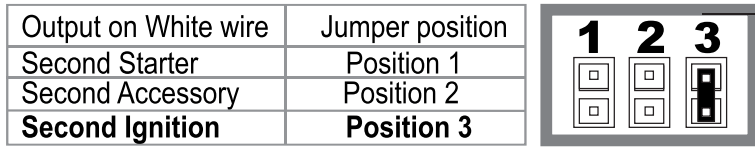


Note: The center pin of this connector is low current and designed to power a Voltage Inverter. Do not use the center pin of this connector to power relay packs. Doing so will damage the output. *Always use a fused power source when installing relays for keyless entry.

ACTIVE RF ANTENNA

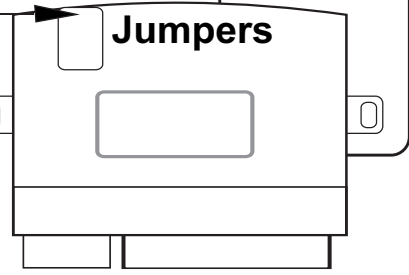


**The antenna must be connected before the system will operate



The jumpers control the output on the white wire from the six pin harness. Place the jumpers in the above order to change the output.

Note: The default setting is second ignition.



Components

- Control module
- Remote transmitter(s)
- Antenna with built in program button and LED's
- 6 pin main harness with dual 30amp power inputs
- 14 pin harness
- 3 pin - 2 wire keyless entry harness
- Multi-tone siren
- Hood pin safety switch
- Hood and window stickers
- Installation guide
- Owners manual

Recommended Pre-Installation Procedures

BEFORE STARTING INSTALLATION

- Discuss the optional features with the customer.
- Take a few minutes to review the installation and owners manuals.
- Check if the vehicle has a factory security or anti-theft system.
 - *If equipped, inform the customer of addition parts and labour.
- Do a walk around the vehicle and check for any damage.
- If installing a LED discuss the placement with customer before installing.

Note: This remote starter is designed for fuel injected and diesel engines.

Recommended Installation Procedures

Proper Connections - Remote Starters can handle loads of up to 30 amps for extended periods of time. It is CRITICAL to insure that ALL high current connections are properly soldered and insulated with quality electrical tape. Failing to insure proper connections will result in warranty being VOID and can result in a FIRE. The manufacturer is not responsible for any such damages. It only takes a few more minutes to do the job RIGHT.

Under Hood Connections - Route the hood pin and tach wires through the firewall into the engine compartment. Always try to pull the wires through a factory rubber grommet. If drilling through the firewall, **BE CAREFUL**. Check for obstructions on both sides of the firewall. After drilling use a snap in grommet to protect the wires from sharp edges.

Installing the External Long Range Antenna - To insure the best possible reception, place the antenna in the center of the windshield, behind the rear view mirror. Before attaching to the glass ensure that the surface is clean and dry. For best results with range, place the antenna below the tint screen. Run the cable under the headliner and behind the A-pillar panel. Be careful not to pinch the antenna cable. Plug the antenna into the **BLUE** connector on the Control Module.

NOTE: This step is not used on Alarm Only Units with no External Antenna.

Mounting The Control Module - **Never** mount the module in the engine compartment. Select a location under the dash to install the main module. Be certain that the module is securely attached and does not obstruct any serviceable areas. Do not force or jam the module into tight places instead of mounting. The module must be free from all moving parts such as brake, clutch and gas pedal linkages. Do not place the module directly in front of a heater vent.

Testing The System - When the installation is complete, it will be necessary to test that the system is working correctly. The system's default programming will work on the majority of vehicles, but might need to be adjusted for some applications. If the installation requires special timing or additional features, proceed to Program Mode.

ATTENTION: The Hood Pin Safety Switch MUST always be connected!!

NOTE: Always inform user to place system in Service Mode before any service

Work performed on the vehicle.

6 Pin Power Connector

Yellow	Starter	30amp output	<i>12volts during crank only.</i>
Green	Heater	30amp output	<i>12volts in accessory. Off during start.</i>
Red	12 power	30amp input	<i>Constant 12volt power at ignition harness.</i>
Red	12 power	30amp input	<i>Constant 12volt power at ignition harness.</i>
Blue	Ignition 1	30amp output	<i>12volts in ignition and start positions.</i>
White	Select Out	30amp output	<i>Selectable Output. See jumper diagram.</i>

14 Pin Connector

Yellow	Re-Arm	0.75sec Pulse With Lock And On Shutdown.
Red/White	3rd CH	Trunk Release - Active When Button #2 Is Held For 3seconds.
Brown	Disarm	0.75sec Pulse With Unlock And Before Start.
Orange	(-) Output	(-) While Running / (-) While Locked - **Starter Program Mode.
White/Blue	Siren / Horn	(+) Siren / Horn Output - **User & Alarm Program Modes.
Black/White	Park Brake	Negative Park Brake Input - Manual Transmission Models Only.
Purple	(+) Door Input	Positive Door Trigger Input - Manual Trans & Alarm Units Only.
White	Park Lights	Positive Park light Output - 10 Amp Max.
Green/White	Hood Pin	Negative Hood Pin Input - MUST BE CONNECTED!!
Green	(-) Door	Negative Door Trigger Input - Manual Trans & Alarm Units Only
Black	Ground	System Ground Input - MUST BE CONNECTED!!
Pink	Brake	Positive Brake Input - MUST BE CONNECTED!!
Blue/White	Tach	Tach Signal Input - MUST BE CONNECTED ON TACH MODELS!!!
Blue	Glow Plug	Programmable Input - DIESEL ONLY. **Starter Program Mode.

3 Pin Connector Red

Green	Door Lock	Door Lock Output - Programmable - Menu 1 Setting 3.
Blue	Door Unlock	Door Unlock Output - Programmable - Menu 1 Setting 3.

Note: The center pin of this relay is low current and designed to power a voltage inverter. Do not use the center pin of this connector to power relay packs. Doing so will damage the output. Always use a fused power source when installing relays for keyless entry.

4 Pin Connector Blue

Antenna/ Program Button Connector.

The Antenna Must Be Connected Before the System will Operate.

Jumper Selections

Position One	Second Starter	Output On the White Wire From The 6-Pin Connector.
Position Two	Second Accessory	Output On The White Wire From The 6-Pin Connector.
Position Three	Second Ignition*	Output On The White Wire From The 6-Pin Connector.

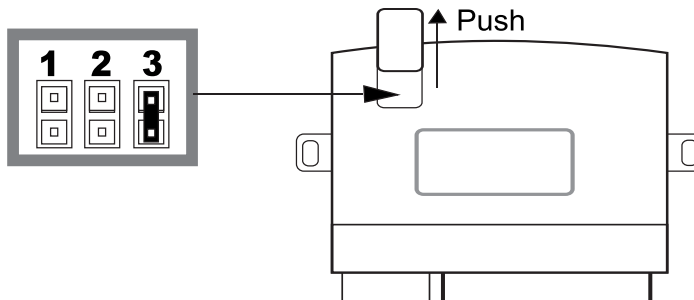
* The Default Setting For The System Is Second Ignition Output.

To change the jumper position you must first remove the access cover as shown in the diagram below. The access cover will slide out of its position when pushed outwards from the center of the module.

The jumpers control the output on the white wire from the six pin harness. To change the output of this wire, place the jumper in one of the following positions

Note: The default setting is second ignition.

Output on White wire	Jumper position
Second Starter	Position 1
Second Accessory	Position 2
Second Ignition	Position 3



Step 1 - Connect All Of the Following Wires

6 Pin Power Connector

Yellow	Starter Output	Connect The Yellow Wire From The 6 Pin To The Vehicles Starter Wire.
Green	Heater Output	Connect The Green Wire From The 6 Pin To The Vehicles Accessory Wire.
Red	12 power Input	Connect to Constant 12 Volt Power Source- High Current.
Red	12 power Input	Connect to Constant 12 Volt Power Source- High Current.
Blue	Ignition 1 Output	Connect The Blue Wire To the Vehicles Primary Ignition Wire.
White	Selectable Output	Select Jumper Position (If Necessary). See Page 5.

14 Pin Power Connector

Black	System Ground	Connect The Black Wire To Chassis Ground.
Pink	Brake Switch	Connect The Pink Wire To The Brake Switch (+) When Brake is Applied.
White	Park Lights	Connect The White Wire To (+) Park Light System.
Green/White	Hood Switch	Connect The Green/White Wire To The Hood Pin Switch.
Blue/White	Tach Input	Connect The Blue/White Wire To An A/C Tach Source. (Must Be Above 2volts A/C)
White/Blue	Siren / Horn	Connect The White/Blue Wire To A (+) Siren or To A (+) Horn Wire.
Green or(-)	Door Input	Connect The Green Wire On Vehicles With Negative Door Pin Systems.
Purple(+)	Door Input	Connect The Purple Wire On Vehicle With Positive Door Pin Systems.

Manual Transmissions Only

Black/White **Park Brake** Connect (-) Parking Brake
 Manual transmission vehicles must have a "M" Series Remote Starter Installed. Manual Transmission Units Must Be Placed Into Reservation Mode To Operate. **See Page 12.**

Step 2- Plug-In The Module

When all the connections are done, the control module can be plugged in. Before connecting the control module, make sure the ignition is in the **OFF** position. Plug in the 6 pin harness then the 14 pin followed by any other connectors that were used.

Step 3- Auto Tach/Tachless Learn

Tach Learning

- 1) Make all the required wire connections and plug-in the Unit.
- **The park lights should flash twice upon power up.
- 2) Turn the Ignition Key ON. (The Park Lights will turn on).
- 3) Start the vehicle with the key, the LED's on antenna will come when proper tach signal is detected. After 30 seconds the park lights will turn off then flash twice to confirm Tach learning.
- * The system will flash the park lights seven times if not Tach/ Tachless learned and the start button is pressed. The system must be Tach/ Tachless learned before remote starting.
- ** If the LED's do not come on during tach learn, a proper Tach signal was not detected.

Note: If the park lights do not flash in auto tach learn mode it may be necessary to connect to a different tach source. For best results connect the tach to the coil pack or to a fuel injector wire.

Tachless Learning (TL Models Only)

- 1) Follow Steps 1&2 from above.
- 2) Start the vehicle with the key, the LED's on antenna will turn on after 30 seconds then park lights will turn off then flash twice to confirm Tachless learning.

Note: If the first ignition wire is connected to a wire that does not stay 12 volts in the start position the system will not Tach/ Tachless learn.

Activate Self Learning Impact Sensor

- 1) Press the **LOCK** button on the remote 5 times in a row, once every half second. The siren will chirp 3 times and the park lights will come and stay on solid.
- 2) While the park lights are on, strike the vehicle at the desired level to trigger the alarm.
- 3) The siren will respond with one chirp to confirm that the Shock Sensor is programmed. Strike the vehicle 3 times to set the impact level.
- 4) Press the lock or unlock button to exit Shock Sensor learning.

Programming Overview

Program mode allows you to adjust the settings and options of your system.

Your system has been intelligently designed by installers with years of experience. The system's default settings do not require any program changes in most cases. However, this system does incorporate a highly advanced programming system that includes 4 menus with numerous options and settings that can be easily adjusted for custom installations and applications.

Menu 1 - User Settings - Page 8

This program menu contains settings that adjust the way the system operates for the user.

Menu 2 - Alarm Settings - Page 9

This program menu contains settings that adjust the way the system operates for the user.

Menu 3 - Starter Settings - Page 10

This menu controls features and settings associated with remote car starter applications.

Menu 4 - Tach Settings - Page 11

This menu allows the programming of the tach signal and the manual adjustment of that setting.

Entering Program Mode

To Enter Program Mode

- 1) Make sure ignition is in the off position.
- 2) Within three seconds turn the key ON - OFF - ON - OFF - ON. **Leave in the "ON" position.**
- 3) Press and release the Program Button on the antenna one time.
- 4) The park lights will come on and the siren will chirp to confirm entering Program Mode.
- 5) Select the Desired Program Menu:

Press Button #1	Lock	User	Options	Page 8
Press Button #2	Unlock	Alarm	Options	Page 9
Press Button #3	Start	Remote Start	Options	Page 10
Press Button #4	Aux	Tach Adjustment	Menu	Page 11

- 6) The selected mode will be confirmed by a siren chirp and one park light flash.
- 7) The Program Menu may be changed at any time by pressing the transmitter buttons as above, this allows the installer to change a setting from one menu, then quickly jump to another menu without re-entering the Program Mode.
- 8) To exit Program Mode, turn the ignition key "OFF" or wait 30 second and the system will exit automatically.

Note: If the unit does not enter Program Mode, turn the ignition off for five seconds and repeat steps 1-4.

** The first ignition(Blue wire) **MUST** be connected to the vehicle's first ignition wire. If it is not connected it will not be possible to enter the Program Modes.

Changing the Programmable Settings

To Select and Change A Program Setting:

- 1) Enter **Program Mode**.
- 2) Select the desired **Program Menu**. (See pages 8 - 11)
- 3) Press & release the **Program Button** the correct number of times to select the desired Program Setting(as listed on pages 8 - 11). The park lights will flash and the siren will chirp to indicate the current setting that is selected.
- 4) Press and hold the Program Button until the parking lights / siren confirm the selected setting. The park lights will flash and the siren will chirp to indicate the option selected within the setting.
- 5) Turn the ignition key "Off" to exit Program Mode.

Note: This procedure is listed below each program setting on pages 8 - 11 of this manual.

SYSTEM RESET

STEP 1 - Within three seconds turn the key ON-OFF-ON-OFF-ON (**Leaving Key ON**).

STEP 2 - Press and release the Program Button.

STEP 3 -The park Lights will turn ON.

STEP 4 - Press and hold the program button again for 8 seconds until the park lights flash and the siren will chirps three times.

The system is now re-set to factory defaults.

Note: Reset to defaults resets the tach learning and any setting that may have been changed in the program menus but does not delete the transmitters from memory.

PROGRAM MODE - USER SETTINGS

Setting 1- Ignition Auto Lock

1 Ignition Lock & Unlock Enabled	1 Light Flash	Doors Lock / Unlock when the key is turned On/ Off
2 Ignition Lock Only	2 Light Flashes	Doors Lock when ignition key is turned ON only
*3 Ignition Auto Lock Disabled	3 Light Flashes	Doors do not Lock or Unlock with Ignition key

Press the Program Button 1 time to select setting 1 (This will be confirmed by 1 LED flash)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 2- Horn Honk Settings

1 Lock & Unlock chirps Disabled	1 Flash	Honks for Panic and Car Finder Mode only.
2 Lock & Unlock chirps Enabled	2 Flashes	Honks for Lock, Unlock, Panic and Car Finder Mode Only.
*3 All chirps enabled	3 Flashes	Honks for Lock, Unlock, Start, Panic and Car Finder Mode.

Press the Program Button 2 times to select setting 2 (This will be confirmed by 2 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 3- Door Lock Options

1 Double Pulse Unlock	1 Flash	Single .75sec.Lock pulse and double Unlock Pulse
2 3 Second Lock & Unlock	2 Flashes	3 second pulses for Lock & Unlock
*3 0.75 Second Pulses	3 Flashes	0.75 second pulses for Lock and Unlock

Press the Program Button 3 times to select setting 3 (This will be confirmed by 3 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Note: See Setting 7 to adjust the door lock pulse duration to 125ms.

Setting 4 -Sensor - Enable / Disable

1 Sensors Disabled	1 Flash	Impact Sensors Disabled
* 2 Sensors Enabled	2 Flashes	Impact Sensors Enabled - Normal Operation

Press the Program Button 4 times to select setting 4 (This will be confirmed by 4 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 5 - Passive / Active Arming

1 Passive Arming	1 Flash	Auto Arms 30 seconds after last door is closed
2 Active Arming With Rearm	2 Flashes	If unlock is pressed and no door is opened within 30sec
* 3 Active Armin	3 Flashes	Alarm Arms Only with Transmitter

Press the Program Button 5 times to select setting 5 (This will be confirmed by 5 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 6 - Active / Passive Locks

1 No Auto-Lock with Passive Arm	1 Flash	Doors do not auto-lock with passive arming
*2 Doors Auto-Lock with Passive	2 Flashes	DOORS LOCK WHEN PASSIVE ARMING

Press the Program Button 6 times to select setting 6 (This will be confirmed by 6 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 7 - Door Unlock & Disarm Pulse Duration

1 Short Pulses	1 Flash	125ms pulses with Unlock and on disarm output. (.125 second)
2* Normal	2 Flashes	750ms pulses with Lock, Unlock and on disarm output. (.75 second)

Press the Program Button 7 times to select setting 7 (This will be confirmed by 7 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Note: Programming this option will change the pulse length of this output from 750ms to a Much shorter pulse of 125ms.

PROGRAM MODE - ALARM SETTINGS

Enter Alarm Program Mode - See Page 7 for details on entering program mode

Setting 1 - Secure Valet Mode

1 Secure Valet Active	1 Flash	Valet only if ignition "ON" and Program Button is held for 15 seconds
*2 Normal Valet Active	2 Flashes	Valet if ignition "ON" and Program Button is held for 5 seconds

Press the Program Button 1 time to select setting 1 (This will be confirmed by 1 LED flash)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 2 - Parking Light Output

1 30 Second Parking Lights on Disarm	1 Flash	Park Lights on for 30 seconds on disarm
2 Negative Park Light	2 Flashes	Switches the Park Light and the Trunk Release (3rd Ch) Outputs
*3 Normal Parking Lights	3 Flashes	2 Park Light Flashes on disarm

Press the Program Button 2 times to select setting 2 (This will be confirmed by 2 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 3 Horn Honk Timing - Unit Must be set for Horn Output in Setting 5

1 5ms	1 Flash	Short (Quiet) Pulses
2 20ms	2 Flashes	Long (Loud) Pulses
*3 10ms	3 Flashes	Normal (Medium) Pulses

Press the Program Button 3 times to select setting 3 (This will be confirmed by 3 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 4 Car Jack Mode

1 Door & Button	1 Flash	Activated by pressing Button #4 or opening the door while the Ignition is "ON"
2 Door, Button 4	2 Flashes	Activated by pressing Button #4 or opening the door while the Ignition is "ON"
*3 Car Jack OFF	3 Flashes	No Car Jack

Press the Program Button 4 times to select setting 4 (This will be confirmed by 4 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 5 Siren / Horn Output

1 Horn Honk	1 Flash	Pulses when alarm is triggered - Timing can be programmed by Setting 4
*2 Siren Output	2 Flashes	Output on steady when alarm is triggered

Press the Program Button 5 times to select setting 5 (This will be confirmed by 5 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

PROGRAM MODE - STARTER SETTINGS

Setting 1- Special Door Lock/ Unlock Operations

1 Type 1	1 Flash	Unlock before start and a lock pulse after start & shutdown
2 Type 2	2 Flashes	Lock pulse after remote starter shuts off
3* Normal Operation	3 Flashes	No additional re-lock pulses

Press the Program Button 1 time to select setting 1 (This will be confirmed by 1 LED flash)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 2- Gas/ Diesel Mode- Blue Wire on 14-Pin

1 Negative Input/ 30seconds	1 Flash	Waits a maximum 30 seconds before starting.
2 Timed Delay/ 15 Seconds	2 Flashes	Ignition ON for 15 seconds before engaging remote starter
3* Gas/ Positive Glow Plug	3 Flashes	Waits 2 seconds to start if no diesel input is detected

Press the Program Button 2 times to select setting 2 (This will be confirmed by 2 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 3- Rearm Output- Yellow Wire on 14-Pin

1 Type 1	1 Flash	Pulse after start and with lock
2 Type 2	2 Flashes	Pulse after start only
3* Factory Re-arm	3 Flashes	0.75 second pulse with lock and after shutdown

Press the Program Button 3 times to select setting 3 (This will be confirmed by 3 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 4- Run Time

1 30 Min Run Time	1 Flash	Remote Starter runs for 30min when activated
2 45 Min Run Time	2 Flashes	Remote Starter runs for 45min when activated
3* 15 Min Run Time	3 Flashes	Remote Starter runs for 15 min when activated

Press the Program Button 4 times to select setting 4 (This will be confirmed by 4 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 5-Maximum Crank Time

1 10 Seconds	1 Flash	10 sec Max time that starter will stay engaged
2 23 Seconds	2 Flashes	3 sec Max time that starter will stay engaged
3* 5 seconds	3 Flashes	5 sec Max time that starter will stay engaged

Press the Program Button 5 times to select setting 5 (This will be confirmed by 5 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 6- Starter Kill/ Bypass Module Output- Orange wire on 14-Pin Con.

1 Active Starter Kill	1 Flash	On when locked, Before ignition and 2 seconds after ignition turns off.
2 Passive Starter Kill	2 Flashes	Same as setting 1 but will arm 60sec after the ignition turns off.
3* Bypass Module	3 Flashes	Output before ignition. Stays on 2 seconds after ignition turns off.

Press the Program Button 6 times to select setting 6 (This will be confirmed by 6 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

Setting 7- Safety Start Mode

1 Safety ON	1 Flash	Must press the start button twice to remote start vehicle
2* Safety OFF	2 Flashes	Press the start button once to remote start vehicle.

Press the Program Button 7 times to select setting 7 (This will be confirmed by 7 LED flashes)

Press and hold the Program Button until you receive the appropriate # of park light flashes and siren chirps.

Release the Program Button . Press momentarily to move to next program step or repeat to change selection.

PROGRAM MODE - TACH SETTINGS

Setting 1- Tach Selection (TL Models Only)

- | | | |
|------------------------|----------------|---|
| 1* Tach Detection Mode | 1 Honk/Chirp | Must connect Tach Wire. (Blue/White on 14-pin connector) |
| 2 Tachless Mode | 2 Honks/Chirps | No Tach connection required. (Do not connect the tach wire) |

Note: The system must be Tach/Tachless learned before the vehicle will remote start.

Setting 1- Method 2- Low Idle Tach Learning

This option is used for vehicles that maintain a HIGH or erratic idle after starting and need more that 10 seconds to establish a stable idle.

Step 1 - Enter Program Mode (Ignition ON-OFF-ON-OFF-ON) then press the Program button on the antenna 1 time.

Step 2 - Enter Program Menu 4 - Press button #4 on the remote transmitter. (# Button)

Step 3 - Start Vehicle - Using the ignition key, make sure not to turn the key off at any time or your will exit programming.

Step 4 - Press the Program Button - One time (The Led will start flashing in single cycles) Press and hold the Program Button for 5 seconds. The park lights will flash twice when the tach signal is learned.

Setting 2- Adjust For Over-Crank (Tach or Tachless)

Step 1 - Enter Program Mode (Ignition ON-OFF-ON-OFF-ON) then press the Program button on the antenna 1 time.

Step 2 - Enter Program Menu 4 - Press button #4 on the remote transmitter. (# Button).

Step 3 - Press the Program Button - **2 times** (The Led will start flashing 2 times).

Step 4 - Hold the Program Button - For 5 seconds until parking lights flash (each time lights flash the tach is reduced)

Step 5 - Release the Program Button - Exit Program Mode and test the remote start.

Setting 3- Adjust For Under-Crank (Tach or Tachless)

Step 1 - Enter Program Mode (Ignition ON-OFF-ON-OFF-ON) then press the Program button on the antenna 1 time.

Step 2 - Enter Program Menu 4 - Press button #4 on the remote transmitter. (# Button)

Step 3 - Press the Program Button - **3 times** (The Led will start flashing 3 times).

Step 4 - Hold the Program Button - For 5 seconds until parking lights flash (each time lights flash the tach is increased).

Step 5 - Release the Program Button - Exit Program Mode and test the remote start.

Shock Sensor - Self Learn Mode



1. Press the **LOCK** button 5 times, once every second.
2. The system will chirp the siren 3 times upon last press and the park lights will flash 3 times then stay "On" during the adjustment mode.
3. Within 10 seconds impact the vehicle three times with the amount of force you want to activate alarm. The siren will chirp upon sensing the impact.
4. Press the unlock button to exit Adjustment Mode.
5. Arm the system, wait 10 seconds and test sensor.

Note: Repeat the above steps to adjust the setting of the sensor.

Anti Car Jacking Mode

**ENSURE THAT USER IS FULLY TRAINED ON THIS FEATURE!
ONLY USE THIS FEATURE WHEN SPECIFICALLY REQUESTED. ENSURE THAT USER IS TRAINED ON THE OPERATION OF THIS FEATURE IF NOT, UNWANTED RESULTS MAY ARISE.**

When activated, the system waits 30 seconds then flashes LED rapidly for 30 seconds, then chirps siren as a warning for 10 seconds then goes into full alarm.

ACTIVATING CAR JACK MODE Programmable - Mode 1, Mode 2

Activates upon any of the following steps:

- Mode 1 & 2 While the ignition Key is "On" press and release button #4.
- Mode 1 & 2 Open the vehicles door while the ignition key is "On".
- Mode 2 only Each and every time that the ignition key is turned "On"

DEACTIVATING CAR JACK MODE

1. **During countdown** - Turn ignition "off & on" then press and release the Program Button.
2. **After full alarm** - Turn ignition "off & on" the hold the Program Button for 8 seconds.

Reservation Mode - Manual Trans.

Manual Transmission Remote Starters must have both the door trigger and park brake wires connected. Most installs will require a clutch bypass. This is a temporary bypass. The clutch should only be bypassed during the activation of the remote starter. Never disconnect or alter the switch to be always bypassed. Always use a "M" Series Remote Starter on a manual transmission vehicle.

Never install a automatic Remote Starter model into a manual transmission vehicle. It is not recommended to install a remote starter on a convertible type vehicle. If doing so It is highly recommended that a radar sensor is installed to cover the proximity of the gear shift lever. If the radar sensor is tripped the remote starter will exit Reservation Mode.

To enter Reservation Mode, the following steps must be followed.

Step 1 - While the vehicle is running, place the transmission in neutral and apply the parking brake.

Step 2 - Press and release the brake pedal. The park lights will activate.

Step 3 - Turn the ignition key off and the vehicle will stay running.

Step 4 - Exit the vehicle and close the door. The vehicle will then shut off.

Step 5 - The vehicle can now be safely remote started.

NOTE: If the vehicle has a dome light delay, the vehicle may stay running until the dome light turns off. This is normally no longer than 30 seconds. Reservation Mode will automatically be exited if the doors of the vehicle are opened. The set-up mode will then have to be repeated. Reservation Mode Must be set-up each time the vehicle is parked.

Note: If the vehicle is not in Reservation Mode and the Start button is pressed, the system will flash the park lights four times slowly.

Transmitter Programming

Step 1 - Within three seconds turn the ignition Key ON-OFF-ON-OFF-ON - **Leaving Key ON**

Step 2 - Press and hold the Program button - Parking Lights will come ON **if park lights do not come on at this point, turn key off for 5 seconds, the repeat step 1.

Step 3 - Continue to hold the Program button. The park lights will turn on.(Continue holding the Button)

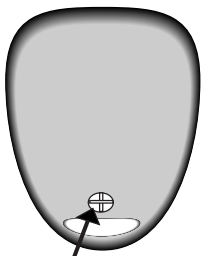
Step 4 - Press the **LOCK** button on each of **1st car** remote's and press the **#** button on each of the **2nd car** remote's to be programmed. The park lights will flash once and the siren will chirp once each time a new code is learned.

Note: Transmitter programming must done quickly. Do not pause more than one second between each transmitter. **All the transmitters** to be used must be programmed at the same time. **All transmitters not programmed at this time will be erased from memory for security. The system holds a maximum of 4 transmitter codes including 2nd car remote codes.**

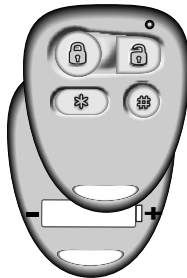
You can program the same remote as a 1st car remote in one vehicle and as a 2nd car remote in a second vehicle.

Battery Replacement

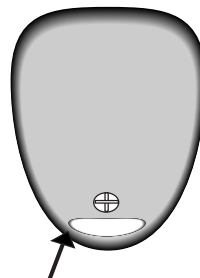
The transmitter battery should be changed at least once every year to maintain proper operating range. Replace with quality 23A 12volt Alkaline battery.



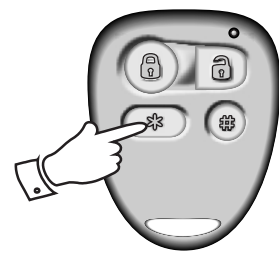
Carefully remove the screw from back of the remote.



Remove top case then replace the battery.

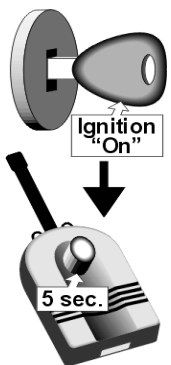


Replace top case. Re-install screw.



Test remote for proper operation.

System Service Mode



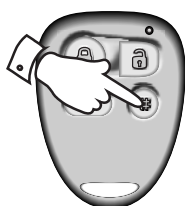
ACTIVATING SERVICE MODE

1. While the ignition is "ON" press and hold the Program Button for five seconds. The park lights will flash and the siren will chirp five times to confirm that the system is in Service Mode.
2. While in Service Mode the remote start functions will be disabled and LED's will be "ON" steady. Door locks and trunk release are still operational.

DEACTIVATING SERVICE MODE

1. While the ignition is "ON" press and hold the Program Button for five seconds. The park lights will flash and the siren will chirp two times to confirm that the system has exited Service Mode.
2. Remote start functions will return to normal operation.

Service Mode- By Remote



SERVICE MODE ACTIVATED

- 1 - Press and release button 4 (# Button)
 - 2 - Press and hold Button 4 (# Button) for 6 seconds until Status LED comes on Steady
- Note: The siren will chirp 5 times to confirm Service Mode was entered.**

SERVICE MODE DEACTIVATED

- 1 - Press and release Button 4 (# Button)
- 2 - Press and hold Button 4 (# Button) for 6 seconds until Status LED turns off.

Note: The siren will chirp 2 times to confirm Service Mode was exited.

Note: The remote starter will flash the park lights 3 times if the start button is pressed when the vehicle is in Service Mode.

LIMITED LIFETIME WARRANTY

Limited Lifetime Warranty - Available with Professional Installation Only

The manufacturer warrants to the original purchaser of their remote starters and alarms, that the product shall be free from defects in material and workmanship. However, should this product be proven to be defective, within a three year period from the original date of purchase, the manufacturer will, without charge to the purchaser (excluding any charges incurred to have the product delivered to the manufacturer), repair or replace any part of the remote starter and/or alarm which the manufacturer agrees to be defective. After the initial three-year period a labour charge of no greater than \$20.00 will apply to all defective goods. A \$20.00 check must accompany any goods being returned to the manufacturer. All warranties apply on to the original purchaser and the vehicle in which it is originally installed. Repairs or replacement of defective modules shall remain at the discretion of the manufacturer. All other parts, components, accessories and/or optional equipment pertaining to the remote starter and alarm are not included in the manufacturer's warranty. This warranty is non-transferable. Request for warranty service from any Factory Authorized Dealer must be accompanied with the original purchase receipt or have product registered by authorized dealer on manufacturer's website. Failure to comply with any of these conditions may result in warranty being voided. If unit is not installed by an Authorized Dealer warranty term is limited to 15 day from date of purchase and covers manufacturing defects ONLY. Only freight pre-paid shipments will be accepted for warranty,

This warranty does not cover the following: removal and reinstall labor charges, shipping charges, abuse, misuse, or accidental damages to the remote starter and alarm, automobile, and/or parts there of. This warranty is void upon modification, repairs, or alterations of any part of the System. The manufacturer does not guarantee or insure against theft of the vehicle or its contents. Alarm models are designed only to act as a deterrent against possible theft. This alarm may qualify for auto insurance discounts; contact your Insurance Agent for further information. The manufacturer shall not be held liable for any consequential damages due to breach of this or any other warranty, expressed, or implied. This warranty gives you specific legal rights. Your specific legal rights may vary for each region.

CERTAIN DAMAGES EXCLUDED - The manufacturer expressly disclaims any liability or responsibility for incidental damages caused by the product, including economic loss, loss of use of the product, car rentals, or any other costs relating to the care and custody of the product. The manufacturer disclaims liability or responsibility for any consequential damages caused by the product or resulting from its use, including the cost of repairing or replacing other property damaged by the product or caused by its use, whether or not the product is working properly. The product is intended to deter unauthorized use of the vehicles in which it is installed. The manufacturer does not warrant that the product is fool-safe against theft and/or vandalism and/or human error or misuse. The manufacturer accepts no liability or responsibility for any damage of any kind whatsoever caused to any vehicle in which the product is installed or any resulting damage from its use. The manufacturer accepts no responsibility or liability for any damage resulting to or theft of the vehicle or its contents.

Lock Doors & Arm The Alarm



1. Press and release the **LOCK** button on the remote transmitter.
2. The park lights will flash and the siren will chirp once.
3. The doors will lock. (With Optional Keyless Entry)
4. The LED's on the antenna will start flashing within five seconds.

Unlock Doors & Disarm The Alarm



1. Press and release the **UNLOCK** button on the remote transmitter.
2. The park lights will flash and the siren will chirp twice.
3. The doors will unlock. (With Optional Keyless Entry)
4. The LED's on the antenna will stop flashing.

Silent Arm And Disarm



1. Press and release the **LOCK & UNLOCK** buttons at the same time.
2. If the doors are locked this will unlock the doors without siren chirps, the park lights will flash two times to confirm the doors have unlocked.
3. If the doors are unlocked this will lock the doors without siren chirps, the park lights will flash one time to confirm the doors have locked.

Trunk Release



1. Press and hold the **UNLOCK** button for three seconds.
2. The doors will unlock, continue holding the unlock button for three more seconds, the trunk release will then activate. The trunk release will be confirmed by one park light flash.
3. For safety reasons, trunk release will not activate when ignition key is in the "On" position.

Car Finder Mode



1. Press and hold the **#** button for two seconds.
 2. The system will flash the park lights and chirp the siren five times.
- **This feature can help find your vehicle in a crowded parking lot.

Panic Mode



1. Press and hold the **LOCK** button for three seconds.
2. The park lights will flash and the siren will activate.

PANIC MODE DISABLE

1. Press the **LOCK** button to disable the panic mode and to lock the doors.
2. Press the **UNLOCK** button to disable the panic mode, press the unlock button again to unlock the doors and disarm the alarm.
3. Panic Mode will stay activated until disabled by the remote transmitter.

2nd Car Operation - See Dealer For Details



2nd Car

- # & = Press Once to Lock Doors. Continue to hold for Panic Mode. Press a 2nd Time and Hold for a Constant Lock Output.
- # & = Press Once for Unlock Doors and Disarm the Alarm. Press and Hold for Trunk / Aux Output.
- # & * = Press Once for Start - (2 Times if programmed for safety start) Press and Hold for 3 seconds while running to turn off.
- # Then # & * = Press and Release then press START and hold for Timer Mode.

Diagnostics

PARK LIGHTS

- 3 Flashes
- 3 Slow Flashes
- 4 Slow Flashes
- 5 Flashes
- 5 Slow Flashes
- 6 Flashes
- 7 Flashes
- 8 Flashes

STATUS LED

- Series of 3 Flashes
- LED's On Solid
- Series of 4 Flashes
- Series of 5 Flashes
- Series of 5 Flashes
- Series of 6 Flashes
- Series of 7 Flashes
- Series of 8 Flashes

DIAGNOSTIC CODE

- Door Opened "M" Models
- System Is In Service Mode
- Not in Reservation Mode "M" units
- Brake Pedal Shutdown
- Ignition On During Start Attempt
- Hood Pin Grounded
- Tach Lock-Out
- 3 Start Attempts with no start

Reservation Mode (Manual Transmissions Only)

1. With the vehicle running, apply the park brake then press and release the brake pedal.
 2. The park lights will flash and the siren will chirp to confirm that reservation mode has been activated.
 3. Remove the key from Ignition, and exit the vehicle. (the vehicle will remain running)
 4. Close the door and the vehicle will shut off.*
- *If the vehicle has a delay dome-light, the vehicle may run until the dome-light turns off.
5. The vehicle is now in Reservation Mode and may be remote started.

Note: Opening a door after this point will cancel Reservation Mode.

Remote Start



1. Press and release the * button.
2. The park lights will flash and the siren will chirp once.
3. When the vehicle has started, the system will flash the park lights four times and then remain "On" while the vehicle is running.
4. The vehicle will continue to run for the programmed runtime. (normally 15 minutes).

EXTEND RUNTIME

1. Press and release the * button while the vehicle is remote started.
2. The system will respond with one park light flash and one siren chirp to confirm Extended Runtime. The system will reset the run time, (normally 15 minutes).

Remote Stop



1. Press and hold the * button for three seconds. The remote starter will shut down.
2. The park lights will flash two times and the siren will chirp two times.

Note: Pressing the brake pedal or opening hood will also stop the vehicle.

Idle Mode



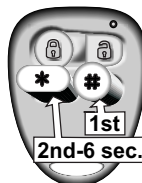
1. While the vehicle is running with key, press the * button.
2. The park lights will turn on and the siren will chirp once.
3. Turn the ignition key "Off" and the vehicle will continue to run.
4. Exit the vehicle and leave it running safely without the keys in the ignition. Lock the door while the vehicle is left running.

Turbo Timer Mode



1. While the vehicle is running with key, press the # button.
2. The park lights will turn on and the siren will chirp once.
3. Turn the ignition key "Off" and the vehicle will continue to run for 2 minutes

Timer Mode



1. Press and release the # button, then press and hold the * button for six seconds, until the parking lights turn "On".
2. While the parking lights are "on" the start cycle can be selected.

1 hour cycle	Press LOCK button	1 Park Light Flash
2 hour cycle	Press UNLOCK button	2 Park Light Flashes
3 hour cycle	Press * button	3 flashes
4 hour cycle	Press # button	4 flashes
3. System will start vehicle at selected cycle for up to 24 hours.

To Cancel Timer Mode:

1. Press and release the # button, then press and hold the * button for four seconds.
2. The park lights will flash and the siren will chirp twice.
3. Starting the vehicle with the key or by the remote will also cancel Timer Mode.



Self Learning Shock Sensor

Press the lock button 5 times, once every half second or until the siren chirps 3 times and the park lights turn. Strike the vehicle with the amount of force wanted to trigger the alarm. Strike the vehicle 3 times to set the impact level. Each time the vehicle is impacted the siren will chirp. Press the unlock button to exit Shock Sensor Learning.

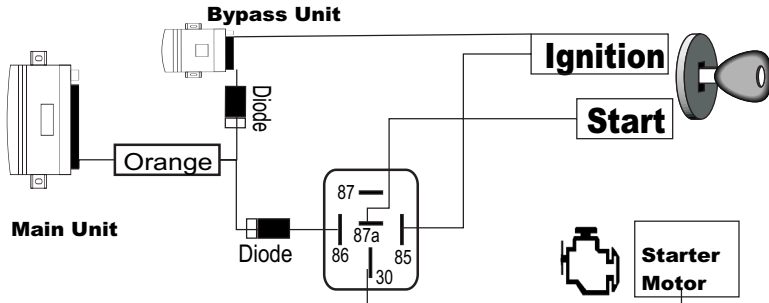


Temporary Sensor Bypass

1. Press and release the LOCK button. The siren will chirp once.
 2. Within 3 seconds press and release the * Button the siren will chirp once.
- *This feature can be used in bad weather or in areas with high levels of noise (Airports....)
 Note: The shock sensor will reset the next time the alarm is armed.

Use 30A SPDT Automotive Type Relays

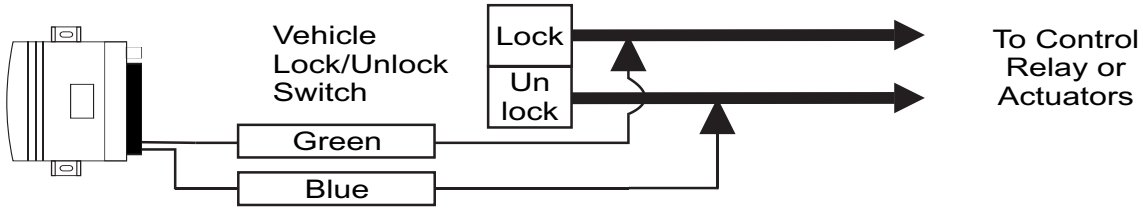
Starter Kill with Bypass Units (Transponder or Passlock)



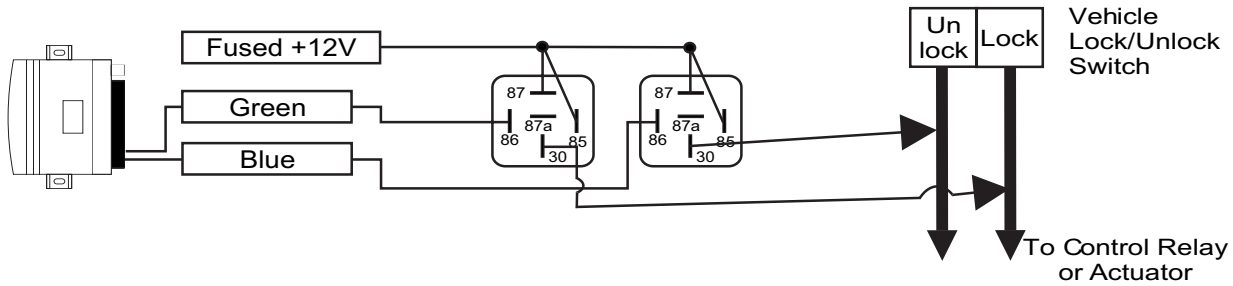
- 1 - Cut the Starter Wire between the key and the start and connect to Pins 87a & 30 of the relay.
- 2 - Connect the "Constant" Power wire for the Bypass Unit to Ignition and not "Constant Power".
- 3 - Connect the negative when run input from the bypass unit and pin 86 of the starter kill relay to the Orange Wire of the main unit. ** Diode Isolate if needed.

***Program Unit for Starter Kill / Bypass Operation
SEE PROGRAM MODE 3, SETTING 6

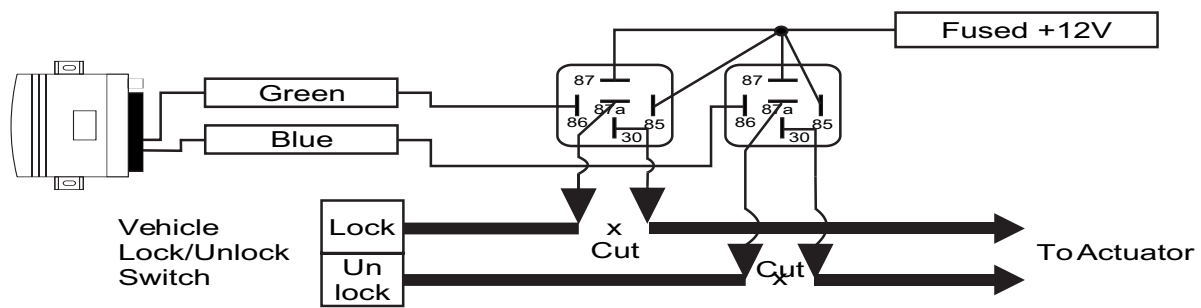
Negative Type Door Locks



Positive Type Door Locks



5 Wire / Reverse Polarity Type Door Locks



Vacuum Type Door Locks

