

INSTALLATION GUIDE

Firmware Version A7J

4500 4500M

Advanced 2-Way Remote Vehicle Starter With Security 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

Western Canada 1 800 279-0636

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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.

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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
- Hood Pin Opened
- Ignition On During Start Attempt
- Brake Pedal Shutdown
- Tach Lock-Out
- 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.

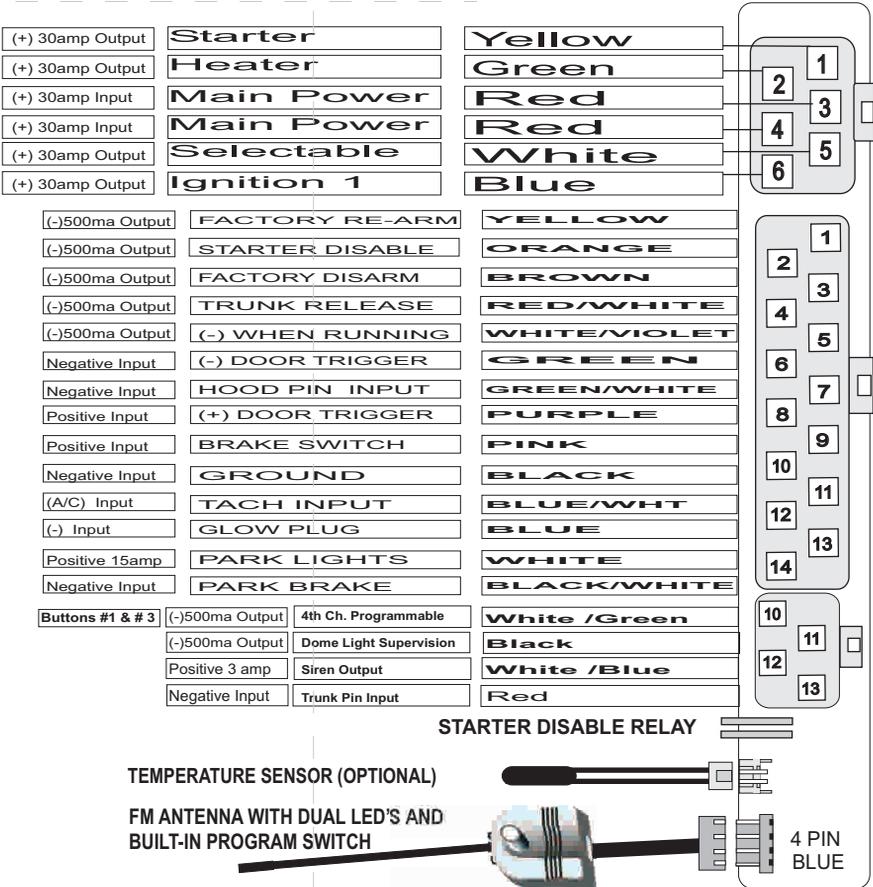
To Enter Diagnostic Mode:

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

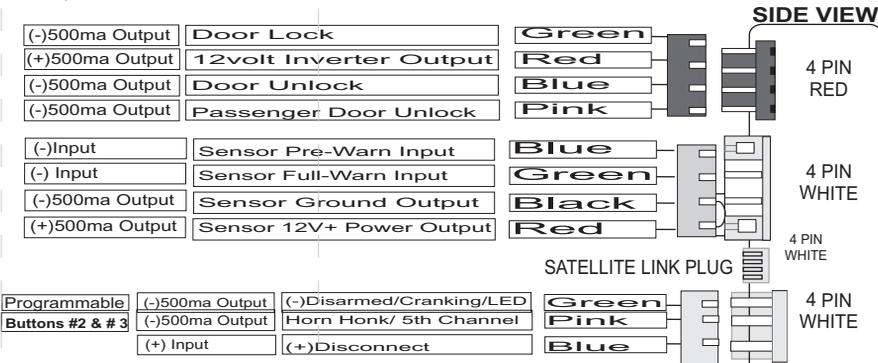
Note: If the siren does not chirp, there are no events in memory.

- 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).
- 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.
- 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.



*The antenna must be connected for the system to operate.



***500ma outputs are low current and are designed to activate relays

Components

- Control module.
- 2 way Remote transmitter.
- Antenna with built in Program Button and LED's.
- 6 pin main harness with dual 30amp power inputs.
- 14 pin harness.
- 4 pin square harness.
- 4 pin keyless entry harness.
- 4 pin Aux. sensor harness.
- Multi-tone siren.
- Hood pin safety switch.
- Hood and window stickers.
- Installation guide and Owner's 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

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

Program Mode.

Note: Always inform user to place system in Service Mode before any service work is performed on the vehicle.

6 Pin Power Connector

Yellow	Starter 30amp output
Green	Heater 30amp output
Red	12 power 30amp input
Red	12 power 30amp input
Blue	Ignition 1 30amp output
White	Selectable 30amp output

12volts during crank only.
12volts in accessory. Off during start.
Constant 12volt power at ignition harness.
Constant 12volt power at ignition harness.
12volts in ignition and start positions.
 Jumper Selectable. **See Page 5.**

14 Pin Connector

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

4 Pin Connector Square

White/Green	Channel 4	Programmable Output. Press buttons #1 and #3 See Page 9.
Black	Dome Light	Negative Output For Dome Light Supervision.
White/Blue	Siren	Positive Output For Siren.
Red	Trunk Pin	Negative Input For Trunk Pin Switch.

4 Pin Connector Red

Green	Door Lock	Door Lock Output - Programmable - See Page 8.
Red	12 Volts	Low Current Output. Use With Voltage Inverter
Blue	Door Unlock	Door Unlock Output - Programmable - See Page 8.
Pink	2nd Unlock	Door Unlock Output - Programmable - See Page 8.

3 Pin Connector White

Green	(-) Disarmed	Programmable Output. (-) when disarmed, when cranking and LED.
Pink	Horn/ Chan.5	Programmable Output. Press buttons #2 and #3.
Blue	(+) Disconnect	(+) Disconnect Or Instant Start Trigger.

Jumper Selections

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.

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

Back View Of Module



6 Pin Power Connector

Yellow	Starter Output	Connect To The Vehicles Starter Wire.
Green	Heater Output	Connect 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 To the Vehicles Primary Ignition.
White	Selectable Output	Select Jumper Position (If Necessary). See Page 5.

14 Pin Power Connector

Black	System Ground	Connect To Chassis Ground.
Pink	Brake Switch	Connect To (+) When Brake is Applied.
White	Park Lights	Connect To (+) Park Light System.
Green/White	Hood Pin	Connect To Hood Pin Switch.
Blue/White	Tach	Connect To Tach Source.
White/Blue	Siren	Connect To (+) Siren (4-pin square harness)
Green or	(-) Door Input	Connect the Green wire to a (-) door pin system.
Purple	(+) Door Input	Connect the Purple wire to a (+) door pin system.

Manual Transmissions Only

Black/White Park Brake Connect Park Brake Switch. (-) When Brake is applied.
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 Learn

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. (Park Lights will turn on).

3) Start the vehicle, LED's on the antenna will come on to confirm tach signal is detected**, then after two to 40 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 learned and the start button is pressed. The system must be tach learned before remote starting.**

**** If the LED's do not come on during tach learn, a proper tach signal was not detected.**

***** A system reset must be preformed before the tach can be re-learned. (Page. 7)**

Note: If the park lights do not flash in auto tach learn mode it may be that the first ignition wire (Blue) is connected to a wire that turns off during crank. If the ignition connection is good, it may be necessary to connect to a different tach source. For best results connect the tach wire to the coil pack or to a fuel injector wire. **If necessary See Page 11. for Tach Adjustment.**

Activate Self Learning Impact Sensor

1) Press Button #1 on the remote 5 times, once every second. The siren will chirp 3 times and the park lights will come and stay ON. (If this does not happen, wait five seconds and repeat step 1)

2) While the park lights are on, strike the vehicle three times at the desired level to trigger the alarm.

3) The siren will respond with one chirp each time a impact is detected by the Shock Sensor.

4) Press the button #1 to exit Shock Sensor learning.

Your Basic Install Is Complete!**NOTES:**

1) If the unit does not start, check the starter is not in Tach Lock Out or in Program Mode.

2) If the vehicle still does not start, check all connections and check for factory security.

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	User Options See Page 8
Press Button #2	Alarm Option See Page 9
Press Button #3	Remote Start Options See Page 10
Press Button #4	Tach Adjustment Menu See 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 and change another setting 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. This will be confirmed by one long siren chirp and park light flash.

Note: If unit does not enter Program Mode, turn the ignition off then 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 in detail below each program setting on pages 8 - 11.

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 the Program Button a second time and hold 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 does not delete the transmitters from memory.

Setting 1- Ignition Auto Lock

1 Ignition Lock & Unlock Enabled	1 Flash	Doors Lock / Unlock when the key is turned On/ Off
2 Ignition Lock Only	2 Flashes	Doors Lock when ignition key is turned ON only
*3 Ignition Auto Lock Disabled	3 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	Chirps for Panic and Car Finder Mode only.
2 Lock & Unlock chirps Enabled	2 Flashes	Chirps for Lock, Unlock, Panic and Car Finder Mode Only.
*3 All chirps enabled	3 Flashes	Chirps 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

*See setting 7 for short unlock and disarm pulse durations

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 -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	System Auto Arms 30 seconds after last door is closed
2 Active Arming With Rearm	2 Flashes	Auto-Arms if unlock is pressed and no door is opened within 30sec
* 3 Active Arming	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 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.

Setting 1 - Service Mode (Valet Mode)

- | | | |
|------------------------|-----------|---|
| 1 Secure Valet Active | 1 Flash | Turn the ignition on and hold the Program Button for 15 seconds |
| 2* Normal Valet Active | 2 Flashes | Turn the ignition on and hold the Program Button 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 Park Lights | 1 Flash | Park Lights on for 30 seconds on disarm |
| 2 Negative Park Lights | 2 Flashes | Switches the Park Light and the Trunk Release (3rd Channel) 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 - Pink wire on 3-pin white

- | | | |
|---------|-----------|-------------------------------|
| 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 - 4th Channel Settings- White/Green wire on 4-pin square

- | | | |
|-----------|-----------|--|
| 1 Pulsed | 1 Flash | Pulsed for 0.75 seconds upon 4th Channel Activation |
| 2 Latched | 2 Flashes | Latched until repeated or ignition "ON" |
| *3 Active | 3 Flashes | Active for as long as buttons are held on Transmitter |

Note: To activate the 4th channel output, press and hold transmitter buttons #1 and #3 at the same time. The siren will chirp once to confirm 4th channel activation.

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 -Car Jack Mode

- | | | |
|------------------|-----------|---|
| 1 Door & Button | 1 Flash | Car Jack is activated upon Button 4 or Door open while Ignition is "ON" |
| 2 Door, Button 4 | 2 Flashes | Car Jack is upon Button 4 or Door open or ignition "ON" and Ignition |
| *3 Car Jack OFF | 3 Flashes | No Car Jack Functions |

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 - Horn / 5th Channel - Pink wire on 3-pin white

- | | | |
|----------------|-----------|--|
| 1 5th Channel | 1 Flash | Pulsed output when activated by buttons #2 & #3 held for 2 seconds |
| 2 Horn Honk 2 | 2 Flashes | Horn Honk Output - Full Alarm ONLY |
| *3 Horn Honk 1 | 3 Flashes | Horn Honk with Arm & Disarm Chirps |

Note: To operate the 5th channel, this setting must be programmed for setting #1. To activate the output press buttons #2 and #3 together for two seconds..

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 -Programmable Output - Green Wire on 3-pin white

- | | | |
|-----------------|-----------|--|
| 1 LED Output | 1 Flash | The output will pulse (-) when armed for activation of an LED. |
| 2 Low Crank | 2 Flashes | The output will come on (-) during crank duration. |
| *3 (-) Disarmed | 3 Flashes | Negative while disarmed. |

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.

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

Setting 1- Special Door Lock/ Unlock Operations

- | | | |
|---------------------|-----------|--|
| 1 Type 1 | 1 Flash | Unlock pulse before start, lock pulse after start and after 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 Glow Plug | 1 Flash | Waits a Maximum of 30 second before starting. |
| 2 Timed Delay | 2 Flashes | Ignition ON for 10 seconds before engaging remote starter |
| 3* Gas/ Glow Plug (+) | 3 Flashes | If no diesel input is detected the vehicle will start after two seconds. |

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 3 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 / Aux. Horn - Orange wire on 14-Pin Con.

- | | | |
|--------------------|-----------|--|
| 1 Horn Output | 1 Flash | Pulsed output to activate negative horn. |
| 2* Starter Disable | 2 Flashes | Negative output while the system is armed |

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- Sensor Disconnect - Blue wire on 3-Pin Con.

- | | | |
|------------------------|-----------|--|
| 1 Positive Start Input | 1 Flash | Positive pulse will activate remote starter. |
| 2 Positive Disconnect | 2 Flashes | Alarm will trigger if disconnected from 12 volts. |
| 3* Positive Disconnect | 3 Flashes | Alarm will trigger if disconnected from 12 volts. |

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.

Continued on next page...

Setting 8- 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 8 times to select setting 8 (This will be confirmed by 8 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 - Method 1- Auto Tach Learning. See page 7.

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.
- 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 (LED- flashing in single cycles) then press and hold button for (5sec).
- Step 5 - Release Program - Led should come on steady to indicate correct tach signal the park light will flash to confirm.

Setting 2- Adjust For Over-Crank

- 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.
- Step 3 - Press the Program Button - 2 times (Led will start flashing 2 times).
- Step 4 - Press and Hold Program - For 5 seconds until parking lights flash (each time lights flash tach is reduced).
- Step 5 - Release Program - Exit Program Mode and remote start to test.

Setting 3- Adjust For Under-Crank

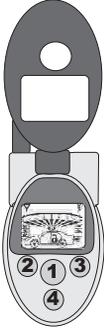
- Step 1 - Enter Program Mode (Ignition ON-OFF-ON-OFF-ON) then press the Program button on the antenna 1 time.
- Step 2 - Enter Program Menu 4 - Press Button #4 on the remote..
- Step 3 - Press the Program Button - 3 times (Led will start flashing 3 times).
- Step 4 - Press and Hold Program - For 5 seconds until parking lights flash (each time lights flash tach is increased).
- Step 5 - Release Program - Exit Program Mode then remote start to test.

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 the park-lights do not come on at this point, turn the key off for 5 seconds, the repeat step 1.
- Step 3** - Continue to hold the Program Button the park lights will go out. (Do not release program switch)
- Step 4** - The siren will chirp five time quickly, Press button 1 on the remote transmitter (ensure the "#" symbol is **not** displayed on the LCD) the park light will flash to confirm transmitter programming.

OPERATIONS

Transmitter Operation



- 1** Press Once to Lock / Unlock Doors and arm/disarm the alarm.
Press 2nd Time (within 3 sec.) and Hold for Constant Lock Output.
Press and hold for 3 seconds to activate Panic Mode.
Press again to disable panic when activated.
While running with the key, press the button to activate Idle Mode.
- 2** Press and Hold for Trunk / Aux Output
**Note this will also unlock doors and disarm alarm*

Press Once for Start - (2 Times if programmed for Safety Start).
Press and Hold for 3 seconds while running to turn off.
While running with the key, press the button to activate Idle Mode.
- 3** Press and Release for Status Check.
Hold for 3 seconds to enter User Programmable Features
While running with the key, press and release to activate Turbo Timer Mode.

Press and release button #4 then press and hold button #3 for three seconds to activate/Deactivate the Timer Mode
- 4 - 3** Press both buttons for 3 seconds to activate Car Finder Mode or 5th channel (see page 9, setting 6)
- 1 & 3** Press both buttons for 1-2 seconds to activate 4th Channel (see page 9, setting 4)

Quick Timer (Selects Last Programmed Start Interval)

1. Enter Transmitter Program Mode.
2. The Telephone Icon will begin to flash on the LCD screen.
3. Press Button #3 and the Telephone Icon will come on solid and the key Icon will begin to flash.
4. Press Button #4 to exit Transmitter Program Mode.
5. The remote starter will now start in the last programmed start interval.

Note: *Timer Mode will reset if the ignition key is turned to the "On" position. If this occurs the above steps will have to be repeated.*

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.

* 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.

OTHER FEATURES

ATTENTION: THE SYSTEM MUST BE PLACED INTO SERVICE MODE BEFORE ANY UNDER HOOD SERVICING IS DONE TO THE VEHICLE. IT IS THE RESPONSIBILITY OF THE VEHICLE'S OWNER TO INSURE THAT THIS IS DONE. THE MANUFACTURER ACCEPTS NO RESPONSIBILITY FOR ACCIDENTAL STARTING WHILE VEHICLE IS BEING SERVICED.

System Service Mode (Valet) - By Remote



This feature will disable the system from the remote transmitter. Use this feature must be used when having the vehicle serviced. (Oil change, Tune-up etc.)

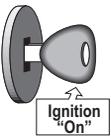
ACTIVATE Service Mode (User Programmable Feature)

- 1 - Press and hold button #4 for 3 seconds. (The remote will beep twice)
- 2 - Press button #1 Five times or until the ? starts flashing on the LCD screen.
- 3 - Press button #3 and the ? symbol will come on solid.
- 4 - Press button #4 to exit User Program Mode. **(System Is Now In Service Mode)**
- 5 - The siren will chirp once and the LED's on the antenna will come on solid.

DEACTIVATE Service Mode

- 1 - Press and hold button #4 for 3 seconds. (The remote will beep twice)
- 2 - Press button #1 Five times or until the ? starts flashing on the LCD screen.
- 3 - Press button# 2 and the ? symbol will turn off.
- 4 - Press button# 4 to exit User Program Mode. **(Service Mode is Deactivated)**
- 5 - The siren will chirp once and the LED's on the antenna will turn off.

Note: Remote starter functions will be disabled and the LED will be "On" steady. The door locks and the trunk release will still be operational.



Ignition "On"

Emergency Service Mode - (Valet Mode)

This feature will disable the system except for locking and unlock functions. This mode can also used if a remote is lost, damaged or if the system malfunctions.

ENTERING SERVICE MODE

1. Turn the ignition key to the "On" position then press and hold the Program Button on the antenna for 5 seconds or until the siren chirps **5 times**.

EXITING SERVICE MODE

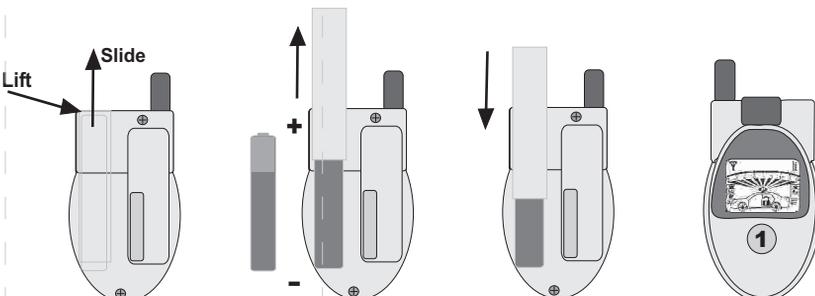
1. Turn the ignition key to the "On" position then press and hold the Program Button for 5 seconds or until the siren chirps **2 times**.

Note: Remote starter functions will be disabled and the LED will be "on" steady. The door locks and the trunk release will still be operational.

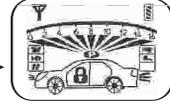


Battery Replacement

When the Battery Icon on the remote indicates that the battery is low the battery should be changed promptly. Replace with quality 1.5volt "AAA" battery.

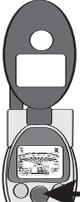


Lock Doors And Arm The Alarm



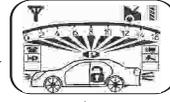
1. Press and release Button #1 on the Remote Transmitter.
2. The park lights will flash and the siren will chirp one time.
3. The remote will beep once and the doors will lock.
4. The LOCK icon will appear on the LCD display of the remote.
5. The LED's on the antenna will start flashing within five seconds.

Unlock Doors And Disarm The Alarm



1. Press and release Button #1 on the remote transmitter.
2. The park lights will flash 2 times and the siren will chirp twice.
3. The remote will beep twice to confirm.
4. The doors will unlock.
5. The UNLOCK icon will appear on the LCD display of the remote
6. The LED's on the antenna will stop flashing within five seconds.

Trunk Release



1. Press and hold the Trunk Release button (Button #2) for three seconds.
2. The doors will unlock, continue to hold for another three seconds and the Trunk Release will Activate. The Trunk Release will then be confirmed by 2 park light flashes.
3. The remote will beep once then beep twice to confirm the Trunk Release was activated. The Trunk icon will then appear on the LCD screen for 5 seconds.
4. For safety reasons, the Trunk Release output will be disabled and will not activate when ignition key is in the "On" position.

Car Finder Mode / Optional 5th Channel

Car Finder Mode.

1. Press and hold Buttons #2 and # 3 together for two seconds.
2. The system will flash the park lights and chirp the siren five times.
3. The remote will beep and display the systems current status.

5th Channel Activation (Must be programmed - see page 9 setting 6)

1. Press and hold Buttons #2 and # 3 together for two seconds.
2. The park lights will flash.
3. The 5th channel output will activate. The remote will beep and display the systems current status.

Panic Mode

ACTIVATE PANIC MODE

1. Press Button #1 for three seconds.
2. The park lights will flash and the siren will activate.

PANIC MODE DISABLE

- Press Button #1 to disable the Panic Mode and lock the doors.
- Press Button #1 to disable the Panic Mode and unlock the doors.

Note: Panic Mode will stay activated until disabled by the remote transmitter.

4th Channel Activation - See Page 9 Setting 4

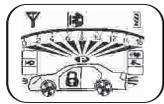
ACTIVATE Channel 4 (White/Green) Wire on 4 pin Connector

1. Press Buttons #1 & #3 together for 1-2 seconds.
2. The 4th Channel output will activate in either a pulsed, latched or as long as held format depending on how the system is programmed in Program Mode 2, Setting 4.

Details available on page 9, Mode 4 (4th Channel)



Remote Start



1. Press and release Button #3 on the Remote Transmitter.
2. The Park lights will flash and the siren will chirp one time.
3. The remote will beep 3 times and the Key Icon will begin flashing.
4. When the vehicle has started, the system will flash the park lights four times and then remain "On" while the vehicle is running.
5. The Runtime Bar Graph will appear on the LCD screen and begin counting down.
6. The vehicle will continue to run for the programmed runtime. (Normally 15 minutes).

Extended Run Time

1. Press and release Button #3 while the vehicle is running by the remote starter.
2. The park lights will flash and the siren will chirp one time to confirm that the runtime has been extended. The system will reset the run time, (Normally 15 minutes).



Remote Stop

1. Press and hold Button #3 for three seconds. The remote starter will shut down.
2. The park lights will flash and the siren will chirp two times.
3. The transmitter will beep to verify the status of the alarm. (Armed or Disarmed)

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

Idle Mode

1. Press and release Button #1 while the vehicle is running by the ignition key.
2. The park lights will turn on and the siren will chirp once.
3. The Remote will beep and the Run Time Bar Graph will light up.
4. Turn the ignition key "Off" and the vehicle will continue to run.
5. Exit the vehicle and leave it running safely without the keys in the ignition.



Note: Always lock the doors while the vehicle is left running.

Timer Mode

1. Press and release Button #4, then press and hold Button #3 for 5 seconds.
2. The Park lights will turn "On" and the start cycle can be selected.

1 hour cycle or 0C	Press Button #1	1 Park light flash
2 hour cycle or -5C	Press Button #2	2 Park light flashes
3 hour cycle or -15C	Press Button #3	3 Park light flashes
4 hour cycle or -25C	Press Button #4	4 Park light flashes



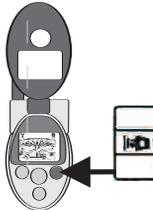
3. The system will start the vehicle at selected start cycle for up to 24 hours.

TO CANCEL TIMER MODE

1. Press and release Button #3, then press and hold Button #4 seconds.
2. The park light will flash and the siren will chirp two times.
3. Starting the vehicle with the key or by the remote will also cancel Timer Mode.

Start Fault Indicator

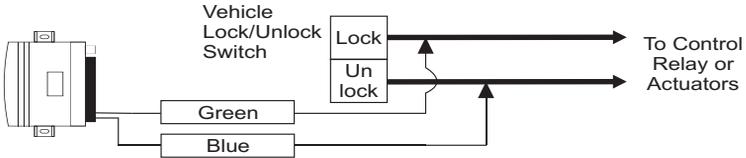
If the Key Icon in the remote's Program Menu is flashing, the remote starter has been disabled. This can be because of various inputs including hood open, brake active, tach lockout or the system is in Service Mode. (Valet Mode)



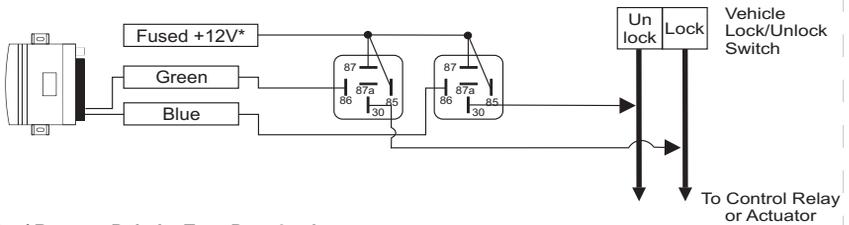
When the remote start button is pressed in this mode, the remote will respond by giving 3 beeps and flashing the Key Icon in the Program Window. The Key Icon on the top of the display will not be illuminated.

Note: The vehicle's start fault condition must be corrected in order to remote start.

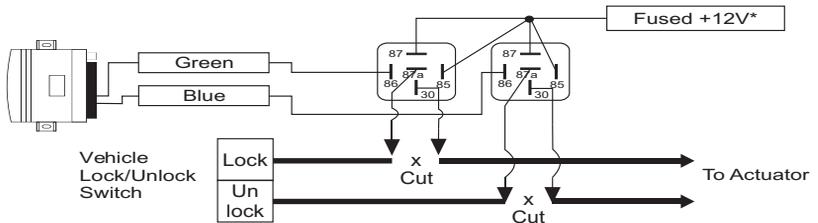
Negative Type Door Locks



Positive Type Door Locks



5 Wire / Reverse Polarity Type Door Locks



* Always install an inline fuse on the power inputs to the relays. Do not use the power output on the keyless entry harness to supply power for relays.

Built-in Starter Disable

