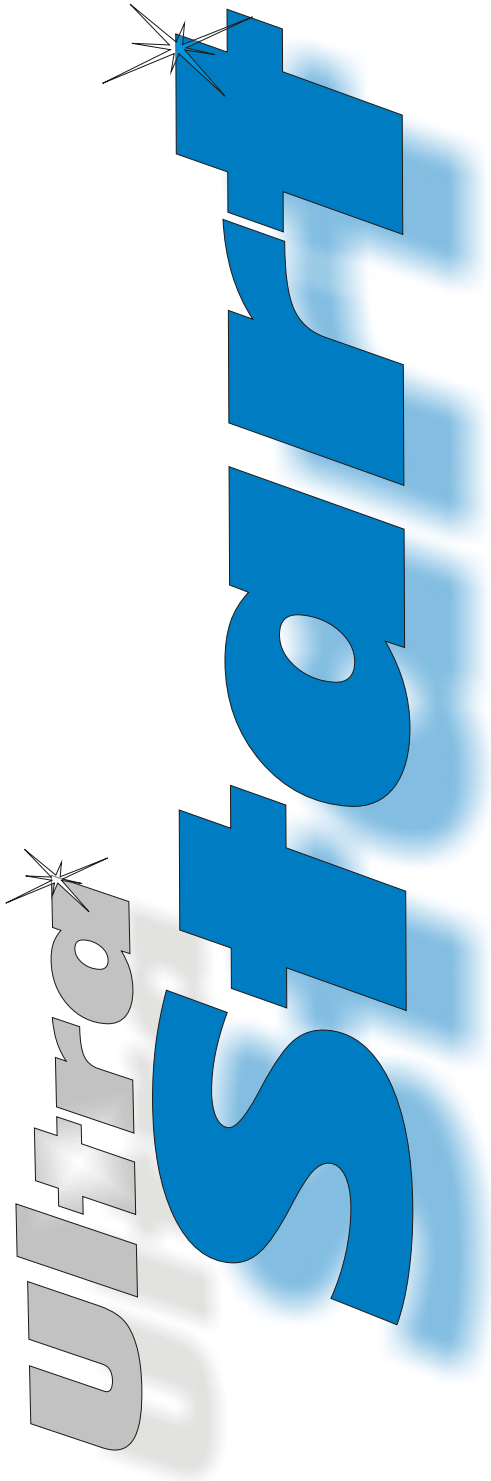
Installation Guide

Pro Series



1000

Remote Car Starter

SUPPORT

email: support@ultrastarters.com
web: www.ultrastarters.com

TRANSMITTER PROGRAMMING

Use the following steps to program new remote to the system

STEP 1 - Open the hood.

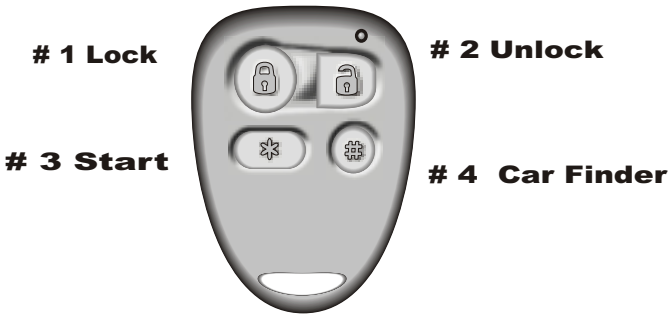
STEP 2 - Turn ignition key ON-OFF-ON-OFF-ON Leaving Key ON.

STEP 3 - Hold brake down until lights flash and LED's come on solid.
About 5 seconds.

STEP 4 - Press the lock button on each transmitter to be programmed.
The park lights will flash 1 time each time a transmitter is learned.

NOTE : All transmitters to be used must be programmed at the same time
. Any transmitter not programmed in the same sequence will be erased from the systems memory.

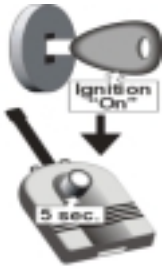
PRO SERIES 4-BUTTON TRANSMITTER



RESET TO FACTORY DEFAULT

The following steps will reset any and all programmed features to Factory Default Settings.

STEP 1 - Enter into Program Mode.



TO ENTER PROGRAM MODE

STEP 1- Open the hood

STEP 2- Turn the ignition key ON/OFF, ON/OFF, ON
Leave the Ignition in the on position.

STEP 3- Press and release the button on the antenna once
The system will respond with one light flash and one (optional) siren/horn chip to confirm the unit is in Program Mode.

)n the transmitter press and release button **#3** then **#2** and **#1.**
The system will respond with three light flashes and three siren/horn (optional) chirps. This confirms that the system and all it's programmable features and setting have been reset to the Factory Default Settings.

BASIC INSTALLATION - QUICK STARTS

STEP 1 - The following wires must be connected

6 PIN POWER CONNECTOR - Connect the following:

WIRE	FUNCTION			CONNECT TO ON VEHICLE
RED-1	Main Power	Input	(+)	Constant 12V (+) at Ignition Harness
RED-2	Main Power	Input	(+)	Constant 12V (+) at Ignition Harness
BLUE	Ignition	Output	(+)	Main Ignition (+) at Ignition Harness
YELLOW	Starter	Output	(+)	Starter Wire (+) at Ignition Harness
GREEN	Accessory	Output	(+)	heater wire (+) at Ignition Harness
BLACK	System Ground	Input	(-)	Ground on Vehicle (-)

14 PIN CONNECTOR - Connect the following:

WIRE	FUNCTION			CONNECT TO ON VEHICLE
White	Parking Lights	Output	(+)	12v(+) Parking Lights
Green/White	Hood Pin Safety	Input	(-)	Hood Pin Switch (-) when hood open
Brake Pedal	Safety Shut Down	Input	(+)	12v when brake pedal is pressed

STEP 2 - Plug the connectors into the unit

Plug the 6 Pin Connector into the Remote Starter module then plug the 14 Pin and any other connectors into unit.
****Make sure that Ignition Key is in the OFF position*****

STEP 3- Remote Start Vehicle

Press and hold the Start button for 3 seconds to start vehicle and confirm vehicle starts correctly and heater comes on.
If vehicle does not does not start correctly check the following:
Correct Ignition
Correct Starter
Factory Security
Connect Tach wire and follow tach learning procedures.

Your Standard Installation is Now Complete!!

The following connection is necessary for installation on vehicles with manual transmissions.

MANUAL TRANSMISSION

Green	Door Trigger	Input	(-)	Connect to Door Pin Switch (-) when door is open
OR				
Violet	Door Trigger	Input	(+)	Connect to Door Pin Switch (+) when door is open

NOTE : Place dip switch #2 in the "ON" position for all manual Transmission installations

1000 SERIES WIRING DIAGRAM

DIP SWITCHES SETTINGS

Dip Switch Settings - #1	Dip Switch Settings -#2
0N - Alternator Mode	0N - Manual Transmission
OFF - Tach-less/Tach Mode	OFF -Auto Transmission

Connect To Constant Power At Ignition Harness	30 Amp (+) Input	Power	Red
Connect To Heater Wire At Ignition harness	30 Amp (+) Out	Heater	Green
Connect TO Starter Wire At Ignition Harness	30 Amp (+) Out	Starter	Yellow
Connect To Solid Ground Source	Ground Input	Ground	Ground
Connect To Ignition Wire At Ignition Harness	30 Amp (+) Out	IGN 1	Blue
Connect To Constant Power At Ignition Harness	30 Amp (+) Input	Power	Red

Connect to (+) Paklights	(+) 15A Output	PARK LIGHTS	WHITE	1
Connect To (+) Trunk Release	(+)Output	TRUNK RELEASE	RED/WHT	2
Connect To (+) Second Ignition3	(+) 15A Max Output	2nd Ignition	BLUE/WHT	3
Connect To Negative Horn	(-) 500ma Output	(-) Horn Output	BROWN	4
Active during Remote Start Run	(-) Output	NEG WHEN RUN	WHITE / VIOLET	5
Connect To Door Pin (-) Open	(-) Input	NEG DOOR TRIGGER	GREEN	6
(-) Output When Locked	(-) When Locked	STARTER KILL	ORANGE	7
Connect to tach pulse source	A/C Tach Input	TACH INPUT	BLACK/WHITE	8
Connect to + when brake ON	(+) Input	BRAKE PEDAL	BLUE	9
30sec Dome light Output	(-) Output	Dome light output	GREY	10
Connect to Hood Safety Switch	(-) Input	HOOD PIN INPUT	GREEN/WHITE	11
Program Mode 3 - Setting 2	(-) Output	FACTORY DISARM	PINK	12
Connect To Glow Plug Wire	(+/-) Input	GLOW PLUG	YELLOW	13
Connect To Door Pin (+) Open	(+) Input	POS DOOR TRIGGER	PURPLE	14

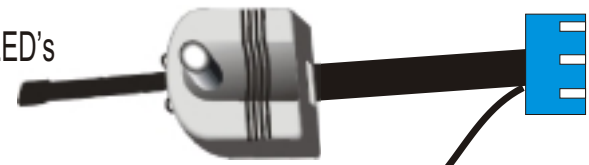
(-) 500ma Output	DOOR LOCK	GREEN
(+) 500ma Output	12v+ FOR RELAYS	RED
(-) 500ma Output	DOOR UNLOCK	BLUE

3 PIN RED

BLUE LOOP

Negative Input Activates Remote Starter	(-) Input Trigger To Start	BROWN
Provides A 500ma Negative Output	Ground Output	BLACK

RF ANTENNA WITH DUAL LED's
& BUILT-IN VALET



4 PIN BLUE

Aux (+) Led Output	(+) 5v Led Output

WIRING - 6 PIN HARNESS

Red Wires: **+12 VDC Main Power Source Input.**
Connect these two **Red** wires to a main constant +12 VDC power

Black: **Chassis Ground.**s
Connect this **Black** wire securely to a clean, solid negative chassi ground.

Blue: **Ignition - Switched +12 VDC Output**

Connect this **Blue** wire to the ignition wire supplying + 12 VDC when the ignition key
is in the ignition **"On"** and **"Start"** position.
NOTE: some vehicles have 2 ignition sources - See Ignition 2 on the 14 pin Connector

Yellow: **Starter Output**

Connect this Yellow wire to the vehicle's starter wire (12v+ during cranking).
NOTE: Most Nissan vehicles have 2 starter wires
Manual transmission vehicles with clutch safety must have starter wire connected on the starter side of the cancel switch or a bypass relay installed.

Green: **Accessory +12 VDC output - Heater/Air Conditioner**

Connect to heater wire on vehicle. (12V+ in accessory position) Heater fan operates when energized.
NOTE: Many vehicles require more than 1 heater wire to be energized to have proper operation of heater control unit.
NOTE: Some vehicles require a addition wire to be energized for proper operation of the AC.

WIRING - 14 PIN HARNESS

White: +12 VDC Output for Flashing Parking Lights.
Connect this **White** wire to positive side of the parking lights wire.

Red/White: 2nd Channel Output for trunk Release.
This **Red/White** wire supplies 250 ma negative output when button # 2 is for 1 ½ seconds.
Note: This can also be used for Driver's Door Unlock priority.

Blue/White: + 12 VDC Output for Ignition 2 Wire.
Connect this **Blue/White** wire to the second Ignition wire. (15 amps Max Current).
Important: If the second ignition requires more than 15 amps or for connection to a 3rd or 4th ignition, connect this **Blue/White** wire to Pin 85 of an automotive relay, Pin 86 to ground, Pin 87 to constant + 12 VDC and Pin 30 to the additional ignition wire vehicle.

Brown: Negative Output for Horn or Siren.
Horn (Negative Trigger) - Connect the **Brown** wire to Pin 85 of an automotive relay, Pin 86 and Pin 87 to ground and Pin 30 to the horn wire.

Horn (Positive Trigger) - Connect the **Brown** wire to Pin 85 of an automotive relay, Pin 86 to ground, Pin 87 to fused (+) 12 VDC and Pin 30 to the horn wire.

WIRING CONTINUED

White/Violet: Negative Output while Remote Start is running.
Used for bypassing the factory ignition kill systems (i.e. VATS, PATS, Passlock or Transponder) or to bypass sensors. See your vendor for optional Factory Bypass Kits.

Green: Negative Door Switch Input (GM Type)
Note: This **Green** wire is required for Manual Transmission Mode.
Connect **Green** wire to the door pin switch, which supplies ground when door

Yellow: Glow Plug Input (See Programming Options).
Connect this **Yellow** wire to the optional Glow Plug Module for Diesel Glow Plug Mode.

Violet: Positive Door Switch Input (Ford Type).
Note: This **Violet** wire is required for Manual Transmission Mode.

4 PIN DOORLOCK CONNECTOR (RED)

4 Pin Connector

Green: Negative Door Lock Pulse Output (See Programming Options).
Connect **Green** wire to the **Lock** wire of the door lock relay circuit.

Red: +12 VDC Output - Used to energize the doorlock relays only (Pin 85 or 86).
Important: Do not connect this **Red** wire to Pin 87 or Pin 30 (See Doorlock Diagram pg.11).

Blue: Negative Unlock Pulse Output (See Programming Options)
Connect this **Blue** wire to the **Unlock** wire of the door lock relay circuit.

2 PIN AUXILIARY CONNECTOR

2 Pin Connector

Yellow: Instant Start Input
A pulse to this input will activate the Remote Starter.
Note: This can be used for Temperature Sensors, Digital Timers or Phone Start Systems.

Black: Constant Ground Output.
This wire is used to provide Ground to the optional Temperature Sensor and/or Digital Timers.

TRANSMITTER PROGRAMMING

Note: The system is capable of learning up to 3 different transmitter codes.

All Transmitters to be programmed MUST be programmed at the same time, or previous transmitters will be erased from memory.

To place the system in Transmitter Code Learning Mode:

1. Open the hood.
2. Start with ignition key in the **"Off"** position, turn the ignition key **"On/Off", "On/Off", "On"** and leave in the **"On"** position.
3. Press and hold the brake down for 5 seconds until lights flash 5 times and the **LED** comes **"ON"** solid.

The system is now in Programming Mode and is ready to accept transmitter programming.

To program new Transmitters:

Press button #1 of each transmitter once momentarily - the system will respond with 1 light flash ans the LED will turn **"Off"** momentarily to confirm that it has accepted the new code.

To exit Transmitter Code Learning Mode:

The system will automatically exit Programming Mode for any of the following conditions:
1. The ignition is turned **"Off"**.
2. No new transmitter button has been pressed within 5 seconds.
3. After the 3rd transmitter has been programmed.

The LED will respond by turning **"Off",** indicating that it has exited programming mode.
Important: Once the system has exited Programming Mode, turn the ignition key to the **"Off"** position and test transmitter.

PROGRAMING - Entering Program Mode

This system is capable of multiple programmable functions.

To Enter Program Mode:

1. Open the hood.
2. Turn the Ignition Key **"On/Off", "On/Off", "On".**
3. Press & Release the button on the antenna once.

The system will respond with one siren/horn chirp and light flash to confirm it is in Program Mode and is ready for Feature Programming.
Note: Upon entering Program Mode you can change as many Modes as you like as long as you don't pause for more than 10 seconds between button presses or turn the ignition being turned **"Off"**

To Exit Program Mode

The system will exit Program Mode automatically for the following conditions:
1. The ignition is turned **"Off".**
2. No new feature has been programmed within 10 seconds.

PROGRAMMING MODES - Tach Detection

VOLTAGE SENSE MODE (SYSTEM DEFAULT)

Note: Ensure that program switch #1 is in the **"Off"** position.
The recommended setting is Voltage Sense Mode. This method requires no additional wiring.
Note: In Voltage Sense Mode, do **NOT** connect the **Black/White** Tach Sense Wire.
If voltage Sense Mode does not start the car properly, proceed into:

TACH SENSE / TACH LEANING MODE

Note: Ensure that program switch #1 is in the **"Off"** position.
In this mode the system will sense and/or learn the tach pulses from the vehicle.
Connect the **Black/white** Tach wire and follow Tach Learning Procedure. (See Below).
If Tach Sense/Learn Mode does not start the car properly, proceed into:

TACHLESS TIMER MODE

Note: Ensure that program switch #1 is in the **"Off"** position.
In this mode the starter will stop cranking after a pre-determined crank time. (See Below).
If Tachless Timer Mode does not start the car properly, proceed into:

ALTENATOR SENSING MODE

Note: Ensure that program switch #1 is in the **"On"** position.
In this mode the system will sense the change in voltage from Ground to +12 VDC when the vehicle has started and subsequently stop cranking. Locate wire on alternator that goes from ground to 12V+ when vehicle has started

FEATURE 1 - TACH SENSING METHOD

1. Enter in *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.).*
2. Press & release button #1- #2- #1- #2 to select which Sensing Method will be used.

#1- #2- #1- #2	Output	Confirmation
1 Time	Tach Learning (See Below)	1 flash and chirp
2 Times	Tachless Timer Mode	2 flashes and chirps
3 Times (Default)	Voltage Sensing	3 flashes and chirps

TO TACH LEARN

1. Switch #1 must be in the **"Off"** position.
2. Enter into Feature 1 Program Mode and select Tach Learning.
3. Start the vehicle with the key and leave the key **"On"**. Do not shut **"Off"** the ignition.
The system will confirm it has learned the Tach Pulses by turning the lights **"On"** and then flashing the lights and chirping the siren/horn 3 times.

PROGRAMMING - Option Settings

Feature 2 - Door Lock Timing - Default: 0.75 Seconds.

1. Enter in *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.).*
2. Press & release button #1- #3- #1 to select which Door Lock timing will be used.

#1- #3- #1	Output	Confirmation
1 Time	3 second Pulses	1 flash and chirp
2 Times	0.75 Sec.Pulses & Double Unlock Pulses	2 flashes and chirps
3 Times (Default)	0.75 sec.Pulses & Double Unlock Pulses	3 flashes and chirps

Feature 3 - Gas / Diesel Engine Mode - Default: Gas Engine Mode

1. Enter into *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.).*
2. Press & release button #3- #1- #2 to select which Engine Type Mode will be used.

#3- #1- #2	Engine Type/Mode	Confirmation
1 Time	Diesel Timer Mode	1 flash and chirp
2 Times	Diesel Glow Plug Input(requires module)	2 flashes and chirps
3 Times (Default)	Gas Vehicle Mode	3 flashes ans chirps

Feature 4 - Ignition Auto Lock / Unlock

1. Enter into *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.)*
2. Press & release buttons #1- #3- #2 to select which Ignition Auto-Lock will be used.

#1- #3- #2	Output	Confirmation
1 Time	Disabled	1 flash and chirp
2 Times	Ignition Auto-Lock only, no Unlock	2 flashes and chirps
3 Times (Default)	Ignition Auto-Lock/Unlock "On"	3 flashes and chirps

Feature 5 - Gm Factory Re- Arm Mode/Dome Light mode

Default: Dome-light Mode)
1. Enter into *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.)*
2. Press & release buttons #1- #3- #3 to select which Output will be used.

#1- #3- #3	Output	Confirmation
1 Time	GM Re-Arm Mode	1 flash and chirp
2 times	Normal Dome-light Mode	2 flashes and chirps

Note: In GM Rearm Mode, when the vehicle is running under remote control and shuts down at end of the run time, or is turned off by remote, the Dome-light Output will turn "On" and will stay "On" until 2 seconds after the door locks are locked, then shut "Off". This will arm Factory GM Alarm.

Feature - 6 Chirp Delete/Chirp Enabled-

1. Enter into *"Program Mode"* (See Enter program Mode)
*(**1**. Open the hood. **2**. Turn the Ignition Key **"On/Off", "On/Off", "On".3**. Press & Release the Valet button on the antenna.)*
2. Press & release buttons #2- #1- #1 to select if Chirp Delete is required.

#2- #1- #1	Chirp Status	Confirmation
1 Time	Chirp Deleted	1 flash and chirp
2 Time	Chirp Enabled	2 flashes and chirps.

MANUAL TRANSMISSION

Manual Transmission Mode

Note: Program switch #2 on control unit must be in “ON” position.
In order to start a Manual Transmission equipped vehicle:
Manual Transmission Reservation Mode must be enables each time.

Manual Transmission Reservation Mode.

1. Leave the Ignition Key in the “On” position (Car is still running).
2. Press and hold the brake pedal, then press & release button #4.
   The system will respond with 1 siren/horn chirp & light flash.
3. Turn the Ignition Key “Off” - the vehicle should stay running.
4. Within 20 seconds open and close door (**Note:** The door switch input must be hooked up).
5. Within 20 seconds of the door closing, press button #1, the doors will lock and the vehicle will shut “off”.
6. The vehicle can now be remote started by pressing button #3.

Note: If a door is opened, the brake is pressed or the ignition turned “on”, the vehicle will exit Reservation Mode.

Note: For increased protection, a Radar Sensor is recommended to protect anyone from getting near the gearshift if the vehicle is a convertible or if a window is opened.
Connect the Radar Sensor through relay to the **Green/White** wire hood safety switch input

OTHER FEATURES

Transmitter Service Mode

In this mode, the vehicle will only Lock, Unlock, Panic and Trunk Release.
1. Press & release button #3 quickly.
2. Within 2 seconds press and hold down button #1 for 5 seconds.
The system will respond with 5 siren/horn chirps and flashes.

To disable Transmitter Service Mode

Repeat steps 1& 2 indicated above.
The system will respond with 2 siren/horn chirps and flashes to confirm that Transmitter Service Mode is disabled.

Shutdown Auto lock

Once the system cycles through its Programmed Run Time, after 5 seconds, the system will automatically lock doors.

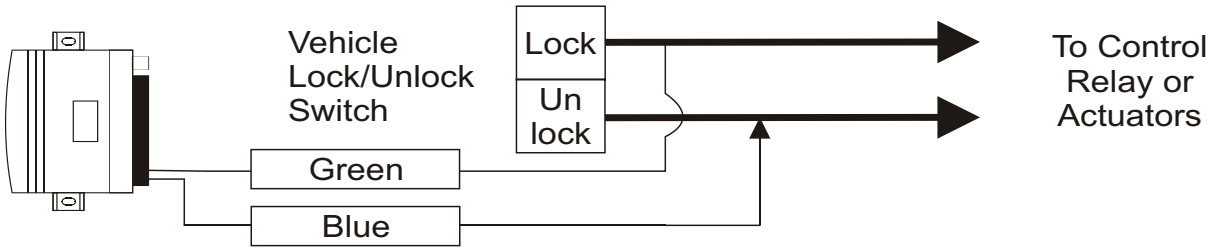
Instant Start Input

The system is equipped with a Instant Start Input, which is used for optional starting triggers i.e.: Phone Start systems, Digital Timers or Low Temperature Sensors. The Instant Start can also be used to test the starting portion of the Remote Starter System.
Note: A momentary pulse of less than 2 seconds on the input lead will activate the Remote Start Sequence..

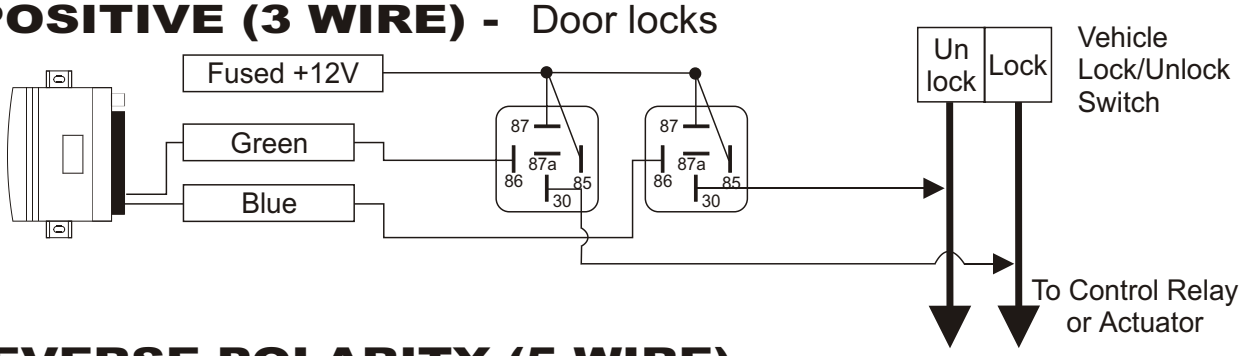
RELAY DIAGRAMS

Use 30A SPDT Automotive Type Relays

NEGATIVE - Door locks

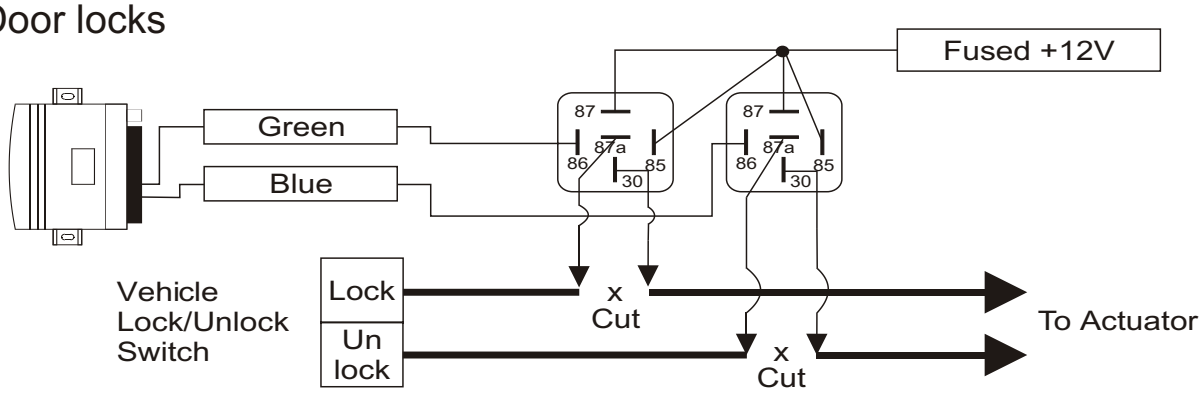


POSITIVE (3 WIRE) - Door locks

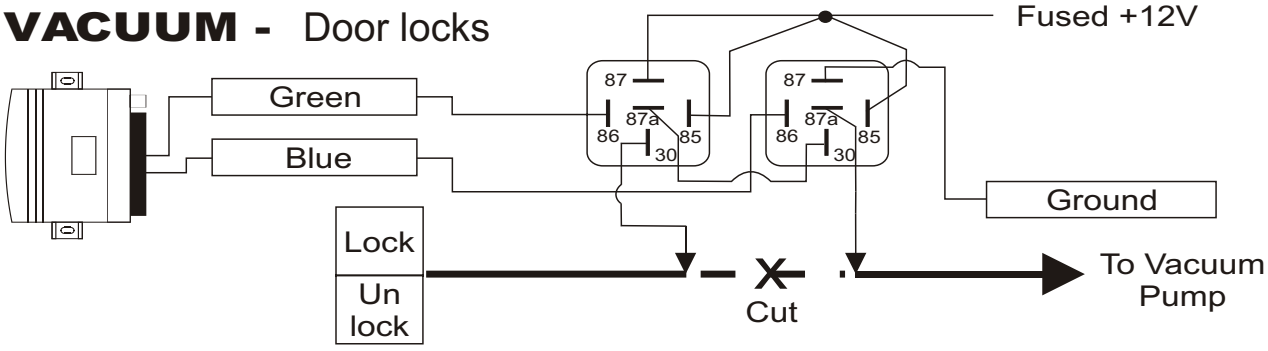


REVERSE POLARITY (5 WIRE)

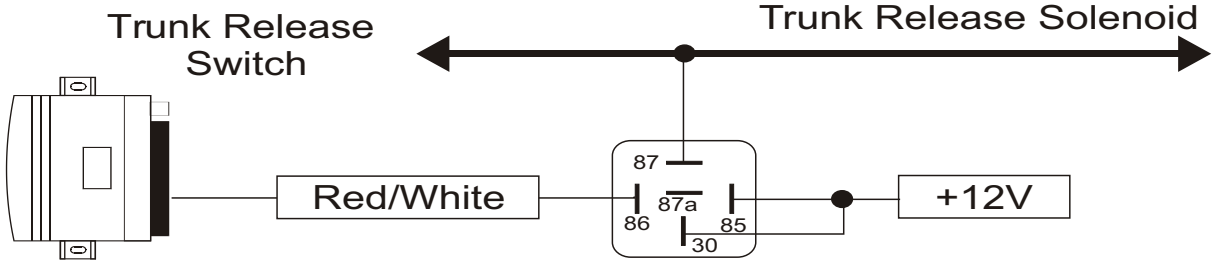
Door locks



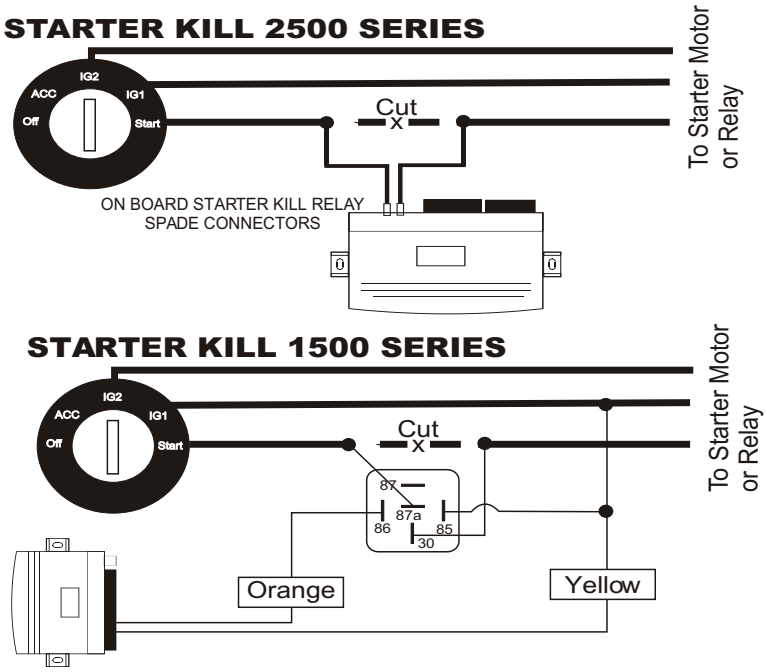
VACUUM - Door locks



POSITIVE TRUNK RELEASE



RELAY DIAGRAMS



REMOTE STARTER - Self Diagnostics

Starter will not Attempt Remote Start

Park Lights		Led	Fault
4 Flashes		Hood Open	
4 Flashes		Door Input Shutdown(manual)	
4 Flashes		Brake Pedal Active	
NONE	On Steady	In Valet Mode	
NONE	Not in Reservation Mode	Manual Transmissions Only	
7 Flashes	Tach Lockout	No Tach signal detected or Not tach learned	

Starter Shutdown - While Running

LED STATUS	DIAGNOSTIC IN MEMORY	Notes:
3 Flashes	Door Trigger Input	Door Input Shutdown(manual)
5 Flashes	Hood Input	Hood Open
6 Flashes	Brake Pedal	Brake Activated
7 Flashes	No Tach Signal	No tach detected during crank or correct tach not programmed

If the remote starter is shut down because of one of the inputs, the system's advanced diagnostics will record the event in memory and flash the systems LEDs to indicate the fault.
NOTE: :LED status will be cleared when ignition is turned ON. For proper memory clearing, insure that Ignition #1 (BLUE) is connected to **ignition** on vehicle

ALARM SYSTEMS - Self Diagnostics

STATUS LED	EVENT IN MEMORY	Notes:
OFF	System Disarmed	Led will come on for 2 seconds when door is opened or shock is triggered
Single Flashes	System Armed	
2 Flashes	Sensor Input	Shock Sensor Triggered Alarm
4 Flashes	Ignition Input	Ignition was turned on while Alarm was armed
5 Flashes	Hood Input	Hood Input was Triggered while alarm was armed
6 Flashes	Brake Pedal	Brake was triggered while alarm was armed
ON STEADY	**IN VALET MODE**	**SYSTEM IN VALET MODE**

If the alarm system was triggered while armed the system will retain a memory of this event for advanced diagnostics. When disarming the alarm, the siren/horn will chirp 3 times instead of the usual 2 times to indicate the alarm had been triggered.
The system's LED will also flash in pulses to indicate which input triggered the alarm.
NOTE: :LED status will be cleared when ignition is turned ON. For proper memory clearing, insure that Ignition #1 is connected to **ignition** on vehicle