

# **Solaris 5**

installation guide

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***IMPORTANT!** Please note that this manual was intended for US consumers and therefore includes American phrases or words.*

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# contents

<b>warning! safety first</b> . . . . .	5
before beginning the . . . . .	
installation . . . . .	6
<b>transmitter configurations</b> . . . . .	7
<b>transmitter functions</b> . . . . .	8
standard configuration . . . . .	8
<b>H1 primary harness wire</b> . . . . .	
<b>connection guide</b> . . . . .	9
primary harness wiring . . . . .	
diagram . . . . .	9
primary harness wiring guide .	10
<b>H2 secondary harness wire</b> . . . . .	
<b>connection guide</b> . . . . .	13
secondary harness wiring . . . . .	
diagram . . . . .	13
secondary harness wiring . . . . .	
guide . . . . .	13
<b>immobilizer harness wire</b> . . . . .	
<b>connection guide</b> . . . . .	14
immobilizer harness wiring . .	14
ultrasecure immobilizer . . . . .	14
<b>intellistart installation</b> . . . . .	15
obtaining constant 12V . . . . .	15
finding the 12V switched ignition	
wire . . . . .	15
finding a (+) brake light wire .	17
finding the accessory/heater . .	
wire . . . . .	17
finding the rpm input wire . .	18
finding the wait-to-start bulb wire	
for diesels . . . . .	18
<b>H3 harness wire connection</b> . . . . .	
<b>guide</b> . . . . .	19
harness wiring diagram . . . . .	19
harness wiring guide . . . . .	20
<b>H4 heavy gauge harness wire</b> . . . . .	
<b>connection guide</b> . . . . .	22
heavy gauge harness wiring . . .	
diagram . . . . .	22
heavy gauge harness wiring . . .	
guide . . . . .	22
type A: positive (+) 12-volt . . .	
pulse . . . . .	24
type B: negative (-) pulse . . . .	25
type C: reversing polarity . . . .	26
type D: after-market actuators .	27
type E: mercedes-benz and audi	
(1985 & newer) . . . . .	28
type F: one-wire system . . . . .	29
type G: positive (+) multiplex .	30
type H: negative (-) multiplex .	31
<b>peripheral plug-in harnesses</b> . . .	32
super bright blue led, 2-pin white	
plug . . . . .	32
plain-view 2 valet . . . . .	32
mounting the receiver/antenna .	33
<b>arming/disarming diagnostics</b> . . .	33
arming . . . . .	34
disarming . . . . .	34
<b>system status chirps</b> . . . . .	34
<b>remote siren silencing</b> . . . . .	34
<b>multiple event total recall</b> . . . . .	35
<b>table of zones</b> . . . . .	35
<b>system features programming</b> . . .	36
cliffnet wizard pro installation	
software programming . . . . .	36
manual programming . . . . .	
instructions . . . . .	36
user selectable features . . . . .	38
user selectable features . . . . .	
descriptions - column one . . . .	38
user selectable features . . . . .	
descriptions - column two . . . .	39
user selectable features . . . . .	
descriptions - column three . . .	41
installer selectable features . . .	42
installer selectable features	
descriptions - column one . . . .	43
installer selectable features	
descriptions - column two . . . .	43

installer selectable features		shock sensor . . . . .	50
descriptions - column three . .	45	second unlock feature . . . . .	51
programming notes . . . . .	45	<b>troubleshooting . . . . .</b>	<b>52</b>
<b>fact II - false alarm control . . . .</b>		<b>wiring reference section . . . . .</b>	<b>53</b>
<b>technology . . . . .</b>	<b>48</b>	control module connector . . . .	
<b>smart power up II . . . . .</b>	<b>48</b>	locations . . . . .	53
<b>remote control sensor disable . .</b>	<b>48</b>	H4 connector . . . . .	56
<b>auto-immobilization feature . .</b>	<b>49</b>	H3 connector . . . . .	57
auto-immobilization sequence	49	<b>notes . . . . .</b>	<b>59</b>
one-time valet feature . . . . .	49		
<b>sensors . . . . .</b>	<b>50</b>		
remote adjustable dual-zone			

## warning! safety first

The following safety warnings must be observed at all times:

- Due to the complexity of this system, installation of this product must only be performed by an authorized Clifford dealer.
- When properly installed, this system can start the vehicle via a command signal from the remote control transmitter. Therefore, never operate the system in an area that does not have adequate ventilation. The following precautions are the sole responsibility of the user; however, authorized Clifford dealers should make the following recommendations to all users of this system:
  1. Never operate the system in an enclosed or partially enclosed area without ventilation (such as a garage).
  2. When parking in an enclosed or partially enclosed area or when having the vehicle serviced, the remote start system must be disabled using the installed toggle switch.
  3. It is the user's sole responsibility to properly handle and keep out of reach from children all remote control transmitters to assure that the system does not unintentionally remote start the vehicle.
  4. THE USER MUST INSTALL A CARBON MONOXIDE DETECTOR IN OR ABOUT THE LIVING AREA ADJACENT TO THE VEHICLE. ALL DOORS LEADING FROM ADJACENT LIVING AREAS TO THE ENCLOSED OR PARTIALLY ENCLOSED VEHICLE STORAGE AREA MUST AT ALL TIMES REMAIN CLOSED.
- Use of this product in a manner contrary to its intended mode of operation may result in property damage, personal injury, or death. Except when performing the Safety Check outlined in this installation guide, (1) Never remotely start the vehicle with the vehicle in gear, and (2) Never remotely start the vehicle with the keys in the ignition. The user will be responsible for having the neutral safety feature of the vehicle periodically checked, wherein the vehicle must not remotely start while the car is in gear. This testing should be performed by an authorized Clifford dealer in accordance with the Safety Check outlined in this product installation guide. If the vehicle starts in gear, cease remote start operation immediately and consult with the user to fix the problem immediately.
- After the remote start module has been installed, test the remote start module in accordance with the Safety Check outlined in this installation guide. If the vehicle starts when performing the Neutral Safety Shutdown Circuit test, the remote start unit has not been properly installed. The remote start module must be removed or properly reinstalled so that the vehicle does not start in gear. All installations must be performed by an authorized Clifford dealer.

OPERATION OF THE REMOTE START MODULE IF THE VEHICLE STARTS IN GEAR IS CONTRARY TO ITS INTENDED MODE OF OPERATION. OPERATING THE REMOTE START SYSTEM UNDER THESE CONDITIONS MAY RESULT IN PROPERTY DAMAGE OR PERSONAL INJURY. IMMEDIATELY CEASE THE USE OF THE UNIT AND REPAIR OR DISCONNECT THE INSTALLED REMOTE START MODULE. CLIFFORD WILL NOT BE HELD RESPONSIBLE OR PAY FOR INSTALLATION OR REINSTALLATION COSTS.

### before beginning the installation



**warning!** This system is intended for automatic transmission, fuel-injected vehicles only. Installation in a standard transmission vehicle maybe dangerous and is contrary to its intended use.

- Please read this entire installation guide before beginning the installation. The installation of this remote start system requires interfacing with many of the vehicle's systems. Many new vehicles use low-voltage or multiplexed systems that can be damaged by low resistance testing devices, such as test lights and logic probes (computer safe test lights). Test all circuits with a high quality digital multimeter before making connections.
- Do not disconnect the battery if the vehicle has an anti-theft-coded radio. If equipped with an air bag, avoid disconnecting the battery if possible. Many airbag systems will display a diagnostic code through their warning lights after they lose power. Disconnecting the battery requires this code to be erased, which can require a trip to the dealer.
- Remove the domelight fuse. This prevents accidentally draining the battery.
- Roll down a window to avoid being locked out of the car.

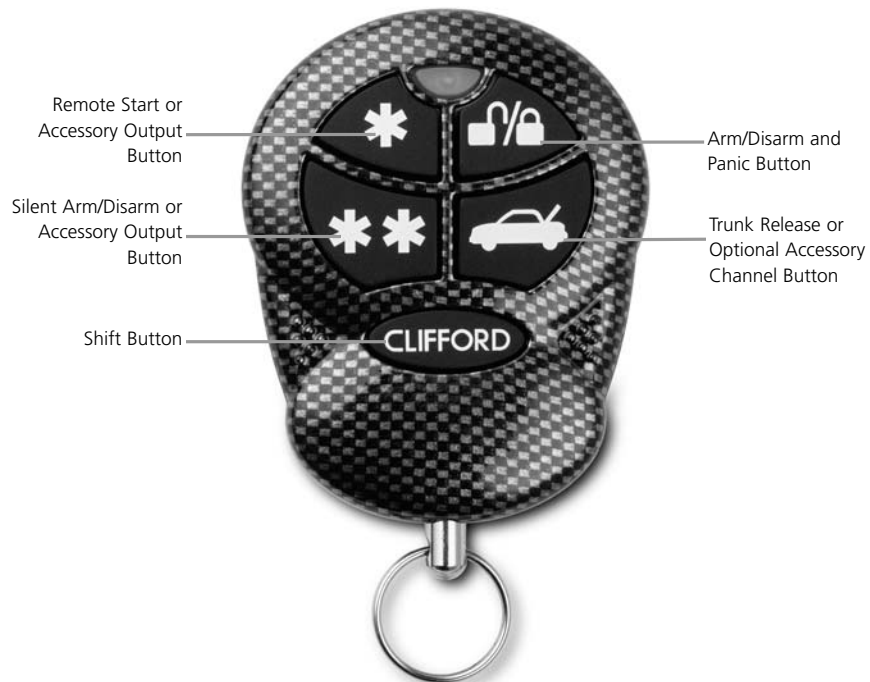
### after the installation

- Test all functions. Refer to the "Using Your System" section of the Owner's Guide when testing.
- Complete the vehicle Safety Check outlined in this manual prior to reassembly.

## what is included

- One control module
- One intellistart module
- Two five-button transmitters
- One XHF antenna/receiver with harness
- One pre-wired blue status LED
- One PlainView 2 Valet switch
- One remote adjustable dual zone shock sensor with harness
- One 518C Neo-Siren
- One 18-pin main wiring harness
- One four-pin immobilizer harness
- One 6-pin secondary harness
- One Owner's Guide
- Two window decals
- Warranty registration card
- Quick reference card
- Presentation envelope
- Intellistart 12-pin harness
- Intellistart 18-pin harness
- CliffNet interface cable

## transmitter configurations



## transmitter functions

This system uses computer-based code learning to learn the transmitter buttons. This makes it possible to assign any transmitter button to any system function. The transmitter initially comes programmed with standard configuration, but may also be customized by an authorized dealer. The buttons in all of the instructions in this manual correspond to a standard configuration transmitter.

### standard configuration

 Button

The arming, disarming, and panic function are controlled by this button.

 Button



The trunk release or accessory output A is controlled by this button.

 Button



Silent arm and disarm is controlled by this button.

 Button



Remote start is controlled by this button.

 Button, then  Button

Accessory B output is controlled by these buttons.

 Button, then  Button

These buttons activate SmartWindows.

 Button, then  Button

Accessory C output is controlled by these buttons.

 Button twice, then  Button

These buttons activate remote valet.

 Button twice, then  Button

These buttons disable the sensors.

 Button twice, then  Button

These buttons enter safe start mode for manual transmission vehicles and activate Autostart mode.



**CLIFFORD** Button three times, then **\*\*** Button

These buttons adjust the dual-zone shock sensor.

## H1 primary harness wire connection guide

### primary harness wiring diagram

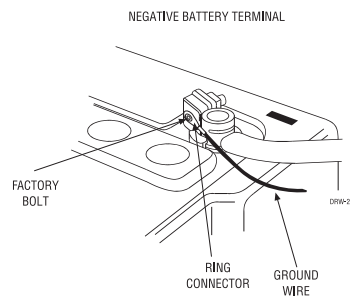
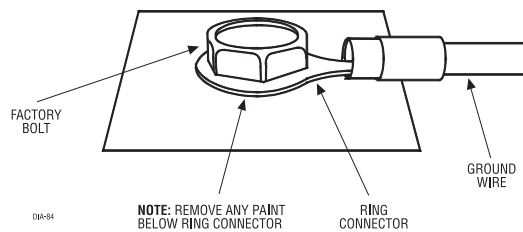
H1/1	BLACK	Ground
H1/2	BROWN	Speaker Output 1
H1/3	GRAY	(-) Hood Trigger Input Zone 6
H1/4	EMPTY	Not Used
H1/5	GREEN/WHITE	(-) Normally Closed Input - Zone 6
H1/6	WHITE/BLUE	(-) Accessory B Output (200mA)
H1/7	BLUE	(-) Trunk Trigger Input - Zone 5
H1/8	VIOLET	(+) Door Trigger Input - Zone 4
H1/9	GREEN	(-) Door Trigger Input - Zone 4
H1/10	RED	(+) 12V Constant
H1/11	BROWN	Speaker Output 2
H1/12	WHITE/RED	Light Flash Input
H1/13	WHITE	Light Flash Output
H1/14	WHITE	Light Flash Output
H1/15	BLACK/WHITE	Dome Light Supervision Output 30
H1/16	RED/WHITE	(-) Accessory Output A (200mA)
H1/17	ORANGE	Ground When Armed (500mA)
H1/18	EMPTY	Not Used

## primary harness wiring guide

This guide describes in detail the connection of each wire. Also included are possible applications of each wire. This system was designed with the ultimate in flexibility and security in mind. Many of the wires have more than one possible function. Please read the instructions carefully to ensure a thorough understanding of this unit and how it operates.

### h1/1 black ground

Connect the **BLACK** wire to a clean, paint-free sheet metal location (driver's kick panel) using a factory bolt that does **NOT** have any vehicle component grounds attached to it. A screw should only be used in conjunction with a two-sided lock washer. Under dash brackets and door sheet metal are not acceptable ground points. It is recommended that all security components be grounded at the same location.



### h1/2 and h1/11 brown speaker outputs

Connect the **BROWN** output wires to the **BROWN** wires of the 518C Neo Siren.

### h1/3 gray (-) hood input zone 6

Connect this wire to the hood pin. If the hood is open when the alarm is armed, this wire will trigger the siren. Use either this wire (preferred) or the wire from the Intellistart module, but not both.

h1/5 green/white (-) normally closed zone 6

This wire will trigger the alarm if it loses its normally closed ground. Remove this wire from the ground wire and attach it to a normally grounded item you wish to protect such as the back of your stereo.

h1/6 white/blue (-) accessory b output (200mA)

This wire produces a 200mA output when activated by the remote control and can be used to operate a variety of accessories. All accessory outputs can be programmed to different types of outputs. Please see Programming Note #6.

h1/7 blue (-) trunk trigger input - zone 5

This input will respond to a negative input with an instant trigger. Connect to (-) trunk pins and it will report on zone 5. It can also be used with Directed single-stage sensors.

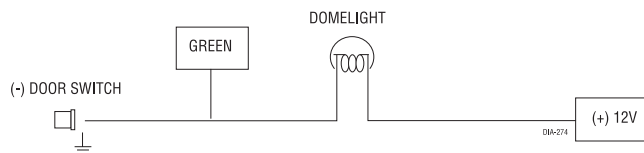
h1/8 violet (+) door trigger input - zone 4

Connect the violet wire to a wire that shows (+)12V when any door is opened. This wire will report zone 4.

h1/9 green (-) door trigger input - zone 4

Most vehicles use negative door trigger circuits. Connect the GREEN wire to a wire showing ground when any door is opened. When connecting to newer model vehicles there is generally a need to use individual door triggers. This wire will report Zone 4.

*NOTE: If using a door trigger wire that has a delay, the installer-selectable programming grid or the Cliffnet Wizard can be used to turn the door ajar warning off.*



h1/10 red (+) 12v constant

Before connecting the RED wire, remove the supplied fuse. Connect to the battery positive terminal (be sure to use the supplied fuse holder and a 5 amp fuse) or the constant (+) 12V supply to the vehicle fusebox.

### h1/12 white/red light flash input

**IMPORTANT!** Always confirm light flash polarity before connecting H1/H12 or damage to the vehicle lighting system could occur.

This wire is the input for the on-board dual light flash relay. If the vehicle has positive parking light activation wires, connect this wire to a constant (+) 12V source that is fused at 15A or higher (be sure to use the supplied fuse holder and a 15 amp fuse). If the vehicle parking light activation wire is negative, connect this wire to a chassis ground location.

### h1/13 and h1/14 white parking light output

**IMPORTANT!** The polarity of this wire is determined by the connection of the H1/12 light flash input wire.

These wires are the output of an on-board dual make relay and the polarity is determined by the connection of the H1/12 light flash input wire. Connect these to the wires in the vehicle that control the parking lights. The dual outputs are designed for European vehicles with isolated parking light systems. If the vehicle's parking lights are controlled by a single wire, connect both WHITE wires to it.

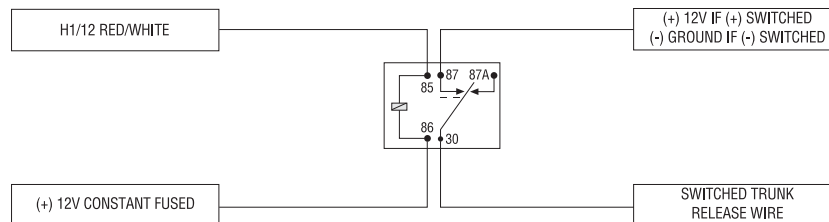
### h1/15 black/white dome light supervision output

Connect the H1/15 BLACK/WHITE wire to the vehicle domelight circuit trigger wire.

### h1/16 red/white accessory a output

When the system receives the code controlling the accessory output, this wire will supply an output as long as the transmission continues. This is often used to operate a trunk/hatch release or other relay-driven function. All accessory outputs can be programmed to different types of outputs. Please see Programming Note #6.

**IMPORTANT!** Never use this wire to drive anything but a relay or a low-current input! The transistorized output can only supply 200 mA of current. Connecting directly to a solenoid, motor, or other high-current device will cause it to fail.



h1/17 orange ground when armed

This wire provides a (-) ground output as long as the system is armed and will cease when the system is disarmed. This output can be used for an additional immobilizer relay or to control additional accessories such as window automation, voice modules, or pagers.

## H2 secondary harness wire connection guide

### secondary harness wiring diagram

H2/1	YELLOW/WHITE	(-) Horn Honk Output (200 mA)
H2/2	EMPTY	Not Used
H2/3	BLACK/WHITE	Domelight Supervision Input (87)
H2/4	EMPTY	Not Used
H2/5	EMPTY	Not Used
H2/6	BLUE/WHITE	Second Unlock Output (200 mA)

### secondary harness wiring guide

*NOTE: For further description of the H2/1 to H2/6 wires, please refer to the Door Lock Harness Wire Connection Guide section.*

h2/1 yellow/white (-) horn honk output (200mA)

This wire is a low current output (200mA) for the horn to sound when the system has been violated.

h2/3 black/white domelight supervision input (87)

This wire determines the output of the BLACK/WHITE H1/15 wire on the main 18-pin harness. If the vehicle has a negative domelight circuit, ground this wire; if the vehicle has a positive domelight circuit, attach this wire to a 12 volt constant source.

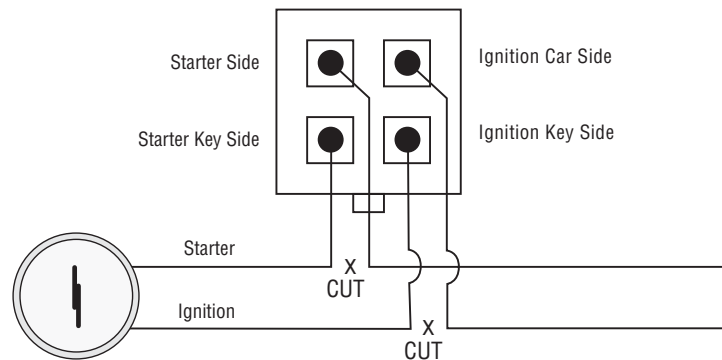
h2/6 blue/white second unlock output (200mA)

This wire produces a (-) 200mA output for progressive locks in which the driver door unlocks first and the remaining locks unlock with a second press of the unlock button.

# immobilizer harness wire connection guide

## immobilizer harness wiring

Locate the ignition and starter wires using a multimeter. Cut the appropriate wire and attach the key side and car side wires to the corresponding wires on the four-pin immobilizer harness.



## ultrasecure immobilizer

The UltraSecure immobilizer circuit in this G5 system is a unique new design that incorporates the immobilizer security of Clifford without the possibility of failure due to power loss that could potentially strand the user.

The level of security can be set by leaving in or removing the jumper located next to the immobilizer wires exiting the module.

## immobilizer jumper setting

### jumper in setting

When the jumper is in, the ignition and starter signal will bypass the UltraSecure immobilizer circuitry and allow the vehicle start and run, even if power has not been restored to the module.

### jumper out setting

When the jumper is out, the UltraSecure immobilizer circuitry prevents the ignition and starter signal from passing and keeps the vehicle immobilized until power has been restored to the module.

*NOTE: In order for the system to bypass the immobilizer with the jumper in place, the unit must have ground on the 18-pin harness.*

## intellistart installation

***IMPORTANT!** Do not use any testing tool other than a digital multi-meter to prevent costly damage to the vehicle. Use of a test light may cause grounding of sensitive electrical components that can damage the on-board vehicle computer and processors resulting in substantial cost for replacement.*

The control module and the Intellistart module communicate through the CliffNet interface cable, when plugged into their respective ports on each module. Ensure that both modules are mounted in the vehicle so that this cable can reach both modules.

When you have determined where each component will be located, your next step is to find the connecting wires in the vehicle for the security system.

### obtaining constant 12V

Remove the two 30 amp fuses prior to connecting to the 12V wires and do not replace them until the intellistart installation is complete. These wires are the source of current for all the circuits the IntelliStart will energize. They must be connected to a high current source. These can be connected to the battery or the 12V power feed to the ignition key switch (the battery is preferred).

### finding the 12V switched ignition wire



**warning!** On vehicles with air bags or supplemental restraint systems (SRS) you may notice a bright yellow tube with small wires in it marked SRS underneath the steering column near the key cylinder. DO NOT tamper or unplug these for any reason to prevent costly damages to your vehicle or personal injury. Tampering may cause unintended deployment of airbags.



**warning!** Make sure the car is not in gear.

The ignition wire is powered when the key is in the run or start position. This is because the ignition wire powers the ignition system (spark plugs, coil) as well as the fuel delivery system (fuel pump, fuel injection computer). Accessory wires lose power when the key is in the start position to make more current available to the starter motor.

How to find (+)12V ignition with your multimeter:

1. Set to DCV or DC voltage (12V or 20V is fine).
2. Attach the (-) probe of the meter to chassis ground.
3. Probe the wire you suspect of being the ignition wire. The steering column harness or ignition switch harness is an excellent place to find this wire.
4. Turn the ignition key switch to the run position. If your meter reads (+)12V, go to the next step. If it doesn't, probe another wire.
5. Now turn the key to the start position. The meter display should stay steady, not dropping by more than a few tenths of a volt. If it drops close to or all the way to zero, go back to Step 3. If it stays steady at (+)12V, you have found an ignition wire.

### **finding the starter wire**

The starter wire provides 12V directly to the starter or to a relay controlling starter. In some vehicles, it is necessary to power a cold start circuit. A cold start circuit will test exactly like a starter circuit, but it does not control the starter. Instead, the cold start circuit is used to prime the fuel injection system for starting when the vehicle is cold.

How to find the starter wire with your multimeter:

1. Set to DCV or DC voltage (12V or 20V is fine).
2. Attach the (-) probe of the meter to chassis ground.
3. Probe the wire you suspect of being the starter wire. The steering column is an excellent place to find this wire. Remember you do not need to interrupt the starter at the same point you test it. Hiding your optional starter kill relay and connections is always recommended.
4. Turn the ignition key switch to the start position. Make sure the car is not in gear! If your meter reads (+)12V, go to the next step. If it doesn't, probe another wire.
5. Cut the wire you suspect of being the starter wire.
6. Attempt to start the car. If the starter engages, reconnect it and go back to Step 3. If the starter does not turn over, you have the right wire.



## finding a (+) brake light wire

Most vehicles use a (+) brake light circuit. The (+) brake light wire is often found near the brake pedal.

How to find a (+) brake light flash wire with your multimeter:

1. Set to DCV or DC voltage (12V or 20V is fine).
2. Attach the (-) probe of the meter to chassis ground.
3. Probe the wire you suspect of being the brake light wire.
4. Press the brake pedal. If your meter shows (+)12V, release the pedal and make sure it goes back to zero.
5. If it does return to zero, this is the correct brake wire.

## finding the accessory/heater wire

An accessory/heater wire will show +12V when the key is in the accessory and run positions. It will not show +12V during the cranking cycle. There will often be more than one accessory wire in the ignition harness. The correct accessory wire will power the vehicle's climate control system. Some vehicles may have separate wires for the blower motor and the air conditioning compressor. In such cases, it will be necessary to add a relay to power the second accessory wire.

## finding the rpm input wire

To test for a tachometer wire, a multimeter capable of testing AC voltage must be used. The tachometer wire will show between 1V and 6V AC. In multi-coil ignition systems, the system can learn individual coil wires. Individual coil wires in a multi-coil ignition system will register lower amounts of AC voltage. Also, if necessary, the system can use a fuel injector control wire for engine speed sensing. Common locations for a tachometer wire are the ignition coil itself, the back of the gauges, engine computers, and automatic transmission computers.



**warning!** On vehicles with air bags or supplemental restraint systems (SRS) you may notice a bright yellow tube with small wires in it marked SRS underneath the steering column near the key cylinder. DO NOT tamper or unplug these for any reason to prevent costly damages to your vehicle or personal injury. Tampering may cause unintended deployment of airbags, resulting in injury.

***IMPORTANT!** Do not use any testing tool other than a digital multi-meter to prevent costly damage to the vehicle. Use of a test light may cause grounding of sensitive electrical components that can damage the on-board vehicle computer and processors resulting in substantial cost for replacement.*

How to find a tachometer wire with your multimeter:

1. Set to ACV or AC voltage (12V or 20V is fine).
2. Attach the (-) probe of the meter to chassis ground.
3. Start and run the vehicle.
4. Probe the wire you suspect of being the tachometer wire with the red probe of the meter.
5. If this is the correct wire the meter will read between 1V and 6V and fluctuate with the RPM of the motor.

## finding the wait-to-start bulb wire for diesels

In diesel vehicles it is necessary to interface with the wire that turns on the WAIT TO START light in the dashboard. This wire illuminates the bulb until the vehicle's glow plugs are properly heated. When the light goes out the vehicle can be started. This wire is always available at the connector leading to the bulb in the dashboard. It can also be found at the Engine Control Module (ECM) in many vehicles.

To test and determine the polarity of this wire:

1. Set your multimeter to DCV or DC voltage (12 or 20V is fine).
2. Attach the (+) probe of the meter to (+)12V.
3. Probe the wire that you suspect leads to the bulb with the (-) probe of the meter.
4. Turn the ignition switch to the ON position.
5. If the meter indicates 12 volts until the light goes out you have isolated the correct wire and the wire's polarity is negative (ground while the bulb is on).
6. If the meter reads zero volts until the light goes out and then reads 12 volts, you have isolated the correct wire and the wire's polarity is positive.

## H3 harness wire connection guide

### harness wiring diagram

H3/1	BLACK/GREEN	Automatic Transmission Mode (-)
H3/2	VIOLET/WHITE	Remote Start Smart Lock
H3/3	WHITE/BLACK	Hood Trigger Input (-)
H3/4	WHITE/VIOLET	Factory Alarm Disarm
H3/5	RED	Battery Positive (5-amp fuse) 12V (+) Input
H3/6	BLUE/ORANGE	Third Ignition Trigger
H3/7	BLACK	Ground
H3/8	BLUE/BLACK	Negative Switching Wait-To-Start Bulb (Diesel)
H3/9	BLUE/YELLOW.	Positive Switching Wait-To-Start Bulb (Diesel)
H3/10	BLUE/GREEN	Shut Down (+)
H3/11	BLUE/WHITE	Brake Light Input (+)
H3/12	BLACK/GRAY	RPM Input

## harness wiring guide

h3/1 black/green automatic transmission mode



**warning!** This system is intended for automatic transmission, fuel-injected vehicles only. Installation in a standard transmission vehicle maybe dangerous and is contrary to its intended use.

This wire needs to be grounded when IntelliStart is installed.

h3/2 violet/white remote start smart lock

This wire produces a 200mA negative output when the remote start has been activated locking the doors during the remote start sequence. Connect this to the lock wire of the vehicle, only if the doors must be unlocked to remote start the vehicle.

h3/3 white/black hood input

This wire will shut down the remote start if the hood is opened during a remote start sequence. Connect this to the hood pin switch wire that shows ground when the hood is opened. Use this wire or, preferably, the H1/3 wire from the control module. Do not use both wires (H1/3 and H3/3).

h3/4 white/violet factory alarm disarm

This wire will produce a 200mA output prior to a remote start sequence. Connect this wire to the factory alarm disarm wire in the vehicle.

h3/5 red battery Positive (5-amp fuse) 12V (+) input

Connect this wire to a constant (+) 12V source.

h3/6 blue/orange third ignition trigger

This wire will trigger an additional relay for a third ignition output. When needed, connect this wire to an optional relay.

h3/7 black ground

h3/8 blue/black (-) and h3/9 (+) blue/yellow diesel wait to start

There are two methods for interfacing the remote engine starting on diesel engines. You can either interface via the "Wait-to-Start" light which will trigger the starter when the light turns off, or you can use the built-in 20 second timer which cranks the engine 20 seconds after the remote start command is received.

Using the 20 second delay: Using the Installer-Programming for the system, change the engine setting to "Diesel Engine," or use the CliffNet Wizard Pro installation software to program the system. The CliffNet Wizard Pro will also allow you to customize the delay to an interval other than 20 seconds.

#### h3/10 blue/green (+) shut down

1. When the intellistart is programmed to Automatic transmission mode (H3/1 black/green is grounded), then connect the H3/10 blue/green wire to the vehicles back up light wire. This wire should show +12V when the shifter is in reverse, and show no voltage or ground when NOT in reverse.
2. When the intellistart is programmed to Manual transmission mode (H3/1 black/green is NOT grounded) connect the H3/10 blue/green wire to the parking brake indicator wire. The wire should show ground when the parking brake is set, and +12V when the parking brake is NOT set.

#### h3/11 brake light input (+)

The IntelliStart monitors the brake light to prevent an unauthorized driver from driving the car. The brake light input wire MUST be connected and brake light must be in working condition. This connection is not necessary if the alarm is already connected to the brake with the H2/11 wire on the main control module (preferred).

#### h3/12 black/gray rpm input

This wire monitors the RPM of the vehicle during remote start sequence. Connect this wire to the vehicle coil's negative side or the non-common fuel injector wire.

# H4 heavy gauge harness wire connection guide

## heavy gauge harness wiring diagram

H4/1	ORANGE	Accessory Output
H4/2	RED	Battery Positive (30-amp fuse) 12V (+) Input
H4/3	ORANGE/GRAY	Ignition 2 Output
H4/4	GREEN/BLUE	Ignition 1 Output
H4/5	EMPTY	Not Used
H4/6	GRAY/ORANGE	Heater 2 Output
H4/7	WHITE/BLUE	Starter Output
H4/8	RED	Battery Positive (30-amp fuse) 12V (+) Input
H4/9	GRAY.	Heater/Air Conditioner 1 Output

## heavy gauge harness wiring guide

All except the red heavy gauge wires leading from the relay satellite are used to energize high current circuits in the vehicle. It is crucial that these connections are made correctly so that they are capable of handling the current demands. For this reason, scotch locks, T-taps and other such connectors should not be used.

h4/1 orange (+) accessory output (retained)

Connect this wire to the accessory wire in the vehicle that powers the accessories in the vehicle. This wire will retain power for 10 minutes after the ignition key is turned off, or when a door is opened.

h4/2 red (+)12V input

*NOTE: If the factory supplies two separate (+) 12V feeds to the ignition switch, connect one RED wire of the intellistart to each feed at the switch.*

Remove the 30 amp fuse prior to connecting to the 12V wire and do not replace until the intellistart installation is complete. This wire is the source of current for all the circuits the IntelliStart will energize. It must be connected to a high current source. It can be connected to the battery or the 12V power feed to the ignition key switch (the battery is preferred).

h4/3 orange/gray (+) output to second ignition circuit

Connect this wire to the second ignition wire in the vehicle.

h4/4 green/blue (+) ignition output

Connect this wire to the ignition wire in the vehicle.

h4/6 gray/orange heater 2 output (retained)

Connect this wire to the second accessory wire in the vehicle that powers the climate control system. This wire will retain power for 10 minutes after the ignition key is turned off, or until a door is opened.

h4/7 white/blue (+) starter output

Connect this wire to the starter wire in the vehicle.

h4/8 red (+)12V input

*NOTE: If the factory supplies two separate (+) 12V feeds to the ignition switch, connect one RED wire of the satellite to each feed at the switch.*

Remove the 30 amp fuse prior to connecting this wire and do not replace them until the satellite has been plugged into the control module. This wire is the source of current for all the circuits the relay satellite will energize. It must be connected to a high current source. Since the factory supplies (+) 12V to the key switch that is used to operate the motor, it is recommended that this wire be connected there.

h4/9 gray heater/air conditioner 1 output (retained)

Connect this wire to the accessory wire in the vehicle that powers the climate control system. This wire will retain power for 5 minutes after the ignition key is turned off, or until a door is opened.

## door lock harness wire connection guide

H3/1	GREEN	(-) Lock, (+) Unlock Output
H3/2	EMPTY	(+) 12V Protected, Low Current for 451M
H3/3	BLUE	(-) Unlock, (-) Lock Output

*IMPORTANT!* The door lock outputs are low current and should not be attached directly to any high-current device; they are only to be used to activate relays

### type A: positive (+) 12-volt pulse

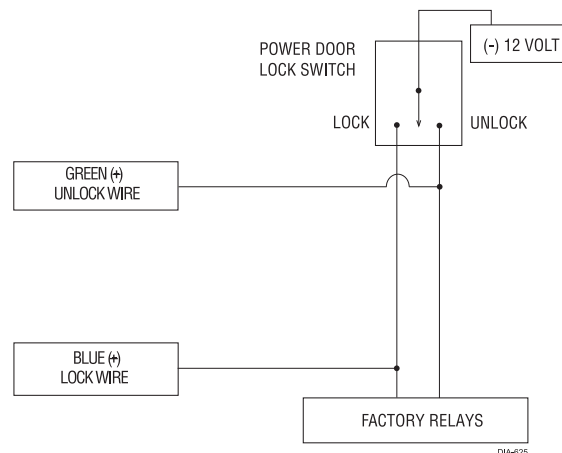
The system can control Type A door locks directly, with no additional parts. The switch will have three wires on it; one will test (+)12 volt constantly. The others will alternately pulse (+)12 volt when the switch is pressed to the lock or unlock position.

If you cannot get to the switch, and you find a set of wires that pulse (+)12 volt alternately on lock and unlock, make sure that it is not a Type C direct-wire system.

Cut the wire that pulses (+)12 volt on lock, and then operate the switch to unlock.

- If all doors unlock, the vehicle uses type A system.
- If you lose all door lock operation in both directions, you are operating the master switch in a Type C system.
- If you lose all door lock operation of one or more, but not all motors, and other doors still work, you have cut a wire leading directly to one or more motors. You must instead find the actual wires leading to the switch.

*IMPORTANT!* Remember that these wires' functions reverse between Type A and Type B.



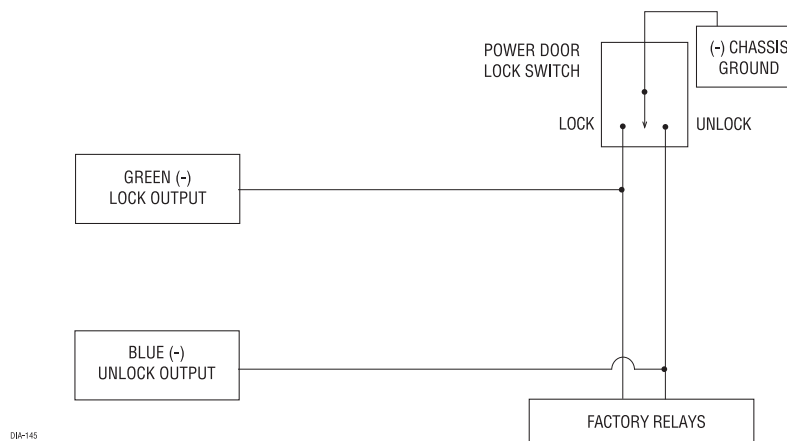


## type B: negative (-) pulse

This system is common in many Toyotas, Nissans, Hondas, and Saturns, as well as Fords with keyless entry systems (some other Fords also use Type B). Most European Ford vehicles with (-) negative pulse locking are high current so a 451M or 2 relays need to be used.

The switch will have three wires on it, and one wire will test ground all the time. One wire will pulse negative (-) when the switch locks the doors, and the other wire will pulse negative (-) when the switch unlocks the doors. This type of system is difficult to mistake for any other type.

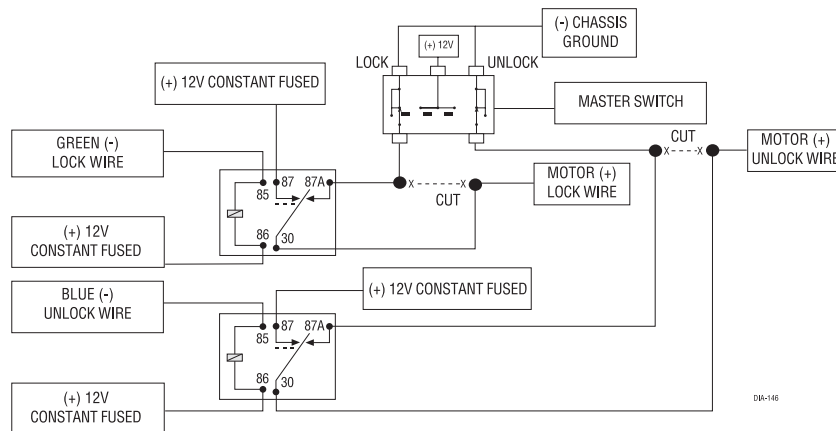
***IMPORTANT!** Remember that these wires' functions reverse between Type A and Type B.*



## type C: reversing polarity

Interfacing with a reversing polarity system requires either two relays or one DEI 451M (not included). It is critical to identify the proper wires and locate the master switch to interface the door locks properly. Locate wires that show voltage on lock and unlock. Cut one of the suspected wires and check operation of the locks from both switches. If one switch loses operation in both directions and the other switch operates in one direction only, you have located one of the target wires. The switch that lost all operation is the master switch. If one switch works in both directions and the other switch works in only one direction, you have a Type A system. If both switches still operate, but one or more doors has stopped responding entirely, you have cut a motor lead. Reconnect it and continue to test for another wire. Once both wires have been located and the master switch has been identified, cut both wires and interface as shown in the following diagram.

**IMPORTANT!** If these wires are not connected properly, you will send (+) 12 volt directly to (-) ground, possibly damaging the alarm or the factory switch.

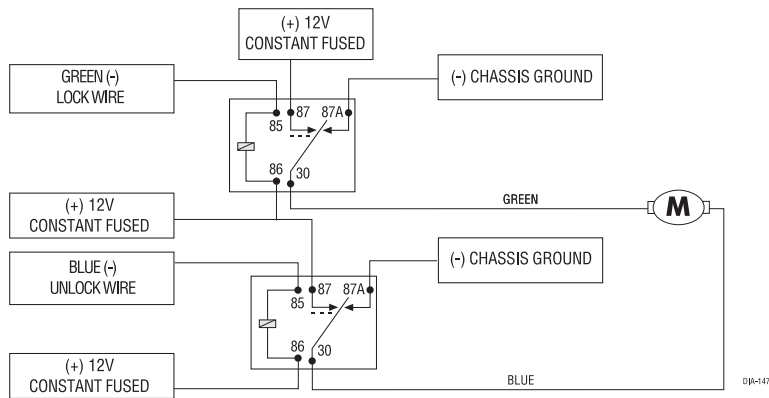


**IMPORTANT!** Do not connect the outputs of the alarm directly to the actuator.

## type D: after-market actuators

In order for this system to control one or more after-market actuators, a DEI 451M or two relays (optional) are required. Vehicles without factory power door locks require the installation of one actuator per door. This requires mounting the door lock actuator inside the door. Other vehicles may only require one actuator installed in the driver's door if all door locks are operated when the driver's lock is used.

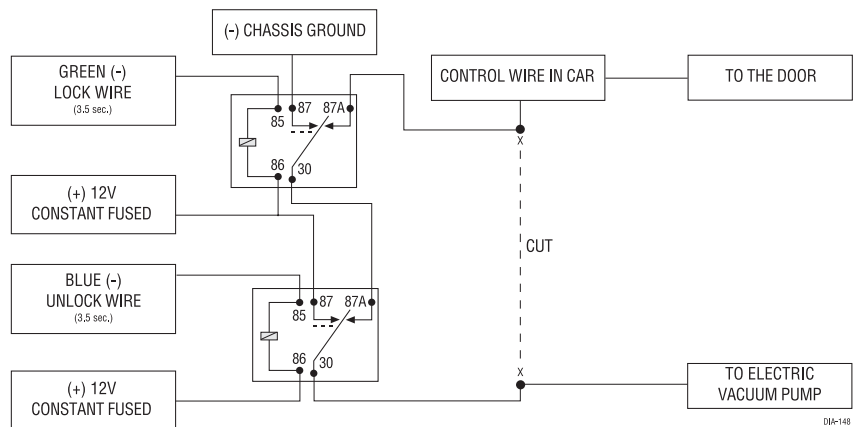
The fuse used on 12 volt inputs should be 7.5A per motor installed in the vehicle.



## type E: mercedes-benz and audi (1985 & newer)

Type E door locks are controlled by an electrically activated vacuum pump. Some Mercedes and Audis use a Type D system. Test by locking doors from the passenger key cylinder. If all the doors lock, the vehicle's door lock system can be controlled with just two relays (optional). The control wire can be found in either kick panel and will show (+)12 volt when doors are unlocked and (-) ground when doors are locked.

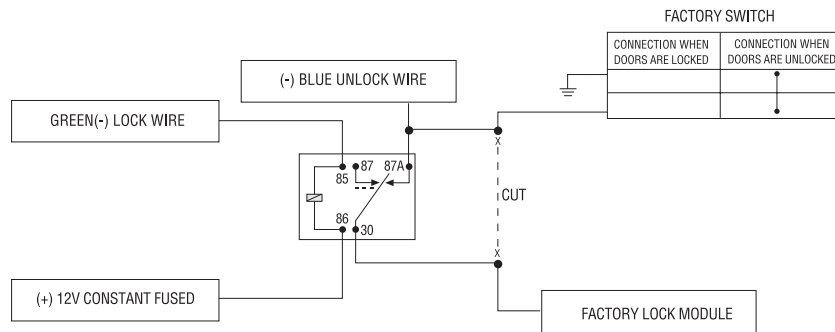
To interface see diagram below. The system must be programmed for 3.5 second door lock pulses up to 1993 and 1 second pulse 1994 or newer.



## type F: one-wire system

Type F door locks usually require a negative pulse to unlock and cutting the wire to lock the door. In some vehicles, these functions are reversed. Type F door locks are found in late-model Nissan Sentras, some Nissan 240SX, and Nissan 300ZX 1992-up. They are also found in some Mazda MPVs, some Mitsubishi's, and Lotus.

One relay (optional) is used to interface to this type of system as follows:



## type G: positive (+) multiplex

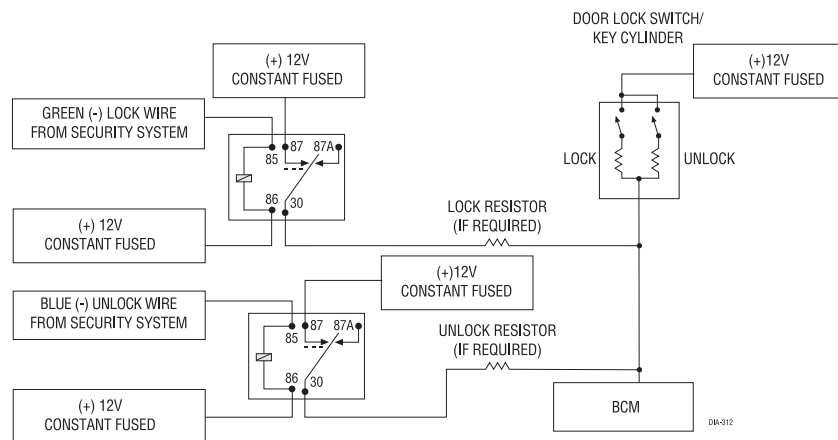
The door lock switch or door key cylinder may contain either one or two resistors. When interfacing with this type of door lock system, two relays or a DEI 451M must be used.

### Single-Resistor Type

If one resistor is used in the door lock switch/key cylinder, the wire will pulse (+)12 volt in one direction and less than (+)12 volt when operated in the opposite direction.

### Two-Resistor Type

If two resistors are used in the factory door lock switch/key cylinder, the switch/key cylinder will read less than (+)12 volt in both directions.



## type H: negative (-) multiplex

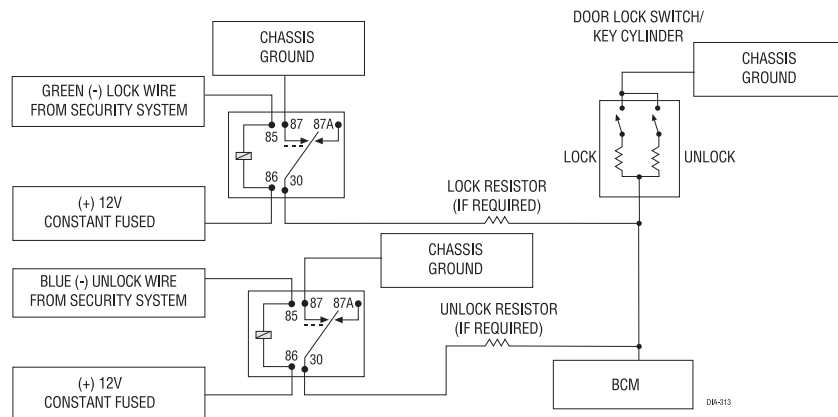
The door lock switch or door key cylinder may contain either one or two resistors. When interfacing with this type of door lock system, two relays or a DEI 451M must be used.

### Single-Resistor Type

If one resistor is used in the door lock switch/key cylinder, the wire will pulse ground in one direction and resistance to ground when operated in the opposite direction.

### Two-Resistor Type

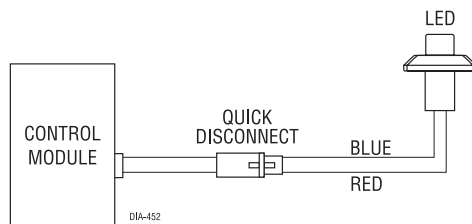
If two resistors are used in the factory door lock switch/key cylinder, the door lock switch/key cylinder will read resistance to ground in both directions.



## peripheral plug-in harnesses

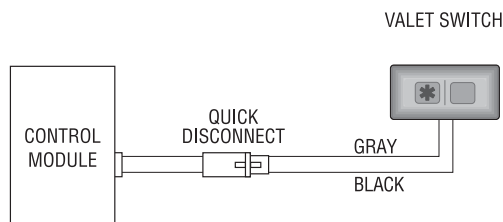
### super bright blue led, 2-pin white plug

The super bright LED operates at (+) 2V DC. Make sure the LED wires are not shorted to ground as the LED will be damaged. Multiple LEDs can be used, but they must be wired in series. The LED can be top-mounted or flush-mounted. If top-loading the LED with a bezel, the LED fits into a 5/16-inch mounting hole. If flush-mounting the LED from the back of a panel, drill a mounting hole using a 17/64-inch drill bit. Be sure to check for clearance prior to drilling the mounting hole.



### plain-view 2 valet

The Valet/Program switch should be accessible from the driver's seat. It plugs into the blue port on the side of the unit. Consider how the switch will be used before choosing a mounting location. Check for rear clearance before drilling a 9/32-inch hole and mounting the switch.





## mounting the receiver/antenna

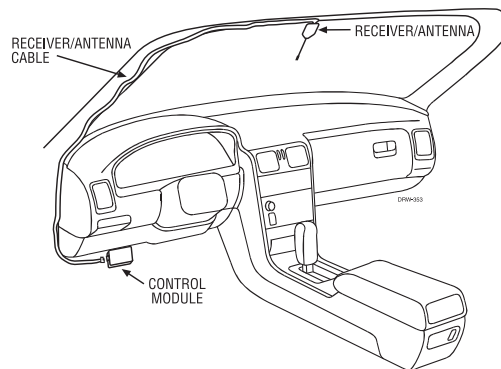
*NOTE: Be sure not to bundle excess cable as this will reduce the range.*

The receiver/antenna position should be discussed with the vehicle owner prior to installation since the antenna may be visible to the vehicle's operator.

The best position to locate the receiver/antenna is centered high on either the front or rear windshield. For optimal range, the antenna should be mounted vertically. It can be mounted horizontally in relation to the windshield or under the dashboard away from metal, but range will be reduced. Metallic window tint can also affect range, so this should be a consideration when determining the mounting location.

After determining the best mounting location, follow these steps:

1. Clean the mounting area with a quality glass cleaner or alcohol to remove any dirt or residue.
2. Plug the receiver/antenna cable into the receiver/antenna.
3. Mount the receiver/antenna with double-sided tape.
4. Route the receiver/antenna cable down the window pillar to the control module and plug the cable into the control module.



## arming/disarming diagnostics

The systems microprocessor monitors and reports all active and violated zones when arming and disarming the system.

## arming

Zones that are triggered at the time the system is armed are reported by an additional set of status chirps called Malfunction AutoBypass. The specific zone bypassed is then reported by the LED. For more zone information, refer to *Table of Zones* section of this guide.

## disarming

If a zone is triggered, three disarm chirps will sound. The specific zone that was triggered is then reported by the LED when the ignition is turned on. For more zone information, refer to the *Table of Zones* section of this guide.

## system status chirps

Action	No. of Chirps	Description
Arm	2	System armed.
Arm	4	System armed with hood or trunk bypass zones 5 and 6.
Arm	2 (5-second pause) 4	System armed with door bypass zone 4
Arm	2 (10-second pause) 4	System armed with sensor active and bypassed zones 1, 3, and 8.
Disarm	1	System disarmed.
Disarm	3	System disarmed with zone violation



## remote siren silencing

While the siren is sounding, press the arm/disarm button once to silence the siren but leave the system in the armed state. To disarm the system, press the arm/disarm button a second time.

*NOTE: If the remote control battery is low, the siren will generate a single low pitched chirp when disarming.*

## multiple event total recall

This will report the last eight system triggers.

1. Press and hold  of the PlainView 2 Valet switch.
2. While still holding , arm and disarm the system, then release the button.
3. The LED will start to blink to indicate the most recent trigger and proceed down to the eighth trigger. If fewer than eight triggers are stored in memory, the LED will blink continuously until the system is armed/disarmed or the ignition is turned on. For more information, please refer to the Table of Zones section of this guide.

## table of zones

When using the diagnostic functions, use the Table of Zones to see which input has triggered the system. It is also helpful in deciding which input to use when connecting optional sensors and switches.

<b>Zone - Number of LED Flashes</b>	<b>Trigger type</b>	<b>Input description</b>
1	Data	Dual Zone Shock Sensor
2	N/A	
3	Mux 1	Sensor Input
4	Instant	Door Pin Input
5	Instant	Trunk Pin Input
6	Instant	Hood Pin Input
7	Instant	Ignition Input
8	Mux 2	Sensor Input
9	N/A	
10	N/A	Alarm power reset

## system features programming

This system has many features that can be programmed to accommodate the user's personal preferences and make system installation easier. They are listed in two programming grids on the following pages. Many features have default settings that have been programmed at the factory and are indicated in bold type.

The User Selectable Features grid allows the user and installer to change operational features through the PlainView 2 Valet. The Installer Selectable Features grid allows the installer to change input/output functions of the system to integrate with the vehicle's specific characteristics.



### cliffnet wizard pro installation software programming

Cliffnet Wizard Pro provides access to all available system features and some that are not available when manually programming with the Valet switch. Cliffnet Wizard Pro is compatible with Microsoft Windows 95/98/2000/ME/XP/NT so most programming operations can be accomplished by pointing and clicking with a mouse. This eliminates the need for programming grids and lengthy programming sequences. For a complete guide to system programming using the Cliffnet Wizard Pro refer to the Cliffnet Wizard help menu.




### manual programming instructions

Be sure to document changes by taking note of all feature changes made in programming mode.


To enter the User Selectable Features programming:

1. Ignition on - Turn the ignition to the run position or start the engine.
2. Enter PIN - Enter the factory preset PIN code of 2 by pressing  on the PlainView 2 Valet switch twice, then  once.

*NOTE: If the factory preset PIN has been changed, the new PIN must be entered.*

3. Hold/Chirp/Release - After entering the PIN code, press and hold  until a chirp is heard and the LED turns on, then release the button. You have now entered the feature selection position of the User Selectable Features grid.
4. Column select - Press  the same number of times as the desired column. After a pause the siren will chirp the same number of times as the selected column for confirmation.
5. Feature select - Press  the same number of times as the desired feature. The siren will chirp with each press. The feature can now be changed using the remote control.













6. Feature change - Press the arm/disarm button on the transmitter. If the system chirps once, the feature has just turned off; if the system chirps twice, the feature has just turned on. If the feature has more than two settings, continue pressing the arm/disarm button on the transmitter to toggle through the settings.

To advance to the next feature in the same column, press  the same number of times as the desired feature within 60 seconds; to change a feature in a different column begin at step 4 by entering the column number first and then the row number.

*NOTE: Refer to the Feature Descriptions sections of this guide for important notes and descriptions of the system features and programming.*

7. Exit programming - To exit programming mode turn the ignition off or wait 60 seconds without pressing the PlainView 2 Valet switch. The siren will chirp three times to indicate programming mode has been exited.

## user selectable features

Then Press \ First Press	1 x 	2 x 	3 x 
1 x 	Add new remote (autolearn)	Set PIN code (default = 2)	New remote learn arm/disarm only
2 x 	Auto (passive) arm <b>off/on</b>	Select siren sounds	New remote learn accessory A channel
3 x 	Chirps <b>off/on/quiet</b>	FACT II <b>off/on</b>	New remote learn accessory B channel
4 x 	Auto lock <b>off/ignition/rpm</b>	Remote valet <b>off/on</b>	New remote learn silent mode
5 x 	Auto unlock <b>off/ignition</b>	Entry delay <b>off/on</b>	New remote learn remote valet
6 x 	Auto (passive) arm and lock <b>off/on</b>	Reset to default (except transmitter and valet code)	New remote learn remote start*
7 x 	Siren duration <b>30/60/90</b>	Panic <b>on/off</b>	New remote learn window down/vent**
8 x 	Second unlock <b>off/on</b>	Autostart setting* ( <b>off/battery only/ temp only/ battery and temp</b> )	Not used
9 x 	Not used	Not used	Clear all remotes

\* This feature is only available with optional IntelliStart connected.

\*\* This feature is only available with optional SmartWindows connected.

## user selectable features descriptions - column one

add new remote (only applicable with Radar 2 remote)

- Auto-learn new remote controls to the system in the standard button configuration. For more information, see programming note #1.

auto (passive) arm - off/on

- Off: The transmitter must be used to arm the system.
- On: When the system sees the ignition turn off and the last protected entry (door, hood, or trunk) close, it will begin a 30-second countdown before arming itself. After the first five seconds, you will hear two chirps and the lights will flash. The system will arm 25 seconds later.

chirps - off/on/quiet

- Off: Chirps will not sound when arming/disarming the system.
- On: Chirps will sound when arming/disarming the system.
- Quiet: Chirps will sound when arming/disarming the system but at a lower volume than normal.

auto lock - off/ignition/rpm

- Off: The doors will not lock automatically.
- Ignition: The doors will automatically lock three seconds after the ignition is turned on unless a door is open at that time.
- Rpm: The doors will lock when the system sees the engine reach a pre-programmed RPM. The H1/4 VIOLET/BLACK or Intellistart must be connected.

auto unlock - off/ignition

- Off: The doors will not automatically unlock when the ignition is turned off
- Ignition: The doors will automatically unlock as soon as the ignition is turned off.

auto (passive) arm lock - off/on

- Off: The doors will not lock when the system passively arms.
- On: The doors will lock when the system passively arms. This feature only applies when passive arming is programmed on.

siren duration - 30/60/90

- The system will sound the alarm for the programmed duration (30/60/90 seconds) during an alarm trigger or when the system is put into panic mode.

second unlock - off/on

- Off: Second unlock output is pulsed at the same time as the unlock output when the system is disarmed.
- On: Second unlock output is active when the arm/disarm button is pressed within 10 seconds of disarming the system.

## **user selectable features descriptions - column two**

set pin code

- This feature allows the setting of the user's personal PIN code. For more information, see programming note #5. The factory default PIN code is 2.

select siren sounds

- The individual sounds the siren produces during an full trigger alarm can be customized for owner recognition of an alarm trigger. For more information, see programming note #3.

fact II off/on

- Off: The alarm will respond to zone inputs indefinitely without bypassing.
- On: The alarm will bypass for 60 minutes zones that are triggered three times within a one hour period.

remote valet off/on

- Off: The alarm can not be put into valet mode with the remote control.
- On: The alarm can be put into valet mode with the remote control.

entry delay off/on

- Off: There is no entry delay when the system has passively armed. The system will trigger instantly when a door is opened.
- On: If the system has passively armed, it will not trigger for 15 seconds after a door is opened allowing the user to enter the vehicle and disarm the system via the PlainView 2 Valet switch.

reset to default settings

- All system settings (except PIN and remote programming) in the User Programming grid will be reset to their default factory setting as indicated in bold lettering.
- Press the arm/disarm button of the TX; the siren will chirp twice as confirmation.

panic off/on

- Off: The panic feature is not available.
- On: The panic feature is available.

auto start setting - off/battery only/temp only/battery and temp

- This feature is only available with the IntelliStart option.
- Off: The vehicle will not autostart.
- Battery: The vehicle will only autostart when the car battery gets low.
- Temperature: The vehicle will only autostart at a preset low temperature.
- Battery and temperature: The vehicle will autostart with a low car battery or low temperature.

*NOTE: Temperature and battery calibration and settings can be made only with the Cliffnet Wizard.*



## user selectable features descriptions - column three

The features in this column pertain to programming individual transmitter channels in custom configurations. Following is an explanation of the features. Program the individual transmitter channels following the instructions in programming note #2.

arm/disarm only

- The remote control channel programmed into this feature will arm/disarm the system only.

*NOTE: When programming a new remote control to custom configuration a channel must first be programmed to this feature before programming the remaining channels.*

accessory a output

- The transmitter channel programmed into this feature will activate the accessory output.

accessory b output

- The transmitter channel programmed into this feature will activate the accessory output.

silent mode

- The transmitter channel programmed into this feature will arm/disarm the system, but the siren will not chirp.

remote valet

- The transmitter channel programmed into this feature will make the system enter/exit valet mode.

remote start

- This feature is only available with IntelliStart connected
- The transmitter channel programmed into this feature will activate or shut down the Intellistart remote start system.

window control


- This feature is only available with SmartWindows connected
- The transmitter channel programmed into this feature will activate the vent or roll down feature of the SmartWindows system.










clear all remotes

- This feature will erase all remote codes from the system memory. This feature is convenient for erasing any transmitters that have been lost, stolen, or incorrectly programmed into the system.
- After entering this feature press any button on the transmitter; the siren will chirp to indicate that all transmitters have been erased from memory.

## installer selectable features

To enter the Installer Selectable Features grid follow the instructions for the User Selectable Features with the exception of step 4. Perform step 4 as described below to enter the Installer Selectable Features grid.

Hold/Chirp/Release - After entering the PIN code, press and hold  until the siren chirps once. Continue holding for approximately 10 seconds until the siren chirps three times, then release the button. You have now entered the feature selection position of the Installer Selectable Features grid.

Then Press \ First Press	1 x 	2 x 	3 x 
1 x 	Lock pulse <b>single</b> /double	Acc. output A <b>P1</b> */P2**/timer A/latch/latch (ignition reset)	Program RPM
2 x 	Unlock pulse <b>single</b> /double	Acc. output B <b>P1</b> */P2**/timer B/latch/latch (ignition reset)	Engine type <b>petrol</b> /diesel***
3 x 	Lock pulse duration <b>0.8</b> /3.5 sec	One time valet <b>on/off</b>	Program SmartWindows 4****
4 x 	Delay domelight <b>on/off</b>	Timer A duration for acc output A	Horn output <b>pulsed</b> /latched
5 x 	Acc. output B auto-activate <b>off/arm/disarm/both</b>	Timer B duration for acc output B	Auto immobilization <b>on/off</b>
6 x 	Software select***** <b>proximity</b> /shock	Not used	Not used

\* P1 = Pulsed channel output is disabled with the ignition on or the alarm is armed.

\*\* P2 = Pulsed channel output works anytime.

\*\*\* Only with optional IntelliStart connected.

\*\*\*\* Only with optional SmartWindows connected.

\*\*\*\*\* Remote adjustable sensor port: The 3-pin proximity/shock port can be used for either the proximity sensor or the remote adjustable magnetic resonance impact sensor. This programming branch is used to choose the sen-

sor software. The proximity sensor is the default 2 chirp setting. The impact sensor is the 1 chirp setting.

## installer selectable features descriptions - column one

lock pulse single/double

- Single: One door lock pulse will be output when the system arms.
- Double: Two door lock pulses will be output when the system arms.

unlock pulse single/double

- Single: One door unlock pulse will be output when the system disarms.
- Double: Two door unlock pulses will be output when the system disarms.

lock pulse duration 0.8/3.5 sec

- 0.8 seconds: The door lock pulses will be 800 milliseconds in length.
- 3.5 seconds: The door lock pulses will be 3.5 seconds in length.

delay domelight off/on

- Off: Smart auto testing will generate a warning to indicate the door is open.
- On: Smart auto testing will ignore the domelight until it goes off.

accessory output b auto activation

*NOTE: The accessory output will not auto-activate if programmed to latched setting.*

- Off.
- Arm: The accessory output will auto-activate when the system is armed.
- Disarm: The accessory output will auto-activate when the system is disarmed.
- Both: The accessory output will auto-activate when the system is armed and disarmed.

## installer selectable features descriptions - column two

accessory output a programming

The auxiliary accessory output wire (RED/WHITE) can be programmed for several different types of outputs.

- P1 0.8 seconds: The pulsed output is disabled with the ignition on or the alarm armed.
- P2 0.8 seconds: The pulsed output will operate any time.

- Timed: The length of output duration set.
- Latched: The output on/off controlled by button(s) controlling accessory.
- Latched (ignition reset): The output on/off controlled by button(s) controlling accessory if on, will turn off when the ignition is turned on.

accessory output a timer duration

- Start Timer: Press the arm/disarm button; the siren will chirp to signal the start of the timer duration setting.
- Stop Timer: Press the arm/disarm button; the siren will chirp to signal the end of the timer duration setting, or for maximum time, do not press the arm/disarm button.

*NOTE: The timer max setting is 255 seconds.*

accessory output b programming

The auxiliary accessory output wire (WHITE/BLUE) can be programmed for several different types of outputs.

- P1 0.8 seconds: The pulsed output is disabled with the ignition on or the alarm armed.
- P2 0.8 seconds: The pulsed output will operate any time.
- Timed: The length of output duration set.
- Latched: The output on/off controlled by button(s) controlling accessory.
- Latched (ignition reset): The output on/off controlled by button(s) controlling accessory if on, will turn off when the ignition is turned on.

one time valet - off/on

- Off: Does not allow one time valet mode feature.
- On: Allows one time valet mode feature.

accessory output b timer duration

- Start Timer: Press the arm/disarm button; the siren will chirp to signal the start of the timer duration setting.
- Stop Timer: Press the arm/disarm button; the siren will chirp to signal the end of the timer duration setting, or for maximum time, do not press the arm/disarm button.

*NOTE: The timer max setting is 255 seconds.*

## installer selectable features descriptions - column three

### rpm programming

- Programs the tachometer input for the BlackJax and door locks. For more information, see programming note #4.

### engine type petrol/diesel

- This feature applies only if IntelliStart 4 is installed.
- Petrol: The IntelliStart will crank the engine three seconds after the ignition is turned on or after input on the wait-to-start wires ceases.
- Diesel: The IntelliStart will crank the engine 20 seconds after it turns the ignition on and will ignore the wait-to-start input wires.

*NOTE: RPM must be reprogrammed after changing this feature.*

### smart windows program

- This feature applies only if SmartWindows is installed.
- Enter this feature and then follow the programming instructions included with SmartWindows.

### horn output - pulsed/latched

- Pulsed: H2/9 YELLOW/WHITE wire will generate a pulsing (-) output when the alarm is in full trigger. When arming and disarming the output does not operate.
- Latched: H2/9 YELLOW/WHITE wire will generate a constant (-) output when the alarm is in full trigger. When arming and disarming the output will pulse as per the standard chirp pulses.

### auto immobilization - off/on

- Off: Turns the auto immobilization feature off.
- On: Turns the auto immobilization feature on.

## programming notes

### Note #1: Adding a new transmitter in auto-learn configuration

- Press the arm/disarm button of the Radar 2 remote control; the siren will chirp once.
- Immediately press arm/disarm again; the siren will chirp twice to confirm the new transmitter has been programmed.



#### Note #2: Adding a new transmitter in custom-configuration

- For the arm/disarm channel, transmit the channel of the new three, four, or five button transmitter that you want to control that feature; the siren will then chirp once.
- Immediately transmit the same channel again, the siren will chirp twice to confirm the transmitter channel has been programmed.
- For the rest of the channels only one press of the button is required to learn, and the siren will chirp the same number of times as the feature row.

*NOTE: When programming a new transmitter to custom configuration, an arm/disarm channel must first be programmed before programming the remaining channels.*

#### Note #3: Selecting siren sounds

After entering this feature, press the arm/disarm button. The siren will generate a five-second sample of each available siren sound. Perform the following steps to add or delete that specific sound.

- Add sound: Press  on the PlainView 2 Valet switch while playing the desired sound to add that sound.
- Delete sound: Press  on the PlainView 2 Valet switch while playing the desired sound to delete that sound.

#### Note #4: RPM programming

- Drive the vehicle to an open area and allow the engine to warm up until the engine RPM drops to normal idle speed.
- Place the engine in park or neutral and set the parking brake.
- Enter the feature and press the arm/disarm button.
- The lights will flash twice to confirm the engine RPM has been learned.












*NOTE: If only one flash is seen, the engine RPM was not successfully learned. Test the tach wire connection and retry.*

- Turn the ignition off and activate BlackJax or RPM door locks to test.


#### Note #5: PIN Programming

A PIN code can have one to four digits; each digit can be from 0-9.

*NOTE: A PIN code cannot begin with a zero.*

- Programming Procedure
  1. Enter the feature location in the user-selectable programming grid.
  2. Immediately press and release  of the PlainView 2 Valet switch.
  3. Select each digit by pressing  1-9 times, and then press  to enter the number into the system. To enter a zero, press  only.
- To program a PIN code of 1032:
  1. Press and release  once and  once. You will hear one chirp.
  3. Press and release  once. You will not hear a chirp after programming a zero.
  5. Press and release  three times, and then press  once. You will hear three chirps.
  6. Press and release  two times, and then press  once. You will hear two chirps.
  4. Wait for two siren chirps after a five second pause or five seconds after the last digit has been entered if using less than four digit code number.
  5. Turn off the ignition; the siren will chirp three times.
  6. The programming mode is now exited.
- PIN Code Confirmation Procedure

Begin this procedure within 15 seconds of finishing the programming sequence or the new code will not be set.

  1. Turn on the ignition.
  2. Enter the new PIN code.
  3. Press and hold  for three seconds.
    - LED turns on: New PIN code is learned and programming is complete.
    - LED stays off: New PIN code is not learned and the system reverts to the old PIN code. Repeat the programming sequence.

#### Note #6: Accessory Channels

- All accessory channels can be programmed to different types of outputs including a pulsed output defeated when ignition is on or the system is armed, a pulsed output regardless of the ignition/armed state, a timed output, a latched output, or a latched output that resets with ignition on.

- Accessory channel B can be programmed to auto-activate with the arm command of the transmitter, the disarm command of the transmitter, or both. Auto-activate can also be turned off and activate as a normal addition accessory channel output.

## fact II - false alarm control technology

FACT II will bypass an input zone for 60 minutes if the system sees the same zone triggered three times within one hour, the system will bypass that input for 60 minutes. If that zone does not attempt to trigger the system during the 60 minute bypass period, the system will begin to monitor the zone again at the end of the hour. If it does attempt to trigger while bypassed the 60 minute time period starts over. FACT II will also bypass warn away triggers for the 60 minute duration.

FACT II requires that you change the way you test the system once you have it installed. Resetting FACT II requires the 60 minute time period expiring without attempted triggers or the ignition to be turned on and off. This allows the system to be repeatedly triggered, disarmed and rearmed, and still allow FACT II to bypass a faulty zone.

*NOTE: Remember to reset with the ignition when testing sensors.*

## smart power up II

The Smart Power Up II feature ensures that when the security system is powered back up after being disconnected, the system will resume the same state it was in before power was lost. For example, if power is disconnected during a full trigger sequence, the system will still be in the full trigger sequence when power is reconnected to the unit. If power is disconnected while the unit is disarmed, it will still be disarmed when power is restored.

## remote control sensor disable

1. Arm the system.
2. Use the transmitter to bypass the sensor.
3. The lights will flash four times. All warn away zones are now bypassed.
4. Transmit the sensor bypass channel again.



5. The lights will flash four times again. The sensor warn away and full trigger zones are now bypassed.
6. The sensor zones will reset when disarmed.

## auto-immobilization feature

Immobilizer circuits automatically activate after 30 seconds.

*NOTE: H1/17 orange ground when armed will not activate during Auto-Immobilization*

### auto-immobilization sequence

1. Turn ignition off or disarm alarm
2. After 30 seconds the systems Immobilization circuits activate and engage the starter and ignition interrupt
3. LED blinks at ½ normal speed.

Disarm the system when immobilized

Use one of the following methods to turn off auto-immobilization

- Turn ignition on and press the arm/disarm button of the transmitter.
- Arm the alarm and then disarm the alarm.
- Turn the ignition on and enter the system valet/PIN code.

### one-time valet feature

This feature allows the system to be put in valet mode only until the next time the ignition is turned on.

ON: Valet mode will be exited every time the ignition is turned on.

OFF: Valet mode will only be exited by using the valet switch or the remote control.

## sensors

### remote adjustable dual-zone shock sensor

The remote adjustable dual-zone shock sensor is a magnetic resonance sensor combined with circuitry that allows for adjustment of both warn away and full trigger zones. The Clifford Radar 2 transmitter is used to adjust this sensor.

The best operation of this sensor is obtained when mounted to an underdash wire harness. It can be also mounted to other surfaces (vent tubing, flat metal surfaces, or steering column), but coverage of the vehicle exterior may be reduced. Ensure to mount the sensor close enough to the control module to make the harness connection.

#### adjusting the shock sensor



**CAUTION:** DO NOT strike the window glass or flat sheet metal panels that can dent easily. It is recommended that you only strike the metal pillars between the windows, they are structurally sound enough not to dent. ONLY strike the pillars using the heel of your hand, it is more than sufficient for the sensor to distinguish this as a theft attempt.

**NOTE:** You MUST exit using the ARM/DISARM button after programming to lock in the new settings!









Read the following instructions thoroughly for a full understanding of how to properly adjust this sensor.

1. Disarm system
2. Transmit Channel 15. (Press **CLIFFORD** 3 times then **\*\*** 1 time)
  - The LED will turn on and the siren will chirp 1 time.
  - Primary (full trigger) zone adjustment has now been entered.
  - Primary zone can now be adjusted.
3. Adjusting Primary Zone

**NOTE:** There are 16 distinct pitch settings, if the upper or lower limit of the 16 settings is reached the siren will emit 2 chirps at the default pitch.

- Press  of the remote control to increase sensitivity. The siren chirps will decrease in pitch.
- Press  of the remote control to decrease sensitivity. The siren chirps will increase in pitch.
- The sensor Primary zone can be tested at any time during adjustment by striking the vehicle which will generate 1 siren chirp each

time the zone is activated.

4. Press   to adjust Warn-Away zone
  - Siren chirps 1 time.
  - Warn-away Zone adjustment has now been entered.
  - Warn-away Zone can now be adjusted.
5. Adjust Warn-away Zone
  - Press  to increase sensitivity.
  - Press  to decrease sensitivity.
  - The sensor Warn-away zone can be tested at any time during adjustment and will generate 1 siren chirp each time the zone is activated.
6. Press  of the remote control to return to Primary zone adjustment and lock in Warn Away zone setting.
  - Siren chirps 2 times
  - Primary zone can now be re-adjusted as described in step 3.
  - Or press  again to lock in primary zone setting and exit programming mode.
  - The siren will chirp 3 times when sensor adjustment mode has been exited.
  - **Auto-Scroll for adjusting sensitivity** - press and hold  or  to increase or decrease sensitivity setting several levels rapidly.

### second unlock feature

ON: System will monitor disarm channel for 10 seconds after disarm, if disarm channel is again transmitted within 10 seconds, H2/12 Blue/white will generate the programmed unlock output.

OFF: H2/12 Blue/white wire will generate the programmed unlock pulse at the same time as first unlock.

## troubleshooting

Sensors do not trigger the alarm.

- Has the FACT II system been triggered? To check this, turn the ignition key on and off to clear the FACT II from memory, and then retest the shock sensor. For a detailed description of FACT II, see the *FACT II: False Alarm Control Technology* section of this guide.

Closing the door triggers the system, but opening the door does not.

- Have you correctly identified the type of door switch system? This happens often when the wrong door input has been used.

The system will not passively arm until it is remotely armed and then disarmed.

- Are the door inputs connected? Is a BLUE wire connected to the door trigger wire in the vehicle? The GREEN H1/9 or the VIOLET H1/8 should be used instead.

The PlainView 2 Valet switch does not work.

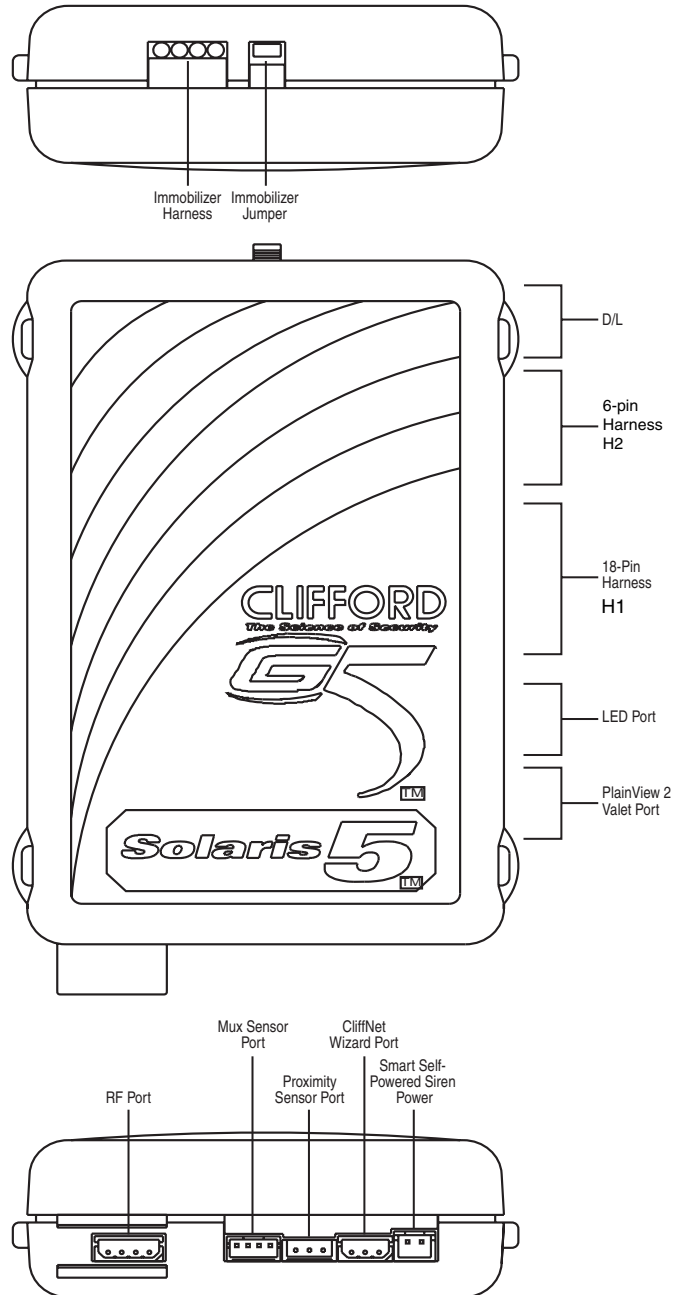
- Is the quick disconnect plugged in correctly?
- Is it plugged into the correct socket?
- Check the System Features Learn Routine for the default PIN code.
- Has the PIN code been changed?

The status LED does not work.

- Make sure that it is plugged in. (See the *Plug-In Harnesses* section of this guide.) Is the LED plugged into the correct socket?
- Is the quick disconnect plugged in correctly?

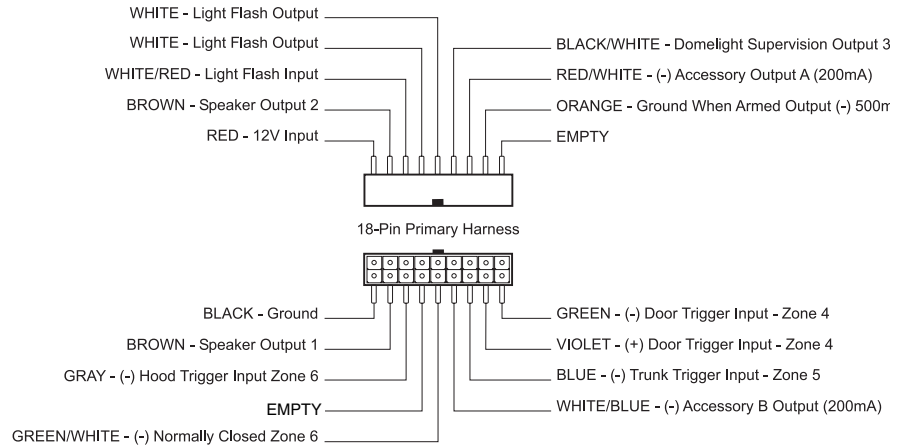
# wiring reference section

## control module connector locations

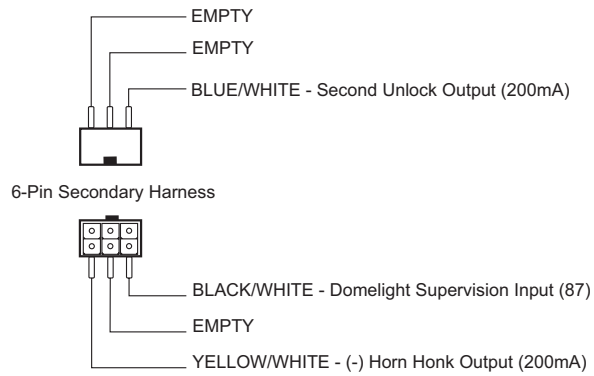


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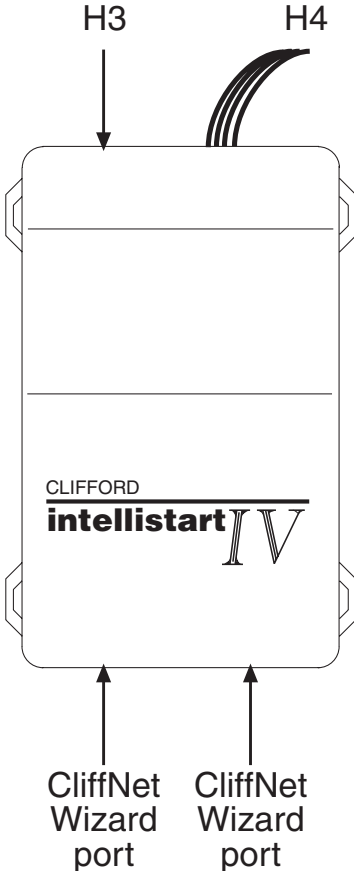
## H1 connector



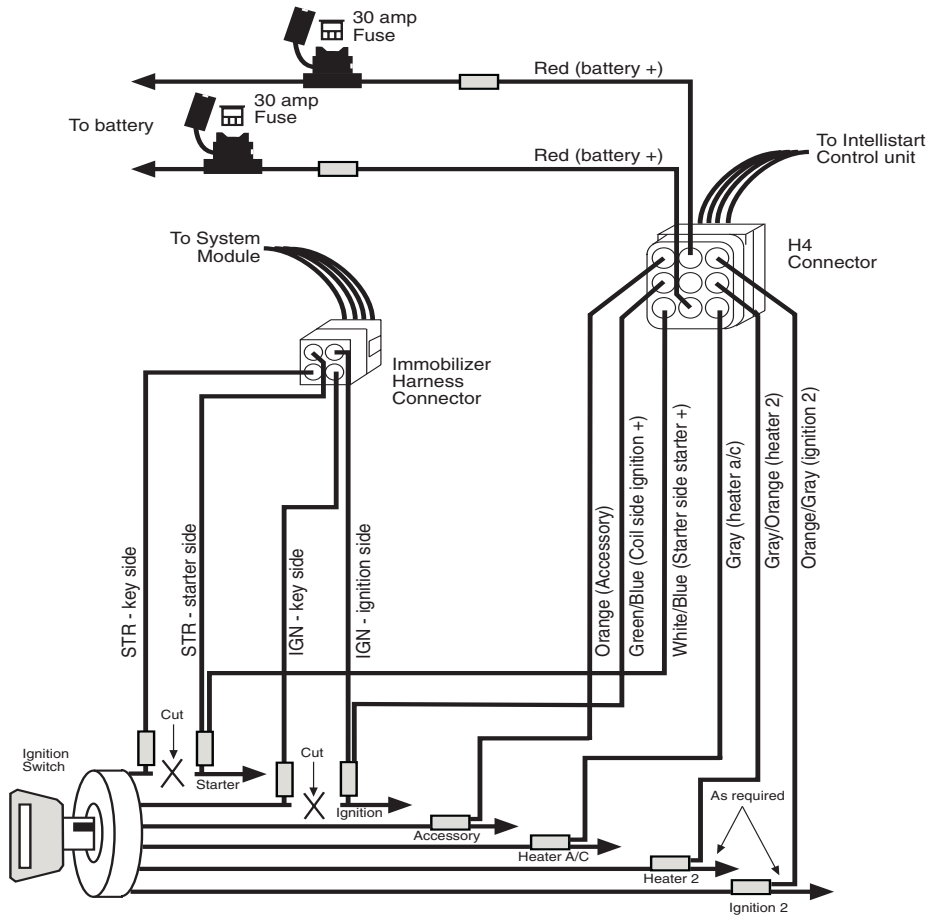
## H2 connector



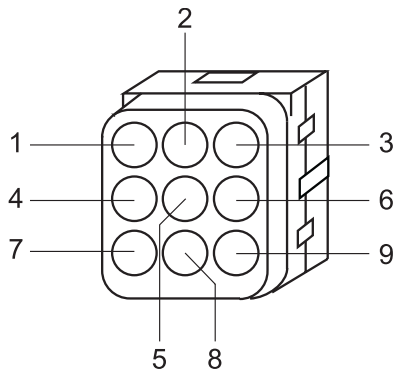
intellistart module connector location



## intellistart wiring diagram



## H4 connector





### H3 connector

