



TIP SHEET

T3004 v1.1 6/11/14

Installation Tips for your RS-150 + OL-IB-C1 (1.c) + SPDTx2 + 7.5k & 470 resistor

(2000-2006 Neon), (2004-2005 PT Cruiser), (2000 Cirrus)

Chrysler/Dodge vehicles with Sentry (GRAY) key

Thank you for purchasing your remote start from MyPushcart.com - an industry leader in providing remote starts to do-it-yourself installers since 1999. We've put this tip sheet together to help you with your installation. The purpose of this sheet is to help you organize your installation - not to replace your installation manual. You will still need to refer to that.

If you provided us with your vehicle model/year at the time of purchase, you will have a wiring chart for your particular vehicle. We're going to refer to that a lot. If you do not have the wiring chart, email us at sales@mypushcart.com so we can send you a copy. Be sure to include the model/year of your vehicle, your name and your sales order number.

Two very important things before you get started:

- Read the entire installation manual. There are several safety tips in there that you need to know before you start
- Avoid using a test light to probe wires. Test lights can set off air bags if you probe the wrong wire. Your vehicle wiring chart will identify the correct wires that you'll be tapping on to in your car. If you must probe, use a digital multi-meter. They're inexpensive and won't set off air bags.

Overview

There are 3 basic steps to this remote start installation. We're going to address each of these:

1. Make your remote start and bypass wiring connections
2. Program the remote starter and bypass
3. Test the system
4. Connect the activation wire
5. Button it up!

When you open up your remote start, you're going to see a whole bunch of wires. You're not going to use all of them. The remote starts are designed with wiring options for a variety of cars and no car is going to use all of them. We're going to break the wiring down into only the needed wires you need from the remote starter. Here's where the vehicle wiring chart comes into play. The wiring chart will help you locate the wires that you're going to need in your car. Don't be intimidated by all the different wires listed on the chart - you're only going to be using a few of them.

Reading your wiring chart

Each line of the wiring chart contains 3 pieces of information that you will need:

- The "Circuit" or "Wire/Function"
- The color and polarity of the wire in the car
- The location of the wire in the car

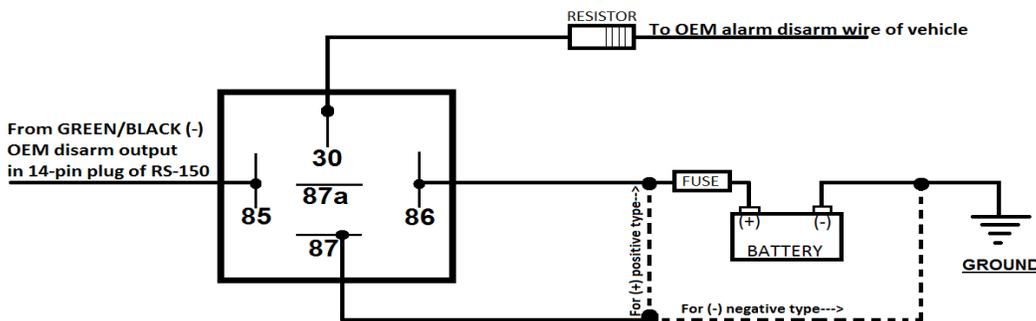
	Wire function	Wire color in vehicle	Wire location in vehicle
Ignition 12 volts		BLUE/GREEN	IGNITION SWITCH HARNESS
Starter		RED/BLUE	IGNITION SWITCH HARNESS
Dome Light		BLACK/BLUE (+)	DRIVER KICK PANEL

Step 1 - Wiring

RS-150 remote starter wiring:

- The following table shows you the necessary wires to connect from the remote starter and what they connect to. Any wires on your remote start that are NOT listed in the table are NOT USED.

RS-150 Wire:	Connect to:	Found:	Color:
6-pin harness:			
Red	Constant 12v (+)	@ ignition harness	PINK/BLACK
Red/White	Constant 12v (+)	@ ignition harness	PINK/BLACK
Pink	Ignition	@ ignition harness	BLUE
Pink/White	Ignition # 2 Not present in all models (refer to your vehicle wiring chart)	@ ignition harness	Neon 2000-2002: BLACK/WHITE Neon 2004-2006*auto stick*: RED/WHITE Cirrus: BLACK/WHITE PT Cruiser *auto stick only*: LIGHT GREEN/WHITE
Violet	starter	@ ignition harness	YELLOW
Orange	Accessory	@ ignition harness	BLACK/ORANGE
14-pin harness:			
White/Blue	Vehicle lock motor wire ❗ For Remote Start Activation. ❗ (See page 6 of this tip sheet for more info)	@ BCM (Connector 4, pin-9)	ORANGE/BLACK *Don't make this connection until AFTER you've completed Step 3 - Testing the System*
Black	System Ground	(solid metal in vehicle)	n/a
Black/White	Neutral Safety (If automatic transmission, ground this wire)	(solid metal in vehicle)	n/a
Brown/Red	Brake switch	@ brake pedal switch	WHITE/TAN
Grey	Hood pin (included) ❗ To prohibit the remote start from activating while the hood is open. ❗ (See installers tip #1 on page 7 for info)	Under hood *This is an important safety feature!*	n/a
White	(+) parking lights	Headlight switch	BLACK/YELLOW
The connections below MAY be needed			
Green/Black (14-pin harness)	*OEM Alarm Disarm relay* ❗ Use only for PT cruiser & Neon with factory alarm that gets tripped when you to activate the remote starter.	@ Driver door harness Requires included 7.5k ohm resistor & relay. (See diagram below)	PT Cruiser: WHITE/DARK GREEN (-) Neon: LIGHT GREEN
Green/Black (14-pin harness)	*OEM Alarm Disarm relay* ❗ Use only for Cirrus with factory alarm system that gets tripped when you activate the remote starter.	@ driver kick panel Requires included 470 ohm resistor & relay. (See diagram below)	Cirrus: LT. GREEN/ORANGE (+)



RELAY HARNESS COLOR CHART:

- 30 = Blue
- 85 = White
- 86 = Black
- 87 = Yellow
- 87a = Red

- Before proceeding, plug the programming button/LED into the remote start.
- Plug one end of the 4-pin Omegalink cable into the OL-IB-C1 data port, and plug the other side into the matching green data port of the RS-150 remote starter.

OL-IB-C1 transponder bypass module wiring:

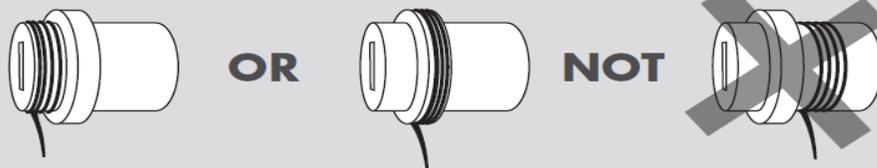
- For this application, this module does not require you to make any wire-to-wire connections. The following table shows you the necessary plug-in connections from the bypass module and what they connect to:

OL-IB-C1:	Description	Connect to:
White 4 pin plug	Auxiliary wiring plug NOT USED	N/A
Black 4-pin plug (with 3 wires)	Standard wiring plug NOT USED	N/A
Black & Green 4-pin plug	Omegalink connector	green data port of RS-150
Blue & Blue 2-pin plug	Transponder RF data (from OL-IB-C1)	OL-RNG-C1
Blue 2-pin With loop	Transponder antenna loop (from OL-RNG-C1)	3-5 turns around front of key barrel

Wrap the loop tightly around the key cylinder 3 to 5 times.

Slide the plastic retainer up towards the cylinder to tighten the noose.

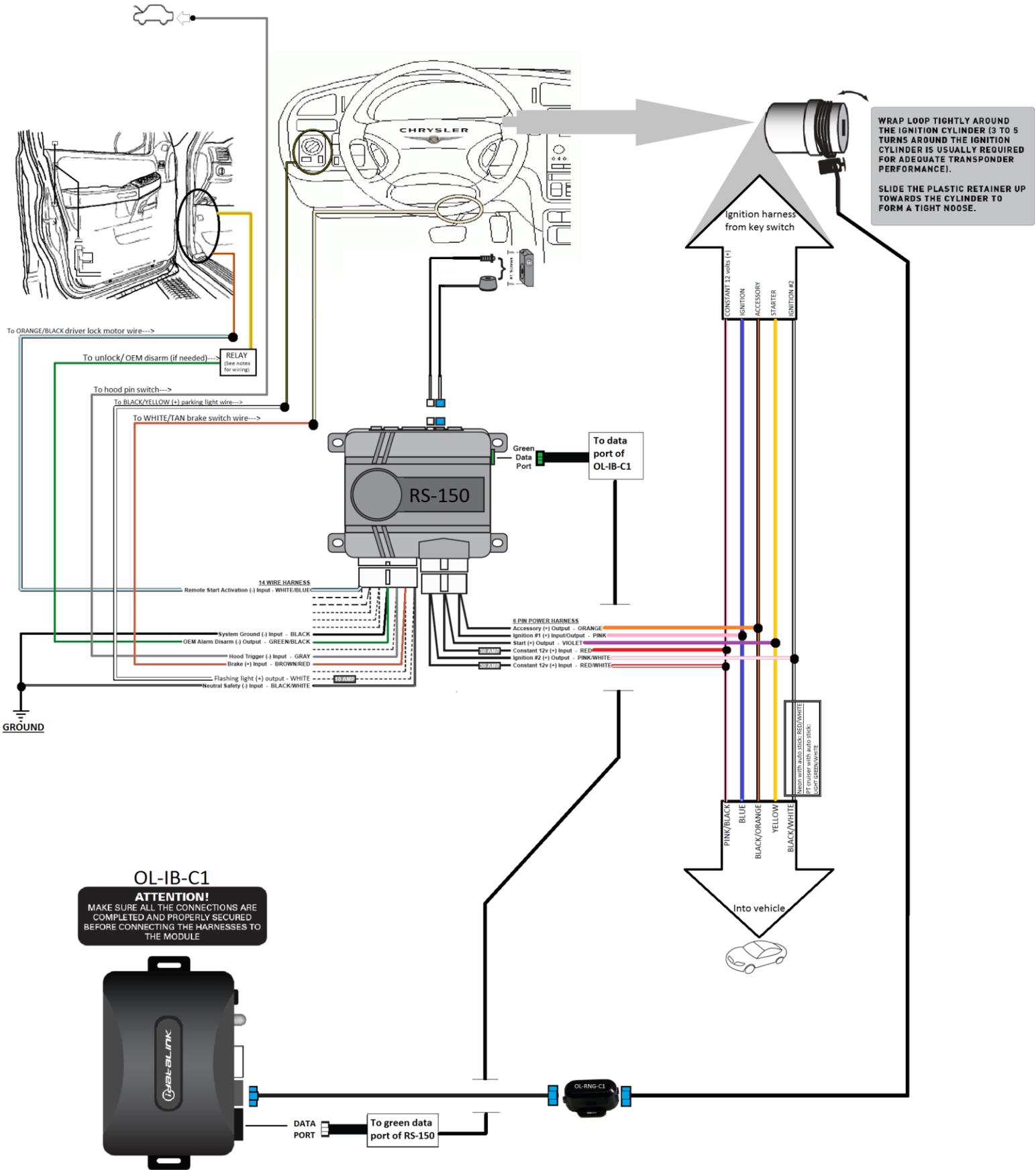
NOTE: It is preferable to place the antenna loop on top or in front of the OEM immobilizer coil.



Connect antenna to the blue connector on iDatalink Module.

NOTE: KEEP TRANSPONDER AWAY FROM ANY METAL SOURCE OR WIRING.

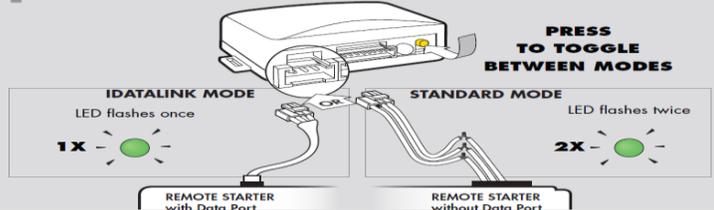
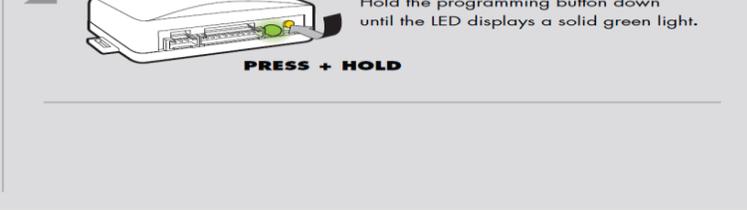
- The following diagram illustrates all of your needed connections. As always, it is the responsibility of the installer to verify all vehicle wiring using the vehicle wiring chart and a multi-meter prior to making any connections:



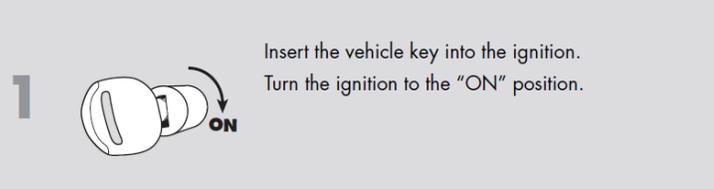
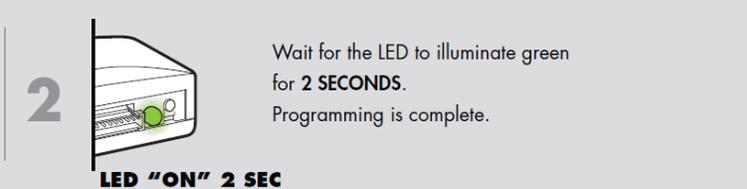
Step 2 – Programming

Program the OL-IB-C1 bypass:

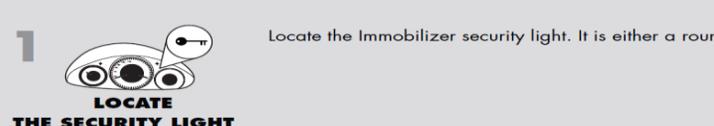
First, select “DATA MODE” in installation mode selection as follows:

<p>1 Press and release the programming button to select installation mode.</p> 	<p>2 To register selection, Hold the programming button down until the LED displays a solid green light.</p> 
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Next, perform vehicle programming as follows:

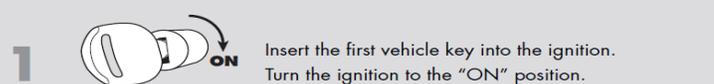
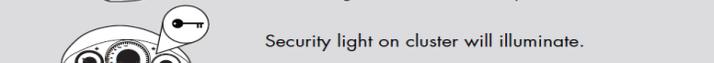
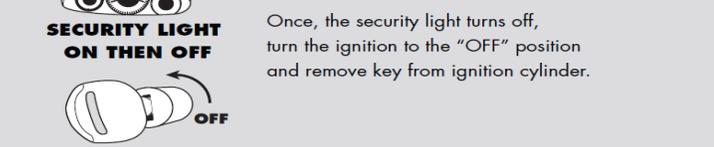
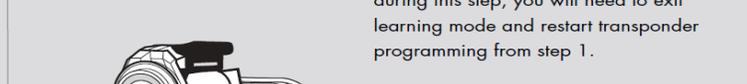
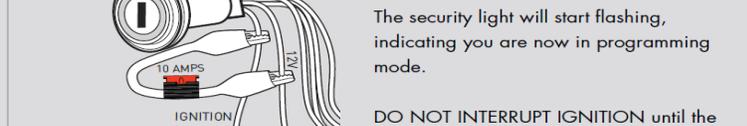
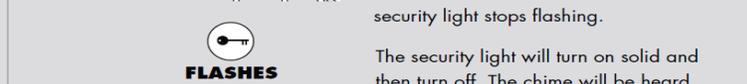
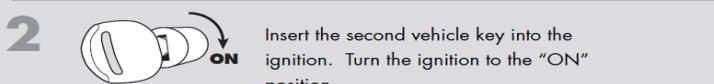
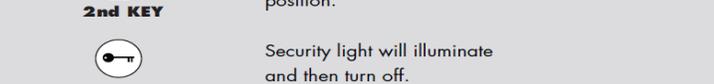
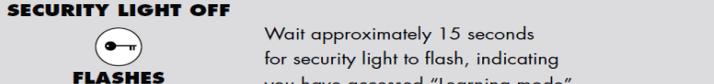
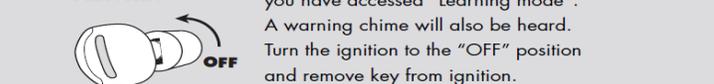
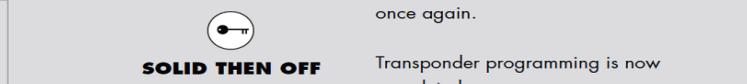
<p>1 Insert the vehicle key into the ignition. Turn the ignition to the “ON” position.</p> 	<p>2 Wait for the LED to illuminate green for 2 SECONDS. Programming is complete.</p>  <p>LED “ON” 2 SEC</p>
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Finally, proceed with transponder programming as follows:

<p>1 LOCATE THE SECURITY LIGHT</p>  <p>Locate the Immobilizer security light. It is either a round red indicator in the cluster or a red led on top of the dashboard.</p>	
<p>2 Locate the transponder case in the OL-RNG</p> 	<p>3 Unplug either one of the wires, exposing a connector.</p> 

IMPORTANT: Both keys are required to complete the programming procedure. A maximum of 5 second delay between each step is permitted. If the delay is exceeded, the vehicle will not allow programming to continue.



<p>1 Insert the first vehicle key into the ignition. Turn the ignition to the “ON” position.</p>  <p>Security light on cluster will illuminate.</p>  <p>Once, the security light turns off, turn the ignition to the “OFF” position and remove key from ignition cylinder.</p> 	<p>3 HOLD TO CYLINDER</p>  <p>Hold the transponder to the ignition cylinder and power the main ignition using a 10 Amp fused test lead. (Note: If you encounter power loss during this step, you will need to exit learning mode and restart transponder programming from step 1.)</p>  <p>The security light will start flashing, indicating you are now in programming mode.</p> <p>DO NOT INTERRUPT IGNITION until the security light stops flashing.</p> <p>The security light will turn on solid and then turn off. The chime will be heard once again.</p> <p>FLASHES</p> 
<p>2 Insert the second vehicle key into the ignition. Turn the ignition to the “ON” position.</p>  <p>Security light will illuminate and then turn off.</p>  <p>Wait approximately 1.5 seconds for security light to flash, indicating you have accessed “Learning mode”. A warning chime will also be heard.</p> <p>FLASHES</p>  <p>Turn the ignition to the “OFF” position and remove key from ignition.</p> 	<p>SOLID THEN OFF</p>  <p>Transponder programming is now completed.</p>

RS-150 remote starter programming:

Once you have successfully made your connections, you will need to change option 1 in the RS-150 installer feature programming menu from its default “1 press” setting to “3 presses”. This will initiate the remote start sequence from 3 lock presses on your OEM remote instead of 1. Perform the following steps using your vehicles key, your vehicles brake pedal, and the valet programming button that plugs into the RS-150.

1. Turn Ignition Key to the “ON” position and then “OFF”.
 2. Within 5 seconds of step 1, press the valet switch 10 times to access installer features.
 - *You will hear clicks from the RS-150 brain, and if connected, the status LED & parking lights will turn on. Wait for the unit to finish clicking.*
 3. Within 10 seconds of step 2, press the valet switch again 1 time to access option number 1.
 - *You will hear a click, and if connected, the status LED & the parking lights will flash once. Wait for the unit to finish clicking.*
 - * **If the vehicle's brake circuit only works with the ignition on, turn on the ignition at this point.**
 4. Quickly and firmly press the brake pedal 3 times in a row to change option number 1 to the “3 presses” value.
 - *You will then hear 3 clicks, and if connected, the status LED & parking lights will flash three times. Wait for the unit to finish clicking.*
 5. To exit programming, turn the ignition key “ON” then “OFF”. Or, you can wait 10 seconds for programming mode to expire.
 - *Programming is complete.*
- ❓ If you wish to change more features, the programmable features chart along with instructions can be found on page 11 of the installation instructions booklet that comes in the box with your RS-150.

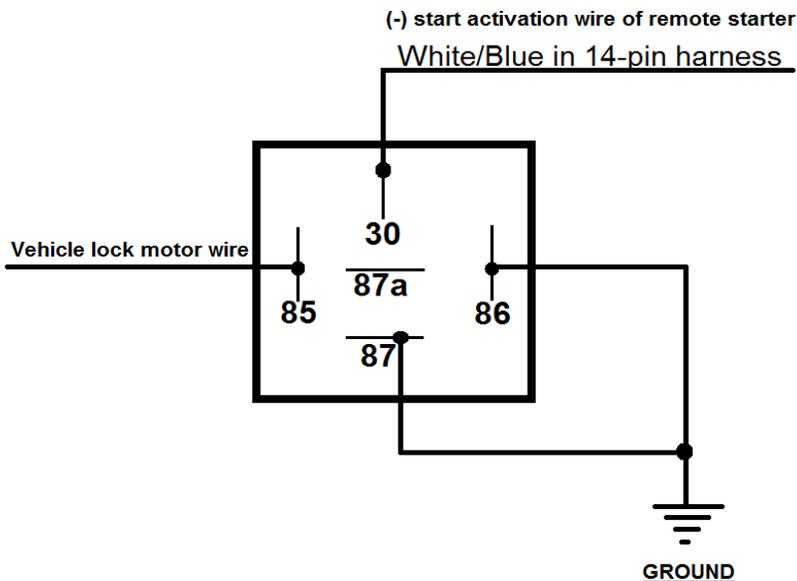
Step 3 - Test the System

Once all programming is done, you should test the system to make sure everything is working properly before you connect the activation wire and close up the installation.

1. With the key removed from the ignition, take the White/Blue ‘activation wire’ from the remote start 14-pin harness (the wire that you will soon directly connect to the lock motor wire) and touch it to chassis ground three times in succession.
 - The parking lights & gauges should power up and in a moment, the vehicle should start.
2. Make sure the vehicle stays running, and that the climate controls are working.
3. Press the brake pedal.
 - The engine should shut down.
4. If your test is successful proceed to “step 4 - Connect the Activation Wire and close it up” below.
 - If your test was unsuccessful, go back and re-check your wiring and programming.

Step 4 – Connect the Activation Wire and close it up

- ❓ The White/Blue activation wire takes a ground signal from your door lock motors and uses that as a trigger to engage the remote start. That’s how pressing ‘lock’ on your OEM remote 3 times starts the car. Use your wiring chart to locate the “Driver Lock Motor” wire in the vehicle. Do not confuse the “Driver Lock Motor” wire with the regular “Lock” wire on your wiring chart! Typically, the wire in the vehicle will be located at the kick panel, or where the wires enter the vehicle from the door through the rubber boot. Testing the correct wire will show (-) ground when at rest, then when the lock button is pressed the wire will momentarily show (+) positive as the door lock is energizing, then return back to (-) ground where it will rest. It is the return back to ground pulse on the vehicle lock motor wire that the remote starter is looking for to activate when a relay is not being used. In most installations, the activation wire can be connected directly to the vehicle “Motor Lock” wire and everything will function correctly. Some customers have reported an issue on that wire that causes the car to start on the first ‘Lock’ press, even after installer programming option #1 has been changed to ‘3 presses’ for activation. If you experience this problem, adding a relay to the trigger wire will resolve this issue. Most vehicles will not need the relay, but there’s no harm in using it even if yours does not. You can choose to install the relay with the rest of the system, or you can install it only if it turns out you need it – it’s up to you. If you install the relay on the activation input, connect it as follows:



RELAY HARNESS COLOR CHART:

30	=	Blue
85	=	White
86	=	Black
87	=	Yellow
87a	=	Red

- After connecting the activation wire. Test the system again, this time by quickly pressing the ‘Lock’ button on your remote fob 3 times in a row.

Close it Up!

Now gather up all your wiring and neatly bundle it together using zip ties or electrical tape. Find a secure place to put the remote start module and use zip ties to secure it. **Make sure that the remote start wires are not near any moving parts on the steering wheel, pedals or emergency brake!**

Installer's Tips:

Tip #1 – Where Everything Goes

1. *Remote start module* – the wiring for the module is done under the dash on the driver's side, so you'll want to install the module in that general area. Before you start wiring, look for a location where there's some open space that will fit the module. Pay attention to moving parts like the pedals, e-brake and steering column. Be sure to route your wiring away from those areas.
2. *Bypass module* – can be stowed along with the remote start.
3. *Programming button* – Requires a ¼" hole. Usually put in the driver's kick panel (that's the area forward of the door), the driver's side of the center console, or the underside of the dash.
4. *Hood Pin Switch* – An important safety component! Requires a 3/8" hole. Find a location in the engine compartment to mount the switch where the closed hood will keep the plunger in the switch depressed. This is what prevents the car from starting when the hood is open.
5. *Status LED* – Not required for normal operation but can be helpful for troubleshooting. Can be mounted anywhere you like – or unplugged and not used once the installation is completed.
6. *Activation relay* – can be stowed along with the remote start.

Tip #2 – How to make your wiring connections

It's very important that all your wiring connections be solid and secure. All remote start connections are "tap on" connections. This means that you do not need to cut the wires in the car. You simply need to "tap on" to the wires in the car to make your connections. Here are three different ways to do this:

Method 1 – Solder and tape

This is the method preferred by the best professional installers. It makes for the most reliable connections, but it is also the most difficult to do. Sometimes there isn't enough room in the wiring harness to safely solder a wire without damaging adjacent wires, but if you have the soldering skills, go for it. To make a connection, strip back a section of the insulation on the wire in the car. On heavy gauge wires, 1" is about the right amount. On lighter gauge wires, ½" is fine. Strip 1" of insulation off the end of the remote start wire. Tin the bare section of wire in the car. Wrap the remote start wire around the tinned section and then carefully solder it in place. Wrap the splice tightly with electrical tape.

Method 2 – Wrap and tape

This is the most popular method and is also very reliable. Strip back a section of the insulation on the wire in the car. On heavy gauge wires, 1" is about the right amount. On lighter gauge wires, ½" is fine. Strip 1" of insulation off the end of the remote start wire. Separate the strands of the wire like this:



Pass the wire from the remote through the opening as shown below



Wrap the remote start wire around both sides of the car wire, then back around itself as shown below



Use electrical tape to wrap the connection and secure the wires together. A wire tie will help prevent the tape from unraveling in the future.



Method #3 – “T-Taps”

T-taps are plastic clips that are squeezed onto the wires in the car. The wire from the remote start goes into the tap and the whole thing is crimped together. T-taps come in different sizes for different size wires. Use yellow t-taps for the larger wires in your main power harness. Red t-taps are good for the smaller wires. Tape and wire tie the connections as shown in the “wrap and tape” section above – that will prevent the t-taps from ever opening up.

Using T-Taps

Use a pair of pliers to attach the quick-connects to the wires in your car. Hold the quick connect as shown below in Figure 1, then clamp it on to the wire as shown in Figure 2. There is a locking tab at the front of the connector (Figure 3) – make sure it is secure and locked in place when you are done.



Figure 1



Figure 2



Figure 3

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