



# TIP SHEET

## Installation Tips for your RS-150 + KEY-OVERRIDE-ALL (for Toyota Vehicles) T2404

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](mailto: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 4 basic steps to this remote start installation. We're going to address each of these:

1. Make your remote start wiring connections
2. Make your bypass module wiring connections
3. Program the bypass
4. Test the system and 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 of the wire in the car
- The location of the wire in the car

### **Step 1 - Making your remote start wiring connections:**

The following table shows you where to connect the wires from your remote start into the car. Any wires on your remote start that are NOT listed in the table are NOT USED. In most cases, the wires on the remote start are way longer than needed. Trim off excess wire when you make your connections, but leave some slack - this will allow you a little flexibility when it comes time to stow the remote start module after the installation is completed.

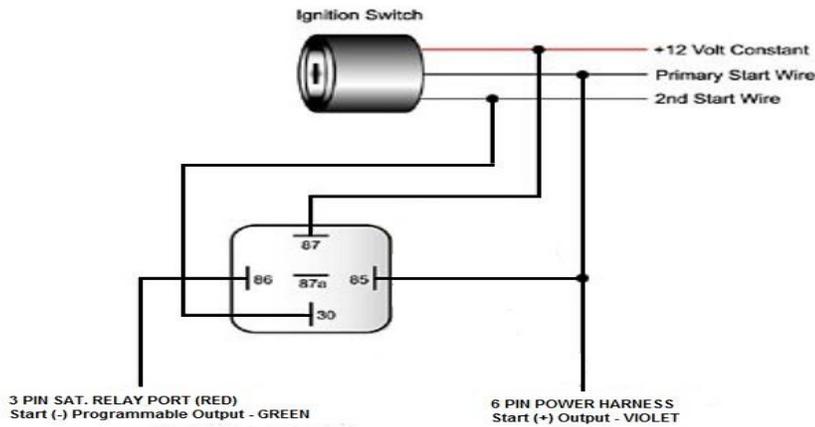
Remote Start Wire		Connect to the wire for the circuit on the vehicle chart labeled:	
Red/White (6-pin harness)		Constant 12 Volts	
Red (6-pin harness)		Constant 12 Volts	
Pink/White (6-pin harness)		Ignition 12-Volts	
Violet (6-pin harness)		Starter	
Orange (6-pin harness)		Accessory	
Pink (6-pin harness)		Ignition # 2 (not present on all vehicles)	
White/Black (14-pin harness)		Parking Lamp	(SEE NOTE 1)
White (14-pin harness)		Parking Lamp	(SEE NOTE 1)
Black (14-pin harness)		System Ground – connect this to a solid metal ground in the car	
Brown/Red (14-pin harness)		Brake Light (also called “Brake Switch”)	
Black/White (14-pin harness)		Neutral Safety – if you have an automatic transmission, ground this wire	
Grey (14-pin harness)		Hood Input	(See NOTE 2)
Blue/White (14-pin harness)		Vehicle driver lock <b>MOTOR</b> wire	(see NOTE 3)
Blue (in RED 3-pin harness)		Blue (-) ground when running of KEY-OVERRIDE-ALL bypass	
<b><i>The connections below MAY be needed</i></b>			
Light Green/Red (12-pin harness)		OEM Alarm Disarm – <i>connect this if your car has a factory alarm system</i>	
Violet/White (12-pin harness)		Tach Signal	(See NOTE 4)

- **NOTE 1:** The remote start has two parking light wires. You will only use one of them. On your vehicle wiring chart, look up the wire for the parking lights. Next to the wire color will be either a “+” or a “-“. If yours has the “+”, then use the white wire. If it has a “-“, use the white/black wire.
- **NOTE 2:** The grey wire is used with a pin switch (included in your kit) to prohibit the remote start from activating while the hood is open. This is an important safety feature!
- **NOTE 3:** This wire goes to the LOCK MOTOR WIRE, NOT THE LOCK wire in the vehicle (you need to verify using the vehicle wiring information chart and testing the wire in the vehicle)— save connecting this wire for last and use it to test the system (see step 4 of this tip sheet)
- **NOTE 4:** Most vehicles will not require this connection. The remote start has a ‘tach sensing’ circuit built in. The purpose of that circuit (or the tach wire if you need it) is to enable the remote start to detect when the engine has started so it will stop cranking the starter. When you test your system, if the starter keeps cranking after the engine has started, you’ll need to connect the tach wire. Once the wire is connected, take two additional steps: 1) Change “Installer Programming Option # 2 to the ‘tach wire’ setting (see page 11 in the installer’s manual). 2) Program the tach circuit as shown on page 10 of the installation manual.

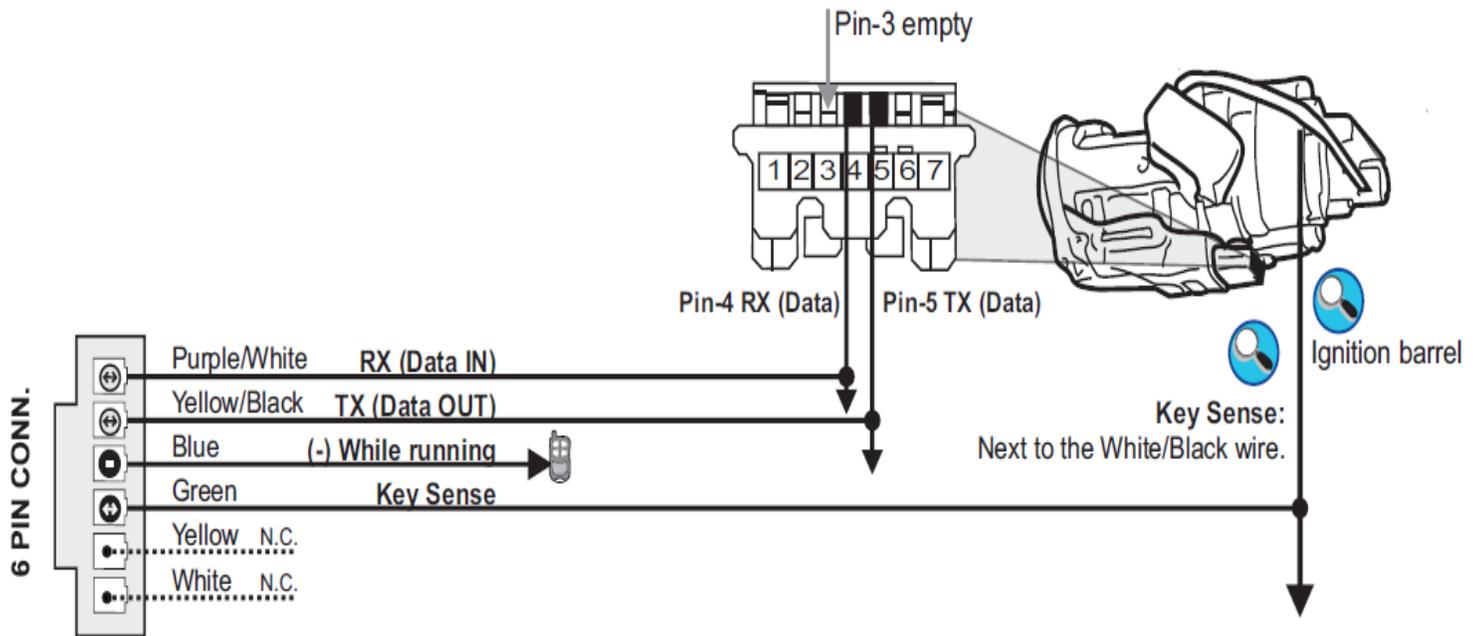
-See Installer’s Tip # 2 for tips on how to make your wiring connections

-Before proceeding, plug the programming button, and LED into the remote start. For tips on where to install these, see Installer’s Tip #1 .

**2<sup>nd</sup> Starter NOTE:** The relay in your kit is only used when you have a Second Starter wire. If you see a 2<sup>nd</sup> starter wire on your vehicle wiring chart, you will need the relay which will energize the 2<sup>nd</sup> starter with the required positive signal for your car to successfully remote start.



**Step 2 - Making your bypass module wiring connections:**

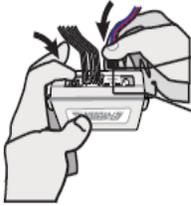
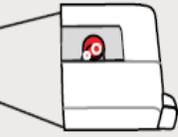
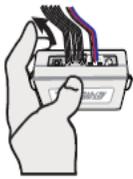


Important: **DO NOT** use tap connectors on the RX/TX wires. Wrap or solder and tape connections (See Installer’s Tip #2).

The KEY-OVERRIDE-ALL bypass requires a total of 4 connections:

- The Blue wire connects to the orange wire in the remote start’s 14-pin harness
- The Green wire gets connected to the vehicle’s key sense wire. This is typically a separate location on the ignition barrel from the pats plug or the main ignition harness.
- The Purple/White and Yellow/Black wires connect to the “RX” and “TX” wires on your PATS connector. The connector is located on the steering column, near the key cylinder. KEY-OVERRIDE-ALL installation manual shows all the different types of PATS connectors, and where the RX and TX wires are found on each type.

## Step 3 - Program the Bypass:

1					
					
Press and hold the programming button: <b>Appuyez et maintenez enfoncé le bouton de programmation:</b>	Insert connector 2. (6-pin) <b>Insérez le connecteur 2 (6-pins).</b>	Insert connector 3. (4-pin - if required) <b>Insérez le connecteur 3 (4-pins - si requis).</b>	Insert the 4-pin (Data-Link) connector. <b>Insérez le connecteur 4-pins (Data-Link).</b>	<i>The RED LED will turn ON.</i> <i>La DEL ROUGE s'allumera.</i>	Release the programming button. <b>Relâchez le bouton de programmation.</b>
2					
					
<b>Vehicle with 80-bit G-key:</b> <b>Véhicule avec 80-bits G-Key:</b> Start the vehicle with the key. <b>Démarrez le véhicule avec la clé.</b>	<b>Other vehicle:</b> <b>Autre véhicule:</b> Insert one functional key in to the ignition barrel. <i>Do not turn the key.</i> <b>Insérez la clé fonctionnelle dans le barillet. Ne tournez pas la clé.</b>	<i>The RED LED will flash ten (10x) times.</i> <i>La DEL ROUGE clignotera dix (10x) fois.</i>	<b>If the LED is solid RED disconnect the 4-pin connector (Data-Link) and go back to step 1.</b> <b>Si le DEL est Rouge solide débranchez le connecteur 4-pins (Data-Link) et retournez à l'étape 1.</b>	<i>The module is now programmed.</i> <i>Le module est programmé.</i>	

## Step 4 - Test the system and close it up!

Once all your connections are made and programming is done, you should test the system before putting everything back together. 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.

1. Change option 1 in **installer** feature programming to "3 presses" as shown on page 11 in the installation instruction booklet that comes in the box with your RS-150 remote starter.
2. Make sure your hood is closed and your foot is off the break> then touch the white/blue activation wire to ground three times.
3. There will be some "clicking" coming from the remote starter> then the vehicle gauge cluster will power up> then the vehicle will crank and start. Make sure the vehicle stays running for at least a few moments, and the climate controls are working. Turn the car off by pressing the brake pedal.
4. Use your wiring chart to locate the "Driver Lock Motor" wire in the vehicle and test to verify. *Helpful Tip:* Do not confuse the "Driver Lock Motor" wire with the regular "Lock" wire on your wiring chart! The correct wire will rest a ground (-) and momentarily show power (+) when the door lock button on the remote or door is pressed.
5. Connect the remote start's activation wire to the "Driver Lock Motor" wire in the car. Test the system again, this time pressing the 'Lock' button on your fob three times in succession.

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. *Bypass module* –can be stowed along with the remote start.
2. *Antenna* –If equipped, the antenna mounts to the windshield in one of the top corners or behind the rearview mirror.
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. *Status LED* –Requires a ¼' hole. Usually put in visible spot in dash. Find a location with clearance and is within its wire reach.
5. *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.

### 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.

We now have a "tap kit" available for purchase for those who prefer to use this method. The kit consists of two types of connectors - The taps and insulated male spade connectors that plug into them. The taps attach to the wires in the car and the spade connectors attach to the wires on the remote start. The spades then plug in to the taps. A crimping tool is required.