



Installation Tips for your Remote Start w/ Keyless Entry (Toyota Vehicles) v3.2 Updated 3/14/13

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 out this tip sheet together to help 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 and damage ECU's if you probe the wrong wire. Your vehicle 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 or burn circuit boards.

Overview

There are 4 basic steps to this remote start installation. We're going to address each of these:

1. Make your wiring connections for the remote start & bypass
2. Program the bypass
3. Test the system
4. Button it up!

❓ Need to know where all the components go? See Installer's Tip #1 on page 6

Step 1 – Wiring

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 them all. We're going to break the wiring down into two parts – your connections for your remote start, and connections for the bypass module.

Your 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.

You also have an antenna, a small pushbutton and a status LED. The antenna should be mounted near the top of the windshield, at least 1" away from metal. Route the antenna cable underneath the headliner, down the windshield pillar and around the end of the dash. Carefully tuck the cable in behind the trim panels. The

pushbutton is typically mounted 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. Installation requires drilling a small hole in the plastic. The LED is not required for operation, but is helpful for programming or diagnostics. It also requires a hole and can be placed either near the push button or on top of the dash.

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

*Some wiring charts will include a column titled “available kits”. Disregard the information in this column. The information in this tip sheet is more concise

The sample below will show you where to find that information on your chart

	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

Making your wiring connections

The table on the following page will show 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.

Helpful Hint: 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.

See Installer’s Tip #2 on Page 8 for tips on how to make your wiring connections.

Remote Start Wire	Connect to the wire for the circuit on the vehicle wiring chart labeled:
6 Pin Main Power Harness	
Red	Constant 12 volts
Red/White	Constant 12 volts
Violet	Starter
Pink	Ignition
Pink/White	Ignition 2
12 Pin Harness	
White/Blue	Remote Start Activation (connect to lock motor wire) (see NOTE 1)
Black	System Ground – Connect this to a solid metal ground in the car
Brown/Red	Brake Light (also called “Brake Switch”)
Black/White	Neutral Safety – If you have an automatic transmission, ground this wire
Grey	Hood Input (See NOTE 3)
White	+ Parking light output (see NOTE 2)
White/Black	- Parking light output (see NOTE 2)
3 Pin Door Lock/Unlock (RED)	
Blue	Unlock – may require diode (see page 7)
Green	Lock – may require diode (see page 7)
The connections below MAY be needed (from 12-pin harness)	
Light Green/Red	OEM Alarm Disarm – connect this if your car has a factory alarm system
Green/Red	OEM Alarm Arm – connect this if your car has a factory alarm system
Violet/White	Tach Signal (See NOTE 4)

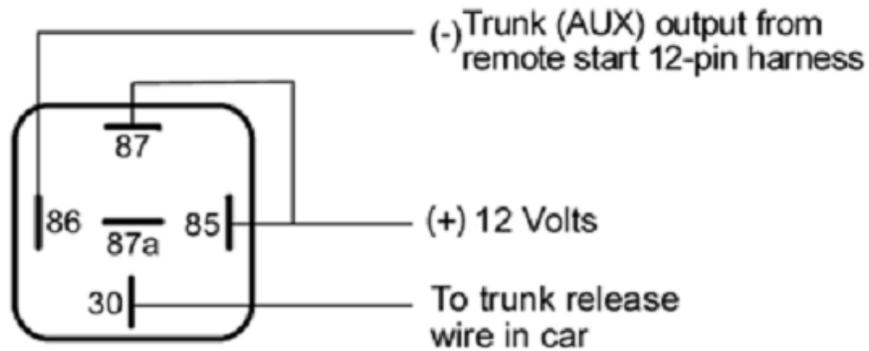
- **NOTE 1** Some vehicles will call for a ‘+’ polarity connection to the parking light circuit and some will call for a ‘-’ connection. The red/black wire on the remote start is used to select the polarity of the remote start’s parking light output. If your vehicle’s parking light wire is shown with a ‘+’ on your wiring chart, connect the red/black wire to a constant +12v power source (you can tap it right on to one of the large red power input wires on the remote start’s 6-pin harness). If your vehicle’s parking light wire is shown with a ‘-’ on your wiring chart, connect the red/black wire to ground. The white wire in the remote start 12-pin harness is the actual parking light output wire. After you’ve properly selected it’s polarity using the red/black wire, connect the white wire to the parking light wire in your vehicle, as indicated on your wiring chart.
- **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.
- **NOTE 3** 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 Programming Option #1 to the ‘tach’ setting (see page 15 in the installer’s manual). 2.) Program the tach circuit as shown on page 13 of the installation manual.

Before proceeding to the bypass installation, plug in your antenna, push button and LED.

TRUNK RELEASE NOTE:

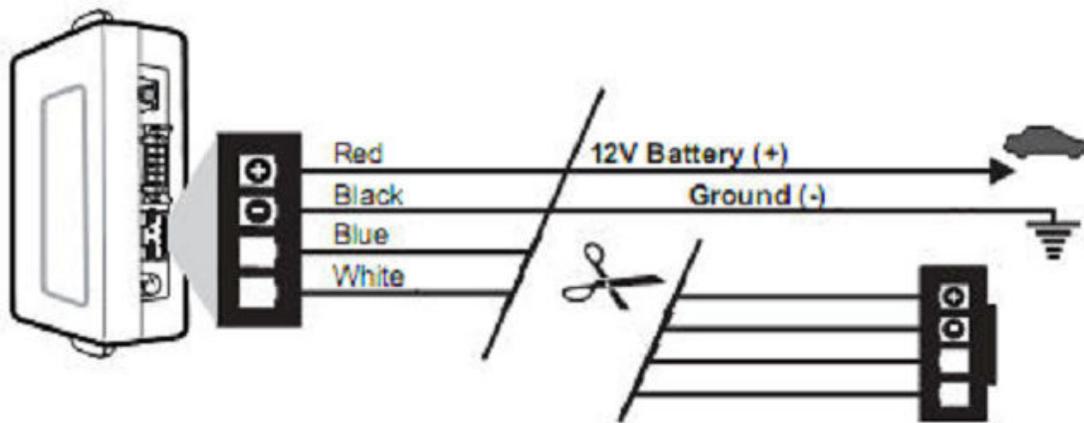
If you see a (-) next to trunk release on your wiring diagram, you will not need a relay. If you see a (+) next to trunk release in the wiring diagram for your vehicle you will need a relay. The following diagram shows you the accurate way to install the Trunk release relay.

TRUNK RELEASE RELAY DIAGRAM



Wiring Your Bypass

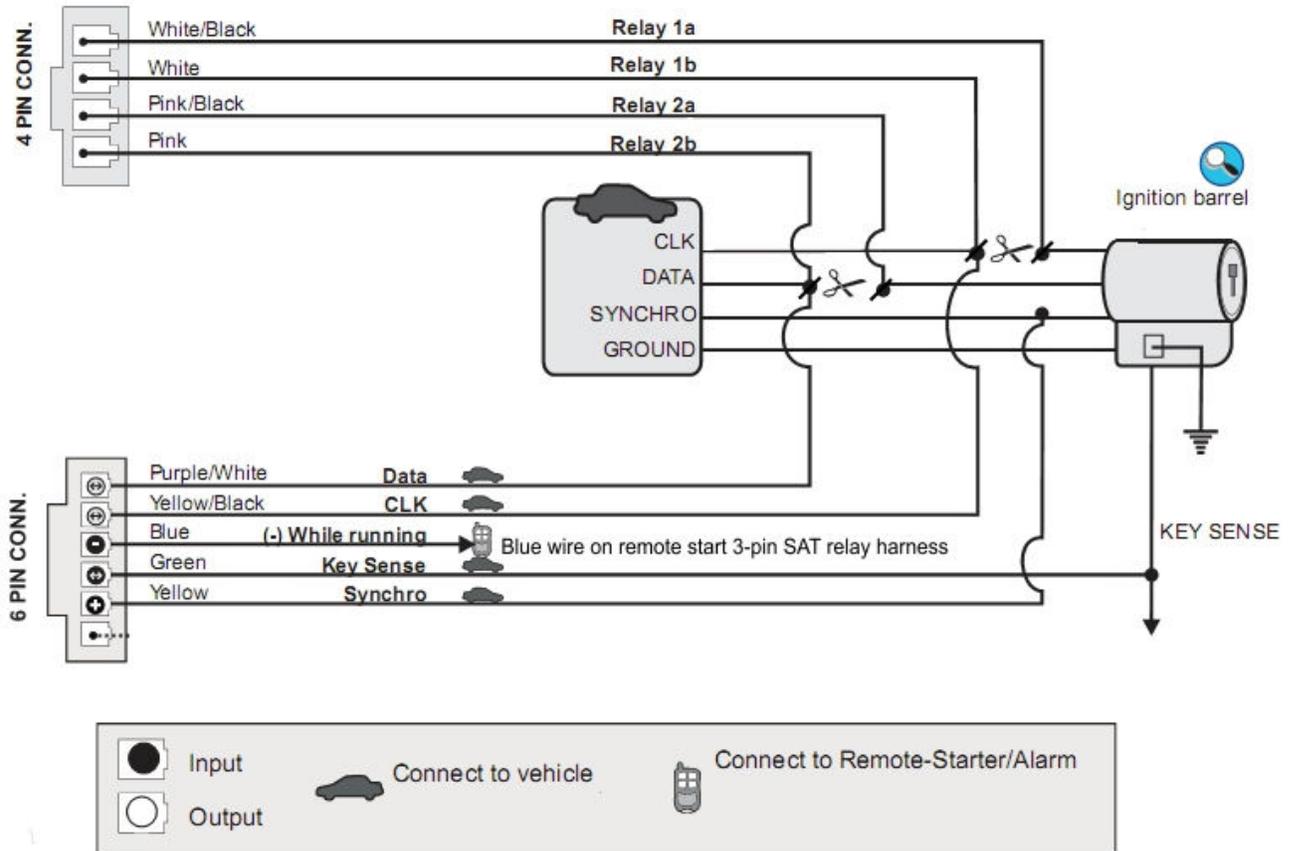
- Make the below connections using the Key-Override-All's black 4-pin DATA-LINK connector, but do not connect the connector to the bypass yet, you will do this during the bypass programming sequence.



- 1** Cut off one plug of the 4 Pin Data-Link connector
- 2** Connect the Red wire to +12V
- 3** Connect the Black wire to Ground

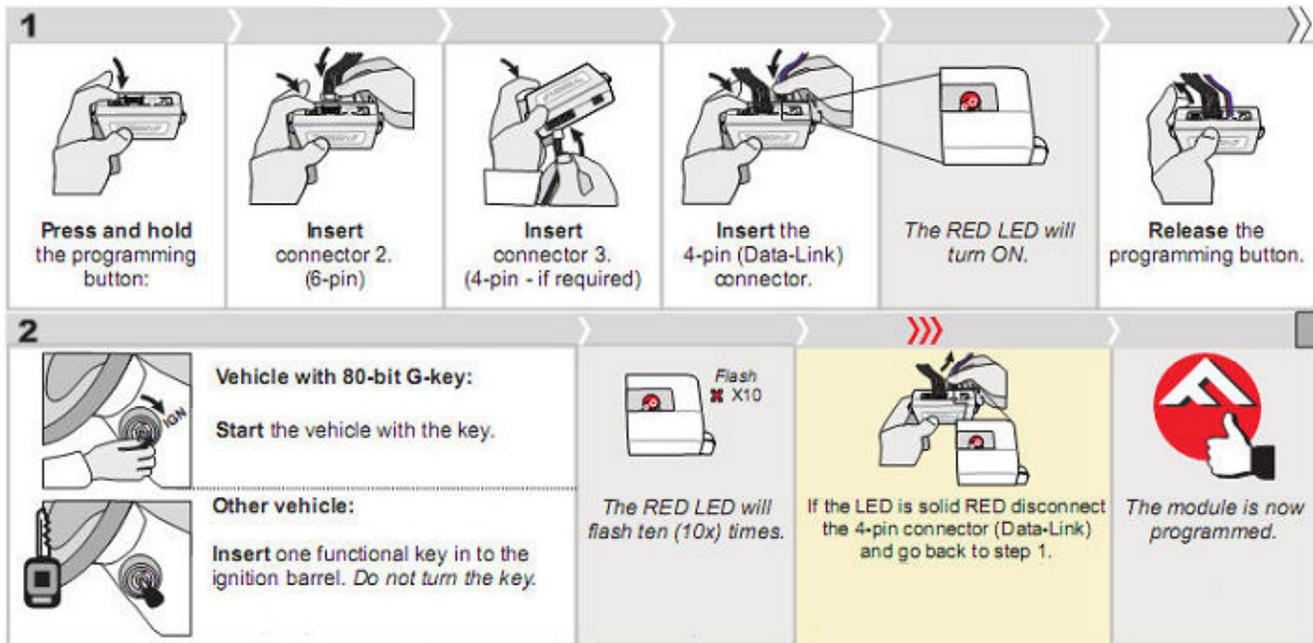
- Make the following connections from the Key-Override-All's white 6-pin connector and white 4-pin connector

LEXUS	YEARS	CLK	DATA	Synchro	Key Sense	TOYOTA	YEARS	CLK	DATA	Synchro	Key Sense
ES 300	98-01	Red/Blue	Green/White	Blue/Yellow	Blue/Black	4Runner	99-02	Red/Black	Gray/Red	Pink/Black	Yellow/Red
	02-03	Red/Blue	Green/White	Blue/Yellow	Blue		Avalon	98-99	Yellow	Black/Red	Green
GS 300	98-05	Black/White	Green/Black	Blue/Red	Yellow		00-04	Blue/Orange	Pink/Green	Blue/Yellow	Red/White
GS 400	98-00	Black/White	Green/Black	Blue/Red	Yellow	Camry	96-00	Red/Blue	Green/White	Blue/Yellow	Blue/Black
GS 430	01-05	Black/White	Green/Black	Blue/Red	Yellow		01	Red/Blue	Green/White	Blue/Yellow	Blue/Black
IS300	01	Purple	Green	Pink	Black/Yellow	*Camry 2003 - 2004 - 4 Cylinder Engines Only	02-04*	Red/Blue	Green/White	Blue/Yellow	Blue
	02-05	Purple	Green/Black	Pink/Black	Black/Yellow						
LS 400	98-00	Red/Black	Red/White	Red	Yellow	Highlander	99-03	Pink	Gray/Blue	Gray	Blue
LX 470	98-02	Purple/Green	Blue/Black	Red/Yellow	Red/White	Land Cruiser	98-10	Purple/Green	Blue/Black	Red/Yellow	Red/Black
RX 300	99	Black	Purple	Gray	Blue	MR2 Spider	03-05	Yellow	Yellow/Green	Yellow/Black	Blue/Red
	00-03	Pink	Purple	Gray	Blue	RAV4	01-03	Yellow	Yellow/Green	Yellow/Black	Blue/Red
SC300	99-00	Blue	Black/Orange	Green/Orange	Yellow	Sienna	99-03	Brown/Red	Brown/White	Brown/Yellow	Blue/Black
SC400	99-00	Blue	Black/Orange	Green/Orange	Yellow	Solara	99-03	Red/Blue	Green/White	Blue/Yellow	Blue/Black



STEP 2 – Program the Bypass

- Instructions for programming the bypass are on the following page. Make sure you have one of your keys and your remote fob handy, as the programming actions MUST be done within only a few seconds – as detailed in the instructions
- *Read through the instructions first* before actually doing the programming! It will help enable you to complete the steps within the specified time.



STEP 3 – Test the System

Once you've completed your wiring and have programmed the bypass, test the system by pressing the 'start' button on the remote. Make sure everything is working properly before you close up the installation.

STEP 4 – Close it Up!

Once the bypass has been programmed, give the system one final test.

Now gather up all of 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

There are 4 parts to your system:

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 1/4" 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.

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:



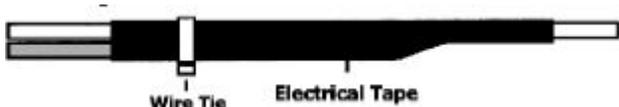
Pass the wire from the remote through the opening as shown below



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.

DOOR LOCK WIRING – The following vehicles require diodes for wiring the doorlocks. If your vehicle is on this list, use the supplied diodes when making your lock/unlock connections.

Toyota 4 Runner: 2003-2008	Toyota Matrix: 2005-2008
Toyota Camry: 2010	Toyota RAV4: 2004-2005
Toyota Corolla: 2005-2008	Toyota Sienna: 2004
Toyota FJ Cruiser: 2007-2008	Toyota Tacoma: 2005-2010

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