TIP SHEET

Installation Tips for RS0 + EVO-RIDE + SPDT

T0940

VEHICLE		YEARS	Connection	Programming
FORD				
Contour		1998-2000	2C	1
Crown Victoria		1997-2002	2H	1
	40-bit	2003-2004	2B	2
	40-bit	2005-2012	2A	2
E Series	*40-bit*	2008-2014	2B	2
Edge	*40-bit*	2007-2011	2A	2
	80bit (SA)	2011-2014	3	2
Escape	*40-bit*	2001-2007	2C	2
	40-bit	2008-2012	2A	2
Excursion		2000-2002	2H	1
	40-bit	2003-2005	2A	2
	40-bit	2004-2005	2A	2
Expedition		1997-2001	2H	1
	40-bit	2002	2A	2
	40-bit	2003-2006	2C	2
	40-bit	2007-2014	2A	2
	80bit (SA)	2011-2014	3	2
Explorer		1998-2000	2H	1
	40-bit	2001-2005	2C	2
	40-bit	2006-2010	2A	2
	80 bit (SA)	2011-2014	3	2
Explorer Sport	*40-bit*	2001	2B	2
	40-bit	2002-2005	2A	2
	40-bit	2006-2010	2A	2
Fiesta	*40-bit*	2011-2013	2A	2
F150		1999-2002	2H	1
		2003	2B	1
	40-bit	2004-2008	2C	2
	40-bit	2009-2011	2A	2
	80bit (SA)	2011-2014	3	2
F250 / F350 / F450	*40-bit*	2007-2010	2A	2
	80bit (SA)	2011-2014	3	2
Five Hundred	*40-bit*	2005-2007	2A	2

VEHICLE		YEARS	Connection	Programming
FORD				
Flex	*40-bit*	2009-2013	2A	2
	80bit (SA)	2011-2013	3	2
Focus	*40-bit*	2000-2007	2C	2
	40-bit	2008-2011	2A	2
	80bit (SA)	2011	3	2
Freestar	*40-bit*	2004-2007	2B	2
Freestyle	*40-bit*	2005-2007	2A	2
Fusion	*40-bit*	2006-2012	2A	2
	80bit (SA)	2011-2012	3	2
GT	*40-bit*	2005-2006	2A	2
Mustang		1999-2002	2A	1
		2003-2004	2A	1
	40-bit	2005-2014	2A	2
Ranger		1999-2000	2B	1
	40-bit	2001-2006	2D	2
	40-bit	2007-2012	2B	2
Sport Trac	*40-bit*	2001-2005	2B	2
	40-bit	2006-2012	2A	2
Taurus		1996-1999	2D	1
	40-bit	2000-2007	2B	2
	40-bit	2008-2013	2A	2
Taurus X	*40-bit*	2008-2009	2A	2
Thunderbird	*40-bit*	2002-2005	2C	2
Transit Connect	*40-bit*	2010-2013	2i	2
Windstar		1999-2000	2B	1
	40-bit	2001-2003	2B	2

(regular key, automatic transmission vehicles ONLY)

- 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.

A few very important things before you get started:

- Read the entire installation manual. There are several safety tips in there 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 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 or burn circuit boards.
- Most Ford vehicles will need to have TWO valid (not copy or cloned) ignition keys to program your bypass. If you do not have two valid keys, you will need to get a coded key from your Ford dealer, or locksmith.
  - Vehicles listed in the chart above to follow programming 1 will only need 1 key. Vehicles listed in the chart above to follow programming 2 will need 2 keys.

Overview

There are 5 basic steps to this remote start installation. We're going to address each of these:

1. Make your wiring connections
2. Programming
3. Test the system
4. Connect the activation wire
5. 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 all of them. We're going to break the wiring down into three parts – your main power connections, what we'll call your 'secondary' connections for your remote start, and connections for the bypass module (if you're using one).

Here's where the vehicle wiring chart comes into play. The wiring chart will help you locate the wires in your car that you're going to use. Don't be intimidated by all the different wires listed on the chart – you're only going to be using a few of them. Your supplied wiring chart will come from Crimestopper.

Reading your wiring chart

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

A) The "Circuit" or "Wire/Function"
B) The color of the wire in the car
C) The polarity of the wire in the car
D) The location of the wire in the car

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

A	B	C	D
12volts	white	+	ignition harness
Starter	black/white	+	ignition harness
Second Starter	N/A		
Ignition	black/yellow	+	ignition harness
Second Ignition	N/A		

Making your wiring connections

The following table shows you the minimum required connections from the remote starter and where they connect. 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.

For CRIMESTOPPER Remote Starts

Remote Start Wire		Connect to the wire for the circuit on the vehicle chart labeled:
Red (6-pin harness, 2 wires)		Constant 12 Volts
Pink (6-pin harness)		Ignition 12-Volts
Brown (6-pin harness)		Starter
Grey (6-pin harness)		Accessory
Pink/White (6-pin harness)		Ignition # 2 (not present on all vehicles)
Black (12-pin harness)		System Ground – connect this to a solid metal ground in the car
Yellow/Black (12-pin harness)		This wire connects to the Blue wire on your EVO-RIDE
Red/Black (12-pin harness)		Connect to +12volts *or* Ground. (See NOTE 1) optional*
White (12-pin harness)		Parking Lamp (See NOTE 1) optional*
Purple (12-pin harness)		Brake Light (also called "Brake Switch")
Grey (12-pin harness)		Hood Input (See NOTE 2)
Green (3-pin harness)		Motor Lock - (See NOTE 3)
		The connections below MAY be needed
Orange/Black (12-pin harness)		OEM Alarm Disarm – *connect this if your car has a factory alarm system*
Red/White (12-pin harness)		Tach Signal (See NOTE 4)
Pink (12-pin harness)		Glow Plug Input (for diesels only)

- **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. This is an important safety feature!
- **NOTE 3** Do not make this connection until after you have completed the remote start and bypass wiring.
- **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 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.

Your kit also includes a programming button and status LED, before moving on it's a good idea to plug these into the remote start. For tips on where to install the button and LED, see Installer's Tip # 1 on Page 6

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

Installing your EVO-RIDE bypass:

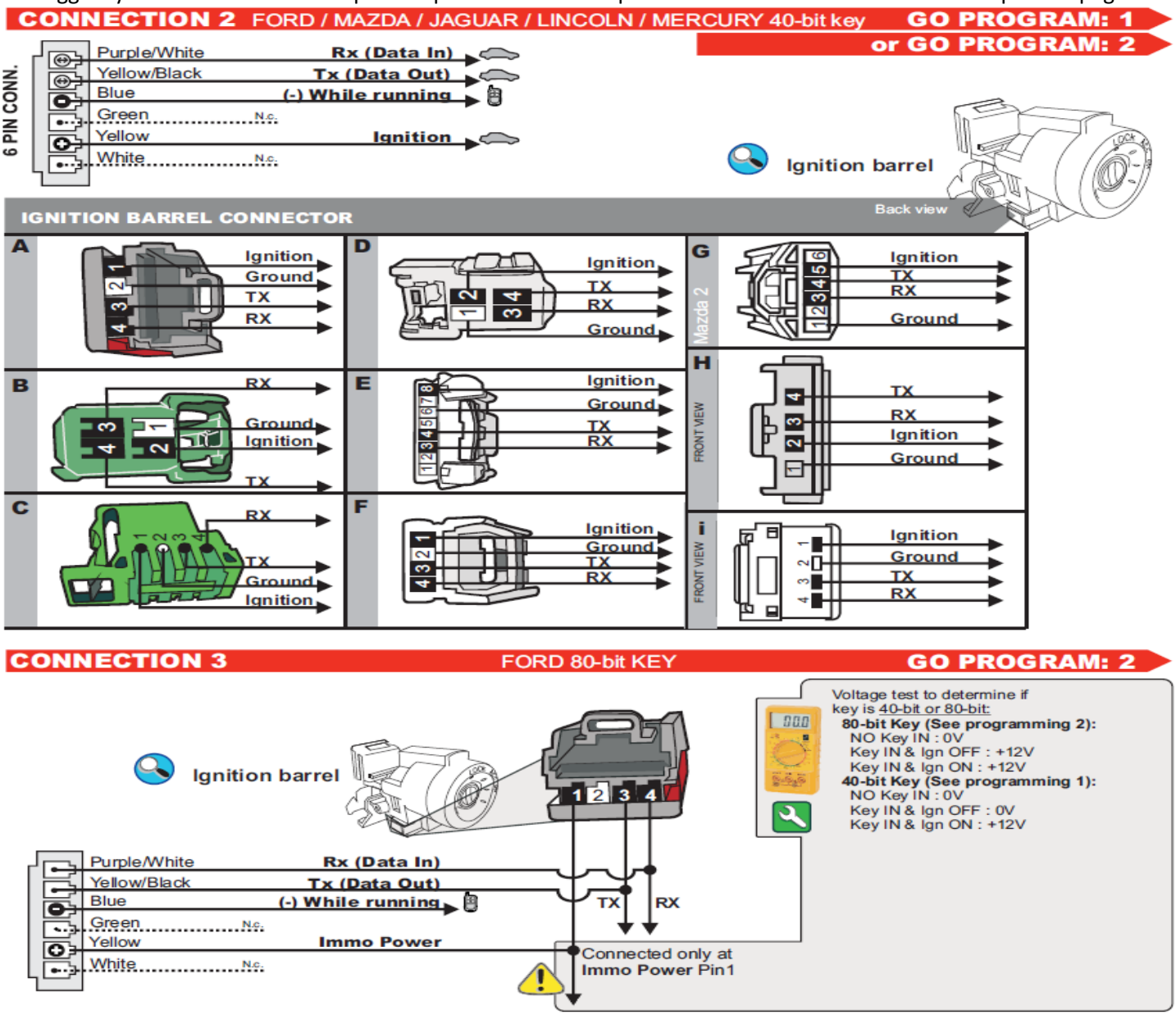
Find your vehicle in the chart on page one of this tip sheet. In the columns to the right you will find what connetion type and programming type your vehicle follows. For type 2, there are several plug types indicated by a letters A-I. The plug you find in your vehicle should match the plug you see in the corresponding diagram. Vehicle wire colors and plug types are inconsistent, so we are showing all of them. Just identify the plug your vehicle has, and go by pin position in the plug for your TX and RX connections. Testing for ignition power in the plug is a good way to orient yourself in the plug.

- The Red and Black EVO-RIDE wires are not needed as power and ground are supplied via the Datalink cable.

The EVO-RIDE bypass requires just 4 wire connections:

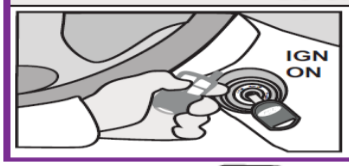
1) The Blue wire connects to the RS00 remote starter "Ground while running" wire.
   - (yellow/black in the 12-pin harness).
2) The Yellow wire connects to the 'ignition'.
   - For type 1: wire in the same imobilizer plug in the vehicle as the RX and TX wires.
   - For type 2: wire to main ignition along with the pink wire in the 6-pin plug of RS0 remote starter.
3) The Purple/White wire connects to the RX wire in the car.
4) The Yellow/Black wire connects to the TX wire in the car.

Suggestion: Don't use tap connectors on the Data and other wires coming off the key lock cylinder connector.
We suggest you either do a wire wrap and tape or solder and tape these connections. See Installer's Tip #2 on page 6.



Step 2 – Programming: EVO-RIDE bypass module programming:

Before programming the EVO-RIDE



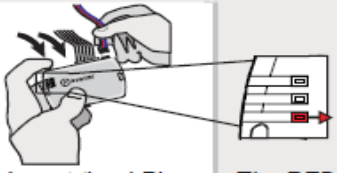
The remote starter must be able to start the vehicle, either with the key just placed in the switch or held backwards against the key switch.

PROGRAM. 1 — 1 key required — FORD / JAGUAR / MAZDA / LINCOLN / MERCURY

1

Press and hold the programming button:

Insert the 6 Pin and 3 Pin connector.

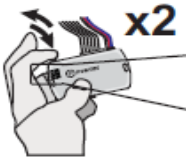


Insert the 4 Pin (Data-Link) connector.

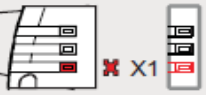
The RED LED turns ON.

Release the programming button.

2

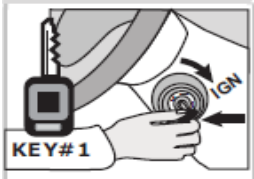


Press 2 times on the programming button.



The Red LED will flash once every second.

3

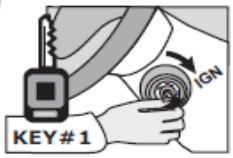


Turn the first key to the ON/RUN position.

5 sec. max

Turn the key to the OFF position and **remove** the first key.

4



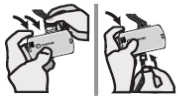
Turn the first key to the ON/RUN position.

The module is now programmed.

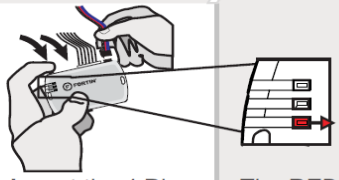
PROGRAM. 2 — 2 keys required — FORD / MAZDA / JAGUAR / LINCOLN / MERCURY

1

Press and hold the programming button:

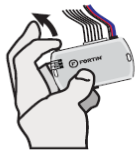


Insert the 6 Pin and 3 Pin connector.



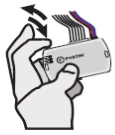
Insert the 4 Pin (Data-Link) connector.

The RED LED turns ON.



Release the programming button.

2 Vehicle with 40-bit key:

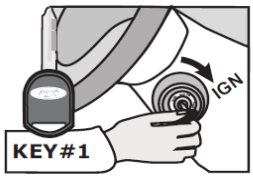


x2 **Press** 2 times on the programming button.

The Red LED will flash once every second.

Vehicle with 80-bit key: *go step 3*

3



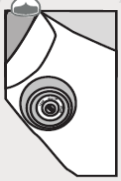
Turn the first key in the ignition to the ON/RUN position.

3 sec.

Wait 3 seconds.

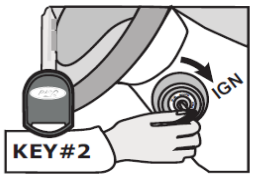
Turn the ignition to the OFF position and **remove** the key.

3 sec.



Wait 3 seconds.

4



Turn the second key in the ignition to the ON/RUN position.

3 sec.

Wait 3 seconds.

Turn the ignition to the OFF position and **remove** the key.

5

5 sec. max
AUTOMATIC Transmission
CAUTION The next step must be completed in less than **5 seconds.** If the delay is not respected, **disconnect** all connectors and **go back** to step 1.

AUTOMATIC

Activate the remote starter.

Ignition ON

The vehicle's ignition will turn on but the vehicle will **not start**.

The RED LED will flash rapidly ten (10) times.

Press the foot-brake to disengage the remote-starter.

If the LED is solid RED disconnect the 4 Pin conn. (Data-Link) and go back to step 1.

The module is now programmed.

RS00 remote starter programming:

Change option 17 in the RS00 option programming menu from its default "1 Pulse" setting to "3 Pulse Start". This will activate the remote start from 3 lock presses on your OEM remote instead of 1. Preform the following steps using your vehicles key, your vehicles brake pedal, and the valet button that plugs into the RS00.

1. Turn Ignition Key to the "ON" position. (Do not start the vehicle)
2. Within 5 seconds of step 1, press the valet switch 5 times to access option programming.
   - *You will hear 5 clicks from the RS00 brain, and if connected, the parking lights will flash and horn will honk. Wait for the unit to finish clicking/flashing/honking.*
3. Within 10 seconds of step 2, press the valet switch 17 times to access option number 17.
   - *You will observe a click/flash/honk each time you press the button, carefully count the clicks/flashes/honks until you reach 17.*
4. Firmly press the brake pedal 1 time to change option number 17 to the "3 Pulse" value.
   - *You will then observe 1 click/flash/honk.*
5. To exit programming, turn the ignition key to the "OFF" position. 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 for your RS00 is below:

OPTION PROGRAMMING TABLE					
Option #	Option Description	TX Button #1 (Lock)	TX Button #2 (Unlock) Default Value	TX Button #3 (Trunk)	TX Button #4 (Start)
1	Engine Monitoring	Tach	*Tachless*		Hybrid
2	Autolock with RPM / Ignition	ON	*OFF*		
3	Door Lock Pulse	3 Seconds	*0.50 Seconds*	Double Unlock	"Wake Up" pulse with Unlock
4	Pink/white Wire Selection	ACC	*IGN*	START	
5	Data Port Protocol	ADS iDatalink - OFA Series	*Fortin - EVO / SL Series*		
6	Remote Start Button Selection	Double Button Press	*½ Second Press*	Press 2 seconds & release	
7	Horn Chirps on Remote Start	ON	*OFF*		
8	Lock with Remote Start / Abort	OFF	*Lock after Remote Start*	Lock after Remote Start and Arm OEM Alarm with Abort	Lock / Arm OEM Alarm with Abort
9	Brown wire function	Dome Light	*Trunk pop*	Double Press Trunk	Press and Hold 2 seconds
10	Unlock before Remote Start (to Disarm OEM Alarm)	ON	*OFF*		
11	Transmission Type	Manual Transmission with Remote Control	*OFF*	Manual Transmission set with Hand Brake	Manual Transmission with auto shut down after door closed
12	Idle Down Timer	10 Minutes	*20 Minutes*	30 Minutes	Infinity Run
13	Horn Chirp Confirmation	1 Press	*2 Press*		
14	Unlock with Trunk Pop	Unlock/Trunk Pop	*Trunk Pop only*		
15	30 Sec. Park Lights with Unlock	OFF	*ON*		
16	Horn Pulse (Chirp)	15 milliseconds	*20 milliseconds*	40 milliseconds	
17	OEM Interface Green input wire	3 pulse start with OEM remote thru Data	*1 Pulse*		
18	Minimum Starter Cranking Time	(-) 0.1 Seconds	*0.8 Seconds*	(+) 0.1 Seconds	(+) 0.4 Seconds
19	Diesel Glow Plug Delay	10 Seconds	*Monitor Glow Plug*	15 Seconds	20 Seconds
20	Remote Start Engine Run Time	10 Minutes	*20 Minutes*	30 Minutes	5 Minutes
21	Smart Tachless Voltage Adjustment 79-100%	-1%	*Set to 93% default*	+1%	
22	Turbo Timer Mode	1 Minute	*OFF*	3 Minutes	5 Minutes
23	Unlock on Start Button with Ignition ON	Momentary press = Unlock 2 Sec. press = Abort Start	*OFF*		
24	Orange/white wire Selection	IGN	*ACC*	AUX 2	
25	Orange Wire Selection	AUX 2	*OEM Arm*		
26	1-Way or 2-Way System	2-Way	*1-Way*		
27	1 or 2 VEH Mode	2 VEH Mode	*1 VEH Mode*	In 1 VEH Mode, the Red and Blue LED on Remote Control operate the same vehicle	
28	Reset Options to Default (*)	*Reset Options 1 thru 25 (2 Flashes)*			

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 green '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.

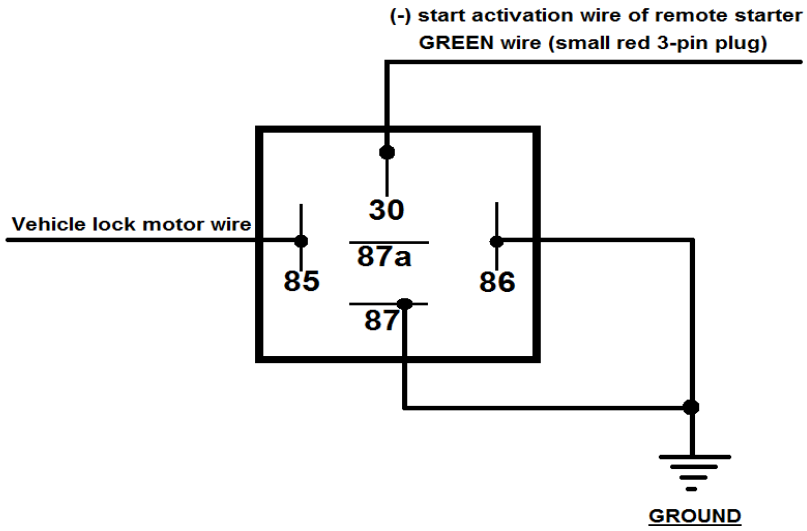
Step 4 – Connect the activation wire

Helpful Tip – A common installation error is to confuse the vehicle 'motor lock' wire with the 'lock' wire. They are two different wires. Your wiring chart will identify them

If it did not start, go back and re-check your wiring.

- The GREEN 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

Step 4 – Close it up!

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

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!** Replace all interior vehicle panels that were removed to gain access to the needed wires, in reverse order they were removed.

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 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.

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.