

Installation Guide for 5 cylinder Coil Repair Harness

1999-2007 Volvo Turbo and non-turbo.

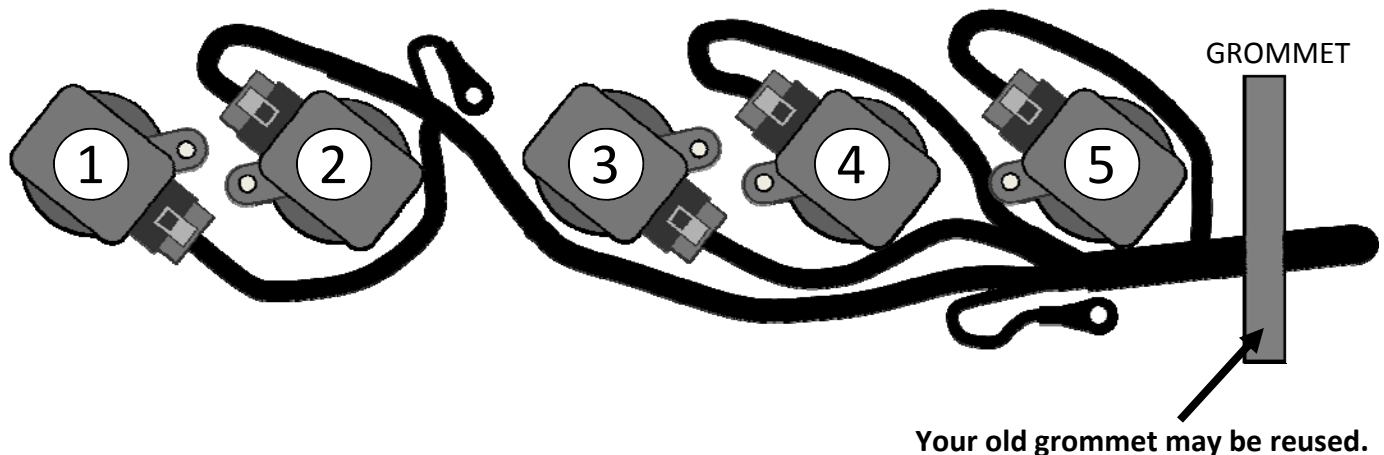
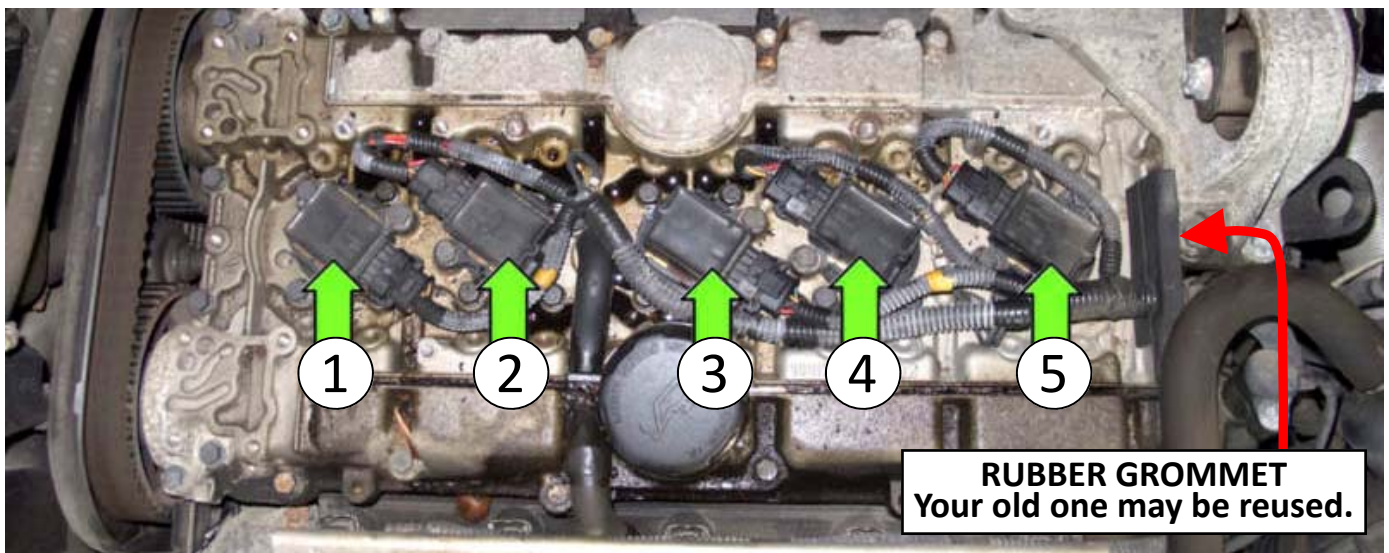
(See page 5 for small difference and modification for 2004-07 'R' models)

If you find any errors or omissions, or if you can offer improvements to this guide, please contact
Dave Barton, dbarton@linkline.com

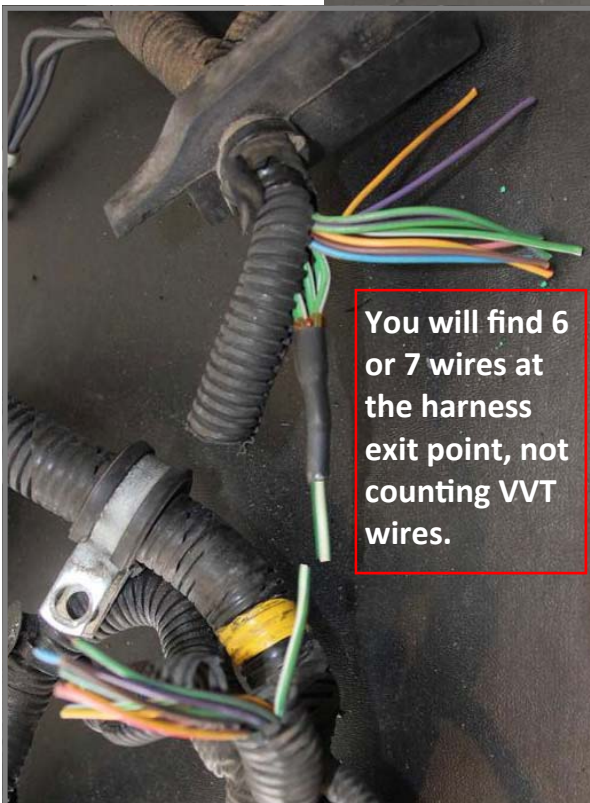
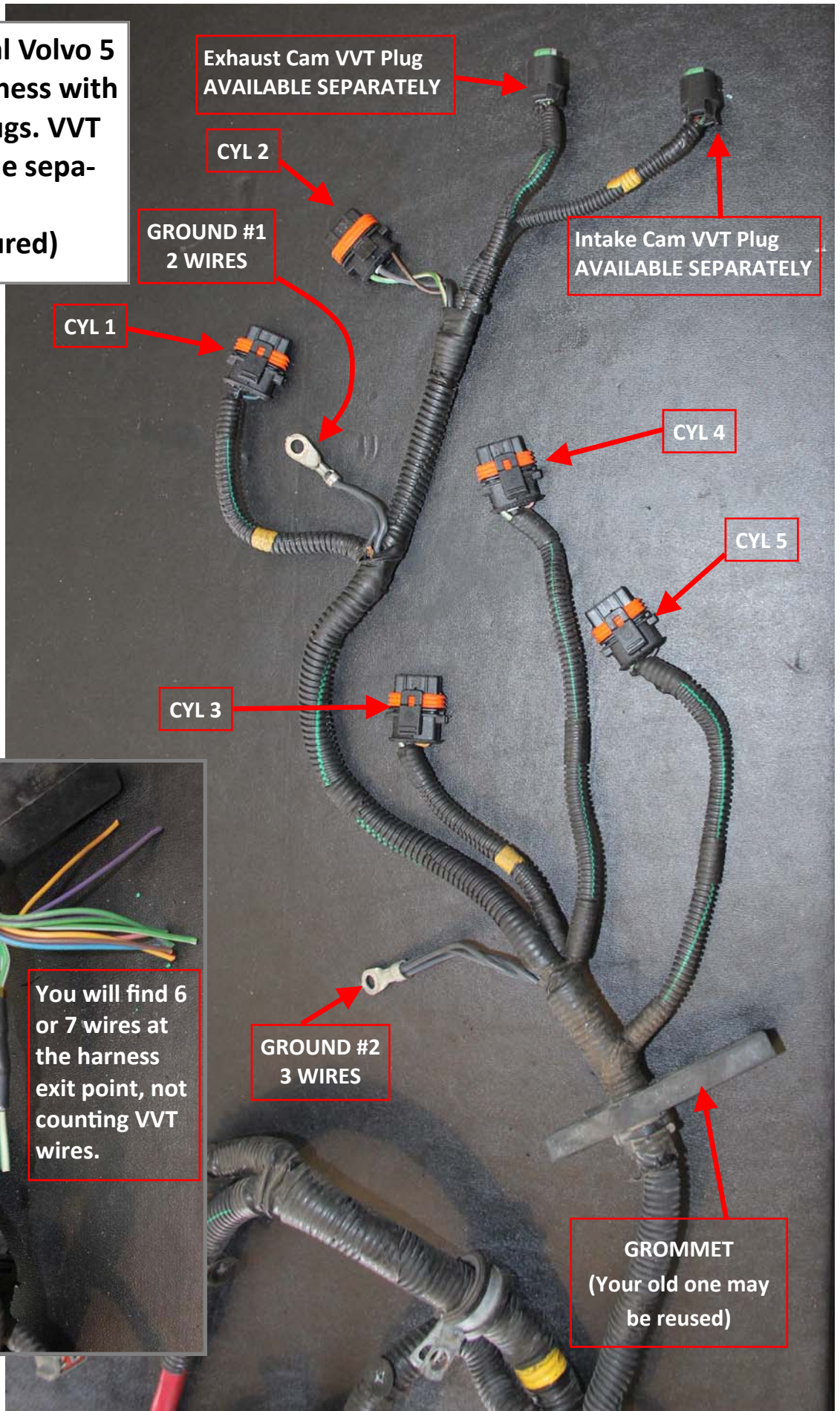
IMPORTANT: PLEASE READ ALL DIRECTIONS BEFORE STARTING.

The below photo will offer a view of an original '99 to '07 Volvo 5 cylinder Volvo coil harness section. The cylinders are shown in numerical order with Cylinder 1 being nearest the timing belt. The routing of this harness to each coil is important to create a good fit with as little strain as possible. This new coil repair harness uses the same routing, which is illustrated in detail by the bottom image.

There is a rectangular rubber grommet on the right side that seals the top cover. You may reused your original grommet. It should be secured to the new harness using a plastic zip tie, just like it was done originally. The proper placement for the grommet needs only to be made for a good fit between the head and top cover. A fluid-tight or air-tight seal is not necessary. No sealant is used.



Here is an original Volvo 5 Cylinder Coil Harness with Two Cam VVT Plugs. VVT plugs are available separately. (2004 Turbo pictured)



You will find 6 or 7 wires at the harness exit point, not counting VVT wires.



When preparing to cut your original harness, you must first locate the factory splice(s) where FIVE wires are joined to ONE wire. A turbo model will have **one splice**. Non-turbo models will have **two factory splices**. Each splice has FIVE wires into ONE. These splices will be in the harness bundle a few inches to the outside of the rubber grommet.

Your cut should be on the ONE wire before the 5-wire splice. **Do not cut the FIVE wire bundle**. The other cuts for all the other single wires can be in the same general area as your first cut. Your cuts should be about 3 to 6 inches outside of the engine or grommet. The original coil harness bundle will have SIX wires (for Turbo models) or SEVEN

wires (for non-turbo models), not including any VVT or CVVT wires if you have them.

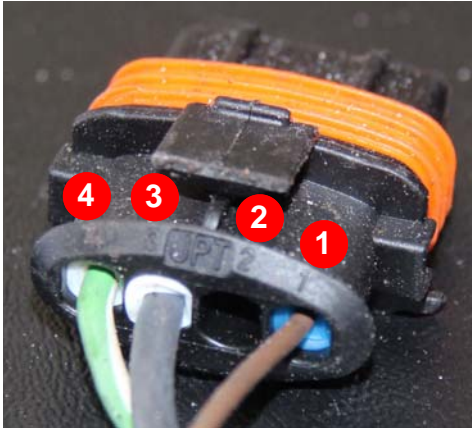
VVT or CVVT: If your car is equipped with plugs for **Variable Valve Timing**, there will be TWO additional wires for each VVT plug. Some cars will have one plug, some will have two. These plugs and wires are NOT included in the coil harness repair kit, however they are available separately if needed. You may reuse your old VVT or CVVT plugs and wires if you want.

NOTE: There are BLACK ground wires in the harness that go from each coil plug to the ground ring terminals. **These wires do not exit through the grommet**, so you will NOT need to deal with them when splicing.

Before beginning the re-splice operation, first place the supplied heat-shrink tubing over the harness wires, so that it can later be slid over your splices and heated to shrink. Then you may begin to match up wires by color and splice them using the supplied crimp terminals. The next page will show the colors of each connector.

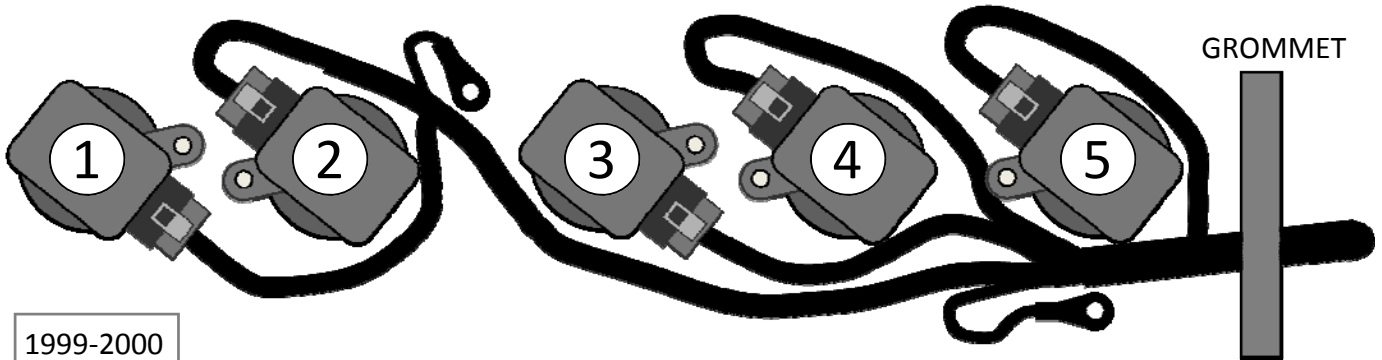
If you have a 1999-2000 model, your car **wire colors will be different** from this harness, however it will fit. You will need to carefully connect the wire colors in the proper order using the guide on page 6.





Each of the coil connector plugs has FOUR poles.
 Turbo models will only have THREE wires (plug pictured).
 The wire color order is shown below for each coil plug.

If you find any wire colors that are different from the below information, please contact Dave Barton, dbarton@linkline.com.



1999-2000

CYL 1

1. YEL/BLK
2. YELLOW
3. BLACK
4. RED

CYL 2

1. ORG/BLK
2. YELLOW
3. BLACK
4. RED

CYL 3

1. BLU/BLK
2. YELLOW
3. BLACK
4. RED

CYL 4

1. GRN/BLK
2. YELLOW
3. BLACK
4. RED

CYL 5

1. YEL/RED
2. YELLOW
3. BLACK
4. RED

NOTE: In **Turbo** models Pin 2 (Yellow) is empty on all plugs.

CAUTION: This repair harness uses the below wire colors and wiring order.
 Careful planning must be done when using this harness to repair a 1999-2000 model.
 See guide on page 6 for 1999-2000 models.

2001-2007

CYL 1

1. BLUE
2. RED/WHT
3. BLACK
4. GRN/WHT

CYL 2

1. BROWN
2. RED/WHT
3. BLACK
4. GRN/WHT

CYL 3

1. YELLOW
2. RED/WHT
3. BLACK
4. GRN/WHT

CYL 4

1. PINK
2. RED/WHT
3. BLACK
4. GRN/WHT

CYL 5

1. VIOLET
2. RED/WHT
3. BLACK
4. GRN/WHT

NOTE: In **Turbo** models Pin 2 (Red/White) is empty. This wire may be ignored in these cases.

Special Information for 2004-07 S60R and V70R

This repair harness directly fits all listed models, **except for the 2004-07 'R' models**. The 'R' uses a slightly different coil and slightly different coil plug, however this repair harness can be made to fit with a simple small fix to the harness plugs supplied with this kit.



The small difference in the two coils is illustrated to the left. There are two slots on the bottom that are in a different position (slightly closer together on 'R' coils).

SIMPLE FIX:

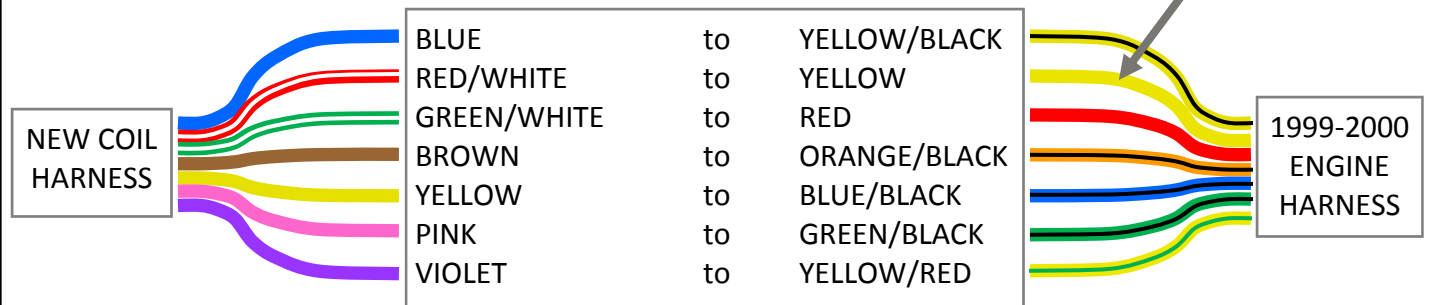


First remove the orange seal so it does not get damaged. Using a sharp hobby knife or sharp box cutter, trim the two raised rails (bottom of plug) shown above until they are flat. Be careful to avoid cutting yourself. Then replace the seal. This is all that is needed to make these fit.

Special Information for 1999-2000 models

If you are installing this harness in a 1999-2000 model, the below guide will help you to match up the proper wire colors between your engine and the new repair harness.

NOTE: 1999-2000 non-turbo model shown. **Turbo** models will not have this Yellow wire.



1999-2000

CYL 1

1. YEL/BLK
2. YELLOW
3. BLACK
4. RED

CYL 2

1. ORG/BLK
2. YELLOW
3. BLACK
4. RED

CYL 3

1. BLU/BLK
2. YELLOW
3. BLACK
4. RED

CYL 4

1. GRN/BLK
2. YELLOW
3. BLACK
4. RED

CYL 5

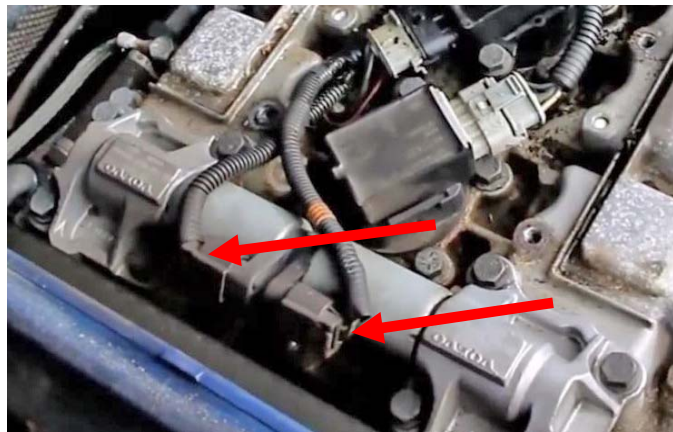
1. YEL/RED
2. YELLOW
3. BLACK
4. RED

This section will show the camshaft VVT or CVVT connectors related to the Variable Valve Timing system. These connectors are not found on all cars and are not included in the basic Coil Repair Harness kit. They are available separately if needed.



These are located near the timing belt end on the engine. Some (early) cars do not have these.

<<< Some cars will have ONE connector, however there are two different types of connectors that may appear. More info below.



<<< Some will have TWO connectors (for Intake and Exhaust Cams). More info below.



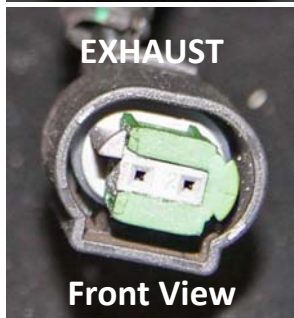
Front View

Here are the style of plugs for all cars with TWO VVT connectors. The intake and exhaust plugs are slightly different so they cannot be mixed up and plugged into the wrong place.

- INTAKE PLUG
1. Green/Gray
 2. Red/Yellow



REAR VIEW
(Cable End)



Front View

- EXHAUST PLUG
1. Green/Gray
 2. Green/White

Here is the information for cars with only ONE connector.



SINGLE PLUG Type 1

This plug is a bit larger than other plugs. There is information that suggests this plug came on the following Volvos.

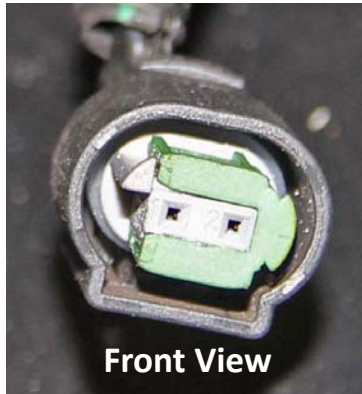
V70 up to chassis number 171000.

V70XC up to chassis number 48000.

S60 up to chassis number 92352.

WIRE COLORS

1. Green/Gray
2. Red/Yellow



SINGLE PLUG Type 2

This is a smaller plug. It should be found on cars outside the above chassis numbers.

WIRE COLORS

1. Green/Gray
2. Red/Yellow

Reusing your old VVT plugs and wires.



You may reuse your old VVT plugs and wires if they are still serviceable. You will need to remove the wires from the old wire bundle. This kit includes 3 feet of vinyl harness tubing (1/4 inch diameter) that may be used to protect your old VVT wires if needed.