Whenever the airbags in a VW or Audi have deployed, crash data is stored in the airbag controller and cannot be cleared. In order to restore the car to proper operation, the airbag controller must be replaced. This Ross-Tech-Tip will describe the procedure for coding a brand new airbag controller in many recent VW vehicles. (Most Audi models use different procedures.) As with all diagnostics and repair procedures, you should consult a Factory Repair Manual for the vehicle being serviced.

A word of caution: The controllers in VW/Audi cars have an electro-mechanical switch that deploys the airbags, somewhat like the hammer and trigger on a gun. This switch cannot be “re-cocked” and you should stay far away from any who claim to be able to “reset” (re-cock) a used airbag controller. The liability of pre-mature deployment or the failure to deploy would result in severe consequences to your business.

Step 1: Find and resolve problems with the airbags or the airbag igniters prior to installing a new controller.

Step 2: Install the new controller.

Step 3: Code the module.

New airbag controllers from the factory often contain a Soft Coding of all zeros and must be coded once they have been installed in the vehicle. The factory scan tools use “Guided Fault Finding” to assist technicians in the coding of these controllers, but most aftermarket scan tools do not provide such assistance. VCDS, while not using “Guided Fault Finding”, can offer a suggested coding for the module under test as shown in Figure 1. This is a best guess suggestion and may not be the correct coding. If it is not correct, the controller should simply refuse to accept it and the coding will remain at 00000.

Accept the suggestion from VCDS and enter the value in the “Software Coding” box. Click “Do It”.

Figure 1

Figure 2

If the existing WorkShop Code (WSC) is all zeros, you may need to enter a WorkShop Code before the module will accept the new coding - anything non-zero like 12345 should work for the WorkShop Code. (The Workshop code is used to identify the dealership that modified the coding of the module. The WSC is issued by the manufacturer of the car to their authorized service centers. VCDS does not require a WSC to operate but some specific modules may require a non-zero WSC to permit the recoding of the module.)

In cases where VCDS cannot automatically determine a coding suggestion, VCDS allows manual entry of an “Index” to get the suggested coding. See Figure 2. The Index is part of the “complete” part number for the new airbag controller. This part number and index can be found on the box of the new airbag controller, the invoice/order form for the airbag controller, or the stickers on the controller as shown in the adjacent photo.

On some airbag controllers there are two stickers. Use the part number from the sticker that has the part number followed by a slash. The Index/color code is the number with a leading zero following the slash. From the example photo, the part number is: 1C0-909-605-F /01E. The Index/color code is 01E so enter 1E into the Manual Index Input field as shown in Figure 2.

VCDS will give a Suggested Coding of 12613 when “Suggest” is clicked. This value then gets entered in the “Software Coding” box as described above.