Mooifery Products

SCV Kit for the DCI

The installation portion of these instructions are written for DCIs sold after January 2020 and using our "SCV Wiring Kit". Older DCIs already have the gray wire but you will need to extend it and splice into the VSS (vehicle speed signal) wire.

IMPORTANT – Complete the SCV installation and test it **BEFORE** you change the SCV levels in the DCI. We test the SCV function on every DCI before it is packaged so we know it works. You will save troubleshooting time if you don't mess with the programming until after you verify the factory SCV settings are working, which also proves your VSS connection is good.

Installing the SCV Wiring Kit

- 1. Referring to the photos below, remove the passenger access panel (AP1) or the shelf assembly (AP2). The AP1 panel is held in with six snap-clips, one at each corner and two more at the top and bottom center. The AP2 shelf is held in with one center screw and two removable plastic rivets, one on each side, plus 8 snap-clips around the perimeter.
- 2. After inserting the SCV Kit gray wire into the DCI connector as shown in the photo to the right, run the other end of the wire behind the passenger dash to the Convertible Top Module as shown in photo 3.
- 3. Photo 3 Separate the wires on the right connector of the Convertible Top Module and look for a white/black wire on the bottom row of wires. 4. Photo 4 - Unscrew the black cap of the Posi-Tap and slip it over the
- Note orientation of terminal
- white/black wire and screw the red body of the tap up tight against the wire. Remove the red cap from the Posi-Tap and slip it over the end of the gray wire as shown. Pull the pre-cut insulation off the end of the gray wire. Double over the stripped wire and insert it into the end of the Posi-Tap, then screw the red cap on finger-tight.

NOTE - If the white/black wire has been cut (to allow the top to be operated while the car is moving), be sure to put the Posi-Tap on the *harness* side of the wire, not the wire that goes into the Convertible Top Module.



Photo 1 - AP1 snap clip locations

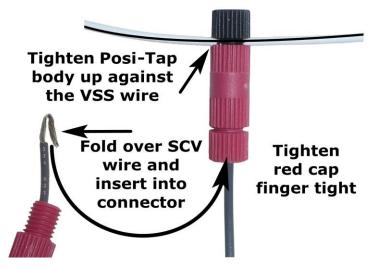
Photo 3 – Convertible Top Module and Speed Signal Wire



Photo 2 - AP2 Shelf attachment points

Photo 4 – Make the connection:





The SCV Feature Details

The SCV (Speed-controlled volume) feature operates by measuring vehicle speed and raising and lowering the volume at pre-programmed speeds that are stored in the DCI. The DCI has 14 "levels" of volume boost so you're sure to find one that suits your preference. Actually, you get to choose 2 levels and switch between them any time – just hold the MODE button and tap CH to toggle between the two SCV levels. Most users use the second SCV level to assign a more aggressive volume setting for Top Down driving. The DCI will remember the setting you last used until you change it. If you want to completely disable the SCV function, don't connect the vehicle speed sensor wire to the DCI or choose Level 0 as one of your two SCV settings and disable it via the MODE + CH buttons.

For all SCV levels the first Volume Up occurs at 15 mph. Subsequent Volume Ups are at different speeds depending on what SCV level you choose. Looking at the below chart you can see that higher SCV settings provide more frequent volume adjustments. The spacing between volume adjustments is called the 'interval', which is measured in mph. Higher SCV settings use smaller intervals, which provide more volume boost as you speed up.

AP2 Note – The speedometer signal is slower on AP2 vehicles so your volume steps will be farther apart. I believe the first Volume Up command occurs at 18 mph instead of 15 mph on the AP1.

Note: Even though the chart only shows three "Volume Up" commands the DCI will continue to raise the volume no matter how fast you go. Default settings are shown with a gray background. Very old (before 2010?) DCI-2 software revisions prior to .316 only have SCV levels 0 to 8.

| SCV Level | Interval | First Volume Up | Successive Volume Ups | | SCV Level | Interval | First Volume Up | Successive Volume Ups |
|--------------|---------------------------------|--------------------|--------------------------|--|--------------|----------|--------------------|--------------------------|
| 0 | SCV OFF – No volume adjustments | | | | | | | |
| 1 | 29 mph | 15 | 44, 73, 102 | | 8 | 11 mph | 15 | 26, 37, 48 |
| 2 | 25 mph | 15 | 40, 65, 80 | | 9 | 10 mph | 15 | 25, 35, 45 |
| 3 | 21 mph | 15 | 36, 57, 78 | | 10 | 9 mph | 15 | 24, 33, 42 |
| 4 | 19 mph | 15 | 34, 53, 72 | | 11 | 8 mph | 15 | 23, 31, 39 |
| 5 | 17 mph | 15 | 32, 49, 66 | | 12 | 7 mph | 15 | 22, 29, 36 |
| 6 | 15 mph | 15 | 30, 45, 60 | | 13 | 6 mph | 15 | 21, 27, 33 |
| 7 | 13 mph | 15 | 28, 41, 54 | | 14 | 5 mph | 15 | 20, 25, 30 |

The default programming is set for SCV levels 4 and 6 with level 4 being active when you first install the DCI. If you want to change these settings see the programming instructions on the next page. The 14 settings for the SCV function work pretty much the same - the only difference is how closely spaced the volume changes occur. It is easier to understand if I describe one setting in detail, and I'll use the '6' setting in my example.

When the DCI determines that vehicle speed has reached 15 mph, it sends one VOLUME UP command to the head unit. At every succeeding interval of 15 mph (for the '6' setting) it will send an additional VOLUME UP command, so that by the time you reach highway speeds (60 mph) the volume will have been increased 4 times. (15, 30, 45, and 60 mph)

As you slow down, the volume will be reduced, and if you were to stop, the volume will return to its initial setting. The difference is that when slowing down, the VOLUME DOWN commands occur at different speeds than when you speed up. There is a good reason for this, as I'll explain.

Let's assume you are driving on the Interstate at 60 mph. The volume will have been increased 4 times, at 15, 30, 45, and 60 mph. As you cruise at 60, it would be annoying if every time your speed wavered between 59 and 60 mph the volume lowered and then increased again. So the DCI was designed to wait till your speed slows significantly before dropping the volume. It must see the speed drop by 1/2 of the speed 'interval' before it makes a volume adjustment. In this example, the speed interval is 15 mph, so the volume will not decrease till you slow below 52.5 mph (half of 15 is 7.5). The effect is that if you are cruising at 60 mph, you will need to either speed up to 75 or slow down to 52 before a volume change occurs, which eliminates annoying volume changes if your speed varies just a little.

Bear in mind the DCI checks vehicle speed about once a second, so if you accelerate quickly you may notice the volume adjustments lag a little behind. Don't be concerned, it will catch up within a second or two and adjust the volume appropriately.

Programming the SCV Settings

Overview:

There are 15 levels of SCV compensation, numbered 0 through 14, where 14 is the most aggressive volume adjustment and 0 disables SCV completely. You can program any two levels of SCV compensation and toggle between them anytime you want by holding MODE and tapping the CH button. Most owners will set a more aggressive SCV level for top-down driving and a lower setting for top-up or hard top use. (Note that you must change levels manually – the DCI has no way of knowing when you put the top up or down). You can also set one of the levels to 0 so you can conveniently turn SCV off using the MODE + CH button combination.

From the factory, SCV levels 4 and 6 are programmed into the DCI so it will work as soon as you install it. You do not need to perform the SCV programming procedure unless you want to change the SCV levels. I suggest using the DCI with the factory settings to get a feel for how it works before you try changing them.

The programming procedure is initiated via a special power-on sequence, after which you use the dash switches to set and save the two SCV levels you want to use. The programming process is fairly simple because it is "interactive"; using the HU display to indicate which SCV level you are setting. Refer to the SCV chart on the previous page to determine which two SCV settings you want to use, then program them using the following procedure.

Procedure: Do NOT attempt to program the SCV levels while driving

- 1. First make sure the DCI is installed and working correctly. Note: It's easier to verify your programming is correct if you leave the "Tap-n-Press" dip switch OFF, at least the first time you set the SCV levels.
- 2. Turn the ignition to ACC, change Sources on your HU to FM radio mode, and set the volume to minimum (zero).
- 3. Turn the ignition OFF.
- 4. Hold the dash MODE button depressed and turn the ignition to ACC (this activates Program Mode).
- 5. Wait a second, and then release the MODE button.
- 6. Do NOT press any dash buttons or HU controls until the HU has finished powering up.
- 7. Once the HU is booted, press the dash Volume Up switch once and verify the HU changes volume and the display indicates the volume level is "1". Each time you press Volume Up the DCI sends a Volume Up command and also increments the internal SCV level, so the volume displayed on the head unit keeps step with the DCI SCV setting. You can use Volume Up and Volume Down to adjust the volume anywhere between 0 and 14. During Program Mode you cannot select a volume setting outside this range because it's not a valid SCV value.
- 8. Continue pressing the Volume Up or Down buttons to set the volume indicator to your first SCV level. Once you have selected the SCV setting you want, press the MODE button one time. The HU will change AM/FM bands (or in some cases the Preset Station) as an indication that the first SCV level was accepted and saved to memory.
- 9. Now use the Volume switches to set the second SCV level and press MODE to save it. The HU will again change AM/FM bands (or Presets) and then exit Programming Mode.

If you made a mistake or want to change the SCV levels, just repeat the Programming steps.

Notes and Hints:

- 1. Head units with smaller volume steps (the HU volume goes beyond 35) will likely require more aggressive SCV settings, try Level 9 or above.
- The above instructions say the HU will change AM/FM Bands when you save the SCV level (by pressing MODE). In actuality the HU will perform the command normally assigned to the CH button so check your DCI manual to see what command is performed.
- 3. You can re-program the SCV levels any time you want, as often as you want.
- 4. Do NOT press and hold the Volume switches during Program Mode. The DCI will repeat volume commands very quickly and the HU may not reflect the true SCV setting. Adjust the volume in single steps to be sure the HU stays in step with the counter in the DCI.
- 5. During Programming Mode the dash MUTE switch is active, so don't press it. In some cases it will prevent Volume commands from working and the HU will not correctly indicate the SCV level you are setting.
- 6. The SCV level is not saved till you press MODE, so it doesn't matter how many times you change the volume between 0 and 14. All that matters is where it's set when you press the MODE button to save it.
- 7. If you have one of those silly head units that does not indicate volume levels or does not display single steps you will have to count the number of times you hit Volume Up to know which SCV level you are setting. Just remember that Program Mode always starts at level 0, and after you set the first SCV level it remains at that level (does NOT return to 0) and you should adjust it up or down from there to select the second SCV level.
- 8. If SCV doesn't work check the connection to the VSS wire, this is the problem 99% of the time. If you are certain that is good then set the SCV levels back to 4 and 6 (like factory) and see if it works. I don't remember a single case where the DCI worked but SCV didn't, as long as it had a good connection to the speed signal.