

The installation portion of these instructions are written for DCIs sold after January 2020 and using our "SCV Wiring Kit". If you have an older DCI with a gray wire in the DCI harness you will have to supply your own materials 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 white/black wire and screw the red body of the tap up tight against the wire. Remove the red cap from the Posi-Tap, then pull the insulation off the end of the supplied 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 2 - AP2 Shelf attachment points

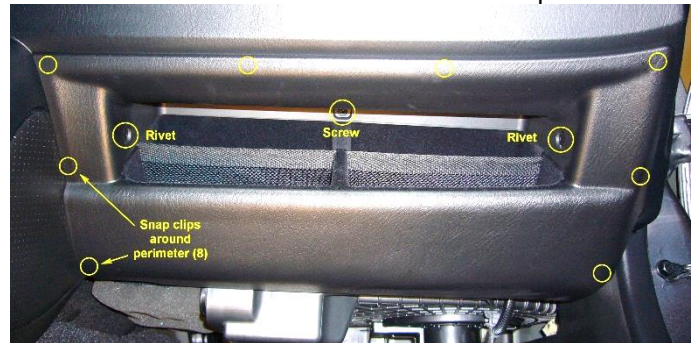


Photo 3 - Convertible Top Module and Speed Signal Wire

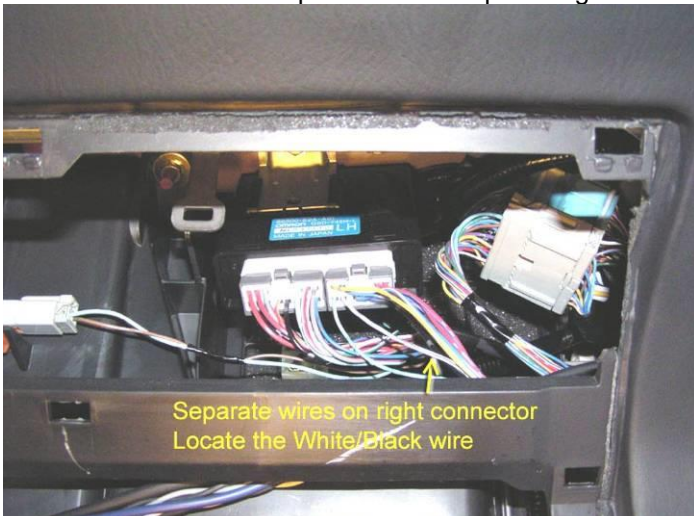
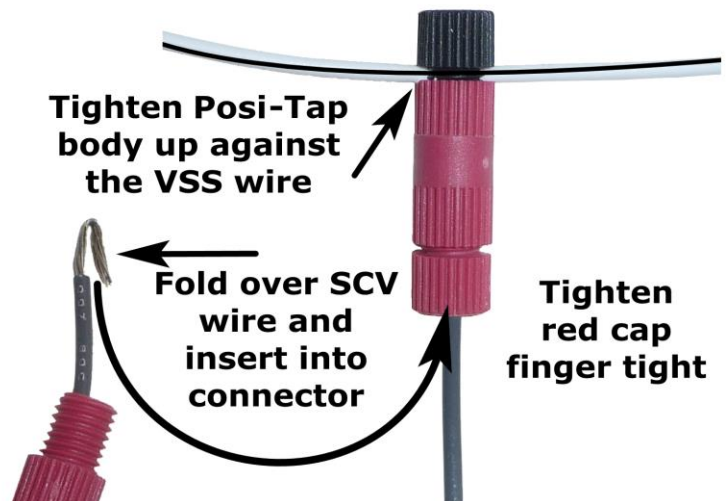


Photo 4 - Make the connection:



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.

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 on Joying Head Units

Overview:

There are 15 levels of SCV compensation, numbered 0 through 14, where 14 is the most aggressive volume adjustment and 0 represents no volume adjustments. 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, assuming you've made the connection to the vehicle speed signal as described in page one. 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. Also, before programming the SCV levels you must have already programmed the MODE, MUTE, and Volume Up and Down dash controls using their normal functions.

1. First make sure the DCI is installed and working correctly.
2. With the ignition OFF, press and hold the dash MODE button and turn the ignition to ACC or ON, then immediately release the MODE button (this activates SCV Program Mode).
3. Wait for Joying to finish powering up and do NOT press any dash buttons at this time.
4. Once the Joying is booted, USING THE JOYING DISPLAY select an audio source and reduce the volume to zero (touch the speaker icon on the top right of the LCD and drag the volume slider to zero).
5. Now set your first SCV Level (see chart on page 1). Press the dash Volume Up switch once and verify the Joying 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 Joying reflects the SCV Level in the DCI. Use Volume Up and Volume Down to adjust the volume, one step at a time, to your first SCV Level. anywhere between 0 and 14. During SCV Program Mode you cannot select a volume setting outside this range because it's not a valid SCV value.
6. Once your first SCV Level is displayed, tap the MODE button one time. The Joying will mute the volume for one second and then unmute and restore the previously set volume. This indicates the DCI has saved your first SCV level.
7. Now use the Volume switches to set the second SCV level and tap MODE to save it. The Joying will again cycle mute on and off to indicate the second SCV Level is saved.
8. Turn the ignition OFF to exit SCV Program Mode.

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

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.
2. You can re-program the SCV levels any time you want, as often as you want.
3. Do NOT press and hold the Volume switches during Program Mode. Adjust the volume in single steps to be sure the Joying volume display stays in step with the counter in the DCI.
4. During SCV Programming Mode the dash CH switch is active, so don't press it.
5. The SCV level is not saved till you tap MODE, so it doesn't matter how many times you change the volume between 0 and 14 while setting your SCV Level. All that matters is where it's set when you tap the MODE button to save it.
6. **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.