

# Installing the Audiovox CCS-100 Cruise Control.

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Cruise Control : Audiovox CCS-100 (\$89)

Webpage : [www.summitracing.com](http://www.summitracing.com)

## Message:

I've installed three of these now.

The first one on a Kawasaki Concours, the second one on my Kawasaki Vulcan Nomad 1600, and now this one on my wife's V-star 650.

## Misc. Stuff that's Needed:

- 1/8" Tap (pipe thread)
- 5/16" drill bit
- 2 - brass 3/16" nipples
- 1 - Napa one-way vacuum check valve part number 2-970

## Issues Noted during Installation:

- The switch is not waterproof.
- You'll need to relocate your tool pouch because you won't be able to get it out after you install the servo.
- Since this unit was designed for a car, it takes time to manufacture the mounting hardware for use on a motorcycle.
- Of course to do all of this you had to take off the tank, and seats and speedo, but you probably already figured that out.

One guy had you taking apart the switch and putting silicon inside it. Another guy had us just put silicon around the backside to keep water from entering. That's all I did on all of mine. It's too tricky to take it apart and keep the silicon off sensitive areas. I haven't ridden any of them in the rain, so I don't know how waterproof the switch is, nor how much difference it actually makes.

**Important! :**

- On the servo, you need to take off the little black jumper on the left side of the dip switches, and set the first and last dip switch to "on" and all others to "off". This programs it for our motorcycles.
- Take the cover off the back of the servo and leave it off. The reason is, after you get it hooked up, you might want to see the red LED on the back of servo so that you can troubleshoot it (the red LED should light when you have the ignition switch on and press either the "set", the "resume" or the brake lever (after turning on the cruise control switch main switch)). If you put the cover back on when you install the wiring harness, you won't be able to get at the back of the servo to take out the two screws so that you can see it.

**Location:**

As you can see, the servo fits nicely into the side cover area. (2553)



## The Hardware:

You can see where I drilled the holes to mount the bracket. (2566, 2567)

You'll have to bend the bracket to fit and reposition it on the servo (the extra holes are already there on the servo to move the bracket).

Just bend it until it lays flat on the back of the plastic box.

You'll have to unbolt the two bolts that hold the plastic box in place to work on it.



I made the hole in the front of the box (where the servo cable goes through) way too large, but I wasn't sure what angle it would be at when I installed it, so I kept cutting it bigger so the cable wouldn't be bent too sharp. (2565)



I ran the servo cable along the top frame under the tank, around the front cylinder and into a bracket (that came with the unit) that I cut off to fit.

I attached the bracket to the screw on the air cleaner, but you really have to do a lot of grinding on the bracket to get it to fit the area so that it will lay flat and tighten up with the screw.

You'll see what I mean when you put a piece of metal or bracket up to that hole. It's not flat, so I used a moto-tool to cut slots in the bracket and a grinder to grind it down smaller so that it would fit in that area.



I used the long "cable" and no bead chain to connect to the throttle. (2560)  
First take off your throttle grip and release the "pull" cable (the front one) so you can remove it from the carb lever.  
Then put the cable end over the throttle cable end and re-insert it, then re-assemble your throttle.



Hook the ball on the end of the long cable (there are two or three cables in the kit, use the long one) to one of the bead chain connectors (you have to spread it first) and then close it back up. (2563)



Spread the other end and hook it to the servo cable and then using your pliers, close it again.  
Ok, now you have the servo all hooked up.  
You'll need a vacuum canister, which you can buy at JC Whitney, or make one from PCV pipe (2") with caps. (2554, 2555)



Drill two 5/16" holes in the pipe, tap(1/8") them and insert brass 3/16" nipples for your vacuum hose. (2568)



Hook the black of the Napa one-way vacuum check valve end up to your engine vacuum and the blue end to your canister.  
I disconnected the emissions cannister from the cylinder number one intake.  
I then uncapped the vacuum tap on the number two cylinder intake and connected the two together with a "T" (from the kit) and the connected the remaining end of the "T" to the black end of the check valve. (2556)  
The other nipple on your canister gets connected to the servo (drill a whole in the bottom of the black box to run it in).



## Wiring:

Drill a hole in the top of the black box to run the wiring harness out.

I'd suggest you take a roll of electrical tape and tape it up first.

Leave the black ground wire out of the tape and also leave the purple and red wires out of the taped area about 8" or 10" up from the servo.

You'll want them near the servo so you can cross them over the bike to the right side and hook the black wire directly to the negative side of the battery.

The purple wire connects to the yellow brake light wire and the red wire connects to the blue wire which is hot when the key is on.

The rest of the harness you can run along the left side of the frame, using wire ties to tie it off.

Leave the blue wire out of the harness as you get to the front cylinder (so you can hook it to the front coil), or you could use the back cylinder coil.

You can make a little "Y" harness out of spade connectors (female on one end, and male on the other two ends) to join the blue wire to the coil.

Use the grey wire on the front coil or the orange wire on the rear coil.

**Do not use the red/black coil wire or it will not work!**

The main harness will join the connector for the handlebar-mounted switch (tape the wires from the switch so when you wire-tie it along the handlebars it will look good).

Take the headlight out and run all the wires, excess wire from the harness, etc into the headlight area. There you can find a wire (not your headlight wire) that is hot when the key is on (I think it's a blue wire) that you'll hook the orange, fused wire to, and also the gray wire that lights up the switch.

The black wire you can connect under a screw in the headlight nacelle.

Make sure you don't have any LED tail light or brake light (it won't work if you do).

OK, now the wiring is all done.

## Final Checks:

OK, turn on the key and the cruise control and check that your red LED lights at the proper times mentioned above. If it doesn't, you need to find the problem.

You could also check your voltages in the troubleshooting section of the manual, just to be sure everything is OK before reassembling the bike.

Now it's time to reassemble the bike and test drive it.

Enjoy your new cruise control!

