

Nissan 350Z 6MT

OEM Cruise Control Install Guide



Author's Base 2006 350Z

Author's Note!

This guide is intended for all 350Z 6MT base models that did not come with OEM Cruise Control from the factory(2003 - 2008). The following modifications made to your car will require your ECM to be reprogrammed by Uprev's software and subsequent load of a custom ROM file to enable CC functionality on your Base model 350Z. To do this you will need to contact a local performance shop that is a licensed Uprev dealer/installer. This is the single largest cost of the install and the price will vary depending on the Uprev dealer/installer. After you have finished installing all the necessary hardware and software, your gauge cluster indicators for cruise control will not light up, however cruise control WILL still work. For the cluster indicator lights to function, the base model cluster needs to be swapped with one from a 350Z trim package that included cruise control from the factory. This procedure is not covered in this guide since the indicator LEDs are not required for cruise control functionality, but I may do a write up in the future.

Disclaimer: The author of this guide is not responsible or liable for any damage or void of warranty of the owner's vehicle. The author is also NOT responsible for any bodily injury resulting from the procedure outlined in this guide. Proceed at your own risk! Should you doubt your capabilities to move forward with the install, contact a qualified technician for assistance.

Reasons for Having OEM CC

The number one reason for having OEM cruise control on your 350Z is the ability to change between different MAPs or Profiles associated with an Uprev Tune. Currently, Uprev has designed their ECM software to only support the use of the OEM cruise switches to achieve this. For example, you could have one MAP/Profile setup for track use, specifically tuned for 100 octane fuel and another MAP/Profile setup for everyday driving on 91 octane. Using the CC switches will allow you to transition from one profile to another on the fly. No more hooking up a laptop to your OBD2 port to change profiles!

The second reason is of course being able to actually utilize cruise control the way it was intended (which really isn't that often).

Required Tools

- 1) Tamper Proof Torx bit set (T30 and T40 required)
 - A T40 torx bit is required, but does not need to be tamper proof.
- 2) Philips head screwdriver.
- 3) Basic socket/ratchet set + Spanner/wrenches.
- 4) Small flat head screwdriver.
- 5) 19mm Socket

Also Recommended

- 1) Electrical tape.
- 2) Small/Mini Zip ties.
- 3) Magnetic Wand.
- 4) Scissors or hobby knife.
- 5) Blue Loctite.
- 6) Sharpie/Permanent marker.
- 7) Precision wire cutters.

Parts required for installation:

- 1) Brake Switch, Nissan P/N: 25300-AT300 (approximately \$22)
- 2) Clutch Switch, Nissan P/N: 25300-62JOE (approximately \$28)
 - Use 25300-Z33005 on courtesyparts.com
- 3) Steering Wheel radio + cruise switches, Nissan P/N: 25550-CF40A (approximately \$55)

Note: All of the above parts can be purchased from courtesyparts.com and should be compatible with any year 350Z/Z33.

- 4) Uprev license/software and ROM file. Must be obtained from a licensed Uprev dealer/installer.
 - This is the single largest expense. Check with a local dealer or Uprev Directly for pricing info.
- 5) Two M6-1.0 x 16mm bolts. Recommended for replacing the two airbag retaining bolts, but not required.

Pre-Install Knowledge/Tips

Before beginning the installation, make sure you have all the needed tools/hardware to complete the job. Also make sure you park the car with the steering wheel centered and the windows rolled down. Rolling down the windows will prevent you from damaging the door glass. The 350Z automatically cracks the windows whenever you open the door to provide clearance and air evacuation when closing the door. If you leave the windows rolled up when you disconnect the battery, they won't crack when the door is opened, thus damaging the glass or the upper sill panel.

This procedure will require you to remove the driver's front airbag for proper removal of the steering. Exercise extreme caution during these steps.

If everything is prepped and ready, this should take approximately 45 minutes to complete.

Note: Please excuse the minor consistency problems with the photos, I was swapping out my existing steering wheel with a newly wrapped one. So the audio/cruise switches were already installed. However the procedure outlined is the same either way.

Let's Begin!

Step 1:

Lower both your windows and then disconnect the negative terminal on your battery. Pump the brake pedal a few times to drain any remaining electrical power. (Always a good practice when tinkering with sensitive electrical components in your vehicle).

Step 2: Installing the brake pedal switch

A) If you look under your steering column at your brake pedal, you will notice a black plastic slot just below an electrical plug (Figure A). Install the brake switch here (25300-AT300). Insert to the appropriate depth for proper switch contact when there is no pressure on the brake pedal, then twist to lock. Pump the brake to ensure proper switch engagement, re-adjust if necessary.

B) Locate a brown connector in the wiring harness near your pedals, it should be near/above the brake pedal. The brown connector wrapped to your existing wiring harness will plug into this switch. Peel back or cut the electrical tape holding back this plug and connect to your brake pedal switch. This plug will be part of the same loom as the white connector shown in Figure A.

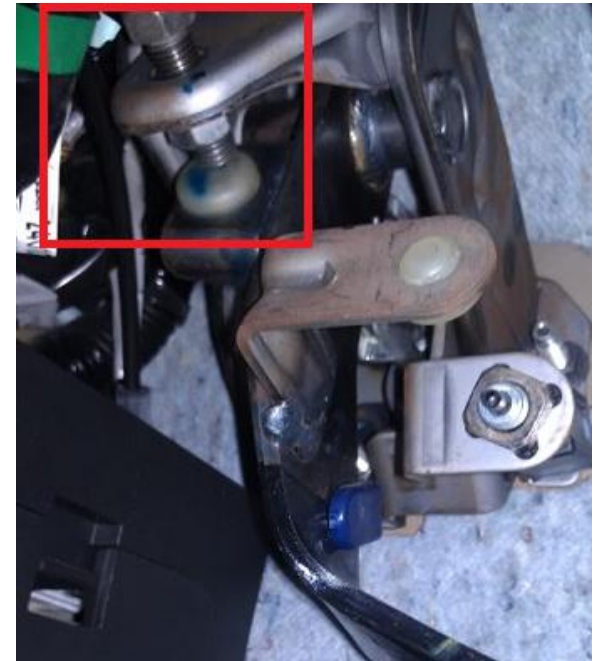
(25300-AT300)



(Figure A)



(Figure A)



Step 3: Installing the Clutch Pedal Switch

A) At the upper left side of the clutch pedal there should be a travel stopper bolt/nut (see Figure A). Remove this and replace it with your clutch switch (25300-62JOE). Make sure to adjust the depth of the switch so that proper contact is made with the stopper pad when pedal pressure is released. Test the fitment by pushing the clutch pedal in and releasing. Make sure the switch is firmly in place. I would recommend using some blue loctite to prevent this switch from coming loose over time due to daily use/operation.

B) Locate the blue connector tucked above the clutch pedal. You may need to cut or remove some electrical tape that is securing this connector to your existing wiring harness. Plug this connector into your clutch pedal switch (see Figure B).



(Figure B)

Step 4: Removing the Driver's Side Front Airbag, steering wheel, and installing new switches!

WARNING, the following steps involve the removal of the driver's front airbag. Extreme caution should be exercised. **DO NOT PROCEED ANY FURTHER WITHOUT MAKING SURE THE BATTERY IS DISCONNECTED!**

A) Remove two caps/bolt covers on each side of the steering wheel housing (see Figure A1), one on the left and one on the right. This will expose the tamper proof T30 torx bolts that hold the airbag in place (see Figure A2). Unscrew the bolts and be careful not to strip them.

(Figure A1)



(Figure A2)



B) Once the bolts are removed, GENTLY pull the airbag out of the steering wheel (see Figure B). Be very careful not to pull fast/hard as this could damage the airbag's electrical connections.

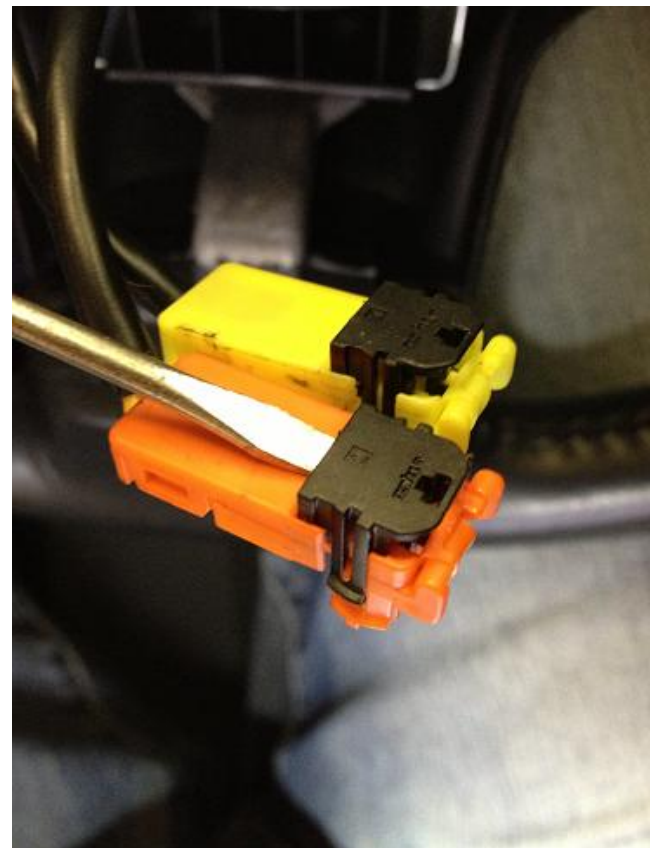
C) Use your small flat head screw driver to unclip the center black piece of these plugs. This will allow you to safely disengage the plug from the airbag (see Figure C).

D) Put the airbag somewhere safe in the meantime and don't drop it!

(Figure B)



(Figure C)



E) Next remove the green wire and blank plastic plug connected to the wiring harness visible on the left side of the wheel nut (see Figure E).

F) Unhook the Airbag wiring from the steering wheel (see Figure F). The outer shielding for my wiring was ripped/torn from the retaining hook and normal operation. I applied some electrical tape to seal it back up.

(Figure F)



(Figure E)



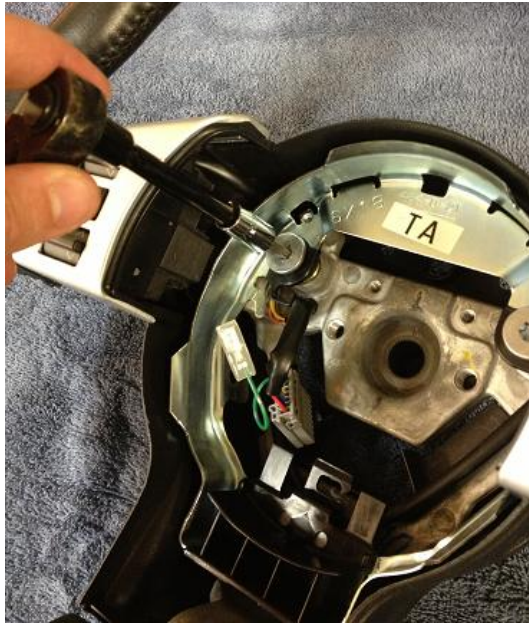
G) Use a sharpie to make an alignment mark on both the column stem and wheel for easy re-alignment later (see Figure G). Note: Nissan marked both the stem and wheel already, but it's better to be safe than sorry.

H) Remove the center retaining nut (19mm) and give the wheel a good shake/pull and it should break free relatively easily. If not, a puller can be used.



(Figure G)

I) Now that the steering wheel has been removed, it's time to break out the T40 torx bit and remove the horn/airbag ring (see Figure I).



(Figure I)

J) Next remove the Philips head screw at the bottom center of the steering wheel (see Figure J).

(Figure J)

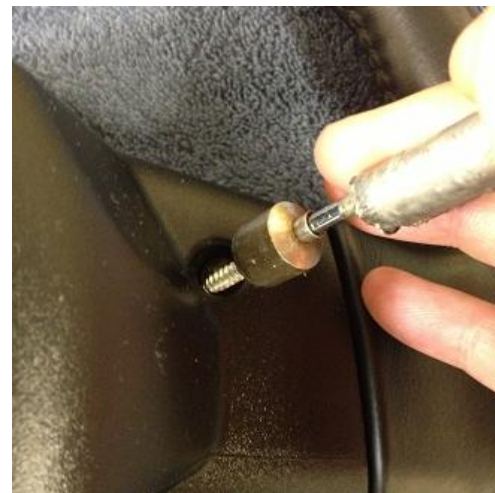


K) Flip the steering wheel over and remove the other two Philips head screws on the back side (see Figure K1).

Tip: The Magnetic wand works great here. (see Figure K2)



(Figure K1)



(Figure K2)

L) Lift off the plastic housing to expose the remaining two Philips head screws holding on front switches (or blank covers). Replace the covers with your new audio/cruise switches (25550-CF40A).



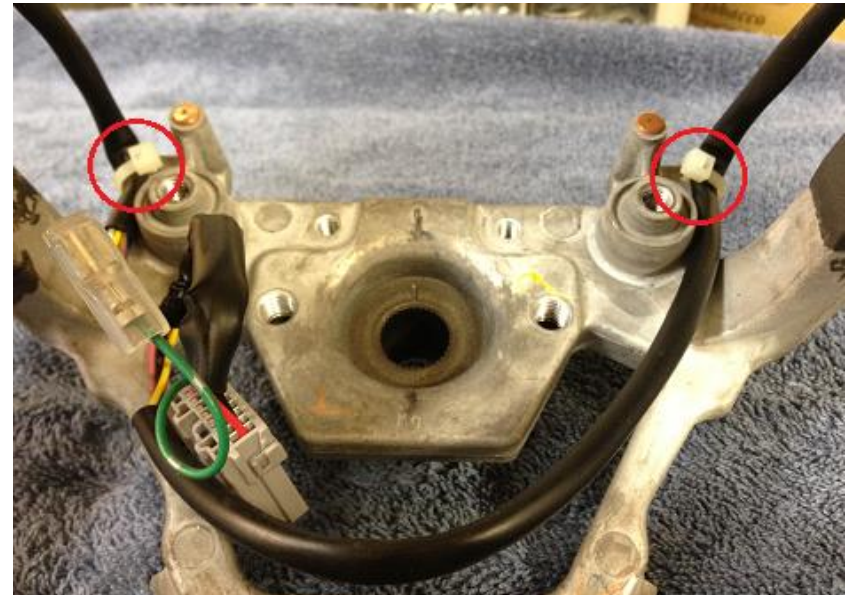
(Figure L)

M) Next route and secure the wiring so it doesn't interfere with the horn plate or airbag. Use small zip-ties to secure the wiring as shown in Figures M1 and M2.

(Figure M1)



(Figure M2)



N) Reinstall the horn plate, if the T40 torx screws are lacking loctite, refresh them. Bottom out the screws and make them firm, don't over torque them! Once done, it should look like this.

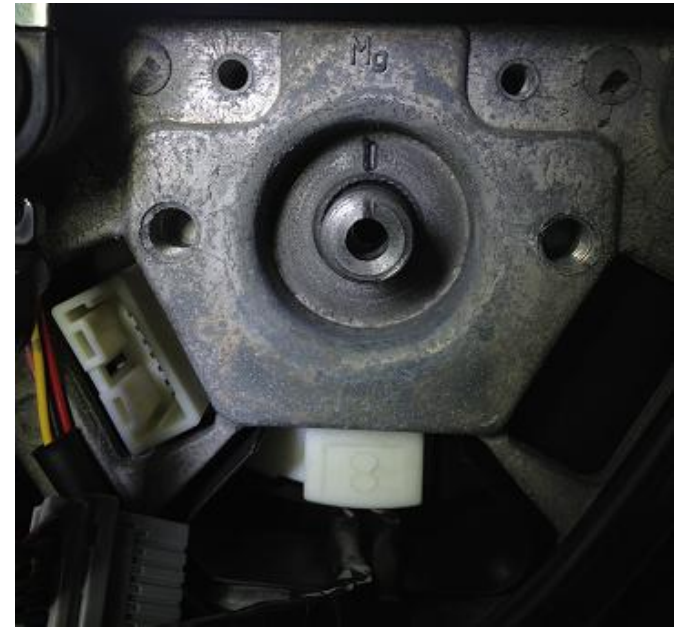


(Figure A)

Step 5: Re-installing the steering wheel

A) Run the airbag cables through the wheel and make sure the slip ring/wiring harness is aligned correctly with the steering wheel cut out (see Figure A).

B) Luckily Nissan already made proper marks for alignment! Make sure you line up the steering wheel marking with the shaft marking (see Figure A).



C) Next, I recommend using a zip-tie to secure the airbag cables in their retaining hook. This should prevent possible damage to the wiring/shielding from normal use (see Figure C).



(Figure C)

(Figure D)

D) Plug in your audio/cruise switches and reconnect the green wire. Don't forget to route the main bundle through the retaining hook directly above (see Figure D).



(Figure E)

E) Now you're ready to re-install the 19mm retaining nut, torque it down good and tight (see Figure E). Follow this up by reconnecting the airbag and placing it back into the wheel.



F) Reinstall the T30 torx bolts or replace them with the two M6-1.0 x 16mm bolts to make it easier to remove the steering wheel in the future.

G) Re-install the bolt covers and reconnect your battery. The hardware side of the install is now complete.



Step 6: Get your Uprev ECM flash done!

If you already have an Uprev Tune/flash, then call Uprev and tell them the year of your Z and that you want to enable the factory cruise control. They should be able to get you or the shop the required ROM file to finish the process.

Post Install Notes

- 1) Your audio controls should work perfectly immediately after the install (assuming you have a factory head unit).
- 2) The audio/cruise switches are backlit. Turn on your headlights to confirm they are functioning.
- 3) Once you have the vehicle's ECM re-programmed, you will have full cruise control functionality. HOWEVER, you will not have working cruise indicator lights in your gauge cluster. Unfortunately Nissan sold the base model 350Zs with gauge clusters lacking these LEDs. They also didn't include the proper firmware/micro-code for the gauge cluster to utilize these LEDs even if you attempt to solder them onto a Base model cluster.

In order to have cruise indicator functionality, the entire gauge cluster board will have to be replaced with a 350Z model/trim that came with cruise control. The mileage reading is also stored in the cluster's memory, so this too will have to be re-programmed to match your current mileage. I've seen reprogramming costs range from \$50.00 to \$150.00+ depending on the shop, so call around for the best price. Note: It is illegal to misrepresent the odometer reading of your vehicle!

A used cluster can be picked up for around \$100.00 from a wrecker or parts dealer. However you must determine if the cluster came from a 350Z with cruise control. The installation process of the new cluster is lengthy and delicate. This guide does not cover it since most individuals prefer to avoid the trouble and just continue on without the indicator LEDs. I myself have replaced my cluster and the indicators work perfectly. I may do a detailed guide in the future.

- 4) For additional information, check the DIY section on my350z.com or to reach the thread directly, use the link below:

<http://my350z.com/forum/audio-video-and-electronics-diy/548121-diy-06-base-with-cruise-control-using-uprev-oem-parts.html>

**Major credit to ian99rt , e30cabrio, and all those involved with pioneering this DIY from the Z forums.
Thanks you guys!**