

C5 Corvette

Includes: 1997-2004 Corvette, 2001-2004 Corvette Z06

N2MB WOT Box Installation Instructions

NOTE: If you have a CDI (capacitive discharge ignition system) please contact us at support@n2mb.com for additional instructions. Damage to your WOT Box can occur if the installation is not completed correctly!

WARNING: Spark-based rev-limiters can damage catalytic converters. If you have catalytic converters on your car, N2MB accepts no responsibility for damage caused by the WOT Box. This being said, many successful installs have been made on Catalytic-Converter equipped vehicles. Damage usually is only caused by using the launch-control feature for more than a few seconds, but once again, **USE AT YOUR OWN RISK IF YOU HAVE CATALYTIC CONVERTERS!**

Please visit our website at <http://www.n2mb.com> for the latest version of the WOT Box software and installation instructions.

Solder all joints. The N2MB recommended soldering method is available at <http://www.n2mb.com/soldering>. Use a multimeter to verify all wires before they are cut or tapped into. The colors of wires from model year to model year may differ, and may be different on your car from those described in these instructions. Where discrepancies are known, they are described, but there may be more discrepancies than those listed. The best way to know that you have the right wire is to check the connectivity to the ECU and/or sensor at the pins described.

In these instructions, pictures include other aftermarket alterations in addition to the WOT Box. N2MB is not affiliated with these devices. In addition, if you see something that isn't in your vehicle, don't worry.

Route wires in the manner that you want them to lie permanently before connecting them. Cut wires to length before soldering; avoid coiling wires of excessive length as they can cause noise in the circuit, altering the operation of the WOT Box. Spending some extra time here will enhance the aesthetics of the install. Zip ties are included to secure the wires away from heat, moving parts, sharp edges, or anything else that can damage the wires.

Included in the WOT BOX kit:

- WOT Box
- Wiring harness
- USB to Serial Converter for future software upgrades
- Ground lug
- Zip ties
- Heat shrink tubing

You will need:

- Wire Strippers/Crimpers
- Soldering Iron or Station
- Metric Socket Set
- Sandpaper
- Heat Shrink (if more than is included in the kit is needed)
- Electrical tape
- Vehicle Jack
- Zip Ties (if more than is included in the kit is needed)
- Razor Blade or Sharp Knife
- Multimeter or Ohm Meter
- Screwdriver
- Wire coathanger or similar object
- RTV or Hot Glue (optional)

WOT Box Wire Color	Vehicle Wire Color @ Device	Vehicle Wire Color @ Controller	Description	Pin @ Device	Controller	Pin @ Controller
Blue	Dark Green	Dark Green	Accelerator Pedal Position Sensor	K	Throttle Actuator Control Module	C1-K
Yellow	Purple	Purple	Ignition Coil #1 Signal	C	PCM	C2-26
Green	Grey	Grey	Cruise Control Clutch Switch (Clutch Deactivation Switch)	A	PCM	C1-35
Red / Black Pair	Pink	Pink	Ignition Coil Power	D	Underhood Bussed Electrical Center	A6 AND E2
Black, Single	n/a	n/a	Ground	n/a	n/a	n/a

Figure I: Wiring Chart For 1999-2004 Models

WOT Box Wire Color	Vehicle Wire Color @ Device	Vehicle Wire Color @ Controller	Description	Pin @ Device	Controller	Pin @ Controller
Blue	Dark Green	Dark Green	Accelerator Pedal Position Sensor	K	Throttle Actuator Control Module	C1-K
Yellow	Varies	Purple	Ignition Coil #1 Signal	C	PCM	49
Green	Grey	Grey	Cruise Control Clutch Switch (Clutch Deactivation Switch)	A	PCM	68
Red / Black Pair	Pink	Pink	Ignition Coil Power	D	Underhood Bussed Electrical Center	A6 AND E2
Black, Single	n/a	n/a	Ground	n/a	n/a	n/a

Figure II: Wiring Chart For 1997 and 1998 Models

Notes for ALL MODELS:

- 1) **The ignition coil power wires connect to pin D on each coil, but this information is only for wire identification- the splice must not occur here. At the UHBEC (fusebox), there will be 2 pink wires, one on pin E2 and one on pin A6. These two wires must be cut, the RED WOT Box wire of the RED AND BLACK PAIR connected to BOTH of the wire ends that lead to the fusebox, and the BLACK WOT Box wire of the RED AND BLACK PAIR connected to BOTH of the wire ends that lead to the coils.**

- 2) **There are two sensors on the clutch pedal. The correct one is the one that trips (changes voltage) at the top of the clutch travel (as soon as the clutch is pushed in). The other one won't trip until the bottom of the clutch travel (when the clutch is pushed all the way down.)**

- 3) **For 1999-2004 vehicles, the PCM Connector with the RED inner cover is the C2 Connector.**

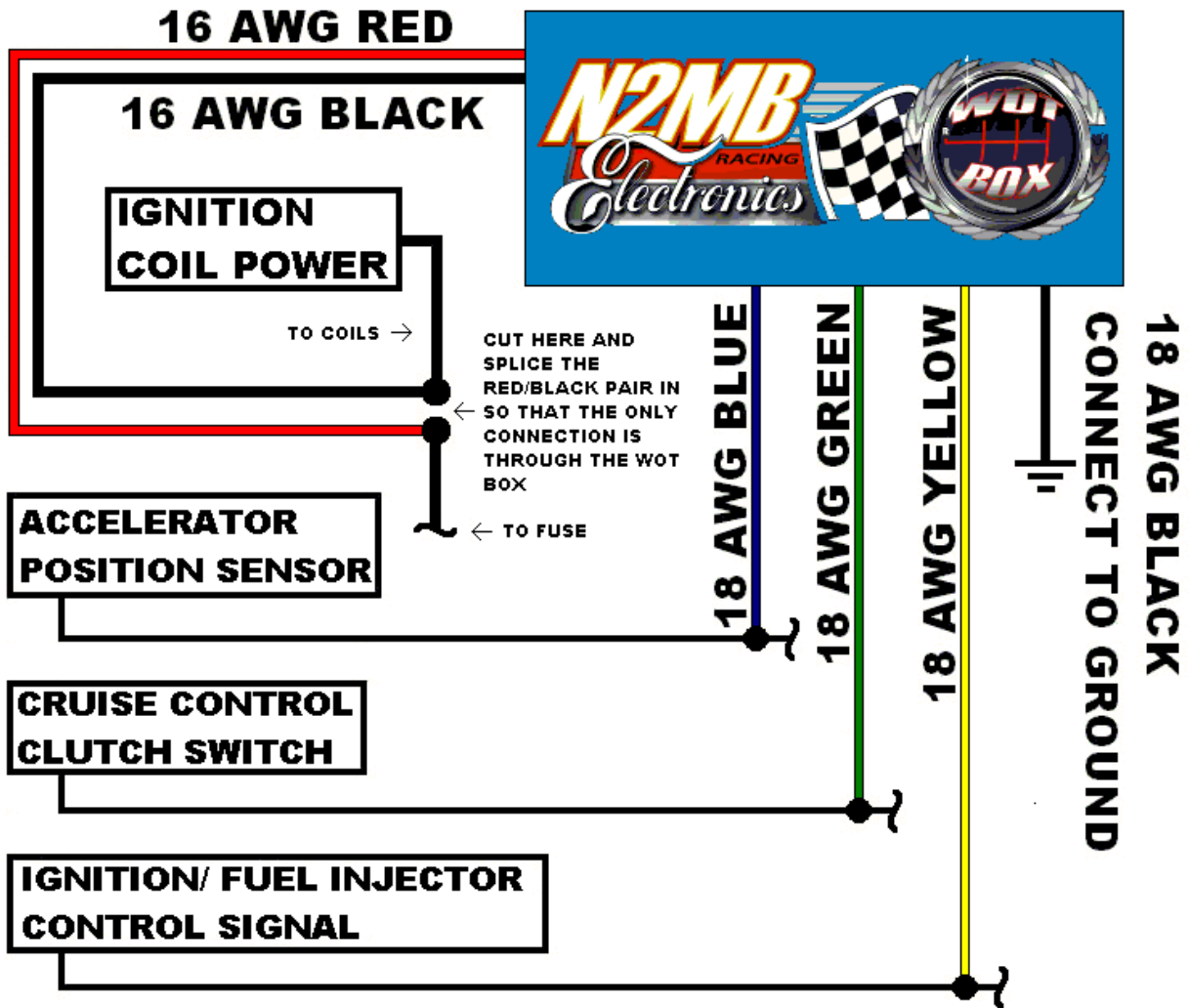


Figure III: Installation Diagram

1) Open the hood. Disconnect the 12V battery and remove it.

2) Find a good place to mount the WOT Box. The WOT Box needs to be in the passenger cabin, and should be accessible in order to facilitate future software updates. The location indicated above the hood release works well. Tape the WOT Box connector securely to your selected location, and DISCONNECT THE WOT BOX.

2)



3)

3) Route the GREEN WOT Box Wire to the clutch pedal bracket, ensuring to secure the wire out of the way so that it doesn't interfere with normal operation of the pedals.

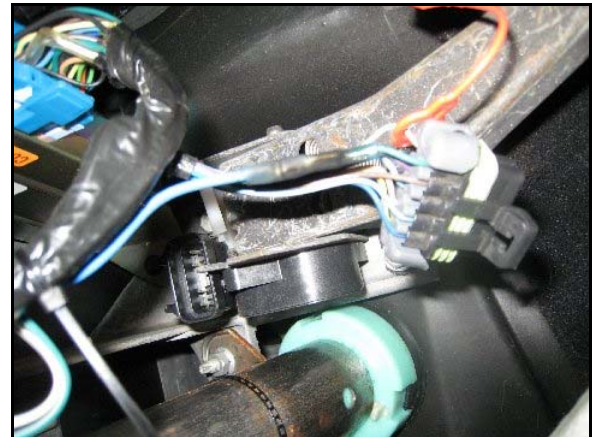


4)

4) Cut the GREEN WOT Box wire to length and splice it into the GREY Cruise Control Clutch Switch wire. Use the N2MB Recommended Soldering Technique available at www.n2mb.com/soldering.



- 5) Route the BLUE WOT Box Wire to the accelerator pedal bracket, ensuring to secure the wire out of the way so that it doesn't interfere with normal operation of the pedals. Unplug the Accelerator Pedal Position Sensor Plug. Cut the BLUE WOT Box Wire to length and splice it into the DARK GREEN Accelerator Pedal Position Sensor Wire.



- 6) Find a good chassis ground; this location works well. Route the SINGLE BLACK WOT Box Wire to the location that you have chosen for ground, cut the wire to length, strip approximately ¼" off of the end, and crimp the included ground lug onto the bare copper. Remove the bolt, slip the eyelet over the bolt, and reinstall securely.

Note: If your chosen ground has a painted surface, you may need to remove the paint on the area that the ground lug comes into contact with to ensure a good ground connection to bare metal.



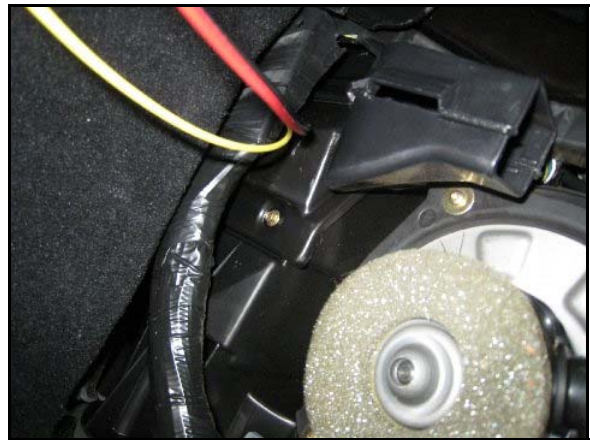
- 7) Run the YELLOW WOT Box Wire and RED AND BLACK WOT Box Pair behind the dashboard to the passenger side cabin footwell.

7)

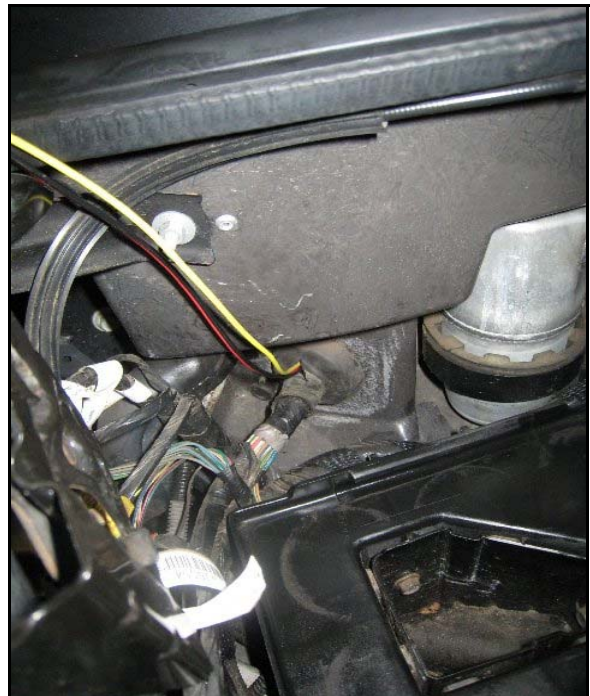


- 8) Above the passenger side footwell, there is a grommet through which a wiring harness runs. Using a coathanger or similar object, poke a SMALL hole in the grommet, and run the YELLOW WOT Box Wire and RED AND BLACK WOT Box Pair through the hole.

8)



Note: Make sure that the hole is just large enough for the wires to fit through. If the hole is too large, water may enter the passenger cabin. If you are concerned about this, a small amount of RTV sealant can be applied to the hole at the location where the new wires pass through to re-seal the grommet.



9) Remove the UHBEC (Fusebox) located on the passenger side of the engine bay. Locate the PINK wires on pins A6 and E2. Route the RED AND BLACK WOT Box Pair to this location. Cut BOTH PINK Wires, ensuring that you have enough room to connect them to the WOT Box Wires. Connect the RED WOT Box Wire of the RED AND BLACK PAIR to the BOTH ends of the PINK Wires that lead to the UHBEC (Fusebox) connector. Connect the BLACK WOT Box Wire of the RED AND BLACK WOT Box Pair to BOTH ends of the PINK Wires that lead away from the UHBEC (Fusebox) connector. In all splices, use the N2MB Recommended Soldering Technique.

9)



10) Reinstall the UHBEC.

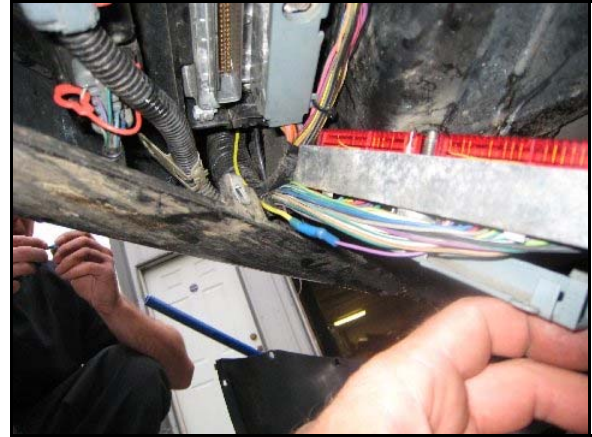
11) Jack up the vehicle, remove the passenger side front wheel, and remove the rear portion of the wheel well cover. Locate the PCM, and remove the C2 PCM Connector (the one with the red inner cover.) Note: For 1997 and 1998 vehicles, there won't be a C1 and C2 connector. One connector will have a purple wire on pin 49, and one will have a yellow wire on pin 49. Make sure to use the connector with the purple wire on pin 49.

11)



12)

12) Locate the PURPLE wire indicated in Figure I or Figure II (whichever is specific to your vehicle.) Route the YELLOW WOT Box Wire to this location. Cut the YELLOW WOT Box Wire to length, and splice it into the PURPLE Wire. Reinstall the connectors, the fender liner, and the wheel. Lower the vehicle.



13) Make sure that all vehicle connections that were unplugged during the installation are re-installed. Make sure that anything that was removed during installation is reinstalled.

14) Insert the WOT Box harness into the WOT Box and mount the WOT Box.

15) Reinstall the 12V battery and battery connectors.

16) Test and program the WOT Box as described below.

Troubleshooting - Testing the WOT Box

1. Key on the car but do not start the engine. Press the gas pedal to the floor. You should see the LED on the WOT Box start to rapidly blink. If it does not, check your **APP sensor signal connection (WOT Box BLUE wire)**.
2. Next, with the gas pedal still depressed, press the clutch pedal to the floor. You should see the LED on the WOT Box briefly go out, and then come back on solid for one second and then finally resume blinking rapidly. If you do not see this, check your **Clutch Pedal Position Switch signal connection (WOT Box GREEN wire)**.
3. Next, start the engine. Quickly press the gas pedal to the floor and immediately step on the clutch. You should hear the engine start to rev up, stumble for a short period while the ignition is cut, then return back on and continue revving. Remove your foot from the gas before you hit the rev limiter. The 2-step will not engage if the gas is depressed before the clutch. This is normal. If the engine does not stumble or pause when the LED turns out, then check the **RED/BLACK** paired wire. Verify that the **RED and BLACK 16 AWG** wires are wired facing the proper way. If they are reversed, the ignition cut will not work.

4. Lastly, test the 2-Step. Press the clutch pedal down and then quickly press the gas pedal all the way down. The gas pedal must be floored for the 2-step to engage. The engine should rev up to the desired RPM and hold. If it does not, be sure to remove your foot from the gas before you hit the rev limiter. If the 2-step does not work, check the **WOT Box YELLOW wire**.
5. The WOT Box Graphical User Interface has some inherent troubleshooting capability. If you have access to a laptop, it may be useful for you to download the GUI at www.n2mb.com/wotboxsoftware and follow the instructions there.

Usage

To use the WOT Shift feature, keep your foot fully on the gas and shift quickly using the clutch. Keep the gas fully depressed through the shift. The WOT Box will detect the clutch switch signal and briefly cut the ignition to enable an effortless shift.

To use the 2-Step feature, fully depress the clutch. Next, fully depress the gas pedal to the floor. The engine will rev up and hold the RPM that you have set. Quickly release the clutch while leaving the gas fully depressed to launch the car.

Programming

If your WOT Box was shipped directly from N2MB Racing, it will come set up for your vehicle. If you order a WOT Box from a distributor, it may need to be set to your vehicle before it can be used by using the WOT Box User Interface available at www.n2mb.com/wotboxsoftware. Perform troubleshooting as outlined above first, and if the WOT Box doesn't work, use the WOT Box Software to check to make sure that the settings are correct for your vehicle. Instructions regarding how to do this are on the same website as the software. The user interface may also be used to set WOT Shift kill time and 2-step RPM.

The WOT Box comes preset for an automatic WOT Shift kill time. This means that the WOT Box will automatically adjust the kill time to your shift time, up to a maximum of 350 ms. The User Interface may be used to change this to a preset kill time that doesn't auto-adjust.

The WOT Box comes preset for a 2-step RPM of 4000. The User Interface may be used to change this RPM setpoint.

CONGRATULATIONS!

You have successfully installed the N2MB WOT BOX!

N2MB Racing Limited Warranty

N2MB Racing warrants that all of its products are free from defects in material and workmanship for a period of 1 year from the date of purchase. If an N2MB product is found to be defective within this period, N2MB Racing will repair or replace the product. The choice between these two methods of remedy is made at the sole discretion of N2MB Racing. This shall constitute the sole remedy of the purchaser and the sole liability of N2MB Racing to the extent permitted by law. This warranty is exclusive and in lieu of all other warranties or representations whether expressed or implied. This warranty is limited to the repair or replacement of the N2MB Racing product, and shall never exceed the purchase price of the N2MB Racing product. N2MB shall not be responsible for special or consequential damage or costs incurred as a result of the failure or use of the N2MB Racing Product except as required by law. Unauthorized alteration or repair of N2MB Racing products will void this warranty if the alteration or repair is found to have caused the N2MB Racing product to fail. In the event that a product is warranted, the purchaser shall be responsible for any and all shipping costs.

N2MB Racing reserves the right to improve its products at any time and is at no time responsible for exchange or upgrade of products that were manufactured previously.