Honda Civic EX 1.7L 2001-2005

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, despite what may be shown in these directions. The N2MB recommended soldering method is available at http://www.n2mb.com. 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
- Soldering Iron or Station
- Metric Socket Set
- Screwdrivers
- Sandpaper
- Heat Shrink (if more than is included in the kit is needed)
- Electrical tape
- Zip Ties (if more than is included in the kit is needed)
- Razor Blade or Sharp Knife
- Multimeter or Ohm Meter
- RTV or Hot Glue (optional)

WOT Box Wire Color	Vehicle Wire Color at Specified Connector	Vehicle Wire Color at Device	Description	Pin @ Device	Pin @ Specified Connector
Blue	Red/Black ECU 31p Connector	Red/Black	Throttle Position Sensor	2	A15
Yellow	Yellow/Green ECU 31p Connector	Yellow/Green	Coil Control Signal at Coil #1	1	A30
Green	Light Blue or Light Blue with Grey dots Cruise Control Unit	Light Blue or Light Blue with Grey dots	Cruise Control Clutch Switch	1	14
Red/Black Pair	Black/White C104 Junction	Black/White	Ignition Coil Power	3	Unspec.

The pin marked as “Unspec.” (unspecified) here has a device connector that doesn’t have labeled pins. However, 4 of the 5 Black/White wires go to the coils on their respective pin 3’s, while the other goes to Fuse 1. The one that goes to fuse 1 is the one that must be cut and joined to the Red/Black Pair. The single black WOT Box wire is a ground; it may be connected to any good ground point.

Figure I: Pinout Table

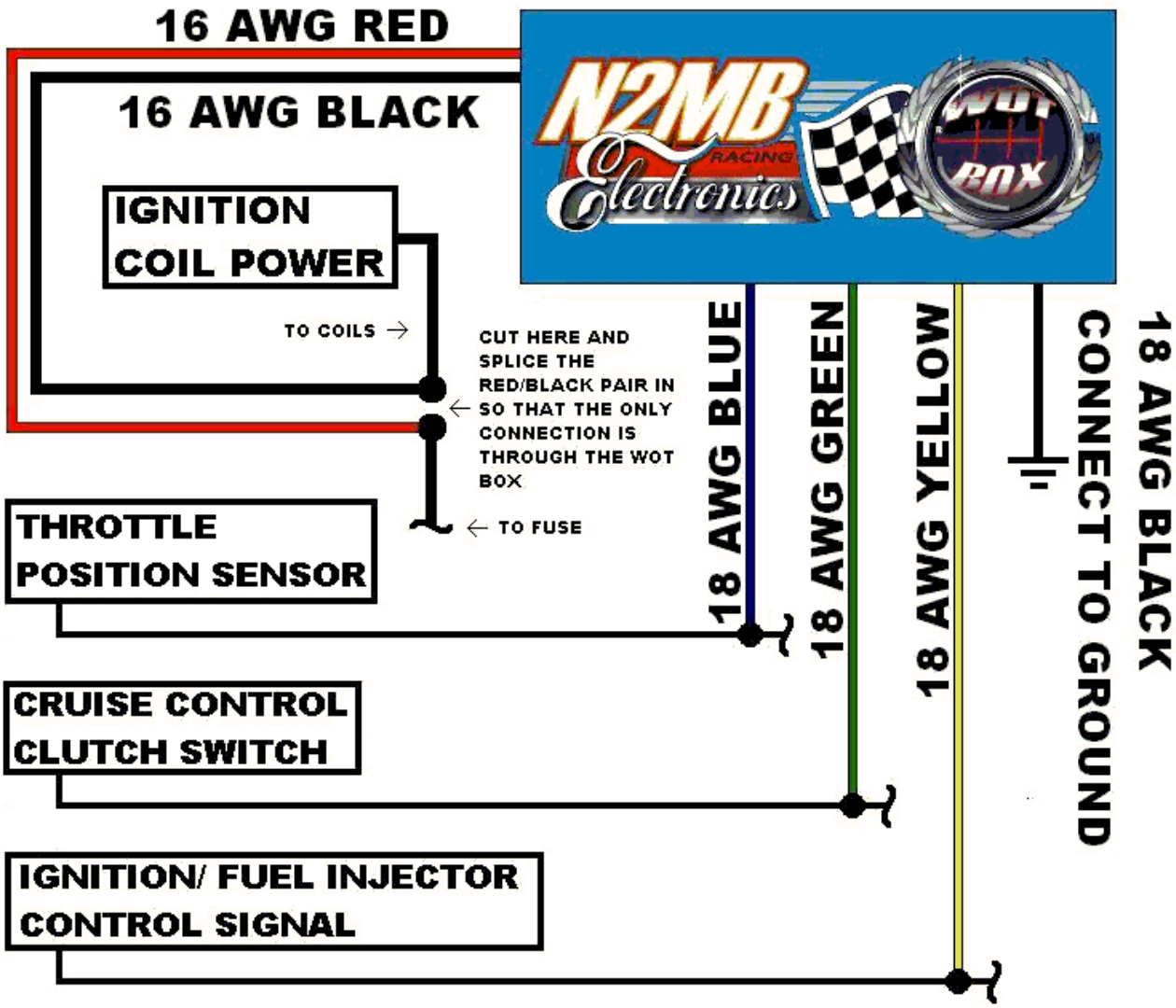


Figure II: Installation Diagram

1) Pop the hood and disconnect the 12V battery negative.

2) Open the glove box. Use a flat-head screwdriver to pry the two securing clips out, and pull the glove box down. Let it hang, but be careful not to damage the hinges.

2)

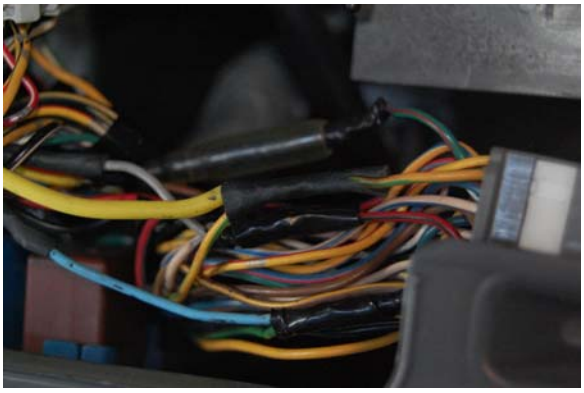
3) Find a place to mount the WOT Box. Ensure that there's room for the connector, then unplug the WOT Box and secure the connector with a piece of tape. Note: you may later need to access the button and serial port, so leave some room around those.

3)

4) Remove the 31p Connector from the ECU (may also be marked "A"). This is the one with a Black/White wire on Pin 1 and a Yellow/Green wire on Pin 30.

5) Splice the **YELLOW WOT Box** wire into the **YELLOW/GREEN** wire on pin 30 of Connector 31p.

5)



6) Splice the **BLUE WOT Box Wire** into the **RED/BLACK** wire on pin 15 of Connector 31p. Here, an extension wire is used, but this may be unnecessary in your vehicle.

6)

7) Locate a good ground location near the WOT Box connector. Usually a sheet metal screw works well. Cut the **Single BLACK WOT Box Wire** to length, strip about ¼" of insulation off of the end, and crimp the included eyelet onto the bare wire.

8) If there is paint or dirt on the ground surface, use sandpaper to clean it. Use the screw to secure the eyelet against the metal.

9) Plug the connector back into the ECU and push the glove compartment back up, securing with the clips.

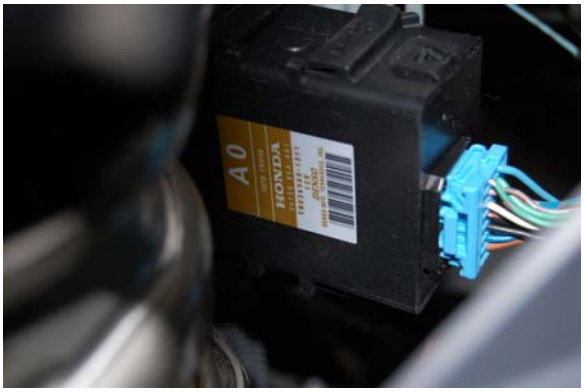
10) Under the drivers' side dashboard, there is a cover secured by two twist-knobs. Twist these to release the cover, and remove it.

11) Under the cover is the Cruise Control Unit. Unplug the Blue Connector.

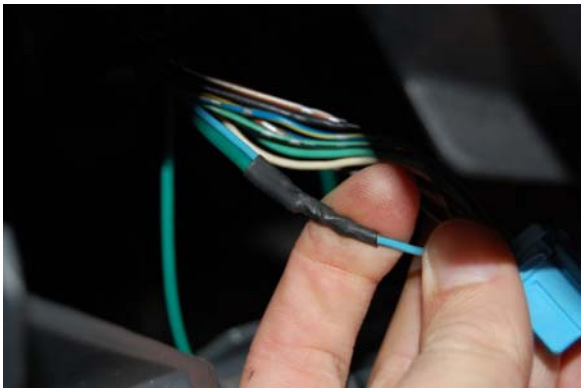
8)

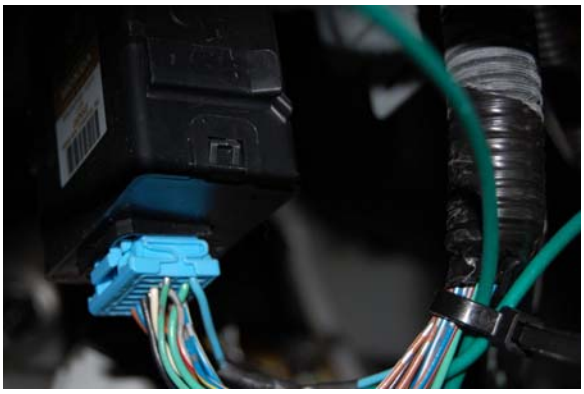
10)

11)



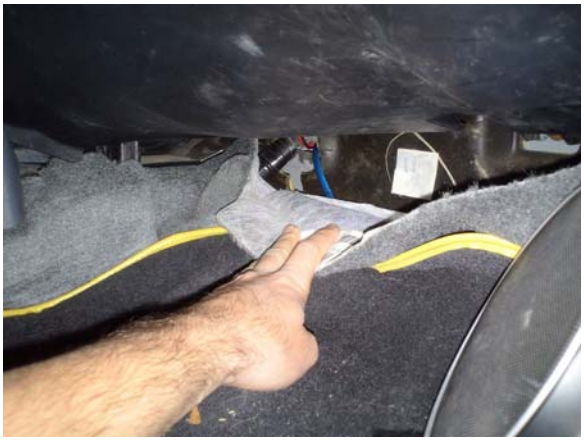
12)





12) Locate the **Light Blue** wire on pin 14 of the CCU connector. Splice the **GREEN WOT Box Wire** into this wire. Reconnect the connector to the CCU. Replace the cover under the dashboard and use the twist-knobs to secure.

13)

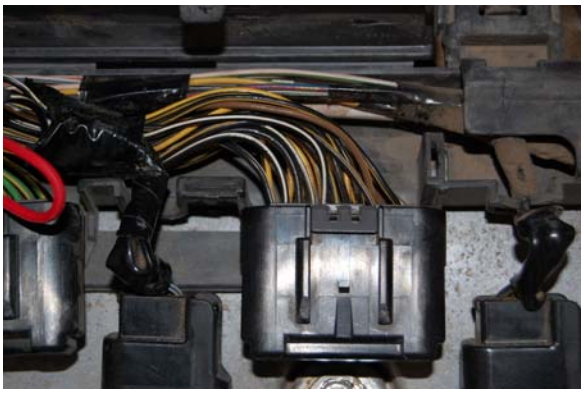


13) In the passenger side foot well, pull up the carpet and locate the firewall pass-through. Pass the **RED/BLACK WOT Box Pair** through this pass-through. Replace the carpet. Under the hood, locate where this pair went through.

14)

14) Under the hood, locate the vanity cover on the top of the engine. Use a screwdriver to unscrew the fasteners and remove it.

15)



15) Remove the plastic loom cover that the coil connector wires go into. On the far right junction, find the far left Black/White wire.

16) Leaving enough room to splice, cut the **BLACK/WHITE** wire and join the **RED Wire of the RED/BLACK WOT Box Pair** to the side going away from the junction, and the **BLACK Wire of the RED/BLACK WOT Box Pair** to the side going towards the junction.

16)

17) Replace the plastic loom covering. Replace the vanity cover and secure with the fasteners.

18) Ensure that all components of the vehicle removed to accommodate installation are reinstalled, then close the hood and reconnect the 12V battery.

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 (there's a lockout at 1500 rpm). 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**.

CONGRATULATIONS!

These tests verify successful installation of the N2MB WOT BOX.

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

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. If you would like manual control over the WOT Shift kill time, start the car and hold down the button on the module and wait for the LED to begin to blink. Using the chart below, find the number of blinks that corresponds to the desired kill time. Setting 0 blinks will disable the WOT Shift feature and setting 1 blink will set the automatic kill time mode. When you have reached the number of blinks that match your desired setting, simply let go of the button. To confirm, the WOT Box will blink back out the setting you entered.

The WOT Box comes preset for a 2-step RPM of 4000. To set the 2-Step RPM, repeat the same procedure described above, but keep the clutch down during the entire operation. This will signify to the WOT Box that you want to set the 2-step RPM and not the WOT Shift kill time. Use the second chart provided below to match up the desired RPM with the number of blinks. Setting 0 blinks will disable the 2-Step feature.

Ignition Cut Time Chart - Set with the clutch UP

Blinks	Ignition Cut (ms)	Blinks	Ignition Cut (ms)	Blinks	Ignition Cut (ms)	Blinks	Ignition Cut (ms)
0	Disabled	6	125	12	275	18	425
1	Auto (default)	7	150	13	300	19	450
2	25	8	175	14	325	20	475
3	50	9	200	15	350	21	500
4	75	10	225	16	375	22	525
5	100	11	250	17	400	23	550

2-Step RPM Chart - Set with the clutch DOWN

Blinks	RPM	Blinks	RPM	Blinks	RPM	Blinks	RPM	Blinks	RPM
0	Disabled	12	4200	24	6600	36	9000	48	11400
1	2000	13	4400	25	6800	37	9200	49	11600
2	2200	14	4600	26	7000	38	9400	50	11800
3	2400	15	4800	27	7200	39	9600	51	12000
4	2600	16	5000	28	7400	40	9800	52	12200
5	2800	17	5200	29	7600	41	10000	53	12400
6	3000	18	5400	30	7800	42	10200	54	12600
7	3200	19	5600	31	8000	43	10400	55	12800
8	3400	20	5800	32	8200	44	10600	56	13000
9	3600	21	6000	33	8400	45	10800	57	13200
10	3800	22	6200	34	8600	46	11000	58	13400
11	4000	23	6400	35	8800	47	11200	59	13600

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.