

B18C1 Swap Guide from <http://www.c-speedracing.com>

Are you looking for more power from your SOHC but hit a dead end? Let's swap that SOHC for a hefty B18C1 from an Integra GSR. The swap is fairly straight forward and is a direct bolt in for all 1992-2000 civics.

*Disclaimer - The information provided here is strictly for informational purposes only. We will not be held responsible for any faulty installations or mishaps related to an installation by following these instructions. You undertake the task at your own risk.



Step 1:
After jacking the car up and placing it on approved jack stands, take off the front wheels and your first order of business will be to work on the underside of the car. Get the hard part taken care of first, and that is removing the axles. Using a punch, make sure you straighten the tab on the 32mm nut before trying to remove it.



Step 2:
Remove the lower fork. There's a 17mm bolt on the bottom and a 14mm on the back.



Step 3:
Pull off the lower fork and set it aside. You'll need to get under the hub and remove the cotter pin on the ball joint and then remove the bolt.



Step 4:
Sometimes it can be difficult to remove the ball joint, so grab a mallet and hit it on the lower control arm where the ball seats. Don't hit the stud, you will mushroom it.



Step 5:
If worst comes to worst, grab a ball joint splitter if you have one. Luckily we did. Once it's off you can pull the hub assembly off of the outer axle. Help it out if you need to by gently hitting the axle with a hammer.



Step 6:
The inner half shaft is sometime more difficult to remove from the transmission. A crow bar of some kind can be used to help pry it out.



Step 7:
Now you can detach the cat from the header and hanger. And while your down there, remove the shift linkage and stabilizer bar. You'll need to swap it out for the GSR counterpart.



Step 8:
To remove the shifter linkage, pull off the snap ring that covers the lock pin with a pair of pliers or a screwdriver, then with the correctly sized punch, hammer out the lock pin from underneath. Don't lose it!



Step 9:
Remove the shift linkage from the chassis. There are 2 12mm bolts. It may be hard to maneuver around the exhaust. A universal joint may come in handy.



Step 10:
Last thing to do under the car. Remove the lower engine mounts on both sides.



Step 11:
Remove the lower engine mount bracket from the block.



Step 12:
Loosen the upper engine mount bolts, but DO NOT remove them.



Step 13:
Remove the clutch slave cylinder. Be careful not to damage the lines. Disconnecting the wiring harnesses.



Step 14:
Make sure you pull the connectors off their posts before trying to disconnect them, otherwise they will not come apart. Then remove the fuel return line from the fuel pressure regulator.



Step 15:
Pull off the vacuum lines from the manifold.



Step 16:
Remove the throttle cable and the ground wires from the starter.



Step 17:
Don't forget the vehicle speed sensor behind the starter. Also remove the coolant lines on the backside.



Step 18:
Remove the line to the oil catch can and your set to pull the motor out.
Make sure you have the engine hoist securely fastened to the motor before completely removing the upper engine mounts.

B18C1 Installation

Now here comes the fun part, we're ready to drop in the B18C1.



Step 19:
Secure the engine hoist to your new B18C1 motor.
Then carefully maneuver it into position inside the engine bay.



Step 20:
Line up the engine with the mounts and bolt them up.
Make sure they are loose enough so that you can adjust the position of the motor. Do not remove the engine from the hoist just yet.



Step 21:
Line up the lower engine mount brackets with their respective locations under the car and bolt up the brackets securely. Once this is done, securely fasten down the upper mounts and you can safely remove the engine hoist at this point.



Step 22:
Reattach the clutch slave cylinder. Careful of those lines!



Step 23:
Reattach the ground wires to the starter and block.



Step 23:
Loosen the steer pump adjustment bolts so you can tension the belt, then tighten down securely. Make sure the bolts are tight.



Step 24:
Bolt the cruise control unit back in its place. And reattach the throttle cable.



Step 25:
Reattach the fuel line to the fuel filter and the vacuum lines to their proper locations on the manifold. Charcoal canister on top and brake booster on the back.



Step 26:
Reattach the upper radiator hose using a new worm clamp as the civic radiator inlet is smaller than the GSR hose. With that completed, here's the fun part of adding the VTEC wire.



Step 27:
Reconnect all the harness and remember to replace the fuse in the fuse box if you've previously removed it.



Step 28:
Swap the GSR shifter linkage onto your stock civic shifter. Then replace the new unit back under the car. Then reconnect the cat to the hanger and header.



Step 29:
Notice the markings on the ECU; they read xxx-p72-xxx, which is the appropriate ECU for a B18c swap. Since the civic already had vtec, the only wires that needed to be added were at D3 for the knock sensor and A17 for IAB. The pinout for the IAB can be switched from A20.



Step 30:
If your car does not have vtec, 2 more wires must be added. A yellow wire with a green stripe for the vtec solenoid can be found on the engine harness and must be pinned in at A4. The vtec oil pressure sensor can be found as a blue wire in the harness and must go to D6.



Step 31:
Now that most of the work is done, make sure you replace the all the parts that you removed, including the axles, hub and lower fork. Double check all your wiring harness and that all the bolts are tight. Make sure all the coolant lines you removed are now reconnected and secure. Make sure you have oil and water topped off as well as transmission fluid. Reattach the negative terminal to the battery and you're ready to turn the key. Wasn't that hard was it?