

BMW 328i

- Maintenance
 - Oil Filter Housing Gasket
- Mods
 - 3 Stage Intake Manifold Swap

Maintenance

Maintenance

Oil Filter Housing Gasket

Replace Oil Filter Housing Gasket

Easier to do w/ intake manifold off

- 10mm bolts.

Mods

3 Stage Intake Manifold Swap

Tips:

- Replace bolts from where you get them
- Label plugs before unplugging
- Clean block
- Unlock doors, put back seats down

Steps:

- Unplug battery negative (10mm)
- Remove hood (10mm)
- remove air filter cabin, cowl, engine cover
- Remove strut bracing (T14 bottom, T18 Top) (74ftlbs)
- Remove Intake box and hoses
- Remove power steering reservoir (10mm)
 - put it to the side, no need to disconnect
- Unplug a bunch of stuff on the intake including DISA valve connections
 - o2 sensors on top
 - alternator cable
 - PCV hose to VC
 - throttle body cable
- Remove throttle body (10mm)
 - Clean
- Remove junction box (optional)
 - torx bit on each side to remove whole bracket (t27)
 - or.. PB Blaster and flat head screwdriver to pry it off. Don't break clips.
- Remove O2 sensors. Label before unplug
 - push cable down through intake manifold
 - pull out of the way from the back
- Remove PCV hose at firewall
 - release clips
- Remove fuel hose bracket @ firewall side (T25)
- Remove Manifold
 - 11mm bolts, crack then remove by hand 11ftlb
 - Break free
 - Unplug cables underneath

- Remove pvc to oil pan hose

Manifold Delete complete

- Clean manifold interface
- Transfer junk from old manifold to new manifold
 - sensors
 - brackets
 - PCV breather hose
- Replace/Insert manifold gaskets
- Transfer L shaped PCV hose
- Plug in PCV hoses to housing + manifold
 - third manifold PCV small hose comes from junction box

Manifold is ready to go in the car.

- Find DISA connectors
 - Long goes on inside, short goes on outside
- Get O2 sensors out of the way
- Struggle for a bit as you wedge everything in.
- Start plugging things in before fully inserted
 - Remove dust covers from DISA connectors
 - plug everything else in
- Everything is in reverse from here out.
 - Cross pattern on bolt tighten
 - snug is good enough