



## Big Block Main Bearing Stud Girdle Kit Instructions:

Thank you for purchasing our Main Girdle Kit from 440 Source! To help the installation of your girdle go as smoothly as possible, please read the following instructions carefully. Make sure you understand these instructions before you begin the install.

This kit includes:

Qty: 1- Girdle Plate

Qty: 2- 4.400" ARP Main Studs

Qty: 8- 5.200" ARP Main Studs

Qty: 18- ARP Main Stud Washers

Qty: 1 bag of 8ea – Girdle Hold down Nuts & Washers

Qty: 1 bag of 10- ARP Main Stud Nuts (includes (8) 6 point and (2) 12 point.)

Qty: 1 bag of Oil Pan Hardware (includes 14 oil pan studs & matching nylon locknuts, and 6 Flanged cap screws.)

Qty: 1 bag of assorted thickness spacers.

This girdle kit fits both "B" and "RB" engines. It can be fitted to new builds or added to engines which are already running, as long as the engine already had main studs installed when it was line honed. If the engine currently has main bolts installed, it will need to be disassembled and re-line honed with studs in place. The reason for this is that bolts and studs will cause the main line housing bore to distort differently. Switching from stock length studs to the longer studs included in this girdle kit will not change the distortion or cause any problems. If you are switching studs without disturbing the main caps, do them one at a time. The (8) 5.200" ARP main studs go in caps #1 - #4, while the (2) 4.400" ARP main studs go in the rear cap (#5).

Once the studs are installed, place 10 of the "ARP Main stud washers" on top of the main caps. These are supplied in a bag of (18) pieces. Apply ARP Moly lube to the threads of the main studs, then screw the "ARP Main Stud Nuts" onto the studs. The bag of ARP main stud nuts includes (8) six point nuts and (2) 12 point nuts. Use the 12 point nuts on the rear (#5) main cap. Torque all the nuts to 90 ft/lbs.

Now you should have (8) "ARP main stud washers" left over. Place these on top of the main stud nuts of the front four main caps (#1 - #4). Please note that the #5

main cap does not tie into the girdle, so there is no shimming necessary for the #5 cap. Then, take a straightedge and lay it across each pair of washers, so it rests on the oil pan rail of the block, perpendicular or crossways to the crankshaft centerline of the block (of course the oil pan rail must be clean and free of dirt or debris.) Then, take a set of feeler gauges and measure the distance between the washers which are sitting on top of the main stud nuts, and the bottom of the straightedge. You must record this distance separately for each main stud, you will find it varies slightly in each location.

Once you have these distances measured, use our package of "Assorted shims" to assemble shim packs of the appropriate distance for each main stud. Place these shim packs on top of the studs for the front 4 main caps. Now, install the oil pan studs which are included in our "Oil Pan Hardware" package. You will notice in this package there are 14 oil pan studs (with matching nylon locknuts) and 6 flanged cap screws. Use the 6 flanged cap screws for the two rear bolts which screw into the rear seal cap, the two front bolts which screw into the timing cover, and the two which screw into the block next to the timing cover (basically all four bolts along the "front" of the oil pan rail.) Now trial fit the girdle and pre-check all your clearances to the oil pickup, dipstick, crankshaft, windage tray and anything else that fits or moves in the bottom end of the engine. It's unlikely you'll have any interference problems, but now is the time to check. It's also a good idea to check your oil pickup to pan clearance. It should be  $\frac{1}{4}$ " to  $\frac{3}{8}$ ". Adjust if necessary.

Once you are satisfied the girdle and all other parts fit correctly, apply a (very thin) layer of silicone to the block's oil pan rail (do not use a gasket here), and place the girdle in place. Make sure all the shim packs are installed and correctly located. Then, torque the girdle in place to 70 ft/lbs with the "Girdle hold down nuts and washers." Remember, they only go on caps #1 - #4.

Then torque the oil pan, with correct gasket(s) and/or windage tray if applicable. Use the nylon locknuts and flange bolts supplied in the "Oil Pan Hardware" bag.

Enjoy your new girdle setup. We've tested these to 900+ horsepower. If you have any questions or problems, be sure to give us a call.