



**EDELBROCK ENGINE BLOCK  
FOR SMALL BLOCK CHEVY ENGINES  
Part #450020 & 450021  
GENERAL INSTALLATION INSTRUCTIONS**

**PLEASE** study these instructions carefully before beginning this installation. If you have any questions, please call our **Technical Hotline at: 1-800-416-8628**, 7:00 AM - 5:00 PM Pacific Standard Time, Monday through Friday.

**Proper installation is the responsibility of the installer. Improper installation will void the manufacturer's warranty and may result in poor performance and engine or vehicle damage.**

**IMPORTANT NOTE:** This instruction sheet provides general guidelines which can affect your warranty. Read it carefully. It is not our intent to cover each detail of installation here as the procedures are vehicle and engine specific. Building and installing an engine is a complicated procedure that requires a high level of automotive and mechanical knowledge. Consulting with an experienced engine builder is highly recommended.

**AVAILABLE VARIANTS:**

P/N 450020 - SBC Cast Iron Engine Block, Siamese 4.125" Bore, 9.025" Deck Height, 2-Piece Rear Main Seal

P/N 450021 - SBC Cast Iron Engine Block, Wet 4.00" Bore, 9.025" Deck Height, 1-Piece Rear Main Seal

**SPECIFICATIONS FOR: 450020**

Block Type..... Small Block Chevy  
 Material ..... Cast Iron  
 Cylinder Wall ..... Siamese  
 Bore Size..... 4.125"  
 Max Recommended Bore Size..... 4.185"  
 Deck Height ..... 9.025"  
 Cam Bearing Bore ID ..... 2.00"  
 Camshaft Position .....Standard SBC  
 Head Bolt Pattern .....Standard SBC  
 Inside Head Stud Bosses .....No  
 Lifter Bores.....Standard SBC  
 Main Bearing Size .....Standard SBC 400  
 Main Bearing Bore ..... 2.8406" - 2.8416"  
 Main Caps..... Nodular Iron, 4-Bolt Splayed  
 Oil System .....Main Priority  
 Oil Cooler Holes.....None  
 Rear Main Seal ..... 2-Piece  
 Hydraulic Roller Provisions: .....Yes  
 Stud and Bolt Holes ..... Through to Water  
 Tapped Holes.....Standard Thread and Pitch  
 Timing Chain / Gears .....Standard SBC  
 Timing Cover .....8 or 10 Bolt  
 Fuel Pump Boss .....Yes  
 Starter.....Standard Location  
 Clutch Linkage Boss .....Yes

**SPECIFICATIONS FOR: 450021**

Block Type..... Small Block Chevy  
 Material ..... Cast Iron  
 Cylinder Wall ..... Wet  
 Bore Size..... 4.00"  
 Max Recommended Bore Size..... 4.060"  
 Deck Height ..... 9.025"  
 Cam Bearing Bore ID ..... 2.00"  
 Camshaft Position .....Standard SBC  
 Head Bolt Pattern .....Standard SBC  
 Inside Head Stud Bosses .....No  
 Lifter Bores.....Standard SBC  
 Main Bearing Size .....Standard SBC 350  
 Main Bearing Bore ..... 2.6406" - 2.6416"  
 Main Caps..... Nodular Iron, 4-Bolt Splayed  
 Oil System .....Main Priority  
 Oil Cooler Holes.....None  
 Rear Main Seal ..... 1-Piece  
 Hydraulic Roller Provisions: .....Yes  
 Stud and Bolt Holes ..... Through to Water  
 Tapped Holes.....Standard Thread and Pitch  
 Timing Chain / Gears .....Standard SBC  
 Timing Cover .....8 or 10 Bolt  
 Fuel Pump Boss .....Yes  
 Starter.....Standard Location  
 Clutch Linkage Boss .....Yes

## GENERAL INSTALLATION NOTES:

- Edelbrock engine blocks are designed as a replacement and an upgrade compared to GM blocks. These nodular iron main cap blocks are designed for applications up to 700 hp.
- Edelbrock blocks have the same cam housing bore on all 5 journals and requires the use of a Durabond GMP-8 or equivalent Small Block Chevy Cam bearings. **NOTE: When installing cam bearings, MAKE SURE the oil hole in the bearings is in-line with the oil hole feed hole to the main bearings.**
- All center main bolts use a 7/16-14 thread bolt. All outer main bolts use a 3/8-16 bolt. Torque spec on main bolts is 75 ft. lbs. on the inner and 35lbs on the outer with oil. Front and rear cap are 2 bolt.
- For 2-piece rear seals, Edelbrock recommends a FelPro BS40013 seal for 350 cranks, for 1-piece rear seal blocks Edelbrock recommends Felpro 2919. Edelbrock 2-piece 400 blocks must use a Felpro 2909 or equivalent.
- All WET blocks have a cylinder wall thickness of .230 at the maximum bore of 4.060". All SIAMESE blocks have a cylinder wall thickness of .260 at the maximum bore of 4.185".
- Stainless steel freeze (cup) plug installed, 2-7/64" shallow rear cam plug supplied.
- Block is machined for either early style with no cam retainer, or late style with a cam retainer.
- Edelbrock blocks will accept either an early 10 bolt timing cover, or a late style plastic 8 bolt cover.
- To prevent contact between oil galley plugs, belt drive or gear drive covers, it may be necessary to tap the oil galley holes in the block deeper so the oil galley plugs sit flush with the block; or use shorter plugs. NOTE: Additional clearancing may be required.
- Passenger side dipstick only, 1981 to 1985 style for 2 piece rear seal blocks, 1986 and later style for one piece rear seal blocks.
- The oil filter mounting boss is designed for a bolt-on oil filter adapter (included) and has a built-in oil bypass.
- Edelbrock blocks have standard provisions for mechanical fuel pumps utilizing a standard length fuel pump pushrod.
- Starter mounting pad is drilled for both straight across and stagger bolt patterns.
- Edelbrock blocks are drilled and tapped for side and front engine mounts in OEM locations.
- Cylinder head bolt threads are 7/16-14. Head bolt holes extend into the water jackets. **Be sure to use sealer on head bolts.**
- Edelbrock blocks are clearanced for a 3.750 stroke but can be clearance for a longer stroke. Things to consider are counterweight diameter, connecting rod journal diameter and the physical dimensions of the rod itself. **It is the responsibility of the engine builder to finish the block to desired preferences.**

