

# BIG-SERT®

Note : NorthStar 2000 blocks and later have two depths for the headbolts  
31mm upper bank and 51mm lower bank.  
“Pre 2000” only have 1 depth of head bolt.

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P/n J-42385-500BS

## BIG-SERT M11x1.5 NORTH STAR 4.0/ 4.6 & NORTH STAR 2000 REPAIR KIT

### - WARNING -

Cutting tools may shatter if broken. The wearing of safety glasses is required in the vicinity of their use.

### CUTTING FLUID

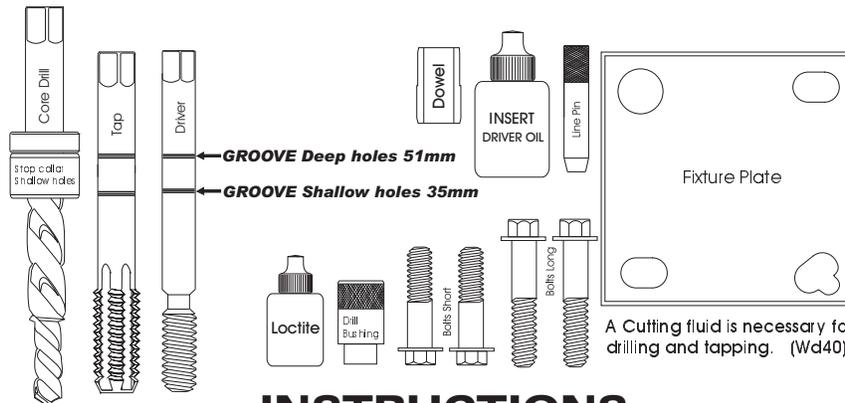
A Cutting fluid is necessary for drilling and tapping. (WD40)

### DRILLING

The use of a half inch drill motor is recommended for drilling.

### TAPPING

We recommend using a tap wrench for tapping and Driver tool.



Tools needed:	Qty
Fixture Plate	1
Drill bushing	1
Alignment pin	1
Bolts short	2
Bolts Long	2
Step drill	1
Tap	1
Insert driver	1
Stop Collar for shallow holes	1
loctite	1
Dowel corner hole	2
Driver oil	1
Inserts M11x1.5	10

## INSTRUCTIONS

Please note that this kit will fix NorthStar 4.0/4.6 engines along with NorthStar 2000. **Leave the stop collar J-42385-2017BS on the core drill if you are repairing a “Pre 2000 block”.** The “Pre 2000 blocks” have only one depth of hole in the block. The NorthStar 2000 has 2 depths of holes, shallow on the upper bank and deeper holes on the lower bank.

Note: Please check for the latest torque specifications before assembling the engine. Improper torque of the head can lead to thread failure.

### STOP DO NOT DRILL OUT HELICOILS

IF HOLE TO BE REPAIRED HAS AN EXISTING TIME-SERT USE THE DRILL FROM THE FIRST REPAIR P/N J-42385-504 or J-42385-2006 NOT INCLUDED IN THIS KIT. THE INSERT MUST BE REMOVED BEFORE GOING TO STEP 1.  
DO NOT DRILL OUT HELICOILS REMOVE MANUALLY, AS THIS WILL DAMAGE OUR CORE DRILLS.

### STEP 1 FIXTURE

PLACE LARGEST HOLE IN FIXTURE PLATE OVER THE HOLE TO BE REPAIRED. PLACE DRILL BUSHING IN FIXTURE PLATE, THEN PLACE LINE PIN IN DRILL BUSHING TO PICK UP HOLE. DO NOT FORCE LINE PIN INTO HOLE. USE BOLTS AND TIGHTEN TO SECURE FIXTURE PLATE IN PLACE. REMOVE LINE PIN. (Note: fixture plate can be flipped over to align holes.)

### STEP 2 DRILL

NOTE: Leave the moveable collar p/n J-42385-2017BS on the drill for ALL “Pre 2000 blocks”.

NOTE: ON 2000 to 2003 blocks leave collar on for Upper Bank Shallow holes, remove collar for lower bank Deep holes”.

USE A SUITABLE DRILL MOTOR AND STEP DRILL THE HOLE UNTIL THE STOP COLLAR ON THE DRILL LINES UP WITH THE TOP OF THE DRILL BUSHING. THIS WILL REQUIRE REMOVING DRILL AND BUSHING SEVERAL TIMES TO CLEAR CHIPS.

VERY IMPORTANT: TO ENSURE THE DRILL IS GOING STRAIGHT DO NOT USE EXCESSIVE DOWN FORCE WHEN DRILLING!

NOTE: If drill bushing turns while drilling hole, Remove drill and drill bushing, Clean out all chips.

We recommend using a long air nozzle 6” or longer to blow out all chips.

### STEP 3 TAP

TAP THROUGH THE DRILL BUSHING UNTIL THE APPROPRIATE GROOVE ON THE TAP LINES UP WITH THE TOP OF THE DRILL BUSHING. THIS WILL REQUIRE REMOVING THE TAP AND BUSHING SEVERAL TIMES TO CLEAR CHIPS. CLEAN ALL CHIPS USING BRAKE OR CONTACT CLEANER THAT WILL NOT LEAVE AN OILY RESIDUE. THE HOLE MUST BE CLEAN AND DRY. USE A FLASHLIGHT TO INSPECT THE HOLE FOR CHIPS AND CLEANLINESS.

### STEP 4 DRIVER

#### REMOVE FIXTURE PLATE FOR STEP 4

USE INSERT DRIVER OIL (DO NOT USE WD40.)

OIL THE THREADS OF THE INSERT DRIVER. SCREW AN INSERT ONTO THE DRIVER, APPLY A SMALL AMOUNT OF LOCTITE ON THE BOTTOM OUTSIDE THREADS OF THE INSERT AND SCREW THE INSERT INTO THE PREPARED HOLE. WHEN THE HEAD OF THE INSERT IS SEATED THE DRIVER WILL TIGHTEN UP, USE A LITTLE MORE POWER TO SCREW THE DRIVER THROUGH THE INSERT, UNTIL THE APPROPRIATE GROOVE OF THE DRIVER LINES UP WITH THE TOP OF ENGINE BLOCK. REMOVE INSERT DRIVER, REPAIR IS COMPLETE.

### NOTE: ALIGNMENT DOWEL

IF YOU ARE REPAIRING TOP CORNER HOLES YOU WILL NEED TO REPLACE THE HEAD ALIGNMENT DOWEL. PLACE THE LARGER DIAMETER OF THE DOWEL INTO THE BLOCK. LIGHTLY TAP THE DOWEL UNTIL THIS LARGER DIAMETER IS FLUSH WITH THE BLOCK.