

# BIG-SERT®

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## BIG-SERT M10x1.5 BMW 3&5 SERIES HEAD BOLT THREAD REPAIR KIT

### P/n 1090BS

#### - WARNING -

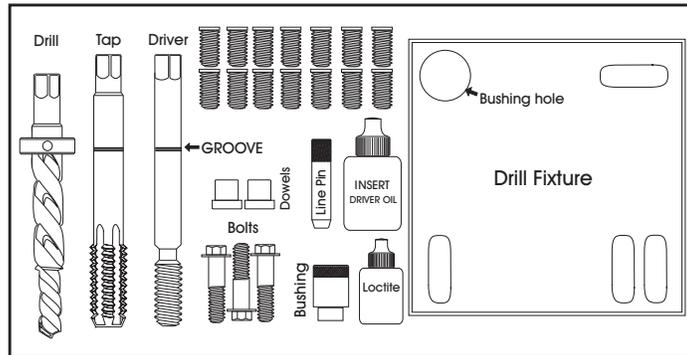
Cutting tools may shatter if broken. The wearing of safety glasses is required in the vicinity of their use.

#### CUTTING FLUID

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

#### DRILL MOTOR

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



Tools needed:

Drill fixture  
Drill bushing  
Alignment pin  
Bolts (3)  
Step drill  
Tap  
Insert driver  
Inserts (14)  
Dowels (2)  
loctite  
Driver oil

## INSTRUCTIONS

This tooling will install inserts at 6mm depth

### STEP 1

PLACE LARGEST HOLE IN DRILL FIXTURE OVER THE HOLE TO BE REPAIRED. PLACE BUSHING IN FIXTURE, THEN PLACE LINE UP PIN IN BUSHING TO PICK UP HOLE. DO NOT FORCE PIN INTO HOLE. USE BOLTS AND TIGHTEN TO SECURE FIXTURE IN PLACE. REMOVE LINE PIN.

### STEP 2 Use WD40 for Drilling

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. CLEAN OUT ALL CHIPS.

**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 Use WD40 for Tapping

TAP THROUGH THE DRILL BUSHING UNTIL THE 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

**LEAVE FIXTURE PLATE AND BUSHING ON FOR STEP 4**

**USE DRIVER OIL ON TOOL (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 ON 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 GROOVE OF THE DRIVER LINES UP WITH THE TOP OF THE BUSHING. REMOVE FIXTURE PLATE REPAIR IS COMPLETE. USE HEAD ALIGNMENT DOWELS IN CORNER HOLES AS ORIGINAL.

Please check for the latest torque specifications before assembling the engine.  
Improper torque of the head can lead to thread failure. NEW HEAD BOLTS ARE REQUIRED