


# BIG-SERT®

## M14x1.25 SPARK PLUG EXTENDED REPAIR KIT P/N 5141E-469 WITH INSERTS

						INSERTS		TOOLS		
1	51401	Washer seat 9.4mm (copper)	1					1		Wrench
2	51407	Washer seat 16.8mm (copper)	1					1		Reamer
1	51409	Washer seat 23mm (copper)	1					1		Tap
1	51453	Taper seat 11mm (silver)	1					1		Driver
2	51457	Taper seat 16.8mm (silver)	1					1		Setting tool
1	51469	Taper seat 24mm (silver)	1					1		key 3/16
			1					1		key 1/8
<b>Note:</b>						<b>Use appropriate length and style</b>		1		Sealer
						<b>of insert for each spark plug application</b>				Oil

**Stop: Check that the valves are not open!**

**Possible work around: this is a 2 man job.**

Have someone turn the engine over by hand with a socket from the front of the engine. Turn the engine over until it is going up on the compression stroke. Place your thumb at the top of the sparkplug hole at the same time to block off the air. When you feel the engine compression stop pushing air against your thumb the piston will be top dead center. Turn the engine a little more to be on the down stroke, both valves should be closed at this point, and the piston should be all the way down and out of the way.

Instructions are using a block of aluminum, which makes for better viewing. Repair can be done with out removing the head

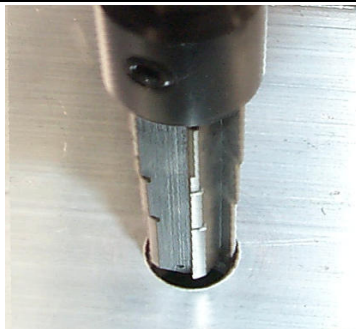
### 1) Ream the hole

Using the Wrench provide, place the reamer into the square inside wrench.

**Tip:** Packing the flutes with grease will help to catch any stray chip from going into the cylinder.



The reamer will also cut the Countersink for the flange of the insert to seat into. When you start getting close to the stop collar coming in contact with the head, you will want to clean the chips from the reamer so you have a positive stop on the head without having any chips interfering.



**A:**

**A:** Ream the hole until black stop collar touches the head.



**B:**

This will create the 45 degree countersink seen in picture "B"

### 2) Tap the hole

Tap the hole with the wrench provided. There is a pilot at the front of the tap to help guide it straight into the hole. Use contact or brake cleaner to thoroughly clean out any remaining chips and oil.



**Mechanics Tip 1:** Packing the flutes with grease will help to catch any stray chip from going into the cylinder.

**Mechanics Tip 2:** Using a shop-vac with a thin hose taped to the nozzle is helpful removing any remaining chips in the cylinder.

### 3) Setting tool



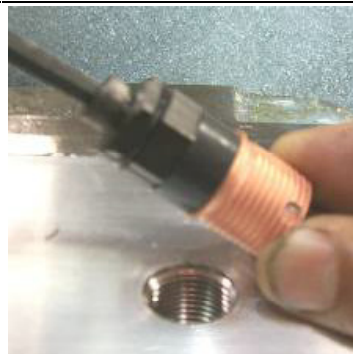
Note:

Remove collar for Triton  
and Ztech style inserts!  
P/N 51459 P/N 51460



A:

A: Screw the setting tool  
into the insert.



B:

B: Lightly tighten the  
socket cap screw.

C: Using the wrench  
provided place the setting  
tool into the wrench.

D: Place Lock-tite around  
the middle of the insert.  
and into the clean  
prepared hole.

Screw the insert into the  
hole until the flange of the  
insert is seated.

*Approximately 20 foot pounds.*



C:



D:

E: Place the allen key  
through the wrench and in  
a counter- clockwise  
rotation, untighten the cap  
screw. This will allow the  
setting tool to release itself  
from the insert.



E:



F:

F: You can now remove  
the setting tool from the  
insert.

### 4) Insert driver tool

Oil the bottom threads of  
the insert driver with a few  
drops of driver oil. This  
can also be 30wt motor oil  
While screwing the driver  
into the insert you will feel  
the driver start to tighten  
up, with a little more  
power continue through  
the insert until it loosens  
up.



*Use wrench provided.*

Remove driver, repair is  
complete.

