The handle assembly contains many critical parts that allow proper function of the T3 tool. The handle assembly contains the fuel valve, spark unit, battery contacts and many other critical components. To service the components inside the handle, the Handle Assembly must first be separated from the Tool Housing. These steps were outlined in a previous chapter. **Before beginning any repair, be sure the fuel cell and battery have been removed from the tool!** 



- 1. If the T3SS is being serviced, be sure the rear foot is removed. To remove the foot, rotate the black knob counterclockwise until it stops. Then push the black knob. While pushing the knob slide the foot back off the tool.
- 2. Remove five (5) Phillips head screws from the handle. Then remove the socket cap screw from the head using a 5/32inch hex key wrench.



- 3. Shown to the left is a photo of the cylinder head. After the socket cap screw has been removed with a 5/32-inch hex key wrench, the Handle to Head bushing must be pushed out with the hex key wrench or screw-driver.











4. Carefully separate the two handle halves. Note in the photo the spring and the wiring attaching components.

From the outside of the handle, push the fuel release button. This will allow the black fuel spacer plate assembly to separate from the handle half.

5. Once the black spacer plate has been separated from the handle half, you should have something that resembles the photo to the left.

> From this step, service of the Handle Assembly can take many directions. Each will be covered in various subsections.

### FUEL SPACER PLATE ASSEMBLY

- 6. Note the small circuit board at the rear of the handle. This part is called the EFI Junction Board. The red connector is for the battery contact. The white connector is for the fuel valve assembly. Unplug the white connector.
- Once the connector is unplugged, lift the black fuel spacer plate assembly from the tool. The remaining portion of the handle is shown to the left.











8. Shown to the left is the Fuel spacer plate assembly. This assembly is removed from the tool to service the fuel injector valve assembly.

9. To remove the Fuel Valve the U-shaped clip must be removed by pressing the fuel button and sliding the U-clip back.

- 10. The Fuel Valve can then be lifted from the Spacer Plate. Note that the Fuel Valve wire is tucked into a groove in the spacer plate.
- 11. Should the latch or spring mechanism need service, the fuel button can be lifted from the spacer plate. The two fuel latches rest in the fuel button with the holes in the latch toward the top when the button is resting as shown. Note the two springs in the bottom of the spacer plate.











- 12. When replacing the button, it will only go into the spacer plate in one direction. Note the ribs on one end of the button. Flip the button onto the spacer plate. Be sure the two small springs fit into the holes in the button. This fit can be tricky to keep everything in place.
- 13. Before installing the U-clip, place the Fuel Valve into position. The groove on the white or brass ring of the Fuel Valve slides onto two ribs on the spacer plate. The wire can then be routed down the side of the spacer plate. Note the notch in the side of the spacer plate for the wire to run through.
- 14. Install the U-clip by pressing down on the fuel button and sliding the clip through the two holes in each fuel latch. Note that one leg of the clip may be longer than the other. It makes no difference which side the longer leg of the clip is on.
- 15. The spacer plate and fuel assembly is now completely assembled and can be placed back into the tool.











## HANDLE ASSEMBLY ELECTRONICS - TRIGGER

- 16. The various electronic components are shown in the picture to the left. The trouble shooting section will assist in diagnosing any failure of each component.
- 17. To replace the trigger switch, shown in the photo as the component with the white label. First remove the trigger and cam assembly by lifting it from the tool.

- 18. Once the Trigger and Cam assembly is removed, remove the two Phillips Head screws holding the trigger switch in place and unplug the component from the MSU spark box board.
- 19. Note the position of the wiring; also note the position of the two insulators under the trigger. Plug in the new trigger switch and fasten into place.







#### HANDLE ASSEMBLY ELECTRONICS MSU SPARK UNIT

- 21. The MSU spark unit is captured in the handle without the use of silicon. Once the various connectors have been unplugged, it can be lifted from the handle. This Spark Unit has the ability to record the number of shots the tool has cycled through. If the MSU is replaced, a shot count should be taken before the tool is completely disassembled. This number should be recorded inside the handle.
- 22. When reinstalling the spark plug wire, note the mark on the wire. This mark should be even with the plastic sleeve on the MSU. This mark indicates the wire is fully installed.













#### HANDLE ASSEMBLY ELECTRONICS EFI JUNCTION BOARD & BATTERY CONTACT

- 23. The small circuit board shown is the EFI Junction Board. This is the connection point for the battery and the fuel valve.
- 24. The Battery Contact is shown (P/N B0011); note its position and the routing of the wiring. The Battery Contact connector is should be red in color and plug into the bottom connector on the EFI Junction Board. Note the position and color of the connectors in the photo above.

# HANDLE REASSEMBLY

25. Take the assembled spacer plate and place it into the handle half.



26. Place the spacer plate assembly into the handle as shown in the photo. The fuel valve connector plugs into the top connector in the EFI Junction Board. Refer to the photo of the EFI Junction board at the top of this page.







27. Note the position of the Fuel Connector, Fuel Hose and black Fuel Connector Pad.

28. Place spring back into the end of the Knob shaft.

- 29. Reposition the left Handle half back on to the right Handle Half containing all the components. Again be sure the spring fits properly into the knob shaft assembly and the pocket in the handle half.
- 30. As the handle halves come together be certain there are no pinched wires in the back area by the EFI Junction Board.





- 31. As the front of the handle halves come together be certain the spark plug and head wiring fit properly into their groove. Be certain the fuel connector is properly positioned
- 32. Once the handle halves fit properly together, install the five (5) handle screws and the head to handle bushing and screw.



33. Note that when inserting the bushing, the hex area of the bushing MUST FIT INTO THE HEX RECESS IN THE TOP OF THE HANDLE, BEFORE the socket head screw is tightened.

Follow previous procedure to join motor back to handle assembly.

