

# Installing a new FID Igniter, with or without a Methanizer Jet

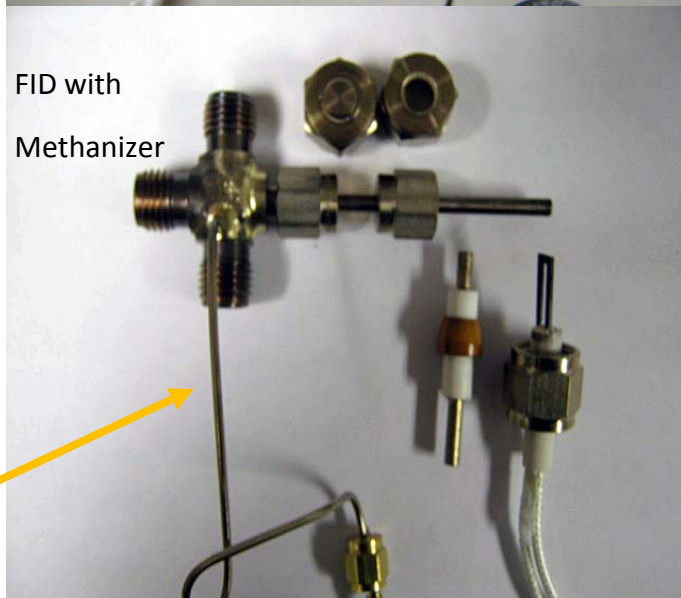
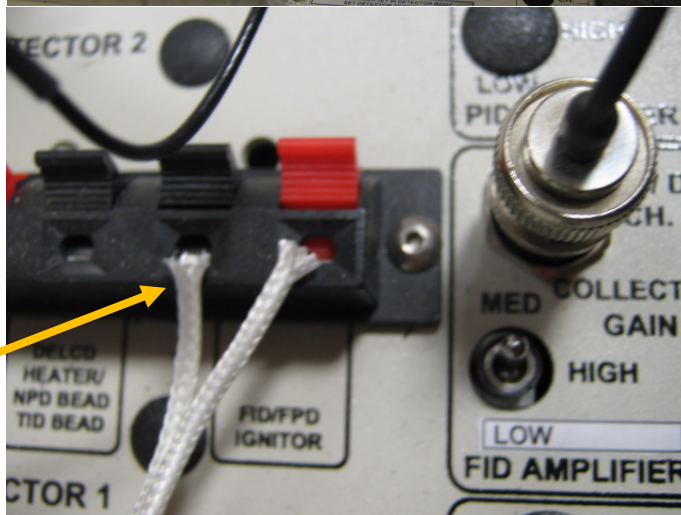
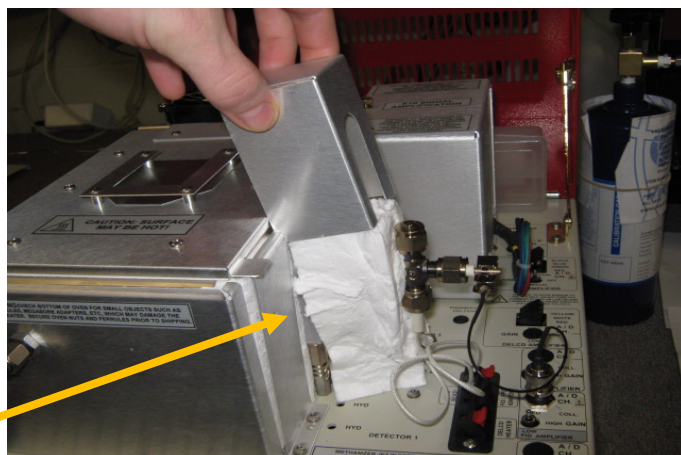
To replace the ignitor in a FID detector you will need; to first make sure the GC is off, to gather some 9/16th, 7/16th, 5/16th wrenches, a 1/4 inch soft graphite straight ferrule, if the original ferrule isn't reusable; and a working ignitor ( notice that the blade of the ignitor is not straight. It has a slight tilt, this will be important when positioning it into the FID body ).

Start by removing the FID insulation ( do not discard the insulation unless you have more and want to replace it ).

Disconnect the FID ignitor leads from their push terminal, unclip the amplifier cable from the collector electrode, use a 5/16ths wrench to disconnect the air from its bulkhead fitting, and then use a 7/16ths wrench to disconnect the FID from its bulkhead fitting.

Use a 9/16ths wrench to disconnect the nuts holding in the ignitor, collector electrode, and view hole cap nut.

Ending up with the parts in the picture to the right.



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Take a new/working ignitor and make a mark with a permanent marker. This is to show if the ignitor is spinning while being tightened.

Spinning and improperly positioning the ignitor during installation can break the blade of the ignitor.

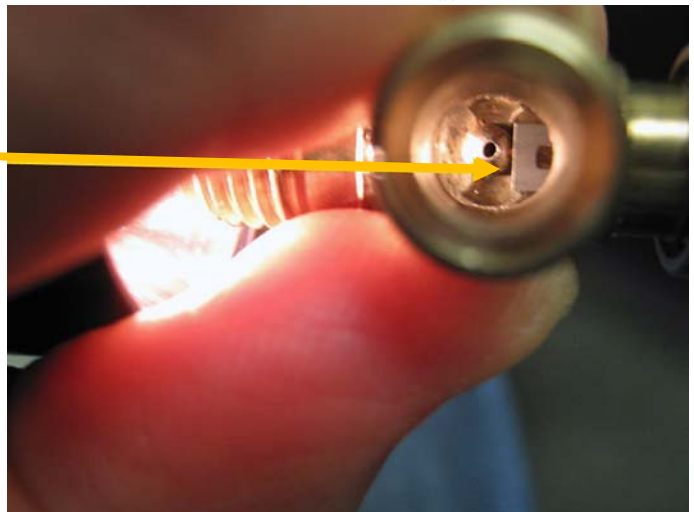
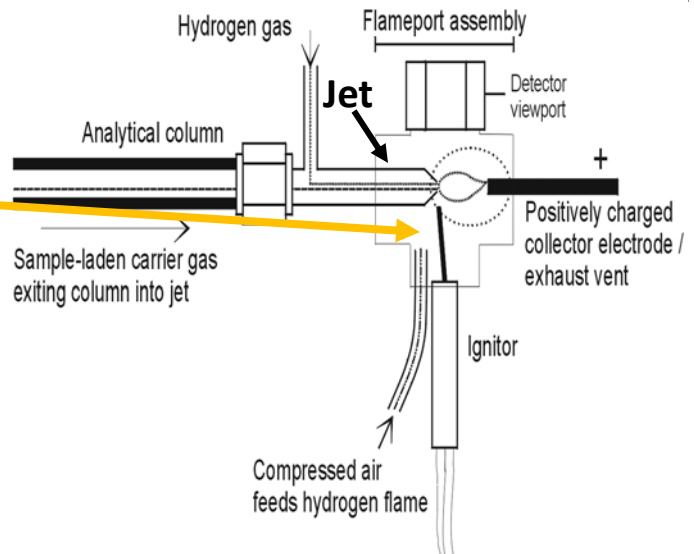
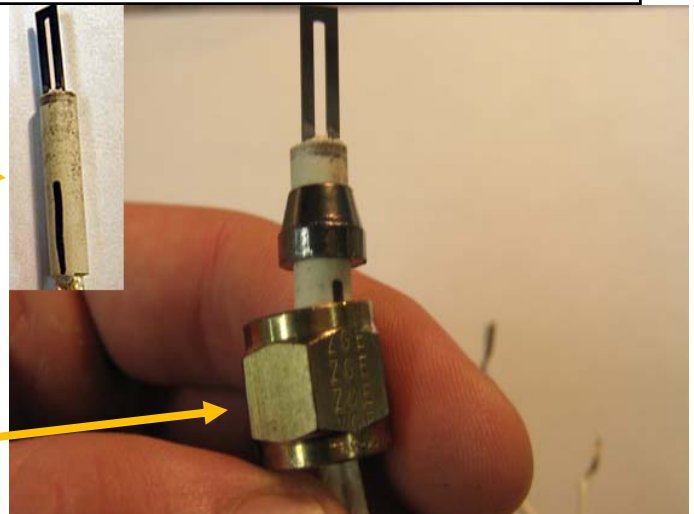
Take the 9/16ths nut and a 1/4 soft graphite ferrule and put them onto the new/working ignitor, as shown in the picture to the right.

Position the blade of the ignitor so it is below and tilting towards the jet.

The blade will spin and be inserted deeper into the FID when being tightened. Adjust the position of the blade accordingly before tightening.

If the blade of the ignitor is above or touching the jet when the nut is tightened, it will break the blade.

Once the nut is fully tightened, the blade of the ignitor should be slightly below and tilting towards the jet. ( **Do not over tighten the nut or the ceramic material can break** )



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After the igniter has been installed, put the collector electrode back into position.

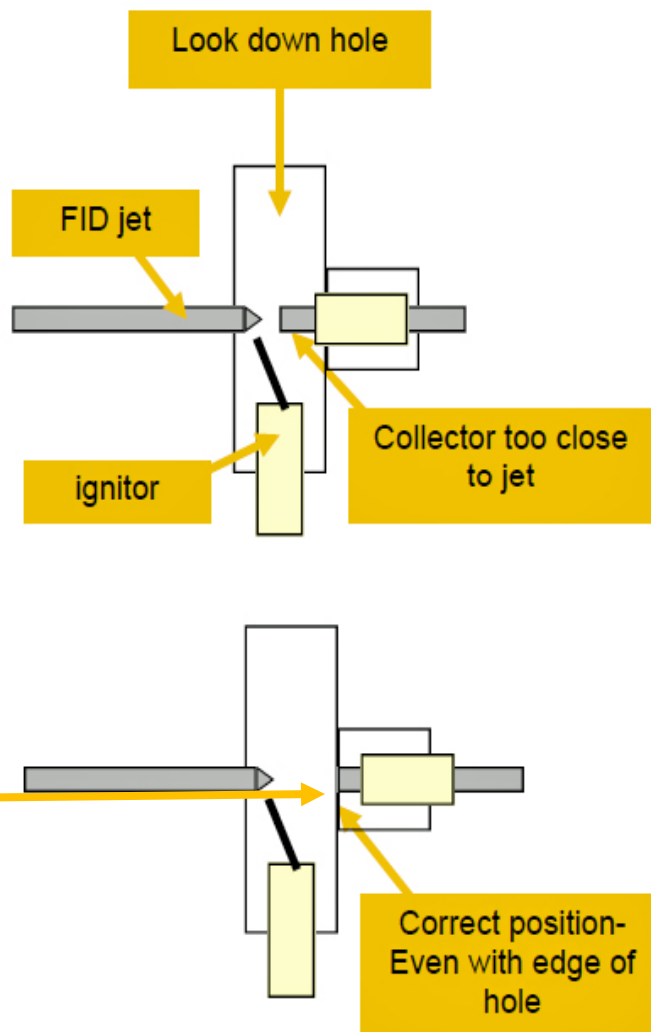
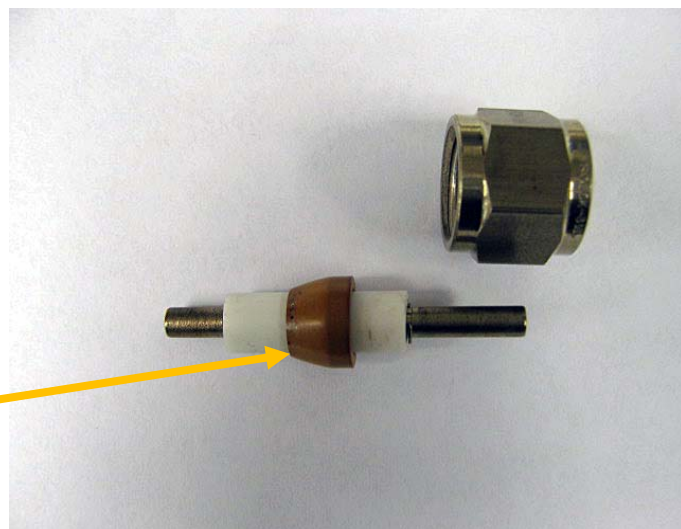
FID bodies made before December 2010 do not have a positive “stop” built into them, causing the operator to have to manually position the collector electrode inside the FID body.

FID’s that are post December 2010 have a built in stop. All that is required to position a collector electrode on these bodies is to; put a nut and polyimide ferrule onto the electrode, insert the shorter side of the electrode into the orifice opposite of the jet until it hits the stop, and tighten.

The collector electrode should be snug, but over tightening can harm both the ferrule and electrode.

Pre-December 2010 FID body’s require the operator to manually position the collector electrode into the FID body.

To properly position the electrode, look through the “look down hole”, and make the electrode flush with the edge of the hole where connects to the cavity of the FID body. Then tighten the nut holding the collector electrode.



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To re-install the FID onto the gc, reconnect the jet and the air onto their bulkhead fittings, reconnect the ignitor leads to the push terminal, clip the amplifier cable to the collector electrode, and re-insulate the FID.

After the FID is reinstalled, test to see if the ignitor was installed correctly.

Hold the shiny side of a chrome wrench directly in front of the collector electrode exhaust vent. If condensation appears on the wrench, the flame is lit and the ignitor was installed correctly.

If there was no condensation and everything seems to be installed correctly, please go to <http://srigc.com/FID.pdf>, for more FID troubleshooting.

