## Novatech Controls Service Note SN-002

# Replacing the Sensor in the MOZ-1



### 1.0 TOOLS REQUIRED

To carry out these procedures, the following tools are necessary:-

- 2 mm allen key
- Philips head screwdriver
- 150 mm adjustable spanner
- Long nose pliers

## 2.0 DISASSEMBLY PROCEDURE



2.1 To remove the heater / sensor assembly, (a) unplug the two electrical connectors (heater and signals), (b) remove the two mounting screws, (c) undo the nut connecting the 3mm tube to the bulkhead connector and (d) remove the silicon tube from the 3 mm stainless steel exhaust tube.



2.2 Remove the grub screw but hold the sensor's retaining cap to gently release the spring loading on the sensor.



2.3 Remove the four bore assembly and sensor compression spring.



2.4 Remove the sensor using long nose pliers to grip the sensor gland.



2.5 Remove the sensor gland from the sensor.

### 3.0 REASSEMBLY PROCEDURE



3.1 Wipe a small amount of o-ring grease (such as Molykote FS3451) onto the sensor gland where it will contact the sensor.



3.2 Before reinserting the sensor ensure that the sensor passage is free from any o-ring grease. This can be wiped off using a dry clean cotton cloth.

# **WARNING:** Do not allow any o-ring grease to enter the open end of the sensor or the new sensor will become contaminated.

- 3.3 Insert the sensor and gland assembly.
- 3.4 Apply gentle pressure to seat the sensor.



3.5 Install the sensor compression spring.



3.6 Insert the four bore assembly and spring retainer.



3.7 Install the retaining cap.



- 3.8 Install the grub screw. Push the retaining cap against a solid surface and then tighten the screw being careful not to pinch the wires.
- 3.9 Re-install the heater / sensor assembly into the analyser.
  - A) Connect the 3mm tube to the bulkhead fitting and silicon tube to the exhaust.
  - B) Screw the assembly into the rear of the instrument. Connect the  $O_2$  negative wire (white) to the bottom mounting screw.
  - C) Reconnect the heater and signal wire connectors.

The instrument is now ready to test.