

Operating the Gopher SRO

Connecting the Gopher to the E-Line

The Gopher SRO is connected to the e-line via a BNC connector on the left hand side of the box. Included in the kit is 3 adapters that are commonly used on wireline trucks RCA-BNC, UHF-BNC and a BNC-BNC. By attaching these to the end of the supplied BNC cable the operator should find it easy to hook up the Gopher to his e-line.

The E-line is attached to the downhole tool via a standard GO-connector. The DHI GO-connector adapter is used to attach the GO-Connector where the battery barrel is usually placed. Inside the DHI GO connector adapter is the SRO Transmitter that allows the tool to talk to the Gopher SRO on the surface.



Downhole Tool, SRO Transmitter, GO to Recorder Adapter and the GO Cable Head



Assembled Unit

The center conductor on the GO-Connector where the E-line is attached should be protected from the oil. Standard practice in North America is to use a layer of Capton Tape, followed by Electric tape then 3M-rubber tape. Then the whole thing is wrapped with wax string to keep the tape from peeling back in the heat. The rubber boot sometimes used with the go adapter does not work as well as the tape.

If you have a poor connection to the GO adapter on the cable head you will not have enough voltage for the gauge to operate right. Normally on a short wire it should be 11-12 volts (From the center conductor to the case on the tool). If its not you have a wiring problem.

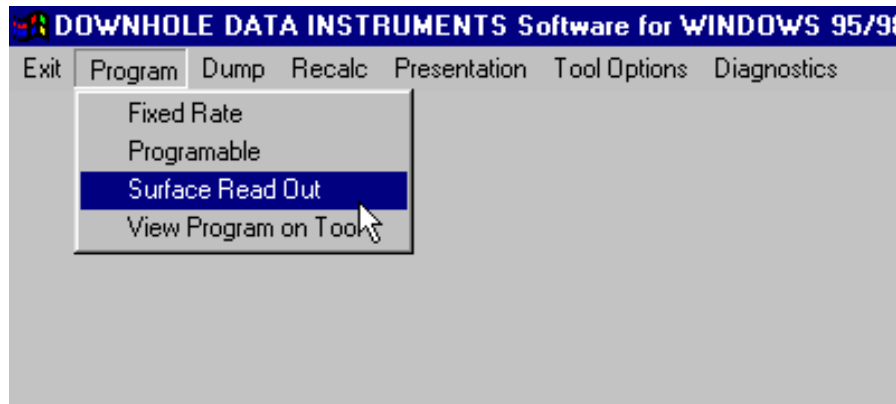
Programming Gopher E-Line SRO

When you program the gauge for SRO mode it firsts programs the downhole tool the the Gopher SRO box. The reason is the calibration file is stored in the SRO box for that tool. This allows the data to be display with the correct temperature and pressures and allows the data to be downloaded from the SRO box with all the information needed to compensate the bin file like it was a downhole tool.

For example you CANNOT program the SRO for one tool (say 80016) and then use it with (80017) with out reprogramming it again since the calibration will be WRONG FOR THAT TOOL. The data will be wrong in the SRO box.

Only DHI 2001 version 4.2.5 or higher will program the Gopher SRO system

- 1) Attach the downhole probe that is being used in Surface Read Out (SRO) Mode via interface box
- 2) Under the Menu *Program* choose *Surface Readout*



- 3) Program the gauge for the sample rate you want. As long as the sample rate is larger than one second the data will also be saved in the downhole tool as a backup. You cannot change the sample rate when it running downhole from the surface, so use the fastest you need.
- 4) You will be asked to attach the Gopher SRO to the computer. Press *OK*



- 5) Disconnect the Serial or USB connection from the Interface Box and attach it to the SRO box.

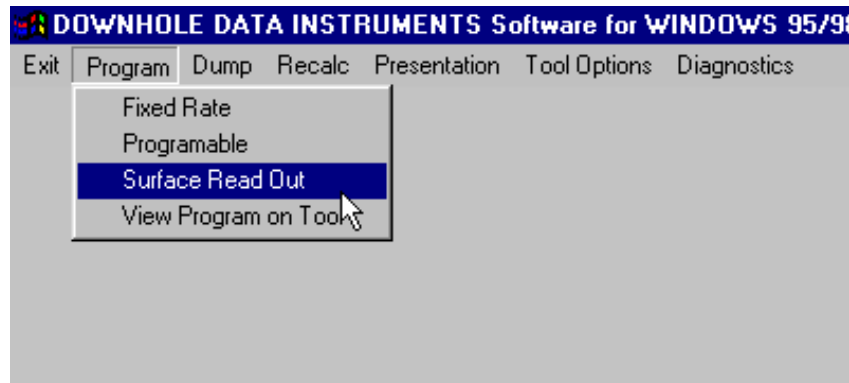


Then press *OK*.

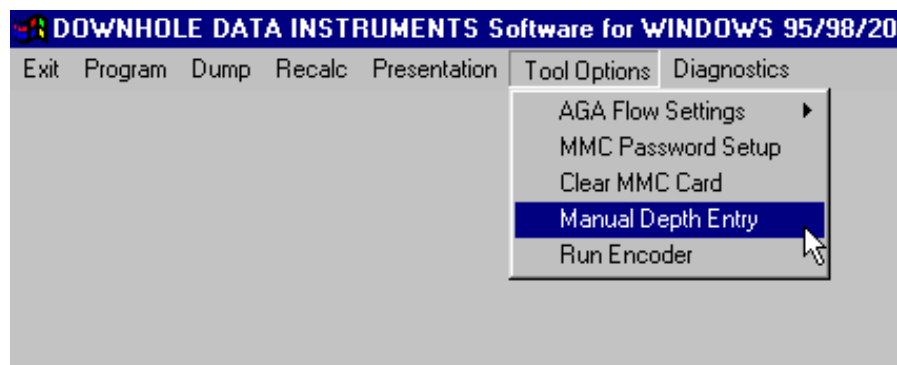


- 6) At this point the calibration file we be transferred to the Gopher so that the correct pressure can be viewed on the LCD display. If you use a different downhole tool and don't reprogram the SRO box, it will display bad data.
- 7) Attach the Downhole to the E-line
- 8) Attach the Gopher SRO to the E-line
- 9) At this point you should see the data on the Gopher LCD within a minute depending on you sample rate. If your sample rate is 2 minutes it will take over two minutes to see the first sample.
- 10) If you do not see the pressure come up make sure your connections are good

- 11) If you want to Graph the pressure data in real time attach you computer to the Gopher via the USB or serial port. Then choose *Sample to Terminal* under the *Diagnostics* Menu. As the data is received to the Gopher it will be displayed on the graph.



- 12) The Gopher SRO can keep track of the depth if its hooked up to a computer. Under *Tool Options* is *Manual Depth Entry*. You can enter the depth here and it will be logged and displayed on the Gopher.



- 13) Download the Gopher like any other DHI tools via the *Dump* menu.