

MicroStrain[®] Quick Start Guide



3DM-DH3[™] Downhole Orientation Sensor and Data Logger

Version

- 3DM-DH3[™] firmware 10
- 3DM-DH3[™] software 1.0.2

Starter Kit

The 3DM-DH3[™] starter kit contains:

- 3DM-DH3[™] orientation sensor/datalogger
- RS-422 communication and power ribbon cable (3 meters)
- EasySYNC[™] RS-422/RS-232 adapter
- EasySYNC[™] driver CD
- USB cable (2 meters)
- 9 VDC power supply (100-240VAC, 4 universal adapters)
- 3DM-DH3[™] utility software CD (Windows[®] XP, Vista, 7)

Software Installation

- Insert the 3DM-DH3[™] utility software CD into your CD-ROM drive and follow the on-screen instructions to install the software.
- Insert the EasySYNC[™] driver CD into your CD-ROM drive and follow the on-screen instructions to install the driver.

Hardware Installation

- Insert the 16-pin black connector on the RS-422 ribbon cable into the end connector on the 3DM-DH3[™] observing the keyway.
- Connect the 9-pin DB9 connector of the ribbon cable into the EasySYNC[™] Serial connector.
- Set the EasySYNC[™] dip switches 1, 2, 3 and 4 to the ON position to enable RS-422 operation.
- Connect the power supply to the power pigtail on the RS-422 ribbon cable and into a power receptacle.
- Connect the USB cable to the EasySYNC[™] USB connector and into your host PC.
- Depress the 2-position red switch on the ribbon cable to its IN position.

Software Operations

- Launch the 3DM-DH3[™] utility software and the Main screen will appear.
- Click File and a drop-down menu will appear.
- Click Connect and the Connect window will appear.

- Click the Connect button and the application will auto-detect the 3DM-DH3™.
- When found, a message box will appear indicating successful connection.
- Click OK and the message box will disappear.
- The model number, serial number, model name, device options, firmware version and comm port will now be displayed.

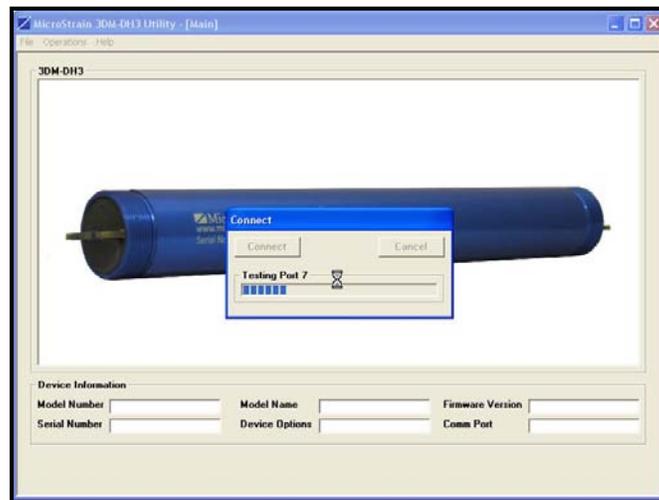


Figure 1

- Click Operations and a drop-down menu will appear.
- Click Data.
- Click Get Immediate Sensor Data As Angles and the Get Immediate Sensor Data As Angles screen will appear.
- Click File and a drop-down menu will appear.
- Click Get Immediate Sensor Data As Angles.
- The software will begin continuous sampling of the 3DM-DH3™ for inclination, azimuth, dip angle, GTF, MTF, G-TOT, H-TOT, accelerometer temperature and magnetometer temperature.
- All measurements will be output to the screen and automatically written to file.

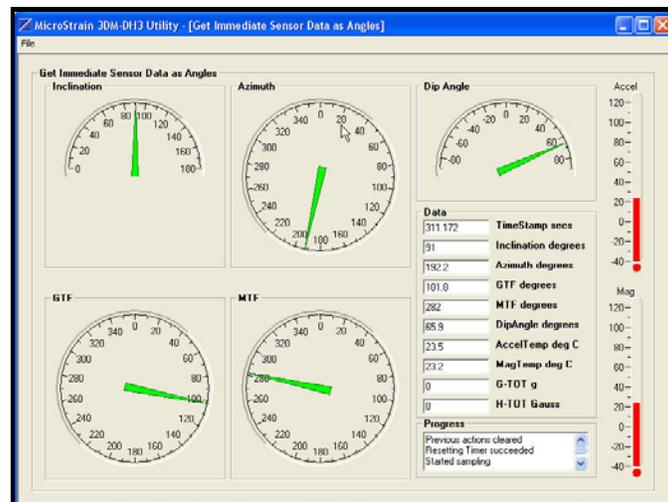


Figure 2

- To stop sampling, click File and a drop-down menu will appear.
- Click Get Immediate Sensor Data As Angles (a check appears to the left indicating sampling is active) and sampling will cease.
- Click Return and return to the Main screen.
- Click Operations, click Data, click Read Logged Data Records and the Read Logged Data Records screen will appear.
- Click File. Click Read Logged Data Records.
- The software will download all data records that have been previously recorded and stored on the 3DM-DH3™.
- When complete, a message box will appear indicating success.
- Click OK and the message box will disappear.
- The data will include X, Y and Z accelerometer, X, Y and Z magnetometer, accelerometer and magnetometer temperatures.
- All measurements will be graphed to the screen and automatically written to file.
- Click the Accelerometers, Magnetometers or Temperatures tabs to see the individual data sets.

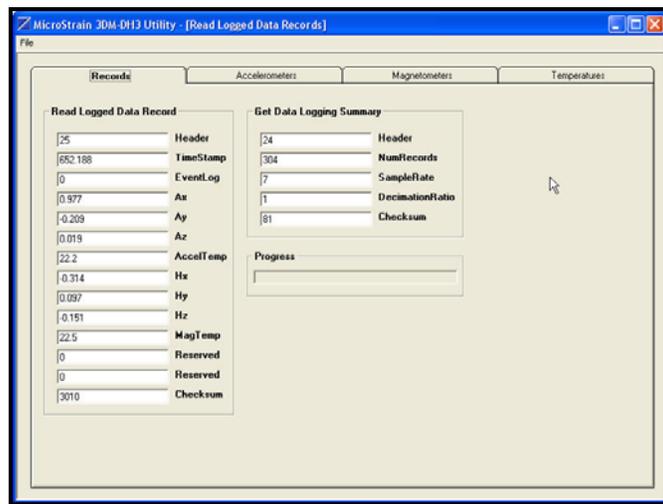


Figure 3

Congratulations!

You are off and running! Please carefully read the 3DM-DH3™ Operation Manual to learn how to successfully put your downhole orientation sensor and datalogger to work.

Note: 2-position Button on Ribbon Cable

- By depressing the button, a channel is opened to the host computer for communication; it must be depressed to communicate.
- By releasing the button, the 3DM-DH3™ is switched to begin Data Logging or Deep Sleep Mode and will continue in either state until depressed.
- Please note on page 7 and 9 of the [Operation Manual](#) that depressing the button is equivalent to shorting pins 2 and 3 together at J2 and releasing the button is equivalent to open-circuiting pins 2 and 3 at J2.