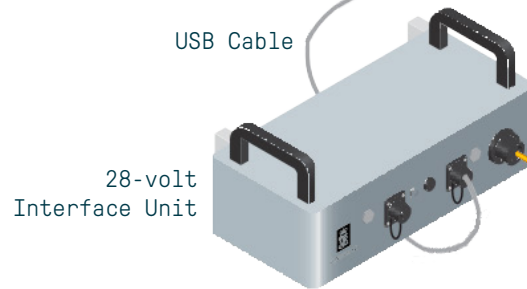# ALTIMETER QUICK START

## MS1000 MODE

In this mode, the altimeter is controlled by the MS1000 Software.

- Allows multiple altimeters and sonars to be connected with a single cable (MS1000 Software Standard Edition only). You can run one altimeter with the MS1000 Software Express Edition.
- Provides a visual depth display.

1. Install the hardware and software.
   a. Connect the system units as shown.
   b. Power up the computer.
   c. Insert the USB flash drive into the computer.
   d. Run the MS1000 Software Setup file.
   e. Apply the default settings during installation.
2. If you are using the MS1000 Software Standard Edition, plug the software key (dongle) into a USB port on the computer.
3. Double-click the MS1000 icon to start the software.
4. Connect to the altimeter.
   a. In the MS1000 Software, click the **Setup** tab.
   b. Click the **Connect Sonar** button.
   c. In the **Devices** list, select the port for your altimeter.
   d. Make sure the **Enable for Head Control** box is checked.
   e. Apply power to the Interface Unit.
   f. Click the **Detect Heads** button.
   g. After the altimeter is detected, click **Apply**, then **OK**.
5. Click **System → Run**.
6. Right-click in the sonar view to open the context menu.
7. Click **Altimeter** to open the **Depth Display** window.

Plug your USB cable into a dedicated port on your PC. Do not connect to a USB hub (you may use a hub for other USB devices).

USB Cable

28-volt Interface Unit

Your hardware may differ from what is shown here, depending on your deployment.

Deployment Cable

If you are using a standalone altimeter, you can enter MS1000 mode, but only within ten seconds after power up.

If the software does not detect the altimeter within ten seconds after the altimeter powers up, then the altimeter will enter its default standalone mode.

MS1000-configured Altimeter

KONGSBERG

# ALTIMETER QUICK START

## 807 MODE

A standalone mode with an analog output interface. Range measurements are output continuously as a DC voltage.

The output voltage scale is configurable according to your needs. The following range scales are commonly used:

0 - 4.88V (5V over-range)
0 - 10V (10.24V over-range)

1.  Connect the altimeter to a DC voltmeter.
2.  Measure the output level with your DC voltmeter. With the altimeter out of the water, you should read an over-range level (+/- 0.05V). The over-range level you read depends on which range scale you are using.
3.  Make sure that the supply current is between 150 and 450 milliamps.
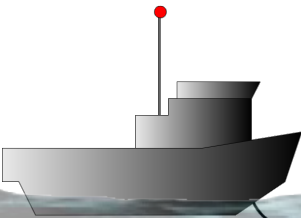
## 808 AND 809 MODES

Standalone modes with a digital output interface. Range measurements are output in ASCII format. 809 mode has more downlink command options than 808 mode. For example, range, detection, and output scaling are programmable via serial commands in 809 mode. For a list of commands, see the *Altimeter Operator Manual*.
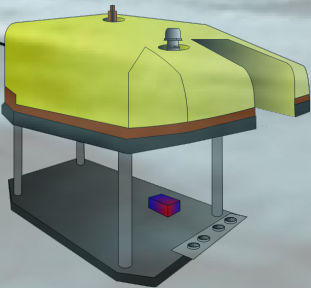
1.  On the computer, run your terminal emulation software or other third-party software to process altitude data.
2.  Take the altimeter out of the water.
3.  Issue an XOFF (Ctrl-S) character to the altimeter to pause pinging.

    You may need to issue XOFF several times. The altimeter listens for commands for only a short period of time between pings.

4.  Issue a command to the altimeter, then wait for and process acknowledgement from the altimeter (809 mode only).
5.  Issue an XON (Ctrl-Q) character to the altimeter to resume pinging.
6.  With the altimeter out of the water, observe that the ASCII output is 00000 (for 808 mode) or an empty range field (for 809 mode).

Standalone altimeters can connect to the data acquisition system or telemetry system of an ROV or AUV. You do not need to install the MS1000 Software.

Use the ALTCONFIG software to re-configure the operating mode, interface type, and analog output scaling (for altimeters with a digital output interface only). Contact Kongsberg Mesotech for further details.

For all standalone modes, test the altimeter in water using a known height within the unit's min. and max. range. Make sure that the output reading is stable, corresponds to the height above bottom, and decreases as the altimeter is lowered. Note that the altimeter must be lowered by at least as much as the current resolution of the altimeter to see a change.