



**DataAquisitionUnit
V1.0**



1. Introduction	3
2. Out of the box.....	3
2.1. Content	3
2.2. Note	3
3. Identifying parts	3
3.1. Connectors.....	3
3.2. Buttons	3
4. Operation.....	4
5. Charging	4
6. Wireless connection	5
6.1. Trouble shooting guidelines	5
6.1.1. Antenna connection.....	5
6.1.2. Line of sight	5
6.1.3. Short range	5
6.1.4. Restart.....	5
6.1.5. Antenna alignment	5
6.1.6. Interference.....	5
7. Specifications	5



1. Introduction

This manual describes the DataAquisitionUnit. This unit must be used in combination with an OperationalUnit.. The DataAquisitionUnit forms the hart of a DepthCalibrator setup. It accurately measures pressures and broadcasts these to the OperationalUnit.

For information how to setup both units, check the DepthCalibrator manual.

This manual has been written on the V1.8 firmware in the device.

2. Out of the box

2.1. Content

On delivery the Operation Unit is equipped with the following things.

- Antenna with straight and angled connector
- This manual

2.2. Note

The devices might not be fully charged on delivery, make sure to charge them before use.

3. Identifying parts

3.1. Connectors

The unit has 2 connectors.

- A TNC radio antenna connector
- A 2 pole male charge input connector

3.2. Buttons

- Power on button

Device is powered on when the button is pressed in.



4. Operation

1. Ensure that the batteries have been charged for an extended period of time.
2. Attach antenna.
3. Power up the device
4. Possibly attach pressure sensor to lowering device.
5. Lower pressure sensor

Note: In normal operation the accurate pressure information will be broadcasted wirelessly.

5. Charging

When the input supply is connected the internal batteries will be charged. When delivered in a DepthCalibrator setup, charging can be done from the OperationalUnit.



6. Wireless connection

6.1. *Trouble shooting guidelines*

Following guidelines give a base for troubleshooting whenever a wireless link fails.

6.1.1. **Antenna connection**

Check whether the antennas on both devices are firmly attached.

6.1.2. **Line of sight**

Communications functions best when both devices have a clear line of sight. Too many obstacles might prohibit good functioning. Try to reduce the amount of surrounding metal in the communication path.

6.1.3. **Short range**

When troubleshooting try to startup communication in a short range. Ideally with both the devices next to each other.

6.1.4. **Restart**

Shutdown both devices and plug them into their power supply. Restart the devices.

When uncertain whether the devices were charged properly, charge them for an extended period.

6.1.5. **Antenna alignment**

In case of bad communication try to align the antennas in the same direction. In example, both vertical.

6.1.6. **Interference**

The radio connection works on a frequency of 869,525 MHz with a bandwidth of 100kHz. When other devices are working in this frequency area problems might occur. Note: some GSM providers work around this frequency, a cell phone close to the receiver might mess up the connection.

7. Specifications

- Average charging time: 16 hours
- Average uptime: 10 hours
- Dimensions: w x h x d: 300 x 390 x 220mm
- Temperature Range: -20 to +60C
- Frequency : 869,525 MHz
- Bandwidth : 100 kHz
- Input Supply: 15VDC