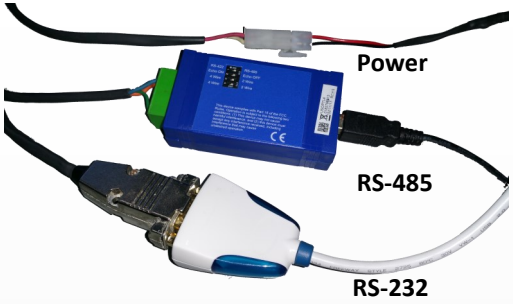
Quick Start Guide

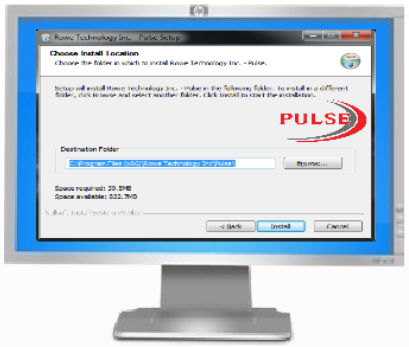
ADCP Communication and Recording

Acoustic Doppler & Imaging Technologies

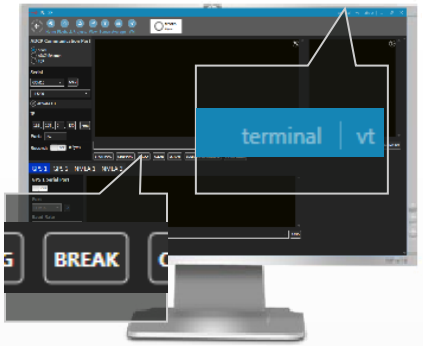
1 Connect the underwater cable to the ADCP.



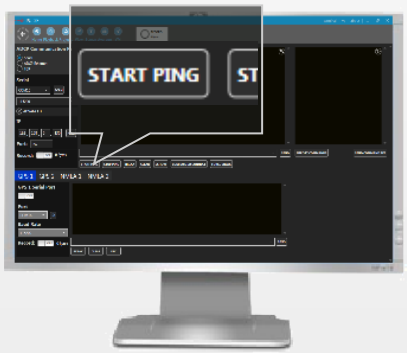
2 Connect the power and serial communication to the underwater cable. Connect the USB serial communication to the computer. Plug the power into the wall.



3 Install Pulse. Install any windows drivers for the USB –To-Serial adapters if required. The software and drivers can be found on the USB memory stick.



4 Open Pulse, go to TERMINAL in top right corner. Set the serial port and baud rate. By default the ADCP is 115200 8N1. Then click the BREAK button to verify communication.



5 Configure the ADCP. Then click the "START PING" button to begin collecting data.

Common Commands

CDEFAULT—Set Default settings

CWS—Salinity

0=Fresh water

35 = Salt water

CHO—Heading offset or declination

CEI—Data Output timing

Profile Range

CWPBL—Blank

CWPBN—Number of Bins

CWPBS—Bin Size

CWPBB—Set Lag Length

CSAVE– Save all settings

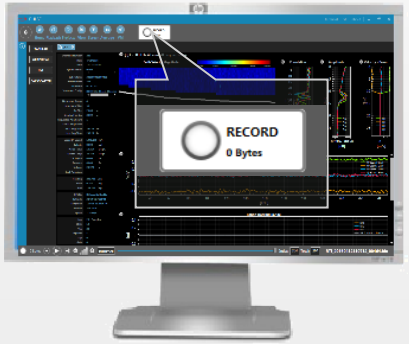
START– Start pinging

Note:

Use the prediction model in Pulse to verify all commands meet your requirements.

Home->ADCP Utilities->ADCP Prediction Model

6 Once the ADCP begins to stream data to the terminal, click the VIEW button on the navigation bar to view the data.



7 To record data, click the RECORD button on the top navigation bar. Data will record to C:\RTI_Capture

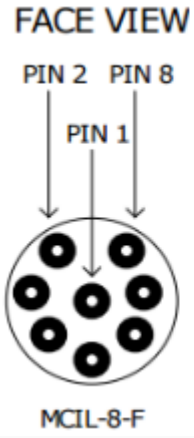
858.842.3020 | www.rowetechinc.com | support@rowetechinc.com

Rev: C

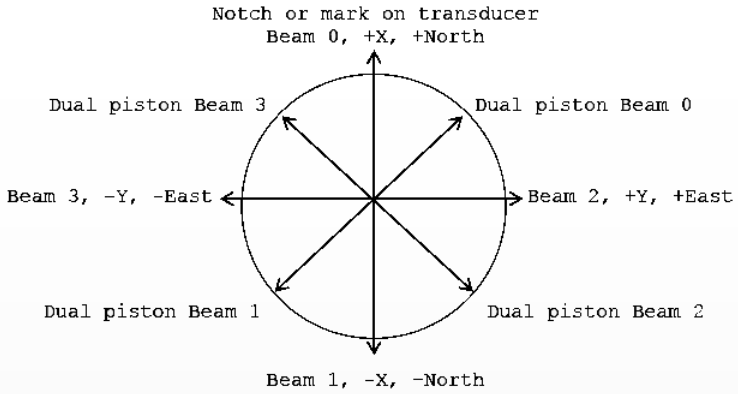
Quick Start Guide

ADCP Hardware and Configuration

Acoustic Doppler & Imaging Technologies



MCIL-8-F	DB-9	RS-485	POWER	TRIG
1-BLK	PIN 3 RS232 IN			
2-WHT	PIN 2 RS232 OUT			
3-RED			PIN 1 VIN (+)	
4-GRN	PIN 5 DAT_COMM	PIN 5 DAT_COMM		PIGTAIL DAT_COMM
5-ORG		PIN 2 RS485 (B+)		
6-BLU		PIN 1 RS485 (A-)		
7-W/B			PIN 2 VRTN (-)	
8-R/B				PIGTAIL TRIG



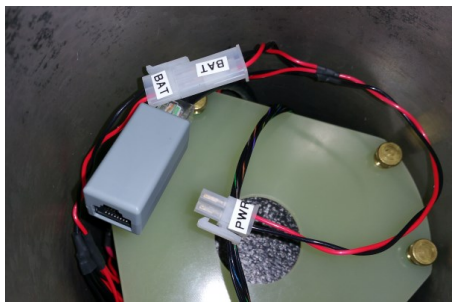
Downward facing Transducer (face away from observer)

ADCP Batteries

Batteries are not initially connected when shipped. When ready to deploy, connect the batteries by connecting the battery connectors to the available power connectors on the pigtail within the housing.

When reassembling the endcap, ensure the o-ring is placed properly in the groove. After sealing the endcap to the housing, ensure a proper seal. Slide a paper against the opening of the endcap and housing and make sure the paper does not touch the o-ring.

Voltage: 28v-30v 38 C-cell batteries
Fuse: 5a



Prediction Model

The prediction model will help you create a deployment. The things to keep in mind for a deployment are the:

- Maximum Measureable Velocity
  Boat Speed + Water Speed
- Standard Deviation of Velocity
- Battery Consumption (Number of Batteries)
- Data Consumption (SD Memory Card)
- Profile and Bottom Track Range

ADCP Utilities->ADCP Prediction Model

Maintenance

- **Batteries**

Replace the batteries when dead. A dead battery will read a voltage of 15v to 17v under load.

- **Desiccant**

Desiccant should be replaced every year.

- **O-Rings**

O-Rings should only be replaced if damaged. When sealing the housing make sure not to pinch or cut an O-Ring.

GPS Heading

Due to magnetic interference from the environment, the internal compass may not be useable. A GPS can be connected directly to the ADCP through the RS-232 port of the ADCP's underwater cable. Then set the baud rate of the GPS using the command **C232B**. Then send the command **CHS 2** to use the GPS compass.

C232B 19200
CHS 2

BREAK or Wake-Up Statement

Direct Reading
DP1200
SN: 012000000000000000000000000000208
FW: 00.02.82 Feb 19 2016 13:58:12

ADCP Power

Max Voltage: 36v
Min Voltage: 12v
Min Current: 3a

ADCP Baud Rate

Default: 115200 8N1

To change the RS-485 baud rate to 921600, send the command:

C485B 921600