

Getting Started with the LongRanger / QuarterMaster

Step 1

Verify all parts are present

The standard LongRanger/QuarterMaster ADCP includes:

- LongRanger or QuarterMaster ADCP
- I/O Cable
- Shipping case
- Spare Parts Kit
- Software and Documentation download instructions
- Check packing slip for additional options

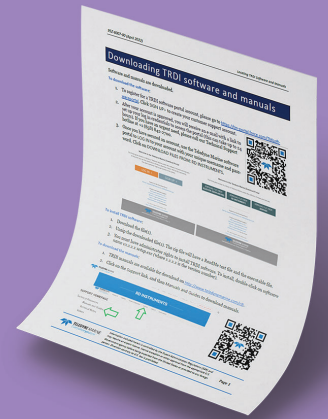


Step 2

Download the Software and Documentation

See Deployment Guide for details:

- Install TRDI Toolz
- Install WinSC, PlanADCP, WinADCP
- Install ADCP Utilities (optional), other as needed
- Download LongRanger/QuarterMaster manuals



Step 3

Communication and Power Setup

See the reverse side of this guide for detailed instructions.



Step 4

Read the Deployment Guide



Product Features

- **Versatility:** Direct reading or self contained, moored or moving, the LongRanger / QuarterMaster provides precision current profiling data when and where you need it most.
- **Set it and forget it:** The highly reliable and energy-efficient LongRanger / QuarterMaster can be deployed for three, six, or even twelve months of worry-free operation.
- **A four-beam solution:** Teledyne RDI's patented 4-beam design improves data reliability, improves data quality, and improves data accuracy.
- **Precision data:** Teledyne RDI's patented BroadBand signal processing delivers very low-noise data, resulting in unparalleled data resolution and minimal power consumption.
- **Collect data at your desk:** the LongRanger / QuarterMaster can operate in realtime or stored-data mode. Third-party products are available for delivery of data via an acoustic modem and radio data transfer direct to your desktop.

Applications

Long-range, long-term, and reliable, the LONG RANGER is the best choice for gathering detailed data on seasonal and annual current structure fluctuations for scientific research and offshore oil and gas applications. Hundreds of Long Ranger units are currently deployed on:

- Environmental monitoring buoys
- Offshore oil rigs
- Polar research moorings

Teledyne RD Instruments' WORKHORSE QUARTERMASTER has been designed to fill the gap between Teledyne RDI's higher frequency 300 kHz Workhorse units and the 75 kHz Long Ranger. The Quartermaster is ideally suited for current profile measurements that may require up to 300m range. The unit provides an unsurpassed combination of range, resolution, and versatility, thanks to Teledyne RDI's Broadband technology. The Quartermaster is ideally suited for:

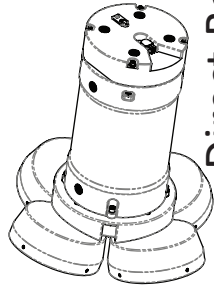
- Ocean observatories
- Shelf-edge profiling
- Upper ocean dynamics

Step 3 Communication and Power Setup - Detailed Instructions

Step 3 A Cable Connection Overview

100 to 240 VAC
50/60Hz

AC Power Adapter



Direct-Reading ADCP

MEMORY CARD
(INSTALLED ON DSP BOARD)

450 Wh BATTERY PACKS (4)
(NOT CONNECTED WHEN SHIPPED)
Self-Contained ADCP

48 VDC

I/O CABLE
to Serial Port
(COM1 or COM2)

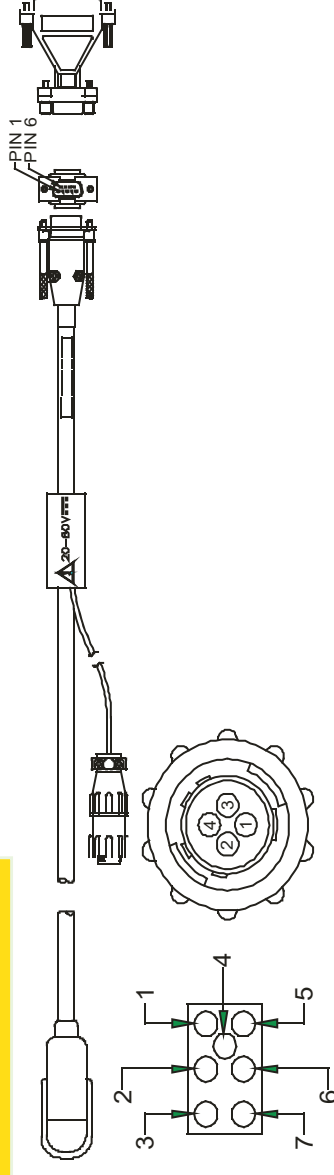
Long Ranger / QuarterMaster batteries are shipped inside the ADCP but not connected. Connect the battery and seal the ADCP before deployment. For testing, the battery can be disconnected to save battery power. If the battery is connected, use the AC power adapter to override the battery voltage to conserve the battery.



Step 3 B Connecting the I/O Cable

1. Place the LongRanger/QuarterMaster on its transducer face on a soft surface.
2. Remove the Dummy Plug and lubricate the connector.
3. Connect the I/O cable to the Long Ranger / QuarterMaster ADCP. Do so by pushing straight in against the connector. Roll the retaining strap/Cable Clip with O-Ring over the connector.
4. Attach the I/O cable to the computer's serial communication port. Use an RS-422 to RS-232 adapter if the ADCP is configured as RS-422.
5. Connect the AC power adapter to the I/O cable.
6. Establish communications with the LongRanger/QuarterMaster.

Prior to each connection:
Lubricate mating surfaces with
Silicone (included in Spare Parts).
DO NOT grease!



Step 3 C Setting Up the Communications

To establish communications with the LongRanger/QuarterMaster:

1. Connect and power the system as shown in Steps 3A and 3B.
2. Start the *TRDI Toolz* software (installed in Step 2).
3. Select **New Serial Connection**.
4. Select the COM Port the serial cable is connected to and set the Baud Rate from the drop down lists.



5. Click the **Connect** button. Once connected, the button will change to Disconnect.
6. Click inside the terminal window and then click the **Break** (⚡) button located at the bottom left of the terminal window. The wakeup banner below will be displayed.

[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 50.38
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Refer to the Deployment Guide for further information.