Mariner Setup Card

Documentation

Thank you for purchasing a Teledyne RD Instruments (TRDI) Mariner Acoustic Doppler Current Profiler (ADCP). All documentation is being provided to you on CD in a fully searchable, printable, electronic format. This way, information is always available, whether you are at the office or in the field, and the electronic format is an environmentally friendly way to provide a large set of technical manuals. The documentation for each software program is located on the software program's CD.

To purchase a printed copy of the system documentation (includes the WorkHorse Operation Manual and software guides), contact our Customer Service department at rdifs@teledyne.com or call (858)-842-2600 and order the WorkHorse Technical Manual kit.

How to Contact Teledyne RD Instruments

If you have technical issues or questions involving a specific application or deployment with your instrument, contact our Field Service group:

Teledyne RD Instruments

14020 Stowe Drive
Poway, California 92064

Phone +1 (858) 842-2600

FAX +1 (858) 842-2822

Sales – rdisales@teledyne.com

Field Service – rdifs@teledyne.com

Teledyne RD Instruments Europe

2A Les Nertieres
5 Avenue Hector Pintus
06610 La Gaude, France

Phone +33(0) 492-110-930

FAX +33(0) 492-110-931

Sales – rdie@teledyne.com

Field Service – rdiefs@teledyne.com

Client Services Administration – rdicsadmin@teledyne.com
Web: http://www.rdinstruments.com
24 Hour Emergency Support +1 (858) 842-2700

Unpacking and Inventory

When unpacking, use care to prevent physical damage to the transducer faces and connector. Use the protective cover and a soft pad to protect the transducer. When handling any electronics modules, follow electrostatic discharge (ESD) prevention measures.

Use the following figure to ensure you have all of the Workhorse equipment.

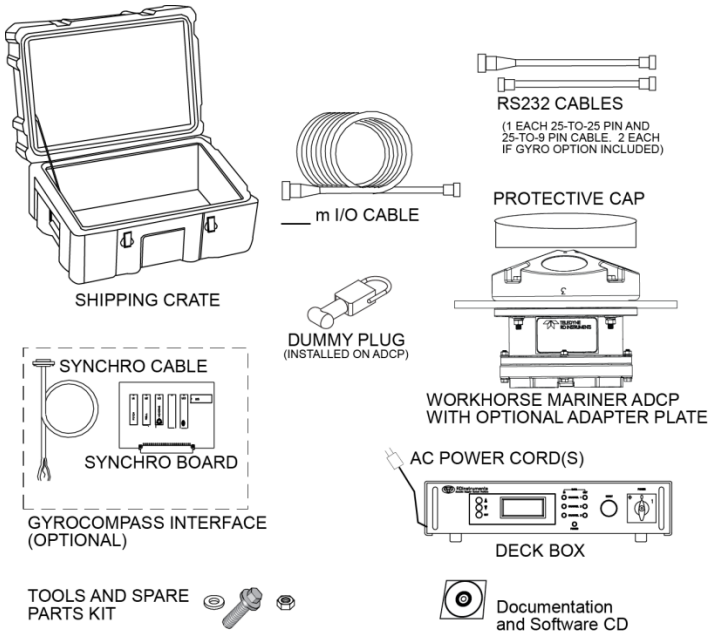


Figure 1. ADCP Inventory

Set Up the ADCP

Use this figure to connect the ADCP to a computer for a bench test. Refer to the Workhorse Operation Manual for more details on system interconnections.

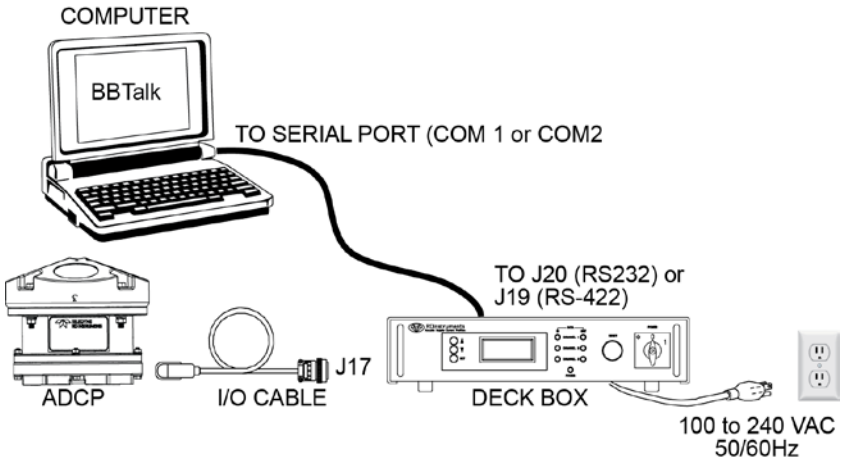
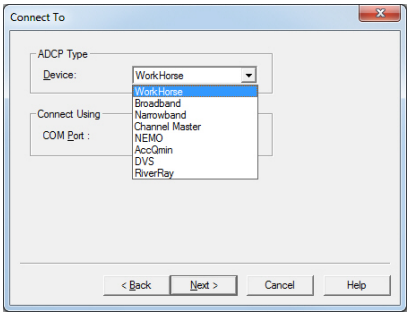


Figure 2. ADCP Connections

Connecting to the WorkHorse

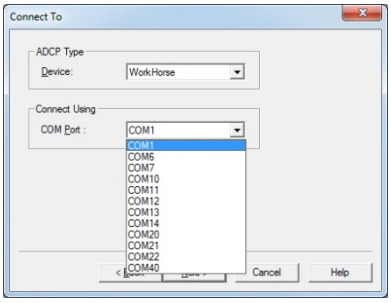
To connect to the WorkHorse ADCP:



Start BBTalk

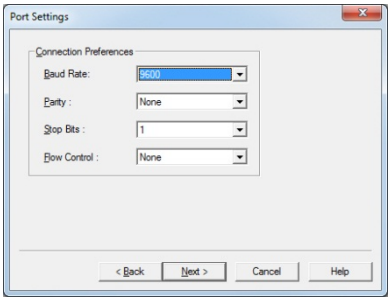
Start the *BBTalk* program (for help on using *BBTalk*, see the RDI Tools User's Guide).

On the **Connect To** screen, select **WorkHorse**.



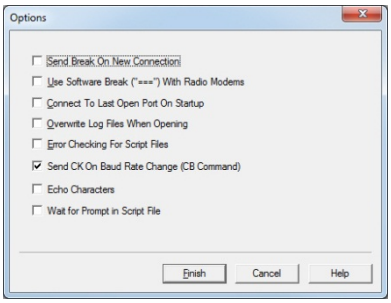
Select the COM port the WorkHorse ADCP cable is connected to.

Click **Next**.

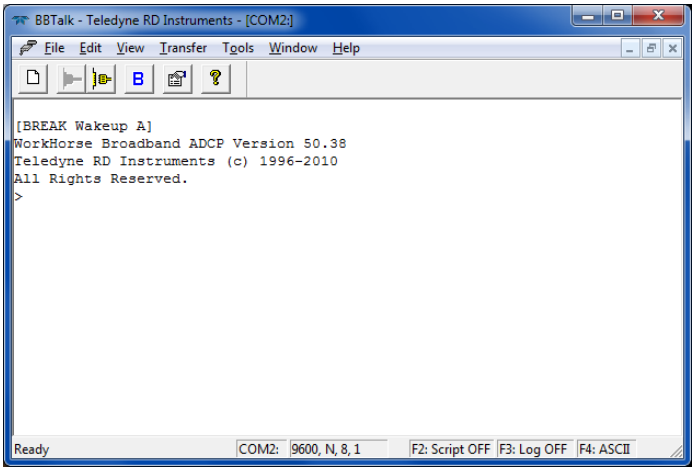


Enter the **Baud Rate**, **Parity**, **Stop Bits**, and **Flow Control**. If you are unsure of the settings, leave them at the default settings as shown.

Click **Next**.



Click **Finish**.

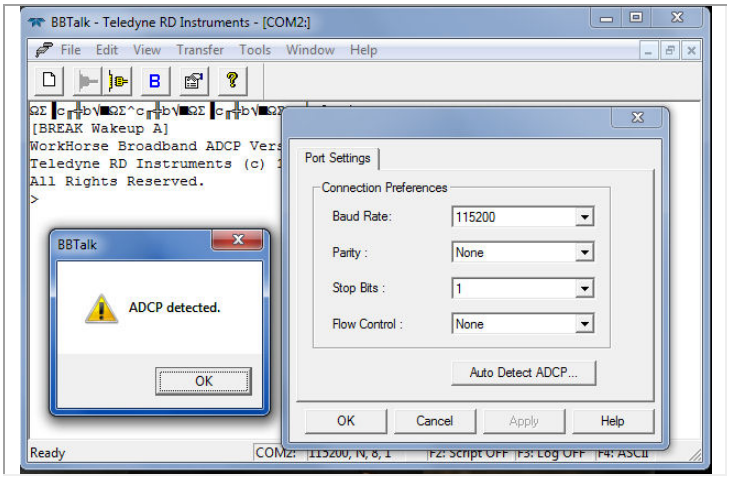


Wakeup

On the **File** menu, click **Break** (you can also press the **End** key to send a break or press the **B** button on the Toolbar).

You should see the wakeup message appear on the log file window.

If your ADCP does not respond, check the serial port, cables, AC power, and battery connection (Self-Contained only). If necessary, refer to the Troubleshooting section in the WorkHorse Operation Manual.



If the wakeup message is not readable or visible:

On the **File** menu, click **Properties**.

Click the **Auto Detect ADCP** button.

Click **OK** when the ADCP is detected. Try to wake up the ADCP again.

Both *BBTalk* and the ADCP must use the same Baud rate.

Changing the Baud Rate in the ADCPs

The WorkHorse ADCP can be set to communicate at baud rates from 300 to 115200. The factory default baud rate is always 9600 baud. The baud rate is controlled via the CB-command. The following procedure explains how to set the baud rate and save it in the ADCP. This procedure assumes that you will be using the program *BBTalk* that is supplied by Teledyne RD Instruments.

```
[BREAK Wakeup A]
WorkHorse Broadband ADCP Version 50.38
Teledyne RD Instruments (c) 1996-2010
All Rights Reserved.
>cr1
[Parameters set to FACTORY defaults]
>
```

Connect the ADCP to the computer and apply power.

Start the *BBTalk* program and establish communications with the ADCP. Wakeup the ADCP by sending a break signal with the **End** key.

At the ">" prompt in the communication window, type **CR1** then press the Enter key. This will set the ADCP to the factory default settings.

BAUD RATE	CB-command
300	CB011
1200	CB111
2400	CB211
4800	CB311
9600	CB411 (Default)
19200	CB511
38400	CB611
57600	CB711
115200	CB811

Send the CB-command that selects the baud rate you want to use. The table on the left shows the CB-command settings for different baud rates with no parity and 1 stop bit.

For example, to change the baud rate to 115200, at the ">" prompt in the communication window, type **cb811** then press the Enter key.

The **CB?** command will identify the communication setting.

```
>cb?
CB = 411 ----------------- Serial Port Control
(Baud [4=9600]; Par; Stop)
>cb811
>CK
[Parameters saved as USER defaults]
>cb?
CB = 811 ----------------- Serial Port Control
(Baud [8=115200]; Par; Stop)
>
```

BBTalk will send the command **CK** to save the new baud rate setting.

Exit *BBTalk*.

The ADCP is now set for the new baud rate. The baud rate will stay at this setting until you change it back with the CB command.

Exit *BBTalk* so the communication port is available for use with other programs.