

Mariner Setup Card

1. 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 Technical Manual, User's Guide, and software guides), contact our Customer Service department at rdifs@teledyne.com or call (858)-842-2600 and order the WorkHorse Technical Manual kit.

2. 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.

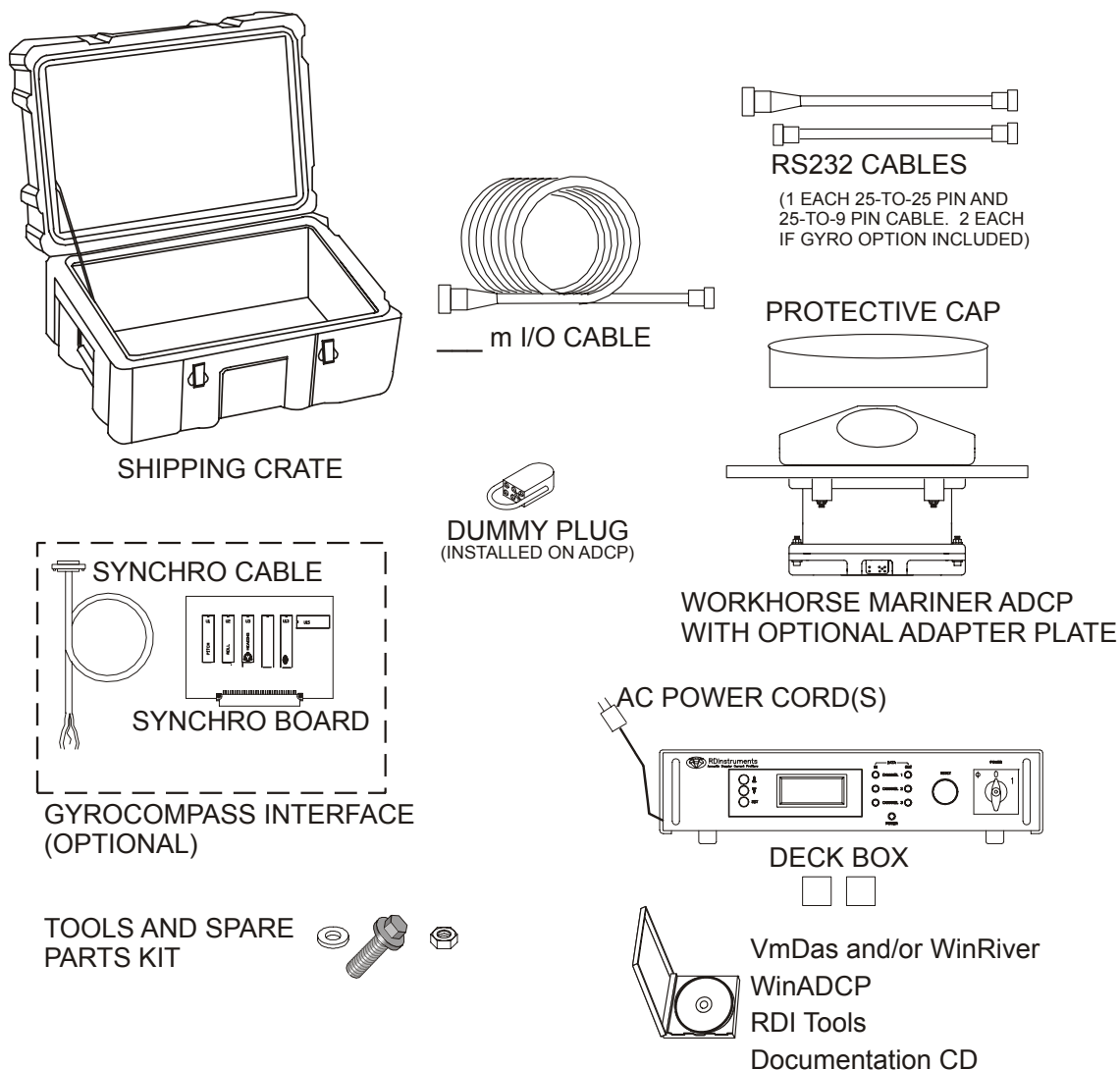


Figure 1. ADCP Inventory

3. Set Up the ADCP

Use this figure to connect the ADCP to a computer for a bench test. Refer to the Mariner User's Guide for more details on system interconnections.

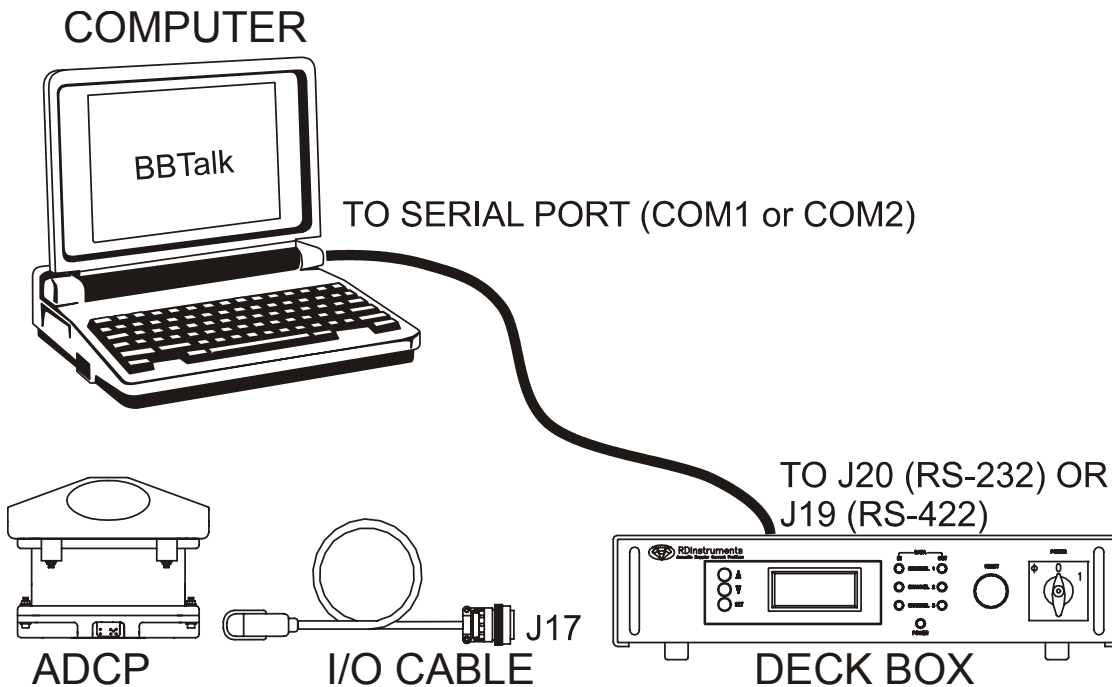


Figure 2. ADCP Connections

4. System Requirements

TRDI software requires the following:

- Windows XP® or Windows 2000®
- Pentium III 600 MHz class PC (higher recommended)
- 64 megabytes of RAM (128 MB RAM recommended)
- 50 MB Free Disk Space plus space for data files (A large, fast hard disk is recommended)
- One Serial Port (two or more High Speed UART Serial Port recommended)
- Minimum display resolution of 1024 x 768, 256 color (higher recommended)
- CD-ROM Drive
- Mouse or other pointing device

5. Install the Software

To install the software, do the following.

- Insert the compact disc into your CD-ROM drive and then follow the browser instructions on your screen. If the browser does not appear, complete Steps “b” through “d.”
- Click the **Start** button, and then click **Run**.
- Type **<drive>:launch**. For example, if your CD-ROM drive is drive D, type **d:launch**.
- Follow the browser instructions on your screen. Once, installed, you will have a shortcut added to your Windows® **Start** menu.

6. Test the ADCP

BBTalk (included on the RDI Tools CD) will establish communications with the ADCP and run the System Test to make sure the ADCP is functioning properly. If you have questions about *BBTalk* operation, see the [RDI Tools User's Guide](#).

- a. Connect the ADCP as shown in Figure 2. Place the ADCP in a bucket of water (enough water to cover the transducer head). If the Workhorse is not placed in water, some of the tests will fail (but not harm the ADCP).
- b. Start the *BBTalk* program.
- c. Press <F2> and run the script file TestWH.rds. The results of the tests will be printed to the screen and saved to the log file WH_RSLTS.txt.

7. Workhorse Care

This section contains a list of items you should be aware of every time you handle, use, or deploy your Workhorse. *Please refer to this list often.*

General Handling Guidelines

- Never set the transducer on a hard or rough surface. **The urethane faces may be damaged.**
- Always remove the retaining strap on the end-cap underwater-connect cable and dummy plug when disconnecting them. **Failure to do so will break the retainer strap.**
- Do not apply any upward force on the end-cap connector as the I/O cable is being disconnected. **Stressing the end-cap connector may cause the Workhorse to flood.** Read the Technical Manual for details on disconnecting the I/O cable.
- Do not expose the transducer faces to prolonged sunlight. **The urethane faces may develop cracks.** Cover the transducer faces on the Workhorse if it will be exposed to sunlight.
- Do not expose the I/O connector to prolonged sunlight. **The plastic may become brittle.** Cover the connector on the Workhorse if it will be exposed to sunlight.
- Do not store the Workhorse in temperatures over 60 degrees C. **The urethane faces may be damaged.**
- Do not scratch or damage the O-ring surfaces or grooves. **If scratches or damage exists, they may provide a leakage path and cause the Workhorse to flood.** Do not risk a deployment with damaged O-ring surfaces.
- Do not lift or support a Workhorse by the external I/O cable. **The connector or cable will break.**

Assembly Guidelines

- Read the Workhorse Technical Manual for details on re-assembly. Make sure the housing assembly O-rings stay in their groove when you re-assemble the unit. Tighten the hardware as specified. **Loose, missing, stripped hardware, or damaged O-rings can cause the Workhorse transducer to flood.**
- Place a light amount of silicone lubricant on the end-cap connector pins (rubber portion only). **This will make it easier to connect or remove the I/O cable and dummy plug.**
- Do not connect or disconnect the I/O cable with power applied. An exception to this is the optional external battery case. The external battery case connector is always “hot” when batteries are installed. When you connect the cable with power applied, you may see a small spark. **The connector pins may become pitted and worn.**

Deployment Guidelines

- Read the Workhorse User's Guide and the Software User's Guides. **These guides have tutorials to help you learn how to use the Workhorse.**
- Align the compass whenever the battery pack or flash memory card is replaced, or when any ferrous metals are relocated inside or around the WorkHorse housing. **Ferro-magnetic materials affect the compass.**
- Avoid using ferro-magnetic materials in the mounting fixtures or near the Workhorse. **Ferro-magnetic materials affect the compass.**

8. 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

Customer Service Administration – rdicsadmin@teledyne.com

Web: <http://www.rdinstruments.com>

24/7 Technical Support +1 (858) 842-2700