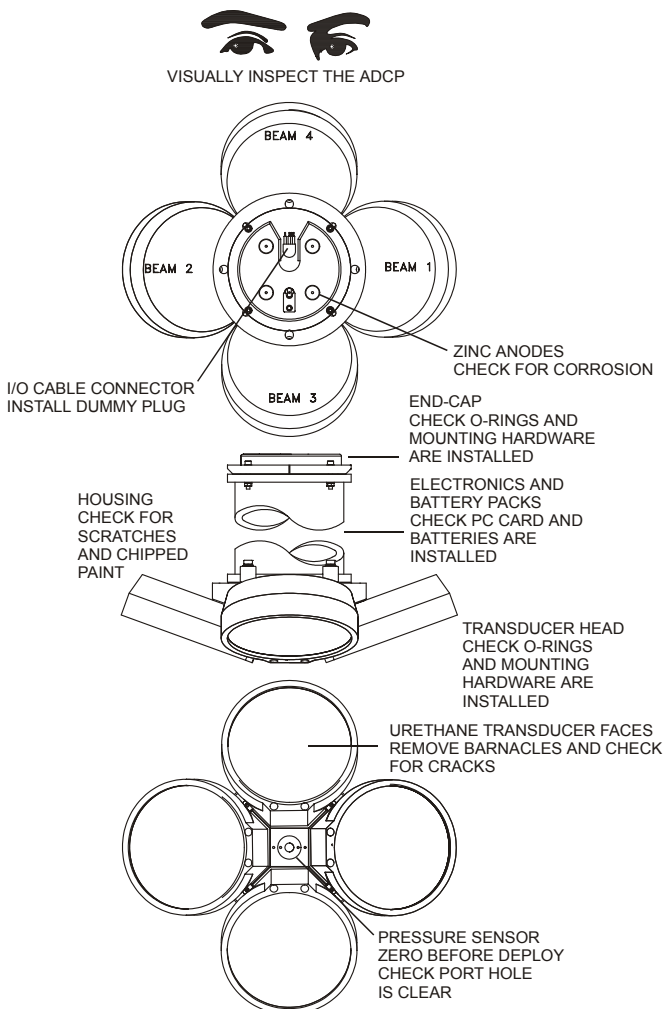


Long Ranger Quick Reference Card

Deployment Checklist

- ❑ Test the ADCP using *WinSC*
- ❑ Seal the ADCP for deployment
 - ❑ Install new o-rings; use silicone lubricant
 - ❑ Use fresh desiccant (2 bags) inside ADCP
 - ❑ Install and connect the battery
 - ❑ Check Recorder PC card is installed
- ❑ Visually inspect the ADCP
 - ❑ Check the transducer head condition
 - ❑ Check the zinc anode condition
 - ❑ Check the housing paint condition
 - ❑ All mounting hardware installed
 - ❑ Transducer faces clean and free from defects
- ❑ Verify the compass alignment using *WinSC*; if necessary, re-calibrate
- ❑ Check recorder status using *WinSC*
- ❑ Are biofouling precautions needed?
- ❑ Verify battery and recorder space requirements
- ❑ Zero pressure sensor at deployment site with the AZ-command
- ❑ Check pressure sensor port hole is clear
- ❑ Install the dummy plug; use silicone lubricant



Long Ranger Care

This section contains a list of items you should be aware of every time you handle, use, or deploy your Long Ranger. *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 ADCP to flood.** Read the Maintenance guide 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 Long Ranger 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 Long Ranger if it will be exposed to sunlight.
- Do not store the ADCP in temperatures over 75 degrees C. **The urethane faces may be damaged.** Check the temperature indicator inside the shipping case. It changes color if the temperature limit is exceeded.
- Store batteries in a **cool dry location** (0 to 21 degrees C).
- Do not store batteries inside the ADCP for extended periods. **The batteries may leak.**
- Vent the system before opening by loosening the end-cap. **If the ADCP flooded with batteries installed, there may be gas under pressure.**
- 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 ADCP to flood.** Do not risk a deployment with damaged O-ring surfaces.
- Do not lift or support a Long Ranger by the external I/O cable. **The connector or cable will break.**

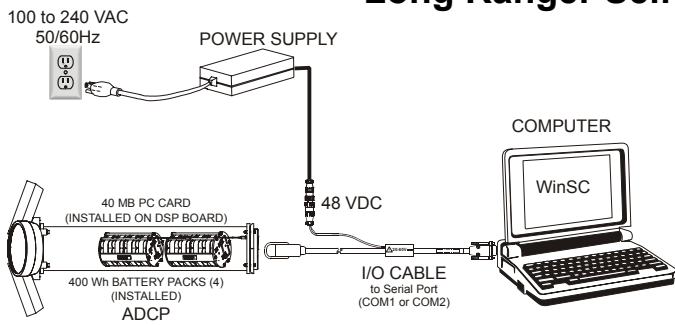
Assembly Guidelines

- Read the Maintenance guide for details on Long Ranger re-assembly. Make sure the housing assembly O-rings stay in their groove when you re-assemble the Long Ranger. Tighten the hardware as specified. **Loose, missing, stripped hardware, or damaged O-rings can cause the Long Ranger transducer to flood.**
- Place a light amount of DC-111 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 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.**
- The Long Ranger I/O cable is *wet mate-able*, not *under water mate-able*.

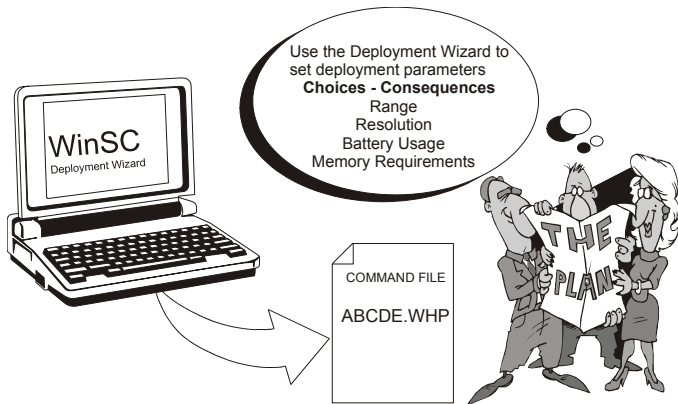
Deployment Guidelines

- Align the compass whenever the battery pack or recorder module is replaced, or when any ferrous metals are relocated inside or around the Long Ranger housing. **Ferro-magnetic materials affect the compass.**
- The AC power adapter is not designed to withstand water. **Use caution when using on decks in wet conditions.**
- Avoid using ferro-magnetic materials in the mounting fixtures or near the Long Ranger. **Ferro-magnetic materials affect the compass.**

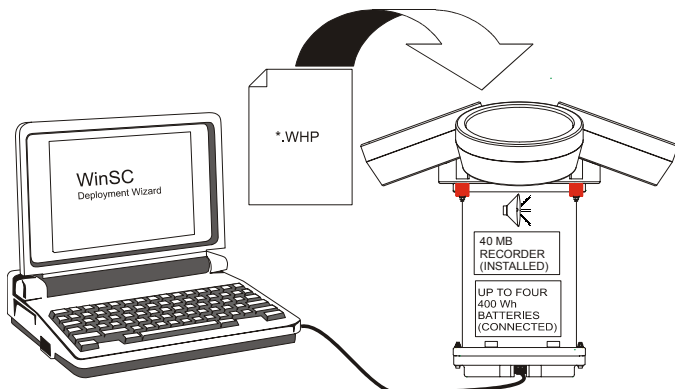
Long Ranger Self-Contained Deployment



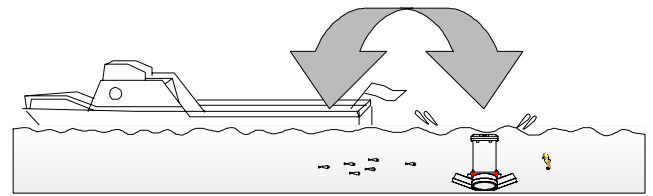
Step 1. Use WinSC to create a new deployment file. Use the Deployment Checklist (other side) to verify that the ADCP is ready for the deployment. Use the Deployment Wizard to test the ADCP, verify the compass calibration, and set the ADCP's clock.



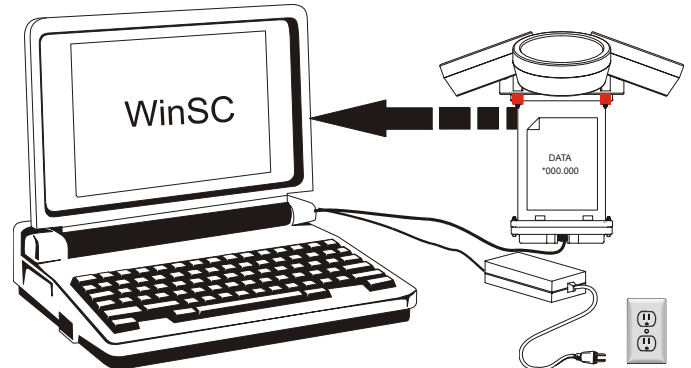
Step 2. Use the Deployment Wizard to plan the deployment. Make choices; see the consequences for the entire deployment.



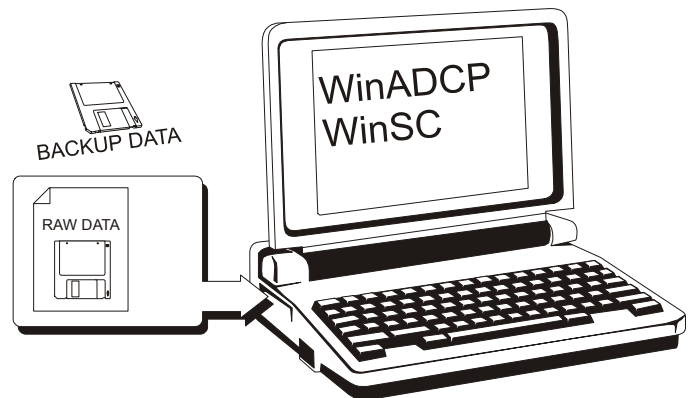
Step 3. Use WinSC's Deployment Wizard to send the deployment commands from ABCDE.WHP to the ADCP. View the deployment log file. This file shows all of the commands sent to the ADCP and the ADCP's response. You should hear the ADCP "beep" after each ping. Disconnect the I/O cable and install the dummy plug.



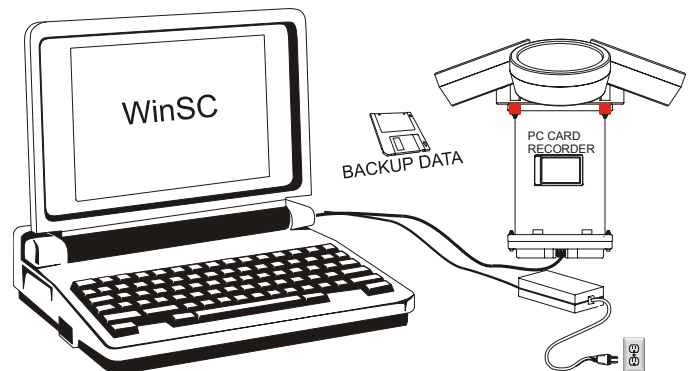
Step 4. Deploy and recover the ADCP. Data files are ABCDE.SCL (deployment log file) and ABCDE000.000 (raw data).



Step 5. Use WinSC to recover data from the recorder. The data will be copied to your computer's hard drive.



Step 6. Always backup your data. Use WinADCP or WinSC to view the data.



Step 7. Use WinSC to erase the recorder and prepare the ADCP for another deployment.