

RaceData3 User Guide

Instrument data on your Apple Watch

For RD3 v1.0

1. Overview

RaceData3 is an iOS and watchOS application that displays real-time sailing data from Expedition Navigation Software.

This App is for those who require data on the wrist, but do not require the full functionality of the RaceData2 iPhone app. The RaceData3 iPhone app is the subscription manager.

Key Features

- Clear, easy-to-read data in customizable layouts (1, 2 3, 4 and 6 data fields, and list of up to 20 lines of data)
- Start sailing session as an Activity to keep RD3 on top, and enable Water Lock

Platform Support

- iOS v16.6+
- wearOS v10+
- Expedition V11+

Data Protocol

- Expedition TCP  RaceData3 Bridge  RaceData3 Apple Watch app

2. Apple Watch and iPhone installation

The Apple Watch RaceData3 app is bundled with the RaceData3 iPhone app.

1. After installing RaceData3 on your iPhone, open the Watch app on your iPhone
2. Scroll down and find RaceData3 in the 'Available Apps' section
3. Tap 'Install' to add it to your Apple Watch

3. RaceData3 Bridge Installation and Setup

1. Download, install and run RaceData3 Bridge from <https://www.fieldyachting.com/apps>
2. Typical setup is the RaceData3 Bridge running on the same machine as Expedition. Set the IP address to 127.0.0.1
3. Set the RD3 IP to 0.0.0.0 for all interfaces

4. To convert Distance Below Line and To Line from m to BL, check the box and set your BL
5. To Auto Start the connection when RaceData3 Bridge is started, check Auto Start
6. For a more comprehensive guide see the Help file in the RaceData3 Bridge application

4. Expedition Setup

Configure Expedition Navigation Software to transmit data to RaceData3 Bridge via TCP.

Step 1: Add a Network Port

1. In Expedition, go to Menu > Instruments
2. Select an available Network port
3. **Note:** If you do not have a spare Network port, add one at Menu > Instruments > # Number of Network Connections

Step 2: Configure Network Port Settings

Configure your Network port with the following settings:

- **Instruments:** Expedition
- **Connection:** TCP Server
- **Address:** This defaults to 127.0.0.1
- **Port:** Default port is 5011. Must match the RaceData3 Bridge.

Step 3: Configure Expedition Settings

1. Click 'Expedition Settings' in the Network port configuration
2. **Exp Rx Filter:** Clear All
3. **Exp Tx Filter:** Select the Expedition channels you wish to send to RaceData2
4. Apply these changes

Step 4: Verify Data Transmission

1. Click Raw Data
2. Verify that data is being transmitted (you should see data streaming in the Raw Data window)

Optional

To automatically start RaceData3 Bridge when Expedition starts, go to Expedition > All Settings > User and add the app to the app list and check the box

4. Apple Watch

Settings

Connection Status

Connecting to... trying to connect to RaceData3
Live (Bridge connected) is connected to RaceData3 Bridge

Subscription Status

Watch inherits subscription status from iPhone app

RaceData3 Bridge Network Settings

Scroll down in Settings to 'RaceData2 Bridge'

Enter the IP address of the PC running the RaceData3 Bridge application
Set the Port to match the RaceData3 Bridge application 'Broadcast' Port

Race Mode

The Apple Watch app uses Apple Health workout sessions to remain active in the foreground while sailing.

1. The first time you use the watch app, grant HealthKit permissions when prompted
2. Tap 'Start Session' in the watch app Settings to start a session and keep the app active throughout your race
3. Tap 'End Session' when you finish racing to resume normal service for your watch

Note: Without an active Sailing Session, the Apple Watch will dim and eventually sleep, and default to your watch face

Water Lock

When a Sailing Session is active, you can lock the watch screen to prevent accidental touches from changing the screen.

1. Start a Sailing Session
2. Double Tap the watch face – you will feel haptic feedback from the watch and see a small blue water drop next to the time in the top right of the watch face.
3. The touch screen and crown dial are now inactive
4. To exit Water Lock, press and hold the crown button until unlocked.

Data Pages

Control adding/removing pages and setting page layouts on the Settings page.

Pages are laid out horizontally. Swiping left/right on the watch face will scroll between pages.

IMPORTANT: The Settings page is always the right most page.

Update Rate

Select your data polling rate. 0.5s for fast refresh, 2s for better battery life

Convert depth to feet

Default is in metres

Stop

Stops requesting data

Refresh

Resets the data requests

5. Troubleshooting

No Data Received

If you are not receiving data, verify the following:

1. **WiFi Connection:** Ensure your watch is connected to WiFi
2. **Same Network:** Your device must be on the same WiFi network as your data source
3. **IP Address Match:** Verify IP address settings
4. **Port:** Verify the port settings
5. **Expedition Streaming:** In Expedition, check Menu > Instruments > Raw Data to confirm data is being transmitted
6. **Windows Firewall:** If external devices cannot connect to RaceData3 Bridge you may set a Windows Firewall rule. You can do this automatically from the Tools menu, or manually:
 1. Open Windows Defender Firewall with Advanced Security
 2. Click "Inbound Rules" in the left panel
 3. Click "New Rule..." in the right panel
 4. Select "Port" and click Next
 5. Select "TCP" and enter port 5001 (or your configured port)
 6. Select "Allow the connection" and click Next
 7. Check all profiles (Domain, Private, Public) and click Next
 8. Name the rule "RaceData3 Bridge" and click Finish

6. Support & Resources

Getting Help

If you need assistance with RaceData3:

- **Email Support:** Contact us through the Field Yachting website
- **FAQ:** Visit fielDYachting.com/faq for additional troubleshooting tips