

## RFEngineers, Inc. Watch Dog receiver – Quick Start Guide

### 1. Download & install the latest version of our FREE Watch Dog Dashboard software

The latest Watch Dog Dashboard software can be downloaded from the Watch Dog downloads web page, which is at <http://www.RFEngineers.com/WD1>. It is a self-installing program for Windows 7 & 10. Simply double-click on the installation file once you've downloaded it and proceed from there.

### 2. Connect the Watch Dog receiver to your computer

Simply connect the supplied USB cable between your computer and the Watch Dog receiver.

### 3. Start the Watch Dog Dashboard software and connect to your Watch Dog receiver

Once you have connected the Watch Dog receiver to your computer and installed the latest version of the Dashboard, start the Dashboard by finding it in the Start Menu, and then click the “Connect to device” button after the Dashboard starts. The Dashboard should find your receiver automatically.

### 4. Basic receiver configuration using the Watch Dog Dashboard

The following parameters for your Watch Dog receiver can be easily changed from within the Watch Dog Dashboard. All settings are stored in EEPROM and your receiver will always return to this configuration anytime it is power-cycled or rebooted. All of the basic receiver parameters are located within the **General settings** pane of the Dashboard:

- Receiver mode (FM, AM, or NOAA Weather)
- Frequency / NOAA Weather channel number
- Main volume and headphone volume levels
- Stereo/mono setting (FM mode-only)
- FM De-emphasis Time Constant (DTC) (FM mode-only)

### 5. Alarm configuration using the Watch Dog Dashboard

Your Watch Dog receiver contains an advanced 32-bit microprocessor and applies a number of Digital Signal Processing (DSP) techniques on various incoming signal characteristics in order to alert you if any parameters ever fall outside of their assigned thresholds (e.g. audio loss or low SNR). A number of different characteristics (see next section below) can be tied to any one of 7 possible alarm outputs (Outputs A through C are connected to the front panel LEDs and outputs D through F are connected to 4 of the General Purpose Output (GPO) pins available on the rear panel (D9 connector). Alarms are active when their underlying characteristics are no longer within their thresholds. These are all configurable by clicking the “Alarm settings” button within the **Alarm states** pane of the Dashboard.

### 6. Watch Dog Dashboard real-time display

Your Watch Dog receiver's microprocessor continually reads and analyzes a number of different signal characteristics and other inputs. All of these readings are located within the **Signal, Live RDS** (FM mode-only), and **Alarm states** panes of the Watch Dog Dashboard:

- Signal to Noise Ratio (SNR) and Received Signal Strength (RSS)
- Multi-path % and stereo pilot indicator (both FM mode-only)
- Left and right audio level meters
- Live RDS information (FM mode-only): PI, PTY, PS, and RadioText (RT)
- Alarm states: SNR, RSS, audio loss, pilot loss (FM mode-only), RDS loss (FM mode-only), and NOAA 1,050 Hz alert tone detected (NOAA Weather mode-only)

**Alternatively, for users without access to a Windows computer or for users who prefer a “command-line approach”, your Watch Dog receiver also contains an advanced, in-depth command-line interface that is accessible via the Watch Dog receiver's USB port and a serial terminal program such as PuTTY. More information on this approach can be found on the Watch Dog downloads page, listed below.**

More documentation is available on the Watch Dog downloads page:

<http://www.RFEngineers.com/WD1>