



AquaRite S3 / S3 Omni

Release notes for Firmware R4.1.0

April 2022

Features and Enhancements

R4.1.0 for the AQR S3 product family is a major release required for full Omni support which includes a Demo Mode, and contains various improvements and bug fixes.

Firmware Revisions Included in this Release

The AQR S3 and AQR S3 Omni consists of up to 4 components (Omni Touch Display, S3 Display, S3 Main Board, S3 Expansion Board) each requiring their own firmware. The main board prior to R4.1.0 only supports USB firmware updates, thus requiring the main board and S3 Display to be updated using the USB connection located behind the dead front. The Expansion Board is only upgradable through the Omni Touch Display as a smart component.

Required System Firmware Version

S3 Main board 515263:	R4.1.0
S3 Display:	R4.1.0
S3 Expansion board 515264:	R4.1.0
Omni Display:	R4.1.0 or later

Firmware Upgrade - Main Board and S3 Display - Must be R1.1.0 or Later

1. On a FAT32 formatted USB drive, copy into the root (top level) directory the upgrade files: **DISPLAY_R4.1.0.bin** and **MAIN_R4.1.0.bin**
2. Power down the AQR S3 and remove the dead front (Refer to User Manual)
3. Insert the USB drive into the USB connection on the main board.
4. Replace the dead front and display.
5. Power up the unit
6. Navigate to Service Mode->Firmware update
"System settings" -> "Service settings" -> "Service Mode" -> "Firmware update".
7. Select component to update then select the matching file and select OK.
8. Once the update is confirmed for both the main board and display, power down the unit, remove USB drive, replace deadfront, then return power to the unit.

Smart Component Firmware Upgrade - Expansion Board (515264)

Note: Firmware files used for upgrades should be stored at the top level (root) of the USB (not placed in folders and subfolders). The preferred USB drive to use is the Sandisk Cruzer. USB drives must be 16GB or less.

9. Copy **AQRS3Omni_AP_R0401000** to a Omni compatible USB drive and place the drive into your Omni controller usb port. **Do not use the USB port on the AQR S3 main board for this update.**
10. Back up your current configuration file by going to “config” > “backup config” > “Backup to USB”
11. Place the system in service mode by pressing the power button in the lower left-hand corner and then select “service mode”.
12. Read the warning message and then select “Yes”
13. Press the down arrow at the bottom of the first service mode screen and then select “Upgrade”
14. Select "AQR S3 Omni" from the list of devices and press the checkmark.
15. Next press USB, then select the AQRS3Omni file, and then press the checkmark.
16. Press the checkmark again to begin the upgrade.
17. When the upgrade has finished, press the checkmark and exit service mode by pressing the power button in the lower left-hand corner and then select 'Exit Service Mode'.
18. To complete the update power cycle the entire AQR S3 / S3 Omni, check that the correct firmwares are installed, and verify proper operation of the system.

Known Issues

1. Water Temperature: If no water temperature sensor is installed the open sensor icon  is displayed next to the water temperature icon. A water temperature sensor is required if using the AQR S3 to control a heater.
2. Device Scan: Comm error reported when no devices are connected.
3. Remote: Remote does not disable chlorination when Master enters Service Mode.
4. Remote: Remote chlorinator does not obey Pool Cover limits.
5. Remote: Remote’s reported Voltage and Current readings show different values on Master’s diagnostic screen.
6. Diagnostic: Change Pol function requires two presses to force polarity change.