

# Spektrum™ AirWare™ Change Log

## 2016-November-15

### Version 1.11

Changes since 2016-February-05

#### Special Note

- In the Telemetry menu, some sensors may not be reported properly on the display or audibly after updating. If this occurs for you, please remove the sensor from the Telemetry list, then re-add it using the Auto-Config function on the Setup sub-menu. *If you made this change to your model since October 2015, you do **not** need to make it again.*

#### New Features & Improvements

- Auto-Config is now on the first Telemetry menu, making it easier for people to configure their telemetry systems.
- Changed the default Multi-Rotor type from Aerial Photography to FPV Racer mode.
- It was not possible to force DSM2 or 22ms binding modes in the previous several versions. This has been corrected. (Non-EU only).
- A Lap Timer system has been added to aid FPV racers.
- The Timer system now includes the ability to have switches other than CLEAR button to reset the timer(s) separately.
- Analog and Digital Switch Setup screens were moved to the Function List for radios which have those functions in them.
- When transmitter low voltage is warning, it displays the current voltage to allow you to understand the situation better.
- Complete telemetry support for Alpha-6, generic Gyro, and 6-cell and 14-cell LiPo sensors.
- Complete support for user-defined telemetry sensors per the Spektrum Telemetry specification document.
- Model Match Override allows multiple transmitter models to share a common Model Match ID. This should be used with extreme care, as it disables one of the big benefits that Spektrum has to offer. This is available by selecting NEXT on the Frame Rate screen.
- When assigning channels in Multi-Rotor mode, Flight Mode-based changes are now supported when the Aircraft Type is not FPV Racer. FPV Racer is a new option available.

- You may now suppress the “Sequence Reset” message when using the Stepping Events. This is found on the screen where you are adding/editing an item in the step list.
- Added support for new telemetry receivers with signal strength feedback. This shows as either a dBm or percentage (you select which in Telemetry Flight Log setup screen). This strength is shown on appropriate telemetry screens and during Range Test, where it can be useful for locating lost models.
- For Multi-Rotor models, the high-speed (11ms) channels are THRO, AILE, ELEV, and RUDD. For other model types AUX1 replaces THRO.

## Corrections

- NOTE: Generic Switch Report settings may have changed. Please verify them! If you are hearing invalid speech for them, you may erase all by pressing the CLEAR button while on the BACK icon on the Generic setup screen.
- Timer Expiration sound was not properly volume-limited (speech radios only)
- Improved system update process to reduce the chance of System Failure messages after an update.
- Channel A/B Warning values were exported as the Throttle warning point instead of as Channel A/B thresholds when using the Inside/Outside alarms. This means that models exported in earlier versions will import incorrectly, and will need to be modified manually. After exporting with this version, they will be retained properly. This applies to Acro, Sail, and Heli models. Multi-rotors were exported correctly.
- Center reports are no longer reset to defaults on power-up.
- The timer Start/Stop tones were changed from the Switch Sound category to the Timer Sound category because they are controlled using the Timer menu.
- When changing the Throttle Trim Setup to 2-/3-position mode, trims are reset to valid values instead of going to invalid extremes.
- Channel warnings could show large negative numbers in certain warning conditions.
- Improved ability to withstand attempted use of bad SD cards. Previously these could lock up a radio, requiring disconnection of battery to recover.
- Changing a 2-/3-pos trimmer will no longer allow invalid trim values.
- When moving a Gyro function to a different receiver channel, it now moves as it should.
- Corrected an import/export issue with “Inside” and “Outside” warning types not functioning correctly.
- “Inside” and “Outside” now alarm properly for general Channel alarms.
- Some blinking boxes on the Timer screens were repositioned correctly.
- Translation and spelling changes in assorted screens.

## **Audio System Changes**

- For all languages please use Sound version 1.09
- Version 1.09 adds speech for several new sensors (LiPo Monitors) and Autonomous Mode for GPS-enabled models.
- Turbine Pack Voltage is now reported correctly. Previously it was reporting the Pump Voltage, and at 10X what it should have been.

Sound downloads are always at this link:

<http://spektrumrc.cachefly.net/TransmitterSounds.html>

# Spektrum™ AirWare™ Change Log

2016-February-05

## Version 1.10A

Changes since 2015-January-26

### Corrections

- Restores functionality to the Wireless Trainer (WLT) system.

# Spektrum™ AirWare™ Change Log

## 2016-January-26

### Version 1.10

Changes since 2015-October-24

#### New Features & Improvements

- All radios now have power-on branding showing the name in an easily-readable form. In the past only DX18-level radios had this.
- In Multi Rotor models you may now assign trims to the sticks. The Trim/Channel Config screen is available by selecting NEXT from the Trim Setup screen. You may configure different trims per flight mode if you desire. Trim inputs are limited to the trimmer inputs on each radio.
- Sound volume is adjustable using analog inputs (sliders and knob).
- In Multi-Rotor models, you may now selectively enable trims for the gimbals using the Trim Setup screen and selecting NEXT. Note that the trims can be en/disabled differently for each flight mode, but the input device will be the same for each mode.
- After 5 minutes of sounding the System Idle alert, the radio will automatically turn off the RF transmission.
- If the transmitter battery voltage gets below 3.8V, the system will automatically turn off RF transmission.
- Added status support for Xicoy, evoJet and Hornet ECUs (turbine telemetry).

#### Corrections

- In Sailplane model type, the L and R trimmers did not display the 2- or 3-position status properly. They were blanks, although the roller would change them.
- The telemetry log file is now created properly again. The session headers are now positioned correctly.
- Correctly exports and imports multirotor models with the “inside” and “outside” warnings enabled.
- Altitude telemetry is now reported properly in audio for both imperial and metric users, and visually on the Vario status screen which previously did not report imperial negative altitudes properly.
- PowerBox Voltage and Capacity speech is now corrected. It had been spoken 10X what it should have.
- Some Italian, French, and German translations have been improved in Multi Rotor model type and Telemetry sections.

- In Multi-Rotor mode, Throttle Curves with only 3 points will now display and function correctly.
- Telemetry for Turbine Fuel Remaining and Fuel Flow Rate are now properly displayed and alarmed.

### **Audio System Changes**

- .None. This version requires Sound version 1.08 for full compatibility. You should download it from this link. You do not need to re-install this if you already have it from an earlier update.

<http://spektrumrc.cachefly.net/TransmitterSounds.html>

# Spektrum™ AirWare™ Change Log

2015-October-24

## Version 1.09

Changes since 2015-October-22

### Special Notes

- In the Telemetry menu, some sensors may not be reported properly on the display or audibly after updating. If this occurs for you, please remove the sensor from the Telemetry list, then re-add it using the Auto-Config function on the Setup sub-menu.
- If you applied the previous version, you may see scrambled sound names for the User Defined sounds. You will need to reload Sound 1.08 *after* installing this update in order to correct the names.

### New Features & Improvements

- None. This is a corrective release only.

### Corrections

- Resets caused by entering the Analog Switch Setup in a Multi-Rotor model have been eliminated.

### Audio System Changes

- After updating to the previous version, updates to the sound file would cause User Defined sounds to be shown with random names including special characters. After installing this new version, re-installation of the sound file (version 1.08 as of this date) will repair the garbled names.

# Spektrum™ DX9 AirWare™ Change Log

2015-October-22

## Version 1.08

Changes since 2016-January-28

### Special Notes

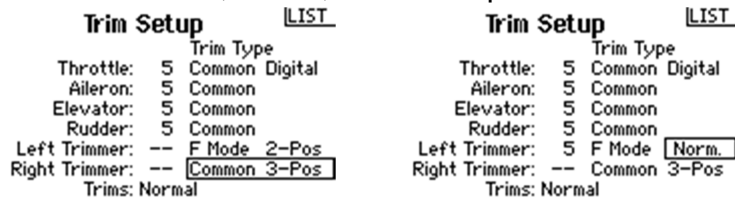
- In the Telemetry menu, some sensors may not be reported properly on the display or audibly after updating. If this occurs for you, please remove the sensor from the Telemetry list, then re-add it using the Auto-Config function on the Setup sub-menu.

### New Features & Improvements

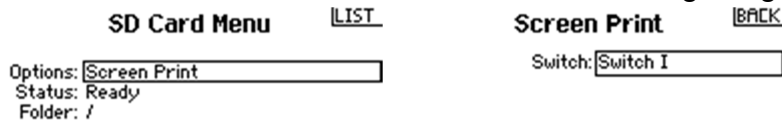
- Support for Multi-Rotor models. This includes changing the input names to Altitude, Roll, Pitch, and Yaw, the addition of more model images, a few more canned options for your Preflight Checklist (you can always edit them), and a more-usable Flight Mode Setup screen that allows you to easily specify servo output positions. Using the Channel Assign screens, you can select a different input to control a channel in each flight mode – this is useful to have a mode which keeps the model stable, but allows you to operate the camera using the sticks. A manual for Multi Rotor mode may be downloaded from the **Manuals & Support** tab on the product page for your radio.
- When adding channel position warnings, you can now enter positions of up to 150% rather than the previous limit of 100%.
- Two new warning types have been added – Center In and Center Out. These allow you to alarm on a servo position that is within a certain range of center, or outside a certain range around center.
- Configurable Center Tones allow any analog input (stick, knob, or lever/slider) to provide feedback when passing through center. In addition, this function allows you to disable the center tone that normally occurs on the knob and sliders. On voice-capable radios, a spoken alert can be made. Note that this will not provide telemetry-like data; only the specified sound will be played.
- Extended servo/flap/sequencer delay functions to include delays of 33, 36, 40, 45, 52, 60, 72, 90, 120, 180, and 360 seconds. Note that these are for full travel, so you may need to use a longer delay value to get the time you want for a servo to travel a shorter distance.
- Timers can now be named. There is a prompt for the Timer Name on the Timer setup screen. This name will be shown on the main screen.



- Pressing the BACK button while editing the master volume will end the volume change interaction as if you pressed the roller wheel. This allows you to do a quick volume check simply by pressing BACK twice.
- When viewing a folder to import a single model, previously the display was limited to 75 models. It can now show up to 175 models.
- The Left and Right Digital Trims can now be programmed as either Common or F-Mode for Normal, 2-Pos, or 3-Pos operation.



- The model image options to display on the main screen are no longer limited by model type. You can put any model image you want on the display, or none at all. We also added more images of popular planes.
- You can now capture the LCD image to the SD card. Configure the function by going to the SD menu (a card must be in the slot), changing the Option to “Screen Print” and selecting the desired switch. We recommend a momentary switch such as the Trainer. When the image is saved, you will hear the sound of a camera shutter. Images will be numbered sequentially and stored in the root folder of the SD card. It will not overwrite existing images.



- When adding a new model from the Model Select screen or Model Utilities, the new model created is the same type of model (Acro, Heli, or Sail) as the current model. This will especially benefit pilots who fly one type of model, but will be a convenient shortcut for most. The Model Type function can still be used to change the type of the current model.

## Corrections

- In Acro, with 5 Flight Modes enabled, if you had remapped the channel outputs then if you go into the Flap System screen, the channel mappings would be returned to defaults. This reset to defaults no longer occurs.
- Timer 2 in Sailplane mode would default to the I switch for activation, but pressing the switch would not activate it. This has been corrected so that it works properly now.
- When importing models, the analog switch flight mode values were not imported correctly.

- The Digital Switch Setup screen no longer accepts an analog input for editing. Doing so could cause other problems in the model.
- The Trainer screens no longer allow the selection of an analog input as the trainer control switch, as this could result in a loss of control during a recovery attempt.
- When inserting characters into a name (Flight Mode Name, Model Name) using the <+> character, extra characters at the end that went beyond the valid length are now properly trimmed off.
- The “Import All” function will now load all models in a folder at one time. This should help resolve the issues some experienced when attempting to import from a folder which had more than 75 files in it.
- When you changed the Trainer mode several times, it was possible to get into a mode where there were only 4 channels available to configure.

### **Audio System Changes**

- Added “Transmitter Voltage” as a speakable item. We recommend you add it to the “Telemetry” category. You will need to do this manually.
- Values greater than 1999 are spoken correctly.
- Several new sounds have been added for Multicopter support. You may add these to the Multicopter sound category if you desire. The new sound file is version 1.08 and may be downloaded from this link:

<http://spektrumrc.cachefly.net/TransmitterSounds.html>

# Spektrum™ DX9 AirWare™ Change Log

## 2015-January-28

### Version 1.07

Changes since 2014-May-21

#### New Features & Improvements

- Added new screens to support Sound Categories. These allow you to select sounds more easily by grouping them into user-editable lists (categories) to reduce scrolling needed to find the sound you want. The radio supports up to 16 categories; this update will create default categories but you can modify or remove them as you desire.
- The pre-flight checklist shows the name of the model on power-up. This allows you to verify the right model is being started without having to go through the complete list first.
- New trainer mode “FPV” added to allow head tracker inputs to be mapped to any channel, with adjustable scaling and reversing. This mode enables easy mapping of head tracker channels to receiver ports, while not affecting flight controls. It supports both wired and wireless head trackers.
- Add support for Flight Pack Capacity (mAh) and Receiver Pack Capacity (mAh) sensors
- Add support for ESC sensor
- X-Plus channels are now able to be configured to generate warnings in 18-channel systems, in addition to the normal channels previously available
- On the Model Copy utility, you are now able to select the Source model for copying. It is no longer necessary to use Model Select first.
- When setting up a timer, a 20-second alert is now available.
- You can now use the “wiggle” function to select analog inputs when entering a “switch” option. Just move the appropriate switch or stick or slider and it will select it automatically.
- Trainer input is now more tolerant of inputs from devices such as head trackers

#### Corrections

- .AS3X Gains telemetry screen does not show when configured to not show.
- Custom Voice Events of 16 steps now advance properly.
- Sailplane AIL>RUD mix field “Sub Switch” is now exported properly.
- Heli gyro trim values are aligned properly for all flight modes
- Heli trim setup screen operates properly in tray radios

- Digital Switch Setup does not allow selection of Flight Mode switch if the Flight Mode system is not configured.
- Vario volume is now exported and imported properly.
- Trainer inputs are not allowed to exceed Absolute Travel settings.
- Corrected delay between tx voltage status announcements
- Telemetry screens now refer to Turbine rather than JetCat.
- Telemetry screens with trim displays now properly indicate centered status the same as the main screen.
- Sequencers and Gyros will now properly release a channel when being turned off. Note that you must **completely** disable the gyro for the old channel name and function to be fully restored. That is, you must set the Gain input (first screen) to INH, click NEXT, then set the mix to INH > INH, then the switch to INH. Only then will the channel be completely and properly freed up. For sequencers you only need to set the output channel to INH.
- “Tone” selection for inactivity alarm now operates properly.

### **Audio System Changes**

- Added support for more audio file types.
- Thousands is spoken correctly in English.
- When setting up custom sound events, the active switch position for steps and reset on sequenced events is utilized properly.
- New sounds have been added to the list
- Spanish speech has consistent volume level.

# Spektrum™ DX9 AirWare™ Change Log

## 2014-May-21

### Version 1.06

Changes since 2014-April-18

#### New Features & Improvements

- Added AS3X Gain monitor functions for use with AR636, AR6335, and similar AS3X receivers. When you enable telemetry option AS3X, you are able to see gain status in real time, and adjust it with a trimmer. Note that this function performs the following re-configurations in your radio:
  - The F-Mode switch has its outputs set to the proper values for AS3X operation. If you are using it for other purposes, you will need to reconfigure those features to allow AS3X to use them.
  - Mix 16 (DX10t and higher) is used to control AS3X gain.
  - The selected channel is reconfigured for proper control. If you change the channel, you will need to manually re-assign the old channel to its desired purpose.
  - Enables a screen “AS3X Gains” on the Function List to configure parameters.
  - Enables the AS3X telemetry gain monitor on the telemetry screens.
  - If you are using a DX6, you can tweak the gains using the roller while on the AS3X Gains configuration screen. If you are using a higher radio, you can adjust at any time using the desired trimmer.

#### Corrections

- In Heli mode, Governor Trim function now works properly.
- Fixed Servo Travel problem for second Elevator in a 4-Servo swash heli.
- Improved translations in multiple languages
- When using a trimmer in 2- or 3-position mode, trimmers were acting as Flight Mode trims. They are now operating in Common Mode
- Trim decrement tone was being controlled by the Switch Sounds setting
- Governor Trim on Heli Trim Setup screen is now properly adjustable
- If a radio is configured as a Wireless Trainer Master, if it were used as a wired slave it would not function. This has been corrected.

#### Audio System Changes

- No changes

# Spektrum™ DX9 AirWare™

## Change Log

### Version 1.05

2014-April-15

Changes from Version 1.04Beta

#### New Features & Improvements

- Swash setup with reversed channels no longer needs to be done on opposite throw
- Characters can now be inserted or deleted while editing text. The insert character looks like <+> and the delete character like >-<. Simply select this character during the edit phase to do the desired action
- “Auto-Zoom” on mix curve edit screen shows wave at 10X magnification when it will fit on the display properly
- Flight Mode switch can now have position values defined for each FM. Use the Digital Switch Setup screen to access this. All switches may be redefined, but the main application is expected to be multi-copter flight mode control.
- Flight Mode may be used as a mix input or channel input source. It will use the values defined in the Digital Switch Setup screen as if they were analog inputs
- Added “no image” as an option for all model types, as well as enable several trans-model type icons
- Vario graph width does not reset every power cycle
- Telemetry alarms are suspended while editing telemetry settings
- Improved reasonable options for sailplane throttle switch inputs
- Improved import/export compatibility between all radio types (not DX7s/DX8)
- Greatly improved sound file transfer reliability
- Improved ability to cancel sound transfers (you still need to power down after a sound file transfer abort)

#### Corrections

- Models over 50 now bind properly
- Translation improvements for all languages
- Model image now exports
- Improved import/export for many features including combo switches, sub-FM rates, timers, and telemetry features
- Mixes for 6-aileron wings function properly now
- Trainer status is voiced correctly now based upon settings

- Gyro/Gov trims re-enabled in Heli mode
- Flight Mode Name editor was re-enabled
- Telemetry log switch operation force-enabled properly
- Removed 10% curve mixes could be limitation
- E-Ring is now properly disabled for swashes where it is not supported
- Improved warning for re-mapped channels which use switch inputs
- In certain situations, mixing Flaps to any channel would result in a mix to all channels

### **Audio System Changes**

- Improved support for Sky Zone and Fatshark head trackers
- Greatly improved sound file transfer reliability
- Corrected swap of vario vs. warning volume settings

# Spektrum™ DX9 AirWare™ Change Log

## Version 1.04 (Beta)

2014-Feb-19

Changes from Version 1.03

### New Features & Improvements

- When setting the trainer mode, the settings for each channel now are set to the default source when a new mode is selected. Always be sure to verify trainer operation when changing settings.
- Full support for the Spektrum Vario SPM9589
- 

### Corrections

- When using wired trainer, channel 9 is now forced to the Master/Instructor radio. When using wireless trainer, this is not the case.
- Improved translations in all languages
- PowerBox telemetry warnings now show text for the fault.
- Added blinking boxes around Acro/Sail trim settings that were missing them.
- Changing the sailplane icon does not reset servo information any more.
- User-defined warning settings would be changed during import due to an error in the exported file. Be sure to verify Warning settings when importing a model.
- 

### Audio Changes

- GPS speed is now reported at proper value rather than 10X.
- Report GForce sensor more correctly in scaling and for negative values.
- Receiver voltage alarms are now spoken.
- Frame and Hold alarms are now spoken.
-



# Spektrum™ DX9 AirWare™ Change Log

## Version 1.03

2014-Jan-14

Changes from Version 1.02

### New Features & Improvements

- The user is able to select an image for the model. From the Aircraft Type screen select NEXT to access the feature.
- Changed default Timer settings from Voice to Tone. This will only take effect as you create new models.
- Flow across Flight Mode editing screens is now consistent between Acro and Sailplane and more intuitive.

### Corrections

- Removed limitation on Idle Up 3 (Heli) and Flight Mode 5 (Acro) in models.
- Improved voice warning reports of telemetry items.

### Audio Changes

- PowerBox status reports are now speak the correct values for capacity. They were previous 1/100<sup>th</sup> of the correct value.
- GPS reports both Distance and Heading as separate options available on the switches.
- Voice may report status of GPS altitude and speed when barometric sensors are not installed. Note that they are status-only, not alarms, so you will need to use a switch to activate the spoken status report.

# Spektrum™ DX9 AirWare™

## Change Log

### Version 1.02

2013-12-04

Changes from Version 1.01

#### New Features & Improvements

- Added spoken telemetry warning reports for more devices.
- The BACK button is now enabled while downloading a sound file, allowing the process to be aborted. Note that you will lose spoken sounds if you do this, but most clicks and beeps will still function.
- Does not show hidden Mac files and directories in file lists
- Added ability to create mixes to channels which were moved using the Channel Assignment feature.

#### Corrections

- Imported DX18 files will now operate all mixes properly
- Model warnings now import/export correctly
- Pressing CLEAR on the transmitter low voltage alarm setpoint will now select the appropriate low voltage based on battery type
- Prevents lock-ups when using Export All when “Unusable Models” were listed
- Improved translations in several languages
- Fixed import of Flight Mode sound options
- Lock-ups during import, export and turning on to “blank screen” have been fixed.
- Import errors which corrupted the Flight Mode table have been fixed. These could also cause lock-ups in certain situations.
- Corrected position of receiver voltage display on status screen.
- Removed limitation that could occur when manually creating models right at the 100-model point.
- Corrected export error that made the DX9 unable to import files it created (released in 1.01A)

#### Audio Changes

- Added many new voice items, in particular related to multi-copters and photo/video.
- Trainer status changes are now reported when not in Master Override mode.
- Spoken and Tone inactivity alarm reports now function properly with vibrator/

- Intermittent “Bind Failed” speech after proper binds is now corrected.
- Airspeed and current are now reported using the correct units and value.
- Reduced default volume for each category to 50% based on customer feedback. Maximum volume can be increased by using System Settings second screen.
- Improved speech and sounds for several languages. Please download the updated sound files from this link: <http://spektrumrc.cachefly.net/DX9audio.html>
- Corrected speaking of numbers for French
- PowerBox status reports are now speak the correct values
- Expired timer volume now works off configured value.

# Spektrum™ DX9 AirWare™ Change Log

## Version 1.01A

**2013-Sept-30**

Changes from Version 1.01

### **Corrections**

- When exporting a model using version 1.01, the exported file could not be directly imported into a DX9. This has been corrected.

# Spektrum™ DX9 AirWare™ Change Log

## Version 1.01

2013-Sept-24

Changes from Version 1.00

### New Features & Improvements

- Added second timer
- Added detailed sound configuration screens for Binding, Timer, Trainer, and miscellaneous sounds.
- Added LCD contrast calibration on the Raw I/O screen. If your screen contrast after the installation is not correct, hold down CLEAR and BACK as you power up the radio. Adjust contrast with the roller until the LCD shows a good image. Click the roller to save the setting. The normal System Setting contrast adjustment may still be used if you prefer.

### Corrections

- Improved sound functionality for all languages
- Improved translations in all languages
- Trainer now properly engages with all switches automatically.
- Wireless Trainer now speaks properly when not on the Main Screen.

### Audio Changes

- Added Dutch as a spoken language option.
- Improved speech and sounds for all languages. Please download the updated sound files from this link: <http://spektrumrc.cachefly.net/DX9audio.html>
- Corrected speaking of numbers for several languages.