

Introduction

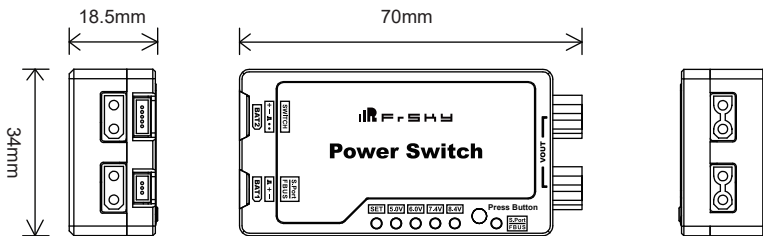
The Power Switch is a power control system that offers a safe and flexible powering solution for controlling power in your RC model builds.

The Power Switch provides the user with a safe and efficient way to power the system with your power sources connected via a pair of standard XT30 connections. Its dual-power consumption system is designed to operate either in Balance or Backup mode. In Balance Mode (default), it consumes the power line from either power source depending on which has the higher voltage. When switching to the Backup Mode, the system consumes the power line with the priority that the user selected under the set voltage range.

A built-in high-quality BEC unit provides the powering solution, supporting dual input and dual output ports with XT30 connections. The BEC's design allows the XT30 output ports to be configured to supply 5V to 8.4V either by Lua script (on ETHOS), or alternatively by using the Press button on the CNC aluminum case to quickly switch between the different preset voltages. The power switch is capable of working continuously under high current loads, and benefits from the high-quality machined heat-sink dissipation design.

The power switch function supports multiple types of external switches (e.g. NFC switch, etc.) that enable flexible options on how the power can be switched on/off without the need to plug/unplug the battery connections.

Overview



Specifications

- Dimension: 70*34*18.5mm (L*W*H)
- Weight: 63.4g
- Battery Input Voltage Range: DC7.4-26V (It is recommended to use 3S-6S Li batteries)
(Note: 2S Li Batteries will not have sufficient input supply voltage to reach the 8.4V BEC output configuration.)
- Continuous Current: up to 25A@5~8.4V
- Operating Temperature: -20°C~75°C
- Battery Input & BEC Output Connector: XT30

Features

- Dual Battery Inputs (Balance / Backup mode)
- Configurable BEC Dual Outputs (by Lua Script)
- Multiple Voltage Modes Fast Switching (by Button - 4 Modes: 5.0V / 6.0V / 7.4V / 8.4V)
- CNC Aluminum Metal Shell with Fin Heat Dissipation Design
- Capable of Working Continuously under High Current Loads
- Working Status LED Indicator
- Compatible with FBUS/S.Port protocol
- Supports Multiple Types of External Switches (Optional, e.g. NFC Switch)

ID Set Up

Phy ID	8
App ID Group	0
SoftVersion	1.5
0x1000 Data Rate	300ms
0x1010 Data Rate	300ms
SBEC Voltage	5.0V
Battery Mode	Balance

Each type of FrSky device has its unique Physical ID (Phy ID). When the same type of telemetry comes from a different device, the Application ID (App ID) should be set to different.

Note: All S.Port/FBUS capable device can daisy chain with each other through via S.Port/FBUS.

- Note:**
1. Please move to the [DOWNLOAD] section from the product page to download the functional Lua scripts (Place the decompressed folder in the root directory of the [Script] folder on the memory card to use.)
 2. Connect the S.Port/FBUS capable receiver by the S.Port port of Power Switch, and run the [Power Switch] Lua script (in System menu page) after binding the receiver (in FBUS mode) to the radio system.

Setup Guide - Dual Power Redundancy

App ID Group	0
SoftVersion	1.5
0x1000 Data Rate	300ms
0x1010 Data Rate	300ms
SBEC Voltage	5.0V
Battery Mode	Balance
Switch Thro	25.5V

[Power Switch] → [Battery Mode]

Balance Mode

When the dual batteries are plugged into the device the Power Redundancy function is automatically activated. The system is designed to use the battery line from the higher voltage allowing the balancing of power consumption across both batteries. When the voltage of the two batteries is the same, both batteries supply power simultaneously.

Backup Mode

When the primary battery is consumed to the limitation of the preset voltage, the system will allow the backup battery to join and enter into the balancing of power consumption across both batteries. In this mode, the consumption limit of voltage can be set for the primary battery.

Phy ID	8
App ID Group	0
SoftVersion	Balance
0x1000 Data Rate	Master/Slaver
0x1010 Data Rate	300ms
SBEC Voltage	5.0V
Battery Mode	Balance

Select the battery consumption mode.

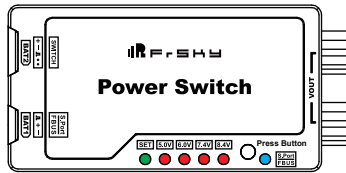
App ID Group	0
SoftVersion	1.5
0x1000 Data Rate	300ms
0x1010 Data Rate	300ms
SBEC Voltage	5.0V
Battery Mode	Balance
Switch Thro	25.5V

[Power Switch] → [Switch Thro]

- Note:**
1. Please ensure the battery is plugged into BAT1 while using the single battery.
 2. Please ensure that both battery's output power is not lower than the power needed for the connected devices, otherwise there will be insufficient power supply for the devices.

Setup Guide - BEC Voltage Outputs

LED Status Indicator



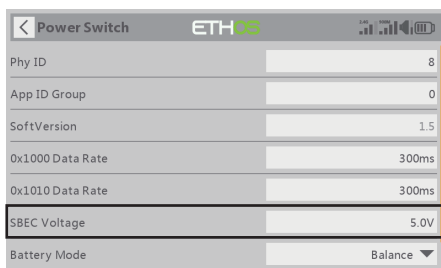
Adjusting voltage with buttons.

LED	LED Status	Operation
● Green LED (Set)	Lit	Using preset voltage
● Red LED (Voltage Mode)	Flash	BEC Voltage in switching by short press button
	Lit	BEC Voltage saving setted by long press button
● Blue LED (S.Port/FBUS)	Slow Flash	Telemetry is working in S.Port mode
	Fast Flash	Telemetry is working in FBUS mode / no receiver signal

Adjusting voltage with LUA scripts.

LED	LED Status	Operation
● Green LED (Set)	Lit	Using preset voltage
● Red LED (Voltage Mode)	Flash	LUA set value is lower than the flicker value
	Lit	LUA set value is higher than or equal to the constant light value
● Blue LED (S.Port/FBUS)	Slow Flash	Telemetry is working in S.Port mode
	Fast Flash	Telemetry is working in FBUS mode / no receiver signal

BEC Voltage Setting via Lua Script.



BEC voltage output can be configured from 5-8.4V and supports devices working with up to 25A current in this range.

FrSky is continuously adding features and improvements to our products. To get the most from your product, please check the download section of the FrSky website www.frsky-rc.com for the latest update firmware and manuals