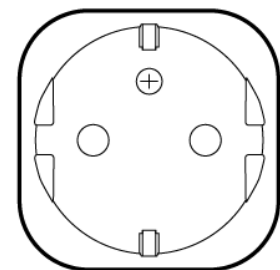


## Smart Switch 7 (F plug) user guide.

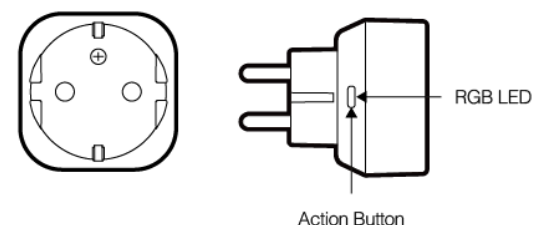
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**Aeotec Smart Switch 7 (F plug)** (<http://aeotec.com/z-wave-plug-in-switch>), has been crafted to power connected lighting using SmartStart, S2 framework, and **Z-Wave Plus** (<http://aeotec.com/z-wave-plus>). It is powered by Aeotec's **S2** (<https://aeotec.com/z-wave-s2>), technology.

To see whether Smart Switch 7 (F plug) is known to be compatible with your Z-Wave system or not, please reference our **Z-Wave gateway comparison** (<http://aeotec.com/z-wave-gateways>) listing. The **technical specifications of Smart Switch 7 (F plug)** (<https://aeotec.freshdesk.com/solution/articles/6000219912-smart-switch-7-technical-specification->) can be viewed at that link.

### Get to Know your Smart Switch 7 (F plug).



### Button Presses and LED reaction.

Button Press	Function when released.	LED Reaction
Power On	1. (Unpaired from the network). - 2. (Paired into the network).	1. Blue LED is flashing. - 2. LED follows the state of load (configurable).
QR Code Scan	Pairs into Z-Wave network.	Blue LED fast blink during pairing, then solid blue LED for 2 seconds to indicate successful pair.
Single tap	Controls load state.	LED Follows load control state.
Press 2 times within 3 second. (Not paired to a Z-Wave network)	Enter pair/inclusion mode.	Blue fast blink, after first Click Red and after second Click Orange.  The LED changes to a green color if the device paired successfully.
Press 2 times within 1 second. (Paired to a Z-Wave network)	Enters unpair/exclusion mode	LED turns purple.
Press 3 times within 2 seconds.	Disable alarm response when the alarm is activated.	LED flash stops.
Press and hold for 2 to 5 seconds.	Toggles LED display mode when SS7 is paired.	Yellow LED <ul style="list-style-type: none"><li>• Enabled - LED follows ON/OFF state.</li><li>• Disabled - LED is disabled</li></ul>
Press and hold for 5 to 10 seconds.	Test communication quality	Indicator Light will become cyan light when press, and quickly flash cyan light when release, indicating start to test communication quality between the product and Node 1. At the end of the test, Indicator Light will display the colour according to the communication quality.  Great = green light for 2s. Good = yellow light for 2s. Bad = red light for 2s.
Press and hold for 10 to 15 seconds.	Reset overload alarm and overcurrent Alarm	Red LED flashes
Press and hold for 15 to 20 seconds.	Stay in Z-Wave network, but factory resets all settings back to default.	Red LED Flashes faster.
Press and hold for 20 seconds and more.	Completely factory reset and remove from Z-Wave network.	Fades blue LED in and out slowly

### Important safety information.

Please read this and other device guides carefully. Failure to follow the recommendations set forth by Aeotec Limited may be dangerous or cause a violation of the law. The manufacturer, importer, distributor, and/or reseller will not be held responsible for any loss or damage resulting from not following any instructions in this guide or in other materials.

Keep product away from open flames and extreme heat. Avoid direct sunlight or heat exposure.

Smart Switch 7 (F plug) is intended for indoor use in dry locations only. Do not use in damp, moist, and/or wet locations.

Max-ampereage: 10 amps for ZW175-C (Smart Switch 7 (F plug))

## Quick start.

Getting your Smart Switch up and running is as simple as plugging it into a wall socket and adding it to your Z-Wave network. The following instructions will tell you how to add your Smart Switch to your existing Z-Wave network.

### Using your existing Z-Wave Controller: supports Smart Start:

1. Scan the QR code on Smart Switch 7 (F plug) using your Z-Wave gateway/controllers app.
2. Plugin your Smart Switch 7 (F plug) to any outlet that you wish to install it on.
3. Your Smart Switch 7 (F plug) will automatically pair to your Z-Wave network.

### Using your existing Z-Wave Controller without Smart Start:

1. Set your Z-Wave Controller into its 'Add Device' mode.  
Refer to the Controller's manual if you are unsure of how to perform this step.
2. Power your Smart Switch to any outlet; its LED will flash blue and is ready to pair.
3. Click the Action Button 2 times within 3 second on Smart Switch to pair it. After first click the LED will change to red, after second click the LED change to orange.
  - a. Click the button once
  - b. Wait until LED turns orange
  - c. Tap the button again within 3 seconds.
4. If your Z-Wave Controller supports S2 encryption, enter the first 5 digits of DSK into your Controller's interface if it is requested. The DSK is printed on Smart Switch.
  - a. If pairing succeeds, it will become a bright blue light for 2 seconds.
  - b. If pairing fails, it will light a solid bright red light for 2 seconds and then return to a breathing blue light; repeat steps 1 to 4 if this happens.

Smart Switch 7 (F plug) is now a part of your Z-Wave home control system. You can configure it and its automation via your Z-Wave system; please refer to your software's user guide for precise instructions.

If further support is needed, please contact our support team for assistance.

## Advanced functions.

### Removing your Smart Switch from a Z-Wave network.

Your Smart Switch can be removed from your Z-Wave network at any time. You'll need to use your Z-Wave network's main controller to do this.

#### Using your existing Z-Wave Controller:

1. Set your Z-Wave Controller into 'Remove Device' / 'Unpair Device' mode.  
Refer to the Controller's manual if you are unsure of how to perform this step.
2. Make sure the product is powered. If not, plug it into a wall socket and power it on.
3. Click Action Button 2 times quickly; it will bright violet light up to 2s.
  - a. If Removing fails, it will bright red light for 2 seconds and then turn back to Load Indicator Mode; repeat steps 1 to 3. Contact us for further support if needed.
  - b. If Removing succeeds, it will become breathing blue light. Smart Switch 7 (F plug) is removed from the Z-Wave network successfully and is ready to be paired again.

### Reset your Smart Switch 7 (F plug).

If the primary controller is missing or inoperable, you may need to reset the device to factory settings.

Make sure the product is powered. If not, plug it into a wall socket and power on. To complete the reset process manually:

1. Press and hold the Action Button for at least 20 seconds and then release.
2. The LED indicator will fade its blue light in and out slowly, which indicates the reset operation is successful.

## Configurations.

#### Parameter 4 - Overload threshold.

If power exceeds the value set in this parameter for over 1 minute, Smart Switch 7 (F plug) will report and overload report and turn off Smart Switch 7 (F plug).

Size = 2 Byte

Default Setting = 2415W

Value	Description
0 - 2415	Set Watt (W) Threshold for Overpower.

#### Parameter 8 - Switch reaction to alarm.

Set the response of the switch in response to an operation performed when an alarm is received.

Size = 1 Byte

Default Setting = 0

Value	Description
0	No action.
1	Turn switch off
2	Turn switch on
3	Turn the switch on for 5 seconds, then off for 5 seconds until the alarm is disabled.

#### Parameter 9 - Alarm reaction when received.

Configure what alarms Smart Switch 7 (F plug) will react to from other Z-Wave devices.

Size = 2 Byte

Default Setting = 0

Value	Description
0	The alarm will be triggered by open state, and be disabled by closed state.
1	The alarm will be triggered by closed state, and be disabled by open state.
256	Smoke alarm.
512	CO Alarm
1024	CO2 Alarm
2048	Heat Alarm
4096	Water Alarm
8192	Access Control
16384	Home Security

Value 0 and 1 cannot be used at the same time, choose one as a part of your calculation.

Use the sum of values to determine what alarms trigger your Smart Switch 7 (F plug).

For example:

Value = 0 + 256 + 512 + 1024 = 1792

0 = sets the control scheme to turn on Smart Switch 7 (F plug) when open alarm state happens

256 = allows Smoke Alarm signals to control SS7

512 = allows CO Alarm signals to control SS7

1024 = allows CO2 Alarm signals to control SS7

#### Parameter 10 - Release/Disable alarm.

Sets how you are able to disable Smart Switch 7 (F plug) alarm state.

Size = 1 Byte

Default Setting = 0

Value	Description
0	Tap 3 times to disable the alarm state.
1	Notification idle events.
10 - 255	Sets time in minutes on how long the alarm state should be held.

#### Parameter 18 - Flash frequency.

Configures the LED flash frequency and amount of time.

Size = 2 Byte

Default Setting = 0x0002 or 2

Byte Value	Description
(MSB Value 1)	
1 - 9	Sets the flash frequency in seconds. (Default = 0x0002 or 2)

#### Parameter 19 - Start/Stop LED flash (Write Only)

Sets the timeframe of flashing in seconds

Size = 2 Byte

Default Setting = 0 (disables LED flash during alarm)

Value	Description
0	Stop flashing
1 - 255	Set the duration in seconds and start the blinking process.

#### Parameter 20 - Power restored state.

Sets which state Smart Switch 7 (F plug) switches to when power is lost then restored (power outage).

Size = 1 Byte

Default Setting = 0

Value	Description
0	Last known state. (restore state before power loss)
1	Power restored to ON.
2	Power restored to OFF.

#### Parameter 80 - Status Update.

Keeps the status of Smart Switch 7 (F plug) in sync with your Z-Wave gateway. Determine which reports are sent to your gateway upon a state change (ie. If switch turns ON, then the switch will forward state update to Z-Wave gateway).

Size = 1 Byte

Default Setting = 2

Value	Description
0	No report sent.
1	Report Basic Report.
2	Report Binary Switch.

#### Parameter 81 - LED indicator mode.

Allows you to configure how the LED indicator works.

Size = 1 Byte  
Default Setting = 2

Value	Description
0	LED Disabled.
1	Night Light Mode. <ul style="list-style-type: none"><li>• Use Parameter 82 to configure Night Light timing.</li><li>• Brightness can be controlled via Multilevel Switch CC.</li><li>• Colour can be controlled via Color Switch CC.</li></ul>
2	On/Off Mode. <ul style="list-style-type: none"><li>• Default use<ul style="list-style-type: none"><li>◦ ON = 50% white light</li><li>◦ OFF = 10% green light</li></ul></li><li>• Brightness can be controlled via Multilevel Switch CC.</li><li>• Colour can be controlled via Color Switch CC.</li></ul>

#### Parameter 82 - Night Light Mode

Enable or disable Night Light Mode during specific times.

Size = 4 Byte

Default Setting = 0x12000800 (ON at 12pm and OFF at 8am)

Value 1	ON Hour (0 - 23)
Value 2	ON Minute (0 - 59)
Value 3	OFF Hour (0 - 23)
Value 4	OFF Minute (0 - 59)

Byte value = 0x(Value 1)(Value 2)(Value 3)(Value 4)

Suggestion - use a "hexadecimal to decimal converter" that can be easily found on google.

For example:

If you want to set Night Light Mode to be enabled at 19:00 at night and disable at 07:30 in the morning, you just need to configure:

Value1=0x13, Value2=0x00, Value3=0x07, Value4=0x1E.

Input 0x1300071E into a hexadecimal calculator, the output decimal value will be 318768926.

#### Parameter 91 - Watt threshold.

If Watt passes the threshold setting by + or -, a Watt report will be sent to update its value.

Size = 2 Byte

Default Setting = 0

Value	Description
0	Disable Watt threshold.
1 - 2300	Watt threshold setting.

#### Parameter 92 - kWh threshold.

If kWh passes the threshold setting by + or -, a kWh report will be sent to update its value.

Size = 2 Byte

Default Setting = 0x0064 or 100

Value	Description
0	Disable kWh threshold.
1 - 10000	kWh threshold setting.

#### Parameter 93 - Current threshold.

If current passes the threshold setting by + or -, a current report will be sent to update its value.

Size = 1 Byte

Default Setting = 0

Value	Description
0	Disable Current threshold.
1 - 100	Current threshold setting by scale of 0.1A

If value 10 is set, this is the equivalent of setting threshold to 1.0A.

#### Parameter 101 - Timed report enable/disable.

Sets what sensors should be reported at a timed interval. This can be used at the same time as threshold reporting to allow both thresholds and timed reports to be used.

Size = 4 Byte

Default Setting = 0 (disabled)

Value	Description
1	kWh (Accumulated Power)
2	Watt (Power used at the time of the report)
4	Current
8	Voltage

The values in the table above should be added together.

For example:

If you want kWh and Watt only, you would add 1 + 2 = 3.

If you want all values (current, voltage, watt, kWh) reported at an interval, you would add 1 + 2 + 4 + 8 = 15.

If 0 is set to this parameter setting, this would completely disable timed reports. (Parameter 111 does not need to be set).

#### Parameter 111 - Timed report interval.

Reports the sensors set on Parameter 101.

Size = 4 Byte

Default Setting = 600

Value	Description
30 - 2592000	Interval set in seconds.

#### Parameter 255 - Factory reset.

This value can only be configured to reset default values of Smart Switch 7 (F plug) parameter settings. This can also be used to factory reset and remove it from your Z-Wave network.

Size = 4 Byte

Default Setting = N/A

Value	Description
0	Do nothing.
Any value within 4 bytes.	Reset Parameter Settings to default settings.
0x55555555 or 1431655765	Completely factory reset and remove from network.