TZ66-S ON/OFF MODULE
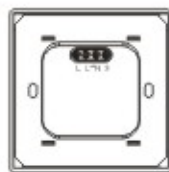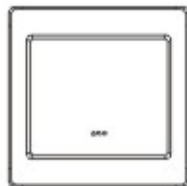
Radio Frequency (RF) Controlled, 6A, 230 VAC, European Wall Mounted 3-Way Switch, Single Switch, Release 1.1

TZ66-S Connections
L: Line voltage input
L': Switched load output
N: Line neutral
3: Auxiliary switch signal input

TZ66-S

Note: This module must be "Included in the Network" only where it will be permanently installed. The proper operation of this node in the mesh network is dependent on it knowing its location with respect to other nodes. You cannot "test bench" configure this module.

TZ66-S WALL MOUNTED SWITCH

The TZ66-S Wall mounted 3-Way switch is a component of the lighting control system.
This wall mounted switch is designed to work with other Z-Wave enabled devices. Z-Wave nodes of other types can be added to the system and will also act as repeaters if they support this function of repeating the signal received to other modules in the system.
As part of a Z-Wave network, the TZ66-S will also act as a wireless repeater to insure that commands intended for another device in the network are received. This is useful when the device would otherwise be out of the radio range of the wireless controller. There are no field repairable assemblies on this unit. If service is needed, the unit must be returned where purchased.

INSTALLATION

DANGER! SHOCK HAZARD. Read and understand these instructions before installing. It is recommended that a qualified electrician perform this installation. Make sure the load controlled by the switch does not exceed 6 amps. For indoor use only. Retain instructions for future use.

Wire this switch in place of a current wall switch according to the diagram above. See the wireless controller operating instructions to add this module under the command of the wireless controller.

---

1. Remove the paddle. Using small screw driver, push out the paddle through holes in back side of mounting plate. The paddle can also be pried out from the face, from the top or the bottom of the paddle.
2. Remove the four screws through the retaining ring holding the trim ring to the mounting plate. This will allow removal of trim ring. When removing the trim ring make sure not to bend or disrupt the shape of the antenna wire.
3. Wire the product according to the diagram.
4. Install the product in the wall box.
5. Reinstall the trim ring and the retaining ring with the four screws. Position of this ring is important. The stamped word "Bottom" on the metal and retaining ring will be aligned with each other. Again do not disrupt the integrity of the antenna wire.
6. Return the paddle to the face of the product. Simply press into place. Make sure the LED window is also toward the stamped word "Bottom" on the retaining ring.

INCLUDING TZ66-S TO THE NETWORK

Including to the network (must be installed in its permanent location, not on test bench)
1. Setup the controller you are using to include a device into network.
2. Tap either the top or bottom of the switch once.

Excluding from the network
1. Setup the controller you are using to exclude a device from the network.
2. Tap either the top or the bottom of the switch once.

BASIC OPERATION

(Local control)
The switch on the TZ66-S allows the user to:
 – Turn ON or OFF the attached load .
 – Include or exclude the module from the Z-Wave system.
 – Control other Z-Wave enabled devices.
Also, when a controller prompts you to "Send Node ID" or to "Press Button on Unit", quickly tap the switch ON or OFF once to satisfy those instructions.
 – Tapping top of switch turns the load attached ON.
 – Tapping bottom of switch turns the load attached OFF.
 – Pressing and holding the switch does not effect the load attached but will allow dimming and brightening of Z-Wave dimmers if associated.
Caution: When dimmed to the lowest setting, even though the load looks like its off, it still has power. Tap bottom of switch to turn off completely. It is best to turn off the power at the circuit breaker to service the load. Returns to known ON/OFF state after power loss.

LED Indication

The LED on the TZ66-S will turn on when the load attached is off, to act as a night light. However, the LED can be user configured to turn on when the load attached is on. The TZ66-S will flicker its LED when it is transmitting to any of the groups. This can

---

be changed if desired. See "LED transmission Indication".

Remote control
The TZ66-S will respond to BASIC and BINARY commands that are part of the Z-Wave system. Refer to your controller's instructions as to whether your controller can transmit those commands.

ADVANCED OPERATION

All on/All Off
The TZ66-S supports the ALL ON/ ALL OFF commands. .
The TZ66-S can be set to respond to ALL ON and ALL OFF commands 4 different ways. . Refer to your controller for information on how to set the TZ66-S to operate in the manner you desire. Some controllers may be only able to set certain settings of ALL ON/ALL OFF response the 4 different ways the TZ66-S can be setup to respond to ALL ON and ALL OFF commands are:

1. TZ66-S Will not respond to ALL ON or the ALL OFF command.
2. TZ66-S Will respond to ALL OFF command but will not respond to ALL ON command.
3. TZ66-S Will respond to ALL ON command but will not respond to ALL OFF command.
4. TZ66-S Will respond to ALL ON and the ALL OFF command.

Association
The TZ66-S supports the association command.
The TZ66-S can be set to control other Z-Wave devices. Those devices must be installed in their permanent location. You can turn on and off, and even dim other Z-Wave devices once they are "associated" into 1 group within the TZ66-S.
Each group is turned on or off (or dimmed) by tapping or holding the switch a differing amount of times.
Group 1 Control: If you associate a Z-Wave device into Group 1, you can turn that device ON and OFF by tapping the top or bottom of the switch once. The load attached to the TZ66-S will also turn on or off.
You can brighten the controlled device by pushing and holding the top of the switch, dim by pushing and holding the bottom of the switch.
You can associate up to 5 Z-Wave devices into Group 1.

For instructions on how to "associate" a Z-Wave device into the group, refer to your wireless controller instructions.
A note about dimming, if you combine Z-Wave enabled dimmers and other types of Z-Wave devices in a group, place a Z-Wave enabled dimmer into the empty group first to ensure that the dimming operates correctly.

Configuration
The TZ66-S supports the configuration command.
The TZ66-S can be configured to operate slightly differently than how it works when you first install it. Using the configuration command you can configure the following:

– Set Ignore start level bit when transmitting dim command

– Night light operation

– LED transmission indication

You can use a controller to send configuration commands. (Refer to the setup menu, configuration section)

Set Ignore start level bit when transmitting dim commands

– Parameter No: 1

– Length: 1 Byte

– Valid values = 0 or 1 (default value is 1)

The TZ66-S can send dim commands to Z-Wave enabled dimmers. The dim command has a start level embedded in it. A dimmer receiving this command will start dimming from that start level. However, the command also has a bit that indicates whether the dimmer should ignore the start level. If the bit is set to 1, the dimmer will ignore the start level and instead start dimming from its current level. If this bit is set to 0, the dimmer will not ignore the start level.

Night light

– Parameter No: 3

– Length: 1 Byte

– Valid values = 0 or 1 (default value is 0)

The LED on the TZ66-S will by default, turn ON when the load attached is turned OFF. To make the LED turn ON when the load attached is turned ON instead, set parameter 3 to a value of 1.

Invert switch

– Parameter No: 4

– Length: 1 Byte

– Valid values = 0 or 1 (default value is 0)

parameter is set to 1.

LED transmission indication

– Parameter 19

– Length: 1 Byte

– Valid values = 0, 1, 2 (default value is 2)

The TZ66-S will flicker its LED when it is transmitting to any of its 4 groups. This flickering can be set to not flicker at all (set to 0), to flicker the entire time it is transmitting (set to 1), or to flicker for only 1 second when it begins transmitting (set to 2). By default, the TZ66-S is set to flicker for only 1 second.

Each configuration parameter can be set to its default setting by setting the default bit in the configuration set command. See your controller's instructions on how to do this (and if it supports it).

All configuration commands will be reset to their default state when the TZ66-S is reset from the Z-Wave system.

Power level

The TZ66-S supports the power level command.

The power level command allows controllers to set and get the RF transmit power level of a node and test specific links between nodes with specific RF transmit power. Refer to your controller's instructions, if it supports this command, for more information. This command is typically used by professional installers.

SUC Support

There must be a static Update controller in your Z-Wave system for this feature to work. The static controller can act as a gateway in the system, since other nodes always know its position (not moved after addition to the network). The "always listening" advantage of the static controller is that other nodes can transmit information frames to it whenever needed.

You can assign an "SUC Route" to the TZ66-S. Refer to your controller's instructions on how to do this (if it supports it). Assigning an SUC Route to the TZ66-S allows it to request an update of the Z-Wave devices that are in between it and the Z-Wave device it was trying to transmit to. The TZ66-S will only request an update when a transmission fails.

SPECIFICATIONS

Power:	230 VAC, 50 Hz
Signal (frequency):	868.42 MHz
Maximum Load–Resistive:	6 amps (1380 watts) maximum, 230 VAC
Range:	up to 30 meters line of sight between the Wireless Controller and /or the closest Z-Wave receiver module

INTEROPERABILITY WITH Z-WAVE DEVICES

A Z-Wave network can integrate devices of various classes made by different manufacturers. The TZ66-S can be incorporated into existing Z-Wave networks. The top or bottom of the TZ66-S switch can be used to carry out inclusion, association, or exclusion.