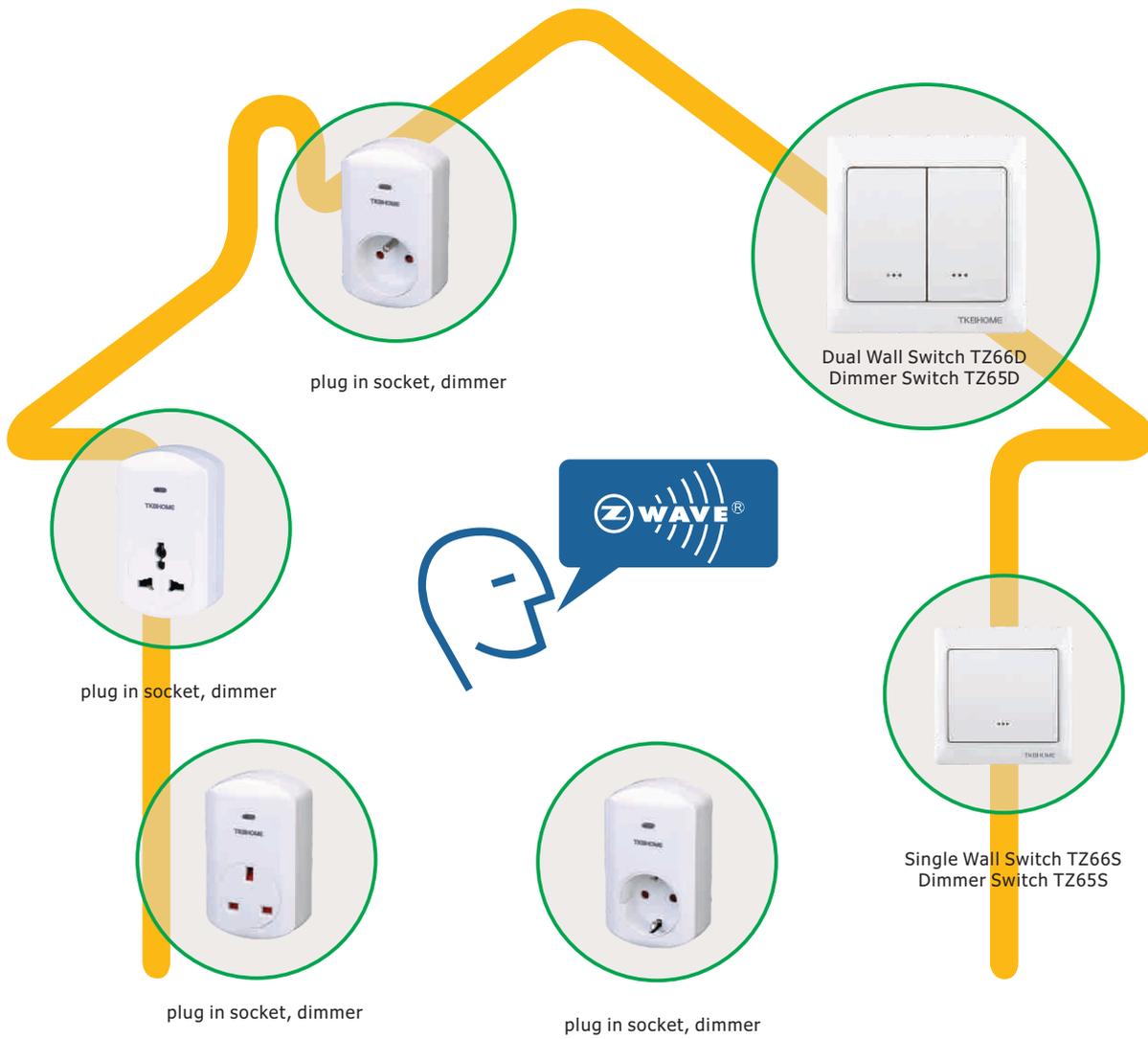


TKBHOME

Z-WAVE
SMART
HOME
PRODUCTS



TKBHOME European Standard Z-Wave Wall Switch, Socket and Dimmer for Smart Home



Z-WAVE SMART HOME PRODUCT

Z-Wave makes any home a "smart home" – quickly, easily and affordably!

Z-Wave is a next-generation wireless ecosystem that lets all your home electronics talk to each other, and to you, via remote control. It uses simple, reliable, low-power radio waves that easily travel through walls, floors and cabinets. Z-Wave control can be added to almost any electronic device in your house, even devices that you wouldn't ordinarily think of as "intelligent," such as appliances, window shades, thermostats and home lighting.

Z-Wave unifies all your home electronics into an integrated wireless network, with no complicated programming and no new cables to run. Any Z-Wave enabled device can be effortlessly added to this network, and many non-Z-Wave devices can be made compatible by simply plugging them into a Z-Wave accessory module. In seconds, your device gets joined to the network and can communicate wirelessly with other Z-Wave modules and controllers.

And Z-Wave lets you control these devices in ways that give you complete command even when you're not at home yourself. You can control your Z-Wave household remotely from a PC and the Internet from anywhere in the world...even through your cell phone!

Z-Wave FAQ

How does the Z-Wave system work?

Each device on the network, such as a lamp, light switch, thermostat, garage door opener, pool control, etc. has an individual code, selected from more than 4 billion options. Then when you press the appropriate button, the controller sends a signal to the device telling it what to do. (For more details, see Why Z-Wave?)

Is it difficult to install?

Not at all. Some devices, such as lamp controllers, simply plug into existing electrical outlets. You use them the same way you use a timer. Others require a little more skill. But if you can perform simple household repairs such as replacing a light switch or an electrical outlet, you can Z-Wave enable your home.

What kinds of controllers are available?

Currently, you can choose from a handheld remote control, wall panel, or Internet interface.

I have a large, sprawling home. Will Z-Wave work there?

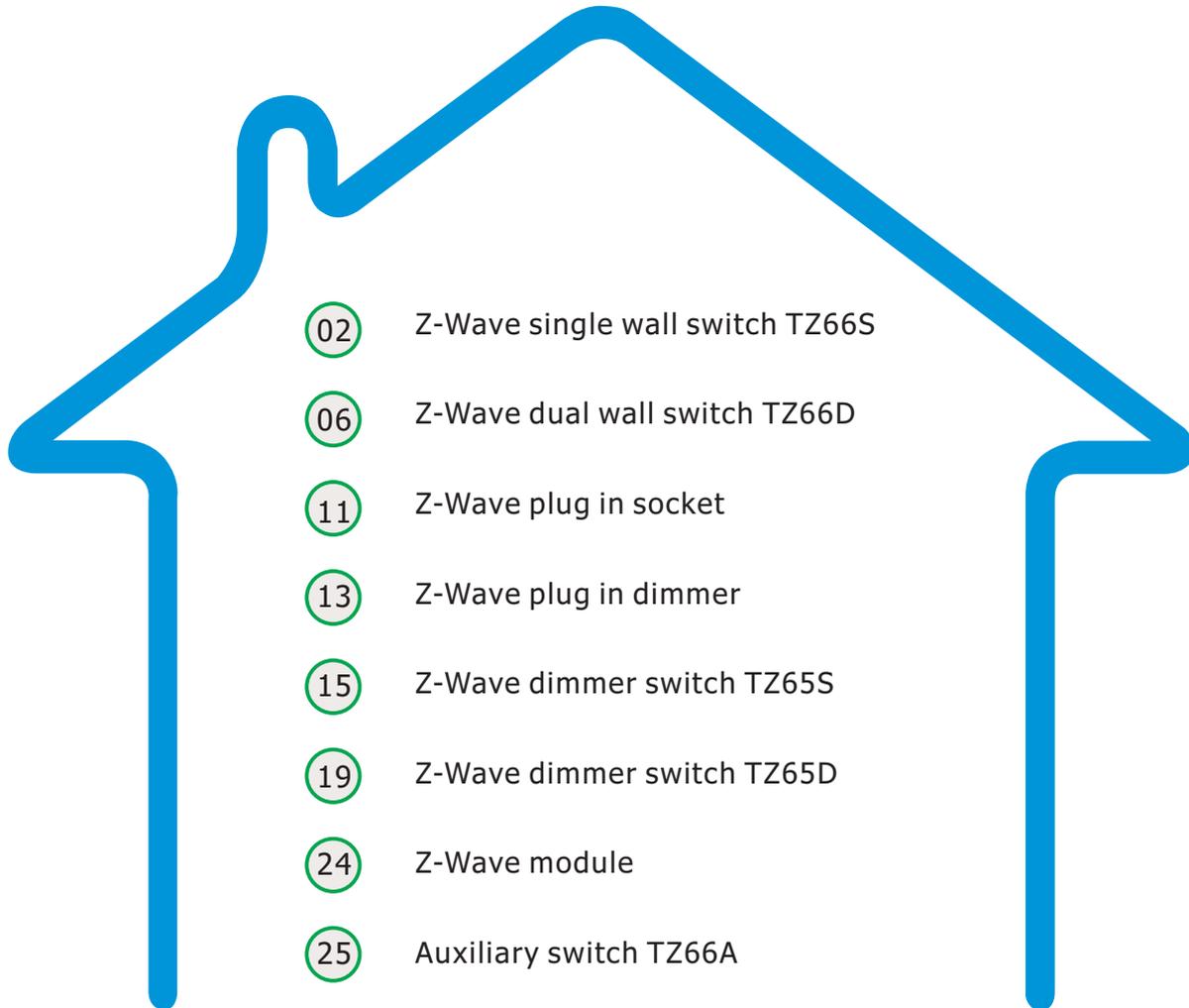
It is very likely. Because it is a routing technology, one Z-Wave device will pass the signal along to another until the final destination is reached. This relay system greatly extends its range. The final range, of course, depends on how many devices you have and the construction of your home. The more walls or other obstacles a signal has to pass through, the shorter the range will be.

I already have X.10 in my home. Will Z-Wave work with it?

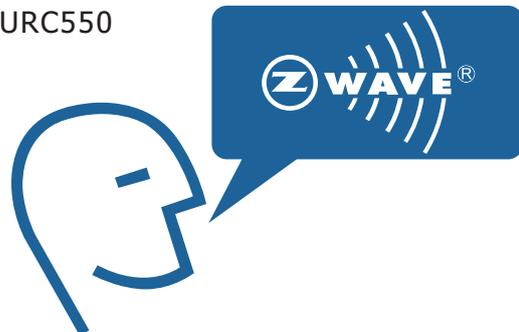
Yes, although you would not have as many capabilities as you would with a complete Z-Wave system. To make Z-Wave technology work with X.10 devices you need to purchase an X.10 bridge, which is made by Wayne Dalton.

All information above is from www.z-wave.com

Contents



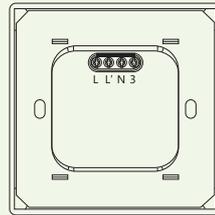
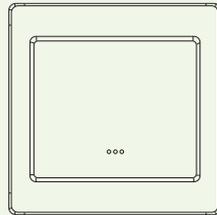
- 02 Z-Wave single wall switch TZ66S
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- 15 Z-Wave dimmer switch TZ65S
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- 26 Z-Wave gateway VERA2
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- 28 Z-Wave controller Z-URC550



Z-Wave Certification Number:
Z-Wave Switch: ZC08-11070004
Z-Wave Socket: ZC08-11080007
Z-Wave Dimmer: ZC08-11080008

Z-Wave Single Wall Switch TZ66S

Radio Frequency (RF) Controlled, 6A, 230 VAC, European Wall Mounted 3-Way Switch, Single Switch, Release 1.1



TZ66S Connections

L: Line voltage input

L': Switched load output

N: Line neutral

3: Auxiliary switch signal input



Note: 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.

TZ66S Wall Mounted Switch

The TZ66S 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 TZ66S 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.

Z-Wave Single Wall Switch TZ66S

Including TZ66S 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 TZ66S 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. Return stok nown ON/OFF state after power loss.

LED Indication

The LED on the TZ66S 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 TZ66S will flicker its LED when it is transmitting to any of its groups. This can be changed if desired. See "LED transmission indication".

Remote control

The TZ66S 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 TZ66S supports the ALL ON/ ALL OFF commands. .

The TZ66S can be set to respond to ALL ON and ALL OFF commands 4 different ways. . Refer to your controller for in formation 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.TZ66S Will not respond to ALL ON or the ALL OFF command.
- 2.TZ66S Will respond to ALL OFF command but will not respond to ALL ON command.
- 3.TZ66S Will respond to ALL ON command but will not respond to ALL OFF command.
- 4.TZ66S Will respond to ALL ON and the ALL OFF command.

Z-Wave Single Wall Switch TZ66S

Association

The TZ66S supports the association command.

The TZ66S 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 groups within the TZ66S.

The 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 left switch once. The load attached to the TZ66S 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 TZ66S supports the configuration command.

The TZ66S 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 TZ66S 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 TZ66S 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)

Z-Wave Dual Wall Switch TZ66S

To change the top of the switch to OFF and the bottom of the switch ON , set parameter 4 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 the group. 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 TZ66S 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 command swill be reset to their default state when the TZ66S is reset from the Z-Wave system.

Power level

The TZ66S 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 gate way 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 "SU C Route" to the TZ66S. 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 TZ66S 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 TZ66S can be incorporated into existing Z-Wave networks.

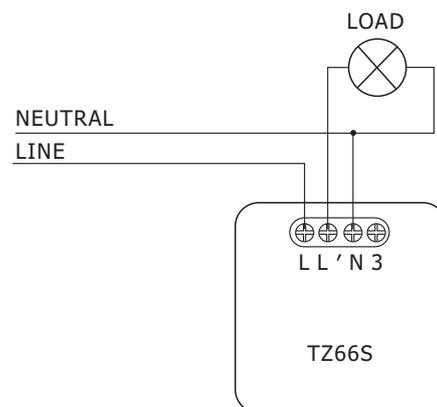
The top or bottom of the TZ66S switch can be used to carry out inclusion, association, or exclusion.

Mounting box size:

- Depth: 47mm
- Diameter: 66mm
- Mounting size: 62mm

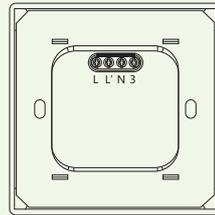
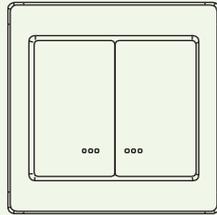


TZ66S Wiring Diagram



Z-Wave Dual Wall Switch TZ66D

Radio Frequency Controlled, 6A, 230 VAC, European Wall Mounted 3-Way Switch, Dual Switch, Release 1.1



TZ66D Connections

L: Line voltage input

L': Switched load output

N: Line neutral

3: Auxiliary switch signal input



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 can not "test bench" configure this module, then install.

TZ66D Wall Mounted Switch

The TZ66D 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 TZ66D 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 legend 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. These simply press into place. Make sure the LED windows are also toward the stamped word "Bottom" on the retaining ring.

Z-Wave Dual Wall Switch TZ66D

Including TZ66D 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 left switch on the TZ66D 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.(one "associated" group of 5 each-Groups 1) The right switch on the TZ66D allows the user to:
 - > Control other Z-WAVE enable devices (two "associated" group of 5 each-Groups 1) 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 left switch turns the load attached ON.
 - > Tapping bottom of left switch turns the load attached OFF.
 - > Pressin gand holding the left switch does not eff ect the load at tached but will allow dimming and brightening of Z-Wave dimmers if associated . Sa me for the right switch.

Caution: When dimmed are at 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.

Note: Upon restoration of power after a power loss , the TZ66-D returns to previous known state.

LED Indication

The LED on the TZ66D 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 TZ66D will flicker its LED when it is transmitting to any of its 4 groups. This can be changed if desired. See "LED transmission indication".

Remote control

The TZ66D 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 TZ66D supports the ALL ON/ ALL OFF commands. .

The TZ66D can be set to respond to ALL ON and ALL OFF commands 4 different ways. . Refer to your controller for in formation on how to set the TZ66-D 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-D can be setup to respond to ALL ON and ALL OFF commands are:

- 1.TZ66D Will not respond to ALL ON or the ALL OFF command.
- 2.TZ66D Will respond to ALL OFF command but will not respond to ALL ON command.
- 3.TZ66D Will respond to ALL ON command but will not respond to ALL OFF command.
- 4.TZ66D Will respond to ALL ON and the ALL OFF command.

Z-Wave Dual Wall Switch TZ66D

Association

The TZ66D supports the association command.

The TZ66D 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 of 4 groups within the TZ66D.

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 left switch once. The load attached to the TZ66D will also turn on or off. Associating nodes into Group 2 or 3 will cause a very slight delay before the command is transmitted to Group 1 nodes.

You can brighten the controlled device by pushing and holding the top of the left switch. Dim by pushing and holding the bottom of the left switch.

Group 2 Control: If you associate a Z-Wave device into Group 2 , you can turn that device ON and OFF by tapping the top or bottom of the right switch. You can brighten or dim devices by pushing and holding the top of the right switch. Dim by pushing and holding the bottom of the right switch. The load attached to the TZ66D is not affected. The LED on the right switch will indicate the status of Group 2. Group 2 will be polled at a specific interval and the LED on the right switch will indicate the status of Group 2. The polling interval can be configured.

Group 3 Control: If you associate a Z-Wave device into Group 3, you can turn that device ON or OFF by tapping the top or bottom of the right switch twice. You can brighten or dim devices by tapping the switch once then push and hold the top or bottom of the right switch. The load attached to the TZ66D is not affected.

Group 4 Control: If you associate a Z-Wave device into Group 4, that device will be commanded to turn on or off when the TZ66D is commanded to turn on or off. Caution: The TZ66D will not transmit to Z-Wave devices in Group 4 if it is already in the state that the Z-Wave command commanded it to.

You can associate up to 5 Z-Wave devices into each of these groups.

For instructions on how to "associate" a Z-Wave device into one of these groups, refer to your wireless controller instructions. (If you are using the z-wave controller, refer to the setup menu, association section).

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 TZ66D supports the configuration command.

The TZ66D 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
- > Suspend group
- > Night light operation
- > Invert switch
- > Poll Group 2 Interval (minutes)
- > Poll Group 2

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)

Z-Wave Dual Wall Switch TZ66D

The TZ66D left switch 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.

Suspend Group 4

- > Parameter No: 2
- > Length: 1 Byte
- > Valid values = 0 or 1 (default value is 0) (default value is 0)

You may wish to disable transmitting commands to Z-Wave devices that are in Group 4 without "disassociating" those devices from the group. Setting parameter 2 to the value of 1 will stop the TZ66D from transmitting to devices that are "associated" into Group 4.

Night light

- > Parameter No: 3
- > Length: 1 Byte
- > Valid values = 0 or 1 (default value is 0)

The LED on the TZ66D 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)

To change the top of the switch to OFF and the bottom of the switch ON, set parameter 4 to 1.

Note: if you invert the switches and also install the produce upside down, remember the load will now be controlled by the right, not the left switch.

Poll Group 2 Interval (minutes)

- > Configuration Parameter 20.
- > One Byte
- > Valid Values = 1 through 255 (Default value is 2)

Poll Group 2

- > Configuration Parameter 22. (Default value is 1)
- > One Byte
- > If value is 0, the TZ66D will not poll Group 2.
- > If value is 1, the TZ66D will poll Group 2 at the interval set in Configuration

Parameter 20

Enable shade control Group 2

- > Parameter 14
- > Length: 1 Byte
- > Valid values: 0 or 1 (default value is 0)

The TZ66D can operate shade control devices via its Group 2 if this configuration parameter is set to 1.

Enable Shade control Group 3

- > Parameter 15
- > Length: 1 Byte
- > Valid values: 0 or 1 (default value is 0) (default value is 0)

Z-Wave Dual Wall Switch TZ66D

The TZ66D can operate shade control devices via its Group 3 if this configuration parameter is set to 1.

LED Transmission indication

> Parameter 19

> Length: 1 Byte

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

The TZ66-D 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 TZ66D 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 command swill be reset to their default state when the TZ66D is reset from the Z-Wave system.

Power level

The TZ66D 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 gate way 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 "SU C Route" to the TZ66D. Refer to your controller's instructions on how to do this (if it supports it). Assigning an SUC Route to the TZ66-D 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 TZ66D 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 net work can integrate devices of various classes made by different manufacturers.

The TZ66D can be incorporated into existing Z-Wave networks.

The top or bottom of the TZ66D switch can be used to carry out inclusion, association, or exclusion.

Mounting Box Size:

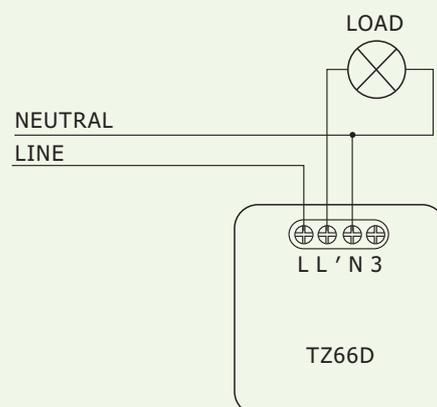
Depth: 47mm

Diameter: 66mm

Mounting size: 62mm



TZ66D Wiring Diagram



Z-Wave plug in socket



TZ68E



TZ68G



TZ68F



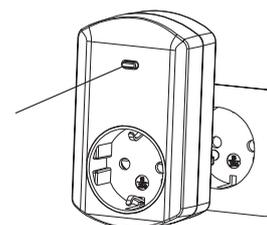
TZ68C

This plug-in ON/OFF Module in a transceiver which is a Z-Wave enabled device and is fully compatible with any Z-Wave enabled network. Z-Wave enabled devices displaying the Z-Wave logo can also be used with it regardless of the manufacturer, and ours can also be used in other manufacturer's Z-Wave enabled networks. Remote on/off control of the connected load is possible with other manufacturer's Wireless Controller. Each module is designed to act as a repeater. Repeaters will re-transmit the RF signal to ensure that the signal is received by its intended destination by routing the signal around obstacles and radio dead spots.

Adding to Z-Wave Network

In the front casing, there is an ON/OFF knob which is used to carry out inclusion, exclusion or association. Put a Z-wave Wireless Controller into inclusion/exclusion mode, press the knob on the Module to complete the inclusion/exclusion process.

On/off knob
LED indicator



Installation

- > Plug this ON/OFF Module into a wall outlet near the load to be controlled.
- > Plug the load in to the Module. Make sure the load to be controlled cannot exceed 2990/3500 watts.
- > Turn the knob or switch on the load to the ON position.
- > To manually turn ON the ON/OFF Module, press and release the ON/OFF knob. The blue indicator LED will turn ON , and the load plugged into the module will also turn ON.
- > To manually turn OFF the Module, simply press and release the ON/OFF knob. The blue indicator LED will turn OFF and the load plugged into the Module will also turn OFF.

Programming

The ON/OFF knob allows the user

- > Turn ON or OFF the load attached
- > Include or exclude the Module from the Z-Wave system

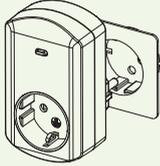
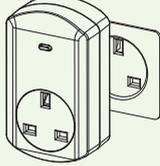
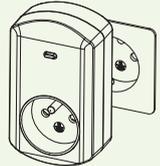
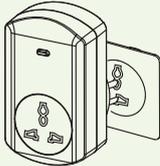
Z-Wave plug in socket

Troubleshooting

Symptom	Cause of Failure	Recommendation
The Module not working and LED off	1.The Module is not plugged in to the electrical outlet properly 2. The Module is out of order	1.Check power connections 2. Don't open up the Module and send it for repair.
The Module LED illuminating, but cannot control the ON/OFF Switch of the load attached	Check if the load plugged into the Module has its own ON/OFF switch	Set the ON/OFF switch of the load attached to ON
The Module LED illuminating, but the Detector cannot control the Module	1.Not carry out association 2.Frequency interference	1.Carry out association 2.Wait for a while to re-try

Socket Type

Since the socket type for each country in Europe varies, refer to the outline for each socket suited for each country as follows:

TZ68G	Germany	TZ68E	U.K
			
TZ68F	French	TZ68C	Chinese
			

Specification

Operating Voltage	230V/50Hz
Maximum Load	2990 W for UK, 3500W for Germany, French,2200W for Chinese
Range	Minimum 30m line of sight
Frequency Range	868.42MHz



Warning:

- 1.Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
- 2.Contact your local government for information regarding the collection systems available.
- 3.If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.
- 4.When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.
5. Plug out to disconnect from power supply; Do not plug in line.
6. Do not exceed the max rating

Z-Wave plug in dimmer



TZ67E



TZ67G



TZ67F



TZ67C

Features

- > Provides wireless dimming of lights, and ON/OFF control of lights connected to the Plug-In Lamp Module.
- > Plugs directly into wall outlet and provides a switched 230 VAC source. The programming button on the module is also a manual on and off switch.
- > Each Plug-In Lamp Module functions as an automatic repeater to other Z-WAVE Modules to ensure full home coverage.

Button functions

- > Adds module under the command of Wireless Controller.
- > Local ON and OFF (push and release).
- > Local dimming (hold down).

Product Description

- > Lamp Modules and the lighting in a home can easily be controlled by a Wireless Controller, and can easily be installed by the homeowner. A button on the Plug-in Lamp Module identifies it to the Wireless Controller when pushed.
- > It also can turn the connected load on and off.
- > Lamps can be dimmed, turned on and off, in groups or individually from the Controller.
- > Using the Wireless Controller, an "All Lights On" command can be broadcast for security reasons and with the "Timer" feature, lamps can be scheduled to turn on and off at pre- selected times.
- > A single button on the Wireless Controller can select predetermined "scene" lighting levels programmed by the homeowner at each Lamp Module.
- > This plug-in Lamp Module is designed to work with other Z-Wave products. 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.
- > Lamp Modules TZ67 can 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.
- > This products utilize radio frequency (RF) Z-Wave™ technology to communicate and inter-operate, and are compatible with other Z-Wave™ enabled RF products

Z-Wave plug in dimmer

Including TZ67 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. Press the LED button once

Excluding from the Network

1. Setup the controller you are using to exclude a device from the network.
2. Press the LED button once

Installation

Plug this Lamp Module into the wall outlet near the lamp to be controlled, and plug the lamp into the Lamp Module.

Refer your Wireless Controller operating instructions to add this module under the command of the Wireless

Controller. **(Lamp module must be installed in its permanent location, not on test bench).**

Make sure the lamp(s) to be controlled total no more than 300 watts. WARNING: Plugging a non-resistive load such as florescent lighting ora device with a motor may result in damage to the Lamp Module and will void the warranty.

Lamp Module Button

The Lamp Module has a button on the face (see picture above) that switches an attached lamp ON and OFF, and adjusts its dimming level by holding it down, and it is also used to configure the module to operate from the wireless controller. With the Wireless Controller, the Lamp Module can be switched ON and OFF, and can be included in groups of lights that operate at the same time, and in scenes that set a lighting mood.

Switch power ON and OFF locally

When the button is pressed and released quickly, the power will toggle. This means that power will be turned OFF if it was ON and turned ON if it was OFF. When switching the Lamp Module ON or OFF, the light will dim UP (or DOWN) in approximately 2 seconds until the final level is reached.

Dimming

If the button is constantly pressed the light will be dimmed. The dimming function will also toggle. Constantly pressing the button the Lamp Module will dim either UP or DOWN until it reaches the maximum or minimum value.

The second time the button is held down, the dimming will change direction. When the power level reaches either full power or minimum power the dimming will stop until the button has been released and is pressed again.

Specifications

Electrical

Power	230 VAC, 50 Hz
Signal (Frequency)	868.42 MHz
Maximum Load	300W, for incandescent lamps only
Range	Up to 30 meters line of sight between the Wireless Controller and /or the closest Module

Mechanical

Dimensions	Approximately. 10.2 x 8.2 x 6.8cm (mounted in wall receptacle)
Weight	Approximately 0.16kgs.

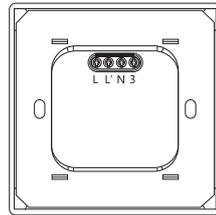
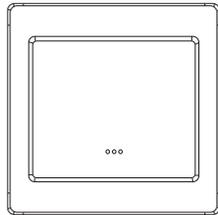
Environmental

Operating Temperature Range	32-105°F (0-40°C). Indoor use only
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Specifications may change without notice to improve product performance.

Z-Wave Dimmer Switch TZ65S

Radio Frequency (RF) Controlled, 500W, 230 VAC, European Wall Mounted 3-Way Dimmer, Single Switch, Release 1.1



TZ65S Connections

L: Line voltage input

L': Switched load output

N: Line neutral

3: Auxiliary switch signal input



Note: 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.

TZ65S Wall Mounted Dimmer

The TZ65S Wall mounted 3-Way Dimmer is a component of the lighting control system.

This wall mounted dimmer 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 TZ65S 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 dimmer does not exceed 500W. For indoor use only. Retain instructions for future use.

Wire this dimmer in place of a current wall switch according to the diagram.

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.

Z-Wave Dimmer Switch TZ65S

Including TZ65S To The Network

Including to the network (must be installed in its permanent location , not on test bench)

- > Setup the controller you are using to include a device into network.
- > Tap either the top or bottom of the switch once.

Excluding from the network

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

Basic Operation

(Local control)

The switch on the TZ65S allows the user to:

- > Turn ON or OFF the attached load.
- > Dimmer 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 top of the switch, it will brighten the load
- > Pressing and holding the bottom of the switch, it will dim the load
- > 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.

Note: Upon restoration of power after a power loss, the ZDM230 returns to previous known state.

LED Indication

The LED on the TZ65S 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 TZ65S 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 TZ65S will respond to BASIC and MULTILEVEL 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 TZ65S supports the ALL ON/ ALL OFF commands. .

The TZ65S can be set to respond to ALL ON and ALL OFF commands 4 different ways. . Refer to your controller for in formation on how to set the TZ65S 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 TZ65S can be setup to respond to ALL ON and ALL OFF commands are:

1. TZ65S Will not respond to ALL ON or the ALL OFF command.
2. TZ65S Will respond to ALL OFF command but will not respond to ALL ON command.
3. TZ65S Will respond to ALL ON command but will not respond to ALL OFF command.
4. TZ65S Will respond to ALL ON and the ALL OFF command.

Z-Wave Dimmer Switch TZ65S

Association

The TZ65S supports the association command.

The TZ65S 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 groups within the TZ66S.

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 left switch once. The load attached to the TZ65S 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 TZ65S supports the configuration command.

The TZ65S 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 TZ65S 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 TZ65S 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)

Z-Wave Dimmer Switch TZ65S

To change the top of the switch to OFF and the bottom of the switch ON , set parameter 4 to 1.

LED transmission indication

> Parameter 19

> Length: 1 Byte

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

The TZ65S 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 TZ65S 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 TZ65S is reset from the Z-Wave system.

Power level

The TZ65S 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 gate way 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 "SU C Route" to the TZ65S. Refer to your controller's instructions on how to do this (if it supports it). Assigning an SUC Route to the TZ65S 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 TZ65S will only request an update when a transmission fails.

Specifications

Power:	230 VAC, 50 Hz
Signal (frequency):	868.42 MHz
Maximum Load–Resistive:	500W 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 TZ65S can be incorporated into existing Z-Wave networks.

The top or bottom of the TZ65S switch can be used to carry out inclusion, association, or exclusion.

Mounting box size:

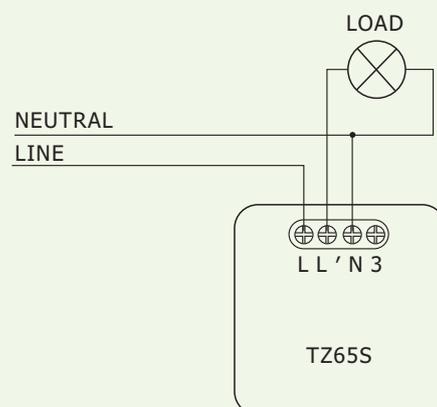
Depth: 47mm

Diameter: 66mm

Mounting size: 62mm

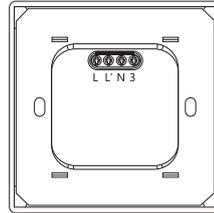
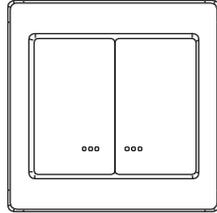


TZ65S Wiring Diagram



Z-Wave Dimmer Switch TZ65D

Radio Frequency Controlled, 500W, 230 VAC, European Wall Mounted 3-Way dimmer , Dual Switch, Release 1.1



TZ65D Connections

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

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 can not "test bench" configure this module, then install.

TZ65D Wall Mounted Dimmer

The TZ65D wall mounted 3-Way dimmer is a component of the lighting control system.

This wall mounted dimmer 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 TZ65D 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 500W. For indoor use only. Retain instructions for future use.

Wire this dimmer in place of a current wall switch according to the legend.

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. These simply press into place. Make sure the LED windows are also toward the stamped word "Bottom" on the retaining ring.

Z-Wave Dimmer Switch TZ65D

Including TZ65D To The Network

Including to the network (must be installed in its permanent location , not on test bench)

- > Setup the controller you are using to include a device into network.
- > Tap either the top or bottom of the switch once.

Excluding from the network

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

Basic Operation

(Local control)

The left switch on the TZ65D 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.(one "associated" group of 5 each-Groups 1) The right switch on the TZ65D allows the user to:
 - > Control other Z-WAVE enable devices (two "associated" group of 5 each-Groups 1) 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 left switch turns the load attached ON.
 - > Tapping bottom of left switch turns the load attached OFF.
 - > Pressing and holding the top of the switch, it will brighten the load
 - > Pressing and holding the bottom of the switch, it will dim the load
 - > Pressing and holding the left switch does not effect the load attached but will allow dimming and brightening of Z-Wave dimmers if associated . Same for the right switch.

Caution: When dimmed are at 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.

Note: Upon restoration of power after a power loss , the TZ65D returns to previous known state.

LED Indication

The LED on the TZ65D 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 TZ65D will flicker its LED when it is transmitting to any of its 4 groups. This can be changed if desired. See "LED transmission indication".

Remote control

The TZ65D will respond to BASIC and MULTIEVEL 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 TZ65D supports the ALL ON/ ALL OFF commands. .

The TZ65D can be set to respond to ALL ON and ALL OFF commands 4 different ways. . Refer to your controller for in formation on how to set the TZ65D 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 TZ65D can be setup to respond to ALL ON and ALL OFF commands are:

- 1.TZ65D Will not respond to ALL ON or the ALL OFF command.
- 2.TZ65D Will respond to ALL OFF command but will not respond to ALL ON command.
- 3.TZ65D Will respond to ALL ON command but will not respond to ALL OFF command.
- 4.TZ65D Will respond to ALL ON and the ALL OFF command.

Z-Wave Dimmer Switch TZ65D

Association

The TZ65D supports the association command.

The TZ65D 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 of 4 groups within the TZ65D.

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 left switch once. The load attached to the TZ65D will also turn on or off. Associating nodes into Group 2 or 3 will cause a very slight delay before the command is transmitted to Group 1 nodes.

You can brighten the controlled device by pushing and holding the top of the left switch. Dim by pushing and holding the bottom of the left switch.

Group 2 Control: If you associate a Z-Wave device into Group 2 , you can turn that device ON and OFF by tapping the top or bottom of the right switch. You can brighten or dim devices by pushing and holding the top of the right switch. Dim by pushing and holding the bottom of the right switch. The load attached to the TZ65D is not affected. The LED on the right switch will indicate the status of Group 2. Group 2 will be polled at a specific interval and the LED on the right switch will indicate the status of Group 2. The polling interval can be configured.

Group 3 Control: If you associate a Z-Wave device into Group 3, you can turn that device ON or OFF by tapping the top or bottom of the right switch twice. You can brighten or dim devices by tapping the switch once then push and hold the top or bottom of the right switch. The load attached to the TZ65D is not affected.

Group 4 Control: If you associate a Z-Wave device into Group 4, that device will be commanded to turn on or off when the TZ65D is commanded to turn on or off. Caution: The TZ65D will not transmit to Z-Wave devices in Group 4 if it is already in the state that the Z-Wave command commanded it to.

You can associate up to 5 Z-Wave devices into each of these groups.

For instructions on how to "associate" a Z-Wave device into one of these groups, refer to your wireless controller instructions. (If you are using the z-wave controller, refer to the setup menu, association section).

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 TZ65D supports the configuration command.

The TZ65D 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
- > Suspend group
- > Night light operation
- > Invert switch
- > Poll Group 2 Interval (minutes)
- > Poll Group 2

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)

Z-Wave Dimmer Switch TZ65D

The TZ65D left switch 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.

Suspend Group 4

- > Parameter No: 2
- > Length: 1 Byte
- > Valid values = 0 or 1 (default value is 0)

You may wish to disable transmitting commands to Z-Wave devices that are in Group 4 without "disassociating" those devices from the group. Setting parameter 2 to the value of 1 will stop the TZ65D from transmitting to devices that are "associated" into Group 4.

Night light

- > Parameter No: 3
- > Length: 1 Byte
- > Valid values = 0 or 1 (default value is 0)

The LED on the TZ65D 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)

To change the top of the switch to OFF and the bottom of the switch ON, set parameter 4 to 1.

Note: if you invert the switches and also install the produce upside down, remember the load will now be controlled by the right, not the left switch.

Poll Group 2 Interval (minutes)

- > Configuration Parameter 20.
- > One Byte
- > Valid Values = 1 through 255 (Default value is 2)

Poll Group 2

- > Configuration Parameter 22. (Default value is 1)
- > One Byte
- > If value is 0, the TZ65D will not poll Group 2.
- > If value is 1, the TZ65D will poll Group 2 at the interval set in Configuration

Parameter 20

Enable shade control Group 2

- > Parameter 14
- > Length: 1 Byte
- > Valid values: 0 or 1 (default value is 0)

The TZ65D can operate shade control devices via its Group 2 if this configuration parameter is set to 1.

Enable Shade control Group 3

- > Parameter 15
- > Length: 1 Byte
- > Valid values: 0 or 1 (default value is 0)

Z-Wave Dimmer Switch TZ65D

The TZ65D can operate shade control devices via its Group 3 if this configuration parameter is set to 1.

LED Transmission indication

- > Parameter 19
- > Length: 1 Byte
- > Valid values = 0, 1, 2 (default value is 2)

The TZ65D 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 TZ65D 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 TZ65D is reset from the Z-Wave system.

Power level

The TZ65D 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 gate way 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 "SU C Route" to the TZ65D. Refer to your controller's instructions on how to do this (if it supports it). Assigning an SUC Route to the TZ65D 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 TZ65D will only request an update when a transmission fails.

Specifications

Power:	230 VAC, 50 Hz
Signal (frequency):	868.42 MHz
Maximum Load–Resistive:	500W 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 net work can integrate devices of various classes made by different manufacturers.

The TZ65D can be incorporated into existing Z-Wave networks.

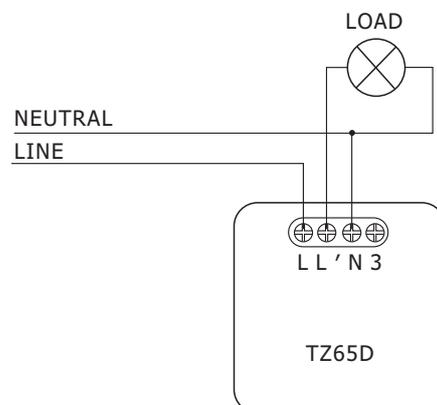
The top or bottom of the TZ65D switch can be used to carry out inclusion, association, or exclusion.

Mounting Box Size:

Depth: 47mm
Diameter: 66mm
Mounting size: 62mm



TZ65D Wiring Diagram



Z-Wave module



Z-Wave modules can be used separately under the ceiling to remote control the load.

For TZ66S module

Including Itto The Network

Including to the network (must be installed in its permanent location, not on test bench)

- > Setup the controller you are using to include a device into network.
- > Tap either the top or bottom of the switch once.

Excluding from the network

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

BASIC OPERATION

- > 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

For TZ66D module

Including Itto The Network

Including to the network (must be installed in its permanent location, not on test bench)

Setup the controller you are using to include a device into network.

Tap either the top or bottom of the switch once.

Excluding from the network

Setup the controller you are using to exclude a device from the network.

Tap either the top or the bottom of the switch once.

The left switch on the TZ66D 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. (one "associated" group of 5 each-Groups 1) The right switch on the TZ66D allows the user to:
- > Control other Z-WAVE enable devices (two "associated" group of 5 each-Groups 1) Also, when a controller prompts you to "Se nd N o d e I D " or to "Press Button on Unit", quickly tap the switch ON or OFF once to satisfy those instructions.

The right switch

Auxiliary switch TZ66A 230 VAC Auxiliary Wall Switch

Features

- > Use with any TKBHOME Z-Wave 3-way wall mounted switch
- > Available in White color

Applications

- > Switch is manual, however matching 3-way can be controlled from a remote location by a hand held or wall mounted transmitter.
- > Switch provides remote ON/OFF 3-way control of lighting or any electrical load



Product Description

The TZ66A is an auxiliary switch for use with any TKBHOME Z-Wave 3-way switch.

Specifications

Electrical Requirements

Power

Supply Voltage Connects to line or neutral of 230VAC, +/-10%

Mechanical Requirements

Dimensions (Overall):	86 L x 86 W x 45 H (fits in 86 x 86 mm electrical box)
Weight:	Approx. 0.087 kg
Mounting:	Mounting plate for 86 x 86 mm electrical junction box
Connections:	Refer the wiring diagram

Environmental Requirements

Indoor use only

Operating Temperature: 32 to 105 degrees F

Storage Temperature: Range -20 to 150 degrees F

Operating Humidity: 8% to 80% non-condensing

Specifications may change without notice to improve product performance.

Before You Begin...

Read All Instructions

Make sure your installation will conform to all applicable codes and requirements.

If service is needed, the unit must be returned to the dealer where purchased.

Installation

Danger: Shock Hazard! Make all connections with the POWER OFF to avoid injury to the installer or damage to the device.

- > Refer the wiring diagram for connecting
- > Check connections to be sure they are tight and no bare conductors are exposed.
- > Make sure the load or installation does not exceed the device rating.
- > Install into an appropriately sized electrical wall box.
- > Restore the power.

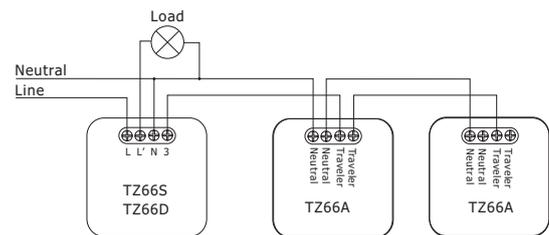
Operation

Basic operation with the THBHOME Z-Wave TZ66S and TZ66D

When the top of the TZ66A switch is pressed, the load will turn on.

When the bottom of the switch is pressed on the TZ66A, the load will turn off.

TZ66A Wiring diagram



Z-Wave Gateway VERA2

VERA offers a Flash based web interface as main user interface. A second web interface is optimized for use with i-phone. VERA has a very intuitive user interface. A introductory video explains step-by-step on every page of the setup dialogues what needs to be done and how. The unit controls switches, dimmers, motion sensors, temperature sensors and many more Z-Wave devices. A particular focus of VERA is on energy saving. VERAs own energy consumption is less than 10 W. The unit has a lot of features to decrease energy consumption in the house.

Technical Data

- > Wireless behaviour: transmitter
- > Z-Wave-Type: static controller
- > Distance: up to 100 m

Z-Wave version: 5.0

Ethernet ports: 2

USB ports: 2

Wi-Fi: 802.11g

Power consumption: 6 watts

Operating system: Linux

CPU: Broadcom BCM5354 chip rev 2 (BCM3302 V2.9)

Includes rechargeable battery pack for Zwave inclusion

Power Supply: external power supply for 230 V



Note: the Z-Wave gateway VERA2 above is compatible with our Z-Wave products, we list it here for customer reference.

You can choose it to match with our products.

Z-Wave controller ACT_ZTH200

The remote control ZTH 200 can control a variety of Z-Wave compatible devices such as switches, dimmers, window blinds and motion sensors. It specifically works well together with all devices of the ACT HomePro system. The ZTH 200 can include, exclude devices, group them, assign devices to scenes and set and release associations. Furthermore the unit is able to set user specific commands to configure devices such as motion sensors. The device is a portable controller but offers enhanced features such as timers for time-triggered actions.

Technical Data

- > Wireless behaviour: transmitter
- > Z-Wave type: portable controller
- > Z-Wave devices: up to 64
- > Z-Wave groups: up to 7
- > Z-Wave scenes: up to 32
- > Distance: up to 100 m outdoor, up to 30 m in buildings
- > Display: 2 x 12 segment display
- > Local operations: 14 keys
- > Power supply: 2 * AA batteries



Note:the Z-Wave controller ACT-ZTH200 above is compatible with our Z-Wave products, We list it here customer reference,you can choose it to match with our Z-Wave products.

Z-Wave controller Z-URC550



This is a universal remote control with extended Z-Wave capability.

The device is able to control its own Z-Wave network and works well together with IP Gateway controlling scene activation.

Features are

- > Z-wave and IR enabled portable home controller
- > Controls a wide range of Z-Wave compliant appliances such as switches, dimmers, drupe controllers and motorized shades.
- > Supports up to 16 Z-wave GROUP or SCENE
- > Supports 8 IR controlled A/V equipments with Learning Capability
- > Easy-to-use XpressZetup™ for typical users and powerful Advance Setup for experienced users
- > Best-in-class Association setup capability
- > Perfect Gateway companion - work perfectly as a secondary controller
- > Supports bi-direction and multi-level replication - simplify cloning
- > Dedicated control keys for popular set top box - a real remote replacement
- > IR Boost mode to extend IR transmission range and angle
- > Optimized Z-Wave RF operating distance: Up to 300ft at open area

Note:the Z-Wave controller Z-URC550 above is compatible with our Z-Wave products, We list it here customer reference,you can choose it to match with our Z-Wave products.



TKB CONTROL SYSTEM LIMITED(Hong Kong)

Add:29-31 Cheung Lee St Chai Wan Hong Kong

WENZHOU TKB CONTROL SYSTEM CO., LTD(Manufacturer)

Add: No. 8 Xiqiao Road, Liushi, Yueqing, Zhejiang, China 325604

Tel: (86 577) 61725815 ; 61787335 Fax: (86 577) 62731892

E-mail:tkb@tkbhome.com <http://www.tkbhome.com>



Z-Wave certified

ISO9001:2008