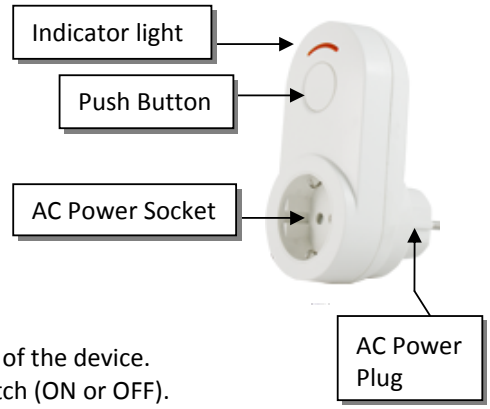
Quick start
iPlugDim EU

Technical specs

Normal operating voltage	220V/50Hz
Recommended max load	500W
Frequency range	868.42 MHz
Wireless Range	Up to 30m line of sight



Basic Operations

- The iPlugDim can be remotely controlled.
- The iPlugDim can be controlled by the push button on the front of the device.
- The iPlugDim 's indicator light will indicate the status of the switch (ON or OFF).
- The iPlugDim can make a dimming function of the load.

Mounting

1. Place the iPlugDim into an outlet socket.
2. Plug in the device which you want to control and dim.

Include or exclude in Z-Wave network

1. Make sure your Z-Wave controller is in the right operation mode (include or exclude).
2. Press and hold the push button for 4 seconds and release to start the inclusion or exclusion process (indication mode: Ready for learn mode).
3. (The product will start NWI automatically after unsuccessful normal inclusion)

Manual control

Press and release the push button of the iPlugDim to switch on/off the load of socket, press and hold the push button to dim the load of the socket.

Remote control

The iPlugDim can be remote controlled by several Z-Wave devices.

Indication modes

The indicator gives various statuses of the device as follows:

1. Ready for learn mode: Indicator light blinks every second.
2. Learn in progress (add): Indicator light blinks 2 times every second.
3. Learn in progress (remove): Indicator light blinks 3 times every second.
4. Learn mode success: Indicator light is on for second.
5. Learn mode failed: Indicator light blinks 8 times fast.

Technical Manual

Caution:

- **This device is using a radio signal that passes through walls, windows and doors. The range is strongly influenced by local conditions such as large metal objects, house wiring, concrete, furniture, refrigerators, microwaves and similar items. On average, the indoor range is approximately 30 meters.**
- **Do not expose this product to excessive heat or moisture. Dry location use only.**
- **Prevent long term exposure to direct sunlight.**
- **Do not attempt to repair this product. If the product is damaged or if you are in doubt about the proper operation, take the product back to the place of purchase.**
- **Do not clean the product with any liquid.**
- **Indoor use only**

Technical details

Absolute min/max voltage	220V/50Hz
Maximum peak resistive load	500W
Frequency range	868.42 MHz
Wireless Range	Up to 30m line of sight
Storage temperature	-5°C to +65°C
Storage humidity	10% to 70%
Operating temperature	0°C to 50°C
Operating humidity:	30% to 80%

Supporting Command Classes

Basic type: BASIC_TYPE_ROUTING_SLAVE
Generic type: GENERIC_TYPE_SWITCH_MULTILEVEL
Specific type: SPECIFIC_TYPE_POWER_SWITCH_MULTILEVEL
Listening: TRUE, Z-Wave Lib: 4.51

class: 0x26 COMMAND_CLASS_SWITCH_MULTILEVEL
class: 0x70 COMMAND_CLASS_CONFIGURATION
class: 0x72 COMMAND_CLASS_MANUFACTURER_SPECIFIC
class: 0x73 COMMAND_CLASS_POWERLEVEL
class: 0x85 COMMAND_CLASS_ASSOCIATION
class: 0x86 COMMAND_CLASS_VERSION
class: 0x27 COMMAND_CLASS_SWITCH_ALL

ROUTING SLAVE

This Z-Wave product will be used as slave. Slave nodes are nodes in a Z-Wave network that receive commands and perform actions based on the command. A routing slave can route Z-Wave messages to other nodes in the network. This device is always awake and does not go to sleep mode because it is an AC powered device.
This device can act as a wireless repeater to forward commands for another device in the Z-Wave network to expand the range of the network. This function works for every Z-Wave device from any manufacturer when included into the same Z-Wave network.
Unlike a normal slave a routing slave can store a number of static routes which he uses to send a routed rf frame to another node.

Include Initiator

The include initiator is used when Primary and Inclusion Controllers include nodes into the network. When both the include initiator have been activated simultaneously the new node will be included to the network (if the node was not included previously).

Exclude Initiator

The exclude initiator is used by Primary Controllers to exclude nodes from the network. When the exclude initiator and a slave initiator are activated simultaneously, it will result in the slave being excluded from the network (and reset to Node ID zero). Even if the slave was not part of the network it will still be reset by this action.

Z-Wave compatibility

Because this is a Z-Wave device, it means it can co-operate with other Z-Wave devices of other manufacturers. It can co-exist in a Z-Wave network existing with product from other manufacturers.

Hops & Retries

The Z-Wave range has a range of up to 30 meters in line of sight. This signal is not limited to the 30 meter range due to routing the Z-Wave message to other nodes in the network. This way the range of the Z-Wave network can be expanded to 150 meters indoors (limit of 4 hops).

Class 0x20 COMMAND_CLASS_BASIC

The basic command class only has a supporting role and is mapped to the switch binary command class.

class: 0x86 COMMAND_CLASS_VERSION

This Command Class is used to obtain information about the iPlugDim. The Z-Wave library type, the Z-Wave protocol version and the application version will be reported.

class: 0x72 COMMAND_CLASS_MANUFACTURER_SPECIFIC

This will report information about the manufacturer. This product will contain the manufacturer ID of *Wintop*. Manufacturer ID of *Wintop* is 0x97, the ID of this product is 0x42.

class: 0x70 COMMAND_CLASS_CONFIGURATION

With this Command Class it's possible to change the default settings of the iPlugDim. With CONFIGURATION_SET different configuration parameters can be set. These parameters can be changed:

0. **not used**
1. **Set to default**

Description:	Set all config values to default values (factory settings). Read more in chapter Configuration Reset.
Size:	1 byte*
Param1:	All values (0x00 – 0xFF) except for 0x55 can be used to default all the configuration params.
Param2,3,4:	not used

class: 0x85 COMMAND_CLASS_ASSOCIATION
The Association Command Class is used to associate other devices with the iPlugDim. The devices that are associated can be controlled on application level.

Every time the push button is pressed a switch binary report is sent to the associated node

The iPlugDim can be associated into a grouping. If so, the iPlugDim can be controlled by another Z-Wave device (does not have to be a controller).

Number of groupings: 1
Maximum supported nodes per group: 1

Because only one group is supported grouping identifier is ignored in all cases.

class: 0x73 COMMAND_CLASS_POWERLEVEL
The Powerlevel Command Class defines the RF transmitting power. This command is used to test the connectivity of a network. The Command makes it possible for supporting controllers to SET/GET the RF transmitting power level of a node and test specific links between nodes.

class: 0x75 COMMAND_CLASS_PROTECTION
The Protection Command Class is used to protect the device being controlled unintentional or unwanted by e.g. a child. When this is applied the push button will not work.

This can be set using the PROTECTION_SET command. The following three protection states can be used:
0x00: Unprotected – The device is not protected and can be operated normally with the push button.

0x01: Protection by sequence: The device can be used by a different way of operating, three rapid button presses are used to switch manually.
0x02: No operation possible – it is not possible to control the device by the push button. Off course you can control the device by z-wave.

Note: every other state will be ignored by application.

class 0x27 COMMAND_CLASS_SWITCH_ALL
The iPlugDim supports switch all functionality and therefore can be in included in a switch all broadcast.

If iPlugDim is configured to switch all mode:
0x00 : is excluded from all switch on/off functionality.
0x01 : is excluded from the all on but not the all off.
0x02 : is excluded from the all off but not the all on.
0x03 : All on and all off are both included.

Configuration Reset

The iPlugDim Supports a configuration resets function. Configuration reset means
- All configuration values are defaulted.

This function can be activated by sending a configuration set frame:

CONFIGURATION_SET
Parameter: 0x00
Size: 0x01 (can't be different from 1)
Value: All values (0x00 – 0xFF) except for 0x55.

When the value of configuration value is requested 2 possible values can be returned

CONFIGURATION_REPORT
Parameter: 0x00
Value 0x55: Device doesn't have all his factory settings anymore.
Even when a configuration parameter is changed back to the default value
Value 0xAA: Devices still has all his factory settings.

Troubleshooting

Frequently Asked Questions

Q: Why does the push button on the switch not work?

A: **1**. Check whether the Protection is enabled or not. If it is, disable the protection and try again. For more information about disabling the protection please refer to the supporting command classes.
2. During the NWI and the inclusion/exclusion process, the push button will not work.
3. Check if the iPlugDim is completely plugged into the socket.

Q: I can't have my iPlugDim included into my Z-Wave network, what am I doing wrong?

A: **1**. Is the controller ready to include any device into the Z-Wave network? If the controller is not in Include or exclude mode, the iPlugDim cannot be included or excluded.
2. The iPlugDim is already included into a Z-Wave network. Exclude the switch and try to include it again.

Q: Why does the indicator light not work?

A: **1**. Check if the iPlugDim is fully plugged into a socket. The indicator light will not work if there is no power supplied to the iPlugDim.
2. The Indicator light is only on when the iPlugDim is loaded. Plug in a load.