

HSM-300Z Z-Wave Curtain Control Adapter

1. Introduction

The HSM-300Z is a multi function IO module of Z-Wave. The HSM-300Z provides digital outputs to enable up/down/stop control over projector screen or window shades. It can be connected to relay board to control up to four channels.

In addition, it can connect to up to four digital input channels as well.



Figure 1 Outlook of the HSM-300Z

2. Specifications

Power	5V-24V 1A
Signal	908.42Mhz(US), 868Mhz(EU)
Range	Up to 100 feet line of sight between the wireless controller
Program button	To include/exclude the HSM-300Z.

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3. Installation

Inclusion

Please enter to the learning mode of HSK-100Z, and Press & hold the program button of HSM-300Z for 3 seconds and release it to complete the setting. Please following the steps:

1. Please open the cover located in the back of HSK-100Z to the back panel. You will see

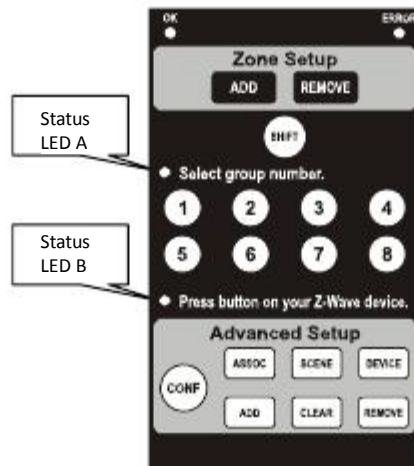
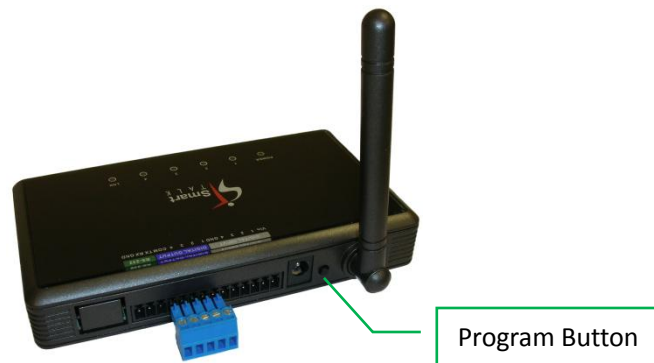


Figure 2 Setup Keys of the HSK-100Z

2. Press "ADD" button in Advance Setup keypad.
3. Press "DEVICE" button.
4. The OK LED will be on.
5. Press & hold the program button of HSM-300Z for 3 seconds and release it.
6. The OK LED will blink.



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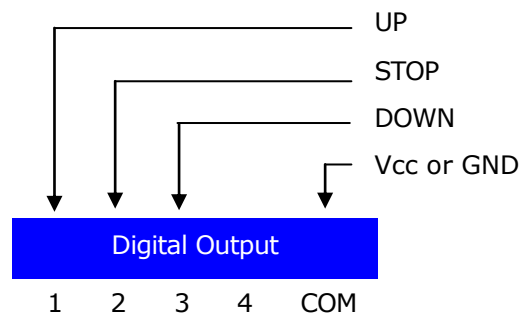
Exclusion

Please enter to the excluding mode of HSK-100Z, and press & hold the program button of HSM-300Z for 3 seconds and release it to complete the setting. Please following the steps:

1. Please open the cover located in the back of HSK-100Z to the back panel.
2. Press "CLEAR" button in Advance Setup keypad.
3. Press "DEVICE" button.
4. Press & hold the program button of HSM-300Z for 3 seconds and release it.

Connected to Curtain

The HSM-300Z provides 4 digital outputs to connect with curtain to enable up/down/stop control over projector screen or window shades. The pin 1 is connects with "up", the pin 2 & 3 is "stop" & "down", and the COM port is connects with Vcc or GND.

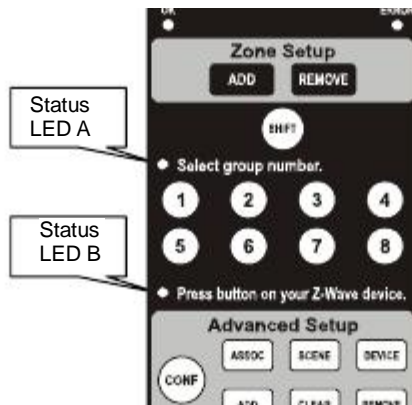


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Associate to the Zone Key of the HSK-100Z

The HSM-300Z can associate to the zone key of the HSK-100Z, and execute the turn on/off by HSK-100Z. Please follow the steps to associate device:

1. Including the HSM-300Z to HSK-100Z. (Please follow the 3.1. Inclusion.)
2. Press "ADD" button in Zone Setup keypad.



3. Select one of group number 1-8.
4. The OK LED will be on.
5. Press the program button of HSM-300Z.
6. Press & release the on/off button which you selected from group number, and you can control the HSM-300Z.

Associate with SD-400Z

The SD-400Z can connect with HSM-300Z through Z-Wave controller. The SD-400Z has 4 groups, and we can use group 1 & 3 to associate the HSM-300Z. Please following the steps to associate:

1. Please reversed HSK-100Z to the back panel, and open the case.
2. Press "ADD" button in Advance Setup keypad.
3. Press "ASSOC" button.
4. Select group number (1) or (3).
5. Press the program button of HSM-300Z.
6. Press the program button of SD-400Z.

4. Digital output mode

Under the digital output mode, the BASIC is mapped to SWITCH MULTILEVEL.

Change the output manually

We can use the button in the rear panel to change the output. In the digital output mode, we

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have 16 states totally. Each button click will move the state to the next one. Therefore, we can use the button to cycle between all 16 states.

This is mainly used for controllers which support SCENE. Some Z-Wave controllers, such as HSK-100Z, can remember the current value of the devices and restore the current value of the devices latter. Therefore, we can use the button to change the state of the HSM-300Z and then use the controller to remember the current value and then restore it latter to complete a SCENE.

For example, if we want to turn on DO1&DO2 and then turn off DO3&DO4, we can continue to press the button until the LED of CH1&CHO2 are on and the CH3&CH4 are off. Then, use the HSK-100Z to learn the HSM-300Z into SCENE 3.

Change the individual channel

In order to control the individual channel without affecting others, the controller must support multi channel commands. The HSM-300Z can support both multi instance and multi channel command.

5. Digital Input mode

Under the input mode, the BASIC is mapped to the sensor binary.

Value	DI4	DI3	DI2	DI1
0	H	H	H	H
1	H	H	H	L
2	H	H	L	H
3	H	H	L	L
4	H	L	H	H
5	H	L	H	L
6	H	L	L	H
7	H	L	L	L
8	L	H	H	H
9	L	H	H	L
10	L	H	L	H
11	L	H	L	L
12	L	L	H	H
13	L	L	H	L
14	L	L	L	H
0xff	L	L	L	L

Association

The HSM-300Z will send (BASIC_SET,0xff) command to all devices in the group #1 when the input is become low logic. When it go back to the high level or high impedance, the (BASIC_SET,0) will be sent.

In addition, the nodes in group #2 will receive the current state of the HSM-300Z according to the following table.

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The same value will be used to be the return value of the BASIC_GET command.

Get the individual channel

The multi channel command is implemented to get the individual channel.

6. WARRANTY

Limited One (1) Year Warranty

This warranty does not cover or apply to:

(a) damage to the product due to misuse, mishandling, and abuse, (b) products not used in accordance with manufacturer's instructions or recommendations, (c) product not assembled or installed according to manufacturer's instructions, (d) normal wear and tear, (e) wearing of the cover do to improper installation of cover and goods (f) damage to the contents of the shelter, (g) permits required due to zoning issues, (h) damage that has occurred during shipping, (i) acts of God. In addition consequential damage and incidental damages, such as damage to persons or property are not coverable under this warranty, and you should refer to your homeowner's insurance policy as with any other outside structure. Note: Some states do not allow the exclusion or limitation of certain damages, and in those cases these limitations do not apply.

7. Certification Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference that may cause undesired operation.