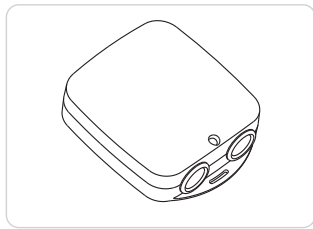




Heavy Duty Smart Switch



Package Contents

Heavy Duty Smart Switch	x1
8AWG Wire terminal	x8
10AWG Wire terminal	x8
Screws	x2
Instruction Manual.....	x1

1 Aeotec by Aeon Labs Heavy Duty Smart Switch

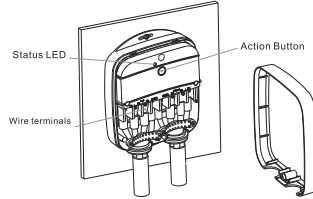
Aeotec by Aeon Labs' Heavy Duty Smart Switch is a Z-Wave switch controller that can also report the wattage energy usage and KWH usage of the device wired in to it. As part of its switching functionality, Heavy Duty Smart Switch can be controlled by other Z-Wave devices to turn loads on or off. It can bear up to 40 amps current of resistor loads.

It also act as a repeater, forwarding Z-Wave command messages to destination nodes if the originating controller is out of range from the destination node.

By taking advantage of the Z-Wave mesh network, commands can be routed to their destination via intermediary Z-Wave products. Products that are Z-Wave certified can be used and communicate with other Z-Wave certified device.

2 Your Heavy Duty Smart Switch

Important: A licensed electrician with knowledge and understanding electrician systems and electrical safety should complete the electrical installation.



Action button: Used for Heavy Duty Smart Switch's Z-Wave network inclusion and exclusion and to manually turn on/off;

Status LED: Indicates the switch's status;

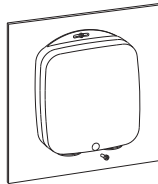
Terminals: There are two groups of terminals. As marked of the silk print, AC Power be connected to main power. Load for electric load.

• Installation

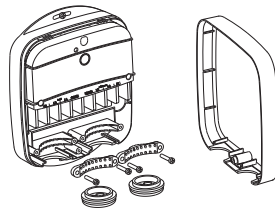
Important : Heavy Duty Smart Switch **MUST** wired behind an air break switch for safety and electric appliance protection.

Before wiring, you must switch off the air break switch and confirm the circuit power is down, if the air break switch is out of sight, please lock it to 'OFF' position and tag it to prevent unexpected application of power:

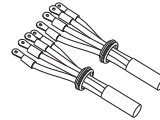
1. Mount Heavy Duty Smart Switch on a wall as shown in following figure:



2. Loosen your switch's lower screw to release its shell. Remove the shell to reveal the inner electronics.

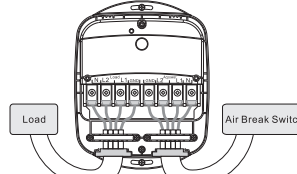


3. Preparing the wires you will be attaching to your Heavy Duty Smart Switch by stripping the wires to the necessary length. Add wire terminals to each wire.



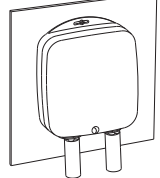
4. Wire according to the following diagram, as shown in the figure, connect each live lines(L1,L2) from Air Break Switch to corresponding terminals that marked L1 and L2 on the Heavy Duty Smart Switch, if there is Neutral line and 'GND', please connect to the terminals which marked 'GND' and 'N' on Heavy Duty Smart Switch respectively, similarly wire the electric load with Heavy Duty Smart Switch. Then tighten screws to the wire terminals.

Important: You must make sure the wire terminals connected firmly with each corresponding terminals on your Heavy Duty Smart Switch.



5. Power on your Heavy Duty Smart Switch. At this stage you need to add it to your Z-Wave network. For instructions on how to do this, please refer to the following "Z-Wave Network Instructions" section.

6. Once added to your Z-Wave network, replace your Heavy Duty Smart Switch's shell, and refasten to the shell. Your installation is now complete.



3 Z-Wave Network Instructions

Heavy Duty Smart Switch must be paired(included) into a Z-Wave network before it can receive Z-Wave commands to turn on/off and report its energy usage. The Heavy Duty Smart Switch can only communicate to devices within its own Z-Wave network.

Note: The LED on the Heavy Duty Smart Switch will blink if it is currently not operating within a Z-Wave network.

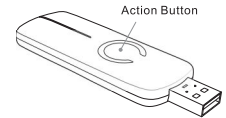
Tip: Before including / excluding Heavy Duty Smart Switch from your Z-Wave network, it's recommended that you turn off most of the appliances connected to it. This will help to prevent load damage.

• Adding/Including/Pairing your Heavy Duty Smart Switch into a Z-Wave Network

To add your Heavy Duty Smart Switch to your Z-Wave network with a Z-Stick, bring your Z-Stick near your Heavy Duty Smart Switch then press the button on the Z-Stick to begin the Z-Wave inclusion process.

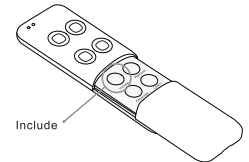
When your Heavy Duty Smart Switch is first powered on and it's not a part of a Z-Wave network, its Status LED will blink. If it's not blinking see the tip below. Press your switch's Action button to connect it to the Z-Stick. If it's successfully added to the network its Status LED will stop blinking or pulse steadily. If this fails, repeat the above steps.

Tip: If the Status LED of your Heavy Duty Smart Switch does not blink when it's first powered up, it means that your switch is already part of another Z-Wave network. To rectify this, first follow the subsequent Removing instructions before following the Adding/Including/Pairing steps above.



OR

To add your Heavy Duty Smart Switch to your Z-Wave network with a Minimote, bring your Minimote to be within range of your Heavy Duty Smart Switch then press the remote button labelled "Include" on the Aeon Labs Minimote to begin the Z-Wave inclusion process.



When your Heavy Duty Smart Switch is first powered on and it's not a part of a Z-Wave network, its Status LED will blink. If it's not blinking see the tip below. Press your switch's Action button to connect it to the Z-Stick. If it's successfully added to the network its Status LED will stop blinking or pulse steadily. If this fails, repeat the above steps.

Tip: If the Status LED of your Heavy Duty Smart Switch does not blink when it's first powered up, it means that your switch is already part of another Z-Wave network. To rectify this, first follow the subsequent Removing instructions before following the Adding/Including/Pairing steps above.

To include the Aeon Labs Heavy Duty Smart Switch with other controllers, please consult the operation manual for these controllers on how to include Z-Wave products into an existing network.

● Removing your Heavy Duty Smart Switch From a Z-Wave Network

You can remove your Heavy Duty Smart Switch from your Z-Wave network at any time. To do this you need use your main controller such as a Z-Stick or Minimote.

If you are using a Z-Stick:

If your Z-Stick is plugged into a gateway or a computer, unplug it.

1. Bring your Z-Stick near your Heavy Duty Smart Switch.
2. Press the Action Button on your Z-Stick.
3. Press the Action Button on your Heavy Duty Smart Switch.
4. If your Heavy Duty Smart Switch has been successfully removed from your network, its light will blink. If the removal was unsuccessful its light will not blink.
5. Press the Action Button on the Z-Stick to make it out of removing mode.

If you are using a minimote:

1. Bring your Minimote near your Heavy Duty Smart Switch.
2. Press the Remove Button on your Minimote.
3. Press the Action Button on your Heavy Duty Smart Switch.
4. If your Heavy Duty Smart Switch has been successfully removed from your network, its light will blink. If the removal was unsuccessful its light will not blink.
5. Press any button on your Minimote to make it out of removing mode.

● Turn Your Heavy Duty Smart Switch On or Off

Your Heavy Duty Smart Switch can be turned on or off through the use of Z-Wave commands built into Z-Wave certified controllers and gateways. The specific Z-Wave commands supporting this function are the Basic Command Class and Binary Switch Command Class. Please consult the operation manual for these controllers for specific instructions on controlling your Heavy Duty Smart Switch.

④ Monitoring Power Consumption

Your Aeon Labs Heavy Duty Smart Switch can report Watts energy usage or kWh energy usage to a Z-Wave gateway or controller. If this function is supported by the gateway/controller, the energy consumption will be displayed in its user interface. The specific Z-Wave commands supporting energy monitoring are the Meter Command Class and Multilevel Sensor Command Class. Automatic reports go to the only association group 1, which is setup via the Association Command Class. Please also consult the operation manual for these gateways/controllers for specific instructions on monitoring your Heavy Duty Smart Switch.

⑤ Technical Specifications

Model number: DSC10-ZWUS
Waterproof: IP44
Power Consumption: 1W
Ratings: 240VAC, 50/60Hz(2Phases L1,L2) ;
Maxim 9600 Watts 40A Resister;
240VAC 5HP AC Motor;
RF range: 300ft/100m outdoor;
Endurance of 10ms period peak current of 1440A

⑥ Warranty

Aeon Labs warrants to the original purchaser of Products that for the Warranty Period (as defined below), the Products will be free from material defects in materials and workmanship. The foregoing warranty is subject to the proper installation, operation and maintenance of the Products in accordance with installation instructions and the operating manual supplied to Customer. Warranty claims must be made by Customer in writing within thirty (30) days of the manifestation of a problem. Aeon Labs' sole obligation under the foregoing warranty is, at Aeon Labs' option, to repair, replace or correct any such defect that was present at the time of delivery, or to remove the Products and to refund the purchase price to Customer.

The "Warranty Period" begins on the date the Products is delivered and continues for 12 months.

Any repairs under this warranty must be conducted by an authorized Aeon Labs service representative and under Aeon Labs' RMA policy. Any repairs conducted by unauthorized persons shall void this warranty.

Excluded from the warranty are problems due to accidents, acts of God, civil or military authority, civil disturbance, war, strikes, fires, other catastrophes, misuse, misapplication, storage damage, negligence, electrical power problems, or modification to the Products or its components.

Aeon Labs does not authorize any person or party to assume or create for it any other obligation or liability in connection with the Products except as set forth herein.

Aeon Labs will pass on to Customer all manufacturers' Material warranties to the extent that they are transferable, but will not independently warrant any Material.

Customer must prepay shipping and transportation charges for returned Products, and insure the shipment or accept the risk of loss or damage during such shipment and transportation. Aeon Labs will ship the repaired or replacement products to Customer freight prepaid.

Customer shall indemnify, defend, and hold Aeon Labs and Aeon Labs' affiliates, shareholders, directors, officers, employees, contractors, agents and other representatives harmless from all demands, claims, actions, causes of action, proceedings, suits, assessments, losses, damages, liabilities, settlements, judgments, fines, penalties, interest, costs and expenses (including fees and disbursements of counsel) of every kind (i) based upon personal injury or death or injury to property to the extent any of the foregoing is proximately caused either by a defective product (including strict liability in tort) or by the negligent or willful acts or omissions of Customer or its officers, employees, subcontractors or agents, and/or (ii) arising from or relating to any actual or alleged infringement or misappropriation of any patent, trademark, mask work, copyright, trade secret or any actual or alleged violation of any other intellectual property rights arising from or in connection with the products, except to the extent that such infringement exists as a result of Aeon Labs' manufacturing processes.

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THE INDEMNITY AND WARRANTY IN ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER INDEMNITIES OR WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

⇒ FCCNOTICE (for USA)

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

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

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

⇒ Warning

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

Association information

Heavy Duty Smart Switch Gen5 supports 2 Association groups and can add max 5 nodes to each group.

Association Group	Nodes	Send Mode	Send commands
Group 1	0 (1,5)	N/A Single Cast	N/A When the state of Smart Switch (turn on/off the load) is changed: 1. Set Configuration parameter 80 to 0. Send nothing (Default). 2. Set Configuration parameter 80 to 1. Send HiL CC. 3. Set Configuration parameter 80 to 2. Send the Basic Report.
Group 2	0 (1,5)	N/A Single Cast	N/A Forward the Basic Set, Switch Binary Set or Scene Activation Set to associated nodes in Group 2 when the Smart Switch receives the Basic Set, Switch Binary Set, Scene Activation Set commands from main controller.

Configuration parameters information

Parameter Number Definition (8 bit):

Parameter Number Hex / Decimal	Description	Default Value	Size
0x03 (3)	Current Overload Protection. Load will be closed when the Current more than 99.5A and the time more than 5 seconds (0=disabled, 1=enabled).	0	1
0x14 (20)	LED status after power on: (0=last status, 1=always on, 2=always off)	0	1
0x50 (80)	Enable to send notifications to associated devices (Group 1) when the state of Heavy Duty Smart Switch Gen5's load changed (0=nothing, 1=all CC, 2=Basic CC report).	0	1
0x5A (90)	Enables/disables parameter 91 and 92 below (1=enabled, 0=Disabled).	1	1
0x5B (91)	The value here represents minimum change in wattage (in terms of wattage) for a REPORT to be sent (Valid values 0-60000).	50 (W)	2
0x5C (92)	The value here represents minimum change in wattage percent (in terms of percentage) for a REPORT to be sent (Valid values 0-100).	10 (%)	1
0x64 (100)	Set 101-103 to default.	N/A	1
0x65 (101)	Which reports need to send in Report group 1 (See flags in table below).	4	4
0x66 (102)	Which reports need to send in Report group 2 (See flags in table below).	8	4
0x67 (103)	Which reports need to send in Report group 3 (See flags in table below).	0	4
0x6E (110)	Set 111-113 to default.	N/A	1
0x6F (111)	The time interval of sending Report group 1 (Valid values 0x01-0x7FFFFFFF).	5	4
0x70 (112)	The time interval of sending Report group 2 (Valid values 0x01-0x7FFFFFFF).	120	4
0x71 (113)	The time interval of sending Report group 3 (Valid values 0x01-0x7FFFFFFF).	120	4
0x8B (200)	Partner ID (0= Aeon Labs Standard Product, 1= Others).	0	1
0x9C (252)	Enable/Disable Lock Configuration (0 =disable, 1 = enable).	0	1
0xFF (255)	1.Value=0x55555555, Default=1, Size=4 Reset to factory default setting and removed from the z-wave network. 2.Reset to factory default setting	N/A	4
		N/A	1

Configuration Values for parameter 101-103:

	7	6	5	4	3	2	1	0
configuration Value 1(MSB)	Reserved							
configuration Value 2	Reserved							
configuration Value 3	Reserved							
configuration Value 4(LSB)	Reserve d	Reserve d	Reserve d	Reserve d	AUTO send Meter REPORT fbr	AUTO send Meter REPORT fbr	AUTO send Meter REPORT fbr	AUTO send Meter REPORT fbr

Reset your Samrt Switch manually

If at some stage, your primary controller is missing or inoperable, you may wish to reset all of your Smart Switch's settings to their factory defaults. To do this, press and hold the Action Button for 20 seconds and then release it. Your Smart Switch will now be reset to its original settings.

