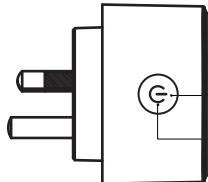
 Z-WAVE™ SMART PLUG ZA-216001 USER MANUAL	Product overview Smart Plug is a Z-Wave™ Switch plugin module specifically used to enable Z-Wave™ command and control (on/off) of any plug-in tool. It can report wattage consumption or kWh energy usage. This device is a security enabled Z-Wave Plus™ product that is able to use encrypted Z-Wave Plus™ messages to communicate to other security enabled Z-Wave Plus™ products. Smart Plug is also a security Z-Wave™ device and supports the Over The Air (OTA) feature for the product's firmware upgrade. This device must be used in conjunction with a Security Enabled Z-Wave™ Controller in order to fully utilize all implemented functions. Package Contents • 1x Smart Plug • 1x User Manual Product features: 1) AC output switch on/off by manual or Z-Wave™ command; 2) RGB LED indicates the Z-WAVE™ network range and load power; 3) Support S0 and S2 security network; 4) Supporting power meter; 5) Supporting repeater role; 6) Supporting firmware OTA; 7) Supporting Smart Start; 8) Supports over-current protection.	1. Familiarize yourself with your Smart Plug 1.1 Smart Plug Layout  Z-Wave™ Action Button LED Indicator 2. Technical specifications <table><tr><td>Power supply:</td><td>100-240VAC +/-10%, 50/60Hz</td></tr><tr><td>Power loss:</td><td>≤1W</td></tr><tr><td>Nominal input voltage:</td><td>230V</td></tr><tr><td>Rated current:</td><td>10A</td></tr><tr><td>Storage temperature:</td><td>-20℃~60℃</td></tr><tr><td>Operational temperature:</td><td>-10℃~40℃</td></tr><tr><td>Radio protocol:</td><td>Z-Wave</td></tr><tr><td>Radio frequency:</td><td>921.42MHz (AU)</td></tr><tr><td>Range:</td><td>More than 100m outdoors, About 30m Indoors(depending on building materials)</td></tr><tr><td>Dimensions:</td><td>52mm(L)*52mm(W)*50.5mm(H)</td></tr></table>	Power supply:	100-240VAC +/-10%, 50/60Hz	Power loss:	≤1W	Nominal input voltage:	230V	Rated current:	10A	Storage temperature:	-20℃~60℃	Operational temperature:	-10℃~40℃	Radio protocol:	Z-Wave	Radio frequency:	921.42MHz (AU)	Range:	More than 100m outdoors, About 30m Indoors(depending on building materials)	Dimensions:	52mm(L)*52mm(W)*50.5mm(H)	3. Functions of each trigger Function of Action Button: Smart Plug is not in the Z-Wave™ network: <table><tr><th>Trigger</th><th>Description</th></tr><tr><td>Power on</td><td>1. LED will blink in blue for 3 times, and enter Smart Start mode. Add for inclusion(SmartStart) 1. Scan the QR code on your device, and add the device DSK to the main controller. 2. Power on Smart Plug. 3. LED will blink in blue for 3 times, and enter Smart Start. If add Smart Plug for inclusion is successful, the LED will be off.</td></tr><tr><td>Short press once</td><td>1. Change the state of Smart Plug's load. 2. LED Indicates network status, blue light has been flashing slowly.</td></tr><tr><td>Short press thrice (within 1.5 second)</td><td>1. LED will blink in blue for 3 times, Smart Plug sends node info frame. Add for inclusion: 1.Set the Z-Wave™ network main controller into learning mode. 2.Short press the Z-button thrice. 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LED will indicate network status after it is removed from Z-Wave™ network.</td></tr><tr><td>Long press more than 20 seconds</td><td>Reset Smart Plug to factory Default: Long press the button for 20 seconds and the blue LED will speed up the flash and then LED will keep on for 3 seconds in blue and Smart Plug will send "Device Reset Locally Notification" to the main controller and exclude from the Z-Wave™ network,this procedure will reset Smart Plug to factory default.</td></tr></table> 4. Security and non-security features of Smart Plug in Z-Wave™ network Smart Plug can be included and operated in any Z-WAVE™ network with other Z-WAVE™ certified devices from other manufacturers and /or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. The way to add for inclusion and node info frame of Smart Plug as a security and non-security device is different.	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Long press more than 20 seconds	Reset Smart Plug to factory Default: Long press the button for 20 seconds and the blue LED will speed up the flash and then LED will keep on for 3 seconds in blue and Smart Plug will send "Device Reset Locally Notification" to the main controller and exclude from the Z-Wave™ network,this procedure will reset Smart Plug to factory default.	4.1 The way to add for inclusion is different 4.1.1 Add for inclusion (non-security and security): 1)Connect the power supply. 2)Set the Z-Wave™ network main controller into learning mode. 3)Triple click the Z-button, the LED indicator will be flashing 3 times in blue 4)Smart Plug should be recognized and included into the Z-Wave™ network. 4.1.2 Add for inclusion (SmartStart): SmartStart enabled products can be added into a Z-Wave™ network by scanning the Z-Wave™ QR Code present on the product with a controller providing SmartStart inclusion.No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on in the network vicinity. 1) Scan the QR code on your device, and add the device DSK to the main controller. 2) Power on Smart Plug. 3) LED will blink in blue for 3 times, and enter SmartStart. If add Smart Plug for inclusion is successful, the LED will be off. Then Z-Wave™ PC Controller interface will display the corresponding device information. 4.2 Node info frame is different 4.2.1 Non-security device The node info frame supports: COMMAND_CLASS_ZWAVEPLUS_INFO V2 COMMAND_CLASS_SWITCH_BINARY V1 COMMAND_CLASS_METER V3 COMMAND_CLASS_TRANSPORT_SERVICE V2 COMMAND_CLASS_SUPERVISION V1 COMMAND_CLASS_SCENE_ACTUATOR_CONF V1 COMMAND_CLASS_SCENE_ACTIVATION V1 COMMAND_CLASS_CONFIGURATION V1 COMMAND_CLASS_ASSOCIATION_GRP_INFO V1 COMMAND_CLASS_ASSOCIATION V2 COMMAND_CLASS_MANUFACTURER_SPECIFIC V2 COMMAND_CLASS_VERSION V2
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LED will indicate network status after it is removed from Z-Wave™ network. 4.4 Reset Smart Plug to factory default Long press the button for 20 seconds and the blue LED will speed up the flash and then LED will keep on for 3 seconds in blue and Smart Plug will send "Device Reset Locally Notification" to the main controller and exclude from the Z-Wave™ network, this procedure will reset Smart Plug to factory default. Please use this procedure only when the network primary controller is missing or otherwise inoperable. NOTE: If you want your Smart Plug to be a security device that use secure/encrypted message to communicate in a Z-Wave™ network, then a security enabled Z-Wave™ controller is needed.	5. Note for special command 5.1 Association Command The Smart Plug supports only one association group. <table><tr><th>Grouping Identifier</th><th>Max Nodes</th><th>Send Commands</th></tr><tr><td>Group 1</td><td>0x05</td><td>1. Basic Report 2. Meter Report 3. Device Reset Locally Notification</td></tr></table> 5.2 Basic Command Smart Plug can send basic report to association device (Lifeline Group) when state of Smart Plug's load change. 5.3 Configuration Command Smart Plug offers a wide variety of advanced configuration settings. Below parameters can be accessed from main controllers configuration interface. Parameter No. 20 Overload protection Smart Plug keep detecting the load power, once the AC current exceeds 11.5A for more than 5s, smart plug's relay will turn off. 0 - The function is disabled. 1 - The function is enabled. Default setting: 1 Parameter size: 1 [byte] Parameter No. 21 Setting device status after power failure Define how the Plug reacts after the power supply is back on. 0 - Smart Plug memorizes its state after a power failure. 1 - Smart Plug does not memorize its state after a power failure. Connected device will be on after the power supply is reconnected. 2 - Smart Plug does not memorize its state after a power failure. Connected device will be off after the power supply is reconnected. Default setting: 0 Parameter size: 1 [byte] Parameter No. 24 Notification when Load status change Smart Plug can send notifications to association device (Lifeline Group) when state of smart plug's load change.	Grouping Identifier	Max Nodes	Send Commands	Group 1	0x05	1. Basic Report 2. Meter Report 3. Device Reset Locally Notification	0 - The function is disabled. 1 - Send Basic report. 2 - Send Basic report only when Load condition is not changed by Z-WAVE™ Command. Default setting: 1 Parameter size: 1 [byte] Parameter No. 27 Indicator modes After smart plug being included into a Z-Wave™ network, the RGB LED indicator will indicator the situation of load. 0 - The indicator light remains the same as the load on/off status. When the load is on, the light is on, and the off is off. 1 - Within 5 seconds after the operation load, the indicator light is consistent with the load on/off status, and then the indicator is off. Default setting: 0 Parameter size: 1 [byte] Power and energy reports settings : Parameter No. 151 Threshold of power report Power threshold to be interpreted, when the change value of load power exceeds the setting threshold, the smart plug will send meter report to association device (Lifeline Group). Available settings: 0 - 200 (0 - 200W) 0 - The function is disabled. Default setting: 50 (50W) Parameter size: 2 [byte] Parameter No. 152 Percentage threshold of power report Power percentage threshold to be interpreted, when change value of the load power exceeds the setting threshold, the smart plug will send meter report to association device (Lifeline Group). Available settings: 0 - 100 (0 - 100%) 0 - The function is disabled. Default setting: 10 (10%) Parameter size: 1 [byte] Parameter No. 171 Power report frequency The interval of sending power report to association device (Lifeline Group). Available settings: 3600- 2678400 (3600 - 2678400s) 0 - The function is disabled.	Default setting: 3600 (3600s) Parameter size: 4 [byte] Parameter No. 172 Energy report frequency The interval of sending energy report to association device (Lifeline Group). Available settings: 3600- 2678400 (3600 - 2678400s) 0 - The function is disabled. Default setting: 7200 (7200s) Parameter size: 4 [byte] Parameter No. 173 Voltage report frequency The interval of sending voltage report to association device (Lifeline Group). Available settings: 3600- 2678400 (3600 - 2678400s) 0 - The function is disabled. Default setting: 0 (disabled) Parameter size: 4 [byte] Parameter No. 174 Electricity report frequency The interval of sending electricity report to association device (Lifeline Group). Available settings: 3600- 2678400 (3600 - 2678400s) 0 - The function is disabled. Default setting: 0 (disabled) Parameter size: 4 [byte] Parameter No.254 Enable/disable the configuration command Lock/unlock all configuration parameters. 0 – Unlock. 1 – Lock. Default setting: 0 Parameter size: 1[byte]	 CORPORATION www.ness.com.au National Customer Service Centre Ph: 1300 551 991 customerservice@ness.com.au																																
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