UEA01A Manual

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This is a device that have standby power cut-off function, electricity consumption measurements and z-wave communication.

D.1 Slave Device : Inclusion/Exclusion/Product Reset

Inclusion/Exclusion : In the state Smart Plug is plugged into the power outlet, you press the button of Smart Plug with your finger to 5 seconds continuously and if you take your finger off when the LED blinking of the device is in the Inclusion or Exclusion.

Product Reset : In the state Smart Plug is plugged into the power outlet, you press the button of Smart Plug with your finger to 10 or more seconds continuously and if you take your finger off when the LED blinking of the device is in the Product Reset. Please use this procedure only in the event that the network primary controller is missing or otherwise inoperable.

(Smart Plug가 전원 콘센트에 꽂혀있는 상태에서 Smart Plug의 Button을 손가락으로 5초간 지속적으로 눌러서 적색 LED가 점멸하게 될 때 손가락을 떼면 Inclusion 또는 Exclusion을 하게 되어 있습니다.)

- Inclusion : After mounting the UZB controller to your PC and run the PC Controller program you can click the Add button in the PC Controller program. Press the button on the Smart Plug for more than five seconds after you plug the Smart Plug into a power outlet will Inclusion in the network controller, while the flashing red button LED Smart Plug.

  (UZB콘트롤러를 PC에 부착하고 PC Controller 프로그램을 실행한 후 PC Controller 프로그램의 Add버튼을 누릅니다. Smart Plug를 전원 콘센트에 꽂은 후 Smart Plug의 버튼을 5초이상 누르면 Smart Plug의 버튼 LED가 적색으로 점멸하면서 콘트롤러 네트워크에 Inclusion 이 됩니다.)

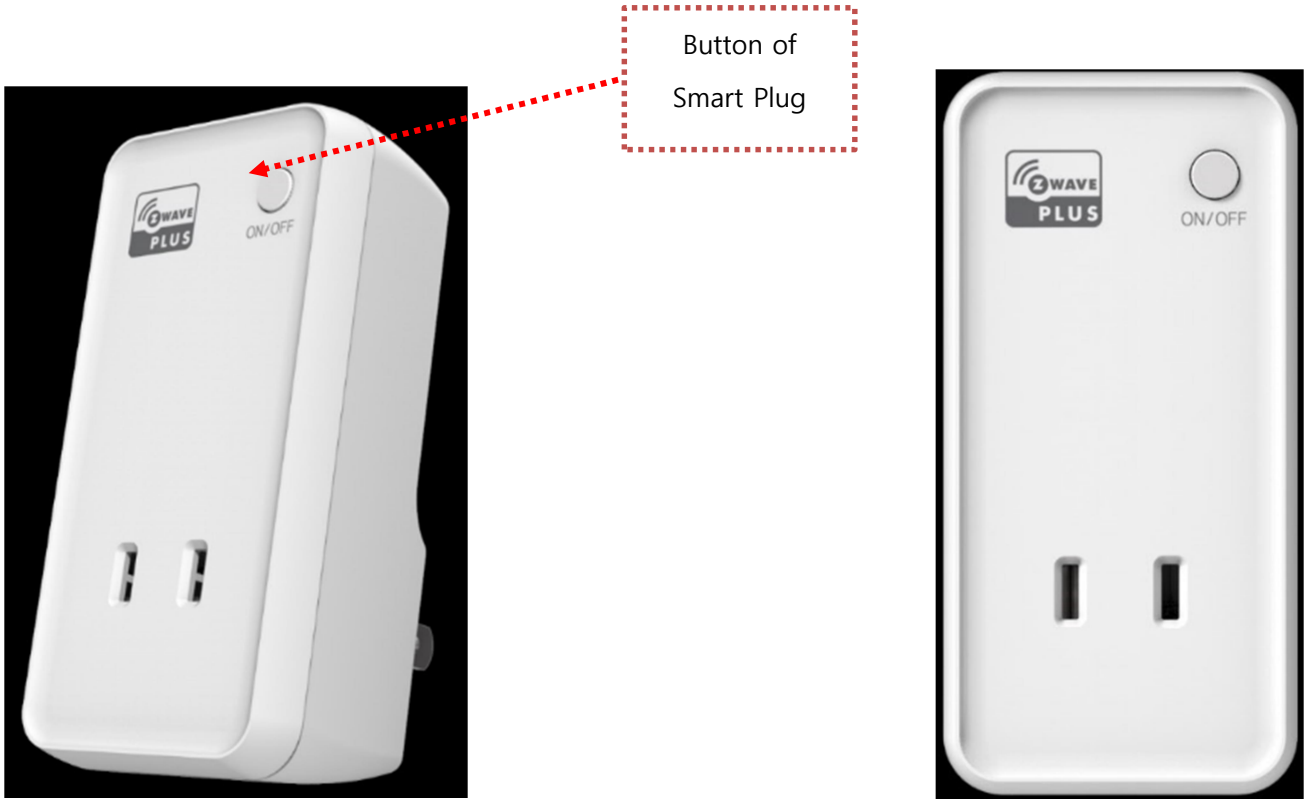
- Exclusion : After mounting the UZB controller to your PC and run the PC Controller program you can click the Remove button in the PC Controller program. Press the button on the Smart Plug for more than five seconds after you plug the Smart Plug into a power outlet will Exclusion in the network controller, while the flashing red button LED Smart Plug.

  (UZB콘트롤러를 PC에 부착하고 PC Controller 프로그램을 실행한 후 PC Controller 프로그램의 Remove버튼을 누릅니다. Smart Plug를 전원 콘센트에 꽂은 후 Smart Plug의 버튼을 5초이상 누르면 Smart Plug의 버튼 LED가 적색으로 점멸하면서 콘트롤러 네트워크에서

Exclusion이 됩니다.)

- Product reset : Press the button on the Smart Plug for more than 10 seconds after you plug the Smart Plug into a power outlet will make a Exclusion in the network controller, while blinking LED Smart Plug LED. And all the variables are initialized.

  (Smart Plug를 전원 콘센트에 꽂은 후 Smart Plug의 버튼을 10초이상 누르면 Smart Plug의 버튼 LED가 적색으로 점멸하면서 콘트롤러 네트워크에서 Exclusion이 됩니다. 그리고 모든 변수는 초기화 됩니다.)



D.2 Type

1) ROLE TYPE : AOS(Always On Slave) - ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_ALWAYS_ON

2) DEVICE TYPE : Switch On/Off

1. Generic : GENERIC_TYPE_SWITCH_BINARY

2. Specific : SPECIFIC_TYPE_POWER_SWITCH_BINARY

3) NODE TYPE : Z-Wave plus

- ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE

- Node Info List

Command class name	Security
COMMAND_CLASS_ZWAVEPLUS_INFO	X
COMMAND_CLASS_VERSION	X
COMMAND_CLASS_MANUFACTURER_SPECIFIC	X
COMMAND_CLASS_DEVICE_RESET_LOCALLY	X
COMMAND_CLASS_ASSOCIATION	X
COMMAND_CLASS_ASSOCIATION_GRP_INFO	X
COMMAND_CLASS_POWERLEVEL	X
COMMAND_CLASS_SECURITY	X
COMMAND_CLASS_SECURITY_2	X
COMMAND_CLASS_TRANSPORT_SERVICE_V2	X
COMMAND_CLASS_SUPERVISION	X
COMMAND_CLASS_BASIC	O
COMMAND_CLASS_SWITCH_BINARY	O
COMMAND_CLASS_METER_V3	O
COMMAND_CLASS_CONFIGURATION	O
COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2	X

D.3 Protocol (This Device is also compatible with other well-Device.)

This product 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.

No	Command Class	Command Name	Value	Operation
1	ASSOCIATION	ASSOCIATION_REPORT	- Home ID(4bytes) - Node ID(1byte)	
2	ZWAVE PLUS_INFO	ZWAVEPLUS_INFO_GET		
		ZWAVEPLUS_INFO_REPORT	- Z-Wave Plus Version(1byte) : 0x01 - Role Type(1byte) : 0x05 - Node Type(1byte) : 0x00 - Installer Icon Type(2bytes) :	
3	MANUFACTURER_SPECIFIC	MANUFACTURER_SPECIFIC_GE		
		MANUFACTURER_SPECIFIC_REPORT	- Manufacturer ID(2bytes) : 0x018C - Product Type ID(2bytes) : 0x0043 - Product ID(2bytes) : 0x0001	

		DEVICE_SPECIFIC_GET		
		DEVICE_SPECIFIC_REPORT	- Device ID Type (1bytes) : 0x02 - Device ID Length (4bits) : 0x8 - Device ID Format (4bits) : 0x2(Binary)	
4	VERSION	VERSION GET		
		VERSION REPORT	- Z-Wave Protocol Library Type (1byte) : 0x03 - Z-Wave Protocol Version (1byte) : 0x04 - Z-Wave Protocol Sub Version (1byte) : 0x3D - Firmware 0 Version(1byte) : 0x27	
5	COMMAND_CLASS_BASIC_V1		BASIC_REPORT	Relay Status
			0xFF	Relay ON
			0x00	Relay OFF
6	COMMAND_CLASS_SWITCH_BINARY_V1		0xFF	Relay ON
			0x00	Relay OFF
		SWITCH_BINARY_GET	SWITCH_BINARY_REPORT	Relay Status Value
7	COMMAND_CLASS_METER_V	When the device requests a	METER_REPORT	

	3	METER_GET reports the value set in the Scale.	Rate Type: **METER_REPORT_RATE_TYPE_IMPORT_V4(0x01)** Meter Type : **METER_REPORT_METER_TYPE_ELECTRIC_METER_V3(0x01)** Delta Time : Transmission Period(in minutes), Previous Meter Value : Previous Value	
			Scale:0x00	Report the KWh(4 byte) value
			Scale:0x02	Report the Watt(4byte) value The hex data of device must be divided by 100 because this data is 1/100 Watt unit.
		METER_RESET		initialize the KWh value
		METER_SUPPORTED_GET		
		METER_SUPPORTED_REPORT	Scale: 0 or 2	Meter Type:0x01, Scale Supported:0x05
8	COMMAND_CLASS_CONFIGURATION_V1	CONFIGURATION_SET	Parameter Number : 1 Size : 4	(Standby Power Setting Value : 3 Byte, Standby Power Enable/Disble : 1 Byte) Value : if the value is set by 300, standby power equals 3.00w (0x00012C) and standby power enable is 1. → total 0x00012C01 (Default : 0 – 0.00W, StandbyPower Disable)
			Parameter Number : 2 Size : 1 (This configuration value is used only 0 and 1.)	Value : 1 → Periodic Measurement Value Transmission Enable Value : 0 → Periodic Measurement Value Transmission disable (Default : Periodic Measurement Value Transmission Enable)

			Parameter Number : 3 Size : 1 (This configuration value is used only 0 and 1.)	Value : 0 → Accumulation Stop Value : 1 → Accumulation Start (Default : Accumulation Start)
			Parameter Number : 4 Size : 1 (This configuration value is used only 0 and 1.)	Value : 0 → Connected Device Not Use Value : 1 → Connected Device Use - Before setting the standby power it does not report.
			Parameter Number : 5 Size : 2	Minimum time interval : 10minutes Value : 1 (10minutes * 1) = 10minutes interval Value : 2 (10minutes * 2) = 20minutes interval …….. …….. Value : 144(10m * 144) = 24 hours interval =>MAX (Default : 6 = One hour)
		CONFIGURATION_GET	Parameter Number: 1~5	CONFIGURATION_REPORT
9	COMMAND_CLASS_NOTIFICATION	NOTIFICATION_REPORT	V1 Alarm Type : 0x00	None Supported
			Notification Status	0xFF : Unsolicited notification
			Notification Type : 0x04	Heat Event ➔ 0x04 : Rapid Temperature Rise ➔ 0x06 : Under temperature
			Notification Type : 0x08	Power Management Event ➔ 0x02 : Relay OFF ➔ 0x03 : Relay ON

				➔ 0x06 : OverCurrent ➔ 0x07 : Over Temperature Cut off
			Notification Type : 0x09	Notification Event System ➔ 0x01 : Hardware failure(Internal Operation failure)
10	COMMAND_CLASS_VERSION	VERSION_GET		
		VERSION_REPORT	Library Type	1byte
			Protocol Version	2byte
			Application Version	2byte – When the application firmware is update, this value is changed. (Start at 1.00)
11	Unsolicited Report	NOTIFICATION_REPORT	**Notification Type : 0x04** **Rapid Temperature Rise : 0x04** **Under Temperature : 0x06**	When temperature rises over the threshold, device reports Rapid Temperature event. When temperature falls down less than the threshold, device reports Under Temperature event.
			Notification Type : 0x08 **Relay ON : 0x03** **Relay OFF : 0x02**	When unplugging from the wall outlet and plugged into a smart plug. The device is based on the current state relays Report to Notification. Or The Report also states that the relay current value of the device changed.
			Notification Type : 0x08 **OverCurrent : 0x06**	When over-current occurs, the device shuts off the relay. The device Report the over-current.
			Notification Type : 0x08 **Over Temperature : 0x07**	When over-temperature occurs, the device shuts off the relay. The device Report the over-temperature.

			Notification Type : 0x09 **Hardware Fail : 0x01**	Device must report when it is not the normal operation as an internal malfunction.
		MeterV3_REPORT	Rate Type: METER_REPORT_RATE_TYPE_IMPORT_V4(0x01) Meter Type : METER_REPORT_METER_TYPE_ELECTRIC_METER_V3(0x01) Delta Time : Transmission Period(min unit), Previous Meter Value : Previous Value	
			Scale:0x00	**Report the KWh(4byte) value.** - **In addition to reporting regularly even when plugged in to a power source and the first report at a time.**
		CONFIGURATION_REPORT	Parameter Number : 5 Size : 2	When connected equipment is changed to Use in the Not Use, when the device is changed to Not Use In Use.
				The standby power of connected devices to become this feature is enabled must be set. Or used the Default value.
		VERSION_REPORT	Library Type	1byte
			Protocol Version	2byte
			Application Version	2byte – If the Application firmware is being upgraded this value is changed. (Starting at 1.00) If the firmware is upgraded when you turn off the main power, the plug must report the version .

D.4 Key Features

1) Inclusion/Exclusion by button (Press the button for 5 seconds until the LED blinking)
2) Relay On/Off manually (Press the button shortly)
3) Basic Set Commnad : Relay On – Value : 0xff, Relay Off – Value : 0x00
→ Ack : Notification – 0x03 : RelayOn, 0x02 : RelayOff
4) LED color : Relay On – Green Color, Relay Off – RED Color
5) Meter V3 Command – 0x00 : Wh(Energy), 0x02 : Watt(Power)
6) Grouping identifier : Association Group support is only 1.
7) Maximum number of devices that can be added to the group : The maximum number of node supports up to 5.
8) Description of how the association group is used and/or triggered by the product : This product's Association Group are used by Life Line of products.
9) Product Reset by button (Press the button for 10 seconds until the LED blinking)
※ Please use this procedure(Product Reset) only in the event that the network primary controller is missing or otherwise inoperable Use this procedure only in the event that the network primary controller is missing or otherwise inoperable."
10) This Device is a Security Enabled Z-Wave Plus Product.
So, Security Enabled Z-Wave Controller must be used in order to fully utilize the product.