Minoston™

Z-Wave™ Meter Plug

Z-Wave™ Meter Plug

WARRANTY

SPECIFICATIONS

Model:MP31ZP

Power: 120 VAC, 60 Hz.

Signal (Frequency): 908.42 MHZ.

Maximum load for outlet 10A, 1200W Resistive

Maximum load for the Z-Wave™ controlled outlet:

600W Incandescent, ½ HP Motor or 1200W Resistive

Range: Up to 100 feet line of sight between the Wireless Controller and the closest Z-Wave™ receiver module.

Operating Temperature Range: 32-104° F (0-40° C)

Specifications subject to change without notice due to continuing product improvement

Website:www.nie-tech.com

WARNING

RISK OF FIRE

RISK OF ELECTRICAL SHOCK

RISK OF BURNS

CONTROLLING APPLIANCES:

EXERCISE EXTREME CAUTION WHEN USING Z-Wave™ DEVICES TO CONTROL APPLIANCES. OPERATION OF THE Z-Wave™ DEVICE MAY BE IN A DIFFERENT ROOM THAN THE CONTROLLED APPLIANCE, ALSO ANUNINTENTIONAL ACTIVATION MAY OCCUR IF THE WRONG BUTTON ON THE REMOTE IS PRESSED. Z-Wave™ DEVICES MAY AUTOMATICALLY BE POWERED ON DUE TO TIMED EVENT PROGRAMMING. DEPENDING UPON THE APPLIANCE, THESE UNATTENDED OR UNINTENTIONAL OPERATIONS COULD POSSIBLY RESULT IN A HAZARDOUS CONDITION. FOR THESE REASONS, WE RECOMMEND DO NOT RETURN THIS PRODUCT TO THE STORE THE FOLLOWING:

DO NOT USE Z-Wave™ DEVICES TO CONTROL ELECTRIC HEATERS OR ANY OTHER APPLIANCES WHICH MAY PRESENT A HAZARDOUS CONDITION DUE TO UNATTENDED OR UNINTENTIONAL OR AUTOMATIC POWER ON CONTROL.

Introduction:

The MP31ZP is a Z-Wave™ enabled device and is fully compatible with any Z-Wave Plus™ enabled network.
Each module is designed to act as a repeater,which will re-transmit a radio frequency (RF) signal by routing the signal
around obstacles and radio dead spots to ensure that the signal is received at its intended destination.
MP31ZP is a security enabled Z-Wave Plus™ device. A security Enabled Z-Wave Plus™ Controller must be used in order to fully utilize the pro
This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers.
All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network."

Key Features:

---Remote ON/OFF control via the Z-Wave™ controller
---Manual ON/OFF control with the front panel push button
---Support Association Group and Auto Report switch status

---Support Z-Wave™ Range Test Tool
---Support firmware upgrades via Over-the-air (need Gateways support)

Product Overview:

A   AC plug
B   Z-Wave™ controlled outlet
C   ON/OFF/PROG Push button
D   / Status LED

Key Function Description

Function 1:   Press button one times to turn the outlet1 ON or OFF
Function 2:   Press button three times quickly to ADD and REMOVE
Function 3:   Press and hold button for 6-8 seconds to Z-Wave™ Range test tool
Function 4:   Press the button twice quickly and then press and hold the button 10S.device will reset
              (Node:Please use this procedure only when the network primary controller is missing or otherwise inoperable)
Function 5:   Press button six times quickly to Change Parameter 17 Value(circulate)

LED Indicate Description

1:LED Indicate Power Meter

White = Plug is off

Dark Blue = 0 – 200 W

Cyan = 200 – 400 W

Green = 400 – 600 W

Orange = 600 – 800 W

Red = 800 – 1000 W

Purple = 1000 – 1200 W

Purple blink = over 1200 W

2:LED Indicate Z-Wave™ Range Test Tool

Solid Green = direct communication with the primary controller is stable
Flashing green = direct communication with the primary controller,but the signal is not good
Solid orange = communication with the primary controller via repeater nodes,the signal is stable
Flashing orange = communication with the primary controller via repeater nodes,but the signal is not good
Solid red = communication with the primary controller has failed

Z-Wave™ Remote Control

ADD or Remove the MP31ZP from the existing Z-Wave™ home control network with your primary controller.
---Refer to your primary controller instructions to process the inclusion / exclusion setup procedure.
---When prompted by your primary controller, click the PROG button Three times in one second.
Include MP31ZP to/from a Z-Wave™ Gateway with supporting Security.The MP31ZP can support the Primary Controller that implemented the s
Notice: Including a node ID allocated by Z-Wave™TM Controller means "Add" or "Inclusion". Excluding a node ID allocated by
Z-Wave™TM Controller means "Remove" or "Exclusion".

Z-Wave™ MULTI_CHANNEL

MP31ZP is multi channel device，It has three endpoints. Outlet-1 is Endpoint1, outlet-2 is Endpoint2. USB is Endpont3.
MP31ZP Endpoint1 / Endpoint2 Device Type
        Generic Device Class: GENERIC_TYPE_SWITCH_BINARY
        Specific Device Class: SPECIFIC_TYPE_POWER_SWITCH_BINARY

	Endpoint1	Endpoint2	Endpoint3
Manual Control	Press PROG Button one times	Press PROG Button two times	
Z-Wave Control	COMMAND_CLASS_BASIC Command:BASIC_SET Properties2:01 Value=00(OFF) Value=FF(ON)	COMMAND_CLASS_BASIC Command:BASIC_SET Properties2:02 Value=01(OFF) Value=FF(ON)	
Report	COMMAND_CLASS_AWITCH_BINARY Command:SWITCH_BINARY_REPORT Properties1:01 Value=00(OFF) Value=FF(ON)	COMMAND_CLASS_AWITCH_BINARY Command:SWITCH_BINARY_REPORT Properties1:02 Value=00(OFF) Value=FF(ON)	COMMAND_CLASS_AWITCH_BINARY Command:SWITCH_BINARY_REPORT Properties1:03 Value=00(OFF) Value=FF(ON)

Z-Wave™ protocol Command Class Node Info

COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_TRANSPORT_SERVICE
COMMAND_CLASS_VERSION,
COMMAND_CLASS_MANUFACTURER_SPECIFIC,
COMMAND_CLASS_DEVICE_RESET_LOCALLY,
COMMAND_CLASS_POWERLEVEL,
COMMAND_CLASS_CONFIGURATION,
COMMAND_CLASS_NOTIFICATION
COMMAND_CLASS_METER
COMMAND_CLASS_SECURITY_2,
COMMAND_CLASS_MULTI_CHANNEL
COMMAND_CLASS_SUPERVISION
COMMAND_CLASS_FIRMWARE_UPDATE_MD

The Below listed Command Class are all supported the Security S2

COMMAND_CLASS_VERSION,
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL
COMMAND_CLASS_MANUFACTURER_SPECIFIC,
COMMAND_CLASS_DEVICE_RESET_LOCALLY,
COMMAND_CLASS_POWERLEVEL,
COMMAND_CLASS_CONFIGURATION,
COMMAND_CLASS_NOTIFICATION
COMMAND_CLASS_METER
COMMAND_CLASS_FIRMWARE_UPDATE_MD

MP31ZP protocol Endpoint 1

Full Command Class Node Info

COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_METER
COMMAND_CLASS_SUPERVISION,
COMMAND_CLASS_SECURITY_2

The Below listed Command Class are all supported the Security S2

COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_METER

MP31ZP protocol Endpoint 2

Full Command Class Node Info

COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_METER_V4,
COMMAND_CLASS_SUPERVISION,
COMMAND_CLASS_SECURITY_2

The Below listed Command Class are all supported the Security S2

COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_METER,

MP31ZP protocol Endpoint 3

Full Command Class Node Info

COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION,
COMMAND_CLASS_SWITCH_BINARY,
COMMAND_CLASS_SUPERVISION,
COMMAND_CLASS_SECURITY_2

The Below listed Command Class are all supported the Security S2

COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_MULTI_CHANNEL_ASSOCIATION,
COMMAND_CLASS_SWITCH_BINARY

Z-Wave™ Configuration Parameters

You may use the below configuration parameters to change settings of the corresponding functionality.

1: Restores state after power failure

    Paramter No: 1(0x01)   Size:1 Byte   Value: 00(default)   The state before a power outage.

                                            Value: 01   outlet on

                                            Value: 02   outlet off

2: Power Wattage Report Value Threshold(Wattage)   Value Scope :0----65535W

    Paramter No: 2(0x02)   Size:4 Byte   Value: xx xx xx xx (Default 10W)

                                          Value: 00 00   Disabled

3: Power Wattage Report Frequency (Timer)   Value Scope :30----2678400S

    Paramter No: 3(0x03)   Size:4 Byte   Value: xx xx xx xx (Default 30S)

4：Energy (kWh) Report Frequency (Timer)　　　　　Value Scope :30----2678400S
　　 Paramter No: 4(0x04)　　Size:4 Byte　　　　Value: xx xx xx xx (Default 300S)

5：Voltage (V) Report Frequency (Timer)　　　　　Value Scope :30----2678400S
　　 Paramter No: 5(0x05)　　Size:4 Byte　　　　Value: xx xx xx xx (Default 300S)

6：Electricity (A) Report Frequency (Timer)　　　　Value Scope :30----2678400S
　　 Paramter No: 6(0x06)　　Size:4 Byte　　　　Value: xx xx xx xx (Default 300S)

7：Overload Protection (Current)　　　　　Value Scope :1----16A
　　 Paramter No: 7(0x07)　　Size:1 Byte　　　Value: xx (Default 13A)

8：Endpoint1 Enable Auto Turn-OFF Timer
　　 Paramter No: 8(0x08)　　Size:1 Byte　　　Value=0　 Auto Turn-OFF Timer Disabled (default);
　　　　　　　　　　　　　　　　　　　　　Value=1　 Auto Turn-OFF Timer Enabled

9：Endpoint1 Count Down Configuration(Turn off the output by time)
　　 Paramter No: 9(0x09)　　Size:4 Byte　　　 Value: xx xx Turn off Output
　　　　　　　　　　　　　　　　　　　　　Value Scope :1----65535Minutes (default:60M)

10：Endpoint1 Enable Auto Turn-ON Timer
　　 Paramter No: 10(0x0A)　　Size:1 Byte　　　 Value=0　 Auto Turn-ON Timer Disabled (default);
　　　　　　　　　　　　　　　　　　　　　Value=1　 Auto Turn-ON Timer Enabled

11：Endpoint1 Count Down Configuration(Turn on the output by time)
　　 Paramter No: 11(0x0B)　　Size:4 Byte　　　 Value: xx xx xx xx Turn off Output
　　　　　　　　　　　　　　　　　　　　　Value Scope :1----65535Minutes (default:60M)

12:Endpoint2 Enable Auto Turn-OFF Timer
　　 Paramter No: 12(0x0C)　　Size:1 Byte　　　 Value=0　 Auto Turn-OFF Timer Disabled (default);
　　　　　　　　　　　　　　　　　　　　　Value=1　 Auto Turn-OFF Timer Enabled

13:Endpoint2 Count Down Configuration(Turn off the output by time)
　　 Paramter No: 13(0x0D)　　Size:4 Byte　　　 Value: xx xx xx xx Turn off Output
　　　　　　　　　　　　　　　　　　　　　Value Scope :1----65535Minutes (default:60M)

14:Endpoint2 Enable Auto Turn-ON Timer
　　 Paramter No: 14(0x0E)　　Size:1 Byte　　　 Value=0　 Auto Turn-ON Timer Disabled (default);
　　　　　　　　　　　　　　　　　　　　　Value=1　 Auto Turn-ON Timer Enabled

15:Endpoint2 Count Down Configuration(Turn on the output by time)
　　 Paramter No: 15(0x0F)　　Size:4 Byte　　　 Value: xx xx xx xx Turn off Output
　　　　　　　　　　　　　　　　　　　　　Value Scope :1----65535Minutes (default:60M)

16:Manual Control
　　 Paramter No: 16(0x10)　　Size:1 Byte　　　 Value=0　　Manual Control Disabled
　　　　　　　　　　　　　　　　　　　　　Value=1　　Manual Control Enabled (default);

17:Status LED Configuration
　　 Paramter No: 17(0x11)　　Size:1 Byte　　　 (default:Value=01)
　　 Value: 00　　LED indicator will display power consumption whenever the device is plugged in
　　 Value: 01　　LED indicator will display power consumption whenever the device is ON in and will turn off when the plug is OFF
　　 Value: 02　　LED indicator will display the level of power consumption for 5 seconds only whenever the device is turned on or off
　　 Value: 03　　Always OFF

Support for Association Groups

MP31ZP supports 3 association groups. Group 1 support 1 node ID,Group 2--3 Support maximum of 5 node ID's

Root Device	Endpoint1	Endpoint2	Endpoint3
Group 1:Lifeline	Group 1:Lifeline	Group 1:Lifeline	Group 1:Lifeline
Group 2:Basic set From Endpoint1	Group 2:Basic set command		
Group 3:Basic set From Endpoint2		Group 2:Basic set command	

Association group_1:Z-Wave Plus™ Lifeline
　　Association group_1 is default to associate with the primary controller (Gateway/Hub/Controller) for MP31ZP Status change report,
　　　　1. MP31ZP will trigger AUTO report function if the Switch status had been changed.
Association group_2:basic set command
　　When the output of the MP31ZP Enpoint1 socket is changed, On (0xFF) or Off (0x00)orOverload, The MP31ZP will automatically
　　send out a related basic set command. On (0xFF) or Off (0x00) to its associated group.
Association group_3:basic set command
　　When the output of the MP31ZP Enpoint2 socket is changed, On (0xFF) or Off (0x00)orOverload, The MP31ZP will automatically
　　send out a related basic set command. On (0xFF) or Off (0x00) to its associated group.

Support for Overload Protection

MP31ZP support Overload Protection ,When the MP31ZP load exceeds the overload setting value, the overload signal is sent out
Notification Type : Overload 0x08 . Event :Overload detected 0x08

Restoring Factory Defaults

MP31ZP is removed from the network and will be restored to the factory setting

All Configuration Parameters values and Association information will be restored to factory default settings and excluded from the network.
Remark : All the setting and data will be permanently deleted.
Please use this procedure only when the network primary controller is missing or otherwise inoperable.