



Controlling the ezOutlet5-2R

Tech Note MSNTN06

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Document Revision History:

| Date | Comments |
|-------------|---------------|
| Jan 5, 2024 | First release |

This TechNote Applies Only to the ezOutlet5-2R Models:

EZ-73a

Introduction

The ezOutlet5-2R from Mega System Technologies, Inc ("MegaTec") is designed to automatically power-cycle up to two AC devices when Internet connectivity is lost. Its AC power outlets can also be reset manually or via scheduled actions.

There are 5 ways to access and control the functionality of the ezOutlet5-2R:

1. ezDevice Smartphone App
2. Cloud4UIS.com Device Management Portal
3. The ezOutlet5-2R's OLED Status Display & Function Button
4. The ezOutlet5-2R's Internal Web Server
5. A REST-ful API for HTTP Commands

IMPORTANT NOTES

By default, the Auto Reset function (power-cycle on Internet loss) is **DISABLED**.

You must use one of the methods above to enable Auto Reset if you want the ezOutlet5-2R to automatically power-cycle your equipment.

When Auto Reset is enabled, the reset event will occur up to 3 times by default. This number can be increased up to infinity.

With the default settings, the Auto Reset function will reset both outlets in sequence – Outlet #1 then Outlet #2 ten seconds later. You can limit the reset to just one of the outlets if desired. You can also change the *Power-On Delay* time for each outlet.

The Auto Reset function detects the loss of connectivity, not the absence of it. The ezOutlet5-2R must establish communications with the target site at least once after the *Ping Delay After Power On* time value (default = 1 minute) before the Auto Reset connection monitoring function is engaged.

For more information about how the Auto Reset algorithm works, visit:
<https://www.proxicast.com/shopping/ezOutlet5-2R>.

1. ezDevice Smartphone App

Download and install the free ezDevice app for iOS from the Apple AppStore or for Android from Google Play.



ezDevice
MegaTec
Free

Launch the ezDevice app and create a new account. This same account information will be used for the Cloud4UIS.com web service (see page 4).

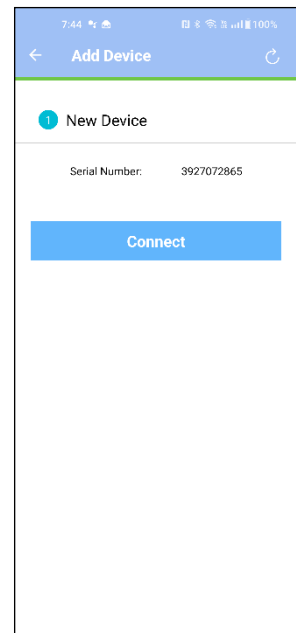
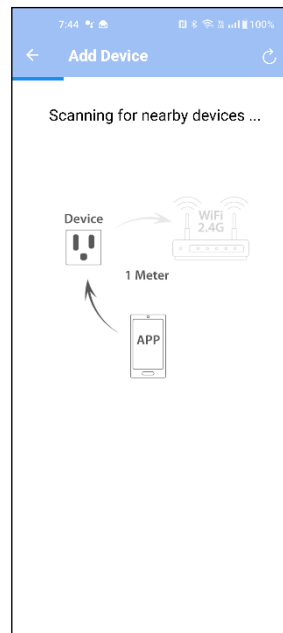
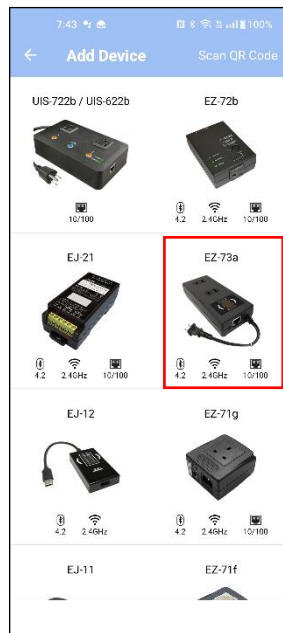
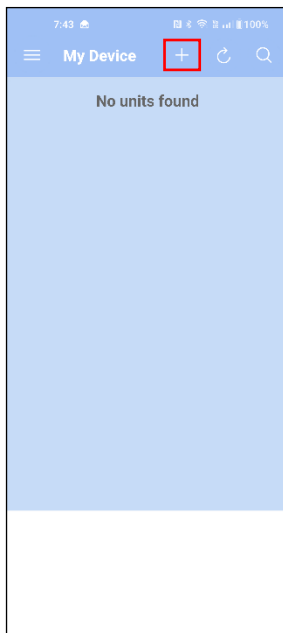
ezDevice uses Bluetooth to scan and locate your ezOutlet5-2R devices. Hold your phone within 1 meter (3 ft) of the ezOutlet5-2R and tap the (+) sign to add a new device to your list.

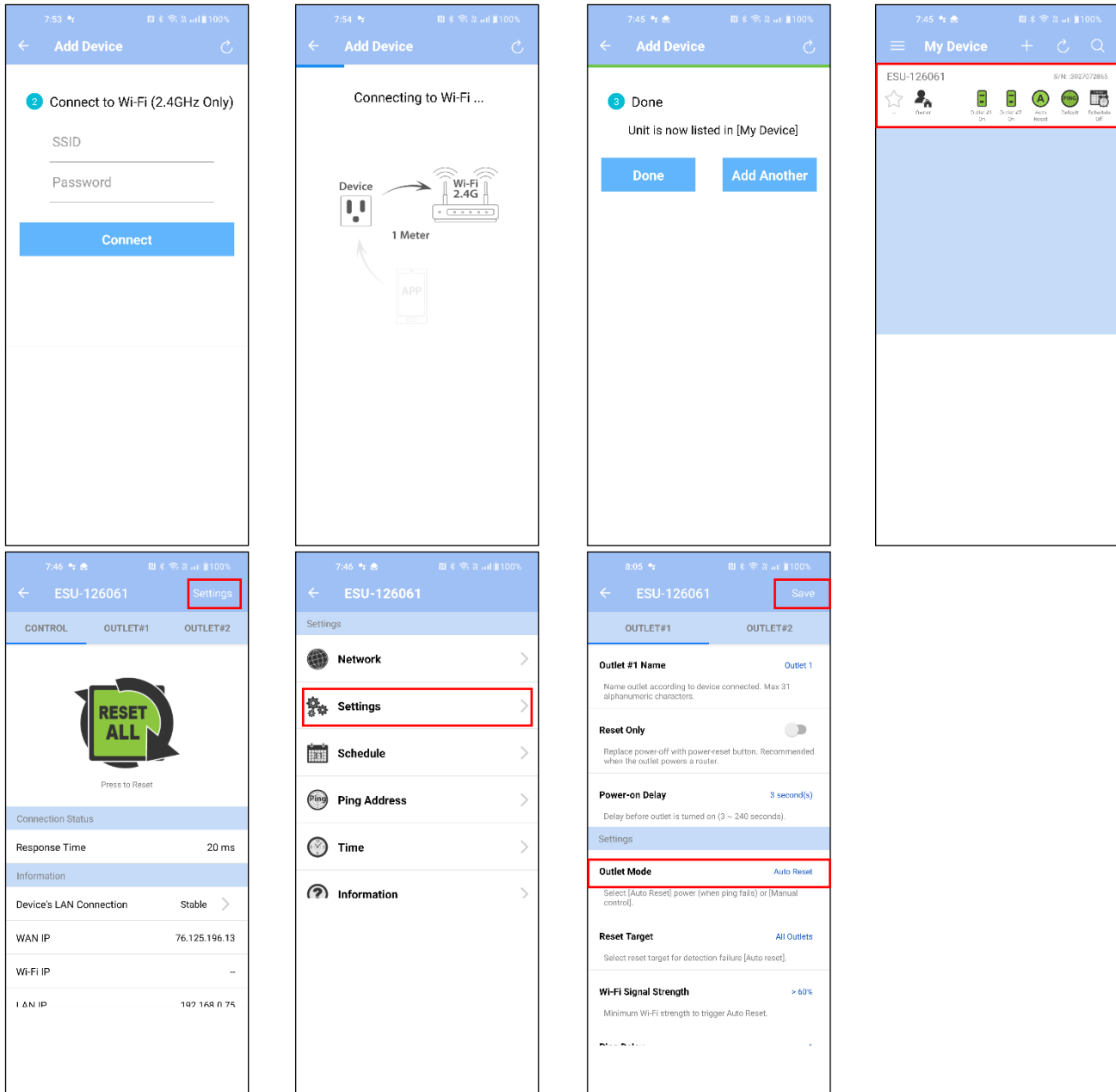
Tap the model of the product you wish to locate (EZ-73a). ezDevice will scan for all ezOutlet5-2R's. If one is found, its serial number will be shown. Tap the Connect button to begin the add process.

If the ezOutlet5-2R does not have a wired Ethernet connection to your network, ezDevice will prompt for the Wi-Fi access point name (SSID) and password for your Wi-Fi network. If successful, the ezOutlet5-2R will be added to your Cloud4UIS account and to the ezDevice app.

NOTE: The Wi-Fi SSID and Password are case sensitive.

Tap the ezOutlet5-2R in the My Devices list to change its settings.





On the Settings page, change the **Outlet Mode** to “Auto Reset” to enable power-cycling upon Internet loss. Remember to tap **Save** to send the new setting to the ezOutlet5-2R.

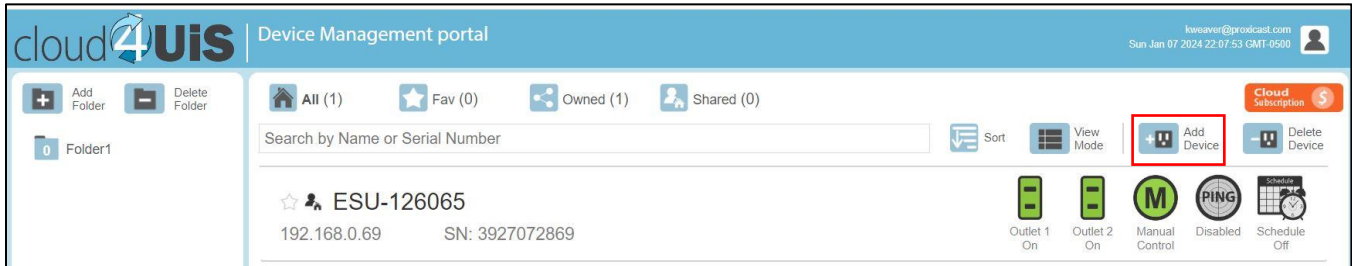
2. Cloud4UIS.com Device Management Portal

Open the Cloud4UIS.com web site using any web browser:

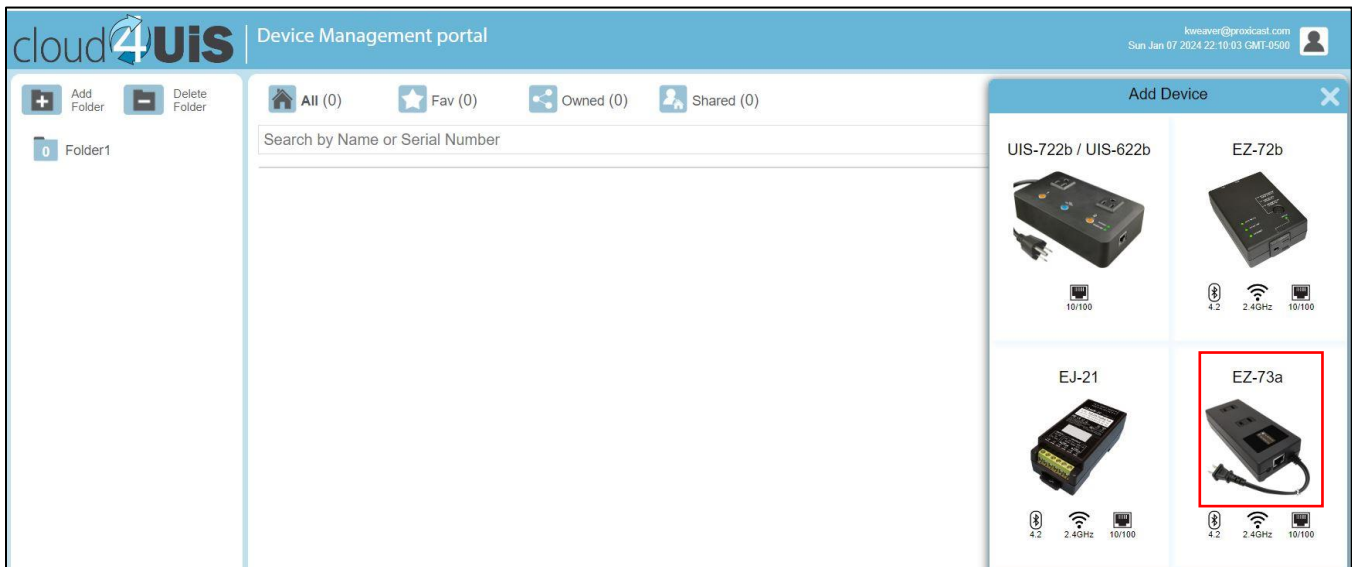
<http://Cloud4UIS.com>

If you do not yet have an account, create one on the site. If you previously created an account using ezDevice, use the same login credentials for Cloud4UIS.com. The Cloud4UIS service is free.

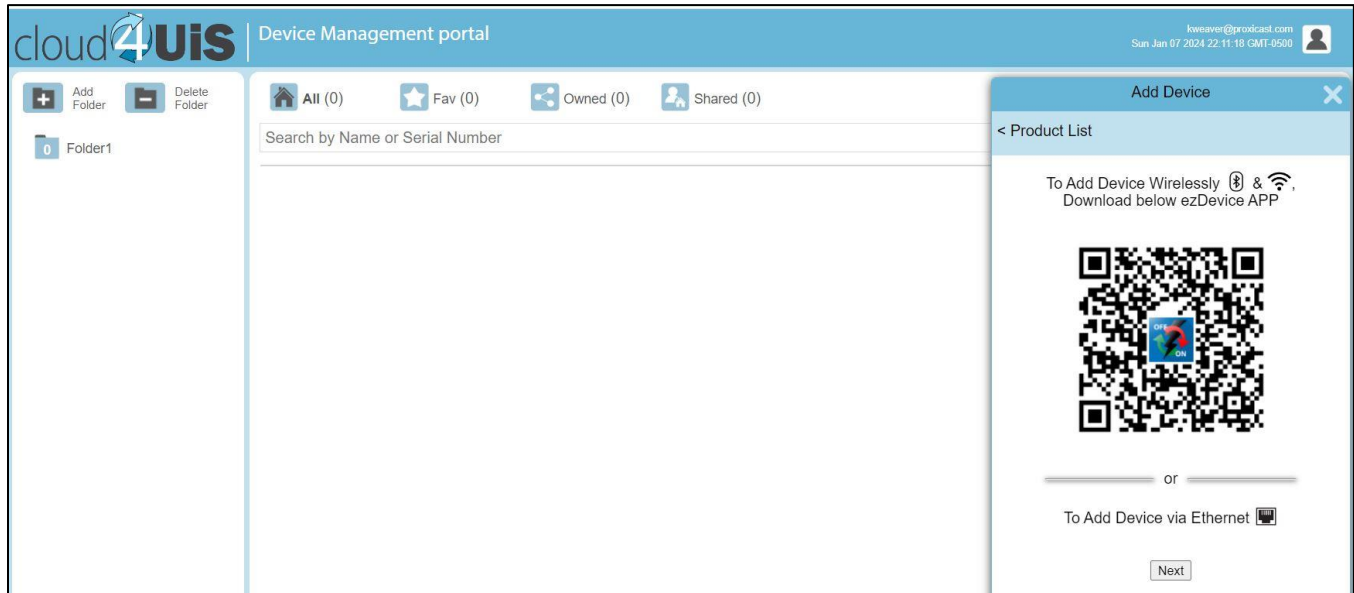
If you used ezDevice to add devices, they will appear in your Cloud4UIS account automatically. Use Cloud4UIS to add wired Ethernet devices by their serial number.



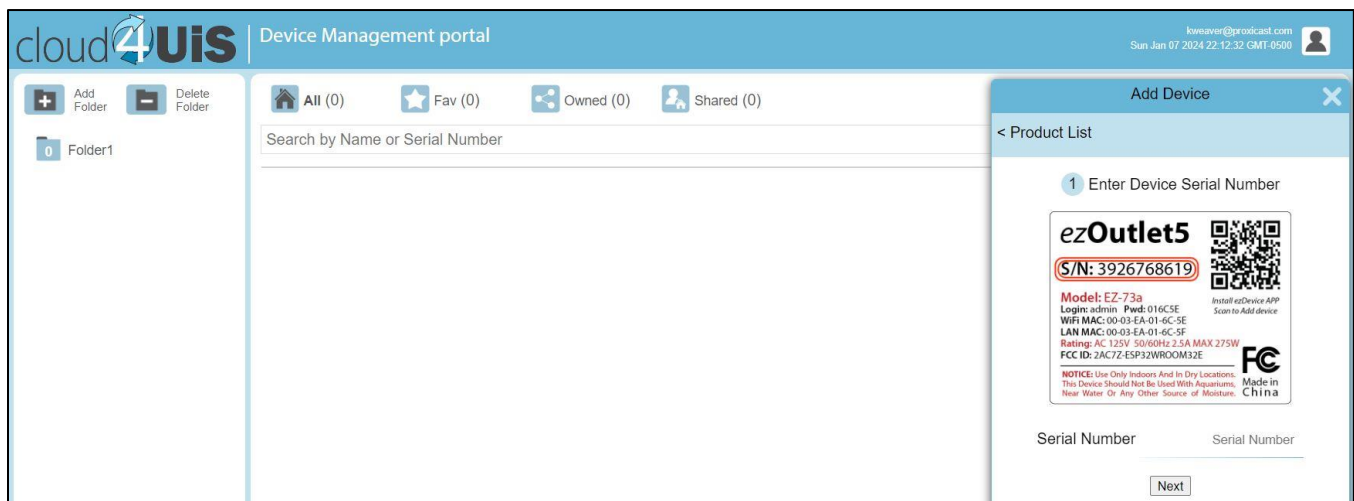
If you are adding a device for the first time, click the **Add Device** icon  in the upper right corner to open the Add Device screen.



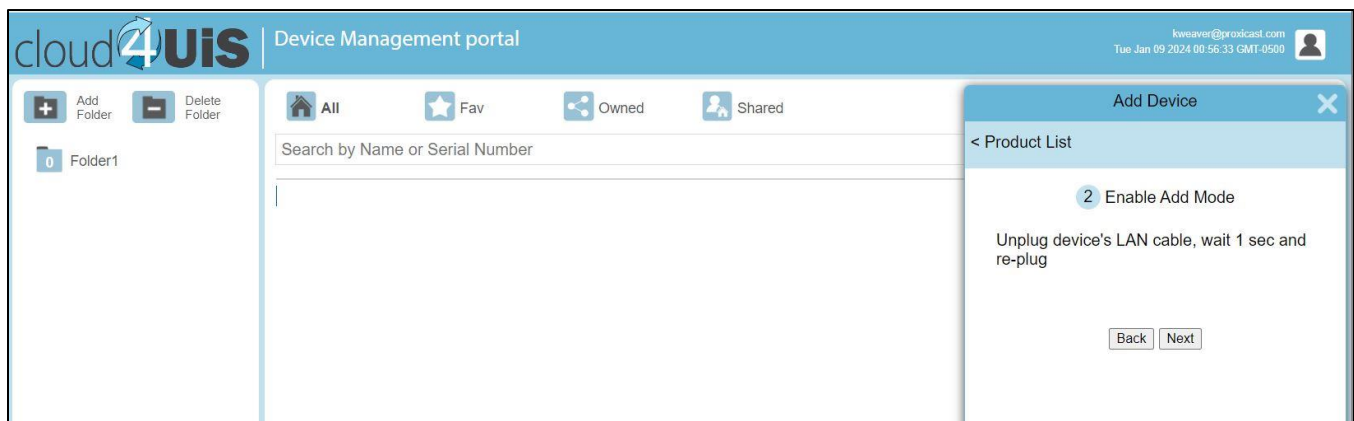
Select the type of device you wish to add (EZ-73a)



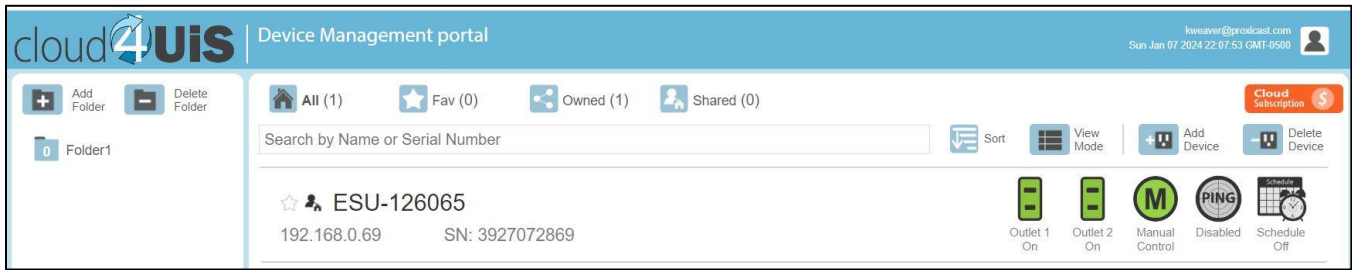
Click Next to add the wired device by serial number found on the bottom label of the ezOutlet5-2R.



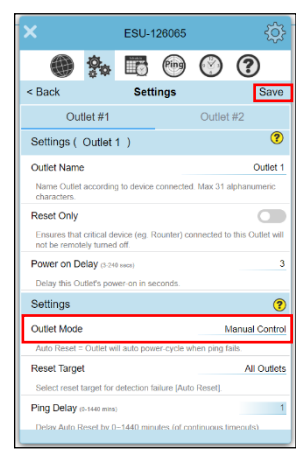
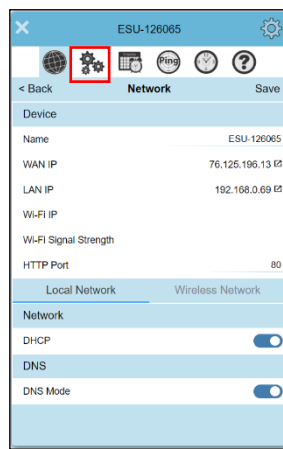
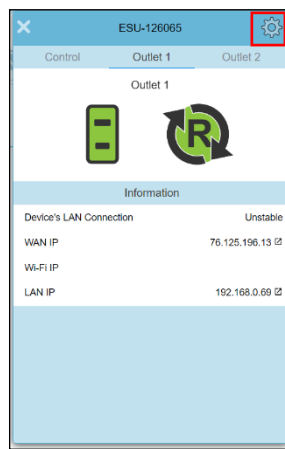
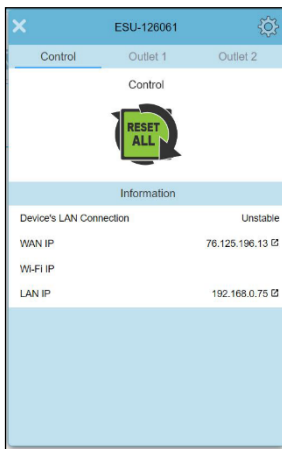
Enter the ezOutlet5-2R's 10-digit serial number and click Next.



To place the ezOutlet5-2R into “Add Mode”, unplug the LAN cable for approximately 1 second, then reinsert it into the ezOutlet5-2R. Click Next and Cloud4UIS will confirm that it can communicate with your unit.



Click any of the devices added to Cloud4UIS to manage them. You can see various status information and change most of the ezOutlet5-2R's settings. Remember to click Save after making any changes.



3. OLED Status Display & Function Button

The ezOutlet5-2R's OLED Status Display provides access to important information about the operating state of the device. The display can also be used to change the power on/off/reset state of each outlet.


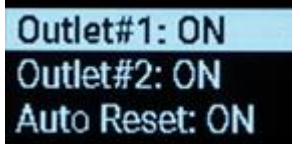
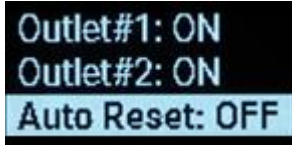
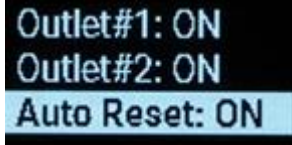
After power-on the ezOutlet5-2R's OLED display will continuously cycle through 3 status screens:

| | | |
|---|--|---|
|  |  |  |
| Outlet Power Status Auto Reset Enabled Status Cloud Connection Status | Wi-Fi Ping Response Time Ethernet Response Time | Wi-Fi IP Address Ethernet IP Address |

The OLED screen will dim if the Function button is not pressed within 3 minutes; the display will turn off after 5 minutes. Press the Function button briefly to resume the rotating display of status screens.

To access the ezOutlet5-2R's menus, press and hold the Function button for 2 seconds. Each subsequent brief button press will advance the cursor to the next option. To select an option, press and hold the button for 2 seconds.

For example, to enable Auto Reset:

| | |
|---|---|
| Press the Function button once to display the Status Screen |  |
| Hold the Function button for 2 seconds to display the Settings menu. |  |
| Press the Function button 2 more times to highlight the Auto Reset option. |  |
| Press the Function button for 2 seconds to change the Auto Reset value to "ON". |  |

NOTE:

Holding the Function button in for 10 seconds will perform a factory reset – all configuration settings will be lost and the ezOutlet5-2R must be re-added to the Cloud for remote access. A factory reset can also be performed via the OLED menu or the ezOutlet5-2R's internal web server.

4. Internal Web Sever

Access to the ezOutlet5-2R's functionality is available via its internal web server pages. To access the web server, enter the ezOutlet5-2R's IP address into any web browser. The IP addresses of the Wi-Fi and/or Ethernet interfaces can be found on the OLED status display.

http://<ip-address-of-ezOutlet5-2R>
e.g. http://192.168.0.69

The default username for the ezOutlet5-2R is "admin".

The default password is the last 6 characters of the ezOutlet5-2R's Wi-Fi MAC address (upper case). See the ezOutlet5-2R bottom label for the password.

The screenshot shows the internal web server interface of the ezOutlet5-2R. The top navigation bar includes the device name 'ezOutlet5-2R' and status indicators for 'Outlet1:On', 'Outlet2:On', 'Outlet Mode: Manual Control', and 'Cloud4UIS Server: Enable (Online)'. A left sidebar contains menu items: Overview, Network, Settings, Schedule, Ping Address, Time, and Upgrade / Restore. The main content area displays the 'Overview' page with sections for Ping Response, Connection Status, Outlet Control, and Wi-Fi settings.

| Ping Response | | | |
|-----------------|---------|--------------------|------|
| Wi-Fi Response: | -- | Ethernet Response: | 20ms |
| Ping Address: | Default | | |

| Connection Status | | | |
|-------------------|----|-----------|----------|
| Wi-Fi: | -- | Ethernet: | Unstable |

| Outlet Control | | | |
|--------------------|----------------|--------------|-------------|
| Mode: | Manual Control | | |
| Outlet1 Name: | Outlet 1 | Status: | On |
| | | Turn Outlet: | OFF [Reset] |
| Outlet2 Name: | Outlet 2 | Status: | On |
| | | Turn Outlet: | OFF [Reset] |
| Reset All Outlets: | [Reset] | | |

| Wi-Fi | | | |
|-------------|-------------------|-----------|--------------|
| Wi-Fi: | Enable | | |
| SSID: | | Signal: | 0% |
| IP Address: | | DHCP: | On |
| Net Mask: | | DNS mode: | Auto Acquire |
| Gateway: | | DNS1: | 8.8.8.8 |
| MAC: | 00:03:EA:12:60:65 | DNS2: | 168.95.1.1 |

The internal web server interface provides access to all features of the ezOutlet5-2R, some of which (e.g. password changes and configuration backup/restore) are not available through any other means.

To enable the Auto Reset feature, go to the Settings menu and change the **Outlet Mode** to "Auto Reset".

The screenshot shows the internal web server interface of the ezOutlet5-2R with the 'Settings' menu selected. The 'General' settings section is visible, with 'Outlet Mode' set to 'Auto Reset' (highlighted with a red box). Other settings include 'Target' set to 'All Outlets', 'Ping Delay After Power On' set to '1' minute, 'Time between pings' set to '15' seconds, 'Wi-Fi Signal Strength' set to '60%', and 'No of Resets' set to '3'.

| General | | | |
|----------------------------|-------------|------------------------|-----|
| Outlet Mode: | Auto Reset | | |
| Target: | All Outlets | Wi-Fi Signal Strength: | 60% |
| Ping Delay After Power On: | 1 | No of Resets: | 3 |
| Time between pings: | 15 | seconds | |

5. REST API

Basic functions of the ezOutlet5-2R can be controlled through a series of HTTP Packet Requests.

Examples in this section are shown using cURL for Windows. Any software capable of sending and processing HTTP packets can be used.

Turn an Outlet On/Off/Reset or Change Auto Reset Mode

HTTP Packet Request

```
"GET" <target> "HTTP/1.1" CRLF
"Host:" <host ip> CRLF
"Keep-Alive: 300" CRLF
"Connection: keep-alive" CRLF
"Authorization: Basic" <auth> CRLF CRLF ;auth:encoded account(admin:1234) with base-64
HTTP URL: "http://< IP>/cgi-bin/control2.cgi?<auth>&<action>"
```

Request Description:

IP:

The IP Address of the ezOutlet5-2R

Auth:

user=<Web Account>

passwd=<Web Password>

Action:

target=<0/1/2>;

0 means outlet mode (*auto reset*),

1 means outlet # 1,

2 means outlet # 2

control=<0/1/2/3>;

0 means off,

1 means on,

2 means switch (i.e. from On → Off, or from Off → On),

3 means reset (Outlets only)

Packet Response:

XML format:

```
"<?xml version='1.0'?>"
```

```
"<request>"
```

```
"<outlet_status>{outlet_status}</outlet_status>"
```

```
"<outlet_mode>{outlet_mode}</outlet_mode>"
```

```
"</request>"
```

XML Description:

outlet_status: 0 = off, 1 = on

outlet_mode: 0 = manual control, 1 = auto reset

EXAMPLE: Turn outlet #1 off

```
curl "http://192.168.0.69/cgi-bin/control2.cgi?user=admin&passwd=126065&target=1&control=0"
```

OUTPUT

```
<?xml version='1.0'?>
<request>
<outlet_status>0,1</outlet_status>
<outlet_mode>0</outlet_mode>
</request>
```

EXAMPLE: Enable Auto Reset

```
curl "http://192.168.0.69/cgi-bin/control2.cgi?user=admin&passwd=126065&target=0&control=1"
```

OUTPUT

```
<?xml version='1.0'?>
<request>
<outlet_status>1,1</outlet_status>
<outlet_mode>1</outlet_mode>
</request>
```

Get the Status of the ezOutlet5-2R**HTTP Packet Request**

```
"GET" <target> "HTTP/1.1"CRLF
"Host:" <host ip>CRLF
"Keep-Alive: 300"CRLF
"Connection: keep-alive"CRLF
"Authorization:Basic" <auth>CRLFCRLF ;auth:encoded account(admin:1234) with base-64
HTTP URL: "http://<auth>< IP>/xml/outlet_status.xml"
```

IP:

The IP Address of the ezOutlet5

Auth:

<Web Account>@<Web Password>

XML format:

```
"<?xml version='1.0'?>"
"<request>"
  "<site_ip>{site}</site_ip>"
  "<site_mode>{site_mode}</site_mode>"
  "<site_lost>{site_lost}</site_lost>"
  "<outlet_status>{outlet_status}</outlet_status>"
  "<outlet_mode>{outlet_mode}</outlet_mode>"
  "<ping_delay_after_power_on>{ping_delay_after_power_on}</ping_delay_after_power_on>"
  "<power_on_delay>{power_on_delay}</power_on_delay>"
```

```
"<no_of_reset>"{no_of_reset}"</no_of_reset>"  
"</request>"
```

XML Description:

site: uuu.uuu.uuu.uuu or google.com
site_mode: 0 = http, 1 = ping
site_lost: 0 = ping successful, 1 = ping failed
outlet_status: 0 = off, 1 = on
outlet_mode: 0 = manual control, 1 = auto reset
ping_delay_after_power_on: number, range 0 ~ 1440
power_on_delay: number, range 3 ~ 240
no_of_reset: 1 ~ 10, 0 = unlimited

EXAMPLE: Get Status

```
curl "http://admin:126065@192.168.0.69/xml/outlet_status.xml"
```

OUTPUT

```
<?xml version='1.0'?>  
<request>  
<site_ip></site_ip>  
<site_mode>1</site_mode>  
<site_lost>0</site_lost>  
<outlet_status>1,1</outlet_status>  
<outlet_mode>1</outlet_mode>  
<ping_delay_after_power_on>1</ping_delay_after_power_on>  
<power_on_delay>3,13</power_on_delay>  
<no_of_reset>3</no_of_reset>  
</request>
```

###