



# Remote APstorage Management

Version 1.0

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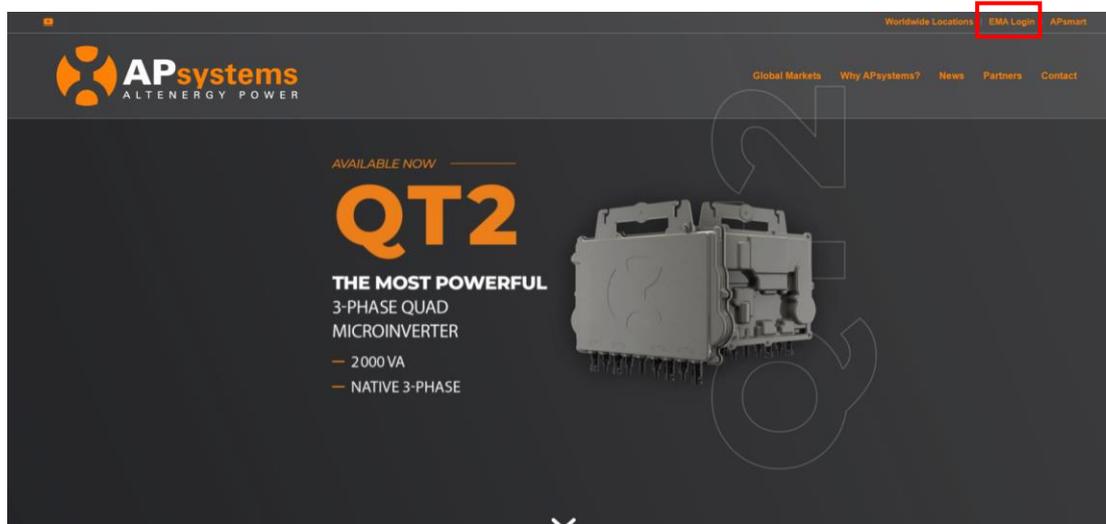
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# Introduction

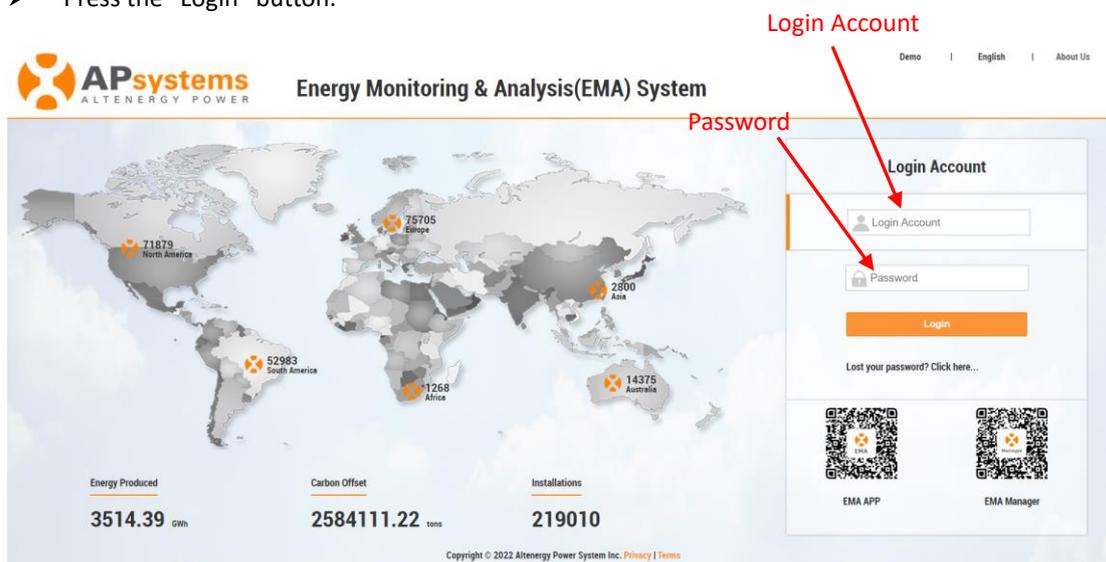
The energy storage working mode management function enables remote tuning of the operating parameters of the energy storage system and other functions, helping PV professionals (installers) or owners to reduce operation and maintenance costs and improve operation and maintenance efficiency.

# 1. To Log onto EMA Website

- Go to <http://apsystems.com/>
- Click the orange “EMA Login” in the upper right corner of the screen to enter the EMA login page ,



- Enter your “Login Account” and “Password” ,
- Press the “Login” button.



## Note

- You will be issued a permanent *login account* and a temporary *password* when you complete the Installer Training of APsystems. Contact APsystems Technical Support to register for Installer Training (go to <https://usa.apsystems.com/resources/training>, or call 1.844.666.7034).
- The password is case sensitive.
- If you forget your password, select “Lost your password? Click here ...”.
- You won’t have any customers in your Customer List the first time you log onto the system.

## 2. Remote Control

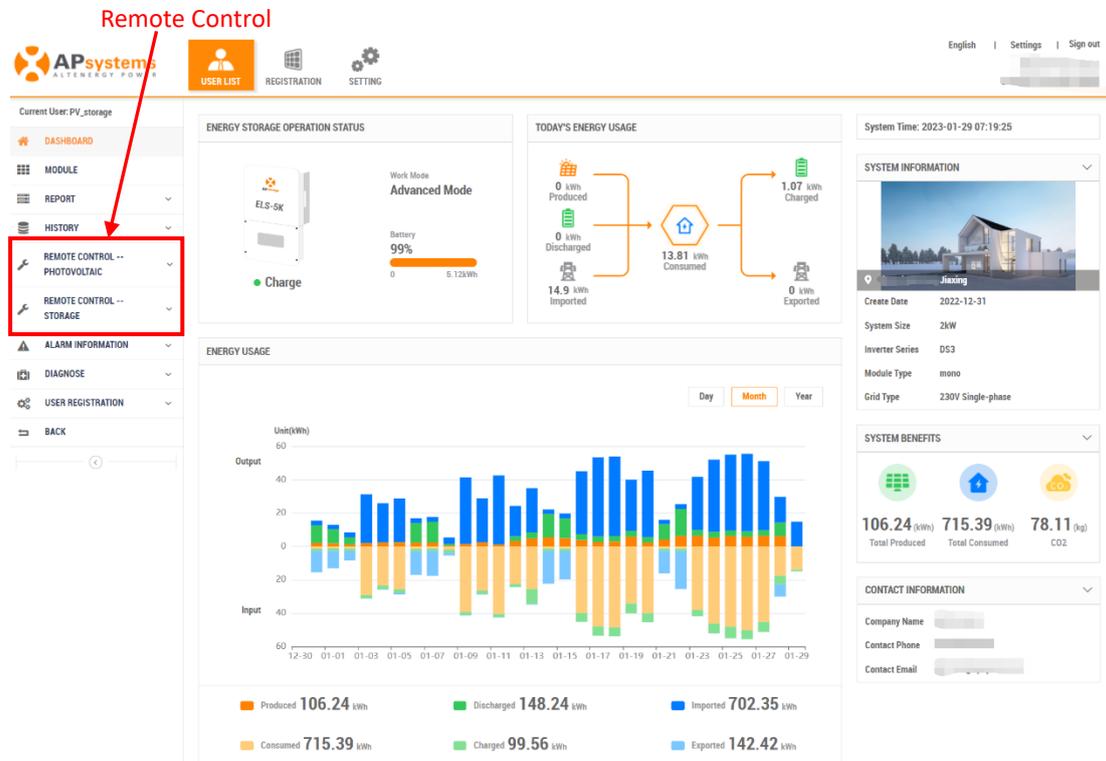
Used to configure the customer's energy storage system in order to keep it in optimum operating condition. It contains "REMOTE CONTROL -- PHOTOVOLTAIC" and "REMOTE CONTROL -- STORAGE".

### Note

- The ECU must first be installed with verified Power Line Communication [PLC] and Internet connectivity. Refer to the ECU Installation/User Manual for detailed ECU installation and operation instruction.

- Select the customer you want to review from the customer list.

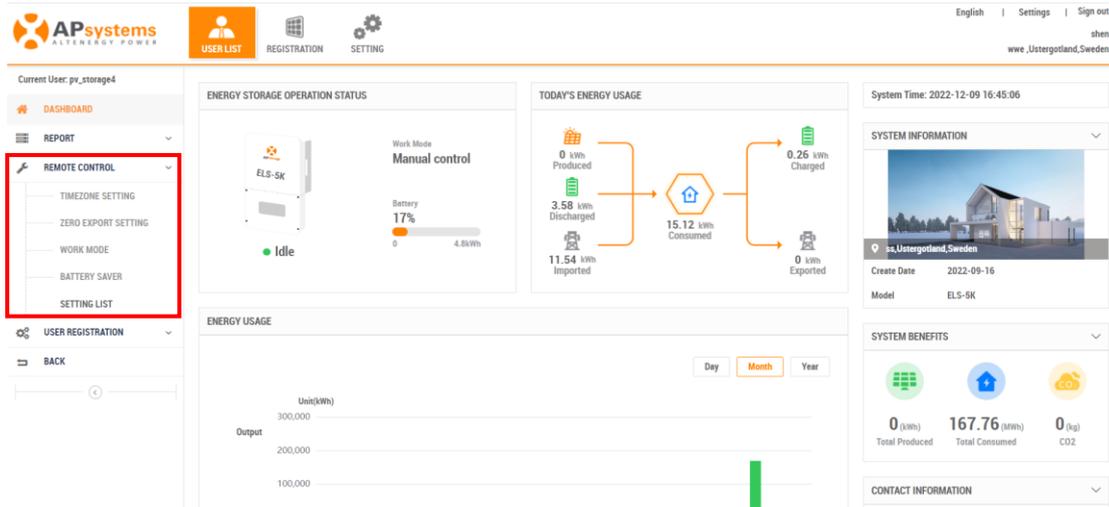
The installer's view of the customer's Dashboard is displayed.



## 2. Remote Control

### Note

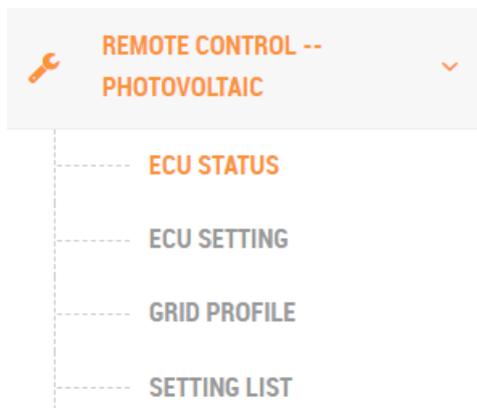
If there is no PV system installed, the Storage remote control operations displayed at “Remote Control”.



### 2.1 Remote Control -- photovoltaic

- Select “REMOTE CONTROL -- PHOTOVOLTAIC” in the left side bar.

The sub-menu areas are displayed under “REMOTE CONTROL -- PHOTOVOLTAIC”.



## 2. Remote Control

### 2.1.1 ECU Status

- Select “ECU STATUS” under “REMOTE CONTROL -- PHOTOVOLTAIC” in the left side bar.

The ECU status page is displayed.

ECU ID Pulldown

Connection Status Pulldown

- Select the ECU ID from the ECU ID pulldown.
- Select the current connection station from the pulldown.
- Press the “Submit” button.

### 2.1.2 ECU SETTING

- Select “ECU STETTINGS” under “REMOTE CONTROL -- PHOTOVOLTAIC” in the left side bar.

The ECU settings page is displayed.

Time Zone

Inverter Links Configuration Window

ID	Inverter ID	Link Status	ID	Inverter ID	Link Status		
<input type="checkbox"/>	1	702000184361	--	<input type="checkbox"/>	2	702000184383	--
<input type="checkbox"/>	3	703000232898	--	<input type="checkbox"/>	4	703000744943	Link

## 2. Remote Control

### 2.1.1.1 Manage Time Zone

**TIME ZONE CONFIGURATION**

Please select ECU ID

Version

ECU time zone

- Select the ECU ID from the ECU ID pulldown.
- Select the correct time zone corresponding to the ECU's location.
- Press the "Send" button.

### 2.1.1.2 Manage Inverter Links

**INVERTER LINKS CONFIGURATION**

Please select ECU ID

Choose operation

Choose the Inverters

Device List

<input type="checkbox"/>	ID	Inverter ID	Link Status	<input type="checkbox"/>	ID	Inverter ID	Link Status
<input type="checkbox"/>	1	408000141911	--	<input type="checkbox"/>	2	408000160394	--
<input type="checkbox"/>	3	408000161008	--	<input type="checkbox"/>	4	408000161369	--
<input type="checkbox"/>	5	408000161515	--	<input type="checkbox"/>	6	409000006917	--
<input type="checkbox"/>	7	409000006959	--	<input type="checkbox"/>	8	409000007167	--

Displaying 1 to 8 of 8 items.  Total: 1, Go to

- Select the ECU ID from the ECU ID pulldown.
- Select the operation (Add, Clear, or Delete) from the Operation pulldown.
- Select the inverter from the Inverter List, or input the inverters.
- Press the "Send" button.

## 2. Remote Control

### Note

There are two types of inverter selection: “Select from the list below” and “Input the Special Ones”. “Input the Special Ones” requires the administrator to enter the inverter ID number manually.

#### INVERTER LINKS CONFIGURATION

ID	Inverter ID
----	-------------

### 2.1.3 Grid Profile

For set the appropriate AC protection values for customers' systems in order to guarantee the safe working.

- Select “GRID PROFILE” under “REMOTE CONTROL -- PHOTOVOLTAIC” in the left side bar.

The GRID PROFILE page is displayed.

Parameter details

Inverter List

ECU ID Pulldown

Inverter ID
702000184361
702000184383
703000232888
703000744943
703000745290

### Note

The parameter setting items may vary depending on the ECU version, so the parameter setting items are subject to the actual display on the page.

## 2. Remote Control

- Select the ECU ID from the ECU ID pulldown.
- Press the “Setting” button to enter the parameter setting page.

English | Settings | Sign out

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USER LIST REGISTRATION SETTING

Current User: PV\_storage

DASHBOARD

MODULE

REPORT

HISTORY

REMOTE CONTROL -- PHOTOVOLTAIC

ECU STATUS

ECU SETTING

GRID PROFILE

SETTING LIST

REMOTE CONTROL -- STORAGE

DIAGNOSE

USER REGISTRATION

BACK

### AC Protection Configuration

Set the appropriate AC protection values for your customers' systems in order to safe working.

#### VIEW AC PROTECTION PARAMETERS

ECU ID: 215000021890

Grid profile: NB/T 32004-2018 **Setting**

#### REGISTERED INVERTER CURRENT SETTING PARAMETER LIST

Refresh Export

Inverter ID
702000184361
702000184363
703000232888
703000744943
703000745290

- Fill in the appropriate parameter values and select the inverter,
- Press the “Send” button.

### 2.1.4 Setting List

This page is used to confirm that a remote control command has indeed been send to the APsystems server, and that the ECU has “replied” that the command has been received.

- Select “SETTING LIST” under “REMOTE CONTROL -- PHOTOVOLTAIC” in the left side bar.

The Setting List page is displayed.

English | Settings | Sign out

APsystems  
ALTERNATIVE ENERGY POWER

USER LIST REGISTRATION SETTING

Current User: PV\_storage

DASHBOARD

MODULE

REPORT

HISTORY

REMOTE CONTROL -- PHOTOVOLTAIC

ECU STATUS

ECU SETTING

GRID PROFILE

SETTING LIST

REMOTE CONTROL -- STORAGE

DIAGNOSE

USER REGISTRATION

BACK

### Setting List

This list displays the results for your command configurations on the customer's system. Select [Send Time] or [Reply Time] to preview.

#### ECU CONTROL COMMAND LIST(LAST 30 DAYS DATA)

ECU ID: 215000021890 Command: All of the Configuration Send Time Reply Time Query Export

ID	Command	Send Time	Reply Time
1	Inverter Linka Configuration	2022-12-13 13:57:30	2022-12-13 14:55:04
2	Inverter Linka Configuration	2022-12-13 13:57:29	2022-12-13 14:55:03
3	Inverter Linka Configuration	2022-12-13 13:57:11	2022-12-13 14:55:02
4	Inverter Linka Configuration	2022-12-13 13:57:10	2022-12-13 14:55:01
5	Inverter Linka Configuration	2022-12-13 13:56:54	2022-12-13 14:55:00
6	Inverter Linka Configuration	2022-12-13 13:56:53	2022-12-13 14:54:59
7	Inverter Linka Configuration	2022-12-13 13:56:38	2022-12-13 14:54:58
8	Inverter Linka Configuration	2022-12-13 13:56:37	2022-12-13 14:54:57
9	Inverter Linka Configuration	2022-12-13 13:56:16	2022-12-13 14:54:56
10	Inverter Linka Configuration	2022-12-13 13:56:15	2022-12-13 14:54:55

## 2. Remote Control

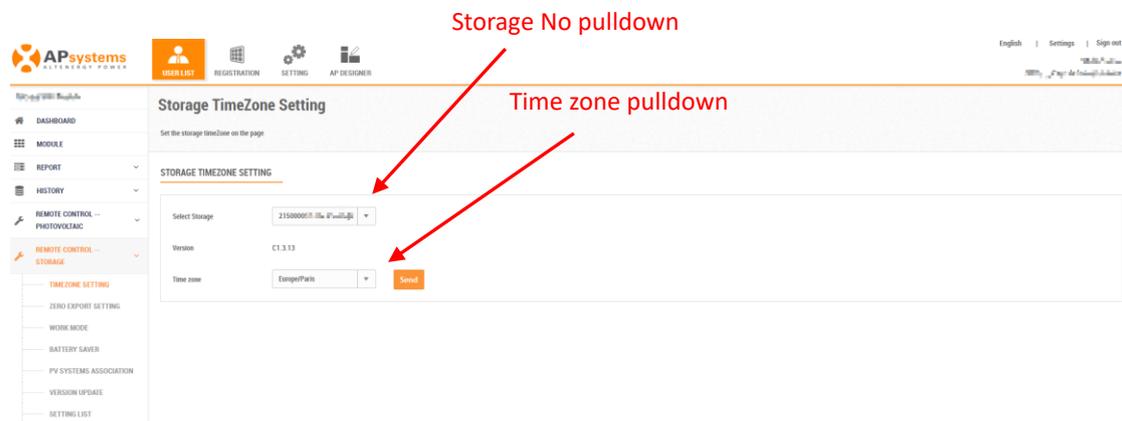
### 2.2 Remote Control -- Storage

#### 2.2.1 Time Zone Setting

Set the storage time zone on the page.

- Select “TIME ZONE SETTING” under “REMOTE CONTROL-- STORAGE” in the left side bar.

The time zone setting page is displayed.



- Select the Storage No from the Storage No pulldown,
- Select the correct time zone corresponding to the Storage’s location,
- Press the “Send” button,

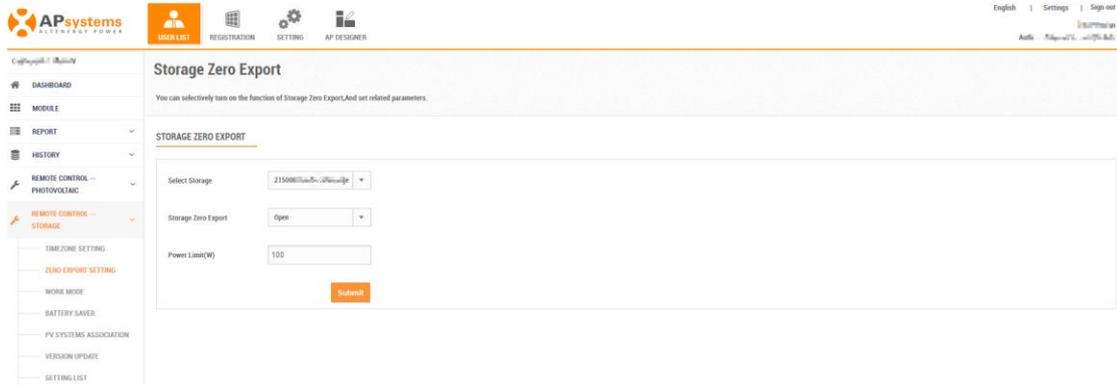
#### 2.2.2 Zero Export Setting

For selectively turn on the function of Storage Zero Export, And set related parameters.

- Select “ZERO EXPORT SETTING” under “REMOTE CONTROL-- STORAGE” in the left side bar.

The Zero Export Setting page is displayed.

## 2. Remote Control



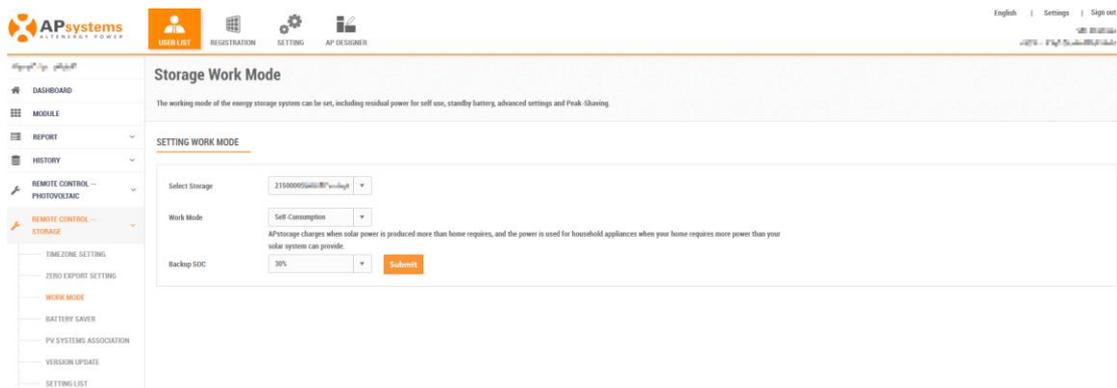
- Select the Storage No from the Storage No pulldown,
- Select the “Open”,
- Press the “Send” button.

### 2.2.3 Work Mode

The working mode of the energy storage system can be set, including residual power for self use, standby battery and advanced settings.

- Select “WORK MODE” under “REMOTE CONTROL-- STORAGE” in the left side bar.

The work mode page is displayed.



## 2. Remote Control

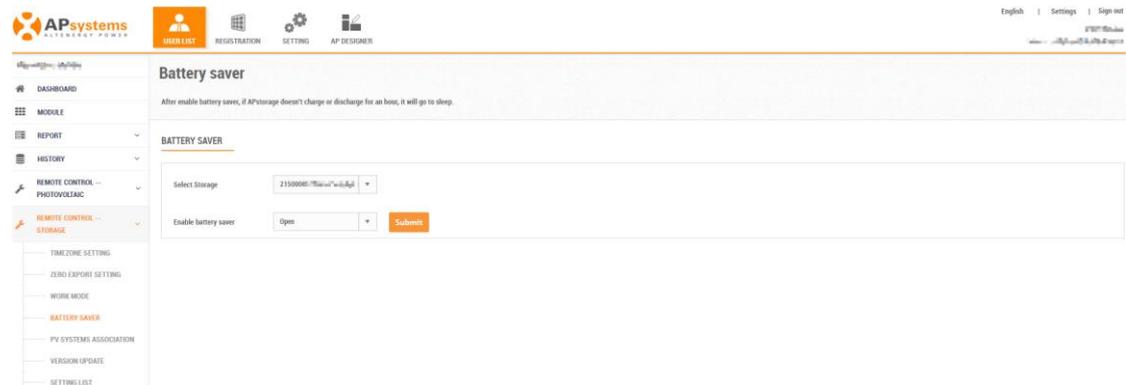
- Select the Storage No from the Storage No pulldown.
- Select the work mode,
- Press the “Submit” button.

### 2.2.4 Battery saver

After enable battery saver, if APstorage doesn't charge or discharge for an hour, it will go to sleep.

- Select “BATTERY SAVER” under “REMOTE CONTROL-- STORAGE” in the left side bar.

The Battery saver page is displayed.



- Select the mode to be set, click "Submit" to set.

### 2.2.5 PV systems association

For linking photovoltaic systems and energy storage systems.

- Select “PV SYSTEMS ASSOCIATION” under “REMOTE CONTROL-- STORAGE” in the left side bar.

## 2. Remote Control

The systems association page is displayed.



- Select the appropriate ECU number and association mode to be associated,
- Click " submit " button.

### Note

Please make sure the PV ECU and APStorage has been connected to the same LAN before association. ECU-R hardware must be REV2.0 or above

## 2.2.6 Version Update

This page displays the current device version and the latest server version, providing version update functionality.

- Select “VERSION UPDATE” under “REMOTE CONTROL-- STORAGE” in the left side bar.
- The Version Information page is displayed.



- Select the storage machine number that requires querying the device version and server version,
- Based on the latest version information displayed, you can choose to update to the latest version.

## 2. Remote Control

### Note

According to the latest version information displayed, if it is the latest version, only "It's already the latest version." will be displayed. If it is not the latest version, you can click the corresponding update button to update to the latest version.

### 2.2.7 Setting List

This list displays the storage remote control commands and the results.

- Select "SETTING LIST" under "REMOTE CONTROL-- STORAGE" in the left side bar.
- The Setting List page is displayed.

Command Pulldown

Send Time

Reply Time

Command List

- Select the Storage No from the Storage No pulldown.
- Select the command that you want confirmed from the Command pulldown.

### Note

The Send and Reply times are displayed once the commands have been sent and received. It can take a few reporting cycles for the commands to be reflected in the monitoring sections of the EMA.