GlobalTime®

User Manual
NTP Clock, GTD368

GlobalTime Electronic Co., Limited
PT. YASA PERSADA DEWANTARA
http://yasapersada.co.id Email: info@yasapersada.co.id

GTD368-4SR

GTD368-4SW

GTD368-6SR

GTD368-6SW

GTD368-4SG

GTD368-4SB

GTD368-6SG

GTD368-6SB

Double-sided Display

Contents

1. Introduction

NTP (Network Time Protocol) is a highly-precise and convenient way to transfer time via the network. NTP time source is available for free on the Internet, or can be bought for independent use.
POE (Power Over Ethernet) utilizes the technology that delivers DC power to Ethernet connected devices. POE enables data and power transfer simultaneously through one standard network cable, which makes the deployment of network equipment more cost-effective.

GTD368 of GlobalTime brings together all the advantages of PoE technology and real-time synchronized system to the market: get precise time source from the Internet, and receive data and power over the same set of wires, which guarantees high precision and low cost. Moreover, GTD368 double-sided display is available. With an extra screen(rather than an extra GTD368 device), the double-sided display effect is achieved. This innovation facilitates installation and reduces costs.

2. Technical Specification

Accuracy		+/- approximately 20 milliseconds	
Operating Temperature		-10℃ to 60℃	
Viewing Distance		50 meters	
Operating Humidity		90% maximum, non-condensing	
Installation options		Surface, Pendant, Cantilever	
Certifications		CE/FCC	
Power Supply		IEEE 802.3af Compliant,less than 13watts, Power over Ethernet(PoE)	
		DC power adapter	
Network interface		10M RJ45	
Warranty		One year	
Display Face		4-digit/ 6-digit, 7-segment LEDs	
MTBF		50 thousand hours	
4-digit Single-sided		4-digit Double-sided	
Dimensions	302mm×157mm×60mm	Dimensions	302mm×157mm×80mm

Cabinet	high-strength black plastic	Cabinet	high-strength black plastic
Weight	0.7kg	Weight	1.2kg
6-digit Single-sided		6-digit Double-sided	
Dimensions	427mm×157mm×60mm	Dimensions	427mm×157mm×80mm
Cabinet	high-strength black plastic	Cabinet	high-strength black plastic
Weight	0.9kg	Weight	1.55kg

3. Installation

3.1 Packing List

Single-sided: One device of GTD368
Double-sided: One device of GTD368, one display screen, a set of pendant connector

3.2 Power Supply

1)If the local network supports PoE, One network cable is needed.
2)If not, power adapter is available.

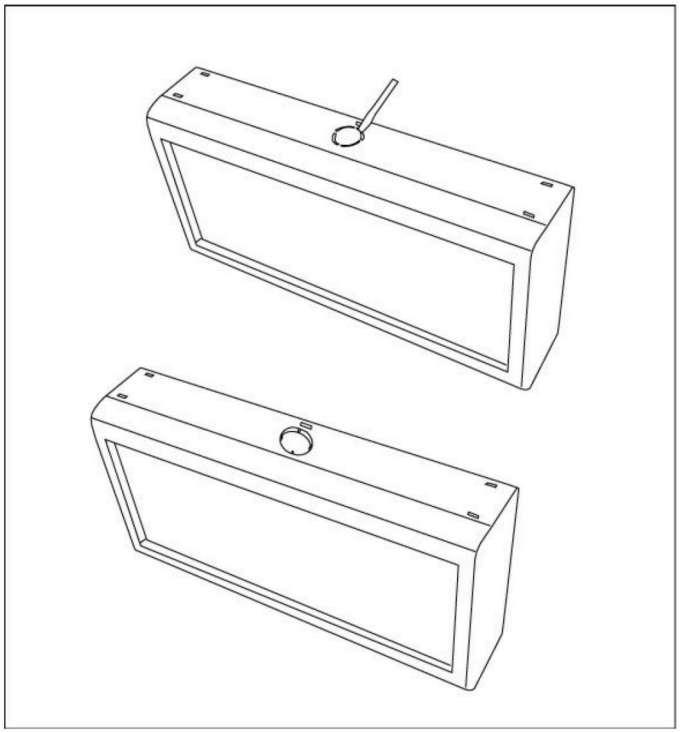
3.3 Configuration Button

One red control button for you to realize following configuration:
A. Time format
In the state of time display, press the button for 3 seconds, the screen will display 12 or 24; Loose the button and then press again, it will switch between 12 and 24. The configuration will take effect in 5 seconds after loosing the button, and the screen will display time accordingly.
B. Re-boot
Press the button for 3 seconds, when screen displays 12 or 24, press the button two times in a row, the clock will display E5, then the clock will reboot.
C. Time zone
In the same state, press the button for 6 seconds, the screen will display the present time zone. One press one time zone added, till it reaches +14:00, then switch to -12:00 and mount to UTC time.

3.4 Installation Instructions of Double-sided clock

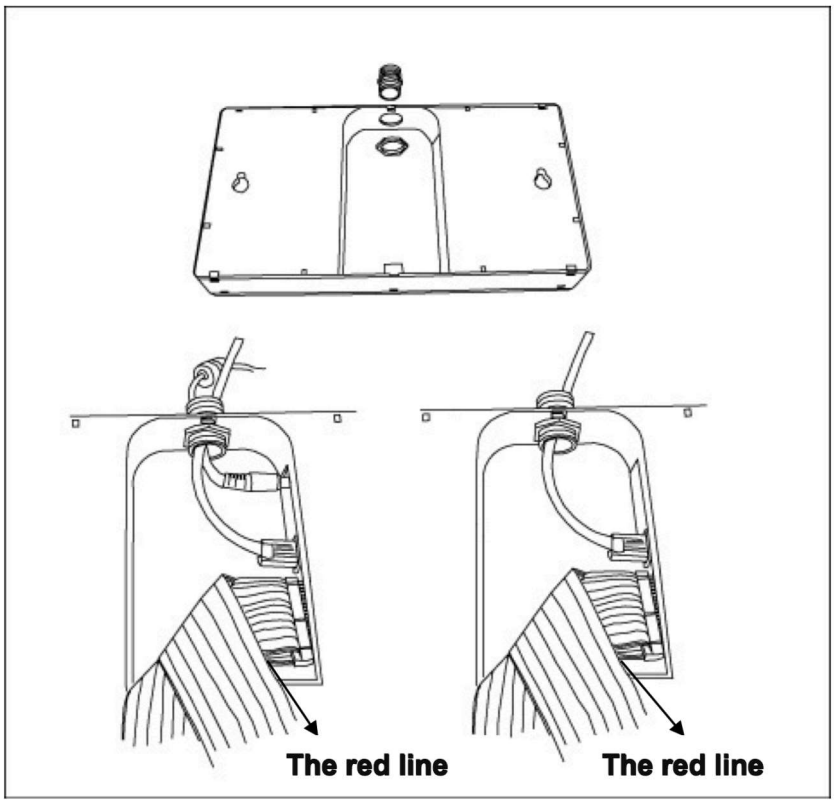
The detailed installation instructions are shown as below.

a. Remove the hole on the top of the single-sided clock.

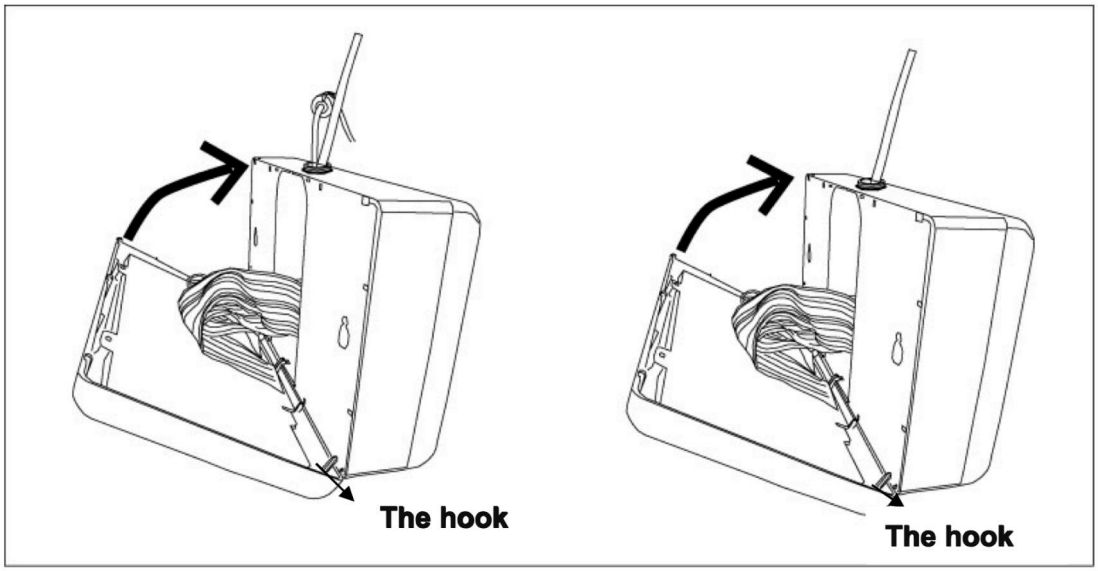


b. Install the metal accessories, then make the network cable go through the hole. Meanwhile, connect the multiple connector with another screen, as shown in the picture below.

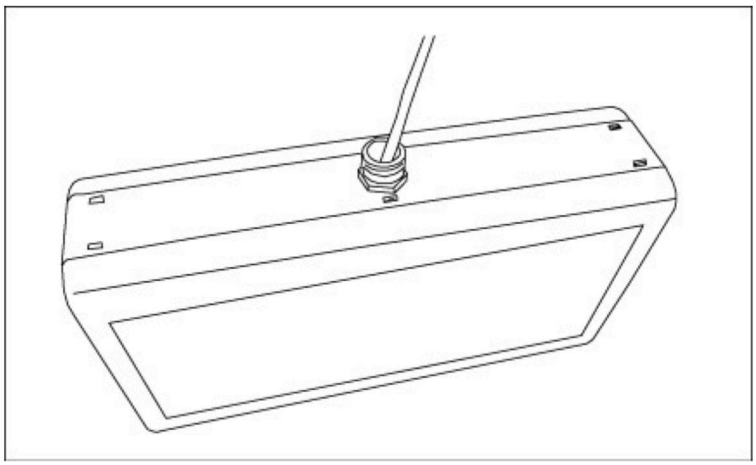
Note:
(1) The GlobalTime digital clock can be powered by two ways. One is PoE while another is adapter. You may select any one as you like. With PoE available, only one network cable is needed. Otherwise, both the network cable and an adapter are necessary.
(2) When connecting the multiple connector with another screen, please pay attention to the red line. It can not be put to the opposite direction.



c. There are three plastic hooks on the rear of the clock. Put the hooks into the corresponding holes on the clock and close it.



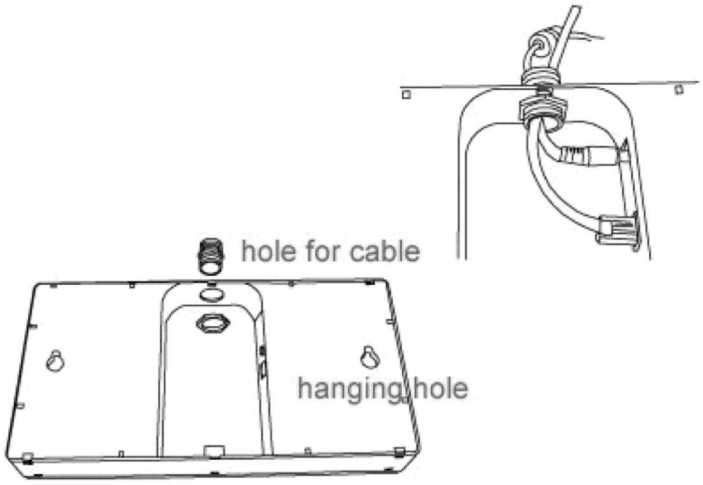
d. After the installation being finished the double-sided clock will just like what is shown below:



Note: In case you would like to separate the screen and the single-sided clock, please use special tools since the plastic hooks may not bear rough force. Any damage in that case is on the user's account.

3.5 Wall Mounting

Only screws are needed. See the picture below:



There is 248 millimeters between the two hanging holes on the clock rear. The diameter of the cantilever screw head should be within6-12 millimeters, and
the diameter of the screw stem less than 6 millimeters. Work will be done by hanging the clock on the screws.

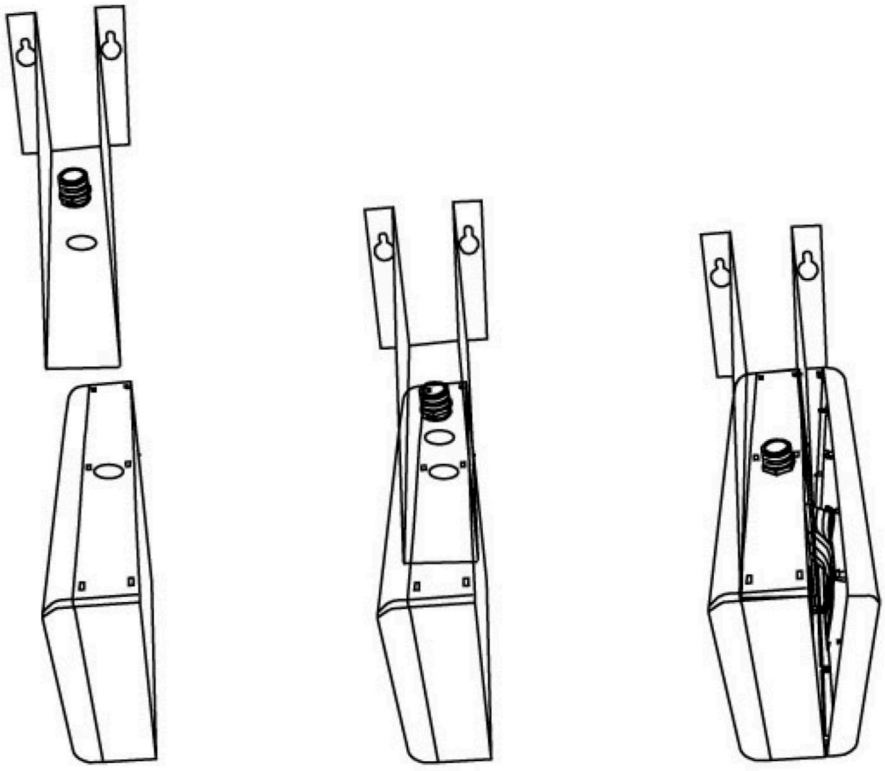
If the wall is newly decorated, please make sure that the cable required has been led out from where the clock screen is to be installed; If not, we suggest leading in the cable through the hole above the clock screen, and connect with the corresponding port.

3.6 Cantilever Mounting and Double-sided Display

The following steps are to be followed:

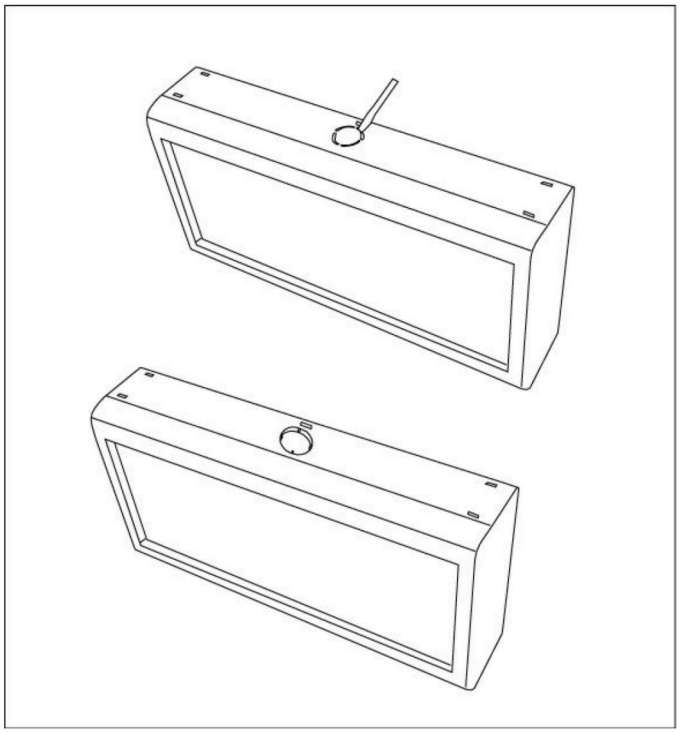
a. Remove the hole on the top of the single-sided clock.
b.Use the mental coupling of srew thread to fix the mental bracket on the top of the clock.
c. Make the cable go through the mental coupling to connect with the interface.
d. For double-sided display in this type, another display screen is needed.
Please observe the instruction in 3.4 (Watch the direction of the wire).

The following pictures are shown for reference.

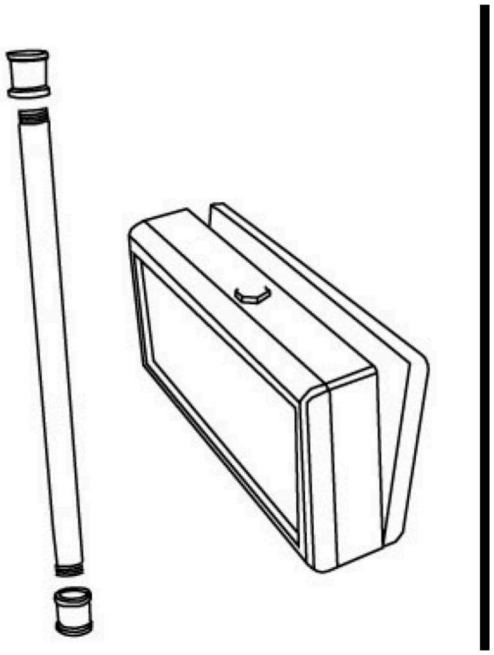


3.7 Pendant Mounting and Double-sided Display

In this type, the following steps are to be followed:
a. Remove the hole on the top of the single-sided clock.

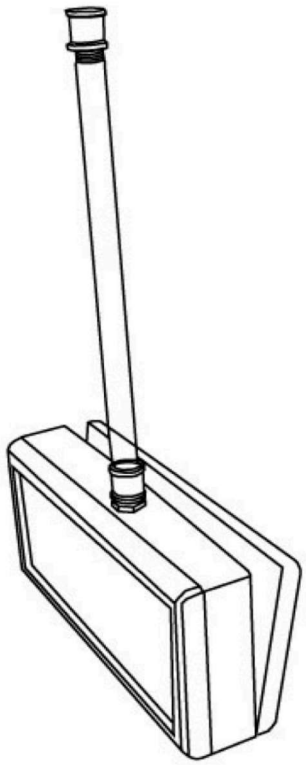


b. Take out the metal coupling and the nut at first, and install them on the top of the clock.



c. Then make the network cable pass through the pendant tube and the metal coupling; connect the cable with the interior interface of the clock screen.
d. For double-sided display in this type, another display screen is needed.

Please observe the instruction in 3.4(Watch the direction of the wire)



4. Operation Status

When powered up, the clock will go through:

- Self-Check
- IP address
- Time display

4.1 Self-Check

Self-check status aims to inspect whether all LED segments are in good condition.
The status lasts 10 seconds, showing 99:99,88:88...to 00:00.

4.2 IP Address

The clock is both DHCP and static IP addressable, and it is DHCP addressing in default way.
When powered up,
The clock shows “dHCP” first before getting the IP address.
If it fails to track DHCP server within the scheduled time, the screen will automatically display IP address as 192.168.2.55.

4.3 Time Display

At first the time is displayed as: 00:00+ time zone. If it is not synchronized
with the external time source, it will keep running based on this time zone.
After synchronizing with the network time server, it will display the correct local time.

5. Management Software

Please download the client software to manage the clock.

5.1 IP Search

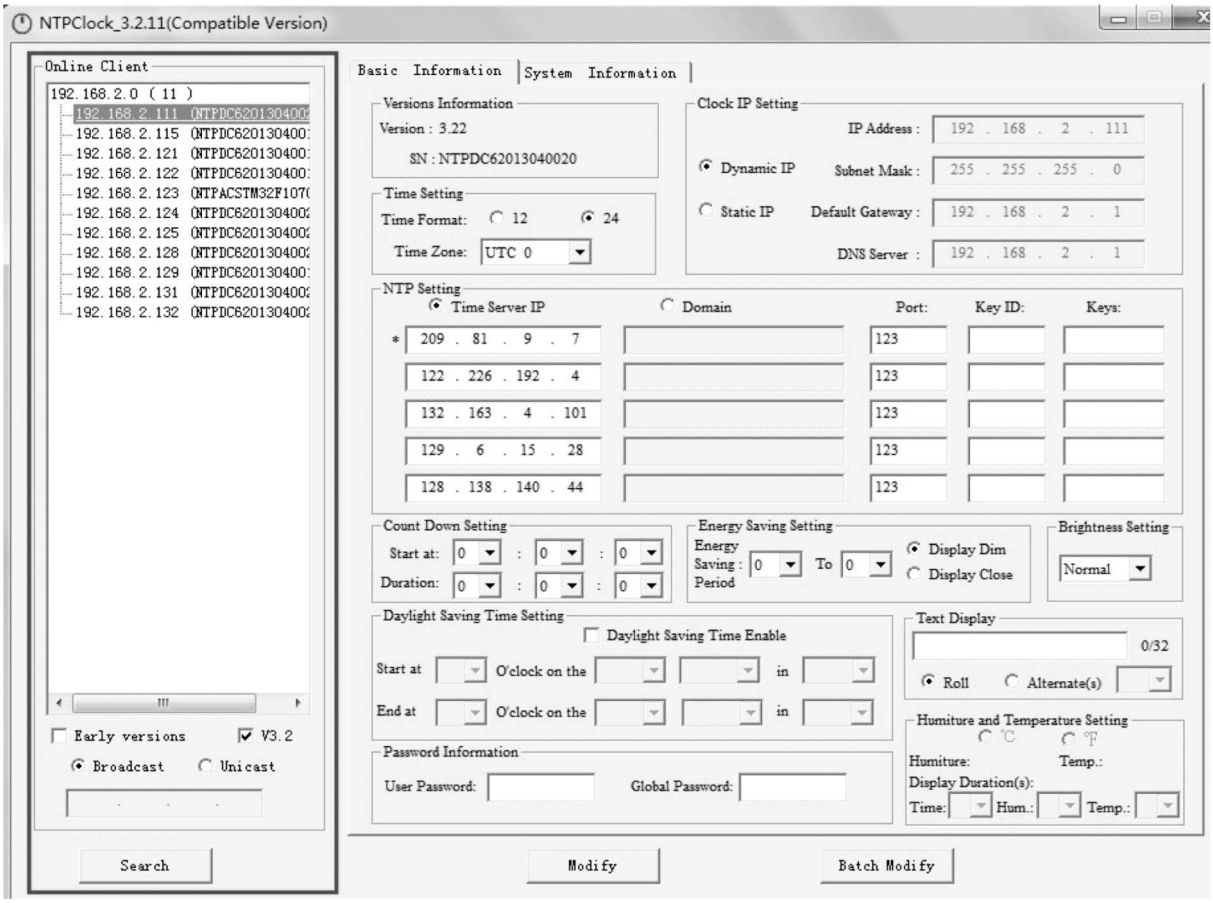
GlobalTime client software supports both Broadcast(255.255.255.255) and Unicast way to search online client clocks. Broadcast is the default way of search.

- Broadcast

Select *Broadcast*, and click S*earch,* the software will automatically search online clock in the subnet, and group IPs based on different subnets. The number in the Brackets shows the number of online clocks searched.

- Unicast

Select *Unicast*, and input initial IP you want in the bar, then click *Search*, the software will search from the initial IP to the last one. For example, to search all clocks in subnet 192.168.3.0, you can input 192.168.3.001, and the software will search one by one till 192.168.3.254.



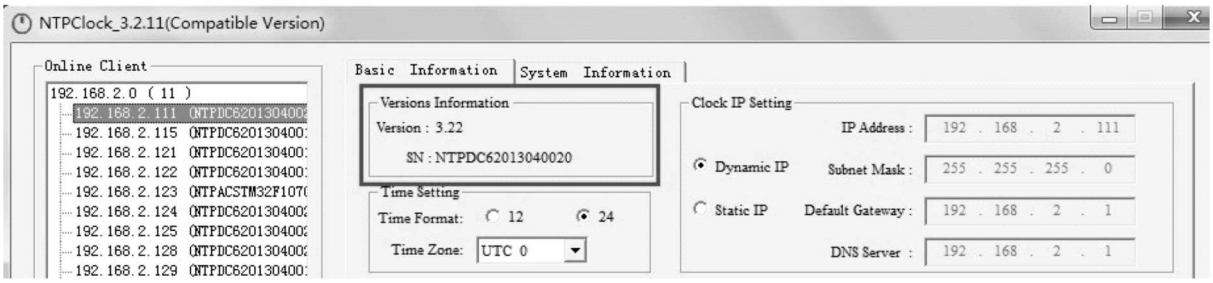
5.2 Basic Information and Settings

Click one IP on the left window, you can view basic information of each clock, and start necessary settings.

- ❖ To effect each setting, you need to input password. Default user password is “admin”.
- ❖ Global password is for batch modification. Default password is “ globalpw”
- ❖ The software will pop out a dialog to remind you a successful modification.

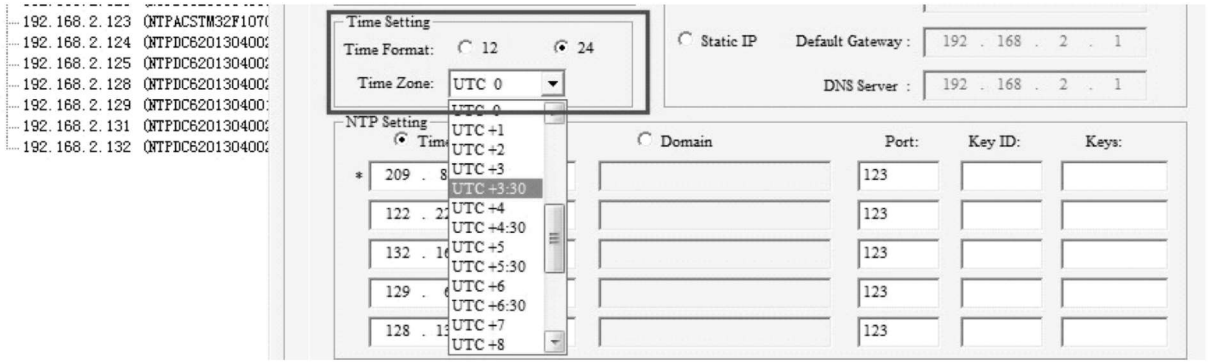
5.2.1 Version Information

Check the version and SN(serial number) of each clock.



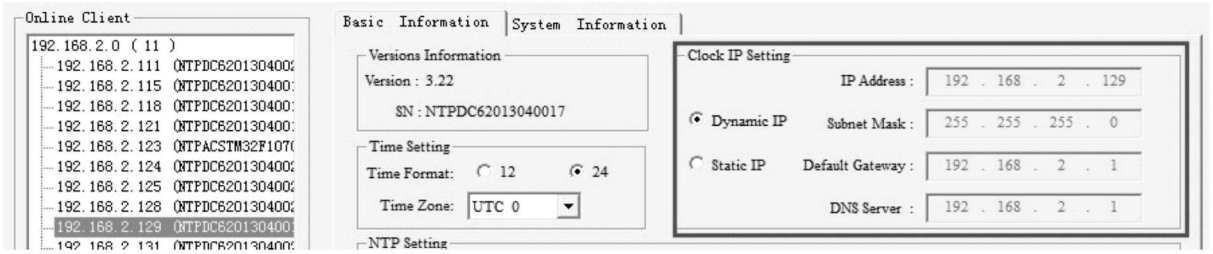
5.2.2 Time Zone and Time Format

Choose your time zone and time format 12/24.



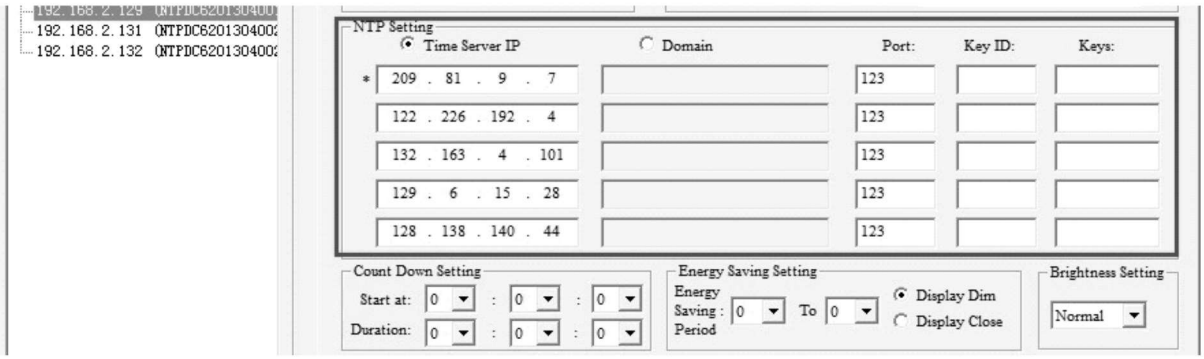
5.2.3 Static IP

GlobalTime clocks work with default DHCP mode. If you want to assign static IP for each clock, click S*tatic IP,* and input the IP you want to assign. Then, click *Search,* you will see the new IP.



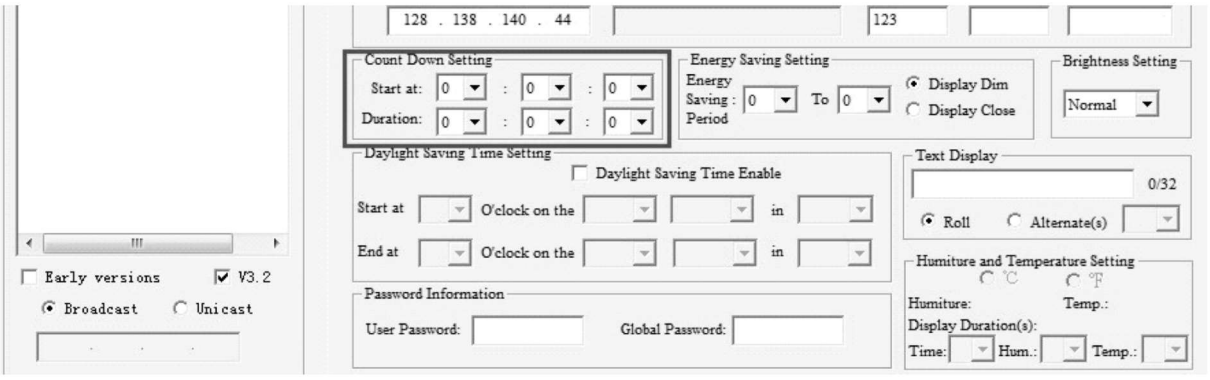
5.2.4 NTP Setting

You can view NTP server information.



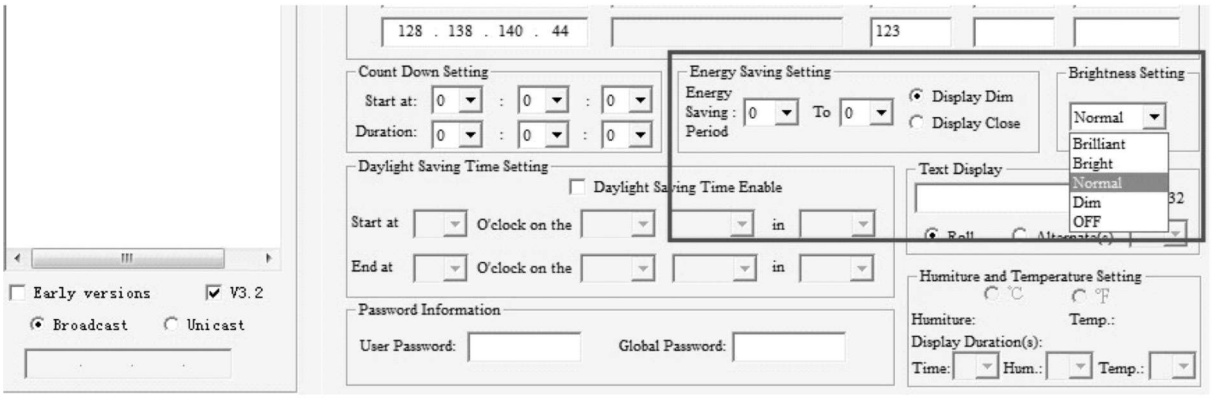
5.2.5 Countdown Setting(Optional)

GlobalTime clocks support countdown function. Please specify it with GlobalTime if you need this function.



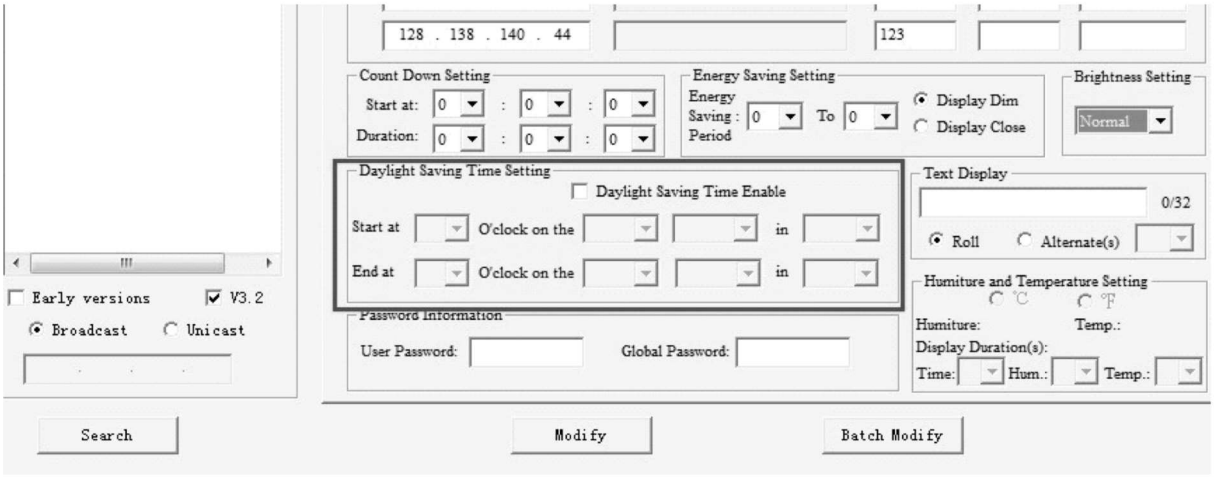
5.2.6 Energy Saving and Brightness Control

There are two modes to save energy, display dim or off. That happens after you specify a time period.
Besides, energy saving in specified period, you can control display brightness at 5 levels.



5.2.7 Daylight Saving Time

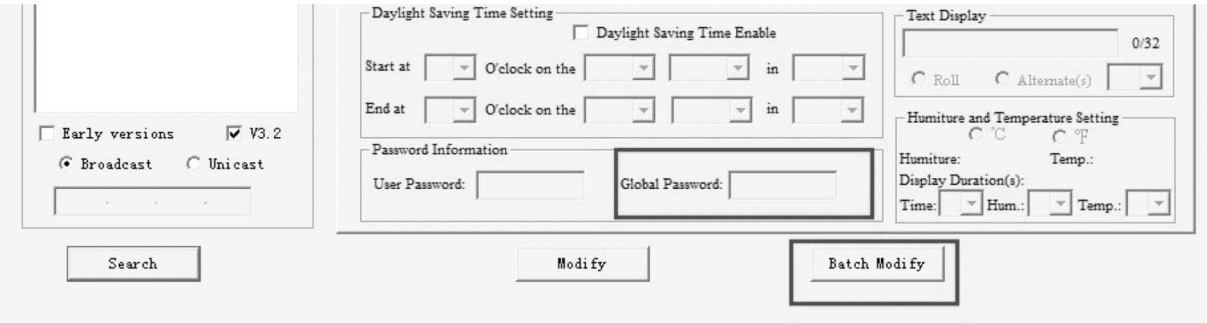
Effect DST bar, you can configure DST.



5.2.8 Batch Modify

If you want to batch modify all online clocks, you can select one IP on the left window, do a setting(for example, time format as 24h format), then input global password " globalpw", and click batch modify, all clocks under the same subnet will respond to the same setting.

The software will remind you how many clocks are successfully modified.

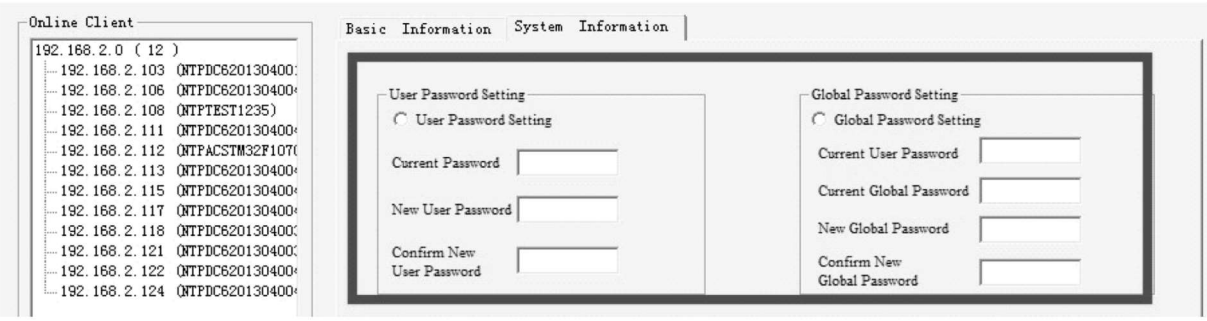


5.3 System Information

5.3.1 Password Setting

Select a clock IP, you can modify the default password under *User Password Setting and Global Password Setting.*

If you click *Batch Modify*, passwords of all clocks under the same subnet will be modified. The software will remind you how many clocks are modified.



5.3.2 Update Control

GlobalTime clocks support update through software.

- Click U*pdate Control,* and select the IP of the clock you want to update, then click *"..."* and find the update file we provide. After clicking *Modify*, this update process can not be stopped until it finishes. The software will remind you whether the update is successful.
- If you want to update all online clocks, you can choose the subnet, or the first IP under the subnet, and click *Batch Modify, the software will update downward one by one.*
- you can click *Break* on the right to break down the batch update process, , the software will stop update task after it finishes the present one.

6. Troubleshooting

6.1 The clock shows incorrect time.

Check the host IP configuration and make sure the network can communicate with the time server preset.

6.2 The display remains unchanged.

Check the condition of the button.

6.3 Display the default IP address

The host configuration is DHCP. Make sure the network support DHCP server. If the clock can not get the IP address from DHCP server for a long time, it will resort to the default IP: 192.168.2.121.

6.4 Some LED segments are dark.

Re-power the device. Check whether there are dark segments under self-check state. If there were,the clock needs to be returned to the manufacturer for repairing.

6.5 The client software fails to search the clock.

To make sure that the user’s computer and the clock are in the same subnet, and the firewall is set correctly.

6.6 The clock can not synchronize with any time server.

User should make sure that his network can visit Internet time source, and the time server has run its NTP service successfully.
We have a software to help user check whether a server has run its NTP service successfully.

6.7 The clock face is dark.

The clock applies POE technology, which gets power through the network. Make sure that the switches support POE.

6.8 The light at the bottom right corner illuminates nonstop.

This status indicates that the clock can not synchronize with the time server preset. Check the network configuration and the operation status of the time server.

7. Warranty and Maintenance

PT. YASA PERSADA DEWANTARA
http://yasapersada.co.id Email: info@yasapersada.co.id