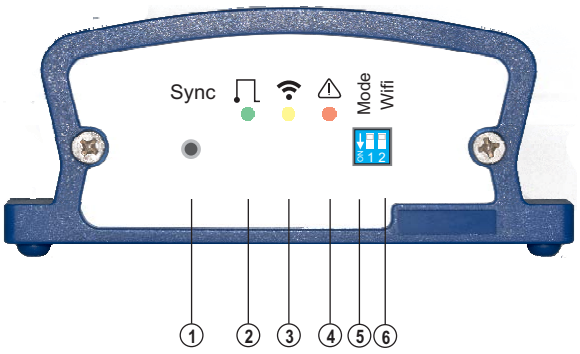
NTP-1000

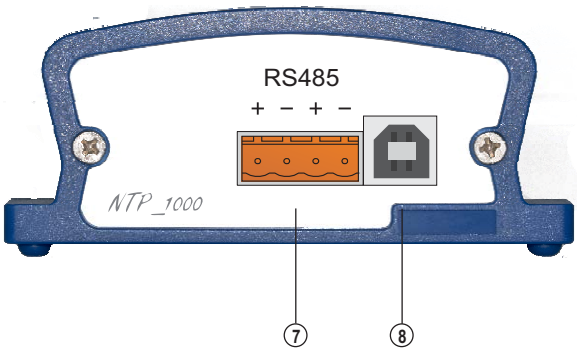
Time synchronization module

Description

The NTP-1000 module is a device designed for the hourly update from Internet NTP servers. specially designed to be connected to the **GD-1000 Message Generator.**

Controls and indicators



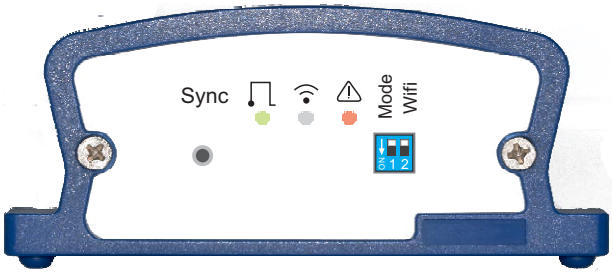


1. Sync button
2. Seconds indicator (Green)
3. Wi-Fi indicator (Orange)
4. Fault indicator (Red)
5. On/Off device operation switch
6. On/Off Wi-Fi switch
7. RS485 Connection
8. USB input for power supply.

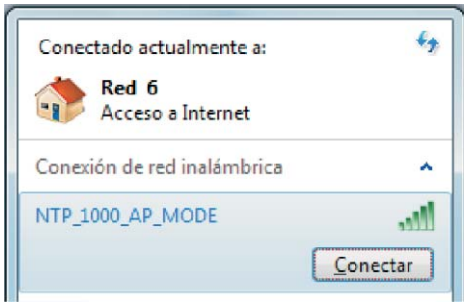
Initial configuration

- With the device disconnected from the power supply, put the two front microswitches in the “OFF” position facing up.

  Connect the power cable to the device. The green clock signal indicator light (located on the left) should be flashing intermittently, and the red indicator light (located on the right) will also light up, indicating that there is no Internet connection

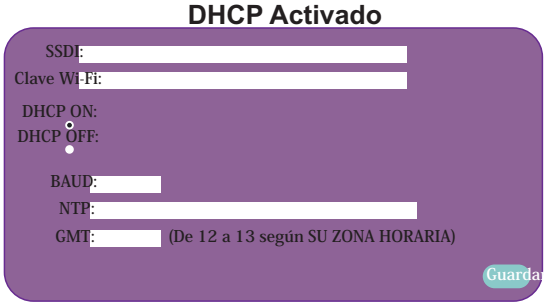


- From a computer with Wi-Fi network interface, we will search and connect to the Wi-Fi network called "NTP_AP_MODE", enabled by the NTP 1000 device, for which the password "ADMIN_NTP1000" must be entered. The device itself will deliver to the computer an IP address in the range 192.168.4.XXX, using DHCP protocol, to ensure its connectivity with the device.



- In this screen we will define the name (SSDI) of the Wi-Fi network to which we want to connect the device (you must have access to the Internet), the access password to it, the IP configuration mode (DHCP ON = IP supplied by the network, DHCP OFF = IP configured by the user), the server to synchronize the time from the Internet (default server: europe.pool.ntp.org), and the time zone we are in (usually 1 on the Peninsula, 0 in the Canary Islands After defining these parameters, press the “Save” button

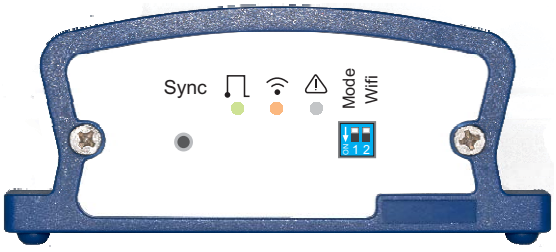
DHCP Activado



DHCP Desactivado

- Turn off the power of the device and change the front microswitches to the “ON” position (down)

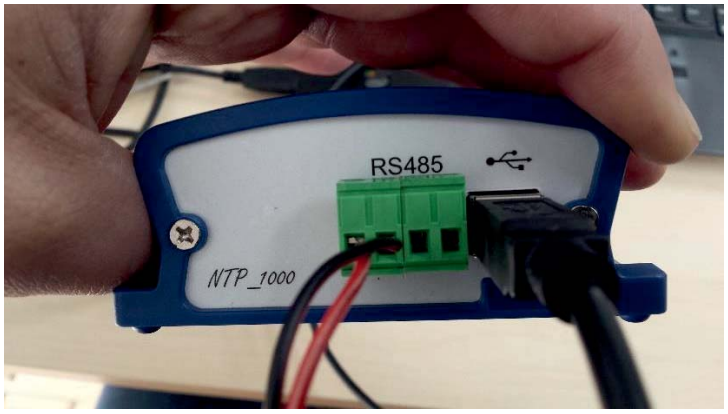
- Reconnect the power of the device, and if all the configuration has been correct, after a few moments the green LED (left, flashing), and the yellow LED (center, fixed) should be illuminated indicating the Wi-Fi connection. If there is Internet connectivity, the red LED (right) must remain off.



- Once this status of the NTP 1000 device has been reached, we can connect it to our GD-1000 to guarantee the correct time synchronization of it.

Operation mode

- One of the RS-485 interfaces of the NTP-1000 is connected to one of the RS-485 interfaces of the GD-1000, respecting the wiring polarities at each end.



- Although the device is programmed to perform the GD-1000 time synchronization from the Internet server at 3:00 a.m. every day, we can force such synchronization at any time by pressing the "Sync" button located on the left end of the front panel. In either case, during the synchronization time we will see on the screen of the GD-1000 the message shown below.

- After synchronization, the GD-1000 screen will return to its initial status, showing the updated date and time.