

LEDI[®] PILOT Box

Programmer
USER GUIDE



IMPORTANT SAFETY INSTRUCTIONS



WARNING! The following section provides the safety instructions for installation. Please read it carefully before installing your device.



To protect your device, plug it into a grounded outlet.



The device must be connected to an electrical installation which is in accordance with the NF C15-100 standard.



The wiring installation must include an easily accessible breaking device (circuit breaker or disconnecting switch). This device must withstand the nominal voltage and current values indicated on the device.



In Europe: in accordance with European regulations on the protection of individuals and the environment, it is your responsibility to dispose of this equipment at a collection site designed for this purpose (separately from household waste). For further information, contact your reseller, your collection site or the relevant local authorities.



Any modification or opening of the product without the consent from the Customer service department will void the warranty.



LEDI® PILOT Box must only be installed, maintained and handled by competent and knowledgeable persons



All maintenance operations must be carried out with the power off, including for systems connected to any relay outputs.



As a general rule, to avoid any interferences, the power (230V supply) and signal (time information) cables must not be too close to each other. (keep a few centimetres apart)



CAUTION! After unplugging the **LEDI® PILOT Box**, there is a risk of electric shock from the power connector/plug socket for up to 2 seconds.



To avoid the risk of electrical interference, position the **LEDI® PILOT Box** as far as possible from sources of radiation (Loudspeakers, antennas, high-frequency equipment, electromagnetic alarms...).



Gorgy Timing disclaims all liability in the event of accident or damage caused by improper use of **LEDI® PILOT Box**.

The equipment is protected by a protective ground.

All GORGY TIMING products comply with the following standards: CE, EN62368, EN55022, EN50034.

EXPLANATION OF SAFETY SIGNS ON THE PRODUCT



General hazard – there is a risk of damage to the product if instructions are not followed



Electrical hazard – there is a risk of electrocution or personal injury if instructions are not followed.



Fully protected by double insulation

Warnings

Please follow the precautions and instructions indicated below in order to ensure the safety of you and your environment, and to prevent any potential damage to your device.



WARNING: An isolating switch in compliance with EN60947 standards is used as a disconnecting device. It must be easily accessible and installed close to the power supply. It must disconnect all active poles.



LEDI® PILOT Box is intended for indoor use only, at an altitude of less than 2000 metres.

Élimination des déchets par les utilisateurs dans les ménages privés au sein de l'Union Européenne

Waste disposal by users in private households within the European Union



This symbol on the product or its packaging indicates the product must not be disposed of with your general household waste. Instead, it is your responsibility to dispose of your waste by taking it to a designated collection point for the recycling of electrical and electronic appliances.

The separate collection and recycling of your waste contributes to the conservation of natural resources and helps to ensure that recycling is environmentally and health friendly. For more information about your nearest recycling centre, please contact the shop where you purchased your device, the household waste disposal services or your local authorities

Technical features LEDI® PILOT Box item code 92234

Power supply	PoE standard (PoE + compatible)	IEEE 802.3af
Dimensions	Length	220 mm
	Width	144 mm
	Height	47mm
Operating conditions	Operating Temperature	0°C to +50°C
	Storage Temperature	-20°C to 70°C
	Humidity (non condensed)	90 %

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LEDI® PILOT Box is a programmer connected to the computer network.

It can be configured and supervised by Ethernet network. It can manage relays for ringing, lighting, etc.

SUPERVISION

- ▶ Communication over Ethernet network, easy configuration via web page
- ▶ Protocol integrated SNMP V1, V2.c et V3 supervision

SECURITY

- ▶ Time memory by electrical capacity
- ▶ Saving configuration settings to flash memory
- ▶ Encrypted and/or disable network features

FEATURES

- ▶ Automatic time setting at power-up (according to NTP configuration)
- ▶ Automatic summer/winter time changeover for relays
- ▶ Calendar programmable relays
- ▶ Scheduling of national holidays and public holidays
- ▶ TCXO crystal oscillator, time base accuracy of 1sec/day from 0°C to 40°C

KEY POINTS

- ▶ Configuration via webpage
- ▶ Compact product
- ▶ Exception management, ON/OFF or timer operation.
- ▶ Supervision via http, SNMP
- ▶ Program security provided by saving parameters in flash memory

SYNCHRONISATION INPUT

- ▶ NTP on Ethernet 10/100Base T (RJ45 port).

POWER SUPPLY

- ▶ PoE (Power over Ethernet)

PROGRAMMER

- ▶ **LEDI® PILOT Box** allows the programming of 4 relays. Exceptions can be added for national holidays and public holidays. It operates in time-delayed mode or in ON/OFF mode.
- ▶ Simplified programming by calendar
- ▶ 4 independent relays, voltage free output, 250 volts breaking capacity
- ▶ 8 A or 12 A in option

PORT

- ▶ NTP PoE by Ethernet
- ▶ The relay output(s) are 8pts Phoenix connectors

OPERATION OF LEDs or indicators

- ▶ LED POWER LED remains lit when power is applied.
- ▶ LED DATA and PoE input flash at start-up and during network communications

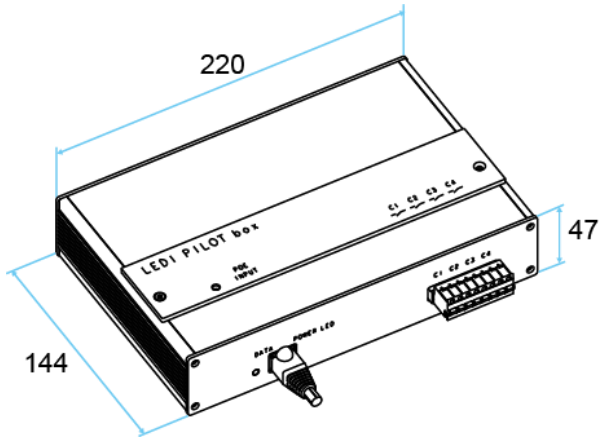


SPECIFICATIONS

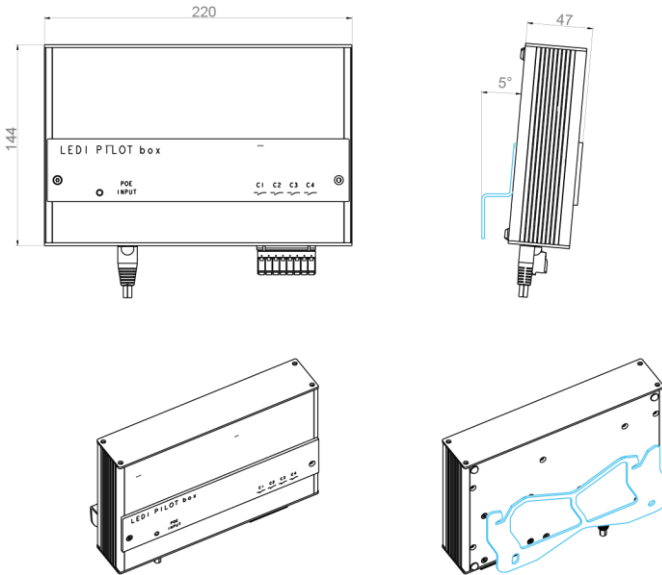
Power supply	PoE (Power over Ethernet)
Certifications	CE, EN 60950 (safety), EN 55022 (EMC emission), EN 55024 (EMC immunity)
Maximum consumption	2,5W + 0,2W per closed relay
IP	IP40 – IK9
MTBF	40 000h
MTTR	5mn
Weight	0,6kg
Dimensions	L 220 X H 144 X D 47mm
Casing	Aluminium
Display	LED operation indicator
Operating temperature	0° to 50°C
Storage temperature	-20° to 70°C
GT pilot box software	Windows XP SP3, Server 2003 SP1, Vista, 7, 8 or 10

DIMENSIONS

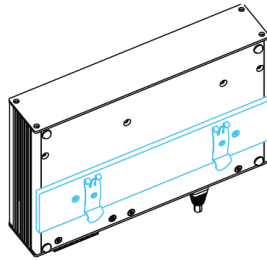
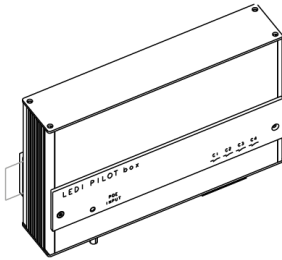
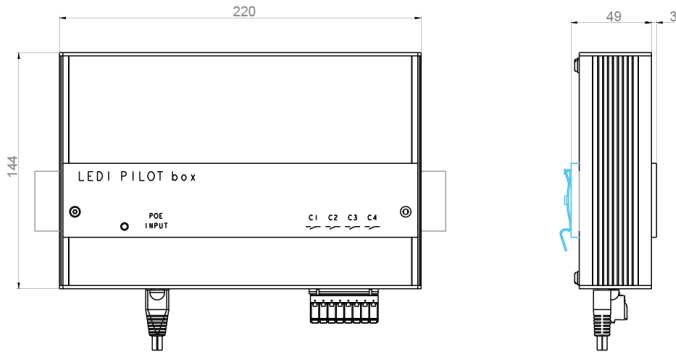
Table top mounting



Wall mounting



Mounting for electrical cabinet



2.2. PRODUCT CONNECTION

It is strongly recommended that the serial number (on the identification label), location and a brief description of the device be noted separately. This can be done using the table in **Annexe A – 6.1. Installation view**.

- ▶ Connect the Ethernet cable to the RJ45 port on the front panel.



2.3. NETWORK CONFIGURATION

By default, the system is configured to obtain its IPv4 and IPv6 addresses by DHCP server. If such a server is present on the network, the server is immediately accessible.

Gorgy Timing advises you to make a note of the location of each device (e.g. "Server Room 1"). This is possible using the GT Network Manager 2 utility. It is also possible to use GT Network Manager 2 to detect the product on the network and know its IP address.

If you have several devices to install, it is highly recommended to use the attached document in **Annexe A – 6.1. Installation view** to record the serial number and physical location of each device during installation for future reference.

2.3.1. By default configuration

LEDI® PILOT Box is configured to automatically retrieve an IP address from a DHCP server. At start-up, the product issues DHCP requests to obtain an IP address: it sends requests to obtain IPv4 and IPv6 addresses. These requests can contain a DHCP name that allows the server to remember the name/IP address combination.

Two possible cases:

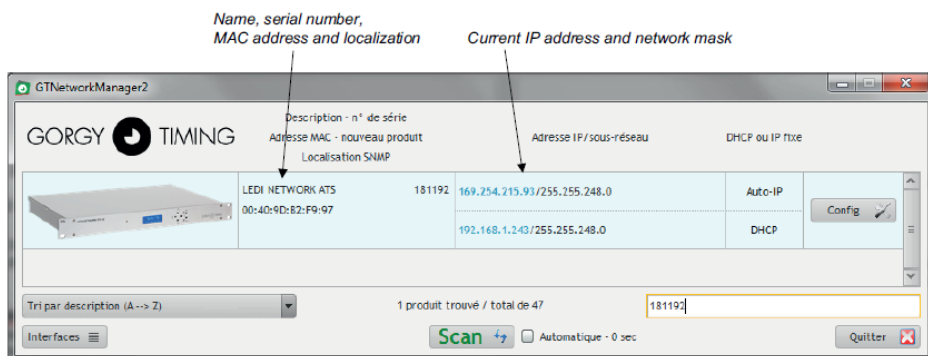
- ▶ If a DHCP server is installed on the network, it returns an IP address. **LEDI® PILOT Box** starts working with this address.
- ▶ If no DHCP server is installed, **LEDI® PILOT Box** automatically uses a random IPv4 address in the range 169.254.xy (where x and y are between 0 and 255) and an IPv6 address calculated from its MAC address.

The default SNMP name of the product (visible from an SNMP file or a web browser) is **LEDI NET**

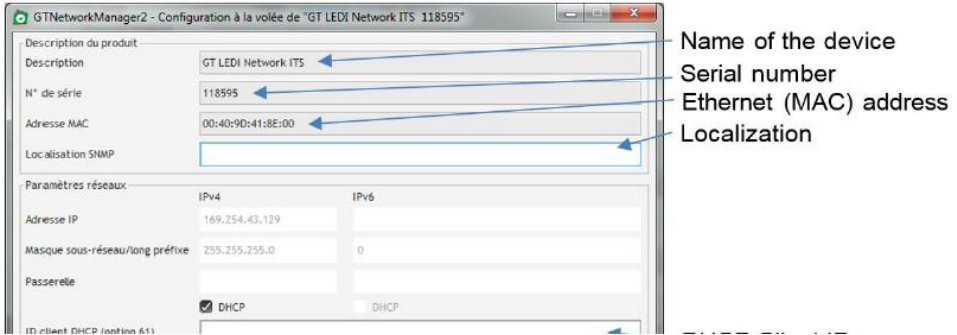
2.3.2. Change network parameters

Use GTNetworkManager 2 to configure:

- ▶ 1 / Download and start the GTNetworkManager 2 tool from the GORGY TIMING website: www.gorgy-timing.fr/172-logiciels.htm
- ▶ 2/ GTNetworkManager 2 automatically displays the Gorgy Timing products installed on your network. Each line contains information about a connected product as shown below:



- ▶ 3/ Double-click on the line associated with the product to be configured. The following panel is displayed:



- ▶ Set the network and physical location parameters and click OK.

2.3.3. Integration in your network

A static IP address must be set if there is no DHCP server on the network or if there is no IP address available for the product.

Some DHCP servers have the ability to register the device in the DNS. In this case, the registered name is the DHCP ID. You can then access the device from any web browser or SNMP with its DHCP ID. For example, if the DHCP name ntpsrv1 is assigned to **LEDI® PILOT Box**, simply enter "ntpsrv1" in the address field of the web browser.

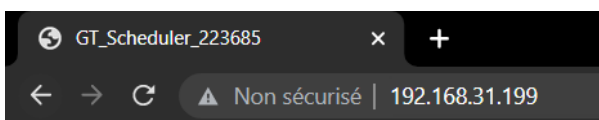
If you have more than one product to install on your installation, it is highly recommended to follow the following steps:

With PC **with GTNetworkManager 2** connected to the same network where the products started, all GT products should appear with their serial numbers. Define the network setting and location using the document filled in the previous step.

3.1. MAIN WEB PAGE

Many product parameters can be configured through the product's built-in web interface. For clock group configurations, you can also use the dedicated GTNetConfig program (see GTNetConfig User Manual for more information)

- ▶ To access the embedded web page, open your web browser (Firefox, Chrome, Internet Explorer...), and enter the IP address of the product.



NB: By default, the product will request an IP address from a DHCP server. It always keeps an Auto-IP address (169.254.x.y/16) and a Link-Local IPv6 address (fe80::/64).

To easily detect the GORGY-TIMING products in your network, you can use the GTNetworkManager2 program.

- ▶ When you enter the product's IP address in a web browser, you are asked for a username and password.

Upper and lower case letters are taken into account.

By default, the identifiers are:

Login: root

Password: gtm

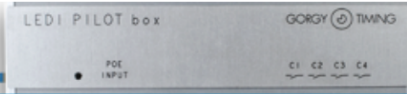
Connexion

http://192.168.31.199

Votre connexion à ce site n'est pas privée

Nom d'utilisateur

Mot de passe



- Home
- Ethernet Network
- Security
- Time Input
- SNMP Settings
- Relays Settings
- Firmware Update
- Factory Default
- Reboot
- Logout

Home

Welcome to the LEDI PILOT box management and configuration web interface. You can use the navigation menus on the left to access additional pages.

Product: LEDI PILOT box
Serial Number: 223685
Connectivity: Ethernet
Options: BUTTONS
Up Time: 1 day(s), 00:08:33
Battery State: High
Ethernet IP Address(es): 169.254.46.53/16
 192.168.31.199/23
 fe80::d636:39ff:fe1c:6fe3/64
Ethernet MAC Address: d4:36:39:1c:6f:e3
Ethernet Network State: Wired to network since 10/12/2022, 10:04:53 AM
Synchronisation State: Not synchronized
Webserver Protocol: HTTP/HTTPS
Internal Time: 10/13/2022, 10:13:00 AM (LOCAL)
 10/13/2022, 8:13:00 AM (UTC)
Output Time: Output disabled
Firmware Version: 116.1.3.3 / 10100116



The main web page displays generic product information including:

- ▶ **Product Name and Serial Number:** to identify the GORGY-TIMING product and its options.
- ▶ **Operating time and internal time:** how long the product has been running and its current time (UTC and local time (according to the time zone of the web browser)).
- ▶ **IP Addresses:** The product can have up to 4 IP addresses: 1 Auto-IP, 1 IPv4 (DHCP/Static IP), 1 IPv6 Link Local and 1 Global IPv6 (DHCP/SLAAC/Static IP) displayed with their subnet mask in CIDR notation.
- ▶ **MAC Address:** MAC address of the product's network interface.
- ▶ **Ethernet Network state Synchronisation state:** shows how long the product has been connected to the network and/or synchronised.
- ▶ **Firmware Version and Change Log:** the software version of the product and a history of software changes and improvements that can be viewed directly from the product.

To configure the product, navigate with the tabs on the left side of the product.

It is possible to change the language of the web interface at any time by clicking on the flag.

3.2. ETHERNET NETWORK WEB PAGE

Ethernet Network Settings

IP Settings: Automatic Settings (DHCP) Manual IP Settings

IPv4 DHCP IPv6 DHCP IPv4+IPv6 DHCP

DHCP Ident:

IPv4 Gateway

DNS Server(s)

Disable Network Detection Protocol (ENDMI)

This page allows you to change the network configuration of the product. The automatic configuration by DHCP is used by default but it is also possible to specify a static IP address (manual IP settings option) together with the subnet mask and the gateway. In Static mode, a gateway and DNS server must be specified. If the network does not have these machines, the main time server address can be used.

The product supports IPv4, IPv6 or both.

The ENDMI protocol allows the discovery of Gorgy-Timing clocks and servers on the network. The protocol support can be disabled on this page. The product will then no longer be seen by the GTNetworkManager software.

Ethernet Network Settings

IP Settings: Automatic Settings (DHCP) Manual IP Settings

IPv4 Settings

IPv6 Settings

IPv4 Address IPv6 Address

IPv4 Subnet Mask IPv6 Subnet Mask

IPv4 Gateway IPv6 Gateway

DNS Server(s)

Primary Server

Secondary Server

Disable Network Detection Protocol (ENDMI)

3.3. SECURITY WEB PAGE

Security Parameters

Web Server Security


Webserver Protocol: HTTP HTTPS HTTP/HTTPS


Website Credentials: User: Password:

Other Security Parameters

System Credentials (FTP/SSH): System User: System Password:

Disable FTP: Enable SSH (until next restart):

Remote Syslog Server Address: Port UDP 514  Syslog Logfile

Enable Cron (Recurrent script launch):  Cron Logfile

To disable ENDMI (Gorgy Timing product detection protocol), go to the network configuration page.

This page allows you to adjust the security level of your GORGY-TIMING product.

- ▶ You can set the web page access protocol to HTTPS only, change the web or system credentials (FTP,SSH) or disable/enable FTP or SSH access.
- ▶ You can also set up the Syslog report to be saved on a Syslog server or just read the report saved in the product.

3.3.1. Secure Shell (for advanced users)

A. SSH access

Pour activer l'accès SSH, on doit cocher la case correspondante dans la Page Web Sécurité.

To enable SSH access, check the corresponding box in the Security Web Page

The default password is the same as the FTP password: GT_Tablet / gtabletd. It can also be changed on the Security web page.

B. Main command

The product is based on an optimised version of the Linux Kernel. It uses a large number of tools classically present in a POSIX environment.

So for more information on the commands and options available, please turn to the POSIX command man page or try using the --help argument after the command.

- ▶ **busybox**: As in many embedded systems, in order to reduce memory usage, some basic applications are replaced by equivalents stripped of the least used functionalities. Busybox thus makes it possible to provide basic POSIX functions without using too much memory space.
- ▶ **date**: displays the system time (in UTC).
- ▶ **get_sysv_info**: displays information about the configuration blocks used by the product and the status of the write/read permissions on these blocks (mutex).
- ▶ **hostname**: displays the full product name: product type + serial number.
- ▶ **ip address**: command to display all IP address configurations present on the product.
- ▶ **ip route**: command to display all IP routing configurations present in the product including gateway information.
- ▶ **nslookup <nom DNS>**: allows you to test the DNS name resolution by the product.
- ▶ **ntpq**: allows to communicate with the NTP daemon used by the product. The ntpq -p command can be used to display a list of the NTP servers currently configured in the product and a lot of information about the quality of the synchronisation. See ntpq --help for more information.
- ▶ **ping <adresse IP>**: allows you to do a network communication test to see if the clock can communicate with a device on the network.
- ▶ **ping6 <adresse IP>**: the same functionality as ping but with the IPv6 protocol.
- ▶ **ps**: displays the list of processes currently running in the product.
- ▶ **top**: displays information about the use of system resources (CPU, RAM) and processes currently running on the product.
- ▶ **uptime**: time since product start-up.
- ▶ **users**: lists the users who have logged on to the product.

In a generic way, the applications present in the /usr/bin folder (except for the programs implemented by Busybox) are specific programs for the GORGY-TIMING product.

In order to avoid any problems resulting from the misuse of these programs which could lead to errors in functionality or, in the worst case, system corruption, we strongly advise against using any application not documented above.

3.4. TIME INPUT WEB PAGE

is page allows the NTP client to be configured to receive time information from one to four NTP servers. IP addresses and server names (requires the use of a DNS server) can be used. MD5 authentication is also available to authenticate NTP packets.

A log file of the NTP synchronisation since the start of the product is available in text format.

In addition, the NTP client can be disabled to set the time and date manually (stand-alone operation).

***N.B: Please note that the product only deals with times in UTC,
(international reference time).***

***In France, in summer time, legal time is 2 hours ahead of UTC.
in winter time, legal time is one hour ahead of UTC.***

Time Input Settings

Autonomous Mode

Disable NTP synchronization (Autonomous Mode)

Internal Time (UTC) : Day Month Year Hour Minute Second

This date is in UTC. In summer, it is 1 hour less than the United Kingdom time.

NTP Settings

Polling Rate

Use bursts instead of single

request (better synchronisation):

Respect servers list order

for synchronisation:

Force synchronization on first

enabled server in case they differ



[synchronization log](#)

Get NTP servers from DHCP

Disable timegap security (SNTP)

Synchronization Information

remote	refid	st	t	when	poll	reach	delay	offset	jitter
*192.168.10.203 .GPS.		1	u	14	128	377	1.362	-0.055	0.054
+192.168.10.202 .GPS.		1	u	47	128	377	1.417	-0.125	0.031

3.4.1. NTP configuration options

- ▶ **Polling rate:** If the default value is auto, the frequency of NTP requests is calculated automatically to ensure good synchronisation while limiting network traffic. It is possible to manually specify the rate at which queries are sent from one query per minute to one query every 16 minutes.
- ▶ **Grouped requests (burst):** When enabled by default, the product sends multiple packets at the same time rather than one at a time in order to have a greater tolerance to network latency variations. This option also allows you to exclude extreme values from NTP packets. Leave this option enabled unless you have network congestion problems.
- ▶ **Respect de servers list orders:** activated by default, the NTP client chooses the first server in the list that responds correctly to its requests.
To do this, the NTP client sends NTP packets to all list servers to monitor the integrity of the received time. If the option is not enabled, the NTP client will automatically elect a time server based on the Stratum, offset, jitter and delay data. In this case, changes to the timing source may occur, as each server may be elected in turn.
- ▶ **Force synchronization on the first enabled server in case they differ:** disabled by default. Enabling this option will force the synchronisation to the first server in the list, even if it is out of sync with the other servers.
In the case of two synchronisation servers, if the times received are different, the NTP client cannot elect a server. If the option is disabled, the product will reject both servers, preferring not to synchronise rather than retrieve the wrong time information. If the option is enabled, the first server is elected as the synchronisation source. Only enable this option if the first server is a known reliable time source.
- ▶ **Get NTP servers from DHCP:** activated by default. The DHCP in addition to providing the basic configuration of the network (IP address, Mask, Gateway, DNS server...) can also provide automatically the list of NTP servers of the site (IPv4, IPv6 or domain name). For this, it uses option 42 available on many DHCP servers (Windows Server, Linux dnsmasq or ISC DHCP...). Once this option is configured in the DHCP server, the clocks in DHCP with this option activated will be configured automatically and will synchronise themselves, thus facilitating commissioning and also maintenance (modification of an NTP server only on the DHCP server which will propagate the information to the products).

When the product's NTP configuration is enabled with this option checked, the product will make a DHCP request to retrieve information from DHCP servers. This option will of course only work if the DHCP option is enabled on the product in the "Network" page.

N.B: To fill in the IP addresses of the NTP servers manually, you must disable this option, which will make the fields appear on the web page.

- ▶ **Disable timegap security (SNTP):** by default. The classic NTP client NTPv4 performs time corrections by progressive sliding. Enabling this option changes the protocol used by the NTP client (it is no longer NTPv4 but SNTP). SNTP is less accurate but more tolerant of NTP servers that are inaccurate or prone to disruption (e.g. Windows Server or pool.ntp.org) or only support SNTP. This will force a period between requests of 4 minutes, without burst requests and respecting the order of the servers.



At the bottom of the page you will find more detailed information about the NTP servers and the synchronisation process.

To indicate the status of a time server, there may be different symbols preceding its IP address:

- ▶ *****: The asterisk before the IP address indicates that this server has been chosen as the synchronisation source by the NTP client.
- ▶ **x**: the 'x' before the IP address indicates that this server is excluded from the list of available servers.
- ▶ **+**: the '+' before the IP address indicates that this server has been chosen as a secondary (backup) synchronisation source by the NTP client and can therefore be used as soon as the main source becomes inaccessible.
- ▶ **" "**: The space before the IP address indicates that the server is in the list of available servers (so NTP packets are sent to it) but that it has not been chosen as the synchronisation source.
- ▶ **refid**: acronym from 0 to 4 letters meaning "Reference Identifier", it identifies the source of the time server synchronisation (GPS, IP address of another NTP server, PPS, DCF...)
- ▶ **st**: "Stratum", is a step that indicates whether the time server is close to an atomic time source. The values vary from 1 (connected directly to an atomic clock) to 16. A value of 16 usually indicates a server that is not accessible or has synchronisation problems.
- ▶ **t**: "Type" of NTP packets used by the product. GORGY TIMING products use unicast ('u') mode, other modes are broadcast ('b') or multicast ('m').
- ▶ **when**: indicates the time in seconds since the last NTP packet was sent.
- ▶ **poll**: stands for 'Polling Rate', this is the period between each NTP request.
- ▶ **reach**: status in left-shifted octal notation indicating whether an NTP packet has been lost. When all packets have been successfully transmitted, the value is 377.
- ▶ **delay**: The round-trip delay in milliseconds of the exchange of an NTP packet between the server and the NTP client. (similar to ping)
- ▶ **offset**: is the difference in milliseconds between the internal system time and the NTP server time.
- ▶ **jitter**: variation of the time information delivered by the time server. A low jitter corresponds to a very stable and accurate synchronisation.

3.5. SNMP SETTINGS WEB PAGE

SNMP Settings

 [SNMP logfile](#)
 [Product MIB](#)

System Information		
Product Name:	<input type="text"/>	Product Location: <input type="text"/>
Contact:	<input type="text"/>	Product Description: LEDI NET
Disable SNMP write <input type="checkbox"/>		

SNMP v1/v2c Credentials	
Community:	<input type="text" value="public"/>
<small>Leave empty to disable v1/v2c support</small>	

SNMP v3 Credentials	
User:	<input type="text"/>
<small>Leave empty to disable V3 support</small>	
MD5 Authentication Pass Phrase:	<input type="text"/>
<small>Leave empty to disable authentication and privacy support</small>	
AES Privacy Pass Phrase:	<input type="text"/>
<small>Leave empty to disable privacy support</small>	

Trap Generation		
Mode	Address (IPv4/IPv6)	Port
Disabled	<input type="text"/>	162
Disabled	<input type="text"/>	162
Disabled	<input type="text"/>	162
Disabled	<input type="text"/>	162

This page allows you to configure the settings of the SNMP (Simple Network Management Protocol) monitoring server).

- ▶ **System information:**
The fields "Product name", "Contact", and "Product location" are used for product identification. N.B.: The value "LEDI NET" in the "Product description" field is necessary for compatibility with Gorgy-Timing software. Do not modify it if you use the latter.
- ▶ **SNMP v1/v2c Id:**
You can indicate the community name of the product. This acts as a password (transmitted in clear text). Only devices indicating this community name can communicate with the product using SNMPv1 or SNMPv2c protocol.
- ▶ **SNMP v3 Id:**
 - ▶ The product supports the SNMPv3 protocol allowing authentication and/or encryption of SNMP packets. A user name must then be specified (transmitted in clear text). SNMPv3 packet authentication is enabled by filling in the "MD5 Authentication Password" field. An SNMPv3 client must then know this password to send authenticated requests.
N.B.: The Authentication password must contain at least 8 characters.
 - ▶ The encryption (AES-128) of SNMPv3 packets is enabled by filling in the "AES Encryption Password" field. This password allows to make the SNMPv3 packets circulating on the network unreadable.
N.B.: The encryption password must contain at least 8 characters.
- ▶ **Traps generation:**
The product can spontaneously send information to an SNMP Trap server to alert on certain events. The list of alarms is available by consulting the product MIB file downloadable from this page.

The sending protocol, IPV4 or IPV6 addresses or hostnames (requires a DNS server), ports and protocols of the Trap servers must then be specified. N.B: Traps use the identifiers configured above.

In the SNMP log you will find information about the SNMP server of the product. It can be read easily with a text editor.

- ▶ The product MIB (Management Information Base) file can be downloaded by clicking on "Product MIB" at the top of the page. It can be read with a text editor or by an SNMP client.

3.6. FIRMWARE UPDATE WEB PAGE

Firmware Update

WARNING:

Selecting a valid image and pressing the submit button will immediately start the upload and update process. Once started, this can only be interrupted by a power cycle.

Select the new firmware image: Aucun fichier sélectionné.

to upload the file!

- ▶ To update the product, click on the button "Parcourir.." and select the firmware file "GT_FW_xxxx.bin" provided by the GORGY-TIMING after-sales service.

Then click on "Submit" to start the upgrade.

Please do not disconnect the power or restart the product during the update. After a few minutes the web page will indicate that the product has been updated and will restart automatically.

You can then check that the software version has changed on the main web page.

3.7. FIRMWARE UPDATE BY FTP

GORGY-TIMING products can also be updated via FTP.

N.B: Check that FTP is enabled in the Security page and that you have the correct credentials (GT_Tablet/gtandroid by default).

3.7.1. With Windows command prompt

```

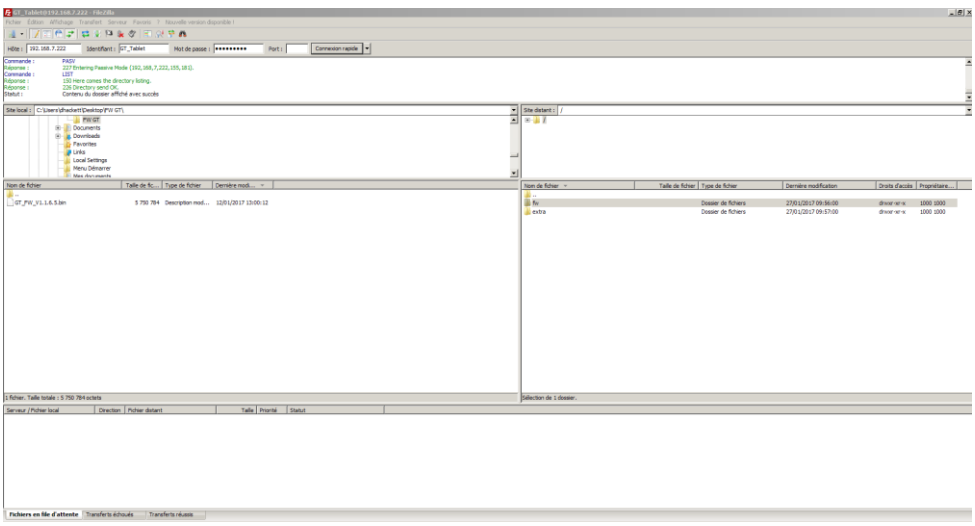
C:\Users\ [redacted] >cd Desktop
C:\Users\ [redacted] \Desktop>cd "FW GT"
C:\Users\ [redacted] \Desktop\FW GT>dir _ _ _ _
[redacted]
Répertoire de C:\Users\ [redacted] \Desktop\FW GT
27/01/2017  10:41    <REP>          .
27/01/2017  10:41    <REP>          ..
12/01/2017  13:00                5 750 784 GT_FW_U1.1.6.5.bin
                1 fichier(s)          5 750 784 octets
                2 Rép(s)    216 378 236 928 octets libres

C:\Users\ [redacted] \Desktop\FW GT>ftp 192.168.7.222
Connecté à 192.168.7.222.
220 "GORGY DEUICE FTP IPU4"
Utilisateur (192.168.7.222:(none)) : GT_Tablet
331 Please specify the password.
Mot de passe :
230 Login successful.
ftp> cd fw
250 Directory successfully changed.
ftp> put GT_FW_U1.1.6.5.bin
200 PORT command successful. Consider using PASV.
150 Ok to send data.
226 Transfer complete.
ftp : 5750784 octets envoyés en 62,95 secondes à 91,36 Ko/s.
ftp> quit
    
```

- ▶ Open the Windows command prompt and browse the folders (with "cd") to the directory where the update is located (GT_FW_Vx.y.z.bin). Check the contents of the file with "dir".
- ▶ Then enter:
- ▶ ftp <ip_address>
 - User: GT_Tablet
 - Password: gtandroid
- ▶ cd fw
- ▶ put GT_FW_Vx.y.z.bin
- ▶ quit

The update will be transmitted to the product and after 1-2 minutes the product will restart with the new version (check the homepage).

3.7.2. With FTP Filezilla Client



- ▶ Fill in the top of the Filezilla window with the product IP address and FTP credentials (default: "GT_Tablet" as login and "gtandroid" as password). Then click on Connect
- ▶ Drag and drop the update file (GT_FW_Vx.y.z.bin) rom the left side to the "fw" folder in the right window. The transfer should start.

The update will be transmitted to the product and after 1-2 minutes the product will restart with the new version (check the homepage).

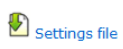
3.8. FACTORY DEFAULT WEB PAGE

Reset Settings

Warning: Pressing the button below will reset all settings to factory defaults. The product will restart to apply the new settings.



Export Settings



Import Settings

Select the settings file: Aucun fichier sélectionné.

Press the button to upload the settings file. The product will restart to apply the new settings.



- ▶ To return the configuration to factory settings, click on "Reset". The product will reboot after 2 minutes. It can be detected on the network and the web interface will be accessible.

Warning: The IP configuration and all other configuration will be deleted. The product will go back to DHCP IPv4 to recover an IP address.

On this web page, you can also export the product configuration for backup or send a new configuration to reconfigure a Gorgy-Timing product (the product will then restart).

3.9. WEB PAGE

Product Reboot

Press the button below to reboot the product.
The process will take about 1 minute.


Reboot

- ▶ To restart the product, click on the "Reboot".

The product takes about 2 minutes to restart and be accessible on the network again.

3.10. RELAYS SETTINGS WEB PAGE

Relays Settings

 [Relays Logfile](#)

Relays Settings				
Relay Number	1	2	3	4
Managed System	<input type="text" value="Relay 1"/>	<input type="text" value="Relay 2"/>	<input type="text" value="Relay 3"/>	<input type="text" value="Relay 4"/>
Signal State	Inactive	Inactive	Inactive	Inactive
Relay State	Relay opened	Relay opened	Relay opened	Relay opened
Manual Control	<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text" value="None"/>	<input type="text" value="None"/>

Commissioning settings:

Idle State:

Relays Component

Relays Component: PCA8574

Oncoming Events

Display next hour events ▾

- #1 'Relay 1'
List of events for relay 1
- #2 'Relay 2'
List of events for relay 2
- #3 'Relay 3'
List of events for relay 3
- #4 'Relay 4'
List of events for relay 4

Performed in 1 seconds

This page allows you to configure the parameters of the relays.

- ▶ **Managed system:**
Name of the system connected to the relay, which will be visible in GT PILOT box.
- ▶ **Signal state:**
The activation status of the relay, which indicates whether a schedule event associated with the relay is in progress.
- ▶ **Relay state:**
Physical status of the relay, which indicates whether it is currently closed or open.
- ▶ **Manual control:**
"None": In the default mode, the relays are controlled by the schedules defined in GT PILOT box.
"Inactive": forces the inactive status of the relay concerned, regardless of the events in the GT PILOT box agendas.
"Active": forces the active status of the relay concerned, regardless of the events in the GT PILOT box agendas.

- ▶ **Idle State:**
Physical state of the relay when idle: This setting indicates whether a relay should close or open when deactivated.

- ▶ **Relays config Factory Default :**
Delete all the configuration of the relays made by this Web page and GTPilotBox and restart the product with the default configuration of the relays, without events. The rest of the configuration (IP, NTP server...) remains unchanged.

- ▶ **Oncoming Events:**
This part allows to visualize the events arriving in the next hours or days (choice of the duration possible by the selection field)
And displays in order on the same line the name of the event, the start date and time (in UTC), the end date and time (in UTC), the status (OK for a classic event or EXCEP for an exception/public holiday...) and a link to the calendar containing the event.

NOTE : In the event of a power failure, the relays will open regardless of the settings on this page.

4.1. PRE-REQUISITES

- ▶ Pentium 4 or newer with SSE2 support
- ▶ 1GB de RAM
- ▶ 200 MB disk space
- ▶ Windows XP SP3, Server 2003 SP1, Vista, 7, 8 or 10.

4.2. INSTALLATION

- ▶ Access the GT PILOT box installer on the Gorgy Timing website (direct link: <https://www.gorgy-timing.fr/172-logiciels.htm>).

4.3. GLOSSAIRY

▶ Event

An event is a period of relay activation. It is characterised by a start date and an end date or duration.

▶ Schedule / Calendar

A schedule is a set of events designed to activate one or more relay outputs. By default, there is one schedule per relay. To control a relay, you will create events in the corresponding schedule. If an event in a schedule is in progress, the relays defined by the schedule are activated. If there is no event in progress, the relays are deactivated.

Optionally, these events can act as exceptions. In this case the relays are deactivated when an exception is in progress. For each relay, the exceptions take precedence over the events in the agendas without this option.

Once activated, the status of the relay depends on the setting in the web interface. It can be closed (contact made) or open (contact not made).

▶ Recurrence

The recurrence of an event is the way in which it will be repeated over time (e.g. every day, every Thursday and Friday, every first Saturday of the month, etc.). By default, an event has no recurrence rule: it occurs only once.

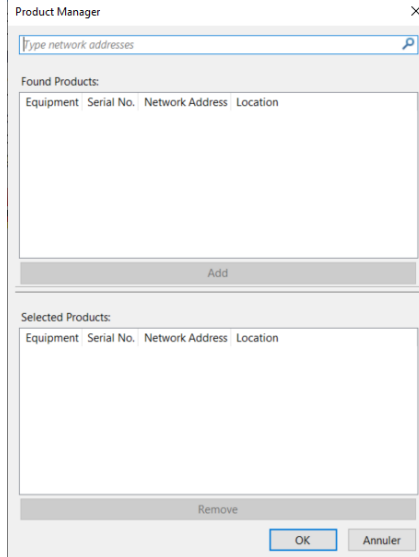
Note: The programming of events to trigger the relays requires that the internal clock of the LEDI® PILOT box is correctly set.

Particular attention must be paid to the setting of the time zone and the time change policy. Incorrect setting will cause time shifts in the activation of the relays.

4.4. GT PILOT BOX PREPARATION

4.4.1. Adding products

When GT PILOT box is launched and there is no agenda, the software opens the following product management window:

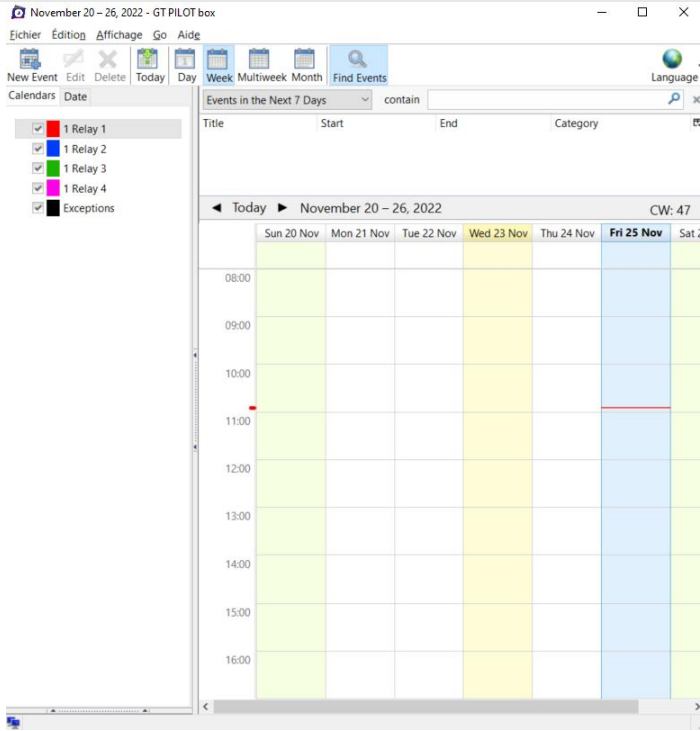


- ▶ To search for a product, type its network address in the first field. A broadcast address of a subnet on which the computer is connected can also be used to list the products on that network. The products found by the last search are listed in the first table.

Note: By default, the main IP address of the LEDI® PILOT box is assigned automatically by the DHCP server of the subnet. The LEDI® PILOT box is also always provided with an auto-IP address (169.254.0.0/16) and a local link IPv6 address (fe80::/64).

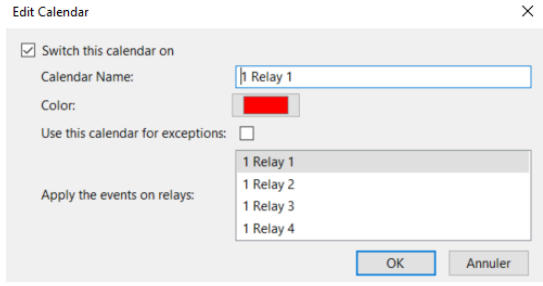
In any case, the GTNetworkManager2 program (or its predecessor, GT Network Manager) can be used to find out the IP addresses of the LEDI® PILOT boxes accessible by the computer.

- ▶ In Found products, select the desired products and click on Add.
- ▶ When all the desired products are in the table of selected products, click on OK
- ▶ The calendars of the selected products appear on the left of the main window:



4.4.2. Calendar Edition

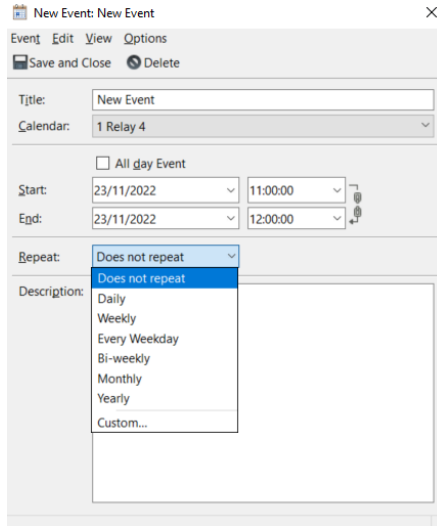
By double-clicking on a schedule or creating a new schedule, its configuration window appears:



This window allows you to choose the name, the colour of the schedule, the relays involved and whether the events in this schedule will activate the relays or serve as exceptions.

4.5. EVENT PLANNING

- ▶ It is possible to create a new event by double clicking in the calendar.



- ▶ The "Title" field can be used for information purposes (e.g. this field can be filled with "Summer holidays" for an exception during the annual closure of a factory).
- ▶ Fill in the "Start" and "End" fields with the start and end dates of the event respectively. During the whole period of this event, the relays concerned by this schedule will be activated.
- ▶ To add a recurrence rule to the event, click on the "Repeat" drop-down list. The "Custom" choice allows you to create specific recurrences through the window below.

Edit Recurrence

Recurrence pattern

Repeat: weekly

Every: 1 Week(s)

On: Sun Mon Tue **Wed** Thu Fri Sat

Range of recurrence

No end date

Create: 5 Event(s)

Repeat until: 23/11/2022

Preview

November 2022							December 2022							January 2023						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
30	31	1	2	3	4	5	27	28	29	30	1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30	1	2	3	25	26	27	28	29	30	31	29	30	31	1	2	3	4
4	5	6	7	8	9	10	1	2	3	4	5	6	7	5	6	7	8	9	10	11

OK Annuler


- ▶ The "Recurrence pattern" group allows you to choose the regularity with which the event will occur. Here, the event will occur Monday to Friday from the event start date at the times of the main event window
- ▶ The "Range of recurrence" group allows you to limit the number of times the event will occur.
- ▶ Once the information is correct in the event creation window, click on "OK"
- ▶ The event then appears in the calendar and is sent to the relevant LEDI® PILOT box.


4.6. RECURRENCE MODIFICATION

- ▶ In the calendar recurrences appear as non-recurring events. In addition to being editable together by the recurrence rule seen when creating an event, they can be edited independently. Thus, by double clicking on a recurrence or deleting it, the window below appears to distinguish the 2 possibilities.

Edit Repeating Event

New Event
is a repeating event

 Edit just this occurrence

 Edit all occurrences

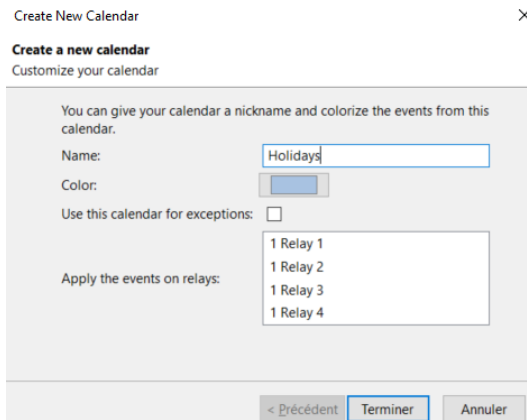
Annuler

4.7. HOLIDAY PLANNING / HOLIDAYS / EXCEPTIONS

In some cases, it is desired that the relays are not triggered for a certain period of time.

This could be the case, for example, if you do not want the bells or the boiler room to be activated during school holidays or when the company is closed.

- ▶ To program this kind of events, which are called "Exceptions", you have to create a new Agenda (File> New Calendar or Ctrl + L)., **check the 'Use this calendar for exceptions' box and select the relays on which you wish to disable events.**



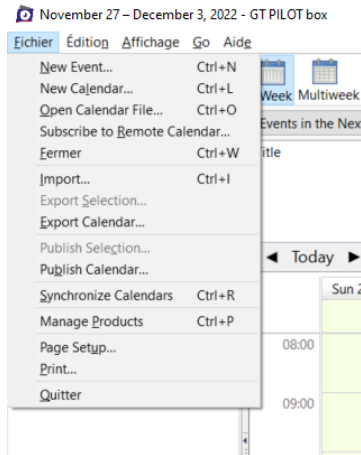
The agenda can also be given an explicit name such as "Holidays" or "Exceptions" for greater clarity.

Once the schedule has been created, events for holiday periods will be added to deactivate the events of relays affected by the exception schedule in the same way as a normal event (see section 4.5) but by choosing the Exception agenda carefully.

Caution: If you choose to use whole days for the event, make sure you do not use the resumption date as the end date but rather have the exception stopped the day before the resumption as the tool also includes the end date as part of the exception.

5.1. SAVE

- ▶ Right-click on the schedule you want to save and click on the "Export Calendar" menu. Save it to your computer as an .ICS file. Repeat the operation for each agenda.



5.2. RESTORE

- ▶ Create a calendar
- ▶ Click on "File" then "Import ...".
- ▶ Select the previously saved .ICS file.
- ▶ Then select the newly created calendar.
- ▶ Click on "OK".
- ▶ Repeat the operation for each agenda to be restored.

6.1. INSTALLATION VIEW

You can use the table in this annex to get an overview of all GT products in your installation.

Description of the installation	
Installation date	
Who carried out this installation?	

Designation of the device	Serial number	Serial number

MODE D'EMPLOI / USER GUIDE



CODE: 1974



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