

HANDI® 93700 / 94500

AFNOR / IRIG B receiver
RADIO receiver

USER GUIDE



GORGY TIME

www.gorgy-time.com

IMPORTANT SAFETY INSTRUCTIONS



WARNING! Read the section that follows very carefully before installing your equipment. It gives the safety instructions to follow during installation.



To protect your equipment, connect power on UPS (Uninterruptible Power Supply).



The electrical installation to which the equipment is connected must comply with the NF C 15-100 standard.



This device does not have a primary power switch. A power protection system (circuit-breaker or disconnecting switch), that is easy to access must be built into the wiring installation. This device must support the nominal voltage and current values specified on the clock.



In Europe: to comply with European regulations on the protection of persons and the environment, you must dispose of this equipment in a collection site provided for this purpose (separately from household waste). Contact your reseller, collection site or the competent local authorities for more information.



Any modification or opening of the product without the agreement of the after-sales service will result in the loss of the warranty.



All maintenance operation shall be conducted with power shut off, including systems connected on relay outputs if any.



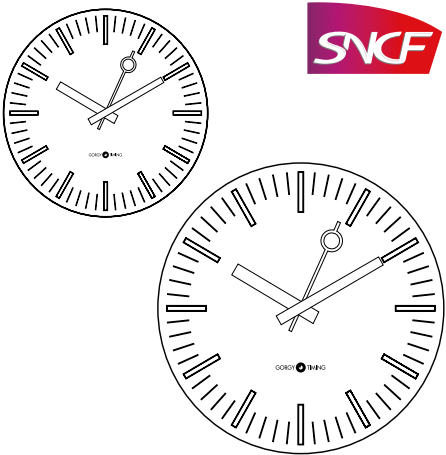
Generally, the power cable (220V) and transmission cable (of time signal) shall not be very close to each other, so as to avoid interference (keep the distance of a few centimeters).



GORGY TIME disclaims all responsibility in case of accident or damage caused by an improper use of the product.

GORGY TIME products are compliant with the following standards:

Directive LVD 2014/35/EU, Directive EMC 2014/30/EU, Directive RoHS 2011/65/EU, EN 62368-1 (2020), EN 62311:2008, EN 50121-4:2016/A1:2019, EN 55032:2015/A11:2020, EN 55035:2017/A11:2020, EN 61000-6-2:2005/AC:2005.



ENGLISH

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Thank you for choosing a GORGY clock. This product has been carefully designed for your satisfaction based on ISO9001 quality requirements.

1.0.1. We advise you to read this manual thoroughly before attempting to manipulate the clock.

Keep this booklet during all the life of your clock, so that you can refer to it each time it is necessary.


Gorgy accepts no responsibility for accidents resulting from any use not conforming with the above provisions.

Any modification to the product will invalidate the warrantee..

1.1. UNPACKING THE CLOCK

Unpack with caution and check the contents of the packaging. It must contain:

- ▶ the HANDI TGV clock,
- ▶ for radio synchronised models : the antenna,
- ▶ a key to open the casing,
- ▶ an antistatic cleaning kit,
- ▶ this booklet.

 ***Versions : a label inside the clock specifies what model the clock is: AFNOR HMS or AF HMS = the clock is a receiver driven by : a master clock that sends AFNOR NFS-87500A coded time messages or a radio receiver antenna, and powered by 240 VAC, with a servo second hand.***

1.2. CLEANING

Use an antistatic product of similar type to the one shipped in the original packaging. Never use alcohol, acetone or any other solvent liable to damage the casing and glass on your clock.

Gorgy accepts no responsibility for accidents resulting from any use not conforming with the above provisions.

Any modification to the product will invalidate the warrantee.

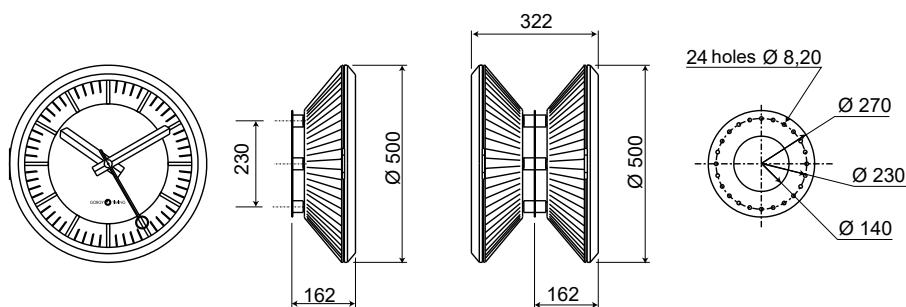
Read the chapter «Safety instructions» in this manual before installing this equipment.

3. INSTALLATION

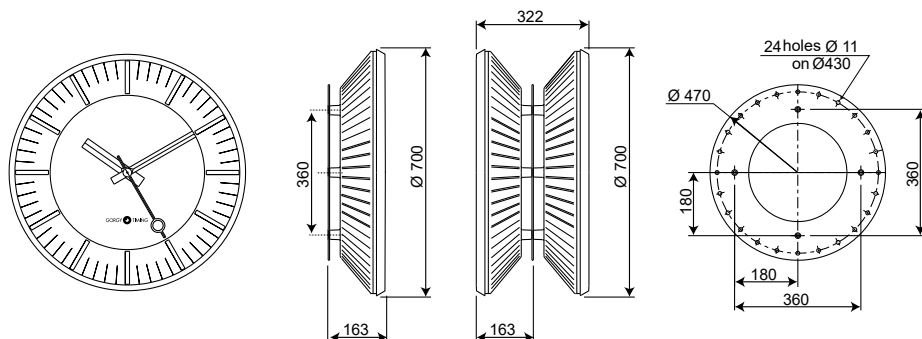
3.1. MECHANICAL INSTALLATION

Select the place where the clock will be installed while making sure that radio reception is correct for radio synchronisation models.

► HANDI TGV 94500 clock



► HANDI TGV 93700 clock



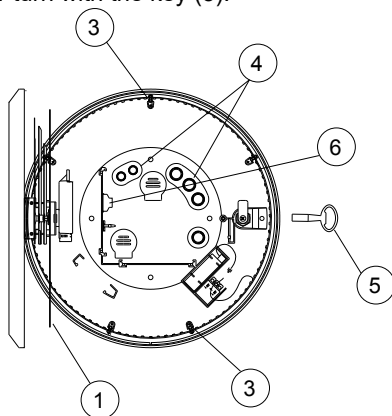
- ▶ Open the clock by giving the screw a quarter turn with the key (5).

- ▶ On the **HANDI TGV 94500** clock, remove the 2 locking screws (3) (provided for the transit).

- ▶ Pull the whole dial (1) towards you.

- ▶ The hinge arm opening system ensures a fast and secure maintenance of the lighting without having to put the front part of the clock on the ground.

- ▶ Hang the clock and fix it with screws, without locking it, after you have put the wires through the waterproof pressure joints (4).



3.2. SETTING IN OPERATION

3.2.1. AFNOR/IRIG-B receiver clock

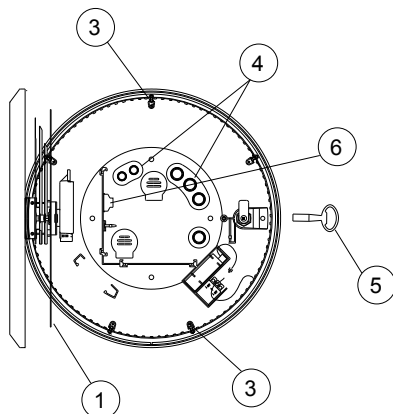
- ▶ Switch off the circuit breaker involved.

- ▶ Connect the mains 230 V +/-10% 50 Hz to the terminal (6) (Live, Neutral and Earth wires; section 1.5 mm² to 2.5 mm² and bare on 5 mm). The mains cable must be oversheathed up to the terminal.

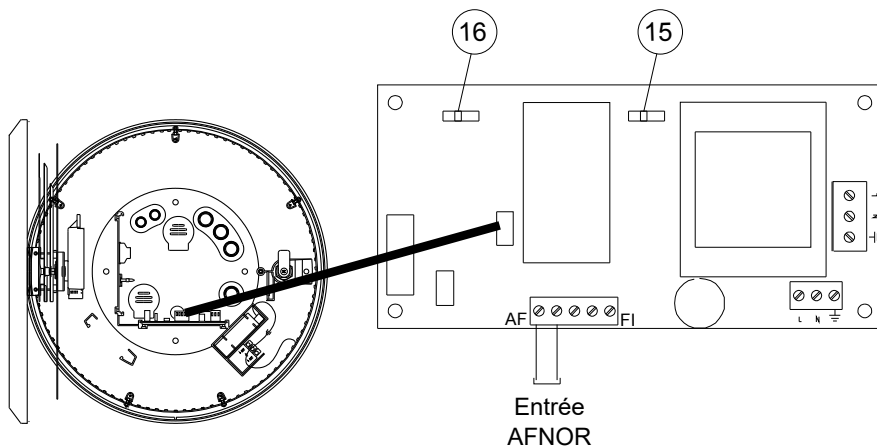
- ▶ Attach the 3 wires (Live, Neutral and Earth) with the cable tie.

- ▶ A double/reinforced electrical insulation must be assured between the mains cable and the SELV wires.

- ▶ Connect the time signal network to the terminals 1 and 2 of the AFNOR receiver card.



- ▶ Check that the dip switch (16) is pushed to the AFNOR position.
- ▶ Check that the battery is connected to the terminal (2) of the electronic card.
- ▶ Lock the clock.
- ▶ Push the dip switch (15) to the ON position.



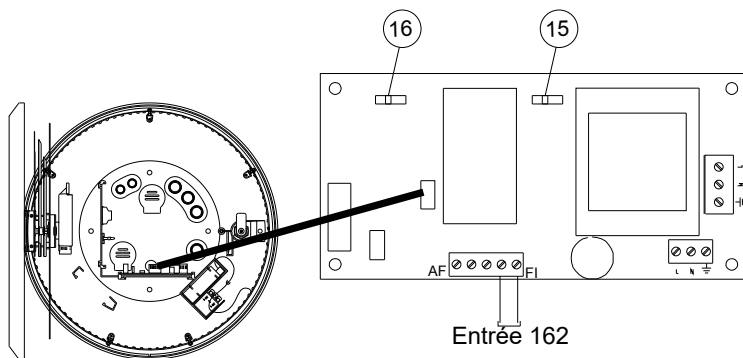
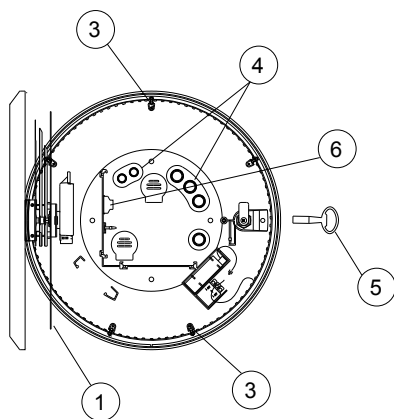
- ▶ Close the clock.
- ▶ Power the clock

Operating principle of AFNOR receiver clock:

- ▶ When switching on power supply, hands are set at 12.00 until the correct reception of the time signal is achieved. After 3 successive coherent AFNOR time signals are received, the clock starts and automatically get on time with fast impulses.
- ▶ During 1 hour without reception of the time signal the clock operates with its own time basis. If the signal recovery is achieved within this hour, the clock will be resynchronised automatically. After 1 hour the clock is reset and hands are set on position 12.00.
- ▶ Without power supply 230V the clock operates with its battery during 1 hour. After 1 hour without time signal reception or if the battery voltage drops down, hands are set position 12.00 until power supply recovery.
- ▶ The synchronous second hand witch is powered by the main 12V 50Hz, will stop immediately.

3.2.2. Radio receiver clock

- ▶ Switch off the circuit breaker involved.
- ▶ Connect the mains 230 V +/-10% 50 Hz to the terminal (6) (Live, Neutral and Earth wires; section 1.5 mm² to 2.5 mm² and bare on 5 mm). The mains cable must be oversheathed up to the terminal.
- ▶ Attach the 3 wires (Live, Neutral and Earth) with the cable tie.
- ▶ A double/reinforced electrical insulation must be assured between the mains cable and the SELV wires.
- ▶ Connect the two wires of the antenna to the terminals 4 and 5 of the electronic card.
- ▶ Check that the dip switch (16) is in receiver position.
- ▶ Check that the battery is connected to the terminal (2) of the electronic card.



- ▶ Lock the clock.
- ▶ Push the dip switch (15) to the ON position.
- ▶ Close the clock.
- ▶ Power the clock.

Operating principle of radio receiver clock

- ▶ When switching on power supply, hands are set at 12.00 until the correct reception of the time signal is achieved. After 3 successive coherent time signals are received, the clock starts and automatically get on time with fast impulses.
- ▶ Once the clock is synchronised, it operates with its own time basis. If the signal is back within this period, the clock set itself automatically.
- ▶ Without power supply 230V the clock operates with its battery during 1 hour. After 1 hour without time signal reception or if the battery voltage drops down, hands are set position 12.00 until power supply recovery.
- ▶ The synchronous second hand witch is powered by the main 12V 50Hz, will stop immediately.

3.3. SETTING THE ANTENNA

For radio synchronised clocks:

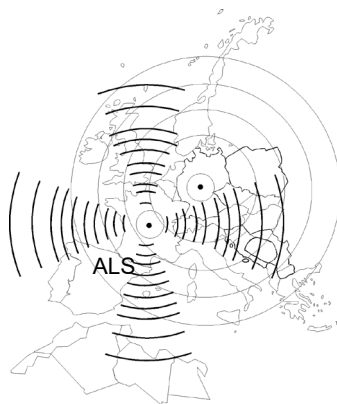
The best reception conditions are outside buildings or near windows.

Positioning the antenna (perpendicular to the direction of the transmitter) improves reception..

The antenna must not be placed on a metal support.

As for any radio system, a building with metal structures can cause interference in the reception of the signal.

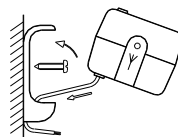
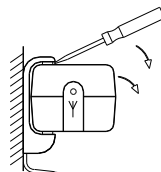
Computers, television sets and electrical appliances can also cause interference that disrupt the reception of the radio message.



- ▶ Unlock the antenna from its support.
- ▶ Fix the support with the screw supplied and lock the antenna again..



Beware : in a double face system. So as not to cause interference between the 2 antennas, the latter must be fixed at least one metre away from each other.



- ▶ Installation and maintenance of this equipment must be carried out by qualified personnel only.
- ▶ Electrical installation must comply with current standard CEI 364. (NF C15-100 in France for example).
- ▶ This is a class I product.
- ▶ Do not apply the power before installation.
- ▶ The mains supply for the clock must include a circuit breaker rapidly accessible. It must break neutral and phase simultaneously.
- ▶ This circuit breaker must be switched off during maintenance operations.
- ▶ Use cable ties to attach the mains cable (see section "Installation").
- ▶ Caution: use of an unqualified battery may present a risk of explosion. Waste battery should be disposed so that they can be recycled.
- ▶ LED lights can be hazardous to the eyes.
- ▶ The LED lighting systems are less energy consuming than other types of lighting and have lifetimes much longer.
- ▶ Partly because of the limited nature of the surface emission, LEDs have luminances at least 1000 times higher than those of a traditional lighting source. The level of direct radiation from such sources exceeds the level of visual discomfort.
- ▶ Our clocks are designed so that there is no direct light, and thus no risk. However, it is recommended to switch off the lighting system before opening the clock for maintenance.

**Power supply : 230 Volt 50 Hz $\pm 10\%$,
Operating temperatures : -25°C to $+50^{\circ}\text{C}$,
Protection index : IP54**

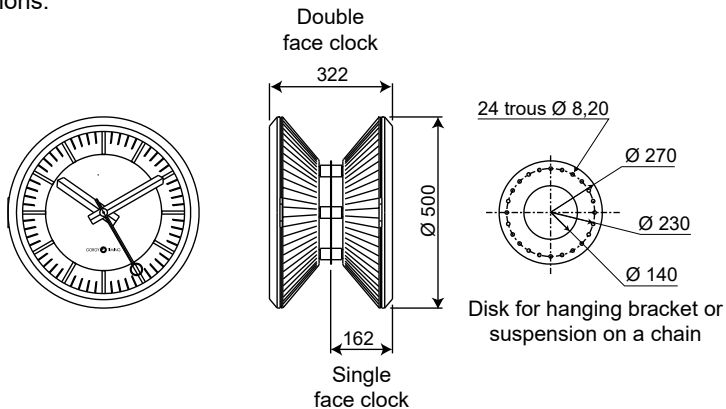
► HANDI TGV 94500

Readability : 40m.

Weight : 8 kg.

Lighting consumption : 14 W.

Dimensions:



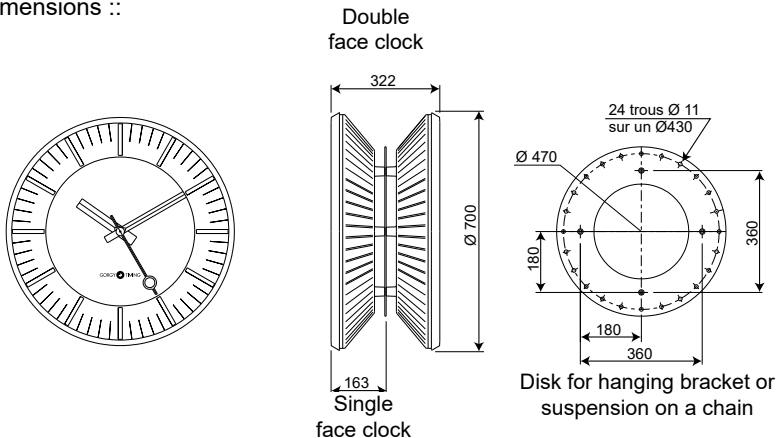
► HANDI TGV 93700

Readability : 50m.

Weight : 16 kg

Lighting consumption : 20 W.

Dimensions ::



► Radio receiver clock with synchronous second hand HMS:

Permanent power supply: 230V 50Hz; 110mA for **HANDI TGV 94500** and 140mA for **HANDI TGV 93700**.

Earthing system: TT or TN (this product is also suitable for IT earthing system).

Battery: risk of explosion if the battery is not properly connected.

Replace it with the same model or with an equivalent model recommended in this manual.

Follow the instructions in this manual for changing the battery.

This clock requires battery replacement by qualified service personnel.

The battery must be model VARTA Ni-MH 5/CP300H 6V-280mAh.

Accuracy : absolute with automatic summer/winter changeover.

► AFNOR/IRIG-B receiver clock with synchronous second hand:

Permanent power supply: 230V 50Hz; 110mA for **HANDI TGV 94500** and 140mA for **HANDI TGV 93700**.

Earthing system: TT or TN (this product is also suitable for IT earthing system).

Battery: risk of explosion if the battery is not properly connected.

Replace it with the same model or with an equivalent model recommended in this manual.

Follow the instructions in this manual for changing the battery.

This clock requires battery replacement by qualified service personnel.

The battery must be model VARTA Ni-MH 5/CP300H 6V-280mAh.

Accuracy of the master clock.

6. WHAT TO DO IF...? ...CHECK..

What to do if...?	... Check.
No synchronisation after the installation.	Check that the type of signal send by the master clock (min, ½ min, AFNOR/ Irig-B) is in accordance with the type programmed in the clock.
AFNOR / Irig-B receiver stopped at 12h00	Lack of impulse since more than 1 hour, check the master clock and the network.
The synchronous second hand is stopped on a receiver clock.	The permanent supply powering second hand is cut-off. Check this power supply.

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MADE IN FRANCE



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