



electronique

INSTRUCTIONS



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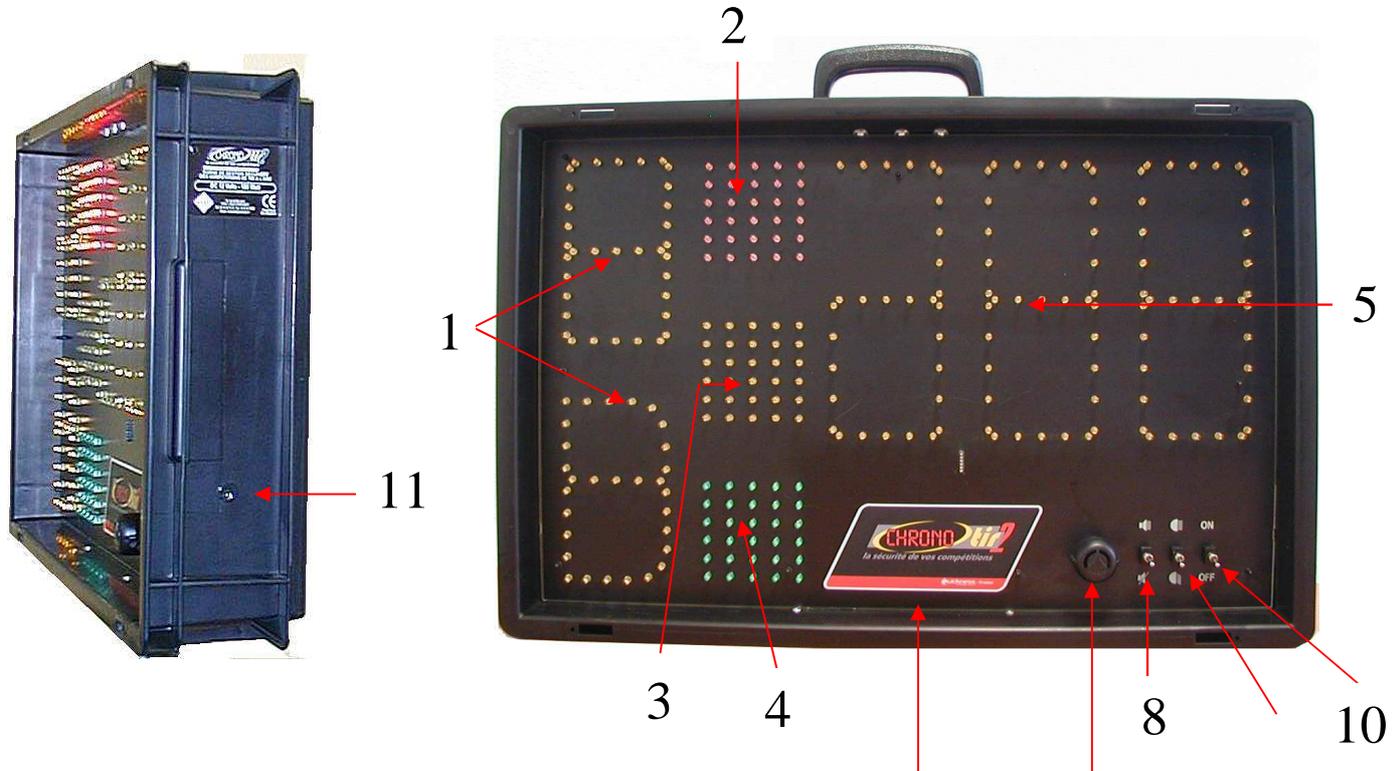
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CHRONOTIR



- 1 ♦ Rhythms display (AB or CD)
- 2 ♦ Red light
- 3 ♦ Yellow light
- 4 ♦ Green light
- 5 ♦ Shooting End Timer
- 6 ♦ Battery Indicator
- 7 ♦ Warning sound
- 8 ♦ On/Off
- 9 ♦ Light and sound intensity adjustment
- 10 ♦ Mute
- 11 ♦ Battery charger plug

REMOTE CONTROL



- ① On/Off
- ② Display
- ③ Program selection
- ④ Plus Button (Increase value), Rhythm Selection and OR Start
- ⑤ Minus Button (Decrease Value), Rhythm Selection and OR Start
- ⑥ Start of Shooting End
- ⑦ Retrieve Scores
- ⑧ Emergency stop



CONTENTS OF THE PACKAGE

A CHRONOTIR marker contains:

- The actual CHRONOTIR marker, fitted with its type NP 7-12 battery in a watertight lead
- a tripod support
- a battery charger
- a remote control, fastened inside the marker cover.

*Note : A single remote is sufficient to manage simultaneously multiple markers.
Therefore, a marker can be delivered without remote.*

FUNCTIONALITIES

CHRONOTIR is an independent equipment that allows for the management and safety of FITA archery competitions.

Its operation is in accordance with the FFTA and FITA procedures that govern these competitions.

CHRONOTIR provides 4 major functions:

- Display and management of the light and sound signals
- Rhythms display (AB – CD)
- Shooting End time progress display
- Olympic Round Management

These functionalities are automated but the referee can intervene at any time by using the remote. Many markers can be deployed simultaneously depending on the number of archers; a single remote control will rule them all.

CHARACTERISTICS

Weight : 9,200 Kg
 Display dimensions : 600 x 400
 Marker height : 1,35 m
 Fully Charged Battery Life : ~ 20 hours
 Range : approx. 100m

INSTALLATION

CHRONOTIR must be brought into service only after the battery is fully charged. The installation includes the following steps:

- Put the marker on the right place on its tripod, tighten the binding screw.
- Remove the cover.
- Switch on the marker (switch ON/OFF on ON).The red light displays.
- Choose the required level of the sound signals and the lights intensity:
 - Switch up for outdoor competitions
 - Switch down for indoor competitions
- Choose to function with or without sound signals:
 - Switch Up: sound on
 - Switch Down: sound off

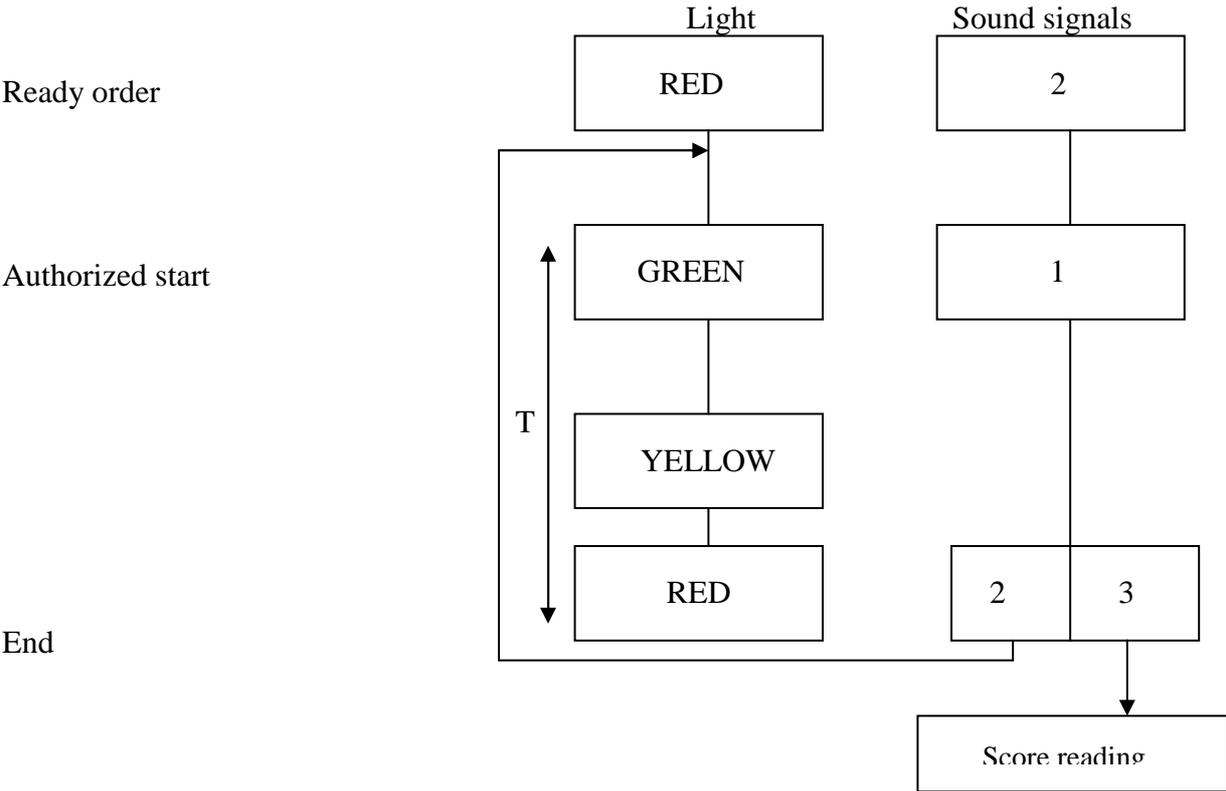
The marker is now in « standby » mode; the red light will still be on and will prevent any start until the order is given.

In case multiple markers are used simultaneously, each one of these operations must be repeated for each marker.

SETTINGS

REMINDER

A shooting end starts according to the following instruction:



CONFIGURATION SETTINGS

To be able to start one or multiple ends, the following actions are required:

- Switch on the remote control



→ Red light turns on → $\begin{matrix} A \\ B \end{matrix}$ flashes 3 times.

→ 280 seconds $\begin{matrix} C \\ D \end{matrix}$ → flash 3 times → signal lights test.

→ Red → green → yellow → green → yellow → red → yellow → green → yellow → red

Default settings:

- The green light displays and “120” appears (corresponding to the 120 sec end time)
- The red light displays and “20” appears.
- Then the yellow light displays and “30” appears (this according to the 30 sec display of the yellow light before the end of the shooting round)

Those signals indicate that the marker is linked to the remote and that all functionalities are available.

The remote displays: END TIME – 120 sec.

How to program the shooting end parameters:

1) Shooting end parameters

When switching on the remote, the settings are as follows:

- time granted to get ready to shoot (20 sec)
- shooting time : 120 sec, corresponding to 3 arrows shot
- yellow light period : 30 sec

These 3 time intervals can be modified;

The notice board on page 7 gives an example with a presentation at 10 sec, 150 sec and 20 sec for the 3 intervals mentioned above.

The possible settings ranges are as follows:

- PRE-SHOOTING: from 0 to 40 sec – Step: 5 sec
- SHOOTING: from 40 to 360 sec – Step: 10 sec
- YELLOW: from 0 to 40 sec – Step: 5 sec

2) Rhythms parameters

Pressing on  or  enables to display successively

$\begin{matrix} A \\ B \end{matrix} \rightarrow \begin{matrix} C \\ D \end{matrix}$ Off.

The use of the rhythm parameter leads to its displaying on the available marker(s).

If there's no action on the button  these settings will be deleted in 4 minutes.

EXAMPLE OF SETTINGS

SHOOTING TIME FOR 3 ARROWS = 120 s (= 40sec x 3)

PRE SHOOTING= 10 s

YELLOW= 20 s

- **Hold for 3 seconds** →



- 120 seconds → shooting time →



- 20 seconds → pre-shoot → press once →



→ press twice for 10 seconds.

- 30 seconds → yellow light → press once →



→ press twice for 20 seconds.

- Olympic Round ON / OFF →



- **Hold 3 seconds** →



- Confirm settings →



SHOOTING CONFIGURATION

SHOOTING END EXECUTION

After having set the configuration, an end can be triggered by the referee.

This end progress can be obtained by pressing once  that will trigger the following:

- The marker produces 2 sound signals to set the pace, the light is still red.
- The programmed rhythm (AB/CD) displays on the marker.
- The pre-shooting time displays on the marker and on the remote.

At the end of pre-shooting time:

- The marker produces a sound signal and the green light turns on, allowing to begin shooting
- The end time progress displays, and then it displays on the marker and on the remote

Once the end time left reaches the « YELLOW » time programmed:

- The yellow light switches on.

AT THE END OF THE SHOOTING TIME:

a) Shooting with rhythms display:

At the end of the first end:

- The marker produces 3 sound signals, the red light turns on.
- An end identical to the previous one is re-started for the following designed archers.

⇒ The rhythm display is inverted: $\begin{matrix} A & & C \\ B & \longrightarrow & D \end{matrix}$ or $\begin{matrix} C & & A \\ D & \longrightarrow & B \end{matrix}$

At the end of the second end:

- The marker produces **3 sound signals, the red light turns on.**
- The shooting time programmed displays on the remote.

The archers can retrieve their arrows. After the 3 sound signals the rhythms that indicate the next sequence are displayed, as well as the programmed end time.

b) Shooting without rhythms display:

- The display plays 3 sound signals and the red light turns on.
- The scoring order function is automatically generated.

⇒ **If all the archers finish** their shooting before the configured end time expires, the referee can stop the end by pressing



◆ Press once:  immediately initiates the next end (2 sound signals – red light detailed account of launching time)



◆ Press once:  the order to collect immediately the scores (3 sound signals – red light)

EMERGENCY STOP

In case of a major incident

Pressing once:  allows to interrupt an end in progress, in case an incident occurs.

This action leads to:

- The immediate display of the red light
- A prolonged sound signal
- The stopping of the rhythm and time displayed on the marker.

***This action does not alter the programmed parameters of the sequence in progress.
The time at which the incident occurred is still registered on the remote display.***

WARNING :

To re-start the interrupted end (40 sec. per remaining arrow) it is imperative to restart the end timer, otherwise a complete end will be re-started

OLYMPIC ROUND SETTINGS

INDIVIDUAL DUEL SEQUENCE EXECUTION (optional)

CHRONOTIR integrates the duels management that is used in many competitions.
Time values can be modified (see page 8).

- Hold 3 seconds →



- 120 seconds → end time →



- 20 seconds → pre-shooting →



- 30 seconds → yellow light →



- Press once



→ Individual duel →



- Sound signal → Press once



→



- 30 seconds → end time →



- 10 seconds → pre-shooting →



- 0 seconds → yellow light →



- Hold 3 seconds → 

- Confirm Settings → 

TEAM DUEL SEQUENCE EXECUTION (Optional)

- Hold 3 seconds → 

- 120 seconds → end time → 

- 20 seconds → pre-shooting → 

- 30 seconds → yellow light → 

- Press Twice  → Individual duel → 

- Signal sound → Press once  → 

- 120 seconds → end time → 

- 10 seconds → pre-shooting → 

- 0 seconds → yellow light → 

- Hold 3 seconds → 

- Confirm Settings 

⇒ **At the end of the pre-defined shooting time:**

*If no action has been made on the remote:

-The red light displays and the end time displays on the 2nd marker **without sound signals**.



- Pressing once  leads immediately to the next end execution, **the green light directly displays with sound signals if the sound parameter is in ON**, then the shooting time countdown starts again.

Note: If the **sound parameter is in off**, the change to green light is no longer signalled by horn, except for the 1st change to green light taking into account the pre-shooting deduction.



- Each new press on the  key immediately activates a new end execution, alternating ends, until the  key is pressed.



⇒ **ACTION ON THE REMOTE DURING A DUEL SEQUENCE:**



- A single press on  during the duel sequence will make the **red light display with no sound signal**. This function is used to enable the display of scores.



- At this moment, a single press on  causes immediately the same actions as at the end of the programmed shooting time.



- During the DUEL sequence, a single press on  re-starts immediately the next end (**green light-without sound signals**), then the shooting time countdown starts again.



- A single press  gives the order to retrieve the scores (**3 sound signals-red light**) then end time displays. This action leads to the re-start of the DUEL sequence.

The next press on  will allow a new DUEL sequence, that will



begin with an order to set the pace.

SAFETY RECOMMENDATIONS

The link between the marker(s) and the remote is constantly monitored.
In case that link is severed, the designed marker becomes yellow.

In order to assure the safety of the shooting ends, it is necessary to switch off the remote during a prolonged pause between two ends (lunch break, for example). The YELLOW then RED lights will display successively on the markers, which will indicate that the marker received the order to be in “standby” mode. The marker remains red independently from its distance to the remote.

Note:

In case the ON/OFF button on the remote is inadvertently pressed during a shooting end:

- The remote switches off, its parameters are reset
- The marker(s) continue(s) the countdown of the current end and finishes with an EMERGENCY STOP signal. During the restart of the remote the markers reset their parameters automatically.

-STORAGE & MAINTENANCE

The battery must be recharged after using CHRONOTIR. It can stay permanently plugged to the charger between two uses.

In case the batteries are not fully charged, CHRONOTIR can function while plugged to the mains without any adverse effect on the battery. During this time the battery continues to recharge.

CHRONOTIR must be stored in a dry place.

CHRONOTIR can be used during rainy days without any risk to the equipment or the users.

It is recommended to remove the cover during storage. This precaution is essential after using it in rainy weather.