

## OPERATING INSTRUCTIONS FOR GUARDIAN-2 TIMER

Read this manual carefully in order to familiarize yourself with the product, the various parts you will be operating, correct usage of the product, its maintenance and important safety instructions.

The owner or person responsible for operating the timer must ensure strict compliance with the safety requirement pursuant to Directives 89/392/EEC, which includes 91/368/EEC, 93/44/EEC and 93/68/EEC. Under no circumstances do the information and recommendations in this user's manual serve to replace the prevailing standards and legal provisions.

*Gepaval wishes to emphasize that they are not liable for any damage arising from their equipment when such damage is the result of unskilled repair or if replacement parts are not original parts or parts not authorized by Gepaval and if the repair was not carried out by the technical service department or the dealer. The same applies to spare parts and accessories.*

This timer can be connected to any Gepaval Propane Cannon operating on L.P. gas. The timer enables you to start and stop the cannon at any hour you wish.

**Warning:** To prevent gas leakage it is strictly prohibited to dismantle parts of the timer.

The timer is capable of making two switches per day, 1 x on and 1 x off (minimal 10 hours, maximum 19 hours) during a period of several months.

The timer can not be used at temperatures below -10° C. (14° F.).

The timer is a quality product built in a rain resistant housing. A Quartz drive unit operates the gas valve. Avoid rough handling, especially shocks and bumps.

Keep the gas hose and nipples free of dust etc. Dust can cause leakage.

Gas cannons are for outside use only.

Do not smoke.

Wear ear protection when starting the Gepaval Propane Cannon

Please thoroughly read the operating instructions of the propane cannon.

The timer has certain components that can only be repaired or set by the technical service department or by an authorized dealer.

### **Installation:**

Close the valve of the gas bottle when fitting the timer.

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Cut the hose between gas bottle and propane cannon (fig. 1) at a distance of approx. 10 - 15 cm. from the gas bottle. Remove the caps from the nipples of the timer.



(fig. 1)

Slide the hose clamps over the hose and fit the hose on the nipples. The hose coming from the gas bottle has to be fitted on the left nipple (marked “in”) and the hose coming from the propane cannon on the right nipple (marked “out”). Tighten both hose clamps with a screwdriver.

Make sure that the gas regulator is connected to the propane tank in such a way that a vertical position of the timer is secured (fig. 2).

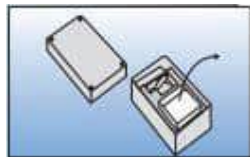


(fig. 2)

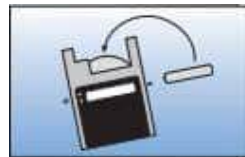
### Time setting:

Remove the lid from the timer.

Remove the drive unit from the timer and insert a battery type AA-R6 1'5 Volt. (fig. 3 and 4).



(fig. 3)



(fig. 4)

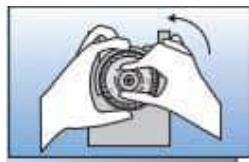
Turn the drive unit so the dial becomes visible (fig. 5).



(fig. 5)

The dial revolves once per 24 hours counter-clockwise and is divided in a day and night time. To set the time, remove the milled nut (fig. 6) while holding the dial.

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(fig. 6)

Never remove the milled nut while holding the drive unit. This could damage the drive unit (fig. 7).

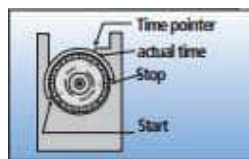


(fig. 7)

Turn the dial in such a way that the actual time corresponds with the time pointer.

Turn the starting point of the lower regulating disc to the required starting time (start) and turn the end point of the other regulating disc to the required closing time (stop).

Example (fig. 8). Your watch shows exactly 3 hours p.m. (actual time). You want to operate the propane cannon between 5 a.m. and 7 p.m.



(fig. 8)

- I.- The time pointer points to the digit 15 on the dial (3 p.m.).
- II.- The starting point of the lower regulating disc points at the digit 5 (start) of the dial.
- III.- The end point of the upper regulating disc (stop) points at the digit 19 (7 p.m.).

After setting the times, tighten the milled nut (fig. 9) while holding the dial with two fingers.



(fig. 9)

Turn the drive unit (fig. 10) and insert it back in the housing while slightly tilting it. Be sure that the regulating discs are opposite to the lever of the gas valve (fig. 11).

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(fig. 10)



(fig. 11)

Put the lid back on the timer (fig. 12). For good rain protection, it is necessary that the 4 screws are tightened in such a way that lid and housing are tight to each other and that no space is visible.



(fig. 12)

Open the main valve of the gas bottle.

The timer will operate now automatically.

### **General:**

The dial turns to the left (counter-clockwise).

The elevated part of the regulating disc opens the gas valve through the lever. This will start operating the propane cannon.

When the regulating disc is low there should be a space of 1-1'5 mm. between lever and regulating disc. The proper function of the gas valve can be checked by pushing against the lever. Afterwards the lever should drop because of the spring pressure inside the gas valve.

Please contact your dealer or the manufacturer in case of interruptions or for further information. When the timer is not being used, remove the battery and protect the nipples by putting the caps back on to them. Store the timer in a dry and dust free place.



At the beginning of a new season a new battery should be inserted.