



Introduction / Technical Data.....p1
 Glossary.....p2
 Battery Installation & Wireless Connection.....p3
 Tap Timer Installation..... p4
 Programming
 Irrigation Programming.....p5
 Setting - Time & Day.....p6-p7
 Setting - Watering Duration.....p8
 Setting - Watering Days.....p9
 Setting - Start Times.....p10
 Manual Operation.....p11
 Wireless Moisture Sensor Setup...p12
 Suspending Operation.....p13
 Low Battery Warning, Maintenance, and Sensor Batteries.....p14
 Important Tips For Installation.....p15-p17
 Warranty.....Back Page

CO3007 Digital Tap Timer With Wireless Moisture Sensor Introduction

The HOLMAN Digital Tap Timer With Wireless Moisture Sensor (CO3007) is designed to allow precise watering to garden beds, pots & tubs, vertical gardens and the like. The wireless moisture sensor allows precise watering to be applied particularly where over watering is a problem. The sensor tells the timer not to water if the soil moisture content is higher than the programmed set point. The timer can be programmed with up to 8 Start times per day with a watering time as small as 1 minute. The timer also allows a set moisture content to be programmed on a scale of 5 (dry) to 99 (very wet). You can fine tune the set point to ensure the soil moisture is perfect for the type of plant and location, preventing over or under watering.

Technical Data

The Digital Tap Timer & Wireless Moisture Sensor talk to each other via 433MHz wireless transmission. The Maximum recommended range between the timer & the sensor is 30 metres, however this range can vary due to areas of interference, therefore please check that a connection is made and maintained.

The Tap Timer is powered by a 9Volt Alkaline Block battery and the sensor by 2 x AAA Alkaline batteries. After battery installation for the sensor, please ensure the flexible cover is properly seated in position, so no moisture enters the battery housing that could damage electrical circuits.



CO3007 N10372 CE
INSTRUCTION MANUAL
 Australian Regd. Design No. 35653
 Patent Pending



Battery Installation & Wireless Connection

Connecting the Sensor to the Digital Tap Timer

1. Install 2 x AAA Alkaline batteries in the sensor probe. Unlatch the flexible rubber cover from the back of the sensor, pulling it over the top of the unit, opening the battery compartment. Place the 2 x AAA Alkaline batteries the indicated way round and close the flexible battery cover, ensuring the closure is sealed correctly around the edges, making it waterproof. In doing this, you will see a blue intermittent light appear on the front of the sensor.
2. Immediately install a 9V Alkaline block battery in the Tap Timer. You will see a flashing appear on the tap timer screen.
3. The Tap Timer and Sensor will now be searching for each other, and will successfully connect if they are within range (within 30 Metres).
4. In normal operation the timer and sensor will communicate with each other approximately every 4 minutes.
5. If you want the timer to search for the sensor after the batteries have been installed in both units, press the **+** & **-** buttons together (at the same time). You will see the flashing activate on screen and the timer will count in seconds until a connection is made, at which point the screen will display the time of day, day and battery reading.

Tap Timer Installation

Make sure the filter (washer) is in place, then screw the tap timer to the faucet/tap by screwing the tap connector to the tap or hose end. Connect the tap timer outlet male thread to your system.

Please also see the 'Important Tips for Installation' on pages 15 - 17, explaining how to safely connect & release your Tap Timer during installation, and for future use of the product.



Irrigation Programming

This section contains an example of weekly irrigation programming. Simply alter data in the example to adapt the program to meet your irrigation requirements.

The Digital Tap Timer is programmed with the aid of 4 buttons.

- Programming step - used to select the appropriate programming mode (e.g. clock setting mode).
- Parameter selection - used to select the parameter to be changed (e.g. hour, minute, etc) To implement the change, the selected parameter must be blinking.
- Data increment (increase) - raises the value of the selected parameter (e.g. adds an hour).
- Data decrement (decrease) - lowers the value of the selected parameter (e.g. deducts an hour).

Setting - Time & Day

If no changes are implemented, the tap timer display will always revert to the main screen (clock). Display digits will stop blinking after 40 seconds.

If the last parameter stops blinking before you have completed your programming, press to continue the process.

At any stage you can return to the main screen by pressing the 'STOP' button.

Setting The Current Time & Day Of The Week

Setting The Clock - To enable the tap timer to operate the irrigation system at the required times, the current time and day of the week must be set as shown below.

Setting - Time & Day

Setting - Watering Duration

Setting - Watering Days

Setting - Start Times

The default time is AM 12:00 Monday.

1. Press . The hour digits blink. Set the current hour with the aid of **+** and **-**.



2. Press . The minute digits blink. Set the current minutes with the aid of **+** and **-**.

Setting The Day Of The Week

1. Press until a blinking square appears at the top of the display.
2. Set the square on the current day of the week by pressing **+** or **-**.

Programming Example: Let's assume that we want to program the irrigation controller to water three times a day, at 8:00a.m., 1:00p.m. & 7:00p.m., for 10 minutes each time, on Tuesday and Friday.

Programming Watering Duration

1. Press until appears opposite "Duration". The hour digits blink (0).
2. Press on **+** or **-** to change the watering duration as required.
3. Press . The minute digits will blink. Press on **+** or **-** until the minute digits reach 10.



Programming Watering Days

1. Press and will appear opposite the word "Days".
2. Press and the under Monday will blink, and "1" will be shown in the display.
3. Press **+** to leave Monday active or **-** to delete.
4. Move through the 7 days and use **+** or **-** to leave days active or delete.
5. When using the moisture sensor you can set watering to all days of the week. If the soil is wet watering will be cancelled by the sensor.



Programming Watering Start Time

1. Press until "Start 1, AM 12:00" appears on the display.
2. The hour will be flashing, adjust with **+** or **-**.
3. Move across with to adjust the minutes.
4. Press to move to "Start 2" and proceed to adjust if required.
5. Similarly you can set starts 3 - 8.
6. You can set multiple start times, and any start, when the soil is wetter than the set point, will be cancelled.



Manual Operation

Wireless Moisture Sensor Setup

Suspending Operation

Low Battery Warning

Operating The Tap Timer Manually

The tap timer will close automatically at the end of the irrigation period.

Note: The programmed irrigation schedule will continue to function at the set times & days.

The manually activated watering will not change the set programme.

Operation: Press "ON" and will appear in the display. Adjust runtime with **+** or **-**. Press OFF to stop watering.



Remember that the soil moisture sensor works together with the timer. If the soil moisture is higher than the set point for watering the will be displayed and no watering will occur. The soil moisture is displayed through a number system, from 1 to 99. The soil moisture reading & set point can be looked at in the 'Runtime' or setup.

To start the setup process, push once, and the 'Runtime' is displayed. Push twice and the 'Actual' probe moisture reading will be displayed. **Note:** The default reading on screen from the probe, prior to installation, shows as '05'. Push again and a screen showing a flashing '60' and the word 'Probe' will show the probe setting. **Note:** The default number is '60' and is HOLMAN's recommendation as a good starting point. To change the reading push **+** or **-** until the desired reading is reached.

Remember: To set the sensor higher will result in your garden being watered more often & the soil being kept wetter.

Helpful Hints:

1. You should watch the moisture content of your soil & adjust your probe setting to suit your plant, soil & exposure level.
2. Always position the soil moisture probe (sensor) within the wireless distance of the timer, (30 Metres)
3. Remember the probe will control the watering for all of the area that is connected to the timer. Position the probe in a typical location within the watered area.

How To Suspend The Tap Timer Operation

This option is used to temporarily suspend the Digital Tap Timer operation, for example, while its raining. The irrigation operation schedule remains in the tap timer memory but is not implemented until the suspension is cancelled.

Suspension: Press "OFF" for 3 seconds until the symbol appears.

Cancel Suspension: Press "OFF" for 3 consecutive seconds to return irrigation system control to the irrigation controller. The symbol will disappear.

During suspension, the "Manual ON" button will function.

How To Stop Watering

Stop Watering: Press "OFF" to stop manual or automatic watering.

Remember: The symbol shows if the soil is wetter than the set point.

Blinking battery shows the tap timer battery is low.

Blinking wireless shows the sensor batteries are low.

The batteries should be replaced promptly. Programming data will be retained for 30 seconds while changing the battery.

To see how to re-initialise the wireless connection, please see Page 3, point 5.

Maintenance

Remove batteries if the tap timer will not be used for a prolonged period of time.

The tap timer contains an internal filter, which has to be removed and cleaned every few months.

Sensor Batteries

The sensor batteries will last at least 12 months providing 2 x ALKALINE AAA batteries are used. We recommend checking the sensor batteries every six months. This can be achieved by pushing the **+** & **-** keys together and watching for the wireless contact to be made between the sensor and digital tap timer.

Important Tip For Installation

Important Tip For Installation

Important Tip For Installation

Warranty

Tap Timer - Quick Connect Circlip

The timer features a quick connect & release mechanism.

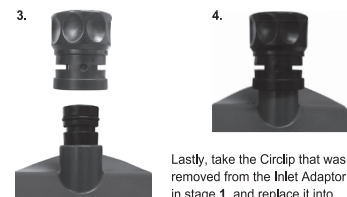
This mechanism has been designed to help by firstly allowing you to disconnect the unit from the inlet adaptor without the need to unscrew the adaptor from the tap. Secondly the connect & release mechanism is designed to properly secure the unit to the inlet adaptor, and when installed correctly will prevent it from falling away from the tap under water pressure.

On removing the Tap Timer from the packaging it is recommended that you test to make sure that the connect & release mechanism is firmly attached. You can do this by pulling on the inlet adaptor. If it is not securely fastened and pulls away from the unit, please follow these instructions:



15 Pull the Circlip from the Inlet Apaptor, so they are separated as shown above in image 2.

Next take the Inlet adaptor and push it down over the Tap Timer inlet neck 3, (pushing it over the O ring tightly) so the indented marks match up as shown in image 4, below.



position on the Inlet adaptor, ensuring that it clips firmly into place. It is very important this clip is properly installed. 5. It must "CLICK" into position. Lastly, test once again that this quick connect & release mechanism is firmly attached by pulling on the inlet adaptor.

To remove the timer simply remove the clip and the timer releases from the tap nut. To replace please follow the instructions above.

Failure to install the Tap Timer on the tap using the correct method as described above could cause it to fall from the tap, damaging the product casing or internal electronics.



Warranty: We will honour all statutory guarantees that this product is of acceptable quality. (including that it is fit for purpose)

HOLMAN Industries:
 47 Walters Drive,
 Osborne Park, WA 6017.
 Ph: +61 8 9204 1011
 www.holmanindustries.com.au

