TORO®

Tempus Air Controller CT
1-2-4-6 Stations

Tempus Air CT

Controller
1-2-4-6 Stations

LoRa™

USER'S GUIDE

INTRODUCTION

Tempus Air CT is a Bluetooth®/LoRa™, battery-powered, waterproof controller. It is available in 1, 2, 4 or 6 stations. Its probe input allows the connection to a rain sensor or a flow meter / water meter or pressure switch.

SPECIFICATION

DIMENSIONS

Width: 10,8 cm
Height: 4,8 cm
Depth: 11,6 cm

INSTALLATION

Rain sensor or Water meter connection
or pressure switch
Master valve connection
9V latching solenoid compatible
Maximum wiring length with solenoids: 300 m
Ambient temperature of product use: 0°C - 60°C
100% waterproof (rated IP68)

POWER SUPPLY

9V 6AM6 ou 6LR61 Alkaline battery

FEATURES

Bluetooth® Smart 4.0 Low Energy
LoRa™ radio communication
Permanent programming save
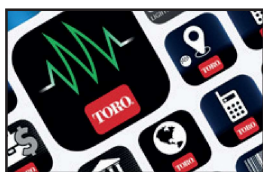Internal clock saved in case of power failure < 30 s

Step 1

APP DOWNLOAD

1. On your smartphone or tablet, go to the «App Store» or to the «Play Store».

2. Search for «The Toro Company» in the search bar.

Developer
The Toro Company

3. Once found, download the MyToroTempus App

4. Once installed, activate the Bluetooth® of your smartphone or tablet.

CREATE AN ACCOUNT

To use Tempus Air BS / CT / MS, you need to create your MyToroTempus account.

1. Launch MyToroTempus app from your smartphone and/or tablet.

2. Go to «My account» by typing ⚙ on icon.

3. Follow the steps described on the app.

Note: if you already have an account on the MyToroTempus.com platform, you must use the same credentials

Step 2

ASSOCIATION

1. Unscrew the Tempus Air CT 's cap

2. Plug the 9V 6LR61 ou 6AM6 battery and screw the cap

3. Launch MyToroTempus app from your smartphone or tablet.

4. Click on the «Add a controller» button or on the «+» button

5. Choose the Tempus Air CT from the availade controllers list.

6. (Optional) Define a name and a **security key** for your controller and click on the button «Validate».

7. To finish your Tempus Air CT pairing, follow the next steps described in the app.

Note: To identify your Tempus Air CT among the nearby controllers, please refer to the «Default name» present on its product label.

Security key

The security key allows to protect your controller. You can define it during the step 6 of the «ASSOCIATION» or access to further information by clicking on the icon ✎ at the top right of your screen.

Step 3

PAIRING with Tempus Air BS – BR – BW

To optimize the LoRa™ radio connection between the Tempus Air BS/BR/BW and the Tempus Air CT controllers, we advise to install the Tempus Air CT under **800 meters** to the Tempus Air BS/BR/BW. We also advise to associate all your Tempus Air Controller near the Tempus Air BS/BR/BW before installing them in the valve boxes.

1. On the MyToroTempus mobile App, select your Tempus Air BS/BR/BW, and enter pairing mode on the Information screen. (You must be connected via Bluetooth)

2. Select the Tempus Air CT previously installed.

3. Click on ✎ the top right icon to access to the product's informations.

4. Click on «Remote Access».

5. Select the Tempus Air BS/BR/BW you want to pair the controller with.

6. Click on the button «Send» or ➤ on the bottom of your screen to validate. Once the pairing finished, you can test the connection between your Tempus Air BS/BR/BW and your Tempus Air CT

7. Go back to «Remote access» screen.

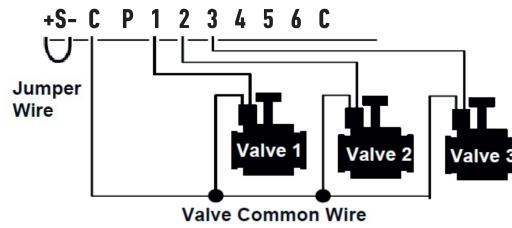**8.** Click on the button 📶 to start the test.

Note:

- The message «Connection established» means that the connection is reliable.

- The message «No connection established» means that it is necessary to bring the Tempus Air CT closer to the Tempus Air BS/BR/BW or vice versa.
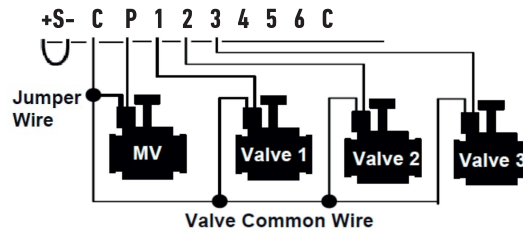
Step 4

WIRING

1. Connect the Tempus Air CT to the solenoids as described below. Use 9V pulse valves only.

2. You can connect on the P output a master valve or a Pump Start Relay. The output will automatically start 2s before the start of each station.
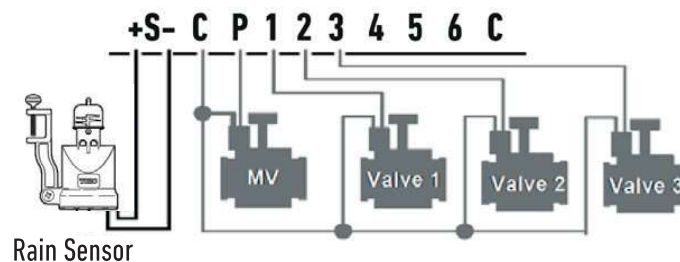

Step 5

SET SENSOR

⚠ **Warning, by default there are no sensor configured.**

The Tempus Air CT has a + S – sensor input on which you can connect a rain sensor or a flow meter/water meter or pressure switch after cutting the blue wire. Once the sensor is connected, it is necessary to configure it in the application.

1. Using the MyToroTempus mobile app, connect to your Tempus Air CT via Bluetooth.

2. Click on Add Sensor.

3. Select your sensor type and follow the instructions given by the application

Rain Sensor

Step 6

SET FLOWMETER

1. Check the «Instant Value».

Instant Value: Ensures that the volume consumed indicated on the water meter is the same as the volume displayed on the application. If a gap is noted, check the wiring (polarity) or adjust the «COEFFICIENT» value.

2. Fill in the remaining fields.

High threshold (daily volume): maximum consumption (in liter) that you do not want to exceed in a period of **24h**. If the goal is exceeded you will be alerted immediately (by e-mail and notification smartphone and / or tablet).

Low threshold (daily volume): minimum consumption (in liters) that you want to achieve over a period of **24h**. If the goal is not reached you will be alerted the next day at 7am (by e-mail and notification smartphone and / or tablet).

Leak alert volume: water volume threshold (in liter) from which you want to be alerted.

Station flow: for each station, read the flowmeter at time T (Cpt1), then at time

T + 5mn (Cpt2).

Make the calculation **(Cpt2 – Cpt1) / 5 => Flow (L / min)**

In the application fill in the results.

High Threshold (Station Flow Alerts): Maximum consumption warning threshold in % of the calibrated flow of the channel. The «High threshold» alert is immediate as soon as it is reached.
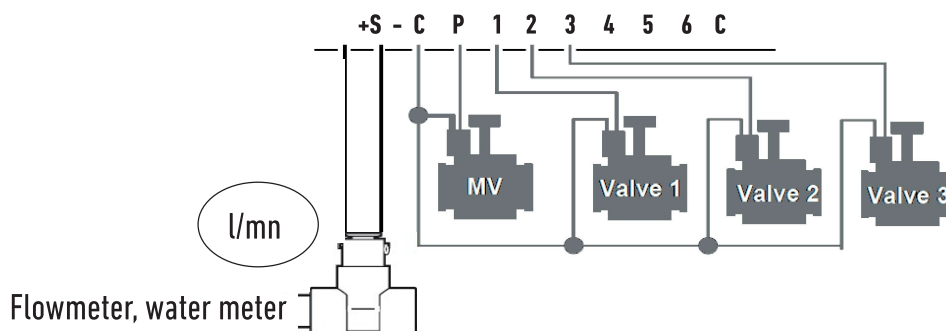
Low threshold (Station Flow Alerts): Minimum consumption warning threshold in % of the calibrated flow of the channel. The «High threshold» alert is immediate as soon as it is reached. For each station flow alert you have the possibility to define the desired type of action:

• **No action:** watering continues.

• **Permanent OFF:** resuming watering requires a manual ON command (in the application on the programmer concerned).

• **Inhibit the output:** stops the station concerned, requires the acknowledgment of the alert (in the application on the programmer concerned) to reactivate the station.

Stabilization time:

Time required before the water flow is stable when starting and stopping the station. It eliminates the peak flow (start) or leak (stop). The time is the same for all stations.

During this period, the consumption is not taken into account for triggering alerts or actions.

Connect your **+ S –** input to a water meter equipped with a flow sensor as shown above. Use dry contact flow sensors or equivalent. For polarized flow sensors, when wiring,observe the polarization :

Red wire –> + Black wire - > –

FAQ

What are the features required for the Bluetooth® product to work?
Android 4.3 (or more) Smartphones or tablets equipped with Bluetooth Smart 4.0 (or more). iOS 9.0 Apple iPhone or iPad running (or more) with Bluetooth Smart 4.0 (or more)

What is output P for?
You can connect a master valve or a pump through a relay, on P output. It will start automatically during each station watering.

What are the controller's output S (blue wire) for?
You can plug a rain sensor into S outputs, to do that you need to cut the blue wire.

How does the rain sensor work?
When connected to the wire the rain sensor acts on the stations. If it is raining, stations won't start; you must wait the probe to dry before the programming star again. The manual control is not affected by the rain sensor conditions.

How can I restart the pairing or the pairing procedure?
To start the pairing procedure again, just bypass the 2 battery connector pins (battery removed) for 30s minimum

If my device has no more battery, do I lose my programming?
No, they are not lost, it is automatically saved.

GENERAL INFORMATION

This symbol indicates that the product uses a LoRa™ technology radio.

The symbol «CE» indicates that this device complies with the European standards on safety, health, environment and user protection. Devices with the symbol «CE» are intended for sale in Europe.

This symbol indicates that these types of electrical and electronic equipment must be disposed of separately in European countries. Do not dispose of this device with your household waste. Please use the collection and recycling points available in your Country when you no longer need this device.

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TORO®

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