TEMPUS DC LCD Controller 1–2–4–6

Residential Controller

User's Guide

Bluetooth®

TEMPUS DC LCD Controller 1–2–4–6

TEMPUS DC LCD Controller Features

- Large Display and Easy programming
- 1 to 6 valves output
- 4 Independent Watering Programs, A, B, C, D
- Watering Schedule by 7 Day Calendar, Day Interval or Odd/Even Days
- 3 Start Times per Program
- Run Time up to 8 hours with 1 min increment
- User Set Budget
- Permanent programs retention in memory without Battery
- 100% Waterproof (IP68)
- Bluetooth connection

INTRODUCTION

Remotely controlled system, TEMPUS DC LCD is a Bluetooth® and waterproof irrigation controller.
TEMPUS DC LCD is the ideal solution for all those applications where there is no power supply.
Control your irrigation through the large LCD display or the intuitive TEMPUS DC Mobile App.

SPECIFICATIONS

DIMENSIONS

- 4.1 inches W
- 6.1 inches H
- 1.9 inches D
- Weight: 0.57 pounds

POWER

- Power Supply: 9 VDC or 4 x 1.5V AAA battery pack
- Output: 9 VDC solenoid (latch type)
- Maximum 1 output ON at a time.

WORKING PRESSURE

- Qualified for up to 87 psi with Toro® DCLS-P and Irritrol® DCL solenoids

WORKING TEMPERATURE

- From 14°F to 122°F

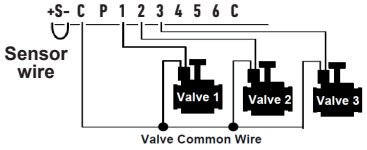
MODELS

- TEMP-1-DC-L 1 Station plus MV
- TEMP-2-DC-L 2 Station plus MV
- TEMP-4-DC-L 4 Station plus MV
- TEMP-6-DC-L 6 Station plus MV

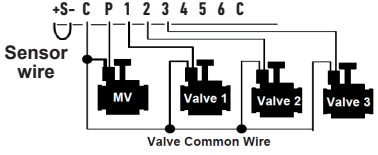
STEP 1

WIRING

1. Connect the TEMPUS DC LCD to the solenoids as described below. Use 9VDC solenoid (latch type).

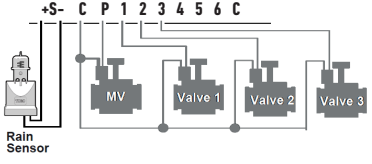


2. You can connect on the P output a master valve. The output will automatically start 2s before each station and during the watering of each stations.



3. (Option) If you want to install a rain sensor, cut the yellow wire of the TEMPUS DC LCD and connect it to the sensor.

   When connected, the rain sensor will affect all four programs. With the rain sensor active, programs A, B, C, and D will be suspended in the event of rain. Normal irrigation will not resume until after the rain sensor has completely dried out. Manually starting a station or program will override the rain sensor.



STEP 2

APP DOWNLOAD

1. The mobile app is available free of charge on the Apple App Store and Google Play Store.

Download on the App Store GET IT ON Google Play

2. Search for **The Toro Company** in the search bar.

Developer

The Toro Company

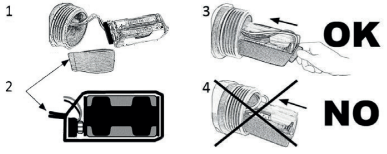
3. Locate and download the Tempus DC app.
   To operate properly, your Android device should be running Android 4.3 or greater and feature Bluetooth Smart 4.0 or greater, while Apple devices should be running iOS 9.0 or greater and feature Bluetooth Smart 4.0 or greater.

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

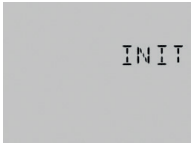
STEP 3

PAIRING

1. Unscrew the TEMPUS DC LCD's cap.
2. Install the 9V alkaline battery or the 4 x 1.5V AAA battery pack. Ensure the gasket is in place and tighten the battery compartment cap to hand tight. Be careful to not over tighten the cap.



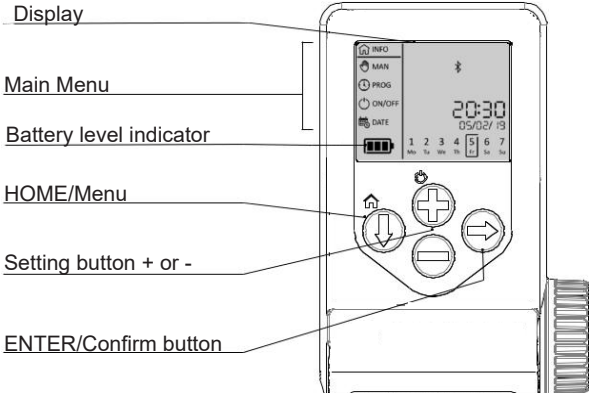
Starting Display



3. Launch the TEMPUS DC App.
4. Tap on the «Add a module» button or on the «+» button.
5. Choose the TEMPUS DC LCD from the list of nearby controllers.
6. To finish the pairing of your TEMPUS DC LCD, follow the next steps described in the app.
7. After pairing, select the "Power source" (9V or AAA) in the APP, Information Menu .

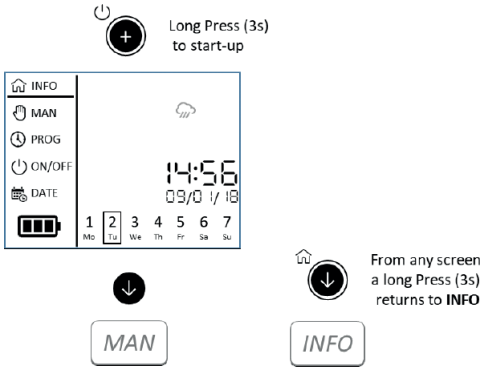
OPERATION WITH BUTTONS

Thanks to its large display and keys, the Tempus DC LCD can be programmed in absence of a smart device and app.



INITIALIZING

PHASE 1 - TURN ON THE DISPLAY LCD



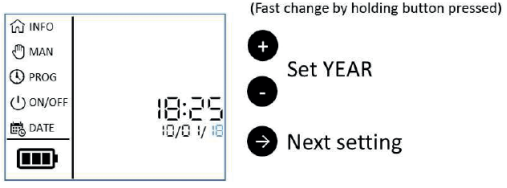
PHASE 2 - SET DATE & TIME AND POWER SOURCE

TURN ON THE LCD DISPLAY

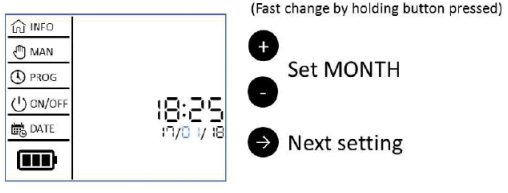
PRESS THE HOME BUTTON ⬇ TO “DATE”

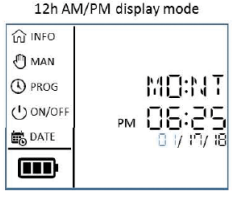
1. PRESS THE ENTER BUTTON ➔ AND SET THE “DATE”
2. SET 12H OR 24H TIME FORMAT

3. SET THE YEAR



4. SET THE MONTH



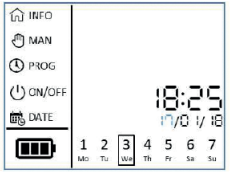


Note: In 24H Time format the Date format is dd/mm/yy
In 12H AM/PM Time format the Date format is mm/dd/yy

STEP 4 - SETTING UP CONTROLLER WITHOUT MOBILE APP

INITIALIZING

5. SET THE DAY



(Fast change by holding button pressed)

\+ Set DAY

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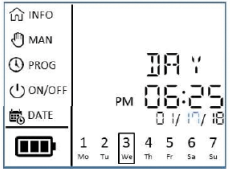
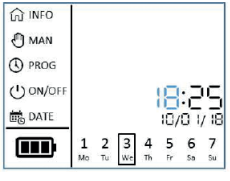
→ Next setting

12h AM/PM display mode



Note: In 24H Time format the Date format is dd/mm/yy
In 12H AM/PM Time format the Date format is mm/dd/yy

6. SET THE TIME (HOURS)



(Fast change by holding button pressed)

\+ Set HOUR

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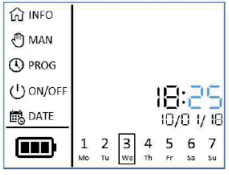
→ Next setting

7. SET THE TIME (MINUTES)



(Fast change by holding button pressed)

\+ Set MINUTE

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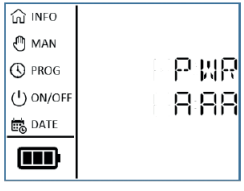
→ DATE

8. SET POWER SOURCE (9V or AAA)



\+ Set POWER Source

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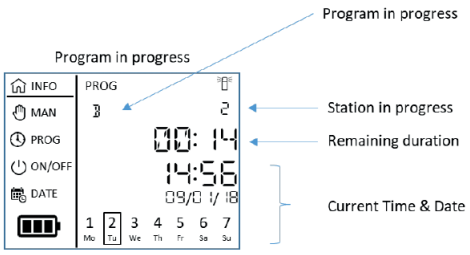
→ DATE

STEP 5

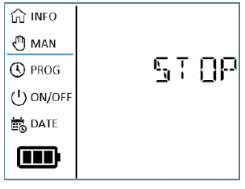
MAIN MENU

1. DISPLAY INFORMATION



MAN

2. MANUAL MODE

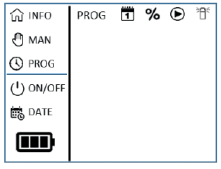


Enter Manual Mode

PROG

Run or stop manual command:
- Allows to manually turn on a station or a program A,B,C,D
- Allows to manually shutdown the watering in progress.

3. PROGRAM MODE

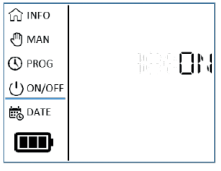


Enter Program Mode

ON/OFF

Set the irrigation program:
Allows to set the custom programs that will be started automatically.

4. PAUSE, ON/OFF MODE

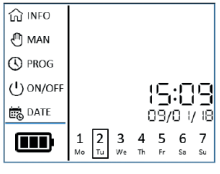


Enter ON/OFF Mode

DATE

ON/OFF Command:
Disable all current or future programs.

5. DATE & TIME MODE



Enter D&T Menu

INFO

Set Date, Time & Source Power:
Allows to set the date and time of the current day in 12 or 24 hour format.
Allows to set the Source Power in 9V or AAA.

STEP 6

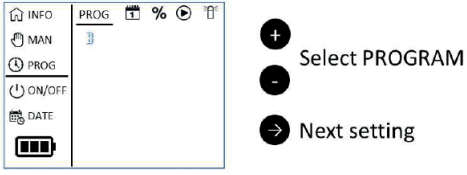
PROGRAMMING

TURN ON THE LCD DISPLAY

PRESS THE HOME BUTTON ↓ TO “PROG”

1. SELECT PROGRAM

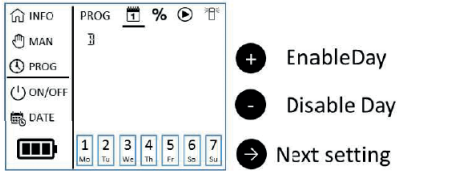
a. PRESS THE → BUTTON AND SELECT THE PROGRAM (A, B, C,D)



2. SELECT A DAY INTERVAL SCHEDULE

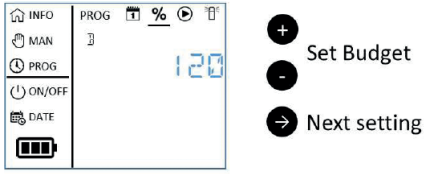
a. PERS: TO SET INDIVIDUAL DAYS OF THE WEEK
b. EVEN: TO SET EVEN DAYS OF THE MONTH
c. ODD: TO SET ODD DAYS OF THE MONTH WITH 30 DAYS
d. OD31: TO SET ODD DAYS OF THE MONTH WITH 31 DAYS

PERS - Personalized particular case

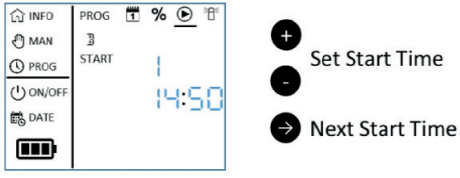


Note: Use the Tempus DC App to select the Period Mod (to set a day interval from 1 to 31 days)

3. SET THE WATER BUDGET (BETWEEN 0% AND 200%)



4. SET PROGRAM START TIME (3 PER PROGRAM)



5. SET STATION RUN TIME DURATION (UP TO 8H WITH 1 MIN INCREMENT)

On last station screen :

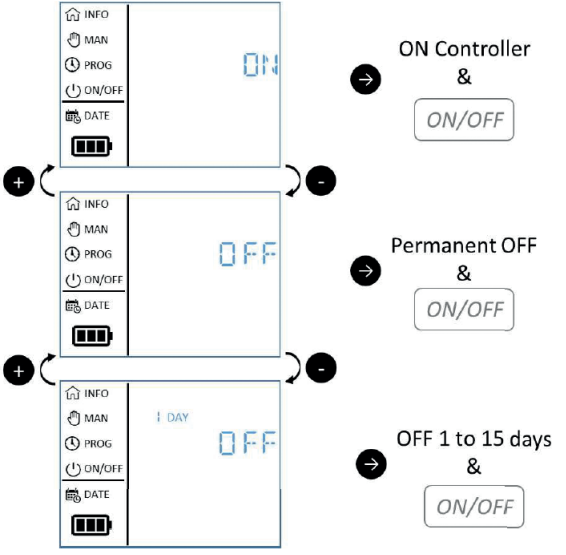
→ PROG

CONTROL OPERATIONS

TURN CONTROLLER ON/OFF, AND SET NUMBER OF DAYS WATERING IS SUSPENDED

TURN ON THE LCD DISPLAY
PRESS THE HOME BUTTON ↓ TO “ON/OFF”

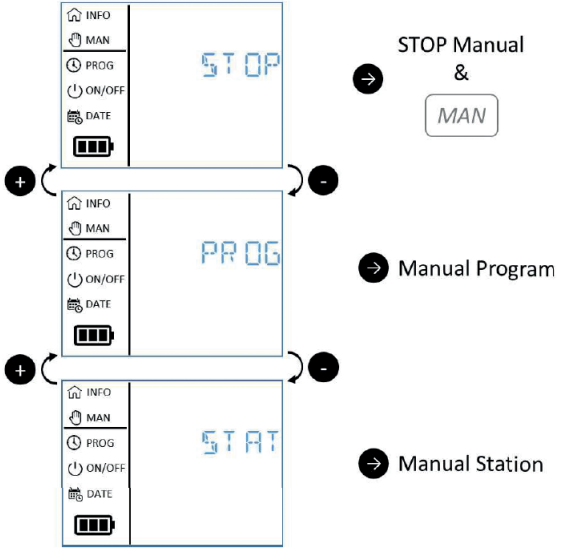
1. PRESS THE ENTER BUTTON → AND SELECT ON, OFF, OR OFF FOR THE NUMBER OF DAYS SUSPENDED WITH +/- BUTTONS. PRESS ENTER BUTTON → TO CONFIRM. WATERING CAN BE SUSPENDED FOR UP TO 15 DAYS.



SET MANUAL OPERATION

TURN ON THE LCD DISPLAY
PRESS THE HOME BUTTON ↓ TO “MAN”

1. PRESS THE ENTER BUTTON → AND SELECT THE DESIRED MANUAL OPERATION (STOP, STATION, PROGRAM) WITH +/- BUTTONS.
   a. STOP: STOP MANUAL WATERING
   b. PROG: FOR MANUAL PROGRAM OPERATION
   c. STAT: FOR MANUAL STATION OPERATION

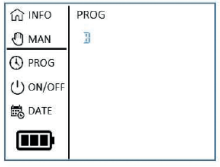


STEP 7

CONTROL OPERATIONS

START MANUAL PROGRAM

1. SELECT "PROG" AND PRESS THE BUTTON
2. SELECT PROGRAM (A, B, C, D)
3. RUN THE PROGRAM

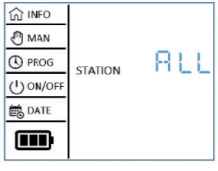


Select Program

Run Manual
&
MAN

SET MANUAL STATION

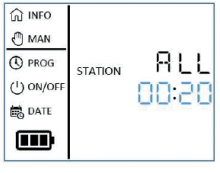
1. SELECT "STAT" AND PRESS THE BUTTON
2. SELECT STATION (FROM 1 TO ALL)



Select Station

Next setting

3. SELECT RUN TIME DURATION



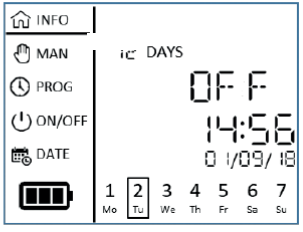
Set DURATION

Run Manual
&
MAN

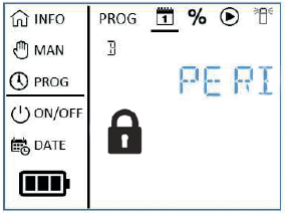
SPECIAL DISPLAY INFORMATION

RAIN SENSOR IN PROGRESS

Rain Delay in progress



PERIOD MODE ALREADY SELECTED IN THE TEMPUS DC APP



USEFUL INFORMATION

SECURITY KEY. The Security Key must be set through the mobile app. The security key helps protect your controller from unintended adjustments. To set the Security Key, open the Tempus DC app, select the subject controller, open the Information Menu , select Security Key and enter your chosen 4-digit Key.

To unlock the controller, press the ENTER key, use the +/- keys to update each digit followed by ENTER. Once all digit places are complete, press ENTER. The controller will unlock. Once the LCD screen times out, the controller will once again be locked.

RESET DEVICE. To reset the device or restart the initialization procedure, short-circuit the 2 contacts of the battery clips connector (remove the battery previously) for at least 30 seconds.

RESET SECURITY KEY. To reset the App Security Key in the device, reset the device. During the first 2 minutes add again the controller in the Tempus DC App and type a new security code to change it (or remove it).

Programs are never lost, they are saved in a permanent memory.

UPDATING CONTROLLER CHANGES. When using the mobile app, changes to program schedules and preferences need to be pushed or retrieved through the app. When changes are made on the controller, the details can be retrieved through the app by opening the Information Menu [pencil icon] and selecting “Retrieve the controller’s data”. When changes are made in the app, press “Transmit” in bottom right corner of the app home screen to transmit changes to the controller.

WATER BUDGET. The Water Budget adds or subtracts a % of time to or from the duration of each station. It is typically used at the changing of seasons (ex: summer to autumn, or spring to summer). For example: The baseline duration (100%) for Station 1 is 1:00 hr and Station 2 is 0:30 mins on Program A. If Program A were adjusted to 120%, durations for Stations 1 and 2 would increase to 1:12 and 0:36, respectively.

RESET ALL PROGRAMS. All scheduled programs and station names can be deleted and reset through the mobile app by opening the Information Menu [pencil icon] and selecting “Erase programs and selections”.

TROUBLESHOOTING

Problems	Probable Cause	Remedy
The station does not start	Each station must be given a runtime duration and be assigned to a program. In the event a station and/or program start time(s) or durations overlap, those cycles will be stacked (run in sequence) based on station number (1, 2, 3) and/or program ID (A, B, C, D).	Verify the program schedule.
Valve does not turn on.	Faulty valve wire connections. Sensor wire / circuit is open. Rain sensor malfuction. No station run time duration set.	Check the wire connections at control valve and controller. Allow rain sensor to completely dry out, or splice sensor wire back together with waterproof connector. Check rain sensor Check station run times.
Valve does not turn off.	Control valve problem.	Inspect, clean and/or replace the valve solenoid and/or diaphragm.
Watering program(s) start at unexpected times.	Watering program schedules have overlapping start times. Water Budget setting over 100% can cause delayed start times.	Check program start time schedules. Shorten station run times and/or space start times farther apart. Check Water Budget and decrease adjustment percent (%) factor as necessary.
Program B does not start	If the start time of Program A is the same time as that of Program B, the two programs will be executed one after the other in the order A and then B.	Check program start time schedules. Shorten station run times and/or space start times farther apart. Check Water Budget and decrease adjustment percent (%) factor as necessary.
Display is blank and controller does not operate	Battery is not properly connected. The batteries are depleted.	Check the connection. Replace the batteries

FCC Compliance Statement

This product contain a modular approval with FCC ID MCQ-XBS6B and IC 1846A-XBS6B.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with innovation, Science, and Economic development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/recepteur exempt de license contenu dans le présent appareil est conforme aux CNR d'innovation, Science et Dévellopement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux condtions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est suceptible d'en compromettre le fonctionnement.

This device complies with FCC and ISED RF radiation exposure limits set forth for genral population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Le present appareil est conforme aux niveaux limites d'exigences d'exposition RF aux personnes définies par ISDE. L'appareil doit être installé afin d'offrir une distance de séparation d'au moins 20cm avec les personnes et ne doit pas être installé à proximité ou être utilisé en conjonction avec une autre antenne ou un autre émetteur.

For Technical Assistance:

www.toro.com/tempus

TEMPUS DC LDC Controller 1-2-4–6

Residential Controller

WARNING: Cancer and Reproductive harm – www.P65Warnings.ca.gov.
For more information, please visit www.toro.com/CAProp65.

Patent: www.ttcopats.com

P/N 373-1073 Rev. A