



TEMPUS DC LCD Controller 1-2-4-6

Residential Controller

User's Guide





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 either the large LCD display and or the intuitive TEMPUS DC App.

SPECIFICATIONS

DIMENSIONS

- 105 mm W
- 155 mm H
- 48 mm D
- Weight: 260 g

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 on DCL samples up to 6 bars of water pressure

WORKING TEMPERATURE

- From -10°C to 50°C

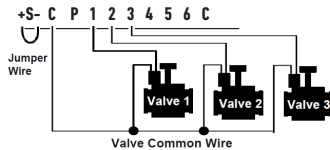
MODELS

- 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

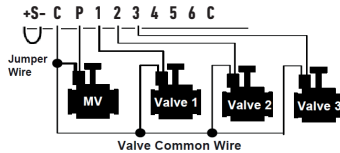
STEP 1**WIRING**

1. Connect the **TEMPUS DC LCD** to the solenoids as described below.

Use 9VDC solenoid (latch type).

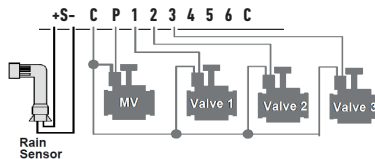


2. You can connect on the P output a master valve. The output will automatically start 2s before each station and during the watering of each stations.



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.

The rain sensor when it is connected instead of the yellow wire (see wiring step for each model) affects all the 4 programs. If it rains and the rain sensor is active, programs A or B or C or D will not start. It is necessary to wait until the probe has dried to see the programs restart. The manual control «All stations» does not take into account the condition of the rain sensor.

**STEP 2****APP DOWNLOAD**

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



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

Developer
The Toro Company



3. Once found, download the TEMPUS DC App.



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

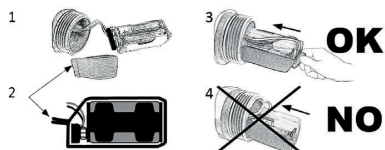
5. The features required for the Bluetooth® product to work:

- Smartphone or tablet running Android 4.3 or greater with Bluetooth Smart 4.0 or greater.
- Apple iPhone or iPad running iOS 9.0 or greater with Bluetooth Smart 4.0 or greater

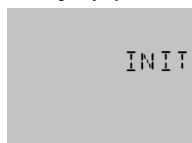
STEP 3


PAIRING

1. Unscrew the **TEMPUS DC LCD**'s cap
2. Plug the 9V alkaline battery or the 4 x 1,5V AAA battery pack. Screw the cap



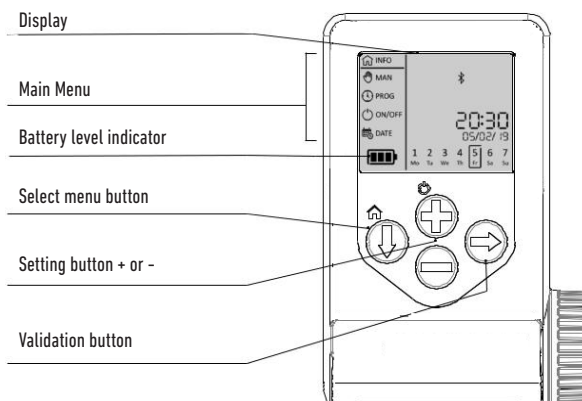
Starting Display



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 keyboard TEMPUS DC LCD can be programmed without Bluetooth.




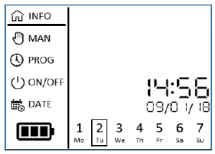
STEP 4


INITIALIZING


PHASE 1



TURN ON THE DISPLAY LCD

 Long Press (3s) to start-up





 From any screen a long Press (3s) returns to INFO

PHASE 2

SET DATE & TIME AND POWER SOURCE

TURN ON THE LCD DISPLAY

PRESS THE HOME BUTTON  UP TO "DATE"

1. PRESS THE BUTTON  AND SET THE "DATE"

2. SET 12H OR 24H TIME FORMAT




 Select 12h / 24h





 Next setting


2. SET THE YEAR

(Fast change by holding button pressed)



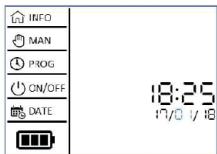
 Set YEAR





 Next setting


3. SET THE MONTH

(Fast change by holding button pressed)



 Set MONTH



 Next setting

12h AM/PM display mode



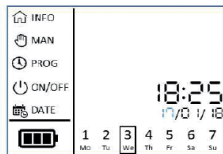
Note: In 24H Time format the Date format is dd/mm/yy

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

STEP 4

INITIALIZING

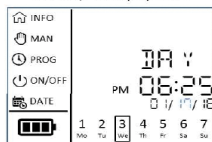
4. SET THE DAY



(Fast change by holding button pressed)

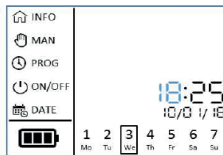
- Set DAY
-
- Next setting

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

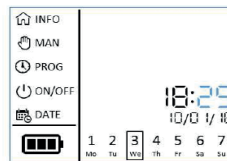
5. SET THE TIME (HOURS)



(Fast change by holding button pressed)

- Set HOUR
-
- Next setting

6. SET THE TIME (MINUTES)



(Fast change by holding button pressed)

- Set MINUTE
-
- DATE

7. SET POWER SOURCE (9V or AAA)

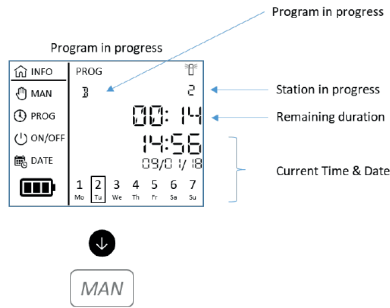


- Set POWER Source
-
- DATE

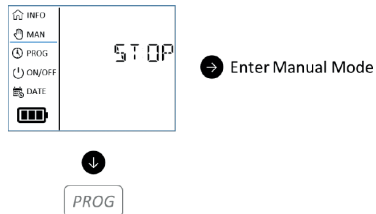
STEP 5

MAIN MENU

1. DISPLAY INFORMATION



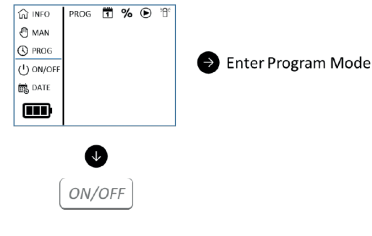
2. MANUAL MODE



Run or stop manual command:

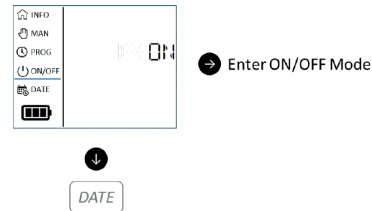
- Allows to manually turn on a station or a program A,B,C,D
- Allows to manually shutdown the watering in progress.

3. PROGRAM MODE



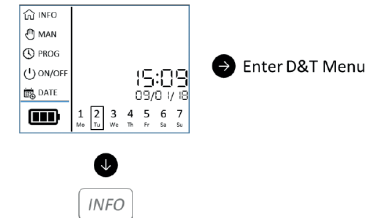
Set the irrigation program :
Allows to set the custom programs that will be started automatically.

4. PAUSE, ON/OFF MODE



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

5. DATE & TIME MODE



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.

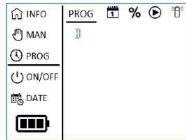
STEP 6



PROGRAMMING

TURN ON THE LCD DISPLAY

PRESS THE HOME BUTTON  UP TO "PROG"

1. SELECT PROGRAM

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

-  Select PROGRAM
- 
-  Next setting

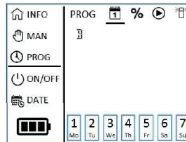
2. SELECT A DAY INTERVAL SCHEDULE


- 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
-  Select EVEN
-  Next setting

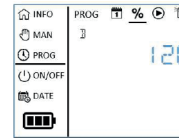
PERS - Personalized particular case



-  Enable Day
-  Disable Day
-  Next setting

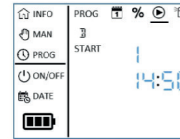
Note: Use the Tempus DC App to select the Period Mod (to set a day interval from 1 to 31 days)

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



-  Set Budget
- 
-  Next setting

4. SET PROGRAM START TIME (3 PER PROGRAM)



-  Set Start Time
- 
-  Next Start Time

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



-  Set Duration
- 
-  Next Station

On last station screen :



STEP 7

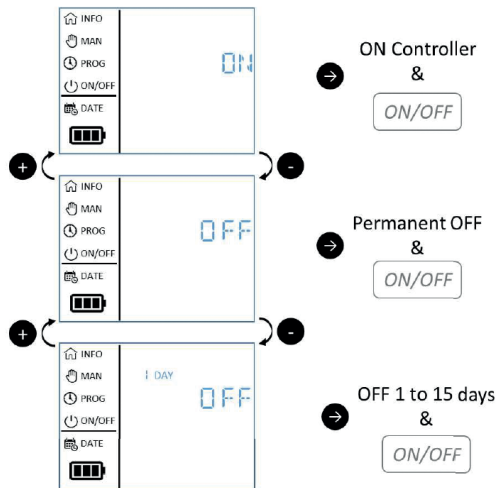
CONTROL OPERATIONS

PAUSE. SET ON/OFF THE CONTROLLER

TURN ON THE LCD DISPLAY

PRESS THE HOME BUTTON  UP TO "ON/OFF"

1. PRESS THE BUTTON  AND SELECT THE PAUSE (ON, OFF, OFF DAYS)



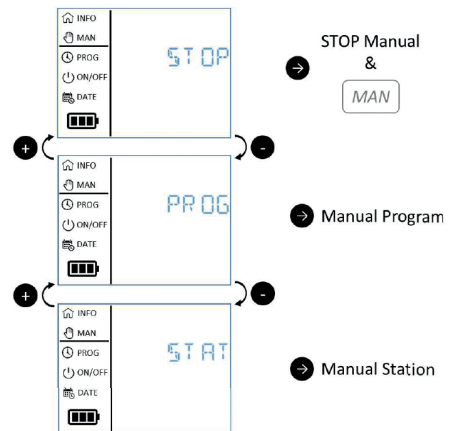
SET MANUAL OPERATION

TURN ON THE LCD DISPLAY

PRESS THE HOME BUTTON  UP TO "MAN"

1. PRESS THE BUTTON  AND SELECT THE MANUAL OPERATION (STOP, PROGRAM, STATION)


- a. STOP: TO STOP MANUAL MODE
- b. PROG: FOR MANUAL PROGRAM OPERATION
- c. STAT: FOR MANUAL STATION OPERATION

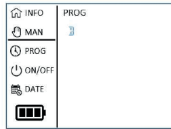


STEP 7

CONTROL OPERATIONS

SET MANUAL PROGRAM

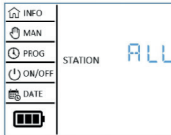
1. SELECT "PROG" AND PRESS THE BUTTON 
2. SELECT PROGRAM (A, B, C, D)
3. RUN THE PROGRAM



-  Select Program
- 
-  Run Manual &
- 

SET MANUAL STATION

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



-  Select Station
- 
-  Next setting

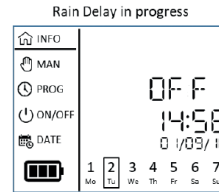
3. SELECT RUN TIME DURATION



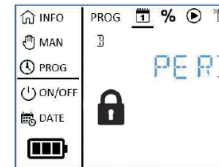
-  Set DURATION
- 
-  Run Manual &
- 

SPECIAL DISPLAY INFORMATION


RAIN SENSOR IN PROGRESS



PERIOD MODE ALREADY SELECTED IN THE TEMPUS DC APP




USEFUL INFORMATION


APP SECURITY KEY. Only by the App. The security key protects your controller. To set the App Security Key open the Tempus DC App, enter the product, open the Parameters  and select Security Key.

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.

RESUME PROGRAMMING. To resume the programming from the beginning, go to the Tempus DC App, enter the product and then open the Parameters  and select «Erase programs and durations».

RESUME PROGRAMMING. To recover the programming from the controller, go to the application, enter the product and then open the Parameters  and select «Retrieve the controller's data».

WATER BUDGET. The Water Budget adds a % of time to the duration of each station. It is typically used when changing seasons (for example summer to autumn, or spring to summer). **Ex:** If you entered **Station 1 = 1h on Program A** and **Station 2 = 0h30 on Program A**, then enter a Water Budget 120 % for **Program A**. When the **Program A** starts, the stations 1 and 2 will be increased by 20%, (ex 1h12 for **Station 1** and 0h36 for **Station 2**).

PROBLEM / REMEDY

Problems	Probable Cause	Remedy
The station does not start	On each station, you must be put a duration and assigned it to a program (A or B or C or D). If several stations are assigned to the same program, they will start one after the other.	Verify the program schedule.
Valve does not turn on.	Faulty control valve wire connections. Jumper wire is open. Rain sensor malfunction. No station run time duration set.	Check the wire connections at control valve and controller. Close the jumper wire 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 o/o factor as necessary.
Program B does not start	If the start time of the Program A is the same time than the 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 o/o factor as necessary.
Display is blank and controller does not operate	Power is disconnected. The batteries are off.	Check the connection. Replace the batteries

For Technical Assistance:

www.toro.com/tempus



TEMPUS DC LDC Controller 1-2-4-6

Residential Controller