
Custom II 8

Custom II 12

Owner's Manual



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The Custom II 8 and 12 controllers are designed for use in residential and light commercial automatic watering systems.

Precision operation of 8 or 12 sprinkler stations is accomplished with control features which include:

- 3 to 60 minute station timing.
- 11 watering cycle start times per day.
- Dual programming for separate lawn and shrub watering (electric models only).
- Automatic, semi-automatic, and manual operation.

The Custom II controllers are engineered for easy programming and operation. The operating instructions on the inside controller cover are often all the instruction required for complete controller operation. However, thorough familiarization of the controller features and functions is recommended prior to operating the controller for the first time. Reading this manual completely should help eliminate any questions you may have concerning programming and/or operation of the controller.

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CONTROLLER COMPONENTS AND FUNCTIONS

Mode Selector Switch

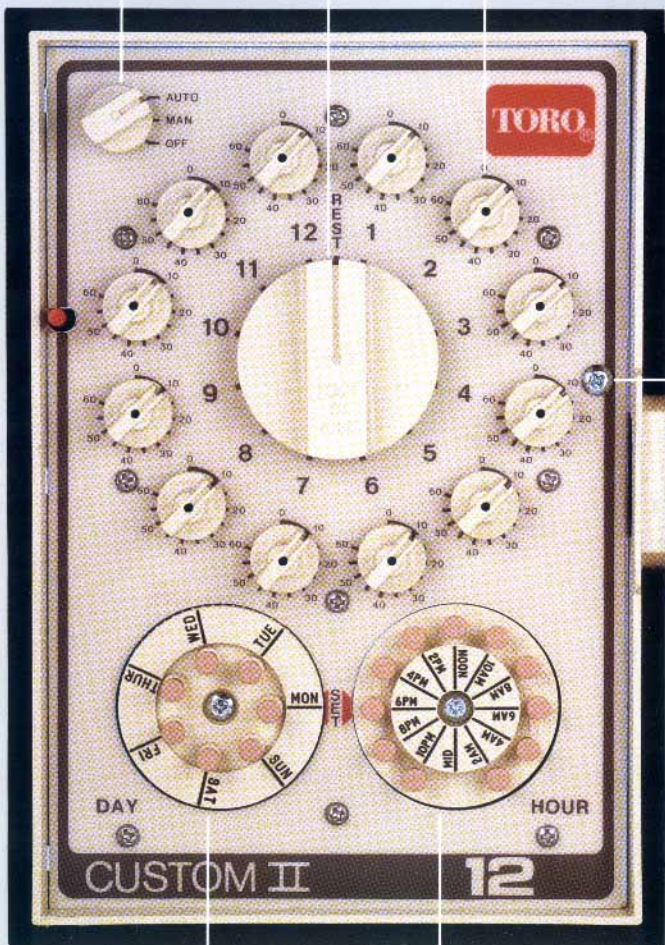
sets the required mode of controller operation: AUTO (Automatic), MAN (Manual), or OFF.

Station Selector

is rotated clockwise automatically or manually to indicate or select the station in operation.

Station Knob

controls the length of operating time from 0 to 60 minutes. (3 minutes minimum is recommended.)



Day Wheel

indicates current day of week and controls daily operating schedule.

Hour Wheel

indicates current time of day and controls watering cycle start time(s).

Front Panel

Removal Screw

**Circuit Breaker
Reset Button**
can be reset in the
event of a 24 VAC
malfunction.

**Shrub Wheel
(Electric Models Only)**
is programmed to
indicate shrub stations
when dual program is
utilized

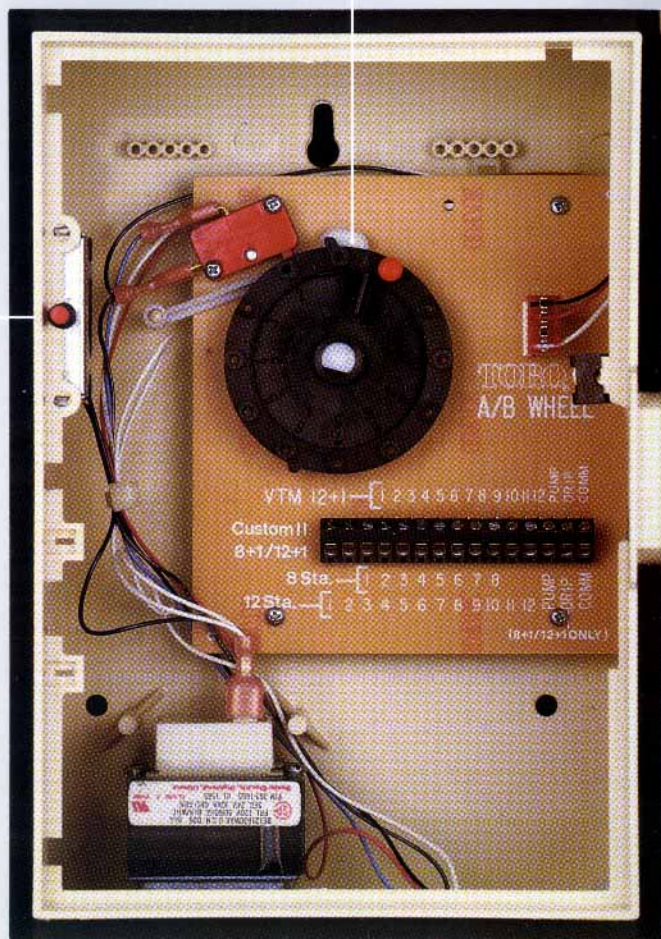


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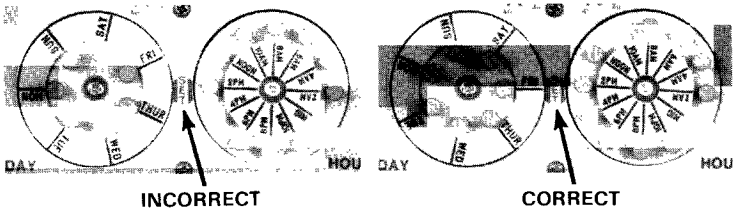
CONTROLLER PROGRAMMING

1 SET CURRENT TIME OF DAY

Rotate Hour Wheel clockwise until current time of day aligns with Set Indicator. **Note:** Pins represent hours shown on Hour Wheel. Locate current time by estimating its position on Hour Wheel and set accordingly.

2 SET CURRENT DAY OF WEEK

Rotate Day Wheel clockwise to align current day PIN with SET INDICATOR. If optional 6 Day Wheel is installed align any pin with set indicator. **Note:** Controller malfunction will occur if Day Wheel is set BETWEEN pins.



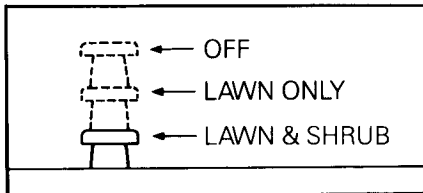
3 SET DAY WHEEL FOR SPRINKLER WATERING SCHEDULE

Position all pins accordingly:

OUT — (Pulled outward until pin stops) — NO WATERING.

MIDDLE — (Pushed in half way - a slight detent can be felt) — OPERATE LAWN ONLY SPRINKLER STATIONS.

IN — (Pushed in until pin stops) - OPERATE LAWN AND SHRUB SPRINKLER STATIONS.



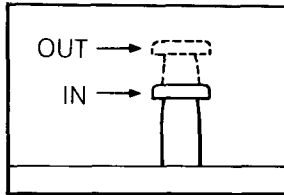
CONTROLLER PROGRAMMING

4 SET HOUR WHEEL FOR SPRINKLER WATERING CYCLE START TIME(S)

Position all pins accordingly:

OUT — (Pulled outward until pin stops) — NO WATERING REQUIRED AT INDICATED TIME.

IN — (Pushed in until pin stops) — SPRINKLER WATERING CYCLE STARTS AT INDICATED TIME.



Note: The watering cycle can be started eleven (11) times per day. When setting more than one start time, first consider the total length of time required to complete one watering cycle (add all station operating time together) and space start times accordingly. Any start time which occurs during a watering cycle in progress will be bypassed.

5 SET STATION RUNNING TIME

Turn each STATION KNOB to indicate desired run time duration (3 minutes minimum to 60 minutes maximum). Set any unused stations to zero (0) running time.

Note: A repeat watering cycle can occur if the total duration for all active stations is less than 30 minutes. To prevent a repeat cycle, simply increase running time of each active station to provide at least 30 minutes total time.

PROGRAMMING THE SHRUB WHEEL (Electric Models Only)

To separate lawn from shrub stations, a Shrub Wheel, located inside the controller, must be programmed according to which stations operate shrub stations. Program the Shrub Wheel as follows:

WARNING

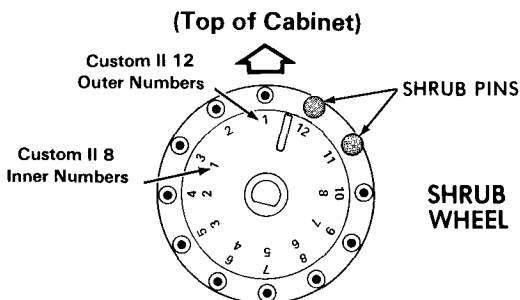


To avoid the possibility of electrical shock, disconnect 120 VAC power at source prior to removing controller front panel.

1 Remove single phillips screw (nearest right edge of front panel) and lift panel off (like opening a book).

2 Unplug Timing Mechanism Quick Disconnect Plug and carefully set Front Panel/Timing Assembly aside.

3 Insert pin(s) (provided in accessory pack) into numbered holes in Shrub Wheel corresponding to shrub station connection(s) on terminal block. Example: Two control valves operate shrub sprinklers and have been connected to terminals 11 and 12 on terminal block. Shrub pins must be installed in holes numbered 11 and 12 in Shrub Wheel. Example shown is Custom II 12 controller.



PROGRAMMING THE SHRUB WHEEL



- 4** Rotate Shrub Wheel to align Station 1 as shown on page 5.
- 5** Reconnect timing mechanism quick disconnect plug and reposition front panel into housing. Secure with single phillips head screw.
- 6** Push in and rotate Station Selector Knob clockwise one revolution to REST position.
- 7** Apply 120 VAC power to controller. Controller is now operational.

INSTALLING OPTIONAL 6 DAY WHEEL



The optional 6 Day Wheel is available to accommodate a watering schedule which requires every third day watering. Install the 6 Day Wheel in the following manner:

- 1** Remove phillips screw from center of Day Wheel.
- 2** Pull 7 Day Wheel from controller.
- 3** Insert 6 Day Wheel into controller turning wheel to engage ratchet mechanism. (Day Wheel will be flush with faceplate when fully inserted.)
- 4** Secure with phillips screw. (Do Not Overtighten.)
- 5** Set Day Wheel to desired number (1—6).
- 6** Position Day Wheel Pins as required.

OPERATION MODES

AUTOMATIC OPERATION

Set Mode Selector Switch to AUTO. An automatic watering cycle will start when an active day and active start time (determined by pin placement in Day and Hour Wheels) is reached. The Station Selector will rotate (clockwise) automatically to the first station set with a minimum of 5 minutes running time and will operate this station until its set running time has elapsed. The Station Selector will continue this procedure with all remaining stations and complete the cycle by stopping at the REST position.

SEMI-AUTOMATIC OPERATION

Set Mode Selector Switch to AUTO. Push Station Selector IN and rotate clockwise to Station 1 or first station in cycle required to operate. This station will operate until set running time has elapsed. The Station Selector will advance to next station and continue this procedure through complete watering cycle.

Note: Watering will occur only if Day Wheel is scheduled to water on current day.

MANUAL SPRINKLER STATION OPERATION

Set Mode Selector Switch to AUTO. Push Station Selector IN and rotate clockwise to the station requiring operation. Set Mode Selector Switch to MAN. This station will remain on until Station Selector is manually rotated to another station or REST position.

SUSPEND AUTOMATIC OPERATION

To suspend automatic operation for any reason (i.e., rain or winterizing) set Mode Selector Switch to OFF position. Assure Station Selector is in REST position. Controller will continue to keep current time and day, however, all watering operations will be suspended.

To resume automatic operation, set Mode Selector Switch to AUTO position.

TROUBLESHOOTING

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If you are experiencing a problem with your controller, check the list of possible problems and solutions below before calling your irrigation contractor or local TORO distributor.

PROBLEM:

Controller keeps correct time and day but will not start watering cycle automatically.

SOLUTION:

Mode Selector not in AUTO position. Day Wheel not correctly aligned with Set Indicator. Watering program pins not set correctly.

PROBLEM:

Watering cycle starts again immediately upon completion of scheduled watering cycle.

SOLUTION:

Check total sprinkler watering time. It must exceed 30 minutes.

PROBLEM:

Shrub sprinkler stations operate when controller is programmed to water lawn sprinkler stations only.

SOLUTION:

Check Shrub Wheel for proper programming.

PROBLEM:

Controller does not operate.

SOLUTION:

Check power source for possible blown fuse or "tripped" circuit breaker.

Check controller Circuit Breaker for tripped position.

***Note:** The controller Circuit Breaker provides protection to the 24 VAC circuitry from a short circuit or overload condition (usually due to an exposed field wire or defective valve solenoid). If the Circuit Breaker is "tripped" open, all controller operation will stop. Prior to resetting Circuit Breaker try to determine the cause of failure and make corrections as needed.*

SERVICE ASSISTANCE

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Your irrigation contractor will be pleased to provide any necessary assistance in maintaining your Custom II Controller in top condition. It is suggested that the telephone number to call is written in the space below, and inside the Controller case for easy reference.

For further assistance, contact your local TORO distributor or TORO Factory Service Hotline 1-800-FOR-TORO. In California, call 1-800-255-TORO.

FOR SERVICE, CALL:

SPECIFICATIONS

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- For 24 VAC Electric Control Valves:
 - Custom II 8 Models - 133-06-02, 133-06-12, 133-06-32, & 133-06-72
 - Custom II 12 Models - 137-06-02, 137-06-02, 137-06-37, & 137-06-72
 - For Hydraulic Normally Open Control Valves:
 - Custom II 8 Models - 133-01-02, 133-01-12, 133-01-32, & 133-01-72
 - Custom II 12 Models - 137-01-02, 137-01-12, 137-01-32, & 137-01-72
 - Input Power: 120 VAC 60 Hz, or 240 VAC 50 Hz (Export Models)
 - Internal or Plug-in Transformer
 - Output Power: 24 VAC, 30 VA, circuit breaker protected
 - Master Valve/Pump Start Circuit
 - Lockable Cabinet, Wall Mount
 - U.L. listed for indoor/outdoor installation
 - Dimensions:
 - 11" high x 9" wide x 5" deep (Electric)
 - 11" high x 9" wide x 6 ½" deep (Hydraulic)
 - 1¼" conduit inlet for field wires or control tubing
 - Supply line filter included with hydraulic models
 - 6 or 7 Day Wheel

**THE TORO PROMISE
LIMITED ONE-YEAR WARRANTY
FOR IRRIGATION EQUIPMENT**

The Toro Company warrants, to the owner, each new piece of equipment (featured in the current catalog at date of purchase) against defects in material and workmanship for a period of one year from the date of original purchase by the owner. This warranty extends only to Toro products. Toro is not liable for failure of products not manufactured by it even though such products may be sold or used in conjunction with Toro products.

During such warranty period, Toro will repair or replace, at its option, any part found to be defective.

Return the defective parts to your local Toro distributor, who may be listed in your telephone directory Yellow Pages under "Sprinkler Systems" or "Irrigation Supplies", or contact Customer Services Department at The Toro Company, P.O. Box 489, Riverside, California 92502, phone 1-800-FOR-TORO (California residents, 1-800-255-TORO), for the location of your nearest Toro distributor. Toro's liability is limited solely to the replacement or repair of defective parts. There are no other express warranties. This warranty does not apply where equipment is used, or installation performed, in any manner contrary to Toro's specifications and instructions, nor where equipment is altered or modified.

TORO IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF EQUIPMENT OR SERVICES REQUIRED DURING PERIODS OF MALFUNCTION OR RESULTING NON-USE, PROPERTY DAMAGE OR PERSONAL INJURY RESULTING FROM INSTALLER'S NEGLIGENCE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. ALL IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR USE, ARE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations of how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.



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