



R-100-KIT & CL-R1

Remote Control User's Guide

Introduction

The Irritrol R-100-KIT Remote Control Set works with a variety of irrigation systems, allowing the user to remotely control compatible controllers and the watering zones. The user can walk the landscape site, testing, troubleshooting, and/or providing supplemental watering.

The R-100-KIT Remote Set contains a remote transmitter, a mini-receiver, and an adapter cable. The Set allows the user to plug the mini-receiver unit into a variety of irrigation controllers. The CL-R1, transmitter only, works with the Irritrol CLIMATE LOGIC® without the need for the mini-receiver.

This manual explains the installation of the R-100-KIT and covers the use and operation the remotes have in common.

- Battery Installation
- Connecting the Mini-receiver
- Transmitter Controls
- The LCD Screen
- Setting the PIN
- General Operation
- Unique Lighting Control



R-100-KIT Components

- CL-R1 Remote Transmitter
- CL-MR Mini-receiver
- CMR-ADP Adapter cable (not pictured)

Compatibility

At this point, there are eight (8) series of controllers with which the R-100-Kit can remotely operate. Irritrol will add more series to this list as new irrigation controllers are introduced to the market.

Irritrol® Brand	Toro® Brand
Rain Dial®-R Series	Custom Command™
Rain Dial®-Blue Series	TCM-212 Series
Total Control®-R Series	TCM-424 & 424-E
KwikDial® Series	
MC®-E "Blue" series (Version 5.02 or later)	

The CL-R1 and Climate Logic

The CL-R1 handheld remote transmitter is available separately as the compatible remote for Irritrol's Climate Logic® wireless weather-sensing system. The Remote does not need a receiver to work with Climate Logic. The Climate Logic weather sensing system has its own receiver with which the CL-R1 Remote communicates.

The Climate Logic weather-sensing system has its own installation instructions and manual.



The Adapter Cable (CMR-ADP)

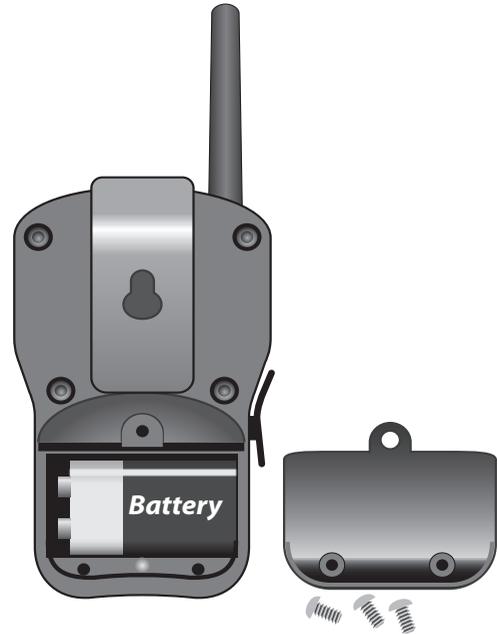
The Mini-receiver has an attached RJ-11 cable. Most compatible controllers have an RJ-11 port for this cable. Early models of the MC-E “Blue” controller, however, as well as the KwikDial controllers, do NOT have RJ-11 ports. The adapter cable is for connecting to these earlier controllers. One end of the adapter cable is a RJ-11 port, the other end is a 5-pin header that slides onto a 5-pin connector in the controller.

This connection, either through the built-in RJ-11 cable or with the adapter cable, is how the Receiver receives power.

Transmitter Battery Installation

The CL-R1 Remote Transmitter receives power from a 9-volt battery (not included). To install the battery:

1. Remove the three (3) screws from the battery cover on the back of the Remote.
2. Remove the battery cover.
3. Snap the battery on to the battery clip and place the battery into the compartment.
4. Reinstall the battery cover with the three screws.



Connecting the Receiver to a Controller

The range of the Mini-receiver to the Remote is roughly 1000 feet line-of-sight. If reception is poor, install the receiver in a better location. If the cable supplied with the mini-receiver is not long enough, it is possible to purchase extension cables (50' or less) that attach to the CL-MR mini-receiver and/or the CMR-ADP cable adapter. The cables and RJ plugs must have six (6) conductors.

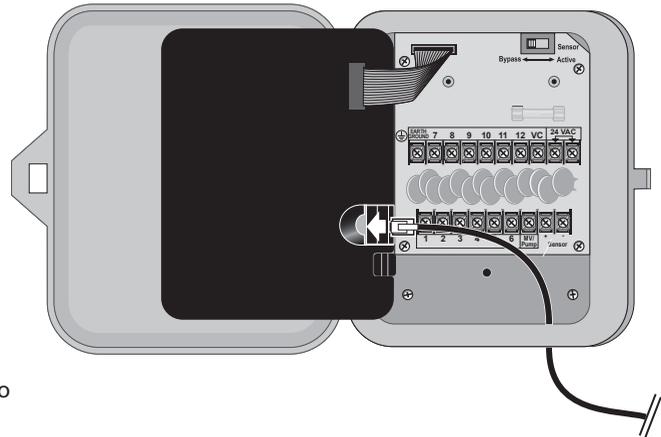


WARNING: NEVER PLUG THE RECEIVER'S CORD INTO A TELEPHONE SYSTEM.

Connections with the RJ-11 Cable

Rain Dial-R, Rain Dials "Blue", and Total Control-R controllers have RJ-11 ports for the Mini-receiver.

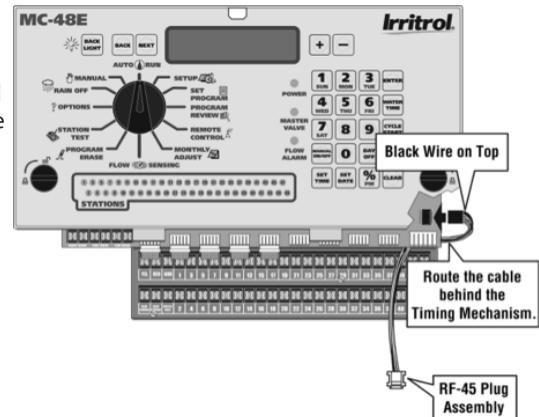
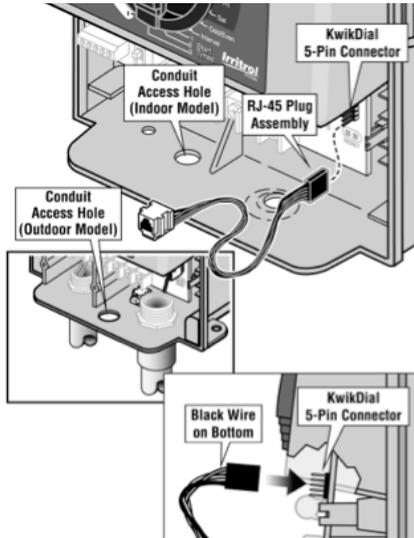
1. Open the front panel of the controller.
2. Locate the RJ-11 port on the controller.
 - **Rain Dial-R (and other blue-faced Rain Dials):** the connection is on the swing-out face panel, just under the edge of the circuit board
 - **Total Control-R:** the connection is also on the swing-out panel, but is located further up on the edge of the front panel.
3. Plug the RJ-11 jack of the Mini-receiver cable into the RJ-11 port of the controller.



Rain Dial-R or Rain Dial "Blue" Connection

Connecting to early models of MC-E “Blue” controllers:

1. Open the front panel of the controller.
2. The 5-pin connector is sandwiched between the front panel and the circuit board in the lower right-hand corner. Attach the cable adapter to the controller *with the black wire up*. (Later models have an RJ connector in the same location.)
3. Connect the Mini-receiver’s RJ-11 cable to the other end of the cable adapter.



Connecting to KwikDial controller:

1. Remove the access panel of the controller.
2. The 5-pin connector is below the front panel, on the circuit board on the right side. Attach the cable adapter to the controller *with the black wire down*.
3. Connect the Mini-receiver’s RJ-11 cable to the other end of the cable adapter.

Remote Transmitter Controls



Setting the PIN

After connecting the receiver, it is necessary to set the PIN in the transmitter and receiver. Set the PIN in the transmitter first.

To Set the PIN in the Handheld Transmitter:

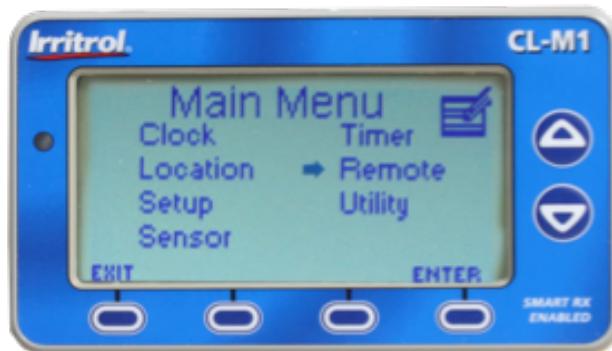
1. Press the red MODE/PWR  button to turn on the remote transmitter.
2. Press the SETUP  button twice; "SET PIN" appears in the upper left corner of screen.
3. Use the UP  or DOWN  arrow button to set the first digit of the PIN number on the left.
4. Use the RIGHT  arrow button to move to the second digit.
5. With the UP  or DOWN  arrow button set the second PIN number. Press RIGHT.
6. Repeat the steps to set the other numbers in your 4-digit PIN.
7. When the 4-digit PIN is set, press the ENTER  button to save the PIN.

To Teach the PIN to the Mini-Receiver, (not Climate Logic's Receiver):

1. Turn Remote ON with the red MODE/PWR  button.
2. Press the SETUP  button twice; "SET PIN" screen appears with the PIN displayed.
3. Hold down the only button on the mini-receiver for more than 8 seconds.
4. When the green light on the receiver begins flashing rapidly, release the receiver's button (intermittent flashing will continue) and press the ENTER  button on the Remote. The red light on the Receiver will blink briefly.

To Set the PIN in the Climate Logic Receiver Module:

1. After setting the PIN in the handheld transmitter (see above), open the Climate Logic receiver module.
2. Press the MENU button to get to the Main Menu on the module's display.
3. Repeatedly press the UP or DOWN key on the module to move the cursor to REMOTE.
4. Press ENTER to get to the Remote PIN screen.
5. Repeatedly press the UP or DOWN key to set the first digit on the left.
6. Press NEXT to move one digit to the right.
7. Repeat the steps to set all four digits in the PIN.
8. With the PIN matching the handheld receiver's PIN, press SAVE.



General Operation

To Power the Remote Transmitter:

1. Press the red MODE/PWR  button to turn on.
2. Press and hold MODE/PWR  button (about two seconds) to turn off.

Note: Turning off the transmitter does not turn off a station in operation. (See **Stop All Watering** to stop an active station.)

Automatic Power Down of Transmitter

To extend battery life, five minutes of button inactivity will shut off the transmitter.

To Set the Number of Stations:

To save time using the remote, set the number of stations in the transmitter to match the number of stations on the controller. For example, for a 12-station controller, set the transmitter to a station maximum of twelve also. If only using 8 of the 12, set max to 8.

1. Press the SETUP  button once to view the Max Station screen.
2. Press either the UP  or the DOWN  arrow buttons to set the desired maximum station number.
3. With the desired number displayed, press ENTER .

To Start Program "A" or "B" or "C" (not functional in all controllers):

1. In manual station mode, press the UP  arrow button to go beyond the highest station. "P-A" appears. Press the UP  button again for "P-B" or again for "P- C".
2. With the desired Program displayed, press ENTER  for a sequential station run.



Note: The "Manual Program" feature does not work with MC-E controllers.
A remotely started program runs continuously.

To Run an All Stations Cycle (ASC):

Running an All Stations Cycle is useful for troubleshooting a sprinkler system.

1. Start a Program (section above).
2. Use the UP  arrow key to move above "PGM C" to "TEST ALL" mode. Press the RIGHT  arrow key to start the run time blinking.
3. Use the UP  or DOWN  arrow buttons to set the running time. All stations will run the same length of time, in sequence, from lowest to highest possible.
4. Press ENTER  to start. (Leave the transmitter on during the ASC sequence.)

To Manually Turn On a Station or Zone:

1. Turn on the remote and press the UP  or DOWN  arrow button to scroll to the station number desired.
2. Press the RIGHT arrow button once to move to run time.
3. Use the UP  and/or DOWN  arrow buttons to set the station's one-time manual running time.
4. Press ENTER  to start the station. The flashing rain-drop indicates a running station.

Note: The controller may display a differing countdown. It has been overridden by the remote's countdown.

To Stop All Watering:

Press the CANCEL  button.

To Change from One Running Station to Another:

1. Press the UP  or DOWN  arrow buttons to select the desired station.
2. Press RIGHT  arrow key to move to run time.
3. Set running time with the UP  or DOWN  arrow buttons.
4. Press ENTER  to turn on the new station. The previously running station will shut off.

Unique Lighting Control

As an allied brand to Irritrol in the landscaping industry, Unique Lighting offers remote control of its landscape lighting products. The commands for its remote lighting control are included in the remote system described in this guide. The basic control functions are furnished below.

To Switch Over to Unique Lighting Remote Control:

1. After activating the remote, press the SETUP  button three times until "UL" (for Unique Lighting) appears in the display on the left and "of" flashes on the right.
2. Press the UP  arrow button to turn "on" the lighting control.
3. Press and hold the MODE/PWR  button (about two seconds) until the display progresses through "off" to "LITE".
4. Release the MODE/PWR  button. "L1" for light station #1 appears along with the default remote time of 10 minutes. There are four light stations available, accessed with the UP arrow button. Adjust light station run times as described in the zone control section of **General Operation**.
5. Above L4 is "LA on". "LA" stands for Lightings All, as in all zones at once. "LA on" turns all lights zones on. "LA oF" turns all light zones off. After selection, press ENTER .
6. To return to irrigation remote control, press and hold the MODE/PWR  button (about two seconds) until the display progresses through "off" and "CL" appears. Release the button to see the irrigation station #1.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington, DC 20402. Stock No. 004-000-00345-4.