

K
RAIN®

BL-KR

*Bluetooth Battery Powered
Irrigation Controller*

BL-KR V1.0



BL-KR V2.0



INSTRUCTIONS FOR USE

K-Rain Manufacturing Corp.
www.krain.com

The BL-KR battery powered irrigation module communicates with the K-Rain BL Application on a Smartphone or Tablet by using Bluetooth SMART 4.0, (low energy) on an iPhone with iOS version 7 minimum or an Android phone/tablet with Marshmallow version 6.0 or higher.

IMPORTANT:

-  For use only with 9V DC Latching Solenoids. As some solenoids will come from the manufacturer with the plunger already magnetically latched open, some zones will default to **OPEN**. *Follow the start-up procedure for systems with DC Latching Solenoids.* (Page 09)
-  For every change to the program in the Mobile App, you must exit back to the home screen and tap the blue **TRANSMIT** button (bottom right corner). The Application aggregates changes and transmits them to the controller when you have finished programming.
-  Programs A, B, and C are independent programs, including start times, run times, watering days, and water budget.

1. Install the App:

From the App Store  or Google Play  Install the free K-RainBL App: 

2. Install a 9 Volt Battery in the Controller:

Unscrew the cap, remove the seal and fasten the battery to the correct terminals. Replace the seal and cap and hand-tighten the cap to ensure it seals.

NOTE: Before you launch the App, you will need to enable locations services on your phone/tablet in order for the App to geolocate your device during installation. On Android, location services must be enabled in order for the App to connect to the BL-KR device.

3. Launch the application on your Smartphone or Tablet.

4. Associate the controller with your phone by tapping the Add a Controller button.



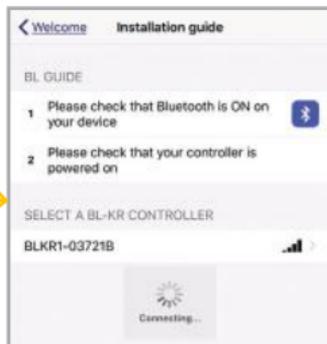
5. The app will now ask what type of Bluetooth device you would like to add:

NOTE: The BL-KR V1.0 and BL-KR V2.0 have identical hardware and software configurations. The only distinction is the outside plastic housing.

6. The App will now search for devices in range.

7. **Choose the Controller.** The serial numbers that populate the device list can be found on the label located on the back of the controller housing with the designation “Default name.” The App will indicate that it is in the process of connecting.

8. Once the device is connected, it will appear on the home screen when you launch the Application.

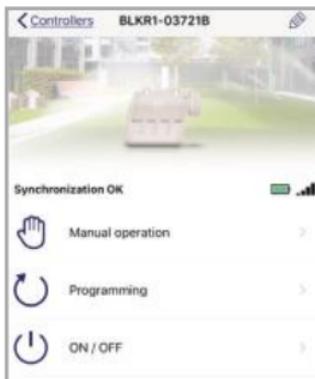


Application Home Screen:



To add another controller, tap the plus sign in the upper right hand corner of the home screen.

Device Home Screen:



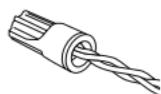
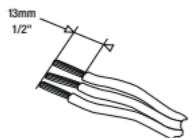
NOTE: You can associate up to 400 devices with the K-Rain BL-KR App. The number of devices is limited to the internal memory on the Smartphone/Tablet.

CONNECTING SOLENOIDS/ACCESSORIES:

1. Mount the unit in/on the valve box.
2. Use only 9V solenoid pulse coils (K-Rain Part Number P3008114)

NOTE: Some DC latching 9V coils come from the manufacturer already latched. Please follow the start-up procedure for DC latching solenoids on page 09.

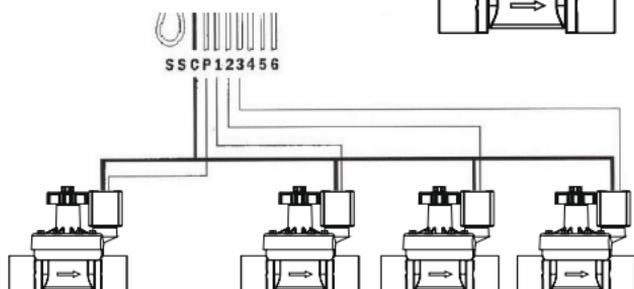
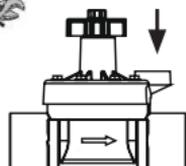
Wiring Solenoid



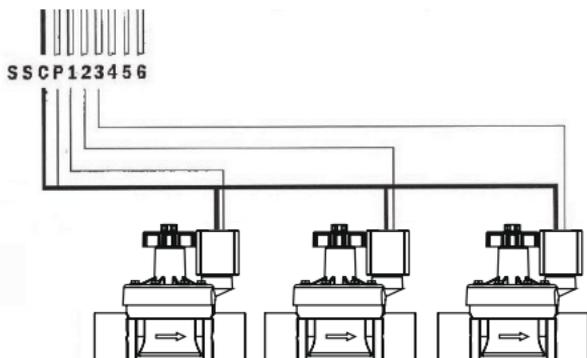
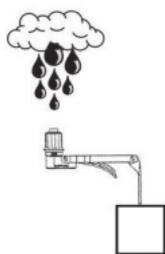
24 Vac



9V Solenoid Pulse



3. **Wiring a rain sensor:** Cut the yellow wire loop and install the rain sensor. Use Normally closed rain/freeze sensors.

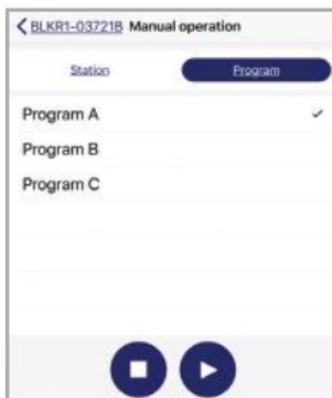


PROGRAMMING THE CONTROLLER:

The controller home screen has the option to manually run the system, fully program the controller (with up to 8 start times and 8 independent programs) and to turn the device off permanently or in daily intervals for up to 16 days.

MANUAL OPERATION:

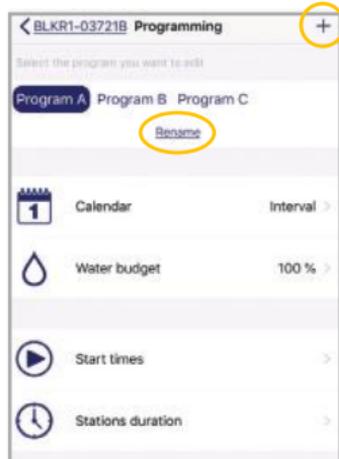
Allows you to manually run a station for up to 12 hours or run a complete program manually. The status of the rain sensor does not affect manual control.



PROGRAMMING:

The programming operation on the device home screen allows you to program Watering Days, Water Budget (% of run time setting), up to 8 start times and station duration. You can also rename programs with more intuitive descriptions (Weekday Schedule, Weekend Schedule).

You can add up to 8 independent programs using the + sign in the upper right corner of this screen.



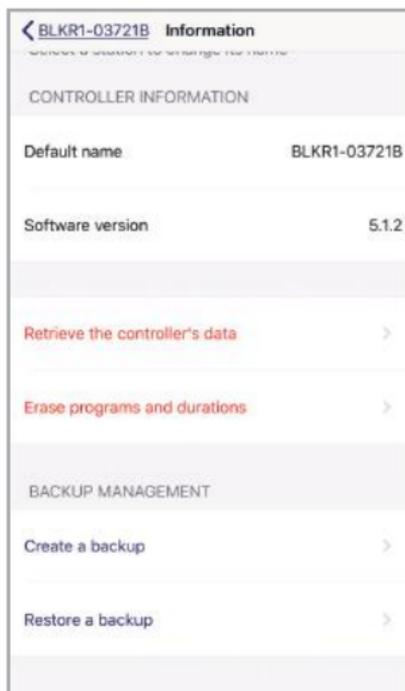
THE EDIT SCREEN:

From the controller home page, when you tap the pencil icon in the upper right corner you can edit controller name, add a security key for each device, geolocate the device using a physical address or the GPS in your Smartphone or Tablet, change the name of stations, view the default name and view software version information. Additional features include:

Retrieve the controller's data: If you have made program changes that you have not transmitted to the device, you can tap Retrieve the controller's data to void the changes you have made (but not transmitted to the controller).

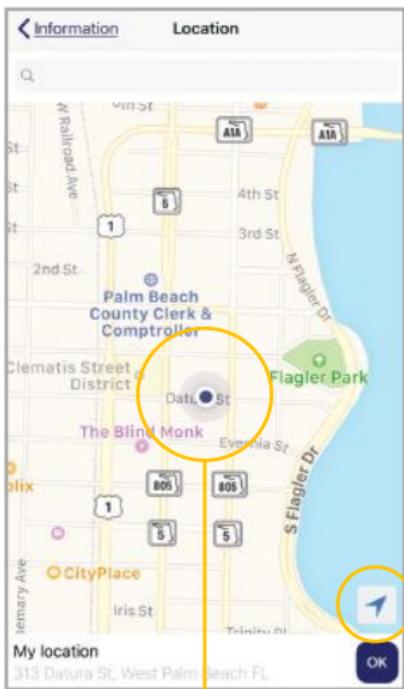
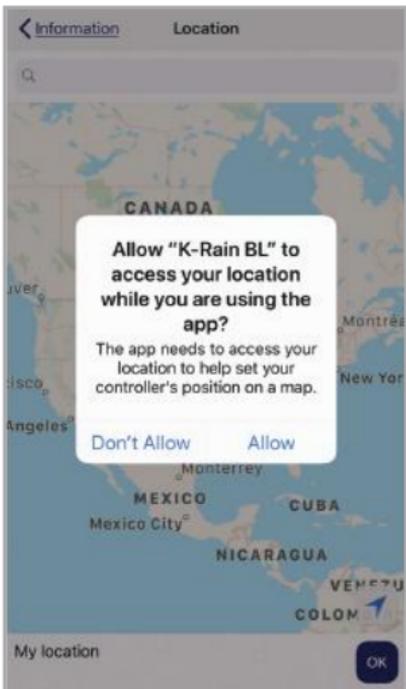
Erase programs and durations: This resets the controller to default settings. If there is a passkey on the device, you will be required to type it in prior to restoring to factory defaults.

Create a back-up/Restore from back up: See online account set-up on page 08.

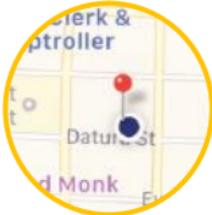


GEOLOCATION:

To locate your device on a map, use the GPS on your phone or type in the physical address of the device. Either type the address in the space above the map or stand near the controller and tap the arrow in the lower right corner.



Once App locates the device on the map, the blue pin will turn orange. Tap OK.



ACCOUNT SET-UP:

Version 3.1 of the K-Rain BL App includes a web portal for managing your Bluetooth devices. To create an account, exit back to the App home screen. Tap on the My Account gear icon in the lower right corner.

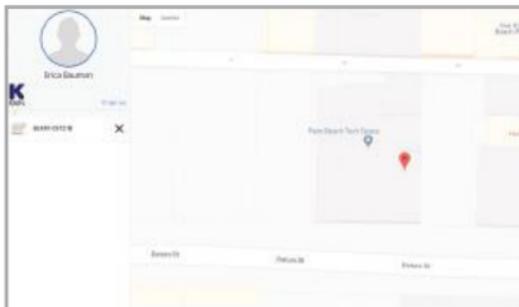


Tap Sign Up to create an account. This will link the devices you have associated with your K-Rain BL App with your online account.

Go to myblkr.krain.com to log in and view your devices from your desktop:



If you have geolocated the device(s), you can now view your assets on a map by clicking on the MAP icon in the lower left of your browser screen.



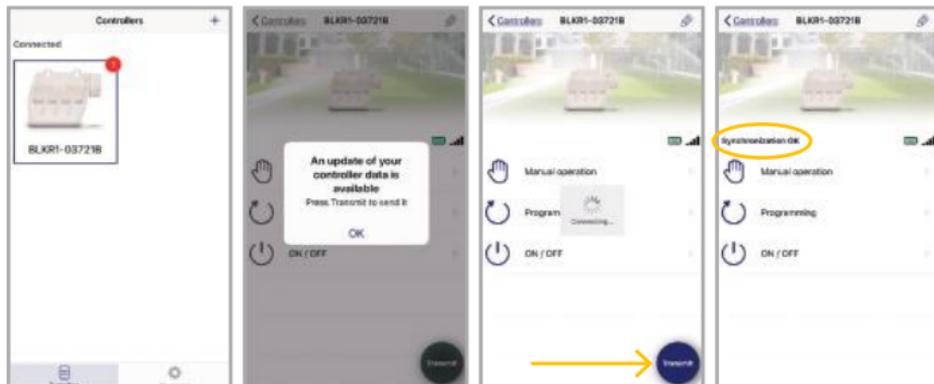
The web platform allows you to view all devices, get alerts when battery levels are low and make changes to controller programs remotely.



You can also create a backup of the current program or restore from a previous backup from the browser or the mobile application.



← You can fully program the device(s) from myblkr.krain.com. The BL-KR cloud pushes these changes to the K-Rain BL App on your smartphone or tablet.



When you tap Transmit, the App will show your Smartphone/Tablet connecting, and will acknowledge with a “bing. The controller is now synced to the platform, and indicates “Synchronization OK.”

DC LATCHING SOLENOID START-UP PROCEDURE:

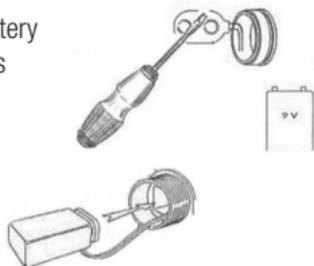
Because some DC Latching solenoids will default to the latched (open) position before installation, the valve will appear to be stuck open.

It is necessary to energize all zones to unlatch the coil and close the valve prior to installation.

From the Manual Operation Screen, select each active station and run for 2 seconds each. This should unlatch the coil and close the valve on each station, should the plunger be latched magnetically prior to installation.

Resetting the security key: If you need to reset the security key (passcode set on the device), disconnect the battery and make a short circuit on the battery connections for 10 seconds, then reconnect the battery (see illustration below).

Make contact on the battery terminals for 10 seconds with something metallic — like a screwdriver.

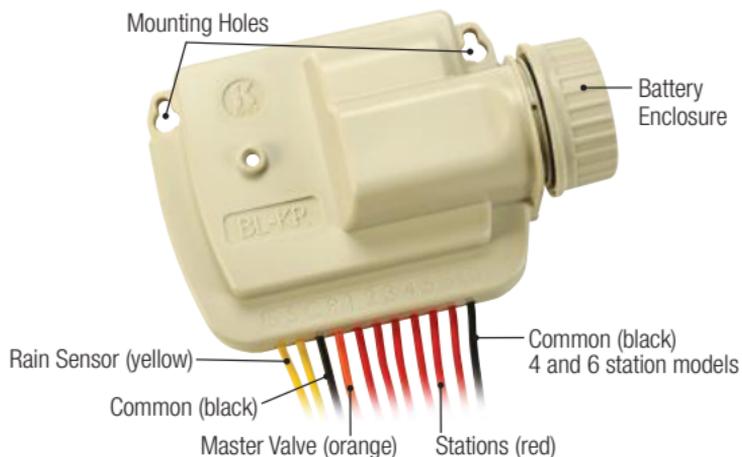


Reconnect and insert the battery.

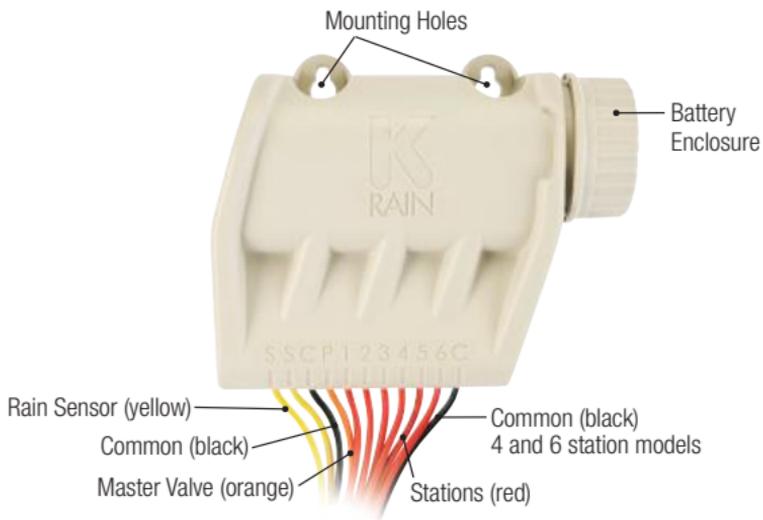
Launch the App and Add the device to your account by following steps 1-5. Go to the Edit screen and type in a new security key.

PARTS DIAGRAMS

BL-KR V1.0



BL-KR V2.0



WARRANTY

The manufacturer guarantees to the original purchaser that any product supplied by the manufacturer will be free from defects in material and workmanship for a period of two years from the date of purchase. Any product found to have defects in material or workmanship within the warranty period shall be repaired or replaced by the manufacturer.

The manufacturer does not guarantee the use for a particular purpose of its products and does not make any guarantee, expressed or implied, other than the warranty contained herein. The manufacturer shall not be liable for any loss from use of the product or incidental or consequential damages to other parts of any installation of which this product is part.

The warranty shall not apply to any equipment which is found to have been improperly installed, set up or used in any way not in accordance with the instructions supplied with this equipment, or to have been modified, repaired or altered in any way without the expressed consent of the manufacturer. This warranty shall not apply to any batteries or accessories used in the equipment covered under this warranty or to any damage which may be caused by such batteries.



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