

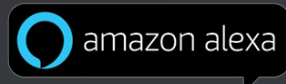
DROP

PROTECT WHAT MATTERS



Installation Manual

Relay Box
D-RB01



INTRODUCTION

Thank You for Purchasing a DROP System!

We know you'll love your leak detection ability and water conservation benefits of your new DROP Water Management System from Chandler Systems. Protecting your facility and conserving water are just a few of the ways that the DROP Water Management System can improve your water system.

Be sure to check out the dropconnect.com website periodically for more information about additional DROP products as they are released.



833.BUY.DROP
(833.289.3767)



dropconnect.com

To further help you operate your new DROP system, we have provided you with many other resources for you to learn more. Feel free to call Chandler Systems when you need additional help. We also have many resources located on our website including instructional videos, and images.

DROP Connect is also active on various social media pages! Feel free to follow us for the most up to date information and news!



@dropconnect

Privacy Statement

For more information about privacy, visit our [privacy policy](https://dropconnect.com/sites/default/files/DROP-Privacy-Statement.pdf) (<https://dropconnect.com/sites/default/files/DROP-Privacy-Statement.pdf>) online.

DROP Patents

For the most up-to-date list of patents, visit our patents on our website: <https://dropconnect.com/patents>.

FCC Compliance Statement:

https://dropconnect.com/sites/default/files/FCC_Compliance_Statement.pdf

Industry Canada Compliance Statement:

https://dropconnect.com/sites/default/files/Industry_Canada_Compliance_Statement.pdf



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CAUTION:

- Do not locate unit where it will be subject to temperatures below freezing.
- Do not use Vaseline or any petroleum-based lubricants on O-rings or rubber seals. Only use food-grade silicone lubricant.
- Do not use pipe dope or any sealant other than Teflon tape on threaded connections. Threads on the tool free connection nuts do not require any tape because they use an O-ring seal. Tape is only required on the inlet/outlet adapter fittings.

HOW TO USE YOUR SYSTEM

The DROP Relay Box allows the DROP Smart Water Management System to interact with external equipment and automation systems. It provides a programmable input and relay output so DROP can both receive signals and control other devices.

Benefits:

- Adds external automation capability to DROP systems
- Allows external devices to trigger DROP system actions
- Enables DROP to control other equipment using a relay output
- Wireless installation anywhere within range of the DROP Hub

Some examples of how the DROP Relay Box could be used:

- Connect a security system to the input to tell the DROP system when the security system is armed to be more sensitive to water leaks / water usage.
- Connect a security system to the output so the DROP system can signal the security system when a leak has been detected.
- Connect a reverse osmosis system so DROP recognizes expected water usage.
- Control a feed pump so it runs during filter backwash cycles.

Relay Box Specifications

Size: 2.85" W x 5.13" H x 1.15" D, Includes mounting flanges with a hole for up to a #10 screw in the top and bottom flange.

Power: 12VDC, 2.5mm x 5.5mm barrel jack, 0.1A

Input: Dry Contact, Voltage input (+V on terminal 1, -V on terminal 2) 1-24 VDC*

Output: Form C Relay**, Dry contact output: 30 VDC max, 10 A max (resistive). Load must be externally fused or current-limited to 10 A maximum.

Terminals: Pluggable screw terminal blocks. Wire Gage range, 28-12 AWG. Recommended Strip Length, 0.25". Torque screw terminals to 4.5 in-lbs.

* If using a voltage input, it must come from an external power source and must not share a ground reference with the Relay Box power supply.

** Form C relays have 3 connections: NO – Normally Open contact, NC – Normally Closed contact, C – Common contact.



INSTALLATION INSTRUCTIONS

STEP 1: Mount the Relay Box

Select a location near a 120-volt AC outlet and any equipment that will be connected to the Relay Box.

STEP 2: Download the DROP Connect Mobile



STEP 3: Determine where you want to locate the HUB

For more information see the DROP User Guide

STEP 4: Connect the Relay Box to the HUB using the DROP Connect App

In the DROP Connect App go to the System, Advanced page and select Add Device Components.

STEP 5: Configure the Relay Box

Once your relay box is connected it will need configured. To configure the relay box device, in the DROP Connect App, go to "DEVICES" on the left slide menu and then choose the relay box device. Once on the relay box page choose "ADVANCED" at the top. Use the configuration table below.

INSTALLATION INSTRUCTIONS

Switched Input Function Options	Potential Uses
Ignore continuous flow	Use with a non-DROP softener or filter that uses water for long periods of time.
Ignore high flow	Use with a water appliance that uses higher flow for brief periods of time.
Ignore continuous and high flow	Use with an irrigation system or an automatic pool fill.
Turn the system water off	Use with a security system or a manual switch to preventively shut off water.
Change Protect Mode	Use with a security system or a manual switch to preventively lower protection limits.

Relay Output Function Options	Potential Uses
Enabled when a leak is detected	Use to signal a security system that a leak has been detected.
Enable when water is off	Use to prevent a water appliance from running while water is shut off.
Enable when water is flowing	Use to run something, like a feed pump, when water is being used.
Enable when a notification is pending	Use to create a visible or audible alert or to trigger a notice on another system.
Enable when any regeneration is active	Use to prevent a water appliance from using water when treatment is bypassed.
Enable during specific regeneration steps	Use to enable other treatment equipment to run during a filter backwash.

Additional Output Options:

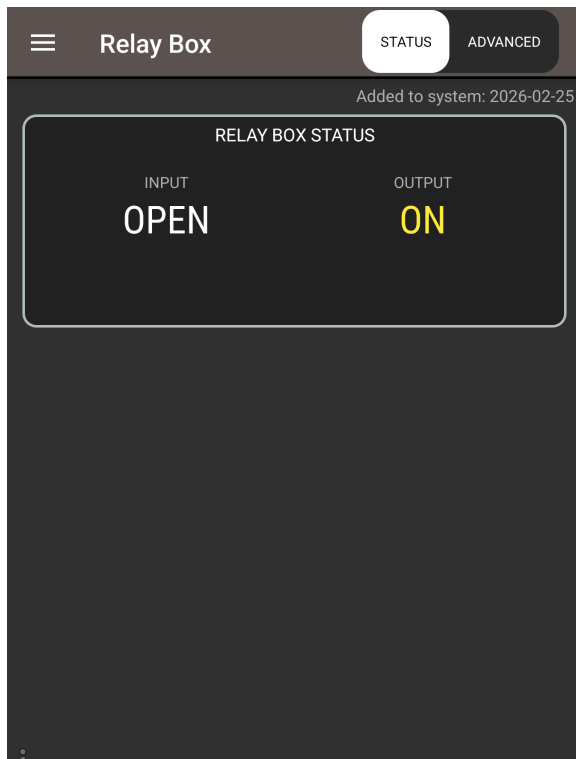
- Send a notification when the output is activated
- Output Delay timer. Can be configured as an output enabled duration, or a delay start of output.

OPERATION

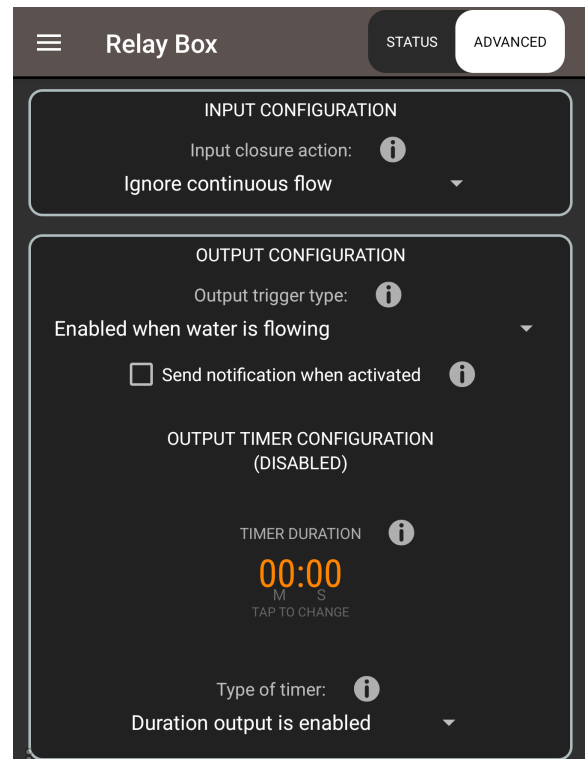


Relay Box Status

The DROP Connect app displays the complete status of the Relay Box including input and output status.



STATUS



ADVANCED

Indicator Lights

When first powered on and not yet connected to a Hub, all three LEDs throb red. Every 10 seconds, the device searches for a Hub to join. During this search, one LED at a time lights white for one second while the others remain off, rotating through each LED for approximately 5 seconds.

The Power LED is solid green when the device is powered and connected to a Hub. It blinks purple when communicating with the Hub.

The Input LED is red when the input is active. The Output LED is blue when the output is active.

DROP Limited Warranty

WATER MANAGEMENT SYSTEMS

This warranty cannot be transferred - it is extended only to the original purchaser or first user of the product. By accepting and keeping this product, you agree to all of the warranty terms and limitations of liability described below.

Important Warning: Read carefully the DROP Water Management Systems Equipment Installation, Operating and Maintenance Instructions Manual to avoid serious personal injury and property HAZARDS and to ensure safe and proper care of this product.

*FOR AS LONG AS YOU OWN AND LIVE IN YOUR SINGLE FAMILY HOME, this warranty covers your water treatment equipment, if you are the first user of this DROP Water Treatment Systems equipment and purchased it for single family home use - subject to all of the conditions, limitations and exclusions listed below. Purchasers who buy the DROP equipment for other purposes, and other component parts are subject to more limited warranties and you should read all of the terms included in this form to make sure you understand your warranty.

What is covered by this warranty?

Chandler Systems, Inc. warrants that at the time of manufacture, the DROP equipment shall be free from defects in material and workmanship as follows:

Product	Warranty
Residential Mineral Tank	10 Years
DROP Control Valves	5 Years
DROP Pump Controllers	5 Years
DROP Home Protection Valve	5 Years
DROP Commercial Protection Systems	5 Years
Brine Tank	5 Years
DROP Hub and Remote	1 Year
DROP Aux Box	1 Year
DROP Wireless Low Salt Alarm	1 Year
Other Accessories and Parts	1 Year
Brine Tank Components	1 Year

* This warranty does not include media and/or cartridge filter elements.

Additional Terms & Conditions

What Chandler Systems Inc will do if you have a covered warranty claim; Chandler Systems Inc will at its discretion either make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. Chandler Systems, Inc. will not accept any claims for labor or other costs.

Additional Exclusions and Limitations

This warranty is non-transferable and does not cover any failure or problem unless it was caused solely by a defect in material or workmanship. In addition, this warranty shall not apply:

- If the equipment is not correctly installed, operated, repaired and maintained as described in the Installation, Operating & Maintenance Instructions Manual provided with the product.
- Defects caused as a direct result of the incoming water quality

- If the DROP equipment is not sized appropriately for the intended job.
- To any failure or malfunction resulting from abuse (including freezing), improper or negligent; handling, shipping (by anyone other than DROP)
- If the unit has not always been operated within the factory recommended temperature limits, and at a water pressure not exceeding 125 psi, during storage, use, operation, accident; or alteration, lightning, flooding or other environmental conditions.
- To any failure or malfunction resulting from failure to operate the system with potable water, free to circulate at all times; and free of damaging water sediment or scale.
- This warranty does not cover labor costs, shipping charges, service charges, delivery expenses, property damage, administrative fees or any costs incurred by the purchaser in removing or reinstalling the water management equipment.
- The warranty does not cover any claims submitted more than 30 days after expiration of the applicable warranty, and does not apply unless prompt notice of any claim is given to an authorized DROP Dealer or to DROP or a designated contractor is provided access to the installation and to the water treatment equipment.

THESE WARRANTIES ARE GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. NO DROP REPRESENTATIVE OR ANY OTHER PARTY IS AUTHORIZED TO MAKE ANY WARRANTY OTHER THAN THOSE EXPRESSLY CONTAINED IN THIS WARRANTY AGREEMENT.

Additional Warranty Limitations

ANY IMPLIED WARRANTIES THE PURCHASER MAY HAVE, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE APPLICABLE TIME PERIODS SPECIFIED ABOVE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Limitations of Remedies

The remedies contained in this warranty are the purchaser's exclusive remedies. In no circumstances will Chandler Systems, Inc. or the seller of the product be liable for more than, and purchaser-user's remedies shall not exceed, the price paid for the product. In no case shall Chandler Systems, Inc. or seller be liable for any special, incidental, contingent or consequential damages. Special, incidental, contingent and consequential damages for which Chandler Systems, Inc. is not liable include, but are not limited to, inconvenience, loss or damage to property, consequential mold damage, loss of profits, loss of savings or revenue, loss of use of the products or any associated equipment, facilities, buildings or services, downtime, and the claims of third parties including customers. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

What to do if you have a problem covered by this warranty

Any warranty coverage must be authorized by Chandler Systems, Inc.. Contact the person from whom you purchased the product, who must receive authorization from a DROP Dealer.

If your product is new and not used and you wish to return it, contact your DROP Dealer.



Note: 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.

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SYSTEM NOTES



