

Overcurrent: Wiring Short or Bad Solenoid

An overcurrent message means that your Hydrowise enabled controller has detected high current in the wiring to a zone valve and has automatically turned the zone off. This issue is usually due to a **WIRING SHORT** or **BAD SOLENOID**. Overcurrent can also cause other problems in the system, such as the controller rebooting due to the wiring issue (i.e., there is not enough power for the controller).

Most Hydrowise controllers have a built-in milliamp sensor that detects current (controller model HC-600i does not have the current-sensing option). A typical solenoid uses 200 to 400 mA. If you have a master valve, this value can change to 300 to 500 mA. The **OVERCURRENT** message will display in the events log or via an alert if the sensor detects a high current overload, which results from a level above 900 mA (for HCC controllers, the alert occurs for levels above 1,200 mA).

If this happens, the controller will experience the following:

- The controller will shut down (power off). Wait one to two minutes and restart the controller.
- The shutdown occurs to protect the controller. All stations will stop, and the controller will reset after about two minutes.
- The controller will reconnect to the internet and restart any zones that were scheduled to start after the reboot.
- It will not restart the faulty zone that caused the overcurrent alert unless the zone has another start time or if Cycle & Soak was enabled.
- It will send an in-app alert, if one is set up, to your phone.
- It will also record a reset warning in the contractor events log.

Please review each of the sections below for more information.


- Basic Troubleshooting
- Viewing the Diagnostics Report
- Viewing the Overcurrent Message on the Events Screen
- Creating the Alert

Basic Troubleshooting

1. Use a Phillips screwdriver to remove the wire from the zone terminal that is receiving the message.
 - If a pump or master valve is wired, remove the wire from the P/MV terminal. This will also isolate if it is causing the overcurrent alert.
 - If you receive an **OVERCURRENT** on **ALL ZONES**, the issues could be with the pump connections, master valve wire or solenoid, or the common wire to all the zones.
2. Turn on the zone manually from the controller or from the app.
3. If the zone appears to run normally from the controller (no water), inspect the field wiring and solenoid.
 - Field wiring: Verify that there is no corrosion in the wire splice at the valve and that the solenoid connection is good.
 - Solenoid: You can easily test the solenoid by wiring straight to the controller and turning the zone on manually (e.g., com terminal and Zone 1).


IMPORTANT: If the message continues to appear after the wiring and solenoid were thoroughly inspected, the controller may be receiving electrical noise from an external power source (e.g., a circuit breaker).

Viewing the Diagnostics Report

1. Select the **REPORTS**  icon on the lower, right-hand side of the app.
2. Scroll through the **REPORTS** using the tabs at the top.
3. Select **DIAGNOSTICS**.
4. Hover over the zone with the **OVERCURRENT** issue. The mA current will be displayed.

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View the Overcurrent Message on the Events Screen

1. Select the **MENU**  icon on the upper, left-hand side of the app.
2. Scroll through to **ACCOUNT**.
3. Select **EVENTS**. Your overcurrent events will be displayed in red.

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Creating the Alert

1. Select the **MENU** □ icon on the upper, left-hand side of the app.
2. Scroll through to **ACCOUNT**.
3. Select **ALERTS**.
4. Add **ALERT NAME** and **TYPE - HIGH CURRENT - WIRING SHORT TO SOLENOID**.
5. Select **NEXT**.
6. Apply the controller for this **ALERT**.
7. Check the **APP NOTIFICATION** and **TEXT NOTIFICATION**, if applicable.
 - The app notification will send an in-app alert.
 - The text notification will send you a direct text message.

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