



COLLECTandDRAIN®

Models 5100ALBV • 5100 • 5200



Model 5100ALBV



Model 5100A



Model 5200A

Owner's Manual

www.agfmfg.com



COLLECT_{AND}DRAIN[®]

Models 5100ALBV • 5100 • 5200

5100ALBV Water Detector 5100 & 5200 Auxiliary Drains

TABLE OF CONTENTS

Installation Instructions

Model 5100/5200.....	3
Model 5100ALBV.....	4

Operating Instructions

Model 5100/5200.....	3-4
Model 5100ALBV.....	5-7

WARNING: The COLLECT_{AND}DRAIN Anti-Trip Plate is designed to make sure the auxiliary drain is operated in the proper manner and correct sequence as per NFPA standards to avoid accidental tripping, improper maintenance, and acts of vandalism. The 5100ALBV Water Detection Alarm detects the presence of water in the COLLECT_{AND}DRAIN and alerts personnel when maintenance is needed. COLLECT_{AND}DRAIN Models 5100 and 5200 are **NOT** designed to prevent freezing or automatically drain condensation from the system. **FAILURE TO DRAIN CONDENSATION MAY RESULT IN CATASTROPHIC SYSTEM FAILURE DUE TO FREEZING. SYSTEM MUST BE MAINTAINED PER NFPA 25.**

AGF Manufacturing

100 Quaker Lane • Malvern, PA 19355

Phone: 610-240-4900
techsupport@agfmfg.com

www.agfmfg.com

Model 5100/5200 INSTALLATION INSTRUCTIONS

Retrofitting onto an Existing System:

1. Isolate branch line or zone where the COLLECT_{AND}DRAIN is to be installed.
2. Relieve air pressure from the branch line.
3. Remove existing auxiliary drain (drum drip, low-point drain).
4. Install the COLLECT_{AND}DRAIN by attaching the supply valve (upper) to the fire sprinkler system pipe in accordance with NFPA 13 standards pertaining to low-point drains (auxiliary drains).
5. Confirm that the supply valve (upper) is in the open position and ready to collect condensation, the drain valve (lower) is closed, and the plug is tight.

Installation into a New System:

1. Install the COLLECT_{AND}DRAIN by attaching the supply valve (upper) to the fire sprinkler system pipe in accordance with NFPA 13 standards pertaining to low-point drains (auxiliary drains).
2. Confirm that the supply valve (upper) is in the open position and ready to collect condensation, the drain valve (lower) is closed, and the plug is tight.
3. Activate the fire sprinkler system for operation.

NOTE: The presence of a small amount of water in the COLLECT_{AND}DRAIN Model 5100 will activate the Model 5100ALBV water detector's visual and audible alarms. The COLLECT_{AND}DRAIN must be completely drained to silence the alarms. If the Model 5100ALBV is wired directly to a fire panel or BMS call or email AGF for instructions on silencing the water detector's local alarms.

Model 5100/5200 OPERATING INSTRUCTIONS

To Collect Condensation per NFPA 25:

1. Close the drain valve (lower) by making sure the valve handle is perpendicular to the collection assembly.
2. Apply a proper sealant to the drain plug threads and make sure it is secured tightly into the bottom of the drain valve (lower).
3. Slide the Anti-Trip Plate to its lowest position.
4. Open the supply valve (upper). If equipped, install the anti-tamper lock.

**To Drain Condensation per NFPA 25:**

1. Close the supply valve (upper).
2. Remove the drain plug, slide the Anti-Trip Plate into its highest position, and open the drain valve (lower) to release the collected condensation.
3. Once the collected condensation has been drained, close the drain valve (lower), slide the Anti-Trip Plate to its lowest position, and open the supply valve (upper).
4. Allow time for any remaining condensation in the system to accumulate. Then, repeat steps 1-3 until all of the condensation has been drained from the system.
5. Once all condensation has been drained apply a proper sealant to the drain plug threads and make sure it is secured tightly into the bottom of the drain valve (lower).
6. Close the drain valve (lower) and slide the Anti-Trip Plate down into its lowest position.
7. Open the supply valve (upper). If equipped, install the anti-tamper lock.

Model 5100ALBV INSTALLATION INSTRUCTIONS

The Model 5100ALBV Water Detector operates on the principle of conductivity. It contains a probe that is attached to the piping system and when condensate collects in the piping and reaches the probe the electrical circuit is completed. When the circuit is completed the water detector sounds an audible alarm and flashes a visual red LED alert. The module will reset when the condensation is completely drained.

Retrofitting onto an Existing System:

1. Isolate the auxiliary drain (drum drip, low-point drain) where the Model 5100ALBV Water Detector is to be installed by closing the supply valve.
2. Remove the drain plug and open the drain valve (lower) to empty any condensation in the auxiliary drain. Then, remove the existing drain valve (lower) from the auxiliary drain
3. Apply a proper sealant to the Model 5100ALBV threads and install it on the auxiliary drain where the existing drain valve was just removed. Then, apply a proper sealant to the drain plug threads and make sure it is secured tightly into the bottom of the 5100ALBV.
4. Make sure the Model 5100ALBV is closed and the drain plug is tight. Then, open the supply valve (upper).
5. See Page 5-7 for wiring instructions.

Model 5100ALBV OPERATING INSTRUCTIONS

Power is supplied to the Model 5100ALBV by a 9V battery (default) or by installing a 12-24VDC external hard wire (See page 6). Optional 110V plug is also available.

NOTE: The 5100ALBV can draw up to 100mA during operation. Ensure the power supply is sized appropriately for this and any other loads on the same circuit.

Battery Operation:

1. Remove the four screws on the alarm box and take the cover off.
2. For battery operation, check to make sure the Voltage Jumper is on the front two pins as shown in Image 1 (Fig. A).

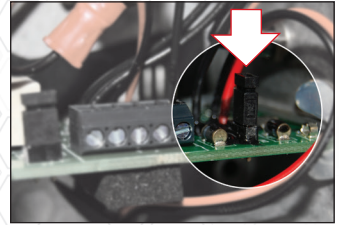
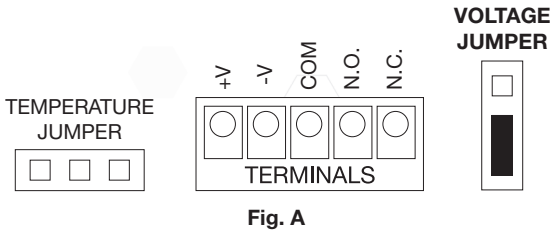


Image 1

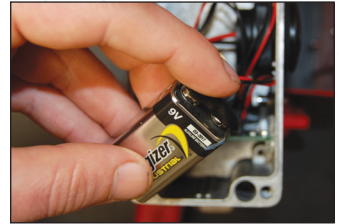


Image 2

3. Install a 9V battery as shown in Image 2.

NOTE: When the battery begins to run low the alarm will chirp and the LED will double flash, or flash yellow on older models.

4. Place the 9V battery under the circuit board as shown in Image 3.
5. Replace the cover with the 4 screws.

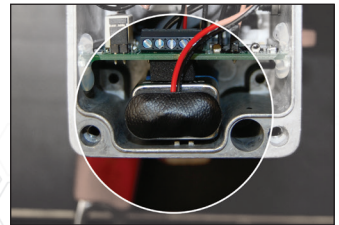


Image 3

External Hard Wire Operation:

1. Remove the four screws on the alarm box and take the cover off.
2. For external power operation, place the Voltage Jumper on the two rear pins as shown in Image 4 (Fig. B).

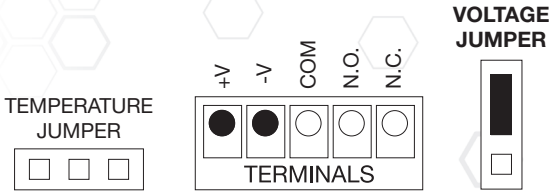


Fig. B

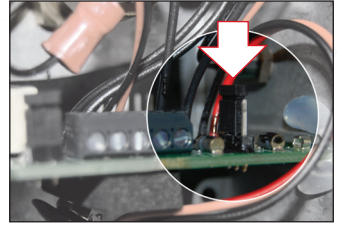


Image 4

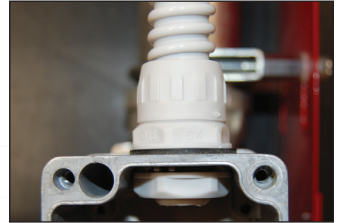


Image 5

3. While supporting the bottom of the alarm enclosure remove the knockout using a slotted screwdriver and a hammer (place a clean rag underneath the knockout to prevent debris from falling onto the circuit board).
4. Install 1/2", watertight conduit fitting or cord grip into the knockout opening and run the external power source into the alarm housing as shown in Image 5.
5. Connect external power source to V+ and V- terminals as shown in Image 6 (Fig. B). Ensure DC is from a clean power supply and not full-wave rectified without a capacitor.
6. Replace the cover with the four screws.

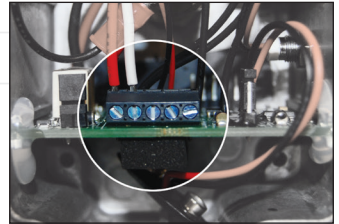


Image 6

TEMPERATURE SENSING FUNCTION

When the Temperature Sensing Function is enabled and water is present in the auxiliary drain the Model 5100ALBV will not activate the audible and visual alerts if the ambient temperature is above 45° F. When water is present and the ambient temperature falls below 45° F the Model 5100ALBV will activate the audible and visual alerts. The Temperature Sensing Function helps extend battery life and eliminates unwanted alarm conditions when the threat of freezing is not present. **By default, the Temperature Sensing Function is enable when shipped. The Model 5100ALBV will not detect water unless the temperature is under 45° F.** See page 7 to disengage Temperature Sensing Function.

To Disengage the Temperature Sensing Function:

1. Remove the four screws on the alarm box and take the cover off.
2. Remove Temperature Jumper from left/center pins and reinstall on right/center pins as shown in Image 7 (Fig. C).

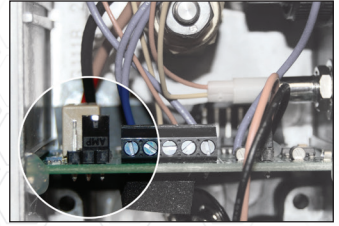


Image 7

- Left/Center pins covered (TEMP -): Alarm functions at < 45° F (engaged)
- Right/Center pins covered (TEMP +): Alarm functions at all times (disengaged)

TEMPERATURE JUMPER

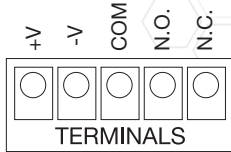


Fig. C

VOLTAGE JUMPER



3. Replace the cover with the four screws.

NOTE: If the Temperature Jumper only utilizes two pins call or email AGF for instructions on how to engage/disengage the Temperature Sensing Function.

REMOTE NOTIFICATION FUNCTION

The Model 5100ALBV Water Detection Alarm also features a Remote Notification Function. This function allows you to connect the unit directly to the fire control panel or BMS, so when water is detected in the auxiliary drain you will be notified remotely.

Remote Operation Setup:

1. Remove the four screws on the alarm box and take the cover off.
2. Connect wiring to the Common Terminal and either the N.O. or N.C. terminal as shown in Image 8 (Fig. D). Contact is rated for 2.0A @ 30VDC.

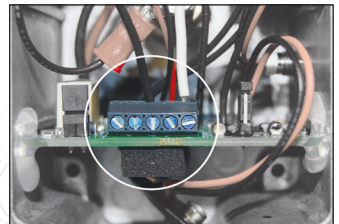


Image 8

TEMPERATURE JUMPER

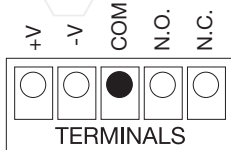


Fig. D

VOLTAGE JUMPER



3. Replace the cover with the four screws.

NOTE: Please call or email AGF for instructions on how to locally silence the audible alert if directly wire to a fire control panel or BMS.



AGF Manufacturing
100 Quaker Lane • Malvern, PA 19355

Phone: 610-240-4900
techsupport@agfmfg.com

www.agfmfg.com