

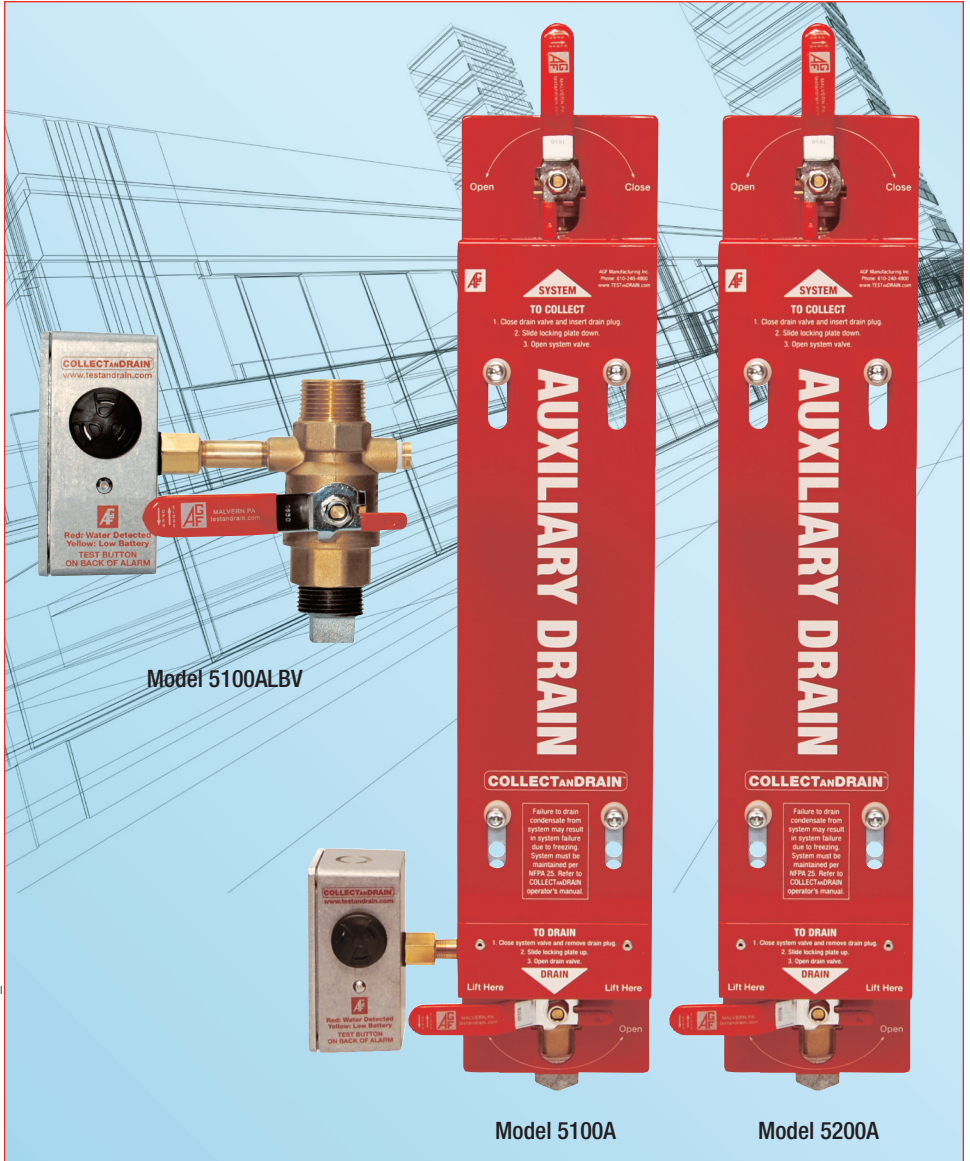


AGF Manufacturing Inc.

COLLECT_{AN}DRAIN[®]

**Model 5100A, 5200A,
and 5100ALBV**

Owner's Manual

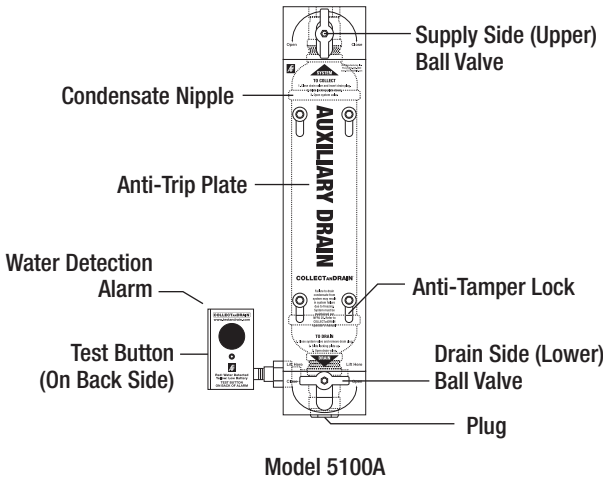


Model 5100ALBV

Model 5100A

Model 5200A

COLLECT_{AND}DRAIN™ Anti-Trip Auxiliary Drains for Dry Pipe and Pre-Action Fire Sprinkler Systems



Model 5100A

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WARNING: The COLLECT_{AND}DRAIN™ Anti-Trip Plate is designed to make sure that the auxiliary drain is operated in the proper manner and correct sequence as per NFPA guidelines to avoid accidental tripping, improper maintenance, and acts of vandalism. The M5100ALBV Water Detection Alarm detects the presence of water in the COLLECT_{AND}DRAIN™ and alerts personnel when maintenance is needed. COLLECT_{AND}DRAIN™ Model 5100A and 5200A are not designed to prevent freezing or automatically drain condensation from the system. **Failure to drain condensation from system may result in catastrophic system failure due to freezing.** System must be maintained per NFPA 25 4.6, 4.6A and 4.1.

Model 5100A/5200A Installation Instructions

Retro-fitting into 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/condensation collection assembly.
4. Install the COLLECT_{AND}DRAIN™ by attaching the supply valve (upper) to the sprinkler system pipe in accordance with NFPA 13 (2013 edition) 8.16.2.5 and 8.16.2.5.3 with regards 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.
6. Return system back to normal operating conditions.

Installation into a New System

1. Install the COLLECT_{AND}DRAIN™ by attaching the supply valve (upper) to the sprinkler system pipe in accordance with NFPA 13 (2013 edition) 8.16.2.5 and 8.16.2.5.3 with regards 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 system for normal operating conditions.

Note: The presence of even a *small amount* of water in the COLLECT_{AND}DRAIN™ Model 5100A will activate the Model 5100ALBV Alarm's visual and audible alerts signaling the need for attention. The COLLECT_{AND}DRAIN™ must be drained completely to silence the alarm. Please call 610-240-4900 for instructions on how to locally silence the audible alert if directly wired to a Fire Control Panel or BMS.

Model 5100A/5200A Operating Instructions

To Collect Condensate per NFPA 25 (2011 edition) A.13.4.4.3.2, 13.4.4.3.2*

1. Close the drain valve (lower) by making sure the valve handle is perpendicular to the collection assembly.
2. Apply Teflon® tape to the plug and make sure the plug is tightly threaded into the bottom of the drain valve.
3. Slide the Anti-Trip Plate to its lowest position.
4. Open the supply valve (upper) by making sure the valve handle is in line with the collection assembly.
5. If equipped, install the anti-tamper lock.

To Drain Condensate per NFPA 25 (2011 edition) A.13.4.4.3.2, 13.4.4.3.2*

1. Close the supply valve (upper) and remove plug.
2. Slide the Anti-Trip Plate to its highest position and open the drain valve (lower) to drain the accumulated water.
3. Once the water has been drained, close the drain valve (lower) and slide the Anti-Trip Plate to its lowest position.
4. Open the supply valve (upper) and allow time for any remaining water in the system to accumulate. Repeat steps 1-3 until all of the water has been drained from the system.
5. Once all water has been drained apply new Teflon® tape to the plug and make sure it is tightly threaded into the bottom of the drain valve.
6. Close the drain valve (lower) and slide the Anti-Trip plate down into its lowest possible position.
7. Open the supply valve (upper).
8. If equipped, install the anti-tamper lock.

Model 5100ALBV Installation Instructions

The alarm module operates on the principle of conductivity. The alarm contains a probe that is attached to the piping system. When condensate collects in the piping and reaches the probe, the electrical circuit is completed and the unit sounds an audible alarm, flashes a visual red LED, and changes the state of the output relay. The module will reset itself when the condensate is completely drained.

Retro-fitting onto an Existing Auxiliary Drain

1. Isolate the auxiliary drain that the COLLECT_{AND}DRAIN™ Model 5100ALBV is to be installed on.
2. Remove the plug and open the drain valve (lower) to empty the condensate from the auxiliary drain and relieve the air pressure.
3. Remove the existing drain valve (lower) from the auxiliary drain.
4. Apply PTFE tape or appropriate sealant to the Model 5100ALBV.
5. Install the Model 5100ALBV by threading the valve into the appropriate fitting.
6. Confirm that the drain valve (lower) is closed and the plug is tight. Open the supply valve (upper) and the auxiliary drain is ready to collect condensate.
7. Return system back to normal operating conditions.
8. 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). **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 four screws on the alarm box and take off the cover.
2. For battery operation, check to make sure the **Voltage Jumper** is on the front two pins as shown in Image 1 (Fig. A).

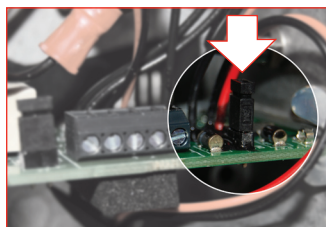
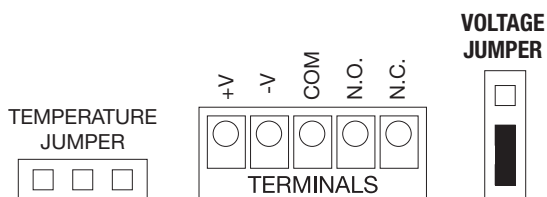


Image 1



(Fig. A)

3. Install a 9V battery as shown in Image 2.
Note: When the battery begins to run low the alarm will chirp and flash a yellow LED.
4. Place 9V battery under the circuit board as shown in Image 3.
5. Install cover with the four screws.

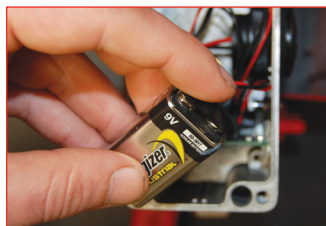


Image 2

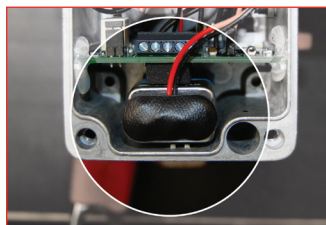
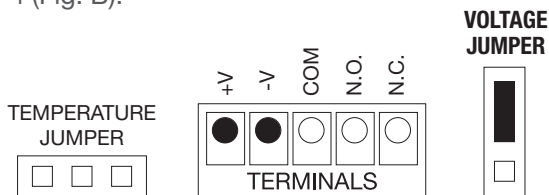


Image 3

External Hardwire Operation:

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



(Fig. B)

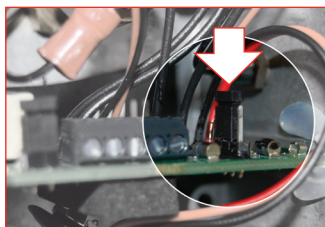


Image 4

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 ½", 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. Install cover with the four screws.

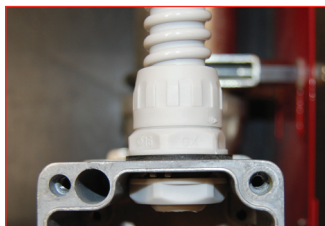


Image 5

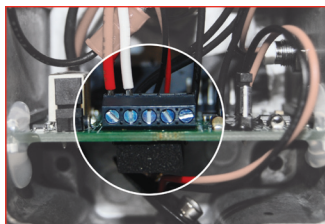


Image 6

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 enabled when shipped, meaning the alarm senses water only when the temperature is under 45° F.*** See page 7 to disengage Temperature Sensing Function.

To Disengage the Temperature Sensing Function:

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

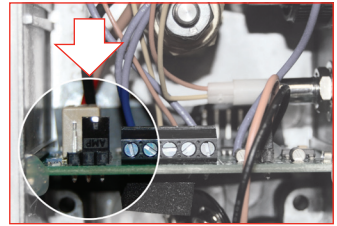
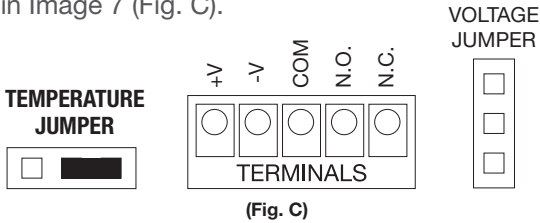


Image 7



NOTE:

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

3. Install cover with the four screws.

Note: If the Temperature Jumper only utilizes two pins call 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 BSM so when water is detected in the auxiliary drain you will be notified remotely.

Remote Operation Setup:

1. Remove four screws on the alarm box and take off the cover.
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.

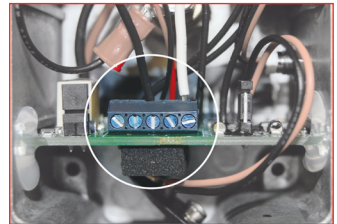
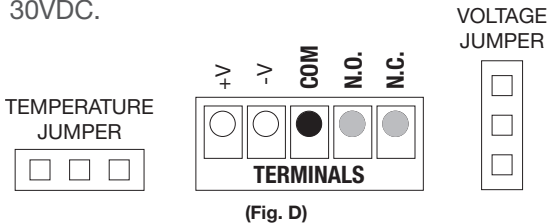


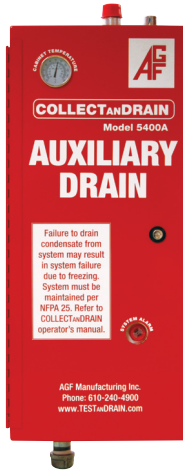
Image 8



3. Install cover with the four screws.

Note: Please call for instructions on how to locally silence the audible alert if directly wired to a Fire Control Panel or BMS.

Thank You For Using AGF Products!



Auxiliary Drain Freeze Protection

The Model 5400A goes beyond the prevention features of the Model 5100A and 5200A by providing a temperature controlled environment to deter system failures due to freezing condensation. The heated and insulated cabinet contains an auxiliary drain with a float switch to monitor condensation levels. When condensation reaches a level where maintenance is needed the float switch activates an audible alarm and an LED warning light. The Model 5400A also features Fire Control Panel notification capabilities. Visit www.collectandrain.com for more information.



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