CTKHOSW

Installation Instructions

Bluefin®

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HVAC CONDENSATE TRAP KIT

With Overflow Switch

Purpose. Install the trap on the primary condensate drain outlet and connect the normally closed float switch so a blocked drain can interrupt the cooling call before overflow occurs.

Kit Contents

- 3/4" J-trap ❶
- 3/4" Outlet tee ❷
- 3/4" Inlet cross ❸
- 3/4" Adaptor ❹
- 3/4" Blue slip cap (1 pc) ❺
- Float switch assembly ❻
- Cleaning label & Cleaning brush



Before Beginning. Turn off power to the HVAC equipment. Confirm the drain outlet is 3/4 inch and review the equipment manufacturer's drain and wiring instructions. Installation and wiring should be completed by a qualified person in accordance with applicable codes

Trap Installation:
Important. Dry-fit and mark the entire assembly before applying PVC cement. The trap and outlet tee may be rotated to suit the required location and angles.

1. **Install the drain adapter**. Apply a small amount of non-hardening thread sealant to the threaded adapter ❹, then screw it into the primary drain pan outlet. **Do not** overtighten.

2. **Dry-fit the drain assembly**. Assemble the inlet cross ❸, trap ❶, outlet tee ❷, and required lengths of 3/4-inch PVC pipe without cement. Rotate the trap and tee to the desired orientation.

3. **Mark the connections**. Once the assembly is positioned correctly, draw alignment marks across each connection to be cemented. Confirm that the drain route has no unintended high spots..

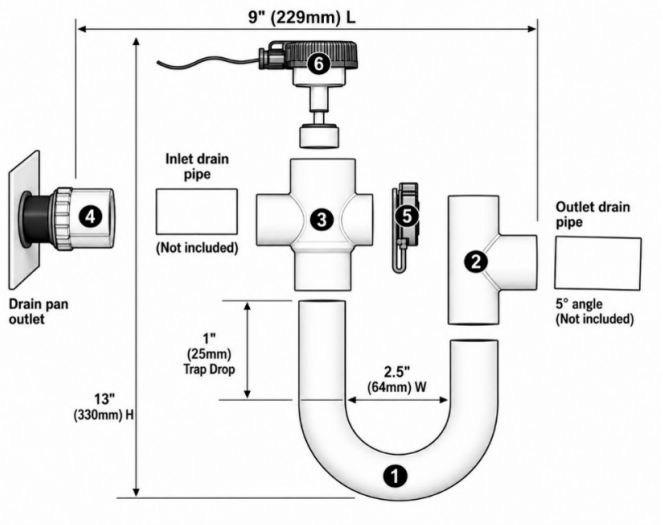
4. **Prime and cement the PVC joints.** Disassemble the dry-fit connections. Prime and cement each PVC pipe-to-fitting joint according to the primer and cement manufacturers' instructions. Reassemble using the alignment marks, and allow the joints to cure as directed.

5. **Install the float switch**. Press the float switch assembly ❻ into the top opening of the inlet cross ❸. Do not use PVC cement or other adhesive. Confirm that the float moves freely inside the cross. *See the wiring instructions below.*

6. **Prime the trap.** Add water through the outlet tee ❷ to fill the trap.

7. **Install the cleanout cap**. Fully seat the blue screw cap ❺. Keep the cap accessible and removable for cleaning and service.

8. **Apply the cleaning label.** Attach the supplied cleaning label to the HVAC unit where it will remain clearly visible during service.



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Switch Wiring Instructions:

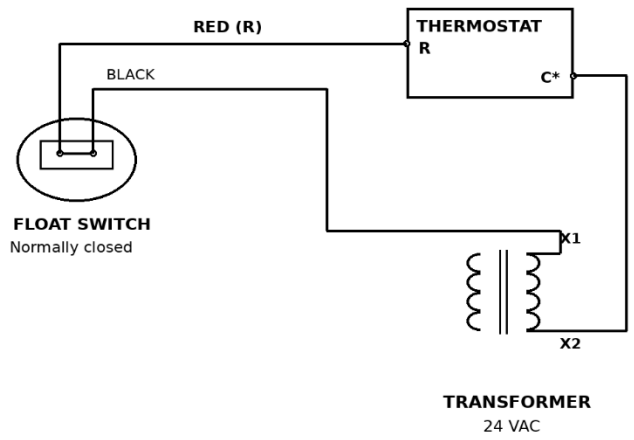
1. **Disconnect power** to the HVAC equipment before wiring.
2. **Select a wiring option** from the diagrams below and wire the float switch in series with the selected circuit. The switch is normally closed and rated for a maximum of 4 A at 24 VAC.
    - **Option A — R Circuit:** Connect the switch in the red (R) circuit to interrupt thermostat power when the float rises.
    - **Option B — Y Circuit:** Connect the switch in the yellow (Y) circuit to interrupt the cooling signal when the float rises. Fan operation depends on the equipment and thermostat configuration.
3. **Extend the switch leads if needed** using 18 AWG copper thermostat wire and listed wire connectors rated for the wire sizes and conductor types being joined.
4. **Restore power and test operation.** With the system calling for cooling, manually lift the float. Confirm that cooling stops.
5. **Lower the float**. Confirm that normal operation resumes, allowing for any equipment restart delay.

NOTE: *Follow the HVAC equipment manufacturer's wiring instructions. Identify wires by terminal designation rather than color alone.*

Wiring Diagram options:

OPTION A — R CIRCUIT

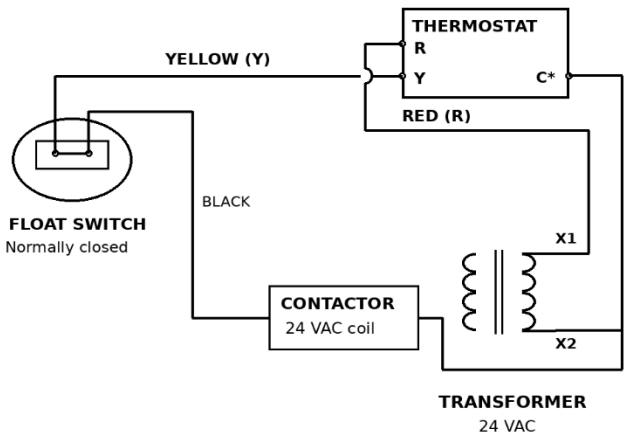
Interrupt thermostat power



Switch opens when the float rises.

OPTION B — Y CIRCUIT

Interrupt cooling signal



Switch opens when the float rises.

Typical single-stage control wiring. Follow equipment wiring instructions. *Common connection where required.

Normal operation. If a blockage causes condensate to rise, the float opens the safety circuit and stops the cooling call. Removing the obstruction allows the float to drop and resets the switch.

Cleaning. Turn off power. Remove the blue slip cap, use *only* supplied flexible cleaning brush to clear buildup, flush the drain as appropriate, reinstall the cap, and repeat the leak and float-switch tests. **Never** leave the cleanout opening uncapped.

⚠ **Service note**. *A safety switch does not correct a blocked drain. Locate and clear the obstruction before returning the equipment to service*

Tested to UL508
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Ind. Cont. Eq.
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