FC-1T-1VAC user manual

The FC-1T-1VAC automatically controls ventilation fans according to temperature. When the temperature is at the set point, the control operates the fans at the idle speed setting. When the temperature exceeds the set point, it increases the speed of the fans. The FC-1T-1VAC has two modes of operation:

Automatic shut-off mode: When the temperature drops below the set point, the control shuts off the fans

Idle mode: When the temperature drops below the set point, the control operates the fans at idle speed.

Features

- One variable speed output
- Automatic shut-off and idle modes
- Fixed 2°F off setback for shut-off mode
- Adjustable idle speed for idle mode
- Adjustable temperature set point
- Fixed 6°F temperature differential
- Overload protection fuse
- One-foot temperature sensor (extendable)
- Rugged, NEMA 4X enclosure (corrosion resistant, water resistant, and fire retardant)
- CSA approval
- Two-year limited warranty

Installation

- Switch OFF the power at the source before connecting the incoming power wires.
- DO NOT switch on the power until you have finished all wiring and verified all equipment is properly connected and free of obstructions.

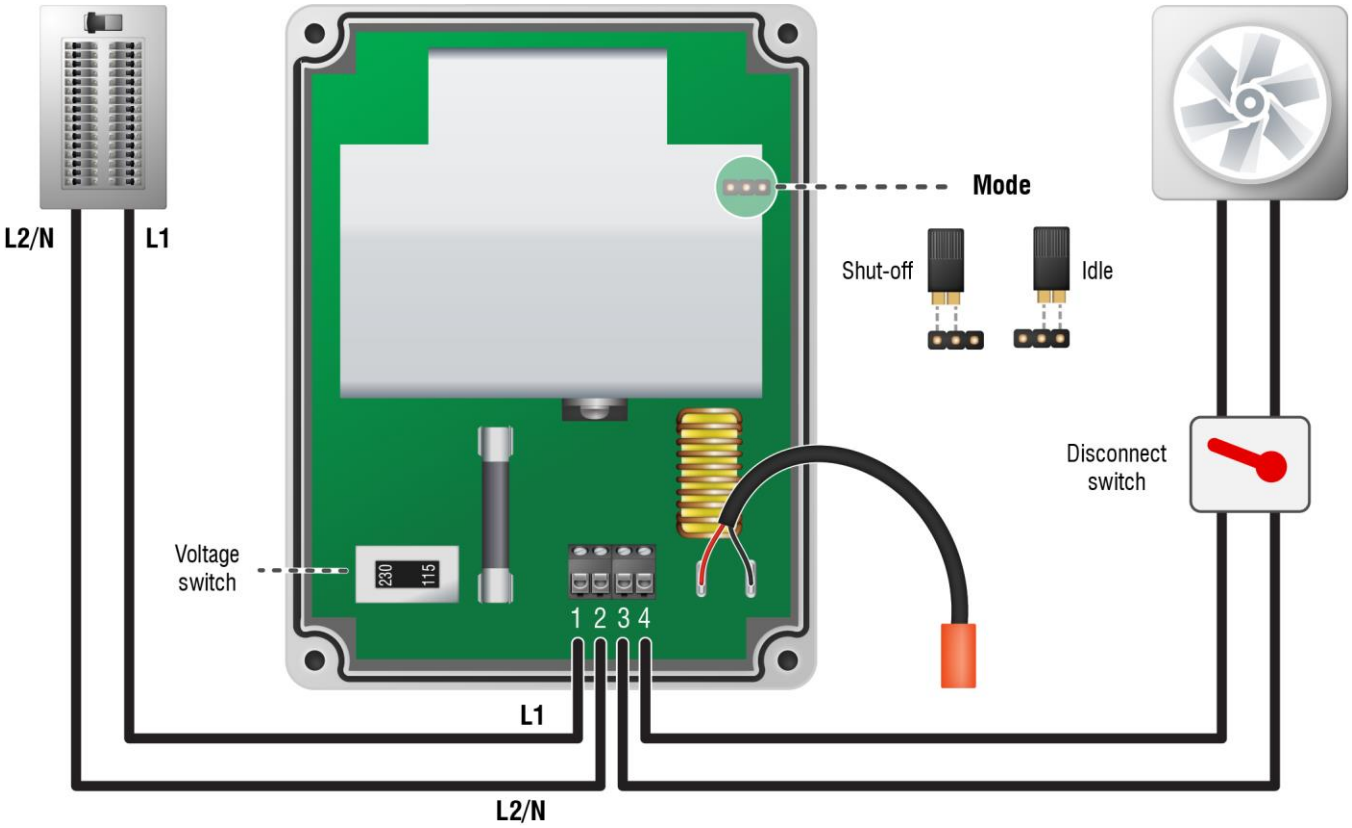
Electrical ratings

Input	◇ 120/230 VAC, 50/60 Hz
Variable stage	◇ 10 A at 120/230 VAC, general-purpose (resistive) ◇ 7 FLA at 120/230 VAC, PSC motor ◇ 1/2 HP at 120 VAC, 1 HP at 230 VAC, PSC motor
Variable stage fuse	◇ 15 A, 250 VAC ABC-type ceramic

Fill in the table below to help configure your control and verify that you do not exceed the electrical ratings.

Fans	A) Maximum current draw per fan	B) Number of fans	Total current draw = A × B
Make			
Model			
Voltage rating			
Power factor			

1. Set the **voltage switch** to the correct position for the line voltage used, 120 or 230 VAC.
2. Position the **jumper** for the mode you want to use, automatic shut-off or idle mode.
3. Connect the wires as shown in the diagram.



Automatic shut-off mode

1. Turn the **Temperature** knob to the point where the fan turns on.
2. Turn the **Idle Speed** knob to the minimum idle speed desired.
3. Turn the **Temperature** knob to the desired temperature.

Idle mode

1. Turn the **Temperature** knob fully clockwise.
2. Turn the **Idle Speed** knob to the minimum fan speed desired.
3. Turn the **Temperature** knob to the desired temperature.

Troubleshooting

The fan motor will not run

- Reset the thermal cutout on the fan motor. Allow the motor to cool.
- Check the wiring.
- Test the power at the control using a voltmeter.
- Replace the fuse. If the fuse blows immediately then there is a problem with the wiring or the fan motor. If the fuse blows after a delay (minutes, hours, for example), the load exceeds the current rating of the control.

The fan motor growls

- Make sure the motor is working by disconnecting the wire at **terminal 1** and **terminal 4** and then connect these lines together. The fan should run at full speed.
- Make sure excessive electrical noise is not being induced onto the temperature sensor by using a short sensor, the standard one-foot one included with the control will work.

The Temperature knob will not control the fan speed

- Check the sensor wiring.
- Replace the temperature sensor (part number MT-P3) if the motor runs at idle or full speed regardless of the temperature setting.

Contact your dealer if this guide fails to resolve your problem.

FC Series model	Replaced models	Interface	Fixed stages	Variable stages	Control
FC-1VAC	MSC-4	Dial	0	1	Manual
FC-1T-1VAC	MTC-4C	Dial	0	1	Temperature
FC-1T-1VDC	SSV-DC	3-digit LED, dial	0	1 (DC)	Temperature
FC-1T-1F	SSC-1D	2-digit LED, dial	1 - heat or cool	0	Temperature
FC-1T-1VAC-1F	FHC-1D	2-digit LED, dial	1 - heat only	1	Temperature
FC-1T-2VAC-3F	SEC-HD, PEC, TVS	4-digit LED, button	3	2	Temperature