MTC-4C Features

- Automatic shut-off below the temperature set-point
- Non-metallic, non-corrosive, water-resistant enclosure
- 6°F temperature modulating band
- Minimum air flow adjustment of up to 95%
- Transient protection
- Overload protection
- Two-year limited warranty

Electrical Ratings

Voltage: 115/230 VAC
Current: 10 full load amps (FLA)
Frequency: 60 Hz
Phases: single phase
Fuse: 15 A, 250 VAC ceramic

⚠️ For controlling shaded-pole, permanent-split-capacitor, or universal motors only.

Warning	Variable speed fan motors draw more current at reduced speeds than maximum speed. Fan motor specifications show current draw at maximum speed.
	Current over 10 amps will cause overheating and eventual failure of the MTC-4C control. Please check the specifications of the motor by either measuring current draw at all speeds or consulting the dealer for information on that particular fan.

Installation

Warning	Only a qualified electrician should install the MTC-4C.

⚠️ Turn off the power before installing or servicing the control.

Mount the control where it can be easily monitored.

- Mount the sensor out of the reach of animals.
- Use the grounding stud at the cable entrance to ground the control.
- DO NOT exceed the control's current rating.

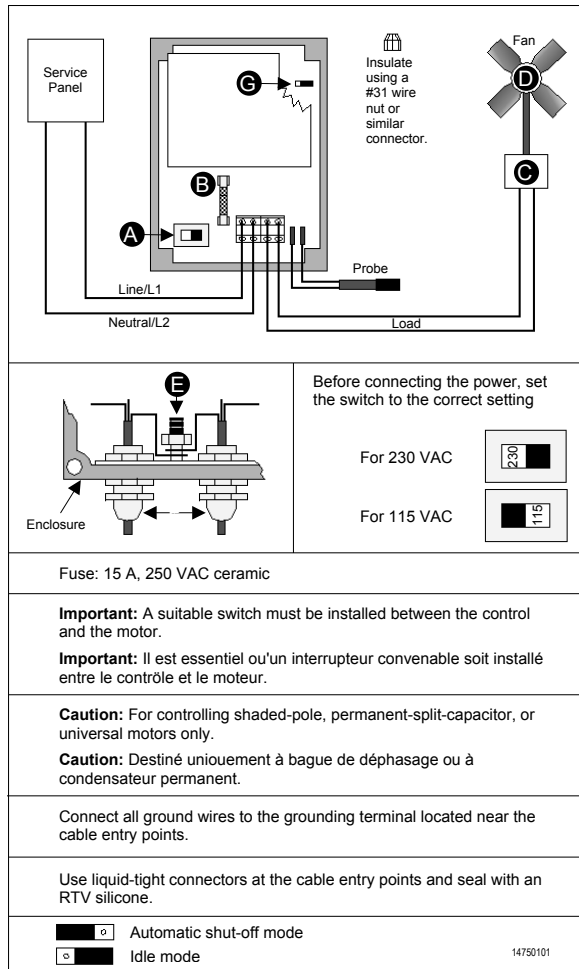|	
NOTE	Water-tight strain reliefs are required at the entrance to the MTC-4C enclosure.
	You can order strain reliefs with the control, or from local electrical suppliers.
	Evidence of moisture damage will void the warranty.

115 VAC

1. Connect LINE to terminal 1
2. Connect NEUTRAL to terminal 2.
3. Connect the fan to terminals 3 and 4.

230 VAC

1. Connect L1 to terminal 1.
2. Connect L2 to terminal 2.
3. Connect the fan to terminals 3 and 4.

Figure 1: MTC-4C Wiring diagram

Temperature Probe

1. Connect the probe to the fast-on tabs.
2. Gently pull on the probe to extend it out of the enclosure.
3. Tighten the compression nut on the strain relief.

Remote Temperature Sensing

- You can order longer probes or probe wire in lengths of up to 500 feet.
- Do not run the probe wire inside conduit.
- When crossing power lines, cross them at 90°.
- When splicing extension wire into the probes, solder all connections and apply heat shrink.

Operation

The MTC-4C has two modes of operation: automatic shut-off mode and idle mode.

Automatic shut-off mode

1. Position the jumper as shown in Figure 1, section G.
2. Turn the **Temperature** knob to the point where the fan turns on.
3. Turn the **Idle Speed** knob to the minimum idle speed desired.
4. Turn the **Temperature** knob to the desired temperature.

Idle mode

1. Position the jumper as shown in Figure 1, section G.
2. Turn the **Temperature** knob fully clockwise.
3. Turn the **Idle Speed** knob to the minimum fan speed desired.
4. Turn the **Temperature** knob to the desired temperature.

Troubleshooting

> ⚠ Turn off the power before cleaning or servicing the control.

The fan motor will not run

- Reset the thermal cutout on the fan motor and allow the motor to cool.
- Check the wiring.
- Use a test light or voltmeter to test the power at the control.
- Replace the fuse. If the fuse blows immediately, a problem exists with the wiring or the fan motor. If the fuse blows after a delay (minutes, days, or weeks), the load is exceeding the current rating of the control.

The fan motor growls

- To ensure the motor is working: disconnect the line at terminal 1 and terminal 4 (see Figure 1) and connect these lines together. The fan should run at full speed.
- Use a short probe (stock probe length) on the MTC-4C to ensure excessive electrical noise is not being induced onto the probe.

The Temperature knob will not control the fan speed

- Replace the temperature probe (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.

Care and Maintenance

Moisture will not cause problems with the control if you take proper care during installation. The control's enclosure is made of fire-retardant plastic and sealed with a rubber gasket. The sensor entry is sealed with a liquid-tight cable connector.

Use caution when washing the room with a high-pressure washer. DO NOT direct a high-pressure washer at the control. To clean the surface of the control, wipe it with a damp cloth.

Maintenance

- To prevent damage to the control, after the first two weeks of operation, remove the cover from the unit and check inside for moisture. Be sure to turn off the power to the control before removing the cover.
- If moisture is present, wipe it out with a dry cloth and check the cable entry points and rubber gasket for proper sealing. If the cable connectors are not sealing, apply silicon sealant around the cable.
- Check the control again after two weeks to verify it is sealing properly.
- Open and inspect the control once a year for moisture. Proper care and maintenance will extend the life of the control.

Warning	The MTC-4C is designed and manufactured to provide reliable performance, but is not guaranteed to be 100% free of defects. Even reliable products may experience occasional failures and the user should recognize this possibility.
	If this product is used in a life-support ventilation system where failure could result in loss or injury, the user should provide adequate backup ventilation, supplementary natural ventilation, or an independent failure alarm system. The user's lack of such precautions acknowledges a willingness to accept the risk of such loss or injury.

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