

MashMaster™ FridgeMate

SPECIFICATIONS

Dimensions: 77.0×34.5×65.5 (mm)
Unit Operating temperature: -0°C~+60°C
Relative humidity: 20%~85% (No condensate)
Power Supply: 220VAC±10%
Relay contact capacity: 10A/250VAC (resistive)
Power Consumption: <5W
Sensor Probe: NTC sensor, cable length 2 meters
Display resolution: 1°C
Measuring precision: ±1°C
Temperature measuring range: -40°C~99°C
Temperature controlling range: -40°C~70°C
Compressor delay protection: 0~9 minutes
Temperature Differential: 1~15°C
Manual Switching Between: Refrigeration, Heating, Alarm

OPERATING MODES

Refrigeration Mode: If the delay time is exceeded and the probe temperature is higher than the Set Temperature + Differential then the refrigerator switches On. If the probe temperature is lower than Set Temperature the refrigerator switches Off.

Heating Mode: If the probe temperature is lower than the Set Temperature the heating element is turned on. If the delay time is exceeded and the probe temperature is higher than the Set Temperature + Differential the heating element is turned off.

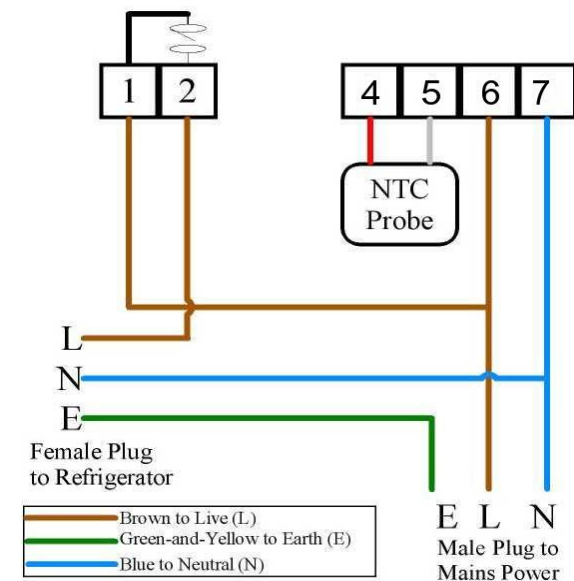
Alarm Mode: The Alarm buzzer sounds if the probe temperature is higher than the Set Temperature + Differential or if the temperature is lower than the Set Temperature

INSTALLATION

Panel hole size is 70.5×28.5 (mm). Avoid installing in places subject to strong vibrations, corrosive gages, or humidity. Let air circulate around the cooling holes. The screw terminals connect cables with a cross section up to 2.5mm². Ensure that wires for probe, power supply and refrigerator are separated and do not cross or intertwine.

CAUTION!

Before wiring, please make sure that power is switched off. Check the supply voltage is correct before connecting the instrument. Ensure that you do not exceed the maximum current which can be applied to the relay.



WARNING: Installation should only be undertaken by a qualified electrician. Isolation between the circuit, probe and mains is 2mm.

LED DESCRIPTIONS

Work	Light Flashes	Compressor delayed
	Light On	Fridge On
	Light Off	Fridge Off
Set	Light On	In setting state
	Light Off	In normal work mode

POWER ON & OFF

To turn the controller on and off Press and Hold the key for 5 seconds

VIEW THE SET POINT

Press key to display the set point. Wait 5 seconds the display will return to the probe temperature.

VIEW THE TEMPERATURE DIFFERENTIAL

Press key to display the temperature differential. Wait 5 seconds the display will return to the probe temperature.

CHANGE THE SET POINT

1. Press and Hold the key for more than 5 seconds
2. The Set LED will turn on and the value of the set point will be displayed.
3. To change the set value Press the or key within 30 seconds.
4. To save the new set point Press and Hold the key for more than 5 seconds or wait 30 seconds.

CHANGE FUNCTIONS SETTINGS

1. Press and Hold the and keys simultaneously for more than 5 seconds.
2. The Set LED will turn on and F0 will be displayed.
3. Press or to scroll to the function you wish to change (F0-F5).
4. When the desired function is displayed (F0-F5) Press the key to adjust that function. The current setting for the selected function will be displayed.
5. Press or keys to change the setting for the selected function..
6. Press key to save the changes. You will be returned to the function menu or wait 30 seconds to save the settings and exit the function menu.

FUNCTION MENU SETTINGS

Code	Function	Setting range	Default	Fridge	Belt
F0	Temp. Differential	1~15°C	3°C	1°C	1
F1	Compressor delay time	0~9 minutes	3 mins	9 mins	1
F2	Set Min. temp. limit	-39°C~+70°C	-20°C	-5°C	0
F3	Set Max temp. limit	-40°C~+69°C	+20°C	+30°C	+30
F4	Select Operating Mode	1: Refrigeration 2: Heating 3: Alarm	1	1	2
F5	Temperature calibration	-5°C~+5°C	0	0	0

NOTE BREWING SETUP: If controlling a refrigerator it is recommended that all the Function Menu Settings are set according to the Fridge preference column. If controlling a brew belt or heating pad all Function Menu Settings should be set accordingly to the Belt preference column.

ALARMS & ERROR MESSAGES

Sensor Errors: E1 open circuit, E2 short circuit

Out of Temperature Range: HHH temperature is greater than +99; LLL temperature is Lower than -40

If a sensor error occurs the refrigerator cycles on & off every 15 minutes.

ADDITIONAL PARTS REQUIRED FOR INSTALLATION

- 1 × Extension lead cut in half
- 1 × Wire connector, joiner, cap or terminal (to join two wires)
- 1 × box to mount the unit in. (Optional, strongly suggested)
- 2 × Rubber grommets or cable glands for wires to pass through the mounting box (Optional)