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F15A THERMOSTAT

Electronic Floor Warming Thermostat With Built In GFCI

DESCRIPTION

The F15A electronic thermostat provides comfort control for in-floor electric heating systems. This unit is designed for both 120/240VAC, 50/60 Hz supply. Recommended for control of heating systems with minimum power consumption.

The thermostat is an electronic on/off thermostat for control of temperature by means of a floor sensor placed externally. Heat output is switched on and off with a difference of only 0.7°F (0.4°C). This unit has a built-in clock function for automatic comfort and setback temperatures.

GFCI

The thermostat has integrated a ground fault circuit interrupter (GFCI, Class A). In case a ground fault should occur it will disconnect both lines to the heating element. In the event of a power failure, an internal circuit will maintain the programming and the time. The time will have to be reset if power failure is more than 2 hours.

- Dual Voltage 120V and 240V
- Two Relays For Extra Protection Against Wiring Errors
- UL Recognized Waterproof Glass-Coated Sensor
- Screw Terminals Saves Time On Installation
- Pre-Programmed
- Inclined Display For Ease Of Viewing
- 120 And 240 In One Thermostat, Eliminates Voltage Incompatibility Situations
- Easy Switching Between °F and °C.

APPLICATIONS

Floor Warming Systems

APPROVALS

$_{C}$CSA$_{US}$

F15A SPECIFICATIONS

Supply:	120/240VAC +10/-15%, 50/60 Hz
Load:	15 amps max. (resistive load)
	Maximum 1800W, 120V AC
	Maximum 3600W, 240V AC
GFCI:	Class A (5 mA Trip Level)
Temperature Range:	41° to 140°F (5° to 40°C)
Ambient Temperature:	Thermostat: 32° to 104°F
	(0° to 40°C)
	GFCI: -31° to 149°F (-35° to 65°)
Size of Display:	
H/W	1/.85 inch (25/22 mm)
Factory-Set:	12-hours, °F
Dimensions	5/3/2 inch
H/W/D	(118/74/48 mm)

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BUILT-IN CLOCK FUNCTION

This clock thermostat comes with a factory-set- 4-event program for automatic comfort and setback temperature.

Day 1-5				
Event	**On/Off Times**	**Temperature**	**W/Floor Sensor °F (°C)**	**W/ Room Sensor °F (°C)**
1	6:00am - 8:00am	Comfort	77° (25°)	68° (20°)
2	8:00am - 4:00pm	Setback	68° (20°)	59° (15°)
3	4:00pm - 10:00pm	Comfort	77° (25°)	70° (21°)
4	10:00pm - 6:00am	Setback	68° (20°)	59° (15°)
Day 6-7				
Event	**On/Off Times**	**Temperature**	**W/Floor Sensor °F (°C)**	**W/ Room Sensor °F (°C)**
1	8:00am - 11:00pm	Comfort	77° (25°)	70° (21°)
4	11:00pm - 8:00am	Setback	68° (20°)	59° (15°)

INDIVIDUAL PROGRAMMING OF EVENTS

The factory-set periods and/or temperature can be changed according to requirement. Furthermore, the following programs can be selected:

- 4 Events 6 Days And 2 Events Day 7.
- 4 Events Per Day

The clock thermostat is with adaptive function meaning the thermostat calculates when the heating has to be switched on to make sure that the comfort temperature is obtained at the required time.

Detail 1. F15A Controls And Display.

COMFORT MODE

The temperature can be temporarily changed for a single event. The comfort mode temperature is reset at the next event, and the thermostat will return to the scheduled event program.

MANUAL MODE

The scheduled event program can be cancelled e.g. during holidays, instead the temperature can be adjusted to e.g. 41°F (5°C). The new setpoint is valid until the manual mode is cancelled.

MONITORING OF ENERGY CONSUMPTION

Total switch-on time in percentage can be read-out within the latest 2 days, 30 days or 365 days. In this way the heat consumption can be controlled.

TEMPERATURE LIMITATIONS

The F15A comes with a floor sensor that can be used for:

Maximum Temperature Limitation:
Protection of e.g. wooden floors.

Minimum Temperature Limitation:
For better heating comfort.

SCREW TERMINALS

The installation is remarkably fast and easy. Fasten wires in the screw terminals, set the time and date and you are finished.

Detail 2. F15A Thermostat Screw Terminals located on the back.

BACKUP FUNCTION

In the event of a power failure, an internal circuit will maintain the programming and time. Only if the power failure exceeds 50 hours, the time will have to be reset.

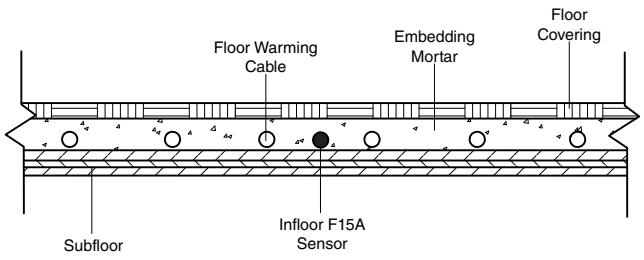
GFCI TEST

The GFCI test should be carried out monthly. Check the wires connected to the thermostat. Make sure the line and load wires are connected as shown. The thermostat must be in heating mode to carry out the test (heating indicator ON).

If the test fails or if the warning light comes on during normal operation, turn off power to the heating system and contact a qualified electrician.

REMOTE SENSING

The F15A has a remote 10' (3m) (standard length) external thermistor sensor to be placed within the heated floor area. This sensor ensures that the thermostat is accurately reading and controlling the temperature of the floor and not the room temperature. Refer to Detail 3.



Detail 3. F15A Placement in Slab