Radiant Thermostat 519

Dimensions: 3-11/16" H x 3" W x 15/16" D
(94 x 76 x 24 mm)

The Watts Radiant Thermostat 519 accurately controls the room and/or floor temperature for a hydronic heating zone using Pulse Width Modulation (PWM) technology. Simple up and down buttons and a display with large type make this thermostat easy to read and use. A Floor Sensor is included to measure floor temperature to protect the floor from overheating and enhance comfort.
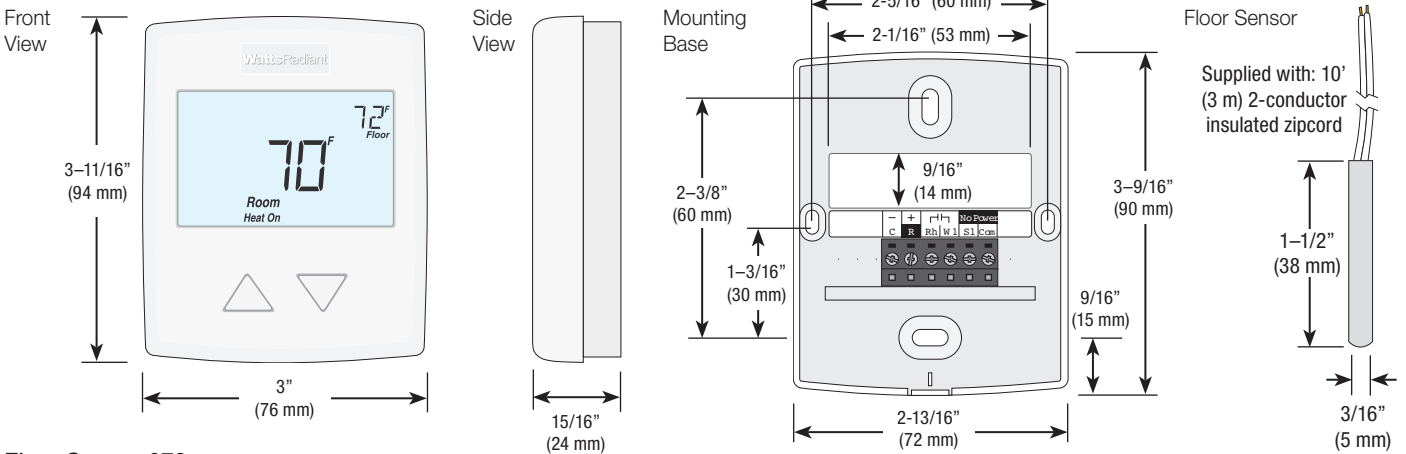
Radiant Thermostat 519

DESCRIPTION	PROPERTY
Packaged weight	0.6 lb. (270 g)
Dimensions	3-11/16" H x 3" W x 15/16" D (94 x 76 x 24 mm)
Enclosure	White PVC plastic, NEMA type 1
Approvals	Meets Class B: ICES & FCC Part 15
Ambient conditions	Indoor use only, 32 to 122°F (0 to 50°C), RH ≤90% non-condensing
Power supply	10 to 30 V (ac/dc), 50/60 Hz, 1.8 VA standby, 56 VA max fully loaded, Class 2
Relay	30V (ac/dc) 2 A, Class 2 circuits
Sensor	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) ß=3892

Radiant Thermostat 519 with Floor Sensor 079

Features

- Auto Heating Cycle
- Radiant Floor Heating
- Pulse Width Modulation
- Floor & Air Temperature Control
- Outdoor & Floor Temperature Display
- Backlight
- Freeze Protection
- Includes Floor Sensor

Front View — 3–11/16" (94 mm), 3" (76 mm)

Side View — 15/16" (24 mm)

Mounting Base — 2-5/16" (60 mm), 2-1/16" (53 mm), 9/16" (14 mm), 2–3/8" (60 mm), 1–3/16" (30 mm), 3–9/16" (90 mm), 9/16" (15 mm), 2-13/16" (72 mm)

Floor Sensor — Supplied with: 10' (3 m) 2-conductor insulated zipcord, 1–1/2" (38 mm), 3/16" (5 mm)

Floor Sensor 079

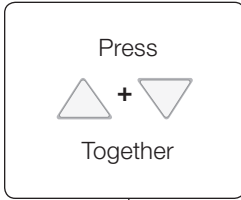| DESCRIPTION	PROPERTY
Dimensions	3/16" OD x 1-1/2" (5 mm OD x 38 mm)
Sensor Material	316 stainless steel, 10' (3 m) 24 AWG, 300 volt PVC insulated Zipcord
Approvals	CSA C US
Operating range	-58 to 221°F (-50 to 105°C)
Sensor	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) ß=3892

Product Options

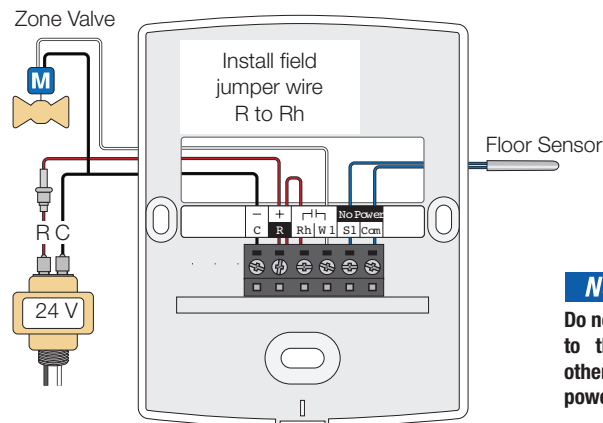| Qty	Description	Model#	Order#
	Radiant Thermostat 519	300152	81016550
	Floor Sensor 079	300153	81016551

WATTS®

CONTROL SETTINGS AND PARAMETERS

The following settings are essential to the successful operation of the heating system.

Press
△ **+** ▽
Together

- Press and hold down both the △ and ▽ buttons for 3 seconds to change from one step to the next.
- Release both buttons once the step has been reached.
- Press the △ or the ▽ button to change the setting, if available.
- Press and hold down both the △ and ▽ buttons for 3 seconds to go to the next step, OR
- After 15 seconds of no button activity, the display goes back to normal operation.

DISPLAY	SETTING
User settings.	
MODE **HEAT**	**MODE** Select heat or off.
UNITS **F**	**UNITS** Select the temperature units in degree Fahrenheit or Celsius.
LIGHT **AUTO**	**BACK LIGHT** Select when the display back light should operate. Options are Off, Auto, and On. Auto operates the backlight for 30 seconds after a keystroke.
SET FLOOR **72°**	**SET FLOOR** Set the floor minimum temperature. Available when an auxiliary floor sensor is connected and the built-in room temperature sensor is on.
TYPE **519**	**TYPE** Device Type number. Hold the △ button to view the software version.
ESCAPE	**ESCAPE** Release the △ and ▽ buttons to return to the home screen.
Installer settings. Press the △ and ▽ buttons together for 5 more seconds.	
AUX SENSR **NONE**	**AUXILIARY SENSOR** Select the type of auxiliary sensor. Available when an auxiliary sensor is automatically detected. **NONE** = no auxiliary sensor, **ROOM** = Indoor Sensor, **OUT** = Outdoor Sensor, **FLOR** = Floor Sensor
SENSOR **ON** Room	**ROOM SENSOR** Select if the built-in room temperature sensor is on or off. The built-in room sensor can only be disabled when an auxiliary room or slab sensor is connected.
SET FLOOR MAX **85°**	**FLOOR MAXIMUM** Set the floor maximum temperature in order to protect the floor covering. Suggested settings: Tile = 90°F (32°C), Wood Floor = 85°F (29°C)
ESCAPE	**ESCAPE** Release the △ and ▽ buttons to return to the home screen.

Zone Valve

Install field jumper wire R to Rh

Floor Sensor

R C

24 V

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