Rooftop Thermostat Controller
Specification and Installation Instructions

Model
TRT2422

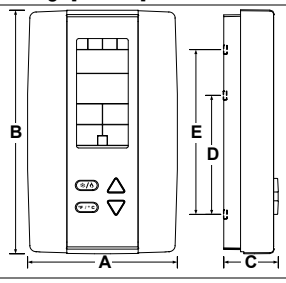
TRT2422

Description
The TRT2422 is a combination controller and thermostat with a built-in scheduler, which is designed for simple and accurate control of single or dual stage heating/cooling equipment, such as rooftop and self-contained units. Its field configurable algorithms enable versatile implementation of required control sequences.

Features
- Precise temperature control with programmable PI (time proportional control algorithm)
- Configurable scheduler (7 days, 2/4 events)
- 24-hour backup battery for RTC (real-time clock)
- 2 external temperature sensor inputs
- 1 digital input
- 2 heat, 2 cool and 1 fan output
- Automatic freeze protection
- Anti-cycling protection
- 24Vac operation
- Backlit LCD with simple icon and text driven menus
- Multi level lockable access menu and setpoint
- Selectable Fahrenheit or Celsius scale
- Removable connectors

Applications
- 2 Heat / 2 Cool
- Support single and two stage equipment

Technical Specifications

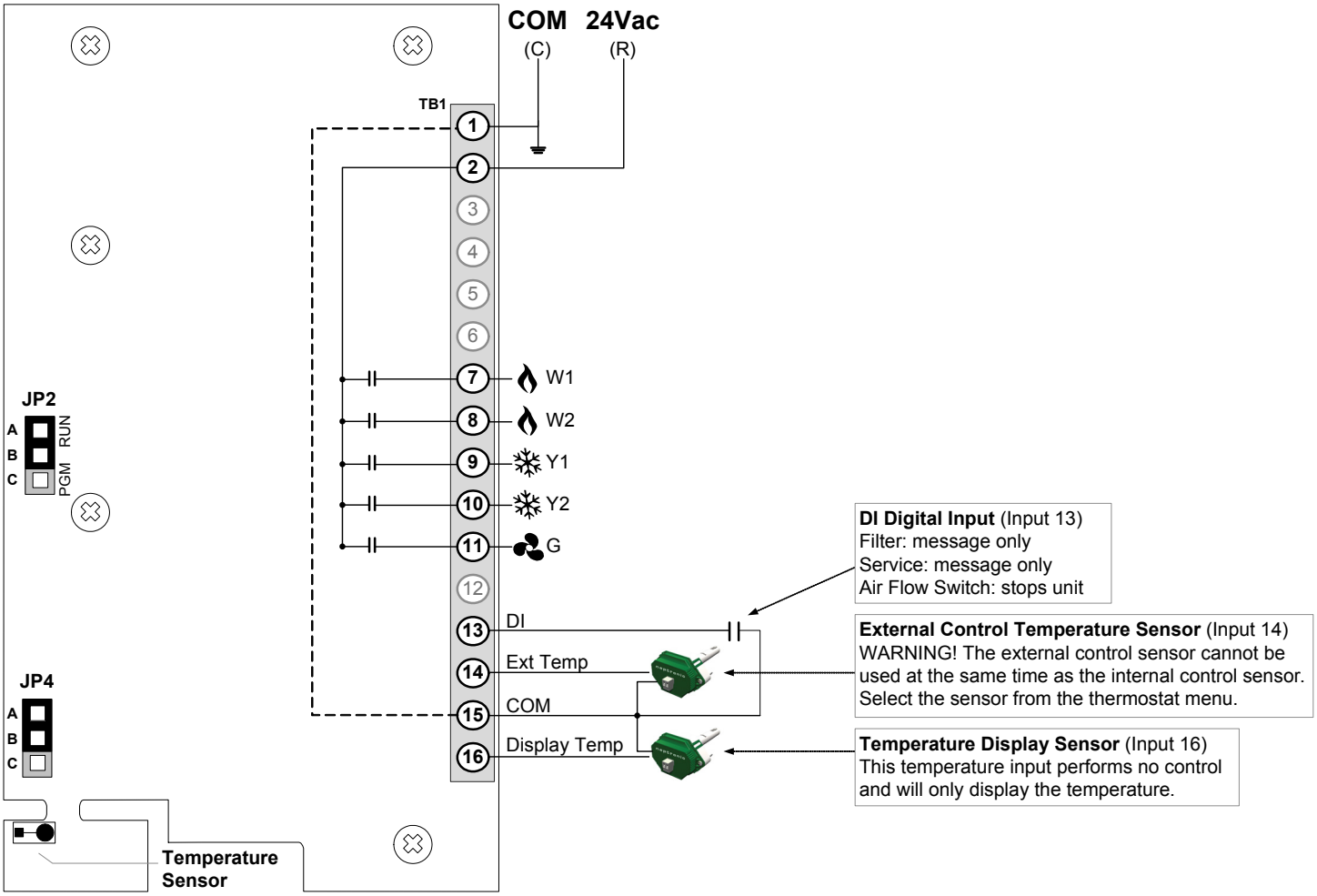
Power supply	22 to 26Vac 50/60Hz
Power consumption	1VA (excluding output loads)
Setpoint range	10ºC to 40ºC [50ºF to 104ºF]
Inputs	- Two 10KΩ Type III inputs - One digital contact (dry contact)
Outputs	5 dry contacts, 24Vac, 1A max, 3A in-rush
External sensor range	-40ºC to 100ºC [-40ºF to 212ºF]
Control accuracy	Temperature: ±0.4ºC [0.8ºF]
Proportional band	0.5ºC to 5ºC [1ºF to 10ºF] adjustable
Electrical connection	0.8 mm^2 [18 AWG] minimum
Operating temperature	0ºC to 50ºC [32ºF to 122ºF]
Storage temperature	-30ºC to 50ºC [-22ºF to 122ºF]
Relative Humidity	5 to 95% non condensing
Degree of protection of housing	IP 30 (EN 60529)
Weight	160 g. [0.36 lb]
Dimensions A = 2.85” | 73mm B = 4.85” | 123mm C = 1.00” | 24mm D = 2.36” | 60mm E = 3.27” | 83mm	

Terminal Identification

Terminal	Description	Specifications
C	Common	-
R	24Vac	22 to 26Vac 50/60Hz
W1	Heating Stage 1	Dry contact, 24Vac, 1A max, 3A in-rush
W2	Heating Stage 2	Dry contact, 24Vac, 1A max, 3A in-rush
Y1	Cooling Stage 1	Dry contact, 24Vac, 1A max, 3A in-rush
Y2	Cooling Stage 2	Dry contact, 24Vac, 1A max, 3A in-rush
G	Fan	Dry contact, 24Vac, 1A max, 3A in-rush
DI	Digital Input	Dry contact (Filter, Service or Air Flow Switch)
TS	External Control Temperature Sensor Input	Thermistor 10KΩ, Type III. Cannot be used at the same time as the internal control sensor. Select the sensor from the thermostat menu.
C	Common	-
DS	Temperature Display Sensor Input	Thermistor 10KΩ, Type III. This temperature input performs no control and will only display the temperature.

PCB

We strongly recommend that all Neptronic products be wired to a separate grounded transformer and that transformer shall service only Neptronic products. This precaution will prevent interference with, and/or possible damage to incompatible equipment.

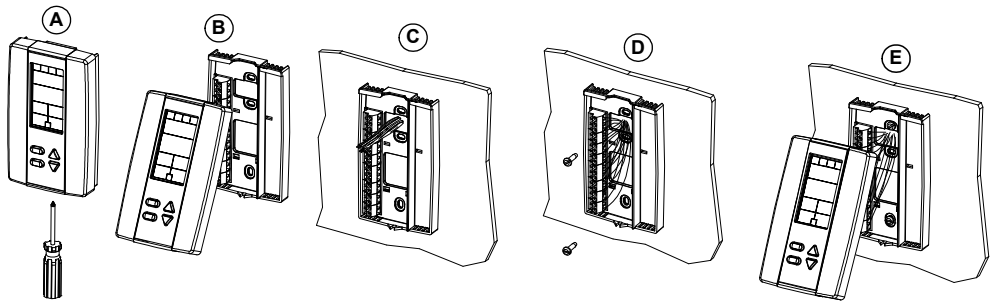


Jumpers		Description	
JP2	Thermostat Mode	A&B = RUN: B&C = PGM:	The thermostat function in Operation Mode (Default) The thermostat is in Programming Mode
JP4	Universal Input (pin #16)	A&B = Low Limit: B&C = N/A:	Must be set to this position (Thermistor 10K Ω, Type III) (Default) Not applicable

Mounting Instructions

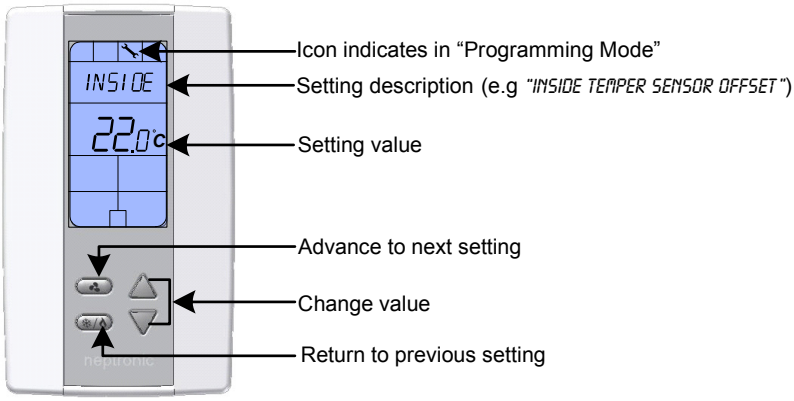
CAUTION: Remove power to avoid a risk of malfunction.

A. Remove the captive screw that's holding the base and the front cover of the unit together.
B. Lift the front cover of the unit to separate it from the base.
C. Pull all wires through the holes in the base.
D. Secure the base to the wall using wall anchors and screws (supplied). Make the appropriate connections.
E. Mount the control module on the base and secure using the screw.



Programming Mode

The Mode Selector DIP switch (DS1) must be set to the "ON" position (Programming Mode). Refer to wiring on page 2. To exit, set the DIP switch back to the "OFF" position (Operation Mode). All changes will be saved.



Symbols used in this Manual

	Temperature
	Heating
	Cooling

	Fan
EVENT	Schedule Mode
12 9 3 6	Timer/clock

W1 = Heating Stage 1
W2 = Heating Stage 2
Y1 = Cooling Stage 1
Y2 = Cooling Stage 2

User Control

1. "INSIDE TEMP SENSOR OFFSET"

Range:	10 to 40ºC	[50 to 104ºF]
Offset:	Max. ± 5ºC	
Increment:	0.1ºC	[0.2ºF]

Compare the displayed temperature reading with a known value from a thermometer. To offset or calibrate the sensor, use the arrows key to set the desired temperature reading. This is useful for thermostats installed in areas where the temperature read is slightly different than the room's actual temperature. For example, a thermostat placed right under the air diffuser. If the thermostat is set to use an external temperature sensor (Step 28 on page 7), the thermostat displays "OFF". The thermostat displays "---" if there an error with the sensor.

2. "ENABLE ON OFF CONTROL MODE"

Default: Yes (Enable)
Range: Yes / No

If you select Yes, the user can set the unit to "Off" via the Control Mode (see page 16). If you select No, the "Off" selection does not appear in the Control Mode.

Control Ramps and Timers

3. "CONTROL RAMP HEATING"

Default:	2.0ºC	[4ºF]
Range:	0.5 to 5.0ºC	[1 to 10ºF]
Increment:	0.5ºC	[1ºF]

Select the desired proportional band value of the heating ramp. The heating symbol is also displayed.

4. "CONTROL RAMP COOLING"

Default:	2.0ºC	[4ºF]
Range:	0.5 to 5.0ºC	[1 to 10ºF]
Increment:	0.5ºC	[1ºF]

Select the desired proportional band value of the cooling ramp. The cooling symbol is also displayed.

5. "CONTROL DEAD BAND HEATING"

Default:	0.3ºC	[0.6ºF]
Range:	0 to 5.0ºC	[0 to 10ºF]
Increment:	0.1ºC	[0.2ºF]

Select the desired dead band value of the heating ramp. The heating symbol is also displayed.

6. "CONTROL DEAD BAND COOLING"

Default:	0.3ºC	[0.6ºF]
Range:	0 to 5.0ºC	[0 to 10ºF]
Increment:	0.1ºC	[0.2ºF]

Select the desired dead band value of the cooling ramp. The cooling symbol is also displayed.

7. "ANTI CYCLE TIME IN MINUTES"

Default: 2 minutes
Range: 0 to 15 minutes
Increment: 1 minute

To protect the compressor, set the delay in minutes before activating or reactivating the cooling contact.

8. "HEATING INTGRAL TIME IN SECONDS"

Default: 0 seconds
Range: 0 to 250 seconds
Increment: 5 seconds

Set the desired value for the heating integration factor compensation. The heating symbol is also displayed.

9. "COOLING INTGRAL TIME IN SECONDS"

Default: 0 seconds
Range: 0 to 250 seconds
Increment: 5 seconds

Set the desired value for the cooling integration factor compensation. The cooling symbol is also displayed.

W1 Output

10. "SELECT W1 SIGNAL RAMP"

Default: Hr1 (Heating ramp 1)
Range: Hr1, Hr2, OFF

Select the desired ramp for W2 output from the available options. Hr1: Heating Ramp 1; Hr2: Heating Ramp 2; or OFF: No signal.

11. "SELECT W1 CLOSE PERCENT"

Default: 50% of demand
Range: 20% to 90%
Increment: 5%

Select the percentage at which you want W1 to close (at % of demand of the ramp selected at Step 10). Contact automatically opens at 0% of the demand.

12. "SELECT W1 OPEN PERCENT"

Default: 20% of demand
Range: 0% to 80% (range is limited by the close value of step 11 minus 10%)
Increment: 5%

Select the percentage at which you want W1 to open (at % of demand of the ramp selected at Step 10). Contact automatically opens at 0% of the demand.

13. "SELECT W1 DIRECT REVERSE"

Default: dir. (Direct)
Range: dir. (Direct) or rEV. (Reverse)

Select the direction for the W1 output signal. Set dir. (Direct) for normally open or rEV. (Reverse) for normally closed.

W2 Output

14. "SELECT W2 SIGNAL RAMP"

Default: Hr1 (Heating ramp 1)
Range: Hr1, Hr2, OFF

Select the desired ramp for W2 output from the available options. Hr1: Heating Ramp 1; Hr2: Heating Ramp 2; or OFF: No signal.

15. "SELECT W2 CLOSE PERCENT"

Default: 70% of demand
Range: 20% to 90%
Increment: 5%

Select the percentage at which you want W2 to close (at % of demand of the ramp selected at Step 14). Contact automatically opens at 0% of the demand.

16. "SELECT W2 OPEN PERCENT"

Default: 40% of demand
Range: 0% to 80% (range is limited by the close value of step 15 minus 10%)
Increment: 5%

Select the percentage at which you want W2 to open (at % of demand of the ramp selected at Step 14). Contact automatically opens at 0% of the demand.

17. "SELECT W2 DIRECT REVERSE"

Default: dir. (Direct)
Range: dir. (Direct) or rEV. (Reverse)

Select the direction for the W2 output signal. Set dir. (Direct) for normally open or rEV. (Reverse) for normally closed.

Y1 Output

18. "SELECT Y1 SIGNAL RAMP"

Default: Cr1 (Cooling ramp 1)
Range: Cr1, Cr2, OFF

Select the desired ramp for Y1 output from the available options. Cr1: Cooling Ramp 1; Cr2: Cooling Ramp 2; or OFF: No signal.

19. "SELECT Y1 CLOSE PERCENT"

Default: 50% of demand
Range: 20% to 90%
Increment: 5%

Select the percentage at which you want Y1 to close (at % of demand of the ramp selected at Step 18). Contact automatically opens at 0% of the demand.

20. "SELECT Y1 OPEN PERCENT"

Default: 20% of demand
Range: 0% to 80% (range is limited by the close value of step 19 minus 10%)
Increment: 5%

Select the percentage at which you want Y1 to open (at % of demand of the ramp selected at Step 18). Contact automatically opens at 0% of the demand.

21. "SELECT Y1 DIRECT REVERSE"

Default: dir. (Direct)
Range: dir. (Direct) or rEV. (Reverse)

Select the direction for the Y1 output signal. Set dir. (Direct) for normally open or rEV. (Reverse) for normally closed.

Y2 Output

22. "SELECT Y2 SIGNAL RAMP"

Default: Cr1 (Cooling ramp 1)
Range: Cr1, Cr2, OFF

Select the desired ramp for Y2 output from the available options. Cr1: Cooling Ramp 1; Cr2: Cooling Ramp 2; or OFF: No signal.

23. "SELECT Y2 CLOSE PERCENT"

Default: 70% of demand
Range: 20% to 90%
Increment: 5%

Select the percentage at which you want Y2 to close (at % of demand of the ramp selected at Step 22). Contact automatically opens at 0% of the demand.

24. "SELECT Y2 OPEN PERCENT"

Y2

Default: 40% of demand
Range: 0% to 80% (range is limited by the close value of step 23 minus 10%)
Increment: 5%

Select the percentage at which you want Y2 to open (at % of demand of the ramp selected at Step 22). Contact automatically opens at 0% of the demand.

25. "SELECT Y2 DIRECT REVERSE"

Y2

Default: dir. (Direct)
Range: dir. (Direct) or rEV. (Reverse)

Select the direction for the Y2 output signal. Set dir. (Direct) for normally open or rEV. (Reverse) for normally closed.

Fan Settings

26. "ENABLE FAN AUTO MODE"

Default: Yes (Enable)
Range: Yes / No

Select Yes to allow the user to adjust the Automatic mode. The fan symbol is also displayed.

If you selected No (disable), go to Step 28.

27. "FAN AUTO TIMEOUT MINUTES"

Default: 2 minutes
Range: 0 to 15 minutes
Increment: 1 minute

Select the desired value for the automatic shutoff delay. The fan symbol is also displayed.

Temperature Sensor Settings

28. "EXTERN SENSOR TEMP"

Default: OFF
Range: OFF, t10.0 (external temperature sensor 10.0 KΩ at input #14)

Select the temperature sensor that will be used by the thermostat, either the internal sensor (OFF) or external sensor (t10.0). The unit does not support the use of both sensor simultaneously.

- *If you select OFF, the thermostat uses its internal temperature sensor.*
- *If you select t10.0, the thermostat uses an external temperature sensor connected to input #14. Use a Type III 10kΩ temperature sensor.*

Do not connect an external temperature sensor to pin #14 if this option is set to OFF.

If you selected the OFF option, go to Step 30.

29. "EXTERN SENSOR TEMP OFFSET"

Display Displays temperature from input #14

If the option at step 28 is set to "t10.0", the display shows the temperature read by the external temperature sensor at input #14. Compare the displayed temperature reading with a known value from a thermometer. To offset or calibrate the sensor, use the arrows key to set the desired temperature reading.

If the sensor is not connected or short circuited, "Eror" and the ⚠ symbol are displayed.

30. "DISPLAY TEMP SENSOR"

Default: OFF
Range: OFF, t10.0 (external temperature sensor 10.0 KΩ at input #16)

In operation mode (page 15), the thermostat can display the temperature from another sensor connected to input #16. This sensor is for display purposes only and performs no control functions..

- *If you select OFF, input #16 is ignored.*
- *If you select t10.0, the thermostat can display temperature sensor connected to input #16. Use a Type III 10kΩ temperature sensor.*

31. "DISPLAY TEMP MODE"

Default: No
Range: Yes / No

If set to "No", in operation mode (page 15) the thermost displays the time on the first line. If set to "Yes", in operation mode (page 15) the thermostat displays the temperature from input #16 on the first line. Also refer to step 30 above.

32. "SELECT DI CONTACT"

Default: OFF
Range: OFF, FILt, SEr, Airf

Select the input signal type for AI1 (analog input 1).

- *OFF: no signal*
- *FILt: The input is used for a dirty filter contact. When activated, "Filter" and the ⚠ symbol are displayed. All control modes continue to function.*
- *SEr: The input is used to notify that service is required. When activated, "Service" and the ⚠ symbol are displayed. All control modes continue to function.*
- *Airf: The input is used to connect an air flow sensor. When activated, "Airflow" and the ⚠ symbol are displayed. All outputs will be turned off until the issue is corrected.*

33. "SET DI NORMAL STATE"

Default: NO (Normally Open)
Range: NO (Normally Open), NC (Normally Close)

Seelct the desired normal state of input DI (input #13).

34. "ENABLE ANTI FREEZE PROTECT"

Default: No (disabled)
Range: No, Yes

If this option is enabled, heating starts automatically when the temperature drops to 4ºC [39ºF], even if the thermostat is in OFF mode. Once the temperature reaches 5ºC [41ºF], the heating stops.

Schedule Mode

This menu is accessible through normal operation mode.

1. The Thermostat Mode selector jumper (JP2) must be set to "RUN" position (Operation Mode). Refer to PCB on page 2.
2. Press and hold the ❄/🔥 button for 5 seconds, the 🔧 symbol appears to indicate that you're in Scheduling Mode.
3. Use the △ and ▽ arrow keys to increase or decrease the values.
4. Press the 🌀 and ❄/🔥 buttons to navigate through the program functions.

The thermostat will return to normal mode if you navigate through the entire menu and do not make any selection, or if you do not press any key for 5 minutes. The changed values will be saved automatically.

Time and Date

1. *"SET TIME DISPLAY FORMAT"*

Default: 24
Range: 12 hours, 24 hours
Selecti.on: Desired time format

Select the desired time format.

2. *"SET HOURS"*

Range: 00 to 23 hours
Increment: 1 hour
Selection: Time in hours

Set the time in hours.

3. *"SET MINUTES"*

Range: 00 to 59 minutes
Increment: 1 minute
Selection: Time in minutes

Set the time in minutes.

4. *"ENTER YEAR"*

Default: 2010
Range: 2010 to 2099
Increment: 1
Selection: Year

Select the year.

5. *"ENTER MONTH"*

Range: 01 to 12 (January to December)
Increment: 1 month
Selection: Month

Select the month.

6. *"ENTER DAY"*

Range: 01 to 31 days
Increment: 1 day
Selection: Day

Select the day.

Scheduling and Internal Setpoint

7. *"USED TIME SCHEDUL"*

Default: No
Range: Yes, No

Select Yes, if you want to enable Scheduling Mode. Select No, to disable scheduling Mode.

If you selected No, go to Step 8.

If you selected Yes, go to Step 9.

8. *"ADJUST INTERN SETPNT"*

Default: 22ºC [72ºF]
Range: 10 to 40ºC [50 to 104ºF]
Increment: 0.5ºC [1ºF]

Select desired setpoint.

Go to Step 29 on page 13.

9. "SELECT 2 OR 4 EVENTS PER DAY"

EVENT

Default: 2 Events
Range: 2 Events, 4 Events

Select the desired number of events per day. You can choose between 2 events or 4 events per day. This selection will be applied for each day of the week.

If you selected 2, go to Step 10.

If you selected 4, go to Step 16.

Event 1 (2 Events/Day)

If the "2 events per day" option was selected at step 9.

10. "E1"

EVENT

Default: 6:00
Range: From 00:00 to Monday Event 2 start time minus 15 minutes
Increment: 15 minutes
Display: MO, E1, ☼

Set the start time for Event 1 on Monday. The Monday Event 1 temperature setting will be effective from the time that is set here until the time set for the Event 2 on Monday.

11. "ADJUST EVENT 1 COOLING SETPNT"

Default: 22ºC [72ºF]
Range: 10 to 40ºC [50 to 104ºF], Off
Increment: 0.5ºC [1ºF]
Display: MO, ☼, ❄

Select the desired cooling temperature setpoint for the duration of Event 1. The minimum value is restricted by the Event 1 heating setpoint at step 12.

- *If you select the **Off** option, the thermostat will be off for Event 1 **(go to Step 13)**.*

12. "ADJUST EVENT 1 HEATING SETPNT"

Default: 20ºC [68ºF]
Range: 10 to 40ºC [50 to 104ºF]
Increment: 0.5ºC [1ºF]
Display: MO, ☼, 🔥

Select the desired heating temperature setpoint for the duration of Event 1. The maximum value is restricted by the cooling setpoint of Event 1 at step 11.

Event 2 (2 Events/Day)

If the "2 events per day" option was selected at step 9.

13. "E2"

EVENT

Default: 20:00
Range: From Monday Event 1 start time +15 minutes to 23:45
Increment: 15 minutes
Display: MO, E2, ☽

Set the start time for Event 2 on Monday. The Monday Event 2 temperature setting will be effective from the time that is set here until the time set for the Event 1 on Tuesday.

14. "ADJUST EVENT 2 COOLING SETPNT"

Default:	28ºC	[82ºF]
Range:	10 to 40ºC	[50 to 104ºF], Off
Increment:	0.5ºC	[1ºF]
Display:	MO, ☽, ❄	

Select the desired cooling temperature setpoint for the duration of Event 2. The minimum value is restricted by the Event 2 heating setpoint at step 15.

- *If you select the **Off** option, the thermostat will be off for Event 2 **(go to Step 16)**.*

15. "ADJUST EVENT 2 HEATING SETPNT"

Default:	16ºC	[68ºF]
Range:	10 to 40ºC	[50 to 104ºF]
Increment:	0.5ºC	[1ºF]
Display:	MO, ☽, 🔥	

Select the desired heating temperature setpoint for the duration of Event 2. The maximum value is restricted by the cooling setpoint of Event 2 at step 14.

This completes schedule configuration for Monday, go to Step 28 to continue.

Event 1 (4 Events/Day)

If the "4 events per day" option was selected at step 9.

16. "E1"

Default:	06:00
Range:	00:00 to Monday Event 2, start time -15 minutes
Increment:	15 minutes
Display:	MO,E1, ☀

Set the start time for Event 1 on Monday. The Monday Event 1 temperature setting will be effective from the time that is set here until the time set for the Event 2 on Monday.

17. "ADJUST EVENT 1 COOLING SETPNT"

Default:	22ºC	[72ºF]
Range:	10 to 40ºC	[50 to 104ºF], Off
Increment:	0.5ºC	[1ºF]
Display:	MO, ☀, ❄	

Select the desired cooling temperature setpoint for the duration of Event 1. The minimum value is restricted by the Event 1 heating setpoint at step 18.

- *If you select the **Off** option, the thermostat will be off for Event 1 **(go to Step 19)**.*

18. "ADJUST EVENT 1 HEATING SETPNT"

Default:	20ºC	[68ºF]
Range:	10 to 40ºC	[50 to 104ºF]
Increment:	0.5ºC	[1ºF]
Display:	MO, E1, ☀, 🔥	

Select the desired heating temperature setpoint for the duration of Event 1. The maximum value is restricted by the cooling setpoint of Event 1 at step 17.

Event 2 (4 Events/Day)

If the “4 events per day” option was selected at step 9.

19. "E2"

Default: 20:00
Range: From Monday Event 1 start time +15 minutes to Event 3 start time minus 15 minutes
Increment: 15 minutes
Display: MO, E2,

Set the start time for Event 2 on Monday. The Monday Event 2 temperature setting will be effective from the time that is set here until the time set for the Event 3 on Monday.

20. "ADJUST EVENT 2 COOLING SETPNT"

Default: 28ºC [82ºF]
Range: 10 to 40ºC [50 to 104ºF], Off
Increment: 0.5ºC [1ºF]
Display: MO,

Select the desired cooling temperature setpoint for the duration of Event 2. The minimum value is restricted by the Event 2 heating setpoint at step 21.

If you select the Off option, the thermostat will be off for Event 2 (go to Step 21).

21. "ADJUST EVENT 2 HEATING SETPNT"

Default: 16ºC [68ºF]
Range: 10 to 40ºC [50 to 104ºF]
Increment: 0.5ºC [1ºF]
Display: MO, E2,

Select the desired heating temperature setpoint for the duration of Event 2. The maximum value is restricted by the cooling setpoint of Event 2 at step 20.

Event 3 (4 Events/Day)

If the “4 events per day” option was selected at step 9.

22. "E3"

Default: 22:00
Range: From Monday Event 2 start time +15 minutes to Event 4 start time minus 15 minutes
Increment: 15 minutes
Display: MO, E3,

Set the start time for Event 3 on Monday. The Monday Event 3 temperature setting will be effective from the time that is set here until the time set for the Event 4 on Monday.

23. "ADJUST EVENT 3 COOLING SETPNT"

Default: 22ºC [72ºF]
Range: 10 to 40ºC [50 to 104ºF], Off
Increment: 0.5ºC [1ºF]
Display: MO, E3,

Select the desired cooling temperature setpoint for the duration of Event 3. The minimum value is restricted by the Event 3 heating setpoint at step 24.

If you select the Off option, the thermostat will be off for Event 3 (go to Step 25).

24. "ADJUST EVENT 3 HEATING SETPNT"

Default: 20ºC [68ºF]
Range: 10 to 40ºC [50 to 104ºF]
Increment: 0.5ºC [1ºF]
Display: MO, E3,

Select the desired heating temperature setpoint for the duration of Event 3. The maximum value is restricted by the cooling setpoint of Event 3 at step 23.

Event 4 (4 Events/Day)

If the “4 events per day” option was selected at step 9.

25. "E4"

Default: 23:45
Range: From Monday Event 3 +15 minutes to 23:45
Increment: 15 minutes
Display: MO, E4,

Set the start time for Event 4 on Monday. The Monday Event 4 temperature settings will be effective from the time that is set here until the time set for the Event 1 on Tuesday.

26. "ADJUST EVENT 4 COOLING SETPNT"

Default:	28ºC	[82ºF]
Range:	10 to 40ºC	[50 to 104ºF], Off
Increment:	0.5ºC	[1ºF]
Display:	MO, ,	

Select the desired cooling temperature setpoint for the duration of Event 4. The minimum value is restricted by the Event 4 heating setpoint at step 27.

If you select the Off option, the thermostat will be off for Event 4 (go to Step 28).

27. "ADJUST EVENT 4 HEATING SETPNT"

Default:	16ºC	[68ºF]
Range:	10 to 40ºC	[50 to 104ºF]
Increment:	0.5ºC	[1ºF]
Display:	MO, ,	

Select the desired heating temperature setpoint for the duration of Event 4. The maximum value is restricted by the cooling setpoint of Event 4 at step 26.

Copy Schedule

The Copy Schedule function enables you to copy the schedule from one day to another. For example, copy Monday's schedule to Tuesday, Wednesday, Thursday and Friday.

28. "COPY SCHEDUL"

Default: No
Range: No, Yes (selected day)

If you do not want to copy a schedule, select “NO”. The currently configured days appear in the display and the next day is flashing. After pressing the button, manually configure the day by repeating steps 10 to 15 if the “2 events per day” option was selected at step 9, or repeat steps 16 to 27 if the “4 events per day” option was selected at step 9.

To copy a schedule, select “YES”. The day that will be copied appears in the display and the day that will receive the copied scheduled is flashing. Press the arrow keys to scroll through the available days that can be copied. After pressing the button, return to this step for the following day or when all days are configured, go to the next step.

29. "USER SETPNT LOCKED"

Default: No (unlocked)
Range: Yes / No

If set to No, the user setpoint option is not locked and the user can adjust the desired setpoint temperature. If set to Yes, the user setpoint option is locked and the user cannot set the desired setpoint temperature. A lock symbol appears, to indicate that the setpoint is locked.

30. "ADJUST TEMP CONTROL MODE"

Default: Auto (Automatic)
Range: Auto (Automatic), Heat (Heating Only), Cool (Cooling Only), On (Cooling or Heating),

Select the control mode that you want to authorize to the user. To authorize all the available modes, select Auto.

31. "USER CONTROL MODE LOCKED"

Default: No (unlocked)
Range: Yes, No

Select No to allow the user to change control modes. Select Yes to lock the control mode to the user. A lock symbol appears to indicate that the control mode is locked.

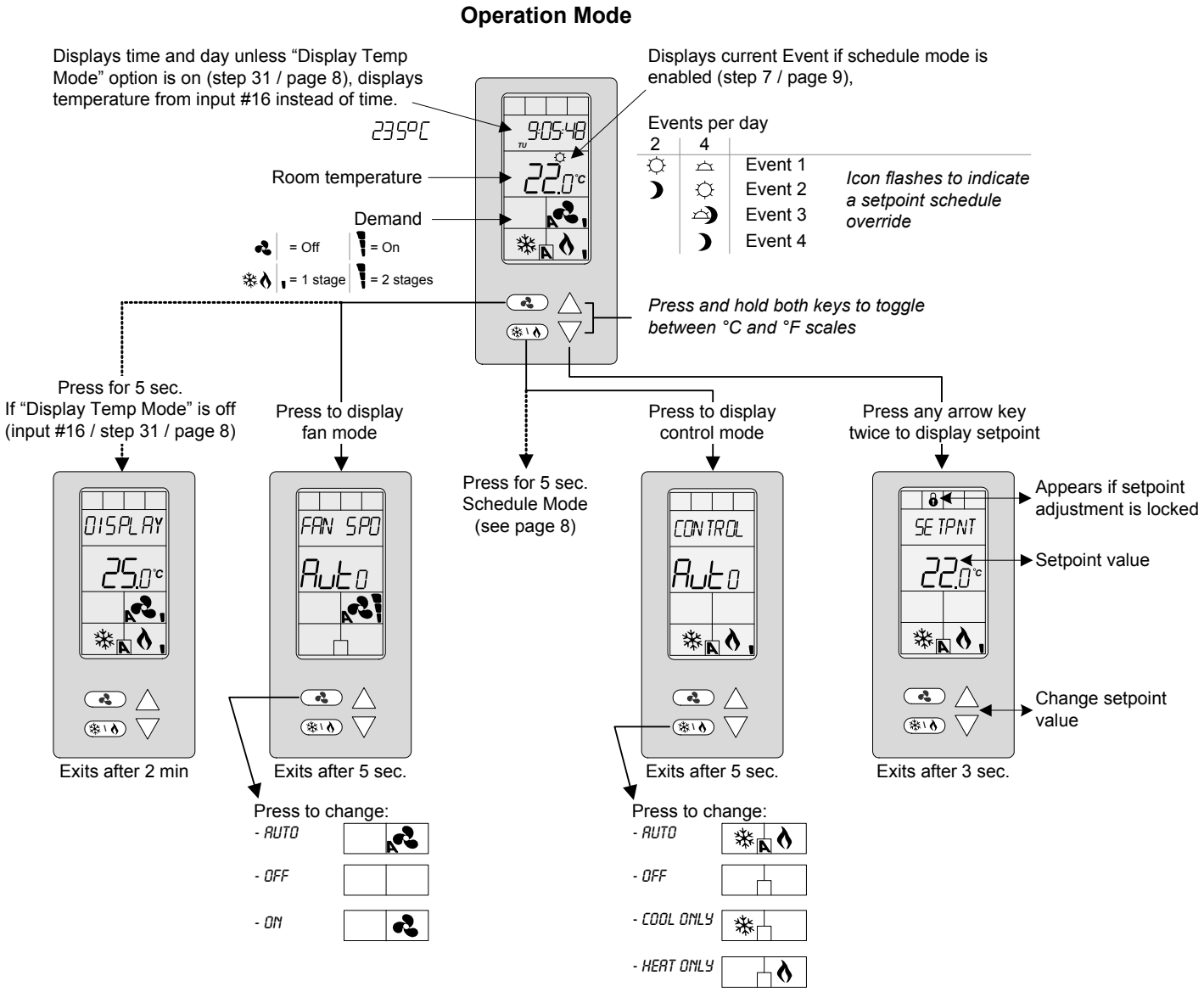
32. "QUIT"

Default: Yes (Quit)
Range: Yes, No

Select Yes to exit Scheduling Mode and return to Operation Mode. Select No to continue configuring the schedules. Go to step 1 on page 9.

Operation Mode

The Mode Selector DIP switch (DS1) must be set to the "OFF" position (Operation Mode). Refer to wiring on page 2.



Power Up

Upon power up, the LCD illuminates and all segments appear for 2 seconds. The thermostat then displays its current version for 2 seconds.

LCD Backlight

Pressing any key on the thermostat illuminates the LCD for 4 seconds.

Temperature

The thermostat always displays the room temperature reading. If the sensor is disconnected or short circuited, then "OFF" and "- - -" are displayed. To toggle the temperature scale between ºC and ºF, press and hold both arrow keys.

Setpoint

To display the setpoint, press the △ or ▽ key twice. The setpoint appears for 5 seconds. To adjust the setpoint, press the arrow keys while the temperature is displayed. If the setpoint adjustment has been locked (Step 29 on page 13), the lock 🔒 symbol appears.

Fan Mode

To access the Fan Mode, press the key. The Fan Mode appears for 5 seconds. Press the key to scroll through the following fan modes. These options can vary depending on the options selected at step 26 on page 7.

- Auto (Automatic)
- ON
- OFF

Control Mode

To access the Control Mode, press the key. The Control Mode appears for 5 seconds. Press the key to scroll through the following control modes. These options can vary depending on the options selected at step 2 on page 4 and at step 30 on page 13.

- Auto (Automatic Cooling or Heating)
- Cooling only (on)
- Heating only (on)
- OFF

Override Setpoint

This function is only available if you have set the "**used time schedule"** option to **Yes** at Step 7 on page 9. When the schedule is triggered, the thermostat uses the setpoints defined by Events (refer to Schedule Mode on page 8).

The user can press the △ or ▽ key twice to adjust the setpoint. The appropriate event icon flashes to indicate that the setpoint override period has begun. The override remains in effect until the next Event. If the event symbol does not flash, it means that the override period is complete or that the adjustment is locked at Step 29 on page 13. If the setpoint is locked, a 🔒 symbol and *"SETPNT LOCKED"* message appear.