# SIEMENS

### **Operating Instructions**

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### **RDG160TU Commercial Thermostat**

After your RDG160TU thermostat has been installed, this document will guide you through the basic operations, such as changing the setpoint, switching between heating and cooling modes, and adjusting the fan speed. For the advanced user, see *RDG160TU Commercial Thermostat Installation Instructions* (129-588).

| Front Panel       | Main Display  | 2               | <b>Operating Modes</b>              |                    |  |
|-------------------|---|-----------------|-------------------------------------|--------------------|--|
| SIEMENS           | Room temperature  | <u>555</u>      | Heating                             |                    |  |
| ₩. XOX2395670- 0  | °C Temperature in degrees Celsius   | AUX             | Electric heater on                  |                    |  |
|                   | °F Temperature in degrees Fahrenheit  | ХФ <sup>к</sup> | Cooling                             |                    |  |
|                   | 🖙 Buttons are locked  | Ø.              | Comfort mode                        |                    |  |
|                   |   | C               | Economy mode                        |                    |  |
|                   | ♦ Condensation indicator  | AUTO            | System active by programmed timer   |                    |  |
|                   | 🕱 System active by temporary timer  |                 | Protection mode (Freeze Protection) |                    |  |
|                   | Day of Week 1 = Monday<br>7 = Sunday  | ∢               | Indicates active icon               |                    |  |
| Buttons           | Setting time and weekday  | B               | Fan Mode/Speed                      |                    |  |
| Heat/Cool Mode    | Setting the timers  | o<br>otuk       | Automatic                           |                    |  |
| Programming       | Current time of day   | 00              | Manual                              |                    |  |
| Fan Mode/OK       | I Escape (Cancel)   |                 |                                     | Low Medium High    |  |
| Rotary knob       | ✓ Confirmation (OK)   |                 |                                     | Lott modiant right |  |
| Changing Room     | The room temperature setpoint can be  | adju            | sted with the rotary kr             | nob when the       |  |
| Temperature       | system is in Comfort mode (🏹 ) or is a  | ctive           | e by programmed time                | er (👾 )            |  |
|                   | <ul> <li>Turn the rotary knob clockwise (+) to increase, or counterclockwise (-) to decrease<br/>the current room temperature setpoint.</li> </ul>  |                 |                                     |                    |  |
|                   | <b>NOTE:</b> The default setting range is from 41°F to 104°F (5°C to 40°C). To change the limits, see <i>RDG160TU Commercial Thermostat Installation Instructions</i> (129-588). – <i>Parameters</i> <b>P09</b> and <b>P10</b> .    |                 |                                     |                    |  |
| Adjusting the Fan | Press the FAN/OK button until the desired fan mode is reached.  |                 |                                     |                    |  |
| Speed             | <ul> <li>In Automatic mode (2), fan speed is automatically controlled by the thermostat.<br/>When the setpoint is reached, the fan stops or keeps running at low speed.</li> </ul>  |                 |                                     |                    |  |
|                   | <ul> <li>In Manual mode, the fan operates independently and always runs at the same<br/>speed: Low/Medium/High.</li> </ul>  |                 |                                     |                    |  |
|                   | <ul> <li>NOTE: To customize available fan modes, adjust Parameter P03. See RDG160TU Commercial Thermostat Installation Instructions (129-588). Change Parameter P15 to set fan to OFF or LOW if the setpoint is reached.</li> </ul> |                 |                                     |                    |  |
| Low Medium High   |   |                 |                                     |                    |  |

| Changing Between<br>Heating and Cooling | • Depending on the heating/cooling system, the changeover between heating and cooling is either automatic by a changeover sensor, or manual by pressing the <b>HEAT/COOL</b> button. |
|---|--|
|   | • If the system is set up for manual changeover, press the <b>HEAT/COOL</b> button until the desired mode is selected.   |
| 20                                      | • With automatic changeover or continuous heating/cooling, icons $\underline{ss}$ / $\Rightarrow$ indicate that  |



- the system is in heating or cooling mode. • With manual changeover, the (4) icon highlights the heating or cooling icons.
- NOTE: To set auto or manual heat/cool changeover, adjust Parameter P01. See RDG160TU Commercial Thermostat Installation Instructions (129-588).

### Changing the System Mode



Press the HEAT/COOL button until the (4) icon appears. Continue until your choice of Protection, Comfort, Auto (Programmed) Timer, or Economy mode is selected.

### 1. Protection mode (Freeze protection)

The system is turned off, unless the room temperature falls below 46°F(8°C). At that point, heating is turned on to prevent freezing.

2. Comfort mode

The thermostat maintains the setpoint, which are adjusted with the rotary knob.

### 3. Auto (Programmed) Timer mode

The thermostat automatically switches between Comfort and Economy mode settings according to timers, if they are programmed (maximum eight).

#### 4. Economy mode

The room temperature is maintained between a lower heating setpoint and a higher cooling setpoint, to save energy and money.

NOTE: To change available options, and to adjust the default Comfort mode and Economy mode setpoints, change **Parameter P02**. See *RDG160TU* 

Commercial Thermostat Installation Instructions (129-588).



CAUTION: The setpoint for Economy can be set to OFF. This means that the thermostat is completely turned off, and there is no protective heating or cooling provided.

### Setting the Time of Day







- 1. Press the **PROG** button.
- 2. Press the FAN/OK button < to edit the time of day. The time digits start blinking.
- 3. Turn the rotary knob clockwise or counterclockwise to set. To change from 24-hour format to 12-hour format, turn the knob clockwise past 23:59 or counterclockwise past 00:00. Reverse those steps to return back to the 24-hour format.

## Setting the Day of Week



- 4. Press the **FAN/OK** button ✓ to confirm the time of day. The weekday indicator starts blinking.
- 5. Turn the rotary knob clockwise or counterclockwise to set the day of week.
- 6. Press the **FAN/OK** button ✓ to confirm the current weekday.
- Press the HEAT/COOL button until (Esc) displays to exit the program mode.
   NOTE: After a power failure, the time of day blinks. However, the auto (programmed) timers continue to run. Select the setting mode to readjust the time if needed.

### Programming the Programmable Timers



The RDG160TU provides eight programmable timers A1 to A8. Any one of the timers can be assigned to one or multiple days. To set a timer, do the following:

- 1. Press the **PROG** button (500).
- 2. Turn the rotary knob to the highlight the desired timer A1 to A8 to set and press the **FAN/OK** button  $\checkmark$ .
- 3. Turn the rotary knob to set the **Comfort** mode start time (∅ •). Press the **FAN/OK** button ✓ to confirm.
- 4. Turn the rotary knob to set the **Comfort** mode end time (ℂ). Press the **FAN/OK** button ✓ to confirm.
- 5. Select which days of week to apply this timer to:
  - a. The icon for the first day of the week 1 blinks. Press the **FAN/OK** button ✓ to select or the **HEAT/COOL** button ⊕ (Esc) to deselect. The next day of week blinks.
  - b. Repeat select or deselect and advance to the next day.
  - c. Repeat until the 7th day is set. All selected days of week will blink. Press the **FAN/OK** button ✓ to confirm the setting and to advance to the next timer.
- 6. To set the next timer, repeat Steps 3 through 5, or press the **HEAT/COOL** button **(Esc)** to exit the **Timer Programming** mode.

### NOTES:

- Press the FAN/OK button in Step 6 before pressing Esc (to exit the programming mode) to save your settings.
- To disable the timer function, set **Parameter P02 = 3** or **P02 = 4**. See *RDG160TU Commercial Thermostat Installation Instructions* (129-588).

## Reviewing the Settings





- 1. Press the **PROG** button twice.
- 2. Turn the rotary knob to review the eight auto timers.
- 3. Press HEAT/COOL button until (Esc) displays to return to normal operation.

**Temporary Timer for** The Comfort and Economy modes can be temporarily extended from 0.5 to 9.5 hours.

### Extended Presence or Absence



To set the temporary timer, press and hold the **HEAT/COOL** button for a maximum of 3 seconds. While holding the button, do one of the following:

- 1. Turn the rotary knob clockwise to extend the **Comfort** mode. Display: ☆ 4 0 to +9:30.
- 2. Turn the rotary knob counterclockwise to extend the **Economy** mode. Display: ( ∢ 0 to -9:30.

After the temporary timer has elapsed, the thermostat will resume operation in **Auto Timer** mode.

### Reloading the Factory Default Timer (Schedule) Settings



- 1. Press the **PROG** button twice  $\begin{pmatrix} \Box \\ A & \sigma \end{pmatrix}$ .
- 2. Press the FAN/OK button v to enter the Temporary Timer Setting mode.
- 3. Press the **PROG** button for at least 3 seconds; **rES** displays.
- 4. Press the **FAN/OK** button ✓ to confirm reloading the default settings, or n (Esc) to exit without changing.

### Table 1. Default Settings.

| Day of Week             | Time of Day When Thermostat is in Comfort Mode   |                     |  |
|-------------------------|--|---------------------|--|
| Mon (1) through Fri (5) | 06:30 to 08:30 (A1)  | 17:30 to 22:30 (A2) |  |
| Sat (6)                 | 08:00 to 23:00 (A3)  |                     |  |
| Sun (7)                 | 08:00 to 22:30 (A4)  |                     |  |
|                         | For the remaining time, the thermostat is in <b>Economy</b> mode.<br>Timers A5 through A8 are blank, without settings. |                     |  |

## Locking the Front Buttons

- To lock or unlock the buttons manually, press and hold the **FAN/OK** button ✓ for 3 seconds. The buttons are locked or unlocked in this manner if Parameter **P14** is set to **2**.
- adjustment. **NOTE:** To enable the button locking from front panel, set Parameter **P14** to **2**. To enable the automatic button locking after 10 seconds, set Parameter **P14** to **1**. See
  - RDG160TU Commercial Thermostat Installation Instructions (129-588).

If Parameter P14 is set to 1, buttons are locked 10 seconds after the last user

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