Operating Instructions (en)

RDG100T
RDG160T
RDG160TU

RDG100T / RDG160T / RDG160TU – the electronic room thermostat that allows you to set the ideal room temperature you want. The thermostat provides Comfort, Economy and Protection mode and, in addition, an Auto Timer mode with 8 programmable timers. The fan operates either in Automatic mode or at the selected speed when using Manual mode. You can either rely on the factory settings or make adjustments that suit your individual needs.

① Main display

🌡 24.5	Room temperature
°C	Room temperature in degrees Celsius
°F	Room temperature in degrees Fahrenheit
⚷	Button lock active
🔔	Alert indicator
💧	Condensation in the room
⧗	Temporary timer function active
1234567 Weekday	1 = Monday / 7 = Sunday
☀	Setting time and weekday
🕒 AUTO	Setting the auto timers
12.25	Current time of day
▣	Escape (Cancel)
✔	Confirmation (OK)

Ⓐ Operating mode   button
Ⓑ Program mode button
Ⓒ T Fan mode button
Ⓓ Rotary knob

② Operating mode

⚒	Heating mode
AUX	Electric heater on
❄	Cooling
☀	Comfort mode
☾	Economy mode
🕒 AUTO	Auto timer
⊙	Protection mode: Protection against frost
◀	Indicator for selecting mode

③ Fan mode

AUTO	Automatic
⊗	Manual

Low Medium High

Changing the room temperature

- The room temperature setpoint can be adjusted with the rotary knob when Comfort mode ☀◀ is active or with 🕒 AUTO
- Turn the rotary knob clockwise (+) to increase, or counterclockwise (-) to decrease the current room temperature setpoint for Comfort mode

The setting range is from 5...40 °C (41 ... 104 °F), unless limited by parameters P09 and P10 (for parameter settings, see reverse side).

Adjusting the fan speed

- Press the fan mode button until the desired fan mode is reached
- In Automatic mode ⊗ AUTO , the fan speed is automatically selected by the thermostat depending on the setpoint and the actual room temperature. When the room temperature reaches the setpoint, the fan stops (factory setting) or keeps running at low speed (P15).
- In Manual mode, the fan operates independently and always runs at the same speed: Low / medium / high

Low Medium High

Notes:
If desired, you can change the fan mode selector option via P03: Manually only, or manually including Protection mode. Use P15 to set the fan speed in dead zone.

Changing from heating to cooling mode

- Depending on the type of plant, the changeover from heating to cooling (or vice versa) is made either automatically by a changeover sensor or a remote changeover switch, or manually by pressing the operating mode button (see parameter P01)
- To select cooling or heating manually (P01=2), press the operating mode button until the desired mode appears
- With automatic changeover or continuous heating / cooling, symbols ⚒ / ❄ indicate that the system currently operates in heating or cooling mode
- With manual changeover, symbol ◀ appears, indicating that the system currently operates in heating or cooling mode

Changing the operating mode

Press the operating mode button until symbol ◀ appears, indicating that Protection / Comfort / Auto Timer / Economy mode is selected.

1. Protection mode

- In protection mode, the plant stops operating. If the room temperature falls below 8 °C (46 °F), heating is switched on however to protect the room against frost

The setpoints for Protection mode can be changed by your HVAC installer if desired:
Changes made by installer: Frost protection: _____ °C / °F   Heat protection: _____ °C / °F

2. Comfort mode

- In Comfort mode, the thermostat maintains the setpoint which can be readjusted with the rotary knob

3. Auto Timer mode

- In Auto Timer mode, the controller automatically switches over between Comfort and Economy according to the 8 preprogrammed timers

4. Economy mode

- When selecting Economy mode, make sure that parameter P02 is set to 2
- In Economy mode, the room temperature is maintained at a lower or higher setpoint, thus saving energy and money! You can change the preselected setpoint by adjusting parameters P11 and P12 (for parameter settings, see reverse side)

Important: The setpoint for Economy can be set to OFF. This means that the thermostat is deactivated! Risk of frost, i.e. **no protective heating or cooling function is provided!**

Setting the time of day and the weekday

1. Press the program mode button for programming.
2. Press button ✔ (OK) to enter the setting mode for the time of day.
3. The time digits start blinking. Turn the rotary knob clockwise or counterclockwise to set the time of day.

If the current time of day is in 24-hour format and you wish to change it to the 12-hour format, turn the knob clockwise passed 23:59 or counterclockwise passed 00:00. Vice versa back to the 24-hour format.

4. Confirm the time of day by pressing button ✔ and the weekday indicator starts blinking.
5. Turn the rotary knob clockwise or counterclockwise to set the current weekday.
6. Confirm the current weekday by pressing button ✔ (OK).
7. Press button ▣ (Esc) to leave the program mode.

Notes:
After a power failure, the time of day starts blinking to indicate power was lost. However, the auto timer continues to run with the time before the power failure occurred. Select the setting mode to readjust the time if needed.

Setting the programmable timers
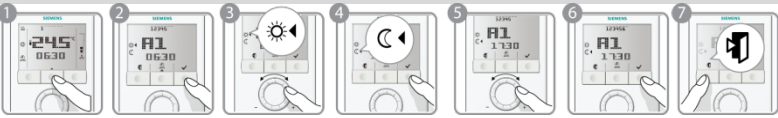
The RDG100T / RDG160T / RDG160TU provides 8 programmable timers A1...A8 each of which can be assigned to one or several days. To set an auto timer, proceed as follows:

1. Press the program mode button twice to select auto timer setting AUTO.
2. Turn the rotary knob to the desired timer A1...A8 that you wish to set and press button ✔ (OK).
3. Turn the rotary knob to set the Comfort mode start time ☼◀ and confirm by pressing button ✔ (OK).
4. Turn the rotary knob to set the Comfort end time ☾◀ or Economy start time and confirm by pressing button ✔ (OK).
5. Weekday 1, ✔ and ◨ blink. Press button ✔ (OK) to select or ◨ (Esc) to deselect each day and advance to the next day.
6. After the 7th day is set, all selected weekdays blink. Confirm setting for actual timer by pressing button ✔ (OK) and advance to the next timer. To set the next timer, repeat steps 3 through 6, or press ◨ (Esc) to leave the setting mode.

Notes:
- To save your settings, remember to press OK in step 6 above before pressing Esc to leave the setting mode.
- The timer function can be disabled by setting P02 = 3 or P02 = 4 (RDG160T / RDG160TU only)
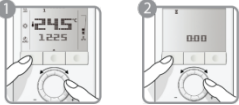
Viewing the settings
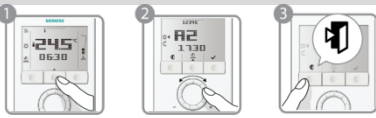
1. Press the program mode button twice to select auto timer setting AUTO.
2. Turn the rotary knob to review the 8 auto timers.
3. Press button ◨ (Esc) to return to normal operation.

Temporary timer for extended presence or absence

The Comfort and Economy modes can be temporarily extended from 0.5 to 9.5 hours using the temporary timer.


1. To set the temporary timer, press and hold the operating mode button for maximum 3 seconds. While holding the button, turn the rotary knob clockwise or counterclockwise as required.
   a) Turn the rotary knob clockwise to extend Comfort mode.
      Display: ☼◀ 0....+9:30
   b) Turn the rotary knob counterclockwise to extend Economy mode.
      Display: ☾◀0....-9:30

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

Reloading the default timer settings
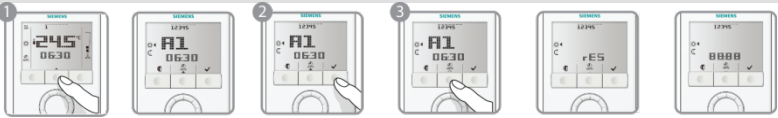
1. Press the program mode button twice to select auto timer setting AUTO.
2. Press button ✔ (OK) to enter the timer setting mode.
3. Press the program mode button for at least 3 seconds; then "rES" is displayed.
4. Press button ✔ (OK) to confirm reloading the default timer settings, or ◨ (Esc) to leave without change.

|	Weekdays	Time of day when thermostat is in Comfort mode	
Default settings	Mon (1) – Fri (5)	06:30 – 08:30 (A1)	17:30 – 22:30 (A2)
	Sat (6)	08:00 – 23:00 (A3)	
	Sun (7)	08:00 – 22:30 (A4)	
		For the remaining time, the thermostat is in Economy mode. Timers A5 - A8 are free with no default settings.	

Button lock

- To lock or unlock the buttons manually, press and hold the fan mode button for 3 seconds. The buttons are locked or unlocked in this manner if P14 is set to 2
- If P14 is set to 1, the thermostat automatically locks the button 10 seconds after the last adjustment

Control parameters
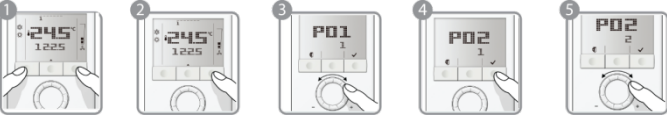
If you want to change control parameters, proceed as follows:
1. Press left and right buttons simultaneously for at least 4 seconds.
2. Release them and, within 2 seconds, press the right button again until "P01" is displayed.
3. Select the required parameter by turning the rotary knob.
4. Press button ✔ (OK). The current value of the selected parameter starts blinking and can be changed by turning the rotary knob.
5. Press button ✔ (OK) to confirm the adjusted value, or ◨ (Esc) to cancel the change.

If you wish to adjust additional parameters, repeat steps 3 through 5, or press ◨ (Esc) to leave the parameter setting mode.

No.	Parameter name	Default value*	Setting range*	Adj.
P01	Control sequence	2-pipe / 2-stage: 1 4-pipe: 4	0 = heating only 1 = cooling only 2 = H/C changeover, manually 3 = H/C changeover, auto 4 = heating and cooling	
P02	Mode selection via operating mode button	1	1 = Auto / Comfort / Protection mode 2 = Auto / Comfort / Economy / Protection mode 3 = Comfort / Protection mode 4 = Comfort / Economy / Protection mode	
P03	Mode selection via fan mode button	0	0 = Auto / Manually 1 = Manually 2 = Auto / Manually / Protection mode	
P04	Selection of °C or °F	RDG100T/160T: 0 RDG160TU: depends on wizard setting	0 = °C 1 = °F	
P05	Sensor calibration	0.0 K (0.0 °F)	−3...3 K (−6...6 °F)	
P06	Standard temperature display	0	0 = Room temperature 1 = Setpoint	
P08	Comfort basic setpoint	21 °C (70 °F)	5...40 °C (41 °F...104 °F)	
P09	Minimum setpoint limitation in Comfort mode	5 °C (41 °F)	5 ... 40 °C (41...104 °F)	
P10	Maximum setpoint limitation in Comfort mode	35 °C (95 °F)	5...40 °C (41 °F...104 °F)	
P11	Setpoint for heating in Economy mode (WheatEco)	15 °C (59 °F)	OFF, 5 °C...WcoolEco (OFF, 41 °F ...WcoolEconomy)	
P12	Setpoint for cooling in Economy mode (WcoolEco)	30 °C (86 °F)	OFF, WheatEco...40 °C (OFF, WheatEconomy...104 °F)	
P13	Electric heater in cooling mode	ON	OFF = Disabled ON = Enabled	
P14	Button lock	0	0 = Disabled 1 = Automatically 2 = Manually	
P15	Fan speed in dead zone (Comfort mode)	0	0 = Disabled 1 = Stage 1 (H or C) 2 = Stage 1 (Cooling only)	

* Degree Fahrenheit parameter selections are only applicable to RDG160TU version
The control parameters displayed depend on the DIP switch settings made