Robertshaw®

RS9210

Operation Manual

RS9210

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⚠️ **Caution**

DO NOT SWITCH SYSTEM TO COOL IF THE TEMPERATURE IS BELOW 50°F (10°C). THIS CAN DAMAGE THE AIR CONDITIONING SYSTEM AND CAUSE PERSONAL INJURY.

THERMOSTAT OPERATION
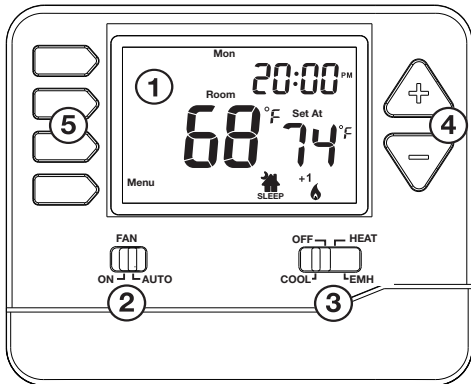
1 LCD Screen	**4** Temperature Set-Point Buttons
2 Fan Switch	**5** User Buttons
3 System Switch	

1 LCD Screen
   See page 4 for detailed information.

2 Fan Switch

   Select **ON** or **AUTO**. **ON** will run the fan continuously. **AUTO** will cycle the fan on only when the heating or cooling system is on.

3 System Switch
   Selects **HEAT** or **COOL** for your HVAC system. Selecting **HEAT** turns on the heat mode. Selecting **COOL** turns on the cool mode. Selecting **OFF** turns both heating and cooling off. Selecting **EMH** (for heat pumps with auxiliary heat) will lockout the compressor and control emergency/auxiliary heat.

4 Temperature Set-Point Buttons
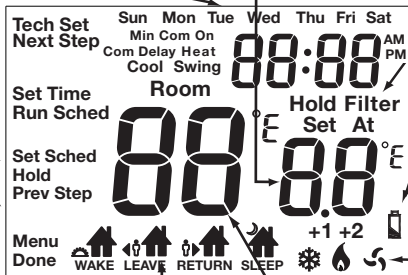   Press ⊕ or ⊖ to select the desired temperature.

5 User Buttons
   Use these buttons to set up programming options.

Days of the week and time.

Displays the user selected set-point temperature.

Hold: Is displayed when thermostat program is overridden.

Low Battery Indicator: Replace batteries when indicator is shown.

System Operation Indicators:

The ❄, 🔥 or ⤳ icon will display when the **COOL**, **HEAT**, or ⤳ (fan) is on.

NOTE: If these icons are flashing, there is a 5-minute delay for compressor protection.

Tech Set
Next Step

Sun Mon Tue Wed Thu Fri Sat
Min Com On
Com Delay Heat
Cool Swing

Room

Set Time
Run Sched

Hold Filter
Set At

Set Sched
Hold
Prev Step

Menu
Done

WAKE LEAVE RETURN SLEEP

Button Options

Programmable Time Periods:
This thermostat has 4 programmable time periods per day.
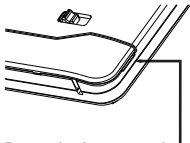
Indicates the current room temperature.

4

⚠ **Caution:**

When the battery icon 🔋 appears, replace the alkaline AAA batteries immediately to avoid damage to your HVAC system. Freezing or overheating could occur.

Battery Door Information

Install two AAA Alkaline batteries into battery compartment. Be sure to match positive (+) ends of batteries with positive (+) battery terminals in the battery compartment.

1.5V AAA   1.5V AAA

Press the lower portion of the thermostat to open the easy access battery door.
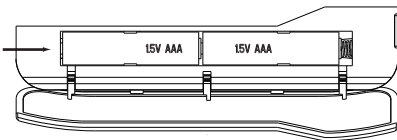
Temperature Adjustment (if Using a Program Schedule)

Temporary Adjustment: You may temporarily change the desired temperature set-point by pressing either ⊕ or ⊖. The temperature will remain at this set-point until the next programmed **WAKE, LEAVE, RETURN,** or **SLEEP** event. The program schedule will then resume.

Program Schedule Hold: The thermostat will display **HOLD** and **RUN SCHED** on the left of the screen when you press either ⊕ or ⊖. You may hold the temperature at a fixed temperature set-point and override the program schedule by pressing **HOLD**. The thermostat will display **HOLD** below the temperature set-point to notify you that the program schedule hold is in effect.

To Return to Programming: Press **RUN SCHED** to return to the program schedule.

Filter Change Reminder

The thermostat can be configured to remind you when the air filter needs to be changed. The filter change reminder can be adjusted to up to 2000 hours in 50 hour increments.

If the installer configured the thermostat to issue this reminder, **FILTER** will be displayed when it is time to change the air filter. When **FILTER** is displayed, you should change the air filter and reset the Filter Change Reminder by holding down the second button from the top left side of the thermostat for 3 seconds.

Hold down button for 3 seconds to reset filter reminder.
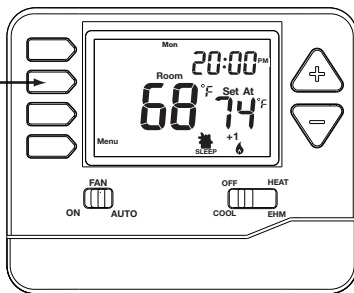
Set Time of Day and Day of Week

1. Press the **MENU** button.

2. Press **SET TIME**.

3. Day of the week will be flashing. Use $+$ or $-$ to select the current day of the week.

4. Press **NEXT STEP**.

5. The current hour will be flashing. Use $+$ or $-$ to select the current hour. Note the correct a.m. or p.m. indicator is selected.

6. Press **NEXT STEP**.

7. The minutes will be flashing. Use $+$ or $-$ to select the current minutes.

8. Press **DONE** when completed.

Custom Programming

This thermostat can be configured to have 7 Day or 5+1+1 programming. If 7 Day is selected, all seven days will need to be programmed individually. If 5+1+1 programming is selected, Monday–Friday will be programmed together and Saturday and Sunday will need to be programmed individually. There are four time periods for each day **(WAKE, LEAVE, RETURN, SLEEP)**.

Follow the steps below to customize your program schedule:

1. Select **HEAT** or **COOL**. Note: Heat and cool need to be programmed separately.
2. Press **MENU** (If menu does not appear first, press **RUN SCHED**).
3. Press **SET SCHED**. Note: Monday–Friday (or Monday if in 7 Day mode) will be displayed and the **WAKE** icon is shown.
4. Time will be flashing. Use ⊕ or ⊖ to make your time selection for the **WAKE** time period for Monday–Friday (or Monday if in 7 Day mode).
5. Press **NEXT STEP**.
6. The set-point temperature will be flashing. Use ⊕ or ⊖ to make your set-point selection for the **WAKE** time period for Monday–Friday (or Monday if in 7 Day mode).

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Custom Programming

7. Press **NEXT STEP**.

8. Repeat steps 4 through 7 for the **LEAVE** time period, for the **RETURN** time period, and for the **SLEEP** time period for Monday–Friday (or Monday if in 7 Day mode).

9. Repeat steps 4 through 8 for the Saturday **WAKE, LEAVE, RETURN,** and **SLEEP** time periods, and then again for the Sunday **WAKE, LEAVE, RETURN,** and **SLEEP** time periods for the 5+1+1 program schedule, and for each day for the 7-day program schedule.

1. Press **MENU**.

2. Press and hold **TECH SET** button for 3 seconds.

3. Configure the installer options as desired using the table.

4. Use the $\bigoplus$ or $\bigtriangledown$ to change settings and the **NEW STEP** or **PREV STEP** to move from one option to another.

Note: Only press **DONE** key when you want to exit the Installer Setup Options.

INSTALLER SETUP MENU

Settings		Display	Adjustment Options	Default
Filter Change Reminder	This setting will flash **FILT** in the display after the elapsed run time to remind the user to change the filter. The **OFF** setting will disable this feature.	Next step `OFF` `FL` `SE` Prev step	The filter change reminder can be adjusted from **OFF** to 2000 hours in 50 hour increments. Press the second button from the top left side of the thermostat to display the current filter elapsed run time.	OFF
Room Temperature Calibration	This setting allows the installer to change the calibration of the room temperature display so that, for example, the thermostat would read 72°F instead of 70°F.	Next step `CAL` `0°F` Prev step	The room temperature display can be adjusted to read up to 3° above or below the factory calibrated temperature.	0
Minimum Compressor On-Time	The installer can select the minimum run time for the compressor to help protect the compressor from short-cycling.	Next step `OFF` `AN` `on` Prev step	The minimum compressor run time can be adjusted from **OFF** to 3, 4, or 5 minutes. If 3, 4, or 5 is selected, the compressor will run for at least the selected time before turning off (although the fan may continue to run for a short time).	OFF

Settings		Display	Adjustment Options	Default
Compressor Short Cycle Delay	The compressor short cycle delay setting will not allow the compressor to be turned on for 5 minutes after it was last turned off in order to protect the compressor.	Next step On CO oF Prev step	The compressor short cycle delay setting can be removed by selecting **OFF**.	ON
Cooling Differential	The cooling differential is factory preset at 0.5°. This means that whenever the room temperature heats by 0.5° from the temperature setting, the cooling system will turn on. If the cooling system turns on too often, increase the temperature differential.	Next step $dF CO$ 0.5 °F Prev step	The cooling differential setting is adjustable from 0.2°F to 2°F.	0.5
Heating Differential	The heating differential is factory preset at 0.4°. This means that whenever the room temperature cools by 0.4° from the temperature setting, the heating system will turn on. If the heating system turns on too often, increase the temperature differential.	Next step $dF HE$ 0.4 °F Prev step	The heating differential setting is adjustable from 0.2°F to 2°F.	0.4

INSTALLER SETUP MENU

Settings		Display	Adjustment Options	Default
F or C	Select F for Fahrenheit temperature display or select C for Celsius display.	Next step °F **82** °F Prev step	F for Fahrenheit C for Celsius	F
12 or 24 Hour Clock	Select a 12 or 24 hour clock setting.	Next step **24H** Prev step	Use ⊕ and ⊖ to select 12 or 24 hour clock.	12
Fan Operation	Select **GAS** or **ELEC** depending on the type of furnace.	Next step **9AS** Prev step	GAS - GS or ELEC - EL	GAS

Settings	Display	Adjustment Options	Default
Program Options	This thermostat can be configured to have 7 Day, 5+1+1 programming or be non-programmable. If 7 Day is selected, in Set Time all seven days will need to be programmed individually. If 5+1+1 programming is selected, in Set Time Monday–Friday will be programmed together and Saturday and Sunday will need to be programmed individually. If 0d is selected, the thermostat becomes non-programmable.	Next step **Pr 0G** **5d** Prev step	Use ⊕ and ⊖ to select **7d** for 7 Day, **5d** for 5+1 +1, or **0d** for non-programmable.	5d

TERMINAL DESIGNATIONS

W2...................Auxiliary heat relay

Y......................Compressor relay

G ....Fan relay

O ....Heat pump reversing valve energized in cooling

R ....24VAC Power

C ....Common wire from system transformer

B ....Heat pump reversing valve energized in heating
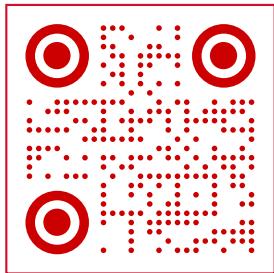
W/E ....Emergency heat relay

Note:
In many heat pump systems without an emergency heat relay, a jumper can be installed between E and W2 to turn the thermostat into a single stage control for Emergency Heat Operation.

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