

# Robertshaw RS8210 Non-Programmable Multi-Stage 2H-1C Wall Thermostat User Manual

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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.

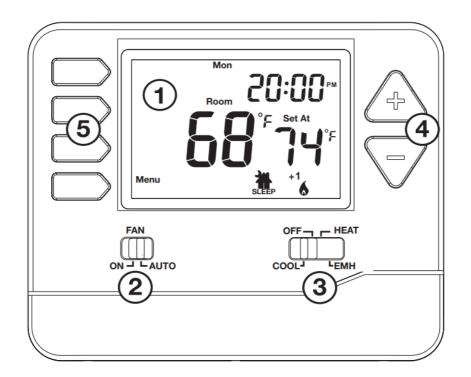
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## THERMOSTAT OPERATION



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

#### 1. LCD Screen

See page 4 for details about this display read out.

## 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 running.

## 3. System Switch

Selects the 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.

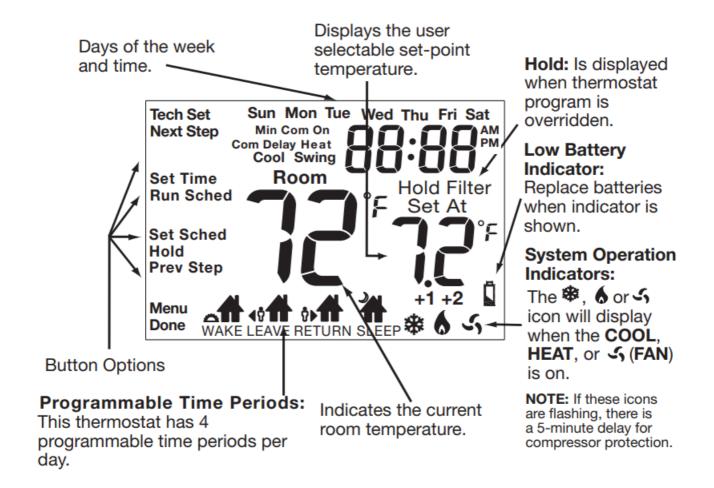
# 4. Temperature Set-Point Buttons

Press the + or to select the desired temperature.

#### 5. User Buttons

Use these buttons to set up programming options.

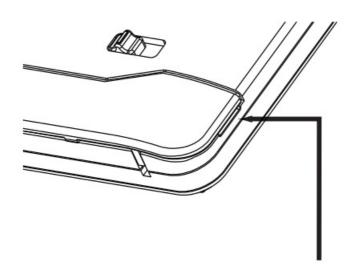
## THERMOSTAT QUICK REFERENCE



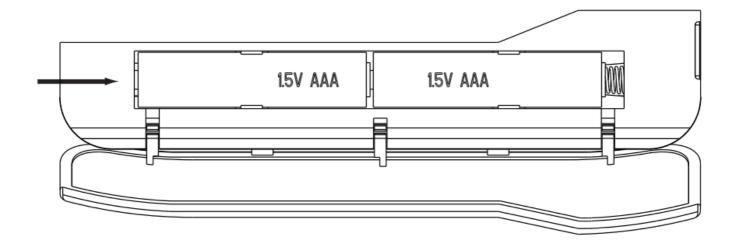


When the battery icon appears, replace the alkaline AAA batteries immediately to avoid damage to your HVAC system. Freezing or overheating could occur

## **Battery Door Information**



Press the lower portion of the thermostat to open the easy access battery door.

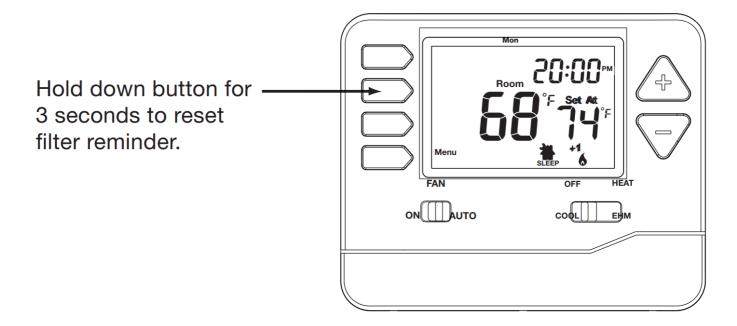


Install two AAA Alkaline batteries into battery compartment. Be sure to match positive (+) ends of batteries with positive (+) battery terminals in the battery compartment.

## 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.



#### **PROGRAMMING**

#### **Set Time**

- 1. Press the MENU button.
- 2. Press SET TIME.
- 3. Day of the week will be flashing. Use  $\stackrel{\frown}{\longrightarrow}$  to select the current day of the week.
- 4. Press NEXT STEP.
- 5. The current hour will be flashing. Use  $\stackrel{\frown}{\hookrightarrow}$  or  $\stackrel{\frown}{\smile}$  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  $\bigcirc$  or  $\bigcirc$  to select the current minutes.
- 8. Press DONE when completed.

## Set temperature

1. Use  $\stackrel{\frown}{\leftarrow}$  or  $\stackrel{\frown}{\smile}$  to select set temperature.

# **INSTALLER SETUP MENU**

- 1. Press MENU.
- 2. Press and hold TECH SET for 3 seconds.
- 3. Configure the installer options as desired using the table below.
- 4. Use + and to change settings and the NEW STEP or PREV STEP to move from one option to another.

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

Feature	Filter Change Reminder	Room Temp erature Calibration	Minimum Compressor On Time	Compressor Short Cycle Delay	Cooling Differ ential	Heating Differ ential
Adjustment Options	The fitter cha nge reminder can be adjusted fr om OFF to 2000 hours in 50 hour incre ments.	The room te mperature di splay can be adjusted to r ead 3° above or bel ow the factor y calibrated te mperature.	The minimum compressor run time can be adjusted from OFF to 3, or 5 4, minutes. 4 ff 3, or 5 Is selected, the compressor will run for at least the selected time before turning of (although the fan may continue to run for a short time).	The compre ssor short cycle d elay setting can be removed by selecting OF F.	The cooling d ifferential sett ing is adjustable from 0.2°F to 2°F	The heating d ifferential setting is adjustable from 0.2°F to 2°F.

Feature	Filter Change Reminder	Room Tempe rature Calibration	Minimum Compressor On-Time	Compressor Short Cycle D elay	Cooling Differ ential	Heating Differ ential
Factory defaul t settings	OFF	0°F	OFF	On	0.5°F	0.4°F
Feature Description	This setting w ill 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.	This setting allows the installer to change the calibration of the room te mperature dis play so that. f or example. t he thermostat would read 7 2T instead of 70°F.	The installer can select the minimum run time for the compressor to help protect the compressor from short-cycling.	The compres sor short cycl e delay tt 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.	The cooling differential is factory preset at 0.5°. This me ans that whenever the room tem perature heat s by 0.5° full degree from t he temperature setting, the cooling system will turn on. If the cooling system turns on too often. increase the temperature d ifferential. setting. the	The heating differential is factory preset at 0.4'. This means that whenever the room temperature cools by 0.4' from the temperature heating system will turn on. If the heating system turns on too often, increase the temperature differential.
LCD will show	OFF Next Bup FISE Per Stup Done	CRL Next Step  Prev Step  Done	OF F Next Step  RR OR Prev Step  Done	ON Next Step COOF Pres Step Done	dF CO Next Step  OS Prev Step  Done	OF HE Next Step  OH Prev Step  Done

**FILTER Setting:** Display SE FI, flashing 1000 (the default value 1000 hours), select from 50-2000 hours. Temperature Calibration: Display CAL and flashing 0°F (the default value 0), select from -3-3°F. **Minimum compressor on time:** Display AN ON and flashing OFF (default setting), select from OFF, 3, 4 or 5 minutes.

Compressor Delay Time Setting: Display CO OF and flashing ON (default setting), select from ON or OFF. Cooling Differential Setting: Display df CO and flashing 0.6, choose from 0.2-2.0 (factory default setting: 0.6°F). Heating Differential Setting: Display df HE and flashing 0.5, choose from 0.2-2.0 (factory default setting: 0.5°F).

°F/°C Selection: Setting F (Fahrenheit) or C (Celsius).

24H/12H Selection: Setting the 24 hour or 12 hour time format.

ELEC/GAS Selection: Select the ELEC or GAS.

#### **TERMINAL DESIGNATIONS**

W2	Auxiliary heat relay
Υ	. Compressor relay
G	. Fan relay
0	. Heat pump reversing valve energized in cooling
RH	24VAC Power
C	. Common wire (if applicable)
В	. Heat pump reversing valve energized in heating
E	. Emergency heat relay

#### Note:

In many systems with no emergency heat relay, a jumper can be installed between E and W2.



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6 Year Limited Warranty
Use Phone to Scan for Warranty Info

#### **Documents / Resources**



Robertshaw RS8210 Non-Programmable Multi-Stage 2H-1C Wall Thermostat [pdf] User M anual

RS8210 Non-Programmable Multi-Stage 2H-1C Wall Thermostat, RS8210, Non-Programmable Multi-Stage 2H-1C Wall Thermostat, Multi-Stage 2H-1C Wall Thermostat, Wall Thermostat, Thermostat

#### References

• Robertshaw | Electronic controls, switches and valves

Manuals+,