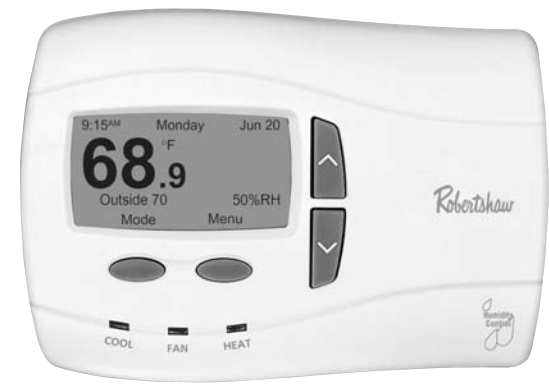# Robertshaw®

DELUXE PROGRAMMABLE THERMOSTATS

Quick Start Installation Manual

models 9801i2 and 9825i2

110-1183

Installation DOs and DON'Ts

DO
- Shut off all power to system before installing.
- Read entire manual before installing.
- Make sure that all wiring conforms to national and local codes.

DO NOT
- Install on voltages greater than 30 VAC.
- Short jumper across terminals on the gas valve or at the system control.
- Connect ground to any terminal in this unit.
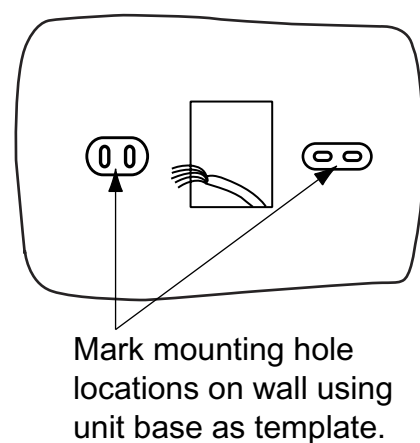- Install on outside walls or in direct sunlight.

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① Select location for installation.

1"
1-1/2"
Cut out opening
a
b

Remove 1/2" of insulation from end of each wire
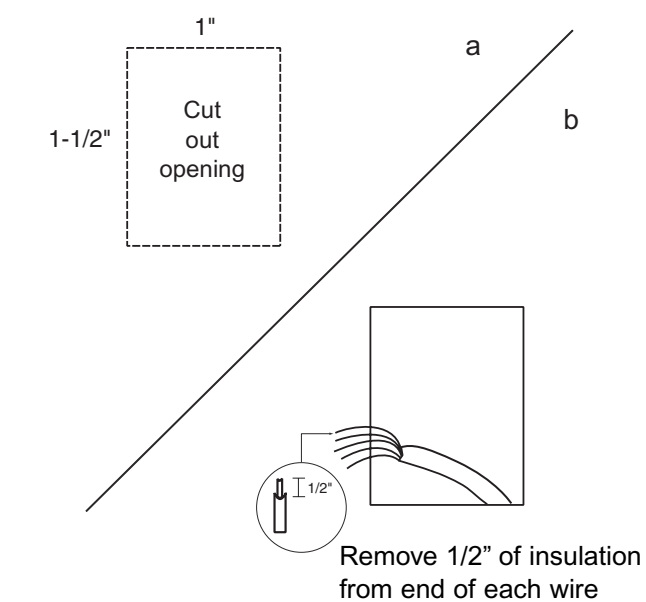
② Open the case with a screwdriver. Place in slot and gently pry forward at all four locations.
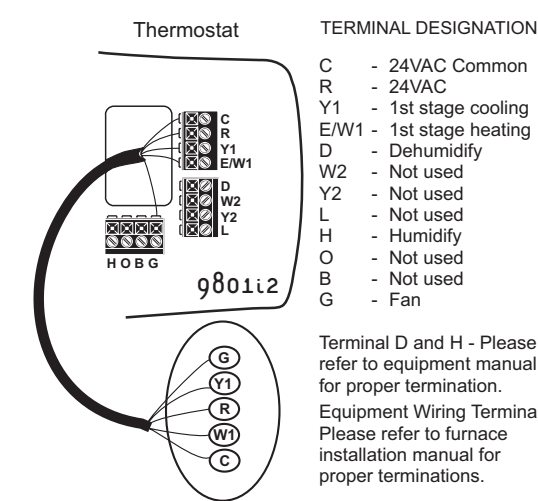
③ Mark mounting hole locations on wall.

Mark mounting hole locations on wall using unit base as template.

④ Drill 3/16" holes at marked locations on wall. Insert plastic anchors into holes.

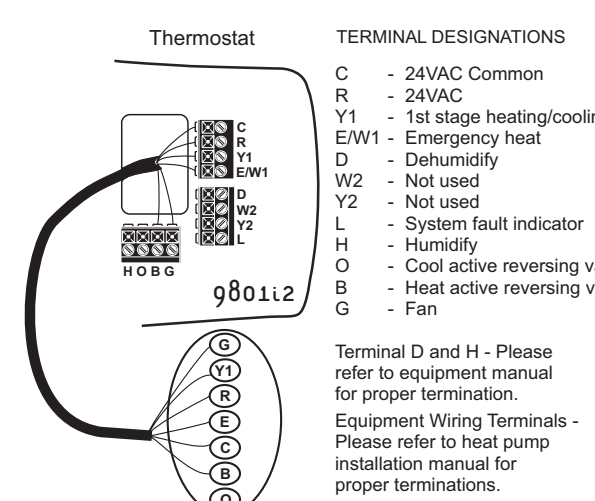Drill 3/16 holes
a
b

Press anchors into holes until flush.
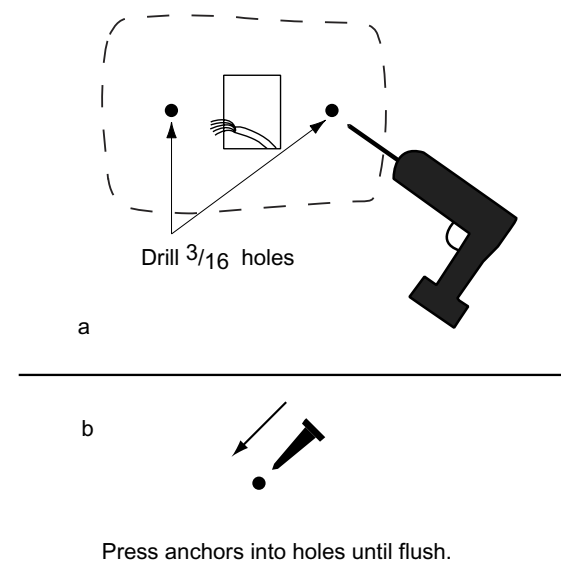
⑤ Align unit base over plastic anchors embedded in wall and secure with the screws provided.
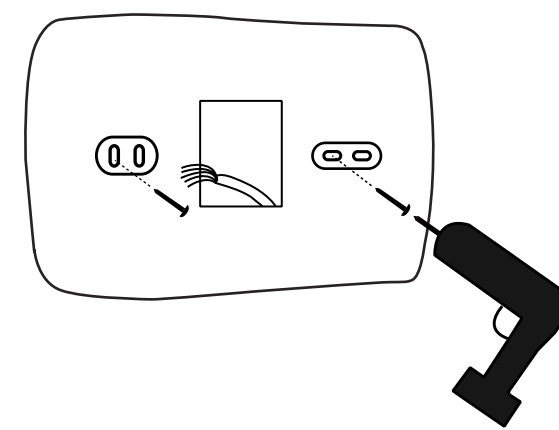
⑥ Connect wiring between the thermostat and equipment. For Model 9801i2 (1 heat / 1 cool; gas / electric).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage cooling
E/W1 - Emergency heat
D - Dehumidify
W2 - Not used
Y2 - Not used
L - Not used
H - Humidify
O - Cool active reversing valve
B - Heat active reversing valve
G - Fan

9801i2

Terminal D and H - Please refer to equipment manual for proper termination.
Equipment Wiring Terminals - Please refer to furnace installation manual for proper terminations.

⑦ Connect wiring between the thermostat and equipment. For Model 9801i2 (1 heat / 1 cool; heat pump with strip heat [emergency]).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage heating/cooling
E/W1 - Emergency heat
D - Dehumidify
W2 - Not used
Y2 - Not used
L - System fault indicator
H - Humidify
O - Cool active reversing valve
B - Heat active reversing valve
G - Fan

9801i2

Terminal D and H - Please refer to equipment manual for proper termination.
Equipment Wiring Terminals - Please refer to heat pump installation manual for proper terminations.

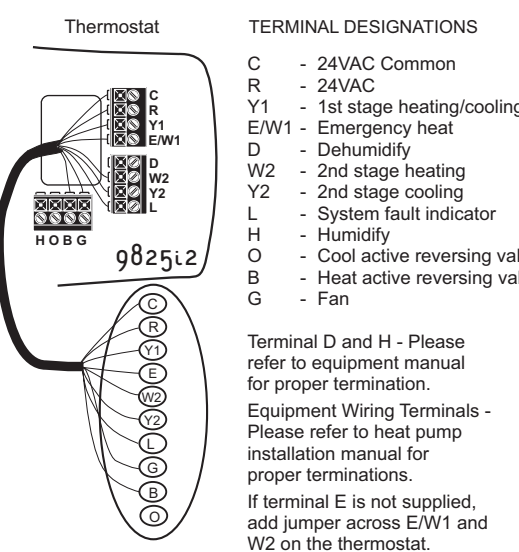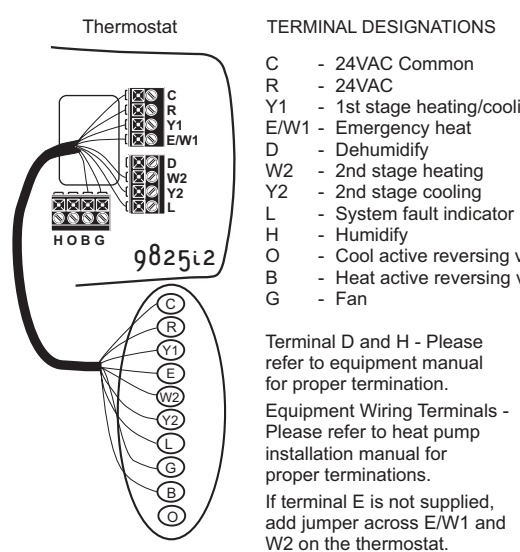
⑧ Connect wiring between the thermostat and equipment. For Model 9825i2 (2 heat / 2 cool; gas / electric).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage cooling
E/W1 - Emergency heat
D - Dehumidify
W2 - 2nd stage heating
Y2 - 2nd stage cooling
L - Not used
H - Humidify
O - Not used
B - Not used
G - Fan

9825i2

Terminal D and H - Please refer to equipment manual for proper termination.
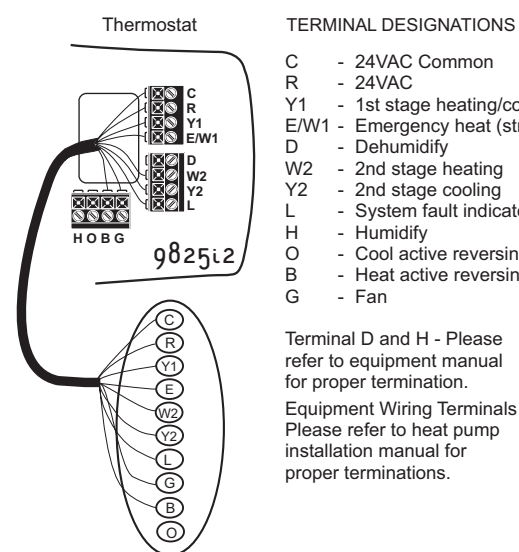Equipment Wiring Terminals - Please refer to furnace installation manual for proper terminations.

⑨ Connect wiring between the thermostat and equipment. For Model 9825i2 (2 heat / 2 cool; heat pump with strip heat).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage heating/cooling
E/W1 - 1st stage heating
D - Dehumidify
W2 - 2nd stage heating
Y2 - 2nd stage cooling
L - System fault indicator
H - Humidify
O - Cool active reversing valve
B - Heat active reversing valve
G - Fan

9825i2

Terminal D and H - Please refer to equipment manual for proper termination.
Equipment Wiring Terminals - Please refer to heat pump installation manual for proper terminations.
If terminal E is not supplied, add jumper across E/W1 and W2 on the thermostat.

⑩ Connect wiring between the thermostat and equipment. For Model 9825i2 (2 heat / 2 cool; heat pump with furnace).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage heating/cooling
E/W1 - Emergency heat
D - Dehumidify
W2 - 2nd stage heating
Y2 - 2nd stage cooling
L - System fault indicator
H - Humidify
O - Cool active reversing valve
B - Heat active reversing valve
G - Fan

9825i2

Terminal D and H - Please refer to equipment manual for proper termination.
Equipment Wiring Terminals - Please refer to heat pump installation manual for proper terminations.
If terminal E is not supplied, add jumper across E/W1 and W2 on the thermostat.

⑪ Connect wiring between the thermostat and equipment. For Model 9825i2 (2 heat / 2 cool; 2 stage heat pump with strip heat).

Thermostat

TERMINAL DESIGNATIONS
C - 24VAC Common
R - 24VAC
Y1 - 1st stage heating/cooling
E/W1 - Emergency heat (strip)
D - Dehumidify
W2 - 2nd stage heating
Y2 - 2nd stage cooling
L - System fault indicator
H - Humidify
O - Cool active reversing valve
B - Heat active reversing valve
G - Fan

9825i2

Terminal D and H - Please refer to equipment manual for proper termination.
Equipment Wiring Terminals - Please refer to heat pump installation manual for proper terminations.

⑫ Connect wiring between the thermostat and the indoor sensor (9020i) and the outdoor sensor (9025i), if used. Use twisted pair wiring (22AWG minimum) with a maximum length of 300 feet (or 100m).

Indoor sensor terminal block
To sensors
Outdoor sensor terminal block
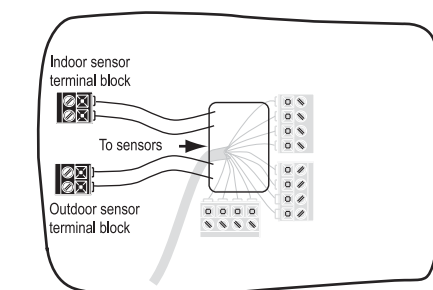
⑬ Replace cover on thermostat. Turn on power to unit and proceed with programming per instructions on the display or in the user's manual.
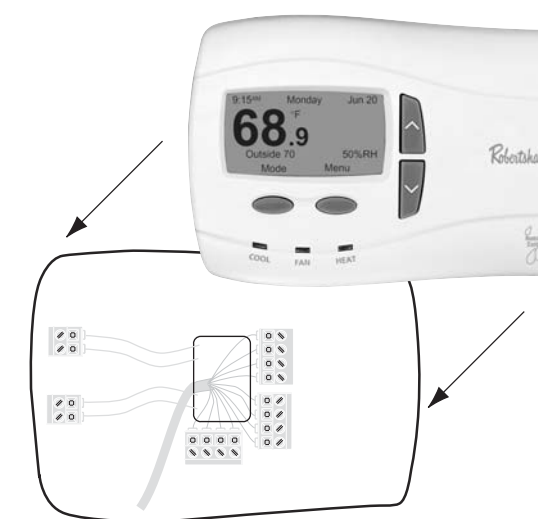
♻ Recycling Thermostat

If this thermostat REPLACES a thermostat that contains mercury, DO NOT discard the old thermostat in the regular trash. Mercury is harmful to humans and the environment. For this reason, do not open, break, or crush the mercury cell. If mercury leaks from a damaged cell, DO NOT touch or handle mercury with bare hands. Use protective, non-absorbent gloves to place mercury into a sealable container. Fill the container with sand or another absorbent material and seal the container completely.
Return the mercury or mercury products, in a sealed container, to Invensys Climate Controls or a local recycling center for proper disposal. If you have any questions, call Robertshaw technical support at 1-800-445-8299.

In U.S.:
Invensys Controls Americas
28C Leigh Fisher Blvd.
El Paso, TX 79906
Attn: Mercury Recycling Center

In Canada:
Invensys Controls Americas
3515 Laird Road - Unit #14
Mississauga, Ontario L5L 5Y7
Attn: Mercury Recycling Center

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DELUXE PROGRAMMABLE THERMOSTATS

Setup Wizard Quick Start Guide

The Setup Wizard allows you to quickly step through the setup process. This guide shows a typical setup for a basic heating system. The screens you see depend on thermostat model and your heating/cooling configuration.

NOTE: Use the ∧ or ∨ button to select a list item or to change the value of a number. Use the gray buttons below the display to choose No, Yes, Back, Next, Next Char or Accept when appropriate.

① Selecting **Yes** allows you to go through the setup process.

Would You Like To Run the Setup Wizard?
No   Yes
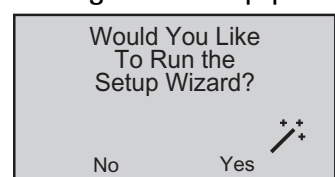
② Choose either English, Español, or Français as the display language. This can always be changed after the Setup Wizard is complete. Press **Next**.

Select Language
English
Español
Français
Back   Next
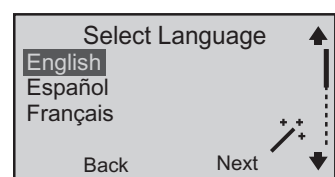
③ Set the time. Hours and minutes are set separately. An AM/PM indicator automatically changes based on the hour chosen. Press **Next**.

Set Time (Hour)
12:00 PM
Back   Next
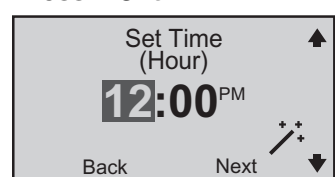
④ Set the date. First, set the month. Press **Next**. Then, set the day. Press **Next**. Finally, set the year. Press **Next**.

Set Date (Month)
1/1/05
Back   Next
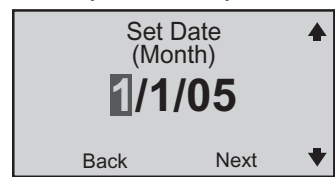
⑤ Choose the time format – 12-hour clock or 24-hour clock. Press **Next**.

Select Time Format
12hr
24hr
Back   Next
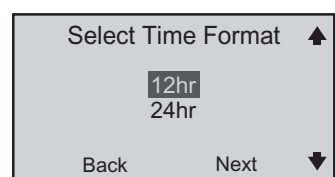
⑥ To activate the Auto Daylight Saving Time feature, choose either: **Standard** (April – October), or **Extended** (March – November). Press **Next**.

Auto Adjust For DST?
No
Standard (Apr-Oct)
Extended (Mar-Nov)
Back   Next
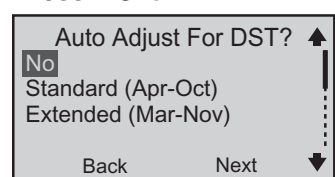
⑦ Select either the Fahrenheit or Celsius temperature scale. Press **Next**.

Select Temperature Scale
°C
°F
Back   Next
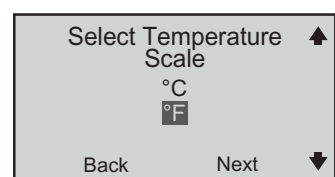
⑧ Select the type of heating system that will be used with the thermostat. Press **Next**.

1st Stage Heat Equip
None
Furnace
Strip
Heat Pump
Back   Next
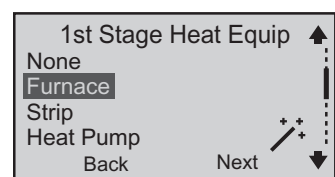
⑨ Auto changeover allows automatic switching between heating and cooling. Make your selection. Press **Next**.

Enable Auto Changeover?
No
Yes
Back   Next
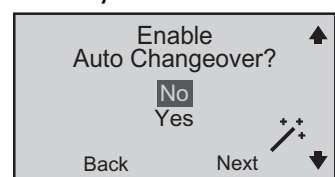
⑩ Service reminders are available for: Heat System, Heat Pump, Cool System, Filter, UV Light and Humidifier Pad. All can be set to OFF or from 1 to 12 months. Press **Next**.

Reminder To Service Heat System In:
3 Mon
Back   Next
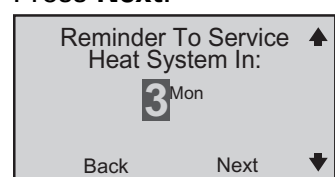
⑪ Contact information can be entered at the factory. Talk to your Robertshaw sales representative about this feature.
To edit information: Use the ∧ or ∨ button to scroll through the character list. Press **Next Char** to move to the next character. Press **Accept** to move to the next line, and finish editing.

Set Contact Info (Name)
ABC HEATERS
123-555-2345
Accept   Next Char
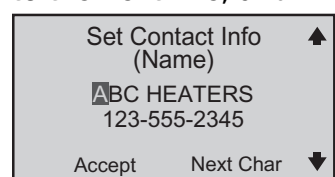
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DELUXE PROGRAMMABLE THERMOSTATS

Operational Mode Chart

Outdoor Temperature	No 2nd Stage	HVAC Mode is Emer	2nd Stage is a Furnace				2nd Stage is Strip		2nd Stage is a Heat Pump	
			Standard[2]		Add-On[2]				Heat Pump Only[4]	
		1st Stage (2nd is na)	1st	2nd	1st	2nd	1st	2nd	1st	2nd
< Low balance		E/W1	W2	na[1]	W2	na[1]	W2	na[1]	E/W1	na[1]
Between balance points		E/W1	Y1	Y1 + W2[2]	Y1	W2 only[2]	Y1	Y1 + W2[2]	Y1	Y1 + W2
No sensor[3]	Y1	E/W1	Y1	Y1 + W2[2]	Y1	W2 only[2]	Y1	Y1 + W2[2]	Y1	Y1 + W2
> High balance		E/W1	Y1	na[1]	Y1	na[1]	Y1	na[1]	Y1	na[1]

1. The 2nd stage is not used for heating when the outdoor temperature is not between the two balance points.

2. Standard and Add-On apply when the 2nd stage is on. Y1 is either on (Standard) or off (Add-On).

3. When no sensor is present, the thermostat behaves as if the outdoor temperature is always between the balance points.

4. Heat Pump Only applies to the 9825i2 when it is configured as Heat Pump in both 1st and 2nd stage.

NOTES:

NOTES: