



# R251S

**Pro1 Technologies**

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**A trained, experienced technician must install this product.**

Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

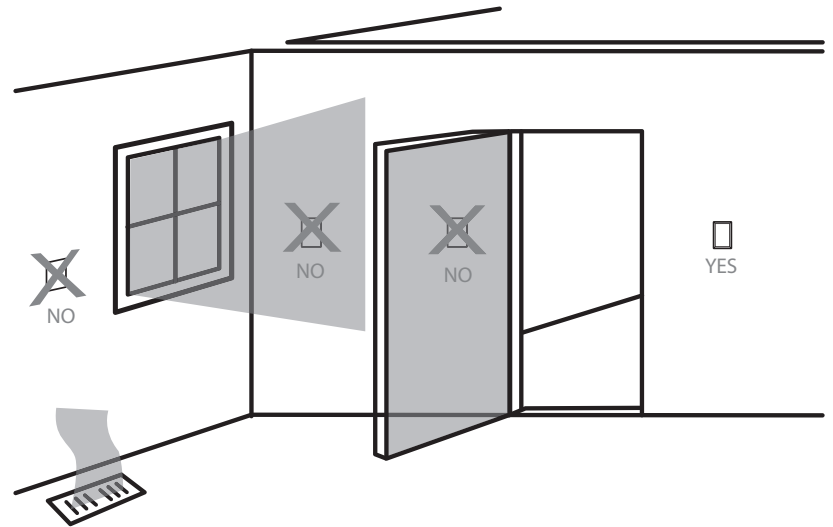
**Caution: Equipment Damage Hazard**

Do not operate the cooling system if the outdoor temperature is below 50°F (10° C) to prevent possible compressor damage.

Una version en espanol de este manual se puede descargar en la pagina web de la compania.

**Remote Sensor Locations**

The remote sensor should be mounted or placed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.



**Do not mount or place remote sensors in these locations:**

- Close to hot or cold air ducts
- That are in direct sunlight
- With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where appliances could radiate heat.
- Near or on hot appliances.

**Wired Range**

The range between the remote sensor and the wired sensing master thermostat is up to 300 feet. The remote sensor should be installed using 18 AWG thermostat wire.

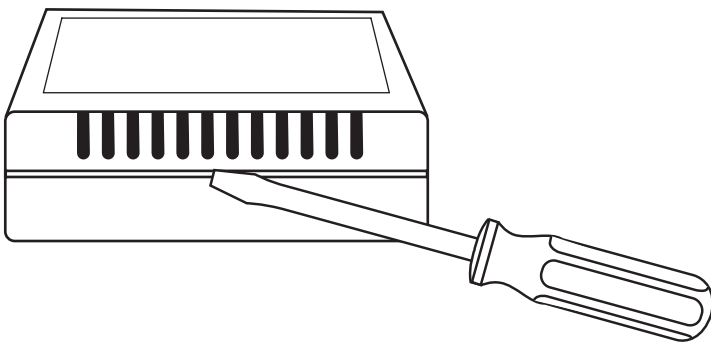
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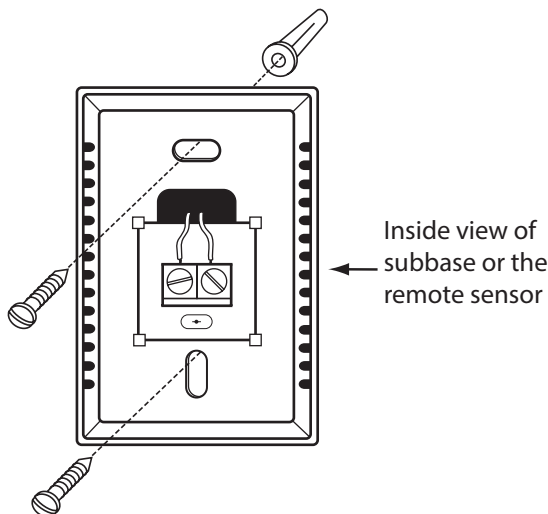
**Sensor Mounting & Setup**

**Wall Mount**

- 1 Remove the cover of the remote sensor



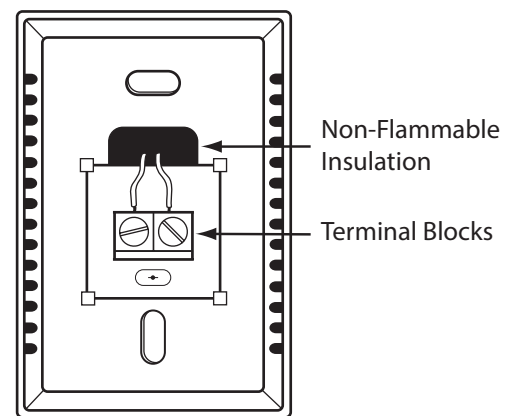
- 2 Mount subbase to the wall



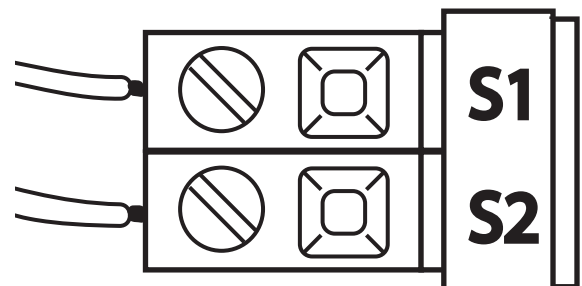
**Sensor Mounting & Setup**

**Connecting to a Wired Sensor Capable Thermostat**

- 1 Loosen the terminal block screws. Insert wires, then retighten terminal block screws.



- 2 Connect the remote sensor to the S terminal blocks on the Wired Sensor Capable Thermostat.



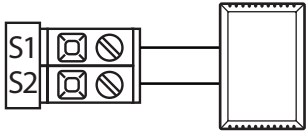
- 3 Place non-flammable insulation into wall opening to prevent drafts.

**Note:** Refer to your Wired Sensor Capable Thermostat manual for setup.

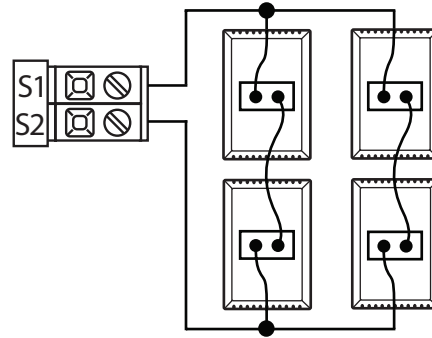
Wiring

You can connect 1, 4, 9, or 16 remote sensors to a Wired Sensor Capable Thermostat to achieve a more accurate temperature average throughout a space. The following diagrams illustrate the proper ways to wire the remote sensor. Use 18 AWG thermostat wire when installing.

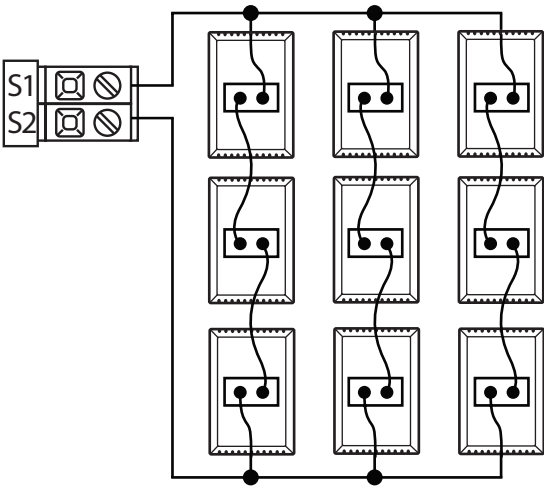
1 Remote Sensor



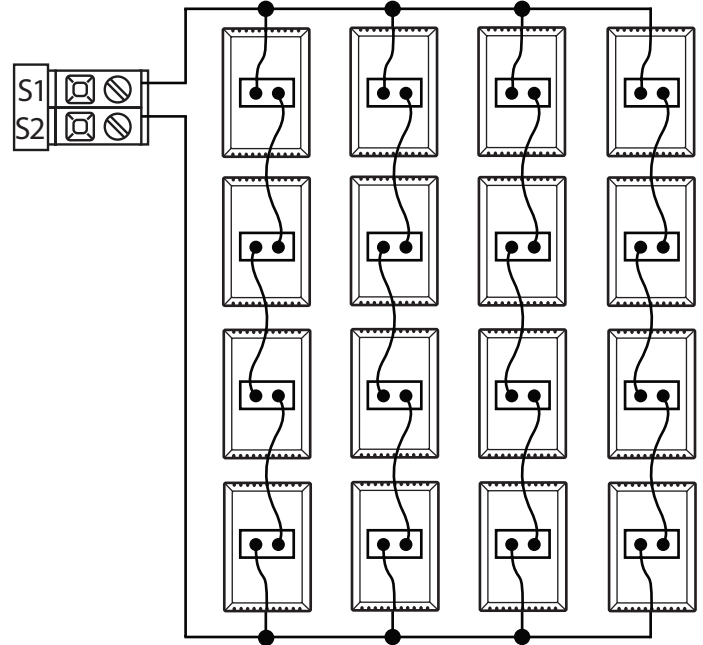
4 Remote Sensors



9 Remote Sensors



16 Remote Sensors



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Resistance Chart

100K Thermistor Output Table

°F	C	Ohms	°F	C	Ohms	°F	C	Ohms
-39	39.44	3916295	37	2.78	302466	113	45.00	41303
-37	38.33	3627711	39	3.89	285206	115	46.11	39434
-35	37.22	3362274	41	5.00	269035	117	47.22	37660
-33	36.11	3117987	43	6.11	253877	119	48.33	35976
-31	35.00	2893035	45	7.22	239664	121	49.44	34376
-29	33.89	2685770	47	8.33	226331	123	50.56	32843
-27	32.78	2494694	49	9.44	213819	125	51.67	31399
-25	31.67	2318444	51	10.56	201971	127	52.78	30027
-23	30.56	2155781	53	11.67	190946	129	53.89	28722
-21	29.44	2004274	55	12.78	180588	131	55.00	27481
-19	28.33	1865595	57	13.89	170853	133	56.11	26300
-17	27.22	1737397	59	15.00	161700	135	57.22	25177
-15	26.11	1618827	61	16.11	153092	137	58.33	24107
-13	25.00	1509102	63	17.22	144992	139	59.44	23089
-11	23.89	1407512	65	18.33	137367	141	60.56	22111
-9	22.78	1313405	67	19.44	130189	143	61.67	21188
-7	21.67	1226184	69	20.56	123368	145	62.78	20308
-5	20.56	1145306	71	21.67	117000	147	63.89	19469
-3	19.44	1069620	73	22.78	110998	149	65.00	18670
-1	18.33	1000019	75	23.89	105338	151	66.11	17907
1	17.22	935383	77	25.00	100000	153	67.22	17180
3	16.11	875329	79	26.11	94963	155	68.33	16486
5	15.00	819505	81	27.22	90208	157	69.44	15824
7	13.89	767589	83	28.33	85719	159	70.56	15187
9	12.78	719284	85	29.44	81479	161	71.67	14584
11	-11.67	674319	87	30.56	77438	163	72.78	14008
13	-10.56	632442	89	31.67	73654	165	73.89	13458
15	-9.44	593086	91	32.78	70076	167	75.00	12932
17	-8.33	556739	93	33.89	66692	169	76.11	12430
19	-7.22	522842	95	35.00	63491	171	77.22	11949
21	-6.11	491217	97	36.11	60461	173	78.33	11490
23	-5.00	461699	99	37.22	57594	175	79.44	11051
25	-3.89	434134	101	38.33	54878	177	80.56	10627
27	-2.78	408383	103	39.44	52306	179	81.67	10225
29	-1.67	384316	105	40.56	49847	181	82.78	9841
31	-0.56	361813	107	41.67	47538	183	83.89	9473
33	0.56	340581	109	42.78	45349	185	85.00	9121
35	1.67	320895	111	43.89	43273	187	86.11	8783

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Technician Setup

Specifications

Operating Temperature ..... 32°F to 105°F (0°C to +41C)  
 Operating humidity..... 90% non-condensing maximum  
 Dimensions of sensor ..... 1.5"W x 2.75"H x 0.75"D  
 Resistance range .....Up to 300 feet

Warranty Registration

Your new thermostat has a 5 year limited warranty. You must register your thermostat within 60 days of installation. Without this registration the warranty period will begin on date of manufacture. For warranty issues please contact the HVAC professional that installed this product. You can register your new thermostat in 2 ways:

Online

Go to the company website, select warranty registration and fill out a short registration form.

Mail

Complete the form below and mail it to the address shown.

Warranty Registration

Name: \_\_\_\_\_ Thermostat Model: \_\_\_\_\_  
 Address: \_\_\_\_\_ Date Installed: \_\_\_\_\_  
 City: \_\_\_\_\_ Complete form and mail to:  
 State: \_\_\_\_\_ **Thermostat Warranty Registration**  
 Zip: \_\_\_\_\_ P.O. Box 3377  
 Springfield, MO 65804

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