

# 80 Series™ Thermostats

Universal • Heat Pump • Conventional Applications — Programmable and Non-Programmable Models

## The Clear Choice in Professional Thermostats

8 Models Cover Universal, Heat Pump and Conventional Applications

### Large Display

Bright Backlight  
High Contrast Screen

### Selectable Programming

Choice of 7 Day, 5+1+1 Day or Off  
Standard on all programmable models

### Dual Fuel Control

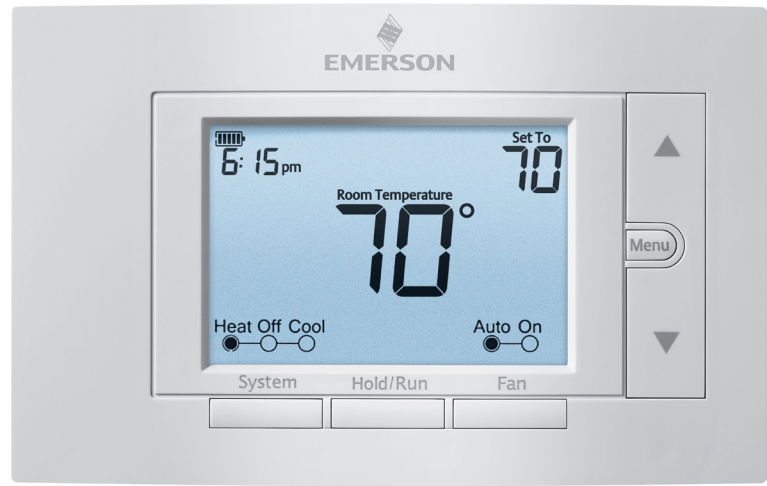
No outdoor sensor required  
Standard on all staging models

### Advanced Features

Auto Changeover on Universal models  
Keypad Lockout  
Temperature Limits

### Easy to Install

Built-in level indicator  
Simple set up menu  
Terminal block connections on subbase



1F85U-42PR

Loaded with features!

## Providing clarity in selection, installation and programming

Cut through the confusion with a new line of professional thermostats from White-Rodgers. As a complement to the Sensi Wi-Fi programmable thermostat, the Emerson 80 Series thermostats feature a slim profile and a modern design. The large, high contrast, bright backlit thermostat screen makes it easy to read in low-light situations.

# 80 Series Thermostats

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## Specifications

### Electrical Rating

Battery Power: mV to 30 VAC  
 Hardwire: 20 to 30 VAC  
 NEC Class II, 50/60 Hz

### Setpoint Range

45°F to 99°F (7°C to 37°C)

### Accessories

Wallplate: F61-2663 (6-3/4" x 4-1/2")  
 Thermostat Guard: F29-0198

### Display Temperature Range

32°F to +99°F (0°C to 37°C)

### Rated Differentials (@ 6°F / Hr)

|                                    | Fast  | Med    | Slow  |
|------------------------------------|-------|--------|-------|
| Heat (Conventional Gas/Oil/Elect): | 0.5°F | 0.75°F | 1.9°F |
| Cool (Central Air):                | 0.9°F | 1.2°F  | 1.7°F |
| Heat Pump (Heat and Cool):         | 0.9°F | 1.2°F  | 1.7°F |
| Heat Pump (Aux):                   | 0.5°F | 0.75°F | 1.9°F |

### Terminal Load

Staging Models: 1.5 A per terminal  
 2.5 A per maximum all terminals combined

Single Stage Models: 1.0 A per terminal  
 1.5 A per maximum all terminals combined

### Operating Ambient

32°F to +105°F  
 (0°C to +41°C)

### Operating Humidity

90% non-condensing max

### Shipping Temperature

-20°F to +150°F  
 (-29°C to +65°C)

### Thermostat Dimensions

3-3/4"H x 6"W x 1-1/8"D

## Terminal Designations

Universal: 1F85U-42PR / 1F85U-42NP / 1F85U-22PR / 1F85U-22NP



Heat Pump: 1F83H-21PR / 1F83H-21NP



Conventional & Heat Pump, Single Stage: 1F83C-11PR / 1F83C-11NP



| Model      | Program Options |           |                  |                         | Maximum Stages Heat / Cool |           | Applications         |                   |                      | Power Source |                 | Selectable Performance Features |                           |  |  | Comfort and Convenience Features |                |                                    |                  |
|------------|-----------------|-----------|------------------|-------------------------|----------------------------|-----------|----------------------|-------------------|----------------------|--------------|-----------------|---------------------------------|---------------------------|--|--|----------------------------------|----------------|------------------------------------|------------------|
|            | 7 Day           | 5+1+1 Day | Non-Programmable | Program Periods per Day | Conventional               | Heat Pump | Gas / Oil / Electric | 3 Wire Zone Valve | Millivolt Compatible | Battery      | Hardwired (24V) | Auto Changeover                 | EMR / Early Start Program | Temperature Setpoint Limits Adjustable Max./Min. | Dual Fuel Control (L)-Logic/(O)-Outdoor Sensor | Filter Change Reminder           | Keypad Lockout | Continuous Backlight w/Common Wire | Permanent Memory |
| 1F85U-42PR | 7               | 5+1+1     | 0                | 4,2,0                   | 2/2                        | 4/2       | ✓                    | ✓                 | ✓                    | ✓            | ✓               | ✓                               | ✓                         | ✓  | L  | ✓                                | ✓              | ✓                                  | ✓                |
| 1F85U-42NP |                 |           | 0                | 0                       | 2/2                        | 4/2       | ✓                    | ✓                 | ✓                    | ✓            | ✓               | ✓                               |                           | ✓  | L  |                                  | ✓              | ✓                                  | ✓                |
| 1F85U-22PR | 7               | 5+1+1     | 0                | 4,2,0                   | 2/2                        | 2/1       | ✓                    | ✓                 | ✓                    | ✓            | ✓               | ✓                               | ✓                         | ✓  | L  | ✓                                | ✓              | ✓                                  | ✓                |
| 1F85U-22NP |                 |           | 0                | 0                       | 2/2                        | 2/1       | ✓                    | ✓                 | ✓                    | ✓            | ✓               | ✓                               |                           | ✓  | L  |                                  | ✓              | ✓                                  | ✓                |
| 1F83H-21PR | 7               | 5+1+1     | 0                | 4,0                     |                            | 2/1       | ✓                    |                   |                      | ✓            | ✓               |                                 | ✓                         | ✓  | L  | ✓                                | ✓              | ✓                                  | ✓                |
| 1F83H-21NP |                 |           | 0                | 0                       |                            | 2/1       | ✓                    |                   |                      | ✓            | ✓               |                                 |                           | ✓  | L  |                                  | ✓              | ✓                                  | ✓                |
| 1F83C-11PR | 7               | 5+1+1     | 0                | 4,0                     | 1/1                        | 1/1       | ✓                    |                   | ✓                    | ✓            | ✓               |                                 | ✓                         |  |  | ✓                                | ✓              | ✓                                  | ✓                |
| 1F83C-11NP |                 |           | 0                | 0                       | 1/1                        | 1/1       | ✓                    |                   | ✓                    | ✓            | ✓               |                                 |                           | ✓  |  |                                  | ✓              | ✓                                  | ✓                |



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Markham, Ontario  
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