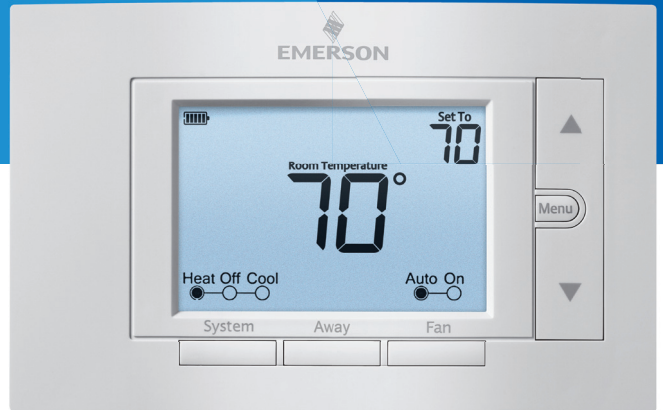


# 80 Series™ Thermostats

*Thermostats that fit every customer.*

The 80 Series thermostats are the perfect fit for every application with universal, conventional and heat pump models. The standard footprint makes replacements and upgrades easier than ever without leaving visible marks on the wall from the old thermostat.



## EASY INSTALLATION

All models are easy to install & set-up with a built-in level and universal back plate for more opportunities for upgrades in the future.



## LARGE, BACKLIT DISPLAY

Modern design with a large, easy-to-read screen with a bright backlit display.



## ADVANCED FEATURES

Temperature limits and keypad lockout are standard on every model. Select models feature auto changeover, filter change reminders, dual fuel control and selectable programming.



## PROVEN PERFORMANCE

Over 75 years of experience along with our  $\pm 1^\circ$  temperature accuracy guarantee.

## HOW DO YOU BENEFIT?



### Contractor Branding

Get the next service call by placing your company information directly on the thermostat. Customize your 80 Series thermostats at [ProContractorBranding.com](http://ProContractorBranding.com).



### Training

Free, self-guided training courses available through Education Central or contact your Territory Manager to set up training at your location or at select wholesalers.



### Support

Customer and technical support is available seven days a week at 888-725-9797. 5 year limited warranty for HVAC professionals.



EMERSON. CONSIDER IT SOLVED.™

# 80 Series™ Thermostats

## SPECIFICATIONS

### ELECTRICAL RATING

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

### 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 |

### OPERATING AMBIENT

32°F to +105°F  
 (0°C to +41°C)

### SETPOINT RANGE

45°F to 99°F (7°C to 37°C)

### TERMINAL LOAD

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

### OPERATING HUMIDITY

90% non-condensing max

### ACCESSORIES

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

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

### SHIPPING TEMPERATURE

-20°F to +150°F  
 (-29°C to +65°C)

### DISPLAY TEMPERATURE RANGE

32°F to +99°F (0°C to 37°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 Option |           |                  |                         | Maximum Stages Heat/Cool |           | Applications     |                   |                      | Power Source |                 | Selectable Performance Features |                          |  |  | Comfortable 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. | Duel 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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Download the app for product and cross reference information