

# WHITE-RODGERS 90 SERIES PREMIUM THERMOSTATS



## 90 SERIES "PREMIUM" THERMOSTATS

Residential and Commercial – Single Stage, Multi-Stage and Heat Pump Applications. 90 Series Thermostats are the Ultimate for Comfort, Convenience and Performance. No Additional Subbases Required

### FEATURES

- Automatic heat/cool system changeover.
- Fossil fuel or electric heat compatible.
- Large Comfort-View™ luminescent display and the industry's first lighted keypad.
- Permanent program memory.
- Configuration menu allows keypad selection of options, no additional subbases required.
- Selectable Energy Management Recovery.
- Onboard system and thermostat diagnostics.
- Single stage models accept 1 remote sensor, staging models accept up to 3 indoor sensors and offer temperature averaging or weighted average by sensor location and program time.
- Meets Energy Star specifications (except 1F96-344 and 1F93-380).

### 90 Series



**F145-1328**  
Indoor Remote Sensor



**F145-1378**  
Outdoor Remote Sensor

### SPECIFICATIONS

Electrical Rating Single Stage	.....	mV to 30 VAC, NEC Class II, 50/60 Hz or DC
Electrical Rating Staging	.....	20 to 30 VAC, NEC Class II
Terminal Load	.....	1.5 A per terminal, 2.5 A maximum all terminals combined
Setpoint Range	.....	45 to 99°F (7 to 37°C)
Anticipation, Heating	.....	Adjustable
Anticipation, Cooling	.....	Adjustable
Rated Differential Single Stage	.....	Heat 0.5 to 1.5°F Cool 0.8 to 2.2°F
Rated Differential Staging	.....	Heat 0.5 to 1.5°F Cool 0.5 to 2.2°F
Operating Ambient	.....	32 to +110°F (0 to +43°C)
Operating Humidity	.....	90% non-condensing max.
Shipping Temperature Range	.....	-4 to 150°F (-20 to 65°C)
Dimensions	.....	4 <sup>1</sup> / <sub>8</sub> " H x 6 <sup>7</sup> / <sub>8</sub> " W x 1 <sup>3</sup> / <sub>8</sub> " D

### PARTS AND ACCESSORIES

 See end of this section for additional parts and accessories

- F145-1328 — Indoor remote sensor (single stage models accept 1, staging models accept up to 3)
- F61-2300 — Wallplate with adapter for vertical j-box
- Thermostat Guards — see pages 26-27
- F145-1378 — Outdoor sensor for displaying outdoor temperature (for staging thermostats only)





**WHITE-RODGERS 90 SERIES THERMOSTATS  
STAGING THERMOSTATS**

Stages		Program	MODEL	Application			Control		Performance Features							Comfort & Convenience			Terminals			
Heat	Cool	Program	Model Number	Multi-Stage	Heat Pump	Gas/Oil/Electric	Millivolt	Humidify	Dehumidify	Auto Changeover	Energy Mgt. Recovery	Programmable Fan	Keypad Lockout	Indoor Remote Sensor	Outdoor Remote Sensor	Power Source	Energy Star	Lighted Display	Lighted Keypad	Memory Type	Super Cap	Terminals
MS 3	2	7-day	1F95-377	X	X	X				X	X	X	X	3	1	H	X	①	X	②	X	R,C,G,Y1,Y2,W1,W2,W3,E2/P,E,O,B,L,PH,SA,SB,SC,OT
HP 3	2		UNIVERSAL																			
MS 2	2	7-day	1F93-380	X	X	X				X	X	X	X	3	1	H		①	X	②	X	R,C,G,Y1,Y2,W1,W2,W3/A1,E2/P,E,O,B,L,PH,SA,SB,SC,OT
HP 3	2	Occ./Unocc.	COMMERCIAL UNIVERSAL																			
NEW!	MS 2	2	7-day	1F95-391	X	X	X		X	X	X	X	X	3	1	H	X	①	X	②	X	R,C,G,Y1,Y2,E/W1,W2,O,B,L,SA,SB,SC,OT,DHM,HM
	HP 3	2		UNIVERSAL																		
	MS 2	2	5+2 day	1F92-371	X	X	X			X	X	X	X			H	X	X		②		R,C,G,Y1,Y2,W1,W2,E2/P,E,O,B,L
	HP 3	2	7-day	1F95-371	X		X			X	X	X	X	3	1	H	X	①	X	②	X	R,C,G,Y1,Y2,W1,W2,W3,O,B,L,PH,SA,SB,SC,OT
	HP 3	2	7-day	1F94-371		X				X	X	X	X	3	1	H	X	①	X	②	X	R,C,G,Y1,Y2,W1,W2,W3,E2/P,O,B,L,PH,SA,SB,SC,OT

**SINGLE STAGE THERMOSTATS**

Stages		Program	MODEL	Application			Control		Performance Features							Comfort & Convenience			Terminals			
Heat	Cool	Program	Model Number	Multi-Stage	Heat Pump	Gas/Oil/Electric	Millivolt	Humidify	Dehumidify	Auto Changeover	Energy Mgt. Recovery	Programmable Fan	Keypad Lockout	Indoor Remote Sensor	Outdoor Remote Sensor	Power Source	Energy Star	Lighted Display	Lighted Keypad	Memory Type	Super Cap	Terminals
NEW!	1	1	7-day	1F97-391		X		X		X	X	X	X	1		P/S	X	①		②		RC,RH,W,Y,G,6, HM1,HM2,S1,S2,S3
	1	1	7-day	1F97-371		X(1)	X			X	X	X	X	1		P/S	X	①		②		RC,RH,W,Y,G,MV,O,B,S1,S2,S3,6
	1	1	5+2/5+1+1 day	1F90-371		X(1)	X			X	X	X	X	1		P/S	X	①		②		RC,RH,W,Y,G,MV,O,B,S1,S2,S3,6
	1	1	∅	1F96-344		X(1)	X			X		X	X	1		P/S		X		②		RC,RH,W,Y,G,MV,O,B,S1,S2,S3,6

MS = Multi-Stage  
 HP = Heat Pump  
 ① Comfort View™  
 ② Permanent  
 (1) = Single Stage Heat Pump

B = Battery Power  
 H = Hardwired (Requires Common)  
 H/B = Hardwired or Battery option  
 P/S = Power Stealing with Battery Back-Up



**TECHNICAL HELP**

Single Stage Models  
 1F90/1F96/1F97 Wiring ..... See page 172  
 1F90/1F97 Configuration Options ..... See page 173  
 1F96 Configuration ..... See page 174  
 Remote Sensor Troubleshooting ..... See page 184

Staging Models  
 Configuration ..... See pages 178-181  
 Wiring, 1F92/1F95-371 ..... See pages 175-177  
 Wiring, 1F95-391 ..... See page 182  
 Wiring, Remote Sensor and X-10 ..... See page 183