

DETAILED THERMOSTAT/ENVIRONMENTAL CONTROLLER SPECIFICATIONS		
BASIC PROGRAMMABLE/NON-PROGRAMMABLE MULTI-STAGE HEAT/COOL & HEAT PUMP THERMOSTATS		
TStat or Controller	Standard Features	Additional Features
8403-091 (T701)	1C/1H Standard AC with 1 stage electric heat Non-programmable (2)AA Batteries for 24-hour clock retention, non-volatile memory for all other settings Manual changeover Digital backlight display with 2-Button User Interface and fan/system switches	White color Temperature range: 44-90F, Temperature display F Size: 4.4"H x 4.7"W x .8"D Terminals: RC, RH, C, W, Y, G Snap together design
8403-089 (TH4110U2005)	1C/1H Standard AC with 1 stage electric heat or Heat Pump without electric heat Digital 7 day programmable, 5+1+1 or 5+2 day, or non-programmable (2)AA Batteries for 24-hour clock retention, non-volatile memory for all other settings Automatic or manual changeover Simple 5-Button User Interface with English, Spanish, French	Bard logo, White color, Square shape Temperature range: 37-102F, Adjustable temperature display F or C Size: 4-49/64"H x 4-49/64"W x 11/32"D Terminals: RC, R, C, W, Y, O/B, G, K Snap together design includes subbase and tool-less wiring connections
8403-095 (TH4210U2002)	1C/2H Standard AC with electric heat or Heat Pump with electric heat Digital 7 day programmable, 5+1+1 or 5+2 day, or non-programmable (2)AA Batteries for clock retention, non-volatile memory for all other settings Automatic or manual changeover Simple 5-Button User Interface with English, Spanish, French User selectable emergency heat mode	Bard logo, White color, Square shape Temperature range: 37-102F, Adjustable temperature display F or C Size: 4-49/64"H x 4-49/64"W x 11/32"D Terminals: RC, R, C, W, Y, O/B, G, K, E, AUX Snap together design includes subbase and tool-less wiring connections
8403-090 (TH6320U2008)	2C/2H Standard AC with electric heat or 2C/3H Heat Pump with electric heat Digital 7 day programmable, 5+1+1 or 5+2 day, or non-programmable (2)AA Batteries for clock retention, non-volatile memory for all other settings Automatic or manual changeover Simple 5-Button User Interface with English, Spanish, French User selectable emergency heat mode Unit service alarm input	Bard logo, White color, Square shape Temperature range: 37-102F, Adjustable temperature display F or C Size: 4-49/64"H x 4-49/64"W x 11/32"D Terminals: RC, R, C, W, Y, O/B, G, K, E, AUX, L/A, S, S Snap together design includes subbase and tool-less wiring connections Universal 10k input for indoor or outdoor sensor.
8403-092 (TH6320WF2003/V)	2C/2H Standard AC with electric heat or 2C/3H Heat Pump with electric heat Digital 7 day programmable, 5+1+1 or 5+2 day, or non-programmable No battery-24 hour clock retention, non-volatile memory for all other settings Automatic or manual changeover Backlit Touch Screen User Interface with English, Spanish, French Partial or full screen lockout function with 4 pin number code User selectable emergency heat mode Unit service alarm input Ventilation on, off, auto, boost. Lockout feature prevents venting during sleep period.	Bard logo, White color, Square shape Temperature range: 37-102F, Adjustable temperature display F or C Size: 4-49/64"H x 4-49/64"W x 11/32"D Terminals: RC, R, C, W, Y, O/B, G, K, E, AUX, L/A, S, S Snap together design includes subbase and tool-less wiring connections Universal 10k input for indoor or outdoor sensor. WiFi connection with Lyric phone application. Adaptive intelligent recovery predicts how long it takes to reach setpoint User selectable alerts and maintenance reminders.
ADVANCED PROGRAMMABLE/NON-PROGRAMMABLE MULTI-STAGE HEAT/COOL & HEAT PUMP THERMOSTATS (Non-Communicating)		
8403-060 (1120-445)	3C/3H Standard AC or Heat Pump, 1 or 2-stage compressors Digital 7 day programmable or 5+2 day, or non-programmable No battery-24 hour clock retention, non-volatile memory for all other settings Automatic or manual changeover; Events per day-Residential 2 or 4, Business 2 Occupancy per schedule ventilation terminal for ERV, CRV, ECON Vacation Hold, Permanent Hold Fan Operation----Auto-On-Programmed Selectable Maximum Heat and Minimum Cool Settings Built-in De-Humidistat (configure for non-economizer), Range 45 to 90% RH Dehumidification Control----Occupied Only or Full Time Dehumidify Simple 5-Button User Interface Screen Displays with RH-Temp-Mode-Fan-Menu Unit service alarm input	Bard logo, White color, Horizontal mount Temperature range: 50-99F, Adjustable temperature display F or C User selectable emergency heat mode Menu Driven Security Lockout Test Mode Service Information Smart recovery; Intermittent Fan Option Selectable Backlight Periods-----30-60-90-120 Seconds, Continuous 10k type 2 Outdoor remote sensor (optional): 8403-061 (to GND and OD) 10K type 2 Indoor Remote Sensor (optional): 8403-062 (to GND and ID) Size: 4-3/8"H x 6-1/4"W x 1-5/16"D Terminals: C,R,G,D/Y0,Y1,Y2,W1/E,W2,O/B,A,L,GND,ID,GND,OD
COMPLETESTAT MULTI-STAGE CONTROLLERS (Communicating)		
CS9B-THOA	Standard AC modes: 1H/2C - 1 or 2 stage compressor w/1 or 2 stage electric heat Heat Pump modes: 3H/2C - 1 or 2 stage compressor w/1 or 2 stage electric heat No battery-72 hour clock retention, non-volatile memory for all other settings Automatic or manual changeover, Auto, On, Programmed Fan Operation. Occupancy per schedule or motion on/off ventilation terminal for ERV, CRV, ECON Programmable (7-day, 5+2, individual days, up to 12 holidays) or non-programmable Selectable Maximum Heat and Minimum Cool Settings Built-in De-Humidistat, Range 50 to 75% RH, Span 5-10% Dehumidification Control-Occupied Only or Full Time Dehumidify Backlit LCD display with unit operation icons, Simple 5-Button User Interface Unit service alarm input, 9 Output relays total. Built-in alarms and trend logs.	Bard logo, Off-White color, Vertical mount Temperature range: Cooling 68-90F, Heating 60F to 80F, display F or C User selectable emergency heat mode Configurable password protection w/ 3 levels of access Wide range occupancy sensor: up to 33 ft, 120" horizontal, 100" vertical Adaptive occupancy (learning) scheduling BACnet capable for MS/TP, EIA-485 using 2-wire shielded twisted pair 10k type 2 Outdoor remote sensor (optional): 8403-061 (to GND and OAT) 10K type 2 Indoor Remote Sensor (optional): 8403-062 (to GND and REM) Size: 5.55"H x 4.19"W x 1.13"D Terminals: D,S,C,A,W2,W1/E,Y2,Y1,Y0,O/B,G,ROS,GND,REM,B,A,OAT,LAS,L,C,R
CS9B-THOCA	All same features as CS9B-THOA plus CO2 sensor with On/Off ventilation terminal CO2 range: 500-2000ppm, Span: 50-500ppm	Size: 5.55"H x 5.19"W x 1.43"D
CS9BE-THOA	All same features as CS9B-THOA plus Ethernet CAT 5 port for ease of networking	Size: 5.55"H x 4.19"W x 1.13"D
CS9BE-THOCA	All same features as CS9B-THOCA plus Ethernet CAT 5 port for ease of networking	Size: 5.55"H x 5.19"W x 1.43"D
BRIGHTSTAT MULTI-STAGE CONTROLLERS (Communicating)		
8403-083 (BrightStat)	Standard AC modes: 1H/2C - 1 or 2 stage compressor w/1 stage electric heat Heat Pump modes: 3H/2C - 1 or 2 stage compressor w/1 stage electric heat No battery-72 hour clock retention, non-volatile memory for all other settings Automatic or manual changeover. Smart fan output for fan on during occupied times. Occupancy per schedule, on/off ventilation or modulating 0-10V output w/CO2 card. Programmable (7-day, individual days) or non-programmable Selectable Maximum Heat and Minimum Cool Settings Built-in De-Humidistat, Range 30 to 95% RH, Span 5-10% Color Touchscreen display with multiple screen color and icon configurations. Economizer 0-10V without JADE control (LUA Script file and outdoor sensor required) Unit service alarm input, Configurable I/O with custom LUA programming options. Modulating 0-10V heat option for indoor units with hot water plenum option.	Bard logo, White color, Vertical mount Temperature range: Cooling 54-100F, Heating 40F to 90F, display F or C User selectable 2nd stage emergency heat mode (LUA Script file required) Configurable password 4 pin lock of configuration menu. Adaptive learning predicts how long it takes to reach setpoint. BACnet or Modbus capable using 2-wire shielded twisted pair. 10k type 2 Outdoor remote sensor (optional): 8403-061 10K type 2 Indoor Remote Sensor (optional): 8403-062 ZigBee wireless card for wireless networking (optional): 8403-086 CO2 control card 0-10V for use with CRV or Econ. (optional): 8612-052 Size: 4.72"H x 3.39"W x 1.06"D Universal Terminals: (7) relays, (4) digital outputs, (4) 0-10VDC analog outputs.
8403-081 (BrightStat)	All same features as 8403-083 plus motion sensor. Occupancy per schedule or motion, on/off vent or modulating 0-10V output w/CO2 card.	Wide range occupancy sensor: up to 20 ft, 120" horizontal, 30" vertical
OPTIONAL HUMIDITY SENSORS		
8403-038 (H600A1014)	Humidity Control w/ SPDT switching Ratings: Pilot duty 50VA @ 24V, 120VA @ 120/240V	Honeywell logo; Beige color; Horizontal or vertical mount Humidity range: 20 to 80% RH
8403-047 (VH7200A1000)	Electronic Humidistat for Humidification and Dehumidification EEPROM memory, lockable keypad, digital display, Humidity sensor calibration	Beige color; Vertical mount Humidify range: 10 to 90%, Dehumidify range: 15 to 95%
OPTIONAL CO2 SENSOR		
8403-096 (CDT-2W40-LCD-RLY-002)	CO2 Control w/ Normally Open SPST relay (close on rise), 2A @ 24V Power supply: 24Vac; Analog output: 0-10,2-10,0-5,1-5Vdc and 4-20,0-20,0-10,2-10mA Default set: Close @ 1000ppm, Open @ 950ppm, independently adjustable 0-2000ppm	Bard logo; Off-white color; Vertical mount; LCD display Range: 0 to 2000ppm; Accuracy +/- 40ppm + 3% of reading Response Time: 2-minutes for 99% step-change
OPTIONAL THERMOSTAT GUARDS		
8405-003 (TG511A1018)	Double wall clear acrylic construction with vents. Fits all thermostats except 8403-060. Dimensions: (Inside) 5-1/16" H x 6-1/16" W, (Outside) 6-1/2" H x 7-1/2" W x 2-15/16" D	Horizontal or vertical mount - Medium size. Tamper-resistant keylock design, 2 keys included
8405-005 (TG512A1009)	Double wall clear acrylic construction with vents. Fits all thermostats. Dimensions: (Inside) 5-7/8" H x 8-3/8" W, (Outside) 7-1/4" H x 9-3/4" W x 3-3/8" D	Horizontal or vertical mount - Large size. Tamper-resistant keylock design, 2 keys included
8405-006 (TG511D1004)	Beige painted steel cover with vents. Fits all thermostats except 8403-060. Dimensions: (Inside) 5-1/16" H x 6-1/16" W, (Outside) 6-3/8" H x 7-3/8" W x 2-7/8" D	Horizontal or vertical mount - Medium size. Tamper-resistant keylock design, 2 keys included
8405-007 (TG512D1003)	Beige painted steel cover with vents. Fits all thermostats. Dimensions: (Inside) 5-7/8" H x 8-3/8" W, (Outside) 7-1/8" H x 9-5/8" W x 3-1/4" D	Horizontal or vertical mount - Large size. Tamper-resistant keylock design, 2 keys included