

REFRIGERATION TECHNOLOGY, INC.

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MODBUS PROGRAM FUNCTIONS: MODEL SS-T

1. HI ALARM Degrees over set-point.
2. LO ALARM Degrees below set-point.
3. DLY Alarm delay in minutes: 1 to 127, 0=Disable
4. CAL Enter a permanent off-set to recalibrate plus or minus.
5. SET POINT Y = Enable
 DISABLE N = Disable
6. ALARM BEEPER Y = Enable
 N = Disable
7. R1 DIFF Relay 1: Dead band between on and off for the solenoid.
8. R2 DIFF Relay 2: Used only for (2) solenoid application.
9. R2 OFFSET Relay 2 off-set from set point: Used only for (2) solenoid application
10. RESOLUTION This allows the option of displaying temperatures in whole numbers or tenths.
11. AAR Y= Enable Automatic Alarm Reset
 N=Disable
12. 1,2,3,4 Operating Logic:
 The SUPER STAT has (4) modes of operation:
 1. Single stage heating or cooling. Relay #1 works in either mode. Use this when the same output will control heating and cooling. Requires manual changeover of the process.
 2. Two stage heating or cooling. For stage #1, the output light is on and relay #1 is mode. For second stage output, light will blink and relay #2 is mode.
 3. Heat-Cool at the same time. Relay #1 is cooling, relay #2 is heating. Set the off-set to zero.
 4. Single stage heating or cooling. Relay #1 works in cooling and relay #2 works in heating.
13. F/C "F" = Fahrenheit, "C" = Centigrade
14. RTD TYPE 2 Wire
 3 Wire
 4 Wire
15. UNIT I.D. Used for computer interface only. Enter tank no. when applicable.
16. BAUD RATE Set at

TO PROGRAM

ENTER PROGRAM	PUSH "P" FOR (2) SECONDS:
Step 1 HI ALARM Enter	Set to desired Enter E button
Step 2 LO ALARM Enter	Set to desired
Step 3 DLY Enter	Set to desired
Step 4 CAL Enter	Calibrate
Step 5 SETPOINT LOCKOUT Enter	Lock out to prevent change from front panel.
Step 6 BEEPER Enter	Lock out if desired.
Step 7 R1 DIFFERENTIAL Enter	Set to desired
Step 8 R2 DIFFERENTIAL Enter	Set to desired
Step 9 R2 OFF-SET Enter	Set to desired
Step 10 RESOLUTION - 10 TH Enter	Set if desired
Step 11 AAR	Enable to Automatically Reset Alarm.
Step 12 LOGIC Enter	Set to 1 for single stage, heat or cool.
Step 13 F/C Enter	Set
Step 14 RTD TYPE Enter	2 = 2 Wire, 3 = 3 Wire, 4 = 4 Wire
Step 15 UNIT I.D. Enter	Enter the tank no. if on a computer system.
Step 16 BAUD RATE Enter	Set at 5 Press top right button to return to normal operation.

PROGRAMMING OPTION DETAILS

To program the SUPER STAT you enter the program by holding down the upper right button for (2) seconds. You advance through 12 steps of the program using the bottom right button. To change a step in the program, use the up/down arrows.

CAL After the unit is wired and ready to go, test it against a known temperature or with ice water. Add a + or – offset to zero out the reading.

HI ALARM Set for alarm temperature above set point or set out of range if not to be used.

LO ALARM Set for alarm temperature below set point or set out of range if not to be used.

RELAY 1 DIFFERENTIAL This is the on-off differential, i.e.

Set point	=	55
Diff	=	2
Mode	=	Cooling
Solenoid on	=	58
Solenoid off	=	55

RELAY 2 DIFFERENTIAL Same as relay #1. Relay #2 is used in operating modes 2, 3 & 4, not in mode 1.

RELAY 2 OFF-SET This is the offset for relay #2 from set point, i.e.

Set Point	=	55
R1 Diff	=	2
R2 Diff	=	2
R2 Off	=	2

Cooling Mode

60	R2 on
58	R1 on
57	R2 off
55	R1 off

Heating Mode

55	R1 off
53	R2 off
52	R1 on
50	R1 on