



## SZ1063/SZ1064

Modulating Fan Coil  
Thermostats



## Description

The SZ1064 is a microprocessor based programmable modulating fan coil thermostat and the SZ1063 is a non-programmable modulating fan coil thermostat.

## Features

- Stand-alone or network operation
- No battery backup required
- Minimum on/off times for HVAC equipment protection
- 32-character LCD display
- Six status LEDs
- Remote room sensing capability
- User setpoint adjustment limits
- Three speed fan
- System and fan switching with access lockouts
- External input for setback or aquastat changeover
- Access to programming may be locked out or limited with the use of an access code
- Fahrenheit or Celsius temperature display
- Control for two or four pipe systems
- 7-day programmable time clock
- Optional pipe sensor inputs for changeover (SZ1064 only)
- Adjustable delay on start-up and power-up for soft starts
- Smart recovery (SZ1064 only)
- Local and remote override capability
- External time clock and override options
- Auxiliary output for heat, cool or time clock (SZ1064 only)

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## Mounting

The SZ1063 and 64 are designed for wall mounting using two #6 sheet metal screws, either over a horizontally installed 2" x 4" junction box, or directly to block or drywall.

For best results, the thermostat should be mounted on an interior wall which reflects normal room environment, at a height of approximately five feet from the floor. Avoid areas exposed to direct sunlight, unusual heat or cool sources, open doors and windows, unventilated locations and hot or cold air from diffusers.

If using a remote room sensor, it should be mounted in the manner described above. The thermostat may then be mounted in an area which is accessible for adjusting its settings.



Caution: Remove power from thermostat prior to mounting.

# Wiring

The SZ1063 and SZ1064 use standard terminal designations for wiring. See diagram below.

## REMOTE SENSOR WIRING

The SZ1063 accepts one 1000 ohm two-wire platinum sensor and the SZ1064 accepts two. Use TS1009, TS1002 with TQ Series Immersion wells or TS1005 for water temperature sensing.

When using TCS/Basys Controls three-wire sensors, use the black and red leads, and either clip or twist off the white lead. The wiring length should not exceed 250 ft.

## POWERING THE SZ1064

Superstats are powered from 24 VAC +/- 20%.

If wiring for communications, dedicated power must be used to power the Superstat. Several "S" Series thermostats may be powered from the same transformer, provided that the transformer has sufficient power.

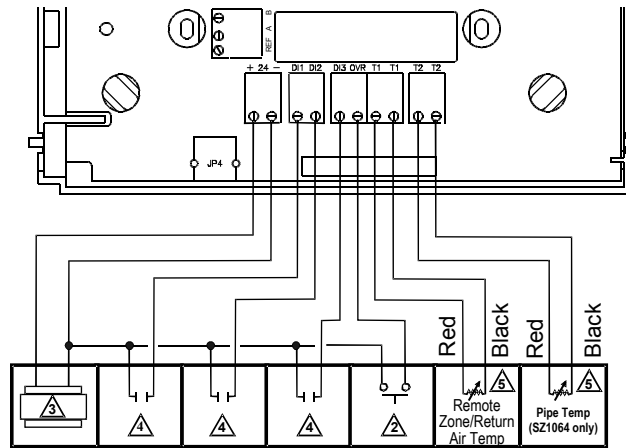
(Superstats require 8 VA @ 24 VAC.)



Caution: Do not connect to 120 VAC. When multiple TCS/Basys Controls devices are using a single transformer, the polarity of the power wiring must be maintained because all TCS devices are half-wave rectified and have common return paths.

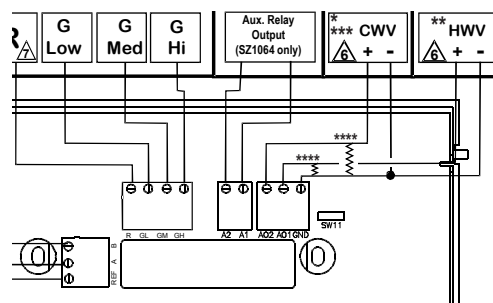
When the Superstat is used as a stand-alone thermostat without communications, the unit transformer may be used to power it. To do this, install a jumper between the "R" and "+24" terminals. The "24-" terminal must then be connected to the common side of the unit transformer.

## Input Wiring for the SZ1063 and SZ1064



- |  |   |
|--|---|
| <b>1</b> For communication wiring, use twisted, shielded 18 AWG. Must be run separately. | <b>5</b> Sensor input wiring 18 AWG, twisted, shielded pair.  |
| <b>2</b> Dry momentary contact. Must not be powered.                                     | <b>6</b> 4 to 20 mA output 600 ohm max. Do not power actuator with power from the thermostat. The thermostats are half-wave rectified, whereby the power ground is common with the signal ground. |
| <b>3</b> 24 VAC transformer. See powering instructions.                                  | <b>7</b> Up to nominal 28 VAC from equipment transformer.   |
| <b>4</b> Dry contact. Must not be powered.   |   |

## Output Wiring for the SZ1063 and SZ1064



\* When heating and cooling on a two-pipe unit, use AO2

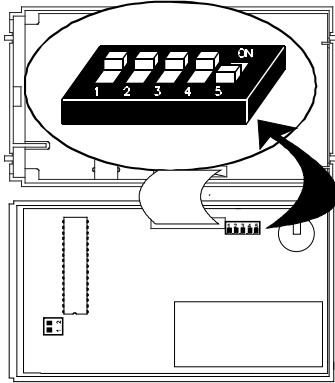
\*\* When heating only on a two-pipe unit, use AO1

\*\*\* When cooling only on a two-pipe unit, use AO2

\*\*\*\* Add 500Ω resistor (included in bag) to convert 0/4 to 20mA to, 0/2 to 10 VDC.

# Setup

Note: If using remote sensor(s), the calibration may need to be adjusted. See "Checkout and Troubleshooting" section.

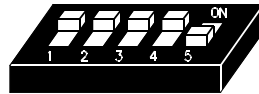


## TEMPERATURE SENSOR SELECTION

The dipswitches in the cover (shown above) must be set when using remote room, and/or pipe temp sensors.

Use the following guide to determine the dipswitch settings for your application.

Using built-in room sensor only.  
(This is the default setting.)



Using built-in room sensor with pipe sensor only. (SZ1064 only)



Using remote room sensor only.



Using remote room sensor with pipe sensor only. (SZ1064 only)



Once the dipswitches have been set and you have confirmed that the sensors are reading correctly, secure the cover to the base with the two set screws located at the top right and the left side to prevent tampering.

# Programming

The SZ1063 and SZ1064 may be programmed through the keypad on the face, or with a PC.

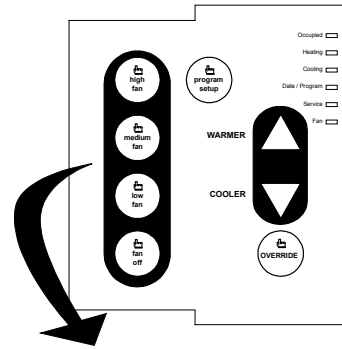
If programming with a PC, the following must be set through the face prior to programming:

- Address (step #18)
- Baud rate (step #19)
- Temperature scale (step #20)

For more information on programming through the PC, consult your TCS software manual.

## PROGRAMMING THROUGH THE KEYPAD

To access the programming screens, press the program setup button. Screens A thru F are monitoring screens



A. WED FAN: MED  
3:27 PM 82F

**Main Monitoring Screen.** Press the program setup button to access the following screens. (Day and date not shown on SZ1063)



B. DI1 OPEN  
DI2 OPEN

**Digital Input 1 & 2 Status Screen.** Shows the status of DI1 & DI2.



C. DI3 OPEN  
AUX RELAY OFF

**Digital Input 3 Status & Auxiliary Relay Output Screen.** Shows the status of DI3. Shows the status of the auxiliary relay output. This can be either a timeclock output, a stage of heat or a stage of cool. (Aux. output on SZ1064 only)



D. PIPE TEMP: 150F

**Pipe Temperature Screen.** Shows the pipe temperature if a pipe temperature sensor is used. (SZ1064 only)



E. MOD OUT 1 00%  
MOD OUT 2 00%

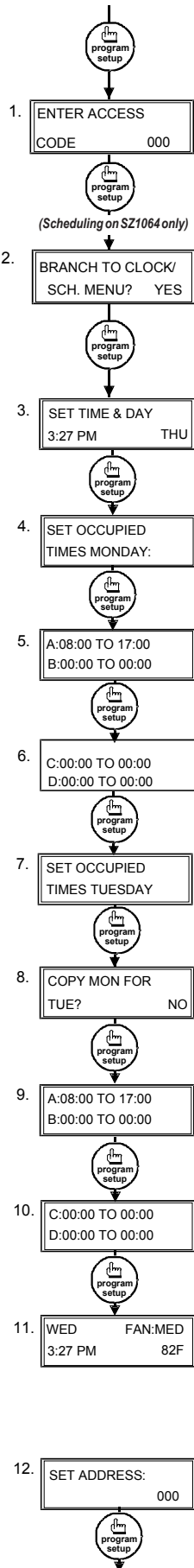
**Modulating Output 1 & 2 Status Screen.** Shows the percentage of modulating output 1 (heat) & output 2 (cool).



F. OVERRIDE ON  
178 MINUTES

**Override Status Screen.** Shows the status of the first and second stages of heating.





**Access Code Entry Screen.** Will appear if access code is required for programming. Use 248 as the default. If the wrong code is entered, it will revert to Screen 'A'.

**Programming or Clock / Schedule Selection Screen.** Choose YES here to set the clock and schedule. Choose NO here to perform all other programming starting with step 1. (SZ1064 only)

**Time and Day Screen.** Set the hour, minutes, AM or PM, and day of the week. (SZ1064 only)

**Schedule Announcement Screen.** Announces the next screen. (SZ1064 only)

**Occupied Times Screen.** Set the hours and minutes of start and end times for up to two occupied periods. (SZ1064 only)

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**Schedule Announcement Screen.** Announces the next screen. (SZ1064 only)

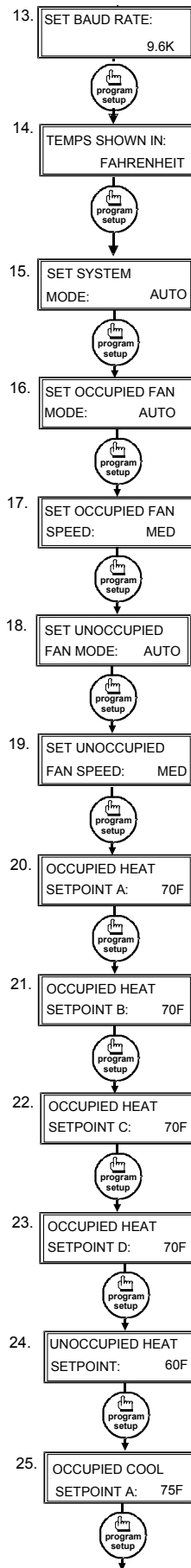
**Copy Schedule Screen.** Choose to use the same schedule that was used for the previous day. If so, the next screen does not appear. (SZ1064 only)

**Occupied Times Screen.** Set the hours and minutes of start and end times for up to two occupied periods. (SZ1064 only)

**Occupied Times Screen.** Set the hours and minutes of start and end times for up to two occupied periods. (SZ1064 only)

**Main Monitoring Screen.** When programming the Clock / Schedule, this becomes the last screen. You will need to start over by pressing program setup and selecting NO at step 2 above to continue to the Programming screens.

**Controller Address Screen.** If using a PC to access the thermostat, set a unique address from 0 to 255, excluding 248.



**Communication Baud Rate Screen.** If using a PC to access the thermostat, all controllers on a network must be set to the same baud rate. Choose between 2.4K, 4.8K, 9.6K and 19.2K.

**Display Type Screen.** Choose between FAHRENHEIT and CELSIUS for temperature indication.

**System Mode Screen.** Choose from AUTO, HEAT, COOL, or OFF for system mode. In the OFF mode, all outputs are off.

**Occupied Fan Mode Screen.** Choose between ON (continuous) or AUTO for your fan run times during the occupied modes.

**Occupied Fan Speed Screen.** Choose between LOW, MEDIUM and HIGH during the occupied modes.

**Unoccupied Fan Mode Screen.** Choose from AUTO or ON for your fan run times in the unoccupied mode.

**Unoccupied Fan Speed Screen.** Choose between LOW, MEDIUM and HIGH during the unoccupied modes.

**Occupied Heat Setpoint Screen.** Set the occupied heat setpoint.

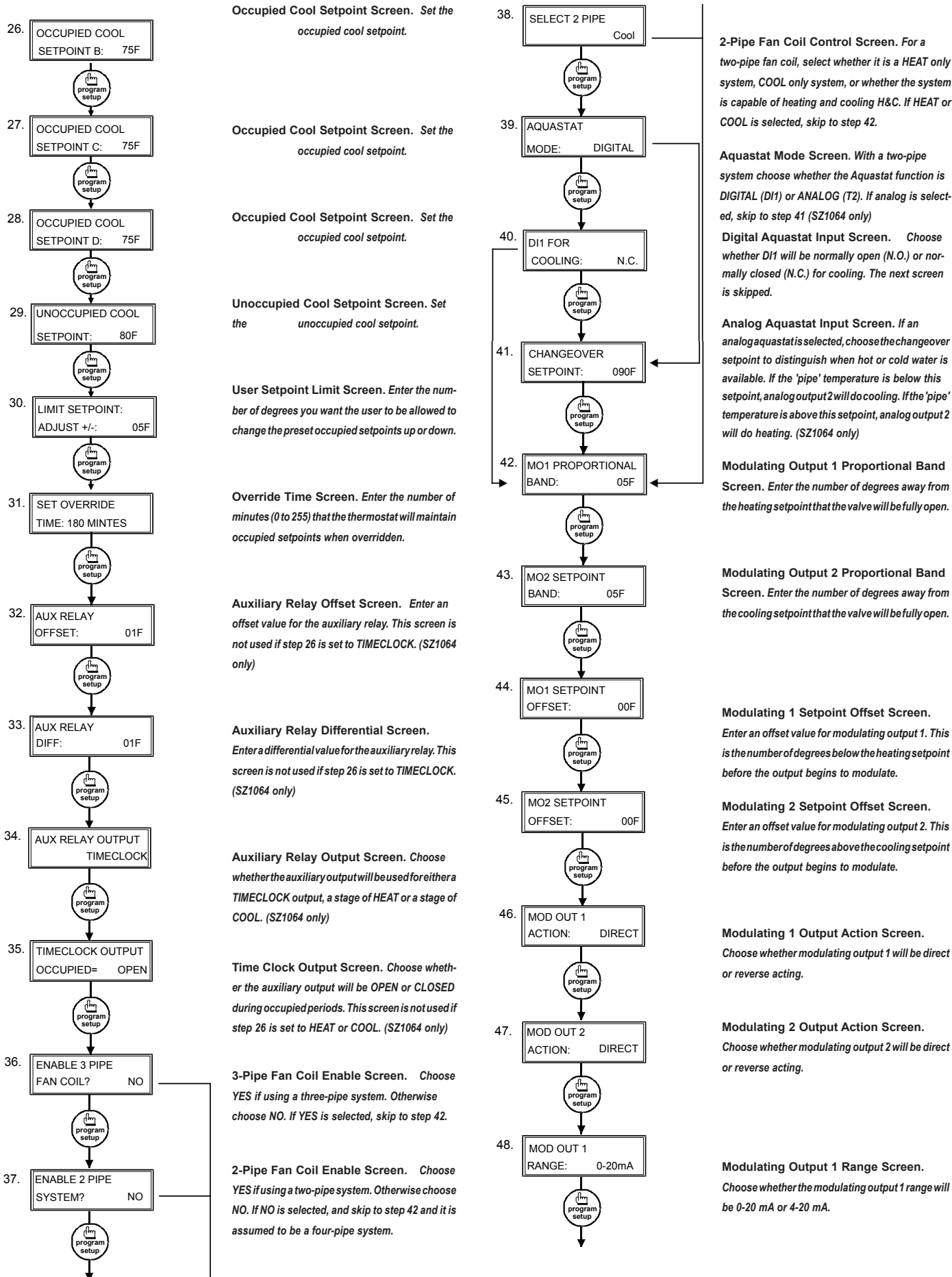
**Occupied Heat Setpoint Screen.** Set the occupied heat setpoint.

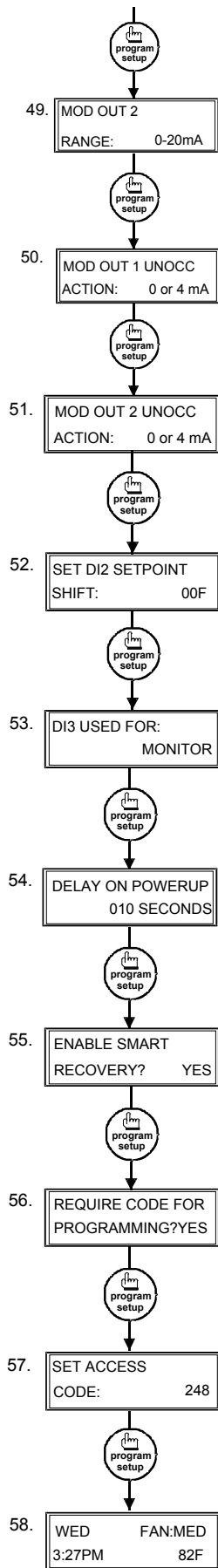
**Occupied Heat Setpoint Screen.** Set the occupied heat setpoint.

**Occupied Heat Setpoint Screen.** Set the occupied heat setpoint.

**Unoccupied Heat Setpoint Screen.** Set the unoccupied heat setpoint.

**Occupied Cool Setpoint Screen.** Set the occupied cool setpoint.





**Modulating Output 2 Range Screen.**  
 Choose whether the modulating output 2 range will be 0-20 mA or 4-20 mA.

**Modulating Output 1 Unoccupied Action Screen.** Choose whether the modulating output 1 unoccupied action will be 0mA or 4mA, 20mA or MODulating.

**Modulating Output 2 Unoccupied Action Screen.** Choose whether the modulating output 2 unoccupied action will be 0mA or 4mA, 20mA or MODulating.

**DI2 Shift Screen.** Enter the setpoint shift value. This screen will only appear if DI2 is set to MONITOR.

**DI3 Choice Screen.** Choose FILTER SERVICE, EXTERNAL OVERRIDE, or EXTERNAL TIME CLOCK. Select EXTERNAL OVERRIDE if unused. (EXTERNAL OVERRIDE on SZ1064 only)

**Delay On Powerup Screen.** Enter a value in seconds, such that when the unit is powered up or on occupied startup, control is delayed for this amount of time.

**Smart Recovery Screen.** Choose whether or not smart recovery will be used. Note: Smart Recovery is not available when DI3 is used as EXTERNAL TIME CLOCK. (SZ1064 only)

**Programming Access Screen.** Choose whether or not a code will be required to enter programming setup.

**Access Code Screen.** Enter an access (0 to 255) code that will be used to enter the programming setup if access code has been required in the last two step. The default is 248.

**Main Monitoring Screen.**

and programming screens begin with #1. Access may be locked out with dipswitches, or an access code may be required.

## Setting Clock & Schedule

The SZ1064 clock and schedule may be set through the keypad and display, or with a PC. For more information on programming through the PC, consult your TCS software manual.

### SETTING CLOCK & SCHEDULE THROUGH THE KEYPAD

To access the clock and schedule screens in step #2 select yes. To make changes, use the warmer and cooler keys. For screens that have more than one field to set, use the override key to move to the next field. An access code may be required.

## Operation

### UNOCCUPIED SETBACK

The SZ1063 and SZ1064 operates, in either an occupied or unoccupied mode. During the occupied mode, the occupied heating and cooling setpoints will be maintained, and the fan will operate according to its occupied setting. During the unoccupied mode, the unoccupied heating and cooling setpoints will be maintained, and the fan will operate according to its unoccupied setting. The occupied LED will be lit when the unit is operating in the occupied mode.

The occupied schedule may be set utilizing the internal time clock (SZ1064 only) or DI3 may be used with an external time clock, whereas when DI3 is closed, the unit is in the occupied mode. The Smart Recovery function is disabled when DI3 is used for external time clock.

### OVERRIDE

A timed override is available using the button on the face of the thermostat or through momentary contacts wired into the OVR terminal. The amount of time the unit will be overridden is set from 0 to 255 minutes in the programming screen. This override behaves differently depending on the mode the thermostat is operating in (occupied or unoccupied) and the options that have been enabled within the software.

In standard mode, the override only activates in unoccupied mode and takes the thermostat into occupied mode. If "Override for Occupied Period" is enabled using the software, the override also activates in occupied mode and takes the thermostat into unoccupied mode. In either case, you are able to view the time remaining in the override period both within the software and by using the service button to scroll through the status screens. If the occupant desires to return the thermostat to unoccupied or occupied operation (depending on how the override was used) before the override time remaining elapses, they may press the override button again.

Additionally, an "Override Hold" feature is built into the thermostats. When in unoccupied mode, pressing the override once and then pressing/holding it for 5 seconds puts the thermostat into a "hold" mode (the override LED on the thermostat will flash quickly to confirm the mode change). In this mode, the override setpoints are used until the next occupied period is reached or until the thermostat is manually taken out of the "hold" mode by pressing the override button again. This feature also works when the "Override for Occupied Period" is enabled BUT starting from the occupied mode and holding the thermostat in the unoccupied state.

A continuous override is available through the DI3 contact or the software. If DI3 is set to external override, the unit will be in the occupied mode whenever the DI3 contact is closed. When using this option, the timed override may still be activated.

### SETBACK AND OVERRIDE APPLICATIONS

In most applications, it is desired to maintain a regular schedule, and allow timed override with the button on the face or with a remote momentary contact.

To allow a regular schedule, and also automatically override with the use of occupancy or light sensor, set DI3 to override and set it up so that the contact is closed when you want the override.

For applications where a room might not be used on a regular schedule, such as conference rooms, set DI3 to external time clock and close the contact when you want the room occupied, such as with a switch or wind-up timer. If each occupancy period is about the same, (theaters, meetings) another option is to set the DI3 to external time clock, and use the timed override button to put the unit in occupied mode.

To make the unit always occupied, set DI3 to external time clock and short the DI3 terminal to ground.

### TWO-PIPE FAN COIL OPERATION

For two-pipe fan coil operation, in step #28 select NO. In step #29, select YES. You must then select whether the system is HEATING only, COOLING only or heating and cooling (H&C) in step #30.

When using a two-pipe system to do both heating and cooling, the SZ1063 and SZ1064 need to know whether hot or cold water is available. This is accomplished by either the use of a mechanical aquastat (bulb thermostat) connected to terminals DI1 and 24-, or by the use of a temperature sensor connected to T2 and T2 (SZ1064 only). If using a mechanical thermostat, select DIGITAL in step #31, and select normally closed N.C. or normally open N.O. In step #32. If using a temperature sensor, select ANALOG in step #31 and place a changeover setpoint in step #33. When the temperature is greater than this setpoint, it is assumed hot water is available and heating is done. When the temperature is less than this setpoint, it is assumed cold water is available and cooling is done.

When using a two-pipe system to do both heating and cooling, only AO2 is used. When using a two-pipe system to do only heating, only AO1 is used. When using a two-pipe system to do only cooling, only AO2 is used.

### THREE-PIPE FAN COIL OPERATION

For three-pipe fan coil operation, in step #28 select YES.

Three-pipe fan coil operation assumes that there are two water sources available (hot and cold), and that the water to the fan coil will be a mixture of these. Only analog output two is used for three-pipe operation. The output will be 12mA (4-20mA) when there is no need for heating or cooling. As there becomes a need for heating or cooling, the analog output modulates toward 4mA or 20mA depending on whether analog output two is direct or reverse acting.

### FOUR-PIPE FAN COIL OPERATION

For four-pipe fan coil operation, in step #28 select NO. In step #29, select NO.

Four-pipe fan coil operation assumes that there are two water sources available (hot and cold), that are each controlled by its own valve. Analog output one is used for heating and analog output two is used for cooling.

### PIPE TEMPERATURE SENSING

The SZ1063 and SZ1064 accepts a remote pipe temperature sensor for monitoring purposes or for changeover in a two-pipe system. (See setup instructions for dipswitch placement for this option.)

The pipe temperature span is 0 to 150°F (-17.8 to 65.6°C).

### ANALOG OUTPUTS

The analog outputs on the SZ1063 and SZ1064 are used to control the heating and cooling in a space. Analog output 1 is used to control heating and analog two is used to control cooling with a four pipe system. Only analog output 2 is used with a three-pipe or with two-pipe system set for heat and cool (H&C).

### DI2 SETPOINT SHIFT

The SZ1063 and SZ1064 allow DI2 to be set for setpoint shift for energy demand setback. A digital contact that closes when setback is needed should be wired into DI2. You may specify a number of degrees such that, when the thermostat is operating in the occupied mode, and DI2 is closed, the heating setpoint will be lowered this number of degrees, and the cooling setpoint will be raised this number of degrees. The fan will continue to operate according to its occupied setting. If you are using DI2 as monitor for another purpose, make sure to set the setpoint shift value to zero.

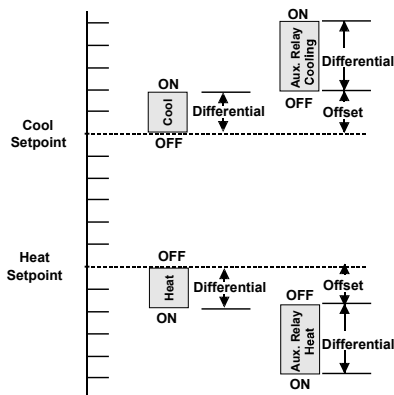
### AUXILIARY RELAY OUTPUT PARAMETERS

The auxiliary relay of the SZ1064 will control one stage of either heating or cooling, or can be used as a time-clock output.

If the auxiliary relay is used as heating or cooling stage, you may specify an offset and a differential value. The offset value is the amount away from the setpoint a stage will turn off. By assigning a value other than zero, you "anticipate" that the residual heat or cooling in the duct will bring the temperature back to setpoint. In most cases, a first stage is set to zero. The differential value is the difference between the on and off points. Using an offset value greater than or equal to the proportional band of an analog output will allow the relay to come on after full modulation is achieved. Strip heat, for example.

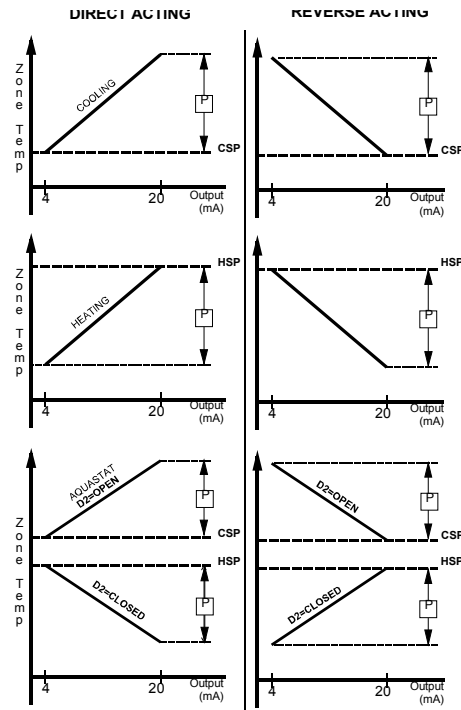
If the auxiliary relay is used as a timeclock output, it is selectable whether the relay is open or closed during the occupied period. During the unoccupied period, the opposite will occur.

Keep in mind that although it is an isolated relay (separate common terminal), it is rated at 24 VAC @ 2A. For loads that exceed this, use an external relay.



### ANALOG OUTPUT PARAMETERS

Use programming steps #34 through #43 to program the operating parameters for the analog outputs. Select direct or reverse action. Select whether you want the analog output to modulate from 4 to 20mA or 0 to 20mA. Select the unoccupied action ("20mA or 0 / 4mA" will hold the analog output device open or closed during unoccupied times. "Modulating" will modulate the analog output device to maintain the unoccupied heating or cooling setpoint.). Enter a proportional band (throttling range) in degrees. Enter a setpoint offset in degrees. (This is a value below the heating setpoint or above the cooling setpoint where the analog output begins to modulate.)



### DI1 AQUASTAT

DI1 is used as an aquastat input for two-pipe fan coil systems.

It is selectable in programming step #32 whether a closed contact indicates cooling or an open contact indicates cooling.

### SMART RECOVERY

Smart Recovery may be enabled (SZ1064 only). It ramps the setpoint 4°F/hr. when going from the unoccupied and mode to the occupied mode. At the beginning of the occupied mode, the occupied setpoint will be reached, many times without the need for the second stage to come on. This feature is automatically disabled when DI3 is set to external time clock.

### BUILT-IN DELAYS

The SZ1063 and SZ1064 have delays built into the programming sequences to protect equipment. The fan has a minimum on and off time of 30 seconds. When the fan is in AUTO mode, it will come on 30 seconds before the heating or cooling devices are allowed to sequence on. The auxiliary relay, when set to be a stage of heat or cool, has a minimum on and off time of two minutes.

### DELAY ON POWERUP

The SZ1063 and SZ1064 have an adjustable delay on powerup and start-up. When several thermostats are used at one location, and the power goes out, most thermostats turn all of the units back on at the same time on regain of power, creating a peak. The thermostat allows you to set a value, in seconds, where no outputs are



allowed to turn on for that length of time on powerup. Setting each unit to a different delay allows you to soft start your system, and thus prevent this peak. This function also occurs when an occupied period begins to prevent all units from starting at the same time.

## Checkout & Troubleshooting

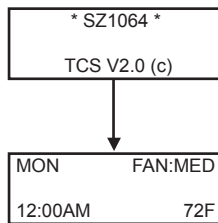
### CHECKOUT

1. Be sure to check and verify all wiring before powering the SZ1063 and SZ1064.

NOTE: The fan has a minimum on and off time of 30 seconds. The auxiliary relay when set for heating or cooling has a minimum on and off time of 2 minutes.

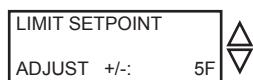
NOTE: The SZ1063 does not show the day or time.

2. Turn power on. The thermostat will display a momentary screen with the model number, and then the main



monitoring screen with the time, day, fan speed and current temperature.

3. Press the PROGRAM SETUP button until you reach screen #13 and set the System Mode to AUTO. Continue on until you reach screen #14 and set the Occupied Fan Mode to AUTO. Go to screen #22 which allows you to set the occupant setpoint adjustment limits. Change this to +/-20 °F (11.1 °C). Press the PROGRAM SETUP button once more to store the change. Then press the FAN OFF button once to exit the programming.



4. Verify that the thermostat is operating in the occupied mode by making sure that the top LED is lit. If not, press the OVERRIDE button. The LED should light up.

5. Take note of the current temperature reading. Press the WARMER (up) button. The setpoint adjustment screen should now be showing. Press the WARMER button until the heating setpoint is greater than the current temperature by at least five degrees. The fan will come on. The auxiliary relay if set to heating will come on after 30 seconds.

6. Press the cooler (down) button until the heating setpoint is one degree less than the current temperature. The heating stage will sequence off. The fan will turn off

2 minutes afterwards.

7. Press the cooler button until the cooling setpoint is less than the current temperature by at least five degrees. The fan will come on. The auxiliary relay if set to cooling will come on after 30 seconds.

8. Press the warmer button until the cooling setpoint is greater than the current temperature by one degree. The cooling stage will sequence off. The fan will turn off 2 minutes afterwards.

9. For a heating or cooling analog output: Take note of the room (and discharge) air temperatures. If the analog output is set for Cooling, press the Cooler button until the cooling setpoint is less than the current room temperature by at least 5°. The cooling device should start operating. If the analog output is set for Heating, press the Warmer button until the heating setpoint is greater than the current room temperature by at least 5°. The heating device should start operating.

10. Go back to programming step #22 and set the setpoint adjust limit back to the desired value. Make any other changes in programming, clock, and schedule. Set the fan and system modes to their desired settings.

11. If using remote sensor(s), verify that the reading is correct. If not, see Wrong Temperature Display in Troubleshooting section.

### TROUBLESHOOTING

#### No Display

Check for 24 VAC on terminals "+24" and "-24". Check the cable connecting the cover to the base for a good connection.

#### Fan Does Not Come On

The fan is on whenever the fan LED is on. If the fan should be on, but the fan LED is off, check the occupied and unoccupied fan mode in programming. If the Fan Status is OFF, press the Low, Medium or High button. If the fan is off but the fan LED is on, check wiring. Short terminals "R" to "GL", "GM" or "GH" and see if the fan comes on. This is a check for a mechanical relay failure.

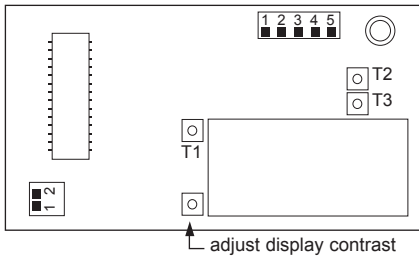
#### Heating or Cooling Does Not Come On

Heating is on whenever the heating LED is on, and cooling is on whenever the cooling LED is on. If heating or cooling should be on but the heating or cooling LED is off, check the fan and system modes. Also, check the heating and cooling setpoints, offsets and differentials, and the room temperature to be sure heating or cooling should be on.

#### Wrong Temperature Display

Initially, verify the wiring connections to check for problems (poor connections, opens, or shorts). If the temperature is at a minimum or maximum reading, check that the sensor dipswitch positions are correct as shown in the Setup section of this document. Also, verify the resistance reading for

the sensor in question. A remote sensor should read 1080 to 1090 ohms at room temperature. The built-in sensor should read 108 to 109 ohms at room temperature. If any of the temperatures are still reading slightly high or low, you can add in a temperature offset (calibration) using Ubiquity or TCS Insight. In Ubiquity, you can edit the calibration offset for each temperature input (room, discharge, outdoor air, etc.) on the controller's programming page. For example, if the room temperature is reading 2 degrees high, you would subtract 2 from the existing offset in the room temperature calibration offset field and submit the page. In TCS Insight, the process is similar. Refer to the Calibrate Using TCS Insight Tech Bulletin # 1019 for details. As a last resort and only when directed to do so by TCS technical support, you may be able to use the on-board adjustment pots. Refer to the Thermostat Sensor Calibration Tech Bulletin # 1005 for details.



**Outputs Will Not Shut Off**

First check the room temperature and the setpoints and determine whether the output should be on. There are delays and minimum on and off times for the fan and heating and cooling stages. Also, check the service status menus to verify that the outputs are on. Turning the system to "off" will instantly turn all outputs off. The thermostat can be reset by pressing the system switch button and the service status button simultaneously.

**Analog Output Not Working Properly**

Check wiring. A separate transformer should be used for the SZ1063 and SZ1064, and a separate transformer should be used for the motor(s). Check to make sure that the analog output is programmed correctly.

Check the Monitoring screens. The Mod Out Screens will tell you what the SZ1063 and SZ1064 is trying to put out. Compare this with the actual position on the heating or cooling device.

**Output Operation is not Correct**

Check programmed parameters, in particular "Reverse" and "Direct" acting selections and "Heat" or "Cool" selections for the analog outputs, and "Offset" and "Differential" selections and "Delay Times" for the relay outputs. Check wiring.

**LED Description**

Six LEDs on the face allow the occupant to view the current operating status of the thermostat.

**OCCUPIED**

This LED will be lit whenever the unit is operating in the occupied mode.

**HEATING**

This LED will be lit when any heat output is operating.

**COOLING**

This LED will be lit when any cool output is operating.

**DATA / PROGRAM**

This LED will be lit when the thermostat is within the programming or clock setup menus. It will blink when the unit is being accessed by a PC.

**SERVICE**

This LED will be lit when DI2 is closed.

**FAN**

This LED will be lit when the fan output is closed.

**Limiting Occupant Access**

**SETPOINT ADJUSTMENT**

The occupant may temporarily change the occupied heating and cooling setpoints +/- 5°F by factory default. This setpoint change will remain until the end of the current occupied period, at which time the program reverts to the setpoints defined in programming. To change the range of adjustment allowed, see programming step #22.

**OVERRIDE**

The occupant has the ability to put the unit into occupied mode by pressing the override button on the front. By factory default, the unit will remain in the occupied mode for 180 minutes. This value may be changed from 0 to 255 minutes in programming step #23.

**SETTING CLOCK & SCHEDULE**

The ability to set the clock and schedule is allowed by factory default. An access code may be required as set in programming step # 49.

**PROGRAMMING**

The ability to program control parameters is allowed by factory default. An access code may be required as set in programming step # 49.

**User's Guide**

Inside the hinged door of the thermostat is the Superstat™ User's Guide. This guide is designed to assist the installer in explaining to the end user how to operate their new thermostat, as well as serve as a handy future reference for the end user.

We recommend that the installer fill out the appropriate pages and explain to the user how the thermostat operates, what settings may be changed, and how the time clock schedules are used.