

## Z2000NS NIGHT SET BACK FOR THE Z2000 CONTROL PANEL SYSTEM

Ruskin Model Z2000NS programmable night stat can be used for occupied and unoccupied scheduling of the Z2000 Comfort System. When wired and configured properly, the Z2000NS takes the place of a separate 7-day clock, night stat and override timer. The Z2000NS 'G' fan output is used to open and close the clock contact 'T' terminals on the Z2000 panel that places the system in the occupied and unoccupied mode of operation. The Z2000NS can also be used with a C7189U Indoor Remote Sensor 24 Volt power to the thermostat is supplied by the Z2000 panel through dedicated clock power terminals 'R' and 'C'. The thermostat also has battery backup. The Z2000NS can be configured to provide 7-day scheduling with 2 or 4 events per day.

### STANDARD CONSTRUCTION

#### HOUSING

Plastic (off white)

#### LCD SCREEN

Backlit display indicates temperature and mode

#### APPLICATION

Occupied and unoccupied zone temperature settings

#### CHANGEOVER

Automatic with programmable setpoint limits

#### THERMOSTAT PROGRAMMING

Occupied mode - activates fan

Unoccupied mode - fan circuit automatically changes to AUTO and will only energize the fan when there is a call for heating or cooling C/F button switches display (Celsius/Fahrenheit)

#### POWER

Batteries only (AA alkaline)

24 Vac direct connection only

24 Vac direct connection with battery backup (**Recommended**)

#### DIMENSIONS

3.625 wide x 3.25 high x .75 deep

#### SETTING TEMPERATURE RANGE

Heat/Cool - Factory preset, 68°F to 76°F

#### SENSOR ELEMENT

Thermistor

#### OPERATING HUMIDITY RANGE

5 to 90% RH, non-condensing

### FEATURES

- Backlit LCD display
- Automatic changeover
- Programmable setpoint limits

### PACKAGE CONTENTS

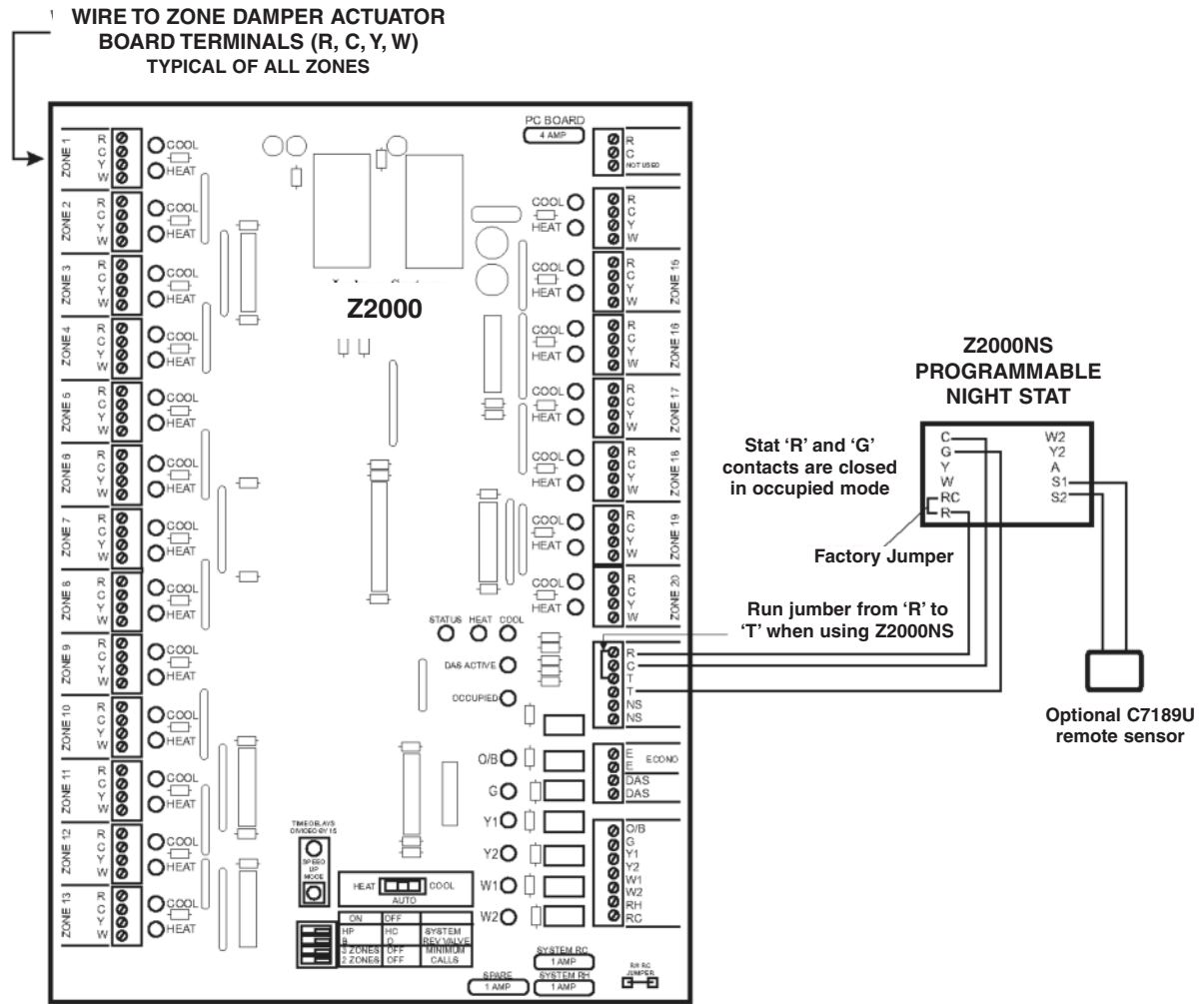
- Z2000NS wall mounted thermostat
- Installation Instructions



### SEQUENCE OF OPERATION

The Z2000NS does not control the HVAC equipment and only uses the 'G' fan output to put the Z2000 panel in either the occupied and unoccupied mode. This is accomplished by programming the thermostat so that the fan is ON during occupied mode. When the thermostat goes to the unoccupied mode, the fan circuit automatically changes to AUTO and will only energize the 'G' output when there is a call for heating or cooling.

# WIRING DIAGRAM



## WIRING NOTES

Wiring the Z2000NS to the Z2000 panel only requires 18-3 thermostat wire (see diagram). Wire the thermostat 'C' terminal to the Clock Power 'C' terminal on the Z2000 panel. Wire the thermostat 'R' terminal to the Clock Power 'R' terminal on the Z2000 panel. Install a jumper wire from the Clock Power 'R' terminal to one of the Clock

Contacts 'T' terminals. Wire the thermostat 'G' terminal to the other Clock Contact 'T' terminal. If an optional C7189U remote sensor is used, use separate 18-2 wire and wire the sensor to the 'S1' and 'S2' terminals on the thermostat (polarity does not matter). Maximum wire distance between thermostat and sensor is 20 feet.

## Z2000NS NOTES

- The Z2000NS does not control the HVAC equipment and only uses the 'G' fan output to put the Z2000 control panel in either the occupied or unoccupied mode.
- Each day of the week required at least one occupied and unoccupied schedule, any day that is unoccupied should be setup so that there is only 15 minutes between the occupied and unoccupied time. This way the system will only be in the occupied mode for fifteen minutes out of any twenty-four hour unoccupied day.
- For scheduling the Z2000 system, occupied and unoccupied set-points are Energy Star default setting which require no change in programming.
- During the occupied time period, the thermostat 'R' and 'G' con-

tacts are closed and the Z2000 is in the occupied mode. During the unoccupied time period, the thermostat 'R' and 'G' contacts are open and the Z2000 is in the unoccupied mode. If the temperature rises above the unoccupied cooling setpoint or falls below the unoccupied heating setpoint, the 'R' and 'G' contacts will close putting the Z2000 system in the occupied mode. This will enable the individual zone thermostats to call and bring on the HVAC equipment until the unoccupied heating or cooling setpoint is achieved at which time the thermostat 'R' and 'G' contacts will open. After programming is completed it is highly recommended that the thermostat be set in Partial Lockout 2 (Setup Number 0670). This locks all but Holiday and Override times.