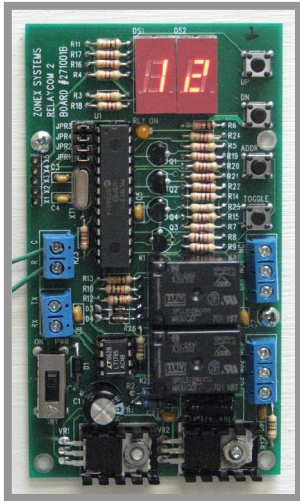# *INSTALLATION INSTRUCTIONS*





# RLYCOM
## *Communicating Relay Module*

## *DESCRIPTION*

The Zonex Systems RLYCOM is a communicating relay module, which provides programmed ON and OFF schedules for auxiliary devices such as blowers, fans, lighting, etc. As with the communicating thermostats, the Command Center (*ModCom, ZonexCommander*, *ZonexCommander (Plus)*) Schedule program provides up to 4 Occupied – Unoccupied events per day for each RLYCOM, including vacation days. The control status of the RLYCOM is displayed on the Review screen of the Command Center program.

The RLYCOM consists of 2 SPDT relays for controlling 24vac circuits. Power for the RLYCOM is provided by any 24vac source except from the Command Centers.

The RLYCOM requires a unique address from 01 to 20 (except *ZonexCommander Plus* 05 to 20). Communication is through the RS-485 twisted pair or shielded twisted pair control wire.

### INSTALLATION
1. Mount the RLYCOM in a dry, protected atmosphere, not subject to the elements.
2. The RLYCOM can be powered by any dedicated 24vac 40va transformer. The 24vac is connected to terminals "R" & "C" on the RLYCOM.
3. Connect the communications wires to RX & TX. The communication wire must be run separately from any other ac voltage, and note the polarity.
4. Connect the output wires to the SPDT relays as required.
5. The RLYCOM must have a unique address from 01 to 20 (except when applied to a *Zonex Commander Plus* system; then address from 05 to 20).
6. Set the address for the RLYCOM by pressing the ADDR button and then the UP or DN buttons. The LED display will indicate the address number selected.

7. The relay outputs may be energized manually by pressing the TOGGLE button. The display will change to 00, then the address number. Press the TOGGLE again and the display will revert to normal, address only. Red LED illuminated is Occupied (energized) mode. Verify communication from the Review screen on the Command Center program.

## *OPERATION*

When the RLYCOM is in the Occupied mode, the on-board relays are energized. In the Unoccupied mode, the relays are de-energized. The mode status is displayed on the Review screen of the Command Center program and on the RLYCOM circuit board. On the Command Center program, the RLYCOM is displayed with a row of "0"s. The Occupied mode is displayed with a RED "0" in the <u>Unoccupied</u> Heat column. The Unoccupied mode is displayed with a BLUE "0" in the Unoccupied Cool column. The mode is also displayed on the RLYCOM circuit board with the RED PWR LED. When the LED is illuminated, the device is in the Occupied mode. When the LED is OFF, the device is in the Unoccupied mode. The mode can be changed manually at the RLYCOM by pressing the TOGGLE button. The mode can also be changed from the Command Center program on the System tab.

NOTE: The SPDT relay outputs are pilot duty dry contacts rated for a maximum load of 2 amps on 24vac circuits only. Additional pilot relays may be required for proper circuit control.
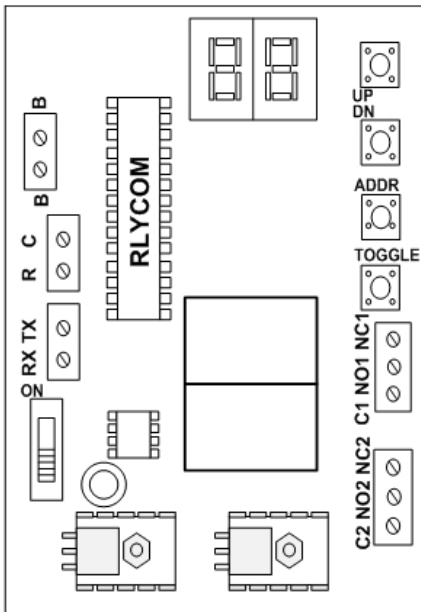
Rev 12/8/09

## ORDERING INFORMATION

**Part No.**      **Description**
**RLYCOM**      Communicating relay module

**Note:**  Each **RLYCOM** will reduce by (1) the quantity of thermostats available from the Command Center.

## TERMINAL FUNCTIONS



R  -  24vac power
C  -  24vac common
TX -   Data transmit
RX -   Data receive
C2 -   K2 relay common terminal
NO2 - K2 normally open terminal
NC2 - K2 normally closed terminal
C1 -    K1 common terminal
NO1 - K1 normally open terminal
NC1 - K1 normally closed terminal
TOGGLE - Manual mode test
ON - Power Switch

## TECHNICAL DATA

### Electrical

**Supply Voltage:** 24vac
**Power Consumption:** 4 VA maximum
**Input:**  24vac
**Output:**  2 **–** SPDT dry contacts, 2A @ 24vac

**Communication:**  RS-485
**Comm link maximum length:**  4,000 ft.

### General

**Operating temperature**:  35° to 130° F (2° to 54° C)
**Operating humidity:**  5% to 95% non-condensing
**Storage temperature:**  0° to 150° F (-18° to 66° C)

**Galvanized Metal Enclosure** 4½" H x 5" W x 1½" D