

# WIRELESS UNIT CONTROLLER (WUC)



## SUBMITTAL



## Standalone Unit Controller (WUC) with Wireless Programmable Communicating Gas/Electric or Heat Pump Thermostat

### DESCRIPTION

The Wireless Unit Controller is comprised of a Unit controller and Wireless thermostat Part # WUC. The Unit Controller is a microprocessor based, communicating stand alone controller. The Unit controller is mounted in the RTU or Split system and communicates with the wireless thermostat part # WUSTAT. The WUC communicates with our remote based App from a Wi-Fi mobile device, with the GEN X and GEN UC systems.

The WUC is easy to configure for Gas/ Electric (2-stage Cool / 2-stage Heat) or Heat Pump (2-stage Cool / 3-stage Heat) configuration. The unit controller is hard wired to the unit and communicates back to the GEN X / GEN UC controller via the RS- 485 communication link.

The Unit controller is equipped with Supply and Return air sensors to monitor duct temperatures. Supply, Return air temperatures and Humidity can be viewed via the mobile App.

The wireless WUC thermostat is a microprocessor based, auto changeover, wireless programmable communicating thermostat.

The WUC thermostat part # WUSTAT features an onboard thermistor for precise temperature measurement. The ambient space temperature is continually displayed with large, easy-to-read numbers. The temperature display range is 55° to 95° F. FAN mode, Heat or Cool set points and operation modes are all indicated on the display.

Programmed set points can be manually adjusted at the thermostat or electronically locked and controlled via a mobile device, to provide limited manual set point adjustment. Two-hour override is provided for after-hours temporary operation with a touch of a button.

### TECHNICAL DATA

#### **Electrical: Wireless Unit Controller (WUC)**

**Supply Voltage:** 24vac

**Power consumption:** 4 VA maximum

**Input:**

- 24vac
- platinum Thermistor

**Output:**

- Triac, 24vac @ 1A

**Communication:**

*RS-485 3 Wire Twisted pair communication wire part # 3-TWP*

**Environmental:**

**Operating temperature:** 35° to 130° F (2° to 54° C)

**Operating humidity:** 5-95% non-condensing

**Storage temperature:** 0° to 150° F (-18° to 66° C)

#### **General: Wireless WUC Thermostat (WUSTAT)**

**Dimensions:** 3 1/2" H x 4 1/2" W x 3/4" D

**Range:** 55° to 95° F.

**Accuracy:** +/- 0.8° F.

**Memory:** Non-volatile EEPROM

**Display:** 128x64 Graphic LCD

**Supply Voltage:** Two AA Batteries

**Communication:**

MiWi wireless protocol RS485

Proprietary wireless network protocol, with up to 100' transmission range

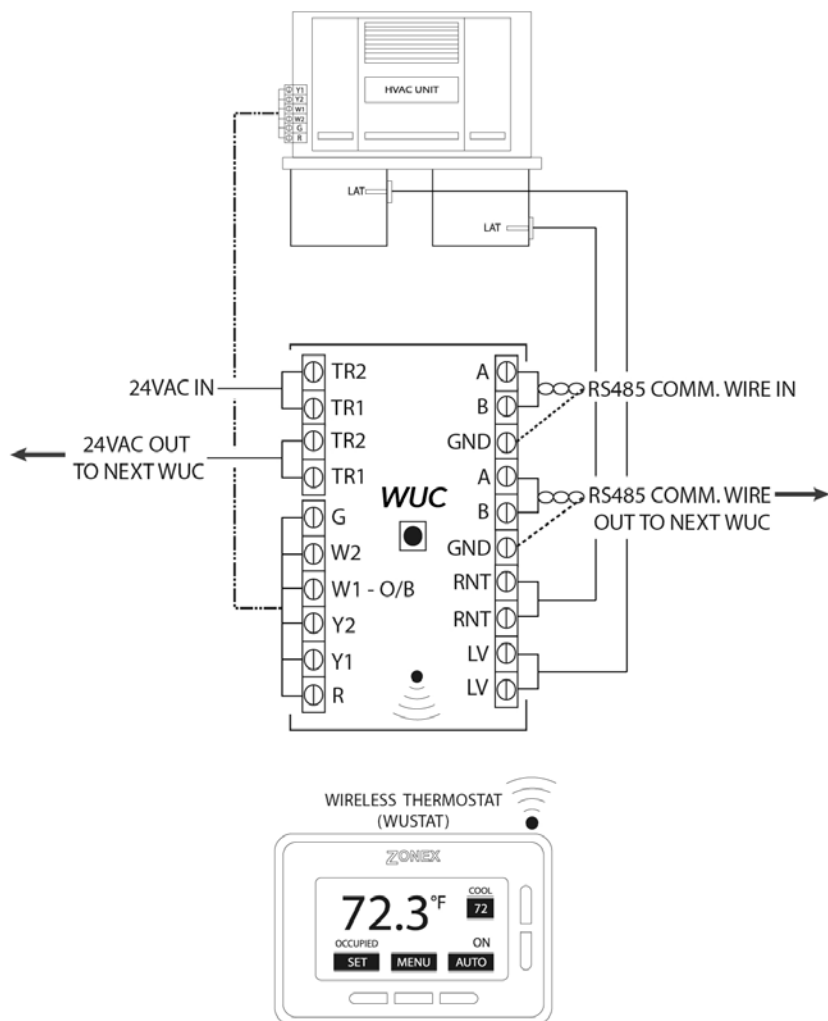
**Notes:**

\*Compatible with GEN X and GEN UC systems

Rev 12/15/17

# WIRELESS UNIT CONTROLLER (WUC)

## TERMINAL FUNCTIONS



### Unit Terminal Block

Y1 - First stage cool  
Y2 - Second stage cool  
W1 / O/B - First stage heat or Reversing Valve  
W2 - Second stage heat  
G - Fan  
R- 24v from the unit

### 24v from Independent Transformer

TR1 IN - 24vac power input  
TR2 IN - 24vac power common  
TR1 OUT - 24vac power input  
TR2 OUT - 24vac power common  
18 ga. Minimum wire size

### Communication Terminal Block

A IN- Data Transmit  
B IN - Data Receive  
GND IN- Ground Wire  
A OUT - Data Transmit  
B OUT - Data Receive  
GND OUT- Ground Wire  
Use Zonex 3 Wire Twisted Pair Communication Wire  
Part # 3-TWP

### Supply and Return Air Terminal Block

RNT- Return Air Sensor  
LV- Supply Air Sensor

## FEATURES

- Gas /Elect (2C/2H) or Heat Pump (2C/3H) stand alone control
- Emergency Heat operation
- Auto Changeover 7-day Programmable
- Attractive design
- Accurate temperature control
- Electronic Lock feature
- Wireless thermostat operation
- Room Humidity monitoring
- Configurable fan operation for Occupied mode
- Supply and Return Air monitoring
- F° or C° Temperature Operation
- Auto / Off switch
- Non-volatile memory: Retains temperature set points, time, date and schedules
- RS-485 communication
- Function buttons on front cover for easy access
- Communicates with GEN X / GEN UC mobile App