

SUBMITTAL



System 2000 GEN II-R Controller

DESCRIPTION

The System 2000 GEN II-R is a microcontroller based Gas / Electric* system controller (Part #GENII-R). The GEN II-R controls a zoned 2H/2C Gas/Electric HVAC unit and communicates with and supports up to 10 zones, utilizing pressure dependent TRX / TREX 2-position dampers.

The GEN II-R gathers information every 60 seconds from each thermostat in the system over an unshielded two-wire data link.

The GEN II-R is equipped with integrated capacity control and High and Low temperature limits to protect compressor and heat exchanger. The HVAC unit is staged on leaving air temperature and time. The Leaving Air Temperature is also displayed on the system controller. Cooling or Heating management is vote based, predicated upon first called, first served, with majority regulating changeover.

When the current mode callers are satisfied, a five-minute purge cycle is initiated prior to mode changeover.

Additional control strategies, including variance from setpoint, are also selectable features to initiate changeover. The GEN II-R provides a software based feature to assign priority. A priority vote of 1, 2 or 3 votes may be established for every stat in the system at the GEN II-R controller.

*GEN II-R will not work with Heat Pump Systems

TECHNICAL DATA

Electrical

Supply Voltage: 24vac

Power consumption: 0.7 VA

Inputs:

24vac

1 Temperature Sensing Thermistor

Outputs:

24vac

5 SPST dry contacts, 1A @ 24vac

Fuse protection: Use Fused Transformer

Environmental

Operating temperature: 32 to 160° F (0 to 71° C)

Operating humidity: 10-95%, non-condensing

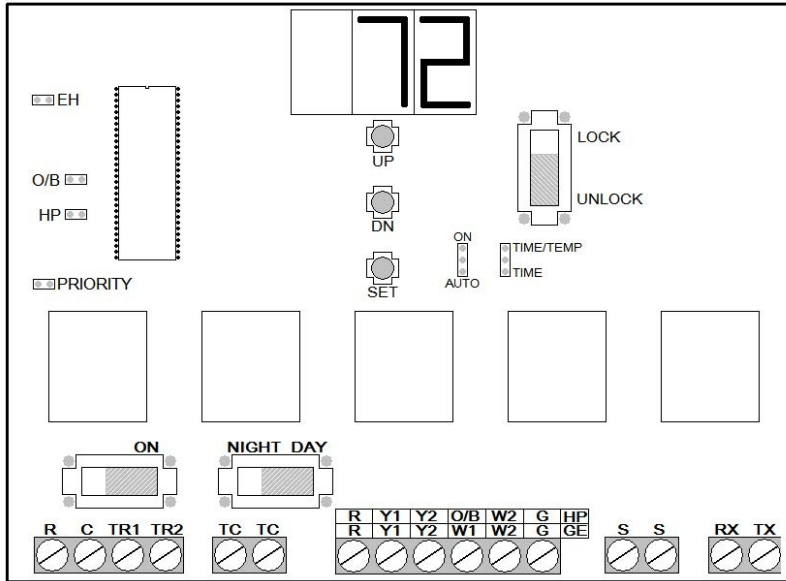
Storage temperature: 0 to 160° F (-18 to 71° C)

General

Communications: 2 wire twisted pair - Belden 8740

Enclosure Dimensions: 7¼" H x 10" W x 3" D

TERMINAL FUNCTIONS



TX – Data Transmit

RX – Data Receive

SS – Leaving / supply air sensor input

G – Fan output

W2 – Stage 2 heat output

W1 – Stage 1 heat

O/B – Not used

Y2 – Stage 2 cool output

Y1 – Stage 1 cool output

R – 24vac from unit transformer

TC } Not used

TC } Not used

TR1 – 24vac power input

TR2 – 24vac power common

R } TRX board Power – daisy chain

C } TRX board to TRX board

ORDERING INFORMATION

<u>Part No.</u>	<u>Description</u>
GEN II-R	Gas / Electric Controller supports 2-10 zones/unit

Accessories

Any programmable Gas/Electric thermostat

FEATURES

- Universal vote based auto changeover controller
- Support up to 10 zones per unit
- Integrated capacity control to stage up/down equipment and provide low/high limit protection for compressors and heat exchangers.
- Leaving air temperature display
- Automatic purge and ventilation modes
- Simple Startup Diagnostic
- 2-wire daisy chain - No home run wiring required
- No programming required
- Very easy to install - No computer required for setup or operation

8/5/14