TECHNICAL GUIDE

Hx™ TOUCH SCREEN THERMOSTAT

MODEL: S1-THXU280B & S1-THXU280W

Energy Saver

5 YEAR Limited Parts Warranty
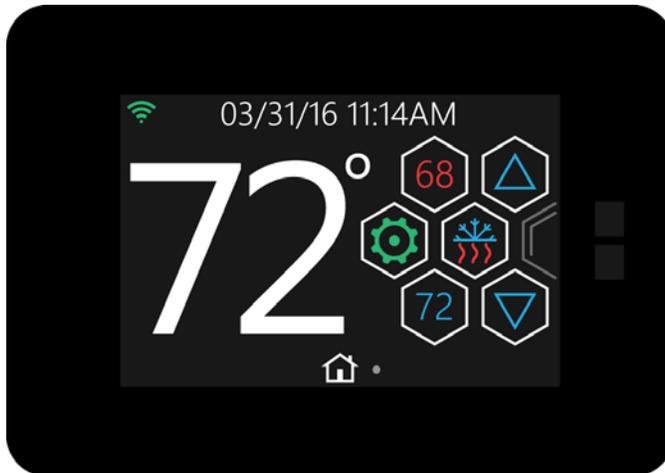
Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at *www.upgnet.com*

WARRANTY SUMMARY*

Standard 5-Years limited parts warranty.

DESCRIPTION

Johnson Controls, Unitary Products specializes in creating a customized home comfort system tailored to the homeowners needs with our broad selection of residential heating and cooling products. The thermostat is the ultimate control center for all of your system components. When you add a thermostat to a compatible modulating, variable-speed furnace or air handler, and an air-conditioner or heat pump, you'll enjoy longer heating and cooling cycles at lower fan speeds for a more consistent temperature throughout your home, better humidity control, as well as a more energy-efficient comfort system.

FEATURES & BENEFITS

- Wireless Compatible.
- Access Remotely with Apple and Android Devices.
- High definition color, Touch screen interface.
- Incorporates graphics and animation.
- Conventional or communicating wire installation from each component in the system.
- Intuitive on-screen prompts for ease of installation and service.
- Over The Air (OTA) software updates.
- Detailed system staging operation.
- Complete integration of temperature control, humidity control, and ventilation in every season.
- Ventilation limits to ensure outside air is not introduced in extreme hot or cold conditions - no extra heating or cooling load.
- Programmable or non-programmable mode selection.
- App based 7-day programmability with 2 or 4 periods per day.
- Quick Heat/Quick Cool functionality.
- Day-at-a-glance programming for simplified ease of use.
- Easy timed-override schedule.
- Programmable fan by period.
- Energy saving opportunity.
- Indoor Air Quality pop-up replacement reminders.
- General maintenance reminder messaging.
- Near Field Communication (NFC) allows programming the Touch-screen thermostat with an Android Dealer App, available on www.upgnet.com.
  - Allows the dealer to display the brand logo.
  - Can be used for communicating or conventionally wired systems.

MODEL NUMBER NOMENCLATURE

<u>S1</u> - <u>T</u> <u>H</u> <u>X</u> <u>U</u> <u>280</u> <u>B</u> <u>A</u>

S1	Source 1
T	Thermostat
H	Home
X	Extra Premium
U	Universal
280	Model Number
B	B = Black, W = White
A	Revision A

WIRING REQUIREMENTS

Power supply:

Dedicated 24VAC, 40 VA, 60 Hz, via indoor equipment, R & C wires. Isolated transformer, field supplied.

Wiring material:

Standard thermostat wire 18 to 24 gauge.

FEATURE SPECIFICATIONS

- Temperature set point range: 50F to 90F / 10C to 32.2C
- Separate heat and cool setpoints
- Programming days: 7 day
- Programming periods:
   2 Periods: Away, Leave
   4 Periods: Awake, Leave, Return, Sleep
- Non-Programmable
- Auto changeover (may be disabled)
- Programmable fan
   - Always on, 15 minutes per hour, 30 minutes per hour and 45 minutes per hour
- Humidity Sensor Offsets
- Smart Recovery (in heating and cooling)
- Permanent memory
- Humidity display and control
- Temperature sensor offsets (indoor)
- Wireless accessibility with Apple and Android Devices.

ENVIRONMENTAL REQUIREMENTS

Operating Temperature/Relative Humidity:

User interface and all sensors: 32F to 104F / 0C to 40C, 95% RH non-condensing**.**

Storage Temperature/Relative Humidity:

User interface: -40F to 135F /-40C to 57C, 95% RH non-condensing.

PRODUCT DATA INFORMATION - STANDARD

Compatible Products:

All Johnson Controls Unitary Products non-communicating and communicating capable Air Conditioners, Heat Pumps, Air Handlers, and Furnaces.

PHYSICAL CHARACTERISTICS

Dimensions:

See drawing

Appearance:

Plastic, black or white color, textured

Electrical Characteristics/Standard
Input Volts/Amps 24VAC:

   (*) Conventional = 24VAC (De-Hum/Hum)

   (*) Heat Pump = O/B

   (R) Red = 24VAC (Hot)

   (C) Blue = 24VAC (Com)

   (Y1) Yellow = 24VAC (Cool)

   (Y2) Yellow = 24VAC (Cool 2-stage)

   (G) Green = 24VAC (Fan)

   (W1) White = 24VAC (Heat)

   (W2) White = 24VAC (Heat 2-stage)

PRODUCT DATA INFORMATION - COMMUNICATING

Physical Characteristics

Compatible Communicating Products

MODEL DESCRIPTION	YORK	COLEMAN	LUXAIRE
Air Conditioning	CZF, CZH, YXV	AC6, AC8, AC21	AL6, AL8, AL21
Heat Pumps	YZF, YZH, YZV	HC6, HC8, HC20	HL6, HL8, HL20
Gas Furnaces	YPLC, YP9C, TM9V, TM8V	CPLC, CP9C, TM9V, TM8V	LPLC, LP9C, TM9V, TM8V
Air Handlers	MVC, MV, AV*, AHV, AVC, AVV	MVC, MV, AV*, AHV, AVC, AVV	MVC, MV, AV*, AHV, AVC, AVV

Dimensions:

See drawing

Appearance:

Plastic, black or white color, textured

Electrical Characteristics/Communication
**Input Volts/Amps 24VAC:**

A+ Green = Data A+

R Red = 24 Vac (HOT)

C Blue = 24 Vac (COM)

B- White = Data B-

PRODUCT DIMENSIONS

.83

3.50

2.50
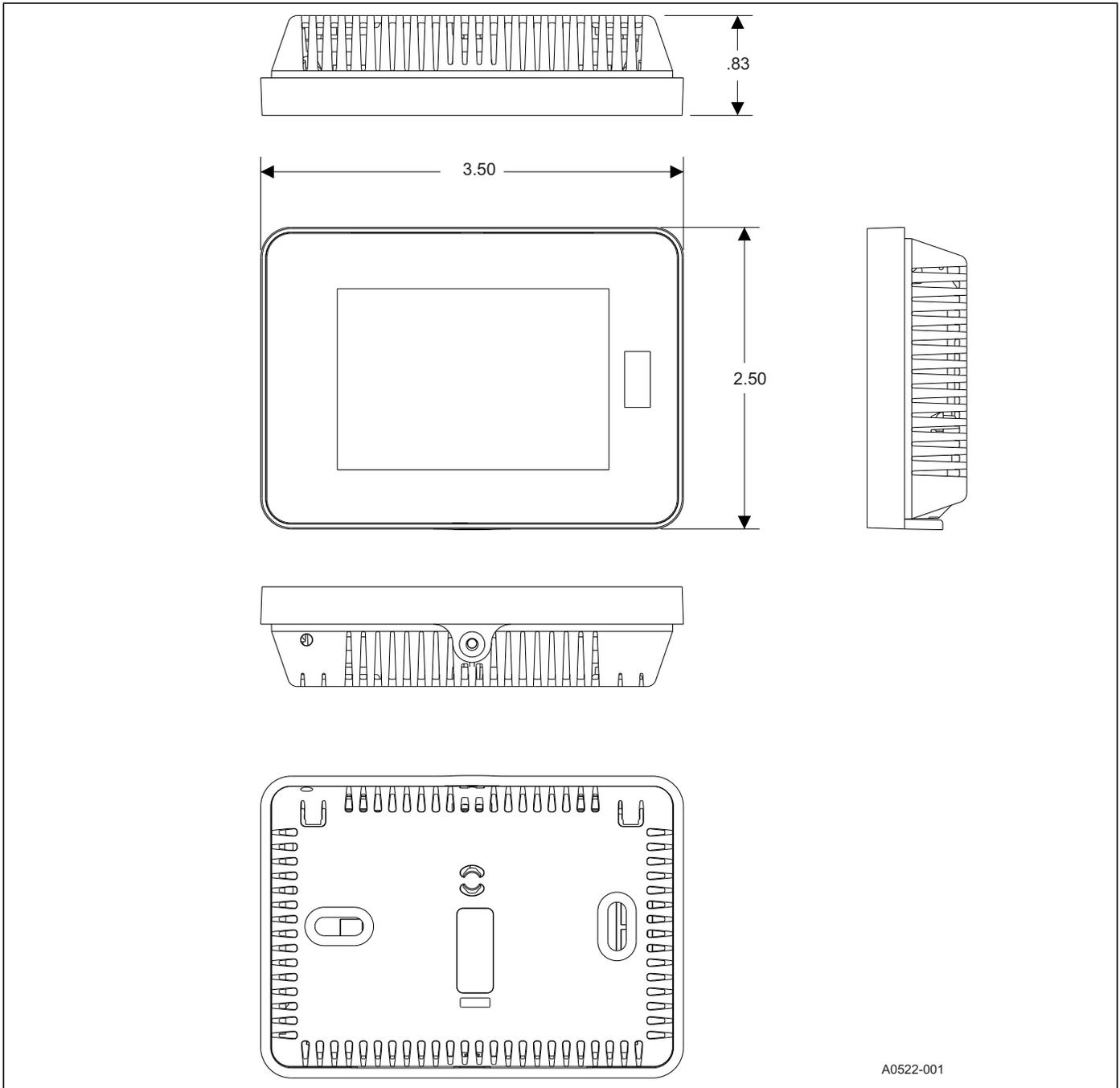
A0522-001

EQUIPMENT

Equipment

PART NUMBER	DESCRIPTION
S1-THXU280(B, W)	Hx™ Thermostat

Repair Parts

PART NUMBER	DESCRIPTION
S1-02817124000	Back Plate

Optional Accessories

PART NUMBER	DESCRIPTION
S1-02817126000	J-Box Back Plate (10 pk)
S1-02542683000	Remote Sensor Connector
S1-02542694000	Wire Harness
S1-02542683000	Outdoor Sensor

NOTES