




network thermostat X X7-WIFI Smart Touchscreen Thermostat Instructions

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X X7-WIFI Smart Touchscreen Thermostat

X7-WIFI

- Commercial Grade Wi-Fi Thermostat
- Gas/Electric to 2H/2C, Heat Pump to 3H/2C
- Humidity Sensing and Control
- CO2 Sensing and Control Ready
- Advanced Remote Sensor Bus
- Two Configurable
- Full Color Touchscreen
- 7 Day Programmable~ 4 Events/Day
- 80 Additional Event Schedules
- BACnet/IP and ModbusTCP/IP Included

GENERAL DESCRIPTION:

Complete Stand-Alone Solution

The X7-WIFI is a Wi-Fi color touchscreen thermostat with an advanced remote sensor bus, designed for new or replacement commercial and residential applications. Use the X7 for either conventional and heat pump applications (Gas/Elect 2H/2C, HP 3H/2C), along with humidification, fresh air damper, IAQ controls and more. The X7 also has a revolutionary accessory slot for CO2 /VOC sensors, and the NetX DECT/ULE Wireless Sensors. DirectConnect™ helps deliver a near-effortless setup of your daily schedules (4 events per day) and up to 80 Additional Events (40 Special and 40 Calendar Events). The unique scheduling structure also supports the powerful features of adjustable temporary override times and temperature ranges, occupied and unoccupied events, keypad lockout, and many more features. The X7-WIFI also includes full BACnet/IP support over Wi-Fi, directly on the thermostat.

The X7-WIFI is designed to operate with our CloudConnect™ Online Management software or, for maximum security, behind your firewall using DirectConnect™ or our PCConnect™ Software. Since all HVAC functions are stored in the thermostat, the X7 will continue to operate even during network outages, allowing you to maintain your energy savings. For ultimate control over energy usage, the X7 offers a digital lockout that can permit limited temperature overrides based on your requirements. Our on-board data collection allows for historical review, sub-metering, and run-time reporting.

STANDARD FEATURES:

CloudConnect™ & CloudManager™ Available Energy Savings

- Efficient Equipment Restart™ randomizes equipment starts to minimize multiple units turning on simultaneously when there are multiple NetX thermostats at the location
- Random Restart on power up staggers restart of HVAC system after a power outage to minimize peak inrush current
- Adaptive Recovery for Schedules allows system to achieve desired setpoint at the beginning of the schedule

Monitoring

- 14 Remote Sensors: up to 6 indoor, 1 humidity, 1 outdoor, and up to 6 auxiliary sensors for monitoring items such as supply air, return air, walk-in refrigerators and freezers, etc.

- Accessory Port for CO2 /VOC and NetX DECT/ULE Wireless Sensors
- 2 Digital Inputs for Fault Conditions, including Condensate and Equipment Faults
- Occupancy Sensor Input
- On-board Data Logging with Sub-Metering Support

Connectivity

- CloudConnect™ Internet-Based Cloud Service
- PCConnect™ Software Local Network & Port Forwarded Access
- DirectConnect™ Integrated Web Server
- Integrated NetX™ API, Supports 3rd Party Apps
- BACnet/IP and Modbus TCP/IP Embedded
- Optional Modbus RTU Interface via NT-485 Module

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Facility Management

- 4 independent schedules per day
- 80 Additional Schedules (40 Special and 40 Calendar Events)
- Commercial Lockout with Programmable Temporary Override Time and Temp Adjustment
- Email & Text Message Alerting for 4 Recipients
- Alerts include Hi/Lo Temps for Indoor, Outdoor, Supply, Return, and Aux Temps, Inefficient Equipment Runs, Change Filter Notifications, and Two Digital Inputs: 19 Alerts in All

General

- Color Selectable Touchscreen Display, Black or White Case
- Modes: Heat, Cool, Automatic Changeover
- Integrated Humidity Sensor & Humidification and Dehumidification Control
- Fan Selector for Automatic and up to 3-speed Fan Operation*; Programmable Recirculation Fan
- Relay 1 & Relay 2 Flexible Control
 - Humidification and Dehumidification Control
 - Fresh-Air Damper Control
 - IAQ Equipment Control
 - Auxiliary General Purpose Relays with Scheduling
- Integrated Weather with Current Conditions and 7-Day Forecasts

972-580-8001

Made in USA

P/N 240254-05

SPECIFICATIONS:

Rated Voltage: 20V to 30VAC, 24VAC nominal

Rated A.C. / D.C. Current: 0.05 to 0.75 AC / 0.0 to 0.75 DC Amp continuous, per output, surges to 3 Amps maximum

Temperature Control Range: Heating: 38 to 88°F (6 to 30°C) in 1° steps **Cooling:** 60 to 108°F (16 to 40°C) in 1° steps

Thermostat Sensing Range: 20 to 124°F (0 to 48°C) **Control Accuracy:** +/-1°F @ 68°F (0.5°C @ 20°C)

Minimum Deadband: 2°F (1°C)

Humidity Sensing: Range: 0% – 100% RH Accuracy: ±3% From 10% – 90%

Humidity Control Range: Humidify: 10% to 60%RH in 5%RH steps **Dehumidify:** 35% to 75%RH in 5%RH steps

Dimensions: 5.1"H x 4.7"W x 1.15"D (128mm x 119mm x 29mm)

Equipment Terminations: R – 24V switching voltage, W1 – Heat1 or Aux/Emer Heat, G – Fan, Y1-Compressor1, Y2 – Compressor2, O/W2 – Heat2 or Rev. Valve in Cooling, B – Rev. Valve in Heating,

Aux Relay Terminations: K/H/D – Humidify / Dehumidify / Relay 1 Schedule / Damper / IAQ , K2 – Relay 2 Schedule / Damper / IAQ Power Terminations: 24V(c) – Power Return, 24V – Separate Power (24VAC/DC) requires jumper removal

Input Terminations: LED1 (Filter Icon Selectable), LED2 (Fault Icon Selectable), CLK1 (+), CLK2 (–) (Occupancy)

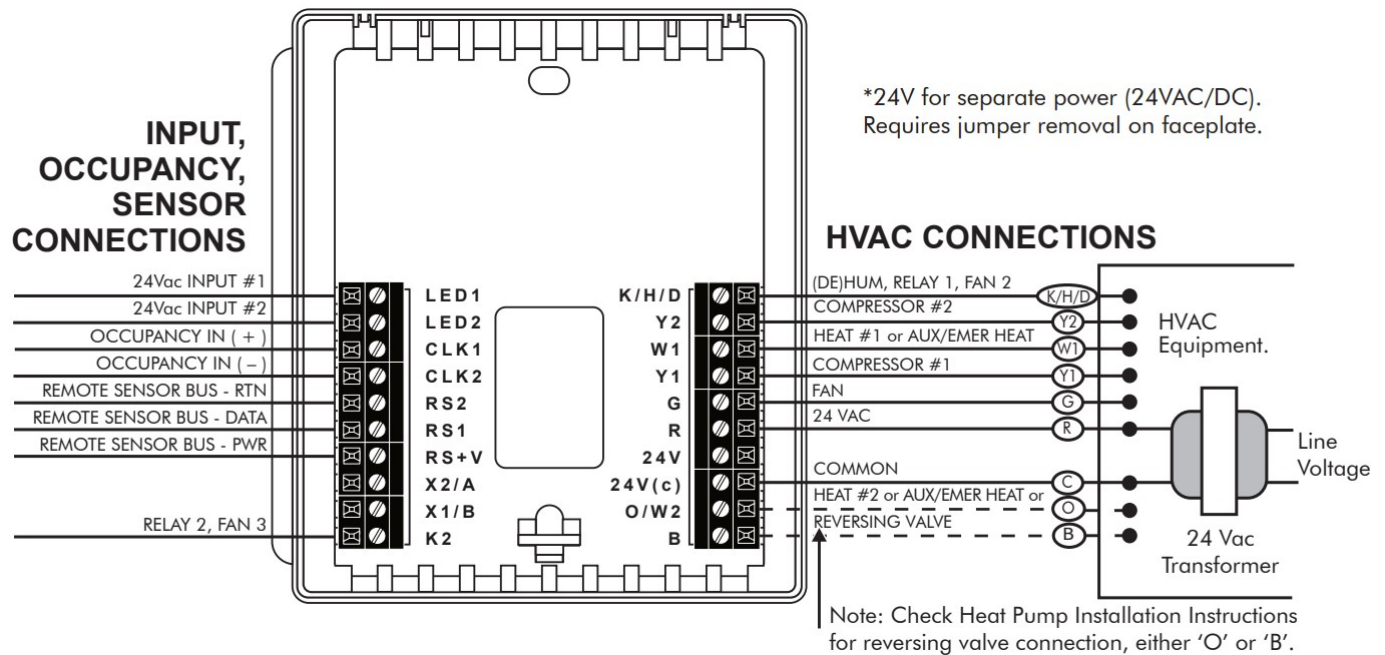
Remote Sensor Terminations: RS+V – Power, RS2 – Return, RS1 – Data

Wireless Radio: 2.4GHz 802.11b/g/n, Security: Open, WEP, WPA-PSK, WPA2-PSK

Accessory Port: SIM port for NetX CO2 /VOC Sensor, NetX DECT/ULE Wireless Sensor Network Host Card

Protocols: http, native NetX API, BACnet/IP and Modbus TCP/IP over Wi-Fi

WIRING DIAGRAMS:



TERMINAL FUNCTIONS

LED1	24Vac Input #1 for Filter or other Alert
LED2	24Vac Input #2 for Condensate, Fault or other Alert
CLK1	For use with External Occupancy Sensor (+)
CLK2	For use with External Occupancy Sensor (–)
RS2	Remote Sensor Bus (Power Return)
RS1	Remote Sensor Bus (Data)
RS+V	Remote Sensor Bus (Power)
X2/A	N/A
X1/B	N/A
K2	Programmable Auxiliary Relay 2, FAN 3
K/H/D	Humidification or Dehumidification, Aux. Relay 1, or FAN 2
Y2	Energizes compressor for second stage cooling, or for heat pumps, either second stage heating or cooling
W1	Energizes heater for first stage heating, or for heat pumps, aux/emerg heat
Y1	Energizes compressor for first stage cooling, or for heat pumps, either first stage heating or cooling
G	Energizes fan circuit with a call for heating or cooling
R	Independent Switching Voltage from HVAC equip
24V	24Vac
24V(c)	24Vac Common
O/W2	Energizes heater for second stage heating, or for heat pumps, energizes the reversing valve in cooling mode
B	Energizes the reversing valve in heating mode



Documents / Resources

	<p>network thermostat X X7-WIFI Smart Touchscreen Thermostat [pdf] Instructions X X7-WIFI Smart Touchscreen Thermostat, X X7-WIFI, Smart Touchscreen Thermostat, Touchscreen Thermostat, Thermostat</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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