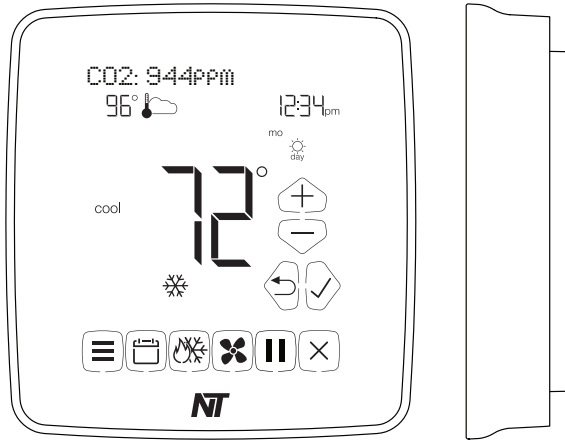


# NT™ network thermostat

## NetX™ X7 Series Thermostat

### K/H/D & K2 INSTALLATION ADDENDUM



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### BEFORE YOU START

Please read the entire addendum. The thermostat will need to be correctly wired and configured for proper operation. Basic HVAC configuration can be performed from the thermostat touchscreen and advanced settings can be accessed on the embedded web pages and the Internet.

### INTRODUCTION

This addendum addresses the special controls available using the K/H/D and K2 terminals on the X7 Series thermostats. This includes control of humidity, fresh air damper, 7-day / 4-event relay scheduling, manual relay operation, and Indoor Air Quality (IAQ) Control

### K/H/D RELAY - GENERAL

The K/H/D relay can be configured to function as any one of the following controls:

- Humidification; with or without independent equipment
- Dehumidification; with or without independent equipment
- Fresh Air Damper
- Manual Relay Operation
- Programmable Schedule \*
- Indoor Air Quality Control \*

\* Can be configured for use on K/H/D or K2, but not both

### K2 RELAY - GENERAL

The K2 relay can be configured to function as any one of the following controls:

- Fresh Air Damper
- Manual Relay Operation
- Programmable Schedule \*
- Indoor Air Quality Control \*

\* Can be configured for use on K/H/D or K2, but not both

### HUMIDITY OPERATION (K/H/D RELAY ONLY)

#### Humidification:

When set to 'Humidification', this feature allows the selection of a humidification call only when the heat is running, or independent of a heating call.

The relay energizes a humidification call when the indoor relative humidity drops below the value selected, with a programmable variance of ± 2%, 3%, or 5% RH.

**Example:** With Humidify at 35% and a Variance of 5%, a call for humidification would start at 30% and turn off when the humidity level reached 40%

#### Dehumidification:

When set to 'Dehumidification', this feature allows the selection of a dehumidification call only when the cooling is running, or independent of a cooling call.

When "With Cooling Only" is selected, and there is no dedicated dehumidification function integrated within the equipment, cooling will be initiated and the cooling set point will automatically be lowered by 2 degrees from the scheduled cooling set point to allow increased equipment run time and decreased space humidity levels.

The relay energizes a dehumidification call when the indoor relative humidity rises above the value selected, with a programmable variance of ± 2%, 3%, or 5% RH

**Example:** With Humidify at 55% and a Variance of 5%, a call for dehumidification would start at 60% and turn off when the humidity level drops to 50%.

### FRESH AIR DAMPER OPERATION (K/H/D OR K2)

When set to 'Damper', the relay will control a 2-position (power open, spring return) damper for fresh air ventilation.

The 'When Occupied' setting will open the damper and turn on the fan during occupied schedule periods from the thermostat's normal 7-day schedule.

The 'x min/hr' setting will open the damper and turn on the fan for the set number of minutes selected. Outdoor Temperature and Humidity Limits allow the setting of the boundaries for energizing the damper, between 120°F (49°C) and -40°F (-40°C), and 0% RH to 100% RH.

### SCHEDULE RELAY OPERATION (K/H/D OR K2)

When set to 'Schedule', the relay can be configured to turn on, off, or pulse up to 4 times per day, 7 days a week. The pulsed-on option can be configured from 0.2sec to 2.0sec in 0.1sec increments.

### MANUAL RELAY OPERATION (K/H/D AND K2)

When set to 'Manual', the relay can be turned on or off using any of the remote connection options.

### INDOOR AIR QUALITY (IAQ) OPERATION (K/H/D OR K2)

When set to 'IAQ', the relay can control multiple types of IAQ equipment, with either manual or automatic operation.

#### Integrated HVAC - Occupied

Use when IAQ equipment is located inside the HVAC equipment or ductwork. This setting will turn on the IAQ equipment and the HVAC fan during occupied schedule periods from the thermostat's normal 7-day schedules.

#### Stand Alone - Occupied

Use when IAQ equipment is located inside the HVAC equipment or ductwork. This setting will turn on the IAQ equipment during occupied schedule periods from the thermostat's normal 7-day schedules.

#### Integrated HVAC - Manual

Use when IAQ equipment is located inside the HVAC equipment or ductwork. This setting will allow the manual turning on or off of the IAQ equipment and the HVAC fan. Use this setting for extended occupied or unoccupied periods.

#### Stand Alone - Manual

Use when IAQ equipment is located inside the HVAC equipment or ductwork. This setting will allow the manual turning on or off of the IAQ equipment. Use this setting for extended occupied or unoccupied periods.

### ACCESSORY PORT

The accessory port allows the connection of various NetX options, including the NT-MOD-CO2 carbon dioxide sensor, or other future accessories.

## NetX™ X7 Series Thermostat

### CO<sub>2</sub> INSTALLATION ADDENDUM

#### CO<sub>2</sub> INTRODUCTION

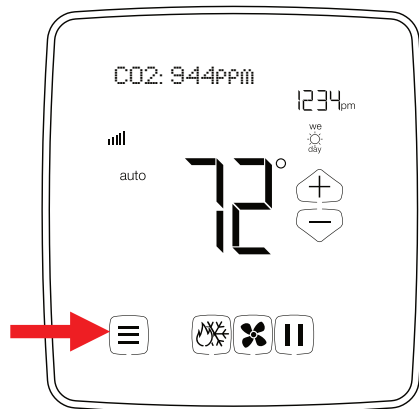
This addendum addresses the installation and configuration of the CO<sub>2</sub> sensor for the X7C and X7 Series thermostats.

This includes the display options, alert levels, and resetting the maximum level recorded.

**NOTE:** This addendum only applies to X7C Thermostats or X7 thermostats with the optional NT-MOD-CO2 module installed.

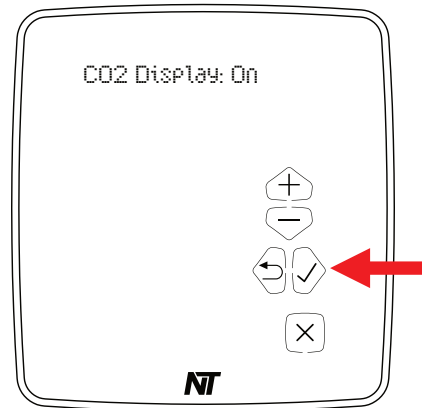
#### ACCESS THE INSTALLER MENU

Press and hold the Menu Button (≡) on the bottom left side of the faceplate. Once in the Installer section, you will see the Faceplate and Backplate firmware versions in the dot matrix display.



#### ACCESS THE FIRST CO<sub>2</sub> SETTINGS

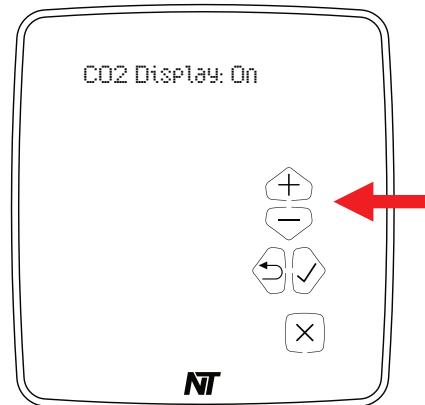
After the display of the Faceplate and backplate firmware, the menu will shift to the first setting Conventional/HP Use the Right Arrow (→) button to navigate through the Installer Menu. The first menu setting to adjust is CO<sub>2</sub> Display



#### SETTING THE CO<sub>2</sub> DISPLAY

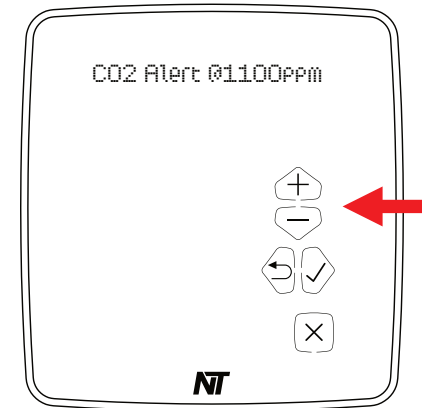
The default CO<sub>2</sub> Display setting is **On**. This means the CO<sub>2</sub> setting will be visible on the upper left corner of the display when the thermostat is in normal mode. The CO<sub>2</sub> display can also be turned off or set to display only when a high CO<sub>2</sub> alert is active. Use the Up (↑) and Down (↓) buttons to change the selection.

To accept the settings, press the Right Arrow (→) button. This will accept the setting and move you to the next setting CO<sub>2</sub> Alert.



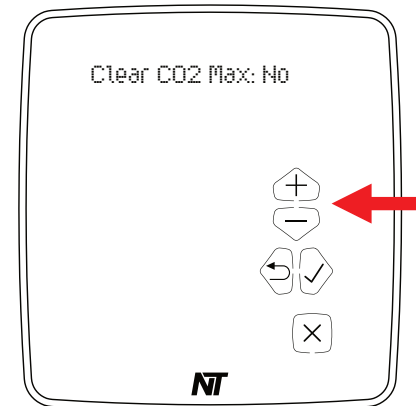
#### SETTING THE CO<sub>2</sub> ALERT SETTING

By default, the CO<sub>2</sub> Alert setting is set to trigger when the X7 thermostat detects a CO<sub>2</sub> reading above the 1100 ppm (parts per million) of CO<sub>2</sub>. When triggered, the alert can activate a relay to open a fresh air damper to decrease the level of CO<sub>2</sub> in the control area. To adjust the alert level, use the Up (↑) and Down (↓) buttons. The level is changed in increments of 50 ppm (parts per million). The range is from 500 ppm to 2000 ppm. Once the desired level is set, press the Right Arrow (→) button to save and proceed to the Clear CO<sub>2</sub> Max Setting.



#### CLEAR CO<sub>2</sub> MAX SETTING

By default, the Clear CO<sub>2</sub> Max setting is set to **No** which means the maximum recorded CO<sub>2</sub> level will not reset until user intervention. This setting can be changed from No (does not reset) to 12 midnight (resets automatically at 12 midnight), or Yes (resets now). To adjust the Clear CO<sub>2</sub> Max setting, use the Up (↑) and Down (↓) buttons. To accept the new setting, press the Right Arrow (→) button.



This completes the CO<sub>2</sub> settings that can be controlled from the Installer Menu. Additional advanced settings can be accessed on the embedded web pages and/or the Internet via our NetX CloudConnect software. For more information go to <https://www.networkthermostat.com>.