

TOUCH SCREEN COLOUR SERIES

MODEL

TX917DX024-2C2H



APPLICATIONS

- ▶ TX917 series fully color touch screen thermostat is suitable for Single Stage/Two Stage DX units, 2 stage Gas, Oil & Electric Heating, Heat pump with auxiliary units and Boilers.
- ▶ Available in Black & White Body color with multicolor User interface, Fitted with Ntc 10K Sensor and humidity sensor. Several add-on functions like External sensor function and Hotel key card are built-in.

FEATURES

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| <ul style="list-style-type: none"> ◆ Fully colour Touch screen Display suitable for Office, Hotels & residential ◆ Wall mount power box easy to install ◆ Optional Modbus Rs485 communication ◆ Application for 2 stages Cool / Heat Airconditioning, Gas / Oil / Floor Heating And Boilers. ◆ Auto Fan and Fan ON single speed ◆ Both Room temperature and Set temperature are displayed ◆ Temperature unit C° and F° | <ul style="list-style-type: none"> ◆ Schedule Program Operations, Holiday displayed when thermostat in Holiday mode. ◆ Day indicator and Real time clock display ◆ Humidity Temperature Chart ◆ History data ◆ Display Brightness Adjustment function ◆ Standby Screen saver with 3 options (3mins, 10mins & Night) ◆ Temperature limit setting | <ul style="list-style-type: none"> ◆ Sensor temperature calibration ◆ 1 External sensor Analog Input NTC10K ◆ 1 Hotel key card dry contact ◆ Timer delay 0-7 mins for compressor |
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SPECIFICATION

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| <ul style="list-style-type: none"> ◆ Power supply 24VAC 50/60Hz ◆ Relay Rating 24vac @ 1amp maximum per relay. ◆ Wiring : 18 Awg | <ul style="list-style-type: none"> ◆ Operating Temperature: 32°F to 150°F & 0 to 65°C ◆ Setting point : Adjustable temperature set limit ◆ Fan mode; Auto & On single speed |
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LCD DISPLAY & KEYS DESCRIPTION



FUNCTION

1. History data
2. Adjusting the optional settings
3. Day Indicator & Clock
4. System Mode : Heat, Cool, Auto, Off
5. Fan mode: Auto, On
6. Humidity, temperature chart
 - a. If humidity less than 30%, the pointer will be in the Red area
 - b. If humidity is between 30% and 60%, the pointer will be in the Green area
 - c. If humidity value is more than 60%, the pointer will be in the Gray area
7. Power ON/OFF
8. Holiday: Displayed when thermostat is in holiday mode
9. Schedule: Programmable Operation
10. Setup Button
11. Adjusting the Setting Temperature or Turn Page
12. Adjusting the Setting Temperature or Turn Page
13. Setting Temperature display
14. Room Temperature display
15. °C or °F Display
16. Displayed " Heating / Cooling /Auto " symbol

ORDERING PART NUMBERS

PART NUMBERS	OPERATING VOLTAGES	APPLICATIONS	FAN OPERATIONS	MODBUS RS485
TX917DX024-2C2H	24VAC	2 HEAT/2COOL	1 SPEED	✓

OPERATION INSTRUCTION

FAN MODE	HISTORY
<p>Press the "Fan" on the Main Display, and change the Fan mode to Auto / On single speed.</p>	<p>Show the Running Time (Hours) /Room Temperature (°C) /Room Humidity (%) of the environment in the last 7 Days.</p> <ol style="list-style-type: none"> 1. Press the icon and enter Feature Settings 2. Press the "03. History & Energy Tariff" option. There are three options: Hrs = show the device running time Kw/h= set the unit kw consumption per hour \$/Kwh = set the cost of per Kw/h and show the energy cost. 3. select what data you need to show on the history chart. 4. Press the icon to save and return to main screen. 5. Press the icon , History Chart will show your preset related data <p>Note: The power consumption cost is for reference only, not used for specific payment vouchers.</p>
SYSTEM MODE	
<p>Press the icon "System" on the home screen, change the system mode from Heat, Cool, Auto, Off</p>	
HOLIDAY	HUMIDITY AND TEMPERATURE
<p>Thermostat will maintain this temperature for the duration of the holiday and will then automatically return to the program mode on your return.</p> <ol style="list-style-type: none"> 01 press the "holiday" and enter setting screen. 02 set the year/month/day values under holiday start. 03 set the year/month/day values under holiday end. 04 press the icon save and return to main display. <p>Please note the holiday setpoint = defrost temperature</p>	<p>Press the icon to check Temperature and Humidity.</p>

SCHEDULE

- Press the icon → Press "Feature Settings" → press "05.schedule" There are four options : Weekday / weekend, 7Days, 24Hours, None
For example, select 7days. Press icon to save and return to main display.
- Press the "schedule" on the main display, Monday to Sunday can be selected to edit.
- Press "Monday", there are six options WAKE/LEAVE/RETURN/SLEEP /TIMER5/TIMER6 (each time period has Enable/Disable options)
- Press the column of "Hour/Minute/Degrees" to set your desired values For Example: 7(Hour):30(Minute) means WAKE period starts at 07:30am in the morning with temperature setpoint XXF
- Repeat the steps above to set the 6 periods of each day, normally we only set 2 periods(commercial building) or 4 periods(residential building) per day, the Timer5 and Timer6 are only for special use.
- Press the icon to exit and save, repeat the steps above to set each day.Or you can also press "Copy To" to select any date to copy the period setting you just set and press icon to exit and save.

Please note only Morning, Day, Evening, Night can be updated by APP

For example : In the program of Monday :

WAKE : the setting time is 07 (hour) : 00 (minute) with temperature 75F
LEAVE : the setting time is 08 (hour) : 00 (minute) with temperature is 85F
RETURN : the setting time is 18 (hour) : 30 (minute) with temperature is 75F
SLEEP : the setting time is 23 (hour) : 00 (minute) with temperature is 78F

Four time periods will operate as below :

07:00 - 8:00: during this WAKE period the temperature will remain at 75F
08:00 - 18:30: during this LEAVE period the temperature will remain at 85F
18:30 - 23:00: during this RETURN period the temperature will remain at 75F
23:00 - 07:00: during this SLEEP period the temperature will remain at 78F

HOLD

The Temperature hold function allows you to manually override the current operating program and set a different temperature for a desired period.
Press icon → Press the "Hold" → Press the first column of "Hold Temp" → Use arrow to set the desired Hold Temperature (Temp. Range 41~115F).
Press the Second/Third columns to set Hour/Minute
Press the icon to save and return to main display
You will see "HOLD xxF, Left**:**" displayed on screen.

CLOCK SETTING

Press the icon → Press "Date and Time"
Press each column and use arrow to set Year/Month/Day and time.
If the "Time Sync" option is selected and thermostat connects to internet, it will automatically sync internet time every hour. if you need to change time and date manually this option must be disable.
Press the icon to save and return to main display

DISPLAY BRIGHTNESS

Press the icon → Press "Display Brightness"
Ambient Light Dimming is : Automatically adjust the backlight brightness.
Ambient Light Dimming is : Manually adjust the backlight brightness.
Change to desired brightness, press icon to save and return to main menu.

STANDBY SCREEN

Press the icon → Press "Screen Saver" → Enable this function
Select the standby type and there are 3 options (3Mins,10Mins, Just Night)
For example, setting the standby time to 3Mins with clock as screen saver, the thermostat will go into screen saver after 3mintues
Press the icon to save and return to main display

SCREEN LOCK

Press the icon → Press "Lock" → Enable Lock Pin to option →
Press each column to set your pin → Press icon to save and return to main screen.
Use preset password to unlock, If you forget password, the Master PIN is 8657

TEMPERATURE FORMAT

Press the icon → Press "Feature settings"
Press "01. Temperature Format" and select C or F as your temperature format
Press the icon twice to save and return to main screen















CONFIGURATION SETTINGS

Press the icon → Press icon "Feature settings" to enter the menu

SETTINGS	OPERATIONS
Hold	Temporary Hold for temperature and time
Language	Select language interface you will use
Date & time	01. Time zone 02. Date&time 03. Daylight saving time(dst)
Display brightness	Ambient light diming
Screen saver	Standby screen 01. Time: 3min, 10min, just night 02. Type: clock, default, off screen
Lock screen	4 number pins
Network settings	01. Wifi setup 02. Pair to app 03. Qr code 04. Mac address 05. Modbus Address
Feature settings	01. Temperature format F or C 02. Min or Max Temperature limit 03. History& Energy Tariff 04. Defrost Enable/Disable with desired Temp. 05. Schedule: Weekday/weekend; 7Days ; 24Hrs ; None 06. Sensor selection: Internal/ outdoor sensor 07. Humidity sensor calibration 08. Open Window Function 09. Filter Reminder
Installation settings	Set system settings 01. System equipment type: Heat pump, standard Heat/Cool; Heat Only; Cool only 02. Auxiliary: None; Second stage heating; Humidifier; Dehumidifier 03) Fan Option: Heat&Cool; Cool only 04) Reversing valve: O/B 05) Compressor restart delay time: 0~15mins 06) Deadband Temperature: 0~12F 07) Switch differential Temperature 0~12F 08) Input signal: None; Occupy in open-circuit ; Occupy in short-circuit Modbus Address
System information	Version number, QR code
Factory Reset	Reset to factory setting

TEMPERATURE LIMIT

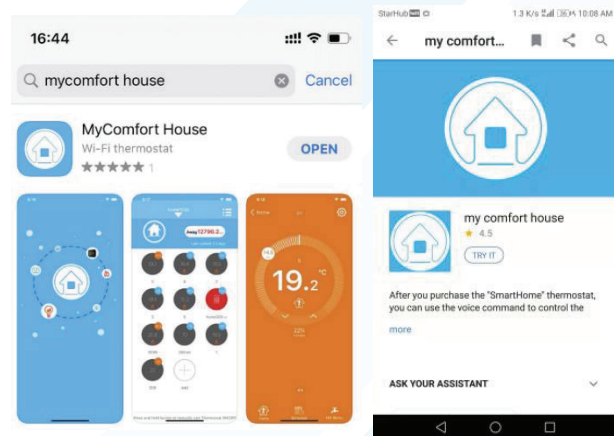
Press the icon → Press "Feature settings"
Press menu "02. Temperature limit" to set the Min&Max temperature range
Press the icon to save and return to main screen






DEFROST The thermostat automatically enters the Defrost Mode when the room temperature drops below the defrost temperature. Press icon  → Press "Feature settings" → Press the "04 Defrost" option → Enable this function  → Use the arrow key to adjust the temperature. Press the icon  to save and return to main screen	SWITCH DIFFERENTIAL This function is to increase the switching differential temperature of the thermostat. The system default value is 1F, if the desired temperature is set to 76F, the thermostat will start heating at 75F and stop at 76F degrees. If the default value is 2F degree, starts heating at 74F, stop at 76F. Press the icon  → Press "Installation settings" → Enter password 1234 → Press "continue" → Find "Switch Difference Temperature" and set the value
DEADBAND TEMPERATURE Deadband temperature only available if the mode is selected to AUTO The cool mode activates when Room Temperature - Setpoint Temperature ≥ Switch Diff+Deadband Temperature/2 The heat mode activates when Setpoint Temperature - Room Temperature ≥ Switch Diff+Deadband Temperature/2	DAYLIGHT SAVING TIME Press the icon  → Press "Date and Time" → Press "03. Daylight Saving Time (DST)" → Enable/Disable Auto DST   option There are three options : European Union, US & Canada, Australia & New Zealand Select your local time zone → Press  key to save and return to main screen
SYSTEM INFORMATION Press icon  → Press "System Information" it shows the Version Number:2.0 *OTA - If there is new firmware in cloud server, you will see the version number and the button "Upgrade" on the bottom of this screen, press this button, the thermostat would download the new firmware and upgrade itself to new version. Press the  Key to Exit	SENSOR TEMPERATURE CALIBRATION Press the icon  → Press "Feature settings" → Select "06- Sensor selection" There are two types of sensors, select the internal or outdoor sensors, and press the words to enter the calibration screen RESET TO FACTORY SETTINGS Press the icon  → Press "  " → Press "Reset" to factory settings Press the  Keys to Exit . Warning: Reset function will delete all your pre-settings and return to the factory default settings


WIFI CONNECTION

Pairing Thermostat with the APP (Model Number with W ONLY) The router needs to be 2.4G band only.

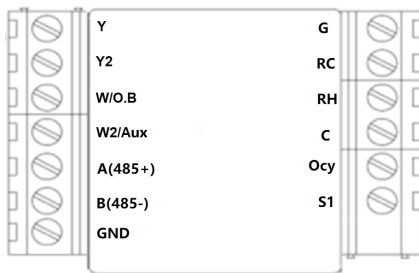
Download the free App from the Apple Store or the Google Play Store by searching MyComfort House as below



1. Open the APP  and register your account
2. Log into your account.
3. press the icon  on app home screen
 Press "location name" to add the location, for example home/office etc.
 Press icon  to confirm the property.
 Press icon  to go back to the main screen.
 Press the arrow on the top and select the location name you just set.
4. press the icon  Add

5. Select "smart config" and press the bottom button "add device location" to enter wifi configuration.
6. Enter your wi-fi password.
7. press the icon  on the thermostat and press "Network settings"
9. Back to Network settings and press "pair to app(smart config) "
10. Press "Next" on the bottom to enter "pairing device" screen. Wait for the devices to pair, (this may take several minutes to activate).
11. Select the correct device type, 117,517 series select "HVAC thermostat", and 217 series select "Heating thermostat".
 Press "Add device location"
12. Select device location name or create a new location name and confirm

TERMINAL DESCRIPTIONS



WIRING REQUIREMENTS

The following table shows the maximum wire lengths allowed:
 Thermostat to HVAC Equipment
 18 AWG 20 AWG 22 AWG
 128 ft/380 m 80 ft/240 m 50 ft/150 m

TERMINALS	DESCRIPTION
RC	24 VAC Cool
RH	24 VAC Heat
C	24 VAC Common
Y1	First stage of cooling or first stage heat pump
Y2	Second stage of cooling or second stage heat pump
W/O.B	W : First stage of conventional heating O.B: Heat pump reversing valve (supports both O type and B type)
W2/Aux	W2 : Second stage of conventional heating Aux : Auxiliary Heat, humidifier, dehumidifier, or ventilator
G	Fan
S1	Outdoor air sensor
Gnd	Ground
Ocy	Occupy input (the setback temperature will be 6F higher in cool mode, 6F lower in heat mode)
A	Modbus RS485 +;
B	Modbus RS485 -

Note: If you have only R wire, please connect to RC only.

INSTALLATION AND COMMISSIONING

THERMOSTAT LOCATION

The room thermostat should be located where the air temperature can be sensed as accurately as possible, without getting adversely affected by direct solar radiation or other heat or refrigeration sources. Mounting height is about 1.5 m above the floor

INSTALLATION

Step 1. Power Off

Disconnect the power to thermostat and heating/ air conditioning equipment

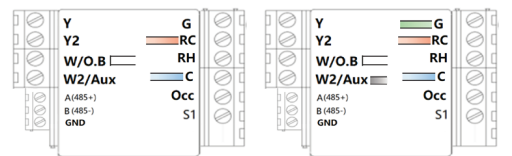
Step 2. Remove Existing Thermostat

Disconnect the wires to the existing thermostat and remove it from the wall

Step 3. Install new thermostat base plate

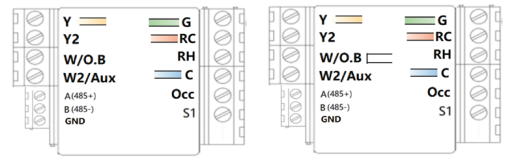
The ideal location for the thermostat is approximately 5 ft (1.5 m) above floor level in the main living area. Do not mount on a wall in niches or bookshelves, behind curtains, above or near heat sources.

WIRING DIAGRAM



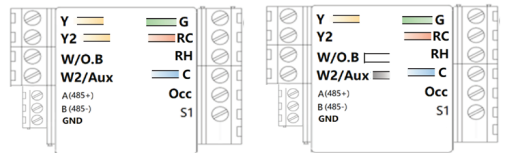
Conventional 1 Heat (3-wire)

Conventional 2 Heat with Fan



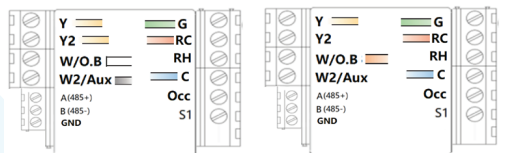
Conventional 1 Cool

Conventional 1 Heat and 1Cool



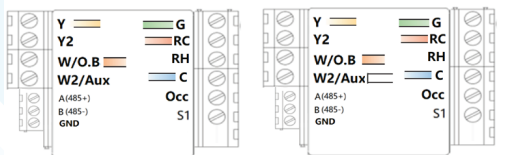
Conventional AC 2 Cool

Conventional 2Heat and 1Cool



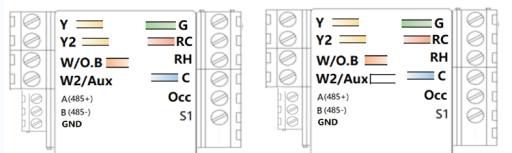
Conventional 2Heat and 2Cool

Conventional 1Heat and 1 Cool
with dual transformers



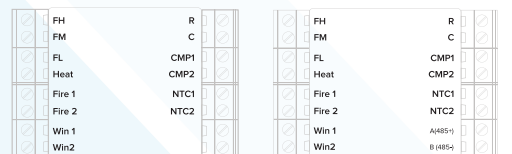
Single Stage Heat Pump

Single Stage Heat Pump
with Auxiliary Heat



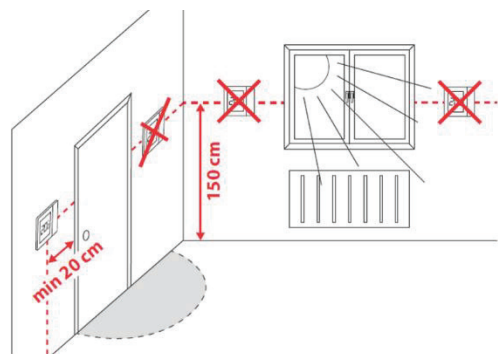
Double Stage Heat Pump

Double Stage Heat Pump
with Auxiliary Heat



Single Stage Heat Double Stage Cool
DX Unit with 3 speed Fan

Single Stage Heat Double Stage Cool
DX Unit with 3 speed Fan and Modbus RS485



Devices must be mounted on clean, dry indoor place without direct airflow from a heating / cooling device, and not be exposed to dripping or splashing. Ensure that wiring, protection and earthing comply with local regulations.

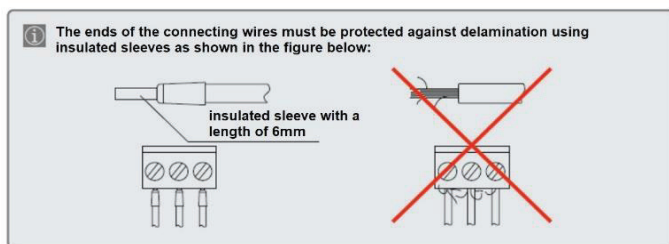
To install the thermostat :

1. Loosen the screw at the bottom and remove the faceplate.
Do not attempt to remove the screw completely
2. Place the thermostat backplate on the wall.
3. Fasten the backplate to the wall using the screws provided (or other suitable screws).

Step 4. Connect the Wiring

Note: if you have two transformers, please cut off the jumper between RC and RH

1. Check the wiring diagrams below
2. Find the right one to match your HVAC equipment
3. Make the wiring correctly according to the diagram




4. Put the front part of the casing back to the backplate and make sure the pins are properly positioned. Push the front of the casing and tight the screw

Step 5. Power On

power to the heating and air conditioning equipment and thermostat

Step 6. Setup system installation

Entering the Installer setup Menu Press the  icon on the main screen → Press “Feature Setting” → Press “Installation Settings” → Press the “Re-Install” → input the password 1234 → Press the “Continue” icon → Select the right system make the settings → Press “Next” key on the bottom of screen to finish all settings

Installation Manual

HVAC System Compatibility

Designed to operate with low-voltage heating and cooling systems.

It is not designed for use with line-voltage. This thermostat supports:

Up to 2 heat and 2 cool stages on conventional system.

Up to 3 heat and 2 cool stages on heat pump system.

Equipment	Supported?
Gas/Oil/Electric heating (up to two stages)	Yes
Standard electric cooling (up to two stages)	Yes
Traditional AC (up to two stages)	Yes
Heat pump with auxiliary heat (up to three stages)	Yes
Dual fuel systems	Yes
Boilers	Yes
1 remote sensor (10K resistive temperature)	Yes
1 dry contact for Occupancy input	Yes

Touch makes you Comfortable

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