TX-928-H Operating Manual

It is subject to change without further notice V1-7

CONTENTS

Product Introduction

TX-928-H series are available for boiler, manifold and underfloor heating system with 7-day, 6-period time program control. Models are with NTC sensor to detect ambient and floor temperature and do the control by compared with the setting one. Manual, time program and temporary mode can be switched any time by pressing the relevant keys. De-frost protection function will be active when ambient temperature below 5℃, prevent water pipe from freezing and burning.

Product Features

1、7-day, 6-period time program
2、Touch screen LCD with blue backlight
3、De-frost protection≤5℃
4、Key-lock function
5、Memory function
6、Advanced setting
7、Double sensors to control and limit the temp.
8、Ingress Protection:IP20
9、Flame retardant PC

Technical Datas

Consumption: ＜2W

Power supply: 95~240VAC 50/60Hz

Max. Current: 20Amp MAX(Resistive load)

On/Off differential temp: 0.5~5℃

Working temp. and Humidity: 0~50℃, less than RH90% (No condensation)

Storage temp. and Humidity: 20℃~30℃, RH45%~RH65%

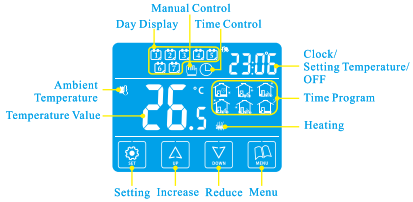
Setting temp.: 5~35℃/0.5℃ per step

Accuracy: 1℃

Temp. limitation: 30~60℃(external sensor)

Wiring port: 2.5mm² max.

LCD Display and functions



LCD display

1.Manual control mode
LCD displays " ", the controller is under manual setting, In the " ON " state, press " " to switch the manual control mode or time program control mode.

2.Time control mode
LCD displays " ", adjust temperature of periods automatically against time program setting. In the " ON " state, press " " to switch the time program control mode or manual control mode.

3.Temporary control mode
LCD displays " " and " ", current period is manual control mode, but next period resume to the time program control mode In the time program control mode, press " " or " " to enter into temporary control mode.

4.De-frost function
in off mode, when the current temperature is lower than the setting temperature for de-rrost, the main output will close, and will show " ".

General Setting

1. Power on/off: Press " " to turn on or turn off the controller. When power is off,it displays "OFF" and current time alternatly;when power is on,it displays setting temp. and current time alternatly.
2. Adjust setting temp.: Press " " or " " to adjust temp. during manul control and temporary control mode.
3. Key-lock function: In the "ON" state, keep pressing " " for 3s until the coin "LOC" displays, to lock or unlock the controller.
4. Time and week setting: In the "ON" state, press " ", then press " " or " " to amend the minute; press " " to amend the hour; press " " to set the day of week, press " " to save and exit the setting.
5. Time program: In the " ON "state, keep pressing " " for 3s to start setting, press " " or " " to adjust the current time (15mins/steo). Press " " again to check related temp, press " " or " " to adjust setting temp. Press " " to adjust next period. Press " " to save and exit the setting.
6. Control mode: Press " " to switch manual or time program control mode. In time control mode, keep pressing " " or " " for 3s to enter into temporary control mode.

General Setting

Periods		Coins	Default Time	Default Temperature
Weekdays	1		06: 00	22℃
	2		08: 00	
	3		11: 30	
	4		12: 30	
	5		17: 00	
	6		22: 00	
Holiday	1		08: 00	
	2		23: 00	

Wake up, Period 1
Return(am), Period 3
Return(pm), Period 5
Key-LOC
Leave(am), Period 2
Leave(pm), Period 4
Sleep, Period 6

Advanced Setting

Normally set by technicians during the first installation. Press " " first, then press " " for 3s to enter into setting in the "ON" state.
Tips: (Amend the datas via advanced setting, press " " to save and exit the setting.)

01. Adj Temperature compenstation, press " " or " " to adjust during range -9~9℃。 Press " "to enter into next setting.
02. Sen Sensor slection, press " " or " " to selsct the sensor. "IN"-internal sensor, "OU"-external sensor, "AL"-double sensors. Press " " to enter into next setting.
03. Lit Limitation temperature of external sensor, press " " or " " to change the exact limited temperature of external sensor during 30~60℃, press " " to enter into next setting.
04. Dif Switch deviation (bandwidth), press " " or " " to adjust the differential temp. during range 0.5~5℃, press " " to enter into next setting.

Main output from "OFF" to "ON": Room temp. ≤setting temp. - differential temp.

Main output from "ON" to "OFF": Room temp. ≥setting temp. + differential temp.

Advanced Setting

05.Prg 5+2/6+1/7 or off, press " ▲ " or " ▼ " to switch workdays, 5/6/7 workdays, or turn off the time program. Press " M " to enter into next setting.

Tips: workdays divided into 6 periods, and holidays divided into 2 periods only.

06.Rle Setting of passive linkage and main output, press " ▲ " or " ▼ " to change the condition of linkage; "00" means correspond with main loop output, "01" means opposite, Press " M " to enter into next setting. (water floor system ONLY)

07.Dly Dry contact function output delay: Press " ▲ " or " ▼ " to amend from 0-5 minutes, press " M " to enter into next setting.

When the output from "ON" to "OFF", dry contact will be "OFF" at the same time.(water floor system ONLY)

08.Hit Press " ▲ " or " ▼ " to adjust the max. temp. from 35~60℃. Press " M " to enter into next setting.

09.LIG Backlight setting, press " ▲ " or " ▼ " to adjust the setting value, "ON" means open, "OFF" means close. Then press " M " enter into next setting.

10.LT The time for backlight: Press " ▲ " and " ▼ " to set the time for backlight, it can be set between 10 s and 30 s. The default is 15 seconds.

Advanced Setting

11.PE Sound setting , Press " ▲ " or " ▼ " to select the setting parameter, "ON" means enable, "OFF" means disable, press " M " to enter into next setting.

12.LP De-frost function setting, press " ▲ " or " ▼ " to adjust the setting value, " On " means enable, " OFF " means disable. Then perss " M " to enter into next setting.

13.TP De-frost temperature setting press " ▲ " or " ▼ " to adjust the de-frost value. at the range of 5℃ to 12℃. Then press " M " to enter enxt setting.

14.SF ON/OFF state of thermostat,Press " ▲ " and " ▼ " to change the state of thermostat, the default is OF

ON: When power on, the thermostat is in on state,

OF : When power on, the thermostat is in off state,

SF : TO memorize the on/off state before power off.

15.CF Setting of temperature unit: Press " ▲ " and " ▼ " toswitch the temperature unit.

C: Display in Celsius degree℃

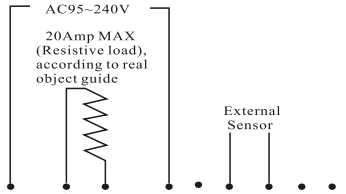
F: Display in Fehrenheit degree℉

16.Fac Recover factory setting, press and hold " ▲ ", then the symbol "-" appears on the screen, and till it changes to "--" to recover the factory setting. Press " M " to enter next setting; or press " ⏻ " to save and exit this setting.

Setting	Adi	Sen	Lit	dif	prg	Rle	Hit	LIG	PE	LP	TP
Default	0	In	35℃	1	5	00	35℃	on	on	on	5℃

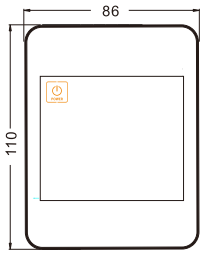
Wiring Diagrams

The highest elevation for the controller working under full load situation is 2500m; or if higher than 2500m, the rated power of external loads should be ⩽80% rated power of the thermostat.

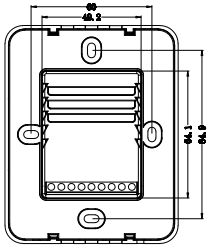


Wiring diagrams

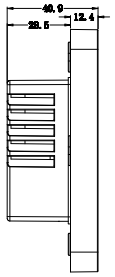
Dimensions(Unit:mm)



Front view

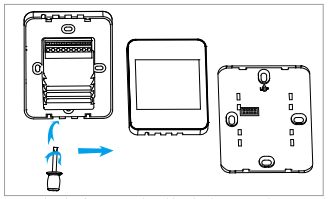


Back view

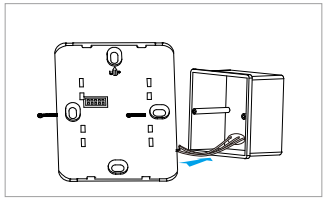


Side view

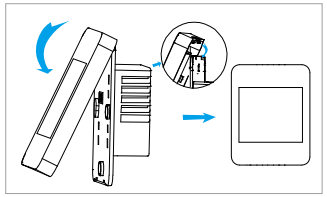
Installation Diagrams



1.To take the front panel and back plate apart by screwdriver



2.Wiring on the terminals of back plate according to the diagram, then to fix the back plate on the junction box by screwdriver



3.Recombine the front panel and back plate by contact pins

Trouble Shooting

Fault phenomenon	Reasons	Methods
No display	Power line input errors or withoutInput	Check the power line connection and the power supply
Display Er1	Internal sensor errors	Check the pin of internal sensor if there is a short cirsuit
Display Er2	External sensor errors	Check the pin of external sensor if there is a short cirsuit. Chooseinternal sensor via advanced setting