HOTOWELL
NEVER FORGET IMPROVING

Smart Wifi Multi Stage Thermostat

App Name and Specification

Search and install

 "Smart Life" or

"Plus Thermostat"

On below channels

Download on the **App Store**

Get it on **Google play**

⚠ **DANGER** ⚠

ELECTRIC SHOCK OR FIRE HAZARD

READ ALL WIRE SIZING, VOLTAGE REQUIREMENTS AND SAFETY DATA
TO AVOID PROPERTY DAMAGE AND PERSONAL INJURY

Specifications:

Power Supply: AC24V 50/60Hz
Self-consumption: 2W
Dimensions: 5.35x3.7x1.02"(136x94x26mm)
Output Ampere: 1A (Resistive load)
Sensor: NTC Sensor
Temperature setting range: 5~37℃
(**41~98.6F**)
Accuracy: ±0.5℃
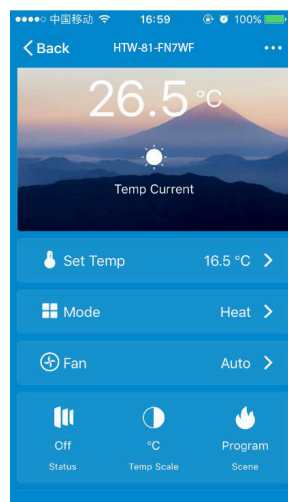**Material:** Toughened glass + PC
Wiring: By terminals
Mounting size: 2.36"(60mm) or **3.23"**(82mm)
Certificate: FCC

Thermostat

App

⚠ **WARNING** ⚠

READ CAREFULLY - *These instructions will help prevent difficulties that might arise during thermostat installation and operation. Studying the instructions first may save considerable time and money later. Observing the following procedures will keep installation time to a minimum. Save these instructions for future use.*

FUNCTIONS AND FEATURES

This thermostat has been designed to control conventional heating and cooling system or heat pump system.

➢ Compatible with Google home & Amazon Echo   Touch sensitive buttons
➢ 4.3" LCD screen clear display   White backlit display
➢ White bright digits   Apps for IOS and Android devices

General

HTW-81-FN7WF smart thermostat combines user-friendly touch sensitive buttons with WiFi wireless smart control application, offering unparalleled user control. Its local efficient control system and remote wireless smart control save up to 32% heating & cooling cost. Local energy-saving programmable solution for providing highly accurate temperature control. Remote wireless control through the application for providing easy and comfortable life style. Program a full 7 days schedule or change the settings through the App for total room control. The Apps support Google home and Amazon echo for good human-machine communication.

Installation

Cut off power supply at circuit breaker or fuse before installation to avoid fire, shock or death!


Step 1

Separate the installation plate from thermostat by pulling it apart and holding point A and B(or use a screw driver to pry the 4 latches as left directions). Insert the wires into the corresponding terminals according to the diagram and fasten the wall plate to a mounting box with the provided M*25mm screws. Ensure the proper orientation of the wall plate with the arrows on it pointing Up as shown on the left.
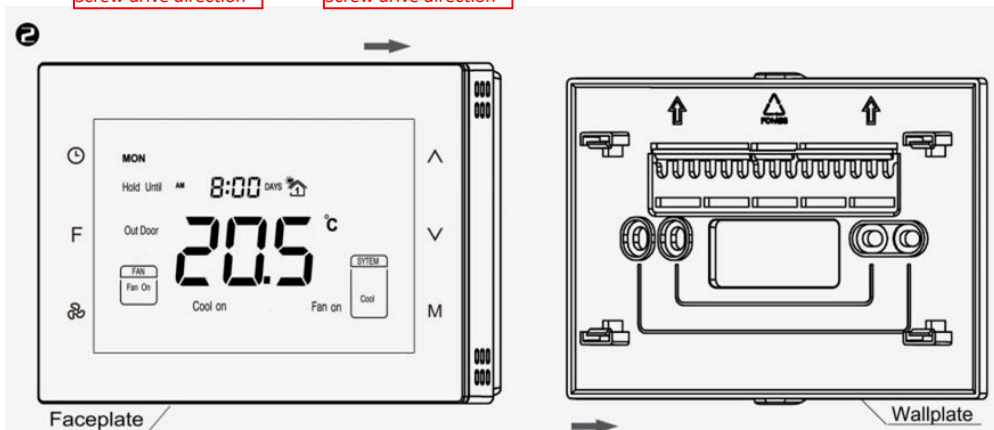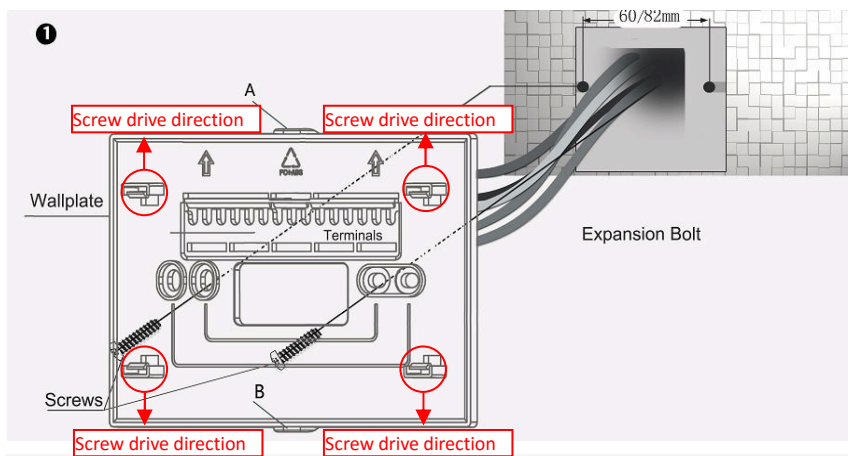
Step 2

Check all the wires and then evenly push the face plate into the wall plate till the wall plate and the face plate fit tightly.

Wiring Diagram

Figure I: Wiring guide Conventional systems

Figure II: Wiring guide heat pump systems
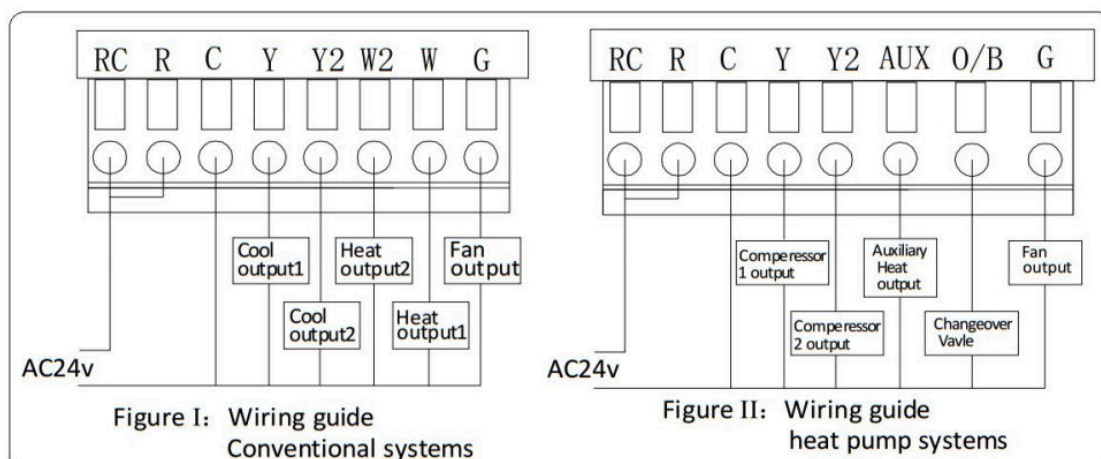
Terminals Explanation

Terminals	Explanation	Remark
RC	Cooling power (two transformers)	Joined with R by jumper (one transformer)
R	Heating power (two transformers)	Joined with RC by jumper (one transformer)
W (O/B)	Heat output	Changeover valve output (heat pump)
Y	Cool output	Compressor output (heat pump)
G	Fan output	Blower Output
C	24VAC common	Connect only when AC power
Y2	Cool output 2	2nd stage compressor output (heat pump)
W2(AUX)	Heat output 2	Auxiliary heat output (heat pump)

Wiring Instructions

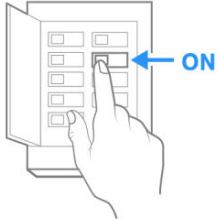| No.	Type	Terminals	Wiring	Compressor delay
0.0	1H/1C (conventional)	R、G、W、Y	Diagram conventional systems	none
1.0	1H/2C (conventional)	R、G、W、Y、Y2		none
2.0	2H/2C (conventional)	R、G、W、Y、W2、Y2		none
3.0	2H/1C (conventional)	R、G、W、Y、W2		none
4.0	1H/1C (heat pump)	R、G、O/B、Y	Diagram heat pump systems	1 min (default)
5.0	2H/1C (heat pump)	R、G、O/B、Y、AUX		1 min (default)
6.0	2H/2C (heat pump)	R、G、O/B、Y、Y2		1 min (default)
7.0	3H/2C (heat pump)	R、G、O/B、Y、AUX、Y2		1 min (default)

Display and Buttons
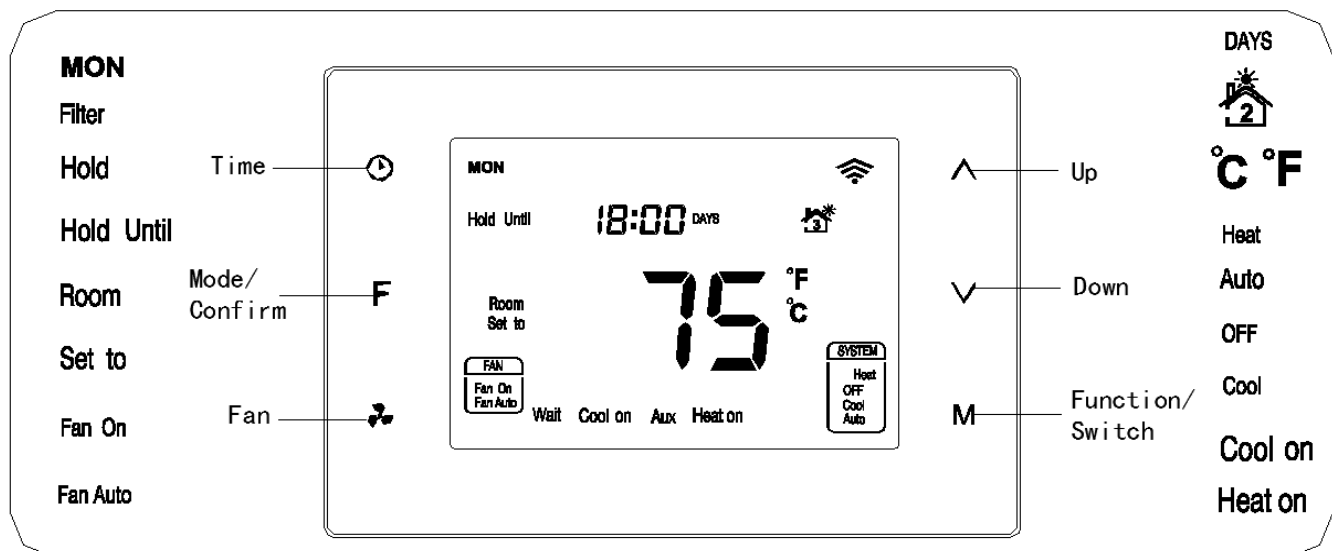
Operation Instructions

Wi-Fi Network Configuration

Step 1: Power on the thermostat;

Tap "F" button switch to "Hold"or "Hold Until" Mode

Step 3: Press ∧ **or** ∨ **to make the screen display -E-,**
then press M confirm;

Step 2: Make sure it runs in "Hold"/"Hold Until" Mode then

Press ∧ **for 3 seconds until "E" or "A" blinks.**

Step 4: For the following operation, please refer to the instruction indicated on the App.

Download APP
Search **"Smart Life" or"'Plus Thermostat'** from **App Store** or **Google Play** to download the APP.

APP Account Management
Register an account number with the **mobile phone number** or **e-mail address**.
Share **user rights** to others who have registered in the APP

Operation Instructions

Switch ℃ /℉

In normal display interface, press ⏱ & F button synchronically for at least 3 sec to switch between ℃ and ℉. （only available in **Programming** mode Not available in **Hold** or **Hold Until** Mode.）
Tips:Tap "F" button switch among **Programming**→**Hold**→**Hold Until**

Set time

Press & hold ⏱ for 3 sec to enter into the interface for local time setting. First, **00 year** flashes (0~99 indicates 2000~2099 year), press ∨ or ∧ to modify the values, then press ⏱ to switch to 01 month, month value flashes, press ∨ or ∧ to modify the values, then press ⏱ to switch to **02 day**, day value flashes, press ∨ or ∧ to modify the values, then press⏱ to switch to **03 hour**, hour value flashes, press ∨ or ∧ to modify the values, then press⏱ to switch to **04 minute**, minute value flashes, press ∨ or ∧ to modify the values. Continually press ⏱, it will switch among Year-Month-Day-Hour-Minute. Press F to save the status then back to the temperature setting interface, "Set to" displays and **temperature value** flashing, then press ∨ or ∧ to modify the value, press F or wait for the delay time end, return back to normal display. (Local time can not be set in Hold Until mode)

Set mode

In normal display interface, press M slowly to switch among **"Heat, OFF, Cool & Auto"**. After the state change, "Set to" displays and temperature value flash for 5 sec. Users can choose to change the value for temperature setting. If not, press **F** twice to save the change and return to normal display.
(Changed value only valid in this current Schedule, and will lose if Schedule, system state changes or power off)
OFF: In this state, Heating, Cooling and Fan will all forced close. Displays keep on.

Auto: In this state, a constant temperature will be kept. Device will activate/ stop heating/cooling system automatically according to the setting and room temperature.

Conventional system

Heat

Room temp.≤Setting temp.-1℃   "Heat on" displays and 1st stage heating system is on;

Room temp.≤Setting temp.-2℃   "Heat on"& "AUX" display and 2nd stage heating system is on;   *(not available for 1 stage heat system)*

Room temp.≥Setting temp., heating system stops and "Heat on" disappears from screen.

Note: 2nd heat stops and "AUX" disappears when temp. difference is less than 1 ℃.

Cool

Room temp.≥ Setting temp.+1 ℃   "Cool on" displays and 1st stage cooling system is on;

Room temp.≥ Setting temp.+2 ℃   "Cool on" stays and 2nd stage cooling system is on ;

(not available for 1 stage cool system)

Room temp.≤ Setting temp., cooling system stops and "Cool on" disappears from screen.

Note: 2nd cool stops when temp. difference is less than 1 ℃.

Heat pump system

Heat   (Changeover valve keep closed)

Room temp.≤Setting temp.-1℃   "Heat on" displays and 1st stage heating system is on;

Room temp.≤Setting temp.-2℃   "Heat on" stays and 2nd stage heating system is on;

Room temp.≤Setting temp.-3℃   "Heat on"& "AUX" display and Aux heating system is on;

Room temp.≥Setting temp., heating system stops and "Heat on" disappears from screen.

Note: Aux heat stops and "AUX" disappears when temp. difference is less than 2 ℃.   2nd heat stops when temp. difference is less than 1 ℃

Cool   (Changeover valve keep open)

Room temp.≥ Setting temp.+1 ℃,   "Cool on" displays and 1st stage cooling system is on;

Room temp.≥ Setting temp.+2 ℃,   "Cool on" stays and 2nd stage cooling system is on;

Room temp.≤ Setting temp., cooling system stops and "Cool on" disappears from screen.

Note: 2nd cool stops when temp. difference is less than 1 ℃

Compressor protection

After an operation of heating/cooling system, there is a 1 min compressor off time to protect compressor. "Wait" will display on the screen if next operation is activated within the 1 min period.

Fan mode setting

Press ⚛ to switch among "Fan on & Fan Auto".

- **Fan on**：   Fan is always on.

- **Fan Auto**：Fan runs automatically only when heating/cooling system is on.

*(If system is in **OFF** state, the fan will always off)*

Mode setting

Press **F** to switch among "**Schedule**, **Hold** & **Hold Until** (Holiday)" modes.

Programmable Schedule(Programming)

Any icon from 🏠🏠🏠🏠 stands for one time period, and there are 4 periods can be set in one day. Under the time setting mode, press ⏲ to enter into time setting interface, the time parameter of cooling or heating mode can be set. Press ⏲ then switch among **7 days** → **5+2 days** → **a whole week: [** MON→TUE→WED→THU→FRI→SAT→SUN→（MON TUE WED THU FRI）→（SAT SUN）→（MON TUE WED THU FRI SAT SUN）].

When setting the parameters, press F to exit to the modify interface, then get back to the temperature setting interface.

1.Press ⏲ then press ∨ or ∧ to change the flashing **hour**, **minute** & **temperature** value of the chosen day and time period (changes in 15 minutes at a time);

2. After completed the time setting, Press M to switch to the temperature setting, setting temperature flash and press ∨ or ∧ to modify the setting temperature.

3. After finished the above steps, press M to switch to 2nd period of Monday and repeat item 1 and 2 steps, then complete 4 periods of Monday setting. Press ⏰ to save and enter schedule setting for the following day.

The below table is the time parameter setting in different modes: *(Factory Default)*

Periods	Time	Parameters		Fan
		Heating	Cooling/ Auto	
1	06：00	21.0℃	25.5℃	Fan　on
2	08：00	16.5℃	29.5℃	Fan　on
3	18：00	21.0℃	25.5℃	Fan　on
4	22：00	16.5℃	28.0℃	Fan　on

（Notes:Cooling and Auto mode use the same setting schedule.）

Hold

This mode comes after "**Schedule**" by pressing **F**. In this mode, device will keep a constant temperature until next change.

➢ **"Hold"** & "Set to" display and temperature value flashing. Press ∨ or ∧ can change the value, and press **F** to save the setting;

➢ Press M can set system state;

➢ Press ⚙ can set fan mode.

Hold Until (Holiday)

This mode comes after "**Hold**"by pressing **F** again. In this mode, device will follow the setting temperature and lasting days when users are out for a holiday. And then back to follow **Schedules** after the holiday.

➢ **"Hold Until"** & "Set to" display and temperature value flashing. Press ∨ or ∧ can change the value, and press **F** to save the setting. Then days value flashing, users can choose from 1-180 days by pressing ∧ or ∨;

➢ Press M can set system state;

➢ Press ⚙ can set fan mode.

Override temperature setting

During any Schedule period, press ∧ or ∨ can enter an interface for temperature setting. Press ∧ or ∨ to change setting temperature, and press **F** to save the change. The changed setting only valid in the current Schedule period, device will follow the original schedule in next period.

Filter cleaning reminder

"Filter" will flash on the screen to remind users of cleaning furnace filter, and 90 calendar days are the default timing. In **Schedule** mode, to press ⚙ for 3 sec, "Filter" will disappear from screen.

Sensor error

If "**FF**" flashes at temperature display area, it means the temp. sensor is out of work(short-circuit or broken-circuit), all the outputs will be forced close, and only back to normal work until the sensor circuit is normal again.

Reset to factory default value

Press ⚙&M for 3 sec.

Warranty

We warrant this product to be free from defects in material and workmanship under normal and proper use for one year from purchase date of the original purchaser. We will, at its option, either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. This limited warranty does not cover any damage to this product that results from improper installation, accident, abuse, misuse, natural disaster, insufficient or excessive electrical supply, abnormal mechanical or environmental conditions, or any unauthorized disassembly, repair or modification. This limited warranty shall not apply if: (i) the product was not used in accordance with any accompanying instructions, or (ii) the product was not used for its intended function. This limited warranty also does not apply to any product on which the original identification information has been altered, obliterated or removed, that has not been handled or packaged correctly, that has been sold as second-hand or that has been resold contrary to Country and other applicable export regulations.

Installer Set-Up Process(ISU)

In **Programmable Schedule(Programming)** Mode, long press∧and∨synchronically can enter into ISU process, and the password is 5138. Press ∧ or ∨ can change the setting, and press M can save and switch to the following item.

Item	Explain	Range	Default	Remark
Pb	O/B terminal switch	0.0/1.0	0.0	0.0---O; 1.0---B O=Reversing Valve in Heat pump Cool Mode B= Reversing Valve in Heat pump Heat Mode
0	Controlling Type	0.0-7.0	0.0	See table "Controlling Type"
1	（1H/1C）Differential	0.5℃/1℃/1.5℃/2℃	1.0℃	
2	Temperature calibration	-10℃~10℃	0.0℃	
3	Temperature setting upper limit	0-37℃	37.0℃	Upper limit value > lower limit value
4	Temperature setting lower limit	0-37℃	5.0℃	
5	Filter change reminder	1 /2 /30 /60 /90 /120 days	90 days	
6	Clock format	12 /24 hours	24.0	
7	Compressor protection delay	0~10min	1.0min	
8	Back light setting	ON/OF	OF	ON back-lit always on OF back-lit half bright when no operation
9	Temperature format	℃/℉	℃	
	Reset to factory default value	OF/ON	OF	ON for resetting