

# MU-050 Essence Programmable Wi-Fi Thermostat

## Product overview



Smart Thermostat to control room temperature from in house or via smart device. The MU-050 is completely smooth fronted with soft touch icons for control and energy efficiency.

- Sleek glass front with soft touch icons for control.
- Including built-in sensor and external sensor capable (to purchase separately).
- 0.5°C accuracy.
- Wi-Fi imbedded chip to connect straight to the internet and other smart device such as those from Google, Amazon and Apple.
- Child lock to prevent misoperation.
- Holiday mode for energy saving.

## Technical specifications

Item	Wi-Fi Programmable Thermostat
Product Code	PDW1 0050(White)/ PDW1 0051(Black)
Dimensions	86mm (H) x 86mm (W) x 15.4mm (D)
Mounting Type	In wall (35mm minimum)
Colour	White/black
Voltage	230VAC
Power Consumption	< 3W
Max Load Current	16A Model dependant
Protection Rating	IP 20
Probe Sensor	NTC 10k, 1%
Working Temp	5–35°C
Accuracy	0.5°C
Programming ability	1 Week (5+2), (6+1), (7 day) EN60730-1,
Compliance	EN60730-2.7

## Safety

- This product should be installed by a qualified electrician.
- Ensure that the electrical wiring of the installation and connections to and from the thermostat and any remote sensor connected to it are in accordance with BS7971, the latest edition of IET wiring regulations.
- The thermostat must be wired to the electric mains through a switch capable of disconnecting all poles compliant with the current safety standards and with a contact separation of at least 3mm in all poles.
- Before commencing work on the installation, the electricity supply must be disconnected.

## Disposal

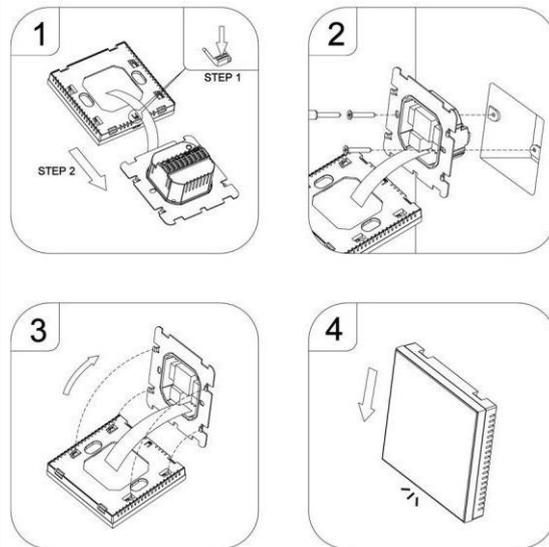


This product should not be disposed of in household waste. The product should be disposed of in accordance with your local waste and recycling schemes.

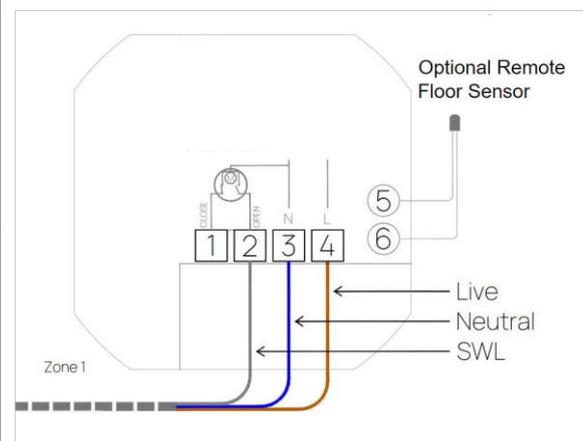
## Installation

- Remove the front housing by sliding it upwards from the slots on the back plate. Depress plastic nib located on the back. Disconnect ribbon cable if needed.
- Set aside the front housing, ready to reattach once final work has finished.
- Make the wiring connections as shown in the diagram below.
- Screw the thermostat back plate on to the wall box through screw holes.
- Reconnect ribbon cable if removed, attach back together by sliding downwards into the slots on the rear housing ensuring plastic nib clicks into place.

## Disassembly pictures



## Wiring connections diagram



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## Operation

Button	Description
	<ul style="list-style-type: none"> <li>Turn ON/OFF: Short press to turn on/turn off</li> </ul>
	<ul style="list-style-type: none"> <li>Short press to switch automatic mode and manual mode</li> <li>Turn on thermostat, long press for 3-5 seconds to enter into programmable setting</li> <li>Turn off thermostat, long press for 3-5 seconds to enter into advanced option A</li> </ul>
	<ul style="list-style-type: none"> <li>Confirm key: use with key </li> <li>Short press to set time</li> <li>Turn on thermostat, long press for 3-5 seconds to holiday mode setting. Appear OFF, press  or  change to ON, then press  to confirm opening holiday mode</li> <li>Turn off thermostat, long press for 3-5s to enter into advanced option B</li> </ul>
	<ul style="list-style-type: none"> <li>Decrease key</li> <li>Long press to lock/unlock</li> </ul>
	<ul style="list-style-type: none"> <li>Increase key</li> <li>Long press to inquire external sensor temperature (only available for BN item select N3 in the advance option B)</li> <li>In the program model, press  or  enter to temporary manual mode</li> </ul>



	Auto mode; run preset program		External NTC sensor
	Manual mode		Zigbee connection, flashing EZ distribution mode
	Clock		Child lock
	Programming mode		Network status: disconnection
	Temporary manual mode		Cloud icon: flashing AP distribution network mode
	Holiday mode, holiday days and temperature can be set to run in countdown mode		Activate window function
	Heating, icon disappears to stop heating		Room temperature
			Setting temperature

## Programming (at Thermostat)

5+2 (factory default), 6+1 and 7 models 6 time period settings for user choice. In the advanced options choose model you need, under power on state, long press for 3-5 seconds, enter into programming mode setting, then short press choose: hour, minute, time period, and press and to adjust data, to finish setting, about 10 seconds will automatically save and exit.

Wake up		Leave home		Back home	
6:00	20°C	8:00	15°C	11:30	15°C

Leave home		Back home		Sleep	
13:30	15°C	17:00	15°C	22:00	15°C

The optimum comfort temperature is 18°C-22°C.  
The end of the previous time period is always 1 minute before the start of the next time period.  
(6:00 to 7:59 = 20°C then 8:00 to 11:29 = 15°C)

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## Operation

- Power off thermostat and long press  icon (3-5 seconds) to access A advanced menus. Long press  button (3-5 seconds) to access B advanced menus.
- Press  con to choose option, and adjust data using  and . Press  button to move to next option. To exit menu, leave thermostat idle for 5-10 seconds to return back to normal functionality. Settings will be saved automatically.

No	Setting options	Data setting function	Factory default
A1	Measure temperature callibration	-9-+9 (Displayed as the corrected room temperature value)	-1
A2	Start/stop working temperature difference setting	0.5-2.5	1
A3	Children lock setting	0 - half lock 1 - full lock	0
A4	Power on/off state memory after electricity cut	0 - Thermostat resumes previous state when repowered 1 - Thermostat defaults to off state when repowered 2 - Thermostat defaults to on state when repowered	0
A5	Backlight Brightness	0 : 0% Brightness (No display in sleep mode) 1: 50% Brightness 2: 100% Brightness	2
A6	Weekly programming selection	0 - 5+2 1 - 6+1 2 - 7	0
A7	Setting temperature minimum limit	1-10°C	5°C
A8	Setting temperature maximum limit	20-70°C	35°C
A9	Low temperature protection	1-10°C When setting temp = 10°C, if press  will display [- -], cancel low temperature protection	5°C
AA	High temperature protection for external sensor	20°C-70°C When setting temp = 20°C, if press  will display [- -], cancel high temperature protection	45°C
AB	High temperature protection temperature difference setting	1-9°C	2°C
AC	Window function triggers temperature	10-20°C, setting temperature is 10°C, decrease it, will display [- -], then cancelled this function	--
AD	Window function running time	10-20min	10
AE	Restore factory defaults	Display AO, long press  key until all icons are briefly displayed	0
BN	Options of sensor control	N1 - internal sensor (high temperature protection disabled) N2 - external sensor (high temperature protection disabled) N3 - internal sensor controls temperature with external sensor acting as a high limit (if external sensor detects a higher temperature than the AA setting, thermostat will disable the relay and turn off demand for heat)	N1
BC	Descaling function	0 - Disable descaling function 1 - Enable descaling function	0
BO	Product information	Can't be changed	

### High temperature protection – (AA)

The temperature of external sensor is limited to 45°C as factory default.  
When temperature rises to 45°C, the relay closes and will display error code. (E1 or E2).

### Over temperature delayed restart offset function – (AB)

When the temperature drops back below 43°C, the relay will open and error code will be cancelled.

### Sensor fault display

Ensure that correct sensor is selected using BN advanced setting above (internal or external if using a floor sensor probe) if incorrectly selected E1 (internal sensor) or E2 (external sensor) will display on screen. Please ensure if external sensor is fitted select N2 or N3 using BN from advanced setting above. Thermostat will not work until fault is eliminated. If problem persists, call a qualified electrician or the system installer.



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## Smart control configuration



Using your smart device, download and install the Smart Life app from your app provider. The Wi-Fi router or internet connection must be running on 2.4GHz. Product is not compatible with 5GHz (5G based connection). **Ensure you have your internet network connection name and password available (router name and password)**. This will be needed to connect the thermostat to your network so it can be controlled by your smart device wirelessly.

## Set up the app

- Open the app and click sign up to register your details and set up an account. Or if you're an existing user – select login.
- Select country region and enter an accessible email address to receive a verification code.
- A unique 6 digit code will be sent via email. Input this verification code in order to continue.
- Please set user login (email address) and create new password. Password must be 6-20 characters a combination of numbers and letters.
- Select your GDPR preferences and enter the app.

## Add thermostat

- To add the thermostat to your app click the "+" or Add Device.
- Thermostats can be found under "Small Home Appliances" in the list on the left hand side or by scrolling down through the pages until you find "thermostats".
- Find and click on the Thermostat (Wi-Fi) icon.
- Enter the network details the thermostat is going to connect with.
- The app will now ask you what pairing method you are looking to use to connect the thermostat. At the thermostat, ensure power is on and the screen is awake, (lit up).
- Press and hold  and  until the Cloud icon is flashing . If the Wi-Fi and Cloud start flashing  , release the buttons and try again until only the cloud is flashing. The thermostat is now in app pairing mode.
- In the app click "confirm the indicator is blinking" then click "slowly".
- Next use your smart device to pair the thermostat to the network. Click on "go to connect". This will open the Wi-Fi settings on your smart device. Click on "Smartlife-xxxx" network. If your device informs you of no internet connection, just connect this one time. Once connected to the thermostat's hotspot your smart device might still inform you of no internet, don't worry and return back to the Smart Life app.
- Click "confirm hotspot connection, next" at the bottom of the screen and this will start the pairing process. This can take up to 2 minutes to complete.
- If successful, the app will show one device connected, click done in the top right corner and this thermostat will now be connected to the internet, your network and added into your app ready for you to use.

