Installation Instructions

PH PLUS
Smart Panel Convector Heater

PH-075 Plus | PH-125 Plus | PH-150 Plus | PH-200 Plus

ErP ready

Please read these instructions carefully before installing or using this appliance for the first time.

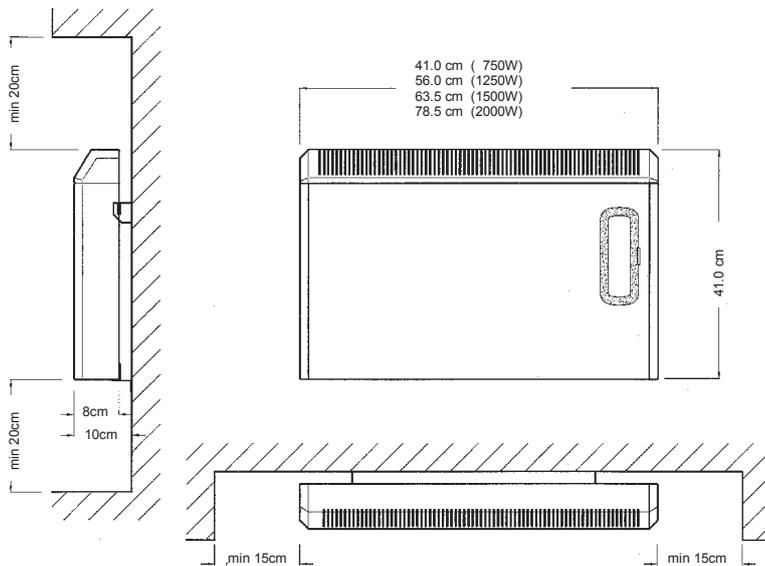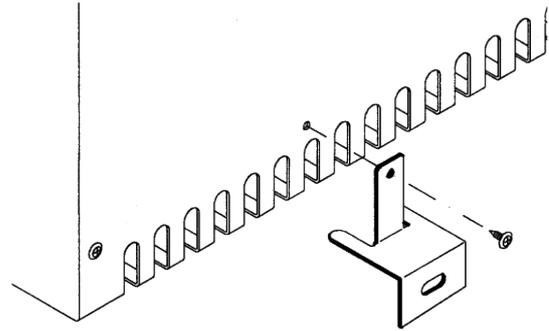**ELNUR** powered by **Gabarrón**

1. IMPORTANT INFORMATION

- The warranty of the heater will not cover any damage caused by non-observance of any of these instructions.

- The instructions should be retained for future reference. This guide must be kept and given to any new owner.

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be made by children without supervision.

- Children aged from 3 years and less than 8 years shall only switch on/off the appliance provided that it has been placed or installed in its intended normal operating position and they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children aged from 3 years and less than 8 years shall not plug in, regulate and clean the appliance or perform user maintenance.

- Children of less than 3 years should be kept away unless continuously supervised.

- Please check that the voltage in the rating label fits the power supply.

- The use of these heaters is forbidden in any area where there is a presence of gases, explosives or inflammable objects.

- Do not use this heater to dry clothes. Do not cover this heater or put objects in contact with it.

- Neither the connecting cable nor any other object must come into contact with the hot unit.

- Do not cover this heater at any time.

- The air outlet at the top of the thermal radiator and the air inlet at the bottom are provided to ensure the most efficient operation of the appliance. They also protect the heater from overheating; therefore, it is essential that at no time are they covered.

- This heater should be switched off at the isolating switch before any repair work is carried out.

- The installation must be carried out in accordance with the current electrical regulations.

- Should the heater be moved and reinstalled it is essential that the work is carried out by a fully qualified technician.

- The heater should not be installed just below an electrical socket.

- The appliance must be installed in such a way that it is impossible for anyone using a bath or shower, to touch the controls.

- The heater is fitted with a flexible cable size 3 x 1.00 mm² for electrical connection. It may be used to connect the heater to the fixed wiring of the premised through a suitable connection box positioned adjacent to the heater.

- The supply circuit to the heater must incorporate a double pole isolating switch having a contact separation of at least 3 mm.

- If the flexible power cable for this unit is damaged, it may only be replaced by a repair workshop recognised by the manufacturer, as special tools are necessary.

- This appliance must be earthed.

- All models are supplied with an electrical interrupt cut-out. This will switch off the heater if, for any reason, it overheats. Should the cut-out operate, turn the heater off and remove the cause for the overheating. The cut-out will be reset automatically.

- This heater is filled with a precise quantity of special oil. Repairs requiring opening of the oil container are only to be made by the manufacturer or his service agent who should be contacted if there is an oil leakage.

- Regulations concerning the disposal of oil when scrapping the appliance have to be followed.

- The presence of air particles of smoke, dust and other pollutants could, in time, discolour the walls and surfaces around the heater.

- CAUTION — Some parts of this product can become very hot and cause burns. Particular attention must be given when children and vulnerable people are present.

⚠️ **WARNING: In order to avoid overheating do not cover the heater.**

2. INSTALLATION INSTRUCTIONS

- Open the package and check that it is the correct model and it is in good condition.
- To obtain optimum performances it is necessary to maintain a minimum clearance of 50 cm between the panel heater and any inflammable material as furniture, curtains etc.
- The studs and screws to attach the supports are in the accessories bag.
- Fix the two square brackets to the back of the heater by using the two smalls screws. (see Fig.1)
- Position and fix the top bracket at the correct distance from the floor (see Fig.2) and hang the unit on the hooks of the top bracket.

min 20cm

41.0 cm (750W)
56.0 cm (1250W)
63.5 cm (1500W)
78.5 cm (2000W)

41.0 cm

min 20cm

8cm
10cm

min 15cm   min 15cm

- Mark the fixing points on the wall using a pencil. Use the heater fixing holes as a template and mark the wall through the two fixing holes in the square brackets. Fix the heater to the wall.

3. USING THE PANEL HEATER

DIGITAL CONTROL WITH DAILY AND WEEKLY PROGRAMMING

Digital DISPLAY:
It shows the time, temperature and other messages.

Heating indicator:
This small dot will be lit when the heater is consuming energy.

SUN indicator

Frost protection key:
If the display shows the time the heater is in frost protection mode. Press this key to shift from frost protection mode to standard mode and vice versa.

SUN key:
Press once to see the SUN temperature value.
Press + or – keys to modify the value.

Key "+":
It increases the values.

MOON key:
Press once to see the MOON temperature value. Press + or – keys to modify the value.
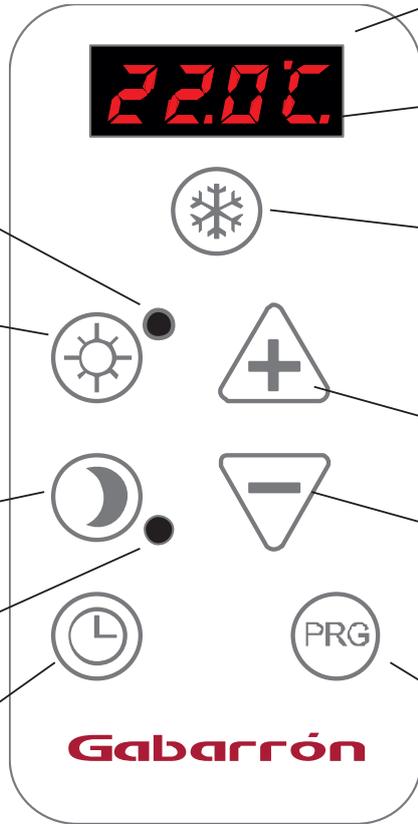
Key "-":
It decreases the values.

MOON indicator

PRG key:
Allows you to create check or modify programs.
Move forward with + or – keys and allocate the SUN, MOON, or ❄ temperature to any of the 48 intervals of 30 minutes of the day by means of the relevant key.

Press this key for more than two seconds to set the time or day of the week.

Main switch:
All models are equipped with one switch on the right surface allowing the panel heater disconnection.

Ph Plus panel heaters have built in an electronic thermostat with a sensibility of 0.1 °C. It is possible to set temperatures with an accuracy of 0.5°C.

The daily or weekly programmer (selectable) allows you to allocate three different temperature levels to any of the 48 intervals of 30 minutes of the day.

Switching On The Panel Heater

Once the heater is connected to a main supply, switch on the heater by setting the switch marked I-O positioned at the right side of the panel heater to "I". The off position is marked "O".

Setting The Time

Press the ⏰ key more than two seconds. The display will show the time intermittently. Set the hours by pressing + and - keys and press the ⏰ .

Set the minutes the same way. Press once more the ⏰ key to store the time. If at any time it is necessary to set the time press the ⏰ key and repeat the above steps.

Frost Protection Mode ❄

With this mode on, if the room temperature drops below 3ºC the heater will connect itself automatically.

If the display shows the time the panel heater is in frost protection mode. Press the ❄ key to shift from frost protection mode (time is shown in the display) to standard mode (temperature is shown in the display) and vice versa.

Programming The Panel Heater

The panel heater operates in programming mode maintaining the SUN, MOON or ❄ temperatures as per the introduced program. If the display shows the time, the panel heater is in frost protection mode.

Sun, Moon and ❄ Temperatures

The electronic programmer is able to handle three temperature levels during the 24h of the day.

Press the ☀ key to set the SUN temperature. The display will show the SUN temperature value blinking.

Set the SUN temperature value by means of the + o – keys and press the ☀ key to store the value. If the display shows the time the heater is in frost protection mode. Press the ❄ key to shift from frost protection mode (time is shown in the display) to standard mode (temperature is shown in the display) and vice versa.

Repeat the above steps with the key 🌙 to set the MOON temperature.

The ❄ temperature level is 3ºC and it is a fix value. This temperature level can be used as off selection when setting the temperatures during curtain times of the day.

SUN, MOON, or ❄ temperatures can be allocated to any of the 48 intervals of 30 minutes of the day.

Daily Programmes

It is basic to visualize the day split into 48 intervals of 30 minutes each; SUN, MOON, or ❄ temperatures can be allocated to any of them.

The default settings include daily mode so that the heater will repeat the program every day. If different programmes are required along a week, please see the next step WEEKLY PROGRAMMES. To check a programme or to make a new one, follow these steps:
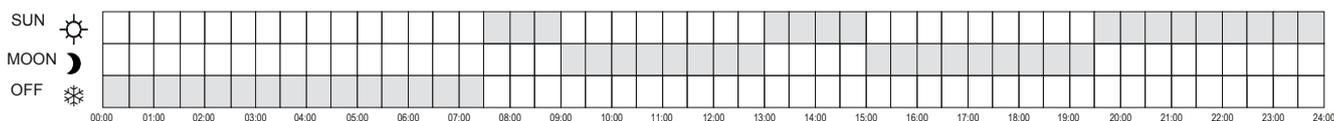
Press the **PRG** key and the display will show 0:00 intermittently.

Press one of the three keys ☀ 🌙 ❄ to allocate SUN, MOON or OFF (frost protection) from 00:00h to 00:30h. If SUN or MOON temperatures are selected the relevant luminous indicator will be lit. If OFF temperature ❄ is selected both luminous indicators will be off.

Press the + key to go to the next interval. The display will show 0:30 intermittently and, again, press one of the three keys ☀ 🌙 ❄ to allocate SUN, MOON or OFF (frost protection) from 00:30h to 01:00h or press + key directly if the existing temperature level is ok.

Repeat these steps allocating the desired temperatures levels over the 24 hours of the day. Press the – key at any time to modify a previous period. By reaching the 23:30 in the display and pressing + key, the controller will store the program and will return to the previous mode.

At any time **PRG** key can be used also to store the program and return the previous mode.

Schedule chart: SUN ☀, MOON ☾, OFF ❄ from 00:00 to 24:00

EXAMPLE

Let's see an example of how to introduce a program with the above distribution of temperatures.

OFF from 24:00h to 7:30h in the morning. The heater will be on only if the temperature drops to 3ºC.

SUN temperature from 7:30h to 9:00h.

MOON temperature from 9:00h to 13:00h.

SUN temperature from 13:00h to 15:00h.

MOON temperature from 15:00h to 19:30h.

SUN temperature from 19:30h to 24:00h.

Step	Display
1 - Press PRG	00:00
2 - Press ❄	☀/☾ Off
3 - Press + key	00:30
4 - Repeat steps 2 and 3 until display shows:	07:30
5 - Press ☀	☀ On
6 - Press + key	08:00
7 - Press ☀	☀ On
8 - Press + key	08:30
9 - Press ☀	☀ On
10 - Press + key	09:00
11 - Press ☾	☾ On
12 - Press + key	09:30
13 - Repeat steps 11 and 12 until display shows:	13:00
14 - Press ☀	☀
15 - Press + key	13:30
16 - Repeat steps 14 and 15 until display shows:	15:00
17 - Press ☾	☾
18 - Press + key	15:30
19 - Repeat steps 17 and 18 until display shows:	19:30
20 - Press ☀	☀
21 - Press + key	20:00
22 - Repeat steps 20 and 21 until display shows:	23:30
23 - Press ☀	☀
24 - Press + key	GRAB

Weekly Programmes

It is possible to allocate different programs to different days of the week. To do this, the controller has to be upgrade from 24hr mode (factory default) to 24hr/7days mode as follows:

Switch off the panel heater by turning off the main switch at the right side of the heater, the display will be Off. Press the 🕐 key and at the same time turn on the main switch maintaining the 🕐 key at least five seconds. The display will show P-SE which means that weekly mode has been set.

SETTING THE DAY:

Press the 🕐 key more than two seconds and the display will show the number of the day. Set the correct number, if required, by pressing + or – keys. Press the 🕐 key and the display will show now the time.
Press again the 🕐 key and new values will be stored.

To check a programme or to make a new one press **PRG** key: The display will show dia1. Press again **PRG** key and the display will show 00:00 intermittently. Follow now the steps from DAILY PROGRAMMES section until the display shows again dia1. Repeat this process with the 7 days of the week. When the display shows dia7 the weekly program will be stored by pressing + key.

If the display shows dia1 then, pressing + key more than three seconds will copy the day 1 program to day 2 and so on.

It is possible to allocate any of the three temperature levels to all the intervals of any day maintaining the relevant 🌣 🌙 ❄ key until an audible signal is heard.

To turn back a controller from 24hr/7days to a single 24hr press **PRG** key more than six seconds. This will restore the factory default settings.

Keyboard Lock

Press the ❄ key more than six seconds and the keyboard will be locked. The display will show [– –] and the controller will keep on working internally. To unlock the keyboard, press again the ❄ key more than six seconds.

Sun Manual Override

Maintain the SUN Key pressed for 4 seconds to set the Sun Manual Override. The heater will maintain the sun temperature set point and will ignore the pre-set program until the next change in programming temperature level.

Both luminous indicators SUN and MOON will be lit. This function could be useful when SUN temperature is required and we do not want to modify the program.

By pressing the SUN key for 4 seconds with Sun Manual Override activated, the function will be removed and the heater will follow the programme again.

4. ADVANCED FUNCTION

Open Window Detection

With open window detection activated, the heating element will be disconnected automatically when a sharp decrease in temperature in the room is detected avoiding energy wastage. After this period of time, the panel heater returns to the prior operation mode.

When Open Window Detection is working, the word Open will be displayed alternating with the status of the current mode.

Note: To activate the open window detection please refer to ADVANCED FUNCTION ACTIVATION section.

Adaptive Start Control

PH Plus electronic control analyses the heating requirements of the room where the panel heater is installed using this information to turn on the heating element in advance in order to reach the set point temperature at the desired time.

When Adaptive Start Control is working, the word AdAP will be displayed alternating with the status of the current mode.

Note: To activate the adaptive start control please refer to ADVANCED FUNCTION ACTIVATION section.

Advanced Function Activation

Advanced functions Open Windows Detection and Adaptive Start Control are disabled by default.
To enable / disable these functions, the following steps must be followed:

Switch off the panel heater by turning off the main switch at the right side of the heater, the display will be Off. Press the ❄ key

and at the same time turn on the main switch maintaining the ❄ key at least five seconds.

The display will show OPEn alternating with the status of the function (On or OFF). Use the navigation keys + or – to enable / disable Open Windows Detection function.

Confirm the new value for the function by pressing the **PRG** key. The next function (AdAP) is shown alternating with its status (On or OFF). Use the navigation keys + or – to enable / disable Adaptive Start Control function. Confirm the new value for the function by pressing the **PRG** key.

5. UNIT RESET

The panel heater reset establishes the factory configuration of the heater removing the programming, establishing the daily programming and disabling the advanced functions. To reset the unit, hold the PRG key for 4 seconds, the display will show InIC to indicate the heater has been reset.

6. CLEANING AND MAINTENANCE

The panel heaters do not precise any special maintenance providing thermal comfort during large periods. Clean dust with a dry, soft cloth only when the unit is disconnected and cold.

Do not use solvents or abrasive products for cleaning.

This panel heater has been manufactured under an assured quality system using environment friendly processes.

Please take the panel heaters to a clean point once their useful life is finished, in order to recycle their materials in the right way.

7. TROUBLESHOOTING

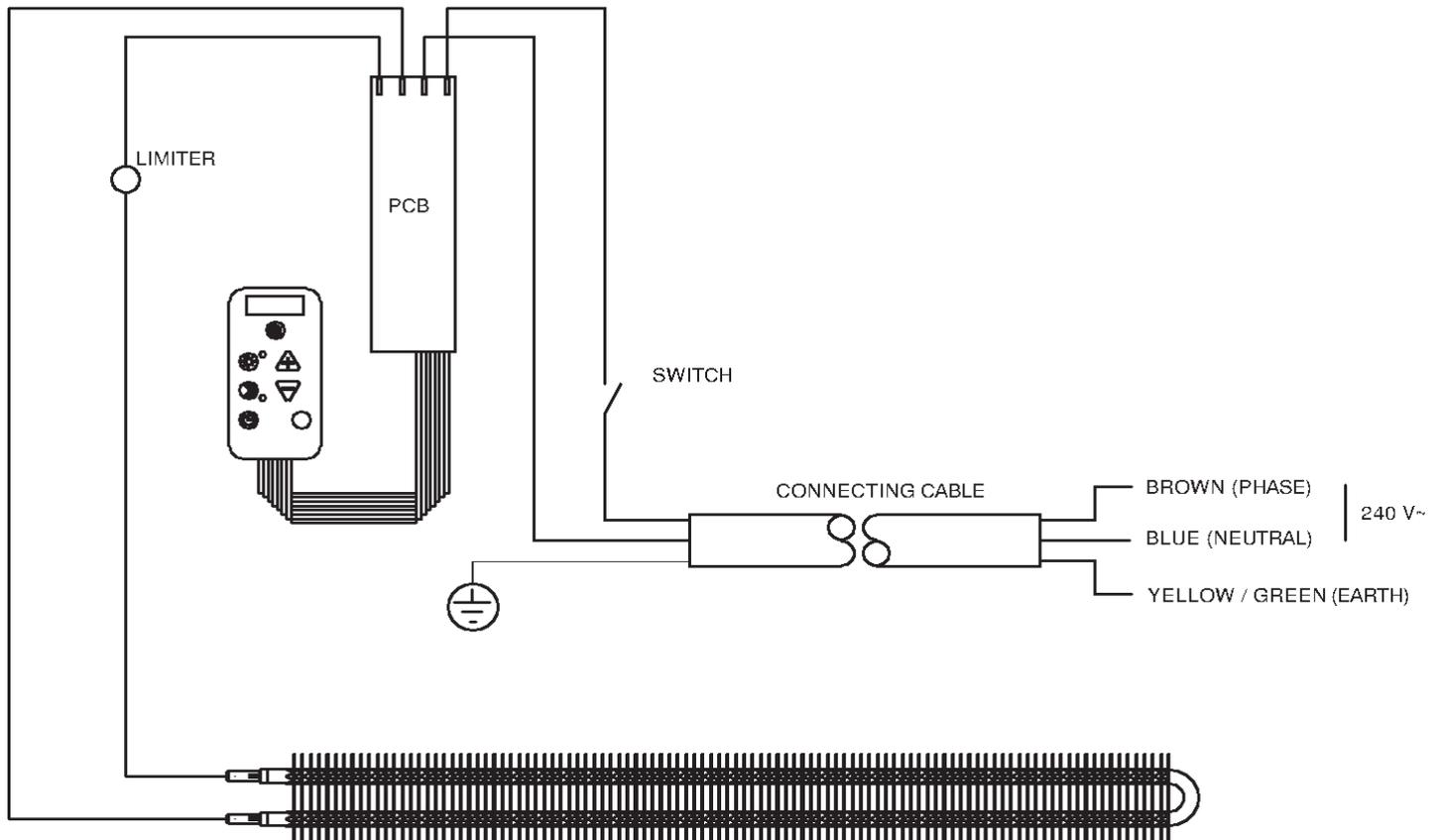|	
The panel heater radiator does not heat.	Check the heater or the air inlets are not covered. If the display shows the time, press the ❄ key to switch on the heater. Check that the DAY or NIGHT temperatures are right.
The room does not reach the required temperature.	Check the selected temperature is in accordance with the desired temperature. Maybe the room needs more heating power.
DAY and NIGHT luminous indicators are lit at the same time	Continuous mode has been selected. If the knob is in the "I" Position, turn it to the "P" position to return to the program mode if required. If the knob is in the "P" Position, hold the Sun key for 4 seconds to return tothe programming.
The display shows "Err1" or "Err2"	Contact the after sales service.
Only daily programmes	The controller is in single 24hr mode (factory default). See WEEKLY PROGRAMMES section to switch to 24hr/7days mode.
The keyboard does not respond.	If the display shows ⊏ - - ⊐ , the keyboard is locked. To unlock it, press the ❄ key more than six seconds.

8. SPECIFICATIONS

Models	RF4E Plus	RF6E Plus	RF12E Plus	RF14E Plus
Length (cm)	41	56	63	78
Width (cm)	8	8	8	8
Height (cm)	41	41	41	41
Weight (kg)	3.5	4	4.5	5.5
Voltage		240 -		
Isolation		Class I		
Power (W)	750	1250	1500	2000

9. MAIN COMPONENTS LIST

Main PCB	ref. 30100084	750 W Heating Element	ref. 40491755
Keyboard	ref. 40491702	1250 W Heating Element	ref. 40491757
85ºC thermal limiter	ref. 30100040	1500 W Heating Element	ref. 40491759
Main Switch	ref. 46100530	2000 W Heating Element	ref. 40491761

10. WIRING

LIMITER

PCB

SWITCH

CONNECTING CABLE

BROWN (PHASE)

BLUE (NEUTRAL)

YELLOW / GREEN (EARTH)

240 V~

11. PRODUCT FICHE

MODEL(S): GABARRON PH-075 Plus, PH-125 Plus, PH-150 Plus, PH-200 Plus

ErP

Item	Symbol	Value				Unit
		PH-075 PLUS	PH-125 PLUS	PH-150 PLUS	PH-200 PLUS	
Heat Output						
Nominal heat output	P_{nom}	0.75	1.25	1.5	2.0	kW
Minimum heat output	P_{min}	N.A.	N.A.	N.A.	N.A.	kW
Maximum continuous heat output	$P_{max, c}$	0.75	1.25	1.5	2.0	kW
Auxiliary electricity consumption						
At nominal heat output	el_{max}	0.000	0.000	0.000	0.000	kW
At minimum heat output	el_{min}	0.000	0.000	0.000	0.000	kW
In standby mode	el_{sb}	<0.0005	<0.0005	<0.0005	<0.0005	kW

Item	Value. All models
Type of heat output / room temperature control	
Electronic room temperature control plus week timer	Yes
Other control options	
Room temperature control, with open window detection	Yes
With distance control option	No
With adaptive start control	Yes

Contact details	ELNUR, UK
	Unit 1, Brown Street North, Leigh, Lancashire, WN7 1BU

Commission Regulation (UE) 2015/1188 of 28 April 2015. Ecodesign requirements for electric storage local space heaters.

ELNUR

The symbol on the product or in its packaging indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local council office, your household waste disposal service or the shop where you purchased the product. These instructions are only valid in the EU member states.

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