

Digital Weight Scale

Model: HN-290T
Instruction Manual

IM-HN-290T-01-12-2014
9301200-8A

Introduction

Intended Use

Thank you for purchasing the OMRON Digital Weight Scale. This product is mainly designed for general household use. It is intended to measure and display the weight from 10 kg to 250 kg (22 lb to 550 lb), and intended for providing all data for doctor's diagnostic purpose or reference. All data is wirelessly uploaded to your Telehealth's service by *Bluetooth®*, this will make your data management more convenient.

Please read this instruction manual carefully before use and for further information on the individual functions.

Important Safety Information

To assure the correct use of the product, basic safety measures should always be followed including the warnings and cautions listed in this Instruction Manual.

⚠ Warning: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

General Usage

- ⚠ Do not begin a weight reduction or exercise program without consulting a doctor or healthcare provider first.
- Self-diagnosis could damage your health.
- ⚠ Do not use the scale on slippery surfaces, such as a wet floor.
- ⚠ Keep the scale out of the reach of young children.
- ⚠ Do not jump onto the scale, or hop up and down on the scale.
- ⚠ Do not use this scale when your body and/or feet are wet, such as after taking a bath.
- ⚠ Do not step on the edge or display area of the scale.
- ⚠ People with disabilities, or who are physically frail, should always be assisted by another person when using this scale. Use a handrail or so when stepping on the scale, and make sure not to influence the measurement.
- ⚠ If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Consult a doctor immediately.
- ⚠ Do not put your fingers into any slot or inside the scale.
- ⚠ Use indoors.
- ⚠ Do not use this scale for purpose other than described in this manual.

Data Transmission

- ⚠ Do not use this product in hospitals, aircrafts or other environments where the use of radio waves is restricted. Please remove the batteries in this environment. This product emits radio frequencies (RF) in the 2.4 GHz band, use of this product in locations where RF is restricted is not recommended. The use of RF in this product is licensed for use by the FCC/IC, for further information on any potential restrictions refer to documentation on *Bluetooth®* usage by the FCC/IC.

⚠ Caution: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.

General Usage

- ⚠ Approved for human use only.
- ⚠ Do not share this scale with others, this will influence your data management.
- ⚠ Clean the scale before use if it has been used by people with a skin disease on their feet.
- ⚠ Do not place the scale against the wall. May cause injuries and malfunction.
- ⚠ Do not disassemble, repair, or remodel the scale.
- ⚠ Replace worn battery with a new one immediately.
- ⚠ Do not dispose of batteries in fire.
- ⚠ If battery fluid should get on your skin or clothing, immediately rinse with plenty of clean water.

Battery Usage

- ⚠ Do not use battery not specified for this scale. Do not insert the battery with the polarities in the wrong direction.
- ⚠ Use only 4 "AA" alkaline batteries with this device.
- ⚠ Do not use other types of batteries. Do not use new and used batteries together.
- ⚠ Remove the batteries if the device will not be used for three months or more.

General Advice

- Do not place this unit on a cushioned surface such as a carpet or a mat.
- Do not place this unit in highly humid environments, such as a bathroom or shower room. Protect it from splashing water.
- Do not place this unit near heat sources or below air conditioners, and avoid exposure to direct sunlight.
- As this unit is a precision instrument, do not drop, vibrate, or apply strong shock.
- Disposal of used batteries should be carried out in accordance with the national regulations for the disposal of batteries.
- Do not wash the unit with water.

- Do not wipe the unit with benzene, gasoline, paint thinner, alcohol, or other volatile solvents.
- Do not place this unit where it will be exposed to chemicals or corrosive vapors.
- Please store this scale on a level surface.
- Do not store any objects on the scale.

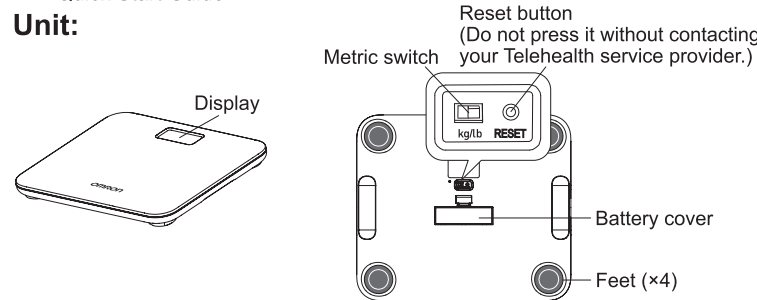


1. Know Your Device

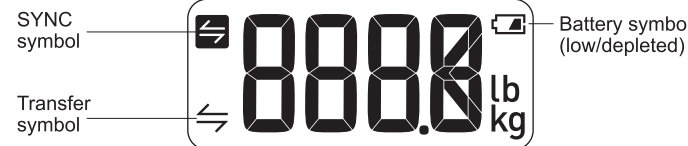
Contents:

- Digital Weight Scale • 4 "AA" Alkaline Batteries • Instruction Manual • Quick Start Guide

Unit:



Display:



Display symbols:

SYNC Symbol ()

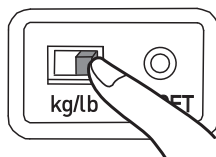
The SYNC symbol () is displayed if device is not connected to Telehealth service receiver or when data is not transmitted successfully. Please see "Connecting failure. The data is not being transmitted." in section 6.2.

2. Before Taking a Measurement

2.1 Wireless Function

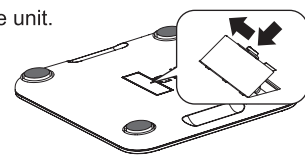
Before use, thoroughly read the instruction manual included with the Telehealth service receiver (in some cases, receiver maybe your smart phone) being used with this digital weight scale for instruction about your scale to Telehealth service receiver, and receiver transmission range. It will be necessary for the digital weight scale to be within the receiver's transmission range to successfully transfer data. This Omron digital weight scale is designed to connect to specific *Bluetooth®* Smart receivers, and is not guaranteed to connect to all *Bluetooth®* Smart compatible devices and Telehealth service receiver. **"Omron Healthcare, Inc. shall not be liable for loss of use or any other special, incidental, consequential or indirect costs, expenses or damages due to improper usage of this scale."**

2.2 Select the weight metric "kg" or "lb" when the power is off.

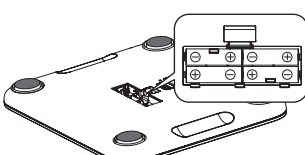


2.3 Battery Installation

1. Remove the battery cover on the back of the unit.



2. Insert 4 "AA" batteries as indicated in the battery compartment.



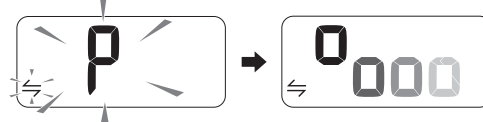
3. Close the battery cover.

Notes:

- When the depleted battery symbol () appears, replace all four batteries with new ones. Items stored in memory are retained even if the batteries are removed.
- Disposal of used batteries should be carried out in accordance with the national regulations for the disposal of batteries.

2.4 Connect the device to the Telehealth service receiver

As soon as you insert the batteries, the transfer symbol () and "P" symbol will blink on the display.



When the display shown above does not appear, see "Connecting failure." in section 6.2 first.

To retry connecting the Telehealth service receiver, remove batteries and insert them again. Then start with section 2.4 again.

Note:

If your Telehealth service receiver asks for PIN code, enter 6 digits of PIN code from the label on the bottom of the device to complete.

2.5 Confirm if the device is successfully connected.

When the unit is connected successfully to the Telehealth service receiver, the transfer symbol () and "OK" symbol will appear on the display.

Wait 10 seconds until the power is off.



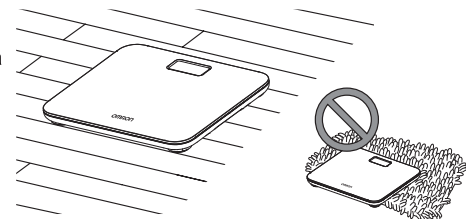
When "Err" appears, see "Connecting failure" in section 6.2 for more detail.

3. Take a Measurement

3.1 Place the unit on a hard and flat surface.

Note:

Do not place the unit on a cushioned surface such as a carpet or a mat.

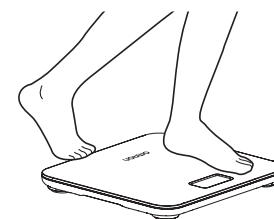


3.2 Step onto the unit when the power is off.

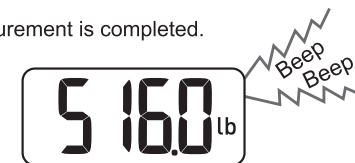
1. Step onto the unit.
When you step onto the unit, the power automatically turns on.

Notes:

- Remain still during the measurement.
- Try to measure your weight at the same time each day for consistency.



2. When the unit beeps twice, the measurement is completed.



4. Transfer the Data

As soon as the measurement is completed, the data will be transferred automatically as below.



Note:

When the SYNC symbol () is lit on the display, see "The data is not being transmitted." in section 6.2 for more detail.

Lit: 1 or more readings have been stored.

30 readings could be stored at most. If the memory is full, the unit will delete the oldest reading.

5. Delete all Readings and Settings

You can delete all readings and settings which have not been transferred after you confirmed this with your Telehealth service provider.

Contact your Telehealth service provider for detail steps.

When your Telehealth service provider mentions to press the reset button, use a small stick to press it.

Note:

Do not press the reset button without contacting your Telehealth service provider. This may influence your data management.

6. Error Messages and Troubleshooting

6.1 Error Messages

	Cause	Solution
	Connecting failure. The data is not being transmitted.	Refer "Connecting failure. The data is not being transmitted." in section 6.2.
	Batteries are low.	Recommend to replace the batteries with new ones ahead of time. Refer to Section 2.3.
	Batteries are depleted.	Replace the four batteries. Refer to Section 2.3.
Err1	Movement during measurement.	Do not move until measurement is completed.
Err2	Device error.	Contact your Telehealth service provider.
Err3	Your body weight is more than 250 kg (550 lb).	Weight range: 10-250 kg (22-550 lb).
Err4	Misalignment during auto-calibration.	Repeat the measurement.
Err	Connecting failure.	Refer to Section 6.2.

6.2 Troubleshooting

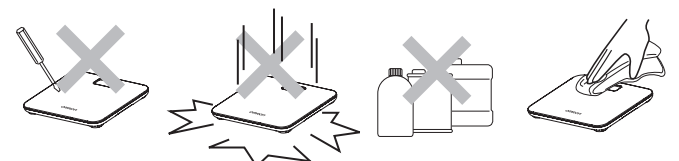
Problem	Cause	Correction
Even if you step onto the unit, nothing is displayed.	No batteries are inserted.	Insert the batteries.
	The batteries are inserted in the wrong direction.	Insert the batteries in the correct direction.
	The batteries are worn out.	Replace all four batteries with new ones.
Connecting failure. The data is not being transmitted.	The receiving device is too far away from the device.	After checking that there are no sources of interference nearby, move the receiving device to a distance within 5 m (16 ft.) of the scale. Then try to connect again*.
	The application on the receiver or destination device is not ready.	Check the application then try to connect again*. If the "Err" is on the screen after checking the application, contact your Telehealth service provider.

*To retry connecting the Telehealth service receiver, remove batteries and insert them again. Then start with section 2.4 again.

7. Maintenance

To protect the unit from damage, please observe the following:

- Use a soft dry cloth, or a soft cloth moistened with neutral soap to clean the unit.
- Store the unit and the components in a clean, safe location.
- Do not use any abrasive or volatile cleaners, gasoline, thinners or similar solvents to clean the device.
- Do not clean the unit and any components by immersing them in water.
- Changes or modification not approved by the manufacturer will void the user warranty. Do not disassemble or attempt to repair the unit or components.



8. Specifications

Product description	Digital Weight Scale
Model	HN-290T
Display	10 to 100 kg with an increment of 0.1 kg (22 to 220 lb with an increment of 0.2 lb) 100 to 250 kg with an increment of 0.2 kg (220 to 550 lb with an increment of 0.5 lb)
Weight Accuracy	10 kg to 40 kg: ± 0.4 kg (22 lb to 88 lb: ± 0.88 lb) 40 kg to 250 kg: ± 1% (88 lb to 550 lb: ± 1%)
IP Classification	IP21
Power Supply	4 "AA" alkaline batteries (LR6)
Battery Life	Approximately 1 year (when used once per day)
Operating Temperature/ Humidity	+10°C to +40°C (+50°F to +104°F), 15% to 90% RH
Storage Temperature/ Humidity/Air Pressure	-20°C to +60°C (-4°F to +140°F), 10% to 95% RH, 860 hPa to 1060 hPa
Weight	Approximately 3.5 kg (7.7 lb) including batteries
External Dimensions	Approximately 41 (H) × 415 (W) × 360 (D) mm 1 3/5" (H) × 16 1/3" (W) × 14 1/5" (D)
Contents	Digital Weight Scale, 4 "AA" alkaline batteries, instruction manual, and quick start guide
Applied Part	 = Type BF

Note: Subject to technical modification without prior notice.

This device fulfills the provisions of the EMC Directive 2004/108/EC.

9. FCC/IC Statement and Trademarks

FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

This device complies with Part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly approved by NeuroSky Inc. may void the FCC authorization to operate this equipment.

Radio frequency radiation exposure Information:

The radiated output power of the device is far below the FCC radio frequency exposure limits. Nevertheless, the device shall be used in such a manner that the potential for human contact during normal operation is minimized.

This Product operates in the unlicensed ISM band at 2.4GHz. In case this Product is used around the other wireless devices including microwave and wireless LAN, which operate same frequency band of this Product, there is a possibility that interference occurs between this Product and such other devices. If such interference occurs, please stop the operation of other devices or relocate this Product before using this Product or do not use this Product around the other wireless devices. The *Bluetooth*® Smart word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by OMRON HEALTHCARE Co., Ltd. is under license.



10. Limited Warranty

Your HN-290T Digital Weight Scale excluding batteries, is warranted to be free from defects in materials and workmanship appearing within 2 years from the date of purchase, when used in accordance with the instructions provided with the scale. The above warranty extends only to the original retail purchaser. We will, at our option, replace without charge any unit covered by the above warranty. Replacement is our only responsibility and your only remedy under the above warranty.

THE FOREGOING IS THE SOLE WARRANTY PROVIDED BY OMRON IN CONNECTION WITH THIS PRODUCT, AND OMRON HEREBY DISCLAIMS ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IMPLIED WARRANTIES AND OTHER TERMS THAT MAY BE IMPOSED BY LAW, IF ANY, ARE LIMITED IN DURATION TO THE PERIOD OF THE ABOVE EXPRESS WARRANTY.

OMRON SHALL NOT BE LIABLE FOR LOSS OF USE OR ANY OTHER SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT COSTS, EXPENSES OR DAMAGES.

This warranty provides you with specific legal rights, and you may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

11. Guidance and Manufacturer's Declaration

OMRON Digital Weight Scale

Information for accompanying documents in the scope of IEC60601-1-2:2007

Important information regarding Electro Magnetic Compatibility (EMC)

With the increased number of electronic devices such as PC's and mobile (cellular) telephones, medical devices in use may be susceptible to electromagnetic interference from other devices. Electromagnetic interference may result in incorrect operation of the medical device and create a potentially unsafe situation. Medical devices should also not interfere with other devices.

In order to regulate the requirements for EMC (Electro Magnetic Compatibility) with the aim to prevent unsafe product situations, the IEC60601-1-2 standard has been implemented. This standard defines the levels of immunity to electromagnetic interferences as well as maximum levels of electromagnetic emissions for medical devices.

Medical devices manufactured by OMRON Healthcare conform to this IEC60601-1-2:2007 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

- The use of accessories and cables other than those specified by OMRON, with the exception of cables sold by OMRON as replacement parts for internal components, may result in increased emission or decreased immunity of the device.
- The medical devices should not be used adjacent to or stacked with other equipment. In case adjacent or stacked use is necessary, the medical device should be observed to verify normal operation in the configuration in which it will be used.
- Refer to further guidance below regarding the EMC environment in which the device should be used.
- The MEDICAL ELECTRICAL EQUIPMENT Digital Weight Scale needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this documentations.
- The Essential Performance of the Digital Weight Scale is to measure weight.

The Digital Weight Scale may be interfered with by other equipment, even if that other equipment complies with CISPR EMISSION requirements.

(Table 1)

Guidance and manufacturer's declaration – electromagnetic emissions		
OMRON Digital Weight Scale is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON Digital Weight Scale should assure that it is used in such environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The OMRON Digital Weight Scale uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The OMRON Digital Weight Scale is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not Applicable.	
Voltage fluctuations/ flicker emissions IEC61000-3-3	Not Applicable.	

(Table 2)

Guidance and manufacturer's declaration – electromagnetic immunity			
OMRON Digital Weight Scale is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON Digital Weight Scale should assure that it is used in such environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floor should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not Applicable.	Not Applicable.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Not Applicable.	Not Applicable.
Voltage dips, short interruptions and voltage variations on power supply inputlines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0.5 cycle	Not Applicable.	Not Applicable.
	40 % U_T (60 % dip in U_T) for 5 cycles		
	70 % U_T (30 % dip in U_T) for 25 cycles		
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	<5 % U_T (>95 % dip in U_T) for 5 sec.		
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: U_T is the A.C. mains voltage prior to application of the test level.

(Table 4)

Guidance and manufacturer's declaration – electromagnetic immunity			
OMRON Digital Weight Scale is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON Digital Weight Scale should assure that it is used in such environment.			
Immunity test	IEC 60601 Test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 V rms 150 kHz to 80 MHz	Not Applicable.	Portable and mobile RF communications equipment should be used no closer to any part of the OMRON Digital Weight Scale including cables, than the recommended separation distance calculated from the equation appropriate to the frequency of the transmitter. Recommend separation distance Not Applicable.
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2.3 \sqrt{P}$ 800 MHz to 2.5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: 

Note1:At 80 MHz and 800 MHz, the higher frequency range applies.

Note2:These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the OMRON Digital Weight Scale is used exceeds the applicable RF compliance level above, the OMRON Digital Weight Scale should be observed to verify normal operation.

If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the OMRON Digital Weight Scale.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

(Table 6)

Recommended separation distance between portable and mobile RF communications equipment and the OMRON Digital Weight Scale			
OMRON Digital Weight Scale is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of this OMRON Digital Weight Scale can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the OMRON Digital Weight Scale as recommended below, according to the maximum output power of the communications equipment.			
Output Power of Transmitter in Watt	Separation distance according to frequency of transmitter in meter		
	150 kHz to 80 MHz Not Applicable.	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2.5GHz $d = 2.3 \sqrt{P}$
0.01	Not Applicable.	0.12	0.23
0.1	Not Applicable.	0.38	0.73
1	Not Applicable.	1.2	2.3
10	Not Applicable.	3.8	7.3
100	Not Applicable.	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. Note: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. Note: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.			

Contact your **Telehealth service provider** if you have any questions.

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