Automatic Pill Dispenser

User Manual

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1. Index

2. Introduction

Use this document to learn about how to install, configure, and use your automatic pill dispenser.

Throughout the document, different symbols will be used to denote the following information:

- ⚠ This symbol denotes a **WARNING.** Indicates the possibility of physical injury and tells you how to avoid the problem.

- ⚠ This symbol denotes a **CAUTION** . Indicates potential hardware damage or data loss.

- ℹ This symbol denotes a **NOTE** . Indicates useful information that will help you make better use of your device.

3. Safety information

⚠ PLEASE READ – IMPORTANT SAFETY INFORMATION ⚠

- ⚠ If the power cable is found to be damaged, avoid connecting it to the dispenser and replace it.

- ⚠ Make sure that when you connect the device to the electrical outlet, the power switch is in its off position.

- ⚠ Do not open the cover while the device is in operation.

4. Precautions

- ⚠ Keep the device at a temperature between 0 °C and 40 °C.

- ⚠ Avoid moving the device while it is dispensing.

- ⚠ Avoid getting the device wet.

- ⚠ Avoid mixing different medications in the same container.

- ⚠ Avoid mixing medications with different expiration dates in the same container.

- ⚠ Avoid forcing the containers when inserting them into the tray.

- ⚠ Avoid hitting the product.

- ⚠ Avoid leaving the product within the reach of minors.

- ⚠ Avoid turning off the device while pills are being dispensed.

- ⚠ Avoid using gel pills.

5. Description

The automatic pill dispenser has a built-in display and keyboard for configuration, or if desired, it can be configured in the same way via the smartphone app using Bluetooth.

To insert the pills that will be dispensed, there is a top cover that can be opened. Inside there are four containers where you can insert the pills according to size and shape.

Once set up, the dispenser will dispense pills at specified intervals, where they will drop into a small container where they can be collected by the user through a small opening.

5.1. Dimensions

The automatic pill dispenser has the following physical characteristics:

Description	Worth
Dimensions (W x H x D)	180 x 180 x 310mm
Weight	2.4kg

Table 1- Physical characteristics of the dispenser

Below is a view of the different faces of the product (Figure 1):
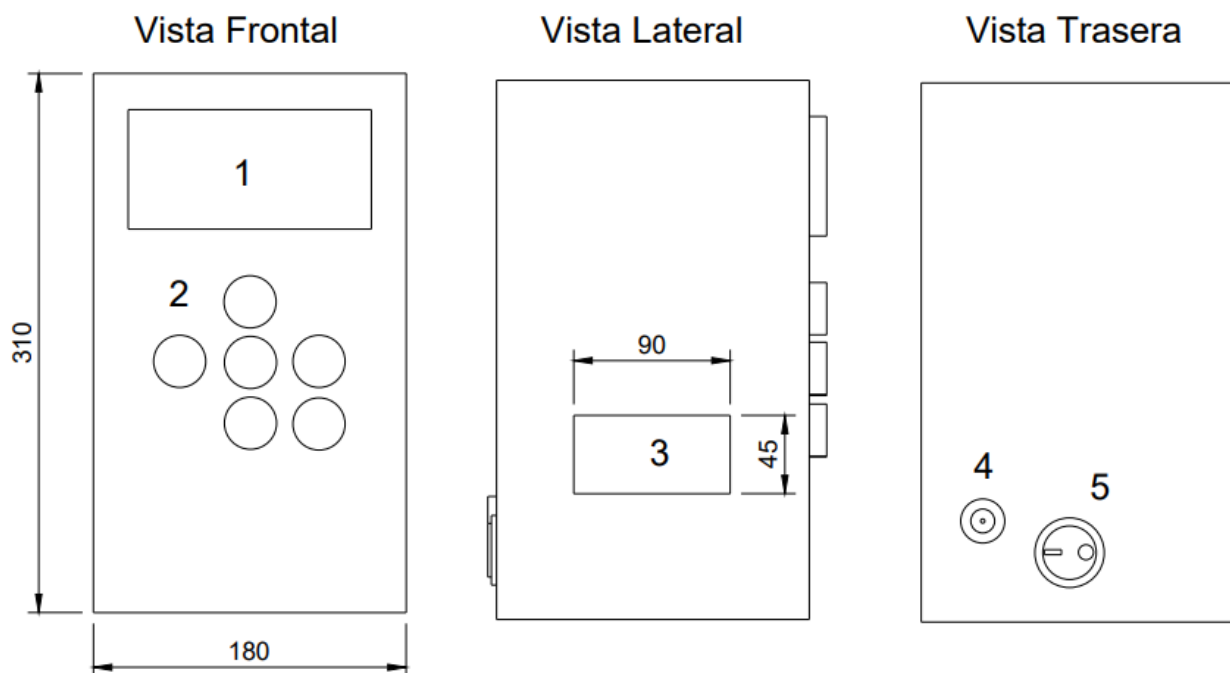
Figure 1- Front, side, and rear view of the product (measurements in mm).

5.2. System parts
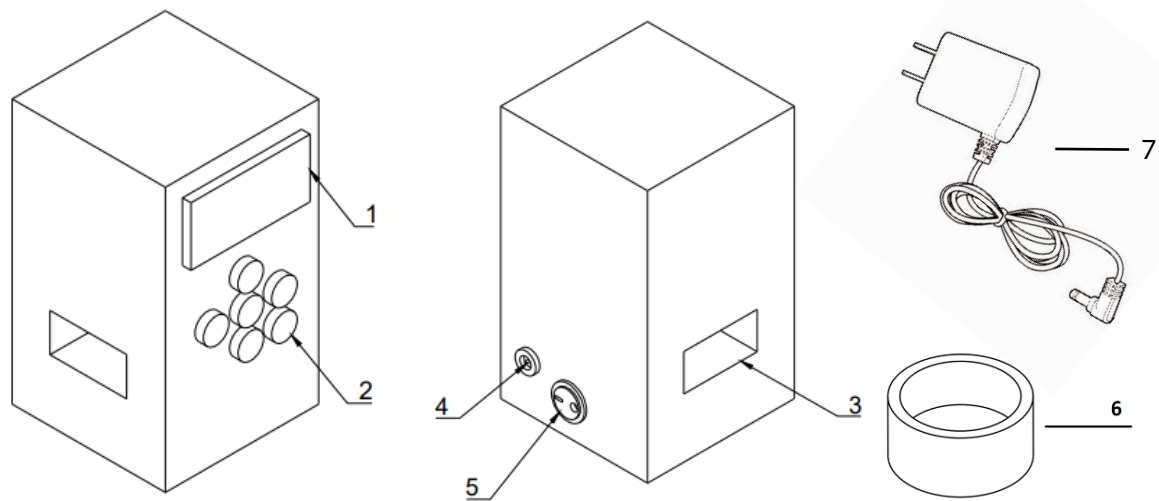
Figure 2- Isometric view of the dispenser.

The dispenser components are shown in Figure 2. These are:

1. Screen
2. Keyboard
3. pill output
4. Power supply connector (12V at 2A)
5. Power button
6. Pill receiving cup
7. AC adapter

The navigation buttons of the dispenser are the following shown in Figure 3:

1. Up/ ↑
2. Okay
3. Right/ →
4. Back
5. Down/ ↓
6. Left/ ←
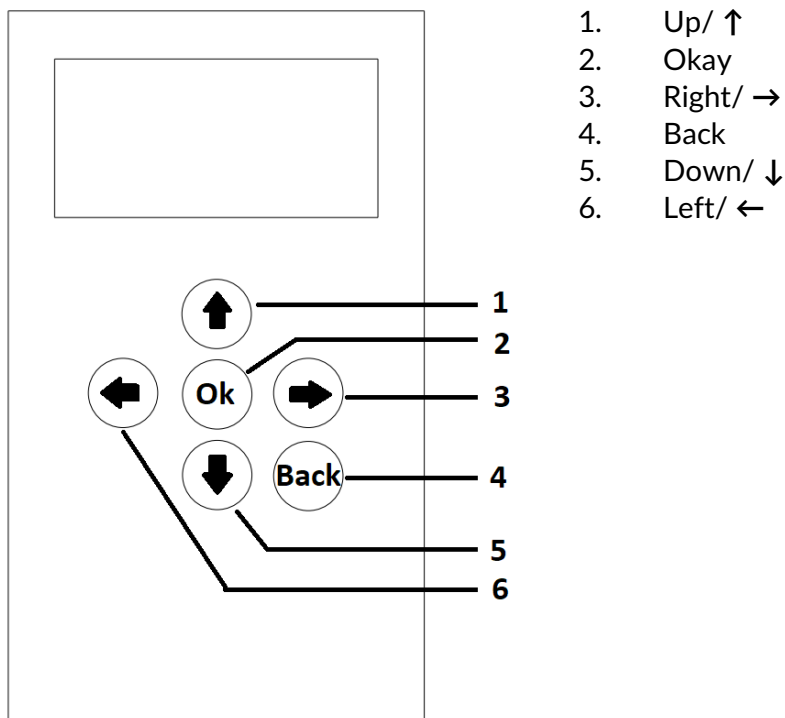
Figure 3 - Botones del dispensador (Vista frontal)

The dispenser has four cups to accommodate different sizes of pills shown in Figure 4

- Large circular pill holder x1
- Small circular pill container x1
- Container for pills capsules x2
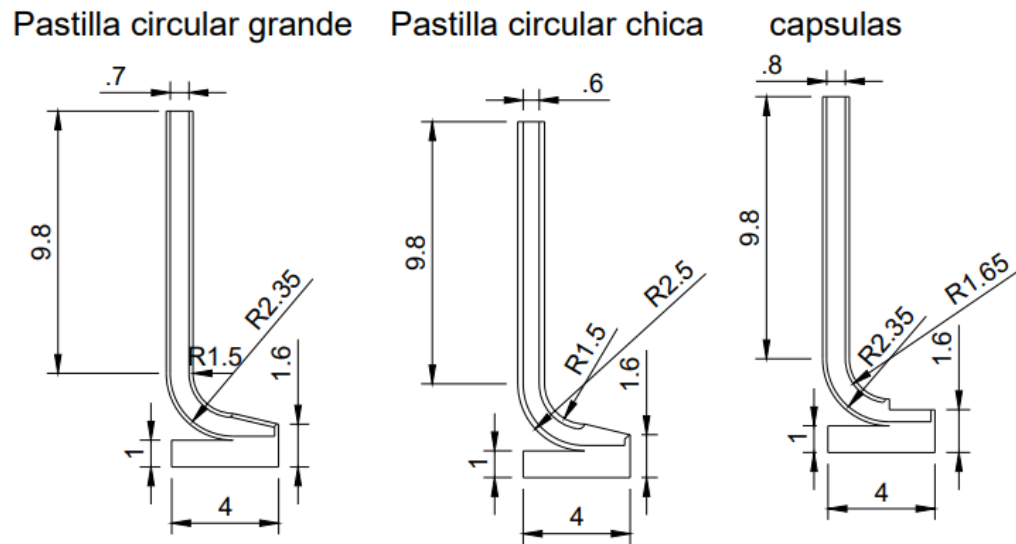
Figure 4- Containers for pills (measurements in cm).

6. Installation/Configuration

To install the dispenser, you will need a 120 VAC rms 60 Hz power outlet to connect to the supplied power adapter.

⚠ Do not connect the adapter to a socket greater than 220 VAC rms to avoid damage.

⚠ It is suggested to place the device on a flat and stable surface within easy reach distance.

6.1. Initial setup

The initial configuration is simple, this can be through the screen and keyboard integrated into the dispenser or through a smartphone application when connected to the dispenser using Bluetooth.

To navigate between the different dispenser menus, a small arrow is displayed to the left of the option that corresponds to the keyboard button to press. Similarly, "Ok" or "Back" is displayed in the upper right corner, corresponding to the buttons on the keyboard.

For this it is necessary to complete the following prerequisites:

1. Have the desired medication ready to enter the dispenser.
2. Select one of the four containers which best suits the shape of the tablet.
3. Add the pills one by one until the container is full and write down the number of pills.

The next steps vary depending on whether it will be configured directly from the dispenser (section 6.2. Option A) or via the smartphone app (section 6.3. Option B).

6.2. Option A – Configuration from the dispenser

ℹ If at any time you want to return to the previous screen, you must press the **Back button.**

1. On the home screen (Figure 5), select "Configure" with the ← **button** to access the configuration screen.

Figure 5- Initial menu screen
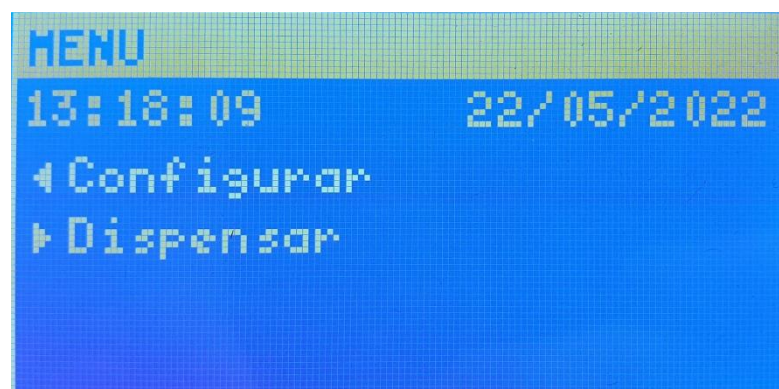
2. Select the container where the pills were placed using the corresponding key ↑, ↓, →, ← (Figure 6).
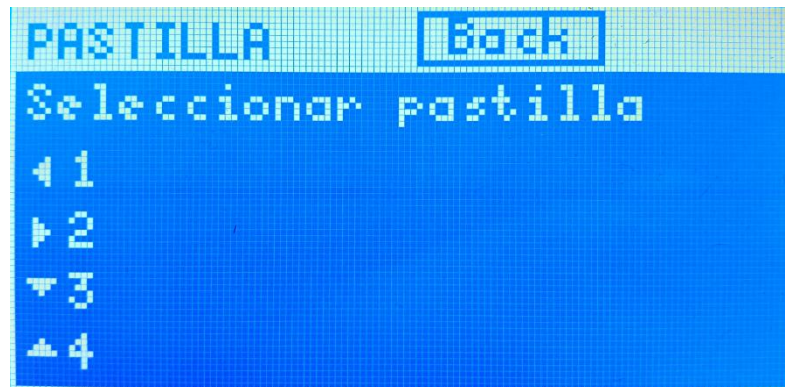
Figure 6- Pickup Selection Screen

3. Select the "Configure" option with the ← **button** (Figure 7)
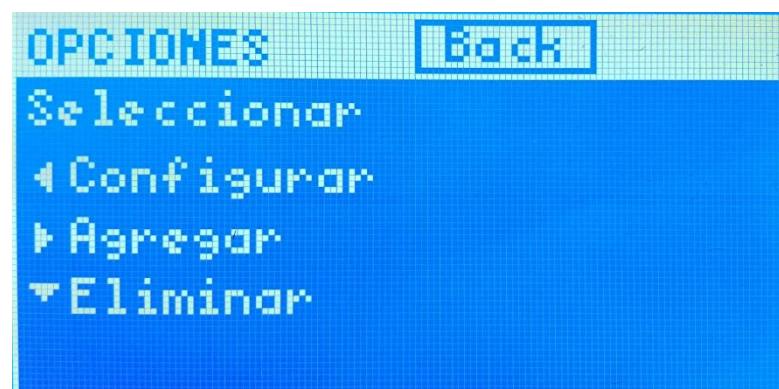
Figure 7- Options to apply inside the tablet

4. Select the frequency to dispense the pills with the ← or → **buttons** (Figure 8).
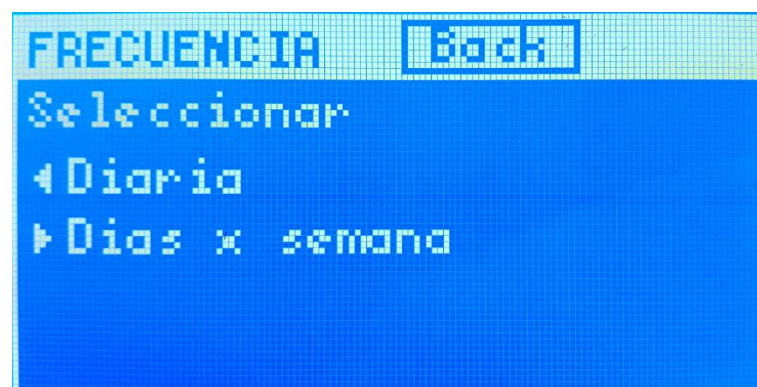
Figure 8- Frequency Screen

a.   If "Days x week" was selected, choose the desired days with the ↑, ↓, →, ← buttons (Figure 9) and press the **Ok button** to advance to the next screen.
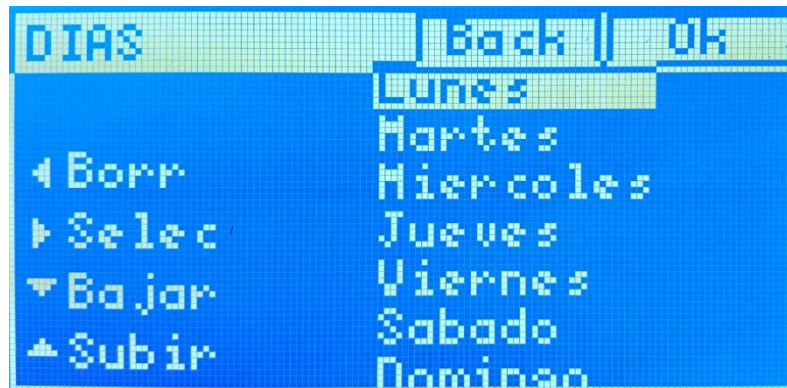
Figure 9- Days per week screen

5.   Select the number of days with the → and ← **buttons** (in case you have chosen the "Daily" option in step 7) or the number of weeks (in case you have chosen the "Days x week" option in step 7) like this as the frequency in hours with the ↑ and ↓ **buttons** to dispense the pill (Figure 10) and press the **Ok button** to advance to the next screen.
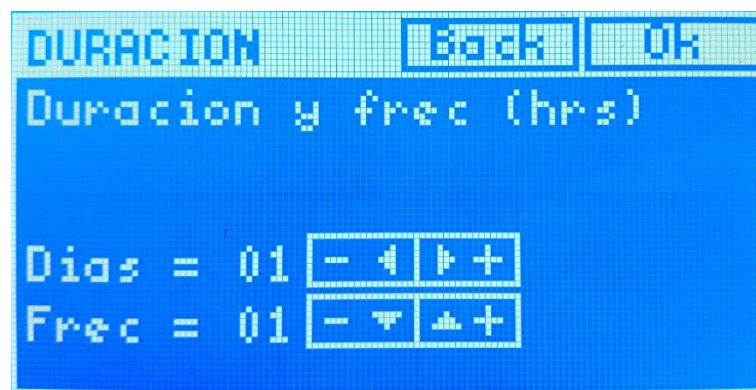
Figure 10- Duration Screen

6.   Enter the time of the first shot with the ↑, ↓, →, ← **buttons** (Figure 11) and press the **Ok button** to advance to the next screen.

Figure 11- First shot screen

7. Enter the number of pills to be dispensed using the →, ← buttons (Figure 12) and press the **Ok button** to advance to the next screen.
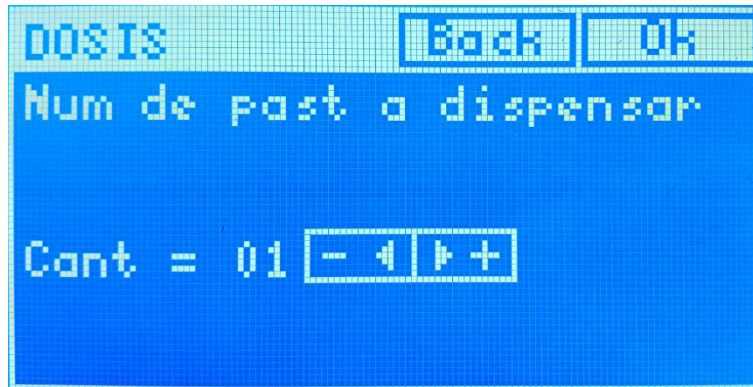
Figure 12- Screen of the number of pills to be dispensed

8. Enter the expiration date of the pills with the ↑, ↓, →, ← **buttons** (Figure 13) and press the **Ok button** to advance to the next screen.
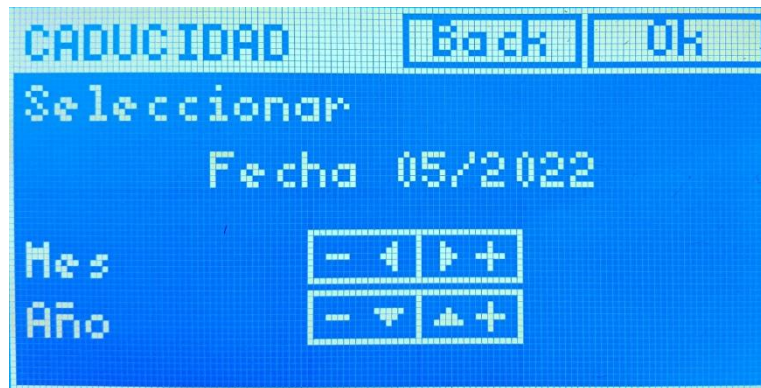
Figure 13- Expiration Screen

9. Verify that the information entered has been correct on the "Summary" screen (Figure 14) and press the **Ok button** to advance to the next screen.
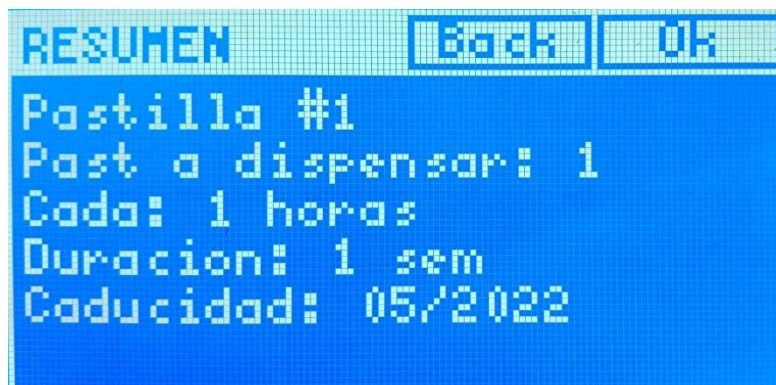
Figure 14- Summary Screen

10. Enter the number of pills that were added to the container with the →, ← buttons (Figure 15) and press the **Ok button** to finish the initial configuration
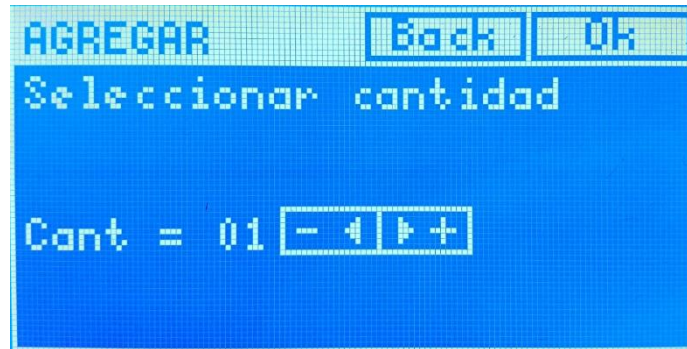
Figure 15- Screen to add pills

11. You have successfully configured your first pickup. To program the other pickups, complete prerequisites 1-3 and follow steps 1-10.

6.3. Option B – Configuration from the smartphone application

ⓘ Before using the smartphone app, make sure Bluetooth is turned on.

To set up the dispenser with the app, the following prerequisites must be met.

1. Download the application by entering the URL " www.laresistencia.com " from your cell phone
2. Install the app and open it
3. Touch the "Options" button on the initial screen (Figure 16)

Figure 16– Initial screen of the application

4. On the options screen, touch the "BT Devices" button
5. Select from the list of devices the option that says "GioHC05"
6. Upon successful connection, the text "Connected!" will appear. in green color (Figure 17).

Figure 17– Bluetooth Pairing with Dispenser

Once the prerequisites have been completed, return to the initial screen (Figure 16) and complete the following steps.

1. Touch the "Configure" button
2. Depending on the container in which you want to configure the pills, select the "Configure" button again (Figure 18).

Figure 18 - Menu of available pills to configure.

3. Complete the information by entering the necessary data (Figure 19) and touching the "Save" button.

Figure 19- Configuration Screen

4. You have successfully configured your first pickup. To program the other pickups, follow steps 1-3.

7. How to use

7.1. Automatic dispensing

Once the pills are set to the time you want them to be dispensed (Section 6.1 Initial setup), the dispenser will automatically dispense the pills.

When the pills are finished being dispensed, the dispenser will notify the user as follows:

- A notice will be displayed on the screen (Figure 20) with the time the pills were dispensed
- A green LED will light up below the pickup output (Figure 21).
- A tone will play to alert the user that a dose is ready every 3 minutes
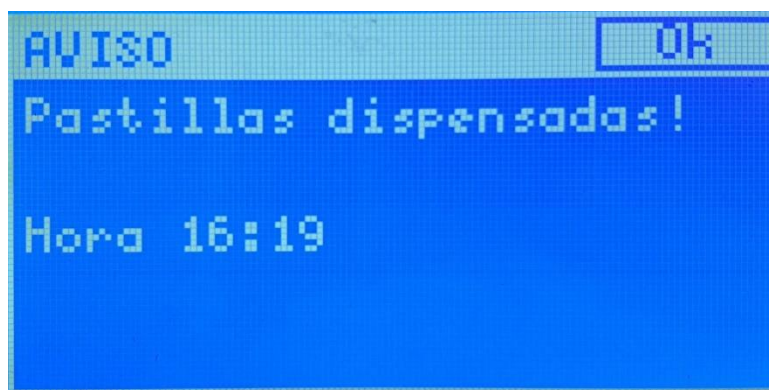
Figure 20- Notice on screen

Figure 21- Green LED Indicator

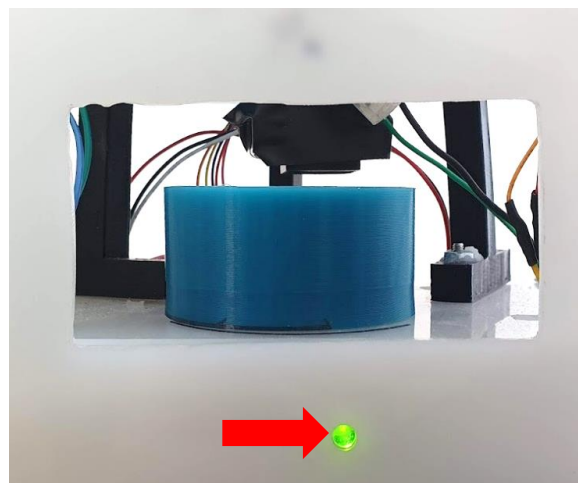Subsequently, the glass of the dispenser must be removed, and the pills taken. Once the glass is removed, the screen will return to the initial menu and the alarm will stop sounding.

The glass must be placed back in the opening so that for the next pill it can fall correctly.

⚠ It is important to return the glass to its place inside the opening since the dispenser needs it for proper operation.

7.2. Adding pills

If you want to refill a container with more pills, follow these prerequisites:

1. turn off the device
2. Open the top cover of the dispenser
3. Remove the container from the tray where you want to insert the new tablets
4. Insert the pills one by one and write down the amount
5. Return the container to the tray and make sure it is secure
6. Close the lid of the device
7. Turn on the device

Configuration directly from the dispenser

a. Select "Configure" → Select the pickup → "Add" → Enter the number of pills that were added

Configuration from the application

b. Select "Configure" → "Add" → Enter the number of pills that were added → "OK"

⚠️ Avoid mixing pills of different types in the same container

7.3. Manual dispensing

To manually dispense a pill, follow these steps:

Configuration directly from the dispenser

a. In the main menu, choose the "Dispense" option → S elect the desired pill

Configuration from the application

b. Select "Configure" → "Dispense"

ℹ️ Make sure pills are available to be dispensed

7.4. Removing a pill

To remove a pill from the dispenser, follow these steps:

Configuration directly from the dispenser

a. Select "Setup" → Select the pickup → "Delete" → "Yes"

Configuration from the application

b. Select "Setup" → "Setup" → "Remove"

ℹ️ Make sure that there are physically no pills left in the container that was disposed of. If this is the case, they must be removed.

7.5. Device cleaning

⚠ Turn off dispenser before cleaning

To clean the pill dispenser

- Use a damp cloth to clean stains and remove dust.

To clean the containers

- Open the top cover of the dispenser
- Remove container from tray
- Remove pills if present
- Clean the container with a damp cloth
- wait for it to dry
- If you have removed the pills, put them back in the container
- Place the container back on the tray
- Close the top lid of the dispenser

⚠ Avoid the use of chemicals that can affect medications

8. Problem solving

If the pill dispenser fails, recommendations and possible solutions to the most common problems are presented below.

The dispenser does not turn on

- Check that the voltage adapter included with the product is connected to the electrical outlet
- Check that the adapter is properly connected to the dispenser
- Check that the switch is in the on position, verifying that it lights up red

The dispenser does not show anything on the screen

- Open the dispenser with the top access cover
- Check that there are no obstructions so that the tray rotates
- Check that the arm can be lowered without much effort
- Reboot the device by turning the power switch off and back on

The container does not fit in the tray

- Verify that it is trying to place in the correct slot

⚠️ Do not force the container into the tray slot to avoid product damage

The pills do not fit in the container

- Try inserting them into another container

The dispenser does not dispense pills

- Open the dispenser with the top access cover
- Check that there are enough pills in the containers
- Check that there are no obstructions in the suction cup
- Check that there are no obstructions in the chute where the pills fall
- Check that the tray can rotate
- Check that the arm can move vertically

The dispenser does not display the correct time and/or date

- Open the dispenser with the top access cover
- Replace the coin cell battery with a CR2032 type
- Set the time using the Android app
    1. Touch the "Options" button
    2. Connect to the dispenser
    3. Touch the "Set dispenser time" button

Smartphone app will not connect to dispenser

- Reset the dispenser
- Close and reopen the app

If the problem persists, please contact support@laresistencia.com by sending an email detailing the problem or by calling (+52) 449 123 4567.

ℹ️ Business hours: Monday to Friday from 9:00 a.m. to 6:00 p.m.

9. Specs

Description	MIN	NOM	MAX	UNITS
current consumption		23	65	mA
Adapter supply voltage	100	127	240	VAC rms
Dispenser supply voltage		12		VDC
Input current		two		A
operating temperature	0		40	°C
Humidity (non-condensing)	0		80	%

Table 2- Dispenser Specifications

⚠ Using the device outside of the ranges stated in this table could damage the device or cause injury.

10.   Norms and Standards

The pill dispenser complies with the following norms and standards:

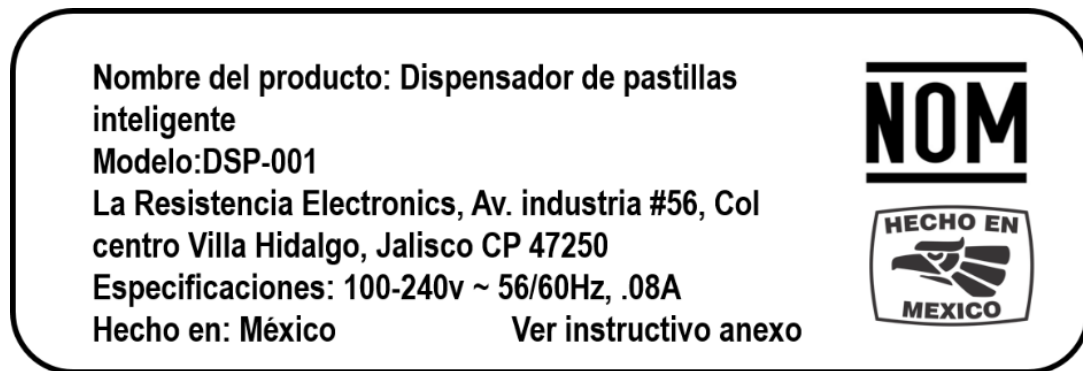- IEEE 802.15 standard
- NOM-003-SCFI-2000
- NOM-001-SCFI-1993
- NOM-024-SCFI-2013 (Figure 22)

Figure 22- Product labeling