

# NEO-E™ Launch Monitor User Manual

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# 1 Instruction

Document Guide  
Terminology  
Precautions  
Revision History

This section provides basic information on the product and precautions

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## 1.1 Document Guide

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### 1.1.1 Target Audience

This manual is intended for NEO-E users.

### 1.1.2 Symbols

This product should be operated under the safety instructions with the warning or caution symbol in this manual. It is important for you to read and understand the contents to operate the products safely.

#### Warning



- This symbol provides information that the user must follow to ensure personal safety or prevent product damage.

#### Caution



- This symbol provides information that the user must follow to prevent data loss or damage.

#### Information



- This symbol provides additional information.

## 1.2 Terminology

The terminologies defined in the manual are as follows:

Terminology	Definition
<b>Product</b>	The term "product" refers to NEO-E.
<b>Practice Mode</b>	It indicates the state before the ball is recognized.
<b>Club Sticker</b>	A sticker that attaches to a golf club to collect various shot data. It is included with the product.
<b>Alignment Tool</b>	A tool provided with the product to compensate for angle differences.
<b>Outdoor Stand</b>	A stand that attaches to the bottom of the product. It prevents contamination in outdoor grass environments and enhances ball recognition. Indoors, it helps stabilize the product's position.
<b>Ready Zone</b>	It represents the area where the ball will be recognized.

## 1.3 Precautions

### General Precautions



- This product uses a camera that is installed with precision. Do not drop, disassemble, or modify the product. There is a risk of damage to the device or electric shock.
- For safety, do not store the product in places where children or pets can access it.
- If liquid or foreign objects accidentally enter the device, do not use the product. Immediately turn off the power and contact the seller for assistance.
- Do not operate the product with wet hands, as there is a risk of electric shock.

### Installation Precautions



- Do not place the product in dusty, sandy, or dirty locations, or near air conditioners or heaters, as the product may be damaged.
- Do not install or operate the product in extreme environments where vibration, heat, humidity, dust, fumes, or gases that may cause explosions or corrosion are present.
- Do not apply vibration or shock to the product, as it may be damaged.
- Avoid direct exposure of the product to strong lighting, as it may damage the sensor.
- Do not install the product in areas with unstable lighting, as it may affect the video quality generated by the product.
- Do not look directly at the camera with your eyes when the device is powered on.
- Do not use the product on long grass, as it may obstruct the product's view and make it difficult to provide accurate measurements.
- When cleaning the product's surface, do not use solutions or diluents, as they may damage the product.
- Keep the product dry and always turn off the power when storing it.
- Do not store the product in extremely hot or cold locations. (Recommended temperature range: 14°F to 113°F)

### Power Supply Precautions



- Using an incorrect power supply may damage the product. Always use the provided power adapter for charging. Using a different power adapter or charger may damage the device or cause fire or injury.
- Before connecting the power wiring of the product, make sure the product's input power is turned OFF. Failure to do so may cause damage to the product.

## 1.4 Revision History

Version	Date	Description
1.0	2025-04-17	Initial release

## 2 Product

Product Components  
Product Specification  
Installation

This section provides information on the components and specifications.

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2.1 Product Components

This product is a portable launch monitor developed by NVISAGE Co., Ltd. It allows for precise and multi-angle analysis of all aspects related to a shot. Additionally, its lightweight and highly portable design makes it convenient to carry.

Item	Image
NEO-E Launch Monitor	
Club Sticker	
Adaptor	
Alignment Tool	
Outdoor Standard	

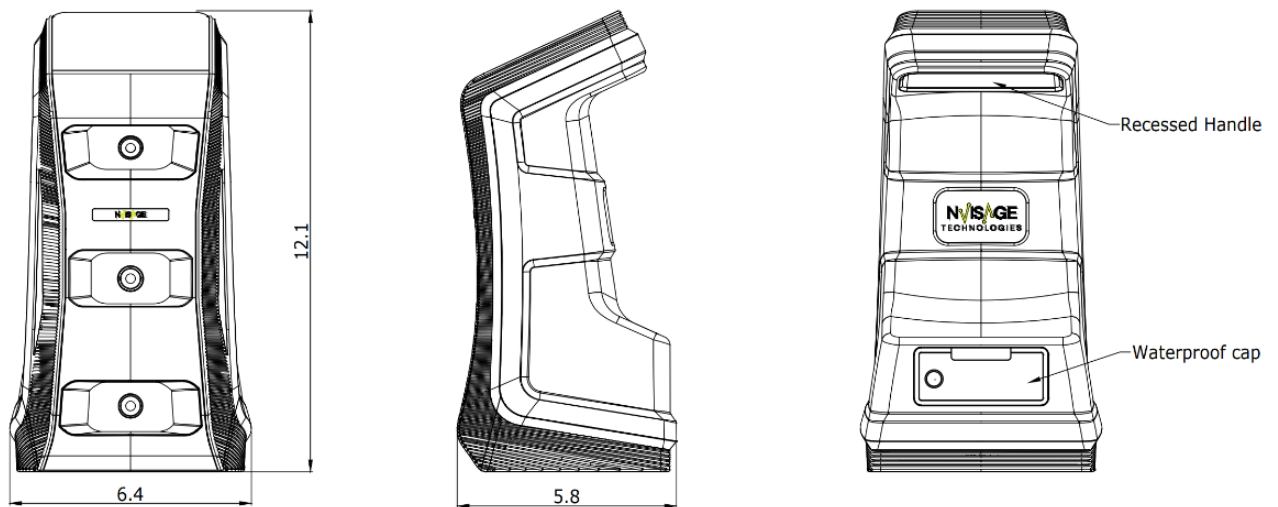
<Table 2-1 Product Components>

## 2.2 Product Specification

Item	Description
<b>Product Name</b>	Specific low-power wireless device (Wireless device for wireless data communication systems)
<b>Model Name</b>	NEO-E
<b>Main Features</b>	Alignment, Wi-Fi or Bluetooth, Shot&Putt tracking, customizable UI, ball(spin), and data for ball(spin), club and ball flight.
<b>Size/Weight</b>	6.3" × 12.1" × 5.8" / 5.95 lb
<b>Language</b>	English
<b>Operating Temperature</b>	14°F to 113°F
<b>Wireless Connection</b>	Bluetooth and Wi-Fi
<b>Components</b>	Main Body, alignment tool, user manual, club sticker, and outdoor stand
<b>Manufacturer</b>	NVISAGE

<Table 2-2 Product Specification>

### 2.2.1 Drawing





<Figure 2-1 Drawing>

Item	Description
<b>Size (W x D x H)</b>	6.3" × 12.1" × 5.8"

2.2.2 Main Buttons



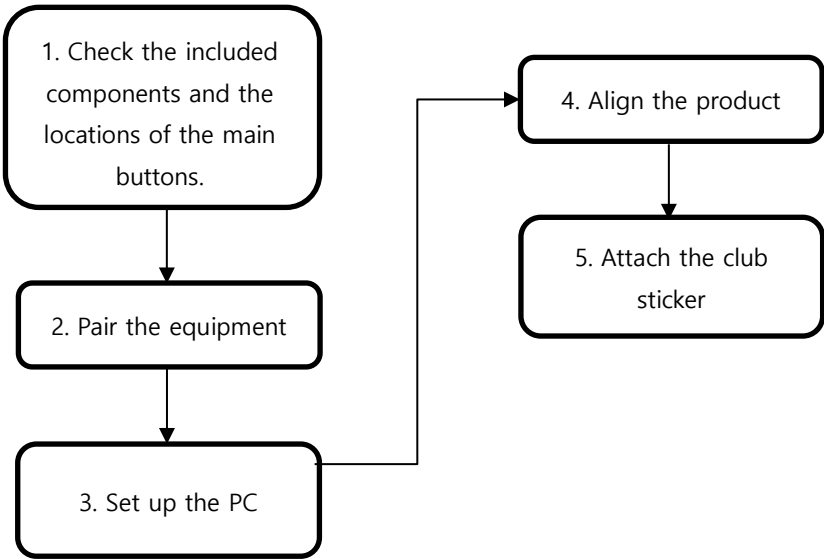
<Figure 2-2 Exterior>

No.	Name	Description
①	Handle	Carrying handle for product transportation
②	Camera	Camera lenses (total of 3)
③	Front LED	Product operation status indicator
④	Power Button	Power On/Off
⑤	Rear LED	Product operation status indicator
⑥	USB-C Port	USB-C type cable connector
⑦	Power Port	Power cable connector With waterproof cap (  ), Without waterproof cap (  )
⑧	Ethernet Port	Ethernet cable connector

<Table 2-3 Main button>

## 2.3 Installation

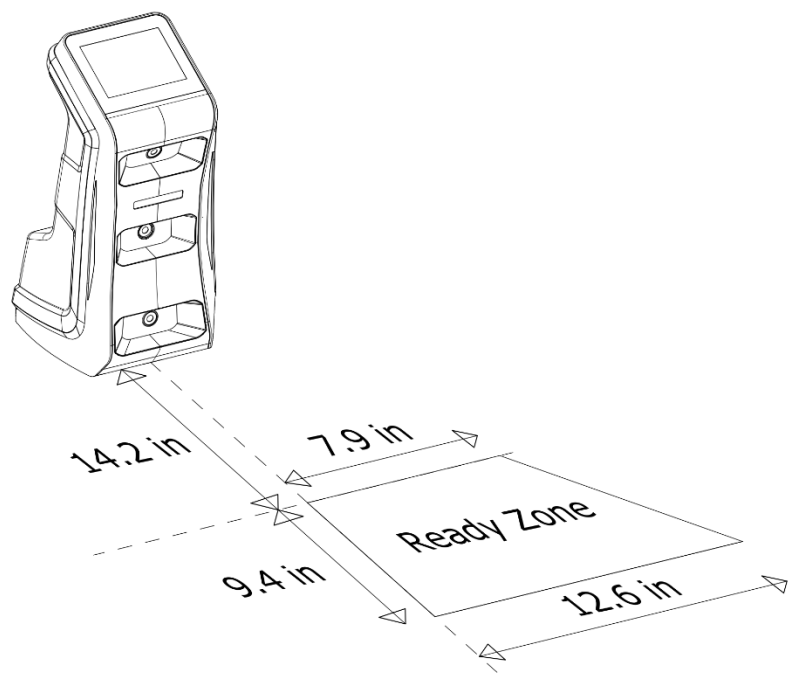
This section explains how the user can install the product.  
Follow the initial installation steps in the order provided:



- Refer to <2.1 Product Components >for more information on the components.
- For the location of the main buttons, refer to <2.2.2 Main Buttons>.

2.3.2 Installation Condition

Install the launch monitor by meeting the following conditions:



<Figure 2-3 Installation Environment Conditions >

Item	Description
Space Required for Installation (W×D×H)	15.8" × 29.4" × 12.1"
Data Collection Points	14.2"
Strike Zone Dimensions (W×D)	12.6" × 9.4"
Battery Life (Wireless)	Minimum 5 hours
Marking Ball	Unnecessary
Compatible Accessories	Club sticker and alignment tool
Placement	Portable

<Table 2-4 Installation Condition>



- Ensure that reflective surfaces such as mirrors or glass are not within the product's camera view, as this may lead to inaccurate measurements.
- The product may malfunction if it faces the sun during sunrise or sunset when the sun is near the horizon.
- Do not install or use the product in environments or locations like the following, as it may affect the accuracy of the measurements.
  - Long grass or divots (damaged turf)
  - Smooth or highly reflective surfaces
  - Around fixed objects that may obstruct the camera's view
- This product uses an infrared sensor. Using lighting that interferes with infrared signals indoors may cause the product to malfunction.

### 2.3.3 PC Compatibility Information

This product does not support Mac or Linux environments. Please refer to the recommended specifications below.

PC Environments	Required Specification	Minimum Specification
<b>CPU</b>	Intel i7 or higher and 10 <sup>th</sup> generation or higher	Intel i5 8400
<b>RAM</b>	16 GB or greater	8 GB (16 GB for Swing Optix)
<b>GPU</b>	NVIDIA RTX 30 series or higher	GeForce GTX 1060
<b>GPU Memory</b>	16 GB or greater	-
<b>Hard Disk</b>	At least 50 GB	-
<b>OS</b>	Windows 11 (64-bit only)	Windows 10 (64 bit) Version 1803 or higher

### 2.3.4 Golf Club Sticker Attachment

The analysis feature provided by NEO-E is available only when a sticker to the club is attached. Attaching 6 stickers allows NEO-E to collect and analyze club data information.

The types of clubs are as follows:

- Driver
- Woods
- Utilities
- Irons
- Wedges
- Putter



- Attaching the **club sticker** is required to collect data that will help improve your golf practice. However, the product can still be used without the sticker if the customer prefers not to attach it.
- The photos provided in this section are intended to explain how to attach the club sticker and are not meant to promote specific brands of golf clubs. The trademark and intellectual property rights of the club products belong to the respective manufacturers. For golf club-related inquiries, please contact the manufacturer.



- Do not attach the club sticker on or near the white decoration on the club face.
- If the club sticker becomes dirty or worn off, replace it to ensure accurate data measurement.

#### Driver (W1)

The method for attaching the club sticker to the driver is as follows:

- 1 Position the sticker so that the centerline of the sticker aligns with the third line of the face groove centerline.
- 2 Attach the sticker so that the line connecting the two points at the top of the Y shape is perpendicular to the groove line.
- 3 Once steps 1 and 2 are both satisfied, attach the sticker to the toe end of the clubhead.

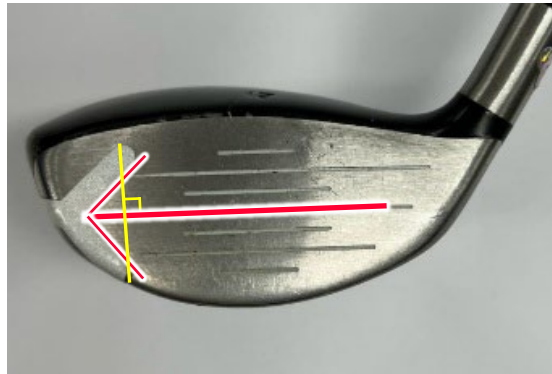


<Figure 2-4 Attaching a club sticker to a driver>

### Woods and Utilities (Hybrid)

The attachment method for woods and utilities is the same as for the driver:

- 1 Position the sticker so that the centerline of the sticker aligns with the face groove centerline.
- 2 Attach the sticker so that the line connecting the two points at the top of the Y shape is perpendicular to the groove line.
- 3 Once steps 1 and 2 are both satisfied, attach the sticker to the toe end of the clubhead.



<Figure 2-5 Attaching a club sticker to woods or utilities (hybrid)>

## Irons or Wedges

The sticker attachment method for irons and wedges is the same as for the driver:

- 1 Position the sticker so that the centerline of the sticker aligns with the face groove centerline.
- 2 Attach the sticker so that the line connecting the two points at the top of the Y shape is perpendicular to the groove line.
- 3 Once steps 1 and 2 are both satisfied, attach the sticker to the toe end of the clubhead.



<Figure 2-6 Attaching a club sticker to irons or wedges>

## Putter

For putters, data can be provided even without attaching the club sticker.



## 2.4 Operating Method

### 2.4.1 Power

Press and hold the power button on the back of the product for more than 0.5 seconds. When the product is on, pressing the button will turn it off, and vice versa..



<Figure 2-7 Power On/Off>

## 2.4.2 LED Status

NEO-E is equipped with LEDs on both the front and rear. This section explains the operation of each LED.

### Front

Status	Color	Operation	Description
Power on	Red	Increasing brightness	The brightness gradually increases until the product shuts down.
Power off	Red	Increasing brightness	The brightness gradually increases until the product shuts down.
Searching the ball	Red	Blinking	-
Checking ball placement	Green	Stable	-
Checking shot recognition	Blue	Blinking	-
Low battery	Orange	Blinking	<ul style="list-style-type: none"> <li>When the battery reaches 10%: The LED blinks for 10 seconds and then returns to the current operation status.</li> <li>When the battery reaches 5%: The LED blinks for 5 seconds and then returns to the current operation status.</li> </ul>
Updating firmware	White	Blinking	-
Setting menu in operation.	White	Stable	-

<Table 2-5 Front LED Status>

### Rear

When the power is connected, the orange LED briefly lights up to indicate the product's status.

Status	Color	Operation	Description
Charging	Red	Stable	The LED operates even when the power is off.
Fully charged	Green	Stable	
Error	Orange	Stable	

<Table 2-6 Rear LED Status >

2.4.3 Product Charging / Battery Operating Time

The product operates wirelessly for user convenience. When the battery is drained, connect the provided adapter to the power port on the back of the product to supply power.



<Figure 2-8 Product Charging>

The power supply specifications are as follows:

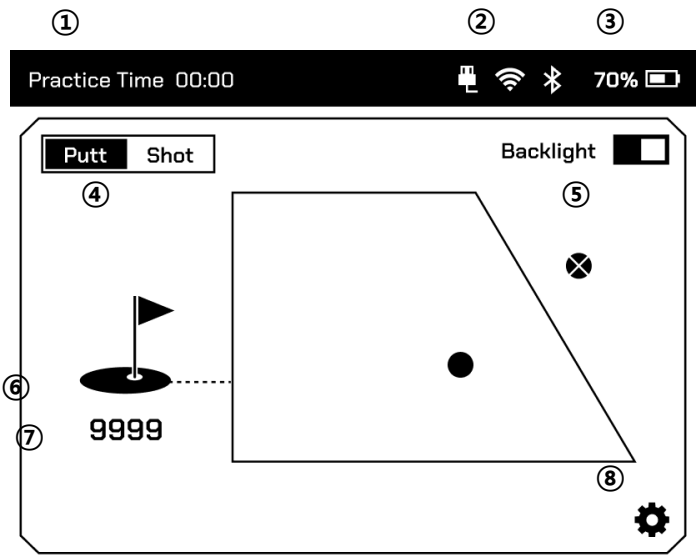
Item	Specification
Rating (Adaptor)	24V DC / 3.75A
Rating (Device)	24V DC / 3A
Battery operating time	5 hours or longer
Battery capacity	64W
Battery consumption rate	10W on average

<Table 2-7 Power and battery specifications>

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3.1 Practice Mode

When the product is powered on, the first screen displayed is the **Practice Mode**. In this mode, the device indicates the state before recognizing the ball. Once the ball is recognized, the screen automatically switches to display **Shot Information**. Users can conveniently access various functions by touching the key icons or other settings menus displayed on the screen.



<Figure 3-9 Practice Mode>

Practice Mode

No.	Description
<b>Practice Time</b>	
①	It is displayed in the format hh:mm (hour: minute), with the default state set to 00:00.
②	Connection status: Wi-Fi  , Ethernet  , Bluetooth 
③	Battery Status
④	PUTT/ SHOT menus (Default: SHOT)
⑤	backlight On/Off button
⑥	Target Alignment settings
<b>Number of Shot Recognitions (Default: 0 / Maximum: 9999)</b>	
⑦	The number of recognized shots since the power was turned on. It resets to zero when the power is turned off.
⑧	Moves to the Setting screen.

<Table 3-8 Practice Mode>



- Bluetooth will be available in the future.

3.1.1 Ball Recognition

If one ball is detected, it is displayed as ● ; if 2 balls are detected, it is displayed as ⊗ .

Screen image (for right-handed golfer)	Description
	<p>When the ball is placed, a ball icon will appear at the location.</p> <ul style="list-style-type: none"><li>• When the ball is in the Ready Zone, the flag will be displayed in black.</li><li>• If the ball position changes, the icon will move to the new location.</li></ul>
	<p>If more than one ball is recognized, an X will be displayed on the balls (up to 8 balls can be recognized).</p>
	<p>If the ball remains in the "Ready" state without any activity for more than 10 minutes, it will switch to Sleep Mode. Touching the screen will resume operation.</p>

<Table 3-9 Ball recognition screen in Practice Mode>



- Accurate data can be acquired when the ball is placed in the center of the Ready Zone.

3.1.2 Shot Data

After placing the ball within the recognition range (Ready Zone) and completing the shot, the data will be displayed as shown below. To customize the displayed data, refer to <3.2.2 Screen Settings> for instructions on setting up the shot display.

Category	Terminology	Description	Unit	Note
Launch	Carry Distance	The distance between the ball's starting point and the first point where the ball lands on the ground.	m, yards	
	Total Distance	The distance between the ball's starting point and the point where the ball stops.	m, yards	
	Run Distance	The distance between the first point where the ball lands and the point where the ball stops.	m, yards	
	Side Distance	The carry point where the ball lands to the left or right of the target line.	m, yards	+ : Right - : Left
	Side Total	The point where the ball stops to the left or right of the target line.	m, yards	+ : Right - : Left
	Apex	The maximum height of the ball's trajectory.	m, ft	
	Apex Distance	The distance on the ground when the ball reaches its maximum height	m, yards	
	Flight Time	The flight time until the ball first hits the ground.	sec	
	Flight Type	The flight path of the ball.	-	
	Landing Angle	The angle of incidence of the ball when it first hits the ground.	deg	
Club	Club Speed	The clubhead's speed just before impact.	km/h, m/s, mph	
	Club Path	The direction of the clubhead at the moment of impact.	deg	+ : Right - : Left
	Attack Angle	The upward/downward movement direction of the clubhead.	deg	+ : Upward - : Downward
	Face Angle	The direction the clubface is pointing relative to the target line at impact.	deg	+ : Right - : Left
	Dynamic Loft	The vertical angle of the clubface at the point of contact with the ball.	deg	
	Face to Path	The difference between the face angle and the club path.	deg	
	Horizontal Impact	The exact point where the ball contacts the clubface in the horizontal direction at impact. The Club Sticker is measured as the origin, and the Heel direction is expressed as a positive number.	-	
	Vertical Impact	The exact point where the ball contacts the clubface in the vertical direction at impact. The Club Sticker is measured as the origin, and the ground direction is expressed as a positive number.		
	Smash Factor	Ball speed / Head speed Accuracy of hitting the sweet spot with the ball.	-	
Ball	Ball Speed	The ball speed immediately after impact.	km/h, m/s, mph	

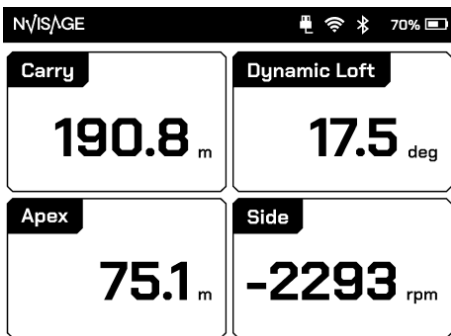
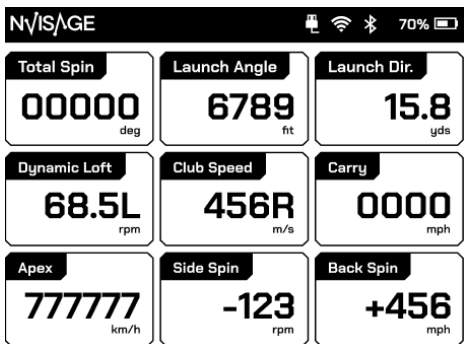
Launch Angle	The launch angle (angle at which the ball leaves the ground).	deg
Launch Direction	The horizontal angle of the ball relative to the target line (measured immediately after the ball leaves the clubface).	deg
Total Spin (Spin Rate)	The spin amount immediately after impact (around the spin axis).	rpm
Spin Axis	The angle between the ball's rotation axis and the horizontal plane.	deg
Side Spin	The side spin of the ball.	rpm
Back Spin	The backspin of the ball.	rpm

&lt;Table 3-10 Shot Data&gt;

Data is provided in the following situations:

- Immediately after shot recognition.
- When no action is taken while previous shot data exists.

Even if previously saved data exists, shot data will be displayed according to the Customize settings.

Shot Screen	Description
	<ul style="list-style-type: none"> <li>• Immediately after shot recognition.</li> </ul>
	<ul style="list-style-type: none"> <li>• When the previous shot data exists.</li> </ul>

&lt;Table 3-11 Sample Images of Shot Screen Data&gt;

- Touch **PUTT** on the screen to select it, and related data will be provided.
- When PUTT is deselected, Driver, Utility, Iron, and Wedge will all be recognized.



### 3.1.3 Sleep Mode

- If the device is not used for 30 minutes while powered on, it will enter Sleep Mode.
- Sleep mode is deactivated when the screen is touched, and the Practice mode screen will appear.
- Even in Sleep Mode, practice time data will continue to accumulate.



<Figure 3-10 Sleep Mode>

- Once the Sleep Mode is activated, the power goes off 60 seconds later.



<Figure 3-11 Power Off>

## 3.2 Main Features

This section explains the method of setting each feature.

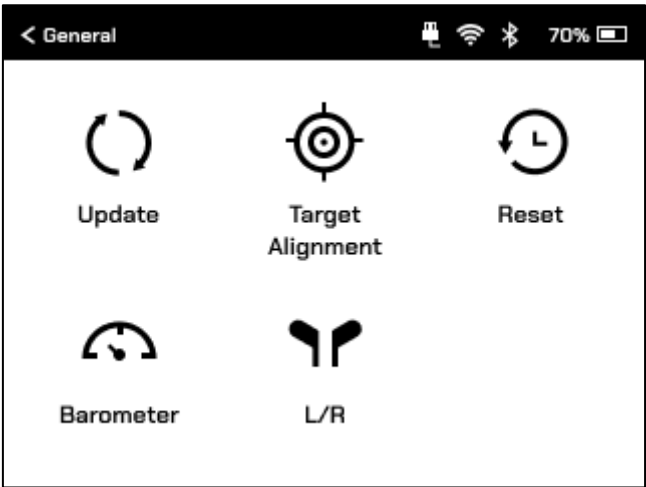
Main Feature	Setting Method
General Settings	<ul style="list-style-type: none"><li>• Updating firmware</li><li>• Aligning target line</li><li>• Resetting settings</li><li>• Setting parameter values</li><li>• Setting left-handed or right-handed preference</li></ul>
Screen Settings	<ul style="list-style-type: none"><li>• Adjusting the brightness of LED and text</li><li>• Customizing shot data displayed on the screen</li><li>• Setting shot data units</li><li>• Setting Sleeping Mode or shutdown</li></ul>
Connection Settings	<ul style="list-style-type: none"><li>• Setting Wi-Fi</li><li>• Setting ethernet</li></ul>
Other Settings	<ul style="list-style-type: none"><li>• Manual</li><li>• Device Information</li><li>• Sensor Information</li><li>• Manufacturer Information</li></ul>

<Table 3-12 Main Features>

3.2.1 General Settings

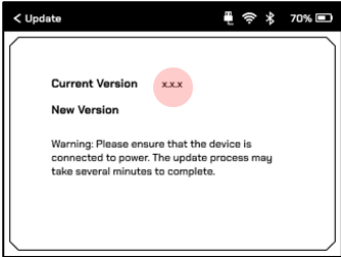


Updating Firmware

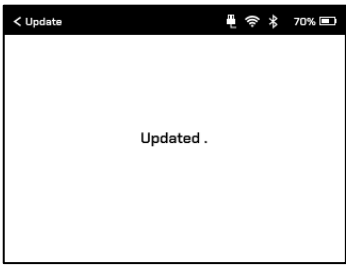
You can update the product's firmware via USB.



<Figure 3-12 Firmware Update>

Press the General icon, then the Update icon in the Setting screen as shown below:

Screen	Description
	<ul style="list-style-type: none"><li>• Displays the current firmware version.</li></ul>
	<ul style="list-style-type: none"><li>• Displays the update version on the connected USB.<ul style="list-style-type: none"><li>▫ If the USB is properly connected, the New Version will be displayed.</li><li>▫ Use the FAT32-formatted USB.</li><li>▫ If the new version is not displayed, please check the USB connection again.</li></ul></li></ul>
	<ul style="list-style-type: none"><li>• A power connection is required for a stable update.<ul style="list-style-type: none"><li>▫ When the power is connected, the Update button will be displayed.</li><li>▫ If the Update button does not appear, please check the power connection again.</li></ul></li></ul>



- When the Update button is pressed, the update will begin..
  - Do not disconnect the charging cable.
  - Do not restart.
  - Do not operate the device



- Update is complete.
  - Once being updated, the device will automatically reboot.

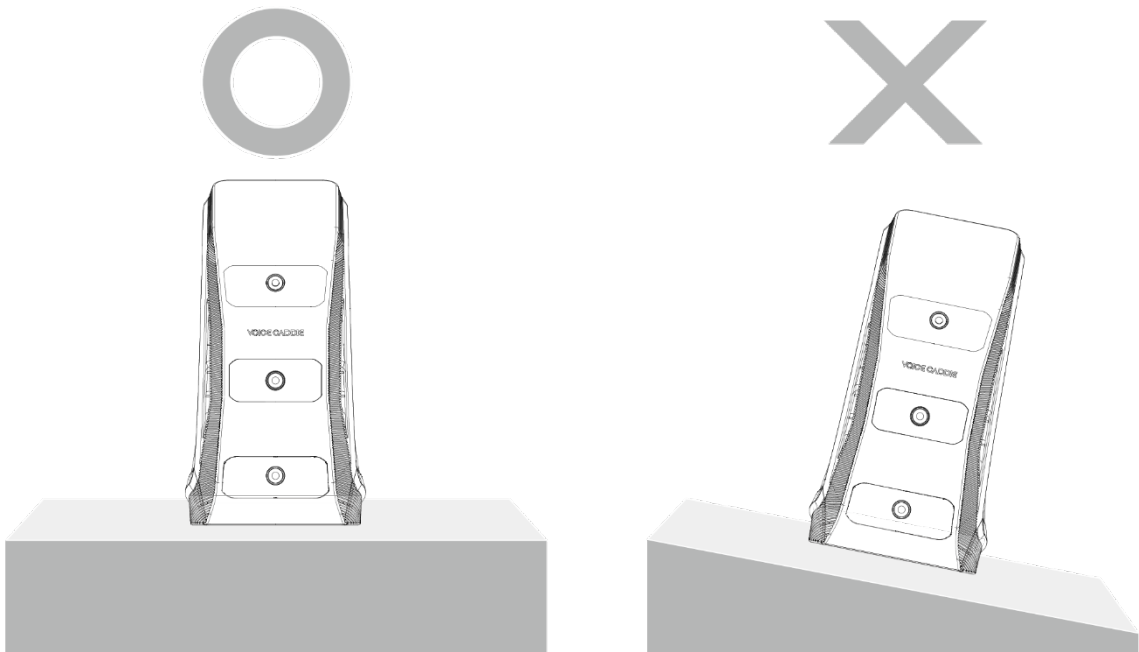
<Table 3-13 Firmware update with USB>

**Aligning Target Line**

Using the alignment tool provided with the product, you can easily align the angle recognized by the device with the actual impact angle to obtain accurate measurements. This task is called alignment, and for this product, you can adjust the target alignment up to a maximum of 15°.

Proceed with the alignment process in the following order:

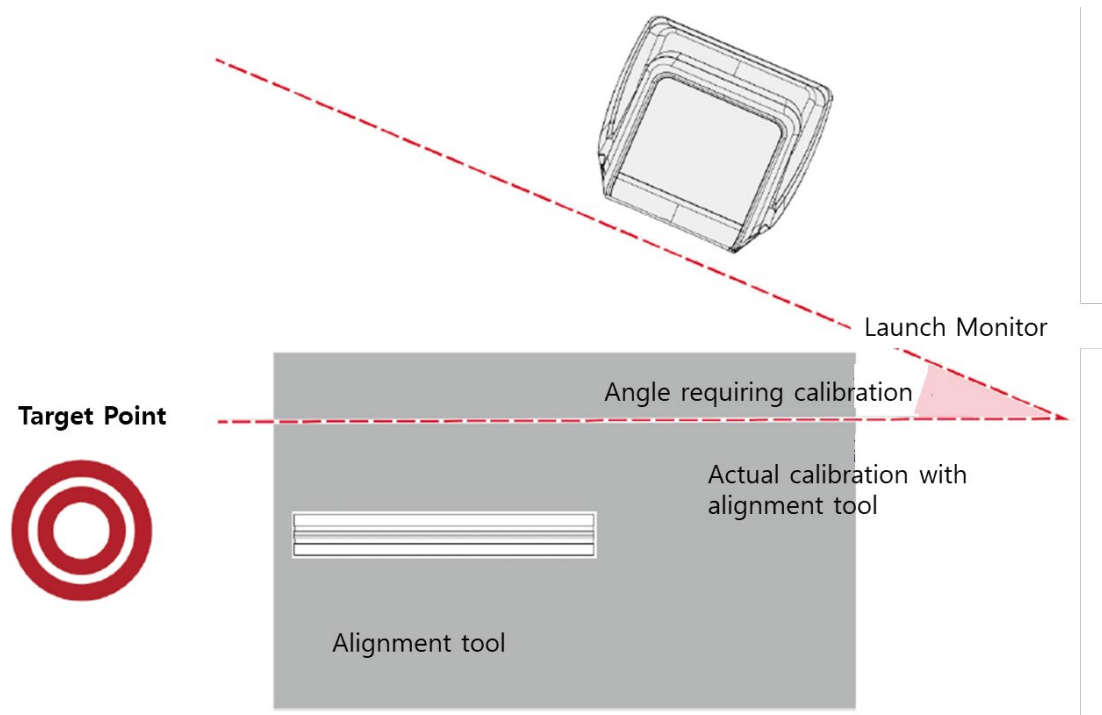
- 1 Place the product correctly on a flat surface.



<Figure 3-13 Device in place>

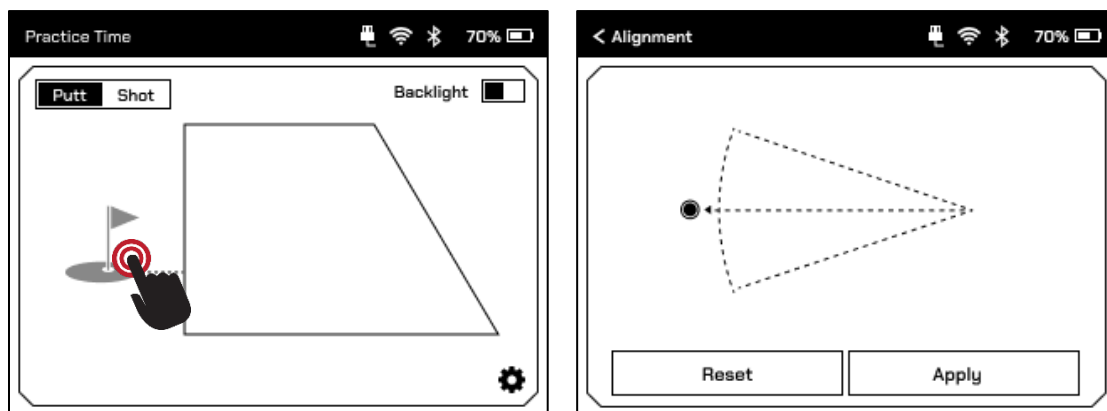
- 2 If the launch monitor is not positioned correctly, place the alignment device at the predicted impact point to accurately detect the angle of the ball and automatically correct it as follows.

▫ The sensor will calibrate the direction indicated by the alignment device to 0°.



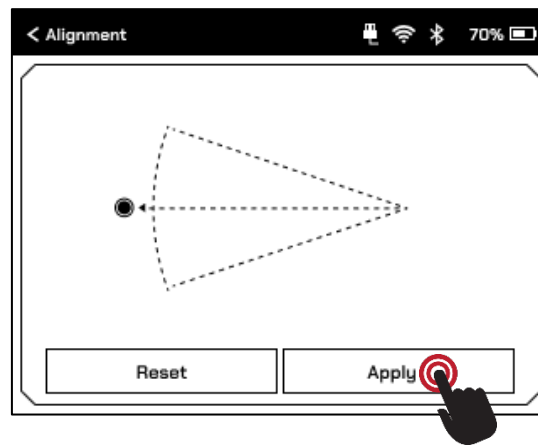
<Figure 3-14 Angle calibration with alignment tool>

- 3 Touch the Target icon in Practice Mode. A screen for alignment will appear. Depending on the L/R settings, the direction of the target may be displayed in reverse on the screen.

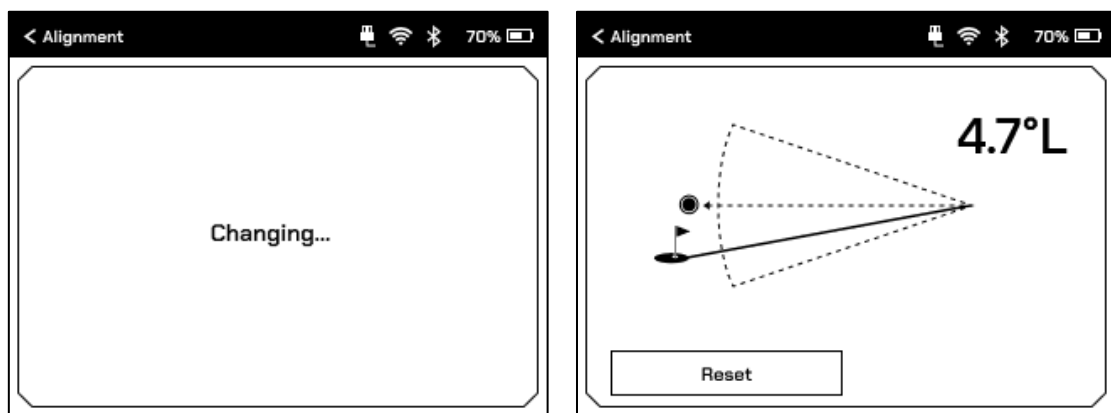


<Figure 3-15 Target Alignment>

- 4 For alignment, position the alignment stick as described in step 2, then touch Apply.

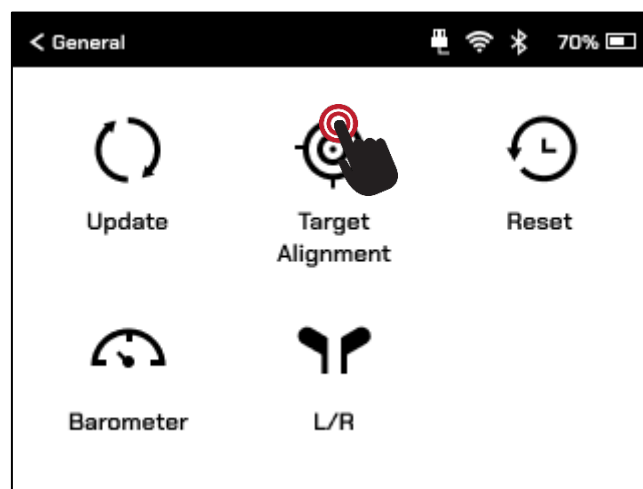


- 5 If the alignment is successful, the alignment information (angle) will be displayed in the top right corner. To keep the alignment information, touch the Back button in the top left corner to return to Practice Mode.



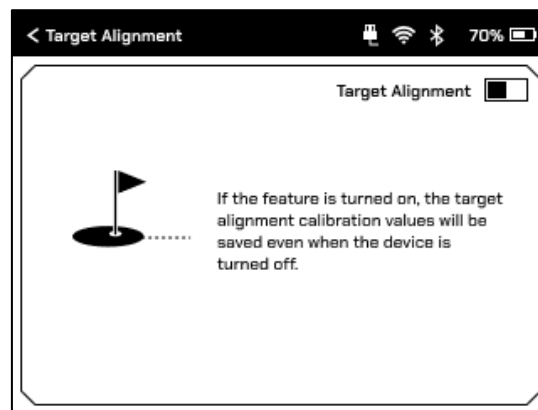
<Figure 3-16 Alignment successful>

- 6 To perform the alignment again, touch Reset to clear the alignment information, then repeat step 3.
- 7 You can set it to preserve the alignment information even after restarting the device. To set this up, go to Setting → General and touch the Target Alignment icon.



<Figure 3-17 Setting → General → Target Alignment>

- 8 You can activate the saving of alignment information by touching the button in the top right corner.

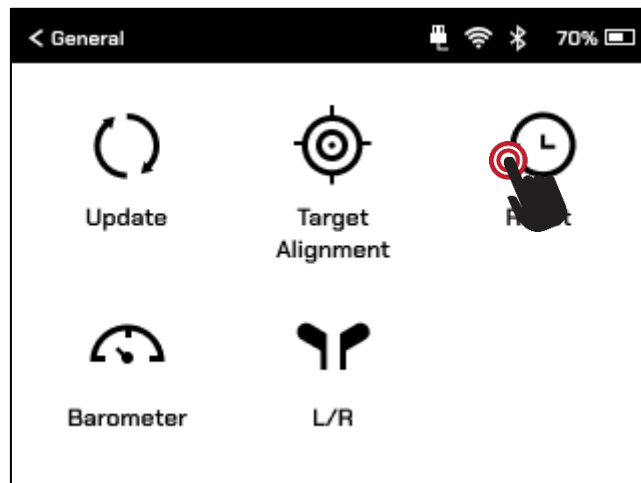


<Figure 3-18 Target Alignment screen>

### Initializing the Settings

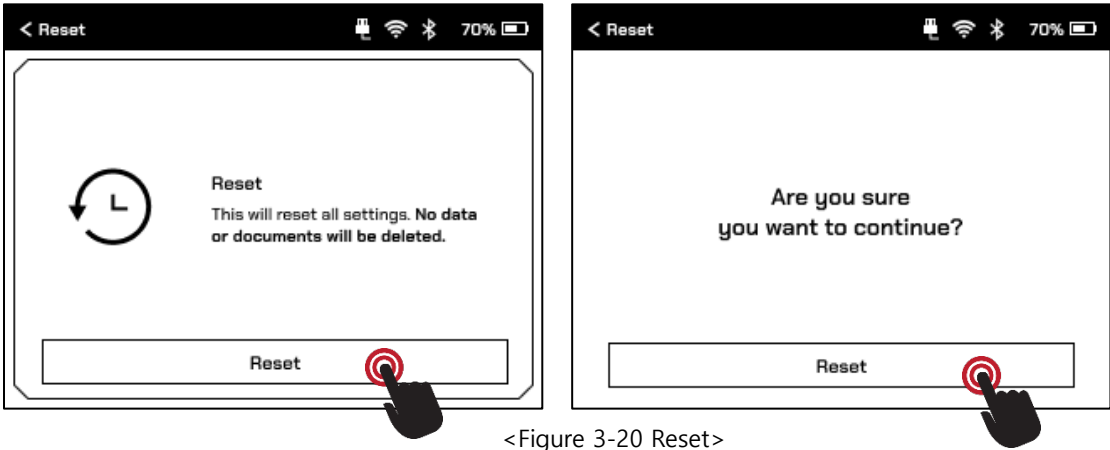
You can reset the user-defined settings.

- 1 Go to Setting → General and touch the Reset icon.



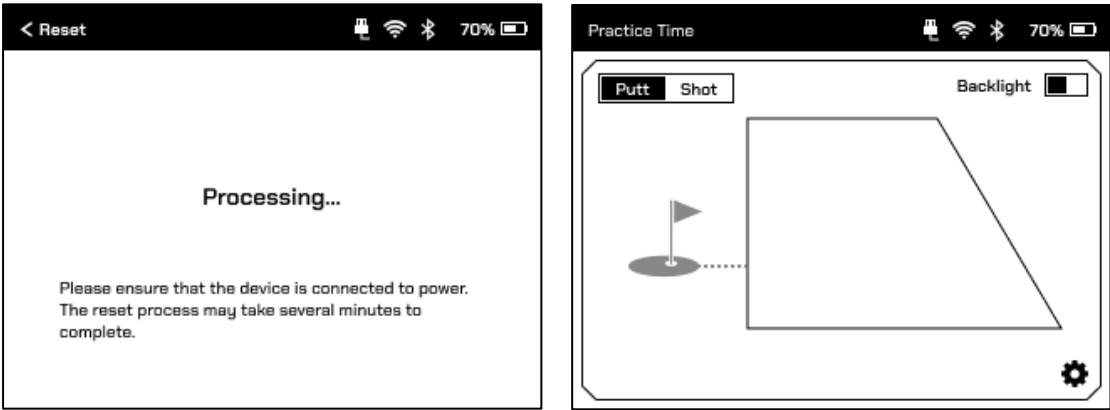
<Figure 3-19 Setting → General → Reset>

- 2 Touch the Reset button. Resetting will include all user-defined values such as Target Alignment, L/R, Contrast, Custom Data, Unit, Sleep Mode, etc. This action cannot be undone, and a confirmation screen will appear to verify the reset. Touch the Reset button to proceed.



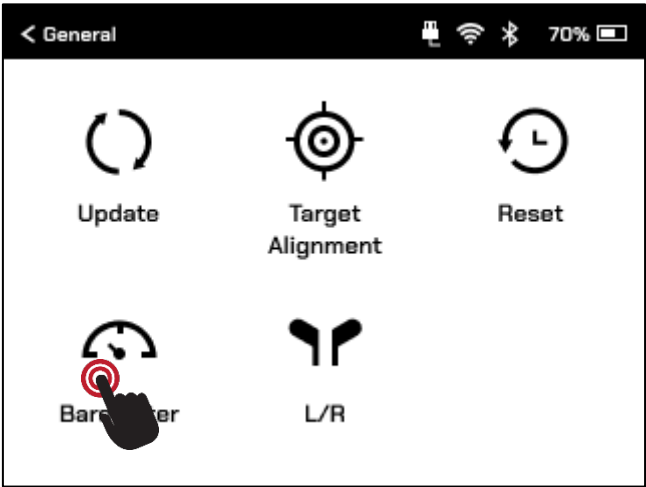
<Figure 3-20 Reset>

3 Once the reset is complete, it will automatically switch to Practice Mode.



**Setting Barometer Values**

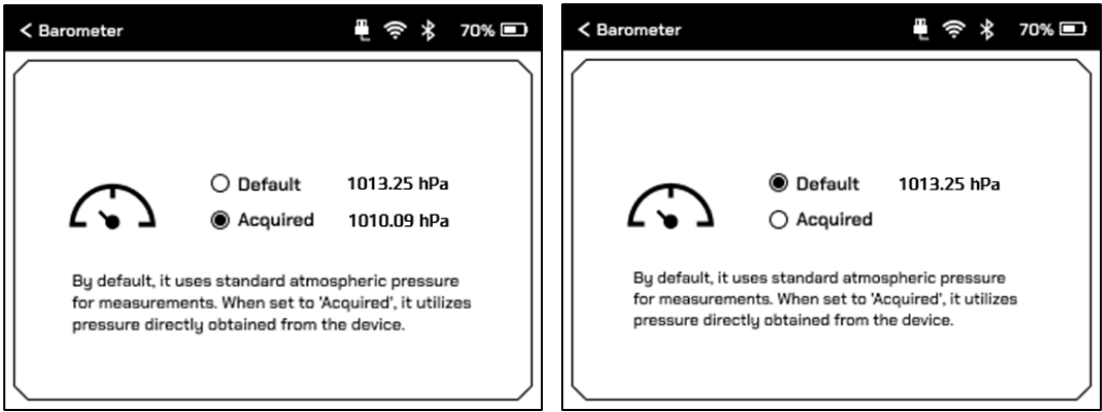
1 Go to Setting → General and select the Barometer icon.



<Figure 3-21 Setting→ General→ Barometer>

2 The default value is set to standard atmospheric pressure. To measure the actual atmospheric pressure with the device, touch the Acquired icon.



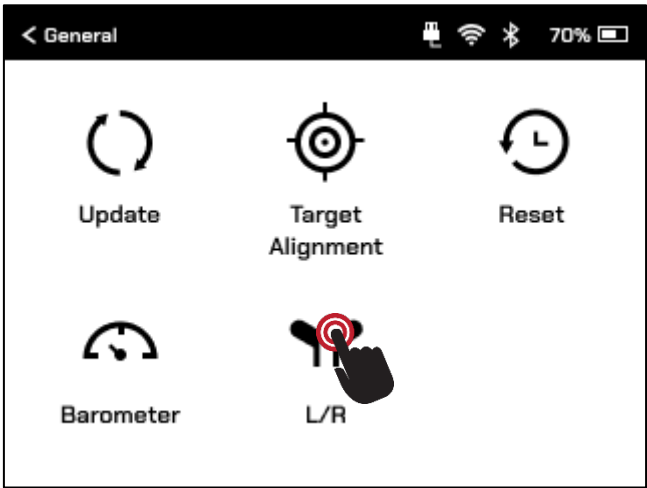


<Figure 3-22 Barometer>

**Setting Left/Right-Handed Mode**

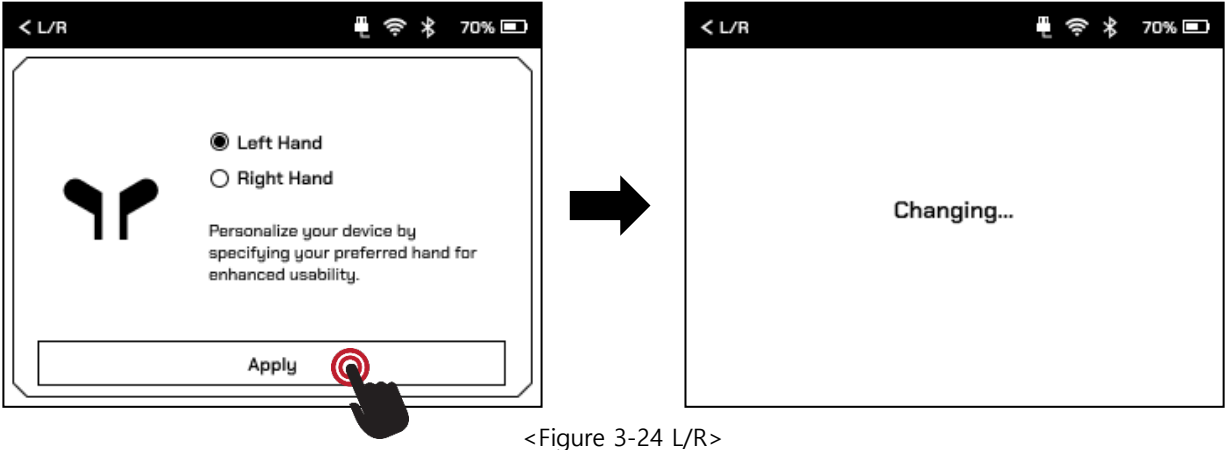
You can change the setting based on your dominant hand.

- 1 Go to Setting → General and touch the L/R icon.



<Figure 3-23 Setting → General → L/R>

- 2 If you are right-handed, check "Right Hand," and if you are left-handed, check "Left Hand." Touch the Apply button to apply the setting, which will take approximately 10 seconds



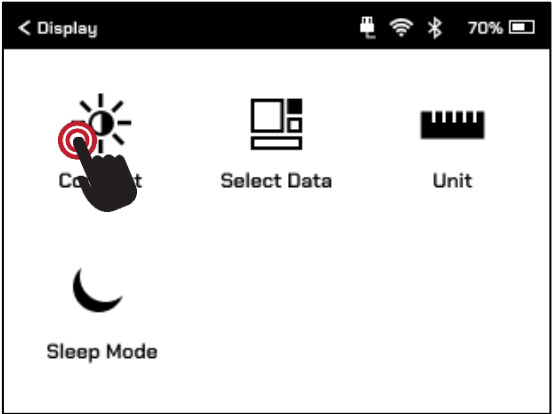
- 3 Once the setting is applied, the device will automatically switch to Practice Mode. Each time the setting is changed, the Ready Zone in Practice Mode will be adjusted accordingly..



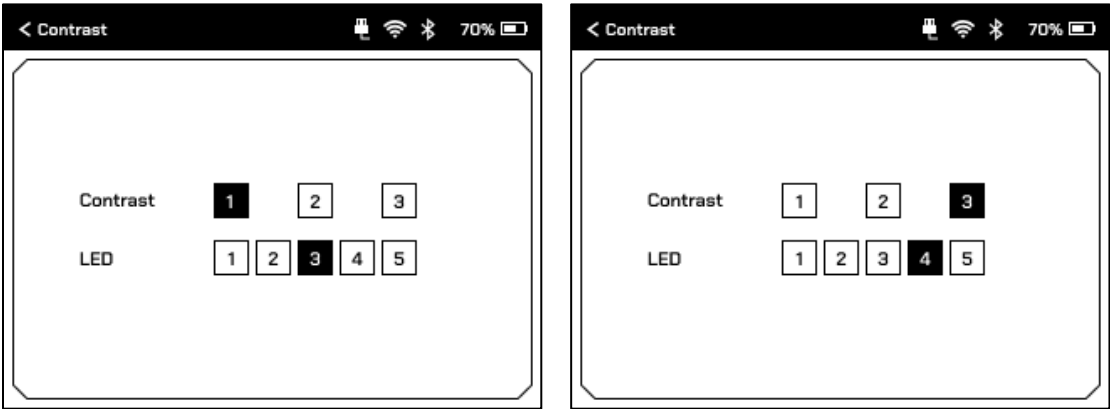
3.2.2 Screen Settings

Adjusting LED Brightness and Text Brightness

- 1 To adjust the LED brightness and text brightness of the product, go to Setting → Display and touch Contrast.



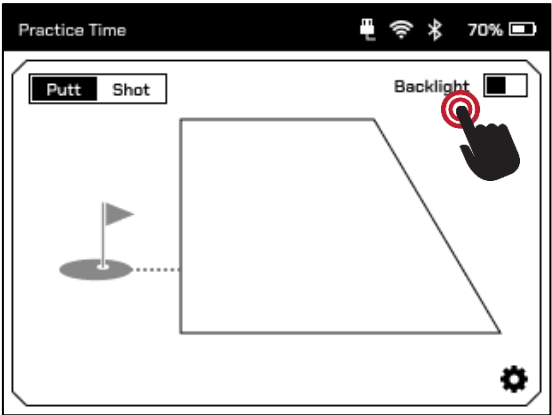
2 In the screen below, you can select the desired values to adjust the LED brightness and text brightness. The default values are Contrast: 1 and LED: 3.



<Figure 3-27 Contrast>

Item	Description
Contrast	The menu for adjusting text brightness: The higher the number, the darker the text appears.
LED	The menu for adjusting the device's LED brightness: The higher the number, the brighter the LED appears.

3 To turn the screen light on or off, touch the backlight button in the top right corner of Practice Mode.



<Figure 3-28 Backlight>

Customizing the Shot Data Displayed on the Screen

The number and types of shot data displayed on the screen can be selected and set by the user. Please refer to the table below for the available data information.

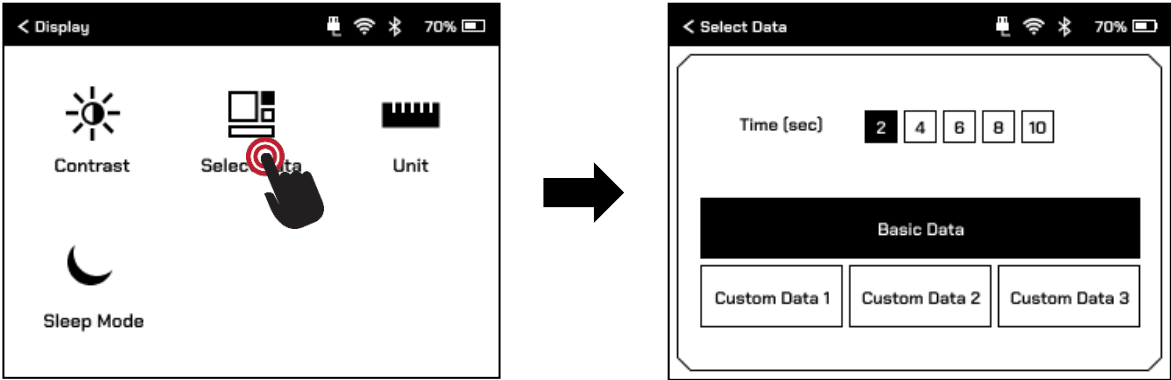
Category	Terminology	Description	Unit	Note
Launch	Carry Distance	The distance between the ball's starting point and the first point where the ball lands on the ground.	m, yards	
	Total Distance	The distance between the ball's starting point and the point where the ball stops.	m, yards	
	Run Distance	The distance between the first point where the ball lands and the point where the ball stops.	m, yards	

	Side Distance	The carry point where the ball lands to the left or right of the target line.	m, yards	+ : Right - : Left
	Side Total	The point where the ball stops to the left or right of the target line	m, yards	+ : Right - : Left
	Apex	The maximum height of the ball's trajectory.	m, ft	
	Apex Distance	The distance on the ground when the ball reaches its maximum height	m, yards	
	Flight Time	The flight time until the ball first hits the ground.	sec	
	Flight Type	The flight path of the ball.	-	
	Landing Angle	The angle of incidence of the ball when it first hits the ground.	deg	
	Club Speed	The clubhead's speed just before impact.	km/h, m/s, mph	
	Club Path	The direction of the clubhead at the moment of impact.	deg	+ : Right - : Left
	Attack Angle	The upward/downward movement direction of the clubhead.	deg	+ : Upward - : Downward
<b>Club</b>	Face Angle	The direction the clubface is pointing relative to the target line at impact.	deg	+ : Right - : Left
	Dynamic Loft	The vertical angle of the clubface at the point of contact with the ball.	deg	
	Face to Path	The difference between the face angle and the club path.	deg	
	Horizontal Impact	The exact point where the ball contacts the clubface in the horizontal direction at impact. The Club Sticker is measured as the origin, and the Heel direction is expressed as a positive number.	-	
	Vertical Impact	The exact point where the ball contacts the clubface in the vertical direction at impact. The Club Sticker is measured as the origin, and the ground direction is expressed as a positive number.		
	Smash Factor	Ball speed / Head speed Accuracy of hitting the sweet spot with the ball.	-	
	Ball Speed	The ball speed immediately after impact.	km/h, m/s, mph	
	Launch Angle	The launch angle (angle at which the ball leaves the ground).	deg	
	Launch Direction	The horizontal angle of the ball relative to the target line (measured immediately after the ball leaves the clubface).	deg	
	Total Spin (Spin Rate)	The spin amount immediately after impact (around the spin axis).	rpm	

Spin Axis	The angle between the ball's rotation axis and the horizontal plane.	deg
Side Spin	The side spin of the ball.	rpm
Back Spin	The backspin of the ball.	rpm

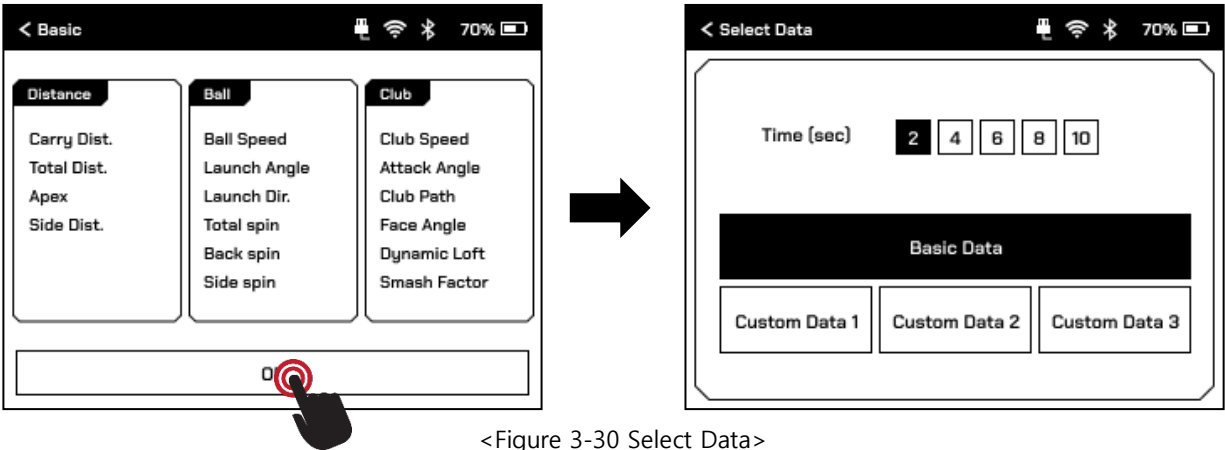
&lt;Table 3-14 Shot Customization Menu&gt;

1 Go to Setting → Display and touch the Select Data icon.



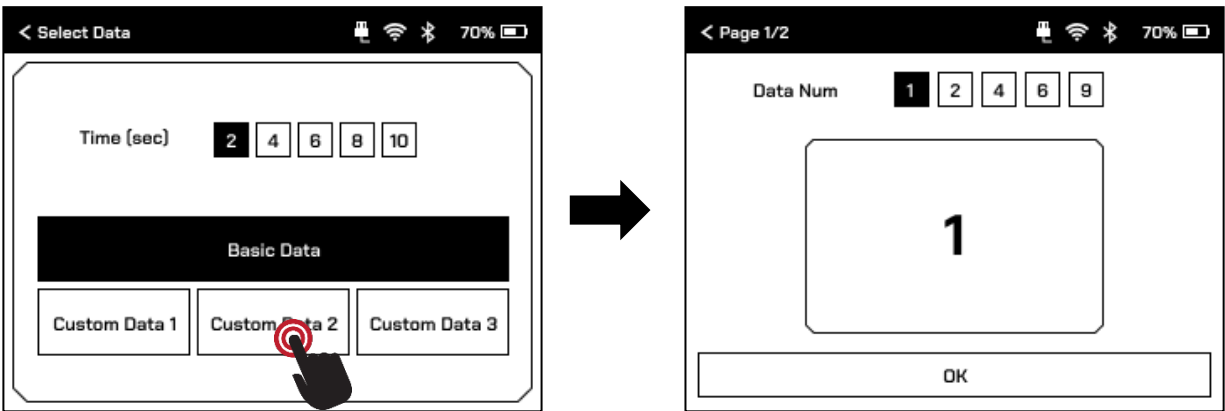
<Figure 3-29 Setting → General → Select Data>

2 The default value on the Select Data screen is Basic Data. When you touch the corresponding icon, a screen like the one below will appear. Data from the Distance, Ball, and Club categories will be displayed across three pages. The display time per page can be selected in 2-second intervals, ranging from 2 to 10 seconds, through the Time button in Data Select. Touching the Ok icon will switch to the Select Data screen, and the settings will be applied.



<Figure 3-30 Select Data>

3 The Custom Data 1, 2, and 3 icons on the Select Data screen represent the total number of pages for viewing data. By touching each icon, you can select the data for each page.

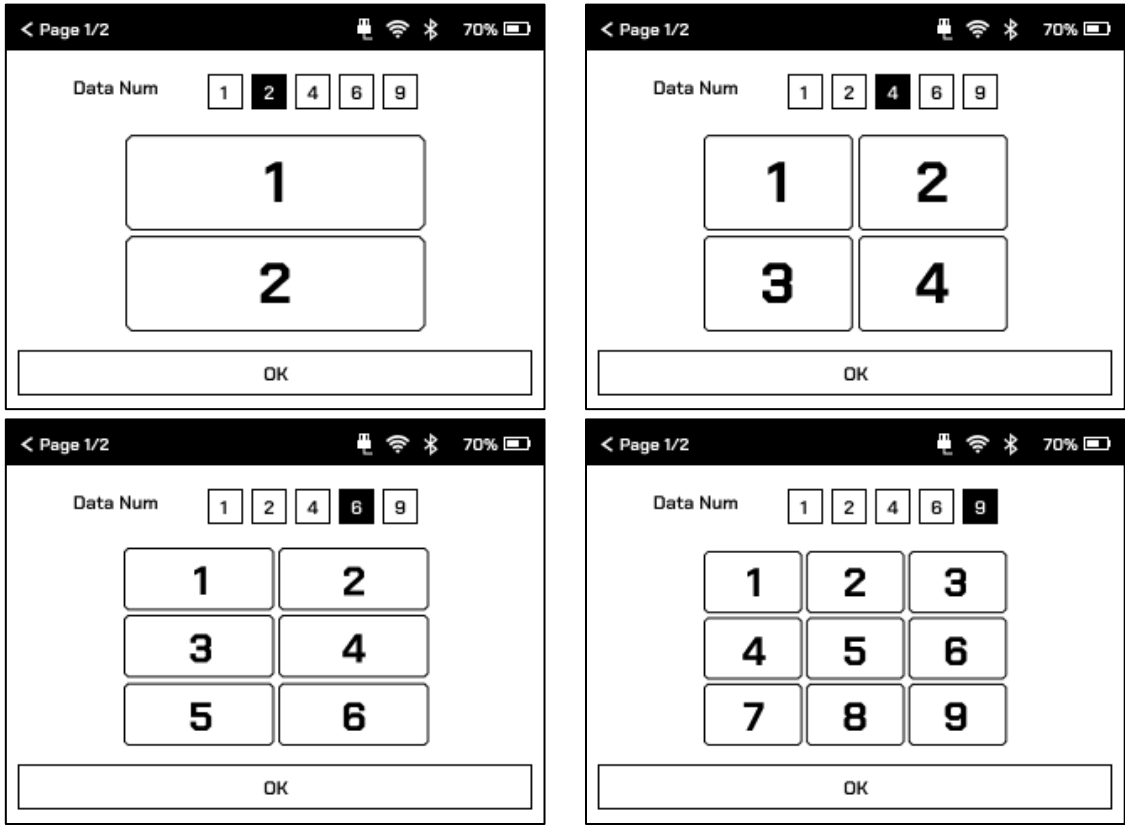


<Figure 3-31 Customizing Select Data>



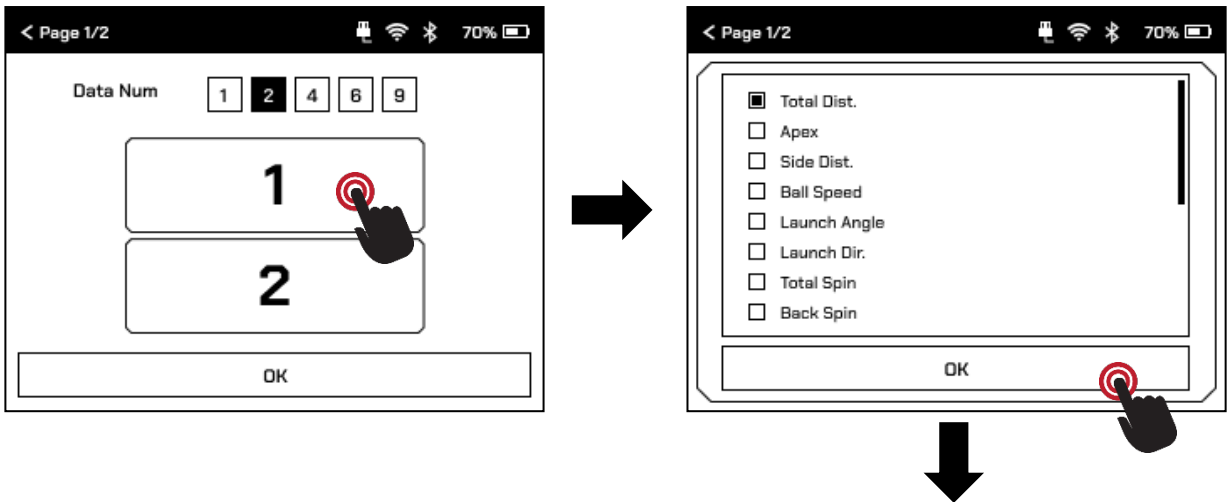
- Custom Data 1: The output data consists of a single page.
- Custom Data 2: The output data consists of 2 pages.
- Custom Data 3: The output data consists of 3 pages.

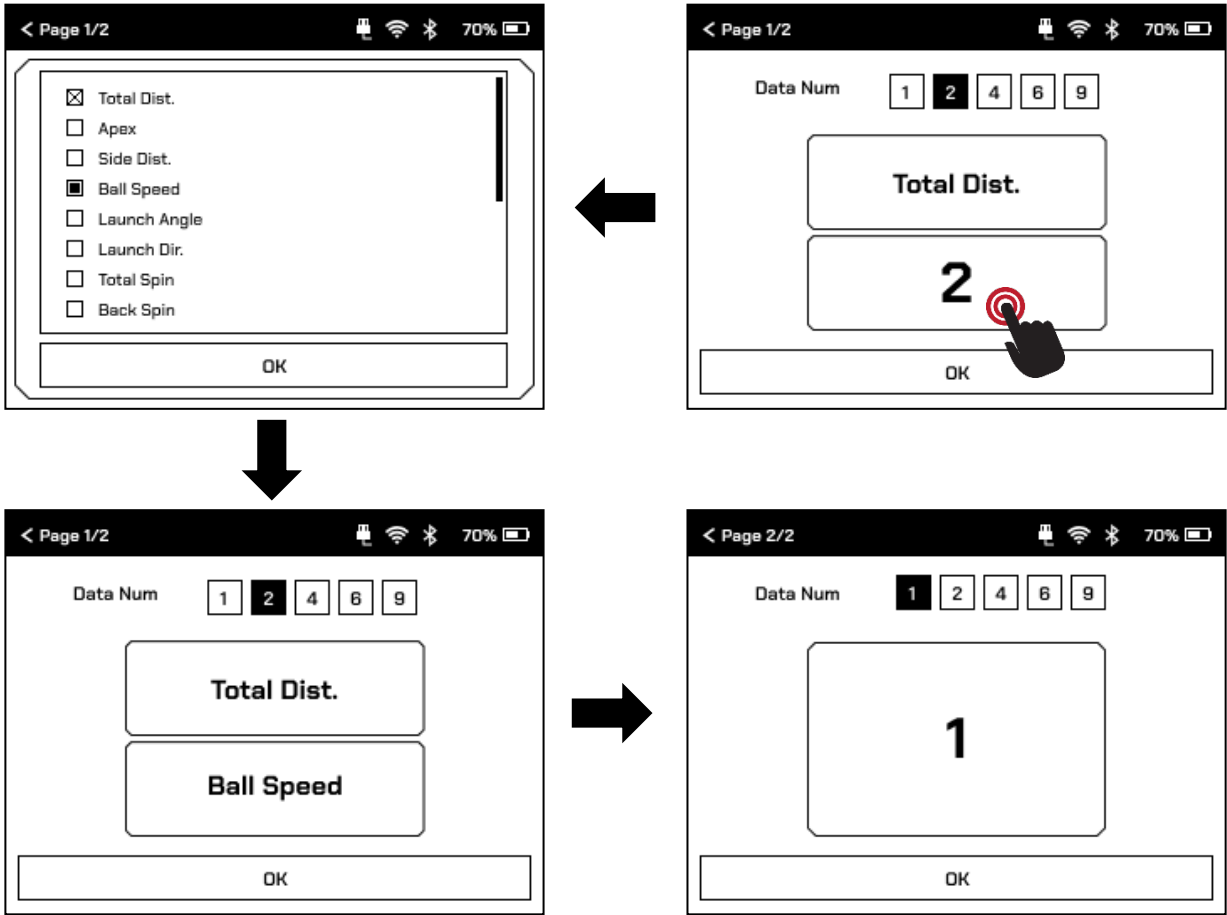
4 Touch the Data Num button to select the number of data items you want to display on the current page.



<Figure 3-32 Selecting Number of Viewable Data>

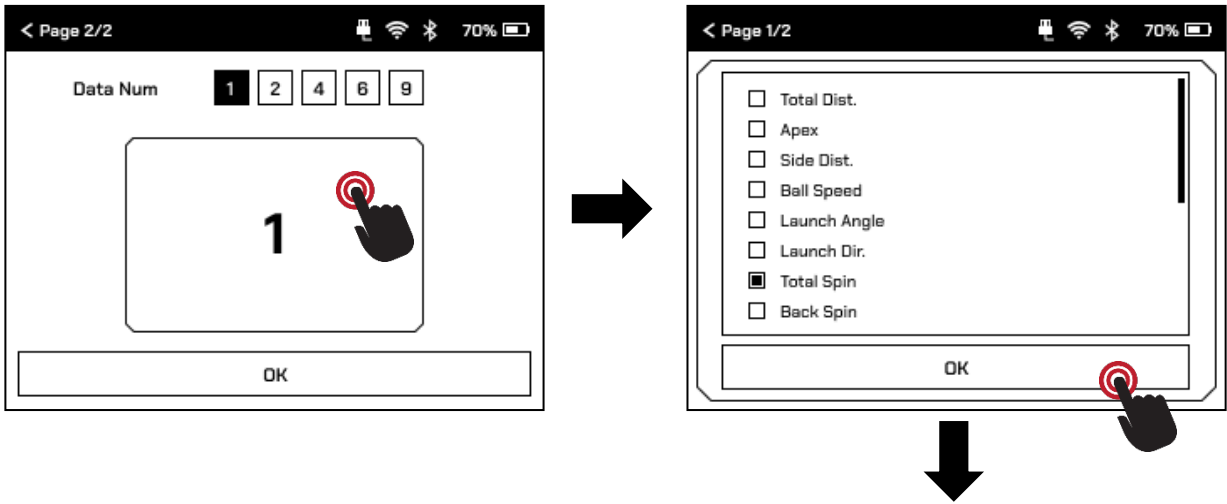
5 Touch each data box to select the data you want to display. The selected data will be marked with a check (☑), and data that has already been selected on the same page will be marked as unavailable (☒). After all data on the page is selected, touch the OK button to proceed with selecting data for the next page.



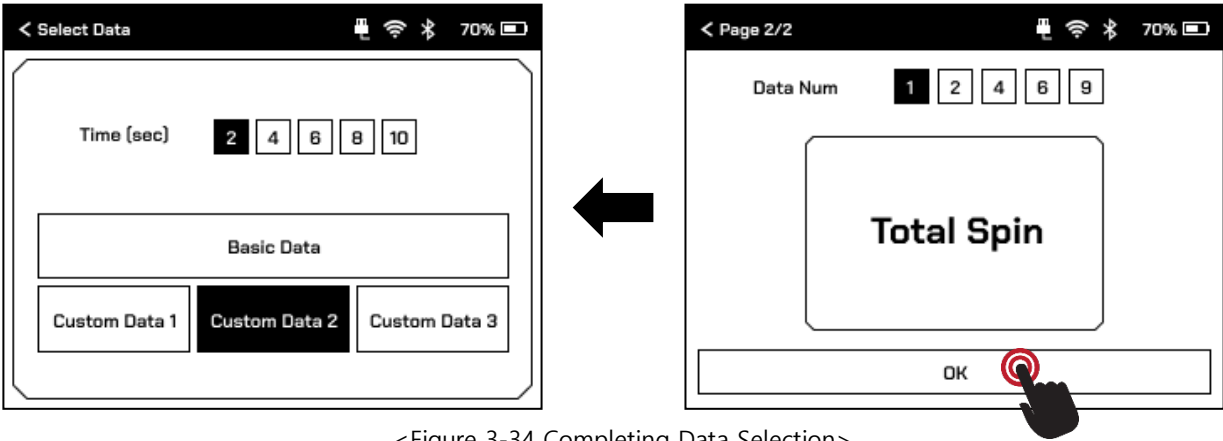


<Figure 3-33 Settings for Viewable Data>

6 Once data selection is complete on the last page, you can touch the OK button to finalize the settings.





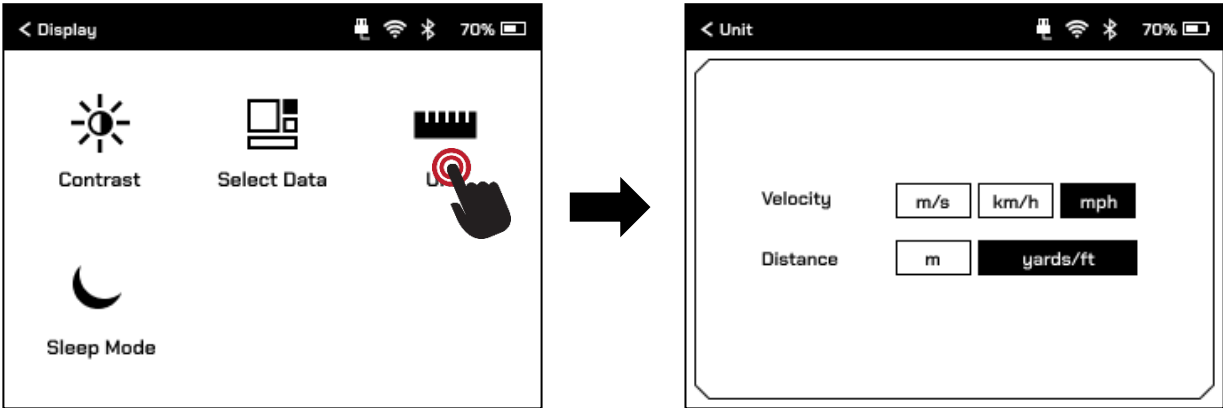


<Figure 3-34 Completing Data Selection>

Setting Shot Data Unit

You can display the shot data in the unit preferred by the user.

- 1 Go to Settings→Display and touch Unit to determine the unit of speed and distance.



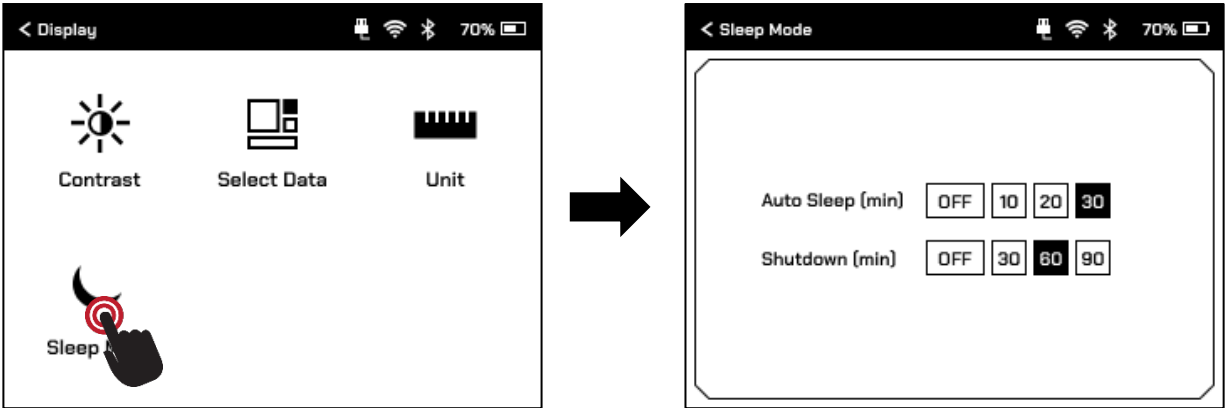
<Figure 3-35 Settings → Display → Unit>

Category	Default	Description
Velocity	mph	A menu to set the speed units for the ball or club.
		• mph: mile per hour
		• m/s: meter per second
		• km/h: kilometer per hour
Applied items: Ball Speed, Club Speed		
Distance	yards/ft	A menu to set the units for distance and height.
		• yards: Units related to distance
		• ft(feet): Units related to height
		• m(meter): Units related to distance and height.
Distance applied items: Carry, Total, Side, Run, Side, Apex Distance, and Side Total		
Height applied item: Apex		

<Table 3-15 Speed and Distance Units >

### Sleep Mode or Shutdown

To reduce unnecessary power consumption and allow users to manage the device more conveniently, you can set the sleep and auto-shutdown modes. Touch Sleep Mode on the Setting → Display screen.



<Figure 3-36 Settings → Display → Sleep Mode>

- If the ball remains in the ready state for 10 minutes in Practice Mode, the device will enter Sleep Mode regardless of the Auto Sleep setting.
- If the device is not used during the Shutdown setting time, it will automatically power off.

### 3.2.3 Connection Settings

NEO-E connects to various devices using the following methods:

- Wi-Fi: Connection to the internet and dedicated software
- Ethernet: Connection to a PC and dedicated software

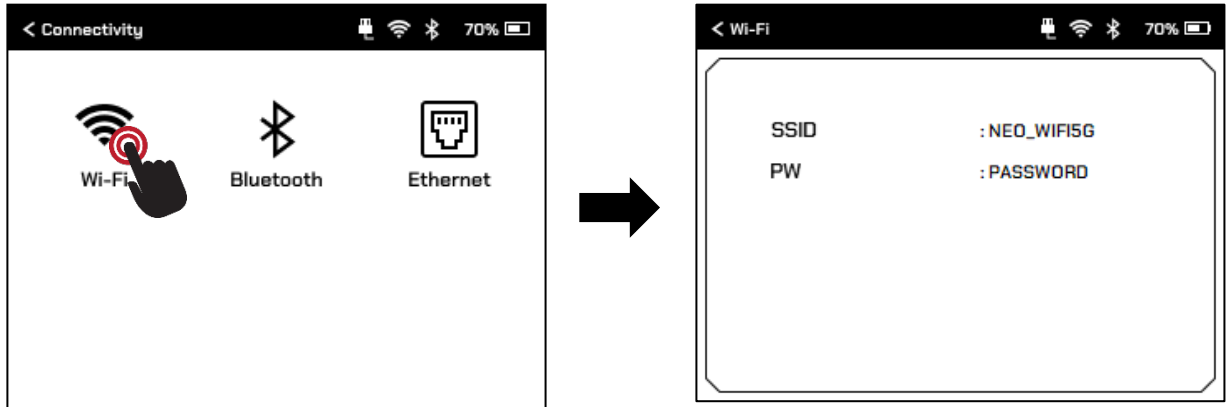


- Bluetooth will be available in the future.

#### Connecting via Wi-Fi

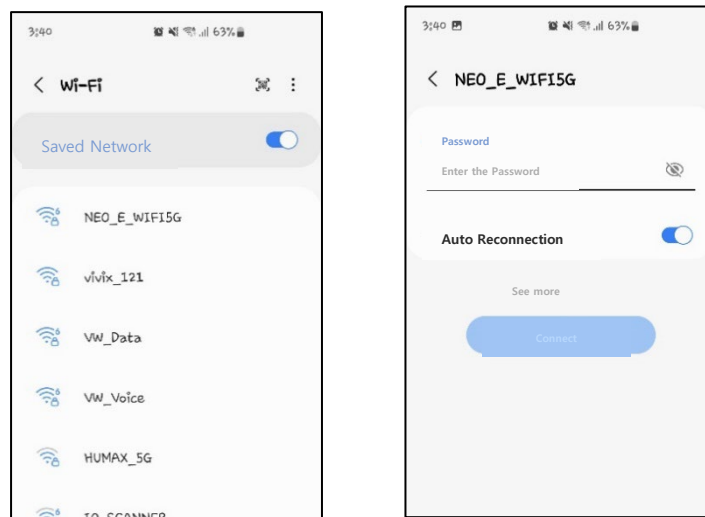
You can connect via Wi-Fi to link the NEO-E product with the user's PC and smartphone.

- 1 Go to Setting→ Connectivity and touch Wi-Fi to turn on.




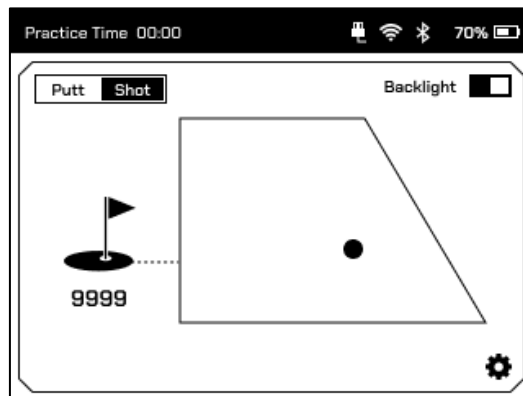
<Figure 3-37 Setting → Connectivity → Wi-Fi>

- 2 In the settings of the smartphone, go to the Wi-Fi menu and select the NEO-E device. When the pairing request screen appears, enter the PW displayed on the product screen.




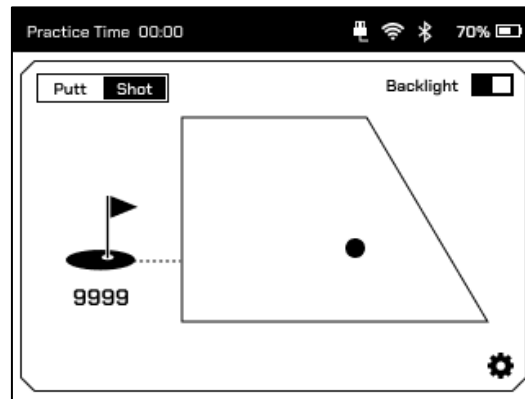
<Figure 3-38 Wi-Fi settings on the smartphone>

- 3 Once connected, the icon  will appear in the top right corner of the Practice Mode screen.



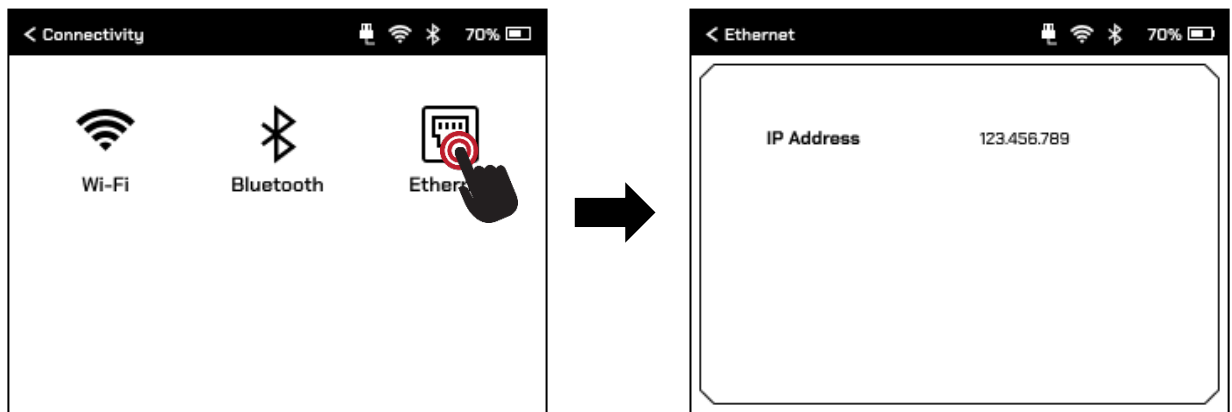
## Connecting via Ethernet

- 1 Connect an Ethernet-compatible cable to the Ethernet port on the back of the product. Then, check if the connection indicator  appears correctly in the top right corner of the product screen.



<Figure 3-39 Ethernet Setting – Practice Mode>

- 2 Goto Settings → Connectivity and touch the Ethernet icon to check the IP address.

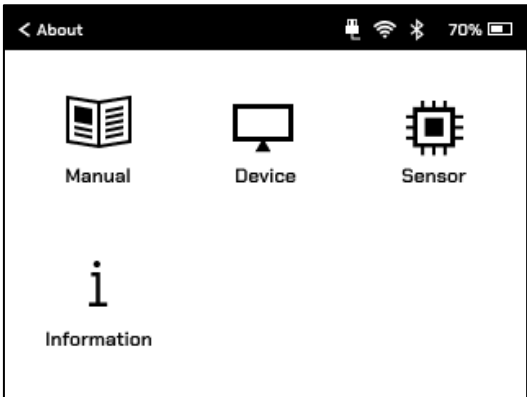


<Figure 3-40 Setting → Connectivity → Ethernet>

3.2.4 Other Settings

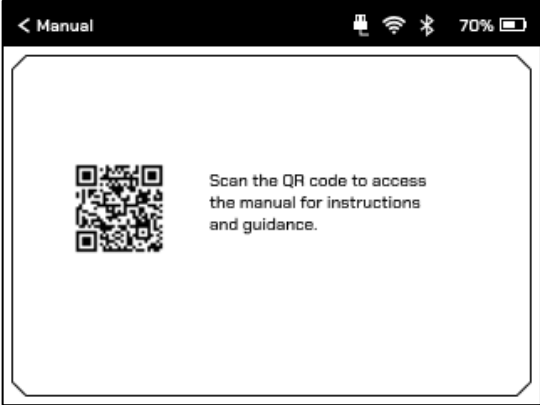
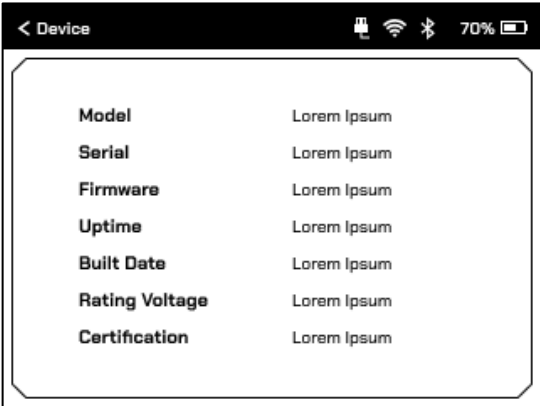
Information

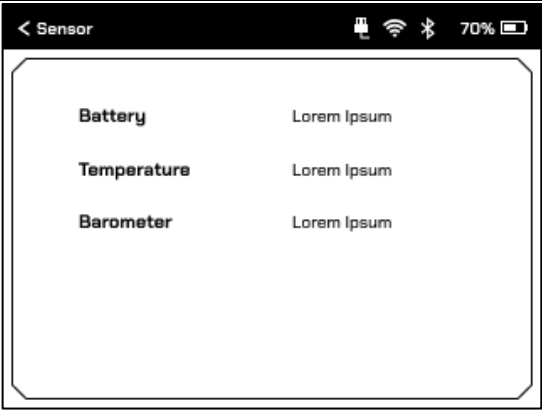
Go to Settings → About and touch the Information icon to see the information on the device and sensor.



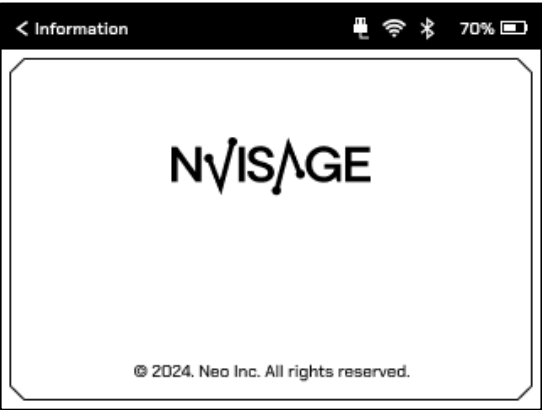
<Figure 3-41 Settings → Information>

The functions of each menu are as follows:

Screen Image	Description
	<p><b>QR code</b></p> <p>When the code is recognized, it will redirect to the web manual page.</p>
	<p><b>Device Information</b></p> <ul style="list-style-type: none"><li>• Model name and serial number</li><li>• Version</li><li>• App type</li><li>• Built date</li><li>• Rating voltage</li><li>• Certification</li></ul>
	<p><b>Sensor Information</b></p> <p>Information about the sensor values included in the device.</p>



- Battery
- Temperature
  - The temperature is measured based on the charging IC.
  - Temperature information is not displayed while charging.
- Barometer



Company Information

<Table 3-16 Other Setting Menu>

NVISAAGE

TECH

NOLO

GIES

## 4.1 Troubleshooting Guide

If the product does not work, please check the following:

- If the product does not turn on after pressing the power button:
  - Press and hold the power button for more than 5 seconds, then press the power button again.
  - If the product still does not turn on, connect the adapter and then press the power button.
- If nothing is displayed on the screen:
  - Check if the cables are properly connected.
  - Ensure that the power is properly supplied.
  - If the product does not turn on after pressing the power button, try connecting the adapter first.
- If the screen is unclear:
  - Adjust the LED brightness in the Display menu. Refer to <3.2.2 Screen Settings> for more information on adjusting the brightness of LED and text.
- If the product is not functioning properly or is overheating:
  - If smoke is coming from the product or if it is overheating severely, stop using it immediately.
- If connection is bad:
  - Check if Wi-Fi is successfully connected.
  - If communicating with the connected PC, verify that the PC and the product are properly synced and configured.



**Before Contacting Customer Service**

Please check the user manual again. If you determine that it is a malfunction, clearly record and provide the malfunction status and product information. Depending on the nature of the malfunction, it may be either a paid or free service. The following causes of malfunction are subject to paid service:

- Malfunction due to user mishandling
- Connecting power sources other than the rated power supply
- Unauthorized disassembly or repair by the user
- Malfunction caused by disasters (fire, flooding, lightning, etc.)

**Malfunction Details**