

Portable Launch Monitor

HS-130A

User's Manual



PRGR

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Introduction

Thank you for your purchase of the PRGR Portable Launch Monitor HS-130A. This device is a portable launch monitor developed to measure swing speed and ball speed for sports such as golf and is designed to help players take their game to the next level.

Safety Precautions (Please read)

Please read these safety precautions before use to ensure proper usage. The precautions shown here will assist in proper usage and prevent harm or damage to the user and those around them. We kindly ask you to observe this important safety-related content.

Symbols Used in This Manual



This symbol indicates a warning or caution.









This symbol indicates an action that must NOT be performed (prohibited action).



This symbol indicates an action that must be performed.



Warning

-  Do not use this device for practicing in places such as public parks as doing so is dangerous due to the large amounts of people that may be present.
-  When using this device, pay sufficient attention to the surrounding conditions and check the area around you to confirm that there are no other people or objects in the swing trajectory of the bat or club.
-  Individuals with medical devices such as a pacemaker should contact the medical device manufacturer or their physician beforehand to confirm that their medical device will not be affected by radio waves.
-  Never attempt to disassemble or modify this device. (Doing so could result in an accident or malfunction such as fire, injury or electric shock.)
-  Turn off the power and remove the batteries in areas where use of this device is prohibited, such as in airplanes or on boats. (Failure to do so could result in other electronic equipment being affected.)
-  Immediately stop use of this device in the event it is damaged or emits smoke or an abnormal odor. (Failure to do so could result in fire, electric shock, or injury.)



Caution

- ⊘ Do not use in environments where water could permeate the device, such as in rain. (Doing so could cause the device to malfunction as it is not waterproof. Also, be aware that any malfunctions caused by water permeation are not covered by warranty.)
- ⊘ This device is a precision instrument. As such, do not store it in the following locations. (Doing so could result in discoloration, deformation, or malfunction.)
 - Locations subject to high temperatures, such as those subject to direct sunlight or near heating equipment
 - On vehicle dashboards or in vehicles with windows closed in hot weather
 - Locations subject to high levels of humidity or dust
- ⊘ Do not drop the device or subject it to strong impact. (Doing so could result in damage or malfunction.)
 - * Particular caution is necessary in the case of the LCD, which could be damaged by such impact.
- ⊘ Do not place heavy objects on the device or sit/stand on it. (Doing so could result in injury, damage, or malfunction.)
- ⊘ Do not apply pressure to this device while stowed inside caddy bags or other types of bags. (Doing so could result in housing or LCD damage or malfunction.)
- ⓘ When not using the device for long periods of time, store it after first removing the batteries. (Failure to do so could result in battery fluid leakage, which may cause malfunction.)
- ⊘ Do not attempt to operate the buttons using objects such as golf clubs. (Doing so could result in damage or malfunction.)
- ⊘ Using this device near other radio devices, televisions, radios, or computers could cause this device or those other devices to be affected.
- ⊘ Using this device near equipment with drive units such as automatic doors, auto tee-up systems, air conditioners, or circulators could result in malfunctions.
- ⊘ Do not grip the sensor part of this device with your hands or bring reflective objects such as metals near it as doing so could cause the sensor to malfunction.

FCC CAUTION

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

This device complies with part 15 of the FCC Rules. 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.

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.

Main Features

- Golf
 - Club head speed and ball speed can be measured simultaneously
 - Smash factor at impact and estimated flight distance are displayed simultaneously (new function)
 - Estimated flight distance can be switched between “Carry” and “Total” flight distance modes
 - The displayed units of measurement can be switched between imperial (“MPH” and “yard”) and metric (“km/h” and “m”). (new function)
 - Up to 500 instances of measurement data can be saved in the history (total for all modes)
- Baseball
 - The initial speed of thrown balls can be measured (new function)
 - The speed (final speed) at the target (catcher) can be measured
 - * Correct measurement may not be possible depending on the ball construction or material.
 - Bat swing speeds can be measured
 - * Measurement may not be possible depending on the bat material, etc.
 - Can also be used as a counter for practice swings, etc., using the counter function
 - * The counter can count up to 999.
 - In addition to measured speed, the maximum and average speeds saved to the history can be displayed simultaneously (new function)
- Other ball sports
 - Speeds for balls in various types of sports can be measured, such as soccer ball shooting speeds
 - * This function measures the speed of objects (balls) that pass through its periphery.
 - * Measurement may not be possible depending on the materials of objects or their distance.

Description of Contents

(1) Portable Launch Monitor HS-130A unit・・・1

(2) User's Manual (this manual)・・・1

* Batteries are not included. Please use commercially sold AAA alkaline batteries.

(1)



(2)



Names and Functions of Parts

LCD screen

Displays measurement results and history.

ON/OFF & ENTER button

Use for turning the device on/off and for selecting settings.

Battery compartment (rear)

Use four **commercially sold AAA alkaline batteries**.

* Batteries are not included.

Tripod socket (rear)

Use for installing to fixtures on tripods, etc.

MODE button

Use for switching between various modes.

Scroll buttons

Use for scrolling measurement history and settings.

Measurement area

Measure by aiming this side in the launch direction.



[Remaining Battery Power Display]

The LCD screen displays the remaining battery power and notifies users when battery replacement is necessary.



Sufficient battery power remains.

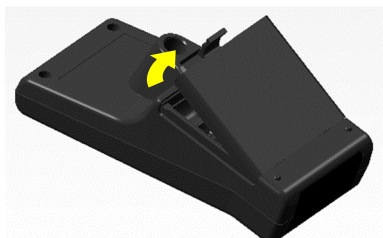


Replace batteries soon.

* Using non-alkaline batteries such as rechargeable nickel-metal hydride batteries may result in the remaining battery power not being displayed correctly.

Inserting Batteries

(1) Open the battery compartment cover.



Lift the cover while pushing down the clip.

(2) Insert the batteries.



Check the direction of the batteries and insert them one at a time.

(3) Close the cover.



Insert the lower tabs into the grooves and press down the cover.

[Regarding Batteries]

- We recommended use of commercially sold AAA alkaline batteries.
- Although rechargeable nickel-metal hydride batteries can also be used, doing so may result in decreased operating time.
- When not using the device for long periods of time, store it after first removing the batteries.

[Estimated Battery Life]

When using AAA alkaline batteries, the estimated battery life when used 1 hr. per day is approximately one month.

* Battery life will depend upon usage conditions and usage environment factors such as temperature.

Turning On the Power

Continue pressing the ON/OFF button for approximately 2 seconds.

⇒ You will hear two electronic beeps, meaning the power is on.

[Auto Power-Off Function]

With this function, the power will automatically turn off if no measurements are performed or no buttons are operated for approximately 10 minutes, despite the ON/OFF button not being pressed.

* Power can be turned on without operating the auto power-off function by pressing the ON/OFF button continually for 2 seconds while pressing the MODE button. In this case, "OFF" will be shown on the screen for approximately 1 second, after which it will return to the normal screen.

Turning Off the Power

Continue pressing the ON/OFF button for approximately 2 seconds.

⇒ You will hear one electronic beep, meaning the power is off.


Measuring (Golf Mode)

The club head speed immediately before impact and the ball speed after impact are measured simultaneously, after which they are displayed along with the smash factor and estimated flight distance on the LCD screen. Estimated flight distance can be switched between “Carry” and “Total” flight distance modes.

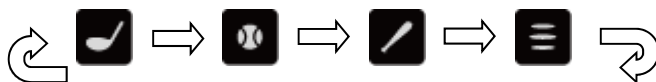
(1) Turning on the power

* See “Turning On the Power” on pg. 6

(2) Selecting modes

- Press and hold the MODE button for approximately 2 seconds to change modes and select Golf mode .

* Continuously pressing the MODE button will scroll through the four modes in order.



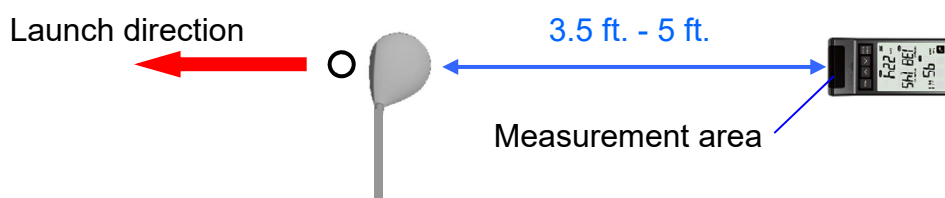
(3) Selecting the club number to be used

- Quickly press the ENTER button.
⇒ The club number displayed at the top-right of the screen will blink.
- Use the Scroll buttons to switch club numbers.
- Complete the selection by pressing the ENTER button.
- * If using for an approach shot, select between “PW,” “AW,” or “SW.” Using other settings may result in measurements not being performed correctly.
- * If club number settings are not performed, the flight distance may not be estimated correctly.

(4) Setting up the device

Set up the device as shown below.

- * Set the device on a flat surface and make sure there are no obstructions between the device and the ball.
- * Correct measurement will not be possible if the device is set up in a different direction from the launch direction, or if set up at the incorrect height.
- * The same setup method can be used for left-handed players.



(5) Swinging

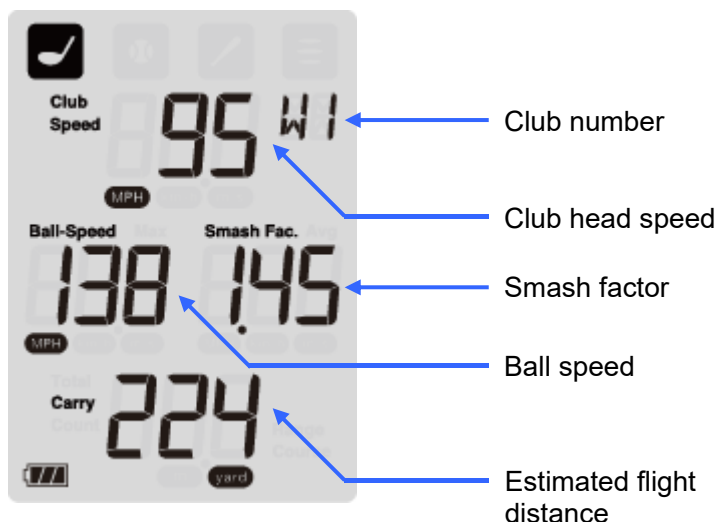
After the club is swung, the results will be shown on the LCD screen.

- * When data updates, the display on the LCD screen will blink.
- * Measurements will not be possible while the display is blinking. Wait until the display stops blinking before swinging again.

Description of Screen Displays (Golf Mode)

[Display Screen]

The club head speed, ball speed, smash factor, and estimated flight distance are all displayed simultaneously.



[Regarding Estimated Flight Distance]

- This device measures estimated flight distance based on large amounts of practice swing data accumulated by our company.
- “Estimated flight distance” is the flight distance calculated using the measured ball speed together with the average launch angle and spin rate for each club number.
- Depending on the club used, actual flight distances may differ with the estimated flight distance.
- The direction of hit balls is not taken into consideration.

- * Club head speed can be measured even for practice swings.
- * However, ball speed, smash factor, and estimated flight distance are not displayed unless a ball is actually hit.
- * Although measurements such as ball speed may be displayed even during practice swings, this is due to the nature of this measurement device and is not a malfunction.

[Switching Displays for Flight Distance]

The display for estimated flight distance can be switched between “Carry” and “Total” by quickly pressing the MODE button.

- * The selected mode can be confirmed by looking for the “Carry” or “Total” icons shown to the left of the displayed flight distance.

Carry flight distance display



Total flight distance display




Measuring (Pitching Mode)

The speed (initial speed) of thrown balls can be measured in this mode.

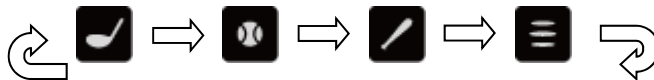
(1) Turning on the power

* See "Turning On the Power" on pg. 6

(2) Selecting modes

- Press and hold the MODE button for approximately 2 seconds to change modes and select Pitching mode .

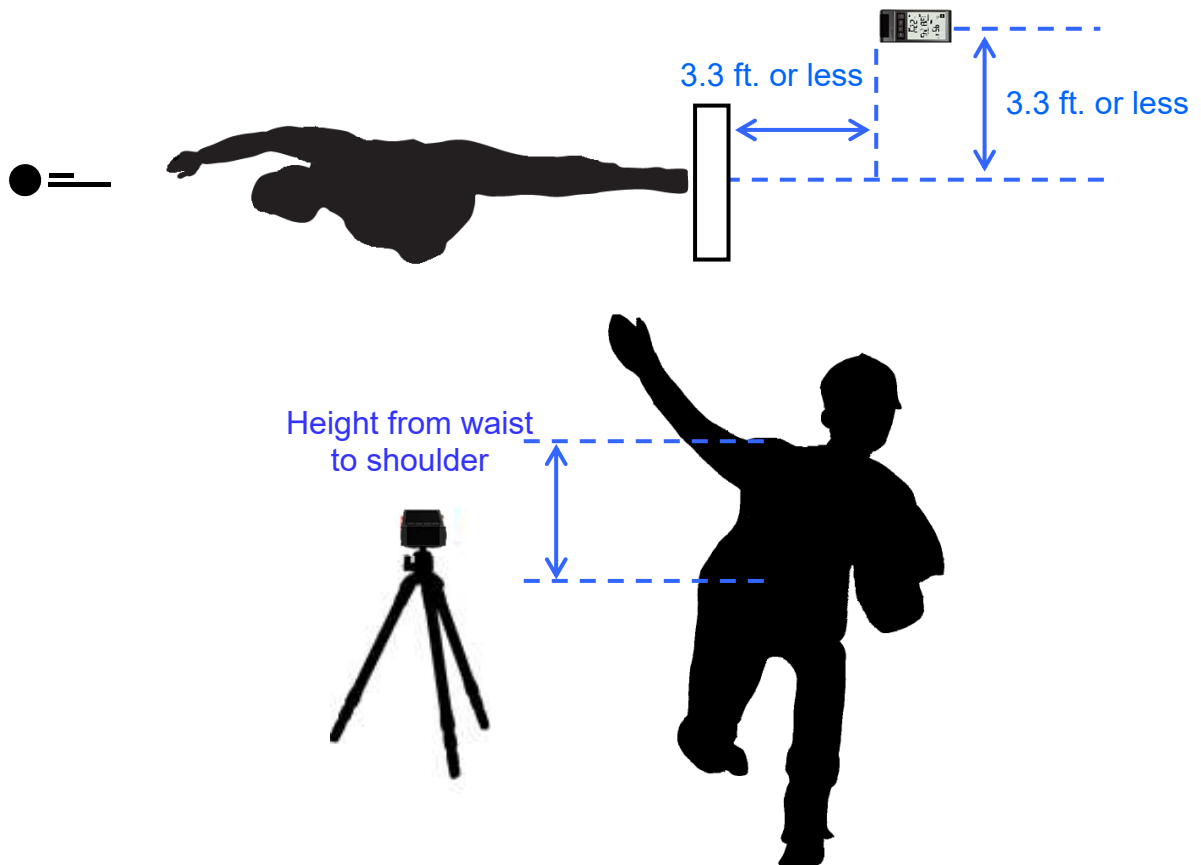
* Continuously pressing the MODE button will scroll through the four modes in order.



(3) Setting up the device and taking measurements

Use a commercially sold tripod or similar equipment to set up the device as shown in the illustration below.

* Always check the surrounding area for safety.




Measuring (Batting Mode)

Bat swing speeds can be measured in this mode.

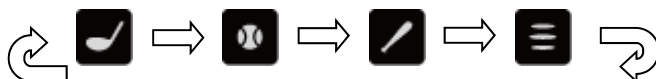
(1) Turning on the power

* See "Turning On the Power" on pg. 6

(2) Selecting modes

- Press and hold the MODE button for approximately 2 seconds to change modes and select Batting mode .

* Continuously pressing the MODE button will scroll through the four modes in order.



(3) Setting up the device and taking measurements

Use a commercially sold tripod or similar equipment to set up the device as shown in the illustration below.

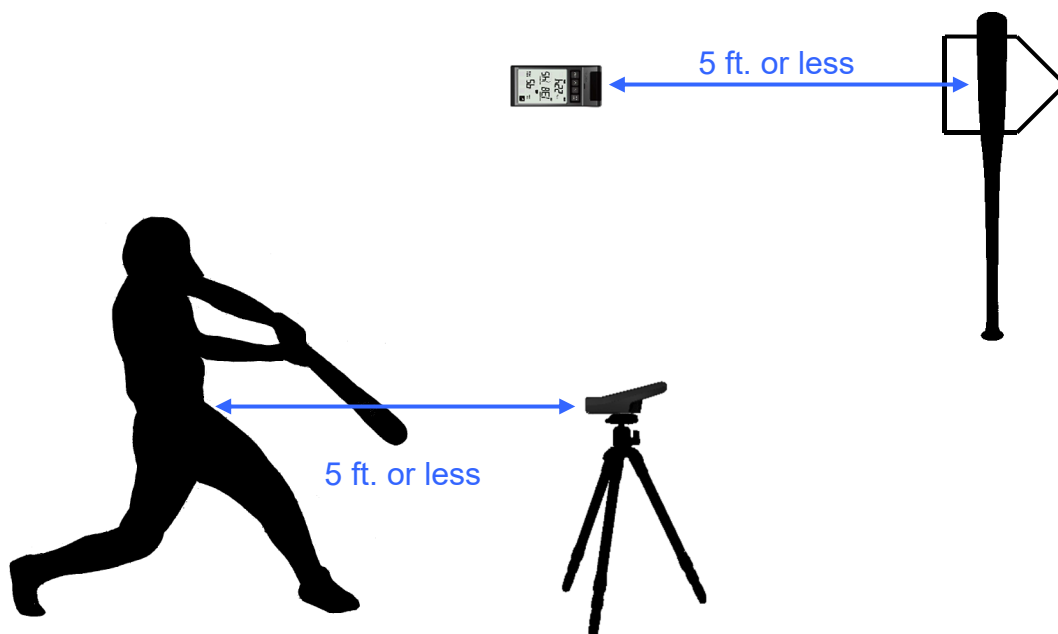
* Always check the surrounding area for safety.

Set up the device 5 ft or less from the assumed point of impact.

* Make sure the location where the device is set up is in line with home plate and the pitcher's mound.

* Depending on the bat material and construction, the measured distance may be shorter or measurement may not be possible at all.

* **Make sure the device and tripod are set up in a location where contact with them will not be made.**



Example of set-up

Measuring (Multi Mode)


In this mode, the speed of thrown balls at the target (final speed), as well as the speeds of balls for various types of sports can be measured, such as soccer ball shooting speeds.

- * This function measures the speed of objects (balls) that pass through its periphery.
- * Measurement may not be possible depending on the materials of objects or their distance.

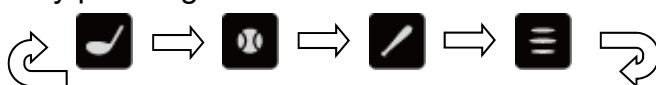
(1) Turning on the power

- * See "Turning On the Power" on pg. 6

(2) Selecting modes

- Press and hold the MODE button for approximately 2 seconds to change modes and select Multi mode .

- * Continuously pressing the MODE button will scroll through the four modes in order.



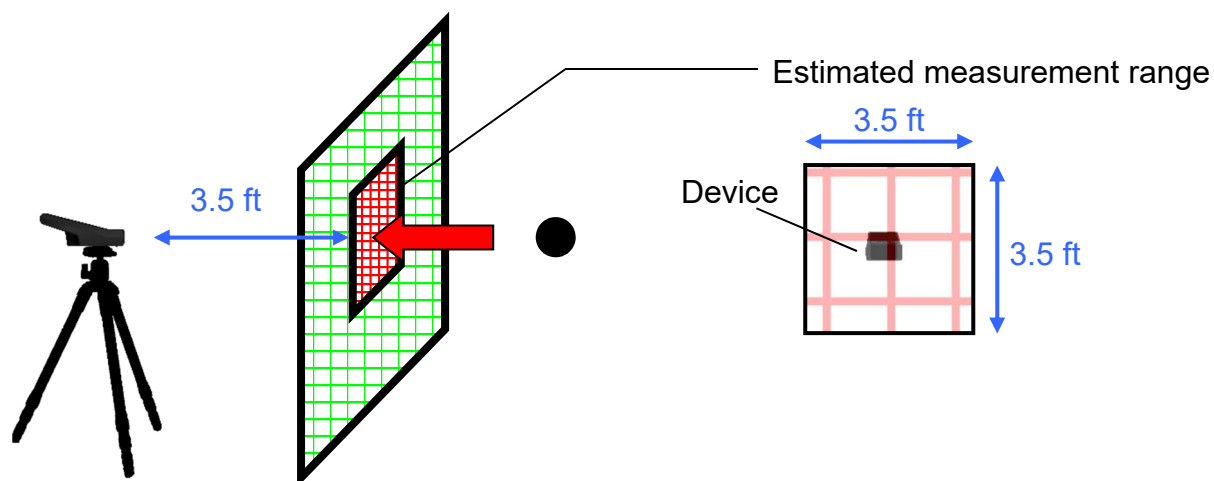
(3) Setting up the device and taking measurements

Use a commercially sold tripod or similar equipment to set up the device as shown in the illustration below.

- * Always check the surrounding area for safety.

[Measuring Final Speed at the Target]

- Set up the device 3.5 ft behind the net and throw the ball at the net.
 - * Always check the surrounding area for safety and make sure balls that ricochet off the net do not pose a safety hazard.
 - * **Correct measurement may not be possible depending on the ball material.**



- To perform measurement when practicing pitching, set up the device behind the catcher (in the location where the umpire would normally be).
 - * Measurement may not be possible for balls that enter the shade created by the catcher.



Example of measurement using a tripod



Example of measurement by a coach or manager

Regarding Ball Final Speed

When measuring at the set-up positions described above, the speed of the ball immediately before being caught by the catcher is measured.

Because this is the speed actually experienced by a batter, it is considered an important element for determining the quality of a pitch. Although it may vary depending on the type of ball and the ball spin, this speed will be 5 to 10% slower than the general pitch speed (the speed of the ball when leaving the pitcher's hand).

(Example)

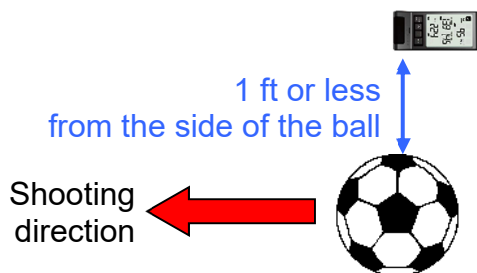


Final speed: 63 mph

Initial speed: 70 mph

[Measurement from Shooting/Throwing Side (Initial Speed Measurement) | Soccer Ball Example]

- Set up the device as shown below.
 - * When shooting by placing the ball in front of the device, the speed of the leg used to kick the ball may be measured, resulting in a measurement slower than the actual shooting speed.
 - * Always check the surrounding area for safety.



Example of measuring shooting speed

Description of Screen Displays

[Checking the Mode]

The selected mode can be checked by looking at the icon displayed at the top of the screen. Make sure to select the correct mode for the measurement target.



Pitching mode



Batting mode

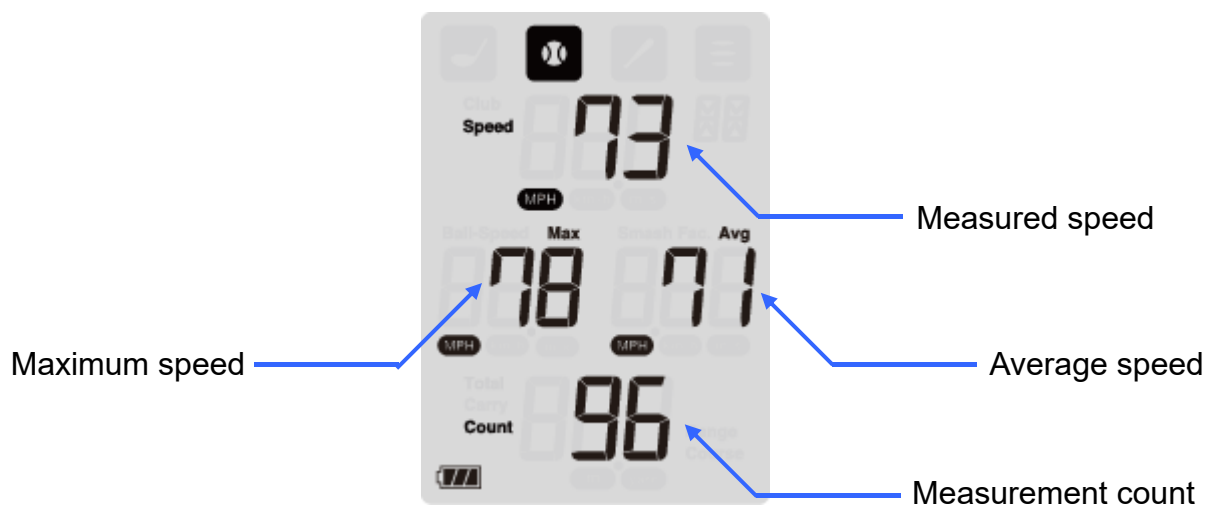


Multi mode

[Display Screen]

In addition to the measured speed, the maximum and average speeds saved to the history are also displayed.

The total measurement count is also displayed.




[Regarding the Counter Function]

The Pitching, Batting, and Multi modes include a counter function displayed on the bottom of the screen that tracks the measurement count. This function can be used to count the number of practice swings and thrown balls.


- * The counter can count up to 999. However, only up to 500 instances of measurement data can be saved in the history (total for all modes).
- * When the history is cleared, the count will also be cleared.

Checking History Data

This device enables up to 500 instances of measurement data to be saved in the history (total for all modes). Use the following procedure to display history data.

- Press the Up Scroll button .
 - ⇒ The most previous measurement results will be displayed.
- * You can continue to scroll by continuously pressing the Scroll buttons.
- * When the total number of data reaches 500, the oldest data will be automatically overwritten.


[Deleting History Data]

The history and count data in each mode can be deleted by continuously pressing the Up and Down Scroll buttons  simultaneously for 2 or more seconds.

Switching units of measurement

The units of measurement displayed on this device can be switched between imperial and metric. Use the following procedure to switch the displayed units of measurement.

Switching displayed units of measurement

- Press and hold the Down Scroll button  and ENTER button simultaneously.

⇒ Every time the above buttons are pressed, the displayed units of measurement will switch between imperial and metric.
“MPH” and “yard” ⇔ “km/h” and “m”

- * Displayed unit of speed will switch on all modes.
- * The operations and usage methods remain the same for each mode.
- * Next time the device is restarted, the displayed units of measurement will be the same as those when the device was turned off.

Displayed unit of speed
MPH ⇔ km/h

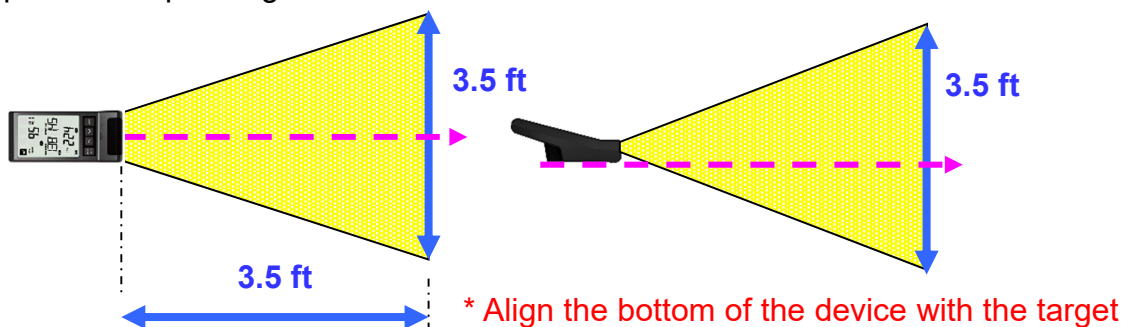
Displayed unit of distance
yard ⇔ m



Device Measurement Range and Setup

- This device can be used to measure the speed of a ball passing through the following general ranges.

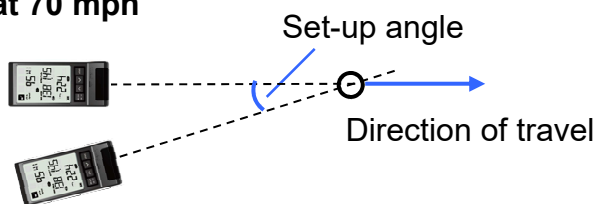
The estimated ranges shown below are those when using a softball. Measurement may not be possible depending on the ball material.



- If the device is set up at an angle in regards to an object's direction of travel, the speed displayed will be slower than the actual speed.

Example: when measuring a target moving at 70 mph

- 0 degrees: 70 mph (100%)
- 10 degrees: 69 mph (98%)
- 20 degrees: 66 mph (94%)
- 30 degrees: 61 mph (87%)



Troubleshooting

- Power doesn't turn on
 - Check whether the orientation of the batteries is correct.
 - Take the batteries out before putting them back in. When doing so, check to make sure proper contact is being made between metal portions.
 - Check the remaining battery power and replace with new batteries if necessary.
- Measurement isn't possible
 - Check whether the device is set up correctly or try setting up the device again using the methods described in this manual.
 - When a ball is launched at a high trajectory using a wedge club, etc., ball speed will be slower and measurement may not be possible due to the specified smash factor not being met. (This is due to the specifications of the device and is not a malfunction.)
- Measurements seem incorrect
 - The club head speeds displayed by this device are those measured using our company's unique criteria. For that reason, measurements may differ from those displayed by measurement devices from other manufacturers.
 - Check whether the device is set up correctly or try setting up the device again using the methods described in this manual.
 - Correct ball speeds may not be displayed depending on the type of ball used. Also, the speeds of plastic practice balls and sponge balls cannot be measured.
 - Only club head speed can be measured during practice swings. In rare cases, ball speed and flight distance may be displayed even during practice swinging, but this is due to noise and such measurement results are not accurate.

Specifications

- Microwave sensor oscillation frequency: 24 GHz (K band) / Transmission output: 10 mW or less
- Possible measurement range:
 - Golf mode
Club head speed/ball speed: 25 mph - 200 mph
 - Pitching/Batting modes
Swing speed/ball speed: 20 mph - 110mph
 - Multi mode
Speed: 20 mph - 185 mph
- Power: Power supply voltage = 6 V (using four AAA batteries) / Battery life: Approx. 1 month when used 1 hr. per day
- Operating temperature range: 0°C - 40°C / 32°F - 100°F (no condensation)
- Device external dimensions: 55 mm × 116 mm × 48 mm / 2.2" × 4.6" × 1.9" (excludes protruding sections)
- Weight: 131 g (includes batteries)

Warranty and After-Sales Service

In the event the device stops operating normally, stop use and contact the Inquiry Desk listed below.

Inquiry Desk

AMH SPORTS

12222 Bell Ranch Drive , Santa Fe Springs , CA 90670 , U.S.A

TEL : (323)201-0880 FAX : (323)201-0884

- If a malfunction occurs over the course of normal use during the warranty period stated in the warranty, we will repair the product free-of-charge in accordance with the content of this manual.
 - If repairs are necessary during the warranty period, attach the warranty to the product and request the retailer to perform repairs.
 - Note that charges will be applied for repairs performed for the following reasons, even during the warranty period.
 - (1) Malfunctions or damage that occur due to fire, earthquakes, wind or flood damage, lightning, other natural hazards, or abnormal voltages
 - (2) Malfunctions or damage that occur due to strong impacts applied after purchase when the product is moved or dropped, etc.
 - (3) Malfunctions or damage for which the user is deemed to be at fault, such as improper repair or modification
 - (4) Malfunctions or damage caused by the product getting wet or being left in extreme environments (such as high temperatures due to direct sunlight or extremely low temperatures)
 - (5) Changes in appearance, such as due to being scratched during use
 - (6) Replacement of consumables or accessories
 - (7) Malfunctions or damage that occur due to battery fluid leakage
 - (8) Malfunctions or damage deemed to have resulted from issues caused by the instructions in this user's manual not being followed
 - (9) If the warranty is not presented or required information (date of purchase, retailer name, etc.) is not filled in
 - Please store this warranty in a safe location as it cannot be reissued.
- * Disagreements regarding whether these exceptions apply, as well as the scope of warranty when they do not apply, will be handled at our discretion.
- * This warranty does not limit the legal rights of the customer. Upon expiration of the warranty period, please direct any questions regarding repairs to the retailer from which the product was purchased or to the Inquiry Desk listed above.

Portable Launch Monitor HS-130A

Warranty

* Customer	Name:	
	Address: (Postal code:)	
	Telephone number:	
* Date of purchase DD/MM/YYYY		Warranty period 1 year from date of purchase
Serial No.:		
<p>Information for customers:</p> <ul style="list-style-type: none"> ● This warranty promises that we will perform repair free-of-charge in accordance with the content of this manual. Please read this manual carefully and ensure that all items have been filled in. ● Before requesting repairs, first take time to confirm that the device power-up procedures and operation methods have been followed correctly. 		
<p>* Retailer name/address/telephone number</p>		

* This warranty is invalid if there is no information entered in the asterisk (*) fields. When taking possession of the warranty, please check that the date of purchase, retailer name, address, and telephone number have been filled in. Immediately contact the retailer from which this device was purchased if any omissions are found.

PRGR CO., LTD.

5-36-11 Shimbashi, Minato-ku, Tokyo 105-0004 Japan

Supplier's Declaration of Conformity

February 1, 2021

Unique Identifier

Portable Launch Monitor HS-130A

Party issuing Supplier's Declaration of Conformity

PRGR CO.,LTD

5-36-11 SHIMBASHI, MINATO-KU, TOKYO 105-0004, JAPAN

TEL: +81-3-5400-4742

Responsible Party – U.S. Contact Information

AMH SPORTS

12222 Bell Ranch Drive , Santa Fe Springs , CA 90670 , U.S.A

TEL: 323-201-0880

FCC Compliance Statement (for products subject to Part 15)

This device complies with Part 15 of the FCC Rules. 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.

Authorised Person

Hiroyoshi Hibino
President