

# + GOLF SIMULATOR

## **USER MANUAL**



#### Rapsodo PTE Ltd.

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### **GENERAL INFORMATION**

Mobile Launch Monitor MLM2PRO™ is designed and produced by Rapsodo Pte. Ltd.

#### Do not use the MLM2PRO™ in wet conditions.

The MLM2PRO™ is not water-resistant. Do NOT use the device under rain, water exposure or wet environments as the product may get damaged.

#### **App Updates**

Rapsodo will periodically update and improve the features of the Rapsodo MLM2PRO mobile application. It is recommended that users regularly download the latest version. Some updates may be required for continued use of the MLM2PRO $^{\text{TM}}$ .

#### **Return Policy and Warranty**

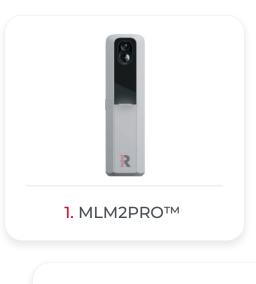
Rapsodo provides a (1) one-year limited warranty for manufacturing defects. Under conditions of the warranty agreement, purchasers will be entitled to repair or replacement of the defective Rapsodo products. This warranty begins from the date of initial purchase. Rapsodo may also choose to refund the purchase price of the product to the purchaser, at its sole discretion. Detailed information on the Warranty and Return Policy can be found online at www.Rapsodo.com/warranty

#### **Regulatory Notice**

The symbol on the product or its packaging signifies that this product must be disposed separately from ordinary household wastes at the end of life. It is your responsibility to dispose electronic equipment at recycling centers in order to help conserve natural resources. Each country in the EU should have its collection centers for electrical and electronic equipment recycling. For information about your recycling drop off point, please contact your local electrical and electronic equipment waste management authority. Do not dispose of the Rapsodo device with household waste. Batteries are not to be disposed of in municipal waste stream and require separate collection. Disposal of packaging and your Rapsodo should be done in accordance with local regulations.



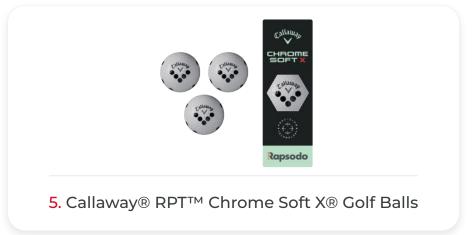
## WHAT'S INSIDE THE BOX











In the MLM2PRO box, you will find a carrying case and a sleeve of Callaway RPT™ Chrome Soft X Golf Balls. Inside of the carrying case, you will find the MLM2PRO™, Tripod, and USB-C charging cable.

### **DEVICE OVERVIEW**

#### **Impact Vision Camera**

Integrated high-speed camera captures 240 frames per second for a slow-motion view of your club path and contact point.

#### **Shot Vision Camera**

This wide-angle 2K video camera captures swing videos with shot-tracer for visualization of ball flight.

#### **Doppler Radar**

Integrated radar unit tracks ball speed and club speed for each shot.

#### **LED Indicator**

The LED indicator shows the MLM2PRO™ status so you know if the device is charging, ready for a shot, or processing data. View the LED Guide for all statuses.

#### **USB-C Charging Port**

Charging port designed for use with the provided USB-C cable.

### **Alignment Aid**

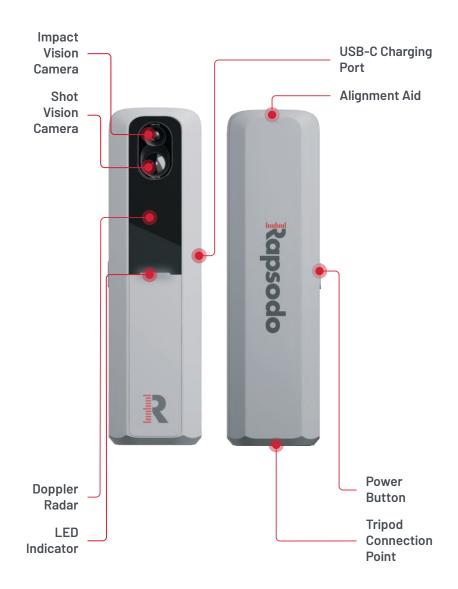
This alignment line on the top of the device helps you ensure correct positioning during set up.

#### **Power Button**

Turn the device on and off.

### **Tripod Connection Point**

Connects the tripod to the body of the MLM2PR0 $^{\text{\tiny TM}}$ .





### LED GUIDE

The LED on the front of the MLM2PRO™ indicates the device status.



### Solid Red

The device is powered on, but not connected to the MLM2PR0 $^{\text{TM}}$  app.



### **Flashing Red**

The device has low battery.



#### **Solid Blue**

The device is connected, or a shot is processing.



### \* Flashing Blue

The device is trying to connect.



#### Solid Green

The device is ready to capture data, user may hit a shot.



### Flashing White

The device firmware is updating.



#### **Solid Amber**

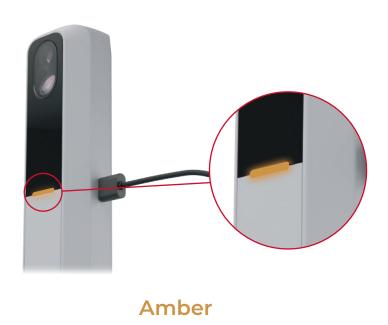
The device is charging. The Amber light will turn off when the device is fully charged.

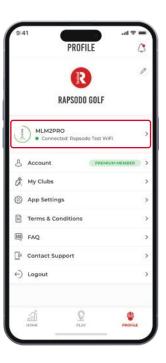
### CHARGING THE DEVICE

Before your first session, fully charge the MLM2PRO™ using the provided USB-C cable. Please allow up to four hours for a full charge.

- The LED indicator will turn amber while the MLM2PRO™ is charging.
- The LED indicator will turn off when the MLM2PRO™ is fully charged.

To view the current battery status, connect your MLM2PRO™ to the MLM2PRO™ mobile app and visit the Profile Screen. Select your device to view battery status.









### MLM2PRO™TRIPOD

The  $MLM2PR0^{TM}$  tripod provides stability to ensure accurate data capture. It also functions as a stand for your phone or tablet. The phone or tablet does not need to be placed on the stand for the  $MLM2PR0^{TM}$  to function.

#### **Tablet Setup:**

When the tripod is attached with two legs facing the player, the two slots can be used to hold a tablet in landscape\* position.

#### Phone Setup:

When the tripod is attached with one leg facing the player, the single slot can be used to hold a phone in landscape or portrait position.



When placing a phone or tablet on the tripod, never cover the LED, radar or cameras (ensure the window from the LED to the top of the device is unobstructed.)





### **POWER BUTTON**

Press and hold the power button for 2 seconds to turn the device on. The LED indicator will turn red when the device is powered on.

To turn off the MLM2PRO™, hold the power button until the LED turns off.

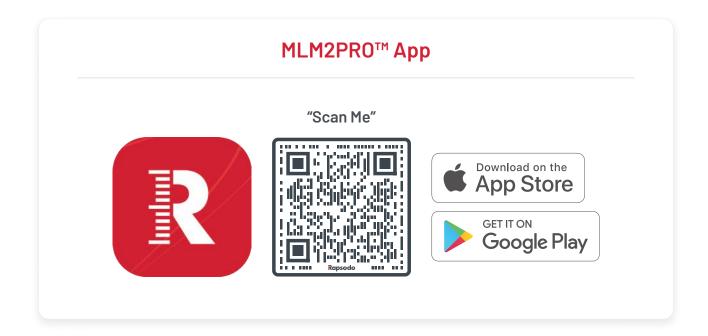


### RAPSODO MLM2PRO™MOBILE APP

The MLM2PRO™ Mobile App is compatible with Android and iOS devices.

To download the Rapsodo MLM2PRO™ Mobile App, scan the QR code from your phone/tablet or search "Rapsodo MLM2PRO™ in the App Store or Google Play Store.

The MLM2PRO™ Mobile App will be updated frequently with new functionality. We recommend enabling automatic app updates, so you always have access to the latest functionality.



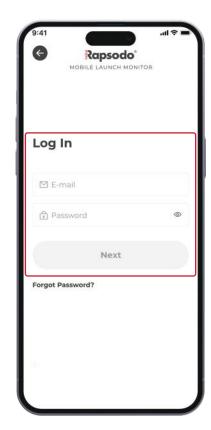


### MLM2PRO™- GETTING STARTED

Once you've downloaded the MLM2PRO™ Mobile App, you will have two options: Login and Create Account.

If you currently have an Rapsodo MLM2PR0 $^{\text{TM}}$  app account, you can use your same credentials (email and password) to login to the MLM2PR0 $^{\text{TM}}$  app. If you don't remember your password, select "Forgot Password" to begin the reset process.





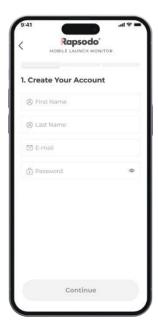


### MLM2PRO™- GETTING STARTED

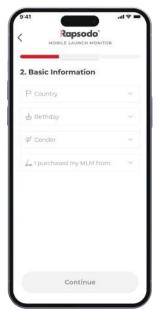
If you're new to Rapsodo, simply select "Create Account" and follow the on-screen prompts to create your account.

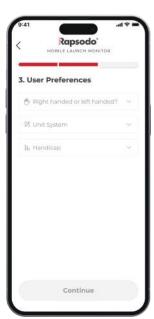
- Enter your contact information and create a strong password. Ensure your password is at least 8 characters including at least one number, uppercase and lowercase letter.
  - Next, enter your basic information.
- Last, enter your user preferences. It is important to ensure your handedness selection, unit system, and handicap are correct. These settings will impact gameplay and data analysis in app. Changes can be made from the Profile tab in the app.















### REGISTER YOUR DEVICE & CLAIM 1-YEAR PREMIUM MEMBERSHIP

All new MLM2PR0™ units come with a 1-year Premium Membership. To claim your MLM2PR0™ Premium Membership, you will first need to login to the MLM2PR0™ App or create an account.

#### Once you login:

- Hold the power button on the MLM2PRO™ to turn on the device.
- Ensure Bluetooth and WiFi are enabled.
- Click "Register Device".

Your device will display in the MLM2PRO™ app and can be identified by its serial number. The serial number is printed on the baseplate of the MLM2PRO™.

Select your MLM2PRO™ to register. This device will be associated with your account.

Once your device is registered, you will see your 1-year Premium Membership offer.

To claim the offer, select "Enjoy 1 Year Free" and follow the on-screen prompts.







The MLM2PRO™ Premium Membership is a subscription and will renew automatically one year from initial activation. All subscriptions are handled through the App Store and Google Play Store. Changes to your subscription can be made through the subscription settings on your iOS or Android device.



### APP PERMISSONS

To function properly, the  $MLM2PR0^{TM}$  app requires permission to various functionality provided by your phone or tablet. Permissions vary by provider (iOS and Android).

- Location: Create GPS map and access local elevation data.
- Bluetooth: Search for available MLM2PRO™s, connect to third party applications.
- Local Network: Find and connect to local WiFi networks.
- Nearby Devices: Find and connect to your MLM2PR0™.
- Microphone and Camera: Record your swing using the camera on your phone/tablet.
- Background App Refresh: Maintain connection and sync shots.

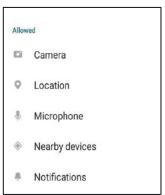
Camera

Siri & Search

Background App Refresh
Cellular Data

• Cellular Data: Access online functionality when connected directly to the MLM2PR0™'s WiFi network. Sync shots to the cloud when WiFi internet connection is not available.





android



### **CONNECTION GUIDE**

To begin using your MLM2PRO™, you will need to connect a compatible phone or tablet.

Your phone or tablet will use Bluetooth to search for available MLM2PRO™s nearby. Once your unit is located, you will set up a WiFi connection that will be used to transfer data from the MLM2PRO™ to your phone/tablet during your session. There are two types of WiFi connections:



#### **Local Network Connection:**

A local WiFi network is a traditional network you would use for an internet connection at home or in the clubhouse. If you select this option, the Rapsodo  $MLM2PR0^{TM}$  app will ask you to choose your network and enter the password. The  $MLM2PR0^{TM}$  and phone/tablet will use this network to communicate.

If you use a **Local WiFi Network** (which has an active internet connection), you will have full access to the MLM2PRO™ mobile app including all features requiring internet access.

#### **Direct WiFi Connection:**

If you are in a location where no local WiFi networks are available (driving range), then the MLM2PR0 $^{\text{TM}}$  will create its own personal WiFi network. Connection directly to the MLM2PR0 $^{\text{TM}}$ 's WiFi network will allow the phone/tablet to communicate directly with the MLM2PR0 $^{\text{TM}}$ .

If you use **Direct WiFi** on a phone/tablet that has cellular internet access (through your service provider – AT&T, Verizon, etc.), you will have full access to the MLM2PRO $^{\text{TM}}$  mobile app including all features requiring internet access.

If you use **Direct WiFi** on a phone/tablet that does not have cellular internet access, functionality will be limited\*.

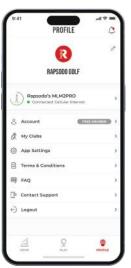
Rapsodo®

## **CONNECTION GUIDE (SELECTING YOUR MLM2PRO™)**

To connect your MLM2PRO<sup>™</sup>, simply select a play mode from the Play tab (Practice, Combines, or Simulation) or select 'Connect MLM2PRO<sup>™</sup> from the Profile Tab. Ensure that Bluetooth and WiFi are enabled on your phone or tablet and the MLM2PR0 $^{\text{TM}}$  is powered on (the LED indicator on the MLM2PR0 $^{\text{TM}}$  is red).

Once detected, your MLM2PRO™ will be shown on screen. If it's your first time connecting, your MLM2PRO™ will be shown by its serial number. Check the baseplate of the device to view the serial number.











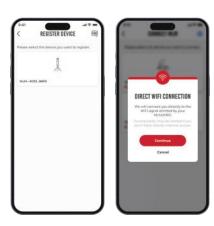
## CONNECTION GUIDE (LOCAL NETWORK CONNECTOIN)

Follow the steps shown below to establish a Local Network Connection.

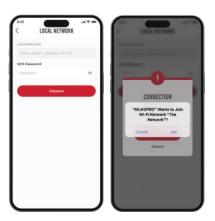
Select your MLM2PRO™ from the devices shown on screen. You will then see a pop-up on screen asking if you have a local WiFi network available. Click **'YES'**. Your phone/tablet will scan for local WiFi networks, then display a list of available networks.

Click 'Connect', then enter your WiFi password. You will receive a system prompt (Android/iOS) to join the network. Click 'Join' to connect.

When the connection is successful, you will see the notification below. You can then Start a Session or View Device Info.













## CONNECTION GUIDE (DIRECT WIFI CONNECTION)

Follow the steps shown below to establish a Direct WiFi Connection.

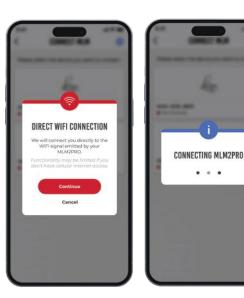
Select your MLM2PRO™ from the devices shown on screen. You will then see a pop-up on screen asking if you have a local WiFi network available. Click 'No'.

You will then be prompted to establish a Direct WiFi Connection. Select 'Continue'.

When the connection is successful, you will see the notification below. You can then Start a Session or View Device Info.











## CONNECTION GUIDE (STARTING A SESSION AND DEVICE INFO)

Following a successful connection, you will have two options:

1. Start a Session

If you select 'Start a Session', you will be taken to the Play tab to select your Play mode.

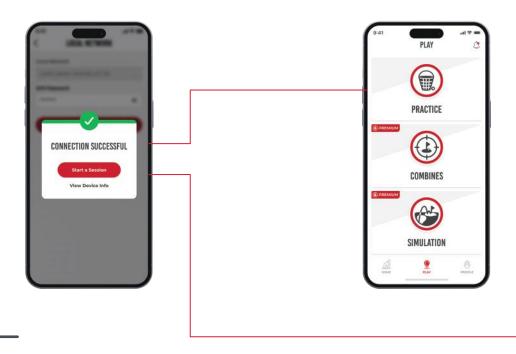
2. View Device Info

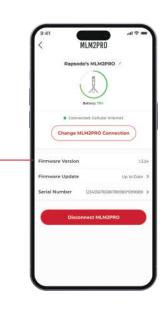
If you select 'View Device Info', you will be taken to the Device Info screen. This screen can be accessed at anytime from the Profile tab when the  $MLM2PR0^{TM}$  is connected to a phone/tablet.

When your connection is successful, you will be able to Start a Session or View Device Info.

Starting a Session will take you to the Play tab.

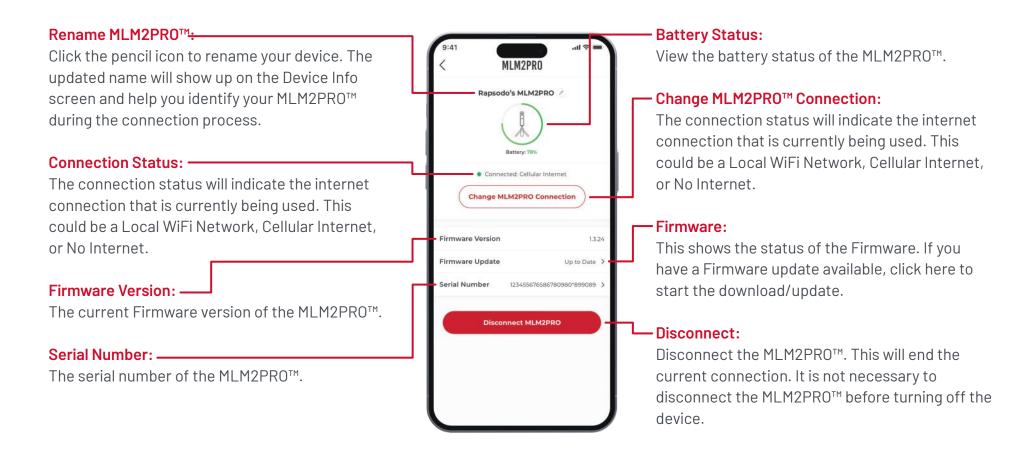
Viewing Device Info will take you to the Device Info page on the Profile tab.





### MLM2PRO™ DEVICE INFO

Once you've connected your MLM2PRO™ to your phone or tablet, you can view the Device Info screen from the Profile tab. This will give you information on your MLM2PRO™ and give you the ability to take actions related to Connection and Firmware Upgrade:





### FIRMWARE UPDATE

To get the most out of your  $MLM2PR0^{TM}$ , always ensure your Firmware is up to date. To check for a Firmware upgrade, connect your  $MLM2PR0^{TM}$  to a local network or in direct mode with cellular internet access (iOS only). An active internet connection is required to download the Firmware Update.

To start the update process, you must first download the firmware. If a new firmware update is available, you will be automatically prompted to download the update when you are connected to the MLM2PRO™ with an active internet connection.

You may also view the firmware version and initiate the firmware update from the device information screen.

The firmware update download progress is shown on the Profile screen.

Once the download is complete, you can install the firmware. Follow the on screen prompts or initiate the install from the device information screen.

To update the firmware, ensure that:

- The MLM2PRO is plugged in and charging
- The MLM2PRO battery is at least 50%.

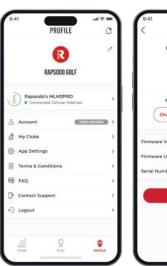
The LED indicator on the MLM2PR0™ will flash white while the firmware update is in progress.

Do not turn off or unplug the MLM2PRO™ while the white LED is flashing.

When the update is complete, the MLM2PRO™ will restart and the LED indicator will turn red. You can now

reconnect and start your session.







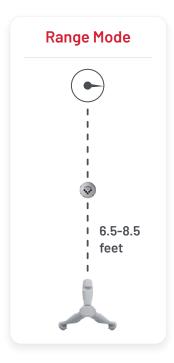


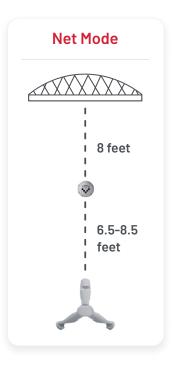


## MLM2PRO™SET UP (RANGE AND NET)

To get the most out of your MLM2PRO™, ensure you have the proper set up each session.

- Ensure the MLM2PR0 $^{\text{TM}}$  is set up on level ground. We know the driving range grass can be uneven, so try to ensure the MLM2PR0 $^{\text{TM}}$  is level.
- Place the device approximately 6.5-8.5 feet directly behind the ball with the alignment line on top of the device aimed directly at your intended target. If the MLM2PRO™ is in range mode, you need ~30 yards of ball flight. If the MLM2PRO™ is in net mode, you need at least 8 feet of ball flight.
- Ensure there are no obstructions in front of the radar or cameras.
- Ensure you are hitting in a well-lit environment.





### ALIGNMENT - SET YOUR TARGET LINE

When starting a session, it is important to align the device properly and ensure you have a clear understanding of what your target is.

The alignment aid on the top of the device is helpful when first setting the device up, however, once you start a session, you will see the  $MLM2PR0^{TM}$ 's Shot Vision camera view to assist in your alignment. The target line shown in the app corresponds to a 0-degree launch direction. If you need to realign the  $MLM2PR0^{TM}$  during your session, select "View Alignment" in the session settings and the live stream will be displayed on screen.





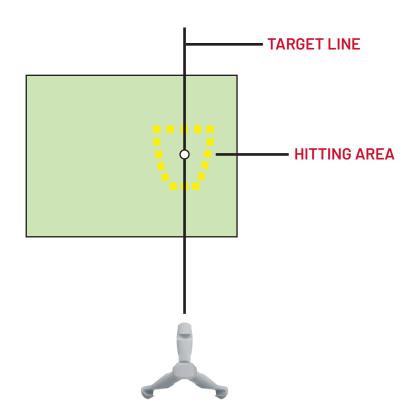


### ALIGNMENT - PLACING THE BALL

The MLM2PRO™ requires specific ball placement so the integrated cameras can pick up each shot. When setting your target line, you will see the **'Hitting Area'**. This yellow dotted line shows you where you can place the ball so it is visible by the Impact Vision camera. When the ball is placed within the hitting area the MLM2PRO™ should register each shot hit.

Although the hitting area may look small on the live stream, this is due to the angle of the camera. Here is a 2D representation of the hitting area:





### UNDERSTANDING PRACTICE SETTINGS

Customize your settings before each session to ensure accurate data capture.

### Net vs. Range Mode

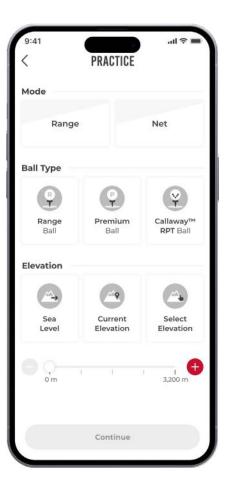
Depending on your set up, it is important to select the correct mode. Our algorithms are designed to provide accurate data based on the amount of ball flight our cameras and radar capture. Use **Net Mode** if you are only able to capture less than 30 yards of ball flight. Use **Range Mode** if you can capture over 30 yards of ball flight.

### **Ball Type**

Different golf balls have different flights. We've provided options for a generic range ball, a generic premium golf ball, and the Callaway  $RPT^{\text{TM}}$  Chrome Soft X golf ball.

#### **Elevation**

Elevation can have a large effect on how the golf ball fly's including carry and total distance, apex, and descent angle.



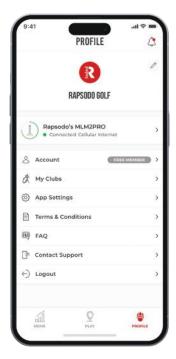


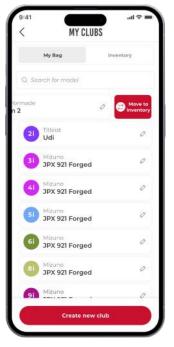
### SETTING UP MYBAG

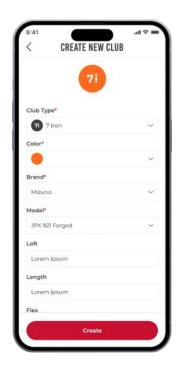
MyBag allows you to track your data across multiple different clubs. To access and set up MyBag, click the Profile tab then select MyBag.

To add a new club, click the Create new club. Enter the club type, color (to be shown in app), make, model, and any additional details (loft, lie, flex). Once you save the club, you will have the option to add the club to "MyBag" or "Inventory".

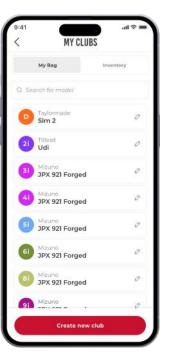
Clubs added to MyBag will be available for use during your sessions. You can only have one of each club type (Driver, 7 iron, etc.) in your MyBag at one time. Other clubs can be added to your Inventory. Clubs can be moved between MyBag and Inventory at anytime by swiping left on the club.













### **CLUB RECOGNITION**

The MLM2PRO™ comes equipped with active club recognition. This will allow you to change clubs during a session without interacting with your phone or tablet.

To use club recognition, simply start a session and begin hitting shots. When you're ready to change your club, show the sole of the club to the camera. You should hold the club roughly six inches from the MLM2PR0 $^{\text{TM}}$ 's camera for approximately 2 seconds. Your club change will be reflected in the MLM2PR0 $^{\text{TM}}$  mobile app.



## *MLM2PR0™SPECIFICATIONS*

Dimensions	1.9" x 1.7" x 7.4" / 48 x 43 x 188mm (W x D x H)
Mass	.7 lbs / 300 grams
Camera	2k wide angle video, 240 fps high speed photo
Battery type	Rechargeable, built-in lithium-ion battery
Battery life	2-4 hours
Operating temperature range	5-50°C / 41-122°F
Charging temperature range	5-50°C / 41-122°F
Wireless frequencies/ protocols	2.4 GHz @ 25.5dBm maximum 5 GHz @ 16 dBm maximum
Data Interfaces	USB 3.0

## **IMPORTANT**

Before using the MLM2PRO™, carefully read the Rapsodo MLM2PRO™ User Manual. Failure to read and follow the User Manual my cause serious injury or death.

The MLM2PRO™ system specifications and functionality are constantly evolving, and we may update or change the system in whole or in part, without notice to you. Such updates may be required for you to use new functionality or features, or continue to access and use existing functionality and features. The content available for use on the MLM2PRO™ system change from time to time, and not all features previously offered will be available. Some features require an annual Premium subscription.

The software in the MLM2PRO™ system is licensed and not sold to you, and is subject to the End User License Agreement and Rapsodo's Terms and Conditions.



## **APPENDIX**

Additional content to be added later.





### PREMIUM MEMBERSHIP

New MLM2PRO™ purchases come with a 1-year Premium Membership to help you get the most out of your game.

Premium Members get access to:

- Session InsightS
- Rapsodo Combines
- Rapsodo Range
- Rapsodo Courses
- Measured Spin and Spin Axis (using the Callaway RPT Chrome Soft X golf ball)
- Swing Vision
- Impact Vision

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.

Any 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 equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter. "To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

