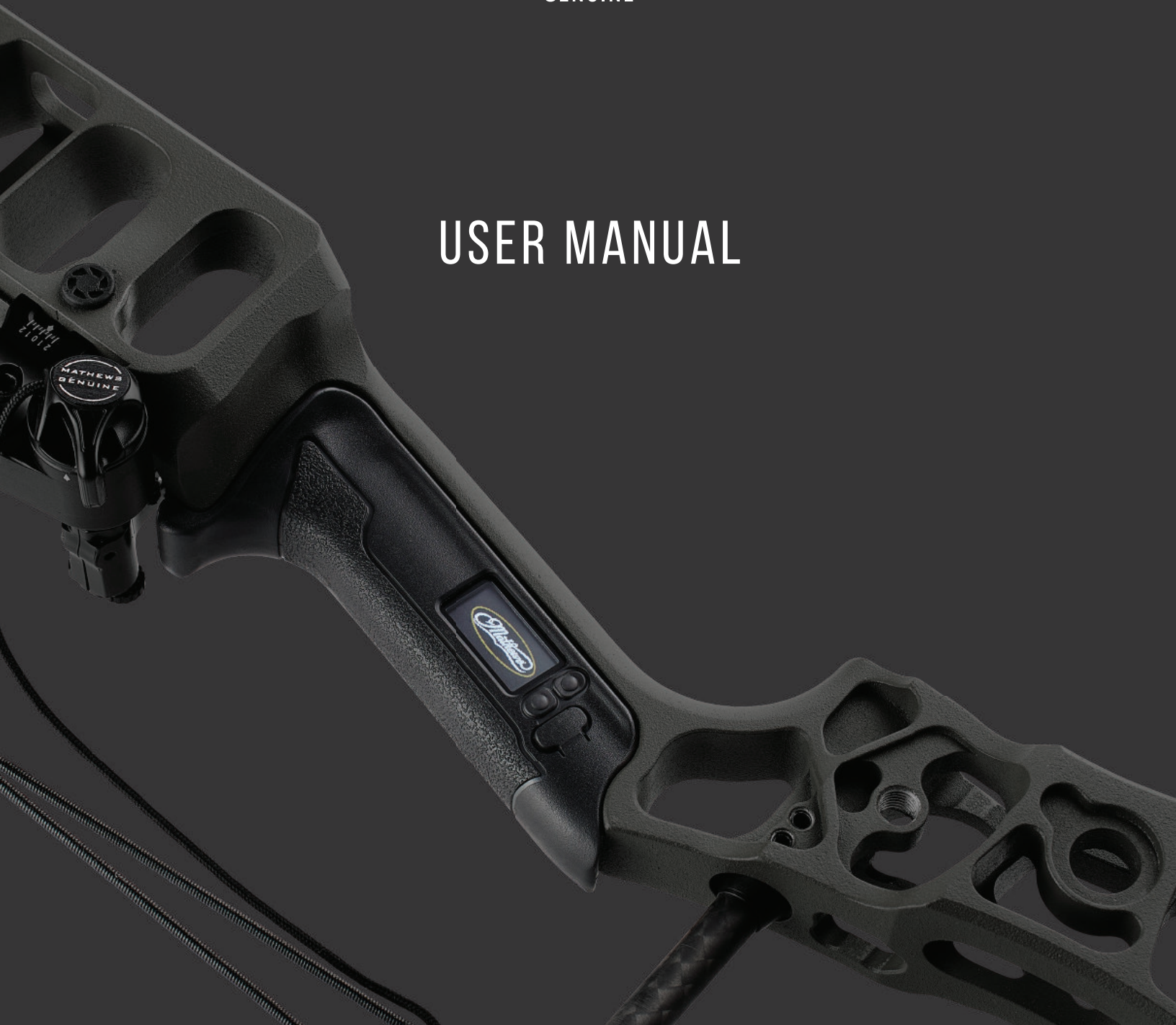


SHOT SENSE™

ADVANCED SHOT ANALYSIS



USER MANUAL



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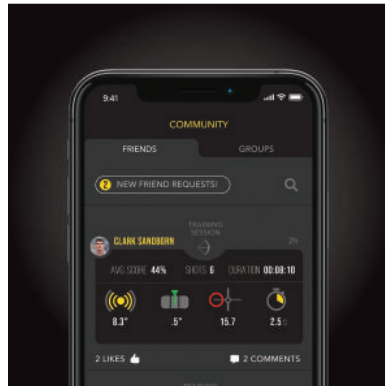
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SHOT SENSE

DESCRIPTION

The Mathews Shot Sense module is designed to provide advanced feedback and insight to an archer’s individual shot process to elevate the overall archery experience. The Shot Sense module is exclusively designed and built compatible with Mathews bows. The module integrates directly into the grip for a streamlined and is an integral part of the bow. It will track, score, and give insight to every shot taken by the archer. This system is able to be used in adverse weather conditions to gather shot data whether during training, hunts, or tournaments.



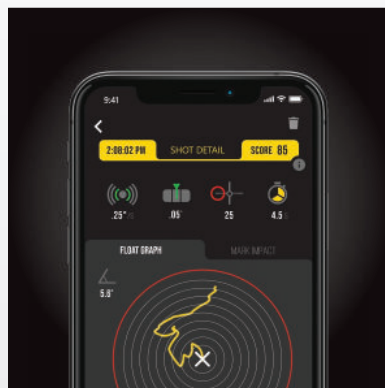
COMMUNITY

Create groups with other users to share your stats, set up competitions, and track your progress in the Shot Sense app.



INTEGRATION

Shot Sense integrates directly into the riser of your bow and is compatible with 2023 and newer Mathews models.



ADVANCED ANALYTICS

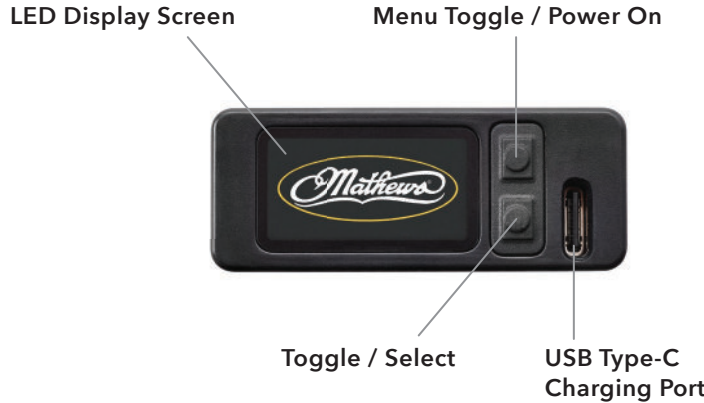
Shot Sense aims to make you a better archer by recording your shot data and providing advanced feedback during every session on the range or in the field.

PACKAGE CONTENTS

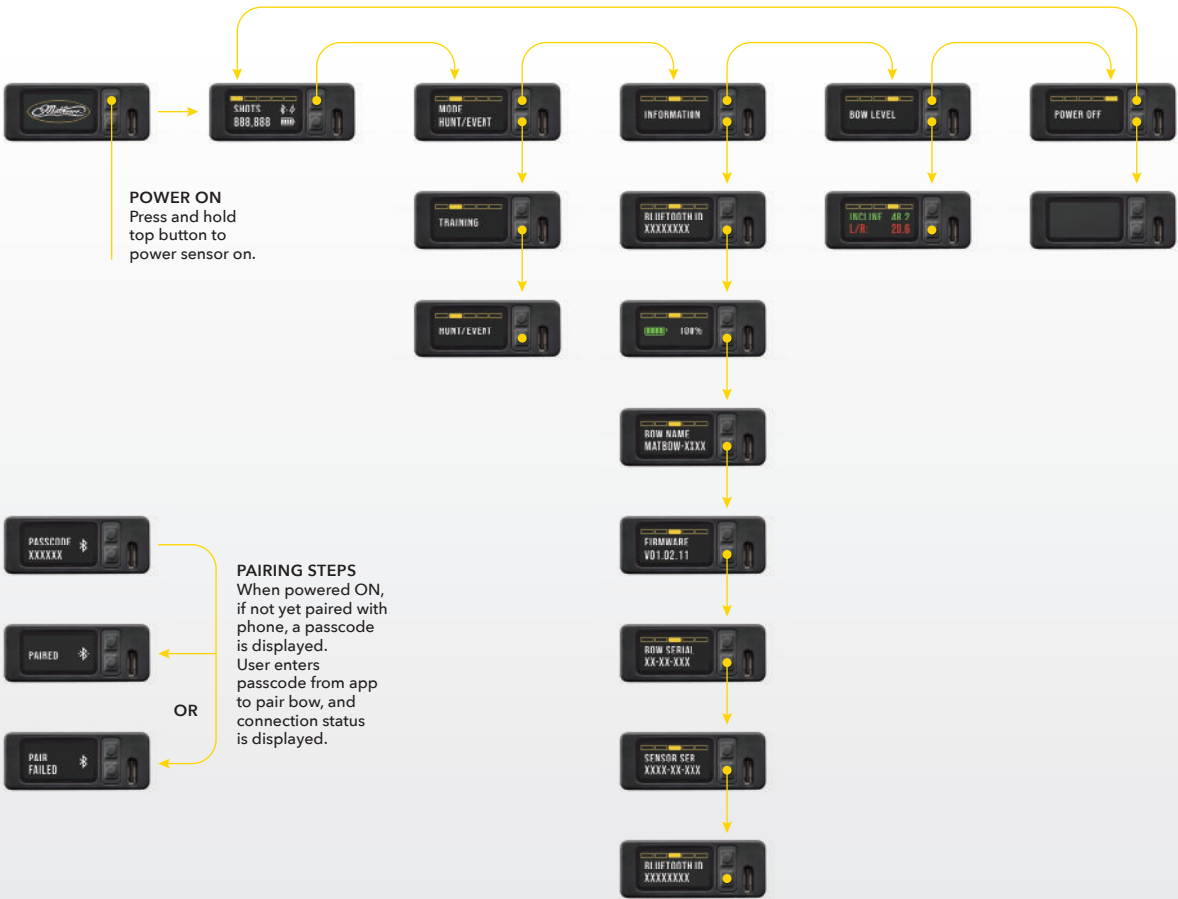
- Mathews Shot Sense Module
- Mathews Engage Sensor Grip
- Mathews Sensor Sideplates
- USB Type-C to Type-A Cable
- 3 Shot Sense Module Adhesive
- Mathews Engage Sensor Grip Adhesive
- Mathews Sensor Sideplates Adhesive
- Sensor Removal Tool
- Information Card



COMPONENTS AND CONTROLS



- SPLASH SCREEN**
Loading screen when powered on.
- SHOT COUNTER**
Displays shot count and bluetooth connection status.
- MODE SELECTION**
Allows user to switch modes and displays bluetooth connection status.
- BOW INFORMATION**
Displays battery level, bow name, firmware version, memory % remaining and bluetooth connection status.
- BOW LEVELING**
Displays bow leveling data and bluetooth connection status.
- POWER OFF**
Power sensor off or return.

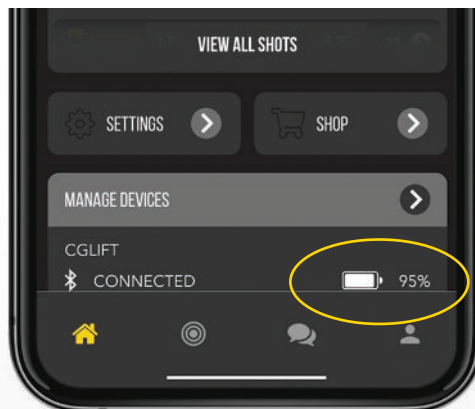


RECOMMENDATIONS FOR BATTERY USE

- The batteries should be partially charged (50 to 80%) for long-term storage.
- Charge at an ambient temperature of 0°C to +35°C (32°F to 95°F) or the lifespan of the battery will decrease significantly.
- Using the battery at sub 0°C (<32°F) ambient temperature decreases battery capacity. This is normal and not a defect.

DEVICE CHARGING

The Mathews Shot Sense module contains an internal rechargeable lithium-ion battery. Before first use, make sure to fully charge the battery with the provided USB Type-C charging cord. The battery level icon that can be found on the Shot Sense app and in the Shot Sense module will indicate when the battery needs to be recharged.



SENSOR INSTALLATION

- Plug Sensor in and charge battery fully.

NOTE:

You may receive a fault – this is normal and is a “low battery” fault, hit the right button on the sensor and you should see the “start-up” screen.



- Once sensor is completely charged, remove the standard grip from your bow (see below).



SENSOR INSTALLATION

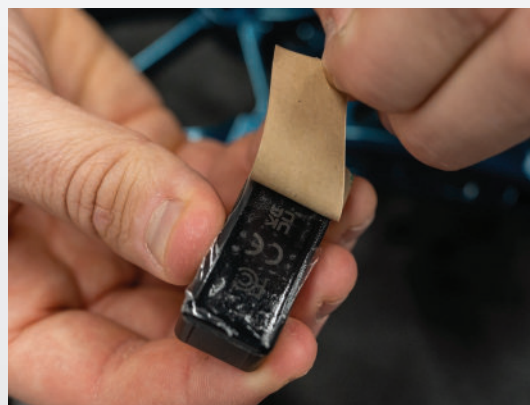
- Remove grip adhesive by rolling it off the bow (see below).



- Remove grip spacer/sensor removal tool by pressing it out from the opposite side of the riser (see below).



- Remove adhesive backer on sensor (see below).



SENSOR INSTALLATION

- Press the sensor in bow, be careful not to press on the screen while installing (*see below*).



- Install new grip adhesive around the sensor (*see below*).
 - Start with the side opposite the sensor and wrap around riser, let sit for a few minutes before peeling the adhesive backing.
 - Be sure the lower area for adhesive around the sensor sticks well.



- Remove the adhesive backing from bow starting with the side opposite the sensor, peel back slowly to ensure adhesive sticks to riser (*see below*).



SENSOR INSTALLATION

- Install new grip.
- Spread grip to avoid the adhesive (see *below*), until grip is in correct place.



- Ensure grip fits well around screen and press firmly on grip to ensure proper adhesion (see *below*).



DOWNLOADING THE APP

In your App Store or Google Play Store search for "Mathews Shot Sense" and install the app to your device.



- Train and shoot smarter with Shot Sense, the most complete archery data tool ever made.

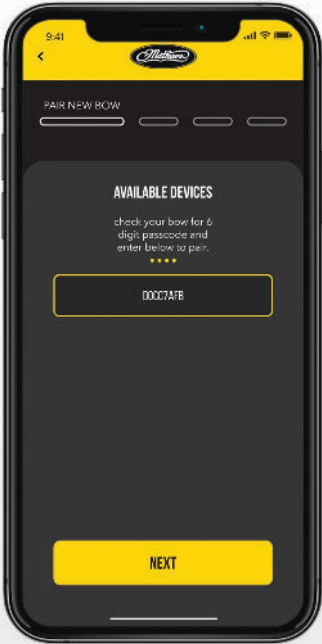


PAIRING DEVICE

- Open the Shot Sense app and select "PAIR NEW BOW":



- After selecting "PAIR NEW BOW," this screen should appear and show all available devices nearby:

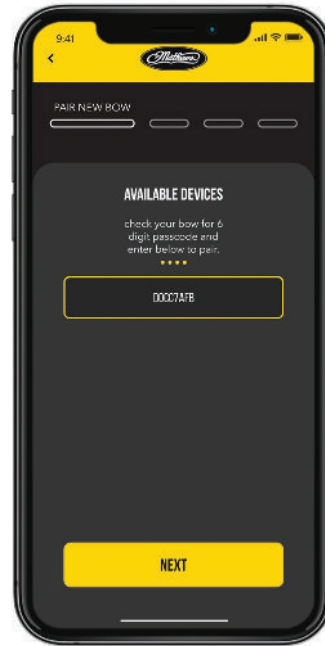


PAIRING DEVICE

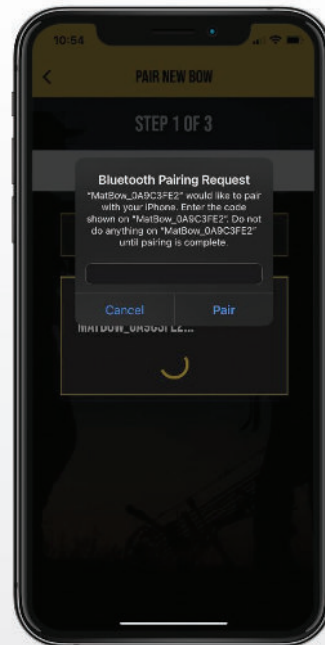
- The sensor on your bow will show up with its Bluetooth ID (see below) so you know you are selecting the correct device.



- Select your device on the Shot Sense app:

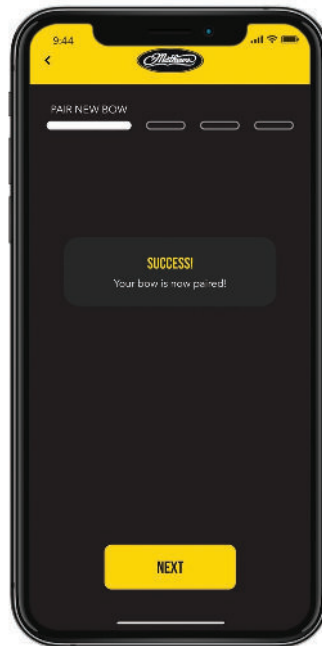


- Enter the displayed passcode from your sensor in your phone app.

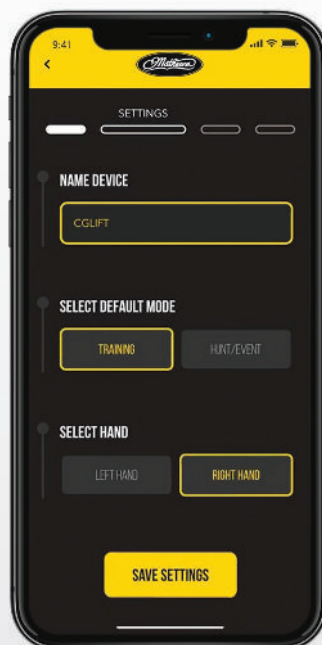


PAIRING DEVICE

- Once paired you should get this screen:

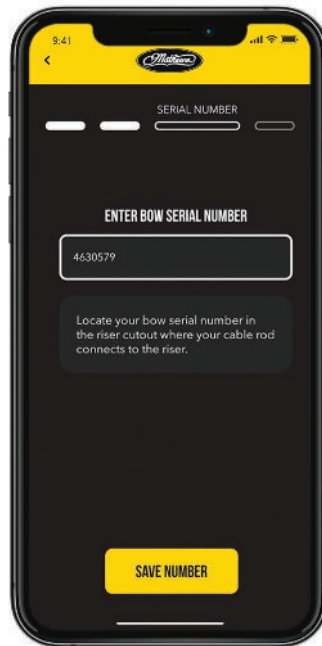


- From here you can select which mode you would like to start in, rename your device, and choose right or left hand set up.
 - Once you name a sensor you will not be able to rename it without factory resetting the device.

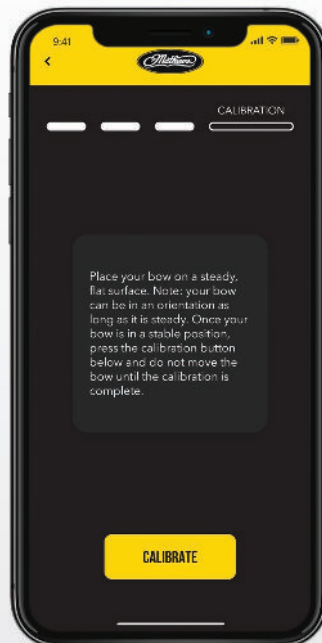


PAIRING DEVICE

- Next you must enter your bows serial number, which is located on the sight side of the bow riser.

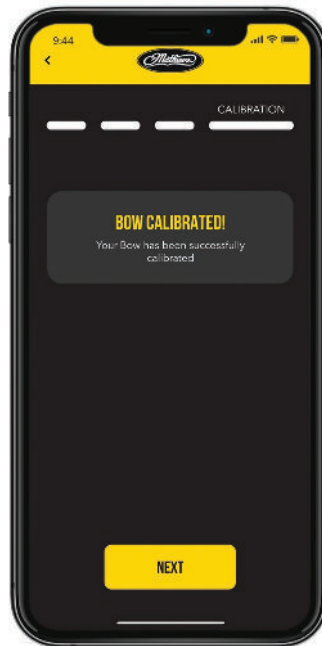


- Next you will see a screen come up for bow calibration. Place your bow on a steady, flat, and stable surface. It can be in any orientation as long as its steady. Press the calibrate button and do not touch the bow.

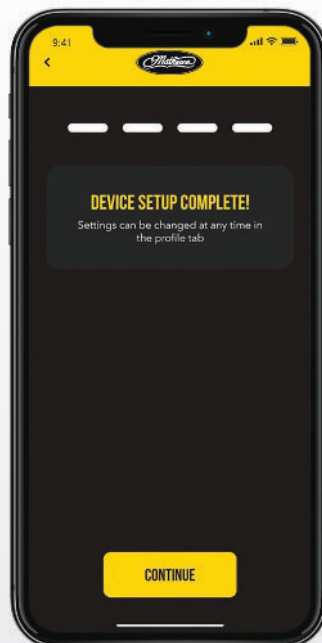


PAIRING DEVICE

- Once complete, you will see this screen:



- After the calibration, your device setup is complete. You should see the following screen come up. Once you press continue your device is ready to use.



FIRMWARE UPDATE

- An update to the sensor may be required to get the best results.
- To update your device, follow the below instructions:
 - Go to the main HOME SCREEN and press the “MANAGE DEVICES” button.
 - On this screen you will be able to see if a firmware update is available.



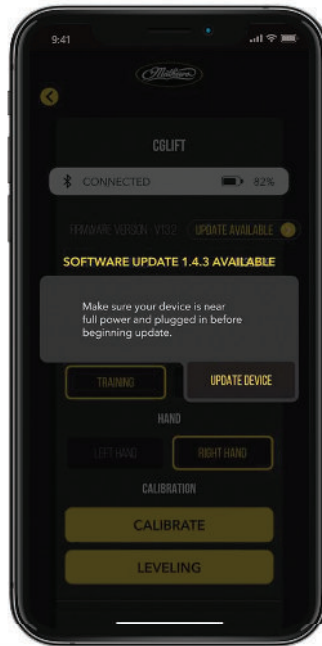
- Select the arrow next to “UPDATE AVAILABLE” (see above right).

FIRMWARE UPDATE

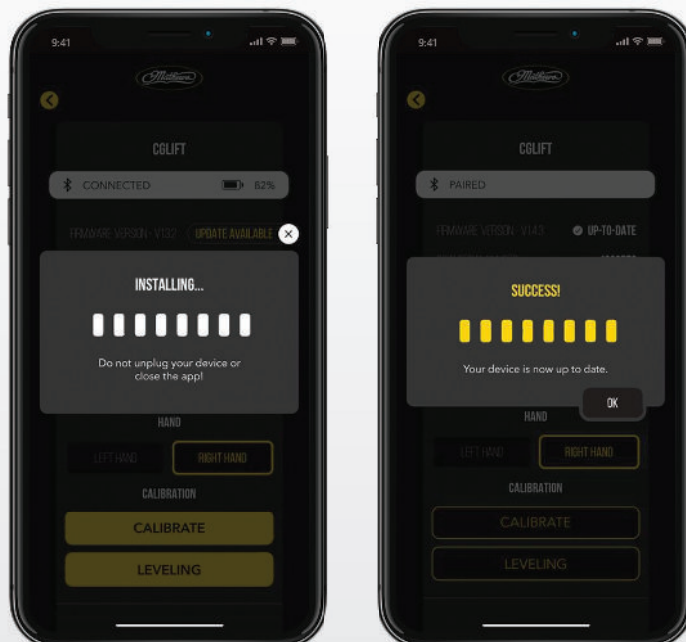
- You will then see the following window come up. Select “UPDATE DEVICE.”

NOTE:

Your device needs to be plugged in and near full power.

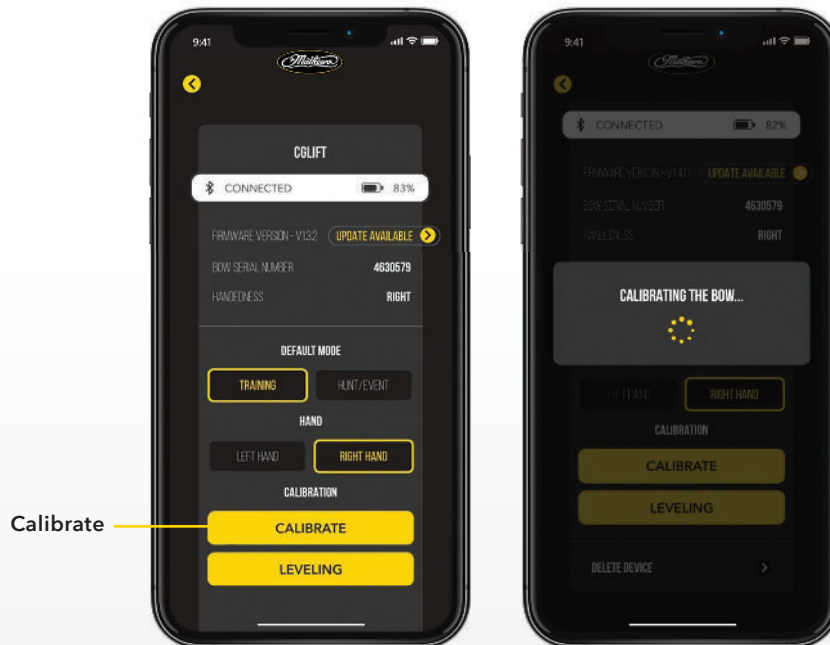


- You will then see a window and progress bar show up that informs you the update is in progress. Do not unplug your device or close the app.
- Once the update is complete, hit the “ok” button and your device is ready to use.



MODULE CALIBRATION

- Why Calibrate?
 - If you are experiencing a shot score that seems off or doubtful, it may be time to recalibrate your sensor.
 - This will help to ensure that your results are as accurate as possible.
- To recalibrate the sensor, complete the following steps:
 - Make sure your sensor is connected and go to the main home screen of the app. Once there press the “MANAGE DEVICES” button.
 - At this point you will see on the screen a “CALIBRATE” button.
 - Place the bow on flat, steady, and level surface. The bow does not need to be upright and can be in any position.
 - Press the “CALIBRATE” button.



APP SCREENS

HOME SCREEN – The home screen is the main user interface for the app and is where users can do the following:

- See some basic information about your Shot Statistics (*Total Shots, Average Score*).
- View any of your latest shots (*View All Shots*).
- Access Settings.
- Access the Shop (*Mathews Website*).
- Manage Your Devices.



APP SCREENS

ALL SHOTS - The All Shots screen is where users can view all of the shots that have been registered to the sensor, and also has the following capabilities:

Users can sort and view their shots by date, as well as mode (*Training, Hunt/Event*).

- In this page a user can also select shots and place them into Sessions.
- This can be thought of as a filing system to help users organize their shots.

Example - Filing away the shots from a specific practice session on a specific date.

- To create a session, simply press the select shots button and then press the shots you would like to place in a session.
- From here you can name the session and then it will be placed in your profile tab. The shots you have selected are not removed from the All Shots tab, so you can always reference them here as well.



APP SCREENS

COMMUNITY - This page is where users can access the Shot Sense Community which contains the following options:

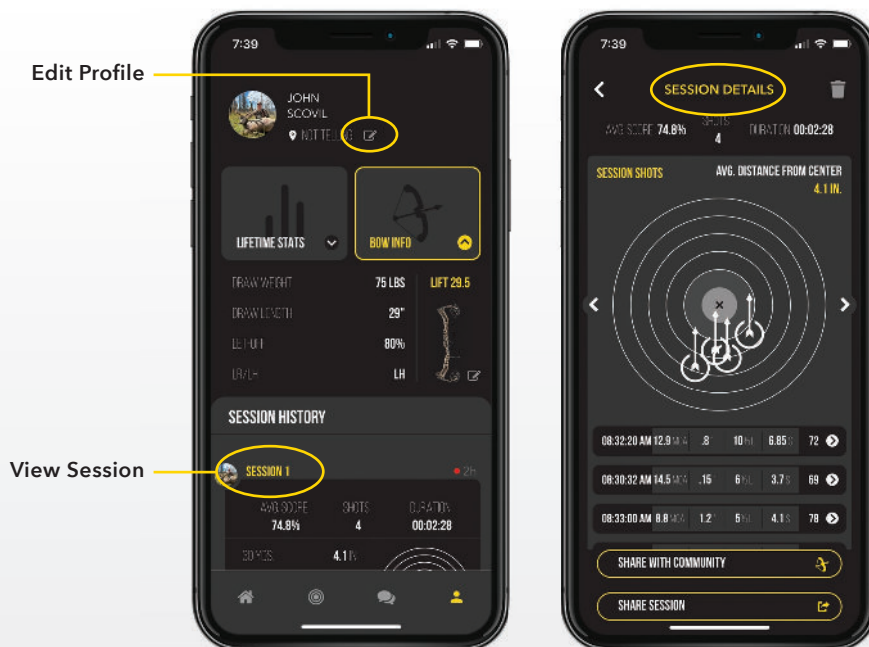
- **Adding Friends**
 - Press on the magnifying glass and then you can search for your friends and send them a friend request.
- **Creating Groups**
 - Press on group tab and then "Create Group."
- **Viewing Lifetime Stats for Your Friends**
 - To view someone else's statistics, simply press on their name.
- **Leaderboard**
 - This menu will allow you to see statistics of your group based on certain metrics.
 - **Filtering** - The filtering feature will allow you to filter shots and determine the leader board in terms of mode, shot metric, and time frame.



APP SCREENS

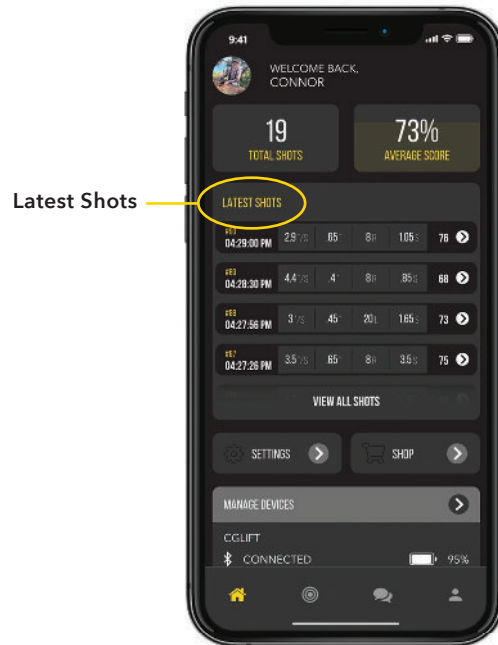
PROFILE - This page of the app will allow you to view your session history, lifetime stats, and edit your bow information.

- **Session History**
 - All of your saved session will appear here as a list in order by date. To view the session information, simply click on the session where you can view the full summary and specific shots details.
- **Lifetime Stats**
 - This menu will give you an overview of the following stats:
 - *# of Shots*
 - *Shots per Day*
 - *Most Shots in a Day*
 - *Average Rating*
- **Bow Info**
 - This menu will allow you to enter in your bow information including the model, draw weight, draw length, let off, and handedness.
- **Edit Profile**
 - To edit your profile, simply press the edit button next to your profile picture. In this menu you can change your picture, name, and location.



APP USE AND FEATURES

- To begin using the app, simply start taking shots.
- Your shots will begin to show up in the “LATEST SHOTS” section on your main home screen (see below).



• Reviewing a Shot

- To review a shot, simply press the arrow button on the shot line.
 - This will bring you to the “SHOT DETAIL” screen for chosen shot:



APP USE AND FEATURES

SHOT DETAIL shows:



- **Shot Rename**

- Change shot name by touching the icon in the top right-hand corner of the screen and selecting "RENAME."

- **Score**

- Shot score out of a possible 100 based on an algorithm meant to mirror a perfect shot.

- **Bow Torque (15 Points)**

A unitless comparison measurement to how much torque you place on the bow during that shot.

Full points are if your torque percentage is +/- 5%.

Each additional 5% of movement is minus 1 point.

- **Bow Level (15 Points)**

The status of your Left / Right level at the moment of the shot.

"L" is the top of the bow is leaning to the Left and "R" is the top of the bow is pointing right.

NOTE: if the "Bow Level" value shows "L" that will make the bubble graphic show Right. This mirrors what the archer sees in their sight picture.

- **Set Up / Aim Time (5 points)**

Time is taken to anchor and aim time after before shot.

- **Steadiness (65 Points)**

This metric describes the bow steadiness or movement in degrees/sec just before the shot.

APP USE AND FEATURES

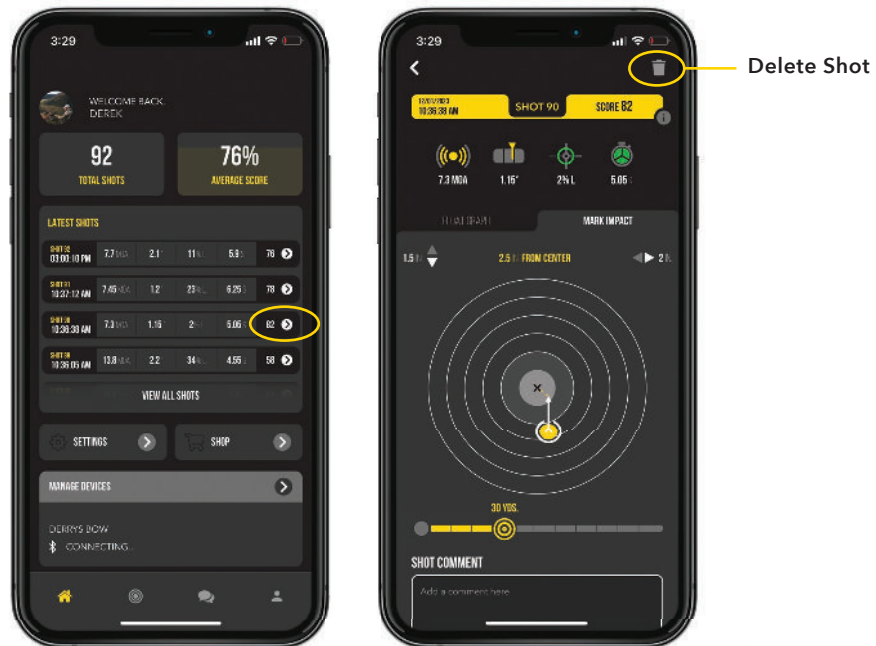
SHOT DETAIL shows:

- **Date / Time**
 - Date and time of shot.
- **Bow Incline**
 - The incline of your shot in degrees. "+" is uphill and "-" is downhill.
- **Timeline**
 - Use Slider to move through time and view your shot sight picture.
 - The bubble graphic will move too while you slide through a shot.
 - Zoom in / out by using magnifying glass icons.
- **Shot Comment**
 - This portion of the shot detail screen will allow you make notes about the shot that will be saved.
- **Mark Impact Tab**
 - This feature can be selected in the shot detail screen and will allow you to record the actual point of impact.
 - Click & drag the arrow on the target to move your point of impact manually.
 - You can also up/down and left/right arrow keys to move the point of impact.
- **Score Breakdown**
 - The detailed breakdown of your score along with the scoring metrics can be found by pressing the "i" button.



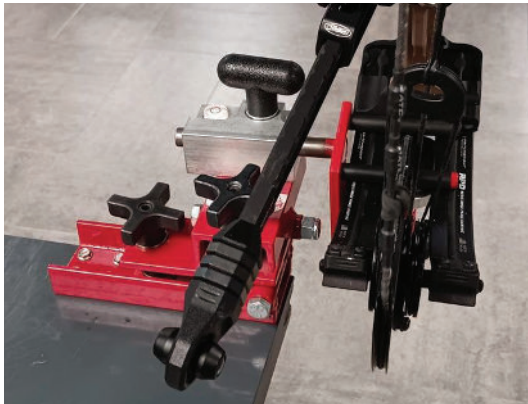
DELETING SHOTS

Shots can be deleted from the app by simply selecting a shot (*select the arrow*), and then hitting the trash can button. Although it's unlikely, this will allow you to delete any false shots the sensor picks up.



BOW LEVELING (Calibration)

- Your sensor will come from the factory with very close default level settings.
- If you wish to match this sensor level with a mechanical level tool (see below).
- Level bow in vice (see below).



- With bow level in vice, navigate to the "BOW LEVEL" screen on the sensor.



BOW LEVELING (Calibration)

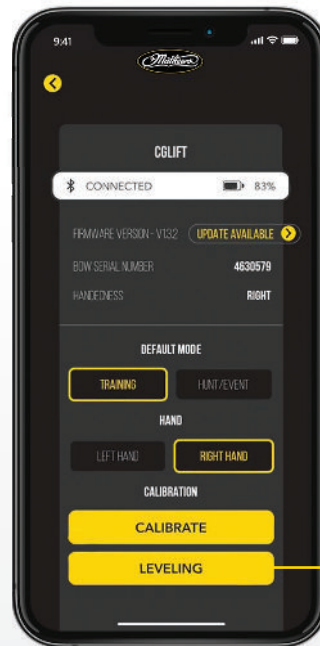
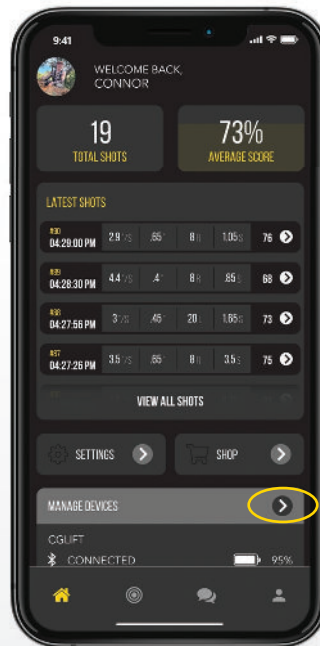
- Check Factory Setting - This will show if your level on the sensor matches what the bubble levels are indicating on the bow.



- Go to the main HOME SCREEN and press the "MANAGE DEVICES" button.
 - Select "LEVELING."

NOTE:

Be sure bow is completely stationary.



- Sensor should now show 0.0 and 0.0 and your sensor is ready to use.



MODES

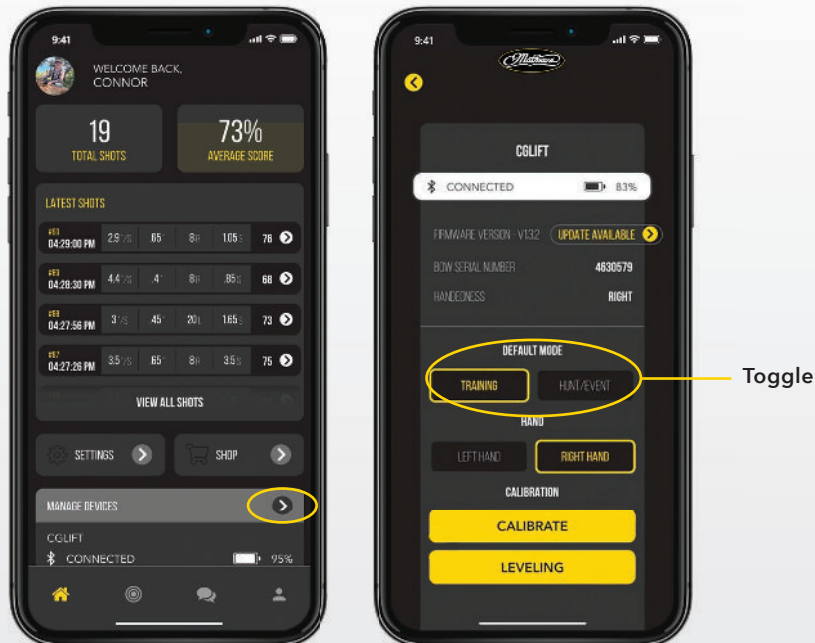
The Shot Sense is equipped with two different modes: Training and Hunt/Event. The modes have the following differences:

- **Training Mode**
 - High backlight brightness level.
 - 2 minute timeout from shot screen.
- **Hunt/Event Mode**
 - Dimmer backlight brightness level.
 - Faster 5 second timeout from shot screen.
 - Faster sleep time to conserve battery.

Changing Modes (on Sensor) - To change sensor modes, power on the sensor and toggle (right button) to the **MODE MENU**. Toggle until you reach the desired mode (left button) and then press the right button. When you change the mode on the sensor, you will also see that the mode has been updated in the app.



Changing Modes (in App) - To change sensor modes through the application, go to the main **HOME SCREEN** and press the **“MANAGE DEVICES”** button. In this menu you can toggle between Training and Hunt/Event. When you make this change in the app, you will see the sensor change as well.



DEVICE INFORMATION

The Device Information feature of the sensor can be accessed by turning on the sensor and scrolling (right button) to the "INFORMATION" menu.

Device Information will allow you to see the following:

- Information Menu



- Battery Life



- Bow Serial Number



- Bow Name



- Firmware



- Sensor Serial Number



- Bluetooth ID



FACTORY RESET

Factory Reset is a feature that can be used to do the following:

- A) Erases all shots
- B) Clears the shot counters
- C) Removes the BLE bonding (*unpairs from the currently connected device*)
- D) Resets the handedness to the default (*Right*)
- E) Resets the bow mode to the default
- F) Resets the bow serial number
- G) Resets the bow name
- H) Sets the language to English
- I) Reverts calibration to factory defaults

Directions:

- 1) Turn on sensor (*Press ON button*)
- 2) Hold down both buttons for 5 seconds.
 - 2a) You will see a new menu come up when you do this.
- 3) Press left button (*Toggle/Select*) twice until you reach the menu that says **FACTORY RESET**.
- 4) Press the right button.
 - 4a) A window will come up asking if, you are sure.
 - 4b) Press the right button.



DEVICE RESTART

Device Restart is available to power cycle the device. Nothing will be erased. It simply shuts down and restarts the device.

- 1) Turn on sensor (*Press ON button*)
- 2) Hold down both buttons for 5 seconds.
 - 2a) You will see a new menu come up when you do this.
- 3) Press left button (*Toggle/Select*) twice until you reach the menu that says **DEVICE RESTART**.
- 4) Press the right button.



BLE UNPAIR (*Bluetooth Unpair*)

The BLE Unpair feature is available to unpair the sensor to the currently connected device.

- 1) Turn on sensor (*Press ON button*)
- 2) Hold down both buttons for 5 seconds.
 - 2a) You will see a new menu come up when you do this.
- 3) Press left button (*Toggle/Select*) until you reach the menu that says **BLUETOOTH UNPAIR**.
- 4) Press the right button.



My app does not pick up my sensor on Bluetooth Menu (*First time connecting sensor to bow*).

- Check to ensure your Bluetooth on your phone is turned on.
- Make sure your sensor is charged and turned on.

My app does not pick up my sensor on Bluetooth Menu (*NOT first-time connecting sensor to bow*).

- In phone Bluetooth Menu - select the bow and "FORGET DEVICE."
- Close out app, reopen it, and try "PAIR NEW BOW."

My float graph and level appear to be off.

- Calibrate sensor (*see page 19*)

"Bad Pair Data" Error - How to Fix

- Turn on the sensor.
- Press and hold both the Menu Toggle/Power On and the Toggle/Select buttons for approximately 5 seconds.
 - A new menu should appear with the first option being "DEVICE RESET."
- Once in this menu, press the Toggle/Select button once. You should see an option that says "BLUETOOTH UNPAIR."
- Press the Menu Toggle/Power On button to perform the Bluetooth Unpair. Once this is complete the sensor should flash it's Bluetooth ID on the screen.
- Go to the Bluetooth settings on your phone and look through the devices for the sensor. The sensor should be labeled MatBow_#####.
 - If you see the sensor, perform a "forget device" or "delete device."
 - If you don't see the sensor listed, then proceed to **the last step**.
- The final step is to re-connect the sensor through the app as normal (*see page #12*).

SHOT SENSE LIMITED WARRANTY

Mathews Archery, Inc. ("Mathews") warrants to the Original Purchaser ("Purchaser" or "You") that the Shot Sense sensor ("Product/s") will be free from manufacturing defects for two (2) years from the date of purchase or the shipping date of the Product, whichever period is shorter.

This limited warranty covers defects in the materials or manufacturing of the Product and applies only to Products purchased from Mathews or a Mathews authorized seller as Mathews cannot control the quality of Products sold by unauthorized sellers. Mathews reserves the right to reject warranty claims from purchases for Products purchased from unauthorized sellers, including aftermarket sales.

This limited warranty does not cover defects due to normal wear and tear, damage due to misuse, abuse, alteration, tampering, or improper installation or storage, or negligence. Normal wear and tear includes, but is not limited to, chips, dings, scratches, or wear on the finish caused by normal use. Products purchased from unauthorized sellers are not covered under this warranty.

Make a Claim:

To make a claim under this limited warranty, you must send written notice to customerservice@mathewsinc.com including the following information:

- Your name
- Product name and Serial Number
- Date of Purchase
- Description of issue

Mathews reserves the right to request additional information to verify and process the warranty. Failure to provide this notice in a timely manner constitutes a waiver of the remedies available under the warranty.

Remedies Available:

If Mathews has received timely notice and has determined that the claim is covered under the limited warranty, then Mathews will, at its own discretion, either (1) repair the defect or (2) replace the defective Product, or (3) provide a refund for the purchase price of the Product. Mathews reserves the right to require proof of purchase prior to repairing, replacing, or refunding the Product.



Contains FCC ID: XPYNINAB30

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.

Responsible FCC Party:

Company Name: Mathews Archery, Inc.
 Address: 919 River Road Sparta, WI 54656
 Telephone: (608) 269-2728
 E-mail: customersupport@mathewsinc.com

IC ID: 29596-SENS1

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) L' appareil ne doit pas produire de brouillage;
- (2) L' appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d' en compromettre le fonctionnement.

CAN ICES-3 (B) / NMB-3 (B)

This Class B digital apparatus complies with Canadian ICES-003.
 (Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada)



Responsible UKCA Party: iCertifi - 2nd Floor College House, 17 King Edwards Road, Ruislip, London, HA4 7AE, United Kingdom.

Responsible CE Party: iCertifi - KVK 83983724 Vestigingsnr. 000050126350 Staringstraat 28H 105VR Amsterdam, The Netherlands

Manufacturer Name: Mathews Archery, Inc.
 Manufacturer Address: 919 River Road Sparta, WI 54656, United States

Hereby, Mathews Archery, Inc. declare that the radio equipment type Shot Sense is compliance with Directive 2014/53/EU.

Operating Frequency Range	The maximum RF Output Power
Bluetooth 2402 - 2480 MHz	0.06dBm