# YEHUDA USER MANUAL

# Dr. Watson, Sherlock Holmes 4.0 & Big Sherlock

(The following instructions are applicable for all 3 models, while some are model specific.)

Congratulations on your purchase of a YEHUDA lab grown diamond detector! As a leader in this field, YEHUDA is well known around the world for offering the most reliable protection available for jewelry professionals, and we're pleased you have joined our family of happy customers.

# General:

Our goal at YEHUDA is to continuously bring you the latest advancements and tools we've developed so you can benefit the most from our technology. As such, our YEHUDA app is regularly being enhanced and updated, so we urge you to periodically go to www.yehuda.com and download the newest version of our User Manual.

# IMPORTANT – PLEASE READ:

Terms of Use and our Privacy Policy. You can find these on our website, <u>www.yehuda.com</u> and within the YEHUDA App.

The YEHUDA detectors can detect CVD and HPHT **lab grown diamonds** that are loose, mounted in jewelry, as well as parcels, and any size melee. Loose diamonds can be tested while in a thin plastic bag. They cannot be tested if covered by a thick plastic or glass.

Our detectors are designed to detect only white diamonds within the **D- K color range**. Lower color diamonds and fancy color diamonds should not be tested with our devices.

Diamond simulants including CZ, moissanite, diamond coated CZ and diamond coated moissanite can easily be detected when they are tested **loose**.

Please visit our website www.yehuda.com where you can find helpful instructional videos on how to use the detectors and our most updated User Manual.

# IMPORTANT - PLEASE WATCH OUR INSTRUCTIONAL VIDEOS: It is our opinion that if you did not watch the instructional videos, you may make mistakes interpreting the results.

After receiving your new detector, please do the following:

- 1. Go to the App Store or Google Play and search for "Yehuda Detect"
- 2. Download the YEHUDA app and install it.

3. Follow the instructions to register, add payment information, add users, and then connect your device via Bluetooth to the box in order to start using your YEHUDA detector.

There are 3 types of users:

- 1. Admins The admin is the person responsible for opening up the account. They will be the only one that can handle payments and payment information. The admin can invite other users (Admins, Managers and regular Users) to join. Admins are able to see all aspects of the app. The Admin also controls the cloud settings.
- 2. **Managers** Managers can invite other Managers or regular Users and can see the business information but cannot see the payment information.
- 3. Users A user can perform tests, check out saved tests and export tests.

Note: All types of users can perform tests, check the history of saved tests and export tests.

INCLUDED ACCESSORIES

# Dr. Watson:

- 1 1.5"x2.5" loose stone sorting tray
- 1-1.5"x2.5" loose stone tray with sections
- 1 Slotted ring holder accommodates up to 8 rings
- 1 Focusing height adjustment adapter
- 1 Lab grown diamond sample stone
- 1 USB charging cable

# **Sherlock Holmes 4.0:**

- 2 Loose stone sorting trays 1.5"x2.5" and 4"x5"
- 2 Loose stone trays with sections 1.5"x2.5" and 4"x5"
- 2 Magnetic finger ring holders
- 1 Slotted ring holder tray (holds up to 27 rings)
- 1 Lab grown diamond sample stone
- 1 Worldwide power supply 110-240V

# **Big Sherlock:**

- 1 FREE Android tablet for testing
- 2 Loose stone sorting trays 1.5"x2.5" and 4.5"x5"
- 2 Loose stone trays with sections 1.5"x2.5" and 4"x5"
- 1 Tray with 5 magnetic finger ring holders
- 2 Slotted ring holder trays (each holds up to 108 rings)
- 1 Lab grown diamond sample stone
- 1 USB data cable for the tablet
- 1 Worldwide power supply 100-240V

# ON/OFF:

At the back of the detector you will find the ON/OFF power button. In order to turn the box ON or OFF, please press and hold the button for 3 seconds. An LED indicator at the front of the box will show when it is ON or OFF. The battery powered Dr. Watson will automatically power down by itself after 5 minutes of being idle.

# Dr. Watson Charging Instructions:

In order to charge the battery in the Dr. Watson, simply connect the USB cable to it in the same way you would charge your mobile phone. To fully charge its battery, keep it plugged in overnight. In your YEHUDA app you will see a battery indicator that will advise you when it needs recharging. The Dr. Watson may be used while charging. A full charge should provide about 2 weeks of operation.

# Warranty:

YEHUDA detectors feature a full ONE YEAR WARRANTY under normal use. Opening the detectors body or tampering with any of the screws will void the warranty, and result in the factory's refusal to repair the detector. The warranty does not cover user abuse, water damage, being hit, dropped or any other type of improper care. The purchaser shall incur the cost for shipping, insurance, and handling for all warranty and non-warranty repairs. Warranty repairs will be shipped back FOB Destination. The tablet provided with the Big Sherlock is not covered under this warranty. Within the first month of registering your detector you have the option of purchasing an extended warranty. If you would like to purchase an extended warranty, this must be done thru the YEHUDA app.

# PLEASE ADD HERE THE SECTION OF "HOW TO RUN A TEST" FROM THE SHORT MANUAL

# IMPORTANT DETECTION GUIDELINES:

(Detailed instructional videos are also available.)

The proven YEHUDA detection process involves illuminating the diamonds being tested using a proprietary lighting system and software to determine their identity. This special light causes ALL the diamonds being tested to emit light (fluoresce), while SOME diamonds will continue to emit light or glow in the dark (phosphorescence) after our light is shut off.

# NATURAL DIAMONDS:

All diamonds that fluoresce in ONLY BLUE color, with no other color present are NATURAL.

# LAB GROWN DIAMONDS:

Lab grown diamonds are detected by one of 2 ways or both. (One is sufficient)

1. All diamonds that fluoresce in any other color (NOT BLUE) are LAB GROWN.

(All non-blue colors, even partially blue with another color present are LAB GROWN.)

2. Any diamonds that show phosphorescence are LAB GROWN.

To make the detection process easy, our proprietary software identifies all diamonds that show phosphorescence and then it paints them a bright and distinctive red color in the test RESULT picture. These diamonds can be fully or partially painted in red.

If the diamond is painted in red, even if it has blue fluorescence, it is a LAB GROWN diamond.

Note: Black is not considered a color.

#### SIMULANTS:

Stones that do not emit light in any color (black) under our proprietary lighting are considered simulants. (This is elaborated further in the instructional videos.)

When the testing process is completed, 5 pictures will be shown:

- 1. **RESULT** (Default)
- 2. LUV (Long UV fluorescence)
- 3. GLOWING (Phosphorescence or glowing in the dark when the light is shut off)
- 4. **COLORED** (Fluorescence or glowing when illuminated)
- 5. ORIGINAL

IMPORTANT: To correctly identify the stones being tested, you cannot stop and make your determination by only looking at the RESULT picture. You MUST also look at the LUV picture, and then the GLOWING picture. In other words, if you did not look at all 3 of these pictures you may make a wrong determination of a stone's identity.

# ORIGINAL Picture:

This is the untouched picture of the diamonds and jewelry that you are testing.

# LUV (Long UV) Picture:

The long UV test results feature further reduces the already small false-positive rate potential from our prior generation models. Because of this advanced feature, the LUV test results picture is considered more weighted over the RESULT picture.

If a diamond glows in blue in the **Long UV** test results, always rest assured that it is a 100% NATURAL diamond. Even if in the RESULT picture it fluoresces in a non-blue color or is painted red.

The Long UV test results is the definitive result. This means that when you get a lab grown diamond test result – YOU ARE NOT DONE. It is therefore critical that YOU ALWAYS CHECK THE LONG UV PICTURE TO MAKE YOUR FINAL DETERMINATION.

COLORED Picture Results:

When our proprietary lamp emits light on the diamonds, they fluoresce in different colors.

GLOWING Picture Results:

This is the picture of the diamonds after our proprietary lighting has been turned off. Any diamond that glows in the dark (shows phosphorescence) is a lab grown diamond.

# **RESULT Picture:**

This is the default picture that you see when the test has been completed. It is a combination of the COLORED picture and the GLOWING picture.

- If the diamond fluoresces 100% BLUE it is always a NATURAL diamond.
- If the diamond fluoresces in any other color but blue, and/or is painted in red it is a LAB GROWN diamond.
- If the diamond is painted in red, even if the diamond fluoresces in blue, it is a LAB GROWN diamond.

To simplify this for you, our software identifies the diamonds that glow in the dark or show phosphorescence, and paints them in a distinctive bright red color in the RESULT picture.

Even though our software paints these diamonds red in the RESULT picture, sometimes the painting is too strong or very light. We suggest to always go to the GLOWING picture to understand which diamonds glow in the dark (show phosphorescence). For your convenience, at the bottom of the RESULT picture you can change the amount of red painting by pressing the sensitivity buttons.

In order to be more accurate and reduce the false positive rate, you MUST always also look at the LUV and GLOWING pictures before making your final determination.

# FLASHLIGHT EFFECT:

As explained previously, NATURAL diamonds do not have phosphorescence. They will not glow in the dark after the light is shut off except in rare occasions (false positive). Sometimes we may see a diamond or diamonds that show a blue color that are also painted with some red. In this case, we must be sure that there is no stone nearby the diamond that shows very strong phosphorescence. These glowing stones could act like a flashlight and consequently illuminate the natural diamond to the extent that it seems like it is glowing in the dark by itself. In this case, we must take out the diamonds that are painted in full red and check again. Please see an example of this in the picture section below.

The **ASSURE Instrument Testing Program** is an ongoing initiative of the Natural Diamond Council. They used an independent 3rd party, Underwriters Laboratories (UL), to impartially test and verify the effectiveness of all the CVD/HPHT detection devices submitted for a comprehensive review. Underwriters Laboratories tested 31 different detectors. Of these, 15 were the preferable types that could simultaneously check multiple diamonds and jewelry. Of the 15 tested, <u>ONLY TWO</u> were determined to be capable of detecting 100% of all lab grown diamonds.

The two they certified as having this perfect detection rate included:

Sherlock Holmes 2.0 by YEHUDA. SYNTHdetect by DeBeers (around \$25,000)

Our new generation detectors have not yet been evaluated by Underwriters Laboratories in the ASSURE program. However, it is important to note that these new generation YEHUDA detectors use the IDENTICAL DETECTION WAVELENGTHS, and based upon our rigorous testing, we are confident that their accuracy is identical to the Sherlock Holmes 2.0.

Explaining the ASSURE test results:

- The Sherlock Holmes 2.0 was verified to detect 100% of all lab grown diamonds.
- It was also found to have a false positive rate of 2.5%.

What this means for you:

If the result is that a diamond glows a blue color - it is 100% a natural diamond. Period. You can always be 100% certain that the diamond is natural if this occurs.

If the result is a lab grown diamond, there is small (2.5%) chance that it is a natural diamond. In other words, only 2.5 diamonds out of every 100 natural diamonds will give a result of a lab grown diamond. This is called false positive. (With the addition of the Long UV test we have further reduced the false positive rate.)

What this means from a practical perspective:

• If the result is that a diamond glows in a non-blue color or is painted in red, it is most likely a lab grown diamond, since only 2.5% of all natural diamonds will give a false positive result showing a lab grown diamond.

• Thanks to the Long UV test, we have actually reduced the 2.5% false positive results from our prior generation models.

The bottom line is:

- When you get a natural result it is 100% natural.
- When you get a lab grown result there is a very small chance that it is a natural diamond.

Is it a CVD or HPHT lab grown diamond?

HPHT lab grown diamonds will usually fluoresce in a blue color and will show a very strong phosphorescence. In the RESULT picture, these diamonds will usually be completely painted in a bright red color to the extent that you will not be able to see the color of the diamond. (You can see the color of the diamond in the COLORED result.) When viewing the GLOWING picture result

you can easily identify HPHT lab grown diamonds, since they will glow very strongly in blue like stars in a dark night.

CVD lab grown diamonds will usually fluoresce in a NON-BLUE color, and they may or may not show slight phosphorescence. In the RESULT picture it will either show a non-blue or any other color (including blue) with some visible red paint or no red paint at all. When viewing the GLOWING picture result, CVD lab grown diamonds may glow. However, the glow will be very weak as compared to the bright glow of HPHT lab grown diamonds. They will glow in the same color as they show in the COLORED picture. Usually, it is non-blue color.

# A picture is worth a thousand words - so please pay attention:

The diamonds in the pictures you are about to see in the next few pages are positioned with the table facing down. This is done for demonstration purposes.

When testing loose diamonds, we recommend to always position them on the pavilion side as well.

A test cannot be fully done UNLESS the diamond was checked on both the table and on the pavilion.



The above is an example of a diamond lying on the pavilion:

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# **BLUE = NATURAL**

Natural diamonds show blue with no red painting.

# **RESULT PICTURES**



Some natural diamond show fluorescence under Long UV illumination. (Lab grown diamonds NEVER show blue florescence under Long UV illumination.)

#### LUV PICTURES



# The following is an example of a CVD lab grown diamond:

# **RESULT picture:**

The following is an example of CVD lab grown diamonds which show a different NON-BLUE color and/or blue with some red painting.



#### COLORED PICTURE



LUV PICTURE- No florescence seen under Long UV light. Lab grown diamond do not fluoresce under Long UV light.



GLOWING picture = Phosphorescence

CVD lab grown diamonds may or may not have phosphorescence. If it has phosphorescence it will be painted in red in the RESULT picture.



The following is an example of HPHT lab grown diamonds:

# **RESULT PICTURE**

The HPHT lab grown diamonds in the picture below are fully painted in red.



# COLORED PICTURE

HPHT lab grown diamonds usually show BLUE fluorescence similar to a NATURAL diamonds fluorescence. HOWEVER, they are painted in full red due to their phosphorescence (see picture below).



GLOWING RESULT

HPHT lab grown diamonds show very strong phosphorescence.

ALWAYS IN BLUE. The glowing of these diamonds is converted by the software into painted red in the RESULT picture.



# LUV PICTURE

HPHT lab grown diamonds do not show fluorescence under Long UV light.



# The following is an example of HPHT and CVD lab grown diamonds together.

#### RESULT PICTURE

All of the diamonds at the top part of this picture are HPHT lab grown diamonds and they are fully marked in red. The 8 diamonds at the bottom part of the picture are CVD lab grown diamonds. They show a NON-BLUE color and some are partially marked in red.



# **GLOWING PICTURE**

HPHT lab grown diamonds show very strong phosphorescence in a blue color. CVD lab grown diamonds show a very weak phosphorescence or none at all.



# COLORED PICTURE

HPHT lab grown diamonds show blue fluorescence but will be painted in red due to their phosphorescence.

CVD lab grown diamonds fluoresce in non-blue colors.



#### LUV RESULT.

HPHT and CVD lab grown diamonds do not show any fluorescence under Long UV illumination.



# FLASHLIGHT EFFECT

<u>RESULT PICTURE:</u> The below oval is an HPHT lab grown diamond. The diamonds next to it are natural diamonds, but they are partially painted in red. You must always take a diamond that is fully painted red out to be sure of the results of the other diamonds.



The below picture is after taking out the OVAL stone that acts like a flashlight. NO RED PAINTING - THE STONES ARE NATURAL.



# **GLOWING PICTURE**

The HPHT lab grown diamond oval below is showing very strong phosphorescence and acts like a flashlight illuminating the natural diamonds near them. Thus some red painting will be applied on them at the RESULT picture.



The below picture is after taking out the oval stone that acts like a flashlight. Natural diamonds do not show phosphoresence.



# LUV PICTURE

Under Long UV illumination, the oval (which is an HPHT lab grown diamond) does not show any fluorescence. Some of the natural diamonds show fluorescence.



The below pictures are after taking out the oval stone that acts like a flashlight. Some natural diamonds show fluoresence under Long UV illumination.



# COLORED PICTURE

The HPHT lab grown diamonds and NATURAL diamonds below fluoresce in blue. However, due to the fact that HPHT lab grown diamonds show phosphoresence, it will be marked in red in the RESULT picture.



The below pictures are after taking out the HPHT lab grown oval diamond that acted like a flashlight. Natural diamonds show blue color under our proprietary light.



<u>Simulants</u>

Non-diamonds do not show fluorescence or phosphoresces at all. That means they will not emit light under our proprietary light or under the long UV illumination. If they show any color at all, please understand that it is only a REFLECTION. You can easily discern if the stone shines or just reflects some light.

# RESULT PICTURE



The top 2 stones are moissanite. The 2<sup>nd</sup> row of stones are CZ. The bottom 3 stones: The left one is an HPHT lab grown diamond. The middle one is a CVD lab grown diamond. The right one is a natural diamond.

COLORED PICTURE



# **GLOWING RESULT**



These HPHT and CVD lab grown stones show phosphorescence. Simulants and natural diamonds show NO phosphorescence whatsoever.

Long UV



Only the natural diamond on the bottom right shows some blue fluorescence. Simulants and lab grown diamond will never show fluorescence under Long UV illumination.

# FALSE POSITIVE

False positive means that a natural diamond gets a result of a lab grown diamond. It happens in about 2.5% of natural diamond.

In order to further reduce this rate we MUST check the LUV (LONG UV) result. If a diamond show BLUE fluorescence under the LUV illumination- it is 100% natural diamond.

RESULT PICTURE



Here we have a result of a lab grown diamonds

# LUV PICTURE



HOWEVER: when we go the LUV (LONG UV) result – both diamond show blue fluorescence.

That means that both are NATURAL diamonds!!!

# Trouble shooting

For any problems, please visit our <u>www.yehuda.com</u> website and watch the video that addresses your concern.

We have created numerous short instructional videos and we are certain that you will find the one that will address the problem you are experiencing.

#### Customer support:

You can send questions through the app and we will receive an email from us with the answers.

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