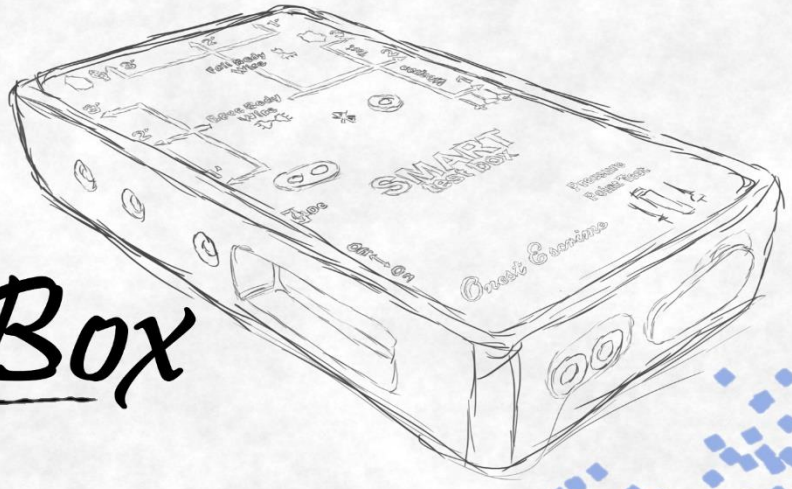
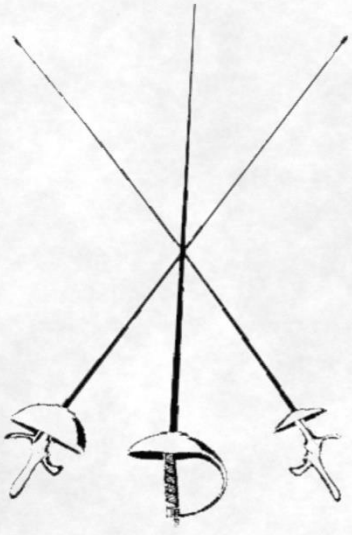
User Manual

Fencing



Smart Test Box device



Please read this manual carefully before operating your STB device and retain it for future reference.

by Onest Escrime

2020

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Features

SMART test box content

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4	Pressure test adaptor – Epee(E)	-	x	-	x
5	Panson for test metallic tissue	x	-	x	x
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7	Mask cable	x	x	x	x
8	USB- Micro usb charging cable	x	x	x	x

SMART test box system

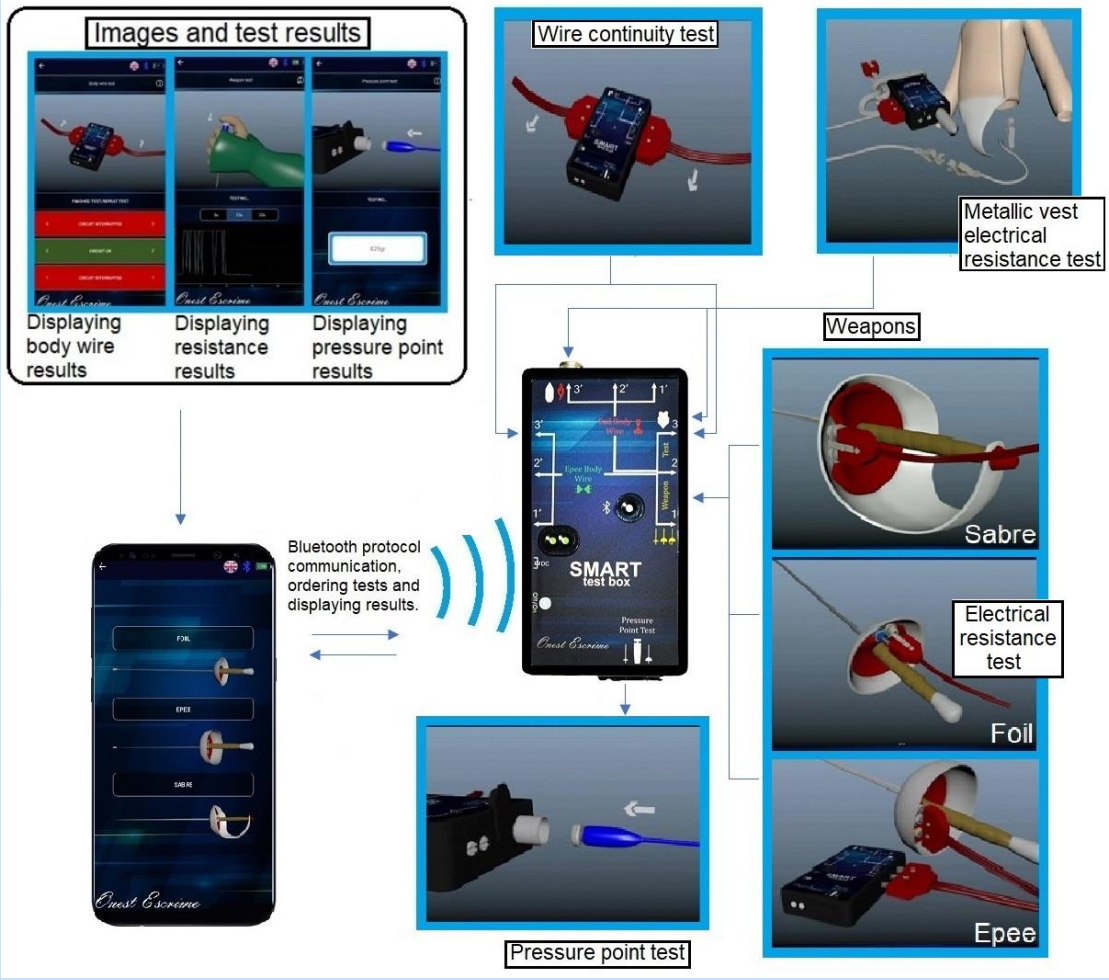
Smart Test Box or STB is a portable device used for testing personal fencing equipment.
It is based on an innovative concept for ordering, performing and displaying electrical test results.

The values of the measured parameters (resistance and electrical continuity) are similar to those imposed by the International Fencing Federation in the operation of signaling units used in competitions.

The innovative concept allows any fencer, with or without technical knowledge, to test their personal equipment (weapon, body wire, mask wire, metallic vest, mask or electric glove) obtaining very precise results from a technical point of view.

Test, display and interpretation command is done using the personal smartphone. Interpreting the results helps the fencer to properly evaluate the condition of the equipment from a technical point of view, being able to carry out the necessary repairs.

The STB device is available in 4 versions:
- 3 individual versions for each weapon (foil, epee, sabre) and one option for all weapons. Each version contains the necessary accessories.



Smart Test Box device

Smart Test Box device layout

Charge the battery

Your STB device is powered by a rechargeable battery.

Simple Guidelines for Charging Lithium-based Batteries.

Turn off the STB device (preferable) to allow the current to drop unhindered during saturation. A parasitic load confuses the charger.
Charge at a moderate temperature. Do not charge at freezing temperature.
Lithium-ion does not need to be fully charged; a partial charge is better.
Not all chargers apply a full topping charge and the battery may not be fully charged when the “ready” signal appears; a 100 percent charge on a fuel gauge may be a lie.
Apply some charge to an empty battery before storing (40–50 percent SoC is ideal).

LEDs indications

The STB device has the following LEDs.

	LED	Description
Charger LEDs	1. LED/Full charge LED	The STB is fully charged.
	2. LED/Charging LED	The STB device is in charging mode.
Bluetooth LED	Blue LED - OFF	The Bluetooth and the STB device are off.
	Blue LED - ON	The Bluetooth and the STB device are on.
	Blue LED - flashes constantly	The STB device is in pairing mode.
	Blue LED - flashes inconstantly	The STB device in in testing mode. Depending on the test performed, the flash changes frequency.

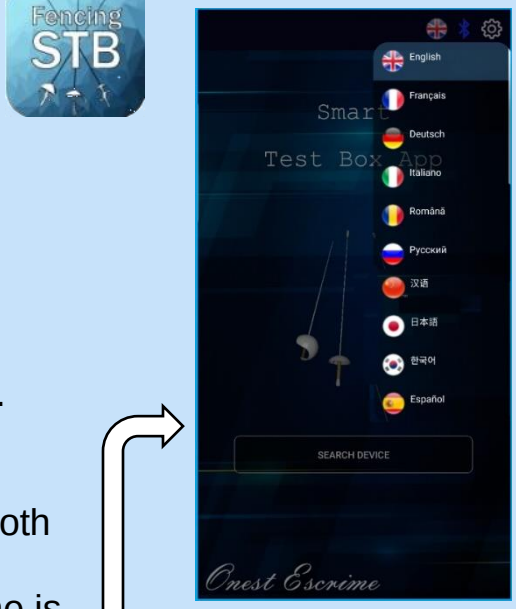
Use the Mini-USB Type-A cable to charge the STB device.

Connection

To connect the STB device to the mobile application on your phone, you must have the bluetooth option ON.

Connection

1. Open the preinstalled STB app from your smartphone



- if you don't have it, download it from

GET IT ON Google Play or Download on the App Store

2. Open the STB device by switching the ON/OFF button.

3. Check if the phone's bluetooth is open:
- if the bluetooth icon of the application is blue the Bluetooth on the phone is ON.
- if the application icon is white the bluetooth of the phone is OFF, in this case click on the application icon to open the bluetooth of the phone.

4. To open the application, connect to the STB device.

5. Configure your STB device's language from the top right corner icon.
The supported languages are English, French, German, Italian, Romanian, Russian, Chinese, Japanese, Korean and Spanish. The menu is **scrollable**.

6. Click **Search device.**

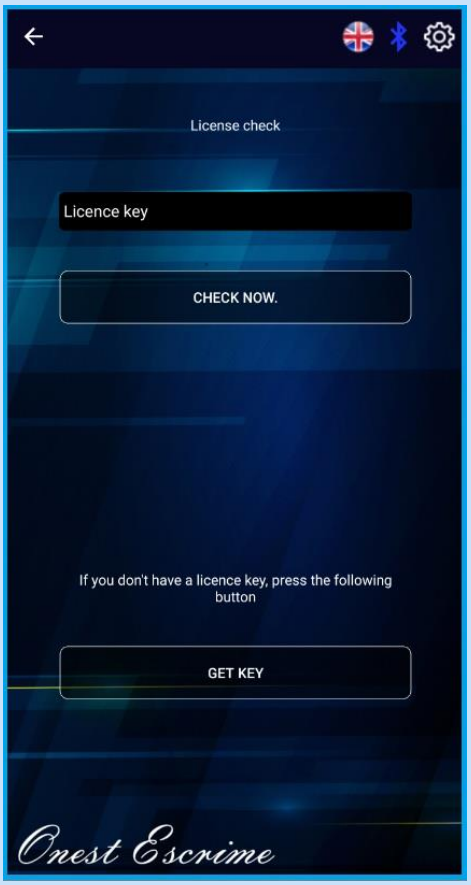
Activation

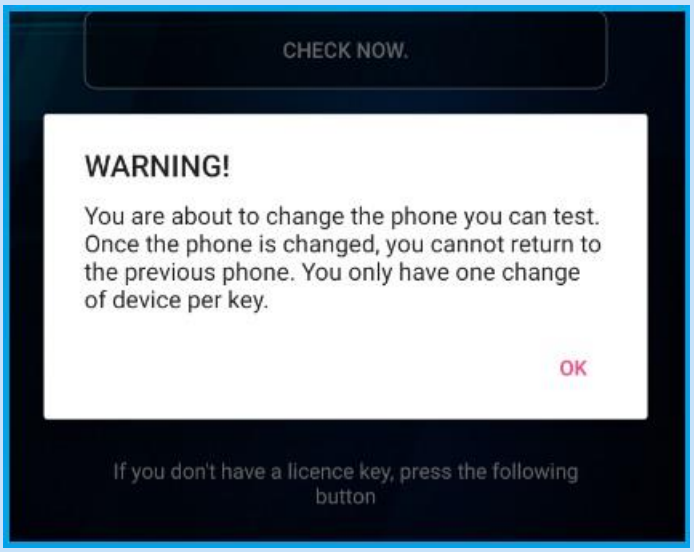
1. Insert a valid **License key** and click **Check now**.

2. In case you don’t have a valid license key click the **Get key** button to obtain it. You’ll be redirected to the Fencing STB site https://fencingstb.com/.

3. After the license key is inserted into the field click **Check now**.

4. A Warning message is displayed.





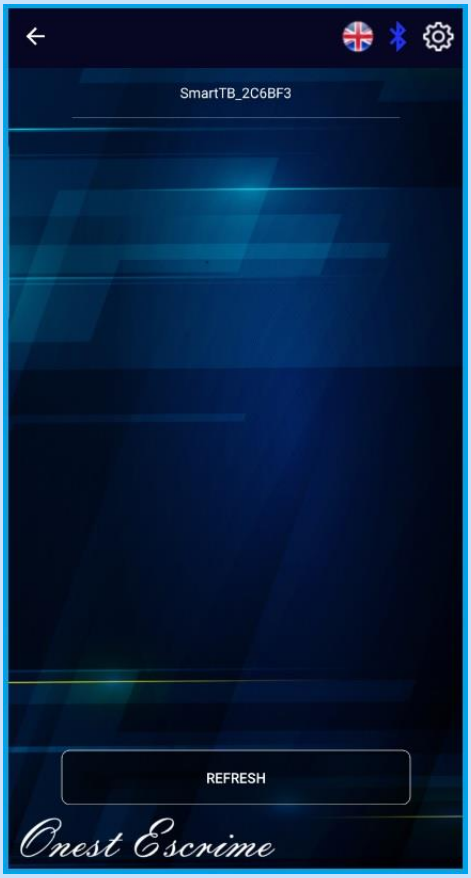
There are 2 types of activation keys:

- free of charge when purchasing the Smart Test Box device (by using the MAC address on the back of the device and having an indefinite period of validity).
  Attention: The key cannot be used in parallel on 2 smartphones. Once moved, the key can no longer be reused on the old smartphone.

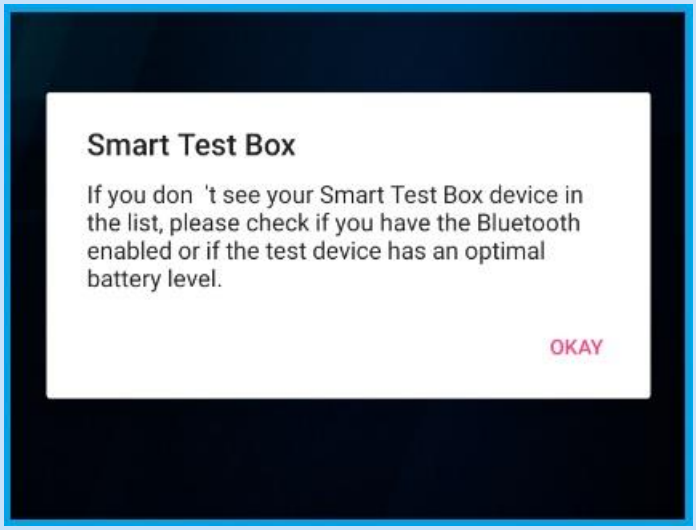
  or

- with payment upon purchase of the license valid for 1 year from the date of the first activation.
  Attention: The key can be moved during the validity period only once on a new phone and cannot be reused on the old phone. The key cannot be used in parallel on 2 smartphones.

5. The list with the found STB devices is displayed.



For the first connection, in order to easily identify your STB device, it is recommended to be in an area where there are no other STB devices turned on, preferably, perform this operation at home.
Normally the device should appear in 1 or 2 seconds in the list.
The application has an automatic refresh at 5 seconds.
Manual refresh is done by clicking on the **Refresh** button.
If after 10 seconds the device does not appear in the list, an error message is displayed.



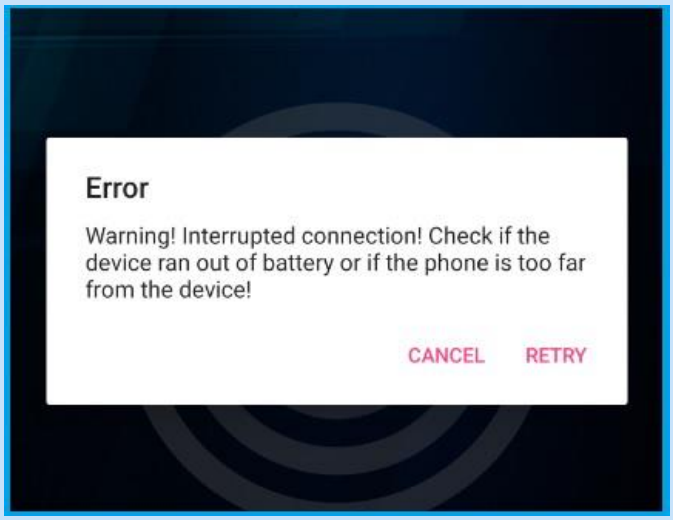
Read the message, resolve the issue and try to find the STB device again in the list.

6. Click your STB device from the displayed list and go to the next page where an animation simulates searching and connecting to the STB device.

Once the device is identified and connected, it will be represented on the page by an animation.

After this step, the connection is made and the STB application can be used.

If during the tests the connection is interrupted, the animation page (that simulates the search of the STB device) is displayed and a reconnection is tried.
If after 10 seconds the connection is not made an error message appears:



After the connection is done, you will enter the main page of the application.

When the phone is connected to the STB device, it appears in the animation.

Only after connecting to the device you can see the battery charge level of the STB device.

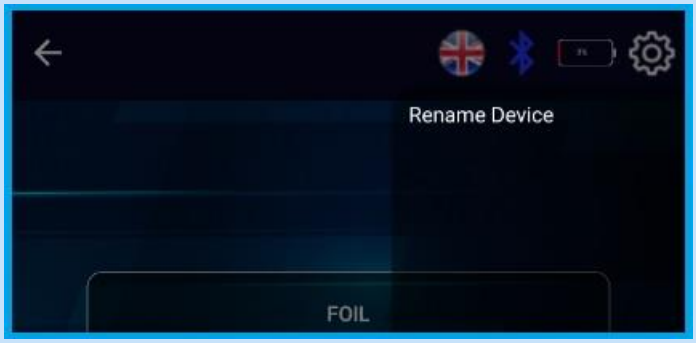
STB device battery level.

Rename your STB device

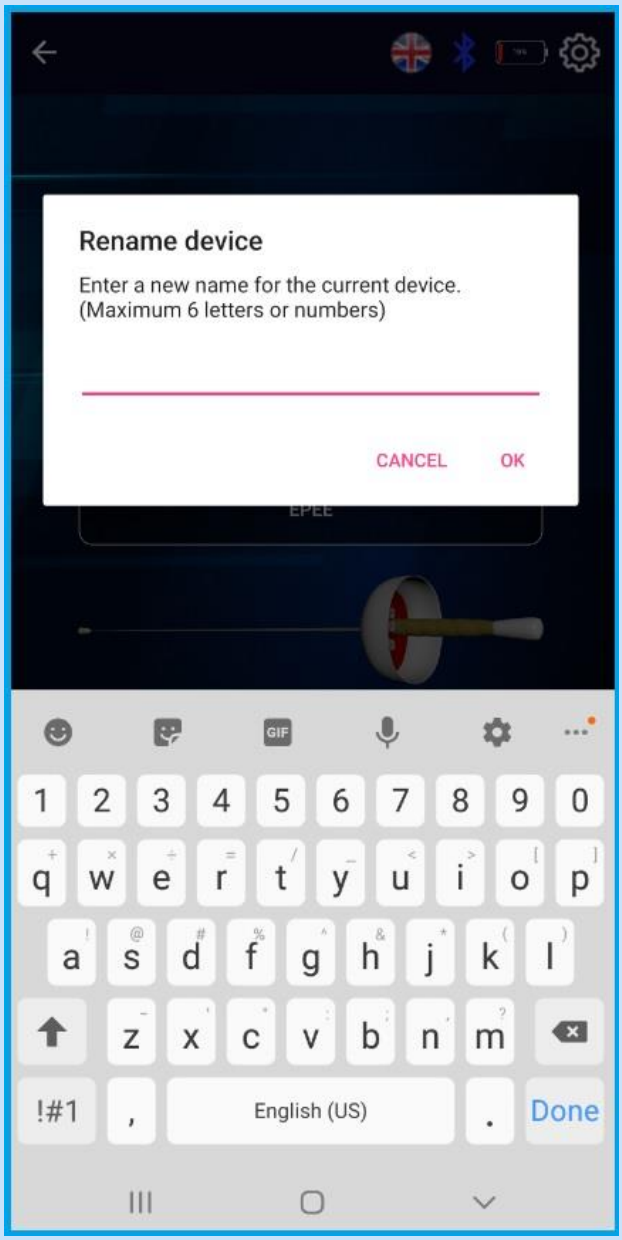
1. Click the **Settings** icon from the top right corner of the STB app to open the Setting menu.

   Note * the **Settings** menu is functional only when the STB device is connected

2. To change the STB device's name click the **Rename Device** option.



3. Rename your device by entering maximum 6 letters or numbers.



After the rename is successfully performed, the connection will be interrupted and an automatic reconnection will be made to the STB device.

STB app tests

Foil

1. **Wire tests**
    - Body wire test
    - Mask wire test
2. **Electrical resistance tests**
    - Weapon test
    - Metallic vest test
3. **Pressure point test**

Epee

1. **Wire test**
2. **Electrical resistance tests**
    - Weapon test
    - Ground test
3. **Pressure point test**

Sabre

1. **Wire tests**
    - Body wire test
    - Mask wire test
2. **Electrical resistance tests**
    - Weapon test
    - Metallic vest test

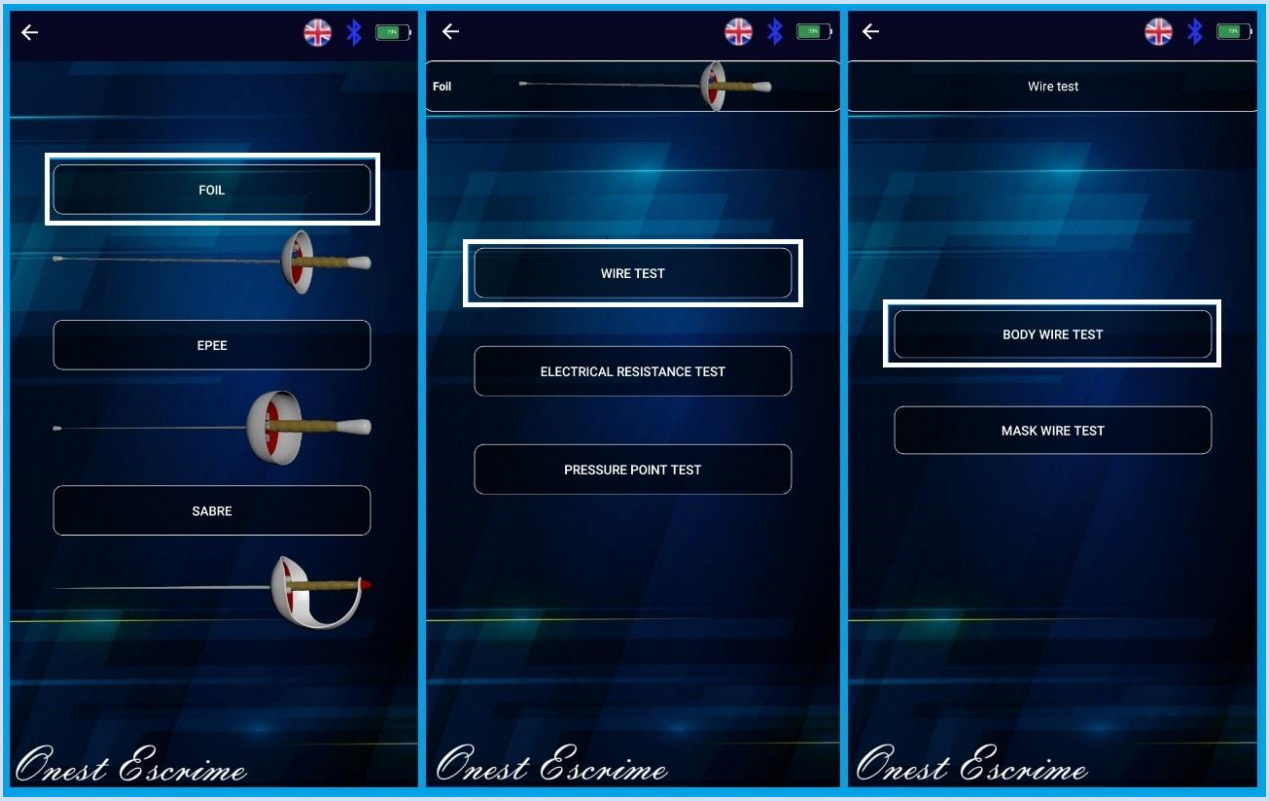
Foil

The Foil tests can help a foil fencer to test his personal equipment.

Body wire test

Foil > Wire tests > Body wire test

1. From **Main page** click **Foil** > **Wire tests** and then tap to open **Body wire test**.

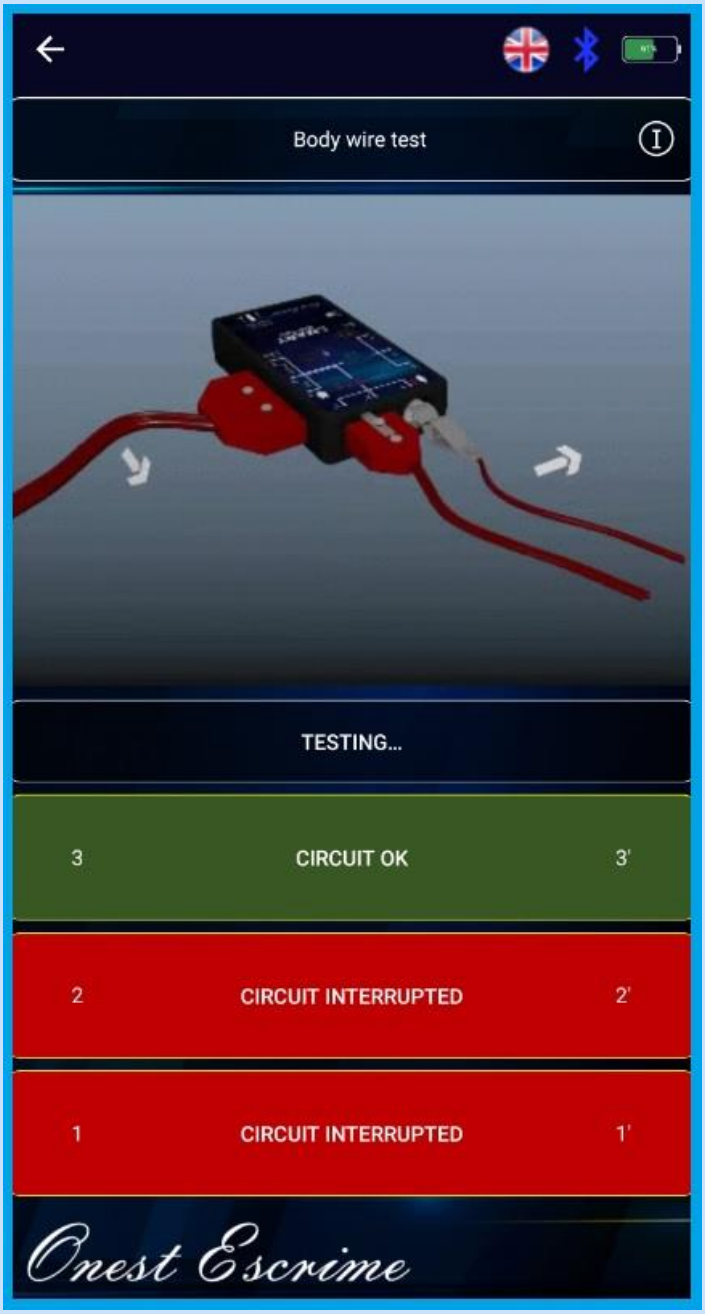


2. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Attention!
Check that the wire connections are correctly done, the device does not signal the reversal of the connections.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions.
After the test is completed, in case of failure, the body wire must be repaired.

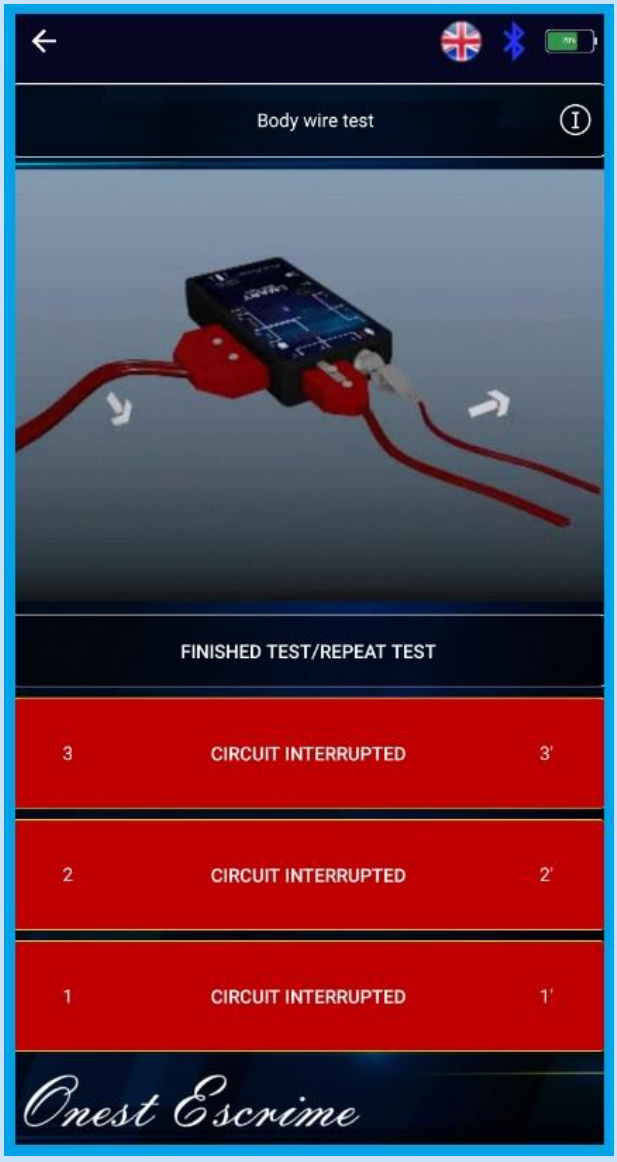
3. Insert the ends of the body wire into the sockets of the STB device as shown in the animation.

4. Press the **Start test** button to begin the test.



6. In case all 3 circuits are interrupted simultaneously, the test stops automatically.

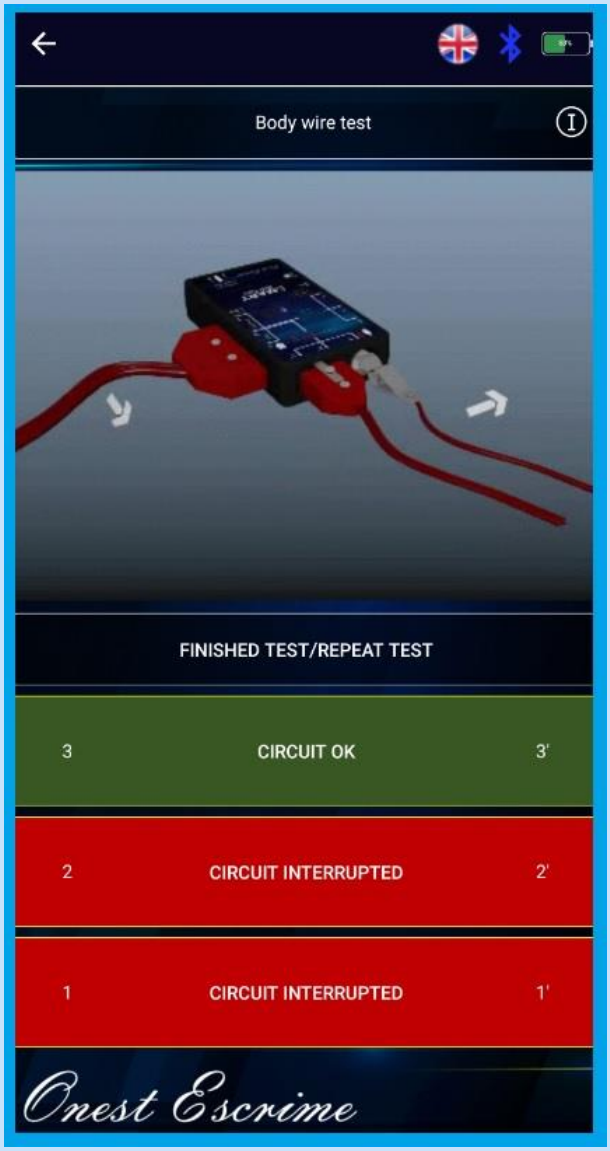
5. During **Testing…** perform the maneuvers displayed in the animation.



7. When **Finished test/Repeat test** button is displayed the test is completed.

The electrical resistance threshold measured in the test is 2.5 ohms.
If the measured circuit does not exceed this value during the test, the result will be **'Circuit OK**'.

If this value is exceeded for more than 0.2 seconds, the result will be **'Circuit interrupted**'.



Circuits displayed in red, as broken, must be repaired.

8. Repeat the test by clicking **Finished test/Repeat test** button.

Foil

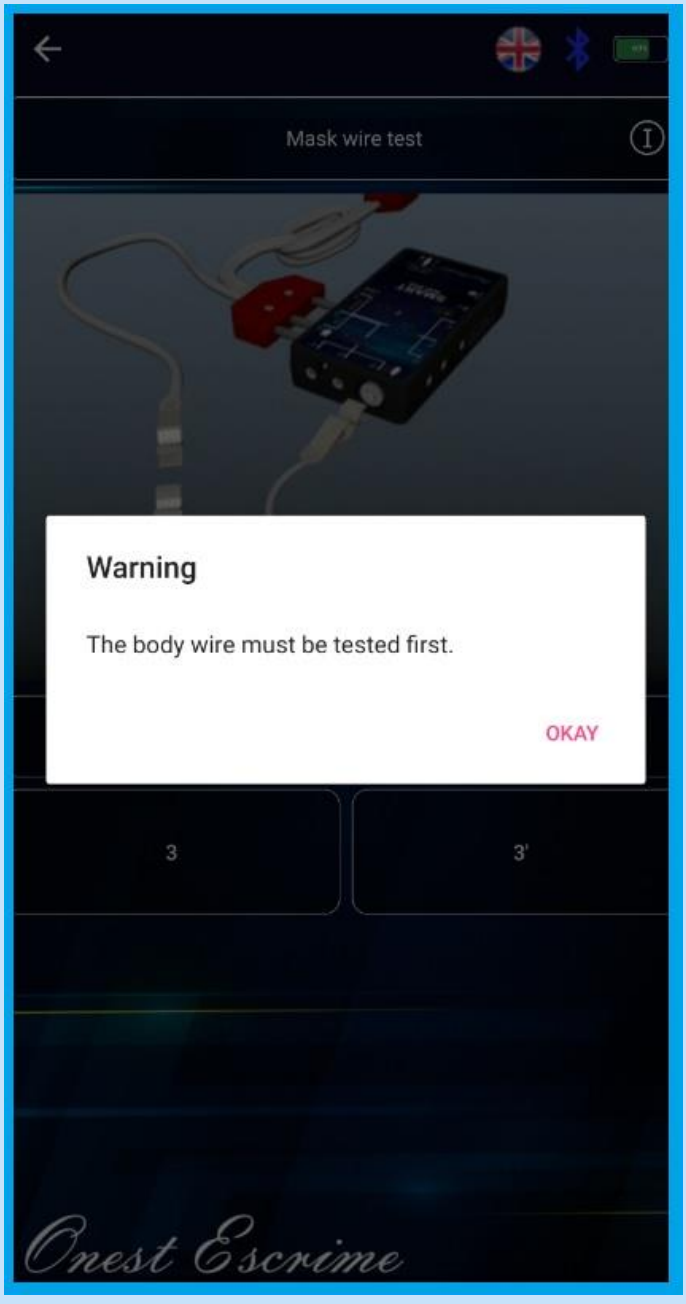
The Foil tests can help a foil fencer to test his personal equipment.

Mask wire test

Foil > Wire tests > Mask wire test

1. From **Main page** click **Foil** > **Wire tests** and then tap to open **Mask wire test**.

2. A **Warning** message is displayed, read it and click **Okay**.



3. Click **Information** icon to get more details about the test.

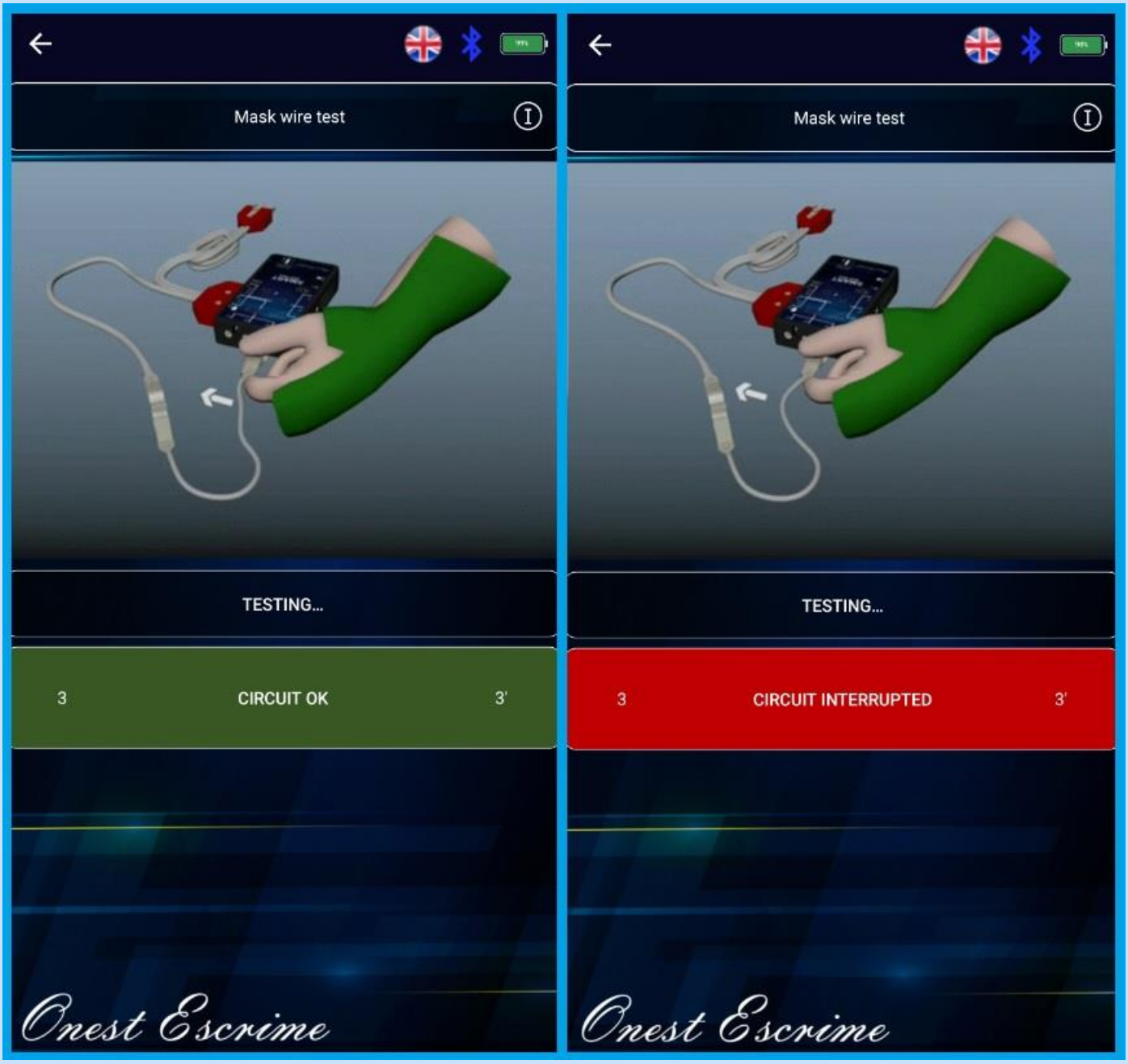
Use the foil body wire with the mask wire to perform the test.

Insert the ends of the mask cable into the sockets of the STB device as shown in the animation.
Attention!
Check that the wire connections are correctly done, the device does not signal the reversal of the connections Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions.
After the test is completed, in case of failure, the mask cable must be repaired.

4. Insert the ends of the body wire into the sockets of the STB device as shown in the animation.

5. Press the **Start test** button to begin the test.

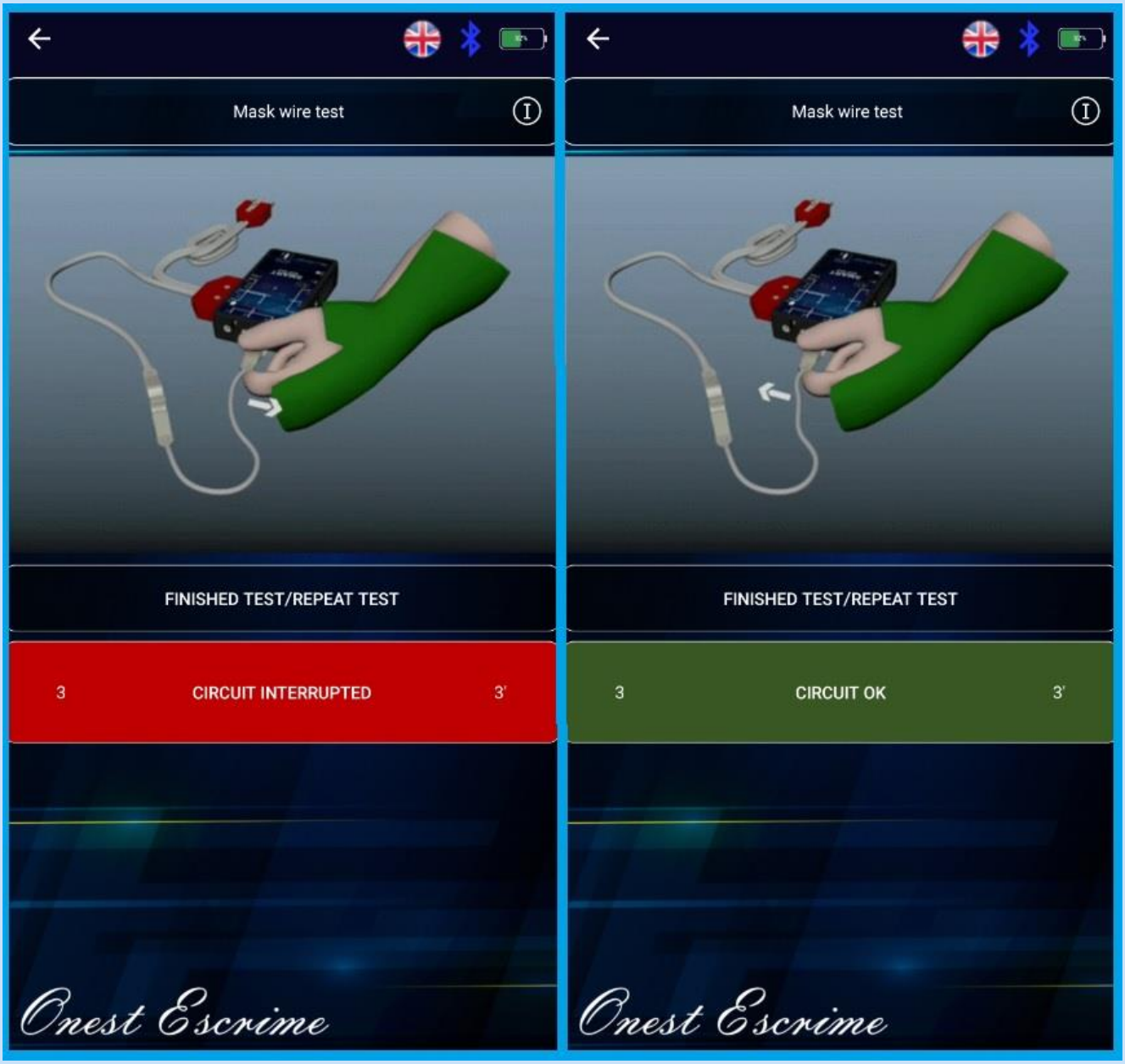
6. During **Testing…** perform the maneuvers displayed in the animation.



7. When **Finished/Repeat test** button is displayed the test is completed.

The electrical resistance threshold measured in the test is 2.5 ohms.
If the measured circuit does not exceed this value during the test, the result will be '**Circuit OK**'.
If this value is exceeded for more than 0.2 seconds, the result will be **'Circuit interrupted**'.

- if **Circuit interrupted** is displayed the mask wire must be repaired.
- if **Circuit OK** is displayed the mask wire can be used.



8. Repeat the test by clicking **Finished test/Repeat test** button.

Foil

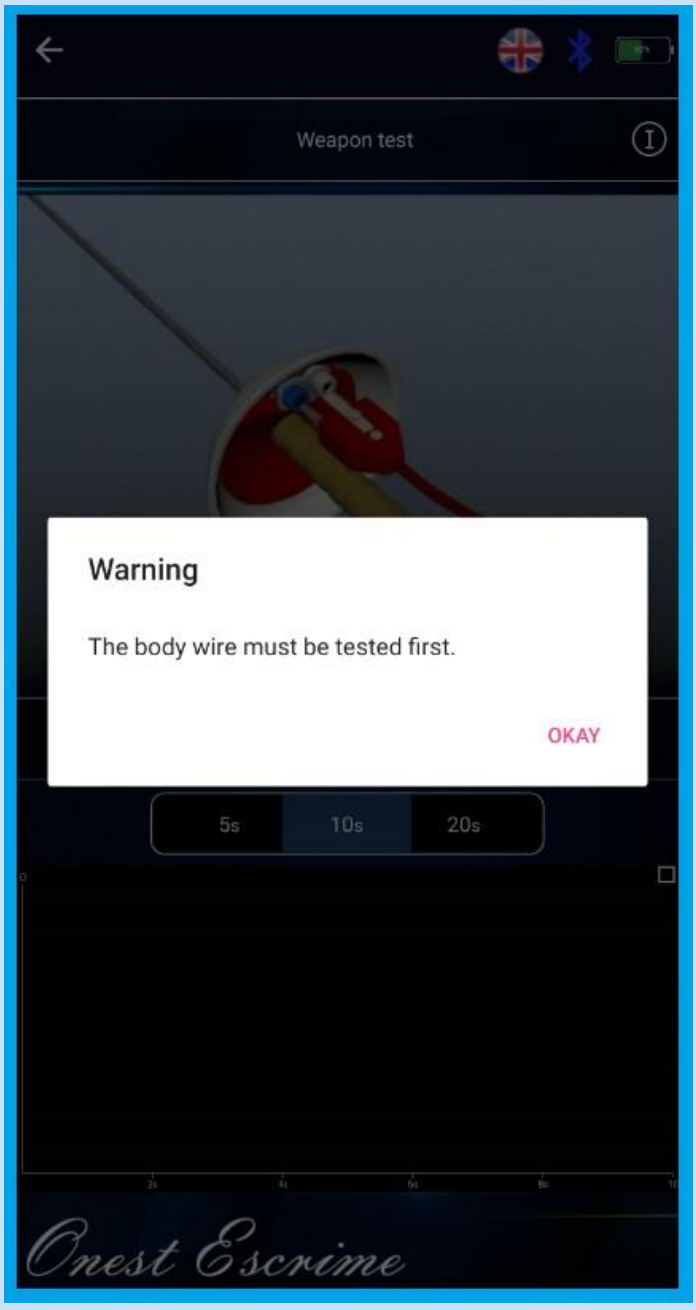
The Foil tests can help a foil fencer to test his personal equipment.

Weapon test

Foil > Electrical resistance tests > Weapon test

1. From **Main page** click **Foil** > **Electrical resistance tests** and then tap to open **Weapon test**.

2. A **Warning** message is displayed, read it and click **Okay**.

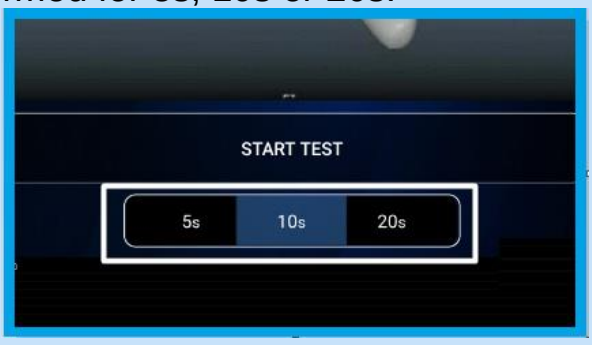


3. Click **Information** icon to get more details about the test.

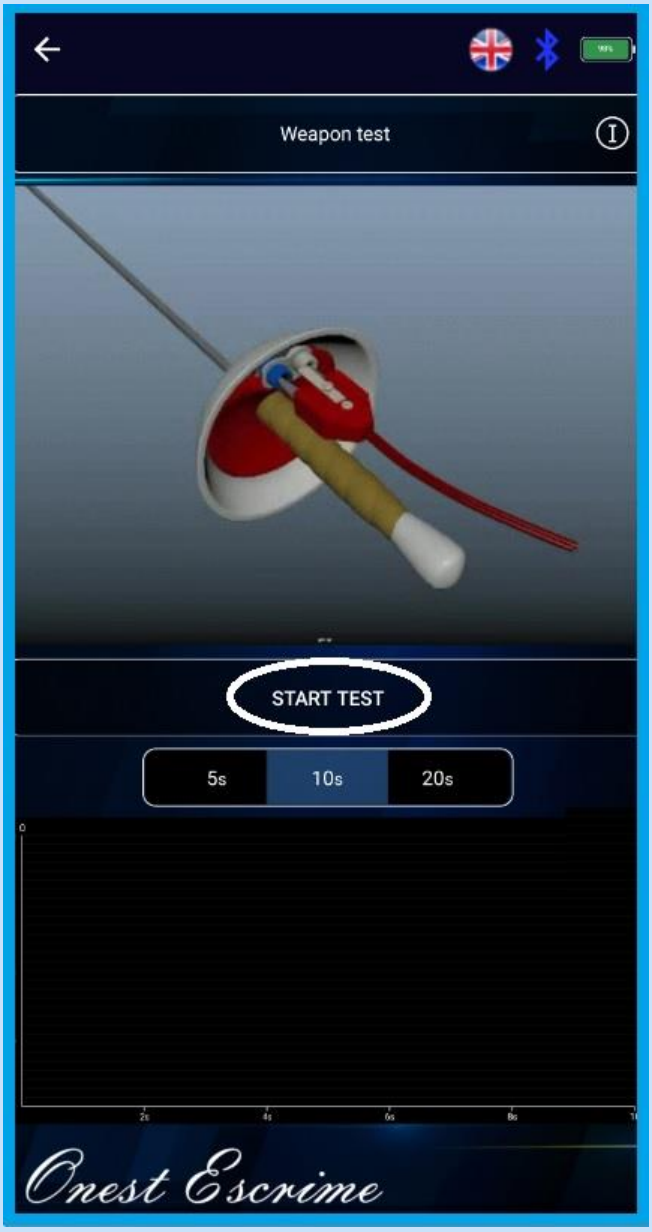
Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
If a warning message appears:
Attention
The foil has the circuit interrupted, the weapon is defective, the test stops automatically and the potential areas of defect presented in the animation must be checked.
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.
When the point of the weapon is pressed, the line breaks and reappears when the weapon point is released.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
At the end of the test, a message appears indicating the values and their significance.

4. Insert the ends of the body wire into the sockets of the STB device and foil inside socket as shown in the animation.

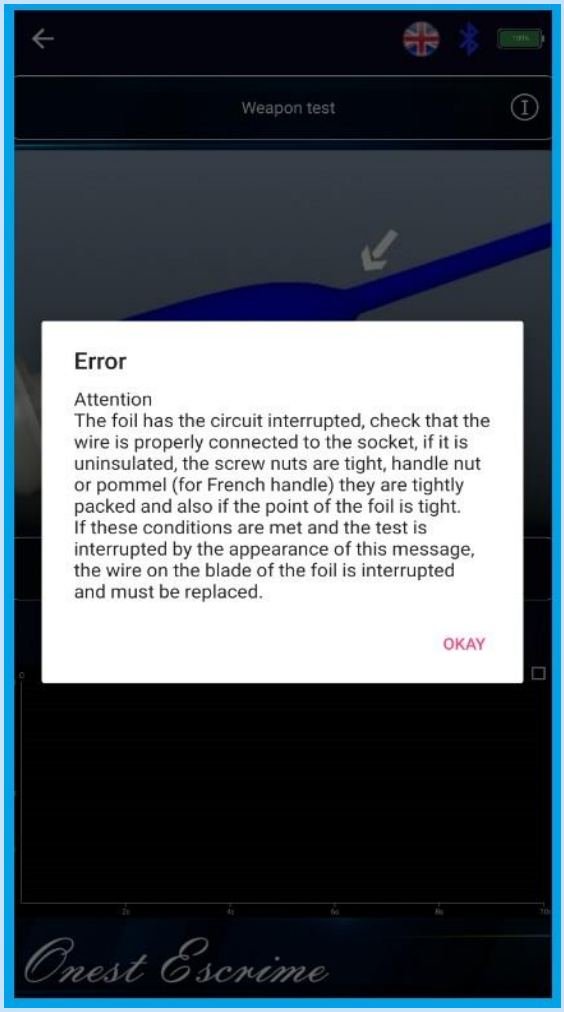
5. This test has time duration and it can be performed for 5s, 10s or 20s.



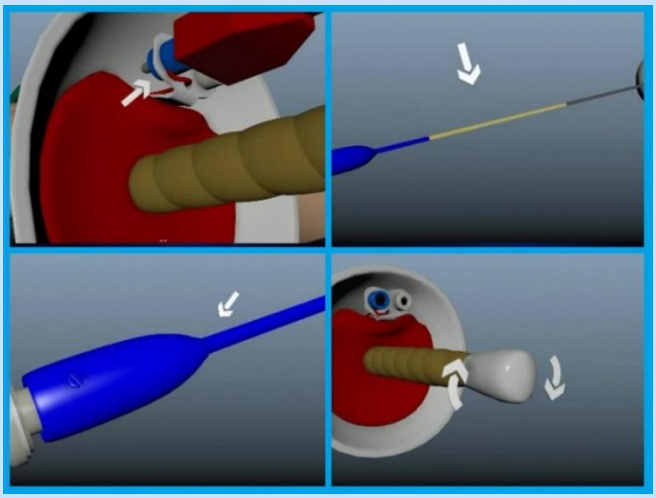
6. Press the **Start test** button to begin the test.



7. In case the foil has the circuit interrupted, the weapon is defective, the test stops automatically and the potential areas of defect presented in the animation must be checked.



Click **Okay** to see the possible areas of defect.



8. During **Testing…**

When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.
When the point of the weapon is pressed, the line breaks and reappears when the weapon point is released.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).

9. When **Finished test/Repeat test** button is displayed the test is completed.

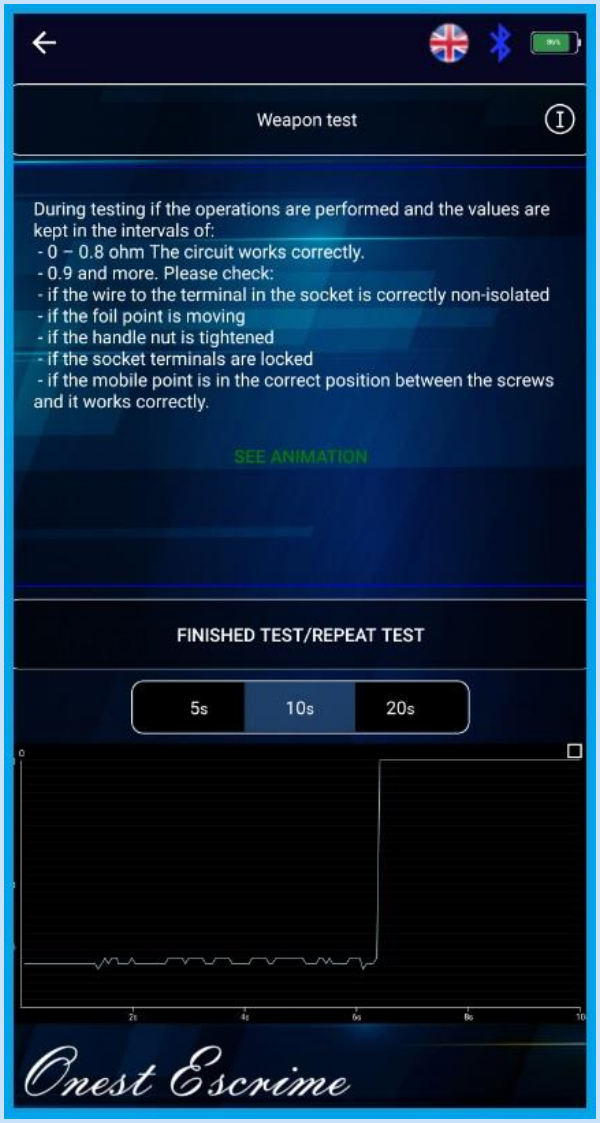
R

During testing if the operations are performed and the values are kept in the intervals of:

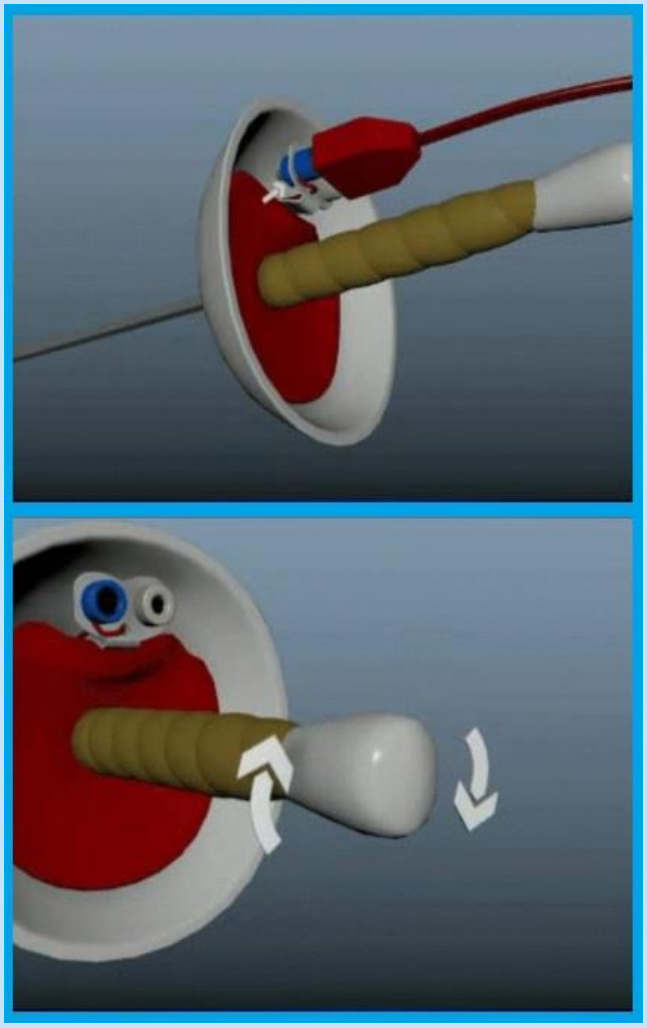
- 0 - 0.8 ohm - The circuit works correctly.
- 0. 9 and more

Please check:

- if the wire to the terminal in the socket is correctly non isolated
- if the foil point is moving
- if the handle nut is tightened
- if the socket terminals are locked
- if the mobile point is in the correct position between the screws and it works correctly.

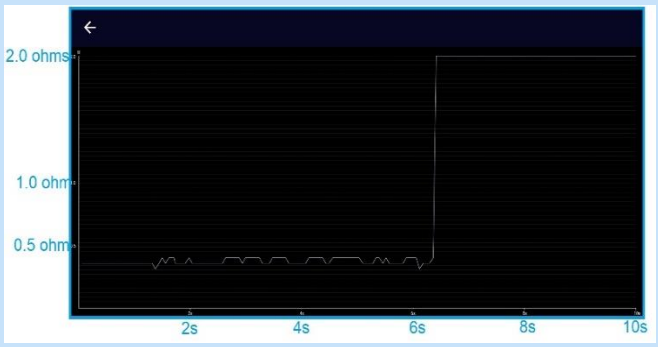


10. Click **See animation** to observe the possible areas of defect.



Click the images to return.

11. Press the ☐ icon to display the graph in landscape mode.



12. Repeat the test by clicking **Finished test/Repeat test** button.

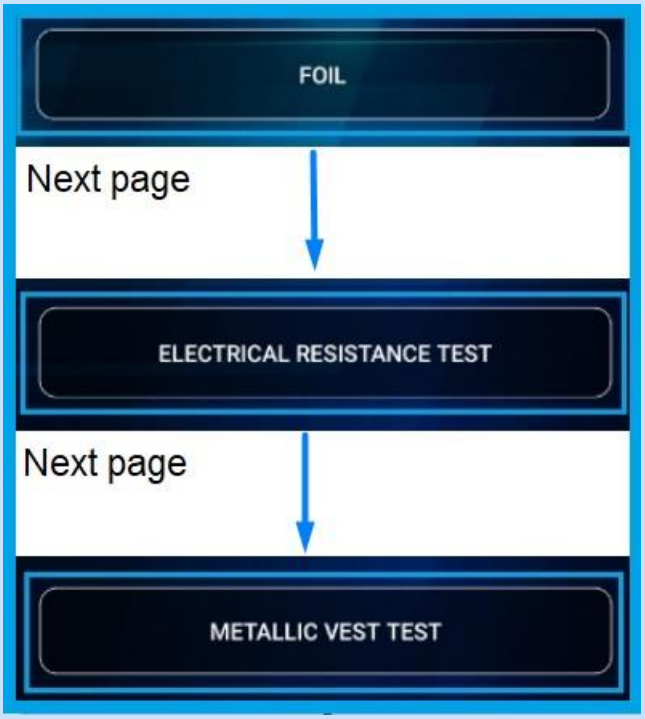
Foil

The Foil tests can help a foil fencer to test his personal equipment.

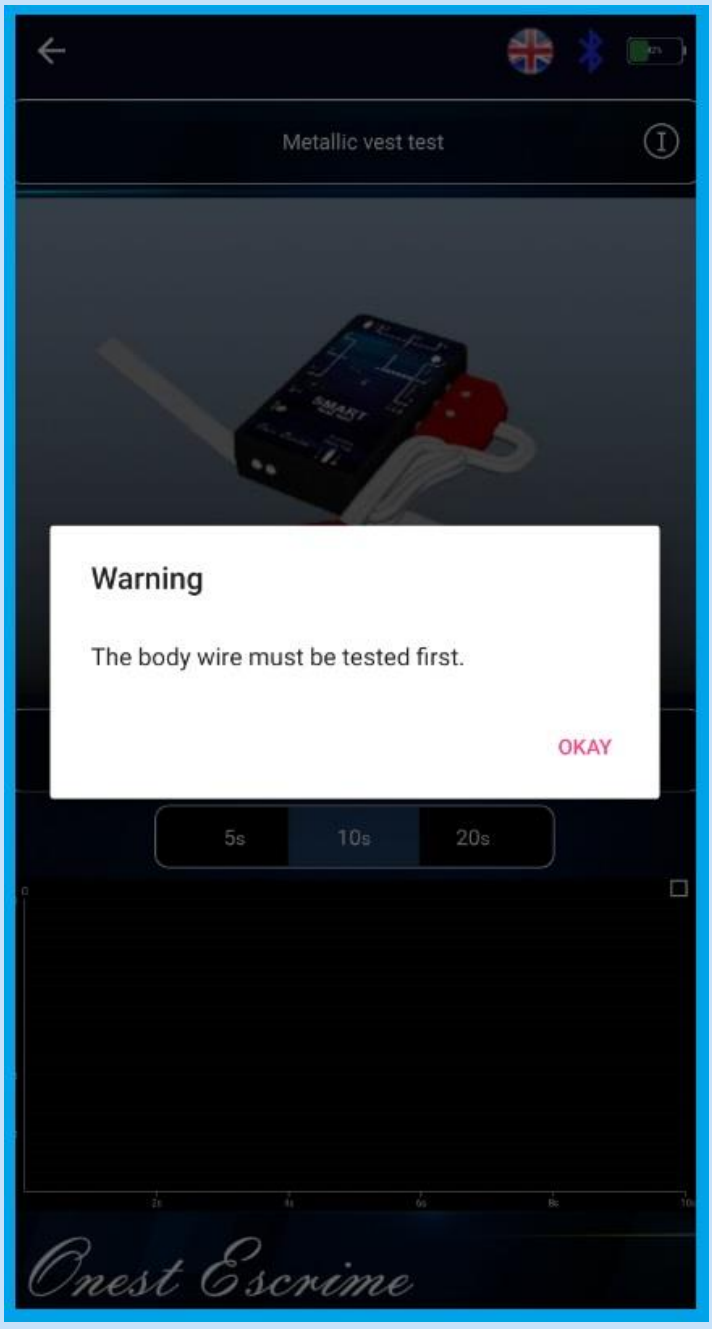
Metallic vest test

Foil > Electrical resistance tests > Metallic vest test

1. From **Main page** click **Foil** > **Electrical resistance tests** and then tap to open **Metallic vest test**.



2. A **Warning** message is displayed, read it and click **Okay.**

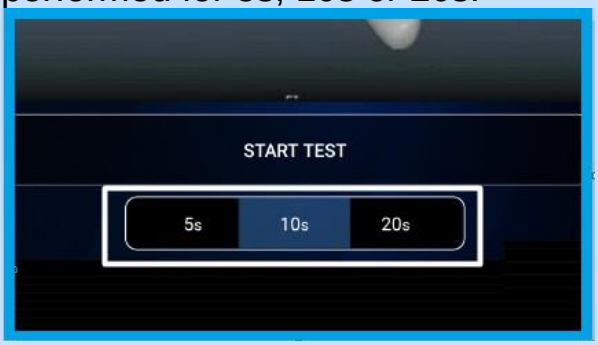


3. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions.
For proper metallic vest operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
If during the test run, there are areas where the line goes outside the graph, this indicates poor functioning of the tissue.
At the end of the test a message will appear indicating the values and their significance.

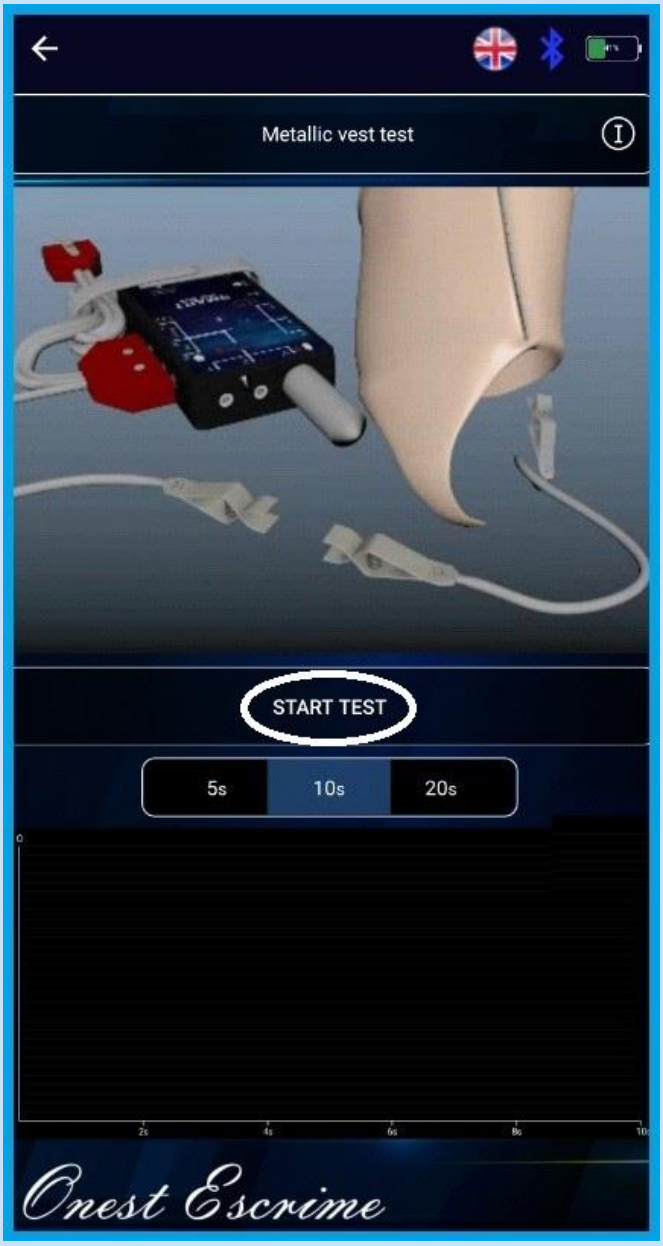
4. Insert the ends of the body wire into the sockets of the STB device ,fix test pin as shown in the animation.

5. This test has time duration and it can be performed for 5s, 10s or 20s.



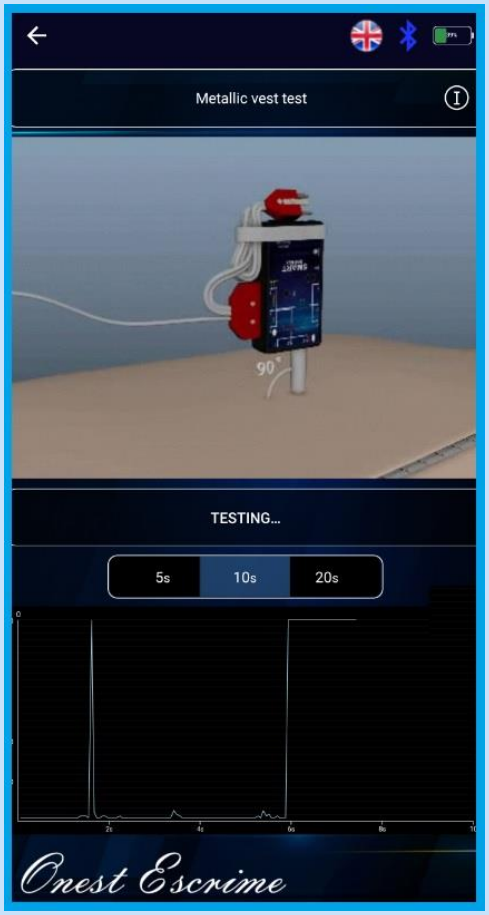
6. Mount and use the existing test pin in the STB kit.
Attach the body wire to the device with the existing strap from the STB kit
The total weight of the assembly (device, test pin and body wire) is about 500 grams (according to the F.E.M.I. equipment control commission).

7. Press the **Start test** button to begin the test.



8. During **Testing…**

When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.

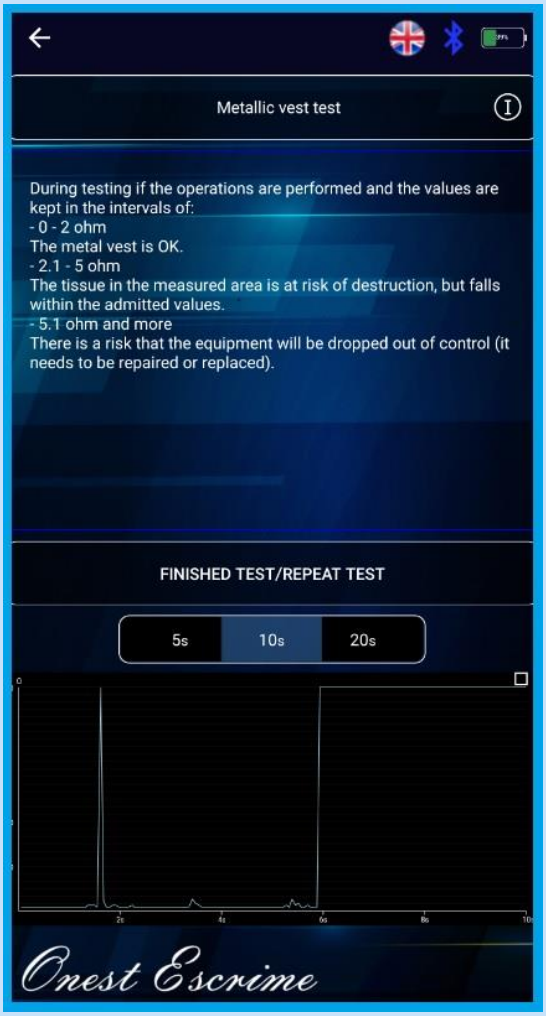


9. When **Finished test/Repeat test** button is displayed the test is completed.

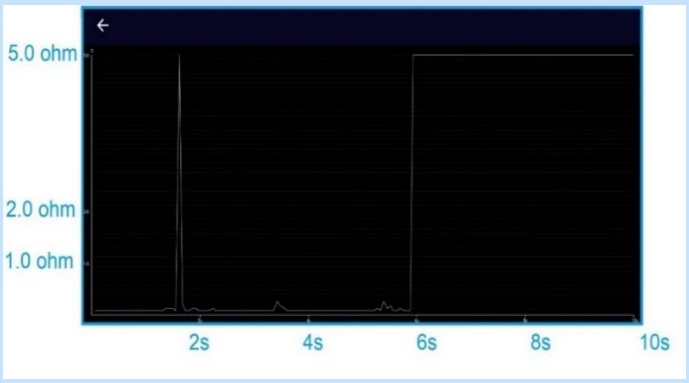
R

During testing if the operations are performed and the values are kept in the intervals of:

- between 0 - 2 ohm - The metal vest is OK.
- between 2.1 - 5 ohm - The tissue in the measured area is at risk of destruction, but falls within the admitted value.
- starting from 5.1 ohm and more - There is a risk that the equipment will be dropped out of control (the metallic vest needs to be repaired or replaced).



10 Press the ▢ icon to see the graphic in landscape mode.



11. Repeat the test by clicking **Finished test/Repeat test** .

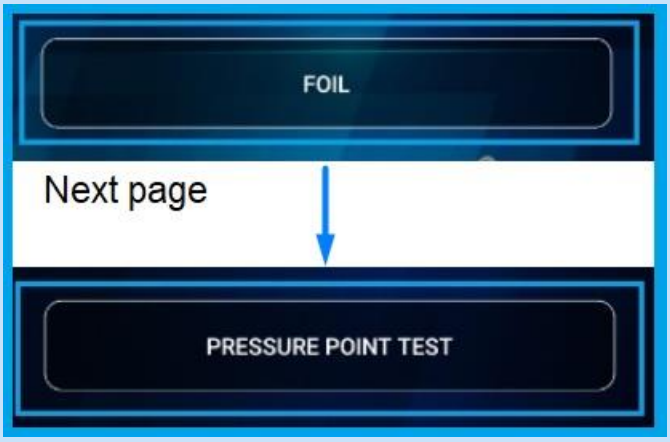
Foil

The Foil tests can help a foil fencer to test his personal equipment.

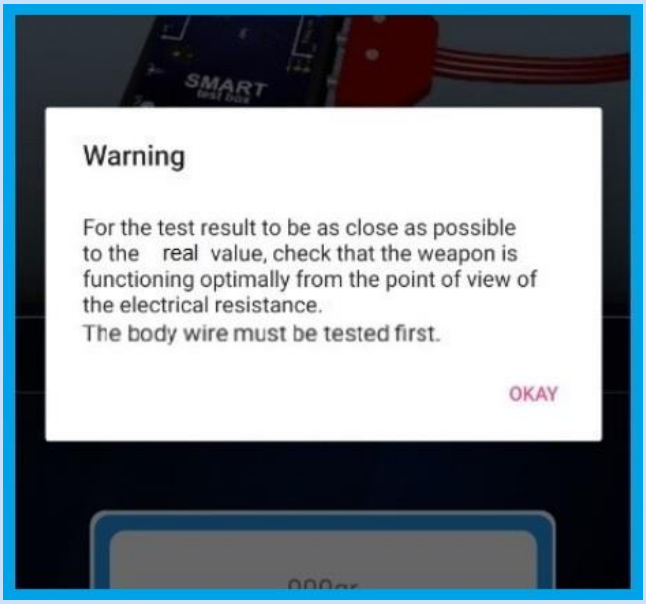
Pressure point test

Foil > Pressure point test

1. From **Main page** click **Foil** and then tap to open **Pressure point test**.



2. A **Warning** message is displayed, read it and click **Okay**.

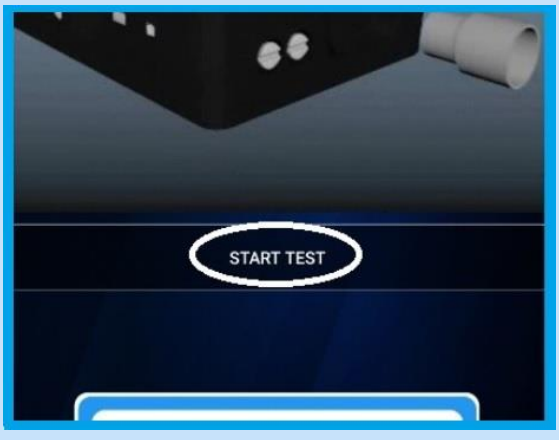


3. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions.
Press with the point of the weapon in the area specified in the animation.
Warning: the speed of the press must be as low as possible to validate the test.
At the end of the test a message appears indicating the values and their significance.

4. Insert the ends of the body wire into the sockets of the STB device and foil inside socket as shown in the animation.

5. Press the **Start test** button to begin the test.

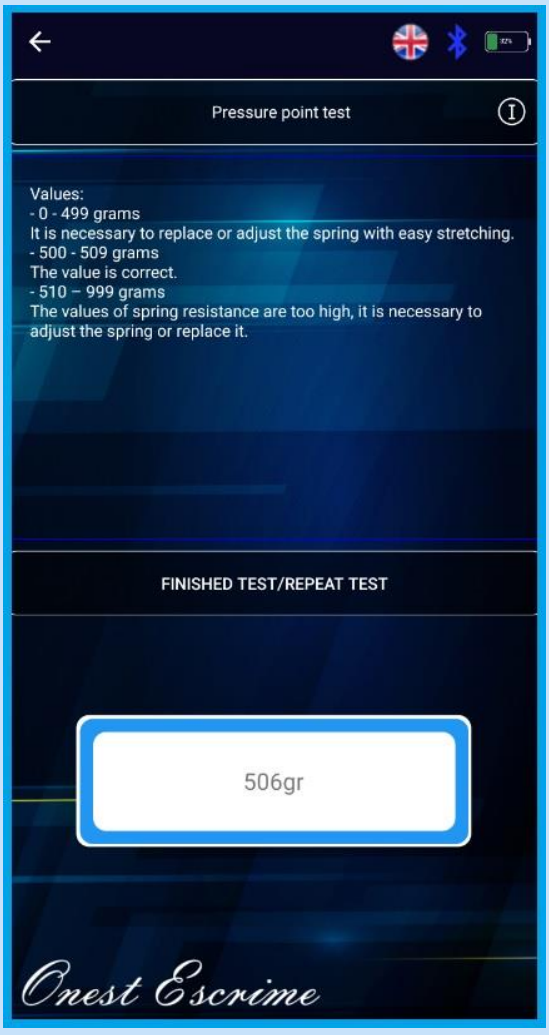


6. During **Testing…** perform the maneuvers displayed in the animation.

The test stops automatically when the tip of the foil is pressed.
The value of the force necessary to actuate the tip is registered by the device and transmitted to the application. It is displayed at the end of the test.

7. When **Finished test/Repeat test** button is displayed the test is completed.

R
According to the regulation, the value of the tip pressure must be higher than 500 grams.
We recommend adjusting the spring of the foil tip to display measured values between 530 - 550 grams.
For a correct adjustment of the pressure point, access the video section on: https://fencingstb.com/videos/



8. Repeat the test by clicking **Finished test/Repeat test** button.

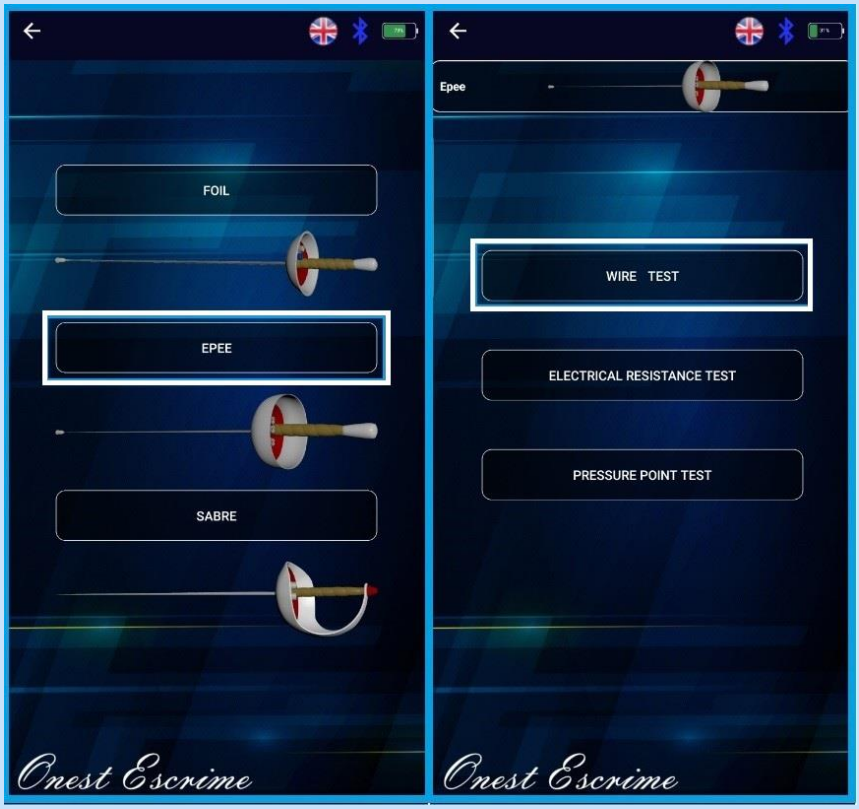
Epee

The Epee tests can help an epee fencer to test his personal equipment.

Body wire test

Epee > Body wire test

1. From **Main page** click **Epee** and then tap to open **Body wire test**.



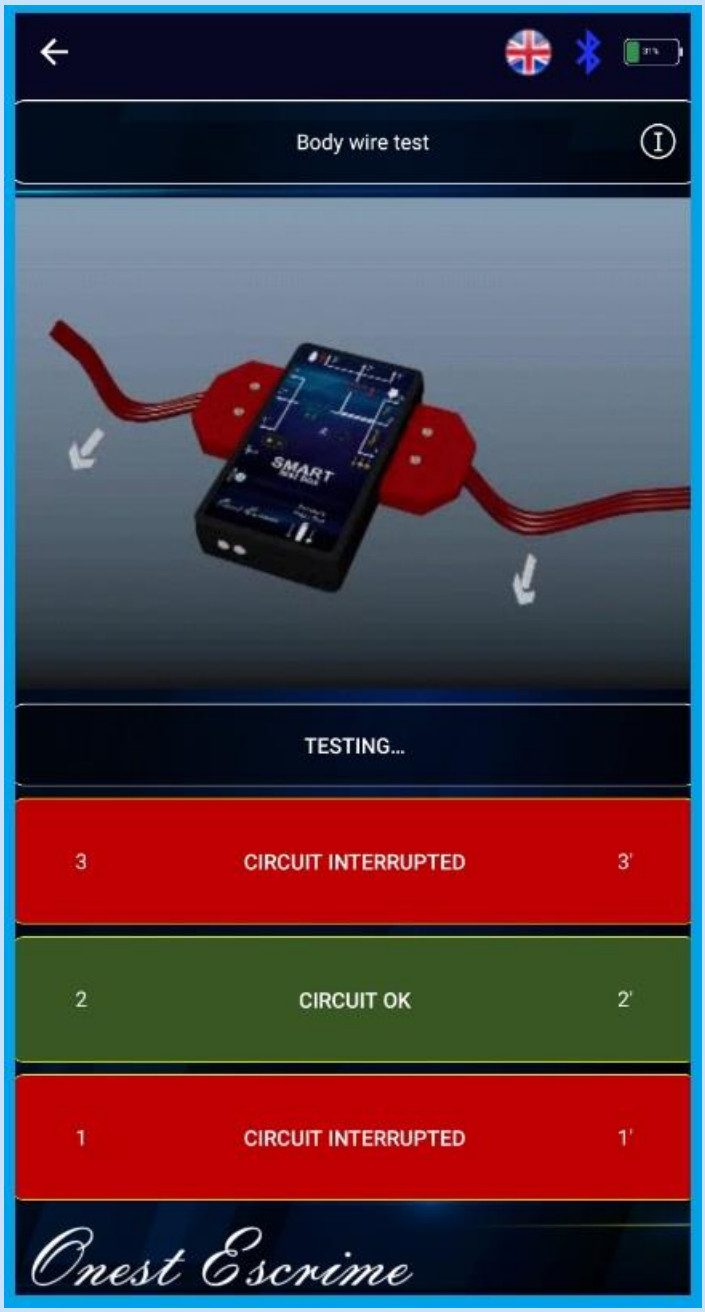
2. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Attention!
Check that the wire connections are correctly done, the device does not signal the reversal of the connections.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions.
After the test is completed, in case of failure, the body wire must be repaired.

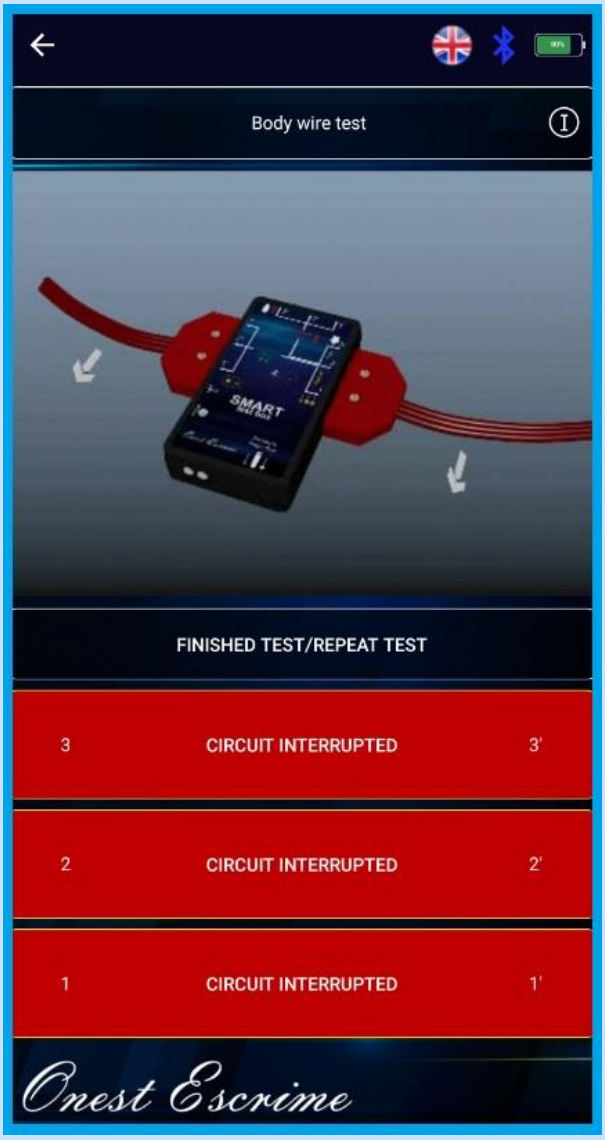
3. Insert the ends of the body wire into the sockets of the STB device as shown in the animation.

4. Press the **Start test** button to begin the test.

5. During **Testing…** perform the maneuvers displayed in the animation.

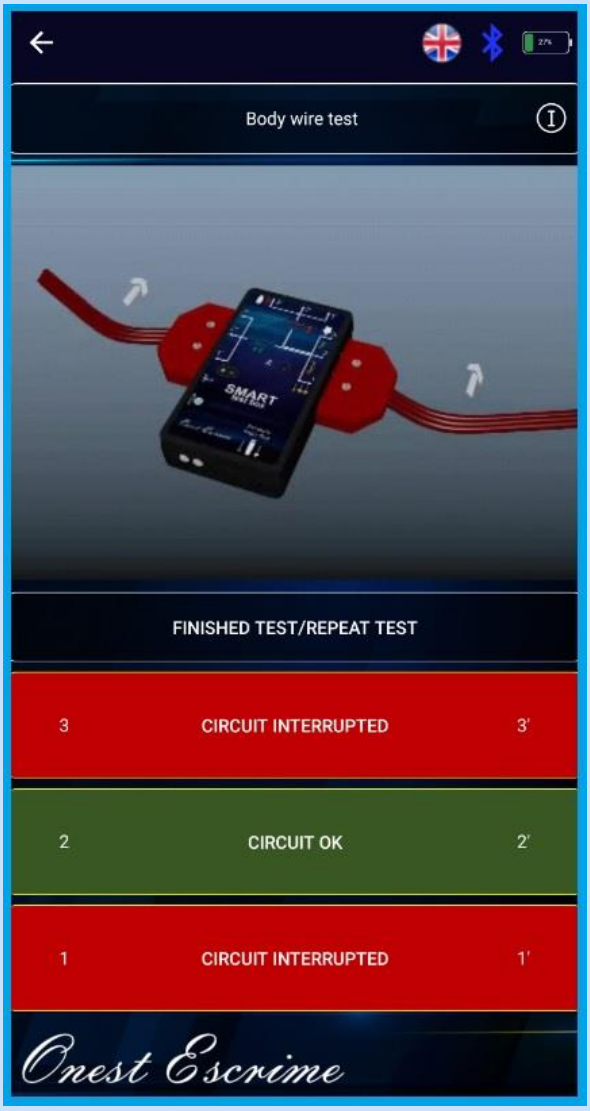


6. In case all 3 circuits are interrupted simultaneously, the test stops automatically.



7. When **Finished test/Repeat test** button is displayed the test is completed.

The electrical resistance threshold measured in the test is 2.5 ohms.
If the measured circuit does not exceed this value during the test, the result will be **'Circuit OK**'.
If this value is exceeded for more than 0.2 seconds, the result will be **'Circuit interrupted**'.



Circuits displayed in red, as broken, must be repaired.

8. Repeat the test by clicking **Finished test/Repeat test** button.

Epee

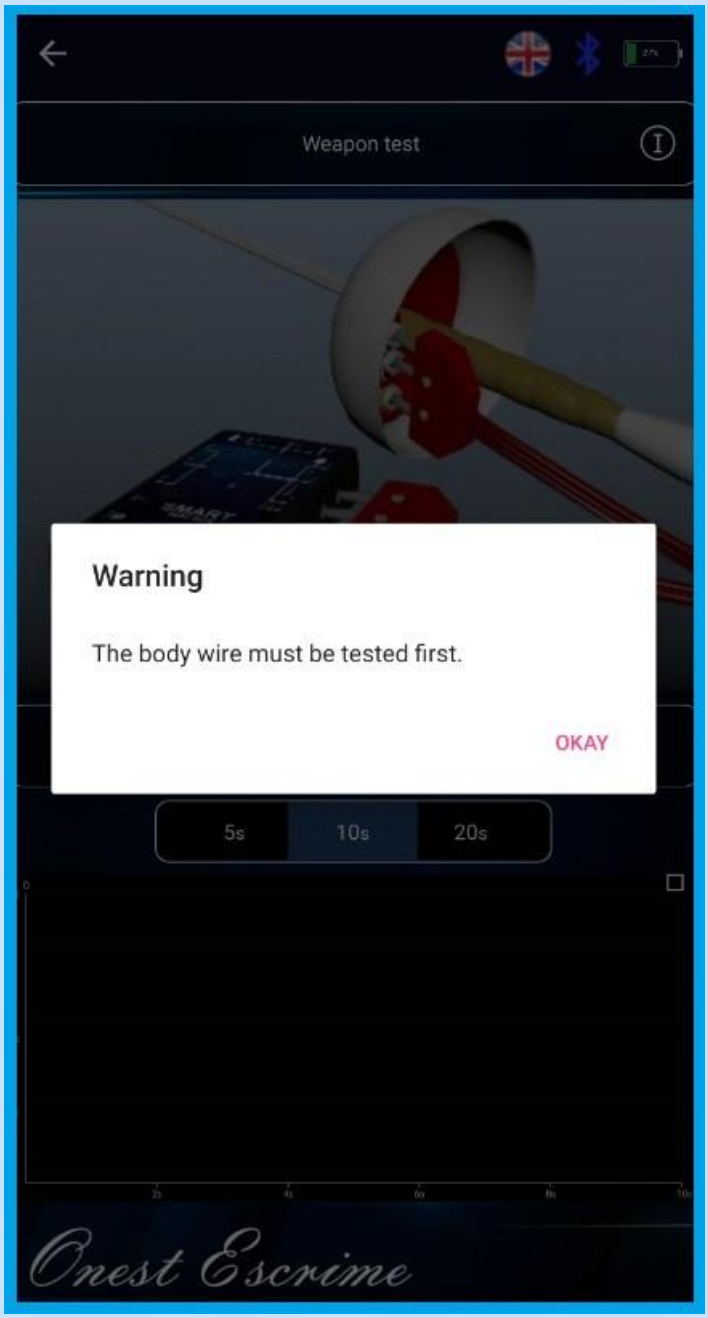
The Epee tests can help an epee fencer to test his personal equipment.

Weapon test

Epee > Electrical resistance tests > Weapon test

1. From **Main page** click **Epee** > **Electrical resistance tests** and then tap to open **Weapon test**.

2. A **Warning** message is displayed, read it and click **Okay**.



3. Click **Information** icon to get more details about the test.

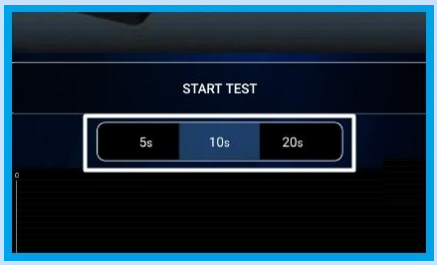
Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions and at the same time the values represented are graphically tracked.
When the point of the weapon is pressed, a line is formed at the bottom of the graph, that goes up when the point is released.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
Warning:

- if after 4 seconds and performing a minimum maneuver to push the point, the resistance line does not appear at the bottom, the test stops automatically, the weapon is defective and it needs to be repaired.
- if the electrical circuit of the weapon is connected to the ground, the test automatically stops and a message appears: 'Error! The weapon circuit is connected to the ground.' and the weapon needs to be repaired.

At the end of the test, a message will appear indicating the values and their significance.

4. Insert the ends of the body wire into the sockets of the STB device and epee inside socket as shown in the animation.

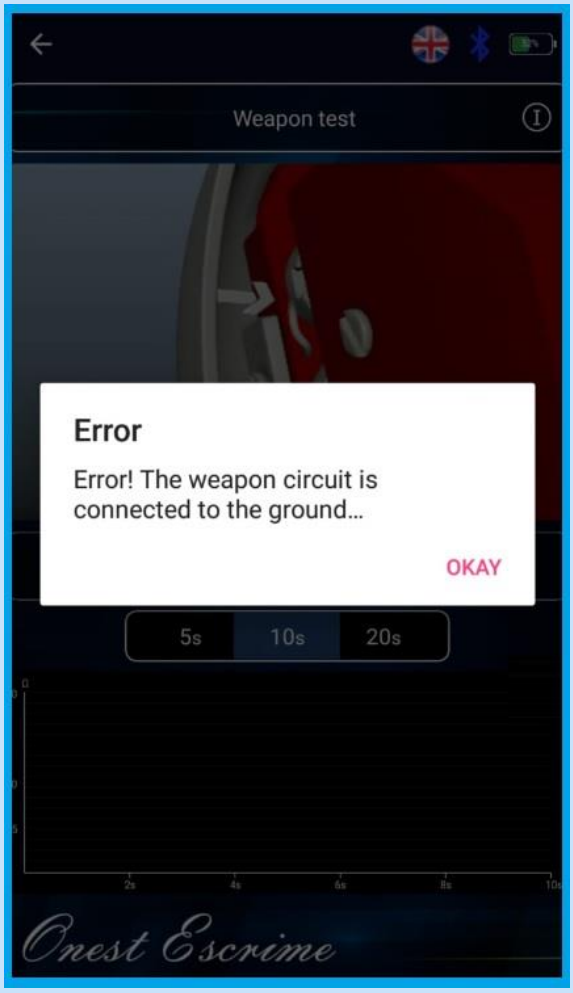
5. This test has time duration and it can be performed for 5s, 10s or 20s.



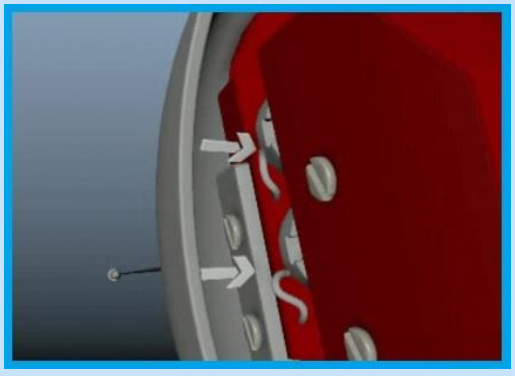
6. Press the **Start test** button to begin the test.

7. **Warning**: If the electrical circuit of the weapon is connected to the ground, the

test automatically stops and a message appears: 'Error! The weapon circuit is connected to the ground.' and the weapon needs to be repaired.



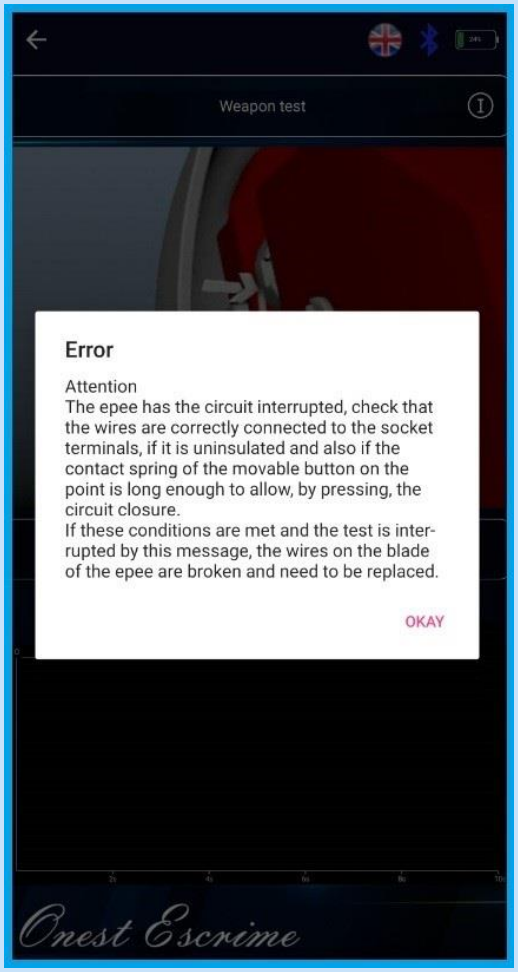
Click **Okay** to see the possible areas of defect.



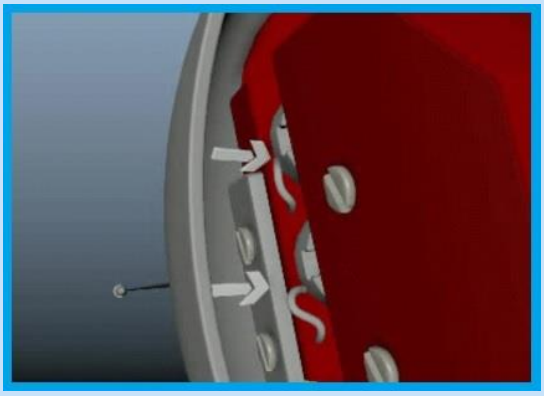
Click the image to return.

8. **Warning**: If after 4 seconds and performing a minimum maneuver to push
9. During **Testing…**

the point, the resistance line does not appear at the bottom, the test stops automatically, the weapon is defective and it needs to be repaired.

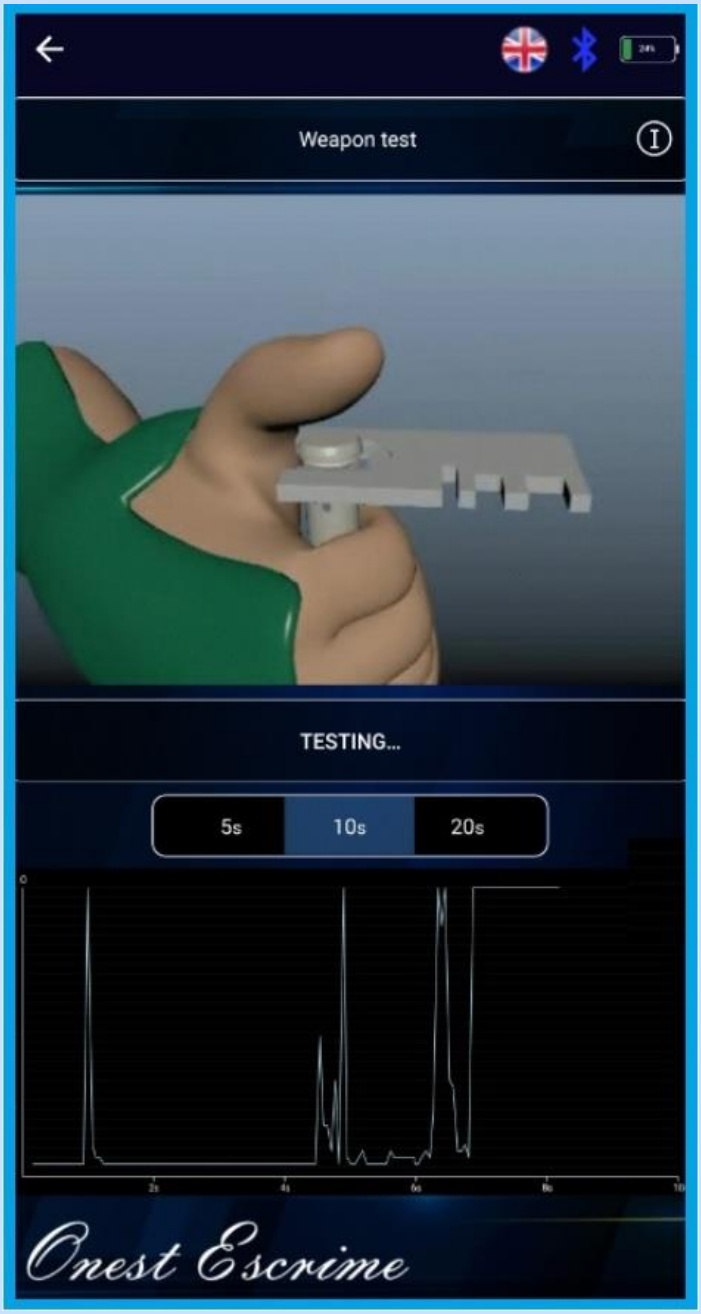


Click **Okay** to see the possible areas of defect.



Click the image to return.

When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions and at the same time the values represented are graphically tracked.
When the point of the weapon is pressed, a line is formed at the bottom of the graph, that goes up when the point is released.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).



10. When **Finished test/Repeat test** button is displayed the test is completed.

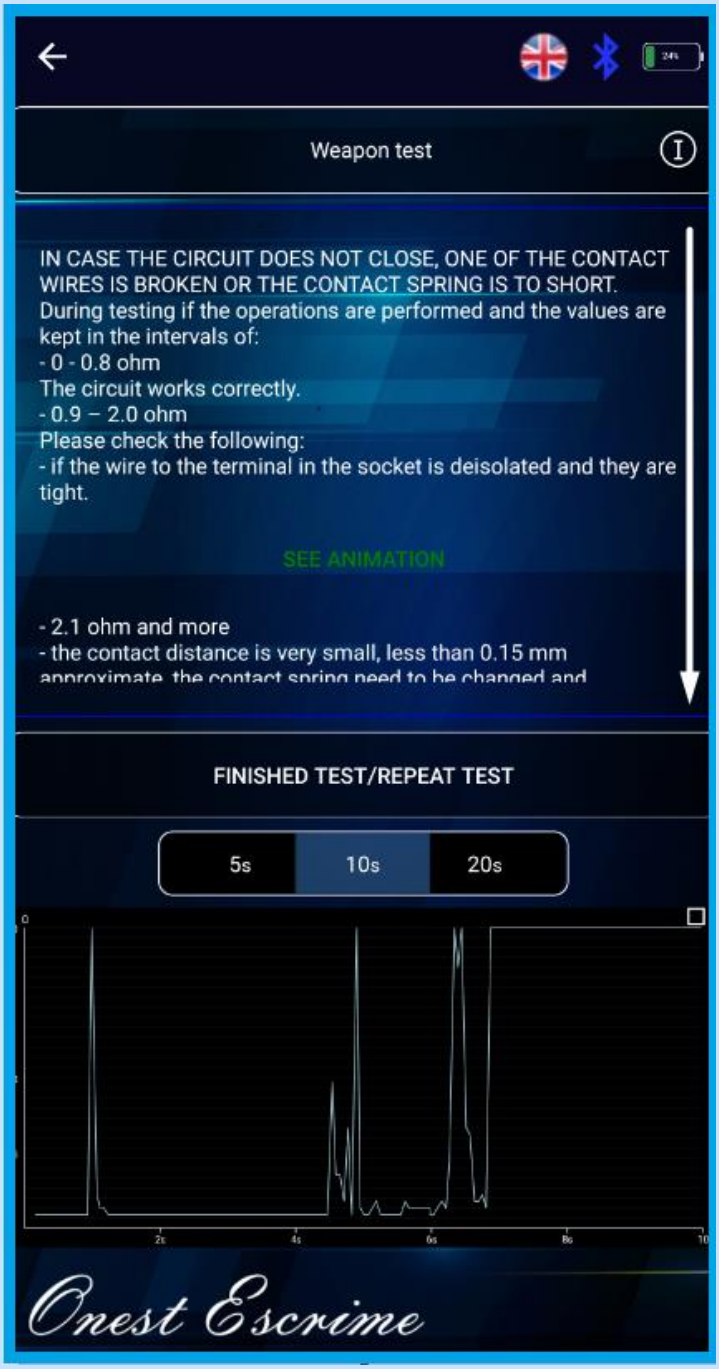
R

In case the circuit does not close, one of the contact wires is broken or the contact spring is too short.
During testing if the operations are performed and the values are kept between the intervals:

- 0 - 0.8 ohm - The circuit works correctly.
- 0.9 - 2.0 ohm - Please check if the wires of the socket terminal are correctly non isolated and that they are tight.
- 2.1 ohm and more - The contact distance is very small (less than 0.15 mm approx.) and the contact spring need to be changed or adjusted.
  For good mechanical operation, the top screws must be in the green marked position

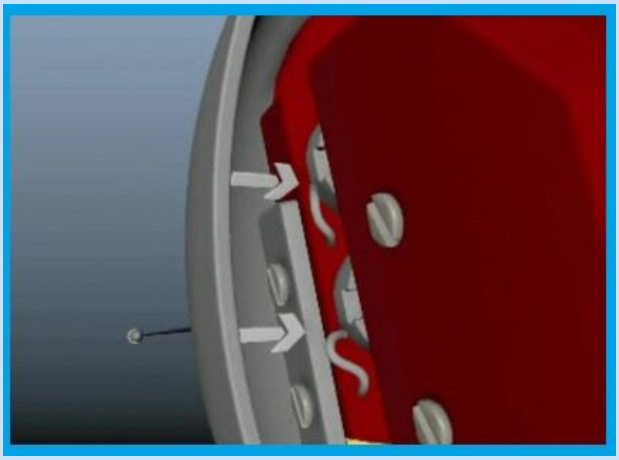
See animation

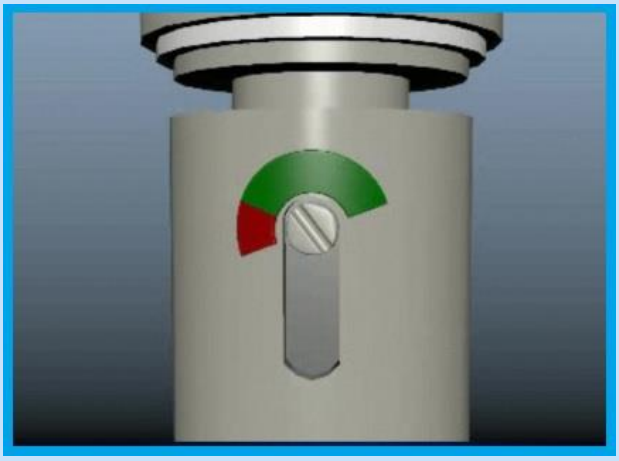
WARNING: **Do not use liquid and liquid shirts to lubricate the tip and the inside (only graphite powder followed by careful wiping with a fine cotton cloth and air blowing).**



Scroll to see all the results.

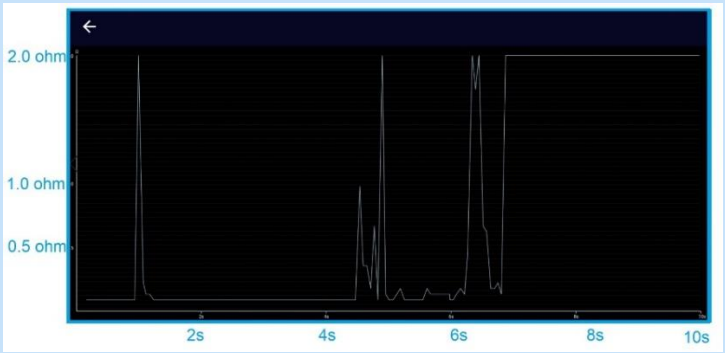
11. Click **See animation** to observe the possible areas of defect.





Click on the animation to return to the results.

12. Press the ▢ icon to see the graphic in landscape mode.



13. Repeat the test by clicking **Finished test/Repeat test** button.

Epee

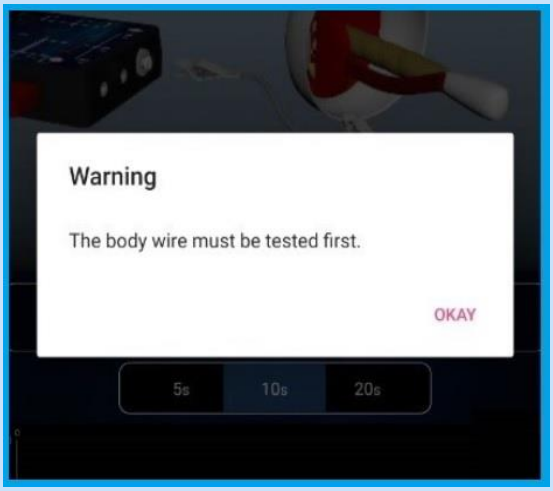
The Epee tests can help an epee fencer to test his personal equipment.

Ground test

Epee > Electrical resistance tests > Ground test

1. From **Main page** click **Epee** > **Electrical resistance tests** and then tap to open **Ground test**.

2. A **Warning** message is displayed, read it and click **Okay**.

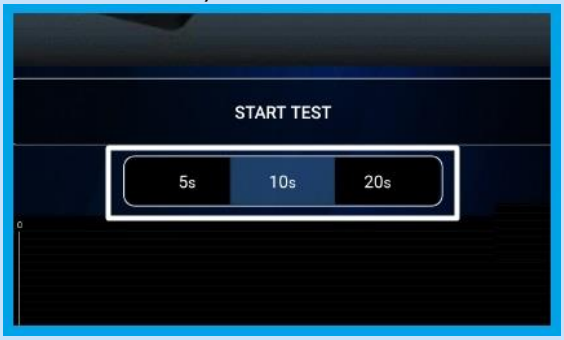


3. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions and at the same time the values represented are graphically tracked.
For a proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
At the end of the test, a message will appear indicating the values and their significance.

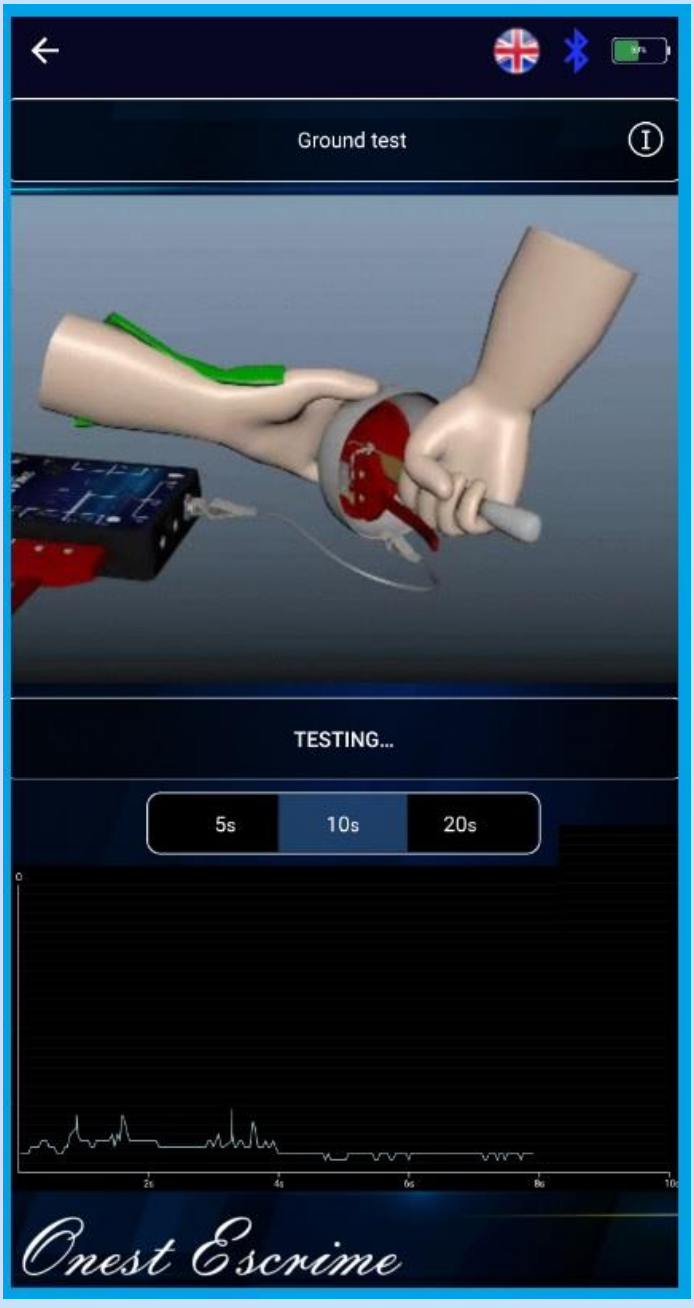
4. Insert the ends of the body wire into the sockets of the STB device and epee inside soket as shown in the animation.

5. This test has time duration and it can be performed for 5s, 10s or 20s.

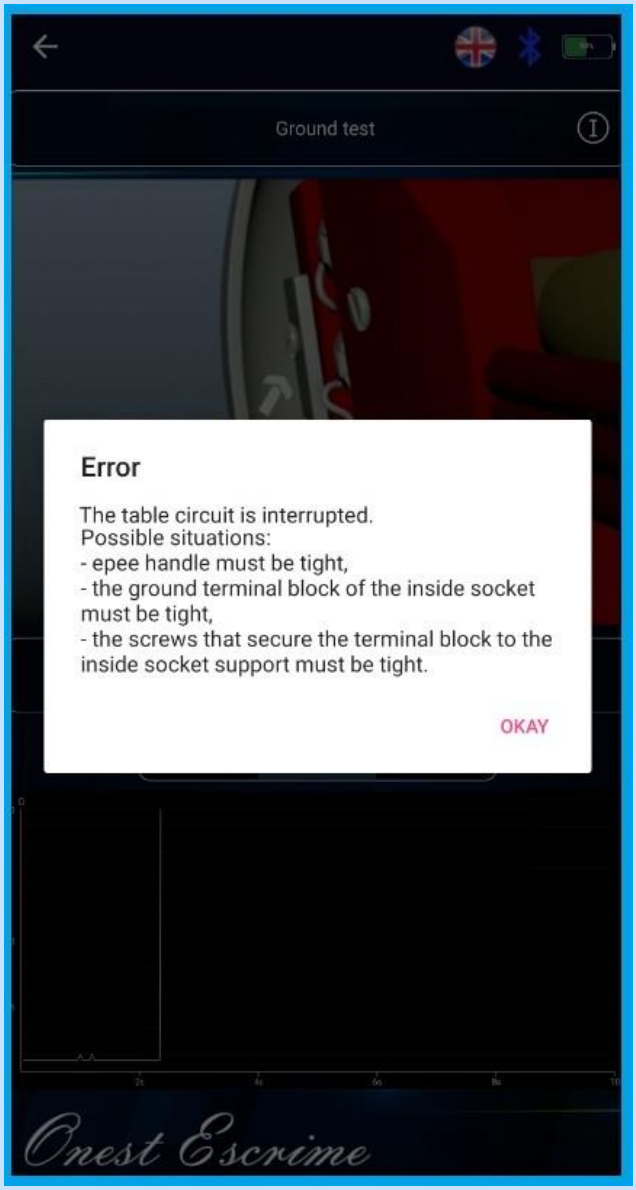


6. Press the **Start test** button to begin the test.

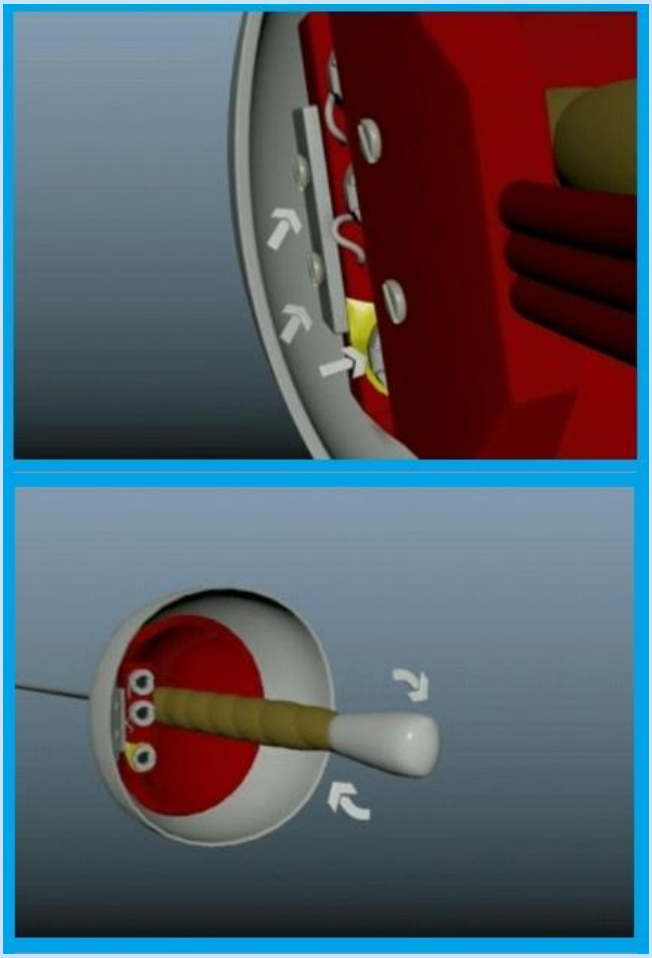
7. During **Testing…** perform the maneuvers displayed in the animation.



8. This test measures the electrical resistance on the ground circuit of the epee. The maximum value of the electrical resistance for the test to pass is 2.5 ohms. If during the test, the electrical resistance of the circuit exceeds the value of 2.5 ohms, the test stops automatically and an error message is displayed.



Click **Okay** to see the possible areas of defect.



Click on the animation to return to the results.

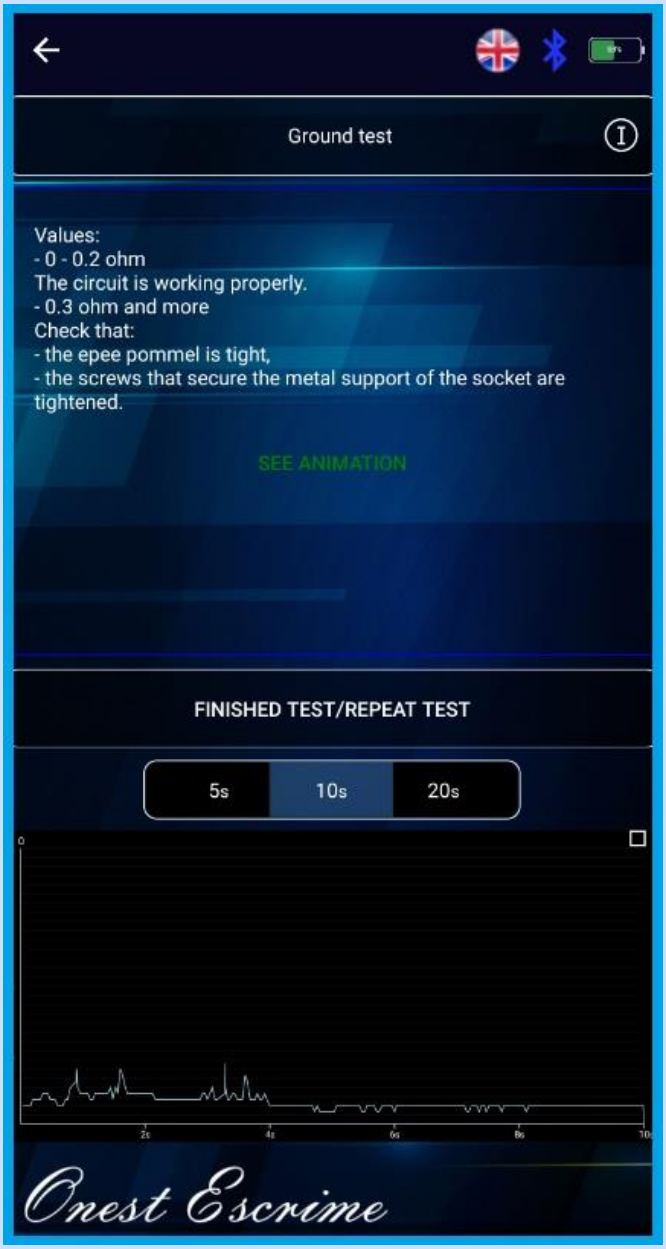
9. When **Finished test/Repeat test** button is displayed the test is completed.

R

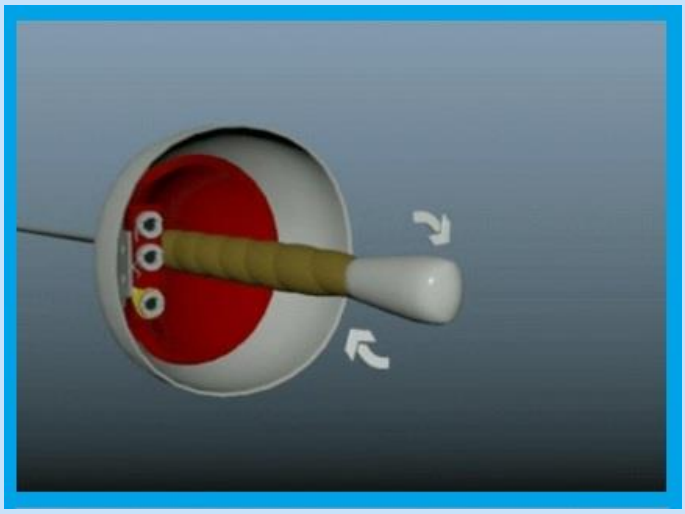
Values:

- - 0 - 1 ohm - The circuit works correctly.
- - 1.1 ohm and more

Check that the epee pommel (for French model) or the hexagon nut (for pistol model) is well tight, that the screws of the inside guard socket are fixed and that the electric terminal for ground circuit on the inside guard socket is also well tight.

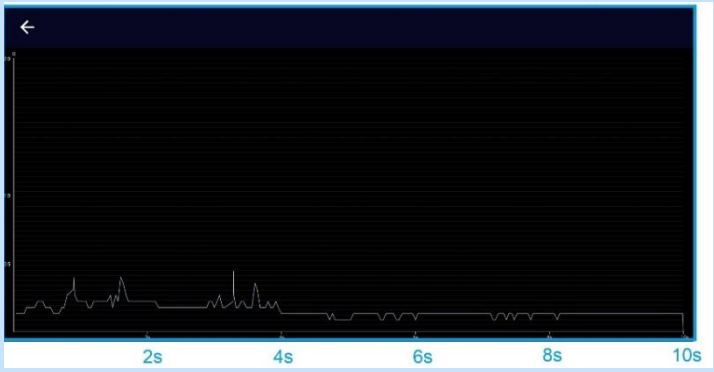


Click on the 'See animation' to know the possible areas of defect.



Click on the animation to return to the results.

10. Press the  icon to see the graphic in landscape mode.



11. Repeat the test by clicking **Finished test/Repeat test** button.

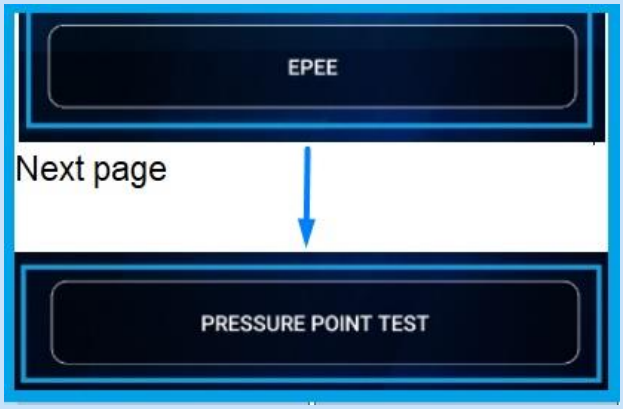
Epee

The Epee tests can help an epee fencer to test his personal equipment.

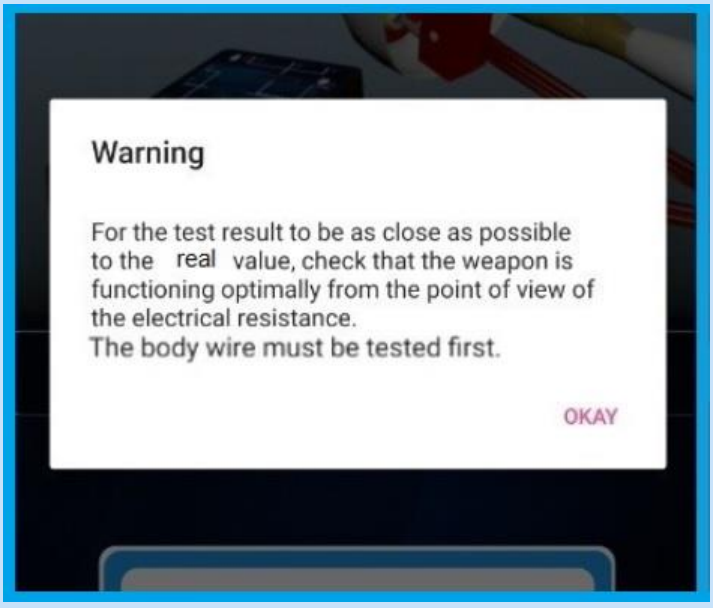
Pressure point test

Epee > Pressure point test

1. From **Main page** click **Epee** and then tap to open **Pressure point test**.



2. A **Warning** message is displayed, read it and click **Okay**.

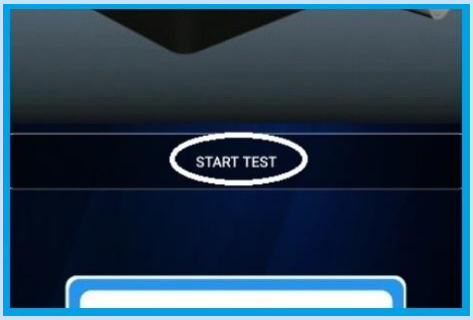


3. Click **Information** icon to get more details about the test.

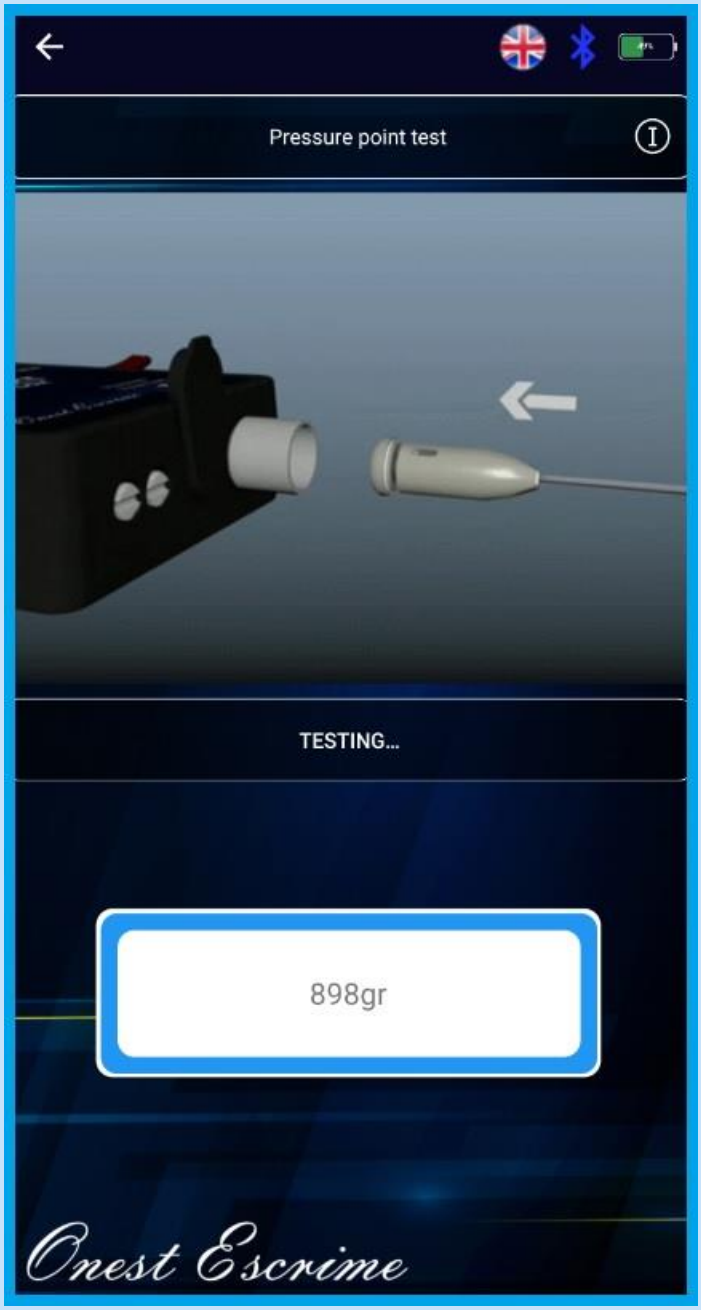
Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions.
Press with the point of the weapon in the area specified in the animation.
Warning: the speed of the press must be as low as possible to validate the test.
At the end of the test a message appears indicating the values and their significance.

4. Insert the ends of the body wire into the sockets of the STB device and epee inside socket as shown in the animation.

5. Press the **Start test** button to begin the test.



6. During **Testing…** perform the maneuvers displayed in the animation.

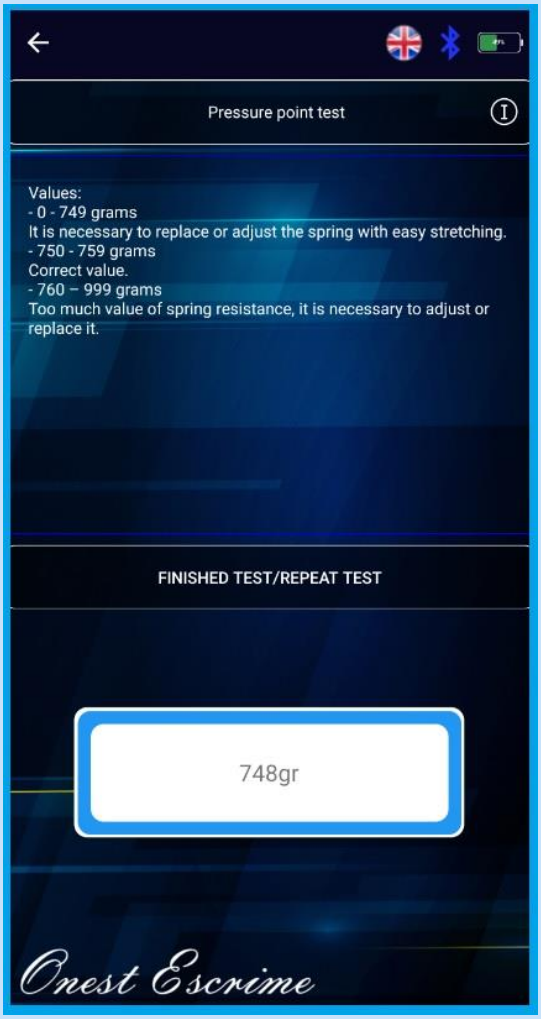


The test stops automatically when the tip of the epee is pressed.
The value of the force necessary to actuate the tip is registered by the device and transmitted to the application. It is displayed at the end of the test.

7. When **Finished test/Repeat test** button is displayed the test is completed.

R

According to the regulation, the value of the tip pressure must be higher than 750 grams.
We recommend adjusting the spring tip of the epee to display measured values between 765 - 780 grams.
For a correct adjustment of the pressure point, access the video section on:
https://fencingstb.com/videos/



8.Repeat the test by clicking **Finished test/Repeat test** button.

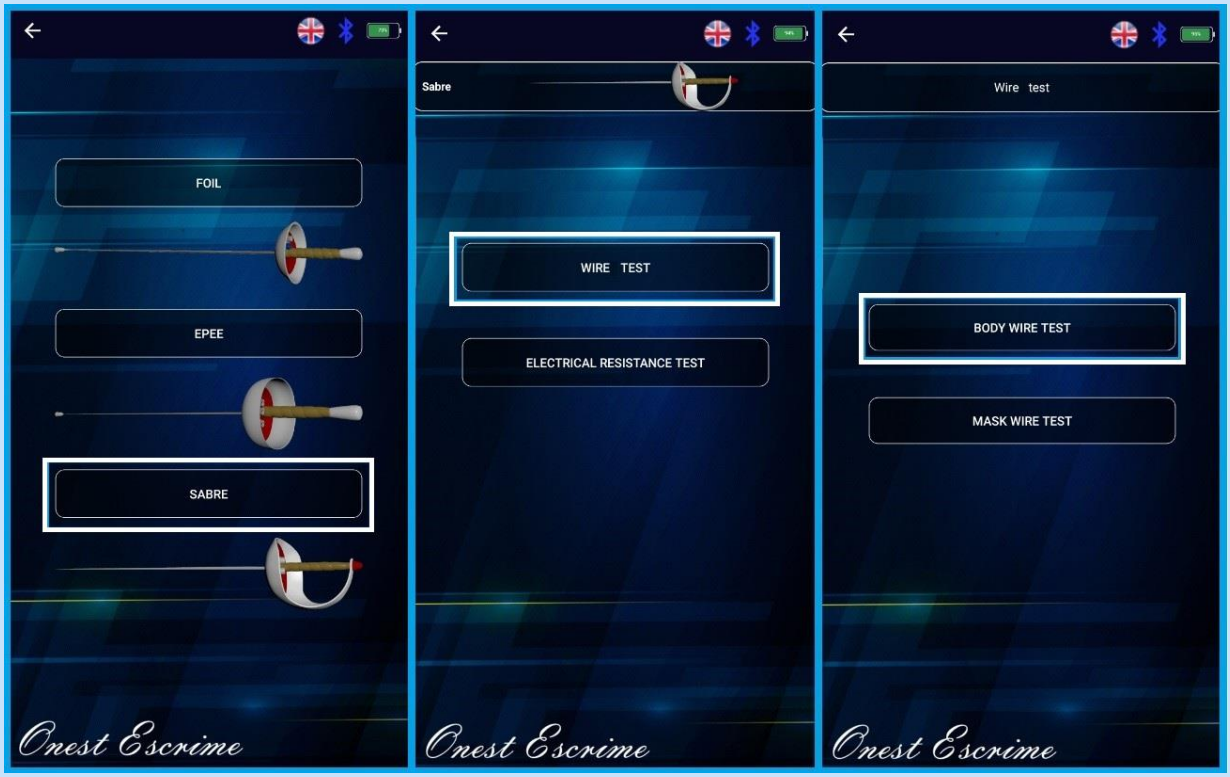
Sabre

The Sabre tests can help a sabre fencer to test his personal equipment.

Body wire test

Sabre > Wire tests > Body wire test

1. From **Main page** click **Sabre** > **Wire tests** and then tap to open **Body wire test**.



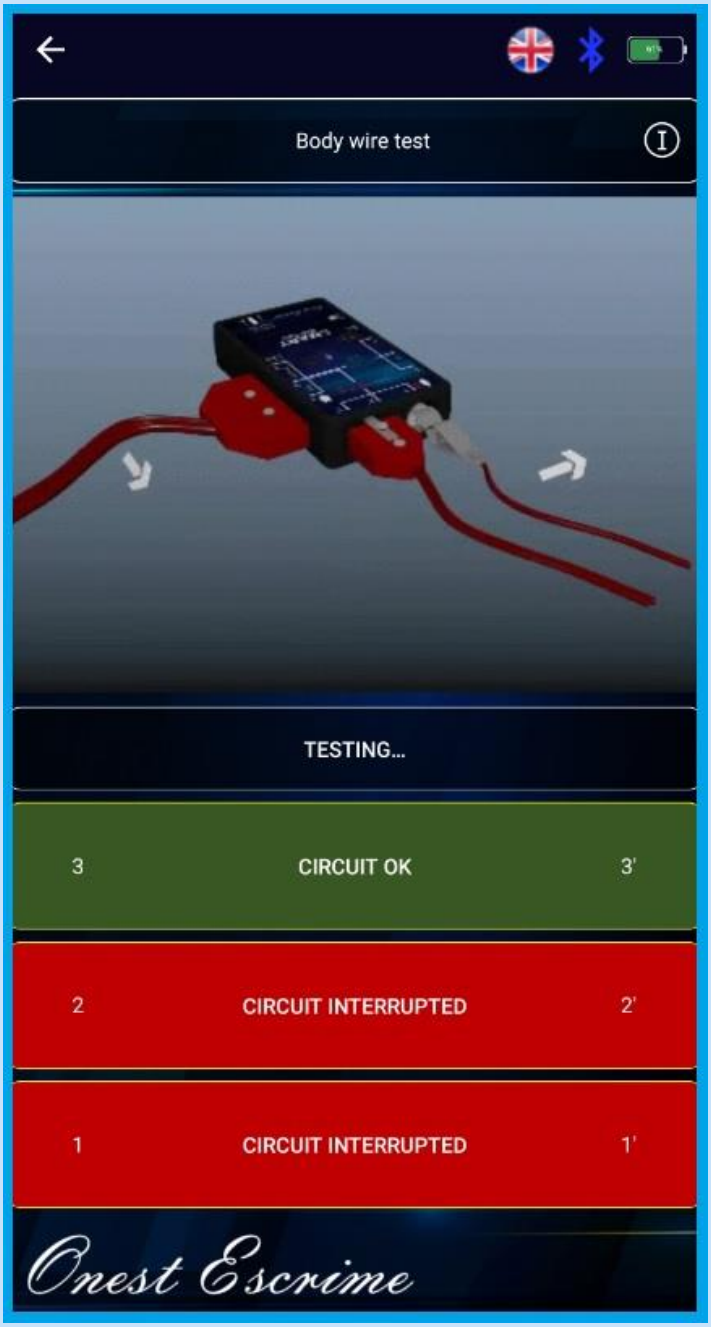
2. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Attention!
Check that the wire connections are correctly done, the device does not signal the reversal of the connections.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions.
After the test is completed, in case of failure, the body wire must be repaired.

3. Insert the ends of the body wire into the sockets of the STB device as shown in the animation.

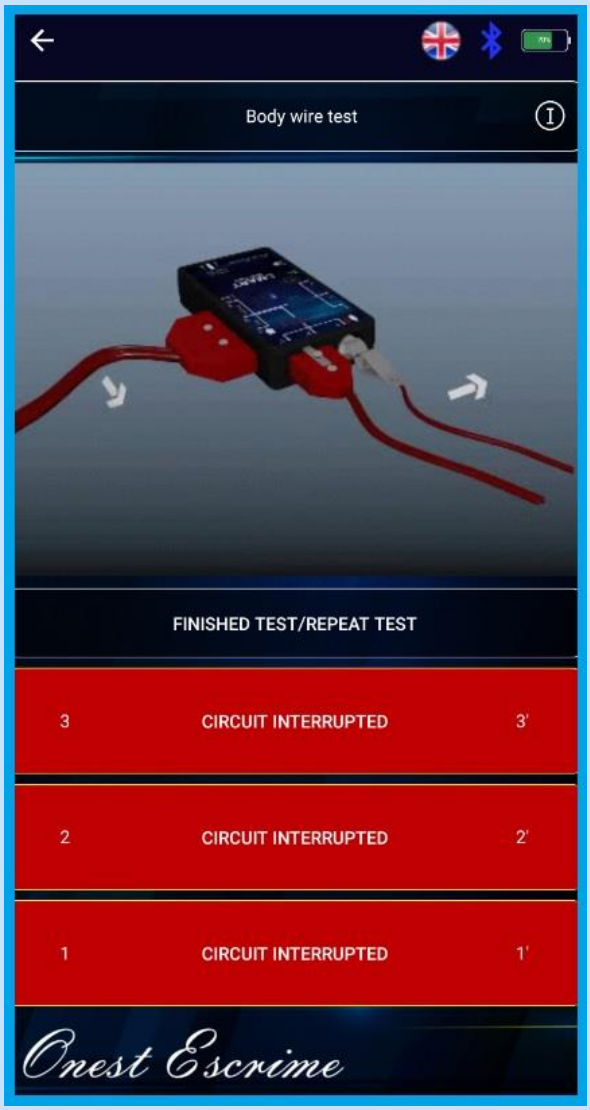
4. Press the **Start test** button to begin the test.

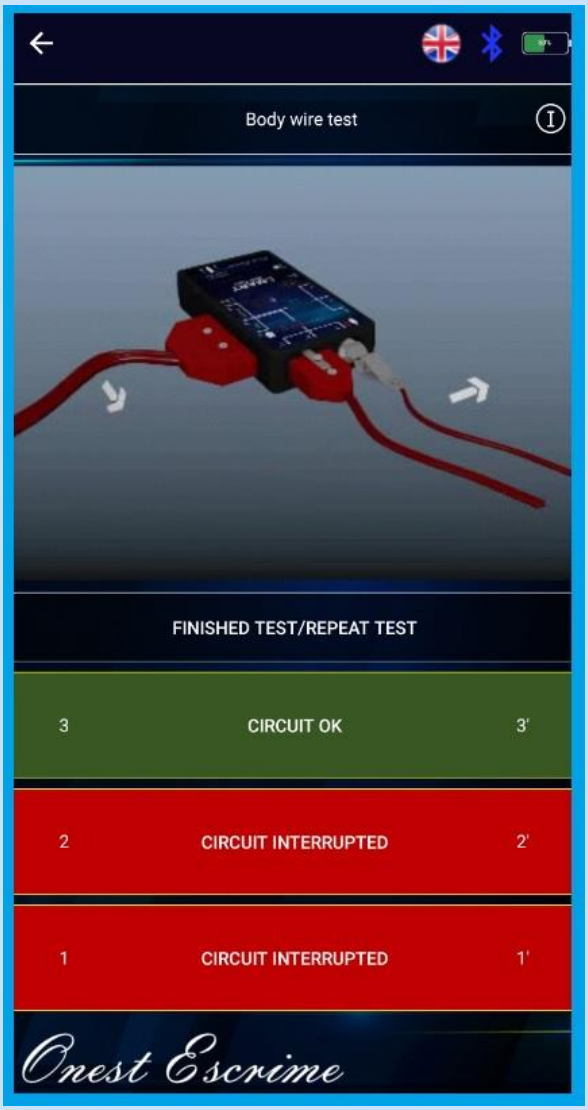
5. During **Testing…** perform the maneuvers displayed in the animation.



6. In case all 3 circuits are interrupted simultaneously, the test stops automatically.

If the measured circuit does not exceed this value during the test, the result will be **'Circuit OK**'.
If this value is exceeded for more than 0.2 seconds, the result will be **'Circuit interrupted**'.





Circuits displayed in red, as broken, must be repaired.

7. When **Finished test/Repeat test** button is displayed the test is completed.

8. Repeat the test by clicking **Finished test/Repeat test** button.

The electrical resistance threshold measured in the test is 2.5 ohms.

Sabre

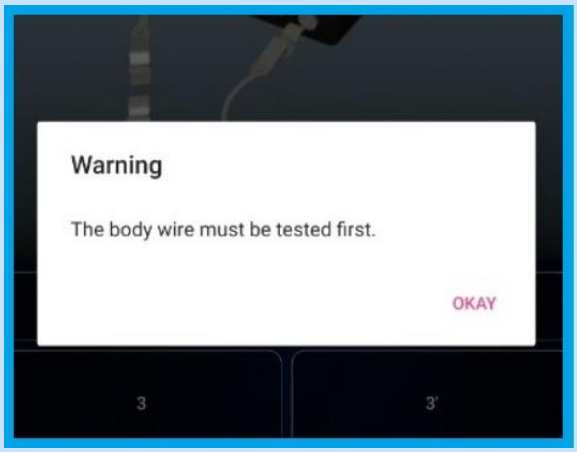
The Sabre tests can help a sabre fencer to test his personal equipment.

Mask wire test

Sabre > Wire tests > Mask wire test

1. From **Main page** click **Sabre** > **Wire tests** and then tap to open **Mask wire test**.

2. A **Warning** message is displayed, read it and click **Okay**.



3. Click **Information** icon to get more details about the test.

Use the sabre body wire with the mask wire to perform the test.

Insert the ends of the mask cable into the sockets of the STB device as shown in the animation.

Attention!

Check that the wire connections are correctly done, the device does not signal the reversal of the connections

Click the **Start test** button to begin the test.

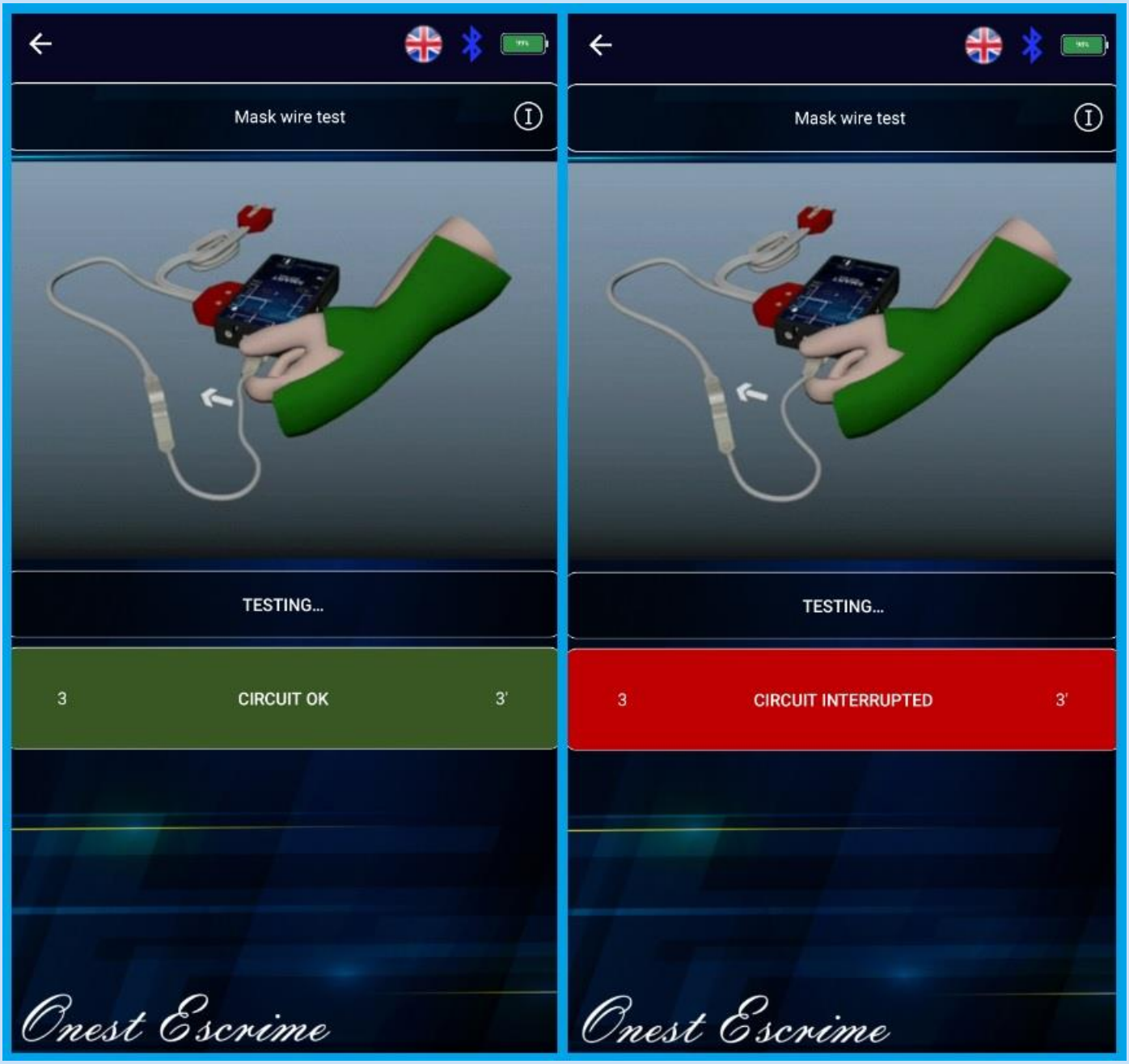
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions.

After the test is completed, in case of failure, the mask cable must be repaired.

4. Insert the ends of the body wire into the sockets of the STB device as shown in the animation.

5. Press the **Start test** button to begin the test.

6. During **Testing…** perform the maneuvers displayed in the animation.

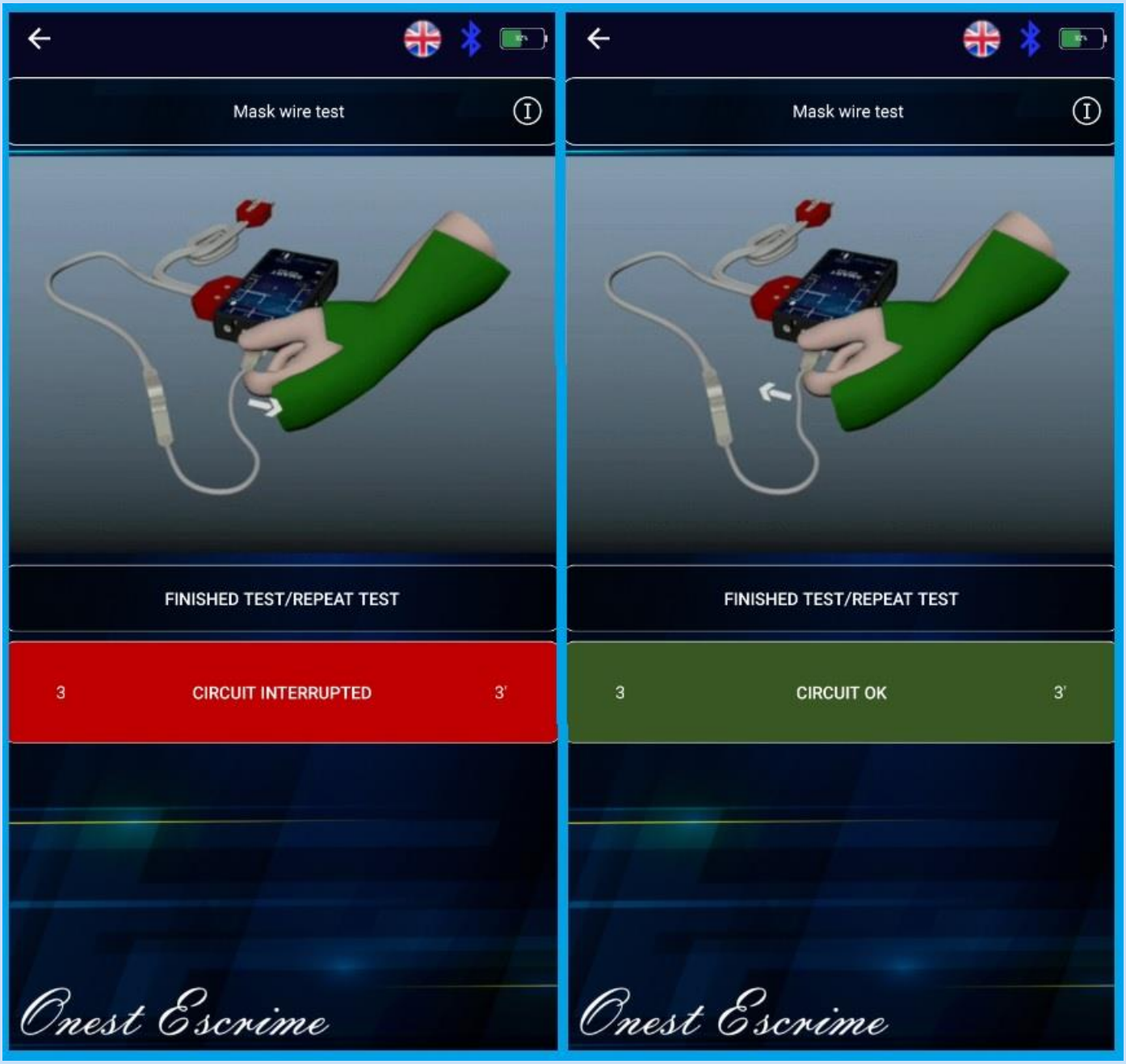


7. When **Finished/Repeat test** button is displayed the test is completed.

The electrical resistance threshold measured in the test is 2.5 ohms.

If the measured circuit does not exceed this value during the test, the result will be '**Circuit OK**'.
If this value is exceeded for more than 0.2 seconds, the result will be **'Circuit interrupted**'.

- if **Circuit interrupted** is displayed the mask wire must be repaired.
- If **Circuit OK** is displayed the mask wire can be used.



8. Repeat the test by clicking **Finished test/Repeat test** button.

Sabre

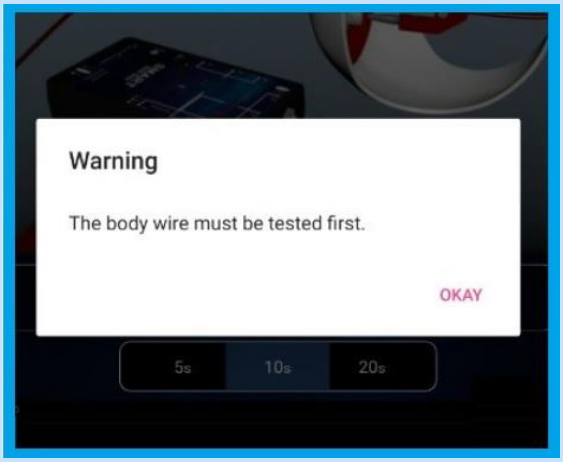
The Sabre tests can help a sabre fencer to test his personal equipment.

Weapon test

Sabre > Electrical resistance tests > Weapon test

1. From **Main page** click **Sabre** > **Electrical resistance tests** and then tap to open **Weapon test**.

2. A **Warning** message is displayed, read it and click **Okay**.



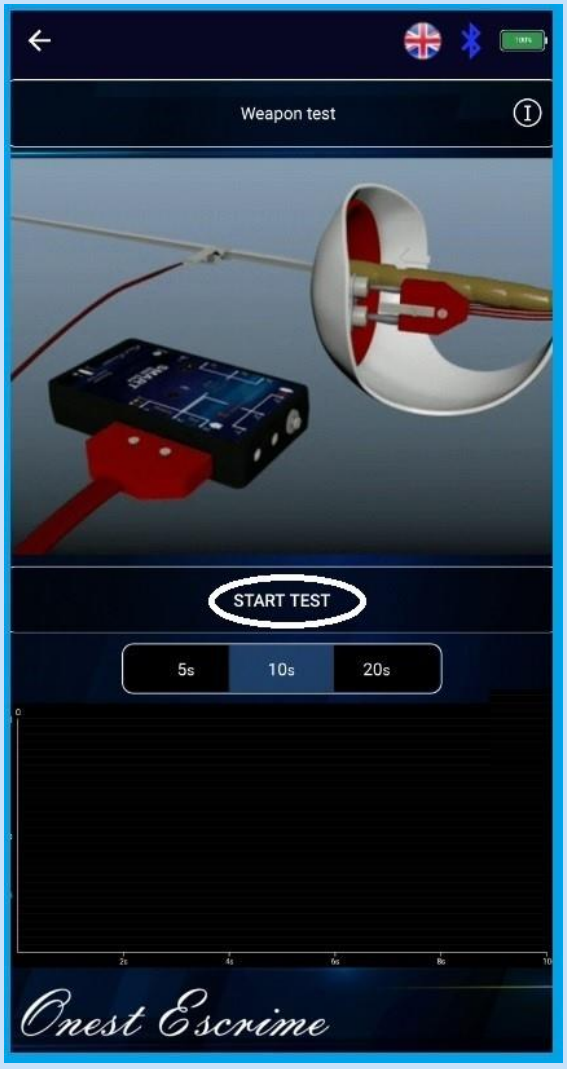
3. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
If a warning message appears:
Attention
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
At the end of the test, a message appears indicating the values and their significance.

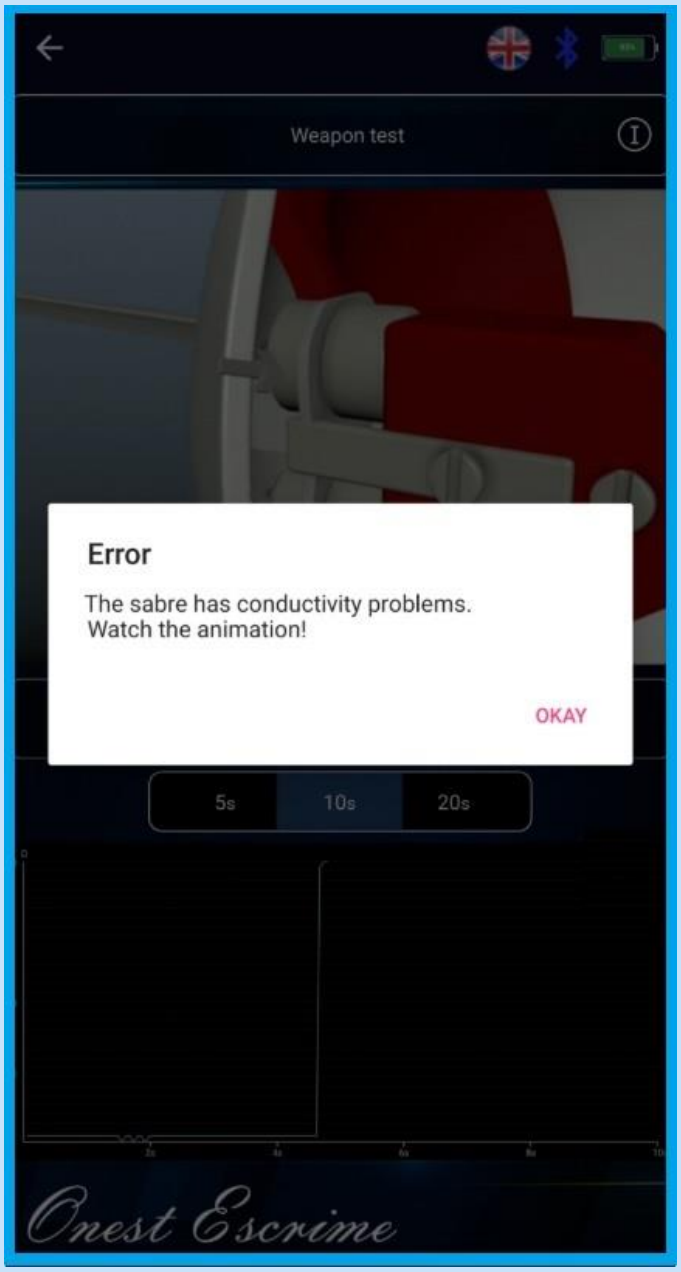
4. Insert the ends of the body wire into the sockets of the STB device and sabre inside socket as shown in the animation.

5. This test has time duration and it can be performed for 5s, 10s or 20s.

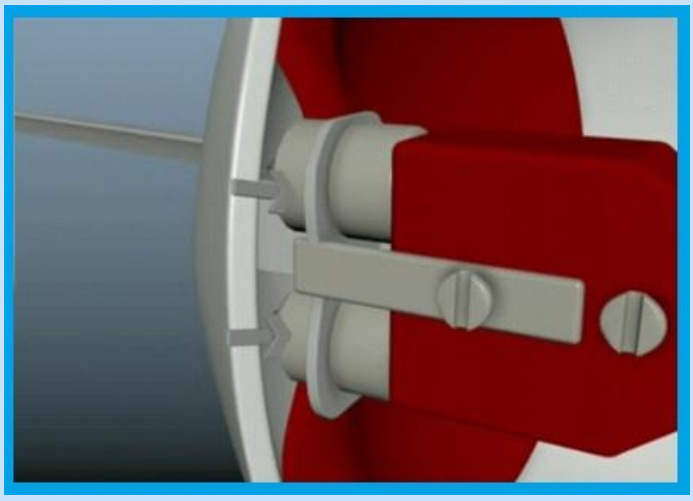
6. Press the **Start test** button to begin the test.

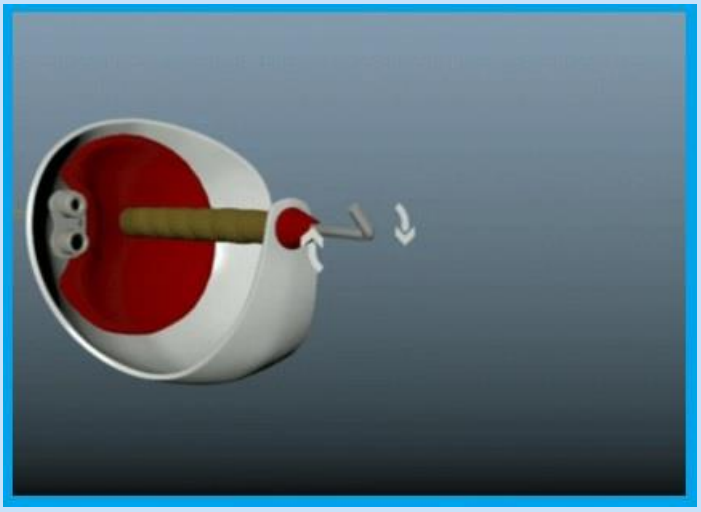


7. In case, during the test, the measured electrical resistance exceeds the value of 2.5 ohms for a period longer than 15 milliseconds, the test stops automatically and this error message appears.



Click **Okay** to see the possible areas of defect.





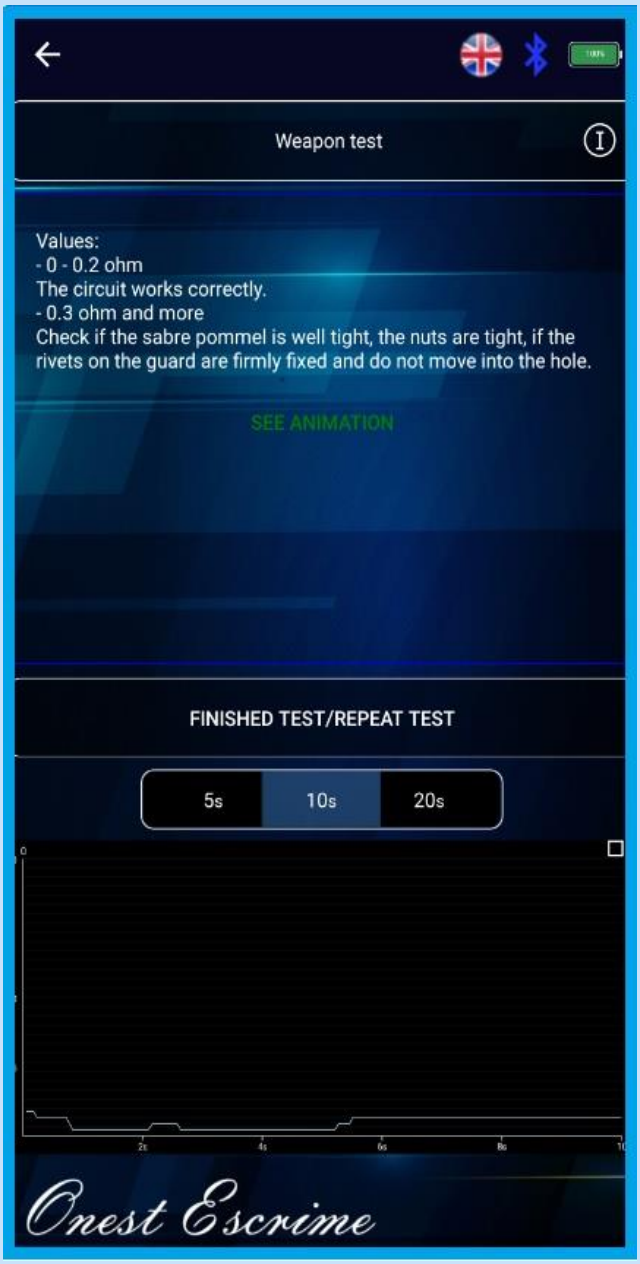
Click on the images to return.

8. During **Testing…** perform the maneuvers displayed in the animation.

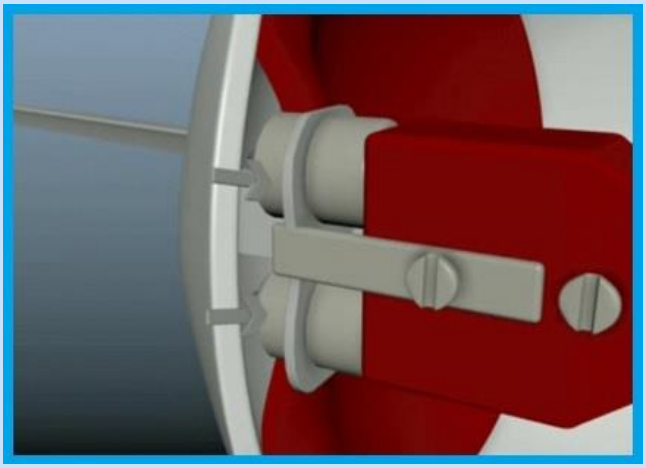
When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.
For proper weapon operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).

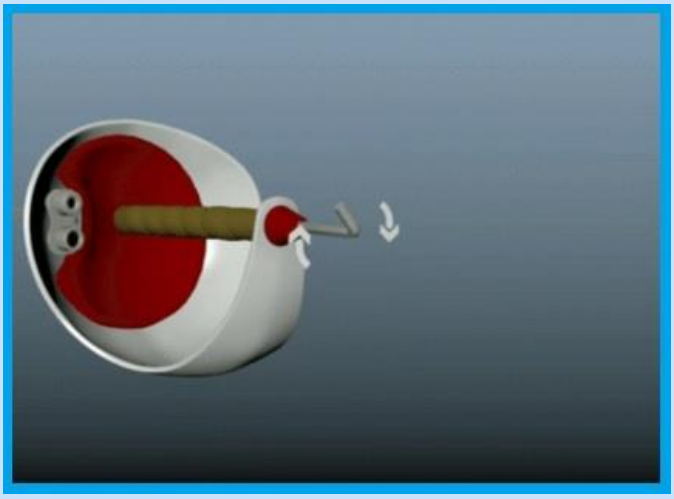
9. When **Finished test/Repeat test** button is displayed the test is completed.

R
Values:
- 0 - 1 ohm The circuit works correctly.
- 1.1 ohm and more
Check if the sabre pommel is well tight, if the nuts are tight, if the rivets on the guard are firmly fixed and that they do not move into the hole.



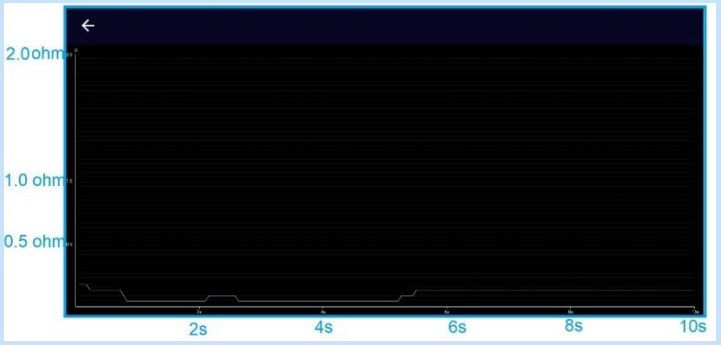
10. Click **See animation** to see the possible areas of defect.





Click on the images to return.

11. Press the ◻ icon to display the graph in landscape mode.



12. Repeat the test by clicking **Finished test/Repeat test** button.

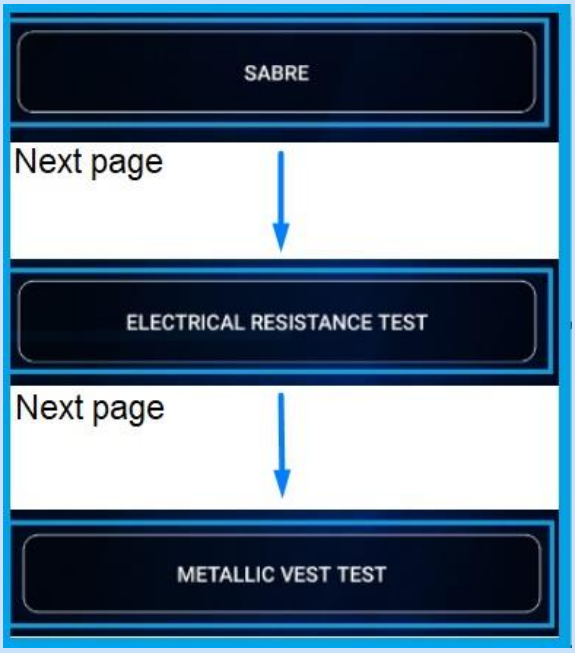
Sabre

The Sabre tests can help a sabre fencer to test his personal equipment.

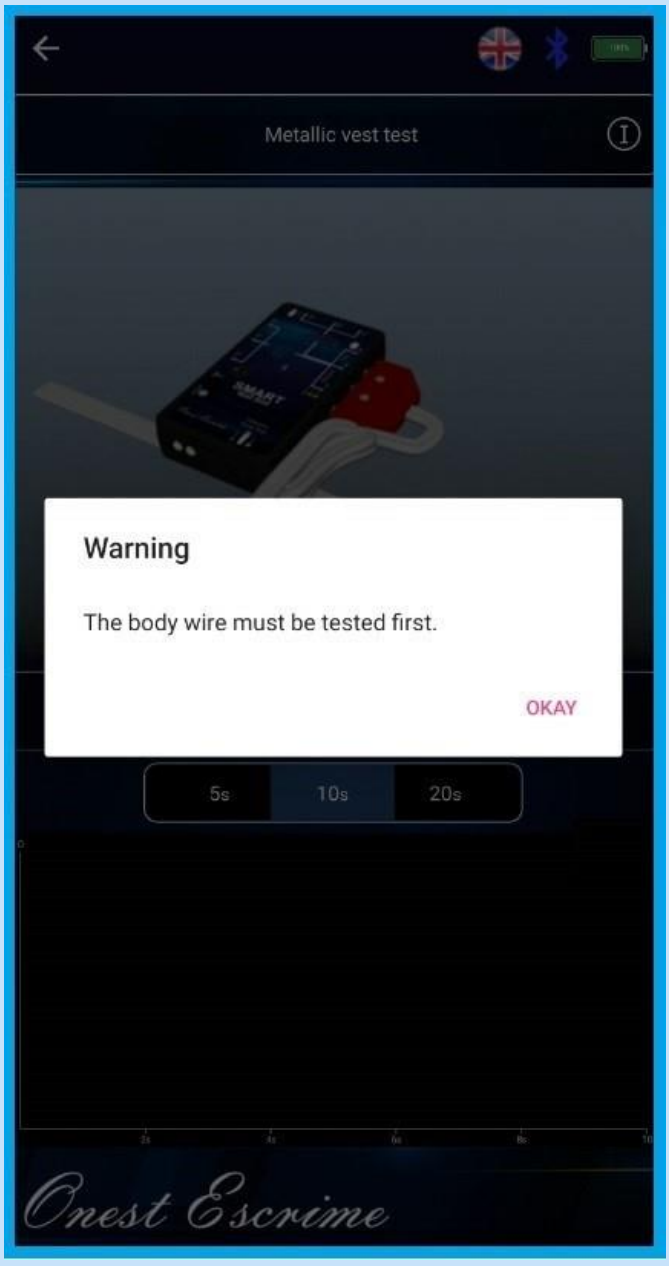
Metallic vest test

Sabre > Electrical resistance tests > Metallic vest test

1. From **Main page** click **Sabre > Electrical resistance tests** and then tap to open **Metallic vest test**.



2. A **Warning** message is displayed, read it and click **Okay**.

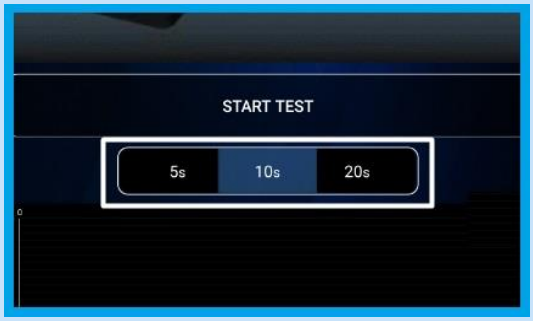


3. Click **Information** icon to get more details about the test.

Insert the ends of the body wire into the sockets of the STB device as shown in the animation.
Click the **Start test** button to begin the test.
When the test is running, perform the maneuvers displayed in the animation to simulate assault conditions.
For proper metallic vest operation, a straight line must be formed located at the bottom of the graph (having a value close to zero ohms).
If during the test run, there are areas where the line goes outside the graph, this indicates poor functioning of the tissue.
At the end of the test a message will appear indicating the values and their significance.

4. Insert the ends of the body wire into the sockets of the STB device and fix the test pin as shown in the animation.

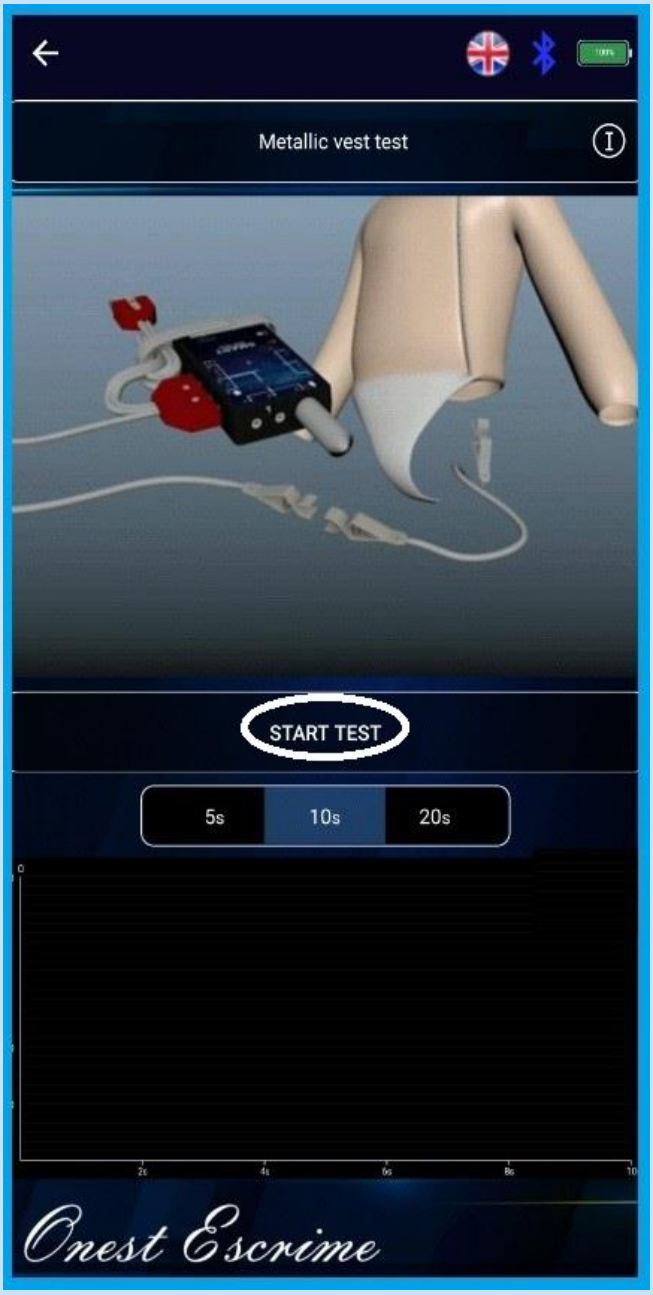
5. This test has time duration and it can be performed for 5s, 10s or 20s.



6. Mount and use the existing test pin in the STB kit Attach the body wire to the device with the existing strap from the STB kit.

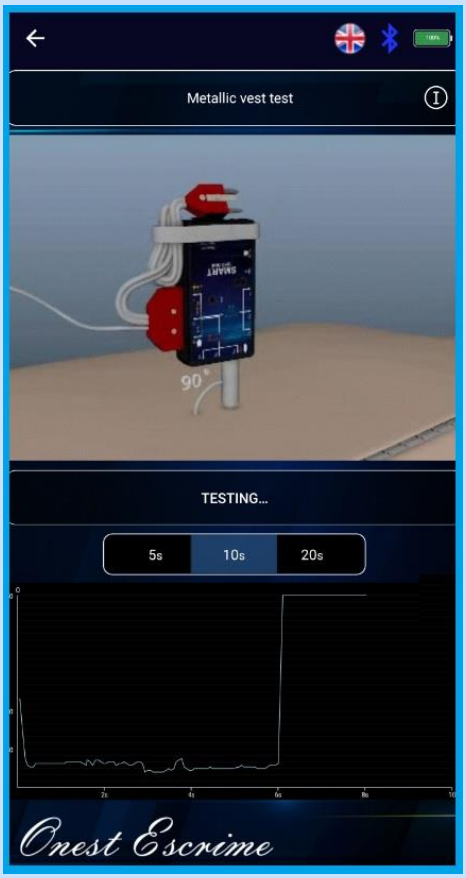
The total weight of the assembly (device, test pin and body wire) is about 500 grams (according to the F.E.M.I. equipment control commission).

7. Press the **Start test** button to begin the test.



8. During **Testing…**

When the test is running, perform the maneuvers displayed in the animation to simulate the assault conditions and at the same time the values represented are graphically tracked.

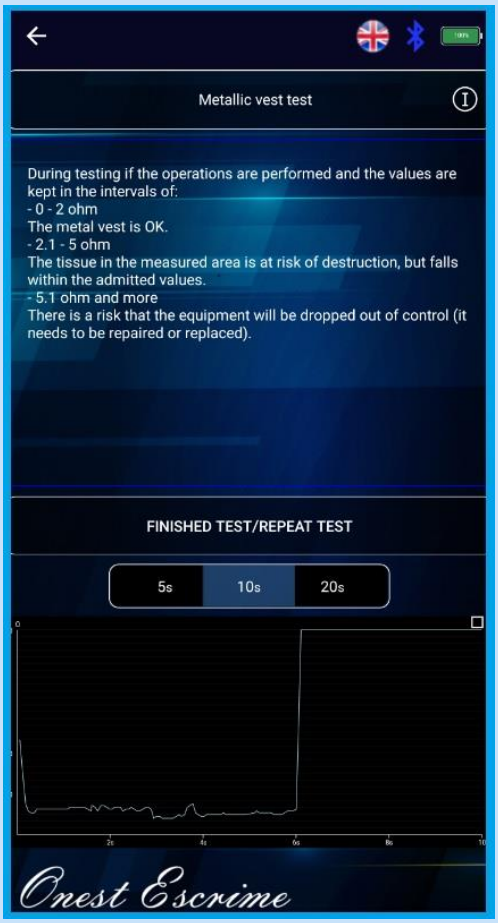


9. When **Finished test/Repeat test** button is displayed the test is completed.

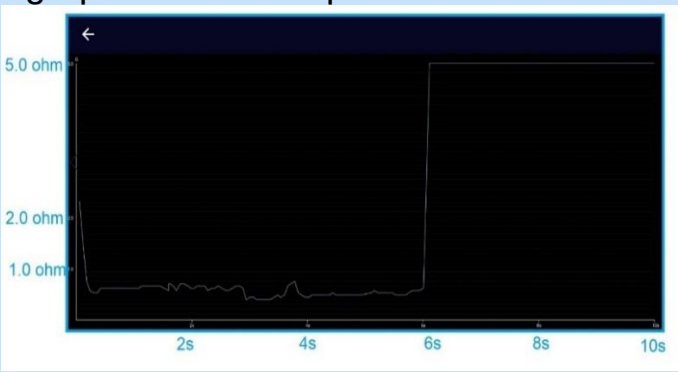
R

During testing if the operations are performed and the values are kept in the intervals of:

- between 0 - 2 ohm - The metal vest is OK.
- between 2.1 - 5 ohm - The tissue in the measured area is at risk of destruction, but falls within the admitted value.
- starting from 5.1 ohm and more - There is a risk that the equipment will be dropped out of control (the metallic vest needs to be repaired or replaced).



10. Press the ▫ icon to see the graphic in landscape mode.



11. Repeat the test by clicking **Finished test/Repeat test** button.

Customer support

To reach STB Deice customer support,
please email us :

support@fencingSTB.com

Web: http;//fencingSTB.com

Onest Service IMPEX

183/15.06.2020 ; 172/09.06.2020
(Report No. / Numéro du Rapport)

2020
(Year in which the CE mark is affixed / Année au cours de laquelle le marquage CE a été apposé)

DECLARATION OF CONFORMITY

(DÉCLARATION DE CONFORMITÉ CE)

We / Nous, *ONEST SERVICE IMPEX SRL*
(Name / Nom de l'entreprise)

Str. Soldat Iancu Petre nr. 33, Dobroesti, Ilfov, ROMANIA
(address / adresse)

Declare under our responsibility that the electrical product(s):
(Déclarons sous notre propre responsabilité que le(s) produit(s) électrique(s):)

ONEST SERVICE (brand name, nom de la marque)

SMART TEST BOX (Type version or model, référence ou modèle)

APARAT DE TESTARE PRIN BLUETOOTH PENTRU SCRIMA
(product description, description du produit)

To which this declaration relates is in conformity with the following harmonized standards:
(Auquel cette déclaration se rapporte, est conforme aux normes harmonisées suivantes)

(title, number and date of issue of the standard / titre, numéro et date de parution de la norme)

SR EN 62368-1: 2015+AC: 2016+A11 :2017
SR EN 55032: 2015+AC: 2016
SR EN 55035: 2017

ICPE

The Notified Body
(L'Organisme Notifié)

ELECTRIC PRODUCTS CERTIFICATION INDEPENDENT BODY
(Name and number/ nom et numéro)

performed
(a effectué)

CE MARK LVD / EMC Certification
(description of intervention / description de l'intervention)

And issued the certificate,
(et a délivré le certificat)

947 / 30.06.2020
(certificate number / numéro du certificat)

Remarks:
(Remarques:)

CE

The certificate of conformity is based on an evaluation of a sample of the mentioned product. It does not imply an assessment of the whole production. It is possible to use CE marking to demostrate the compliance with LVD Directive 2014/35/EU and EMC Directive 2014/30/EU. It is only valid in connection with the test report numbers: 183/15.06.2020 and 172/09.06.2020.

Dobroesti, ROMANIA, 07.08.2020
(place,date / lieu, date)

Dumitru Petrica, CEO Onest Service IMPEX
(signature, name and function / signature, nom et fonction)

CE

Date: 07-2020

Made in Romania

UN 3481

Li-ion

RECYCLABLE PAPER