



Stablelab EQ-1 Handheld Reader

User Guide



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1. At a Glance: Your EQ-1 Reader

Welcome to your new Stablelab EQ-1 Handheld Reader.

This user guide shows you what's included, helps you get started and explains how to get a quantitative Serum Amyloid A (SAA) value from your EQ-1 Reader.

1.1 What's in the Box?



2. Getting started with your EQ-1 Reader

2.1 Preparing your EQ-1 Reader for use



1. Insert the 9V battery provided, ensuring the + and - symbols on the battery line up with the symbols on your EQ-1 Reader.
2. Attach and close the battery door using the screwdriver provided. Ensure the battery door has been fitted in the correct orientation.
3. Select Standard Mode or Quick Mode (see sections 4 & 5 for more information on Standard and Quick Mode).

3. Reader Setting

3.1 Standard Mode or Quick Mode?



Use **Standard Mode** if:

- You are testing a single Stabilelab SAA cartridge at a time and you want the EQ-1 Reader to time the test for you.
- Your EQ-1 Reader will time the test and show the result on screen after 10 minutes.
- **Click the switch to the left for Standard Mode** (see section 4 for more information on Standard Mode).

Use **Quick Mode** if:

- You have several Stabilelab SAA cartridges to test at once and you can time the tests yourself.
- After timing the test for 10 minutes, insert the Stabilelab SAA cartridge into the cartridge port and your EQ-1 Reader will display the result on-screen.
- **Click the switch to the right for Quick Mode** (see section 5 for more information on Quick Mode).

4. Working in Standard Mode

4.1 Using your EQ-1 Reader in Standard Mode



Standard Mode is the simplest and quickest way to run one Stablelab SAA cartridge in 10 minutes. Your EQ-1 Reader automatically times the test for you.

Use your EQ-1 Reader in Standard Mode by ensuring the switch is to the left.

1. Insert a new Stablelab SAA cartridge into the cartridge port on your EQ-1 Reader.
2. Ensure the result window of the cartridge is facing upwards and the sample well protruding from the cartridge port. The EQ-1 Reader will automatically turn on and prompt you to apply your sample.
3. Prepare your sample by following the instructions on your Stablelab SAA test pack.
4. Apply your sample to the Stablelab SAA cartridge by gently squeezing the bottle, discarding the first few drops and applying 4 drops from the bottle to the cartridge well.
5. The sample will move up the Stablelab SAA cartridge, your EQ-1 Reader will detect the sample within 40 seconds and automatically initiate a 10 minute countdown.
6. After 10 minutes, the result will be displayed for 20 seconds before your EQ-1 Reader powers down to conserve energy.
7. Your result is stored until the Stablelab SAA cartridge is removed from the cartridge port when it will appear again for 5 seconds before being deleted from the device.
8. Your EQ-1 Reader will power down to conserve energy.

5. Working in Quick Mode

5.1 Using your EQ-1 Reader in Quick Mode



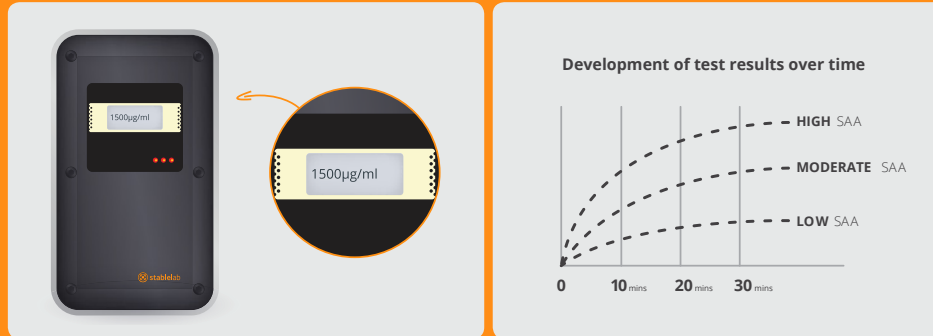
Quick Mode should be used when you want to run multiple Stablelab SAA cartridges on the bench within 10 minutes. You must time each test yourself.

Use your EQ-1 Reader in Quick Mode by ensuring the switch is to the right. In Quick Mode, the letter Q will be displayed in the upper right hand corner of the screen.

1. Prepare your samples and Stablelab SAA cartridges on the bench by following the instructions on your Stablelab SAA test pack.
2. Apply the sample to the Stablelab SAA cartridge by gently squeezing the bottle, discarding the first few drops and applying 4 drops from the bottle to the cartridge well.
3. The sample will move up the cartridge and a visible control line at 'C' will appear, indicating that the test is working.
4. Wait 10 minutes to allow the test to develop and then insert the Stablelab SAA cartridge into your EQ-1 Reader with the result window of the cartridge facing upwards and the sample well protruding from the cartridge port.
5. Your result will be displayed immediately and stay on screen for 20 seconds before being deleted from the device.
6. Your EQ-1 Reader will power down to conserve energy.

6. Reading your Test

6.1 Reading your Test Result



Your EQ-1 Reader will read the Stabilelab SAA cartridge and display the result in $\mu\text{g/ml}$ on the screen.

The EQ-1 Reader detects a range between 0 – 3000 $\mu\text{g/ml}$, where zero means SAA is not present.

Your EQ-1 Reader is calibrated to read the Stabilelab SAA cartridge at 10 minutes in Standard Mode. In Quick Mode, you must time the test yourself. Your Stabilelab SAA test cartridge will continue to change colour over time so it is important to ensure your timing is correct when using Quick Mode (see section 5 for more information on Quick Mode).

7. Getting the most out of your EQ-1 Reader

7.1. Whole blood samples

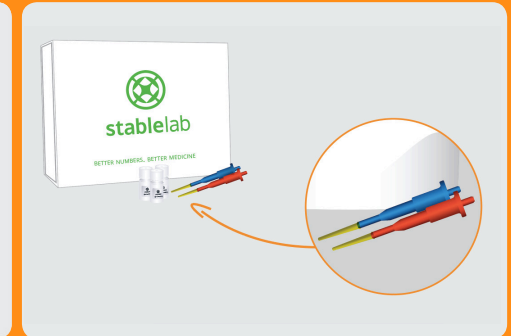


Whole blood samples are the easiest, quickest and most convenient to use at the horse's side, however, occasionally varying hematocrit levels can lead to variation when using whole blood. Get the best results when using whole blood by using a standard needle and syringe along with Stabilelab's BloodCaptor™ to collect and prepare your blood sample. Run the test straight away.

Stabilelab's ingenious BloodCaptor™ is included with every Stabilelab SAA test. Its benefits include:

- Accurately measures 8.5µl of whole blood.
- Run the test immediately, no more blood tubes.
- Easy to use horse-side.
- Completely disposable.

7.2 Serum and Plasma samples



Serum and plasma samples are particularly useful when closely monitoring fluctuations in horse SAA levels. Get the best results when using serum and plasma samples by running the test within 12 hours of collection. Any standard blood collection tube can be used including lithium heparin (green tops), EDTA (purple tops) and sodium citrate (blue tops) tubes as well as serum tubes. Ensure samples are stored in a cool dark place.

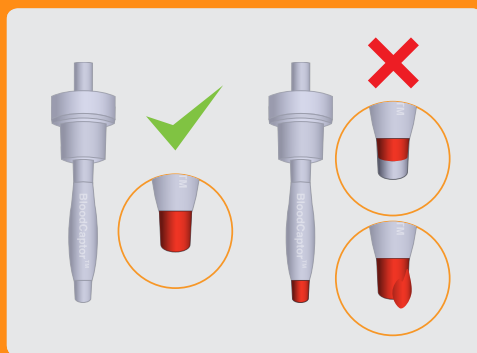
Use Stabilelab's Lab Version (sold separately) to collect and prepare your serum and plasma samples. Its benefits include:

- Accurately measures 5µl of serum or plasma.
- Reusable components.
- Extended range protocol available.

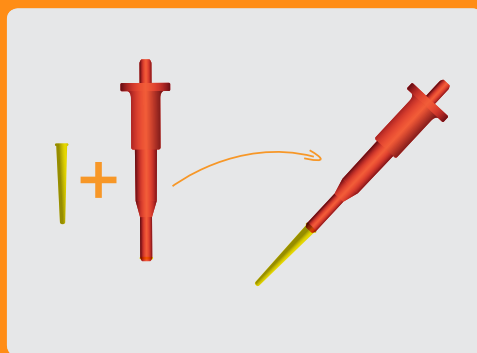
7. Getting the most out of your EQ-1 Reader Continued

7.3 Volume

The volume of sample used is critical for whole blood, serum and plasma samples. Care should be taken to achieve the correct volume when collecting and preparing your samples for testing.



- When using whole blood, ensure the BloodCaptor™ bulb is full when collecting your sample. When used carefully, excess blood will not stick to the outside of the BloodCaptor™ during collection. If excess blood does adhere to the outside of the bulb, carefully wipe away, taking care not to disturb the collected sample in the window of the BloodCaptor™.



- When using serum samples with the Stablelab Lab Version (sold separately), ensure your pipette and pipette tip are securely fitted together before use. Carefully collect your sample and avoid sucking air into your pipette during preparation.

8. Maintaining your EQ-1 Reader

8.1 How to change your Stablelab EQ-1 Reader Battery



The battery port is located on the left panel of your EQ-1 Reader.

1. Remove the EQ-1 Reader battery door using the screwdriver provided.
2. Replace the depleted battery with a new 9V battery, taking note of the + and - symbols on the battery port.
3. Replace the battery door using the screwdriver provided, ensuring that it has been fitted in the correct orientation.

8.2 How to clean your EQ-1 Reader Lens



The lens is located inside the cartridge port of your EQ-1 Reader.

It appears as a black rectangular strip on the top of the cartridge port.

How to Clean the Lens

1. Open the cartridge port door.
2. Examine the lens to see if any particulate is visible.
3. Using a clean cotton swab dipped in 70% isopropanol, carefully clean the lens by running the cotton swab across the lens.
4. Examine the lens again to ensure that any particulate that was present has been removed.
5. Reset your EQ-1 Reader by removing the battery and re-inserting or replacing.
6. Your EQ-1 Reader is ready for use.
7. If any error messages persist, please contact Stablelab at hello@stablelab.com.

9. Safety, Handling and Support

9.1 Battery

When replacing the battery, ensure only a 9v disposable battery is used.

9.2 Handling

Handle the EQ-1 Reader with care.

Do not operate close to a naked flame or after the device has made contact with water.

Do not expose or immerse your device in liquid.

The EQ-1 Reader is only for use with Stablelab SAA cartridges. Inserting incompatible products may damage the device.

Do not allow foreign objects to enter the device.

Do not use if the device is damaged.

This product is strictly for animal blood testing.

9.3 Repairing

If your EQ-1 Reader becomes damaged, do not attempt to disassemble or repair. Failure to observe this precaution could result in fire or electrical shock. If the device is in need of repair contact stablelab directly.

Email: hello@stablelab.com

9.4 Operating Conditions

9.4.1 Operating Temperature

This device is calibrated to operate between 59°F and 93°F (15°C and 35°C). Using the device outside of this temperature may affect accuracy.

9.4.2 Storage Temperature

Performance of the EQ-1 Reader may be impaired if the device is stored below 14°F (-10°C) or above 120°F (50°C).

Store the device in a cool, dry place. Don't store in locations exposed to extreme temperatures or moisture.

9.5 Disposal and Recycling Information

The device is in compliance with the relevant provisions of the Waste Electrical and Electronic Directive 2002/96/EC/



9.6 Precautions

Read the instructions carefully before using the device.

9.7 Disclaimer

This device is intended for use with the Stablelab Serum Amyloid A (SAA) test cartridges only. It may be used as a screening tool, however, it is not intended to diagnose an injury nor is it a substitute for veterinary advice. Stablelab excludes all liability and responsibility for the consequences of any inaction, omission or reliance on the information presented in this regard.

9.8 Intended Use

This device allows for the in-vitro quantitative determination of equine Serum Amyloid A.

9.9 Limitations of Use

Only Stablelab SAA test cartridges are to be used with the device. The device has a detection range of 0-3000µg/ml of equine SAA when used with the Stablelab SAA test cartridge. Factors that might affect performance of the test include the quality and volume of the sample, accuracy of the reagents, sample handling, time, and temperature. Great care has been taken to ensure the quality and the reliability of this product. However, it is possible that in certain cases unusual results may be obtained due to a high level of interfering factors.

9.10 Other Precautions

Do not operate the device in direct sunlight.

10. Troubleshooting

Display Message	What it means	What to do
10.1 Battery Low	A "Battery Low" message indicates that your EQ-1 Reader is running low on battery.	To ensure that your EQ-1 Reader continues to perform reliably, please change the battery immediately (see section 8 for more information on how to change your EQ-1 Reader Battery).
10.2 Clean Lens	If your EQ-1 Reader displays a "Clean Lens" message, the reader has detected dirt on the lens that may be affecting readings.	Clean the lens using the Clean Lens protocol (see section 8 for more information on how to clean your EQ-1 Reader Lens).
10.3 Check Insert	A "Check Insert" message appears when a Stablelab SAA cartridge has not been inserted correctly into the EQ-1 Reader.	Please ensure that the Stablelab SAA cartridge is pushed fully into the cartridge port with the result window facing upwards and the sample well protruding from the cartridge port.
10.4 Too Late	A "Too Late" message appears in Standard Mode when your EQ-1 Reader detects that a used Stablelab SAA cartridge has been inserted.	To read a used Stablelab SAA test cartridge, switch the EQ-1 Reader to Quick Mode (see section 5 for more information on Quick Mode). If a new Stablelab SAA cartridge has been inserted and the message is displayed, please contact Stablelab for further technical support. E: hello@stablelab.com
10.5 No C-Line	A "No C-Line" message indicates the test has failed to run.	On examination of the Stablelab SAA test cartridge, if a C-Line is present, please contact Stablelab for further technical support. E: hello@stablelab.com
10.6 Reset	If your EQ-1 Reader is not performing optimally, reset the device.	To reset the device, simply remove the battery and then reinsert or replace (see section 8 for more information on how to change your EQ-1 Reader Battery).
10.7 Calibrate Pass	If you see a "Calibrate Pass" message, you have inserted a new, blank SAA cartridge in Quick Mode, your EQ-1 Reader has initiated a calibration check and the check has passed.	Continue to use your EQ-1 Reader as normal.
10.8 Calibrate Fail	If you see a "Calibrate Fail" message, you have inserted a new, blank SAA cartridge in Quick Mode, your EQ-1 Reader has initiated a calibration check and the check has not passed.	Contact Stablelab for further technical support: E: hello@stablelab.com

11. Contacts

We'd love to hear from you.

You can contact us at:

E: hello@stablelab.com

Learn more about Stablelab

We've got lots of extra resources and stories to share with you on our website

www.stablelab.com

Watch top veterinarians discuss how they have integrated Stablelab into their practice

www.stablelab.com/pages/innovators-circle



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