Hardware guide

E-series scanner

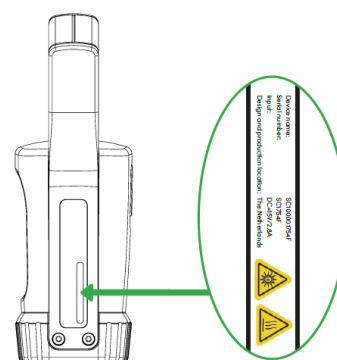trouw nutrition
a Nutreco company

nutriopt

Index

Which scanner do I have?

Before reading this manual, please check whether you have an E-series or F-series scanner. You can find out by looking at the back side of the handle (Figure 1). You will find a serial number there. Serial numbers ending with "E" (for example SC12345E) are E-series scanners. Serial numbers ending with "F" (for example SC12345F) are F-series scanners.

This hardware guide is for E-series scanner. If you have an F-series scanner, please refer to the F-series guide.
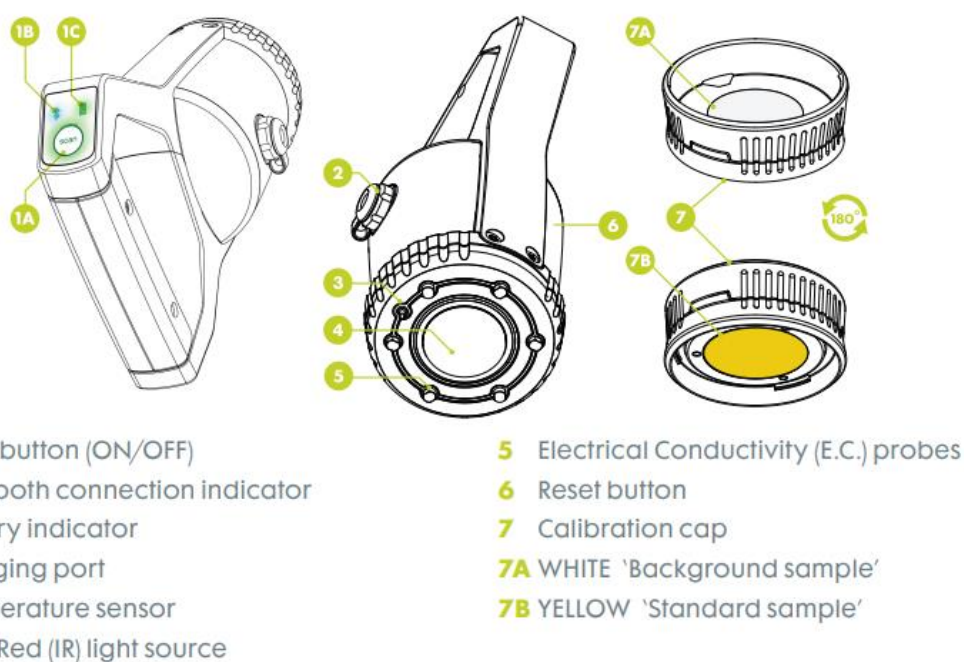

Figure 1

Box contents

Scanner: The handheld unit that performs the scan.

A calibration cap: Cap for White 'background scan' and Yellow 'standard scan' calibrations.

1A	Scan button (ON/OFF)	**5**	Electrical Conductivity (E.C.) probes
1B	Bluetooth connection indicator	**6**	Reset button
1C	Battery indicator	**7**	Calibration cap
2	Charging port	**7A**	WHITE 'Background sample'
3	Temperature sensor	**7B**	YELLOW 'Standard sample'
4	Infra Red (IR) light source		

Figure 2

Accessories box

Scanner charger: USB cable + power socket

Cleaning products: Brush and cloth for cleaning the device and sample tray

Sample tray: A tray where the samples are scanned

Scanner quick reference card: Two-page instruction document

8 USB cable
9 Power socket
10 Cleaning products
11 Sample tray

Figure 3

Quality check

All scanners undergo a quality check before being shipped to you. The quality control is performed by AgroCares support technicians to ensure that the scanner you receive functions properly and provides accurate results.

Fingerprints and traces of soil/feed may occasionally be found on the scanner and inside the box. These are the result of the final quality control test conducted by AgroCares before shipping.

Preparing the scanner before use

To maximise the lifespan of your scanner, please follow the steps below to prepare it for use.

Charging instructions

Charge the battery by connecting the USB cable to the power socket and the charging port of your scanner.

Due to IATA (safety) regulations regarding the shipping of batteries, fully charged devices cannot be shipped. Therefore, please ensure that you charge the scanner until it reaches full capacity.

Please take note that the battery cannot be charged if the device temperature is too high. In such cases, please allow the device to cool down before charging. It is important to charge the device at room temperature, making sure it does not exceed 30ºC/86ºF.

Expected power usage

On a fully charged battery, the scanner can perform around 250 scans, which enables 35 samples, including calibration processes. To fully recharge it, charge the scanner for 11 hours. (at European voltage 220V-240V).

In stand-by mode, the battery will slowly lose power.

After two weeks in this mode, the battery will be empty.

> **Before first use, or if the scanner has not been used for more than four weeks, charge the scanner for at least 18 hours using the power socket provided.**

Start-up and connect

Press the circular button on the scanner for one second (Figure 4). This action will trigger the start-up sequence, indicated by a steady green battery light (if fully charged), alongside two flashing red lights for Bluetooth connectivity and measurement (1x per second). Once these lights are active, the scanner is ready for connection to your phone via the NutriOpt On-site Adviser application.
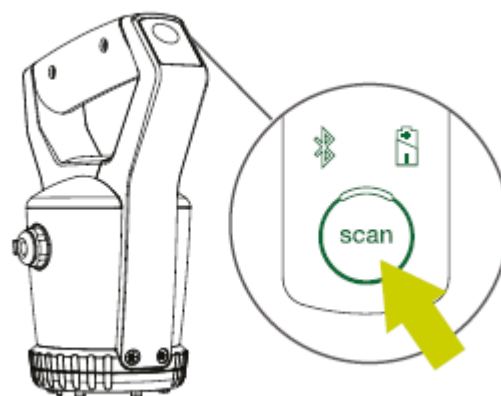

Figure 4

The calibration process

The app will indicate when this step is necessary – always before scanning a sample. The calibration screen will be displayed once the scanner is correctly connected.

White background scan using the calibration cap:

- Before each scan, a white-background calibration needs to be performed with the calibration cap (Figure 2, number 7A).
- Check that the sensor/scanner head is clean. If necessary, clean it with the brush and/or cloth provided (Figure 3, number 10).
- When the sensor/scanner head is clean, place it in the calibration cap facing the white side. Make sure the pins of the scanner align perfectly with the holes of the calibration cap. The sensor/scanner head needs to be in contact with the white surface.
- Start the scanning process by pressing the 'Scan' button (Figure 4) on the device for one second, until you hear a beep.
- The white calibration process will take about 40 seconds.

> **If the background scanning has not been successful, an error message will appear in the app. Follow the instructions to resolve the issue. If the issue persists, please contact support.**

Yellow standard scan with the calibration cap

At the beginning of each working day, or when you connect your app to another device, a yellow standard sample needs to be calibrated using the yellow background calibration cap (Figure 2, number 7B).

- Turn the calibration cap with the yellow side facing upwards, and position the sensor pins inside the holes of the calibration cap. The sensor/scanner head needs to be in contact with the yellow surface of the calibration cap.
- Start the scanning process by pressing the 'Scan' button (Figure 4) on the device for one second, until you hear a beep.
- The yellow calibration process will take about 30 seconds.

If the scanning of the standard sample has not been successful, an error message will appear in the app. Follow the instructions to resolve the issue. If the issue persists, please contact support (see the support section).
When the calibration process has finished, you will be redirected automatically to the sample scanning process.

Cleaning the scanner after use

Proper care of the sensor head is needed to ensure a reliable performance of the device. After each raw material, silage or final feed scan, clean the bottom and glass parts of the scanner using the brush and the dry cloth (Figure 3, number 10). The glass surface of the handheld scanner must be cleaned with wet wipes (EtOH) in case of silage scans.
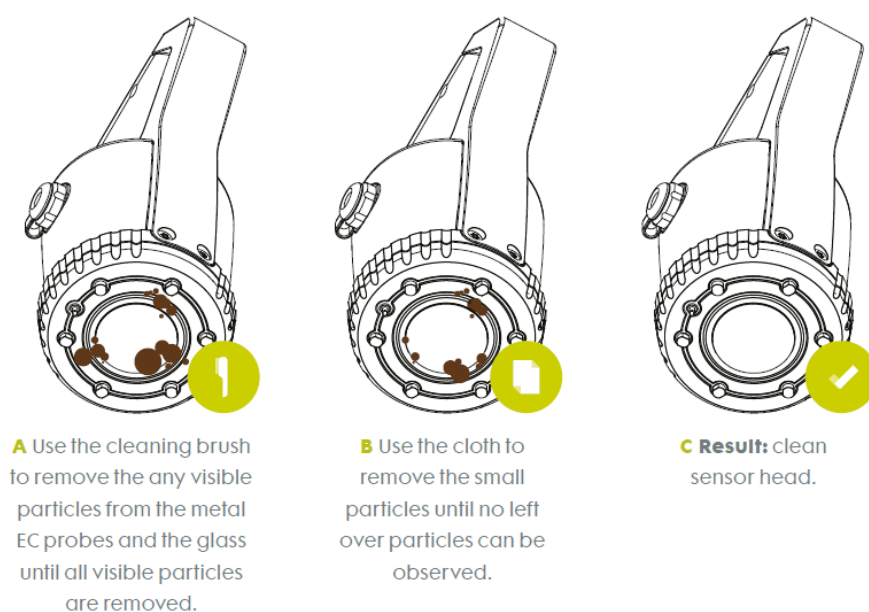

A Use the cleaning brush to remove the any visible particles from the metal EC probes and the glass until all visible particles are removed.

B Use the cloth to remove the small particles until no left over particles can be observed.

C Result: clean sensor head.

Figure 5

Cleaning the calibration cap

The white part of the calibration cap needs to be clean. The yellow side of the calibration cap cannot, in any way, handle water. Additionally, the yellow part is made of fibre material which cannot be brushed. Scan both sides of the cap only with a clean scanner and wipe it gently with a soft cloth if it is a bit dirty. Do not use any detergents.

Calibration isn't possible if the white side isn't completely white anymore or if the fibres of the yellow side of the cap are loose. In this case, the calibration cap must be replaced.

If your calibration cap is damaged, discoloured or malfunctions in any other way, please contact your Trouw Nutrition contact person (https://www.trouwnutrition.com/en/Global-presence/).

Resetting your scanner

In some cases it is needed to reset your scanner. Please follow this procedure to do so:

1. Start scanner without connecting to the mobile application.
2. Wait until the Bluetooth connection indicator (Figure 6, number 2) blinks.
3. Reset the scanner by pushing the reset button (Figure 6, number 3) on the scanner with the power plug.
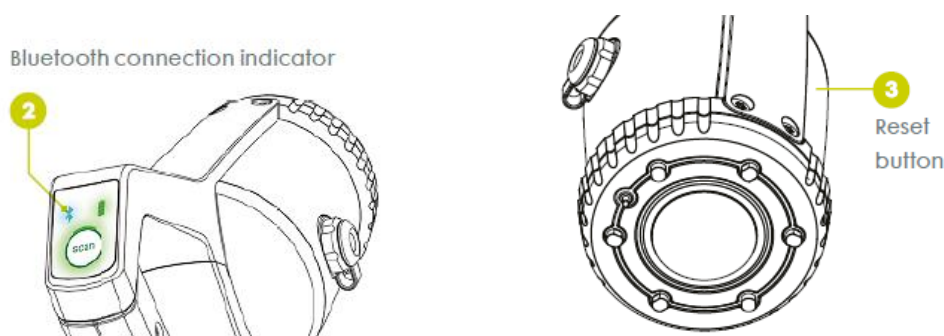
Bluetooth connection indicator

Reset button

Figure 6

Support

If you encounter any issues with your device or app, you can get support from your Trouw Nutrition contact person. Our support team will contact you as soon as possible with a solution for your issue. For frequently asked questions about the NutriOpt On-site Adviser, manuals and/or contact details of your Trouw Nutrition support person, please go to our online support platform: www.nutriopt.com/support.

> **WARNING:**
> **Avoid eye contact with the light source of the scanner.**
> **Burn hazard: the bottom parts of your scanner are hot while in use. Do not touch these parts unless the scanner is turned off and has cooled down.**

Find more information on: www.trouwnutrition.com/onsiteadviser
Or contact your nearest Trouw Nutrition expert.