

# Hardware guide

## F-series scanner

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## Accessories box

**Scanner charger:** USB-C type cable + power supply adapter

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

**Sample tray:** A tray where the samples are scanned

**Scanner quick reference card:** Two-page instruction document

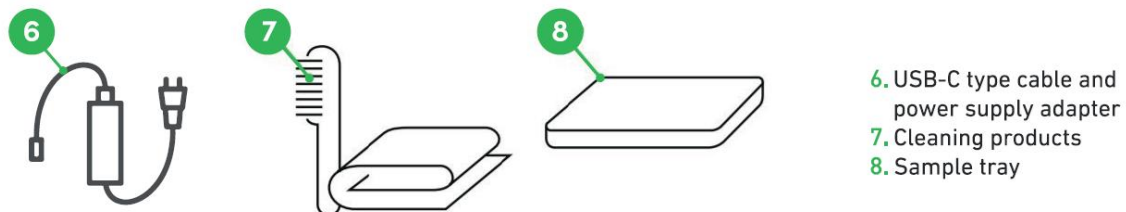


Figure 3

## 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 power supply adapter and the USB-C type cable to the charging port of your scanner.

Due to IATA (safety) regulations regarding the shipment 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 30°C/86°F.

## Battery Indicator

<b>Red flashing, 1x/1 s</b>	Battery capacity < 4 % (device in power save mode)
<b>Red flashing, 3x/1 s</b>	USB power delivery charger not compatible
<b>Green flashing, 1x/2 s</b>	Charging (USB power delivery charger connected)
<b>Green/red flashing, 1x/1 s</b>	Battery level < 10 % (no USB power delivery charger connected)
<b>Green flashing, 1x/1 s</b>	Battery level < 30 %
<b>Green</b>	Battery level high
<b>Off</b>	Device off, no USB power delivery charger connected

## Expected power usage

On a fully charged battery, the scanner can perform around 5,000 scans, or approximately 700 samples. To fully recharge it, charge the scanner for 3 hours (at European voltage 220V-240V).

Charge the battery every 3 months even if you are not using the scanner to avoid any damage to the battery.

**Before the first use or if the scanner has not been used for more than four weeks, it is recommended to fully charge the scanner.**

## 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.

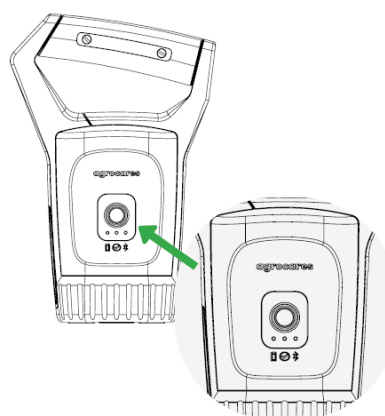


Figure 4

## The calibration process

The scanner lights will indicate that the scanner must be calibrated when the measurement light flashes red (1x/1s). The app will also indicate when this is necessary – always before scanning a sample. Calibrating your scanner is a two-step process:

### 1. Open air scan

Point the scanner at the ground at about 0.5-1 metres from the ground and press the Scan button. Do not cover the glass surface and do not point at a reflective surface.

## 2. Calibration cap scan

### White background scan with the calibration cap:

Before each new scan, a white background calibration needs to be performed with the calibration cap (Figure 2, number 5A).

- Check if the sensor head and glass plate are free of dirt and moisture. If necessary, clean them with the brush and/or the cleaning cloth.
- When the scanner is clean, place it in the calibration cap facing the white side. The scanner head must be in contact with the white surface.
- Start the calibration process by pressing the 'Scan' button on the device or on the mobile app.

### Yellow standard scan with the calibration cap:

- Sometimes the app will ask you to take a yellow standard sample, which must be calibrated with the yellow side of the calibration cap (Figure 2, number 5B).
- Turn the calibration cap with the yellow side facing upwards. The scanner head must be in contact with the yellow surface of the calibration cap.
- Start the scanning process by pressing the 'Scan' button in the app or on the device for one second.

When the calibration process is complete, you will be automatically redirected to the sample scanning process.

**Note: Keep the yellow side of the calibration cap clean, but do not clean it using moisture/detergents as this may damage the cap! See section 'cleaning the scanner after use'.**

If the background scan was not successful, an error message will appear in the app. Follow the instructions to resolve the issue. If the issue persists, please contact support (see Support).

**Important: Do not move the scanner during the 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. 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 soil from the metal EC probes and the glass until all visible particles are removed.

B. Use the wipes to remove the small particles until no dirt can be observed.

C. Result: clean sensor head.

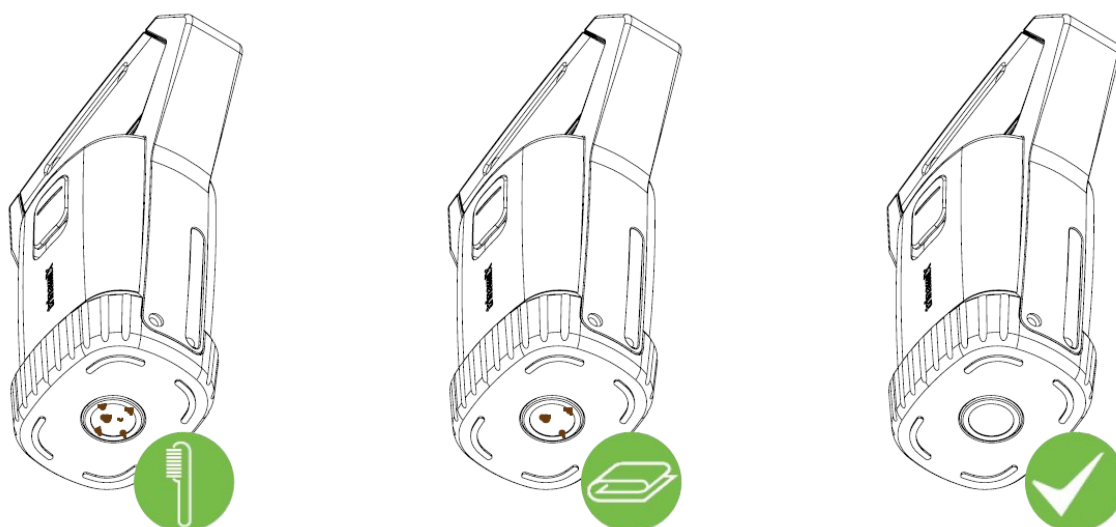


Figure 5

### 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/>).

## Support

If you experience any difficulties with your device or app, you can refer to the Frequently Asked Questions (FAQ) section within the NutriOpt On-site Adviser application, accessible via the Account menu. Alternatively, you can seek assistance from your dedicated Trouw Nutrition contact person for support. 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](http://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](http://www.trouwnutrition.com/onsiteadviser)  
Or contact your nearest Trouw Nutrition expert.