

ProVetScan SU-3A



User Manual

Introduction

SU-3A Wireless Loin Muscle Scanner is the new generation instruments veterinary for ultrasonography with the outstanding feature of wireless.

Different with traditional veterinary ultrasound scanner with a cable connecting from probe to main unit , no cable appears at the end of the probe of SU-3A Scanners. The probe of a SU-3A Scanner is highly integrated with ultrasound image processing, power management and a wireless signal provider to be connected by the main unit . The main units different with traditional devices are now changed to be any tablet. The probe acted as a Wi-Fi Access Point and can be connected by any tablet. With the probe be connected through Wi-Fi and the App is running, enjoy your days of working without the trouble making cables.

This manual is intended to provide a through overview of the SU-3A Scanner and should be carefully read before starting operating the device.

Thank you for your trust in us to provide for your veterinary ultrasonography needs.

1. Characteristics

1. Use:

Back fat measurement
Diameter, perimeter and area measurement

2. Size and weight:

Size: 180 mm x 85 mm x 25 mm
Weight: 400 g

3. Environment:

Recommended temperature use range: 15 a 50 °C
Storing temperature range: -20 a 65 °C
Max. humidity: 90%

4. Electronics:

Battery working time: 3 hours
Protection index: IPX5

5. Probe:

Frequency: 3,5 MHz
Probe length: 180 mm
Scanning depth: 70 - 200 mm
Scanning mode: Linear

6. Monitor:

Main screen: iPad series and Android series
Display mode: B Mode
Grey scales: 256 levels

7. Measurement mode:

Automatic with manual correction

2. Getting started

FOR YOUR PROTECTION, please read these safety instructions completely before applying power to, or operating the system.

2.1 Unpacking

The SU-3A Scanner is carefully packed to prevent damage during shipment. Before unpacking, please note any visible damage to the outside of the shipping containers.

Items should be checked in order to ensure that all ordered items have been received. The following table lists the items which should be received with each particular system.

Items	Included
Ultrasound probe SU-3A	✓
USB Cable for charging	✓
Wrist strap	✓
User manual	✓
Transport suitcase	✓

Each item should be examined for any noticeable defects or damage that may have occurred during shipment although it is packed carefully. If any defect or damage exists, please contact to your local representative immediately to report the problem.

2.2 Instalng APP

If the Smartvus App is not installed in your mobile device, open App Store or Google Play and search "Smartvus", when the App comes, it is free to install the App.

2.3 Connecting the probe

The Wireless Connection Indicator (2) and the Battery Capacity Indicator (3) on the probe may be invisible before the probe is turned on.

Press the button ON/OFF (1) to turn on the probe. The Battery Capacity Indicator will be light to indicate the capacity of the battery. The four grids of the indicator imply the battery capacity. Seconds after the probe turned on, the Wireless Connection Indicator will be light and blinking to notice that the probe is ready for a wireless connection from the mobile device.

The probe can be turned off by hold down the button for 3 seconds. When the probe is off, the indicators will be turned off.

1. Power On/Off and live / Freeze button

2. Wi-Fi Connection indicator

3. Battery charging indicator



2.4 Wi-Fi Connection

When the probe is waiting for a wireless connection as described in previously, launch the Settings of mobile device, turn on the Wi-Fi (if not on), Find the SSID of the probe. The SSID is like: "SU-3A GMBFLA001", the suffix after "SU-3A" is a code generated from Serial Number. Connect to the SSID with the password same as the Serial Number. Password could be like "wupbfla001"

The letters of the password must be entered in lower case.

Once connected to the WiFi network, start the SmartVus app. When you start working with the probe, the WiFi signal indicator will no longer flash in the same way.

3. APP operations



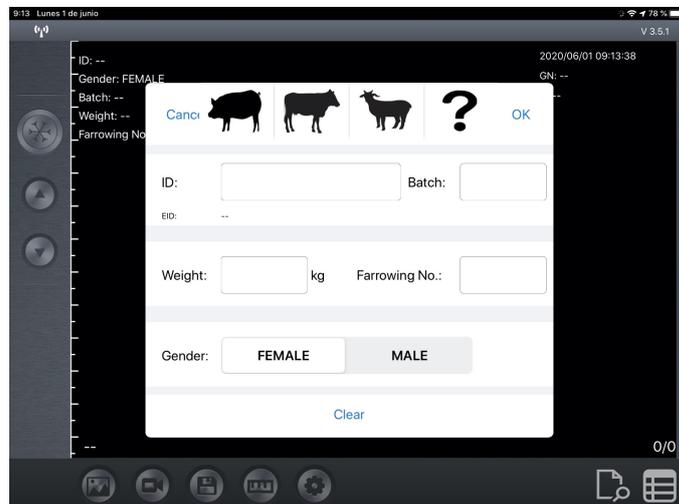
3.1 Scanning Screen

The Wi-Fi connection status indicates the SSID of the connected probe. Enter the data by previously pressing on the "animal information" area.

Important: The ID is required for any scan or registration.

The Freeze / Live button is used to unfreeze the image and start the diagnosis. This button has the same function as the button on the probe. Once the image is moving, the Gain setting can be pushed up and down to modify it. The date and time are shown in the upper right part of the screen, the depth of the image and the Gain. The bottom left of the screen will read "LIVE" when the image is moving, or it will display "FREEZE" when the image is frozen. The scanning depth can be adjusted by sliding your finger up or down in the middle of the screen.

Clicking on the animal information a pop-up window appears. Select the type of animal and write the desired information in said window:



3.2 Save image

When image is showing in image area, Save Image Button can be pressed to save the image to the album of the tablet.

When the image is FREEZE Label shows the count of image in the loop and button shows the index of current image of the loop. Users can swipe left/right in image area to select the image in the loop. Every image of frames can be stored.

3.3 Save video

When the image is frozen, press the "Save video" button to save a sequence of about 10 seconds on the device.

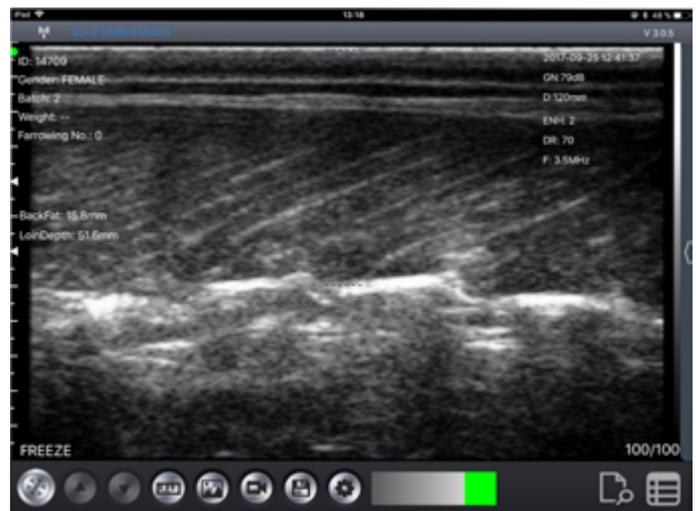
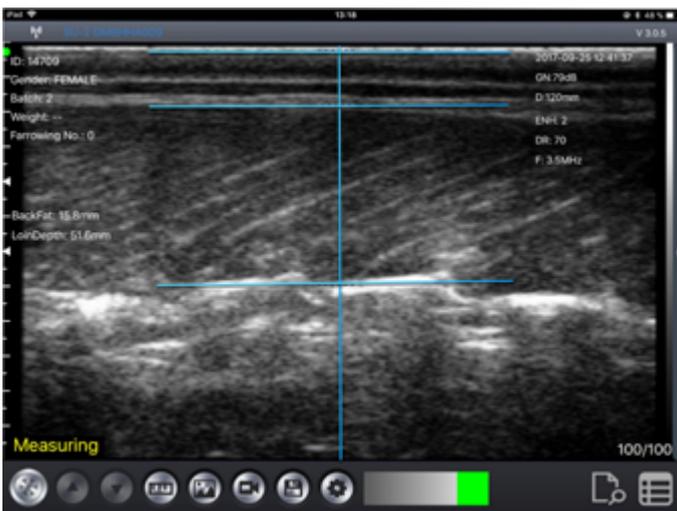
3.4 Image measurements

When the image is frozen, double click the image area to get a measurement as shown in the image on the left. Three horizontal lines and one vertical line will appear on the screen automatically.

The first horizontal line indicates the applicator value setting that can be changed in the settings menu. The second horizontal line indicates the back fat line, while the third line indicates the depth of the loin. The value of the two measurements appear on the left side.

The vertical line is used to assist the user to understand and adjust the image.

When confirming the measurement, you need to double-click the image area to view the reading as indicated in the image to the right. At this time, if we want, we can store the image and data.

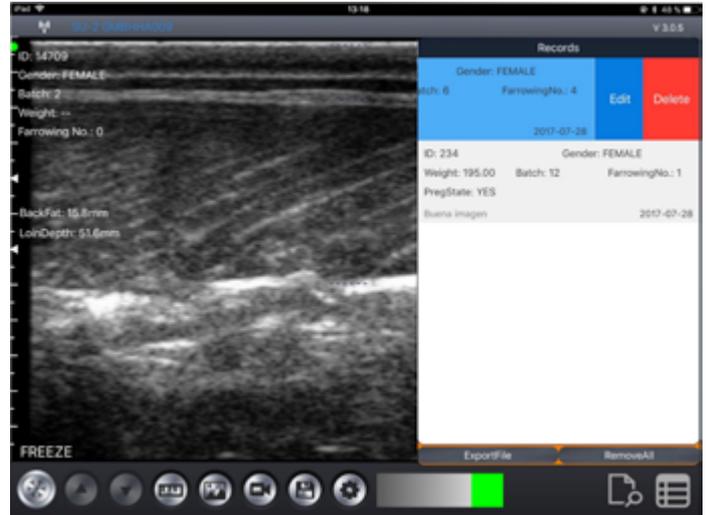
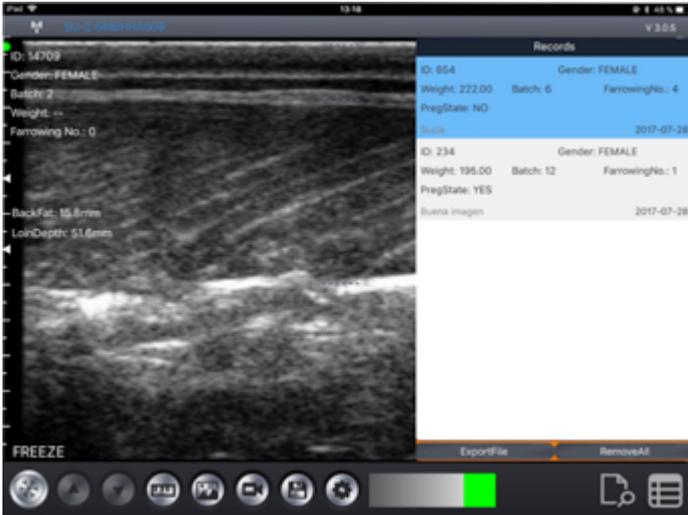


Note: If the software identifies another echo by mistake, or the user judges that the position of the line is not correct, the editing can be adjusted vertically up or down with the finger.

3.5 Storing data

Press the "Save data" button to save the measurement data in the application memory. These data can be viewed by pressing the "View data" button, and can be exported by pressing the "ExportFile" button to a CSV file (to be able to open, for example, with Excel or Numbers). The data is deleted in "RemoveAll".

The data can be reedited or deleted by sliding your finger to the left on the desired data (within the "View data" window).



Important note:

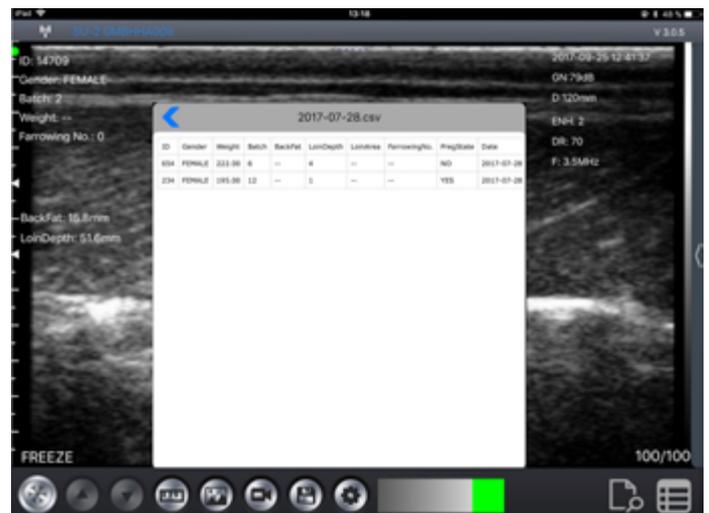
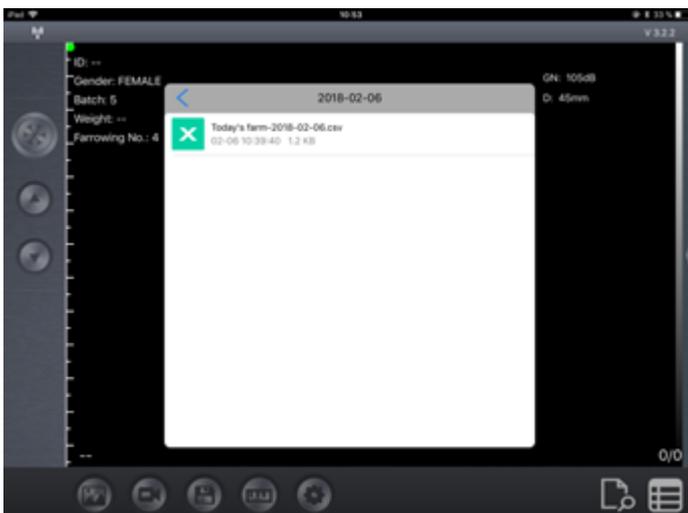
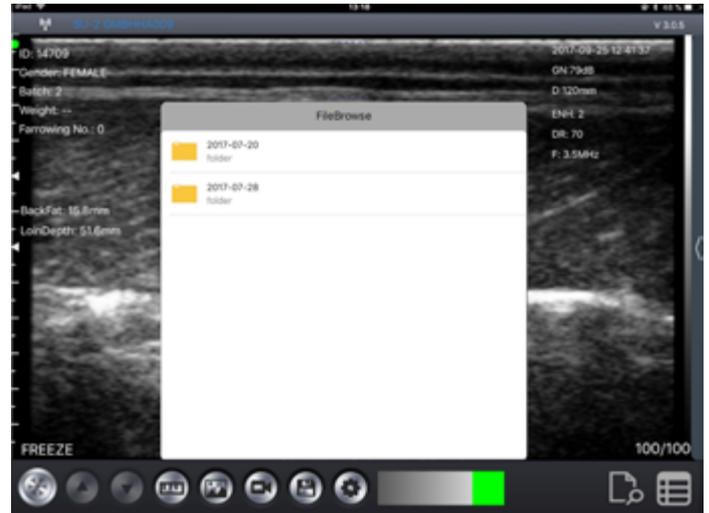
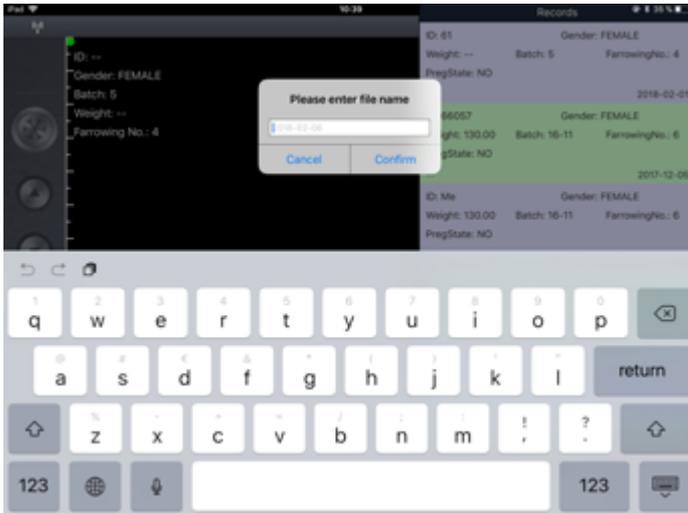
ID is required when saving data.

500 IDs can be saved. If they are saved more, the first ones will be overwritten.

3.6 Export files

Export files from tablet

Press the "Save Data" button to save them in the records, click "View data" and then "ExportFile" to export to a "CSV" file. A pop-up window will appear to enter the name of the CSV file and it will be included in a folder with the date of the current day. Several files can be saved on the same day:



If we open the CSV file, we have the option to open and share the file in other app like Excel or Numbers.

While we have the saved data, these can be edited to modify the diagnosis, add comments or delete the record.

3.7 Settings

Adjust the applicator value before starting the measurement. It can be changed from 0.5-10 mm depending on the animal in which it is used. The recommended value is 2 mm. This value will be discounted within the software and the actual measurement value will be displayed on the screen.



4. Maintenance

4.1 Probe charging

When the battery runs out, it is necessary to recharge it: Remove the cover that covers the USB connector and connect the supplied cable.

After charging, remove the USB cable and replace the cover to protect it from water and dust.



4.2 Curve Stand off

Before starting the scan, the curved stand off should be set as shown in the picture.



4.3 Waterproof cover

A water and dust resistant cover is necessary to protect the tablet when we are working in humid and dirty environments.

4.4 Cleaning

Periodic cleaning of the probe is required. We can use a damp cloth or paper. The probe has a level of protection against water and dust of IPX5, so, it resists the entry of dust and light splash of water.

NOT SUBMERSIBLE.

4.5 Storing

During the storage of the probe it is strongly recommended that the temperature is not lower than 15 °C. In the event that the temperature of the probe or mobile device drops, we should warm them before using them.

Another recommendation is regarding battery charge: If the probe and iPad are not going to be used during a long season, it is recommended to store them with full charge.



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