

ProVetScan AS



User Manual

Introduction

AS is the last generation instruments for ultrasonography for Veterinaria with the outstanding feature of wireless.

Different from traditional veterinary ultrasound scanners with a cable connecting from probe to main unit, no cable appears at the end of the probe of AS Scanners.

The AS Probe 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 mobile device. The probe acts as a Wi-Fi Access Point and can be connected by mobile device. With the probe be connected through Wi-Fi and the Smartvus App running, enjoy your days of working without the trouble making cables.

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

1. Characteristics

Display: iOS or Android mobile device

Scanning: Lineal

Probe: Transducer de 3,5 / 5MHz

Depth: 90-180 mm

Display mode: B mode

Gray levels: 256 levels

Battery life: 5 hours

Size: 160mm x 50mm x 25mm

Weight: 300g

2. Getting Started

For your protection please read these safety instructions completely before applying power to, or operating the system.

2.1 Unpacking

The AS ultrasound 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
AS wifi Ultrasound probe	✓
USB Cable for charging	✓
Wrist strap	✓
User manual	✓
Tablet waterproof cover	✓
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 (1) and the Battery Capacity Indicator (2) on the probe may be invisible before the probe is turned on.

Press the button ON/OFF (3) 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.



2.4 Conexión Wi-Fi

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: "AS200-GMCBJA001". Connect to the SSID with the password same as the Serial Number. The password would be for example "aspcbjA001".

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

After the probe is connected, launch the App, the Main Screen will show similar. (No image is visible when the App is firstly launched).

The Wireless Connection Status indicates the SSID of the Wi-Fi of the connected probe.

Press the Run/Freeze Button to run and Freeze the probe. This button has the same function as the button on the probe in running or freezing the image. When running, Gain buttons can be up/down to adjust the gain of the image.

When the Image come to shown on the Image Area, the Imaging Date & Time, the Depth of Image and the Gain will be shown together with the ultrasound image.

The depth of scanning or Depth (D) can be adjusted by sliding your finger up or down in the middle of the screen. The value, which ranges between 90 and 180 mm, is shown below the Gain.

Other more advanced settings can be modified by pressing on the upper right side to unfold the controls:



Focus position: Adjustment of the focus of the image to place them more proximal or distal to the probe.

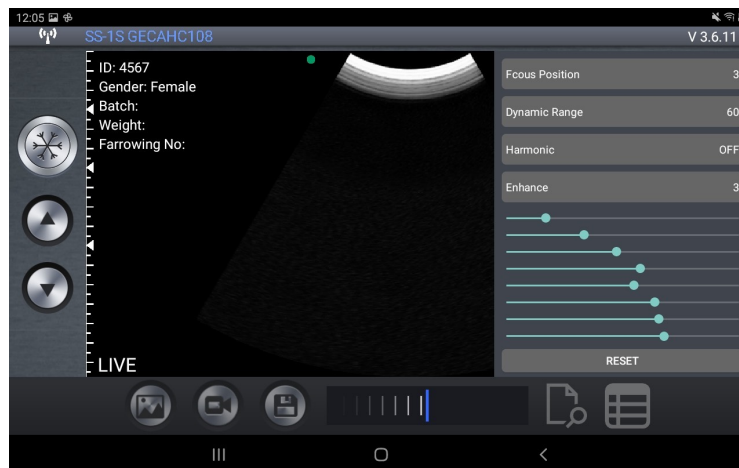
Dynamic range: Dynamic range adjustment to get a sharper picture.

Harmonic: Adjust the harmonics to increase at a frequency of 5 MHz..

Enhance: Adjust the image by enhancing the edges of the organs while the ultrasound is performed.

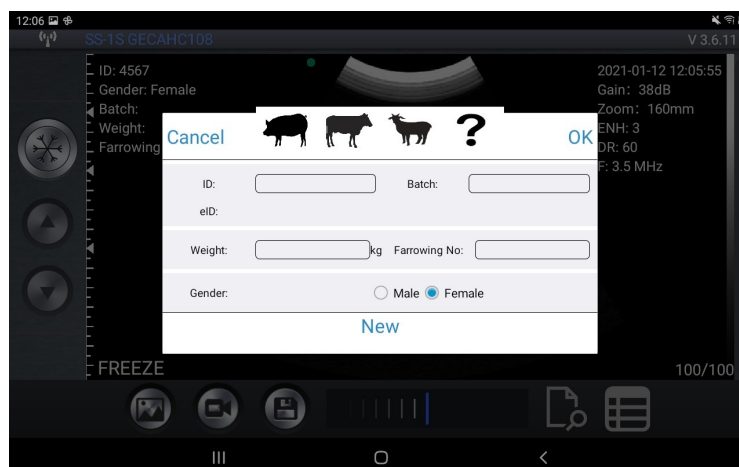
Control TGC: Adjustment of the gain in 8 sections, in addition to the general gain adjustment (Gain) of the main screen.

Reset: Restore default settings.



In the lower left part of the screen you can read "LIVE" when the probe is working, or "FREEZE" will be displayed when the image is frozen.

In the lower part you can see a green bar that corresponds to the cine-loop and a number, on the right, that indicates the current recorded image (100/100). The user can move the slider with his finger to select the desired image.



3.2 Save images

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 ace 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 Save data

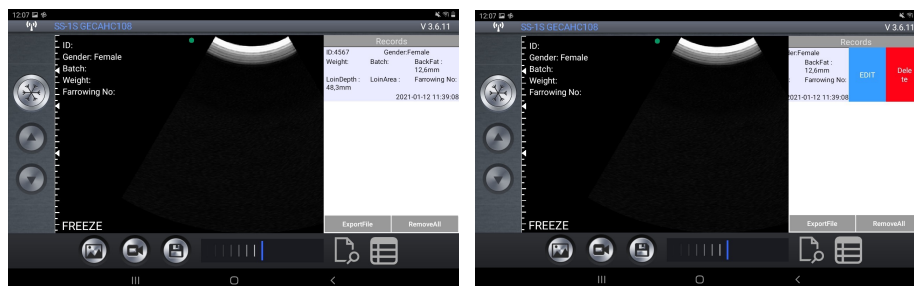
Presionar el botón "Guarda Press the "Save Data" button to save the pregnancy data to the application memory. This data can be displayed by pressing the "View Data" button, and can be exported by pressing the "ExportFile" button to a CSV file (to be able to open, for example, with Excel or Numbers). The data is deleted in "RemoveAll".

Data can be re-edited or deleted by swiping the desired data to the left (within the "View Data" window).

Important note:

ID is required when saving data.

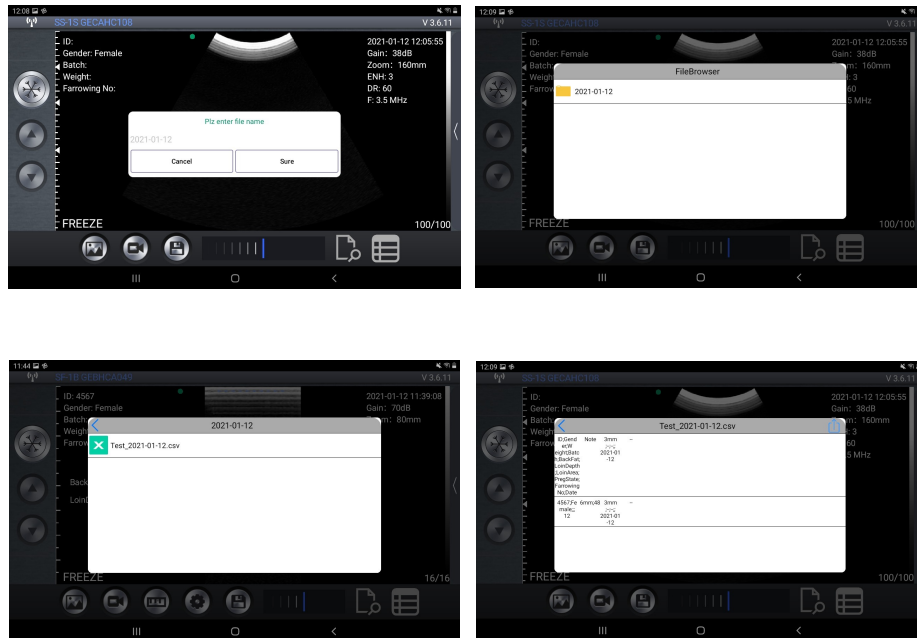
500 IDs can be saved. If they are saved more, the first ones will be overwritten.



3.5 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.

4 Maintenance

4.1 Probe charging

When the battery runs out we will need to recharge it. It should be done with a wireless charger that is not included as standard. Charger of the mobile device is connected through USB cable to the charging platform.

When the charger is connected, via the USB cable, a green LED lights up on the platform.

It is recommended to use a 2A charger and the original cable of the wireless charging dock.

When the battery is being charged, the indicator levels will be blinking until full charge occurs. Then the four levels will be visible and not blinking. The battery charge can last up to 5 hours.



4.2 Tablet Resistance

To prevent the tablet from getting dirty with dust and getting wet, a “waterproof” case is included. It is splash-resistant and resistant to dust ingress.

As a special recommendation, we suggest the purchase a case to resist falls .

4.3 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.

4.4 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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