

Section 1 INTRODUCTION

SV-1 Wireless Scanners is the new generation instruments for veterinary 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 SV-1 Scanners. The probe of a SV-1 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 iPad from Apple Inc. The probe acted as a Wi-Fi Access Point and can be connected by iPad. With the probe be connected through WiFi 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 SV-1 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.



Figure 1.1 SV-1 Wireless Scanner System

1.1 SPECIALIST

Display: iPad Series

Scan:	Sector Scan, 80°
Probe:	3.5MHz Transducer
Depth:	100 – 180mm
Display Mode:	B-Mode
Gray Scale:	256 levels
Battery last:	> 3 hours
Size:	140mm x 45mm x 40mm
Weight:	< 0.2 Kg

Section 2 GETTING STARTED

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

2.1 UNPACKING

The SV-1 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.

Table 2-1 Items List for SV-1 Wireless Ultrasound Scanner

ITEMS	INCLUDED
SV-1 Wireless Ultrasound Probe	✓
USB Cable for Charging	✓
Wrist Strap	✓
SV-1 Wireless Ultrasound Scanner Operators' Manual	✓
iPad Waterproof Bag	Optional

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 INSTALLING APP

If the WirelessScan App is not installed in your iPad, open the App Store and search "WirelessScan", when the App comes, it is free to install the App.

2.3 STARTING PROBE

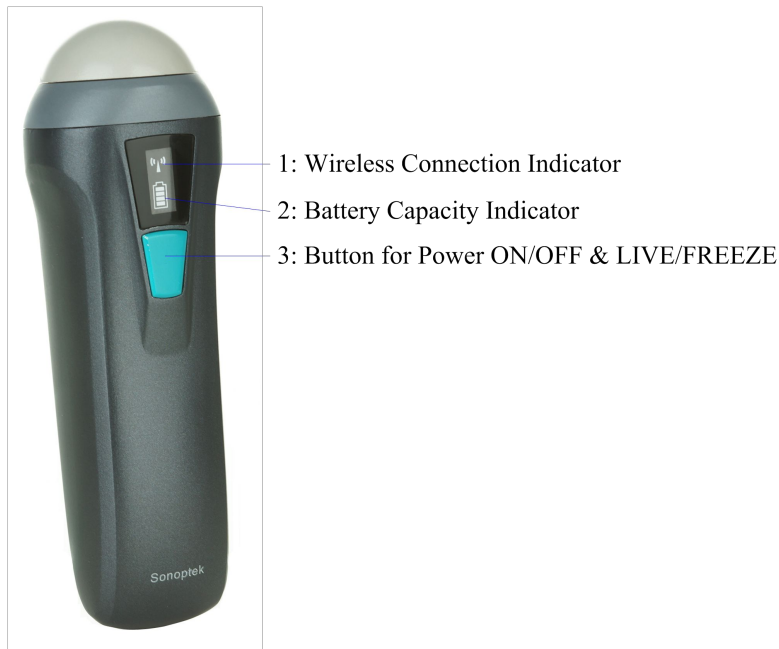


Figure 2-1 SV-1 Wireless Ultrasound Probe

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

Press the button 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. (Probe charging will be described in section 4.)

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 iPad.

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

2.4 WIRELESS CONNECTION

When the probe is waiting for a wireless connection as described in previously, launch the Settings of iPad, turn on the Wi-Fi (if not on), Find the SSID of the probe. The SSID is like: "SV-1 GMBFCA001", the suffix after "SV-1" is a code generated from Serial Number. Connect to the SSID with the password same as the Serial Number (in lower case). The Serial Number is in the form like "WMPBFCA001" with the prefix of "WMP". It can be found on the surface of the

probe.

After Wi-Fi is connected, launch the WirelessScan App, after the connection from the app to the probe is confirmed, the Wireless Connection Indicator on the probe will be light with no blinking.

Every connection steps are done. The operations of using the system to finish ultrasonography task will be described in the next section.

Section 3 APP OPERATIONS

3.2 ULTRASOUND SCAN

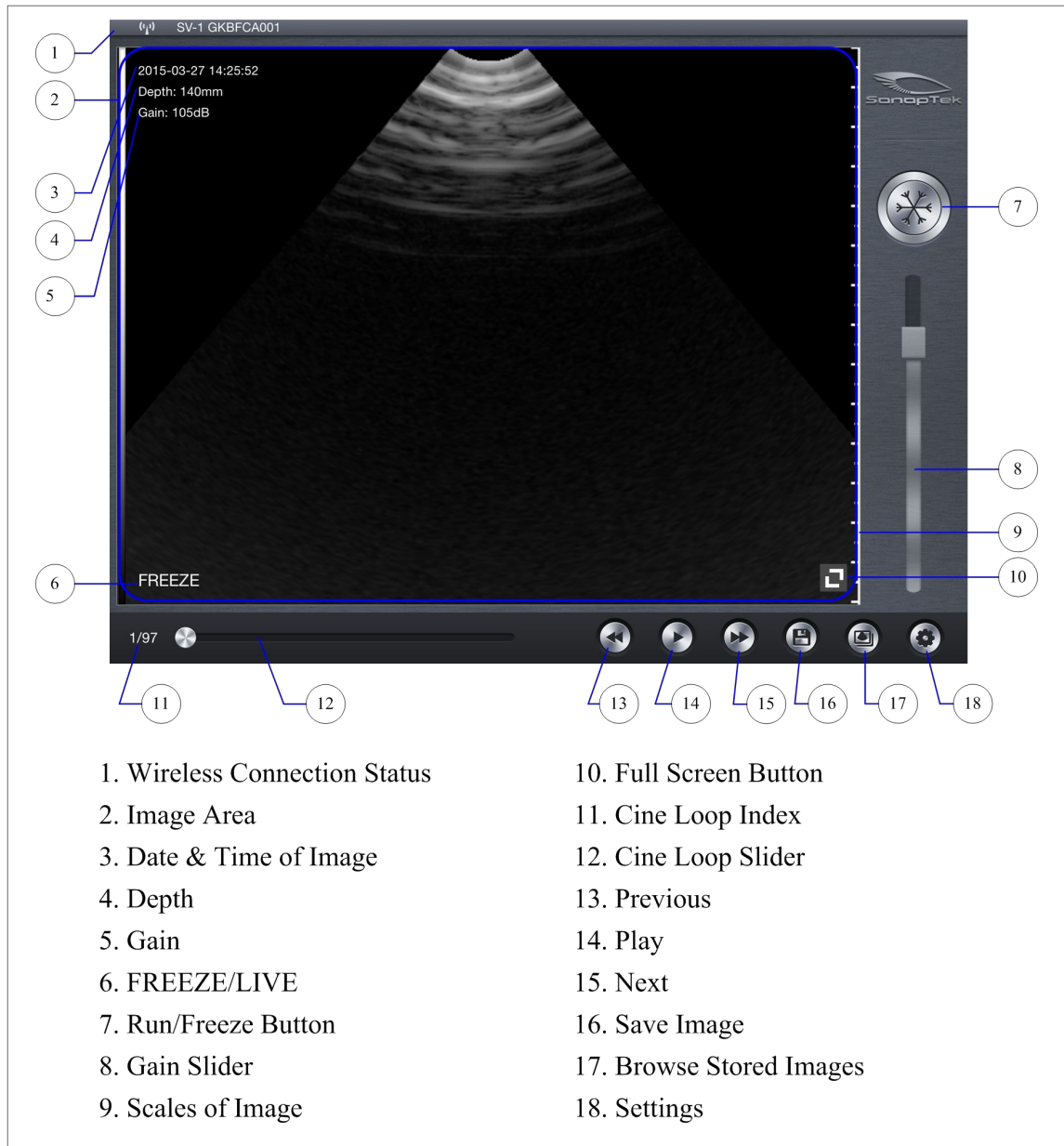


Figure 3-1 Main Screen

After the probe is connected, launch the App, the Main Screen will show similar in Figure 3-1. (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 (7) 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 Slider (8) can be slide up/down to adjust the gain of the image. When the Image come to shown on the Image Area (2), the Imaging Date & Time (3), the Gain (4) and the Depth of Image (5) will be shown together with the ultrasound image. When the probe is running, label (6) will be shown as "LIVE", or it will be shown as "FREEZE". Scan depth of the ultrasound image can be adjusted by swipe down/up in image area when running.

When the image frozen, Label 11 shown the count of image in the cine loop and the index of current image of the cine loop. Users can use the Cine Loop Slider (12) to select the image in the cine loop. Three buttons (13,14,15) on the right of the slider can also be used to select the images in the cine loop.

By press the Full-Screen-Button in the lower right corner of the Image Area, the Image Area will occupy the whole screen. In Full-Screen Mode, press the button to shift back Non-Full-Screen Mode. The Full-Screen-Button will hide after seconds automatically. Tap in image area to make it visible. In Full Screen mode, the button on the probe can be used to run or freeze the image.

3.3 STORAGE OF IMAGES

When image is showing in image area, Save Image Button (16) can be pressed to save the image to the album of the iPad.

By pressing the Browse Stored Image Button (17), users can select a stored image and show it on the image area.

The stored images can be exported with same method as photos exporting using iTunes or other equivalent methods.

3.4 SETTINGS

If users hold the probe on the right hand, and want to operate the software by the left hand, the software provides settings to adjust the interface.

Press the setting button(18), settings screen will appear as Figure 3-2 below.

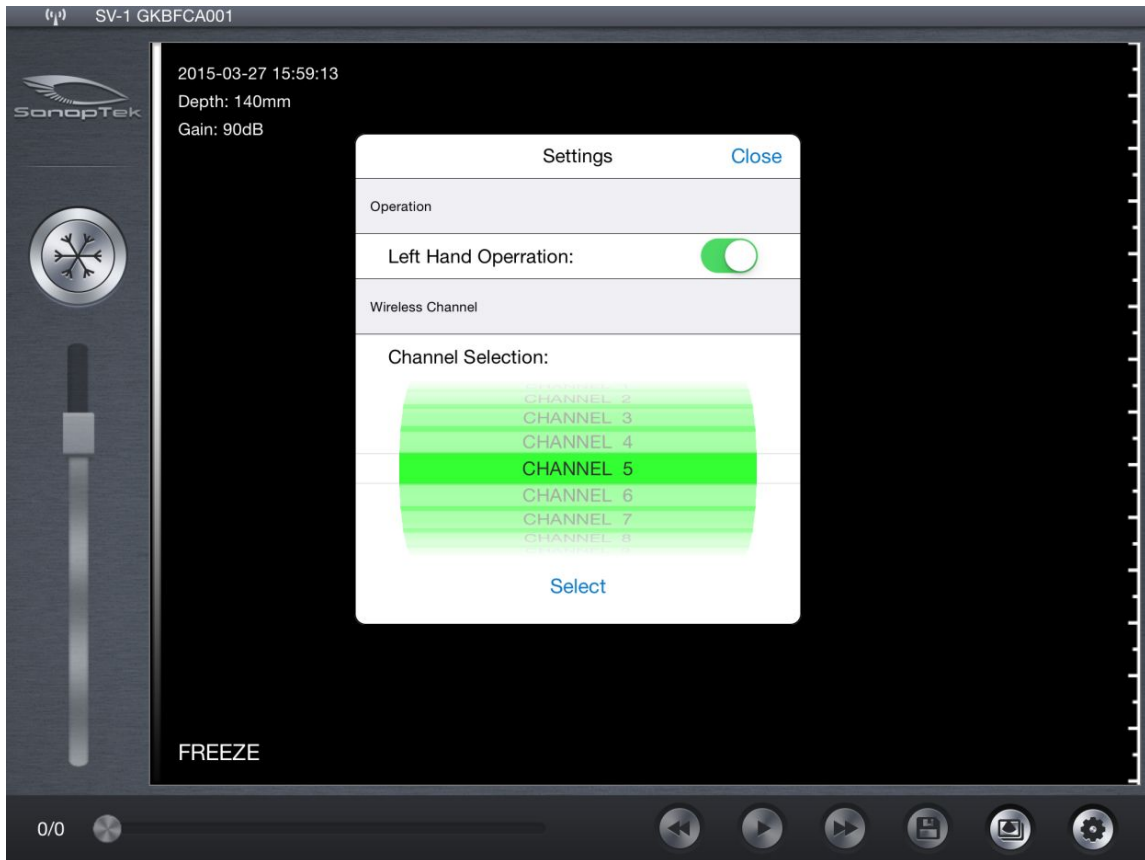


Figure 3-2 Settings Screen

Switch ON/OFF the Left Hand Operation to adjust the screen to convenience operators.

When the system is using in an environment where the WiFi channel is crowd, a new channel can be selected for the probe by pick a channel from the picker and tap Select button. After 2 seconds, please restart the probe to make the new channel available and the user also have to reconnect the probe with a different SSID.

Section 4 MAINTANCE

4.1 PROBE CHARGING

When battery goes down, it is necessary to recharge the probe. Pull the insertion at the end of the probe, than connect the USB Charger and USB Cable with the probe to charge the probe as shown in figure 4-1. When in charging, the battery indicator will be blinking and the grids indicate the capacity of the battery charged.



Figure 4-1 Charge the Probe

If four grids all light and the indicator not blinking means the battery is fully charged. Unplug the USB cable and the insertion should be carefully plugged to make the probe able to keep out water.

4.2 WATERPROOF IPAD

A waterproof bag is provided by local repository. Users can use it to protect the iPad when it is used in humidity or dirty fields.

4.3 CLEANING

Periodic cleaning of the probe is all that is usually required. The probe can be cleaned by soft cloth or paper or water directly at the head. The probe with the waterproof level of IPX5 can be washed using clean water but users should NOT soak the probe in water.

4.4 STORAGE

When not in use, it is recommended that the equipment should be put in the case. While stored the equipment should be protected from temperature extremes.