Wireless Vet Ultrasonic System SmartScan
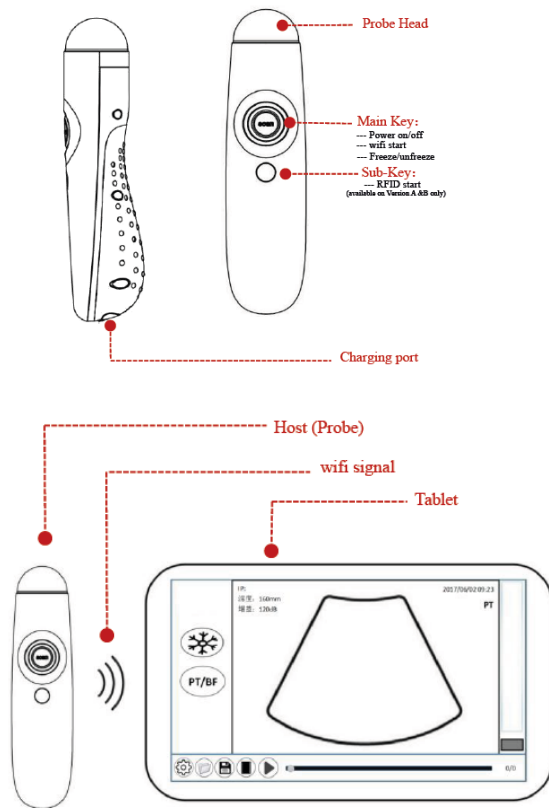
Quick Start Guide

SmartScan comes in the following difference versions:

(1) high version A
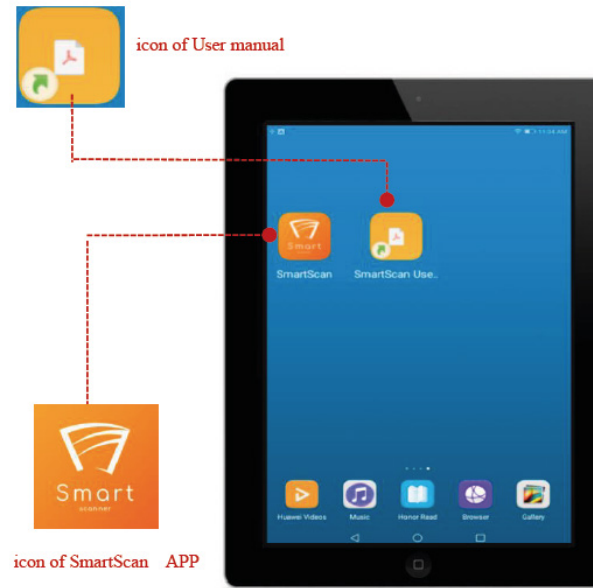(2) standard version B
(3) basic version C
(4) supper-high version D.

Version A is with RFID for both FDX and HDX.
Version D is with RFID for UHF only.

1. Appearance

Probe Head

Main Key:
— Power on/off
— wifi start
— Freeze/unfreeze

Sub-Key:
— RFID start
(available on Version A &B only)

Charging port

Host (Probe)

wifi signal

Tablet

2. Connection of Host and tablet

2.1 Turn on tablet and read the manual of SmartScan

icon of User manual
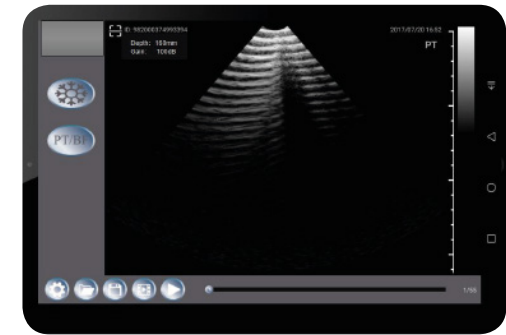
icon of SmartScan   APP

2.2 Press down and hold the Main Key for 7 seconds until the indicator turns blue to power on the machine.

The indicator will then flicker at a slow rate. Immediately the SmartScan will search for a matching WIFI signal pathway automatically .
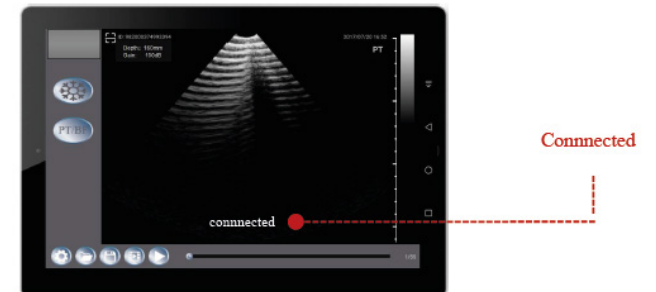

2.3 Touch the icon of SmartScan APP on the sceen to have the ultrasound interface on.

2.4 Successful Connection

— When "Connected" appears on the bottom of the operating interface, it means that the smart device has been connected with SmartScan.
— Press the Main Key to enterthe real-time ultrasound scanning mode.

Connnected

connnected

2.5 Unsuccessful Connection

— If the following prompt pops up on the operating interface, it means that the smart device hasn't been connected with SmartScan. Reboot the SmartScan as instructed and click Retry until it's connected.

Hint

No ultrasound device found. Please turn on the device and try again

EXIT   RETRY

— If the same prompt appears on the operating interface after Retry several times, it indicates that the smart device is not installation-compatibleand the SmartScan App is not properly installed.

3. Ultrasound Operation

Freeze/unfreeze
Tap this key to freeze/unfreeze the real-timeimage.
Main Key of SmartScan can freeze/unfreeze the image as well.
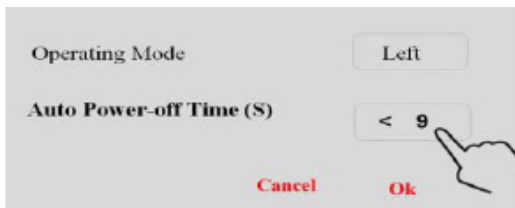
Current Mode Selection
PT is for Pregnancy Test and BF is for Backfat measurement.

Setting
This App system offers user-defined pre-settings—Left/Right Hand and Auto Power-off Time.

Tap this key and the following window will pop up on the screen.

Operating Mode   Left

Auto Power-off Time (S)   < 9

Cancel   Ok

Load image
— Tap this key and a dropdown menu will pop up on the screen. All saved images are listed in the menu;
— Swipe the menu up and down to view and selected the needed saved images.

frame_20170428_180807.jpg
frame_20170502_112812.jpg
frame_20170516_091122.jpg
frame_20170520_110824.jpg
frame_20170522_140832.jpg
frame_20170522_183805.jpg

The image is named as:
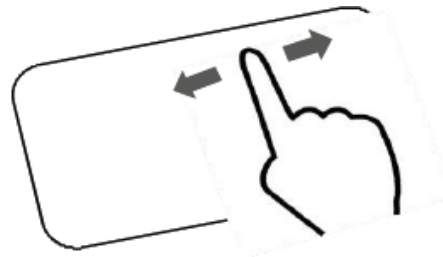frame_Year/Month/Date_Hour/Minute/Second_.jpg

Save Image
To Freeze the image first before to tap this key to save it
The image is saved in jpg format on the tablet and its name is as:

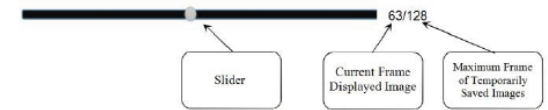frame_Year_Month/Date_Hour/Minute/Second_.jpg

Cine-loop
After freezing images, tap this key to play back the images scanned in real-time before freezing one by one;
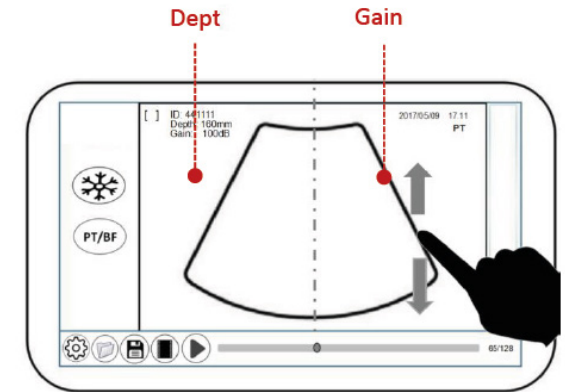128 frames maximum for playback;

Cine-loop bar
Once the images are frozen, the real-time images will be temporarily saved in the memory chip

63/128

Slider | Current Frame Displayed Image | Maximum Frame of Temporarily Saved Images

Gain & Depth
Swipe the left and right parts of the screen up and down during the scan for gain and depth adjustment.

Dept   Gain

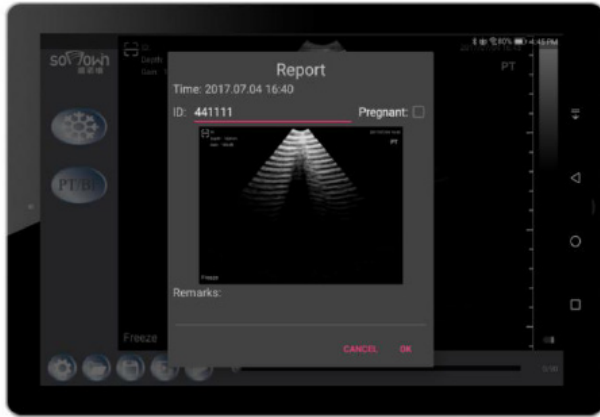## 4 Ear-mark input. Ultrasound Operation

It would not be the practically meannigful if the ear-mar (or ID) of the tested animal does not be input whenever the frozen images or backfat measuring conclusions is saved.

The ear-mark can be entered in the following four ways:
1) by mannual
2) by readinng ear-tag (RFID) .
3) by scaning the barcode and QR

4.1 by mannual

a. Freeze the satisfied echo image first.
b. Press the Save Key and the "Report" page will pop up on the screen:

c. Click on the red blank ID space and a digit keyboard will appear at the bottom of the screen. Enter the corresponding ear mark and press "Next" (Blue Key) after confirmation.

d. PT Result
Tap the optional box. Check the Pregnant box if the animal is pregnant. Leave the boxes blank if the animal is not pregnant.
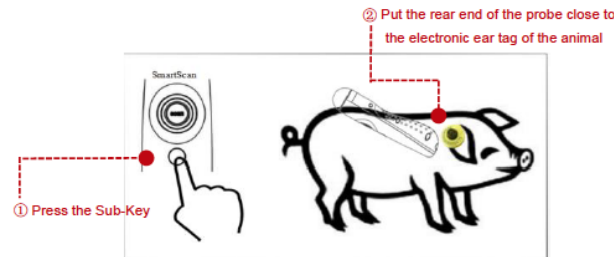

Pregnant √   Not Pregnant

e. Remarks
— Other information regarding to the animal or the image can be entered in the Remarks column. Enter words or sentences in English.
— The Remarks column can be blank.
— Press OK when all the information is entered.
f. Check the report information and press the Ok key on the report page.
— The report will then be saved in the smart device. Press the Cancel key to not save the report.
— The path for saved Report: local RAM directory\MYJC\report\report_2017_05_23 09-23.pdf
— The report files are named as:

record_Year/Month/Date_Hour/Minute.pdf

4.2 by readinng ear-tag (RFID)

SmartScan in Verions A can read the ear-tag by switching on the sub-key RFID instead of manual entry.
A. View the images scanned in real-time and freeze the satisfactory one.
B. Activate the Sub-Key and put the rear protecting part of the device close to the electronic ear tag worn by the animal.
— Once the ear-tag is read, a beep from the SmartScan will be heard and the ear-tag number will be instantly displayedin the ID area on the left upper corner of the screen.
— The ear-tag must be read within 10 seconds after Sub-Key is activated.\
— The ear-tag can be automatically read as shown below:
C. PT Result
D. Remark s
E. Check the report information
(Complete Step 3 to 5 as instructed in by Manual)

① Press the Sub-Key
② Put the rear end of the probe close to the electronic ear tag of the animal

4.3 by scanning barcode and QR

Barcodes in the following two formats can be scanned by SmartScan:
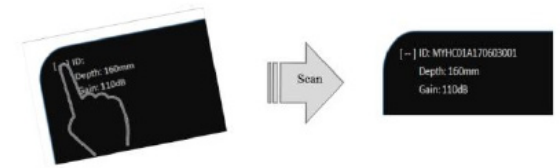
Barcode

MYJC01A170603001

QR Code:

How to Scan:
Tap the Camera icon and the tablet PC will automatically start the scan process; point the scanner of the smart device at the barcode and QR code to be scanned. A beep from the smart device within 1 to 3 seconds indicates a successful scan.
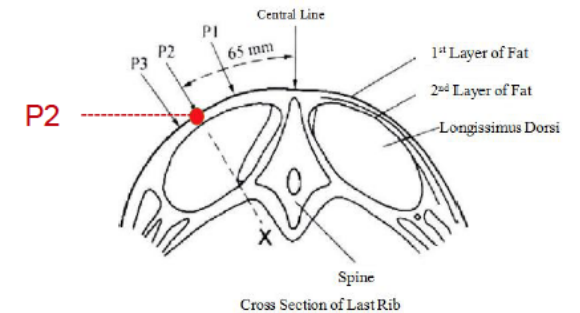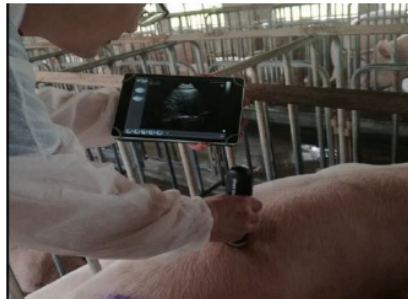

5. Backfat Measurement

The SmartScan can automatically identify and measure BF and save the measurement results in the database.
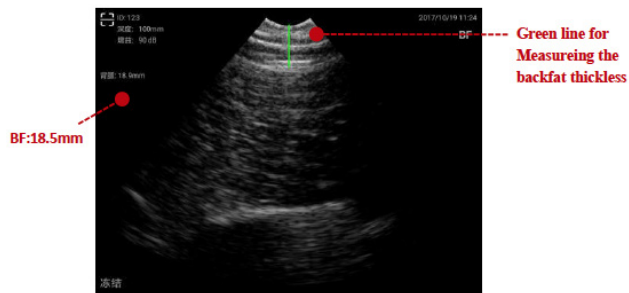If your machine is Version A and B, this function is available.
1) Press the PT/BF key to switch system to BF mode. The characters BF will be display on the right upper corner of the screen in steady of PT.
2) Place the probe on P2 point of the animal.
Obtain a correct ultrasound image and then freeze it.

Cross Section of Last Rib

3) After the image is frozen, to press on the upper area of the screen gently, a green line will be appeared automatically on the image. The end of the green dotted line is the lower end of the BF line. The length of the green line represents the thickness of BF.

Meanwhile, the value of BF thickness will be immediately displayed on the left of the screen in the following format:
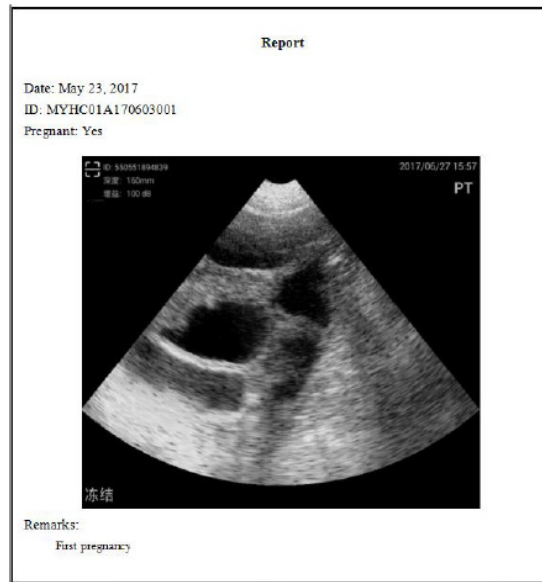

Green line for Measureing the backfat thickless

BF:18.5mm

Strongly Suggestion:
In order to obtain the better image of the fat , you are strongly suggested to have the probe put on P2 at the right direction:

head/tail

head/tail

6. Pregnant Report

Whether inmanual entry of ear marks, automatic reading of electronic ear tags, barcode or QR code, the users must check the test results carefully and enter the information truthfully.
After the information is checked, tap the Ok key on the report page and a PT report of the tested animal will be automatically generated in the MYJC folder of the local root directory of the tablet.

Save path: RAM directory\MYJC\report\
Save format: .pdf

7. Database

In the RAM\MYJC\report\folder, a database will be automatically generated as well. In the excel format , the file is named report.xls.

1) It's a truthful record of each test conclusion after the ear mark is entered;
2) The database is automatically generated and the contents can't be altered;

3) If the test wasnot conducted this time, the corresponding item will be blank.

Database Information

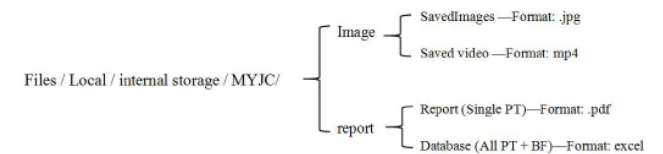| Date/Time	Ear Mark	BF (mm)	Pregnant	Remarks
2017.05.22 10:18	4125	16.3	No	
2017.05.22 10:19	123	18.6	Yes	
2017.05.22 10:31	4568	18.2	Yes	
2017.05.23 09:23	123	17.8	Yes	
2017.06.03 17:26		18.8	Yes	
2017.06.03 17:27	982000374372458	19.1	Yes	
2017.06.15 14:52	412	17.9	Yes	
2017.06.20 17:11	4789	17.3	No	
2017.06.20 17:26	52389	18.8	Yes	

The measurement result of BF will be saved in the datas of the system automatically when its number appeared on the screen.

Save path: RAM directory\MYJC\report\
Save format: excel.pdf
Name: report

8. Transferring the saved files

The files saved by SmartScan are saved in a certain location of the smart device in four formats, images in jpg, texts in pdf, forms in excel and videos in mp4.

Search path:

Files / Local / internal storage / MYJC/
- Image
  - SavedImages —Format: .jpg
  - Saved video —Format: mp4
- report
  - Report (Single PT)—Format: .pdf
  - Database (All PT + BF)—Format: excel

All saved files can be sent ortransmitted through the following functions of the tablet:

1) Bluetooth
2) WIFI
3) USB (digital cable is packed in the white small carton box)