Easi-Scan:Go™

Instruction manual

BCF™ Technology

Your animal imaging partner
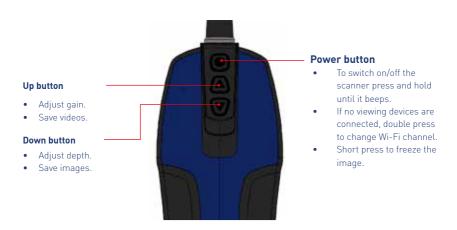
Easi-Scan:Go

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Certification

BCF Technology Ltd., hereby declares that the radio equipment type that we use on Easi-Scan:Go is in compliance with all CE Directives. The full text of the EU declaration of conformity is available at the following internet address: www.bcftechnology.co.uk

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
If the user changes any modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: All BCF Technology products are for animal applications only.

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1 Scanner menu

Power button

- To switch on/off the scanner press and hold until it beeps.
- If no viewing devices are connected, double press to change Wi-Fi channel.
- Short press to freeze the image.

Up button

- Adjust gain.
- Save videos.

Down button

- Adjust depth.
- Save images.

1.1 Adjusting gain and depth using scanner´s buttons

In live scanning pressing "**Up**" button will bring up the gain menu.

Pressing "**Down**" button will bring up depth menu.

Once the gain or depth is visible, pressing the "**Power Button**" will select that settings. Use The Up and Down buttons to adjust the selected settings.

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1.2 Saving images and videos using scanner´s buttons

Freeze the image using **"Power button"**
Press ¨**Up**¨ will bring up ¨**Save Cine**¨.

Freeze the image using **"Power button"**
Press **"Down"** will bring up ¨**Save Image**¨.

Once the desired option is visible, pressing the Power Button will select that option.

Note: The scanner will store the last 300 frame (10-12.5 seconds depending on the selected scan depth) in its internal memory. To store on the scanner, the scanner must be Frozen. *During save, particularly cine save, the app will pause while downloading and saving the data while scanning. It is recommended that you save images and videos directly from the app where possible.*

2 LED sequence

Power LED **Wireless LED**

Power LED	
Blue flashing	Scanner turning on
Blue	Scanner on and battery between 66–100% charge
Yellow	Scanner on and battery between 33–66% charge
Yellow flashing	Scanner on and battery between 0–33% charge
Wireless LED	
Blue flashing	Scanner ready for smart device to connect, nothing connected
Blue	Smart device connected
Blue	Scanner is charging when placed on wireless charging plate
Both LEDs	
Flashing yellow	Software updating

3 Activation

3.1 First time use

Download the BCF Go Scan app [Go] from Google Play or the App store.
To activate the scanner, ensure that the scanner is charged and that you have a local Wi-Fi internet connection. This is only necessary the first time you connect the scanner.

1. Press "**Power button**" to switch on the scanner. Open app on the smart device. The app will request to connect to the scanner. Click OK.

2. Select EASISCAN from the Wi-Fi page and return to the app.

The app will get serial number from the scanner.

3 App requests to connect to the internet. Click OK.

4. Select your local Wi-Fi network to connect to the internet.

5. App requests to connect back to the scanner and retrieves the licence from BCF's licence server.

6. Select your EASISCAN from the Wi-Fi page and return to the app.

After a few seconds, the ultrasound image will appear. Touch anywhere on the screen to bring up the live scanning menu.

Note – if the LED flashes on the scanner it is not connected to any smart device.

3.2 Normal start up process

1. Switch on the scanner and wait until the Wi-Fi LED illuminates. Launch BCF Go App. App requests to connect to scanner.

2. Select your EASISCAN from the Wi-Fi page. Return to the App.

3.It can take up to 10 seconds to connect and start receiving ultrasound. You are now ready to scan.

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4 BCF Go Scan App

4.1 Live scanning

Wi-Fi channel quality*
(only on Android devices)

Recording indicator and elapsed time during recording.

No probe contact, scanner enters low-power mode and the screen will dim.

The scanner battery level

The smart device battery level

*Change the channel in Wi-Fi settings. No indicator -clear channel in the 5GHz band. This is recommended state. White indicator-clear channel, but is on 2.4GHz band. It is more prone to interference. Orange/red indicator-channel with other networks or scanner. This is likely to cause interference issues.
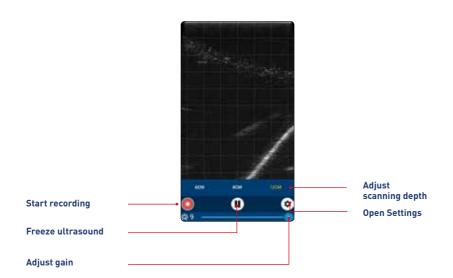
Touching the screen with two fingers simultaneously will freeze the image.

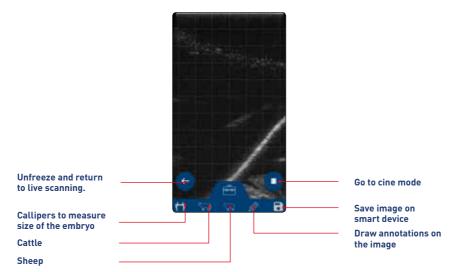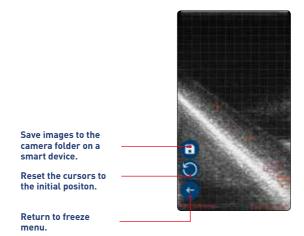Touching the scanner with one finger will open the main menu.
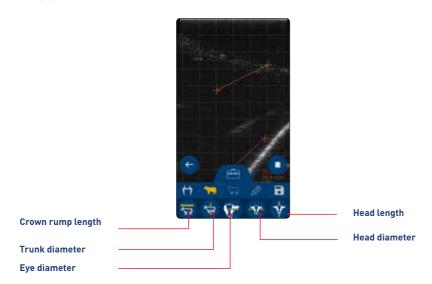
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4.2 Main menu

Adjust scanning depth

Start recording

Open Settings

Freeze ultrasound

Adjust gain

4.2.1 Freeze menu

Unfreeze and return to live scanning.

Go to cine mode

Callipers to measure size of the embryo

Save image on smart device

Cattle

Draw annotations on the image

Sheep

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Callipers

Save images to the camera folder on a smart device.

Reset the cursors to the initial positon.

Return to freeze menu.

Note: Use your finger to move crosses.

Cattle

Crown rump length

Trunk diameter

Eye diameter

Head length

Head diameter

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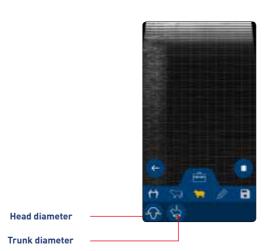| Gestational measurements available:				
Crown-Rump length (distance from the top of the skull to the end of the body)	Trunk diameter (width of the ribcage at the widest part)	Eye diameter (diameter of the eye socket)	Head diameter, (width of the skull at the widest point)	Head length (distance from the top of the skull to the end of the nose)
14mm – 180mm, 33 – 76 days	14mm – 123mm, 53 – 133 days	3mm – 28mm, 62 – 241 days	14mm – 86mm, 55 - 135 days	21mm – 146mm, 56 – 134 days

Sheep

Gestational measurements available:	
Head diameter (width of the skull at the widest point)	Trunk diameter (width of the ribcage at the widest part)
19mm – 66mm, 48 - 121 days	14mm – 101mm, 49 – 126 days

Head diameter

Trunk diameter
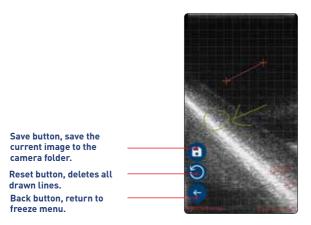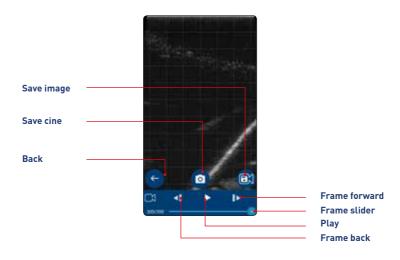
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Freedraw ✏️

Touch and drag to draw on screen, can be used to make simple annotations or to highlight areas of interest. Any measurements placed on screen remain visible.

Save button, save the current image to the camera folder.

Reset button, deletes all drawn lines.

Back button, return to freeze menu.

Cine mode 📖

The app automatically stores the last 300 ultrasound frames (approximately 10 seconds), in cine mode. These frames can be viewed individually or as a video, individual frames can be saved as still images or the entire loop as in copy.

Save image

Save cine

Back

Frame forward

Frame slider

Play

Frame back

4.3 Settings

Access the Terms
and conditions, Quick
Guide, FAQ

Machine
settings

User
settings

Wi-Fi settings
(only on Android
devices)

Note: FAQ and terms and conditions require an internet connection.

4.3.1 Machine settings

Adjust screen
brightness. Restores
to original settings
when the app is
closed.

Adjust ulttrasound
contrast

Fit ultrasound by
height or width.

Lock screen rotation

Adjust menu timeout

Invert the ultrasound
image.

Select probe
orientation. The
probe orientation
will change on all
connected devices.
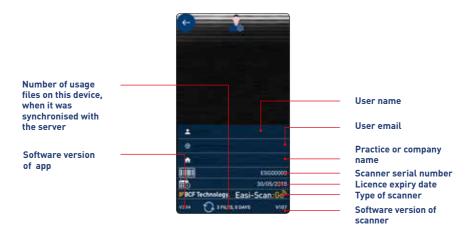
Grid setting. The grid
overlay will change
on all connected
devices.

Note: Touching outside the menu area will return to live scanning.

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4.3.2 User settings

Number of usage files on this device, when it was synchronised with the server

Software version of app

User name

User email

Practice or company name

Scanner serial number

Licence expiry date

Type of scanner

Software version of scanner
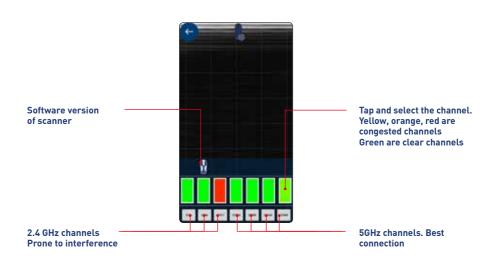
Wi-Fi settings

Wi-Fi settings are only available on Android devices. Channels can be changed.

Software version of scanner

Tap and select the channel. Yellow, orange, red are congested channels Green are clear channels

2.4 GHz channels Prone to interference

5GHz channels. Best connection

5 Usage files

The app will generate usage files.

Events logged:

- Images saved – time and date, scanner serial number and location (if permitted)
- Connecting to scanner
- Freeze and unfreeze
- Texts from Visits ToDo App
- Entering and exiting standby mode

Files can be uploaded to BCF's license server, www.licencing.bcftechnology.com.

- Automatically - if launching app when connected to WiFi
- Manually – by clicking sync button
- Prompts – If there are more than 20 usage files to upload

6 Factory reset

A scanner can be reset to factory firmware settings in the unlikely event the scanner fails.

Hold down power and down until both LED's glow yellow and release.

This will take a few minutes and the scanner will then switch off – **removing the license from the scanner.**

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7 Charging

The battery can be charged in the charging dock, powered by a standard outlet. It can also be connected in the carry case for in-car charging.

3rd LED

2nd LED

1st LED

LED sequence	
One Blue flashing	Charging, charge level below 33%
First LED Blue solid Second LED flashing blue	Charging, charge level below 66%
First and second LEDs solid blue, third LED flashing blue	Charging, charge level below 100%
All LEDs solid blue – fully charged.	Fully charged
All LEDs flashing yellow	Temperature is too high (more than 45 Celsius, 113 Fahrenheit) for safe charging
All LEDs flashing blue	Temperature is too low (less than 0 Celsius, 32 Fahrenheit) for safe charging.

A fully discharged battery should be fully charged within 5.5 hours. While in a good condition, the battery run time will be 5 hours (assuming 50% idle time between scans).

Scanner will enter low power mode when idle.

The Li-ion cells used in the battery pack do not suffer from the 'Memory effect'. For optimal battery longevity, avoid letting the battery run completely down and recharge at approximately 20 Celsius/68 Fahrenheit.

Electrical connection to the power pack is through the gold pads on battery and scanner. Power pack output is protected but care should be taken to prevent short circuiting the gold connector pins and pads.

> ⚠️ **Warning:**
> To reduce the risk of burns, fire, electric shock, or injury to persons an appliance should never be left unattended when plugged into mains or 12 V cigarette lighter.

8 Care & maintenance

8.1 Easi-Scan: Go & battery

Please note the following important points:

- The unit is not sealed against jets of water. Water will penetrate your scanner if it is hosed down or rinsed under a fast flowing tap.
- The unit is NOT corrosion proof and thus it should not be left wet.Take care to detach the external battery and ensure interconnect areas are dry also.
- The battery charger and charging carry case are not waterproof – avoid getting them wet.

8.2 Easi-Scan: Go probe

While every attempt has been made to make the probe as rugged as possible the crystal array remains vulnerable and should be protected from knocks. The probe has a protective sheath covering the length of cable subject to wear and flexing. Any damage to this sheath or the rest of the cable should be repaired before further use to prevent moisture ingress that will rapidly damage the probe. The probe should be checked regularly for such damage.

Gels

Use only gels recommended by BCF Technology Ltd. Do not store the probe in gel.

Cleaning

The probe may be cleaned by removing all residue and disinfecting using an IPA wipe.

Storage

Clean and dry the probe head prior to storage in dry location. Do not store the transducer in gels or cleaning/disinfecting solutions. This will lead to premature deterioration of the probe.
Do not expose the transducer to materials containing the following agents:

- Acetone
- Methanol
- Mineral oil
- Iodine
- Freon
- Industrial cleaners
- Materials containing perfumes (lotions, gels, etc.)

9. Specifications

> ⚠️ **Warning:**
> Never sterilize the transducer with autoclave, ultraviolet, gamma radiation, gas, steam or heat sterilization techniques. Severe damage will result.

Easi-Scan:Go™

Size	19x8.3x6.2cm / 7.5 x 3.25 x 2.4 in
Weight	800g/1.76lbs
Mechanical	Rugged PC/ABS casing with TPE over mould

User Output
Scanner wireless link to compatible viewing device using BCF Sound-Link over standard WI-FI connection.

Image and video storage
Storage of images and cine loops limited only by available space on smart device linked with scanner.

Probe
Broadband straight linear rectal
Active array length 64 mm
Frequency range 4.5 to 8.5 MHz
3 user selectable depths of scan: 6cm, 8cm, 12cm
128 element crystal array
16 digital channels and 32 channel receiver

Power and charging
Removable li-ion battery gives 5h runtime *
Battery charge time 5.5h. Only use BCF aproved/supplied 12V vehicle power supply, battery charger and DC power adapter.
Maximum output voltage and current raiting of the charger is 4.2V and 2A.
*depending on use, assuming 50% scan time, auto power save with BCF Smart-Beam.

Temperature range
Scanner: -10 Deg C to 45 Deg C *.
Battery Charge: 0 Deg C to 35 Deg C *
* Best charged at 25 Deg C, frequent chaging at 35 Deg C / 95 F may shorten battery lifetime.
Battery Charger has under and over temperature protection and LED status indication.

Warranty
BCF Technology warrants Easi-Scan:Go against defects in materilas for one year from the date of purchase. BCF Technology does not warrant against normal wear and tear, nor damage caused by accident or abuse. Lifiteme warranty is available on request.

Smart devices compatibility
Android:
Minimum version: Kit Kat (Android V4.4)
Minimum RAM: 1.5Gb
Minimum Processor: Quad-Core 1.2GHz
Recommended WiFi: 802.11 a/ac (5GHz band)
Apple:
Minimum version: iOS 8
Minimum iPhone version: iPhone 5s
Minimum iPad version: iPad4

For further information and video manuals about the Easi- Scan:Go please visit the ˝Customer support˝ section of the BCF website **www.bcftechnology.com/service-support**

11 Service centres

If your Easi-Scan requires servicing please contact official authorised service centres below or distributor in your country. Distributors contact details can be found at www.bcftechnology.com.

In the UK:
BCF Technology Ltd
Imaging House, Phoenix Crescent
Strathclyde Business Park Bellshill,
ML4 3NJ
Schottland, UK

T +44 (0)1506 460 023
info@bcftechnology.com
www.bcftechnology.com

In Ireland:
BCF Technology Ltd
Unit 2, Quayside Business Park
Mill Street, Dundalk
Co Louth, Ireland

T +353 (0)42 932 0070
ireland@bcftechnology.com
www.bcftechnology.com

In North America:
BCF Technology USA Ltd, LLC
2625 Highway 14 West, Suite K
Rochester, Minnesota 55901

T 507-529-8200
T 800-210-9665
F 507-529-8205
contact@bcftechnology.com
www.bcftechnology.com

In Australasia:
BCF Ultrasound Australasia Pty Ltd
10/56 Norcal Road
Nunawading 3131
Melbourne, Victoria
Australia

T +61 (0)3 9894 8980
service@bcfultrasound.com
www.bcfultrasound.com

Easi-Scan:Go does not contain user serviceable parts. Servicing has to be done by BCF´s authorised service centers.