

FarmScan® L Series Handheld Ultrasound Scanner Systems

Technical Specification

Applicable L Series Models:	FarmScan® L60 Rectal Linear
	FarmScan® L60 Rectal Curve
	FarmScan® L60 Convex Pig-sheep-goat Ultrasound
	FarmScan® L70 for Animal Science (Pregnancy checking, Backfat checking, Eye muscles..)

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System Overview

Standard Features:	<ul style="list-style-type: none">• Net weight: 600g• 5.8 inch TFT LCD• Easy-to-use GUI menu• Low power consumption• USB 2.0 For real-time picture uploading to PC• Full digital beamforming technology• Probe automatic identification• Gama correction, Color encode, Image Smoothen <p>• Applicable to Dairy Cows, Beef Cows, Feedlot, Sheep, Pigs and other body scans, for example, Abdomen, Reproduction, Gynecology, Cardiology, Small Parts</p> <p>FarmScan® L60 Rectal Linear and FarmScan® L60 Rectal Curve are preferred for use in large animals and for echocardiography of horses. Provides Doppler function- heart rate. Excellent choice for Vet echocardiography.</p> <p>FarmScan® L60 Convex probe is high end systems for pig-sheep-goat farm who have interesting on the nice images quality and stable quality.</p>
Application scenarios:	<p>FarmScan® L70, perfect for Pregnancy checking, Backfat checking, Eye muscles. The role of back fat detection:</p> <ul style="list-style-type: none">· If the swine is too fat, less reproductive performance, waste feed, increase farm costs;· Too less back fat, will drop the utilization years;· sow too fat, more heat intolerance, heart, lung, limb hoof overburdened, hormone imbalances, easy to have a series problems;· If the swine is too thin, it used too much body storage, bad for multiplication;· Pregnant pig too fat, also easily lead to stillbirth, or even sow death;· Keep a good balance of the back fat will keep the swine performance remained at a high level.
Imaging Modes:	B, M, 2B, B/M, 4B
Gray scale levels:	256
Monitor:	<ul style="list-style-type: none">• 5.8" WVGA LCD monitor, wide viewing angle• Resolution: 640*380• Brightness Adjustable
Image flip	Up/down, left/right
Transducer Type:	Convex Array, Linear Array, Rectal Linear Array
Transducer frequency:	2.0-8.0Mhz
Transducer connector:	one active transducer connector, unique micro connecto
Probe Frequency:	Adjustable(3 point each probe)
Frame correlation:	Adjustable
Scanning depth:	≥220mm, multi-steps
Dynamic imaging technologies:	Gama correction Color encode



BMV Technology Co., Ltd

Web: www.bmv.cc Email: export@bmv.cc Tel: +86-755-26564580

Add: 4/F, BMV of Yinjin Building, Block 71, Baoan Centre District, Shenzhen 518010, China

technology.

Image Smoothen

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Function:

Language	Software: English User Manual: English
Zoom	Real time zoom Freeze zoom Overall Gain, Near-field Gain, Far-field Gain
Image Storage	≥64 frames;non-volatile
Cine loop	≥400 frames

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Physical Spec

System Dimension:	Height: 120mm Width: 250 mm Depth:40mm
Weight:	0.6kg w.o. transducer
Physical channels	16 Programmable device (FPGA) and surface mounted technology (SMT) make this device compact and light in weight.
Transducer element	96/128
Power:	System operates via AC power(Power supply) & battery • Voltage: 100-240VAC • Frequency: 50/60 Hz
AC Adapter:	• Currency: 5A • Output: 12V • Lithium-Ion, 11.1V , 2600mAH
Battery: (optional)	• Charge to Full: 6 hours • Max Duration:4.5 hours realtime scan *

* vary on the configuration and different working condition, for more details to contact the sales.

Operating Environment:	• Temperature: 0-40 °C • Humidity: 30%-85% (non-condensing) • Pressure: 700hPa-1060hPa
Storage and Transport:	• Temperature: -20-55 °C • Humidity: 30%-95%(non-condensing) • Pressure: 700hPa-1060hPa

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User Interface

Control Panel:	Easy operation
Four display modes:	B, B+B, B+M, M; Can realize image real time display, frozen, zoom; up and down flip, left and right flip, save, load, capacity cine loop; Hospital, Name, Age, Sex annotation; measure Distance, circumference, area, volume, heart rate, GA,FW,EDD; Image gray scale 256 levels.
Boot-up and Power off:	• Hard boot-up in 2s • Power off in 1s
Comment:	Date&time, name, sex, age, hospital, etc.
Bodymark:	• Bodymark patterns for all application,40 types • Support transducer mark



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- BMV Logo
- Hospital Name
- Exam Date
- Exam Time
- ID, Name
- Probe
- Focus Position
- Image Parameters

*Not all items are listed in here, please refer to user manual for detailed info.

5 Measurement & Calculations

General B mode distance, circumference, area, volume, EF rate, heart rate, Time

Measurement:

M mode: Distance, time, slope, Heart Rate

OB Measurements: The measurement function is arranged by exam type(BPD, GS, CRL, FL, HC, AC, EDD, GA, FW) and is available for use with all exam type (Canine, Feline, Ovine, Bovine, Equine).*

Body marks:

*Individual Measurements and Calculation packages for different applications.

6 Peripheral Ports

Port: Video (PALD, NTSC), USB 2.0, Mouse

7 Storage and Data Management

- "Ultrasound Station" for patient management
- Able to review current exam and past exam
- Able to export file as JPG/PNG/BMP
- Able to back up data to USB device

8 Multi-frequency probes

Convex probes

3.5MHz convex array transducer (standard configuration for FarmScan® L60 Convex)

PIG-SHEEP-GOAT ANIMAL Applications: Pregnancy diagnosis, Pregnancy control, Counting
 Frequency Bandwidth: 2.0/3.5/5.0MHz
 Central frequency: 3.5 MHz
 Radius: 60 mm
 View angle: 61 degrees
 Scanning Depth: 36-351 mm
 Element: 128

3.5Mhz rectal curve array transducer (standard configuration for FarmScan® L60 Curve)

PIG-SHEEP-GOAT ANIMAL Applications: Pregnancy diagnosis, Pregnancy control, Counting
LARGE ANIMAL (Dairy cattle, Beef cattle)Applications: Pregnancy diagnosis, Reproduction, Sexing, Abdominal
 Frequency Bandwidth: 2.0/3.5/5.0MHz
 Central frequency: 3.5 MHz
 Radius: 60 mm
 View angle: 61 degrees
 Scanning Depth: 36-351 mm
 Element: 128



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65C15S micro-convex array transducer

SMALL ANIMAL Applications: Pregnancy control & reproduction diagnosis, Abdominal exams
Frequency Bandwidth: 5.0/6.0/7.5/8.0MHz
Center frequency: 6.5 MHz
Radius: 15 mm
View angle: 100.7 degrees
Scanning Depth: 36~184 mm
Element: 128

Linear probes

7.5Mhz Linear array transducer

EQUINE/LARGE ANIMAL Applications: Obstetrics, Chest/lung exam, Transrectal Examination of Sacroiliac Joints & LumboSacral nerve roots
Frequency Bandwidth: 5.5/7.5/9.0MHz
Center frequency: 7.5MHz
Scanning width: 40 mm
Scanning Depth: 10~184 mm
Element:128

3.5Mhz 155mm Linear Back Fat array transducer(standard configuration for FarmScan® L70)

PIG-SHEEP-GOAT ANIMAL Applications: Animal Science such as Backfat checking, Eye muscles.
Frequency Bandwidth: 2.0/3.5/5.0MHz
Center frequency: 7.5MHz
Scanning width: 155 mm
Scanning Depth: 10~184 mm
Element:96

6.5Mhz Rectal linear array transducer (standard configuration for FarmScan® L60 Linear)

EQUINE/LARGE ANIMAL Applications: Large Animals Reproductive, Equine Tendon
Frequency Bandwidth: 5.0/6.5/7.0/8.5MHz
Center frequency: 6.5 MHz
Scanning width: 70 mm
Scanning Depth: 18~184 mm
Element: 96

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Certificate and Security

Quality Standard:

ISO 9001, ISO 13485
ISO 13485:2003
EN 60601-1:2006

Design Standards:

EN 60601-1-2:2007 EN 60601-1-4:2005 EN 60601-2-37:2008 EN 61157:2007
EN ISO 10993-1:2009 EN ISO 10993-5:2009
EN ISO 10993-10:2009

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Standard Configurations

Standard Configurations

- FarmScan® L60/L70 main unit
- 5.8" TFT color LCD
- One transducer connector
- One USB port
- TV-out port
- AC/DC adaptor
- cine loop
- image storage
- Pseudo color imaging
- Plenty of veterinary measurement&calculation software packages
- Rechargeable lithium-ion battery 2600mAh
- Water proof field working bag
- One rectal transducer



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Transport case (Metal case)

11 **Options:**

	Rectal linear array transducer (6.0/7.5/8.5/10.0MHz)
	Rectal curve array transducer (3.0/3.5/4.0/5.0MHz)
	Linear array transducer (6.0/7.5/8.5/10MHz)
	Micro-convex array transducer (5.0/6.0/7.5/8.0MHz)
	Convex array transducer (3.0/3.5/4.0/5.0MHz)
	Extra rechargeable battery (2600mAh, up to 4 hours working time)
Optional	Hood sheath
	Rectal linear probe introducer
	Rectal convex probe introducer
	I-Scan® V2 Ultrasound goggles
	Car charger
	Video printer
	The extended warranty
	Transport case (Metal case)

12 **Warranty :**

	12 months warranty since ex-factory date for main unit
Standard Warranty	12 months warranty since ex-factory date for probes; Free Lifetime upgrade to new versions.
Optional Warranty	12 months warranty for system

13 **OEM/ODM Order**

Our company not only produce products by own BMV brand, but also accept OEM, ODM order by customers. We will satisfied your order by our faithful service.

Note1: BMV Technology Co., Ltd reserves the right to make changes in specifications and features shown herein, or discontinue the product described at any time without notice or obligation. Contact your BMV Representative for the most current information.

Note 2:Different models with different configuration ,please selected the most suitable systems to your expecting needs and

Note 3: FarmScan® is BMV registered brand .



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