Quick User's Guide

Ibex™ Portable Ultrasound

E.I. Medical Imaging®
Portable Ultrasound Solutions

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CE Declaration of Conformity

CE

Declaration of Conformity No 030809

(Manufacturer:) E.I. Medical Imaging

(Address:) 348 N Jefferson Street

Loveland, Colorado 80537, USA

Declares that the product:

Portable Ultrasound Device for Veterinary Use: Ibex pro and Ibex lite

Conforms to the following Directives:

1. Low Voltage Directive 95/2006/EC Test Report No R09-601-EIM-02-COC 08/09
2. Electromagnetic Compatibility Directive 2004/108/EC Test Report No 090629-1435R 07/09
3. R&TTE Directive 1999/5/EC Test Report No 090629-1435R 07/09
4. EMF Directive 1999/519/EC Test Report No SAR200908030 8/09

Using the following primary standards:

Safety Standards (used as a guide)

EN 60601-1: 1990 + Amendments A1, A2 & A13	: Medical Electrical Equipment - Part 1: General Requirements for Safety
EN 60601-1-1: 1993 + A1	: Medical Electrical Equipment – Part 1: General Requirements for Safety 1. Collateral Standard: Safety Requirements for Medical Electrical Systems.
EN 60601-2-37: 2001 + Amendments A1 & A2	: Particular Requirements for Safety of Medical Diagnostic and Monitoring Equipment

EMC Standards:

EN 60601-1-2: 2002	: Electromagnetic Compatibility (EMC)
EN 55011: 2007	: Radiated Emissions - Class A, Group 1
EN 61000-4-2	: Electrostatic Discharge
EN 61000-4-3	: Radiated RF Immunity
EN 61000-4-4	: Electrical Fast Transients/Burst
EN 61000-4-5	: Surge Immunity
EN 61000-4-6	: Conducted RF Immunity
EN 61000-4-8	: Power Frequency H-Field Immunity
EN 61000-4-11	: Voltage Dips, Interruptions
EN 61000-3-2	: Power Line Harmonics and Interharmonics
EN 61000-3-3	: Flicker
EN 300 328 v1.7.1	: ERM Data Transmission in 2.4 GHz Band
EN310 489-1 v1.8.1	: Common Technical Requirements (Radio)
EN310 489-17 v2.1.1	: Specific conditions Broadband Data Transmission

And complies with the relevant Essential Health and Safety Requirements.

I, undersigned, hereby declare that the equipment specified above conforms to the above Directives and Standards and is therefore eligible to carry the CE Marking.

Charles Maloy **(Name)** President, E.I. Medical Imaging **(Position)** _____

Loveland, CO **(Signed at place)** August 3, 2009 **(Date)**

FCC Regulatory Information

FCC ID: XMOIBEX
IC: 8512A-IBEX
Contains TX FCC ID: ED9LMX9838
Contains TX IC: 1520A-LMX9838

This device complies with Part 15 of the FCC Rules subject to the following two conditions:

1) This device must not cause interference, and;

2) This device must accept all interference, including interference that may cause undesirable operation.

WARNING:

Modification of this device without consent of the responsible party may void the users right to operate this device.

NOTE:

a) USA-Federal Communications Commission (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Exposure to Radio Frequency Radiation.
This device must not be co-located or operating in conjunction with any other antenna or transmitter.

b) Canada - Industry Canada (IC)
This device complies with RSS 210 of Industry Canada. Operation is subject to the following two conditions:
(1) This device may not cause interference, and
(2) This device must accept any interference, including interference that may cause undesired operation of this device." L ' utilisation de ce dispositif est autorisée seulement aux conditions suivantes:
(1) Il ne doit pas produire d'interference et
(2) l' utilisateur du dispositif doit étre prêt? Accepter toute interference radioélectrique reçu, m?me si celle-ci est susceptible de compromettre le fonctionnement du dispositif.

Caution: Exposure to Radio Frequency Radiation.
The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website http://www.hc-sc.gc.ca/rpb.

About This Guide

Please read all the instructions and warnings before using the Ibex™ Portable Ultrasound system.

The *Ibex™ Portable Ultrasound Quick User's Guide* provides an overview of the features and functionality of the Ibex family of ultrasound systems. This guide provides you with the information you need to quickly set up, operate, and maintain each model.

The E.I. Medical Imaging Ibex family of ultrasound scanners are internally battery powered veterinary use ultrasound devices. An external AC adapter is provided for charging the internal battery and powering the Ibex scanners.

This guide does not cover the theory or science of diagnostic sonography or clinical veterinary practices. It is intended for users already familiar with ultrasound techniques.

The Ibex family of scanners comes in two models: the Ibex Pro and the Ibex Lite The Ibex Pro offers a full alphanumeric keyboard and a liquid crystal display (LCD) for monitoring. The Ibex Lite relies on the use of video headsets for monitoring and keyboard functionality.

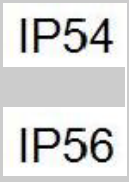
Product Symbols

Table 1 describes the symbols marked on the devices.

Table 1 Product Symbols

Symbol	Name	Description
	Caution *(Consult Accompanying Documents)*	You must read, understand, and follow all instructions in this manual including all warnings, cautions, and precautions before using the medical device in veterinary practice. Scanner: Is for veterinary use only. Is not user serviceable. Contact E.I. Medical Imaging if defective or damaged. Use only specified AC adapter/charger.
	Type BF Equipment	The Probe (Patient Applied Part) is Type BF (floating from electrical ground) per the Standard EN 60601-1, which offers a specific level of safety.
	RoHS Compliant	The system is compliant with the RoHS guideline 2002/95/EC
	CE	Device complies with the European Union Low Voltage Directive (LVD) and EMC directive.

Table 1 Product Symbols

Symbol	Name	Description
	Standby	Alternately switch the device between the power-on and standby states.
	USB	USB 2.0 Device I/O Port. Do not connect Ibex ultrasound to any USB connected equipment while using the ultrsound probe.
	Lead Free	All components (e.g. PCBs) are lead free and can be used in lead free solder processes.
	Ingress Protection	Protection from dust and splashing from any direction. Protection from dust and low pressure jets of water from any direction.

Common Features

The Ibex Pro and Lite share severalcommon features. The key difference between the two models is the flip-up LCD display on the Pro model, as seen in Figure 1.

The new design and technology offer complete user flexibility and ease of use.

Figure 1 Ibex Family of Portable Ultrasound Systems

This section covers the following common features:

- The physical features
- Quick facts
- The connectors
- The system access compartment
- The screen layout
- The on-screen menus

Physical Features

The overall features include:

- Light-weight, water-resistant, and easy to clean;
- DuraScan™ technology: impact and dust resistant, cleanable, bio-secure;
- Durable, industrial-grade probe connectors;
- Transducer advancements: Kevlar reinforced, tough grade probe cabling, and extra strain relief for maximum durability;
- Multi-frequency sector and linear transducer compatibility;
- New features: field of view, quick zoom, cine-loop (four-second video play-back), compact Flash drive image storage, direct USB link, wireless link, voice tag, track ball navigation, and RFID tag reader feature available;
- Long-lasting four-plus hour lithium battery;
- InSite® technology includes new, redesigned flip-up InSite®2 monitor head-sets for easier use in direct sunlight

Quick Facts

Table 2 lists the part numbers associated with the Ibex Pro scanner and contact information::

Table 2 Ibex Pro and Lite Scanner Part Numbers

Ibex Lite Scanner	Part Number
Ibex Door Gasket	224101
Ibex Lite waist carrying pouch (:X10654-R5)	291870
Shoulder Carrying Strap	291890
Ibex Pro foam outer case carrier	291880
6.25 MHz linear Supertex 128 transducer for Ibex ultrasound "F"	290406
8.0 MHz linear Supertex 128 transducer for Ibex ultrasound, Rev F	290410
3.5 MHz linear Supertex 128 transducer for Ibex ultrasound, Rev F	290420

Table 2 Ibex Pro and Lite Scanner Part Numbers

Ibex Lite Scanner	Part Number
3.5 MHz sector transducer GP-DV with magnetic encoder for Ibex ultrasound (:99-8704)	291311
One Gigabyte (1GB) Compact Flash (CF) Card	291651
USB 2.0/1.0/1.1 device cable for Ibex, 3 ft (:CBU-AB3-2)	291601
USA Power Cord	291961
Rechargeable Smart Li-ion Battery Pack	Li 202SX-72C
InSite2 10.8 v Nominal Video Headset	290701
SmartVu monocular headset for Ibex ultrasound system (:111-1001-05)	291721
External Power Supply/Battery Charger (60601-1) Class II Type (Input 100-240v 50/60hz) (Output 15v 4a)	TR60M15-01E12
Public contact information	E.I. Medical, 348 N. Jefferson Ave Loveland Colorado, 80206, (970) 669-1793

About the Ibex System Body

The Ibex system bodies provide protection against dust and water entering the enclosures as defined in the IEC (International Electrotechnical Commission) standards. Table 3 identifies the IEC ratings for the scanners.

Table 3 Ibex System IEC Ratings

System	Rating	Definition
Ibex Pro	IP54	Protected against dust and against water splash from all directions
Ibex Lite	IP56	Protected against dust and against low-pressure jets of water sprayed from all directions

The IEC standard defines degrees of protection expressed as "IP" followed by two numbers, e.g. IP54. These numbers represent the degree of protection. The first digit shows the degree to which the equipment is protected against human contact and solid particles. The second digit indicates its degree of water protection.

Caution – Refer to the section, “Cleaning and Maintaining the Scanner”, on page 55 for the proper cleaning instructions.

About the Electrical Interfaces

Figure 2 identifies the electrical interfaces for the transducers, AC power adapter, and the headset.

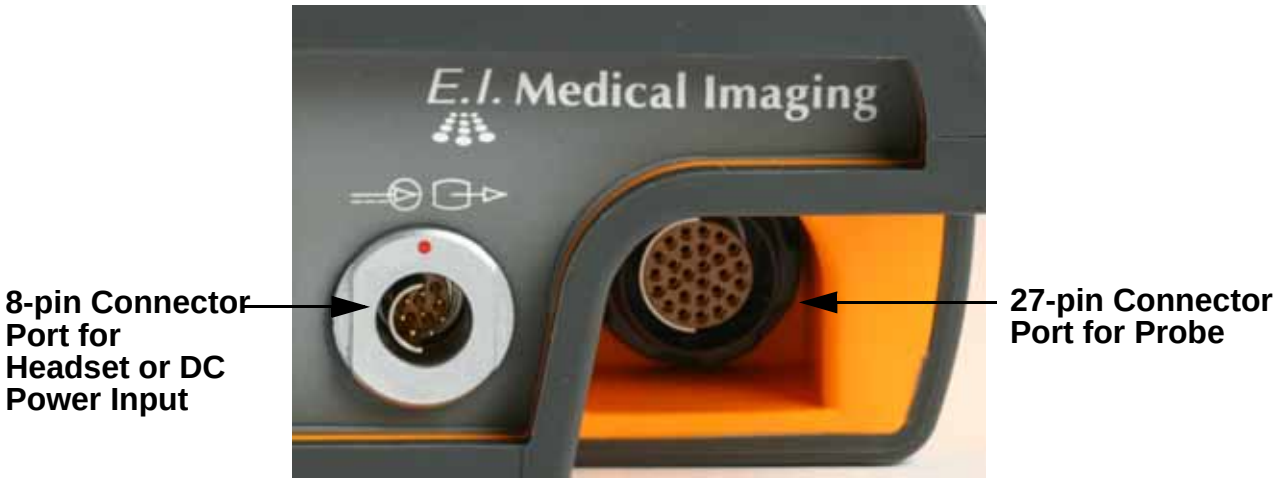


Figure 2 Electrical Interfaces

Use the 8-pin male interface to connect either the headset or the DC power input. The 27-pin female interface connects the transducer probes.

About the Access Compartment

The Ibex system houses the battery, the CF media, and the USB port in a water-resistant system access compartment. To seal the compartment, turn the latch until it clicks into the locked position. Figure 3 shows the features behind the system access door.

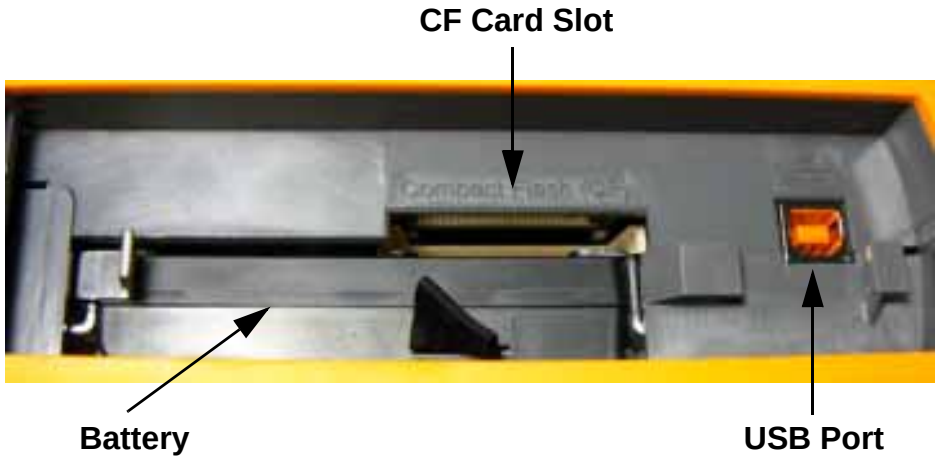


Figure 3 System Access Compartment

The Alphanumeric Keyboard Buttons

The Ibex Pro comes with a full Alpha-Numeric keyboard. The keyboard contains all the alpha and numeric keys needed for annotating images. These keys function the same as the keys on a computer keyboard. Figure 4 shows the layout of the alphanumeric keyboard.

Figure 4 Ibex Pro Alphanumeric Keyboard

Table 4 describes the function of the keyboard buttons on the Pro and Lite.

Table 4 Keyboard Buttons

Button Designation	Description
	SUPER – Pro only. Pressing the super key returns the system to B mode scanning from anywhere under an active scan menu. Pressing the super key from B mode enters the super menu. You can access all the system option (F1), preset (F2), setup(F3), and help (F5) menus from the super menu.

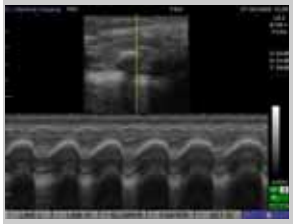
Table 4 Keyboard Buttons

Button Designation	Description
	LOOP – Pro only. The LOOP key replays the last four or eight seconds of ultrasound from an active scan. To return to active scanning, press the LOOP key again. To pause replaying an ultrasound, press the FEEZE key. Pressing FREEZE again resumes active scanning.
	Field of View (FOV) – Pro and Lite. This key cycles the ultrasound through 25%, 50%, 75%, and 100% of the probe's maximum scan depth. Reducing the field of view displays greater detail for the visible area.
	ZOOM – Pro only. The ZOOM key displays a yellow rectangle, which you can position using the trackball from an active scan, frozen image, or a recalled image. Pressing Select zooms the selected region to full screen (4x). To exit zoom, press the ZOOM key again.
	CALIPER – Pro only. Pressing the CALIPER key automatically enters the measurement area menu during an active scan.
	DISP. (display) – Pro only. Pressing the DISPLAY key cycles the on-screen grid through the following three states: OFF – No grid lines display TICKS – Ruler style tick marks display along the top and left edges of the image area. GRID – A full grid displays allowing for visual area estimation without drawing a bounding region.

Table 4 Keyboard Buttons

Button Designation	Description
	GAIN – Pro and Lite. Pressing the GAIN key from an active scan opens the gain settings slider controls. Additional information on the GAIN key and manipulating images is covered later in the manual. In any text entry fields, pressing GAIN displays the on-screen keyboard. This allows access to both upper and lower case characters, along with numerals and special characters.
	FILE – Pro and Lite. Pressing the FILE key opens the File Menu screen. Using the trackball or up/down arrows, select a file to preview. Pressing Select allows you to recall or delete the selected image, or cancel to return to the file menu.
	NEAR – Pro only. Pressing the NEAR key opens the gain setting controls with the near field slider activated. To increase/decrease the near field settings, use the left/right arrows.
	FAR – Pro only. Pressing the FAR key opens the GAIN settings controls with the far field slider activated.
	SELECT – Pro and Lite. Pressing the SELECT key when the monitor is down and when using the Lite, activates the on-screen menus.

Table 4 Keyboard Buttons

Button Designation	Description
	FREEZE - Pro and Lite. Press the FREEZE key to freeze and unfreeze the active image on the screen. There are FRZ keys located on the small and large keyboards and on selected probes. (Refer to “Working with Dual Images”, on page 45 for instructions on displaying a frozen image on one half of the screen and active scan in the other half of the screen. The Dual image is operational when using Linear Transducers Only.
 	MODE – Pro only. Press the MODE key to toggle between B mode and B+M mode. Also, used as the sixth function key which corresponds to the action of the blue on-screen menu item. M-MODE (Motion Mode) imaging is a scan that displays motion in a wave-like manner. This mode is especially useful in depicting motion in cardiac applications. By incorporating B Mode functionality with M-Mode strips, you can control the exact position of the desired scan location. Press the MODE button to display the B+M Mode Your B Mode image appears in the top center of the screen. The M-Mode strip appears in the lower half of the screen. You can position the M-Mode scan line using the vertical gold line displayed in the B-Mode image. Use the right/left arrows to set your line in the B-Mode image. Adjust the speed of the positioned line using the up/down arrows.

The Side Keyboard Buttons

Use the side keyboard buttons to navigate the scanner's menus when the LCD screen is down on the Ibex Pro or when using the Ibex Lite. Figure 5 shows the keyborad's operational buttons.

Figure 5 Side Keyboard Buttons

On-Screen Keyboard

Figure 6 displays the on-screen keyboard. To access the on-screen keyboard, press the **GAIN** key from any text field menu.

Figure 6 On-Screen Keyboard

Screen Layout

Figure 7 shows the screen layout of the Ibex Pro Scanner.

Figure 7 Ibex Screen Layout

Table 5 identifies the items of interest on the screen.

Table 5 Screen Layout Items

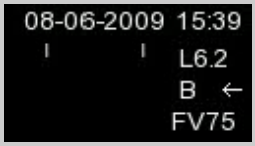
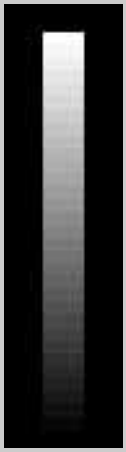
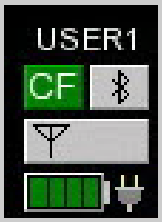
Screen Layout Items	Description
	These denote the transducer type attached (L/S - Linear / Sector); the frequency of the transducer; the scanning mode (B or B+M); and scanning direction (<-/ ->). FV indicates the Field of View setting of the probe. The FV number is a percentage of the probes maximum depth. The four percentages are: 25, 50, 75 or 100.
	These denote the gain settings for the entire field (G); the near field (N); and the far field (F). Information is also provided for different operational states.
	The gray-scale bar is for tonal reference.

Table 5 Screen Layout Items

Screen Layout Items	Description
	These denote the current user preset (USER1 - 5); the presence of a Compact Flash card (CF); Bluetooth® enabled but not connected; the wireless (WIFI) enabled but not connected. The electrical plug icon indicates the AC adapter is connected to the scanner. The battery icon when green indicates full charge; when yellow, 3/4 charge; when orange, 1/2 charge; and red, 1/4 charge.

Note: The PID and TAG labels at the top reference the Patient ID and user definable tag information. The functions of the on-screen menus is discussed later in this guide.

The On-Screen Menus

Use the on-screen menus to navigate and execute desired scanning operations and system functions. Figure 8 shows the main menus displayed at system start up.

Main (Startup) Menu

Super Menu (B mode)

Figure 8 On-Screen Menus

To access the super menu from the startup menu, press the SUPER key anytime while in B scanning mode. You navigate the menus on the Pro with the monitor up by pressing the corresponding F and Mode keys. This displays the different menus associated with the various scanning and system operations.

Menu navigation functions differently when using the video headset, as when the monitor is down on the Pro, and when using the Lite. Use the side keyboard buttons to perform scanning operations.

Figure 9 displays the first menu accessed when using the video headset. It maintains most of the functionality of the SUPER menu shown previously. Notice that the method of navigating these menus differs.

Figure 9 The On-Screen Setting Menu

When operating the scanner in this manner, refer to the Lite model instructions to perform all system and scanning operations.

Using the On-Board Help Pages

The on-board help pages are a guide to the functionality of the most common keyboard buttons. Depending on your system, complete the following instructions to access the help pages.

Using the Pro to Access the Help Pages

To access the help pages, complete the following:

1. From the Super Menu, press the **F5** (HELP) key to display the help pages.
2. Use the **LEFT**/**RIGHT** arrow keys to change pages.
3. Press the **MODE** (BACK) key to exit the help pages.

Using the Lite to Access the Help Pages

To access the Help pages, complete the following:

1. Press the **SEL.** key to display the **Settings** menu.
2. Highlight the **Help** option using the LEFT/RIGHT arrow keys, and then press the **SEL.** key to display the help pages.
3. Use the LEFT/RIGHT arrow keys to change pages.
4. Press the **SEL.** key to return to the Settings Menu.
5. Highlight the **Exit** option to return to active scanning.

Getting Started

This section covers the following topics:

- Charging the battery
- Attaching the probes
- Powering on the system
- Replacing the battery
- Inserting and removing the CF card
- Using the Insight2 video headset
- Wearing the scanner

About the Battery

The Ibex family of ultrasound scanners can only be charged using the AC adapter supplied by E.I. Medical Imaging. The system has been shipped to you with a partially charged battery. Once you have received and opened the equipment, it is recommended that **you completely charge the battery prior to use**. Follow the procedure below for charging:

Note – Battery runtime varies depending on your system configuration and headset.

Charging the Battery

To charge the battery:

1. Ensure that the battery is installed in the system. See the instructions for installing the battery if it is not already installed. Turn the latch to the lock position to ensure the system access door is properly sealed.
2. Connect the AC adapter to the Ibex system by aligning the white dot on the AC adapter connector to the red dot on the scanner.
3. Plug the adapter into a 110-240 VAC Outlet.

During the charge cycle the yellow light illuminates indicating the charging process is underway. As the battery reaches its full charge, the light switches off which indicates the battery is at full charge.

The total charge time will range between 120 and 180 minutes from a totally drained battery to a fully charged battery.

Replacing the Battery

To replace the battery:

1. Power off the system.
2. Compress the metal battery retention clip and remove the battery by pulling the cloth tab.
3. Insert the new battery pack by compressing the retention clip and sliding the battery into the compartment. Ensure that the retention clip releases and secures the battery.
4. Power on the system.
5. Lock and seal the door.

About the Transducers

The Ibex ultrasound supports two transducer types: a 3.5MHz sector and a 5.0-7.5 MHz broadband linear. Each transducer connects to the scanner with its 27-pin male connector.

Caution – It is **critical** to power-down the system before changing the transducer types. Failure to do so might cause unexpected behavior.

Choosing the Appropriate Transducer

Each transducer type has a significant advantage over the other, depending upon the application. To achieve the best results and image quality, select the correct style for the specific application.

Powering on the System

On the Ibex Pro system there are two power-on buttons: one on the main keyboard and another on the side keyboard. The Ibex Lite's power-on button is on the side keyboard.

About the Compact Flash Card (CF)

You can safely insert and remove the CF card on a running system. Use the CF card to store and recall images while actively scanning. The CF card also stores the system software and license keys.

To insert the CF card:

1. Open the system access door and locate the CF card slot above the battery. The slot is labeled as Compact Flash (CF). Insert the 1 GB CF card shipped with the system.
2. Lock and seal the door.

To remove the CF card, simply pull the card from the card slot and reseal the door.

About the Video Headset

The InSight 2 video headset comes standard with the Pro and the Lite ultrasound systems. Additional models are available. Ask your Ibex sales representative for more information.

Connect the video headset, by aligning the red dot on the headset's connector to the red dot above the connector on the scanner.

Caution – It is **critical** to power-down the system before disconnecting the video headset. Failure to do so might cause unexpected behavior.

To adjust the brightness and contrast of the headset optics, locate and press the control buttons on the top of the headset.

Attach the ear-bud headphones to the headset audio jack located on the left side of the headset.

The headset comes with a built-in internal microphone allowing you to record voice memos while operating the scanner and wearing the headset. The microphone is located on the bottom of the headset.

Figure 10 identifies the location of the control buttons, headset audio jack, and internal microphone.

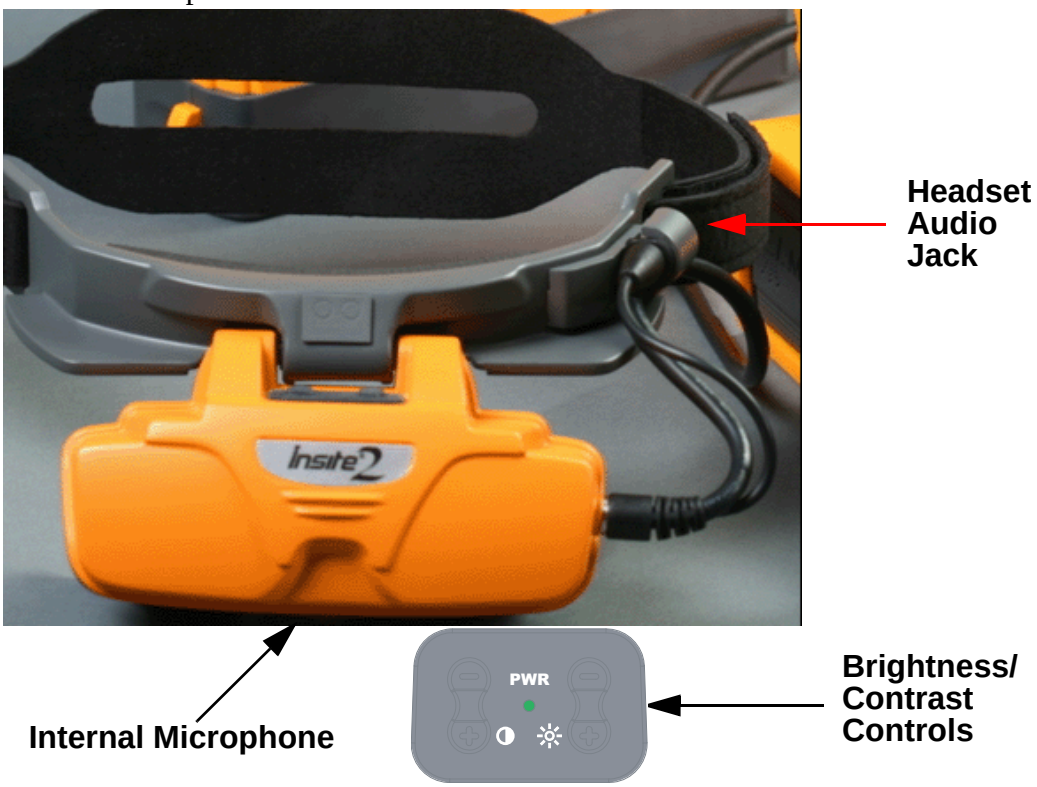


Figure 10 The InSight2 Video Headset Features

The optional SmartVu headset is a compact and portable viewing system attached to a pair of standard Oakley M-Frame Strike® glasses. Figure 11 shows the SmartVu monocular viewing system.

Figure 11 SmartVu Viewing System

Wearing the Scanner

The Ibex ultrasound systems can be carried using one of several carrying system, including the following:

- A thermoformed carrying case
- A soft waist pouch
- A shoulder strap

Manipulating Images

You manipulate images by adjusting the GAIN settings. The GAIN controls compensate for the reduction in sound amplitude as it travels into tissue. The GAIN controls can intensify the returning signals and display images brighter and more visible on the screen. You can adjust the GAIN for the near field, far field, or the entire field (overall gain). Excessive increase in GAIN will add *noise* to the image. For optimal diagnostic images, adjust the GAIN to produce uniform gray scale responses.

About GAIN Controls

Table 6 describes how to adjust the GAIN controls.

Table 6 GAIN Controls

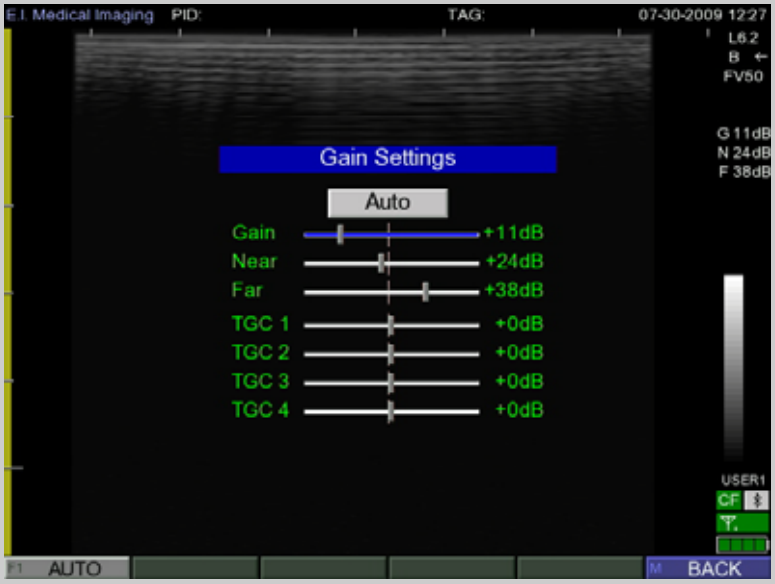
GAIN Controls	Description
Overall GAIN 	To adjust the overall gain, push the GAIN key. Use the left and right arrow keys to decrease/increase the brightness of the entire field. The gold bar on the left side of the screen indicates the scanning depth on the target anatomy setting to take effect.

Table 6 GAIN Controls

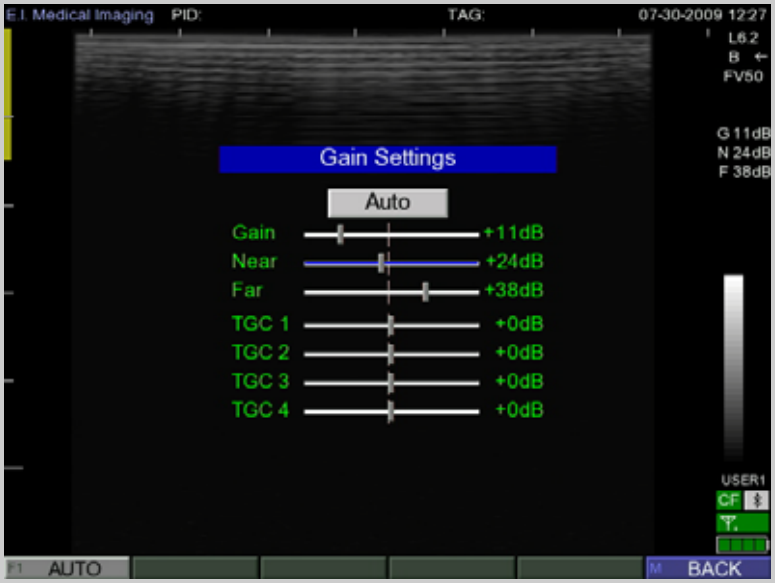
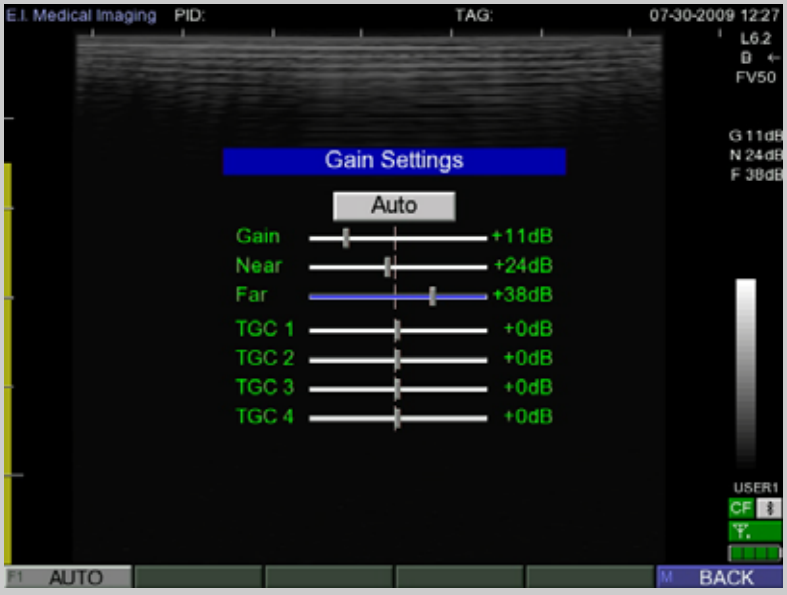
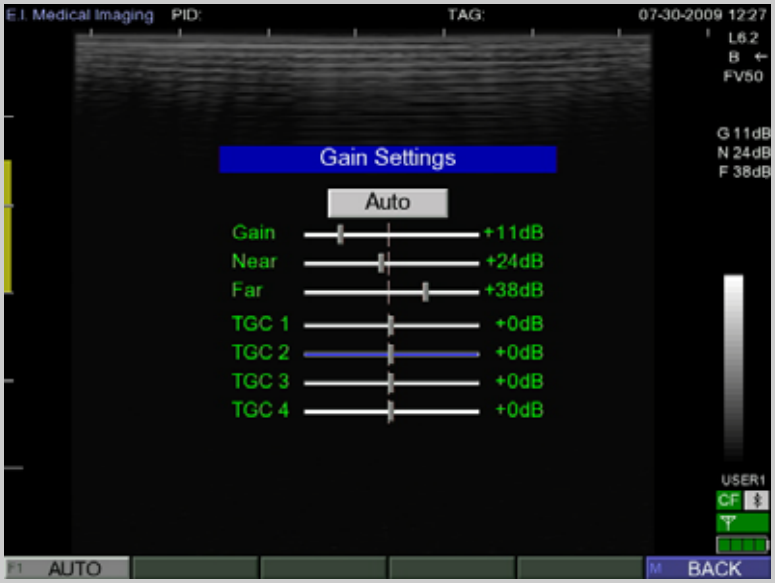
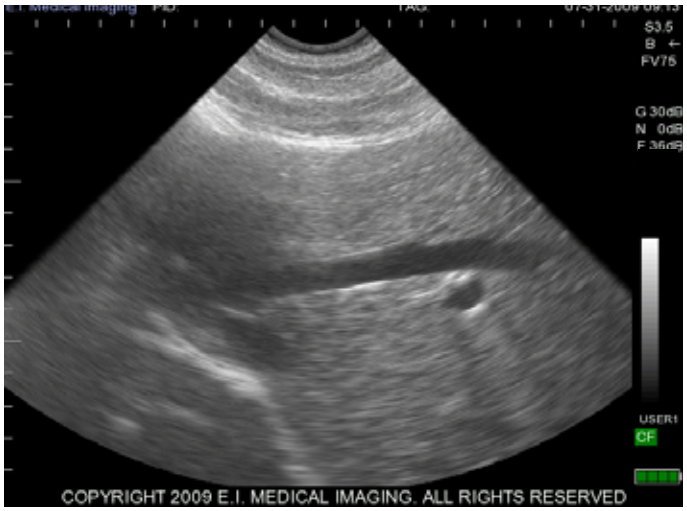
GAIN Controls	Description
Near GAIN 	The near GAIN control is used to lighten or darken the intensity of the echoes in the near field of the image (the area closet to the transducer). Use the same technique to adjust near GAIN as it is used for overall GAIN (mentioned above). Note that the scan depth is effected.
Far GAIN 	The far GAIN control is used to make adjustments to the electronic amplification of the echoes in the image area that are farthest away (far field) from the transducer. Again, use the same technique to adjust far GAIN as is mentioned in the overall gain section. Note the scan depth effected.

Table 6 GAIN Controls

GAIN Controls	Description
Time GAIN Compensation (TGC) 	TGC refers to the time taken for an echo to travel from the transducer to the target area. As the ultrasound signal travels further into the tissue, more and more of its energy is absorbed causing the echoes to decrease in strength. Therefore, at greater depths, the TGC needs to be set at a higher setting. Conversely, at a short distance, for example near the skin line, there is more energy level available and therefore the TGC can be run at nearly a minimum setting. The Ibex ultrasound allows controlling the depth with 4 TGC settings.

The following images are examples of scans created using high, low, and optimal GAIN settings:

High GAIN Setting – Images will appear bright with detail lost.



Low GAIN Setting – Images will appear dark with no detail.

Optimal GAIN Setting – Images appear with uniform gray-scale and with optimal detail.

Using Auto GAIN

The auto gain feature allows the system to automatically adjust GAIN settings for optimal image quality. Auto GAIN calculates the optimal GAIN values based on tissue composition.

To use the Auto GAIN feature, highlight the **Auto** option in the GAIN Settings dialog, and then press **SELECT** to apply.

Basic System Operations

When using the Pro with the LCD monitor down, follow the instructions for using the Lite to perform basic system operations.

This section covers how to:

- Set study identification
- Set the day and time
- Adjust audio settings
- Adjust video settings
- Setting user presets

Setting Study Identification Information

To always maintain a correlation between stored images and the patient, you should enter the Patient ID information.

Using the Pro to Set Study ID

To enter Patient ID and TAG information, complete the following:

1. Press **F5** from the Main menu to display the **Study Identification** dialog.
2. Enter the desired information.

   Use the Alphanumeric keyboard or Press **GAIN** to display the on-screen keyboard to type this information.
3. Press **Select** to return to active scanning.

   The PID and TAG information displays at the top of the screen.

Using the Lite to Set Study ID

The Ibex Lite obtains its Patient ID and TAG information directly from RFID. The scanner reads the information directly from the ear tag of the animal when RFID is enabled.

Setting Day and Time

If for any reason your system looses its day and time information, you can reset this information. Depending on your system, follow the directions below to set the system day and time.

Using the Pro to Set Day and Time

To set the day and time, complete the following:

1. Press **F3** from the Super menu to enter the **Setup** menu.
2. Press **F5** to enter the **System** menu.
3. Press **F1** to display the **Set Clock** dialog.
4. Enter the current day and time information, and then press **Select** to save and return to active scanning.

Using the Lite to Set Day and Time

To set the day and time, complete the following:

1. Press the **SEL.** key to enter the **Settings** dialog.
2. Highlight **System** using the left/right arrow keys, and then press the **SEL.** key to display the **System Settings** dialog.
3. Highlight **Clock** and press the **SEL.** key to display the **Set Clock** dialog.
4. Enter the current day and time information, and then press **SEL.** to return to the **System Settings** dialog.
5. Highlight **Back**, and then press **SEL.** to return to active scanning.

Adjusting Audio Settings

Adjust the audio settings to your particular needs. Depending on your system, follow the directions below to adjust your audio settings.

Using the Pro to Adjust Audio Settings

To adjust your audio, complete the following:

1. Press **F1** from the Super menu to enter the **Option** menu.
2. Press **F2** to display the **Audio Options** dialog.
3. Adjust the following settings to meet your particular needs using the arrow keys or trackball:
   - Speaker volume
   - Headset volume
   - Enable/Disable Memo Recording.
   - Enable/Disable Key Clicking.
   - Enable/Disable System Sounds.
4. Press the **Select** key to save and return to active scanning.

Using the Lite to Adjust Audio Settings

To adjust the headset volume, complete the following:

1. Press the **SEL.** key to display the **Settings** dialog.
2. Highlight the **Headset Volume option** using the up/down arrow keys, and then use the right/left arrow keys to increase/decrease the volume.
3. Highlight the **Exit** option, and then press the **SEL.** key to return to active scanning.

Adjusting Video Settings

Adjust the video settings to your particular needs. Depending on your system, follow the directions below to adjust your video settings.

Using the Pro to Adjust Video Settings

To adjust video settings, complete the following:

1. Press **F1** from the Super menu to enter the **Option** menu.
2. Press **F1** to display the **Video Options** dialog.

3. Adjust the following settings to meet your particular needs using the arrow keys or trackball:
    - LCD brightness
    - Output mode, including:
        - NTSC
        - PAL
    - Grayscale
4. Press **Select** to save and return to active scanning.

Using the Lite to Adjust Video Settings

To adjust video settings, complete the following:

1. Press the **SEL.** key to enter the **Settings** dialog.
2. Highlight **System** using the up/down arrow keys, and then use the right/left arrow keys to increase/decrease the **Contrast** and **Enhance** settings.

To change video output mode, press the FOV key while displaying the **Setting** dialog. This switches the output mode in the following order:

- NTSC color
- NTSC grayscale
- PAL color
- PAL grayscale

Setting User Presets

This feature allows operators to set the scanner with individual preferences. You can also set suitable presets for different applications, such as: pregnacy, tendon, or different species. User preset allow you to globally predefine the following system settings for up to five users:

- GAIN
- Display
- Volume
- Scan settings

Managing Images

When using the Pro with the LCD monitor down, follow the instructions for using the Lite to manage images

This section covers how to:

- Freeze an image
- Save images and cine-loops
- Recall and load images and cine-loops
- Delete images

Freezing Images

The Ibex systems allows you to freeze image frames for further analysis. Pressing the Freeze key gives you the ability to:

- Take measurements of images and loops.
- Review images frame by frame using the left and right arrow keys or the track-ball.

Saving Images and Cine-loops

At the time of image storage, the system captures and stores the following information in the metadata of the file:

- The patient ID and TAG
- The timestamp
- The voice memo

The system saves images in the `.JPG` (Joint Photographic Group) file format (for example: `MYIMAGE.JPG`).

The system saves cine-loops in the `.AVI` (Audio Video Interleave) file format (for example: `MYLOOP.AVI`).

The system assigns a default file name based on the following convention:

Table 7 Default File Name Convention

Year	Month	Day	Hour	Minutes	Seconds
4-digit	2-digit	2-digit	2-digit	2-digit	2-digit

For example: **20081116-094439.JPG**

Depending on your system, follow the instructions below to save images and cine-loops.

Using the Pro to Save Images

To store images, complete the following:

1. If desired, enter any patient ID information by pressing Set ID from the main menu.
2. Press the **File** key.
3. Highlight the **Store Image** option, and then press **Select** to display the **Save Image** dialog.
4. Enable **Record Memo** to record a voice memo at this time.
5. Enter a unique file name or except the default, and then select **Save** to save the image and return to active scanning.
6. The Ibex Pro saves individual images in the .JPG (Joint Photographic Group) file format (for example: MYIMAGE.JPG).

Using the Pro to Save Cine-loops

To save cine-loops, complete the following:

1. If desired, enter any patient ID information by pressing **F5** (Set ID) from the Main menu.
2. Press the **FILE** key.
3. Highlight the **Store Loop** option and press **Select** to display the **Save Cineloop** dialog.

   Enable **Record Memo** to record a voice memo at this time.
4. Enter a unique file name or except the default, and then select **Save** to save the image and return to active scanning.

The Ibex Pro saves cine-loops in the .AVI (Audio Video Interleave) file format (for example: MYLOOP.AVI).

Using the Lite to Save Images

To save images, complete the following:

1. Press the **FILE** key to display the **File Menu**.
2. Highlight **Store Image** option using the up/down arrows and press **SEL.** to display the **Save Image** dialog**.**
3. Press the **GAIN** key to display the on-screen keyboard.
4. Enter a unique file name or except default.
5. Highlight the **Save** option to store the image and return to active scanning.

   The Ibex Lite saves images in the .JPG (Joint Photographic Group) file format (for example: MYIMAGE.KPG).

Using the Lite to Save Cine-loops

To save cine-loops, complete the following:

1. Press the **FILE** key to display the **File Menu** dialog.
2. Highlight the **Store Loop** option using the up/down arrow keys and press **SEL.** to display the **Save Cineloop** dialog.
3. Press the **GAIN** key to display the on-screen keyboard.
4. Enter a unique file name or except default.

   Press the **GAIN** key again to exit the on-screen keyboard.
5. Highlight the **Save** option to store the image and return to active scanning.

   The Ibex Lite saves individual cine-loops in the .AVI (Audio Video Interleave) file format. (For example: MYLOOP.AVI).

Recalling and Loading Images and Cine-loops

You can recall stored images and cine-loops for comparison studies. Depending on your system, follow the instructions below to recall and load images and cine-loops.

Using the Pro to Recall Images

To recall saved images, complete the following:

1. Press the **FILE** key to display the **File Menu**.
2. Highlight the .JPG file you want to recall from the list of files, and then press **SELECT** to display the file action dialog.

   You can press the **DISP.** key and listen to the voice memo if one exists for the file. Look in the file details area of the screen, to confirm if one exists.
3. Highlight the **RECALL** option and press **Select** to load and display the image.
4. Press either the **FILE** key again or the **MODE** key (BACK) to return to the file action dialog.
5. Select **CANCEL** to return to the **File Menu.**

   Returning to the File Menu allows you to recall additional images for review.
6. When done, press the **MODE** (BACK) key to return to active scanning.

Using the Pro to Recall Cine-loops

To recall stored cine-loops, complete the following:

1. Press the **FILE** key to display the **File Menu**.
2. Highlight the .AVI file you want to recall from the list of files, and then press **SELECT** to display the file action dialog.

   You can press the **DISP.** key and listen to the voice memo if one exists for the file. Look in the file details area on the screen, to confirm if one exists.
3. Highlight the **RECALL** option and press **Select** to load and display the image.
4. Press either the **FILE** key again or the **MODE** key (BACK) to return to the file action dialog.

5. Highlight the **CANCEL** option and press **Select** to return to the **File Menu.**

   Returning to the File Menu allows you to recall additional cine-loops for review.

6. When done, press the **MODE** (BACK) key to return to active scanning.

Using the Lite to Recall Images

To recall saved images, complete the following:

1. Press the **FILE** key to display the **File Menu**.
2. Highlight the .JPG file you want to recall from the list of files, and then press **SEL.** to display the file action dialog.
3. Highlight the **RECALL** option and press **SEL.** to load and display the image.
4. Press the **FILE** key again to return to the file action dialog.
5. Highlight the **CANCEL** option and press **SEL.** to return to the **File Menu.**
6. Returning to the File Menu allows you to recall additional images for review.
7. When done, highlight any file, and then press the **FILE** key to return to active scanning.

Using the Lite to Recall Cine-loops

To recall saved cine-loops, complete the following:

1. Press the **FILE** key to display the **File Menu**.
2. Highlight the .AVI file you want to recall from the list of files, and then press **SEL.** to display the file action dialog.
3. Highlight the **RECALL** option and press **SEL.** to load and display the cine-loop.
4. Press the **FILE** key again to return to the file action dialog.
5. Highlight the **CANCEL** option and press **SEL.** to return to the **File Menu.**

   Returning to the File Menu allows you to recall additional cine-loops for review.

6. When done, highlight any file, and then press the **FILE** key to return to active scanning.

Deleting Images

To delete images and cine-loops for the system you are using, complete the following:

1. Follow the instructions to recall images and display the file action dialog.
2. From the file action dialog, highlight the **Delete** option, and then press either the **Select** key or the **SEL.** key to display the **Confirm Delete** dialog.
3. Highlight the **YES** option, and then press either the **Select** or **SEL**. key to delete the file.

   The File Menu displays. You can continue deleting files.
4. When done, follow the steps to return to active scanning for your system.

Annotating and Measuring Images

Ibex systems allow you to make distance and linear measurements, as well as annotating scanned images.

When using the Pro with the LCD monitor down, follow the instructions for using the Lite to annotate and measure images.

This section covers:

- Annotating images
- Measuring images

Annotating Images

You can add text labels to images.

Using the Pro to Add Text Labels to Images

You can annotate and label images with alphanumeric text.

To add text labels to the Pro, complete the following:

1. Press the **FREEZE** key and freeze the image
2. Press the **F1** (TEXT) key to display the on-screen cursor.
3. Position the cursor using the arrow keys or trackball.
4. Press **F1** (ARROW) to anchor an arrow pointing to the anatomy of interest.
5. Enter the desired text using the alphanumeric keyboard.

   The text color is blue.

   Use the **BACK SPACE** key to erase characters.

   Use the **RETURN** key to start a new line of text.
6. When done, press the **SELECT** key to save the text.

   This turns the text from blue to green. At this point you can:

   a. Press **F1** to enter additional text.

      This opens another cursor, which you can position and label.

b. Press **F4** to edit the text. This turns the last label entered from green back to blue. Use the arrow keys or trackball to select the text to edit. This allows you to clear all (**F5**)the text labels or erase the one selected.

c. Press the **MODE** (BACK) key twice to return to active scanning.

Using the Pro to Add Labels to Saved Images

You can annotate and label saved images (`.JPG`) with alphanumeric text.

To add labels to saved image files, complete the following:

1. Recall the saved image file by following the instructions in ‘‘Using the Pro to Recall Images’’ on page -37.
2. Press **F1** (TEXT) to add labels following the instructions in ‘‘Using the Pro to Add Text Labels to Images’’ on page -40.

   Ensure you save the label by pressing the **SELECT** key. This turns the text from blue to green).
3. Press **F3** (OPTION) to display the **Recall Menu**, and then highlight the **Save** option and press **SELECT** to display the **Save Image** dialog.
4. Enter a new file name or re-enter the existing file name, and then press the **SELECT** key.

   If using the existing file name, the **Confirm Overwrite** dialog displays. Highlight the **YES** option to overwrite and save the file.

   If you entered a new file name, do:

   a. Select the **SAVE** option, to return to the recalled image screen.

   b. Press the **MODE** (BACK) key to return to the file action dialog.

   c. Highlight the **CANCEL** option to display the **File Menu** dialog.

      The new file does not appear in the file list until the next time you display the menu.

   d. Press the **MODE** key (BACK) to return to active scanning.

Measuring Images

The systems allow you to auto calculate distance (linear) and area measurements. Depending on your system, follow the instructions below to take measurements.

Using the Pro to Take Distance Measurements

To take distance measurements, complete the following:

1. Press the **CALIPER** key to freeze the image, and then press the **F2** key (DIST) to display the first set of crosshairs on the screen.
2. Move the crosshairs to the desired start location, and then press the **SELECT** key to mark the origin.

   The text is blue.
3. Using the trackball, move the crosshairs in any direction to auto calculate the distance, and then press the SELECT key to end the measurement.

   The text turns green.
4. Continue taking measurements by pressing the **F2** (DIST) key and repeating steps 2 and 3 until you are done, and then press the **FREEZE** key to return to active scanning.

   Or, to save this file with the measurement annotations, complete the following:

   a. Press **FILE** to display the **File Menu** dialog.

   b. Highlight the **Store Image** option, and press **SELECT** to display the **Save Image** dialog.

   c. Highlight the **Save** option, and then press **SELECT** to save the file.

   d. Press **FREEZE** to return to active scanning.

Using the Lite to Take Distance Measurements

To take distance measurements, complete the following:

1. Press the **FREEZE** key to freeze the image, and then press the **SEL.** key to display the Freeze dialog.
2. Highlight the **Measure** option using the UP/DOWN arrow keys, and then press **SEL.** to display the first set of crosshairs on the screen.

3. Move the crosshairs to the desired start location using the arrow keys, and then press the **SEL.** key to mark the origin.

   The text is blue.

4. Using arrow keys, move the crosshairs in any direction to auto calculate the distance, and then press **SEL.** to end the measurement.

   The text turns green.

5. Continue measuring by pressing **SEL.** and repeating steps 3 and 4 until you are done, and then press the **FREEZE** key to return to active scanning.

   Or, to save this file with the measurement annotations:

   a. Press the **FILE** key to display the **Store Menu** dialog.

   b. Highlight the **Store Image** option, and press **SEL**. to display the **Save Image** dialog.

   c. Highlight the **Save** option, and then press the **SEL.** key to save the file.

   d. Press the **FREEZE** key to return to active scanning.

Using the Pro to Take Area Measurements

To take area measurements, complete the following:

1. Press the **CALIPER** key to freeze the image, and then press the **F3** key (AREA) to display the crosshairs on the screen.
2. Move the crosshairs to the far boundary of the measurement area, and then press the **SELECT** key to mark the origin.
3. Using the trackball, move the crosshairs in a circular direction and delineate the measurement area.
4. Press the SELECT key to end the measurement and display the size.

   The text turns green.

   If the corsshairs return to the starting position, auto calculate displays the size.

5. Continue taking measurements by pressing the **F2** (DIST) key and repeating steps 2 and 3 until your done, and then press the **FREEZE** key to return to active scanning.

   Or, to save this file with the measurement annotations:

   a. Press **FILE** to display the **File Menu** dialog.

b. Highlight the **Store Image** option, and press **SELECT** to display the **Save Image** dialog.

c. Highlight the **Save** option, and then press **SELECT** to save the file.

d. Press **FREEZE** to return to active scanning.

Advanced System Operations

This section covers:

- Working with dual images
- Stitching images
- Enabling RFID (Radio Frequency Identification)
- Enabling WiFi™ (Wireless Fidelity)

Working with Dual Images

The dual image feature of the Ibex Pro allows you to examine two side-by-side images at the same time. This feature is useful when:

- Comparing past scans with current scans
- Freezing an active scan and repositioning the probe to image the anatomy from a different angle.

To view dual images, complete the following:

1. Press the **Freeze** key to freeze the image.
2. Press the **F3** key (DUAL) to display the frozen image on the right side of the screen. Active scanning continues on the left side of the screen.

Stitching Images

Image stitching allows you to join two images. Distance measurements can be taken across a complete stitched image.

Enabling RFID (Bluetooth®)

The Ibex systems uses Bluetooth wireless technology to communicate with compatible Bluetooth-enabled wands and RFID tags. Depending on your system, follow the instructions below to enable RFID.

Using the Pro to Enable RFID

To enable RFID, complete the following:

1. From the Super Menu, press the F1 key (OPTION) to enter the **OPTION** menu.
2. Press the **F4** (MISC) key to display the **Misc Options** dialog, and then highlight **ON** to enable RFID.

   The Bluetooth screen icon displays.
3. Press the **MODE** key (BACK) to exit the Misc Option dialog and return to the Super Menu.
4. From the Super Menu, press the **F3** key, to enter the **Setup** menu.
5. Press the **F3** key (RFID) to display the **RFID Setup** dialog.
6. Power on the compatible Bluetooth enabled wand.
7. Highlight the **SCAN** option, and then press the **SELECT** key to search for the device.

   The device appears in the Scan Results list.
8. Highlight the device in the list, and then press **SELECT**, to connect to the device.

   The device appears in the RFID Device field and the Bluetooth icon turns blue when connected.

Using the Lite to Enable RFID

To enable RFID, complete the following:

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Config** option to display the **Config Settings** dialog.
3. Highlight the **ON** option to enable RFID.

   The Bluetooth screen icon displays.
4. Highlight the System option, and then press the **SEL.** key to display the **System Settings** dialog.
5. Highlight the **RFID** option, and then press the **SEL.** to display the **RFID Setup** dialog.
6. Power on the compatible Bluetooth enabled wand.
7. Highlight the **SCAN** option, and then press the **SEL.** key to search for the device.

The device appears in the Scan Results list.

8. Highlight the device in the list, and then press the **SEL.** key to connect to the device.

   The device appears in the RFID Device field and the Bluetooth icon turns blue when connected.

Enabling WiFi (Wireless)

The Ibex systems use WiFi (Wireless Fidelity) technology to communicate with wireless networks. Depending on your system, follow the instructions below to enable WiFi.

Note – Leaving WiFi enabled uses more battery power and shortens battery charge times.

Using the Pro to Enable WiFi

To enable WiFi, complete the following:

1. From the Super Menu, press the **F1** key (OPTION) to enter the **OPTION** menu.
2. Press the **F4** (MISC) key to display the **Misc Options** dialog, and then highlight **ON** to enable WiFi.

   The WiFi screen icon displays.
3. Press the **MODE** key (BACK) to exit the Misc Options dialog and return to the Super Menu.
4. From the Super Menu, press the **F3** key, to enter the **Setup** menu.
5. Press the **F4** key (WiFi) to display the **WiFi Settings** dialog.
6. Enter the appropriate information for your private WiFi network, including:
   a. Security Mode

      Use the RIGHT/LEFT arrow keys to set the Security Mode. Valid options are:

      1. NONE
      2. WEP

3. WEP-104
4. WPA

b. SSID

c. Key/PSK

The secret password for your wireless network.

d. Hide Key/PSK

Setting this option to NO, displays the Key/PSK password in clear text.

e. IP Mode

Select the method of obtaining IP addresses for your wireless network:

- STATIC

Using this option requires you to enter a valid IP Address and Subnet Mask for your network.

- DHCP

f. Hostname

7. Highlight the **File Sharing** option to enable file sharing with computers on the same network.
8. Highlight the **Password** option, and then press **SELECT** to display the **Network Password** dialog.

The network password secures the flash drive's contents from unwanted intrusion by users on the same network. The text color for the Current Password option is red. When you enter the correct password the text turns green. The system ships with the default password set to **`eimed`**.

Note – For security, reset this password.

9. Highlight the **Apply** option, and then press **SELECT** to enable WiFi networking.
10. Press the **MODE** key (BACK) to return to active scanning.

Using the Lite to Enable WiFi

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Config** option to display the **Config Settings** dialog.
3. Highlight the **ON** option to enable WiFi, and then highlight the **BACK** option to return to the **Settings** dialog.

The WiFi screen icon displays.

4. Highlight the **System** option, and then press the **SEL.**to display the **System Settings** dialog.
5. Highlight the **WiFi** option, and then press the **SEL.** to display the **WiFi Settings** dialog.
6. Enter the appropriate information for your private WiFi network, including:
   a. Security Mode

      Use the RIGHT/LEFT arrow keys to set the Security Mode. Valid options are:

      1. NONE
      2. WEP
      3. WEP-104
      4. WPA

   b. SSID
   c. Key/PSK

      The secret password for your wireless network.

   d. Hide Key/PSK

      Setting this option to NO, displays the Key/PSK password in clear text.

   e. IP Mode

      Select the method of obtaining IP addresses for your wireless network:

   - STATIC

     Using this option requires you to enter a valid IP Address and Subnet Mask for your network.

   - DHCP

   f. Hostname
7. Highlight the **File Sharing** option to enable file sharing with computers on the same network.
8. Highlight the **Password** option, and then press **SELECT** to display the **Network Password** dialog.

   The network password secures the flash drive's contents from unwanted intrusion by users on the same network. The text color for the Current Password option is red. When you enter the correct password the text turns green. The system ships with the default password set to **`eimed`**.

Caution – For security, reset this password.

9. Highlight the **Apply** option, and then press **SEL.** to enable WiFi networking.
10. Highlight the **Exit** option, and then press the **SEL.** key to return to active scanning.

Using Advanced Scan Options

This section covers:

- Using Persistence
- Adjusting Gamma settings
- Adjusting Enhance settings
- Enabling Quick Store

Using Persistence

Persistence is a feature that performs motion compensation allowing the user to manipulate images based on application requirements.Depending on your system, complete the following instructions to adjust persistence settings.

Using the Pro to Adjust Persistence Settings

To adjust persistence settings, complete the following:

1. From the Super Menu, press the **F1** key (OPTION) to enter the **OPTION** menu.
2. Press the **F3** (SCAN) key to display the **Scan Options** dialog, and then highlight the **Persistence** option.
3. Highlight the desired setting.

   The default setting is MED.
4. Press the MODE key twice to return to active scanning.

Using the Lite to Adjust Persistence Settings

To adjust persistence settings, complete the following:

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Persistence** option, and then select the desired setting.
3. Highlight **Exit**, and then press the **SEL**.key to return to active scanning.

Adjusting Gamma Settings

Use the Gamma advanced video correction controls to adjust grayscale intensity. Depending on your system, complete the following instructions to adjust Gamma settings.

Using the Pro to Adjust Gamma Settings

To adjust Gamma settings, complete the following:

1. From the Super Menu, press the **F1** key (OPTION) to enter the **OPTION** menu.
2. Press the **F3** (SCAN) key to display the **Scan Options** dialog, and then highlight the Gamma slider controls.

   The slider turns blue.
3. Adjust the slider to the desired value.

   The higher the value, the darker the image.
4. Press the MODE key twice to return to active scanning.

Using the Lite to Adjust Gamma Settings

To adjust Gamma settings, complete the following:

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Gamma** option, and then select the desired setting.
3. Highlight **Exit**, and then press the **SEL**.key to return to active scanning.

Adjusting the Enhance Settings

Use the enhance controls to improve overall image quality and increase edge detection.Depending on your system, complete the following instructions to adjust Enhance settings.

Using the Pro to Adjust Enhance Settings

To adjust Enhance settings, complete the following:

1. From the Super Menu, press the **F1** key (OPTION) to enter the **OPTION** menu.
2. Press the **F3** (SCAN) key to display the **Scan Options** dialog, and then highlight the **Enhance** slider controls.

   The slider turns blue.
3. Adjust the slider to the desired value.

   The higher the value, the sharper the edges appear.
4. Press the MODE key twice to return to active scanning.

Using the Lite to Adjust Enhance Settings

To adjust Enhance settings, complete the following:

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Enhance** option, and then select the desired setting.
3. Highlight **Exit**, and then press the **SEL**.key to return to active scanning.

Enabling Quick Store

Enabling Quick Store allows you to quickly save images and cine-loops by skipping steps when saving images to file. Depending on your system, follow the instructions below to enable Quick Store.

Using the Pro to Enable Quick Store

To enable Quick Store, complete the following:

1. From the Super Menu, press the **F1** key (OPTION) to enter the OPTION menu.
2. Press the **F4** (MISC) key to display the **Misc Options** dialog, and then highlight the ON option to enable Quick Store.
3. Press the **MODE** key (BACK) twice return to active scanning.

Using the Lite to Enable Quick Store

To adjust Quick Store, complete the following:

1. Press the **SEL**. key to display the **Settings** dialog.
2. Highlight the **Quick Store** option, and then select ON to enable the option.
3. Highlight **Exit**, and then press the **SEL**.key to return to active scanning.

Cleaning and Maintaining the Scanner

Make sure you clean your Ibex ultrasound system and associated transducers after every use. Routine cleaning and maintenance will help ensure the prolonged life of your system. While the Ibex ultrasound is a ruggedized ultrasound device, certain precautions should be used in the care of the system. Do not use any abrasive cleaners on either your Ibex ultrasound system or associated transducers

Ibex Pro Care and Maintenance

To clean, ensure the following:

- Connect the probe to ensures the most water resistant seal for the connector.
- Close and LOCK the door before cleaning.
- To clean the LCD panel, use a soft cloth with an ammonia based (common window cleaner) cleaning agent.
- For disinfecting the system, Sporicidin ® is recommended
- Allow the system to air dry or wipe down with a clean, dry towel
- To clean the trackball first flush with water at low pressure prior to wiping the trackball cavity, then use isopropyl alcohol to clean.

Ibex Lite Care and Maintenance

To clean, ensure the following:

- Do not use any coarse cleaning tools (wire brush, scrub brush, etc.) on the face of the transducer (light gray area)
- Connect the probe to ensures the most water resistant seal for the connector.
- Close and LOCK the door before cleaning.
- Ibex Lite can be gently washed down with a hose and cloth
- For disinfecting the system, Sporicidin ® is recommended
- Allow the system to air dry or wipe down with a clean, dry towel

InSite2 Headset Care and Maintenance

To clean, ensure the following:

- Using a gentle shower, rinse your InSite2 headset to remove large amounts of debris
- Use a damp cloth to wipe down any excess debris from the headset
- Allow the headset to air dry or wipe down with a clean, dry towel

Linear Transducer Care and Maintenance

To clean, ensure the following:

- Submerse in water and cleaned with a dry towel.
- Ensure probe connectors are dry and free of debris before connecting to the Ibex system.
- DO NOT use mineral oil on any Ibex transducers.
- To disinfect the Linear probe, use a Sporicidin® sterilant.

Sector Transducer Care and Maintenance

To clean, ensure the following:

- Submerse in water and cleaned with a dry towel.
- The probe connectors are dry and free of debris before connecting to the Ibex system.
- DO NOT use mineral oil on any Ibex transducers.
- If you notice a crack in the white crystal dome of the transducer, STOP SCANNING IMMEDIATELY, and return the probe to E.I. Medical Imaging for repair.
- To disinfect the Sector probe, use a Sporicidin® sterilant.

Hard Case (Ibex Pro) Care and Maintenance

To clean, ensure the following:

- Hand wash using cold water and a mild detergent.

- DO NOT MACHINE WASH.
- Hang and air dry until fully dry.

Soft Waist Pouch Care and Maintenance

To clean, ensure the following:

- Hand wash using cold water and a mild detergent.
- DO NOT MACHINE WASH THE POUCH.
- Hang and air dry until fully dry.
- Do Not put the pouch in a dryer.

Ibex System Specifications

Table 5 lists the system specifications for the Ibex scanner family.

Table 5 Ibex™ Family System Specification

Specification	Description
Applications	Bovine, Equine, Companion Animal, Swine, Exotic and Small Ruminants
Modes of Operation	B Mode, B+M Mode and M Mode
System Dimensions	**Ibex Pro**: IP54 - Grey Body; 8.9” L, 7” W, 3.2” D; 5.7 lb. (2.6 kg.) **Ibex Lite**: IP56 - Yellow Body; 8.9” L, 7” W, 2.2” D; 3.6 lb. (1.63 kg.)
Transducer (Type BF)	Support for 2.0 Mhz to 10 Mhz 128 Element Linear/Curved Linear probes Support for 3.5 MHz to 7.5 MHz Sector probes Support for user selectable scan directions
Connectivity	USB 2.0 image storage and recall; Wireless (802.11) connectivity and Bluethooth connectivity
Display	LCD 640 x 480 Display Matrix (VGA) on Ibex Pro InSite 2 Video Headset, 640 x 480 image display Monocular headset available 256 Greyscale

Table 5 Ibex™ Family System Specification

Specification	Description
Power	Smart Li-ion battery; Stand alone external battery charger available; AC Power Adapter for charging or operating; Output: 15V DC 4A (60601-1)
Scan Measurements	Unlimited caliper sets for distance measurements Continuous arc of circumference Grid option for quick measurements Trackball for measurements Calculation tables On-screen text annotations and arrows Dual image feature for side-by-side comparisons
Image Storage	128 frame cine-loop memory (30 frames/second frame rate recording Compact Flash image storage and recall Audio Tags can be stored with image Static images can be saved from cine-loops Measure and recalculate from saved images
Additional Features	System Dynamic Range 156 db 16 Channel Digital Beamformer Auto-Optimize image (Auto Scan) Zoom Auto Gain and TGC Multiple fields of view Software field upgradable All user settings may be saved and recalled Fiber-optic backlit keyboard (Ibex Pro only) DuraScan™ technology for system durability Ibex Pro sealed to IP54 for weather resistance Ibex Lite sealed to IP56 for weather resistance RFID Tag reader feature available
Operating Environment	Ibex: 0 degrees to 40 degrees C InSite2 Headset: 0 degrees to 40 degrees C
Storage and Transportation Environment	Minus 20 degrees to 50 degrees C

Warranty

ONE YEAR LIMITED WARRANTY

Limited Warranty, This Limited Warranty is provided only to you as the original retail purchaser of the shipped E.I. Medical Imaging IBEX Diagnostic Ultrasound Scanner (the Product), and to no other person. E.I. Medical Imaging warrants to you that for a period of one (1) year with respect to labor and for a period of one (1) year with respect to parts, the Product will be free from defects in materials and/or workmanship.

The InSite™2 Video Headset is covered under this limited warranty for a period of one year from date of purchase, provided the InSite™2 Video Headset is used in accordance with the safety instructions outlined in the User Manual and have not been abused or misused in any way as determined by the technical staff upon inspection of the InSite™2 Video Headset. The final determination of coverage under this limited warranty will be made at the E.I. Medical Imaging manufacturing facility.

Your Exclusive Remedy, E.I. Medical Imaging's entire liability and your exclusive remedy under this Limited Warranty shall be, at E.I. Medical Imaging's option, either Repair or Replacement of the Product within the specified warranty period. IN NO EVENT DOES THIS WARRANTY COVER DEFECTS OR MALFUNCTIONS DUE DIRECTLY OR INDIRECTLY TO ACCIDENT, MISUSE, OR NEGLECT OF THE PRODUCT, TAMPERING WITH OR ANY INDICATION THAT THE SYSTEM HAS BEEN OPENED BY ANY NON-COMPANY APPROVED INDIVIDUAL OR SERVICE CENTER, OR AN ACT OF GOD.

Disclaimer of All Other Warranties, Except as specifically provided above, there are no express warranties or claims or representations made by E.I. Medical Imaging regarding the Product. Any implied warranties, including implied warranties against claims that the product infringes on property rights of third parties, patent rights, implied warranties of fitness for a particular purpose or use, and implied warranties of merchantability, shall terminate one (1) year from the date of purchase.

Limitation of Liability, To the maximum extent allowed by applicable law, in no event will E.I. Medical Imaging nor anyone else who has been involved in the creation, production or delivery of the product be liable to you or any other person for any direct, indirect, consequential or incidental damages, or any special or punitive damages (for example, damages for loss of profits or business interruption arising out of the use of or inability to use the Product, a defect in the Product, or the failure of the product to perform, even if E.I. Medical Imaging has been advised of the possibility of such claims or damages. In no event will E. I. Medical Imaging be liable, regardless of the basis of the claim or action, for any amount exceeding the purchase price actually paid for the Product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

Repair Warranty, Any repair work preformed by E.I. Medical Imaging shall be warranted with respect to parts and labor to be free from defect for a period of (30) thirty days.

Obtaining Warranty Service, All Warranty repair work shall be performed by E. I. Medical Imaging's employees at the factory or by an Authorized Service Center. In the event that the Product requires service, please contact E.I. Medical Imaging, or other authorized service provider, to obtain a Return Materials Authorization (RMA) number. This number must accompany your Product upon return in order to obtain service on your unit. You the purchaser are responsible FOR ALL FREIGHT CHARGES ASSOCIATED WITH WARRANTY SERVICE.

This Limited Warranty gives you specific Legal Rights; you may also have other rights which vary from state to state.