Quick Card

The new LOGIQ™ *e* Ultrasound System

Control Panel

LOGIQ *e* Quick Card

The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.

2

1. Power

2. Time Gain Compensation (TGC)

3. Patient

4. Mode/Gain/Auto Optimize Keys:
   - M-Mode (M)
   - Pulsed Wave Doppler Mode (Doppler)
   - Color Flow Mode (Color)
   - B-Mode (B)

5. Exam

6. Needle/Power Doppler Imaging (PDI)

7. Follow Up Tool

8. Report

9. Imaging/Measurement Key:
   - Cursor
   - Clear
   - Body Pattern
   - Measure
   - M/D Cursor
   - Scan Area
   - Enter

10. Depth/Zoom/Ellipse

11. Start/Stop:
    - Split Screen Left/Right
    - Easy3D Controls
    - LOGIQ View

12. Freeze

13. Programmable Print/Store Keys

14. Utility

15. Alphanumeric Keyboard:
    - Use the Keyboard to enter patient information and annotations

16. Menu Select Keys

17. Programmable Soft Menu Rotary Dials

18. Function keys:
    - Help
    - Arrow
    - Eject
    - Reverse

    Programmable Function keys
    - F5
    - F6
    - F7
    - F8
    - F9
    - F10
    - F11
    - F12

Scanning

Connecting the Probe

1. Handling the probe carefully, slide the connector straight into the port.
2. Lift the probe latch into place.

Entering Patient Data

1. Press the **Patient** key [3].
2. Enter the patient ID and Name, **a patient ID must be entered in order to store images to the system**—the system can be programmed to automatically generate Patient ID *(Utility>Connectivity>Automatic generation of patient ID>Save).*
3. Exit the patient page by selecting **Exit** or pressing the **B** [4] or **Freeze** [12] keys.

Selecting a Preset

1. Press the **Exam** key [5].
2. Use the pointer arrow to select the exam type that you will be performing.
3. Press the **Enter** key [9]. The system will go to the scan screen after the preset is selected.

Measurements

1. Press the **Measure** key [9]. A caliper will appear on the screen.
2. Place the caliper in the appropriate position and press the **Enter** key.
3. A second caliper will appear.

4. Place the second caliper in the appropriate position and press **Enter**.

   A measurement box appears with the generic measurement that you have just completed. If you want the measurement to be labeled with the name of the anatomy being scanned, begin the measurement process by pressing the measurement key, choosing the anatomy and location from the list provided on the left hand side or bottom of the image monitor.

5. A new caliper may appear for the next measurement. If measurements are complete, press the **Clear** key [9] or **Freeze** to exit the measurement function.

Annotating an Image

1. To add text to an image:

   a. Type the desired word(s).

   b. Begin typing on the keyboard; if a word appears, press the **Tab** key on the keyboard to type the offered word (type and tab feature).

   c. Press the comment key (space bar) and type the desired word(s).

   d. Press the comment key and select a word from the Comments list with the pointer arrow and press the **Enter** key.

2. To set the text on the screen, place the cursor in the desired location, type the desired word(s) and press **Enter**. Set text is yellow.

3. To edit or move set text, reselect the text with the cursor. Editable text is green.

Color Flow

1. Press the **Color** key [4].

2. The color box appears over the B-Mode image.

3. Use the trackball to move the color box.

4. Press **Scan Area** key [9] once to size the color box and press once more to move the color box.

Power Doppler Imaging

5. Press the **PDI** key [6].

6. The color box appears over the B-Mode image.

7. Use the trackball to move the color box.

8. Press the **Scan Area** key once to size the color box and press once more to move the color box.

Pulsed Wave Doppler

1. Press the **Doppler** key [4].

2. The Doppler gate and B-Mode image appear above the Pulsed Wave Doppler spectral display.

3. Use the trackball to move the Doppler gate.

4. Press **Freeze** and **Measure** to complete calculations.

Split Screen

1. Press the **Start (L)** key [11] to display the left side of the image as active.

2. Press the **Stop (R)** key [11]. The left side of the screen will be frozen and the right side will be active.

3. Toggle between **(L)** and **(R)** to obtain the desired images and then press **Freeze**.

4. Press both **(L)** and **(R)** keys at the same time; the image will be live on both sides of the screen.

Print/Store Keys (Default Settings)

1. Press **P1** to store images to the hard drive.

2. Press **P2** to print images on the thermal paper printer.

3. Press **P3** to store images directly to a USB drive/memory stick or network.

To End the Exam

1. Press the **Patient** key [3].

2. Select **New Patient**.

3. Select Store All from the Unsaved Exam Data menu.

4. You are ready to begin the next exam.

New Features

Patient Follow-up Tool

1. Press the **Follow Up Tool** key [7].

2. Select an existing patient (move the trackball, point the arrow to the name and press **Enter**).

3. Select New Exam (at the bottom of the image monitor) and then Follow Up Exam (at the bottom of the image monitor).

4. Once the Follow Up Tool is activated, all image settings, body patterns and comments are transferred from the previous exam to the current exam.

5. Select the image from the clipboard that you would like to use for the follow up exam.

6. The image will go into widescreen format. By default, the image from the previous exam appears on the Left side of the screen. The image from active exam is displayed on the Right side of the screen.

7. Scan the anatomy of interest.

8. Freeze and press **P1** to store the image to the Hard Drive. The system will store the "side by side" as it appears on the image monitor.

9. Press the **R** split screen key. A single image (the image from the current exam is displayed) Press **P1** to store to the Hard Drive.

10. Complete the exam by pressing the **Patient** key and then New Patient and Store All.

Color and PDI Quantification

(Flow QA is only available in cine mode).

1. Scan the anatomy of interest. Activate Color or PDI.

2. Store a cine-loop to the Hard Drive.

3. To activate the Quantification feature, recall the cine-loop and allow it to play on the image monitor.

4. Select Q Analysis from the **Programmable Soft Key Rotary Dial (17)**.

5. The program will "run" and display the overall analysis on the screen.

   While the blood flow is being analyzed the following message will be displayed at the bottom of the image monitor: "Cine computation in progress! Please wait."

6. Use the Frame By Frame rotary dial to scroll through the image to select the frame that will be assessed.

7. Select a region of interest by using the spline ROI, elliptical ROI or the freehand ROI. Use the **Trackball** to select the icon.

   Default ROI style can be changed in Utilities: *Utility>System> System Imaging*

8. To change the size of the Elliptical ROI, place cursor within the sample area and turn the Set Sample Area rotary dial. A pop-up box will appear allowing the size of the sample to be changed.

9. Repeat steps [6] and [7] for multiple samples.

It is recommended to take short cine-loops of < 5 seconds (2-3 heart cycles). Longer loops will slow processing time.
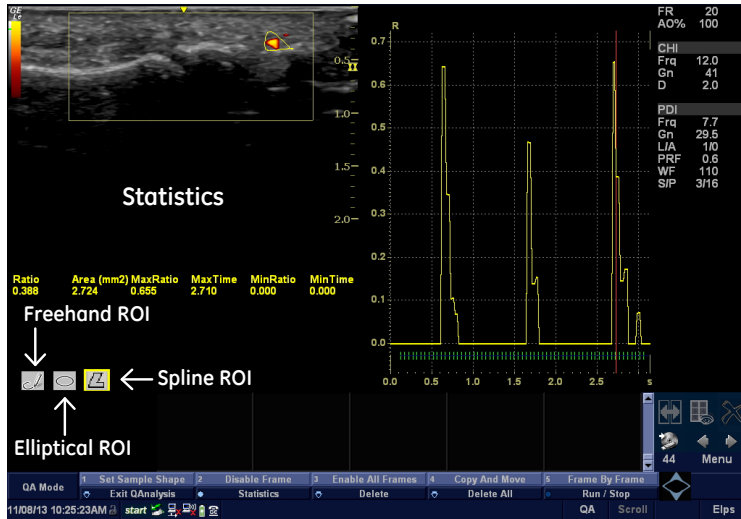
Simplicity creates efficiency. Customize to your needs.

This feature allows you to modify the viewable Soft Key Rotary Dial and Menu Select Key options to select the features that you want on your display for each mode.

1. Press the **Utility** button and select the User Interface tab using the **Trackball**.

2. For the **Soft Key Rotary Dial**, select the mode, the # of rows to be visible at the bottom of the image monitor while scanning, and the function for each dial.

3. For the **Menu Select** key, select the features from the options listed under Secondary Menu.

4. Repeat the steps above for each of the imaging modes as necessary.

Image Management

Export

(Save patient exams in a DICOM™ format to be viewed on the LOGIQ *e* at a later date or on a PC with a DICOM viewer).

1. Insert blank disc (CD-R or DVD-R) into Burner or USB drive **(*)** into USB port.

2. Press the **Patient** key **[3]** and select Export.

3. Select the Data Transfer option from the upper left menu.

4. Be certain that "From" states Local Archive-Int HD and "To" has the correct storage device selected. The disc will format automatically.

5. Choose patient(s) from the list and select "Transfer". (To select multiple patients, select the first patient by pointing to it and press **Enter**. Hold down the shift key, select the last desired patient in the group and press **Enter**. The entire block of patients should be highlighted).

6. When the exam(s) have been transferred to the desired location, "Successfully Copied" will flash across the bottom of the screen and exams that have been transferred will be marked with a red check mark.

7. Press the **Eject** button (located on the top row of the keyboard).

8. Follow the prompts.

Import

(Return the exported exams from the disc or USB drive to the ultrasound system).

1. Place appropriate CD-R or DVD-R into Burner or USB drive **(*)** into USB port.

2. Press the **Patient** key [3] and select Import.

3. Select the Data Transfer option from the upper left menu.

4. Be certain that "From" has the correct storage device selected and "To" states Local Archive-Int HD.

5. Choose patient(s) from the list and select "Transfer."

6. When the exam(s) have successfully transferred to the system Hard Drive, "Successfully Copied" will flash across the bottom of the screen and exams will be marked with a red check mark.

7. Press the Eject button (located on the top row of the keyboard).

8. Follow the prompts.

MPEGvue

(To save entire patient exams that can be viewed on a PC but cannot be returned to the ultrasound system).

1. Insert blank disc (CD-R or DVD-R) into Burner or USB drive **(*)** into USB port.

2. Press the **Patient** key [3].

3. Select the Data Transfer option from the upper left menu.

4. Select MPEGvue.

5. Be certain that "From" states Local Archive- Int HD and "To" has the correct storage device selected.

*All manufacturer programs should be removed from USB drive prior to use in an ultrasound system.

LOGIQ *e* Quick Card

12

The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.

*All manufacturer programs should be removed from USB drive prior to use in an ultrasound system.

13

LOGIQ *e* Quick Card

The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.

6. Disc will format automatically.

7. Choose patient(s) from the list and select "Transfer." (To select multiple patients, select the first patient by pointing to it and press **Enter**. Hold down the shift key, select the last desired patient in the group and press **Enter**. The entire block of patients should be highlighted).

8. When the exam(s) have been transferred to the desired location, "Successfully Copied" will flash across the bottom of the screen and exams that have been transferred will be marked with a red check mark.

9. Press the **Eject** button (located on the top row of the keyboard).

10. Follow the prompts.

Quick Save

(To save multiple AVI files and JPEG images directly to USB drive or Network Storage). Single patient or multiple patients may be selected using Quick Save.

1. Press the **Patient** key [3].

2. Select the Data Transfer option from the upper left menu.

3. Select Quick Save.

4. Choose patient(s) from the list and select "Transfer." (To select multiple patients, select the first patient by pointing to it and press **Enter**. Hold down the shift key, select the last desired patient in the group and press **Enter**. The entire block of patients should be highlighted).

5. When the exam(s) have been transferred to the desired location, "Successfully Copied" will flash across the bottom of the screen and exams that have been transferred will be marked with a red check mark.

To check Quick Save Storage Location: *Utility>Connectivity>Service. Select "My Computer."* Select USB Quick Save. Set the destination to be USB key or Network Storage depending on where files are to be stored.

*All manufacturer programs should be removed from USB drive prior to use in an ultrasound system.

LOGIQ *e* Quick Card
The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.
14

15
LOGIQ *e* Quick Card
The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.

B-Mode Optimization

Focus

Increases or decreases the number of focal zones or moves the focal zone(s) to the area of interest. Multiple focal zones may provide better resolution but can slow the frame rate. Ensure that focal zones are centered to the anatomy of interest.

Benefit: Optimizes the image by increasing resolution for specific area within the focal zone region.

Range Focus

Available on C1-5-RS, 3Sc-RS, and 6S-RS probes. Provides a focal zone in the near field.

Benefit: Helps improve near field imaging, decreases vessel fill-in, increases contrast and detail resolution and helps provide optimized imaging.

Auto Optimize

Optimizes the image based on a specific region of interest or anatomy within the B-Mode image.

Benefit: Automatically optimizes contrast resolution of the image based on specific anatomy.

Gray Maps

Varies the appearance of the shades of gray from black to white. Gray Maps gradually change from the least amount of contrast (or softest appearing image) to the greatest amount of contrast (most black and white image). Clear Maps provide a more transparent appearance. If you change the gray map you may need to change dynamic range, gain, etc., to obtain the image appearance that you want.

Benefit: Optimizes the grayscale of the anatomy being visualized.

CrossXBeam™

Combines three or more frames from different angles into a single frame.

Helps improve border definition, continuous boundaries and interfaces and reduce speckle.

Speckle Reduction Imaging

An embedded, adapted algorithm to help reduce the unwanted effects of speckle (noise) in the ultrasound image.

Benefit: Helps smooth the image and reduce "noise."

Weekly Cleaning

The system requires weekly cleaning to function properly.
Turn off system power before cleaning any part of the system.
If possible, disconnect the power source.

Note: Failure to perform required cleaning may result in unnecessary service calls.

System Care

Moisten a soft, non-abrasive folded cloth and wipe down the system cabinet on all sides.

Note: Do not spray any liquid directly into the unit.

LCD Monitor

Use a soft, folded cloth to gently wipe the monitor face.

Do NOT use a glass cleaner that has a hydrocarbon base (such as Benzene, Methyl Alcohol or Methyl Ethyl Ketone) on monitors with the filter (anti-glare screen).

Hard rubbing will also damage the filter.

Note: When cleaning the screen, make sure not to scratch the LCD.

Operator Controls

• Moisten a soft, non-abrasive folded cloth with a mild, general purpose, non-abrasive soap and water solution and wipe down the operator control panel.

• Use a cotton swab to clean around the keys or controls.
  Use a toothpick to remove solids between keys and controls.

The Quick Card is a quick reference and not does not replace the User Manual. Please refer to the Basic User Manual for complete safety and operation information.

Note: When cleaning the operator control panel, make sure not to spill or spray any liquid on the controls, into the system cabinet, or in the probe connection receptacle.

Note: In case of SARS, please see User Manual for complete recommended cleaning recommendations.

Note: DO NOT use T-Spray or Sani-Wipes on the operator control panel.

Printer

- Wipe the external surfaces of the unit with a soft, clean, dry cloth.
- Remove stubborn stains with a cloth lightly dampened with a mild detergent solution.

Note: Never use strong solvents, such as a thinner or benzene, or abrasive cleaners because they will damage the cabinet. No further maintenance, such as lubrication, is needed.

To clean the surface of the print head: Run the cleaning sheet (provided with the printer) through the printer.

Footswitch

- Moisten a soft, non-abrasive folded cloth with a mild, general purpose, non-abrasive soap and water solution.
- Wipe the external surfaces of the unit then dry with a soft, clean cloth.

Transducer Cleaning

Please refer to the cleaning instructions found in the transducer box, or the Basic User Manual, or visit the website at:

http://www.gehealthcare.com/usen/ultrasound/products/probe_care.html

Europe
GE Healthcare
Beethovenstr. 239
D - 42655 Solingen
T 49 212 2802 0
F 49 212 2802 28

Asia
GE Healthcare Clinical
Systems ASIA
1105-1108 Maxdo Center
8 XingYi Road, Shanghai
200336
T 86 21 5257 4640
F 86 21 5208 0582

For more information contact your GE Representative at
888 526 5144 or visit us at www.gehealthcare.com/ultrasound

GE Healthcare
9900 Innovation Drive
Wauwatosa, WI 53226
U.S.A.

www.gehealthcare.com