

User Information

# HD11 XE Ultrasound System Quick Guide



English

## Contents

Using the HD11 XE Help
Using the HD11 XE Ultrasound System4
Imaging Modes
3D/4D Imaging
Imaging Features
Measurements and Calculations
Image Review
Stress Echocardiography
Imaging Tips: 2D Mode
Imaging Tips: M-mode
Imaging Tips: Color Mode and Color Power Angio Mode
Imaging Tips: PW Doppler and CW Doppler
Troubleshooting the System

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## Using the HD11 XE Help

Help is like a user's guide, but it is in your HD11 XE system. Help answers most of your questions about using the HD11 XE system.

#### > To get help at any time

Press Help.

- Click the **Contents** tab to view the contents of the Help.
- Click the Index tab to search for topics by keyword.
- Click the Search tab to search the entire Help.
- Click the Favorites tab to display topics you have bookmarked.

#### > To navigate through Help topics

Click the following navigational toolbar icons:

- 🗢 **Back** displays the last topic you viewed.
- **Forward** displays the next topic in a previously displayed sequence of topics.

In the Help, words and phrases that are linked to more information appear blue. Click the linked words and phrases in blue text to learn more about them.

## Learning More About the HD11 XE Ultrasound System

To learn more about the system, see the Help and the Getting Started.

## Using the HD11 XE Ultrasound System

## Beginning an Exam

#### ► To begin an exam

- I. Press Patient.
- 2. Click New.
- 3. Type the Patient data and click **OK**.
- 4. Press **Probe** to select a transducer.
- 5. To use a soft key, press the key to choose or change the selection that appears above the key at the bottom of the display.
- 6. To display more soft keys, press Next.

#### Presets

#### ► To select a preset

- I. Press Preset.
- 2. Select a preset from the menu or click the exam type at the top of the menu to select another exam type.

#### > To create a preset

- I. Make your setting changes.
- 2. Press Preset.
- 3. Press Save Preset.

#### > To back up presets

- I. Insert a blank CD-R or CD-RW.
- 2. Press Setup.
- 3. Click the **CD** tab.
- 4. Click Backup.
- 5. In the **Backup Settings** window, select the presets you want to back up, or click **Select All**.

- 6. Click Start.
- 7. Click Close.

The Trackball, the Enter Key, and the Select Key

#### > To click an item or select an option

- 1. Move the cursor over the item or option by using the trackball.
- 2. Press Enter.

#### > To find the active trackball function

The active trackball function is highlighted on the **Select** menu, located at the bottom of the display above the soft key labels.

#### > To change the active trackball function

Press Select.

#### > To select Image Review and reports options

- 1. In Image Review or Reports, press Select to view your options.
- 2. To select an option, highlight it by using the trackball and press Enter.

## ► To select an item on a preset, a label, a measurements, or a calculations menu

- I. Use the trackball to highlight the item.
- 2. Press Enter or Select.

#### Annotation

#### To use Quick Text

- I. Reposition the cursor by using the four arrow keys on the keyboard.
- 2. Type the text.
- 3. To delete the text, press Clear.

#### > To place a label

- I. Press Label.
- 2. Select a label from the menu by using the trackball.
- 3. Do one of the following:
  - Press Enter or Select.
  - Drag the label onto the display.
- > To place an arrow
  - I. Press Text.
  - 2. Press the Arrow soft key.
  - 3. Move the arrow to the location by using the trackball.
  - 4. To rotate the arrow, turn **Angle**.
  - 5. Press Enter.

#### > To place a body marker

- I. Press Marker.
- 2. Do one of the following:
  - Press the soft key to the left of the View All soft key repeatedly until the set of body markers that you want appears. Then press the leftmost soft key until the marker you want appears.
  - Press **View All**, click a tab to choose a marker set, choose a marker from the selected tab, and then press **Enter**.

#### > To remove a body marker

- I. Press Marker.
- 2. Press Erase Marker.

## **Imaging Modes**

## **General Tips**

- To exit the current mode and return to 2D mode, press **2D** at any time.
- To change the fusion setting, press **Fusion**.
- To turn on harmonic imaging, press **THI**. To change the THI transmit and receive frequencies, press **THI** repeatedly.
- Turn **Angle** to steer the 2D image, the color box, or the angio box.
- To optimize the image by using iSCAN optimization, press **iSCAN**.

#### > To display the triggering soft keys

- I. Press Setup.
- 2. Press Next.
- 3. Press Trigger to specify the triggering source.

Color Mode and Color Power Angio (CPA) Mode

#### > To use Color mode or Color Power Angio (CPA) mode

- I. Press Color or CPA.
- 2. Press **Select** and resize or reposition the box by using the trackball.
- 3. For linear transducers, turn **Angle** to steer the color or the CPA box.
- 4. Adjust Gain, if necessary.

### CW Doppler Mode and PW Doppler Mode

#### > To use CW Doppler mode

- I. Press CW.
- 2. Move the CW focus diamond to the area of interest by using the trackball.
- 3. Press **Update**, **Enter**, or **CW** to display the spectral trace.

#### > To use PW Doppler Mode

- I. Press PW.
- 2. Place the PW sample volume gate in the center of the flow by using the trackball.
- 3. Press **Gate** to adjust the width of the PW sample volume gate.
- 4. Press **Update**, **Enter**, or **PW** to display the spectral trace.
- 5. Turn **Angle** to adjust the angle-to-flow arrow.
- 6. Use **Doppler Gain**, **Scale**, and **Baseline** to adjust the spectrum.

#### M-mode

#### ► To use M-mode

- I. Press Mmode.
- 2. Move the reference line to the area of interest by using the trackball.
- 3. Press Enter or Mmode to display the M-mode trace.

#### > To use Anatomical M-mode in live imaging

- I. In M-mode, press or turn Angle.
- 2. Turn the Angle knob to rotate the reference line about its focus point.
- 3. Press **Angle** to return to M-mode.

#### > To use Anatomical M-mode on a frozen image

- I. Press M-mode.
- 2. Select **Line** to use the trackball to move the reference line on the image.
- 3. Select **Scroll** to use the trackball to move to the other frames in the Quick Review buffer.
- 4. Turn the **Angle** knob to rotate the reference line about its focus point.

#### NOTE

After your changes appear on the display, they are applied to all of the data in the Quick Review buffer.

5. Press Angle to return to M-mode.

Color Tissue Doppler and PW Tissue Doppler

- To use Tissue Doppler Imaging Press TDI.
- > To change the default Tissue Doppler setting
  - I. Press Setup.
  - 2. Click the **Mode** tab.
  - 3. Select the **Default Tissue Doppler** setting you want.

#### **Panoramic Imaging**

#### > To acquire a panoramic data set

- I. Press Pano.
- 2. Press Scan Direction to specify the scanning to the left or right.
- 3. Start moving the transducer across the area of interest.
- 4. To begin acquiring the panoramic data set, press Acquire.
- 5. To complete the acquisition, press **Acquire** again.

## 3D/4D Imaging

#### > To acquire a freehand 3D/4D data set by using an imaging transducer

- I. Optimize the 2D image in a 2D imaging mode.
- 2. Press **3D/4D**.
- 3. Adjust the size and position of the ROI by using the **Select** key and the track-ball.
- 4. To make additional grayscale image optimizations, press **Next** to see the secondary soft keys.
- 5. Press **Geometry** to specify the scanning method.
- 6. Begin moving the transducer at a constant speed. Scan with the method specified by the **Geometry** soft key.
- 7. Press Acquire.

- 8. To end the acquisition, press **Back to Preview** or wait for the acquisition to automatically complete.
- > To acquire a 3D data set by using a motorized transducer
  - I. Optimize the 2D image in a 2D imaging mode.
  - 2. Press **3D/4D**.
  - 3. Adjust the size and position of the ROI by using the **Select** key and the track-ball.
  - 4. To make additional grayscale image optimizations, press **Next** to see the secondary soft keys.
  - 5. To set the scanning resolution or the elevation angle, press **Resolution** or **Angle**.
  - 6. Hold the transducer steady over the area you want to image.
  - 7. Press Acquire.
  - 8. To end the acquisition, press **Acquire** again or wait for the acquisition to automatically complete.
- > To acquire 4D images by using a motorized transducer
  - I. Optimize the 2D image in a 2D mode.
  - 2. Position the transducer over the anatomy of interest.
  - 3. Press **3D/4D**.
  - 4. Press **3D Mode** until **4D** is selected.
  - 5. Adjust the size and position of the preview ROI by using the **Select** key and the trackball.
  - 6. To make additional grayscale image optimizations, press **Next** to see the secondary soft keys.
  - 7. Press **Resolution** or **Angle** to set the scanning resolution or angle.

#### NOTE

You may not need to adjust the **Resolution** or **Angle** settings, depending upon the selected preset.

8. Hold the transducer steady over the area you want to image.

#### 9. Press Acquire.

- 10. Modify the angle, resolution, ROI, and **Image Controls** settings as needed during the live acquisition.
- 11. To end the acquisition, press Freeze.

#### > To acquire fetal STIC images

- I. In 2D mode, locate the fetal heart in the 2D image.
- 2. Optimize the fetal heart image.
- 3. Place the transducer in the center of the anatomy.
- 4. Press **3D/4D**.
- 5. Press **3D Mode** until **Fetal STIC** is selected.
- 6. Adjust the size and position of the preview ROI by using the **Select** key and the trackball.
- 7. Press Acquire and hold the transducer still until acquisition stops.

During the acquisition, the system displays images in real time.

8. If the fetus or transducer moves during the acquisition, press **Back to Pre-view** and repeat the procedure.

## Helpful Hints for 3D/4D Imaging

- Before acquiring the data set, use the Map, Compress, and Smooth soft keys to set the image contrast.
- Before you acquire the data set, decrease the persistence with the **Persist** soft key for higher spatial resolution. Increase the persistence for a smoother appearance.
- Press **Render Mode** and select **Surface** to enhance the fetal face silhouette.
- Use **Sculpt/Erase** to remove surrounding tissue.
- Press **Render Mode** and select **Skeletal** to display fetal bone structure.
- To visualize anechoic structures, press the **Invert** soft key under the **Vision** settings.

## **Imaging Features**

## **Dual Imaging**

Dual imaging allows you to display two different images side by side. Only one image is active at a time. Use the **Left** and **Right** keys to make an image active.

#### > To choose Single Buffer or Two Buffer dual imaging

- I. Press Setup.
- 2. Click the **System** tab.
- 3. Click **Dual**.
- 4. Select Single Buffer or Two Buffer.

Working in Single Buffer Dual Imaging

#### ► To use Single Buffer dual imaging

- I. Press Dual.
- 2. Press Left or Right to make that image active.

#### Working in Two Buffer Dual Imaging

When Two Buffer dual imaging is selected, you can work with two full-screen images at once without being in dual imaging.

#### > To activate the inactive image in dual imaging

- I. Press the Left or the Right key.
- 2. To view the images side by side, press **Dual**.

## Quick Review

#### ► To use Quick Review

- I. Press Freeze.
- 2. Scroll by using the trackball.

## Zoom and Magnify

The HDII XE system has two zoom features. Both are controlled with the **Zoom** knob.

**Zoom** enables you to enlarge an isolated area of the original live image.

**Magnify** enables you to incrementally enlarge the entire image. You can magnify live and frozen images.

#### > To enlarge an area of a live image

- I. Press Zoom.
- 2. Resize and reposition the zoom box by using the trackball to enclose the area you want to magnify.
- 3. Press Zoom.
- 4. To exit Zoom, press **Zoom** or **2D**.

#### ► To magnify a live image

Turn **Zoom** clockwise to increase magnification and counterclockwise to decrease magnification.

#### > To magnify a frozen image

- I. Press Freeze.
- 2. Turn **Zoom** clockwise to increase magnification and counterclockwise to decrease magnification.
- 3. To pan the image, press **Select** until **Pan** is highlighted on the **Select** menu, and use the trackball.
- 4. To acquire the portion of the image visible on the display, press Acquire.

## Measurements and Calculations

## Performing Measurements and Calculations

> To perform a 1-point depth or velocity measurement

#### Press Caliper.

The measurement appears in the results box.

#### > To perform a 2-point measurement

- I. Press Caliper.
- 2. Position the caliper by using the trackball.
- 3. Press Select for the second caliper.
- 4. Position the second caliper by using the trackball.

#### > To perform an ellipse measurement

- I. Press Trace.
- 2. Position the caliper by using the trackball.
- 3. Press Select to highlight Axis, Endpt I, or Endpt 2.
- 4. Adjust the position of the second caliper by using the trackball and press **Enter**.

#### > To perform a manual trace measurement

- I. Press Trace twice.
- 2. Position the caliper by using the trackball.
- 3. Press Select.

Manual is highlighted.

- 4. Move the trackball to trace the region.
- 5. To approve a measurement and exit, press Enter or Acquire.

#### > To perform a labeled measurement or a calculation

- I. Press Calc.
- 2. Highlight the measurement or calculation on the menu and press **Select** or **Enter** to select it.
  - For a calculation, a list of the measurements and calculations that you need to perform for the selected calculation appears.
  - For a measurement, a crosshair appears.

### Using Doppler Auto Trace

#### > To default to Doppler Auto Trace when you press the Trace key

- I. Press Setup.
- 2. Click the **Measurements** tab.
- 3. Select the **Default to Doppler Auto Trace** check box.

#### > To use Doppler Auto Trace in PW Spectral Doppler

- I. Do one of the following:
  - If Default to Doppler Auto Trace is selected, press Freeze and then press Trace.
  - If Default to Doppler Auto Trace is not selected, press Freeze and then press Trace twice.

The spectrum is automatically traced.

- 2. To move a caliper:
  - a. Press Select.
  - b. Move the caliper by using the trackball.
- 3. To average the measurements over multiple cycles, move the **SI** bar to the right to include another cycle.

#### ► To use High Q Doppler

Press **Trace** in live spectral Doppler.

The number of cycles and the averaged measurements appear in the results box.

## Using the QLAB Advanced Quantification Software Option

The QLAB software option provides the ability to review and perform advanced quantification on HD11 XE images.

#### ► To start the QLAB software

- 1. In Thumbnails or Image Review, point to the image to quantify and do one of the following:
  - Click QAB . The last QLAB plug-in used opens.
  - Press **Select**. In the menu that appears, use the trackball to highlight **Open in QLAB**, highlight the plug-in to use, and then press **Enter**.
- 2. Use the plug-in tools to perform the quantification.

#### > To change from one plug-in to another

In the QLAB software, click **e** and then click the plug-in to use.

#### To capture QLAB images

Press Acquire.

> To export measurements to the HDII XE system

In the IMT or 2DQ plug-in, click



#### > To close the QLAB software

Do one of the following:

- Click  $\mathbf{X}$  in the upper right corner of the QLAB window.
- Press 2D, Review, Report, or Patient.

## Image Review

	Search for a study		Save the current study	<b>A</b>	Close the current study
	Search for a patient folder	A	Perform cardiac wall scoring	<b>Ĉ</b>	Put an image or images in the report
ß	Show earlier versions of the report		Export report	₽ IP	Import images
<b>.</b>	Export	-	Export to DICOM Printer		Login/Logout
Q	Access the QLAB software	¥	View the previous loop or frame	*	View the next loop or frame
	Play		Freeze		Switch to Thumbnails

#### ► To acquire a loop

Press Acquire.

#### ► To acquire a frame

Press Freeze and then press Acquire.

## To review the acquired images or loops

Press **Review**.

#### ► To export multiple studies

I. Press Review.



3. Select the studies to export.

4. Click Start Export.



I. Press Report.



> To import or export OB trending data

- I. Press Report.
- 2. Click the **Trending** tab.
- 3. Insert a CD-R or a CD-RW.
- 4. Click Import Data or Export Data.

#### > To add OB trending data from previous exams

- I. Press Patient.
- 2. Click **New** and type the patient information.
- 3. Click the **Additional** tab.
- 4. For Additional Data Type, select Obstetric and type the appropriate data.
- 5. Click **Previous Exam Data**.
- 6. Select the fetus for which the data is to be entered.
- 7. Type the exam date.

#### NOTE

You must enter a unique date for each exam.

- 8. Type the exam data into the appropriate fields.
- 9. Click **Next** to enter data for up to 10 exams.
- 10. Click **OK** when you are finished.
- II. Click OK.

## Performing Measurements in Image Review

You can perform measurements on an acquired image by reactivating it in Image Review.

#### > To perform measurements in Image Review

- I. To reactivate the image, do one of the following:
  - Click +--+
  - Press Calc, Caliper, or Trace.
- 2. Perform measurements and calculations on the image.

## Stress Echocardiography

Before you use the Stress Echocardiography application, you must assign an **Option** key to it.

#### ► To assign an Option key

- I. Press Setup.
- 2. Click the **Options** tab.
- 3. Click **Keyboard** to assign an **Option** key to Stress Echo.

#### > To create a Stress Echo preset

- I. Select a cardiac preset, press Setup, and click Stress.
- 2. To choose a protocol, click Load Defaults.
- 3. Add stages or edit Stage Names.
- 4. Specify the **Default Acquisition Type** for the protocol.
- 5. To change the starting view for a stage, select from the **Start View** list.
- 6. To specify a multi-cycle stage, select the **Multi** radio button.
- 7. Click **Apply** and then click **Close**.
- 8. Press Preset and then press the Save Preset soft key.
- 9. Click **Create New**, type the name of the preset, and then click **Save**.

#### > To perform a Stress Echo study

- I. Connect the ECG cable and attach the ECG leads.
- 2. To create a new patient study, press Patient and click New.
- 3. Select a Stress Echo preset. Press the Stress Echo Option key.
- 4. Press Acquire to begin acquiring loops for the first view.

One loop (for a single-cycle stage) or four loops (for a quad-cycle stage) are acquired and displayed for your review.

- 5. To change the preferred loop, select the check box on the bottom left corner of that loop.
- 6. Do one of the following:
  - To accept the loops and proceed to the next view, press Review or 2D.
  - To reject and reacquire the loops, press Acquire.
- 7. Repeat step 5 through step 6 for each view.
- > To acquire loops for a multi-cycle acquisition stage
  - I. Press Acquire to begin acquiring up to 200 consecutive loops.
  - 2. After you acquire enough loops for the first view, press **Enter** or the **View** soft key to begin acquiring loops for the second view.

If you do not press **Enter** or the **View** soft key, all loops are labeled with the same view name. You can relabel loops after acquisition ends. (See step 6.)

- 3. To pause or resume the acquisition, press Acquire again.
- 4. After acquiring all views, press the **End Acquire** soft key to review loops.
- 5. To change the preferred loop, select the check box on the bottom left corner of that loop.
- 6. To relabel a view, press **Select**, select **Relabel View** from the menu, and select the correct view.

## Imaging Tips: 2D Mode

Goal	Possible Actions
Increase the	Press Fusion. Select P.
penetration.	Use <b>Focus</b> to increase depth of the focal carat.
	Increase 2D <b>Gain</b> .
	Move the bottommost <b>TGC</b> controls to the right.
	Increase <b>Power</b> .
Improve the	Press <b>Fusion</b> . Select <b>R</b> .
resolution.	Use <b>Focus</b> to move focal zone to area of interest.
	Increase <b>Focal Zones</b> soft key (linear/CLA transducer).
	Turn <b>Angle</b> (linear transducer) to achieve right angle to image surface.
	Adjust <b>Compress</b> soft key.
	Decrease image width.
	Increase <b>Persist</b> soft key.
Make the	Decrease 2D Gain or increase Power.
image less hazy soft or	Move <b>TCG</b> controls left.
gray.	Adjust <b>Map</b> soft key.
	Decrease <b>Compress</b> , <b>Smooth</b> , or <b>Persist</b> soft key.
	Press <b>THI</b> (THI transducers).
Make the image less contrasty or grainy.	Adjust <b>Map</b> soft key.
	Increase <b>Compress</b> or <b>Smooth</b> soft key.
	Press <b>Fusion</b> and select <b>R</b> .
	Increase <b>Persist</b> soft key.

Goal	Possible Actions
Visualize	Reposition transducer.
more soft	Increase 2D Gain.
	Move <b>TGC</b> controls right.
	Increase the <b>Compress</b> soft key setting.
	Press <b>Fusion</b> .

## Imaging Tips: M-mode

Goal	Possible Actions
Reduce noise in the M-mode trace.	Decrease 2D <b>Gain</b> . Select map with more contrast by using <b>Map</b> soft key.
Enlarge the M-mode trace.	Press <b>Depth</b> . Press <b>Setup</b> , click <b>Mode</b> , and click <b>Small over</b> <b>large</b> or <b>Full screen</b> .

## Imaging Tips: Color Mode and Color Power Angio Mode

Goal	Possible Actions
Make the color or CPA imaging more sensitive.	Reposition transducer.
	Increase Doppler <b>Gain</b> .
	Use <b>Focus</b> to move focal zone to area of interest.
	Decrease <b>Scale</b> .
	Decrease <b>Filter</b> soft key.
	Increase <b>Smooth</b> soft key.
	Press <b>Frequency</b> soft key.
	Decrease <b>Density</b> soft key.
Reduce the	Decrease Doppler <b>Gain</b> .
color or CPA noise	Increase <b>Persist</b> soft key.
flash, or	Increase Scale.
artifacts.	Make color box or angio box narrower.
	Increase <b>Filter</b> soft key.
Make the	Increase Doppler <b>Gain</b> .
color or CPA image	Increase <b>Smooth</b> soft key.
less speckled.	Decrease <b>Density</b> soft key.
	Increase <b>Persist</b> soft key (slow-moving structures).
Improve the color or CPA resolution.	Decrease <b>Smooth</b> soft key (small vessels).
	Increase <b>Packet</b> soft key.
	Use <b>Focus</b> to move focal zone to area of interest.
	Increase <b>Density</b> soft key.
	Increase <b>Frequency</b> soft key if available.

Goal	Possible Actions
Improve the	Increase Doppler <b>Gain</b> .
color or CPA filling.	Use <b>Focus</b> to move focal zone to area of interest.
	Decrease <b>Scale</b> .
	Decrease <b>Filter</b> soft key.
	Increase <b>Packet</b> or <b>Smooth</b> soft key.
	Decrease <b>Density</b> soft key.
	Increase <b>Persist</b> soft key (slow-moving blood, slow-moving structures, or both).
	Turn <b>Angle</b> for optimal angle (linear transducer).
	Decrease <b>Frequency</b> soft key if available.
Unwrap the	Increase <b>Scale</b> .
color	Unwrap with <b>Baseline</b> .
unuonig.	Decrease <b>Frequency</b> soft key if available.
	Use low-frequency transducer.
Increase the frame rate.	Make color box or angio box smaller.
	If low, increase <b>Scale</b> .
	Turn on <b>B/W Suppress</b> (sector or CLA transducer).
	Decrease <b>Depth</b> .
	Decrease <b>Packet</b> soft key.
	Decrease <b>Density</b> soft key.

## Imaging Tips: PW Doppler and CW Doppler

Goal	Possible Actions
Update the 2D image.	<b>Delay</b> and <b>Update</b> soft keys should not read <b>2D Hold On</b> .
	Adjust <b>Update</b> soft key.
	Press Enter or Spectral.
	Check placement of ECG leads.
Improve the	Increase Doppler <b>Gain</b> , increase <b>Compress</b> soft key, and decrease <b>Reject</b> soft key.
Doppler sensitivity	Press <b>Setup</b> , click <b>Mode</b> , and click <b>Adaptive Doppler</b> .
sensierrey.	Adjust <b>Steer</b> soft key (linear transducer).
	Decrease <b>Frequency</b> soft key and use low-frequency transducer.
	PW: Increase <b>Gate</b> soft key.
	CW: Move focus diamond over area that needs sensitivity.
	Decrease <b>Scale</b> .
Reduce	Decrease Doppler <b>Gain</b> .
artifacts or noise in the spectrum.	Increase <b>Filter</b> soft key.
	Increase <b>Reject</b> soft key.
	Decrease <b>Compress</b> soft key.
	Decrease <b>Power</b> .
Unwrap	Unwrap with <b>Baseline</b> .
aliased signals.	Increase <b>Scale</b> .

Goal	Possible Actions
Visualize Doppler signals that are audible, but not visible.	Adjust <b>Scale</b> .
	Increase Doppler <b>Gain</b> .
	Increase <b>Compress</b> and decrease <b>Reject</b> soft keys.
	Decrease <b>Filter</b> soft key
	PW: Adjust <b>Steer</b> soft key (linear transducers).

## Troubleshooting the System

- ➤ To troubleshoot a system that does not turn on when you press the On/Off button
  - 1. Look at the Power In LED indicator located just above where the power cord attaches to the system, recessed below the side panel.
  - 2. If the LED is off, there is no power to the system. Do the following:
    - a. Make sure the power cord is firmly plugged into the wall outlet.
    - b. Make sure the other end of the power cord is securely connected to the system.
  - 3. If the LED is on, the system does have electrical power. Do the following:
    - a. Unplug the power cord from the wall outlet and wait at least 30 seconds before reconnecting it.
    - b. Press **On/Off** to restart the system. It may take several minutes for the system to restart.
  - 4. If the system still does not start, call technical support.

## To troubleshoot a system when you can hear the system fan, but the monitor is blank

Make sure the green "On" light is lit.

The fan turns on periodically when the system is off, but is still plugged into the wall outlet. The fan turns on periodically to regulate the temperature within the system.

#### > To troubleshoot the system when some of the controls freeze

- Press and release On/Off to turn off the system. Wait at least 90 seconds for the system to shut down. If the system does not respond, continue to step 2.
- Press and hold On/Off for at least 10 seconds to force the system to turn off. After the system is completely shut down, press On/Off to restart the system. It may take several minutes for the system to restart. If the system does not respond, continue to step 3.
- 3. If the system does not respond to the previous steps, do the following:
  - a. Unplug the power cord from the wall outlet.
  - b. Wait at least 30 seconds, and then reconnect the power cord.
  - c. Press **On/Off** to restart the system. It may take several minutes for the system to restart.

#### > To troubleshoot the system if the VCR or a printer is not working

- Make sure all power lights on the VCR or printer are lit.
- If the power lights are not lit, make sure the power switch is on.
- Make sure the black power cord is plugged into **AC in**.
- Make sure your system is plugged into the wall outlet.
- Be sure the VCR or printer is selected and assigned to a **Record** key.

## To troubleshoot the system if the message "No probe" appears on the display

- Press **Probe** to reselect the transducer.
- Press **Probe** to try selecting another transducer.
- Make sure the transducer is securely plugged in.
- If the transducer connector has a lock, turn it clockwise.
- Insert the transducer in another connector.

#### To troubleshoot the system if the trackball does not move the cursor or moves the cursor erratically

Clean the trackball. See the Getting Started.

### **Remote Access**

If your system does not turn on, you cannot use remote access. Call technical support.

If your system does turn on, make sure there is a Philips factory-installed modem on your system. If no modem is installed, call technical support.

> Before you call technical support for remote access, do the following

- I. Disconnect all transducers from the system.
- 2. Turn your system off and back on.
- 3. Make sure the "On" and "Ready" lights are lit on the modem.
- 4. Connect the modem to an analog telephone or a fax line.
- 5. Obtain the phone number for the analog telephone line to which the system is connected.
- 6. Call technical support, describe the problem, and provide the telephone number they will use to perform remote access.
- 7. Remain available to provide any additional information.

#### WARNING -

Make sure the modem is not connected to a telephone line while you are imaging a patient.

#### NOTE

Remote access may not be available on your system at this time. For more information, contact your local field service representative.

#### Philips Medical Systems is part of Royal Philips Electronics

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This Medical Device meets the provisions of the transposition of the Medical Device Directive 93/42/EEC within the country of origin of the Notified Body concerned with the device.

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