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Horizon® G2

Multi-media Imager

EN - English

Documentation and Notice

Codonics Products are Class I products intended for use by Healthcare Professionals.
Products packaging and labeling, including Graphic User Interface (GUI) for operation are offered in English and meet MDR, Annex I, Chapter III, 23.4, taking account the training and the knowledge of the potential user.

*Web information, Key Specifications, Intended Use, User manual Appendix, Quick Start Guide & Setup IFU are available in simple translation Member State Languages; primary IFU are available in English.

Overview

The Horizon G2 is an intelligent, desktop dry imager that produces diagnostic quality medical films plus grayscale paper prints if you choose the optional paper feature. The imager is compatible with many industry standard protocols including DICOM and Windows network printing. Horizon also features direct modality connection, with up to 24 simultaneous DICOM connections. High speed image processing, networking and spooling are standard.

Specifications

Print Technology: Direct thermal (dry, daylight safe operation)
Spatial Resolution: 320 DPI (12.6 pixels/mm)
Throughput: Up to 100 films per hour
Time To Operate: 5 minutes (ready to print from "off")
Grayscale Contrast Resolution: 12 bits (4096)
Media Inputs: Two supply cassettes, 80-100 sheets each
Media Outputs: One receive tray, 50-sheet capacity
Media Sizes: 8" x 10", 14" x 17" (blue and clear), 11" x 14" (blue) DirectVista® Film
Optional A, A4, 14" x 17" DirectVista Grayscale Paper
Dmax: >3.0 with DirectVista Film
Archival: >20 years with DirectVista Film, under ANSI extended-term storage conditions
Media Supply: All media is pre-packaged and factory sealed
Interfaces: Standard: 10/100/1,000 Base-T Ethernet (RJ-45), Serial Console
Network Protocols: Standard: 24 DICOM connections, FTP, LPR
Optional: Windows network printing
Image Formats: Standard: DICOM, TIFF, GIF, PCX, BMP, PGM, PNG, PPM, XWD, JPEG, SGI (RGB), Sun Raster, Targa
Optional: PostScript™ compatibility
Image Quality: Manual calibration
Image Control: Gamma, Contrast, Polarity, Rotation, Scaling, Antialiasing
Sheet Control: Density Adjustment (Dmax), Look-Up Tables (LUT), Image Warnings, Captions, Sheet Coverage, Border Fill, Crop Anchor

Sheet Formatting: 1:1-1:81; Variable Multi-Formatting (VMF™), Fixed Multi-Formatting (FMF™)

Control Panel: Large, backlit LCD display, Status lights include Online, Alert, Fault, Active Power and Menu navigation buttons
Processor: Intel
Memory: 2 GB
Hard Disk: SSD, 32 GB (24 GB available for spooling)
Removable Storage: USB for software upgrades
Smart Card: 72 KB for storing configuration data
Power: Universal Input: 100-120/230V~ 50/60 Hz, 400W printing, 45W idle
Heat Emission: Maximum 400W, 1,366 BTUs/hr. printing, 45W, 153 BTUs/hr. idle
Weight: 66 lbs. (30 kg.)
Engine Dimensions: 14.5" (37 cm) H, 20.5" (52 cm) W, 24" (61 cm) L
Environment: Operating Temperature: 15-30 C, Storage: -22 – 50 C, Operating Humidity: 10 – 70% R.H. (non-condensing)
Regulatory: Full medical device compliance including Class 2 FDA and Class I
MDR 2017/745/EU (CE), GMP/QSR, ISO 13485:2016/NS-EN
ISO 13485:2016, Electrical Safety IEC 60601-1 Ed. 3.1 and EMC/EMI:
FCC Class A and IEC 60601-1-2: Ed. 4 for Professional Healthcare Facilities

Conventions Used in the User Manual

Bulleted Lists

Bullets are used to display a list of nonprocedural items. For example:

The control panel contains:

- A display panel
- Keys
- Indicators

Numbered Steps

The ⌖ icon indicates the beginning of a procedure. The steps in a procedure are numbered. For example:

1. Press the **MENU** key.

The Main Menu displays on the control panel. The selector arrow (▶) automatically points to the first menu option.

2. To scroll through the menu options, press the up and down keys.

The selector arrow (▶) moves up and down through the list. The bottom portion of the control panel display shows a message associated with the currently selected menu option.

Control Panel Navigation

Menu paths are used in some procedures instead of documenting every step needed to navigate to a specific menu option. For example:

From the Main Menu, select the following options:

    Default Media
      Grayscale
        DV Film Blue

Control Panel Keys

Control panel keys are shown in small black ovals to resemble the actual keys, for example, "Press the **ENTER** key."

Control Panel Menu Options

Control panel menu options are shown in bold type, for example, "Select the **Gamma** menu option."

Notes and Tips

Notes contain additional information related to a topic or procedure. For example:

NOTE: If your network is managed by a network administrator or an information technology (IT) department, it would be considered a complex network. You should have the responsible person perform any network-related administrative tasks.

Tips provide additional insights about a topic or procedure (such as, why you may want to do something or a faster way to perform an operation). For example:

TIP: Specifying print settings in a multi-user environment
If the Horizon imager is accessed by multiple users, it is typically better for individual users to enter print values through the DICOM application interface rather than change the default settings through the control panel.

Cautions and Warnings

Cautions alert you to actions or situations that could cause harm to equipment or data. For example:

CAUTION Any changes you make to the imager default settings will also affect prints made by other users. Use caution when changing default settings.
Warnings alert you to actions or situations that could result in personal injury. For example:

WARNING With the imager cover open, touch only those internal components that are colored green.

Text Files and Displayed Text

Monospaced type is used for the contents of an ASCII file or machine text displayed in a terminal command window.

User Data

Bold monospaced type is used to indicate specific characters or words that you enter at a host workstation when performing advanced imager operations. *If the type is also italicized*, it indicates variable text. For example:

1. From your workstation, open a UNIX or MS-DOS command window.
2. Enter the command **telnet *hostname*** or **telnet *IP Address*** (using either the Horizon imager hostname or IP Address).
3. At the login prompt, enter the command **status**.

Important Information and Filenames

Bold type is used for emphasis, command names, and paths or filenames. For example:

- The Horizon imager default settings can be changed both at the control panel and using text files.
- The hostname and IP Address must be added to the **/etc/hosts** file.

New Terms

Italic type is used when a term is introduced and defined. For example:

- The Horizon imager has a complete set of *default settings* that contain preconfigured values for every aspect of a printed sheet.

Purpose and Scope

Refer to this user manual for procedures on how to perform the most common imager operations, including:

- Setting up the imager
- Loading media
- Sending print jobs from DICOM Print Service Classcompliant applications running on imaging devices or image viewing workstation
- Sending print jobs from workstations via PostScript
- Sending print jobs using FTP and LPR
- Changing the imager's default image and sheet settings
- Adjusting the appearance of printed images for user preference
- Performing preventive maintenance
- Performing film calibration
- Troubleshooting common problems

NOTE: Some features and functions described here may not apply to older versions of the software.

This User's Manual is intended to be as simple and straightforward as possible for the everyday user. If you need more detailed or more technical information on a feature or topic, or wish to perform more advanced operations, refer to the *Horizon Imager Technical Manual* (Catalog no. HORIZON MNLT). The Technical Manual serves as a companion document to this manual

Product Information

For technical assistance with the Horizon, call Codonics Technical Support at the following number:

Phone: +1.440.243.1198
Toll Free: 800.444.1198 (USA only)

Technical Support is available anytime. Technical Support is also available online via email and the Codonics web site:

Email: support@codonics.com
Web Site: www.codonics.com

General product information can also be requested by sending email to:

Email: info@codonics.com

Please include your postal mailing address and telephone number in the email message. Basic product information is returned via email unless otherwise requested.

Warnings and Limitations of Use

Location of Safety and Compliance Labels

The following figure shows the locations of the imager's safety and compliance labels.
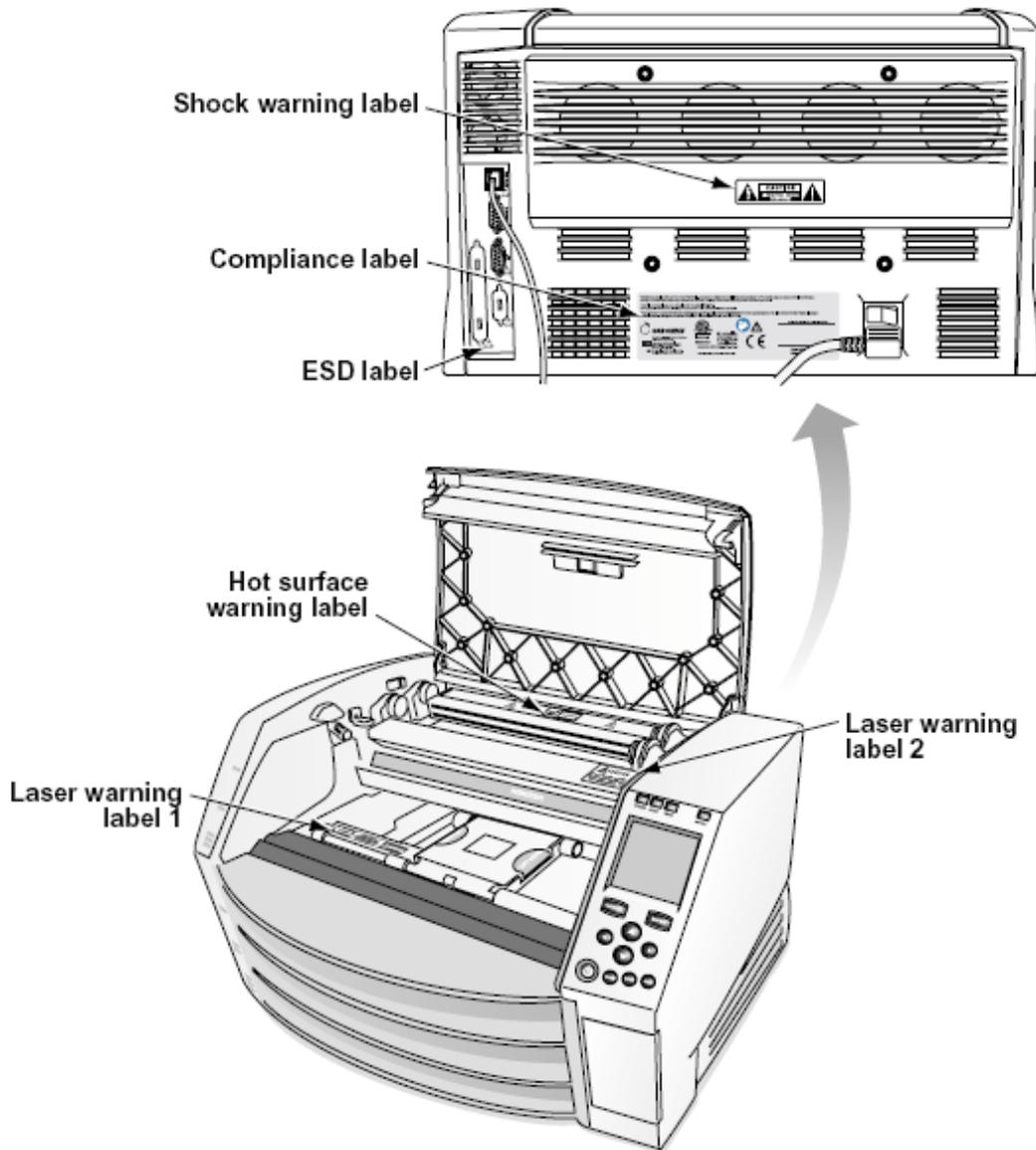
Voltage Warning

The exclamation point within an equilateral triangle and person reading a manual symbol are intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying this device.

NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. REMOVAL OF LABELS, COVERS, OR ENCASEMENT FASTENERS VOIDS THE WARRANTY.

THIS APPARATUS MUST BE ELECTRICALLY GROUNDED.

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS IMAGER TO RAIN OR MOISTURE.

EQUIPMENT IS NOT TO BE USED AS A COMPONENT OF A LIFE SUPPORT SYSTEM. Life support devices or systems are devices or systems that support or sustain life, and whose failure to perform can be reasonably expected to result in a significant injury or death to a person. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

WARNING Grounding reliability can be achieved only when the Horizon is connected to a receptacle marked "Hospital Only" (that is, "Hospital Grade").
WARNING The power cord connected to the Horizon is the main disconnect for the system.
WARNING To disconnect overall power to the Horizon prior to servicing it, power of the system (refer to "Powering Off the Imager".
WARNING Do not modify this equipment without authorization of the   manufacturer
 WARNING External equipment intended for connection to signal input, signal   output, or other connectors, shall comply with relevant IEC standard (e.g., IEC 60950 for IT equipment and the IEC 60601 series for medical equipment). In addition, all such combinations - systems - shall comply with the IEC 60601-1 standard for Medical Electrical Equipment Systems. Equipment not complying to IEC 60601 shall be kept outside the patient environment, as defined in the standard. Any person who connects external equipment to signal input, signal output, or other connectors has formed a system and is therefore responsible for the system to comply with the requirements of IEC 60601-1-1. If in doubt, contact a qualified technician or Codonics Technical Support for approved configurations.
WARNING Do not touch a patient while also accessing the internal components that are under the top cover or receive trays.

Laser Warning

The Horizon imager uses a laser to read barcode information on the media cassettes. The laser module is a 650 – 670nm device of 1.26 mW or less. As such it has been found to comply with the 21 CFR 1040.10 and 1040.11 and IEC 60825 laser standards as a low power Class 1 device.

For safety reasons, the laser is turned on only for a short time when a cassette is inserted. Still, one should use caution and never stare at the laser beam, should avoid exposure to the laser, and should never override any of the interlocks and safety mechanisms. These measures are taken for your protection.

 WARNING Use of controls or adjustments to the performance of procedures other than those specified in this manual may result in hazardous radiation exposure.
The laser apertures are marked with a single label, shown below. There are three apertures that correspond to the three cassette locations, one for each, on the same side of the Horizon imager as this label.
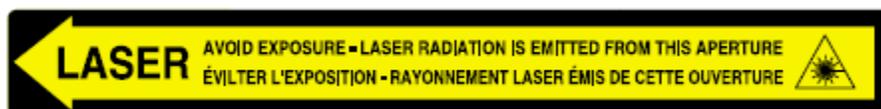
Safety interlocks are marked by the following label. They are located on the same side of the Horizon imager as this label.
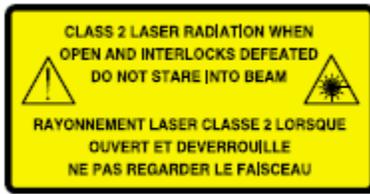
Temperature Warning

Because the Horizon imager is a thermal print device, the surface of the thermal print head heat sink gets hot. Avoid directly touching any components not colored green when accessing the interior of the imager if the imager has been printing. (During some preventative maintenance tasks, you will be touching internal components with cleaning pads or swabs.)

The temperature warning label is shown below.

Compliance

Codonics is in compliance with various regulations.

The Compliance label, which is affixed at the back of the imager, is shown below.
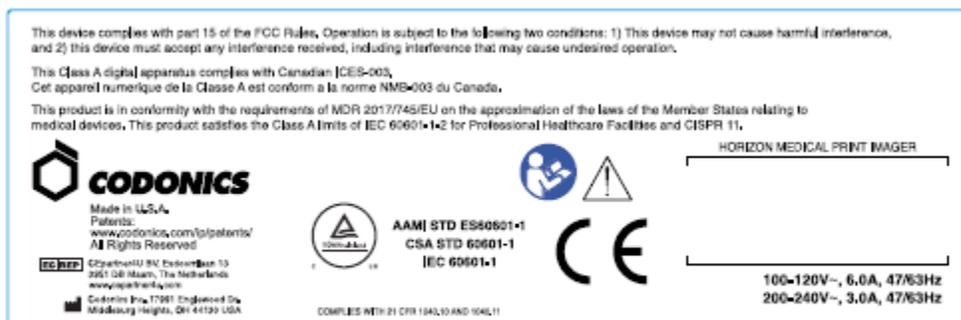
Compliance label

Serial Number, Configuration, Date Code, and Modification Codes

The Serial number label is placed onto the Compliance label. It includes the following information.

- The serial number (SN), which uniquely identifies the unit.
- The Configuration number (CNFG), which details the build configuration.
- The modifications codes, which are to the right of the CNFG number and are a series of 20 numbers. When any of these numbers are blocked out, that identifies a modification that was made to the unit.
- The date code in YYYY-MM format below the factory date code symbol.

Serial number

SN XXXXXXXXC

CN XXX.XXX.XX

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

Configuration number

Modification codes
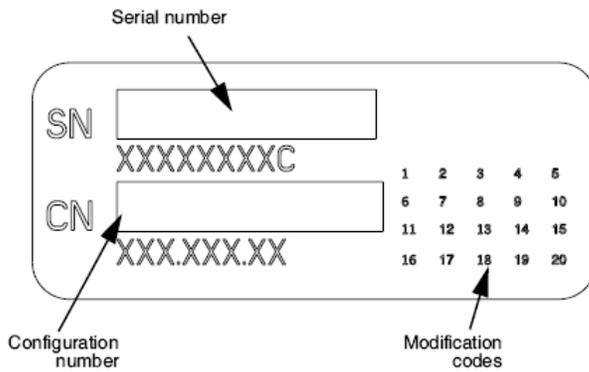
ESD Caution

Connections to other pieces of equipment are made at the rear of the Horizon imager. These connectors are marked with a precautionary ESD warning symbol, as shown below. Do not touch any of the pins of these connectors. When making connections to the imager, it is best done while the imager is plugged in but not powered on. ESD may cause erratic behavior of the imager when powered on. Should this occur, power to the imager may have to be cycled. It is recommended that all staff involved in making connections to the imager be aware of these ESD precautions.

Rear panel
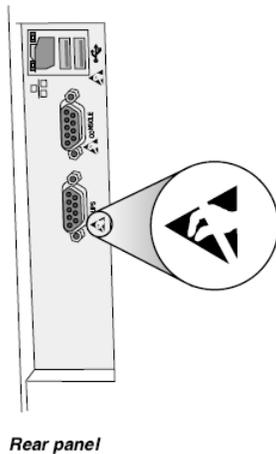
Potential for Radio Frequency Interference on Imager Operation

Both portable and mobile RF communications equipment can affect medical electrical equipment, including the Horizon imager. Keep such RF communications equipment out of the immediate area.

Potential for Radio and Television Interference

The Horizon imager generates and uses radio frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with Class B emission limits for a computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operating in a commercial environment. Operation of the equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be appropriate to correct the interference. If your imager does cause interference to radio or television reception, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the imager with respect to the receiver

If necessary, you should consult Codonics technical support or an experienced radio/television technician for additional suggestions. You may find the following booklet prepared by the Federal Communications Commission helpful: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

This product is in conformity with the requirements of EC Council directive MDR 2017/745/EU (CE) on the approximation of the laws of the Member States relating to medical devices. This product satisfies the Class A limits of IEC60601-1-2 and CISPR 11. A declaration of conformity with the requirements of the Directive has been signed by the Director of Operations. Horizon is approved for export via FDA Certificates to Foreign Government and registered as a medical device for import. A current list of countries is available on request.

Guidance Regarding Electromagnetic Emissions and Immunity

Suitable Environments:

- Horizon is intended for use in professional healthcare facility environments, including hospitals and medical clinics.
- Horizon has not been evaluated for use near HF surgical equipment. If use near HF surgical equipment is desired, the user is responsible for verifying proper operation of the Horizon. If Horizon does not perform correctly in this environment, move the Horizon farther from the source of the electromagnetic disturbance.
- Horizon has not been evaluated for use in emergency medical vehicles.

As a support device, Horizon does not provide essential performance.

WARNING Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

WARNING Use of accessories, transducers and cables other than those specified or   provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

WARNING Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the Horizon, its cables, or accessories. Otherwise, degradation of the performance of this equipment could result.

Electromagnetic Emissions Standards and Test Levels:

Test / Standard	Compliance Level
RF Emissions CISPR 11	Group 1, Class A
RF Emissions FCC Part 15	Class A
Conducted Emissions CISPR 11	Group 1, Class A
Harmonic Distortion IEC 61000-3-2	Class A
Voltage Fluctuations and Flicker IEC 61000-3-3	Complies

Electromagnetic Immunity Standards and Test Levels:

Test / Standard	Compliance Level
Electrostatic Discharge IEC 61000-4-2	±8kV contact ±2kV, ±4kV, ±8kV, ±15kV air

Electromagnetic Immunity Standards and Test Levels: (Continued)

Test / Standard	Compliance Level
Radiated RF Immunity IEC 61000-4-3	3 V/m 80 MHz - 2.7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless equipment IEC 61000-4-3	Complies
Electrical Fast Transient / Burst IEC 61000-4-4	AC Port: ± 2 kV, 100 kHz repetition frequency SIP/SOP Ports: ± 1 kV, 100 kHz repetition frequency
Surge IEC 61000-4-5	Line-to-Line: ± 0.5 kV, ± 1.0 kV Line-to-Ground: ± 0.5 kV, ± 1.0 kV, ± 2.0 kV
Conducted Immunity IEC 61000-4-6	AC Port and SIP/SOPs: 3V, 0.15 MHz - 80 MHz 6V, in ISM bands between 0.15 MHz and 80 MHz 80 % AM at 1 kHz
Magnetic Field Immunity IEC 61000-4-8	30 A/m, 50 Hz or 60 Hz
Voltage Dips IEC 61000-4-11	0% U_T, 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U_T, 1 cycle AND 70% U_T, 25/30 cycles, Single phase: at 0°
Voltage Interruptions IEC 61000-4-11	0% U_T, 250/300 cycle

Safety Precautions

- Never connect this imager to any outlet or power supply that has a voltage or frequency different than that specified on the rear of the imager.
- When servicing the imager, always power it off using the (power) key at the control panel, then turn the rocker switch in the back to the **0** (off) position, then unplug the imager.

- Damage to the power cord may cause fire or shock hazard. When unplugging the power cord, hold it by the plug only and remove the plug carefully.
- If the power cord needs to be replaced, replace it only with another Codonics power cord manufactured specifically for your imager's power configuration.
- If the imager is smoking or making unusual sounds, power off and unplug the imager immediately.
- Do not insert foreign objects of any kind into the imager; doing so can constitute a safety hazard and cause extensive damage.
- Do not place any liquid containers on the imager. If, for some reason, liquid seeps into the imager, power off the imager and unplug the power cord from the source outlet. If used without corrective measures, the imager may be damaged.
- Do not use the imager near flammable gases.
- With the imager top cover open or the receive trays removed, touch only those internal components that are colored green (shown in the following figure). Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

Internal Components That Are Colored Green (called out in the illustration) Are Safe to Touch

Location Precautions

- The imager's operating ambient temperature range is 15–30°C (59–86°F), with a relative humidity of 10%–80%.
- If the imager is moved quickly from an extremely cold place to a warmer one, condensation is likely to form. Do not use the imager if condensation has formed. Wait until the condensation has evaporated. You can speed up the evaporation time by moving the imager to a dryer location.
- Ventilation slots and holes are provided on the sides and rear of the imager. Place the imager on a hard level surface and locate it at least 10 cm (4 in.) from walls to ensure proper ventilation

CAUTION Adequate ventilation is required for proper operation of the imager

CAUTION When positioning the Horizon Imager, ensure there is adequate space to access the rear power switch.

- Do not place imager in a high humidity or high dust area. Airborne dirt particles can cause image quality problems. Avoid placing the imager in areas where ventilation ducts, open doors, or frequent passers-by might expose the imager and media to high levels of debris.
- Do not locate the imager in hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.
- Do not locate the imager where there are oily fumes and vapors.
- Do not locate the imager in direct sunlight.
- Do not locate imager near sources of high RF energy.
- Do not locate the imager where it might be subject to jarring or vibrations, such as a table or desk in a hightraffic area. Jarring and vibrations can affect the print quality of images.
- Horizon satisfies the electrical safety limits of IEC60601-1 and CISPR 11 and is suitable for patient care area location. Check with local ordinances and installation guidelines to confirm approved location requirements.

Cleaning Precautions

- Many plastic components are used in the imager's construction. Coat flecking and deformation is likely to occur if the imager is wiped with chemical dusters, benzene, thinners, insecticides, or other solvents. Rubber and PVC materials left in contact with the imager for extended times will cause damage. Never use petroleumbased solutions or abrasive cleaners.
- To clean the imager cover, first power off the imager using the   (power) key at the control panel, then turn the rocker switch in the back to the **0** (off) position, then unplug the imager. Clean the cover with a soft cloth slightly moistened with a mild soap and water solution. Allow the cover to completely dry before operating the imager again.

Media

For **ChromaVista**® color prints, the consumed ribbon contains facsimiles of any patient images printed to **ChromaVista** color sheets. Therefore, you must properly dispose of or destroy consumed ribbon to ensure the confidentiality of patient images.

The optical density of reflective and transmissive prints have a nominal range of: Dmin = 0.10 OD (reflective), 0.11 OD (transmissive) to Dmax = 2.10 OD (reflective), 3.1 OD (transmissive). Actual optical densities may vary based on media variations and on the instrument being used to measure density. For example, **DirectVista**® Clear film may have a lower Dmin and Dmax than **DirectVista** Blue film.

- The Horizon imager includes a built-in densitometer. The built-in densitometer is designed to produce consistent prints by compensating for variation from one film cassette to another and one imager to another. For applications that require absolute control of the maximum density, the results should be checked against a bench-top commercial densitometer. The internal densitometer can be calibrated to a desktop unit. See the *Horizon Imager Technical Manual* for more information.
- **DirectVista** media is optimized for grayscale prints, while **ChromaVista** is optimized for color prints. If **ChromaVista** is not giving you satisfactory results with grayscale images, you may want to consider using **DirectVista** media for those applications.
- Media variations between different production lots may produce subtle differences in image quality and color. These variations most often occur in color ribbons and are characterized as a slight color hue in grayscale images.
- Codonics film media is designed to be viewed using a light box suitable for viewing medical diagnostic images.
- Codonics paper/white film media is designed to be viewed under coolwhite, fluorescent light. Spectral differences and intensity variations in the viewing light sources can change the apparent color of images printed on paper/white film.

- Printed images that are subject to prolonged exposure to sunlight, ultraviolet light, or extreme heat may degrade in image quality. (For example, printed sheets should not be stored in an automobile on a sunny day.) Precautions should be used to avoid prolonged direct exposure.

Codonics Paper/White Film Media

The terms "white paper" and "white film" are synonymous references and used interchangeably in this manual.

File Transfer via FTP and LPR

- Different users who share a user name when transferring files to the imager may cause unpredictable and erroneous printed output. The imager associates information with the user name. Each user should have a unique user name when connecting to the imager via FTP and LPR.

Color Management

- Image settings—including gamma, contrast, Dmax, saturation, and MCM™ (Medical Color Matching™)—are intended to compensate for differences that may occur between image acquisition and image printing. These filters allow you to accurately render the final printed image. You should use care when applying these filters to avoid over compensation.
- The Default User Settings set at the control panel will potentially affect prints made by all users. Use caution when changing the default settings.

Image Scaling

- Scaling an image will filter the original image data and add or remove information, which may affect the accuracy of the final printed image. The amount of information added or removed will also vary with the magnitude of the scale factor applied. This can also affect the accuracy of the final printed image. You should be aware of the properties and limitations of each scaling algorithm and select the appropriate algorithm for the task.

Hardware Variations

- Components used in the imager may vary, causing differences in image quality. The thermal process of producing a print utilizes many components that are calibrated to provide consistency between imagers. There are subtle differences between imagers that can cause print variations. These differences usually apply to thermal print head calibration. Other factors such as age, usage, heat, mechanical wear, and shipping can affect image color and quality.
- The type of media used to install software updates and to backup imager configuration settings depends on hardware variations. If the imager has a built-in Zip drive, installations and backups are performed using 100-MB Zip disks. If the imager does not have a built-in Zip drive, USB flash drives are used with the USB ports on the rear panel. Throughout this manual, Zip disks and USB flash drives are referred to as *installation media* or *backup media*, depending on the operation being performed.

NOTE: If the imager has both a Zip drive and a USB port, always use the Zip disk to install software and save configuration settings.

Disposal Requirements

Disposal of this product and consumables shall be in accordance with all applicable laws and regulations in effect at the locality at the time of disposal.

European Disposal Requirements

Codonics imagers and electronic accessory devices are not to be discarded or recycled; rather they are to be returned to the manufacturer. Contact Codonics directly or by the link provided for the latest information concerning:

- Identification of the country-specific Importer/Distributor/Producer
- Product return and treatment of our electronic products
  Manufacturer: Codonics Inc.
  17991 Englewood Drive
  Middleburg Heights, OH 44130 USA
  Phone: +1.440.243.1198
  Fax: +1.440.243.1334
  E-mail: WEEE@codonics.com
  www.codonics.com

Codonics electronic products and accessories bearing the following symbol are subject to European Directive on Waste Electrical and Electronic Equipment (WEEE) 2002/96/EC, amended by Directive 2003/108/EC. The EN 50419 symbol indicates separate collection and return required.

EN 50419 symbol

Indications for Use

CAUTION Approved FDA Class 2 device - Federal law restricts this device to be sold for use by or on the order of a physician.

The intended use of the Horizon Series Imagers is high-resolution hardcopy imaging of digital image source material and through the conversion of electronic signals from a wide variety of direct/indirect medical imaging modality outputs. The hardcopy output includes, however is not limited to, digital radiography, nuclear medicine, ultrasound, CT, MRI, CR, and Radiation Therapy planning. Images are suitable for medical image diagnosis use and referral. The system is intended for use by medical radiologists, imaging modality specialists, and communications to referring physicians.

The Horizon Series Imagers are dry, thermal, grayscale (G, GS,GSs,GS-Rad, G1, and G2 models) and grayscale/color (Ci, Ci-s, CiRAD, and SF models) direct thermal printer/imagers.

The Horizon XL is a special model adding 14 x 36in. and 14 x 51in. true size "long" media that permits digital direct orthopedic application hardcopy, including diagnosis and analysis of scoliosis, weight bearing spine/hip/knee, and long bone/hip prosthetic and orthopedic appliances work-up and surgical planning. Horizon XL is applicable to true-size hardcopy of whole body CT, MRI, and Angiographic and Venous flow imaging procedures.

Horizon Imagers are 510(k) cleared to market as FDA Class 2 devices, Regulation number 892.2040, Classification Product Code LMC: Horizon Series Medical Multimedia Dry Imagers K021054 and Horizon XL Medical Long Film Imager Hardcopy Multimedia K060440.

User Manual Warnings and Cautions

CAUTION Approved FDA Class 2 device - Federal law restricts this device to be sold for use by or on the order of a physician.

CAUTION Make sure that the table can support the weight of the imager [approximately 66.7 kg (147 lbs) with receive trays and three full supply cassettes installed].

WARNING The imager is heavy. To avoid injury, use two people to unpack and position the imager.

CAUTION Do not scratch or nick the sheet metal. Scratches and nicks in the basement will damage the printed side of ChromaVista sheets.

CAUTION Make sure that the imager is powered off before connecting the Ethernet cable. For information about powering the imager on and off, refer to "Powering the Imager On and Off".

CAUTION Do not touch any of the connector pins.

CAUTION If the thermal print head is not parked, power on the imager, then repeat steps 2 and 3 to properly power off the imager so that it does park.

CAUTION Push the ribbon carriage down slowly. Forcing it down too quickly may damage the carriage.

CAUTION If the imager is powered off using the POWER key, unprinted queued jobs are saved and will finish printing once the imager is powered on again (you can purge all jobs). However, if the imager is powered off using the rocker switch in the back or power is interrupted (for example, an unexpected power failure), queued jobs may be lost.

WARNING When servicing the imager, always power it off using the POWER key, turn the rocker switch in the back to the 0 (off) position, then unplug the imager.

CAUTION Use only Codonics media. Do not use plain paper, office transparencies, or other unapproved media as damage, improper operation, or malfunction may result. For information about the approved Codonics media types and sizes, and how to order cassettes, refer to "Ordering Media".

CAUTION Do not refill a cassette. Do not tamper with or remove the barcode label. The cassette's barcode information is essential for ensuring diagnostic image quality. Compromising the cassette in any way jeopardizes the quality and reliability of the imager.

CAUTION Do not remove or insert a cassette while a sheet is being printed, or you could affect the image quality of the printed sheet or cause a jam. Always pause the imager first.

CAUTION Do not remove the printed cassette cover; it protects the media from dust and other contaminants. Always hold and store the cassette with the open side up to prevent the sheets from falling out.

WARNING With the imager cover open, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Used ribbon retains the negative of the color images that were printed using that ribbon. If you are required to ensure patient confidentiality and privacy, the ribbon should be destroyed.

CAUTION Use caution when changing the imager default settings. Changes could affect prints made by other users.

CAUTION Changing the default settings will affect prints made by other users. Use caution when changing default settings. Typically, it is better to specify sheet and image parameter settings from the DICOM application or a PostScript printer's settings, or use a Job Settings file that contains the values you need. For information about Job Settings files, refer to the *Horizon Imager Technical Manual*.

CAUTION If the imager's settings were changed from the factory defaults prior to being shipped (for example, to accommodate a special OEM configuration), resetting to the factory defaults will not restore the "as shipped" settings. Instead, they will be reset to the standard factory default values.

CAUTION Resetting to the factory defaults will affect prints made by other users. Use caution when changing default settings. Typically, it is better to specify sheet and image parameter settings from the DICOM application or a PostScript printer's settings, or use a Job Settings file that contains the values you need. For information about Job Settings files, refer to the *Horizon Imager Technical Manual*.

CAUTION Changing the imager's Default Media and Default User Settings could affect subsequent prints made by other users. Use caution when changing default settings.

CAUTION Changing the imager's Default Media and Default User Settings could affect subsequent prints made by other users. Use caution when changing default settings.

WARNING With the imager cover open, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

WARNING The thermal print head may be hot.

WARNING When cleaning the print head, avoid the extreme ends of the print head, which are sharp.

CAUTION Use only the print head cleaning wipe when cleaning the thermal print head. Also, do not touch the glass surface of the thermal print head with your fingers; it could damage the print head. To avoid touching the glass surface, you may want to wear gloves when cleaning the thermal print head.

CAUTION The thermal print head must be completely dry before attempting to use the imager. Allowing the thermal print head to heat up again while still wet will damage the thermal print head.

WARNING With the imager cover open, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Use only the platen roller cleaning wipe when cleaning the platen. The platen roller could be damaged if you use the print head cleaning wipe.

WARNING With the receive trays removed, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Use only the platen roller cleaning wipe when cleaning the pick tires. The tires could be damaged if you use the print head cleaning wipe.

CAUTION Do not touch the pick tires (which may be white or green); body oils from your fingers are hard to remove and could eventually damage the tires.

WARNING With the receive trays removed, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Use only cleaning swabs from a Barcode Reader Cleaning Kit.

CAUTION Do not scratch or nick the sheet metal. Scratches and nicks in the basement will damage the printed side of ChromaVista sheets.

CAUTION Federal law restricts this device to be sold for use by or on the order of a physician.

WARNING With the top cover open, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Do not touch the pick tires (which may be white or green); body oils from your fingers are hard to remove and could eventually damage the tires.

CAUTION To avoid damaging internal components, use care when removing a sheet from the media path in the upper part of the imager.

CAUTION Never put a sheet back in the cassette. Dust or oil from your finger will affect the image quality.

WARNING With the top cover open, touch only those internal components that are colored green. Remove rings, ties, jewelry, and other items, and tie back hair, so that they do not fall into or get caught in the imager.

CAUTION Be careful not to scratch the polished sheet metal or damage the sensor near the upper guide notch.

CAUTION Make sure you do not overrotate the media guide, as shown below.

CAUTION Federal law restricts this device to be sold for use by or on the order of a physician.

CAUTION Use care when running the Purge Print Jobs function. This function will purge other users' print jobs as well as yours.

CAUTION All files uploaded using anonymous FTP are readable by other FTP users. DO NOT upload sensitive or classified information.

Summary

The latest versions of Horizon® GS/G2/G1 Imager utilize hardware and software that is not compatible with previous versions. New software Version 4.0.0 is required to support those changes. The latest versions are identified by the imager serial number prefix **150C**. Please contact your Codonics representative for further information.

NOTE: Horizon Imagers with serial number prefix 150C cannot be downgraded to any previous software version. Imagers with a serial number prefix other than 150C cannot have their software upgraded to 4.0.0.

What Is Covered in This Addendum

The operator instructions for the Horizon Imager are provided in the *Horizon Imager User's Manual*. This addendum covers functionality that is unique to the latest versions of the imager that run Version 4.0.0 software and replaces those sections in the existing manual. Unless specified in this addendum, to operate the imager you can follow the instructions in the *Horizon Imager User's Manual*.

Updating Safety Labeling

The latest versions of the imager have the following updated safety labeling:

- A new temperature warning label, shown below.

- Pinch-point labels along the top of the thermal print head assembly, shown below.

- Because the latest versions of the imager no longer include a barcode reader, laser safety labels are not required.

The following figure shows the locations of the safety labels in the latest versions of the imager.
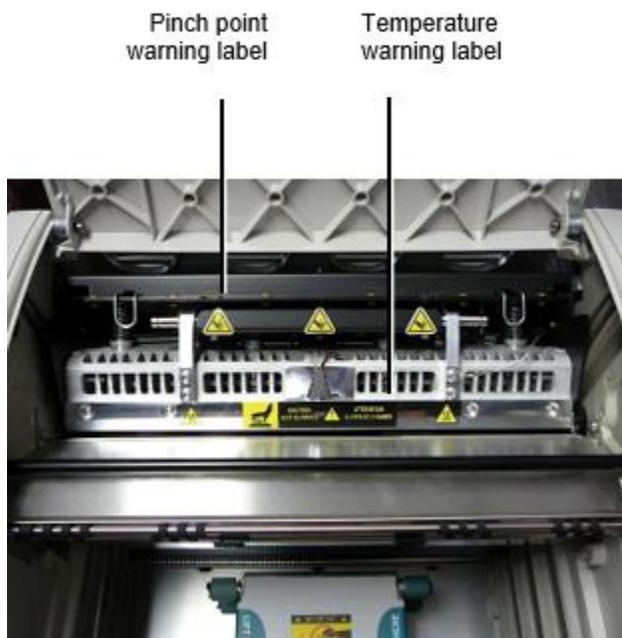
WARNING: Keep hands out of the print head lift mechanism indicated by the pinch point warning labels. Failure to do so could result in personal injury.

Media Supported

The latest versions of the imager do not support **ChromaVista** color media. Only **DirectVista** grayscale media is supported.

The latest versions of the imager do not automatically open the top cover when using the **Open Top Cover** menu option on the Main Menu at the front panel. It must be opened manually. However, before manually opening the top cover, you should still select the **Open Top Cover** menu option to ensure that the print head is retracted. Then press one of the two green releases shown in the following figure to open the top cover.
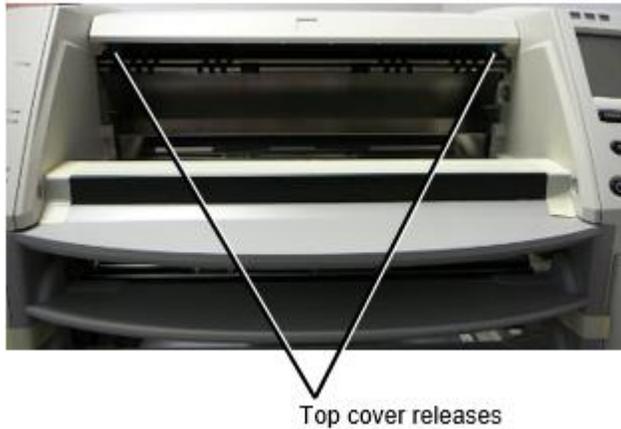
Top cover releases

NOTE: The top cover is spring-loaded. Place your hand lightly on the top cover before pressing one of the releases to prevent it from opening too quickly.

⚠ **WARNING:** Do not attempt to manually defeat the top cover closed sensor that is on the right inside wall of the imager, shown in the following figure. Doing so could result in personal injury.

Top cover closed sensor

- The latest versions of the imager support only the Media ID media authentication system. They do not support reading IDs from barcode labels on the media cassette to authenticate media.
- Unlike with previous imagers that required an external device to be attached to the imager, the Media ID reader is internal to the imager. The Media ID is detected when you insert a media cassette. If the media cassette is successfully authenticated, a confirmation message displays on the front panel.
- Once the Media ID is read, the media cassette can only be used with that imager. You cannot use the cassette with another imager.

NOTE: If the imager does not recognize the Media ID on a cassette, contact Codonics Technical Support. In the latest versions of the imager, media cassette barcodes cannot be entered manually at the front panel.

Receive Tray

The latest versions of the imager include only one receive tray. Media pulled from any of the supply slots will be placed in this receive tray.

To remove the receive tray:

1. Open the top cover. Refer to "Opening the Top Cover."
2. Lift the front of the receive tray up.
3. Pull the receive tray out away from the imager.

Print Head Positions

The latest versions of the imager have two print head positions:

- Shipping position, in which the print head is closer to the back of the imager. This should be used prior to shipping the imager to prevent damage to the print head or platen bearings. It should also be used when cleaning the print head or platen, as the position provides more room between these components to make cleaning easier.
- Printing position, in which the print head is positioned closer to the platen, ready for printing.

Changing the Print Head Position

To change the print head position:

1. If imager power is on, select the **Open Top Cover** menu option to ensure that the print head is retracted and move on to the next step. If imager power is off, move on to the next step.
2. Open the top cover by pressing one of two green releases as shown under "Opening the Top Cover".

3. Pull up on the two release handles, shown in the following figure, and use the handles to push the print head back to the shipping position or forward to the printing position.

Print head
release handles
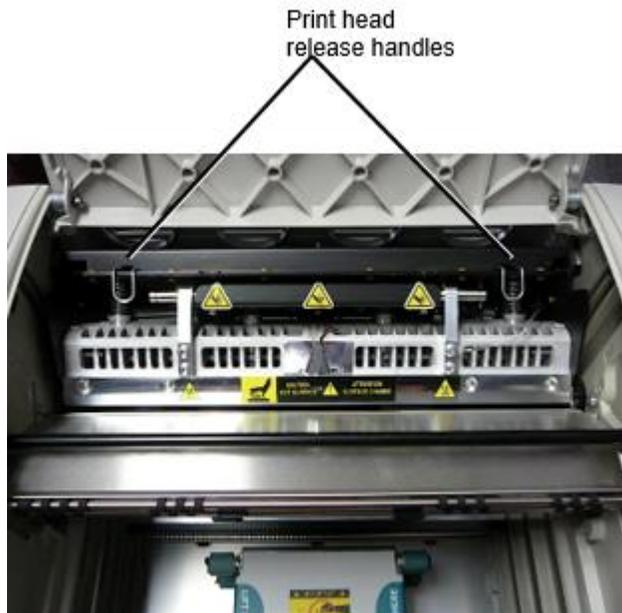
⚠ CAUTION: Position the print head with care. Do not drop the print head into the printing position. Doing so could cause damage.

4. Lower the release handles to lock the print head into the new position.

Cleaning the Print Head

Before cleaning the print head, you must manually move it to the shipping position. Refer to the procedure above under "Changing the Print Head Position."
Otherwise, you can follow the procedure as described in "Cleaning the Print Head and Nosepiece" in the *Horizon Imager User's Manual*.
The alcohol concentration of the Print Head cleaning pad is 99% IPA.

Cleaning the Platen

Before cleaning the platen, you must manually move the print head to the shipping position. Refer to the procedure above under "Changing the Print Head Position."
Also, the latest versions of the imager do not support jogging the platen from the front panel. When cleaning the platen, you have to use your fingers to manually jog the platen so that you can clean its entire surface. Make sure that you clean the areas where you have touched the platen to remove any oil from your fingers.
Otherwise, you can follow the procedure as described in "Cleaning the Platen and Donor Guide Bar" in the *Horizon Imager User's Manual*.
The alcohol concentration of the Platen cleaning pad is 70% IPA.

Calibrating Film

The latest versions of the imager do not support internal film calibration. To calibrate film, you have to print a calibration film, use an external densitometer, and enter a calibration adjustment value.
To calibrate the film for a media cassette:
1. Insert the media cassette.

    If the Auto Film Calibrate preference setting is set to On, a calibration film is printed automatically. (For more information about the Auto Film Calibrate preference setting, refer to the *Horizon Imager Technical Manual*.)

    If the Auto Film Calibrate setting is set to Off, on the front panel navigate to and select the Calibration Print menu option corresponding to the slot in which the cassette is inserted:

    Utilities…
    > **Film Calibration…**
    > > **Cassette *n*…**
    > > > **Calibration Print**

    The calibration film includes 16 grayscale blocks with a range of optical densities. The calibration film also includes the slot number to identify the cassette to which it corresponds.
2. Measure the 16 blocks and identify the two blocks that bracket the target density of 1.30 OD.
3. Calculate the "adjusted block" value that would be required to achieve 1.30 OD by applying linear interpolation between the two bracket blocks' assigned numbers. For example:

    Block 10: OD = 1.29
    Block 11: OD = 1.36
    Block value to achieve 1.30 OD = 10.1 or 10.2

On the front panel, navigate to the Calibration Value menu corresponding to the cassette slot:

Utilities…
> **Film Calibration…**
> > **Cassette *n*…**
> > > **Calibration Value…**

4. Use the increment and decrement keys on the front panel to enter the adjusted block value from step 3.

5. To save the entry, press the Enter key.

NOTE: Once saved, this calibration value will apply only to this cassette. Also, this calibration value will be used regardless of what slot this cassette is inserted into.

Choosing Not to Calibrate a Media Cassette

You can choose not to calibrate a new media cassette.
If the Auto Film Calibrate setting is set to On, a calibration film will be printed from the cassette:
*   To continue with the calibration, enter a calibration adjusted block value, as described in the procedure above.
*   To skip the calibration, press the Pause button to take the printer back on line.

If the Auto Film Calibrate setting is set to Off, a calibration film will not be printed and calibration will not be performed unless you perform the procedure above.
If you choose not to calibrate a media cassette, the calibration value from the last calibrated cassette of that media type and size will be used, if one exists. Otherwise, the default calibration value will be used.

Replacing the Pick Tires

The pick tires in the latest versions of the imager can be replaced.

To replace a pick tire:

      1. Power down the imager.

      2. Open the top cover.

      3. Locate the retaining clip that secures the pick tire to the spindle.

      4. Lift up on the tab on the top of the clip (1) and slide the clip sideways from (that is, perpendicular to) the spindle (2), as shown in the following figure.
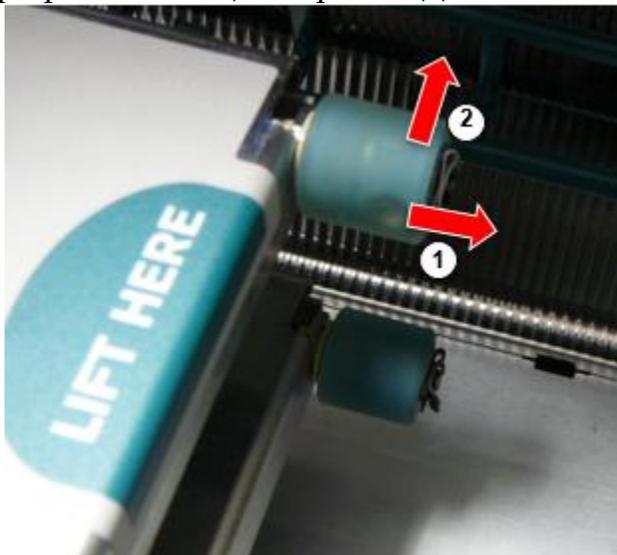
      4. Slide the pick tire off of the spindle.

      5. On the new pick tire, locate the two notches on one side of the pick tire, shown in the following figure. These notches fit over two small pins on either side of the spindle.

      6. Orienting the pick tire with the notched side first, slide the pick tire all the way on to the spindle, making sure you align the notches with the spindle pins.

      7. With the clip tab facing away from the pick tire, slide the retaining clip sideways back onto the spindle.

      8. Use a cleaning wipe provided with the Platen and Print Head Cleaning kit or use the Horizon Cleaning Cassette to clean the pick tire of any oil from your fingers.

Clearing a Sheet Jam

With the latest versions of the imager, the sheet path through the imager has been simplified, since there is only one receive tray. Other than the simplified path, clearing a sheet jam is the same as with previous versions of the hardware.

Troubleshooting

For the latest versions of the imager, there is a new reason for a sheet jam: A sheet jam can occur if the print head is in the shipping position when attempting to print. To correct this problem, remove the jammed sheet and move the print head to the printing position (see "Changing the Print Head Position").

Manufacturing Locations

Horizon Imagers are manufactured in both the USA and China. Refer to the product label at the rear of the imager to determine the origin of your imager.

Technical Support

If problems occur that are not covered by this Addendum, please contact Codonics Technical Support at any time.

   Phone: +1.440.243.1198
   Email: support@codonics.com
   Website: www.codonics.com

Horizon® G2

Ilmheáin Íomhá

Doiciméadú agus Fógra

Codonics Táirgí atá Rang I. táirgí beartaithe le haghaidh úsáid le Cúram sláinte Gairmithe.
Táirgí pacáistiú agus lipéadú, san áireamh Grafach Úsáideoir Comhéadan (GUI) le haghaidh oibriú atá offered in Béarla agus le chéile MDR, Iarscríbhinn Mise, Caibidil III, 23.4, ag glacadh cuntas an oiliúint agus an eolas de an acmhainneacht úsáideoir.

* Gréasáin faisnéis, Eochair Sonraíochtaí, Beartaithe Úsáid, Úsáideoir lámhleabhar Aguisín, Tapa Tosaigh Treoir & Socrú IFU atá ar fáil in simplí aistriúchán Ball Luaigh Teangacha; bunscoile IFU atá ar fáil in Béarla.

Forbhreathnú

Tá an Horizon G2 is an cliste, deasc tirim imager go táirgeann diagnóiseach cáilíocht
leighis scannáin móide liathscála páipéar priontaí dá tú roghnaigh an roghnach páipéar gné.
Tá an imager is comhoiriúnach le go leor tionscal caighdeánach prótacail san áireamh DICOM
agus Windows líonra priontáil. Horizon freisin gnéithe dhíreach módúlacht nasc,
le suas chun 24 comhuaineach DICOM naisc. Ard luas íomha próiseáil,
líonrú agus spóláil atá caighdeánach.

Sonraíochtaí

Priontáil Teicneolaíocht: Díreach teirmeach (tirim, solas an lae sábháilte oibríocht)
Spásúil Rún: 320 DPI (12.6 picteilín / mm)
Tríchur: Suas chun 100 scannáin in aghaidh an uair an chloig
Am Chun Oibrigh: 5 nóiméad (réidh chun cló ó "As")
Liathscála Codarsnacht Rún: 12 giotán (4096)
Meáin Ionchuir: Dhá cheann soláthar caiséid, 80-100 bileoga an ceann
Meáin Aschuir: Ceann amháin fháil tráidire, 50 bileog cumas
Meáin Méideanna: 8 ″ x 10 ″, 14 ″ x 17 ″ (gorm agus soiléir), 11 ″ x 14 ″ (gorm) DirectVista® Scannán
O.ptional A, A4, 14 ″ x 17 ″ DirectVista Liathscála Páipéar
Dmax: > 3.0 le DirectVista Scannán
Cartlann: > 20 bliana le DirectVista Scannán, faoi ANSI fadtréimhse stóráil coinníollacha
Meáin Soláthar: Gach meáin is réamhphacáistithe agus monarcha Séalaithe
Comhéadain: Caighdeán: 10/100 / 1,000 Bonn-T Ethernet (RJ-45), Srathach Consól
Líonra Prótacail: Caighdeán: 24 DICOM naisc, FTP, LPR
Roghnach: Windows líonra priontáil
Íomha Formáidí: Caighdeán: DICOM, TIFF, GIF, PCX, BMP, PGM, PNG, PPM, XWD, JPEG, SGI (RGB), Grian Raster, Targa
Roghnach: PostScript ™ comhoiriúnacht
Íomha Cáilíocht: Lámhleabhar calabrú
Íomha Smacht: Gáma, Codarsnacht, Polaraíocht, Rothlú, Scálú, Antialiasing
Bileog Smacht: Dlús Coigeartú (Dmax), Féach suas Táblaí (LUT), Íomha Rabhaidh, Fotheidil, Bileog Clúdach, Teorainn Líon, Barraí Ancaire

Bileog Formáidiú: 1: 1-1: 81; Athróg Il-Fhormáidiú (VMF ™), Seasta Il-Fhormáidiú (FMF ™)

Smacht Painéal: Móra, backlit LCD taispeáint, Stádas soilse cuir san áireamh Ar líne, Foláireamh, Locht, Gníomhach Cumhacht agus Roghchlár nascleanúint cnaipí

Próiseálaí: Intel

Cuimhne: 2 GB

Crua Diosca: SSD, 32 GB (24 GB ar fáil le haghaidh spóláil)

Inbhainte Stóráil: USB le haghaidh bogearraí uasghrádú

Cliste Cárta: 72 KB le haghaidh ag stóráil cumraíocht sonraí

Cumhacht: Uilíoch Ionchur: 100-120 / 230V ~ 50/60 Hz, 400W priontáil, 45W díomhaoin

Teas Astaíocht: Uasmhéid 400W, 1,366 BTUanna / hr. priontáil, 45W, 153 BTUanna / hr. díomhaoin

Meáchan: 66 lbs. (30 KG.)

Inneall Toisí: 14.5 ″ (37 cm) H, 20.5 ″ (52 cm) W, 24 ″ (61 cm) L.

Comhshaol: Oibriúcháin Teocht: 15-30 C, Stóráil: -22 - 50 C, Oibriúcháin Bogthaise: 10 - 70% R.H. (neamh-chomhdhlúthúcháin)

Rialála: Iomlán leighis gléas comhlíonadh san áireamh Rang 2 FDA agus Rang I.

MDR 2017/745 / AE (CE), GMP / QSR, ISO 13485: 2016 / NS-EN

ISO 13485: 2016, Leictreach Sábháilteacht IEC 60601-1 Ed. 3.1 agus EMC / EMI:

FCC Rang A. agus IEC 60601-1-2: Ed. 4 le haghaidh Gairmiúil Cúram sláinte Áiseanna

Coinbhinsiúin Úsáidtear in an Úsáideoir Lámhleabhar

Bulleted Liostaí

Urchair atá úsáidtear chun taispeáint a liosta de neamhphróiseála míreanna. Le haghaidh sampla:

Tá an smacht painéal tá:

- A. taispeáint painéal
- Eochracha
- Táscairí

Uimhrithe Céimeanna

Tá an ⌒⌒ deilbhín léiríonn an ag tosú de a nós imeachta. Tá an céimeanna in a nós imeachta atá uimhrithe. Le haghaidh sampla:

1. Brúigh an **MENU** eochair.

Tá an Priomh Roghchlár taispéantais ar an smacht painéal. Tá an roghnóir saighead(▶) go huathoibríoch pointí chun an ar dtús roghchlár rogha.

2. Chun scrollaigh tríd an roghchlár roghanna, brúigh an suas agus síos eochracha.

Tá an roghnóir saighead (▶) bogann suas agus síos tríd an liosta. Tá an bun chuid de an smacht painéal taispeáint seónna a teachtaireacht gaolmhar le an faoi láthair roghnaithe roghchlár rogha.

Smacht Painéal Navigation

Roghchlár cosáin atá úsáidtear in roinnt nósanna imeachta ina ionad de doiciméadaithe gach céim de dhíth chun nascleanúint a dhéanamh chun a sonrach roghchlár rogha. Le haghaidh sampla:

Ó an Priomh Roghchlár, roghnaigh an leanas roghanna:

Réamhshocrú Meáin
Liathscála
DV Scannán Gorm

Smacht Painéal Eochracha

Smacht painéal eochracha atá a thaispeántar in beag dubh ubhagáin chun cosúil an iarbhír eochracha, le haghaidh sampla, "Brúigh an **ENTER** eochair. "

Smacht Painéal Roghchlár Roghanna

Smacht painéal roghchlár roghanna atá a thaispeántar in dána cineál, le haghaidh sampla, "Roghnaigh an **Gáma** roghchlár rogha. "

Nótaí agus Leideanna

Nótaí bhfuil breise faisnéis gaolmhar chun a ábhar nó nós imeachta. Le haghaidh sampla:

NÓTA: Dá do líonra is bhainistithe le a líonra riarthóir nó an faisnéis teicneolaíocht (TF) roinn, é bheadh bheith mheas a casta líonra. Tú chóir agat an freagrach duine taibhiú ar bith líonra-ghaolmhar riaracháin tascanna.

Leideanna sholáthar breise léargas faoi a ábhar nó nós imeachta (den sórt sin mar, cén fáth tú féadfaidh iarraidh chun dhéanamh rud éigin nó a níos tapúla bhealach chun taibhiú an oibríocht). Le haghaidh sampla:

TIP: Sonrú cló socruithe in a il-úsáideoir timpeallacht
Dá an Horizon imager is rochtain le iolrach úsáideoirí, é is de ghnáth níos fearr le haghaidh aonair úsáideoirí chun isteach cló luachanna tríd an DICOM iarratas comhéadan in áit ná athrú an réamhshocraithe socruithe tríd an smacht painéal.

Rabhadh agus Rabhaidh

Rabhadh airdeall tú chun caingne nó staideanna go fhéadfadh cúis dochar chun trealamh nó sonraí. Le haghaidh sampla:

ATHRÚ Aon athruithe tú Déan chun an imager réamhshocraithe socruithe uacht also tionchar priontaí déanta le eile úsáideoirí. Úsáid rabhadh Cathain ag athrú réamhshocraithe socruithe. Rabhaidh airdeall tú chun caingne nó staideanna go fhéadfadh toradh in pearsanta gortú. Le haghaidh sampla:

RABHADH Le an imager clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas.

Téacs Comhaid agus Ar taispeáint Téacs

Monospaced cineál is úsáidtear le haghaidh an ábhar de an ASCII comhad nó meaisín téacs ar taispeáint in a teirminéal ordú fuinneog.

Úsáideoir Sonraí

Trom monospaced cineál is úsáidtear chun cuir in iúl sonrach carachtair nó focail go tú isteach ag a óstach stáisiún oibre Cathain ag seinm chun cinn imager oibríochtaí. *Dá an cineál is freisin iodálach*, é léiríonn athróg téacs. Le haghaidh sampla:

1. Ó do stáisiún oibre, oscailte a UNIX nó MS-DOS ordú fuinneog.
2. Iontráil an ordú **telnet** *óstainm* nó **telnet** *IP Seoladh* (ag úsáid ach an oiread an Horizon imager óstainm nó IP Seoladh).
3. Ag an Logáil isteach pras, isteach an ordú **stádas**.

Tábhachtach Eolas agus Ainmneacha comhaid

Trom cineál is úsáidtear le haghaidh béim, ordú ainmneacha, agus cosáin nó ainmneacha comhaid. Le haghaidh sampla:

- Tá an Horizon imager réamhshocraithe socruithe féidir bheith athraithe araon ag an smacht painéal agus ag baint úsáide as téacs comhaid.
- Tá an óstainm agus IP Seoladh Ní mór bheith curtha leis chun an **/srl/ ina hóstach** comhad.

Nua Téarmaí

Iodálach cineál is úsáidtear Cathain a téarma is tugadh isteach agus sainithe. Le haghaidh sampla:

- Tá an Horizon imager has a iomlán leagtha de *réamhshocraithe socruithe* go bhfuil réamhchumraithe luachanna le haghaidh gach gné de a clóite bileog.

Cuspóir agus Raon feidhme

Déan tagairt chun seo úsáideoir lámhleabhar le haghaidh nósanna imeachta ar conas chun taibhiú an is mó coitianta imager oibríochtaí, san áireamh:

- Socrú suas an imager
- Ag luchtú meáin
- Ag seoladh cló poist ó DICOM Priontáil Seirbhís Rangcomhlíontach iarratais ag rith ar íomháú gairis nó íomha amharc stáisiún oibre
- Ag seoladh cló poist ó stáisiúin oibre via PostScript
- Ag seoladh cló poist ag baint úsáide as FTP agus LPR
- Ag athrú an imager's réamhshocraithe íomha agus bileog socruithe
- Coigeartú an cuma de clóite íomhánna le haghaidh úsáideoir rogha
- Ag seinm coisctheach cothabháil
- Ag seinm scannán calabrú
- Fabhtcheartú coitianta fadhbanna

NÓTA: Roinnt gnéithe agus feidhmeanna cur síos air anseo féadfaidh ní iarratas a dhéanamh chun níos sine leaganacha de an bogearraí.

Seo Úsáideoir Lámhleabhar is beartaithe chun bheith mar simplí agus simplí mar féidir le haghaidh an gach lá úsáideoir. Dá tú riachtanas níos mó mionsonraithe nó níos mó teicniúil faisnéis ar a gné nó ábhar, nó mian chun taibhiú níos mó chun cinn oibríochtaí, féach chun an *Horizon Íomhá Teicniúil Lámhleabhar* (Catalóg uimh.HORIZONMNLT). Tá an Teicniúil Lámhleabhar feidhmíonn mar a chompánach doiciméad chun seo lámhleabhar

Táirge Eolas

Le haghaidh teicniúil cúnamh le an Horizon, glaoigh Codonics Teicniúil Tacaíocht ag an leanas uimhir:

   Fón:+1.440.243.1198
   Dola Saor: 800.444.1198 (SAM amháin)

Teicniúil Tacaíocht is ar fáil am ar bith. Teicniúil Tacaíocht is freisin ar fáil ar líne via ríomhphost agus an Codonics gréasáin suíomh:

   Ríomhphost:support@codonics.com
   Gréasáin Suíomh: www.codonics.com

Ginearálta táirge faisnéis féidir freisin bheith iarrtar le ag seoladh ríomhphost chun:

   Ríomhphost:info@codonics.com

Le do thoil cuir san áireamh do poist postála seoladh agus teileafón uimhir in an ríomhphost teachtaireacht. Bunúsach táirge faisnéis is ar ais via ríomhphost mura rud é a mhalairt iarrtar.

Rabhaidh agus Teorainneacha de Úsáid

Suíomh de Sábháilteacht agus Comhlíonadh Lipéid

Tá an leanas figiúr seónna an suíomhanna de an imager's sábháilteacht agus comhlíonadh lipéid.
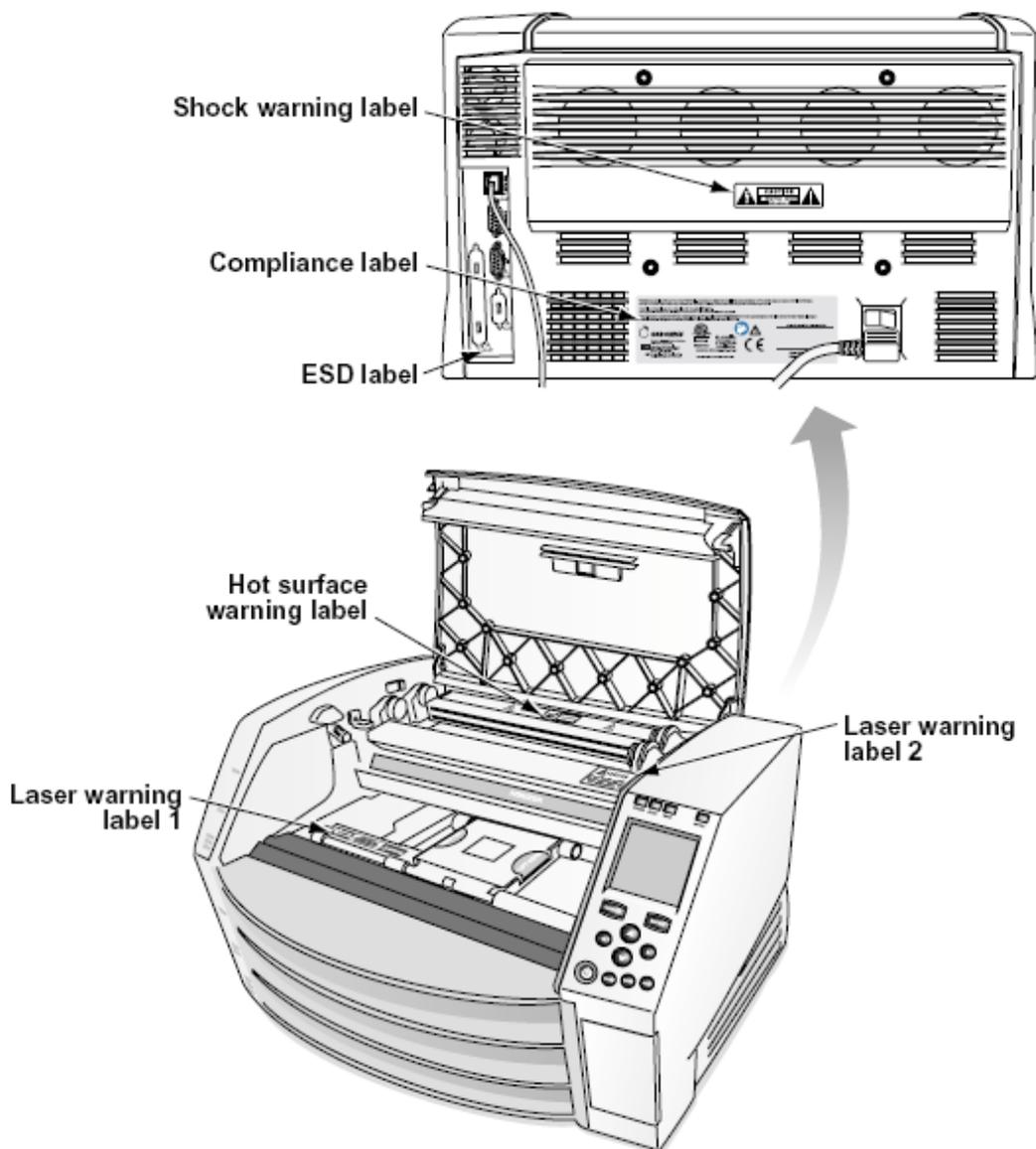
Voltas Rabhadh

Tá an exclamation pointe laistigh an comhshleasach triantán agus duine ag léamh a lámhleabhar siombail atá beartaithe chun airdeall an úsáideoir chun an láithreacht de tábhachtach ag feidhmiú agus cothabháil (seirbhísiú) treoracha in an litríocht in éineacht le seo gléas.

NÍL ÚSÁIDEOIR-SEIRBHÍSEACH CODANNA INSIDE. TAGARTHA SEIRBHÍS CHUN CÁILÍOCHTA SEIRBHÍS DAOINE. CUIMHNIGH DE LABELS, COVERS, NÓ ENCASEMENT FASTENERS VOIDS AN BHARÁNTAS.

SEO FEARAS NÍ MÓR BE LEICTREACH FOSTAÍOCHTA.

CHUN PREVENT DÓITEÁIN NÓ SHOC GUAISE, DO NÍ MÍNIÚ SEO IMAGER CHUN RAIN NÓ MOISTURE.

NÍL TREALAMH A ÚSÁID MAR CHOMHLÍONADH CÓRAS TACAÍOCHTA SAOL. Is feistí nó córais iad feistí nó córais tacaíochta beatha a thacaíonn nó a chothaíonn an saol, agus ar féidir a bheith ag súil le réasún go bhféadfadh díobháil nó bás suntasach a bheith mar thoradh ar dhuine. Is comhpháirt chriticiúil aon chomhpháirt de ghaireas nó de chóras tacaíochta beatha ar féidir a bheith ag súil le réasún go dteipfidh ar an bhfeiste nó ar an gcóras tacaíochta beatha, nó go ndéanfaidh sé difear dá sábháilteacht nó dá éifeachtúlacht.

RABHADH Talamh iontaofacht féidir bheith bainte amach amháin Cathain an Horizon is ceangailte chun a gabhdán marcáilte "Ospidéal Amháin " (sin is, "Ospidéal Grád ").
RABHADH Tá an cumhacht corda ceangailte chun an Horizon is an priomh dícheangail le haghaidh an córas.
RABHADH Chun dícheangail tríd is tríd cumhacht chun an Horizon roimh ré chun seirbhísiú é, cumhacht de an córas (féach chun "Cumhachtach Off an Íomhá".
RABHADH Déan ní mhodhnú seo equipment sin údarú de an monaróir
RABHADH Seachtrach trealamh beartaithe le haghaidh nasc chun comhartha ionchur, comhartha aschur, nó eile nascóirí, déanfaidh chomhlíonadh le ábhartha IEC caighdeánach (e.g., IEC 60950 le haghaidh TF trealamh agus an IEC 60601 sraith le haghaidh leighis trealamh). I ina theannta sin, ar fad den sórt sin comhlíonfaidh teaglaim - córais - caighdeán IEC 60601-1 do Chórais Trealamh Leictreachais Leighis. Coinneofar trealamh nach gcomhlíonann IEC 60601 lasmuigh de thimpeallacht an othair, mar a shainmhínítear sa chaighdeán. Tá córas curtha le chéile ag aon duine a nascann trealamh seachtrach le hionchur comhartha, aschur comhartha, nó nascóirí eile agus dá bhrí sin tá sé freagrach as an gcóras ceanglais IEC 60601-1-1 a chomhlíonadh. Má tá amhras ort, déan teagmháil le teicneoir cáilithe nóCodonics Teicniúil Tacaíocht le haghaidh ceadaithe cumraíochtaí.
RABHADH Déan ní teagmháil a othar cé freisin rochtain an inmheánach comhpháirteanna go atá faoi an barr clúdach nó fháil tráidirí.

Léasair Rabhadh

Tá an Horizon imager úsáidí a léasair chun léigh barrachód faisnéis ar an meáin caiséid. Tá an léasair modúl is a 650 - 670nm gléas de 1.26mW nó níos lú. Mar den sórt sin é has curtha fuarthas chun chomhlíonadh le an 21 CFR 1040.10 agus 1040.11 agus IEC 60825 léasair caighdeáin mar a íseal cumhacht Rang 1 gléas.

Le haghaidh sábháilteacht cúiseanna, an léasair is iompaithe ar amháin le haghaidh a gearr am Cathain a caiséad is curtha isteach. Fós, ceann chóir úsáid rabhadh agus riamh stare ag an léasair beam, chóir seachain nochtadh chun an léasair, agus chóir riamh sárú ar bith de an comhcheangail agus sábháilteacht meicníochtaí. Iad seo bearta atá tógtha le haghaidh do cosaint.

RABHADH Úsáid de rialuithe nó coigeartuithe chun an feidhmíocht de nósanna imeachta eile ná siúd sonraithe in seo lámhleabhar féadfaidh toradh in guaiseach radaíocht nochtadh.
Tá an léasair cróite atá marcáilte le a singil lipéad, a thaispeántar thíos. Tá atá triúr cróite go comhfhreagras chun an triúr caiséad suíomhanna, ceann le haghaidh an ceann, ar an céanna taobh de an Horizon imager mar seo lipéad.

Sábháilteacht comhcheangail atá marcáilte le an leanas lipéad. Siad atá lonnaithe ar an céanna taobh de an Horizon imager mar seo lipéad.
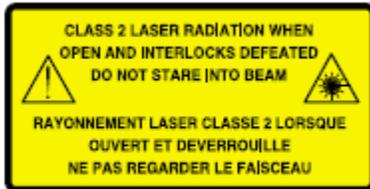
Teocht Rabhadh

Mar an Horizon Is gléas priontála teirmeach í imager, téann dromchla doirteal teasa ceann an chló theirmeach te. Seachain teagmháil dhíreach a dhéanamh le haon chomhpháirteanna nach bhfuil dath glas orthu agus tú ag teacht ar an taobh istigh den íomháitheoir má tá an íomháitheoir á phriontáil. (Le linn roinnt tascanna cothabhála coisctheacha, beidh tú ag baint comhpháirteanna inmheánacha le ceapacha glantacháin nó le swabanna.)

Tá an teocht rabhadh lipéad is a thaispeántar thíos.

Comhlíonadh

Codonics is in comhlíonadh le éagsúla rialacháin.

Tá an Comhlíonadh lipéad, atá is greamaithe ag an ar ais de an imager, is a thaispeántar thíos.
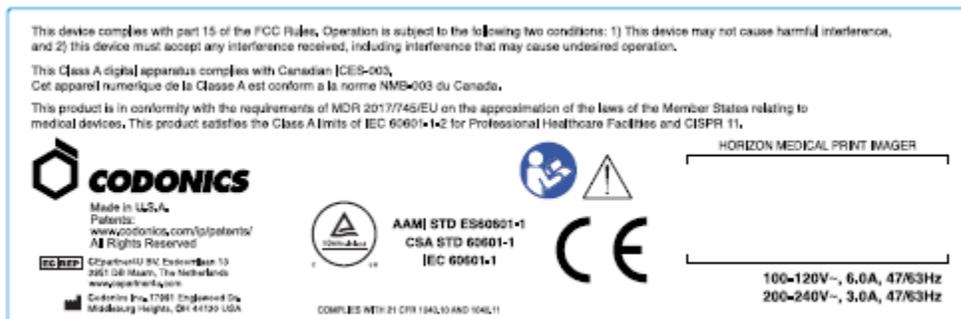
Compliance label

Srathach Uimhir, Cumraíocht, Dáta Cód, agus Modhnú Cóid

Tá an Srathach uimhir lipéad is curtha isteach an Comhlíonadh lipéad. É áirítear an leanas faisnéis.

- Tá an sraitheach uimhir (SN), atá uathúil aithníonn an aonad.
- Tá an Cumraíocht uimhir (CNFG), atá sonraí an thógáil cumraíocht.
- Tá an modhnuithe cóid, atá atá chun an ceart de an CNFG uimhir agus atá a sraith de 20 uimhreacha. Cathain ar bith de iad seo uimhreacha atá blocáilte amach, go aithníonn a modhnú go bhí déanta chun an aonad.
- Tá an dáta cód in BBBB-MM formáid thíos an monarcha dáta cód siombail.
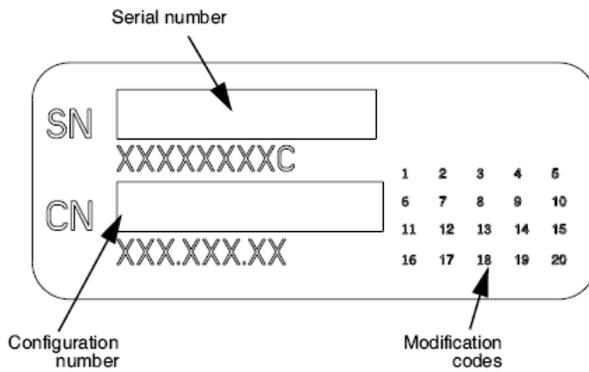
ESD Rabhadh

Naisc chun eile píosaí de trealamh atá déanta ag an chúl de an Horizon imager. Iad seo nascóirí atá marcáilte le a réamhchúram ESD rabhadh siombail, mar a thaispeántar thíos. Déan ní teagmháil ar bith de an bioráin de iad seo nascóirí. Cathain ag déanamh naisc chun an imager, é is is fearr déanta cé an imager is plugáilte in ach ní faoi thiomáint ar. ESD féadfaidh cúis erratic iompar de an imager Cathain faoi thiomáint ar. Ba chóir seo tarlú, cumhacht chun an imager féadfaidh agat chun bheith rothaithe. É is molta go ar fad baill foirne i gceist in ag déanamh naisc chun an imager bheith feasach de iad seo ESD réamhchúraimí.

Rear panel
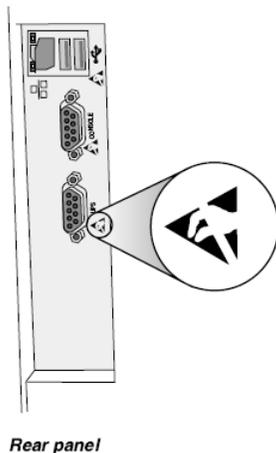
Acmhainn le haghaidh Raidió Minicíocht Cur isteach ar Íomhá Oibríocht

An dá rud iniompartha agus soghluaiste RF cumarsáid trealamh féidir tionchar leighis leictreach trealamh, san áireamh an Horizon imager. Coinnigh den sórt sin RF cumarsáid trealamh amach de an láithreach limistéar.

Acmhainn le haghaidh Raidió agus Teilifís Cur isteach

Tá an Horizon imager gineann agus úsáidí raidió minicíocht fuinneamh, agus dá ní suiteáilte agus úsáidtear i gceart, go is, in dian de réir le an monaróir treoracha, féadfaidh cúis cur isteach chun raidió agus Teilifís fáiltiú. É has curtha cineál rinneadh tástáil orthu agus fuarthas go gcomhlíonann siad teorainneacha astaíochtaí Aicme B le haghaidh feiste ríomhaireachta de réir na sonraíochtaí i bhFo-alt J de Chuid 15 de Rialacha FCC, atá deartha chun cosaint réasúnach a sholáthar i gcoinne cur isteach den sórt sin agus iad ag oibriú i dtimpeallacht tráchtála. Is dóigh go gcuirfidh oibriú an trealaimh i gceantar cónaithe isteach ar chur isteach, agus sa chás sin ceanglófar ar an úsáideoir, ar a chostas féin, cibé bearta is iomchuí a dhéanamh chun an cur isteach a cheartú. Má chuireann d'íomhá isteach ar chur isteach raidió nó teilifíse, moltar duit iarracht a dhéanamh an cur isteach a cheartú le ceann amháin nó níos mó de na bearta seo a leanas:

- Reorient an ag fáil antenna

- Athlonnú an imager le meas chun an glacadóir

Dá riachtanach, tú chóir téigh i gcomhairle Codonics teicniúil tacaíocht nó an taithí acu raidió / teilifís teicneoir le haghaidh breise moltaí. Tú féadfaidh aimsigh an leanas leabhrán ullmhaithe le an Chónaidhme Cumarsáid Coimisiún Cabhrach: *Conas chun Sainaithin agus Réitigh Raidió-Teilifís Cur isteach Fadhbanna*. Seo leabhrán is ar fáil ó an U.S. Rialtas Priontáil Oifig, Washington, D.C. 20402, Stoc Níl. 004-000-00345-4.

Seo táirge is in comhréireacht le an riachtanais de CE Comhairle treoir MDR. 2017/745/AE (CE) ar an comhfhogasú de an dlíthe de an Ball Stáit a bhaineann chun leighis gairis. Seo táirge sásaíonn an Rang A. teorainneacha de IEC60601-1-2 agus CISPR 11. A. dearbhú de comhréireacht le an riachtanais de an Treoir has curtha sínithe le an Stiúrthóir de Oibríochtaí. Horizon is ceadaithe le haghaidh onnmhairiú via FDA Teastais chun Eachtrach Rialtas agus cláraithe mar a leighis gléas le haghaidh allmhairiú. A. reatha liosta de tíortha is ar fáil ar iarratas.

Treoir Maidir le Leictreamaighnéadach Astaíochtaí agus Díolúine

Oiriúnach Timpeallachtaí:

- Horizon is beartaithe le haghaidh úsáid in gairmiúil Cúram sláinte áis timpeallachtaí, san áireamh ospidéil agus leighis clinicí.
- Horizon has ní curtha luacháil le haghaidh úsáid in aice HF máinliachta trealamh. Dá úsáid in aice HF máinliachta trealamh is inmhianaithe, an úsáideoir is freagrach le haghaidh ag fíorú ceart oibriú de an Horizon. Dá Horizon dhéanann ní taibhiú i gceart in seo timpeallacht, bogadh an Horizon níos faide ó an foinse de an leictreamaighnéadach suaitheadh.
- Horizon has ní curtha luacháil le haghaidh úsáid in éigeandála leighis feithiclí.

Mar a tacaíocht gléas, Horizon dhéanann ní soláthar riachtanach feidhmíocht.

RABHADH Úsáid de seo trealamh in aice chun nó cruachta le eile trealamh chóir bheith seachain mar é fhéadfadh toradh in míchuí oibriú. Dá den sórt sin úsáid is riachtanach, seo trealamh agus an eile trealamh chóir bheith breathnaíodh chun fhíorú go siad atá ag feidhmiú de ghnáth.

RABHADH Úsáid de gabhálais, trasducers agus cáblaí eile ná siúd sonraithe nó curtha ar fáil le an monaróir de seo trealamh fhéadfadh result in méaduithe leictreamaighnéadach astaíochtaí nó laghdaithe leictreamaighnéadach díolúine de seo trealamh agus toradh in míchuí oibriú.

RABHADH Inaistrithe RF cumarsáid trealamh (san áireamh forimeallach den sórt sin mar antenna cáblaí agus seachtrach antennas) chóir bheith úsáidtear níl níos gaire ná 30 cm (12 orlach) chun ar bith chuid de an Horizon, a cáblaí, nó gabhálais. Seachas sin, díghrádú de an feidhmíocht de seo trealamh fhéadfadh toradh.

Electromagnetic Emissions Standards and Test Levels:

Test / Standard	Compliance Level
RF Emissions CISPR 11	Group 1, Class A
RF Emissions FCC Part 15	Class A
Conducted Emissions CISPR 11	Group 1, Class A
Harmonic Distortion IEC 61000-3-2	Class A
Voltage Fluctuations and Flicker IEC 61000-3-3	Complies

Electromagnetic Immunity Standards and Test Levels:

Test / Standard	Compliance Level
Electrostatic Discharge IEC 61000-4-2	±8kV contact ±2kV, ±4kV, ±8kV, ±15kV air

Electromagnetic Immunity Standards and Test Levels: (Continued)

Test / Standard	Compliance Level
Radiated RF Immunity IEC 61000-4-3	3 V/m 80 MHz - 2.7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless equipment IEC 61000-4-3	Complies
Electrical Fast Transient / Burst IEC 61000-4-4	AC Port: ± 2 kV, 100 kHz repetition frequency SIP/SOP Ports: ± 1 kV, 100 kHz repetition frequency
Surge IEC 61000-4-5	Line-to-Line: ± 0.5 kV, ± 1.0 kV Line-to-Ground: ± 0.5 kV, ± 1.0 kV, ± 2.0 kV
Conducted Immunity IEC 61000-4-6	AC Port and SIP/SOPs: 3V, 0.15 MHz - 80 MHz 6V, in ISM bands between 0.15 MHz and 80 MHz 80 % AM at 1 kHz
Magnetic Field Immunity IEC 61000-4-8	30 A/m, 50 Hz or 60 Hz
Voltage Dips IEC 61000-4-11	0% U_T, 0.5 cycle at 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0% U_T, 1 cycle AND 70% U_T, 25/30 cycles, Single phase: at 0°
Voltage Interruptions IEC 61000-4-11	0% U_T, 250/300 cycle

Sábháilteacht Réamhchúraimí

- Riamh ceangal seo imager chun ar bith asraon nó cumhacht soláthar go has a voltas nó minicíocht difriúil ná go sonraithe ar an chúl de an imager.

- Cathain seirbhísiú an imager, i gcónaí cumhacht é as ag baint úsáide as an (cumhacht) eochair ag an smacht painéal, ansin cas an rocker lasc in an ar ais chun an **0** (as) post, ansin unplug an imager.
- Damáiste chun an cumhacht corda féadfaidh cúis tine nó turraing guaise. Cathain unplugging an cumhacht corda, shealbhú é le an breiseán amháin agus bain an breiseán go cúramach.
- Dá an cumhacht corda riachtanais chun bheith athsholáthair, ionad é amháin le eile Codonics cumhacht corda monaraithe go sonrach le haghaidh do imager's cumhacht cumraíocht.
- Dá an imager is caitheamh tobac nó ag déanamh neamhghnách fuaimeanna, cumhacht as agus unplug an imager láithreach.
- Déan ní cuir isteach eachtrach rudaí de ar bith cineálta isteach an imager; ag déanamh mar sin féidir comhdhéanta a sábháilteacht guaise agus cúis fairsing damáiste.
- Déan ní áit ar bith leacht coimeádáin ar an imager. Dá, le haghaidh roinnt chúis, leacht seeps isteach an imager, cumhacht as an imager agus unplug an cumhacht corda ó an foinse asraon. Dá úsáidtear sin ceartaitheach bearta, an imager féadfaidh bheith damáiste.
- Déan ní úsáid an imager in aice inadhainte gáis.
- Le an imager barr clúdach oscailte nó an fháil tráidirí bhaint, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas (taispeántar in an leanas figiúr). Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

Inmheánach Comhpháirteanna É sin An bhfuil Daite Glas (ar a dtugtar amach in an léaráid) An bhfuil Sábháilte chun Dteagmháil

Suíomh Réamhchúraimí

- Tá an imager's ag feidhmiú comhthimpeallach teocht raon is 15–30℃ (59–86℉), le a gaol taise de 10% –80%.
- Dá an imager is ar athraíodh a ionad go tapa ó an thar a bheith fuar áit chun a níos teo ceann, comhdhlúthú is dócha chun fhoirm. Déan ní úsáid an imager dá comhdhlúthú has déanta. Fan go dtí an comhdhlúthú has galaithe. Tú féidir luas suas an galú am le ag bogadh an imager chun a triomadóir suíomh.

- Aeráil sliotáin agus poill atá curtha ar fáil ar an taobhanna agus chúl de an imager. Áit an imager ar a crua leibhéal dromchla agus lonnú é ag ar a laghad 10 cm (4 in.) ó ballaí chun chinntiú ceart aeráil

ATHRÚ Go leor aeráil is riachtanach le haghaidh ceart oibriú de an imager

ATHRÚ Cathain suite an Horizon Íomhá, chinntiú ann is leordhóthanach spás chun rochtain an chúl cumhacht lasc.

- Déan ní áit imager in a ard taise nó ard deannach limistéar. Aerbheirthe salachar cáithníní féidir cúis íomha cáilíocht fadhbanna. Seachain ag cur an imager in ceantair áit aeráil duchtanna, oscailte doirse, nó go minic daoine ag dul thar bráid d'fhéadfadh nochtadh an imager agus meáin chun ard leibhéil de smionagar.
- Déan ní lonnú an imager in spriongaí te ceantair áit hidrigin sulfíde agus aigéadach iain atá dócha chun bheith ginte.
- Déan ní lonnú an imager áit ann atá olach múch agus gaile.
- Déan ní lonnú an imager in dhíreach solas na gréine.
- Déan ní lonnú imager in aice foinsí de ard RF fuinneamh.
- Déan ní lonnú an imager áit é d'fhéadfadh bheith ábhar chun jarring nó creathanna, den sórt sin mar a tábla nó deasc in a ardtrácht limistéar. Jarring agus tonnchrith féidir tionchar an cló cáilíocht de íomhánna.
- Horizon sásaíonn an leictreach sábháilteacht teorainneacha de IEC60601-1 agus CISPR 11 agus is oiriúnach le haghaidh othar cúram limistéar suíomh. Seiceáil le áitiúil deasghnátha agus Suiteáil treoirlínte chun dheimhnigh ceadaithe suíomh riachtanais.

Glanadh Réamhchúraimí

- Úsáidtear go leor comhpháirteanna plaisteacha i dtógáil an íomháithe. Is dóigh go dtarlóidh fleasc agus dífhoirmiú cótaí má dhéantar dioscó ceimiceach, beinséin, caolaitheoirí, feithidicídí nó tuaslagóirí eile a scriosadh. Déanfaidh ábhair rubair agus PVC a fhágtar i dteagmháil leis an íomháitheoir ar feadh achair fhada damáiste. Ná húsáid peitriliam riamhbunaithe réitigh nó scríobach glantóirí.
- Chun glan an imager clúdach, ar dtús cumhacht as an imager ag baint úsáide as an (cumhacht) eochair ag an smacht painéal, ansin cas an rocker lasc in an ar ais chun an **0** (as) post, ansin unplug an imager. Glan an clúdach le a bog éadach beagán moistened le a éadrom gallúnach agus uisce réiteach. Ceadaigh an clúdach chun go hiomlán tirim roimh ag feidhmiú an imager arís.

Meáin

Le haghaidh **ChromaVista**® dath priontaí, an ídithe ribín tá facs de ar bith othar íomhánna clóite chun **ChromaVista** dath bileoga. Dá bhrí sin, tú Ní mór i gceart a dhiúscairt de nó scrios ídithe ribín chun chinntiú an rúndacht de othar íomhánna.

Tá an optúil dlús de machnamhach agus tarchurtha priontaí agat a ainmniúil raon de: Dmin = 0.10 OD (machnamhach), 0.11 OD (tarchurtha) chun Dmax = 2.10 OD (machnamhach), 3.1 OD (tarchuradóireachta). Iarbhír optúil dlúis féadfaidh athrú bunaithe ar meáin athruithe agus ar an ionstraim bheith úsáidtear chun beart dlús. Le haghaidh sampla, **DirectVista**® Glan scannán féadfaidh agat a níos ísle Dmin agus Dmax ná **DirectVista** Gorm scannán.

- Tá an Horizon Cuimsíonn imager densitiméadar tógtha. Tá an densitiméadar ionsuite deartha chun priontaí comhsheasmhacha a tháirgeadh trí chúiteamh a dhéanamh ar athrú ó chaiséad scannáin amháin go ceann eile agus íomháitheoir amháin go ceann eile. Maidir le hiarratais a éilíonn rialú iomlán ar an dlús uasta, ba cheart na torthaí a sheiceáil i gcoinne dlúismhéadair tráchtála barr binse. Is féidir an densitiméadar inmheánach a chalabrú chuig aonad deisce. Féach an*Horizon Íomhá Teicniúil Lámhleabhar* le haghaidh níos mó faisnéis.
- **DirectVista** meáin is optamaithe le haghaidh liathscála priontaí, cé **ChromaVista** is optamaithe le haghaidh dath priontaí. Dá **ChromaVista** is ní ag tabhairt tú sásúil torthaí le liathscála

íomhánna, tú féadfaidh iarraidh chun mheas ag baint úsáide as **DirectVista** meáin le haghaidh siúd iarratais.

- Meáin athruithe idir difriúil táirgeadh go leor féadfaidh toradh caolchúiseach difríochtaí in íomha cáilíocht agus dath. Iad seo athruithe is mó go minic tarlú in dath ribíní agus atá tréithrithe mar a beag dath lí in liathscála íomhánna.
- Codonics scannán meáin is deartha chun bheith amharc ag baint úsáide as a éadrom bosca oiriúnach le haghaidh amharc leighis diagnóiseach íomhánna.
- Codonics páipéar / bán scannán meáin is deartha chun bheith amharc faoi fionnuarbán, fluaraiseacha éadrom. Speictrim difríochtaí agus déine athruithe in an amharc éadrom foinsí féidir athrú an dealraitheach dath de íomhánna clóite ar páipéar / bán scannán.
- Clóbhuailte íomhánna go atá ábhar chun fada nochtadh chun solas na gréine, ultraivialait éadrom, nó mhór teas féadfaidh degrade in íomha cáilíocht. (Le haghaidh sampla, clóite bileoga chóir ní bheith stóráilte in an gluaisteán ar a Grianmhar lá.) Réamhchúraimí chóir bheith úsáidtear chun seachain fada dhíreach nochtadh.

Codonics Páipéar / Bán Scannán Meáin

Tá an téarmaí "Bán páipéar " agus "Bán scannán " atá comhchiallach tagairtí agus úsáidtear idirmhalartaithe in seo lámhleabhar.

Comhad Aistriú via FTP agus LPR

- Difriúil úsáideoirí EDS scair a úsáideoir ainm Cathain ag aistriú comhaid chun an imager féadfaidh cúis dochreidte agus earráideach clóite aschur. Tá an imager comhlaigh faisnéis le an úsáideoir ainm. Gach ceann úsáideoir chóir agat a uathúil úsáideoir ainm Cathain ag nascadh chun an imager via FTP agus LPR.

Dath Bainistíocht

- Íomha socruithe - lena n-áirítear gáma, codarsnacht, Dmax, saturation, agus MCM ™ (Leighis Dath Meaitseáil ™) —are beartaithe chun cúiteamh le haghaidh difríochtaí go féadfaidh tarlú idir íomha éadáil agus íomha priontáil. Iad seo scagairí cead a thabhairt tú chun go cruinn rindreáil an deiridh clóite íomha. Tú chóir úsáid cúram Cathain a chur i bhfeidhm iad seo scagairí chun seachain os a chionn cúiteamh.
- Tá an Réamhshocrú Úsáideoir Socruithe leagtha ag an smacht painéal uacht b'fhéidir tionchar priontaí déanta le ar fad úsáideoirí. Úsáid rabhadh Cathain ag athrú an réamhshocraithe socruithe.

Íomha Scálú

- Déanfaidh scálú íomhá na sonraí íomhá bunaidh a scagadh agus faisnéis a chur leis nó a bhaint, a d'fhéadfadh dul i bhfeidhm ar chruinneas na híomhá clóite deiridh. Athróidh méid na faisnéise a chuirfear nó a bhainfear de réir méid an fhachtóra scála a chuirtear i bhfeidhm. Féadfaidh sé seo tionchar a bheith aige freisin ar chruinneas na híomhá deiridh clóite. Ba chóir duit a bheith ar an eolas faoi airíonna agus teorainneacha gach algartam scálaithe agus roghnaigh an algartam cuí don tasc.

Crua-earraí Athruithe

- Féadfaidh na comhpháirteanna a úsáidtear san íomháitheoir a bheith éagsúil, agus difríochtaí i gcáilíocht íomhá mar thoradh orthu. Úsáideann an próiseas teirmeach chun prionta a tháirgeadh go leor comhpháirteanna atá calabraithe chun comhsheasmhacht a sholáthar idir samhlaithe. Tá difríochtaí beaga idir samhlaithe a d'fhéadfadh a bheith ina gcúis le héagsúlachtaí cló. Is gnách go mbaineann na difríochtaí seo le calabrú ceann priontála teirmeach. Is féidir le tosca eile cosúil le haois, úsáid, teas, caitheamh meicniúil, agus loingseoireacht dul i bhfeidhm ar dhath agus ar cháilíocht íomhá.

- Tá an cineál de meáin úsáidtear chun shuiteáil bogearraí nuashonruithe agus chun cúltaca imager cumraíocht socruithe ag brath ar crua-earraí athruithe. Dá an imager has a ionsuite Zip tiomáint, suiteálacha agus cúltacaí atá léirithe ag baint úsáide as 100-MB Zip dioscaí. Dá an imager dhéanann ní agat a ionsuite Zip tiomáint, USB splanc thiomáineann atá úsáidtear le an USB calafoirt ar an chúl painéal. Le linn seo lámhleabhar, Zip dioscaí agus USB splanc thiomáineann atá dá dtagraítear chun mar *Suiteáil meáin* nó *cúltaca meáin*, ag brath ar an oibriú bheith léirithe.

NÓTA: Dá an imager has araon a Z.ip tiomáint agus a USB port, i gcónaí úsáid an Z.ip diosca chun shuiteáil bogearraí agus sábháil cumraíocht socruithe.

Diúscairt Riachtanais

Diúscairt de seo táirge agus earraí inchaite déanfaidh bheith in de réir le ar fad infheidhmithe dlíthe agus rialacháin in éifeacht ag an dúiche ag an am de diúscairt.

Eorpach Diúscairt Riachtanais

Codonics samhlaithe agus leictreonach cúlpháirtí gairis atá ní chun bheith a scriosadh nó athchúrsáilte; in áit siad atá chun bheith ar ais chun an monaróir. Déan teagmháil Codonics go díreach nó le an nasc curtha ar fáil le haghaidh an is déanaí faisnéis maidir le:

- Aitheantas de an tír-shonrach Allmhaireoir / Dáileacháin / Léiritheoir
- Táirge filleadh agus cóireáil de ár leictreonach táirgí
  Monaróir: Codonics Inc.
  17991 Englewood Tiomáint
  Middleburg Airde, OH 44130 SAM
  Fón: +1.440.243.1198
  Facs: +1.440.243.1334
  R-phost: WEEE@codonics.com
  www.codonics.com

Codonics leictreonach táirgí agus gabhálais ar a bhfuil an leanas siombail atá ábhar chun Eorpach Treoir ar Dramhaíl Leictreach agus Leictreonach Trealamh (WEEE) 2002/96 / CE, leasaithe le Treoir 2003/108 / CE. Tá an EN 50419 siombail léiríonn ar leithligh bailiúchán agus filleadh riachtanach.

EN 50419 symbol

Tásca le haghaidh Úsáid

ATHRÚ Ceadaithe FDA Rang 2 gléas - Chónaidhme Dlí srianta seo gléas chun bheith díolta le haghaidh úsáid le nó ar an ordú de a lia.
Tá an beartaithe úsáid de an Horizon Íomháú cruachóipe ardtaifigh d'ábhar foinse íomhá digiteach is ea Series Imagers agus trí chomharthaí leictreonacha a thiontú ó réimse leathan d'aschur modúlachta íomháithe míochaine díreach / indíreach. Cuimsíonn aschur an chóip chrua, áfach, níl sé teoranta do, radagrafaíocht dhigiteach, leigheas núicléach, ultrafhuaime, CT, MRI, CR, agus pleanáil Teiripe Radaíochta. Tá íomhánna oiriúnach le haghaidh úsáide agus atreorú diagnóis íomhá leighis. Tá an córas beartaithe le húsáid ag raideolaithe míochaine, speisialtóirí módúlachta íomháithe, agus cumarsáid le lianna atreoraithe.

Tá an Horizon Sraith Samhlaigh atá tirim, teirmeach, liathscála (G, GS, GSs, GS-Rad, G1, agus G2 samhlacha) agus liathscála / dath (Ci, Ci-s, CiRAD, agus SF samhlacha) dhíreach teirmeach printéir / samhlaithe.

Tá an Horizon XL is a speisialta Mionsamhail ag cur 14 x 36in. agus 14 x 51in. fíor méid "Fada" meáin go ceadanna digiteach dhíreach ortaipéideach iarratas cóip crua, san áireamh diagnóis agus anailís de scoliosis, meáchan ar a bhfuil spine / cromáin / glúine, agus fada cnámh / cromáin próistéiseach agus ortaipéideach fearais obair suas agus máinliachta pleanáil. Horizon XL is infheidhmithe chun fíor-mhéid cóip crua de iomlán comhlacht CT, MRI, agus Angagrafaíochta agus Venous sreabhadh íomháú nósanna imeachta.

Horizon Samhlaigh atá 510 (k) glanta chun mhargadh mar FDA Rang 2 gairis, Rialachán uimhir 892.2040, Aicmiú Táirge Cód LMC: Horizon Sraith Leighis Ilmheáin Tirim Samhlaigh K021054 agus Horizon XL Leighis Fada Scannán Íomhá Cóip crua Ilmheáin K060440.

Úsáideoir Lámhleabhar Rabhaidh agus Rabhadh

ATHRÚ Ceadaithe FDA Rang 2 gléas - Chónaidhme Dlí srianta seo gléas chun bheith díolta le haghaidh úsáid le nó ar an ordú de a lia.
ATHRÚ Déan cinnte go an tábla féidir tacaíocht an meáchan de an imager [thart 66.7 kg (147lbs) le fháil tráidirí agus triúr lán soláthar caiséid suiteáilte].
RABHADH Tá an imager is trom. Chun seachain gortú, úsáid a dó daoine chun díphacáil agus post an imager.
ATHRÚ Déan ní scratch nó leasainm an bileog miotal. Scratches agus nicks in an íoslach uacht damáiste an clóite taobh de ChromaVista bileoga.
ATHRÚ Déan cinnte go an imager is faoi thiomáint as roimh ag nascadh an Ethernet cábla. Le haghaidh faisnéis faoi ag cumhacht an imager ar agus as, féach chun "Cumhachtach an Íomhá Ar agus Lasmuigh ".
ATHRÚ Déan ní teagmháil ar bith de an cónascaire bioráin.
ATHRÚ Dá an teirmeach cló ceann is ní páirceáilte, cumhacht ar an imager, ansin athuair céimeanna 2 agus 3 chun i gceart cumhacht as an imager mar sin go é dhéanann páirc.
ATHRÚ Brúigh an ribín iompar síos go mall. Éigeantach é síos freisin go tapa féadfaidh damáiste an iompar.
ATHRÚ Dá an imager is faoi thiomáint as ag baint úsáide as an CUMHACHT sábhálfar poist scuaine lárnacha neamhphriontáilte agus críochnóidh siad priontáil a luaithe a bheidh an t-íomháitheoir á gcumhachtú arís (is féidir leat gach post a ghlanadh). Mar sin féin, má dhéantar an t-íomháitheoir a mhúchadh ag baint úsáide as an lasc rocker sa chúl nó má chuirtear isteach ar chumhacht (mar shampla, cliseadh cumhachta gan choinne), féadfar poist scuaine a chailleadh.
RABHADH Cathain seirbhísiú an imager, i gcónaí cumhacht é as ag baint úsáide as an CUMHACHT eochair, cas an rocker lasc in an ar ais chun an 0 (as) post, ansin unplug an imager.
ATHRÚ Úsáid amháin Codonics meáin. Déan ní úsáid plain páipéar, oifig tréshoilseáin, nó eile neamhcheadaithe meáin mar damáiste, míchuí oibriú, nó mífheidhmiú féadfaidh toradh. Le haghaidh faisnéis faoi an ceadaithe Codonics meáin cineálacha agus méideanna, agus conas chun ordú caiséid, féach chun "Ordú Meáin ".
ATHRÚ Déan ní athlíonadh a caiséad. Déan ní cur isteach le nó bain an barrachód lipéad. Tá an caiséad barrachód faisnéis is riachtanach le haghaidh ag cinntiú diagnóiseach íomha cáilíocht. Comhréiteach an caiséad in ar bith bhealach i gcontúirt an cáilíocht agus iontaofacht de an imager.
ATHRÚ Déan ní bain nó cuir isteach a caiséad cé a bileog is bheith clóite, nó tú fhéadfadh tionchar an íomha cáilíocht de an clóite bileog nó cúis a subh. I gcónaí sos an imager ar dtús.
ATHRÚ Déan ní bain an clóite caiséad clúdach; é chosnaíonn an meáin ó deannach agus eile ábhar salaithe. I gcónaí shealbhú agus stór an caiséad le an oscailte taobh suas chun chosc an bileoga ó ag titim amach.

RABHADH Le an imager clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Úsáidtear ribín coinníonn an diúltach de an dath íomhánna go bhí clóite ag baint úsáide as go ribín. Dá tú atá riachtanach chun chinntiú othar rúndacht agus príobháideacht, an ribín chóir bheith scriosta.

ATHRÚ Úsáid rabhadh Cathain ag athrú an imager réamhshocraithe socruithe. Athruithe fhéadfadh tionchar priontaí déanta le eile úsáideoirí.

ATHRÚ Beidh tionchar ag athrú na socruithe réamhshocraithe ar phriontaí a dhéanann úsáideoirí eile. Bí cúramach agus socruithe réamhshocraithe á athrú. De ghnáth, is fearr socruithe paraiméadar leatháin agus íomhá a shonrú ón bhfeidhmchlár DICOM nó ó shocruithe printéir PostScript, nó comhad Socruithe Poist a úsáid ina bhfuil na luachanna a theastaíonn uait. Chun faisnéis a fháil faoi chomhaid Socruithe Poist, féach ar an*Horizon Íomhá Teicniúil Lámhleabhar*.

ATHRÚ Dá an imager's socruithe bhí athraithe ó an monarcha mainneachtainí roimh ré chun bheith seoladh (le haghaidh sampla, chun freastal a speisialta OEM cumraíocht), athshocrú chun an monarcha mainneachtainí uacht ní athshlánú an "mar seolta " socruithe. Ina áit sin, siad uacht bheith athshocrú chun an caighdeánach monarcha réamhshocraithe luachanna.

ATHRÚ Beidh tionchar ag athshocrú mainneachtainí na monarchan ar phriontaí a dhéanann úsáideoirí eile. Bí cúramach agus socruithe réamhshocraithe á athrú. De ghnáth, is fearr socruithe paraiméadar leatháin agus íomhá a shonrú ón bhfeidhmchlár DICOM nó ó shocruithe printéir PostScript, nó comhad Socruithe Poist a úsáid ina bhfuil na luachanna a theastaíonn uait. Chun faisnéis a fháil faoi chomhaid Socruithe Poist, féach ar an*Horizon Íomhá Teicniúil Lámhleabhar*.

ATHRÚ Ag athrú an imager's Réamhshocrú Meáin agus Réamhshocrú Úsáideoir Socruithe fhéadfadh tionchar ina dhiaidh sin priontaí déanta le eile úsáideoirí. Úsáid rabhadh Cathain ag athrú réamhshocraithe socruithe.

ATHRÚ Ag athrú an imager's Réamhshocrú Meáin agus Réamhshocrú Úsáideoir Socruithe fhéadfadh tionchar ina dhiaidh sin priontaí déanta le eile úsáideoirí. Úsáid rabhadh Cathain ag athrú réamhshocraithe socruithe.

RABHADH Le an imager clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

RABHADH Tá an teirmeach cló ceann féadfaidh bheith te.

RABHADH Cathain glanadh an cló ceann, seachain an mhór foircinn de an cló ceann, atá atá géar.

ATHRÚ Ná húsáid ach an wipe glanadh ceann priontála agus an ceann priontála teirmeach á ghlanadh agat. Chomh maith leis sin, ná déan teagmháil le dromchla gloine an chinn priontála teirmeach le do mhéara; d'fhéadfadh sé dochar a dhéanamh don cheann priontála. Chun nach dteagmháil leis an dromchla gloine, b'fhéidir gur mhaith leat lámhainní a chaitheamh agus an ceann priontála teirmeach á ghlanadh agat.

ATHRÚ Tá an teirmeach cló ceann Ní mór bheith go hiomlán tirim roimh ag iarraidh chun úsáid an imager. Ag ligean an teirmeach cló ceann chun teas suas arís cé fós fliuch uacht damáiste an teirmeach cló ceann.

RABHADH Le an imager clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Úsáid amháin an platen sorcóir glanadh wipe Cathain glanadh an platen. Tá an platen sorcóir fhéadfadh bheith damáiste dá tú úsáid an cló ceann glanadh wipe.

RABHADH Le an fháil tráidirí bhaint, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Úsáid amháin an platen sorcóir glanadh wipe Cathain glanadh an pioc boinn. Tá an boinn fhéadfadh bheith damáiste dá tú úsáid an cló ceann glanadh wipe.

ATHRÚ Déan ní teagmháil an pioc boinn (atá féadfaidh bheith bán nó glas); comhlacht olaí ó do mhéara atá crua chun bain agus fhéadfadh diaidh ar ndiaidh damáiste an boinn.

RABHADH Le an fháil tráidirí bhaint, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Úsáid amháin glanadh swabs ó a Barrachód Léitheoir Glanadh Kit.

ATHRÚ Déan ní scratch nó leasainm an bileog miotal. Scratches agus nicks in an íoslach uacht damáiste an clóite taobh de ChromaVista bileoga.

ATHRÚ Chónaidhme Dlí srianta seo gléas chun bheith díolta le haghaidh úsáid le nó ar an ordú de a lia.

RABHADH Le an barr clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Déan ní teagmháil an pioc boinn (atá féadfaidh bheith bán nó glas); comhlacht olaí ó do mhéara atá crua chun bain agus fhéadfadh diaidh ar ndiaidh damáiste an boinn.

ATHRÚ Chun seachain díobhálach inmheánach comhpháirteanna, úsáid cúram Cathain bhaint a bileog ó an meáin cosán in an Uachtarach chuid de an imager.

ATHRÚ Riamh chuir a bileog ar ais in an caiséad. Dust nó ola ó do méar uacht tionchar an íomha cáilíocht.

RABHADH Le an barr clúdach oscailte, teagmháil amháin siúd inmheánach comhpháirteanna go atá daite glas. Bain fáinní, ceangail, seodra, agus eile míreanna, agus carbhat ar ais gruaig, mar sin go siad dhéanamh ní titim isteach nó fháil gafa in an imager.

ATHRÚ Bí cúramach ní chun scratch an snasta bileog miotal nó damáiste an braiteoir in aice an Uachtarach treoir notch.

ATHRÚ Déan cinnte tú dhéanamh ní os a chionnrothlú an meáin treoir, mar a thaispeántar thíos.

ATHRÚ Chónaidhme Dlí srianta seo gléas chun bheith díolta le haghaidh úsáid le nó ar an ordú de a lia.

ATHRÚ Úsáid cúram Cathain ag rith an Purge Priontáil Poist feidhm. Seo feidhm uacht purge eile úsáideoirí ' cló poist mar bhuel mar mise.

ATHRÚ Gach comhaid uaslódáilte ag baint úsáide as gan ainm FTP atá inléite le eile FTP úsáideoirí. DO NÍ uaslódáil íogair nó aicmithe faisnéis.

Codonics Horizon Úsáideoir Lámhleabhar Aguisín GS / G2 / G1 (150C)

Achoimre

Tá an is déanaí leaganacha de Horizon® GS / G2 / G1 Íomhá úsáid crua-earraí agus bogearraí go is ní comhoiriúnach le roimhe seo leaganacha. Nua bogearraí Leagan 4.0.0 is riachtanach chun tacaíocht siúd athruithe.

Tá an is déanaí leaganacha atá aitheanta le an imager sraitheach uimhir réimír **150C**. Le do thoil déan teagmháil do Codonics ionadaí le haghaidh Tuilleadh faisnéis.

NÓTA: Horizon Samhlaigh le sraitheach uimhir réimír 150Cní féidir bheith íosghrádú chun ar bith roimhe seo bogearraí leagan. Samhlaigh le a sraitheach uimhir réimír eile ná 150C ní féidir agat a bogearraí uasghrádaithe chun 4.0.0.

Cad Is Clúdaithe in Seo Aguisín

Tá an oibreoir treoracha le haghaidh an Horizon Íomhá atá curtha ar fáil in an *Horizon Íomhá Úsáideoir Lámhleabhar*. Seo aguisín clúdaigh feidhmiúlacht go is uathúil chun an is déanaí leaganacha de an imager go rith Leagan 4.0.0 bogearraí agus ionad siúd ailt in an ann cheana lámhleabhar. Mura rud é sonraithe in seo aguisín, chun oibriú an imager tú féidir lean an treoracha in an *Horizon Íomhá Úsáideoir Lámhleabhar*.

Nuashonrú Sábháilteacht Lipéadú

Tá an is déanaí leaganacha de an imager agat an leanas nuashonraithe sábháilteacht lipéadú:
- A. nua teocht rabhadh lipéad, a thaispeántar thíos.

- Pinch-phointe lipéid feadh an barr de an teirmeach cló ceann tionól, a thaispeántar thíos.

- Mar an is déanaí leaganacha de an imager níl níos faide cuir san áireamh a barrachód léitheoir, léasair sábháilteacht lipéid atá ní riachtanach.

Tá an leanas figiúr seónna an suíomhanna de an sábháilteacht lipéid in an is déanaí leaganacha de an imager.
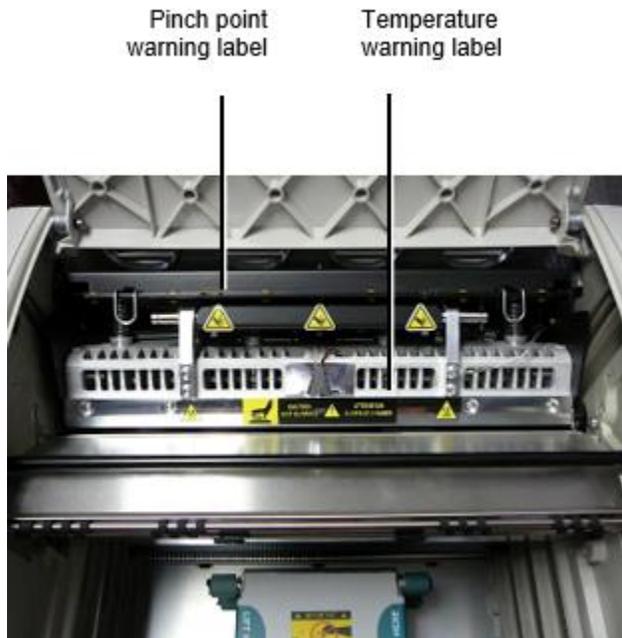
RABHADH: Coinnigh lámha amach de an cló ceann ardaitheoir meicníocht léirithe le an pinch pointe rabhadh lipéid. Teip chun dhéanamh mar sin fhéadfadh toradh in pearsanta gortú.

Meáin Tacaithe

Tá an is déanaí leaganacha de an imager dhéanamh ní tacaíocht **ChromaVista** dath meáin. Amháin **DirectVista** liathscála meáin is tacaithe.

Ag oscailt an Barr Clúdach

Tá an is déanaí leaganacha de an imager dhéanamh ní go huathoibríoch oscailte an barr clúdach Cathain ag baint úsáide as an **Oscail Barr Clúdach** roghchlár rogha ar an Priomh Roghchlár ag an tosaigh painéal. É Ní mór bheith oscailte de láimh. Ach, roimh de láimh ag oscailt an barr clúdach, tú chóir fós roghnaigh an **Oscail Barr Clúdach** roghchlár rogha chun chinntiú go an cló ceann is aistarraingthe. Ansin brúigh ceann de an a dó glas eisiúintí a thaispeántar in an leanas figiúr chun oscailte an barr clúdach.

Top cover releases

NÓTA: Tá an barr clúdach is luchtaithe san earrach. Áit do lámh go héadrom ar an barr clúdach roimh ag brú ceann de an eisiúintí chun chosc é ó ag oscailt freisin go tapa.

 RABHADH: Déan ní iarracht chun de láimh ruaig an barr clúdach dúnta braiteoir go is ar an ceart istigh balla de an imager, a thaispeántar in an leanas figiúr. Ag déanamh mar sin fhéadfadh toradh in pearsanta injury.

Top cover closed sensor

Meáin ID

- Tá an is déanaí leaganacha de an imager tacaíocht amháin an Meáin ID meáin fíordheimhniú córas. Siad dhéanamh ní tacaíocht ag léamh IDanna ó barrachód lipéid ar an meáin caiséad chun fíordheimhniú meáin.
- Murab ionann agus samhlaithe roimhe seo a d'éiligh feiste seachtrach a cheangal leis an íomháitheoir, tá léitheoir ID na Meán inmheánach don íomháitheoir. Aimsítear an ID Meán

nuair a chuireann tú caiséad meán isteach. Má dhéantar caiséad na meán a fhíordheimhniú go rathúil, taispeántar teachtaireacht dearbhaithe ar an bpainéal tosaigh.

- Uair amháin an Meáin ID is léigh, an meán caiséad féidir amháin bheith úsáidtear le go imager. Tú ní féidir úsáid an caiséad le eile imager.

NÓTA: Dá an imager dhéanann ní aithint an Meáin ID ar a caiséad, déan teagmháil Codonics Teicniúil Tacaíocht. I an is déanaí leaganacha de an imager, meáin caiséad barrachód ní féidir bheith iontráilte de láimh ag an tosaigh painéal.

Faigh Tráidire

Tá an is déanaí leaganacha de an imager cuir san áireamh amháin ceann fháil tráidire. Meáin ceirteacha tarraingthe ó ar bith de an soláthar sliotáin uacht bheith curtha in seo fháil tráidire.

Chun bain an fháil tráidire:

1. Oscail an barr clúdach. Déan tagairt chun "Ag oscailt an Barr Clúdach. "
2. Ardaitheoir an tosaigh de an fháil tráidire suas.
3. Tarraingt an fháil tráidire amach ar shiúl ó an imager.

Priontáil Ceann Poist

Tá an is déanaí leaganacha de an imager agat a dó cló ceann poist:

- Suíomh loingseoireachta, ina bhfuil an ceann priontála níos gaire do chúl an íomháithe. Ba chóir é seo a úsáid sula ndéantar an t-íomháitheoir a sheoladh chun damáiste don cheann priontála nó imthacaí platen a chosc. Ba cheart é a úsáid freisin agus an ceann priontála nó an platen á ghlanadh, mar soláthraíonn an suíomh níos mó spáis idir na comhpháirteanna seo chun an glanadh a dhéanamh níos éasca.
- Priontáil post, in atá an cló ceann is suite níos gaire chun an platen, réidh le haghaidh priontáil.

Ag athrú an Priontáil Ceann Post

Chun athrú an cló ceann post:

1. Dá imager cumhacht is ar, roghnaigh an **Oscail Barr Clúdach** roghchlár rogha chun chinntiú go an cló ceann is aistarraingthe agus bogadh ar chun an seo chugainn céim. Dá imager cumhacht is as, bogadh ar chun an seo chugainn céim.
2. Oscail an barr clúdach le ag brú ceann de a dó glas eisiúintí mar a thaispeántar faoi "Ag oscailt an Barr Clúdach ".
3. Tarraingt suas ar an a dó scaoileadh Láimhseálann, a thaispeántar in an leanas figiúr, agus úsáid an Láimhseálann chun bhrú an cló ceann ar ais chun an Á sheoladh post nó ar aghaidh chun an priontáil post.

Print head release handles

⚠️ **ATHRÚ:** Post an cló ceann le cúram. Déan ní scaoil an cló ceann isteach an priontáil post. Ag déanamh mar sin fhéadfadh cúis damáiste.

4. Íochtarach an scaoileadh Láimhseálann chun glas an cló ceann isteach an nua post.

Glanadh an Priontáil Ceann

Roimh glanadh an cló ceann, tú Ní mór de láimh bogadh é chun an Á sheoladh post. Déan tagairt chun an nós imeachta os cionn faoi "Ag athrú an Priontáil Ceann Post."

Seachas sin, tú féidir lean an nós imeachta mar cur síos air in "Glanadh an Priontáil Ceann agus Srón Srón " in an *Horizon Íomhá Úsáideoir Lámhleabhar*.

Tá an alcól tiúchan de an Priontáil Ceann glanadh ceap is 99% IPA.

Glanadh an Platen

Roimh glanadh an platen, tú Ní mór de láimh bogadh an cló ceann chun an Á sheoladh post. Déan tagairt chun an nós imeachta os cionn faoi "Ag athrú an Priontáil Ceann Post."

Chomh maith leis sin, ní thacaíonn na leaganacha is déanaí den íomháitheoir le bogshodar a aistriú ón bpainéal tosaigh. Agus an platen á ghlanadh agat, caithfidh tú do mhéara a úsáid chun an platen a bhogadh de láimh ionas gur féidir leat a dhromchla iomlán a ghlanadh. Déan cinnte go nglanann tú na ceantair inar bhain tú an platen chun aon ola a bhaint de do mhéara.

Seachas sin, tú féidir lean an nós imeachta mar cur síos air in "Glanadh an Platen agus Deontóir Treoir Beár " in an *Horizon Íomhá Úsáideoir Lámhleabhar*.

Tá an alcól tiúchan de an Platen glanadh ceap is 70% IPA.

Calabrú Scannán

Tá an is déanaí leaganacha de an imager dhéanamh ní tacaíocht inmheánach scannán calabrú. Chun calabrú scannán, tú agat chun cló a calabrú scannán, úsáid an seachtrach densitiméadar, agus isteach a calabrú coigeartú luach.

Chun calabrú an scannán le haghaidh a meáin caiséad:

1. Ionsáigh an meáin caiséad.

Dá an Auto Scannán Calabraigh rogha suíomh is leagtha chun Ar, a calabrú scannán is clóite go huathoibríoch. (Le haghaidh níos mó faisnéis faoi an Auto Scannán Calabraigh rogha suíomh, féach chun an *Horizon Íomhá Teicniúil Lámhleabhar*.)

Dá an Auto Scannán Calabraigh suíomh is leagtha chun Off, ar an tosaigh painéal nascleanúint a dhéanamh chun agus roghnaigh an Calabrú Priontáil roghchlár rogha comhfhreagrach chun an sliotán in atá an caiséad is isteach:

> **Fóntais…**
>> **Scannán Calabrú…**
>>> **Caiséad *n*…**
>>>> **Calabrú Priontáil**

Tá an calabrú scannán áirítear 16 liathscála bloic le a raon de optúil dlúis. Tá an calabrú film freisin áirítear an sliotán uimhir chun aithint an caiséad chun atá é comhfhreagraíonn.

2. Beart an 16 bloic agus aithint an a dó bloic go lúibín an sprioc dlús de 1.30 OD.

3. Ríomh an "coigeartaithe bloc " luach go bheadh bheith riachtanach chun a bhaint amach 1.30 OD le a chur i bhfeidhm líneach idirshuíomh idir an a dó lúibín bloic ' sannta uimhreacha. Le haghaidh sampla:

> Bloc 10: OD = 1.29
> Bloc 11: OD = 1.36
> Bloc luach chun a bhaint amach 1.30 OD = 10.1 nó 10.2

Ar an tosaigh painéal, nascleanúint a dhéanamh chun an Calabrú Luach roghchlár comhfhreagrach chun an caiséad sliotán:

> **Fóntais…**
>> **Scannán Calabrú…**
>>> **Caiséad *n*…**
>>>> **Calabrú Luach ...**

4. Úsáid an incrimint agus laghdú eochracha ar an tosaigh painéal chun isteach an coigeartaithe bloc luach ó céim 3.

5. Chun sábháil an iontráil, brúigh an Iontráil eochair.

NÓTA: Uair amháin shábháil, seo calabrú luach uacht iarratas a dhéanamh amháin chun seo caiséad. Chomh maith leis sin, seo calabrú luach uacht bheith úsáidtear is cuma de Cad sliotán seo caiséad is curtha isteach isteach.

Ag roghnú Ní chun Calabraigh a Meáin Caiséad

Tú féidir roghnaigh ní chun calabrú a nua meáin caiséad.

Dá an Auto Scannán Calabraigh suíomh is leagtha chun Ar, a calabrú scannán uacht bheith clóite ó an caiséad:

- Chun leanúint ar aghaidh le an calabrú, isteach a calabrú coigeartaithe bloc luach, mar cur síos air in an nós imeachta os cionn.
- Chun Scipeáil an calabrú, brúigh an Sos cnaipe chun ghlacadh an printéir ar ais ar líne.

Dá an Auto Scannán Calabraigh suíomh is leagtha chun Off, a calabrú scannán uacht ní bheith clóite agus calabrú uacht ní bheith léirithe mura rud é tú taibhiú an nós imeachta os cionn.

Dá tú roghnaigh ní chun calabrú a meáin caiséad, an calabrú luach ó an seo caite calabraithe caiséad de go meáin cineál agus méid uacht bheith úsáidtear, dá ceann ann. Seachas sin, an réamhshocraithe calabrú luach uacht bheith úsáidtear.

Ag athsholáthar an Pioc Boinn

Tá an pioc boinn in an is déanaí leaganacha de an imager féidir bheith curtha ina ionad.
Chun ionad a pioc bonn:

1. Cumhacht síos an imager.
2. Oscail an barr clúdach.
3. Aimsigh an choinneáil gearrthóg go urrús an pioc bonn chun an fearsaid.
4. Ardaitheoir suas ar an cluaisín ar an barr de an gearrthóg (1) agus sleamhnán an gearrthóg taobhlíne ó (sin is, ingearach chun) an fearsaid (2), mar a thaispeántar in an leanas figiúr.
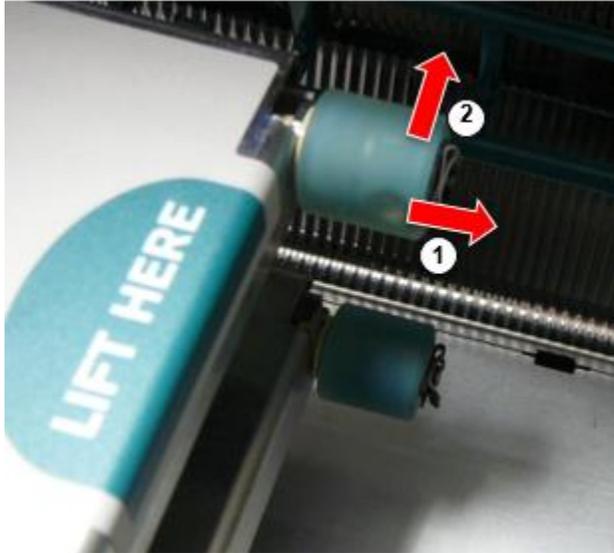
4. Sleamhnán an pioc bonn as de an fearsaid.
5. Ar an nua pioc bonn, lonnú an a dó notches ar ceann taobh de an pioc bonn, a thaispeántar in an leanas figiúr. Iad seo notches oiriúnach os a chionn a dó beag bioráin ar ach an oiread taobh de an fearsaid.

6. Treoshuíomh an pioc bonn le an notched taobh ar dtús, sleamhnán an pioc bonn ar fad an bhealach ar chun an fearsaid, ag déanamh cinnte tú ailíniú an notches le an fearsaid bioráin.
7. Le an gearrthóg cluaisín os comhair ar shiúl ó an pioc bonn, sleamhnán an choinneáil gearrthóg taobhlíne ar ais isteach an fearsaid.
8. Úsáid a glanadh wipe curtha ar fáil le an Platen agus Priontáil Ceann Glanadh trealamh nó úsáid an Horizon Glanadh Caiséad chun glan an pioc bonn de ar bith ola ó do mhéara.

Imréitigh a Bileog Jam

Le an is déanaí leaganacha de an imager, an bileog cosán tríd an imager has curtha simplithe, ó shin ann is amháin ceann fháil tráidire. Eile ná an simplithe cosán, imréitigh a bileog subh is an céanna mar le roimhe seo leaganacha de an crua-earraí.

Fabhtcheartú

Maidir leis na leaganacha is déanaí den íomháitheoir, tá cúis nua ann le subh bileog: Is féidir le subh leatháin tarlú má tá an ceann priontála sa suíomh seolta agus é ag iarraidh priontáil. Chun an fhadhb seo a cheartú, bain an bhileog jammed agus bog an ceann priontála go dtí an suíomh priontála (féach "Seasamh an Cheann Priontála a Athrú").

Horizon Samhlaigh atá monaraithe in araon an SAM agus An tSín. Déan tagairt chun an táirge lipéad ag an chúl de an imager chun chinneadh an bunadh de do imager.

Teicniúil Tacaíocht

Dá fadhbanna tarlú go atá ní clúdaithe le seo Aguisín, le do thoil déan teagmháil Codonics Teicniúil Tacaíocht ag ar bith am.

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