

Baxter

Welch Allyn RetinaVue 700 Imager

Software version 1.8X.XX



Instructions for use

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#

This manual applies to 901124 Ophthalmic Camera.

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


Symbols and definitions

For information on the origin of these symbols, see the Welch Allyn symbols glossary: bax.to/docs-wa-symbols.



Documentation symbols

	WARNING	The warning statements in this manual identify conditions or practices that could lead to illness, injury, or death. The yellow in this symbol appears gray in a black-and-white document.
	CAUTION	The caution statements in this manual identify conditions or practices that could result in damage to the equipment or other property, or loss of data.
		Consult instructions for use.

Power symbols

	Power button
	Direct current (DC)
	Rated power input, DC
	Rated power output, DC
	Fuse
	Rechargeable battery
Li-ion	Lithium-ion battery

Connectivity symbols

	USB
	Wireless

Wireless radio symbols



Nonionizing electromagnetic radiation



Wireless signal strength

- Best (4 bars)
- Good (3 bars)
- Fair (2 bars)
- Weak (1 bar)
- No signal (no bars)

FCC ID

The identification number assigned by the Federal Communication Commission



Australian Communications and Media Authority (ACMA) Radio Compliance Mark (RCM)

Shipping, storing, and environment symbols



Temperature limit



Keep Dry



Separate collection of Electrical and Electronic Equipment. Do not dispose as unsorted municipal waste.



Fragile



Humidity limitation



Atmospheric pressure limitation



This way up



Stacking limit by number



Recyclable

Miscellaneous symbols

	Reorder Number
	Product Identifier
	Global Trade Item Number
	For indoor use only
	Type BF applied part
	Class II equipment
	Prescription only or "For Use by or on the order of a licensed medical professional"
	Clock; time switch; timer
	Serial Number
	Manufacturer
	Call for maintenance
	Medical Device
	Process indicator for activities like connecting to network or connecting to computer

Battery charge-level indicators

	Device is running on battery, and charge is between 75 and 100 percent.
	Device is running on battery, and charge is below 75 percent.
	Device is running on battery, and charge is below 50 percent.
	Device is running on battery, and charge is below 25 percent.
	Device is running on battery, and charge is near 0 percent.
	Device is connected to a power supply.

Introduction

Intended use

The **Welch Allyn RetinaVue 700 Imager (RV700)** is a high-resolution ophthalmic camera used to acquire, save, and transmit digital images of the human eye. Anterior and posterior ocular structures such as the surface of the eye, cornea, and fundus—including retina, macula, and optic disc—can be imaged. It is a prescription-use-only medical device.

Warnings and cautions

About warnings and cautions

The **RetinaVue 700 Imager** system includes the camera and any related applications or servers. Read all instructions for use to ensure you understand all related warnings. Also read any relevant information on the packaging and shipping container.

The **RetinaVue 700 Imager** is safe for patients and clinicians when used in accordance with the instructions and the warning and caution statements presented in this document.

Before using the device, you must familiarize yourself with all warnings and cautions, with the steps to power up the device, and with the other sections of this document that pertain to your use of the device. Specific warnings and cautions are also found throughout this manual.

- Failure to understand and observe any warning statement in this manual could lead to patient injury or illness.
- Failure to understand and observe any caution statement in this manual could lead to damage to the equipment or other property, or loss of patient data.

General warnings, cautions, and notes



WARNING When manually entering patient information, do not use the same patient identifier for multiple patients. This may result in inaccurate data association.



WARNING Operating the device in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide; in oxygen-enriched environments; or in any other potentially explosive environment may cause a fire and explosion hazard.



WARNING Do not use batteries from other sources. This may result in excessive temperatures, fire, or explosion.






















WARNING To prevent fire or electrical shock, do not expose the device to rain or moisture.





WARNING Use only Baxter approved accessories, and use them according to the manufacturer's instructions for use. Using unapproved accessories with the camera can affect patient and operator safety and can compromise product performance and accuracy, and void the product warranty.



WARNING Photosensitivity risk. While this device is considered low risk according to IEEE 1789, Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers, this device uses brief flashes of light to illuminate the patient eye for imaging. A very small percentage of individuals may experience epileptic seizures when exposed to certain light patterns or flashing lights. Apply clinical judgment when using this device.

-  **WARNING** Exposure to the **RetinaVue** 700 Imager flash, in rare cases, may contribute to migraines or temporary visual disturbances, particularly in patients with a history of light sensitivity or migraines. Multiple flashes per eye in a single exam may increase the likelihood of occurrence.
-  **CAUTION** Avoid subjecting the device to vibration or shock.
-  **CAUTION** Avoid using the device in a dusty environment.
-  **CAUTION** Keep the power cord away from any heat source.
-  **CAUTION** Do not sterilize the device.
-  **CAUTION** All servicing of this equipment is to be performed by Baxter or by a center approved by Baxter.
-  **CAUTION** This device needs to be installed and put into service according to the EMC information provided herein.
-  **CAUTION** Portable and mobile RF communications equipment can affect the **RetinaVue** 700 Imager performance.
-  **CAUTION** Input overload can occur in proximity to defibrillator or electrocautery devices.
-  **CAUTION** This device is not protected against the ingress of water and should not be used in the presence of liquids which may enter the device.
-  **CAUTION** Data deleted on the device cannot be recovered.
-  **CAUTION** Do not modify this equipment without authorization of the manufacturer.
-  **CAUTION** Do not use the device in direct sunlight. Strong ambient light may affect results.
-  **CAUTION** Within the patient environment, only connect the equipment (the **RetinaVue** 700 Imager) to computers or laptops that have passed the safety standard for information technology equipment IEC 60601-1, EN 60601-1, ANSI/AAMI ES 60601-1 to ensure the safety of the USB electrical connection. Outside the patient environment, only connect the equipment (the **RetinaVue** 700 Imager) to computers or laptops that have passed the safety standard for information technology equipment IEC 60950-1, EN 60950-1, UL 60950-1 to ensure the safety of the USB electrical connection.
-  **CAUTION** Do not turn off the device while saving data from a patient test. Turning off the device while saving patient data may cause data loss.
-  **CAUTION** Do not use the device adjacent to or stacked with other equipment. If the device is used adjacent or stacked with other equipment, the device should be observed to verify normal operation in the configuration in which it will be used.
-  **CAUTION** Do not submerge the device in liquid or allow liquid to enter the interior of the device.
-  **CAUTION** Do not use automatic cleansing machines or sterilization.
-  **CAUTION** Consult the cleaning and disinfection agent manufacturer instructions for their proper use and germicidal efficacy prior to their use.


 **CAUTION** Consult your facility's procedures and the cleaning and disinfection agent manufacturer instructions for recommended Personal Protective Equipment and other safety precautions, such as ventilation.

 **NOTE** The **RetinaVue** 700 Imager can be used on patients with eye implants and intraocular lenses. While the **RetinaVue** 700 Imager can be used on patients with cataracts and other eye opacities, images will likely be blurry or unreadable because of the refractive nature of the opacities.

Warnings related to **RetinaVue** 700 Imager applied-parts components


Warnings related to the face cup


 **WARNING** Clean and disinfect the face cup after each patient to avoid the risk of cross-contamination.

 **WARNING** Patient injury risk. The face cup of the **RetinaVue** 700 Imager uses magnets to attach to the device. If your patient has any type of cranial implant, it is advisable to reduce direct contact of the face cup's magnets with the patient's skin surface containing the implant.


Warnings and cautions related to accessories


Cautions related to the pedestal


 **CAUTION** To avoid camera damage, remove camera from pedestal prior to transport.

 **CAUTION** To avoid camera damage, position the pedestal on a stable surface to reduce the likelihood of shock, bump, or vibration hazards.


Warnings and cautions related to the Anterior Imaging Spacer


 **WARNING** Patient injury risk. The Anterior Imaging Spacer of the **RetinaVue** 700 Imager uses magnets to attach to the device and to the face cup. If your patient has any type of cranial implant, it is advisable to reduce direct contact of the Anterior Imaging Spacer or the face cup's magnets with the patient's skin surface containing the implant.


 **CAUTION** Failure to remove the Anterior Imaging Spacer before a retina exam may result in unacceptable image quality or failure to capture an image.


 **CAUTION** Failure to install the Anterior Imaging Spacer before an anterior-image exam may result in unacceptable image quality or failure to capture an image.


Warnings, cautions, and notes related to the battery charger

 **WARNING** Electric shock hazard. Do not open the battery charger or attempt repairs. The battery charger has no user-serviceable internal parts. Inspection and servicing of internal parts shall only be performed by qualified service personnel.

 **WARNING** Electric shock hazard. Before cleaning the battery charger, disconnect the AC power cord from the mains outlet and the power source.

 **WARNING** Do not use batteries from other sources. This may result in excessive temperatures, fire, or explosion.

 **CAUTION** Do not modify this equipment without authorization of the manufacturer.

 **CAUTION** Use appropriate power plug for your country.

NOTE The removal of the plug from the socket provides the means of isolation from the mains power supply. The user is reminded to keep this means of disconnection easily accessible in case of emergency.

Caution related to the EMR test server

CAUTION Incorrectly setting up the **RetinaVue** 700 Imager to connect to a **Wi-Fi** test server may result in loss of exam data. The test server is NOT intended to be used for patient exams and is only intended for use by a software integrator on an EMR integration team. A patient’s exam data cannot be recovered once sent to the **Wi-Fi** test server.

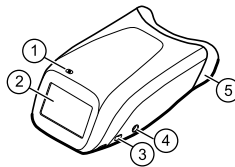
Residual risk of magnets

WARNING Patient injury risk - magnetic fields. Exercise caution when using the **RetinaVue** 700 Imager in close proximity to implanted devices such as, but not limited to, cranial implants, adjustable CSF shunts, and pacemakers.

Design and protective measures have been implemented to limit magnetic interference to be lower than the limit set by the Active Implantable Medical Devices standards. Nevertheless, in the event the device is placed in close proximity to these life supportive devices, patient harm associated with magnetic field hazards cannot be completely excluded.

Controls and connectors

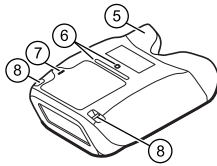
Top




No.	Feature	Description
1	Power button	<ul style="list-style-type: none"> • Push button to turn the device on and off. • Push button to bring the device out of sleep mode. • Push button to launch a dialogue box with 3 options: <ul style="list-style-type: none"> ◦ Power down ◦ Sleep ◦ Cancel
2	LCD touchscreen	4.3-inch diagonal color LCD touchscreen.
3	USB port	Data transfer port
4	Charging port and power indicator	Connect AC power supply <ul style="list-style-type: none"> • When the LED light is green, it indicates that the device is fully powered. • When the LED light is orange, it indicates that the device is in the process of charging. • When the device is not charging the LED is off.

No. Feature	Description
5 Face cup	Helps align the patient's eyes to the camera and blocks ambient light during testing

Bottom



No. Feature	Description
5 Face cup	Helps align the patient's eyes to the camera and blocks ambient light during testing
6 Pedestal mounting	Pedestal mounting well (1/4-20 thread) and locator ridge
7 Battery cover	Covers the battery compartment  NOTE The two service ports under the battery cover are for factory use only and are not for customer use.
8 Wrist or neck strap bracket	Wrist or neck strap mounting bracket

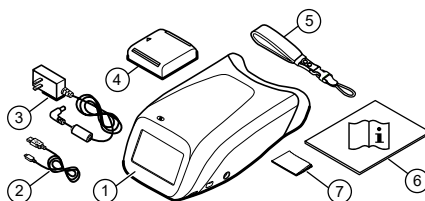
First-time setup

To set up the **RetinaVue 700 Imager** for the first time, refer to the following topics. After you complete the setup, you can view images that have been saved to the imager on its LCD touchscreen.

Saved images are encrypted. To view them on a computer, install the **RetinaVue Network** software application version 3.7 or later. For information on the **RetinaVue Network** software, visit www.retinavue.com.

Unpack the system

The **RetinaVue 700 Imager** device is packaged with the following items.



Number	Item	Description
1	RetinaVue 700 Imager device	Digital hand-held eye-fundus camera used to record digital photographs of the fundus of the human eye and anterior and posterior ocular structures such as the cornea, lens, and fundus including retina, macula, and optic disc.
2	USB cable	Connects the device to a computer or laptop to transfer data.
3	Wall adapter plug and AC power cord	Connects the device to the wall adapter plug for AC charging. Match to region-specific AC wall outlet.
4	Lithium-ion battery	Battery
5	Wrist strap	Attaches to the device and slips over the wrist to help you hold the device.
6	RetinaVue 700 Imager instructions for use (IFU)	This document. The IFU is also available on the Baxter website.
7	Lens cloth	RetinaVue 700 Imager lens cloth

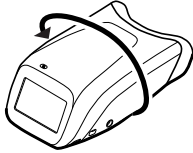
Unpack the system as follows:

1. Confirm that all items are included.
2. If any item is missing, contact Baxter Technical Support: baxter.com/contact-us.
3. Save the shipping box and packing materials in case you need to store or ship the system.

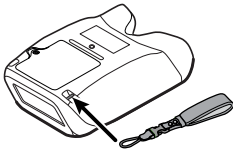
Install the wrist strap

The wrist strap can be mounted on the right or left side of the **RetinaVue 700 Imager**. Follow the manufacturer's instructions on the wrist-strap packaging.

1. Turn the **RetinaVue** 700 Imager over to access the wrist-strap mounting bracket, and set the imager on a flat, clean surface.



2. Attach the wrist strap to the imager.



- a. Detach the Uni-Loop system connector from the neoprene strap at the quick disconnect.
- b. Slide the 1/4-inch webbing through the wrist-strap mounting bracket and create an opening large enough to loop the Uni-Loop system connector through.
- c. Pull the Uni-Loop system connector tight to form a secure hold onto the **RetinaVue** 700 Imager.
- d. Pull the neoprene strap all the way through to secure the strap to the mounting bracket.
- e. Click the Uni-Loop system connector to the neoprene strap to finish assembly.

Whenever you use the imager, slip the strap over your wrist and tighten the security slide to keep it firmly in place.

Install the battery



WARNING Improper disposal of batteries may create an explosion or contamination hazard. Never dispose of batteries in refuse containers. Always recycle batteries according to local regulations.

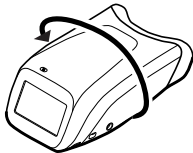


WARNING Risk of fire, explosion, and burns. Do not short-circuit, crush, incinerate, or disassemble the battery.



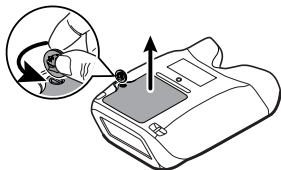
WARNING Use only Baxter approved accessories, and use them according to the manufacturer's instructions for use. Using unapproved accessories with the camera can affect patient and operator safety and can compromise product performance and accuracy, and void the product warranty.

1. Turn the **RetinaVue** 700 Imager over, and set it on a clean, flat surface.

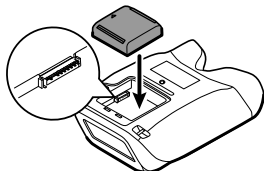


2. Use a coin to loosen the screw at the edge of the battery cover.

- Slide open the battery cover by tilting the cover upward.

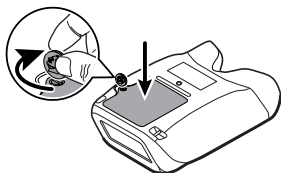


- Insert the battery into the battery compartment.



- Insert the two battery cover tabs into the slots. Push in the tabs to close the battery cover.

- Tighten—do not overtighten—the screw at the edge of the battery cover.

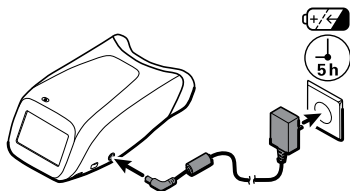


Charge the imager

WARNING Use only Baxter approved accessories, and use them according to the manufacturer's instructions for use. Using unapproved accessories with the camera can affect patient and operator safety, compromise product performance and accuracy, and void the product warranty.

CAUTION The power-supply connector easily inserts into the **RetinaVue 700 Imager**. Using intense force to connect the power-supply connector plug can damage the device and will void the warranty.

- Plug the power-supply connector plug into the power-connector charging port on the **RetinaVue 700 Imager**.



- Plug the power cord into a wall outlet. When the power indicator LED light is orange, the device is charging.

3. Charge the device for 5 hours before using it with a new battery.
4. When charging is complete, remove the plug from the socket to provide isolation from the mains power supply. Keep the plug easily accessible in case of an emergency.

Power up the imager

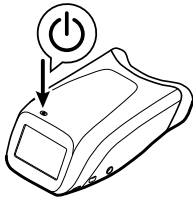
The power button, located on the upper-left corner of the **RetinaVue** 700 Imager, performs multiple functions:

- Powers up the imager.
- Wakes the imager from sleep mode.
- Presents options to power down or enter sleep mode.



CAUTION Always use the **RetinaVue** 700 Imager with an adequately charged and properly functioning battery.

1. Press and hold the  button.



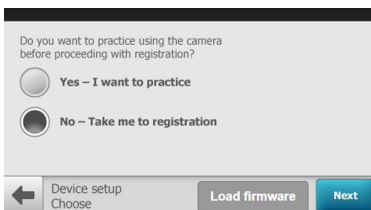
A brief diagnostic self-test runs. The Language setup screen appears.

2. Select a language from the dropdown list. Touch **Next**.

The Date and time setup screen appears.

3. Use the up and down buttons to set the day, month, year, hour, minute, continent, and location. Use the radio buttons to select the 24-hour or 12-hour format. Touch **Next**.

The Choose screen appears.



4. Choose one of the following in response to the question Do you want to practice using the camera before proceeding with registration?

Option	Description
Yes—I want to practice	Go to "Select practice mode before registering the camera (optional)."
No—take me to registration	Go to "Camera registration."
Load firmware	Go to "Update the firmware before registering the camera (optional)."

Select practice mode before registering the camera [optional]

Practice mode allows you to become familiar with the **RetinaVue** 700 Imager features before registering the camera. Screens in the practice mode prominently display the text "Practice mode," and a blue banner appears at the top of the screen.

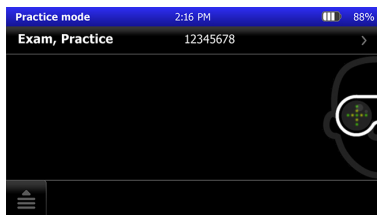
Most users prefer to use practice mode after registering the camera and just before performing their first exam. You can also use this mode before registering the camera, as described here.




CAUTION No data is preserved in practice mode. Any data collected in practice mode is deleted when you exit practice mode, and you cannot recover it.

1. Power up the **RetinaVue** 700 Imager, following the steps described under "Power up the imager." When the Choose screen appears, select **Yes—I want to practice**. Touch **Next**.

The Practice mode screen appears.



2. Follow the instructions in the "Practice mode" section of this document.
3. When you're ready to exit practice mode, touch , and then touch **Exit**.
4. Touch **OK** at the prompt `Exit practice mode and return to camera registration?`

Complete the steps to register your camera. See "Camera registration."

Update the firmware before registering the camera [optional]

Normally, you update the firmware through the device menus after registering the camera, as documented under "Update the **RetinaVue** 700 Imager software (firmware)." In the rare instance that you need to update the firmware before you register the camera, follow these steps.

Before you begin, you need the following:

- A computer with an internet connection
- A USB cable to connect the **RetinaVue** 700 Imager to a computer
- The **RetinaVue** 700 Imager
- The updated firmware downloaded from https://www.retinavue.net/RN_CustomerPortal/ and transferred to a computer

Update the firmware as follows.

1. Power up the **RetinaVue** 700 Imager, following the steps described under "Power up the imager." When the Choose screen appears, touch the **Load firmware** button.


2. Touch **OK** at the prompt Are you sure you want to load new firmware now? Use a USB cable to connect the camera to the computer to transfer the new firmware to the camera.
3. Touch **Load firmware** at the Firmware update screen.
4. Touch **OK** at the prompt Use a USB cable to connect the camera to the computer to transfer the new firmware to the camera.
5. Plug the USB cable into the computer and the camera.

The screen prompt appears: Camera plugged into computer. When finished loading file, unplug camera from the computer.

6. Transfer the firmware update from the computer to the camera by copying or dragging the file from the computer location to the **RetinaVue** 700 Imager device drive. In this example, the device drive is DATA (E:).



7. Eject the **RetinaVue** 700 Imager safely to ensure a complete software transfer. Possible methods:
 - Right-click the **Start** button, click **File Explorer**, right-click **DATA**, and then click **Eject**.
 - Click the taskbar and select **Show hidden icons**, then click **Safely Remove Hardware and Eject Media**, then click **Eject RetinaVue Imager**.
 - Wait until the files have completely copied, and then manually eject the **RetinaVue** 700 Imager.
8. Remove the USB cable from the **RetinaVue** 700 Imager.
9. Touch **OK** at the prompt Install firmware.

A processing icon  appears for a few minutes while the imager updates.

10. Touch **OK** at the prompt Firmware update successful. Touch OK to restart the device.

Return to "Power up the imager," and complete the steps.

Camera registration

To send exams for overread, the **RetinaVue** 700 Imager needs to be registered, and your clinic needs to have an account set up with the **RetinaVue** Network.

The computer that you connect the camera to must be running version 3.7 or later of the **RetinaVue** Network client. The **RetinaVue** 700 Imager is not compatible with earlier versions of the software application.

To register your camera, you can connect to the computer in either of the following ways:

- USB cable (see "USB camera registration")
- **Wi-Fi** network (see "**Wi-Fi** camera registration" or "Static IP **Wi-Fi** camera registration")

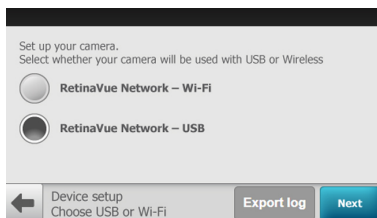
Camera registration needs to be completed only at the initial setup. After that, changing the registration requires restoring factory defaults. See "Restore factory defaults" in the "Advanced features" section of this document.

USB camera registration

Follow these steps to register the **RetinaVue** 700 Imager camera by connecting it via USB cable to a computer that's connected to the internet and running the **RetinaVue** Network client, version 3.7 or later.

1. Power up the **RetinaVue** 700 Imager, following the steps described under "Power up the imager." When the Choose screen appears, select **No—Take me to registration**. Touch **Next**.

The Choose USB or Wi-Fi screen appears.



2. Optional: Export log files into a viewable zip file.
 - a. Touch **Export log**.
 - b. Touch **OK** at the prompt The log files are available for export. Use a USB cable to connect the camera to the computer to export files. When finished copying the file, unplug camera from the computer.
 - c. Navigate to the drive—for example, DATA (E:)—and copy the compressed zip file to a location on the computer where you can view the files in a text file.
3. Select **RetinaVue Network—USB**. Touch **Next**.
4. Touch **OK** at Setup completed screen, and follow the touchscreen instructions to connect the camera to the computer.

Wi-Fi camera registration

Follow these steps to register the **RetinaVue 700 Imager** camera by connecting it via your **Wi-Fi** network to a computer that's connected to the internet and running the **RetinaVue Network** client, version 3.7 or later.

If you want the device to forget a remembered wireless network, see "Adjust the wireless network settings" in the "Controls" section of this document.

If your organization requires static IP, see "Static IP Wi-Fi camera registration."

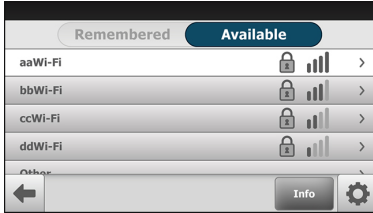
1. Power up the **RetinaVue 700 Imager**, following the steps described under "Power up the imager." When the Choose screen appears, select **No—Take me to registration**. Touch **Next**.

The Choose USB or Wi-Fi screen appears.



2. Select **RetinaVue Network—Wi-Fi**. Touch **Next**.

A list of available networks appears. If you need to enable FIPS mode, follow the steps under "FIPS Wi-Fi camera registration" before proceeding.



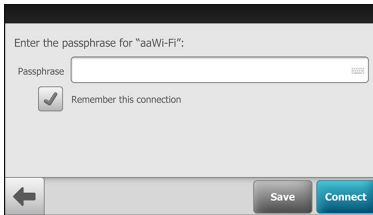
3. Touch the network that you want to connect to.

The list of remembered networks is enabled only after you tell the device to remember at least one network.

The network names shown here are examples.

If you don't see the network that you want to connect to, you may need to scroll down. Select **Other** only if you cannot connect to a network in your environment.

4. Using a secure network, touch within the **Passphrase** field to launch the onscreen keyboard. Enter your network passphrase.



5. Optional: Touch the **Remember this connection** checkbox to clear it if you do not want to use this network for subsequent **Wi-Fi** connections. This option is selected by default.
6. Touch **Connect**.
7. To continue setup, launch an internet browser from a computer and enter the following address: https://www.retinavue.net/RN_CustomerPortal/.
8. On your **RetinaVue 700 Imager**, touch **Next**.

- On the **RetinaVue** Network Customer Portal, enter your **RetinaVue** Network username and password. Click **Log In**.

If prompted, click **I agree** to accept the End User License Agreement on the **RetinaVue** Network Customer Portal.

- On the **RetinaVue** Network Customer Portal, select **Manage Devices** and click **Next**.

Welcome to the RetinaVue Customer Portal

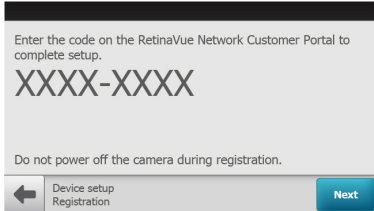
What would you like to do?

- Schedule a Patient *(wireless only)*
- View Exam Status
- View New Diagnostic Reports
- Search Diagnostic Reports
- View Statistics
- Manage Devices**
- Manage Clinics
- Edit Company Information

Next

- Click **Add Device**.

- 12. On your **RetinaVue** 700 Imager, touch **Next** to generate a device registration code.

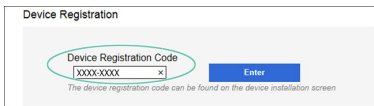


The device registration code shown here is an example.

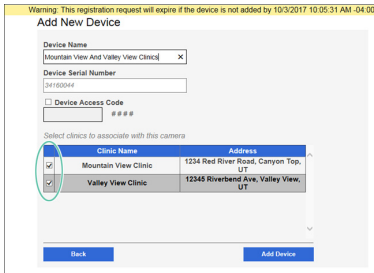
The Next button stays grayed out until the **RetinaVue** 700 Imager receives the device registration code from the **RetinaVue** Network Customer Portal.

The device registration code expires after 30 minutes. If registration is not completed within 30 minutes, restart the wireless registration to obtain a new code.

- 13. On the **RetinaVue** Network Customer Portal, enter the device registration code as it appears on the **RetinaVue** 700 Imager device installation screen, including the dash (-). Click **Enter**.



- 14. On the **RetinaVue** Network Customer Portal, enter a device name (optional) and select a clinic, or clinics, where the **RetinaVue** 700 Imager will be used. Select each clinic by clicking the checkbox next to the clinic name, and then click **Add Device**.



- a. Optional: EMR integrators may use the EMR test functionality to test **Wi-Fi** and EMR connections by sending images to a test server. *CAUTION* This mode is NOT intended to be used for patient exams and is only intended for use by a software integrator on an EMR integration team.
- b. To select multiple clinics where the **RetinaVue** 700 Imager will be used, select each clinic by clicking the checkbox next to the clinic name.

- c. To enable a device access code for the **RetinaVue** 700 Imager, select the **Device Access Code** checkbox, and enter your code into the field. The **RetinaVue** 700 Imager and the **RetinaVue** Network Customer Portal support from 4 to 6 digits in the device access code.



NOTE Setting the device access code before first use provides additional security features in the **RetinaVue** 700 Imager to prevent unintended access to patient information by unauthorized individuals.

15. On your **RetinaVue** 700 Imager, touch **Next**. The message *Camera registered successfully* appears.
16. If a device access code was selected at the **RetinaVue** Network Customer Portal, touch **OK** at the message *A new device access code has been downloaded*.
The camera will require this code on next encounter.
17. If multiple clinics were selected at the **RetinaVue** Network Customer Portal, use the drop-down menu to select the primary clinic where exams will be performed, and then touch **Next**.
18. Touch **OK** at the Setup complete screen.
19. If a device access code was set at the **RetinaVue** Network Customer Portal, enter the device access code on the **RetinaVue** 700 Imager, and touch **OK**.

If you forget the code, you can reset it by restoring the device's factory defaults. This deletes any saved exams and patient data. To do this, touch **Forgot code**, and follow the steps under "Restore factory defaults."

Administrators can reset the device access code through a USB connection, as documented under "Reset the device access code (USB only)." If you are not an administrator and would like the code to be reset, contact your administrator.

See "Troubleshooting" for more information about resetting the device access code.

Advanced Wi-Fi camera registration

Static IP Wi-Fi camera registration


If your organization requires static IP, have your network's IP information available for manual entry. Consult with your network administrator to confirm your static IP network's IP information values before proceeding with these steps.


If you want the device to forget a remembered wireless network, see "Adjust the wireless network settings" in the "Controls" section of this document.

1. Power up the **RetinaVue** 700 Imager, following the steps described under "Power up the imager." When the Choose screen appears, select **No—Take me to registration**. Touch **Next**.

The Choose USB or Wi-Fi screen appears.



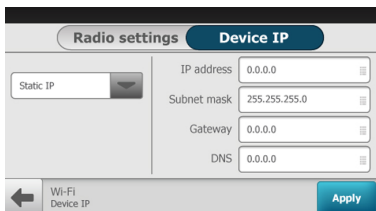
At any time during this process, you can cancel the static IP **Wi-Fi** settings by touching  (back) and then touching **OK** at the prompt *Unsaved data will be discarded*.

2. Select **RetinaVue Network—Wi-Fi**. Touch **Next**.
3. When the list of available networks appears, touch . The Radio settings screen appears.



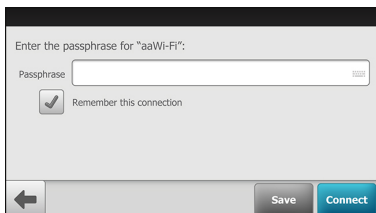
The screenshot shows the 'Radio settings' screen. At the top, there are two tabs: 'Radio settings' (selected) and 'Device IP'. Below the tabs, there are three input fields: 'ESSID' with the value 'com.welchallyn', 'Radio mode' with the value 'a/b/g/n', and a checkbox for 'Enable FIPS mode' which is currently unchecked. At the bottom, there is a back arrow, the text 'Wi-Fi Radio settings', and a blue 'Update' button.

4. Touch **Device IP**.



The screenshot shows the 'Device IP' settings screen. At the top, there are two tabs: 'Radio settings' and 'Device IP' (selected). Below the tabs, there is a dropdown menu for 'Static IP'. To the right, there are four input fields: 'IP address' (0.0.0.0), 'Subnet mask' (255.255.255.0), 'Gateway' (0.0.0.0), and 'DNS' (0.0.0.0). At the bottom, there is a back arrow, the text 'Wi-Fi Device IP', and a blue 'Apply' button.

5. Use the dropdown menu to select **Static IP**.
Static IP settings apply to all remembered networks. The device does not support setting individual static IP profiles for a single network.
6. Touch within the **IP address**, **Subnet mask**, **Gateway**, or **DNS** fields to launch the onscreen numeric keypad.
7. Enter the IP address of the network you want to connect to and then touch **OK**.
8. Enter the subnet mask of the network you want to connect to and then touch **OK**.
9. Enter the gateway of the network you want to connect to and then touch **OK**.
10. Enter the DNS (IP address) of the network you want to connect to and then touch **OK**.
11. When all the fields are filled in with the appropriate values, touch **Apply**.
12. Using a secure network, enter your network passphrase.



The screenshot shows the passphrase entry screen. At the top, it says 'Enter the passphrase for "aaWi-Fi":'. Below that is a 'Passphrase' input field with a numeric keypad icon. There is a checked checkbox for 'Remember this connection'. At the bottom, there is a back arrow, a 'Save' button, and a blue 'Connect' button.

13. Optional: Touch the **Remember this connection** checkbox to clear it if you do not want to use this network for subsequent **Wi-Fi** connections. This option is selected by default.
14. Touch **Connect**.

15. To continue setup, launch an internet browser from a computer and enter the following address: https://www.retinavue.net/RN_CustomerPortal/.
16. On your **RetinaVue 700 Imager**, touch **Next**.
17. On the **RetinaVue Network Customer Portal**, enter your **RetinaVue Network** username and password. Click **Log In**.

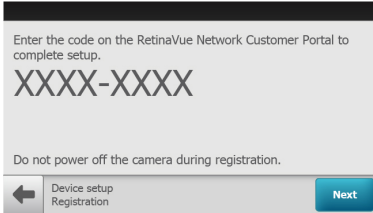
If prompted, click **I agree** to accept the End User License Agreement on the **RetinaVue Network Customer Portal**.

18. From the **RetinaVue Network Customer Portal**, select **Manage Devices** and click **Next**.

Welcome to the RetinaVue Customer Portal

19. Click **Add Device**.

20. On your **RetinaVue 700 Imager**, touch **Next** to generate a device registration code.

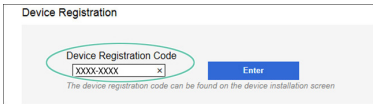


The device registration code shown here is an example.

The Next button stays grayed out until the **RetinaVue 700 Imager** receives the device registration code from the **RetinaVue** Network Customer Portal.

The device registration code expires after 30 minutes. If registration is not completed within 30 minutes, restart the wireless registration to obtain a new code.

21. On the **RetinaVue** Network Customer Portal, enter the device registration code from the **RetinaVue 700 Imager** including the dash (-). Click **Enter**.



22. On the **RetinaVue** Network Customer Portal, enter a device name (optional) and select a clinic, or clinics, where the **RetinaVue 700 Imager** will be used. Select each clinic by clicking the checkbox next to the clinic name, and then click **Add Device**.

- a. To select multiple clinics where the **RetinaVue 700 Imager** will be used, select each clinic by clicking the checkbox next to the clinic name.
- b. To enable a device access code for the **RetinaVue 700 Imager**, select the **Device Access Code** checkbox, and enter your code into the device access code field. The **RetinaVue 700 Imager** and the **RetinaVue** Network Customer Portal support from 4 to 6 digits in the device access code.

Setting the device access code before first use provides additional security features in the **RetinaVue 700 Imager** to prevent unintended access to patient information by unauthorized individuals.

23. On your **RetinaVue 700 Imager**, touch **Next**. The message *Camera registered successfully* appears.

24. If a device access code was selected at the **RetinaVue** Network Customer Portal, touch **OK** at the message *A new device access code has been downloaded. The camera will require this code on next encounter.*

25. If multiple clinics were selected at the **RetinaVue** Network Customer Portal, use the dropdown menu to select the primary clinic where exams will be performed, and then touch **Next**.

26. Touch **OK** at the Setup complete screen.

27. If a device access code was set at the **RetinaVue** Network Customer Portal, enter the device access code on the **RetinaVue 700 Imager**, and touch **OK**.

FIPS Wi-Fi camera registration


During **Wi-Fi** communication, the **RetinaVue 700 Imager** supports the use of the following secure authentication types: WPA2-PSK and WPA2 Enterprise.

Consult with your network administrator to confirm your network information before proceeding with FIPS **Wi-Fi** camera registration

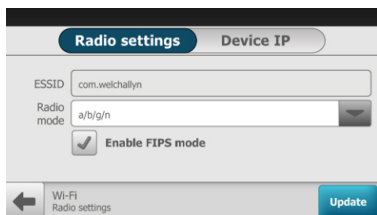
1. Power up the **RetinaVue 700 Imager**, following the steps described under "Power up the imager." When the Choose screen appears, select **No—Take me to registration**. Touch **Next**.

The Choose USB or Wi-Fi screen appears.



2. Touch **RetinaVue Network—Wi-Fi**. Touch **Next**.
3. When the list of available networks appears, touch .

The **Wi-Fi** Radio settings screen appears.



4. Select the **Enable FIPS mode** checkbox, and touch **Update**.

The imager may take several minutes to update.

5. Complete your camera registration following the instructions under "Wi-Fi camera registration" (touch the network that you want to connect to, etc.).

Using the RetinaVue 700 Imager

This section includes topics that describe the **RetinaVue** 700 Imager tutorial and how to use the **RetinaVue** 700 Imager to perform exams, create new patients, search for patients, capture additional images, delete exams, and review exams.

It also includes information about image-quality scores, exam protocols, the auto-exam mode, changing the exam protocol, and installing the face cup.

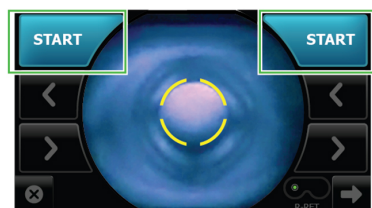
Auto-exam mode

Auto-exam mode (automatic mode), is the default image-capture mode.



Available features include:



- Exam protocol selection (touch **Retina** or **Anterior**)
- Sequential image-capture order of the right and left eye



- Automatic image capture (touch **START**)
- Navigation to the Image inspection screen (touch **→**)
- One-touch exit (touch **X**)

About image-quality scores

Quality	Score	Icon on the Inspection screen	Icon on the Exam summary screen	Comments
Good (green)	40 +	✓	✓	Very likely to be read

Quality	Score	Icon on the Inspection screen	Icon on the Exam summary screen	Comments
Acceptable (yellow)	20–39	✓		Likely to be read
Unacceptable (red)	0–19	✗		Very unlikely to be read

About the face cup

The face cup helps align both of the patient's eyes to the camera so that the patient can focus on the green lights in the camera lens. The face cup also blocks ambient light during a patient eye exam.

Install the face cup

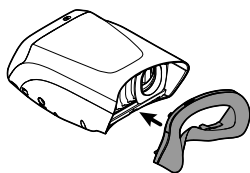
The face cup must be installed before capturing patient images.

WARNING Patient injury risk. The face cup of the **RetinaVue 700 Imager** uses magnets to attach to the device. If your patient has any type of cranial implant, it is advisable to reduce direct contact of the face cup's magnets with the patient's skin surface containing the implant.

Residual risk of magnets:

WARNING Patient injury risk - magnetic fields. Exercise caution when using the **RetinaVue 700 Imager** in close proximity to implanted devices such as, but not limited to, cranial implants, adjustable CSF shunts, and pacemakers. Design and protective measures have been implemented to limit magnetic interference to be lower than the limit set by the Active Implantable Medical Devices standards. Nevertheless, in the event the device is placed in close proximity to these life supportive devices, patient harm associated with magnetic field hazards cannot be completely excluded.

If the face cup has not been previously installed, secure it to the **RetinaVue 700 Imager** as shown.



About exam protocols

The **RetinaVue 700 Imager** offers two exam protocols:

- Retina (RET)
- Anterior (ANT)

Retina imaging

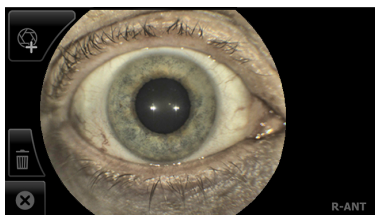
Captured retina (RET) images appear on the Inspection screen with a quality score. A label indicates either R-RET (right retina, as shown in the example) or L-RET (left retina).



For instructions, see "Before starting an eye exam" and the subsequent sections.

Anterior imaging


Use anterior (ANT) imaging to evaluate and document anterior ocular structures such as lids, lashes, and cornea. Captured anterior images appear on the Inspection screen with a label indicating either R-ANT (right anterior, as shown in the example) or L-ANT (left anterior).



For instructions, see "Perform an anterior-image eye exam."

Change the exam protocol

You can change the exam protocol in either manual or automatic mode as follows.

1. From the Pre-Acquisition screen, touch  (settings).

The Exam protocol selection screen appears. The currently selected protocol is shaded.



2. Touch the button for the desired protocol: **Retina** or **Anterior**.
3. Touch **OK**.

The protocol that you've selected remains the default protocol for future exams until it is changed again.

Tutorial

The tutorial that's built into the camera walks you through the following steps:

- Touch the **START EXAM** button.
- Place the camera firmly on patient's face and align it with the patient's eyes.
- Ask the patient to look for the plus sign.
- Align the pupil to the circle.
- If necessary, use the arrows to align the pupil to the circle.
- Touch **START**, and hold the camera steady.
- Align the second pupil and, if necessary, use arrows to align the pupil to the circle.

To do the tutorial, follow these steps.

1. Create a patient. For details, see "Create a patient on the camera."
2. On the Patient summary screen, touch **Exam**.

Last name	Anderson	Middle initial	P
First name	John	Gender	Male
DOB	05/12/1962	Diabetes type	Type II
Patient ID	12345678	Referring provider	Murphy, Ryan MD

← Patient summary
Delete
Exam

3. Touch **Tutorial**.



4. Follow the tutorial. To pause it, touch the screen. To resume, touch **Continue tutorial**.
5. To proceed to an exam, touch the screen and then touch **START EXAM**.

Before starting an eye exam

Before you start an eye exam, be aware of these things:

- The recommended network bandwidth is 1 Mbps in a low-latency environment. A network bandwidth of 0.5 Mbps or less may delay or prevent the transmission of images and results.
- To conserve power, the imager enters sleep mode if it remains idle for the amount of time selected in the settings (2, 5, 7, or 10 minutes or never). To wake up the imager, touch the LCD screen or press the power button.
- You can use the imager on patients with eye implants and intraocular lenses. While you can also use it on patients with cataracts and other eye opacities, images will likely be blurry or unreadable because of the refractive nature of the opacities.

Also be prepared to do the following with your patient:

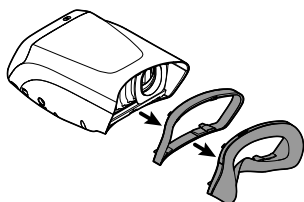
1. Have the patient sit in a dark room for 5 minutes to dilate their pupils. To ensure that the patient's pupils sufficiently dilate, adjust the room lighting to the lowest possible level.

2. Ask the patient to remove their glasses. (Contacts can remain in place.)
3. If using the imager without the optional pedestal accessory, ask the patient to sit up straight in a chair, and then stand directly in front of the patient.
4. Tell the patient that first their right eye will be imaged and then their left eye.
5. Ask the patient to look forward and hold their head still.
6. Ask the patient to keep both eyes open as wide as possible and limit blinking.
7. Ask the patient to follow the green dot inside the camera.

Remove the Anterior Imaging Spacer for a patient retina exam

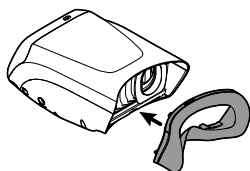
The Anterior Imaging Spacer is an accessory available for the **RetinaVue** 700 Imager. Your imager may not have one.


1. When performing a retina exam, remove the face cup and the Anterior Imaging Spacer from the **RetinaVue** 700 Imager.



CAUTION Failure to remove the Anterior Imaging Spacer before a retina exam may result in unacceptable image quality or failure to capture an image.

2. Reattach just the face cup.



3. From the Pre-Acquisition screen, touch  (settings).
4. Touch **Retina**, and touch **OK**.



5. Touch **OK** at the prompt **Before continuing with selected exam: remove the Anterior Imaging Spacer between camera and face cup.**

Perform a retina exam



WARNING Clean and disinfect the face cup after each patient to avoid the risk of cross-contamination.



CAUTION Remove the Anterior Imaging Spacer before doing a patient retina exam. Failure to do so may result in unacceptable image quality or failure to capture an image. The Anterior Imaging Spacer is an accessory available for the **RetinaVue 700 Imager**.

1. From the Patients screen, which lists scheduled patients, touch a patient's name or ID (MRN). (Wireless workflow images are shown.)



2. Touch **Exam** to open a new exam.

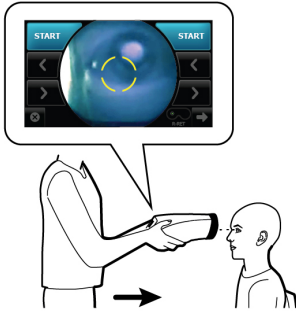
Last name	Anderson	Middle initial	P
First name	John	Gender	Male
DOB	05/12/1962	Diabetes type	Type II
Patient ID	12345678		
Referring provider	Murphy, Ryan MD		

3. Touch **START EXAM**.

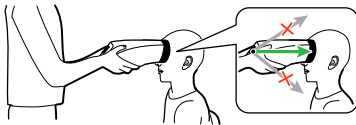


4. Position the **RetinaVue 700 Imager** about 4 inches directly in front of your patient. Keep the **RetinaVue 700 Imager** level and in line with your patient's eyes. Brace your arms against your body to help keep the **RetinaVue 700 Imager** steady.

5. Move the **RetinaVue 700 Imager** toward the patient and align the yellow circle to the patient's right pupil.

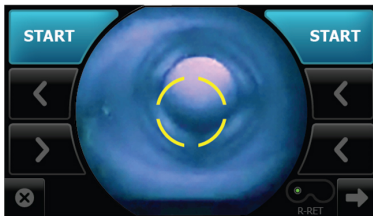


6. Place the face cup firmly on the patient's face. Do not hover near the face with the **RetinaVue 700 Imager**. Keep the **RetinaVue 700 Imager** level.

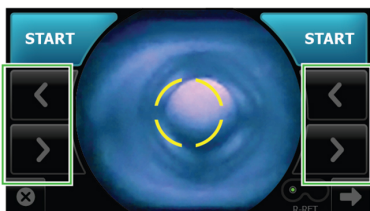


After placing the face cup firmly on the patient's face, the right pupil should be visible within the screen.

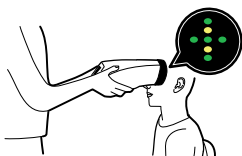
7. If the pupil is located above or below the yellow circle, as shown, slide the **RetinaVue 700 Imager** slightly up or down on the patient's face to align the yellow circle to the pupil.



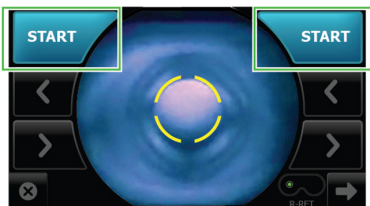
8. If needed, touch < or > to align the yellow circle to the pupil.



9. Ask the patient, "Can you see the entire plus sign?" Inform the patient that the plus sign will transition into a green dot. Ask the patient to follow the green dot.



10. Press the face cup firmly against the patient's face and then touch **START**.



11. Hold steady until the image is captured.



If the audio is set to an audible volume, a camera shutter tone alerts you once the right-eye image has been captured.

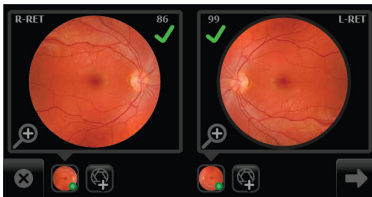
A timer appears and counts down. This wait time allows the patient's eyes to recover from the flash. (You can adjust the timer settings in the Advanced settings menu. See "Adjust wait time between image captures" in the "Advanced features" section of this document.)

After the timer ends, the **RetinaVue** 700 Imager automatically moves to the left eye, and displays the message **Lens moving to the next eye**.


12. Repeat the steps to align the yellow circle to the pupil and capture an image of the left eye.

If the audio is set to an audible volume, a camera shutter tone alerts you after the left-eye image has been captured.

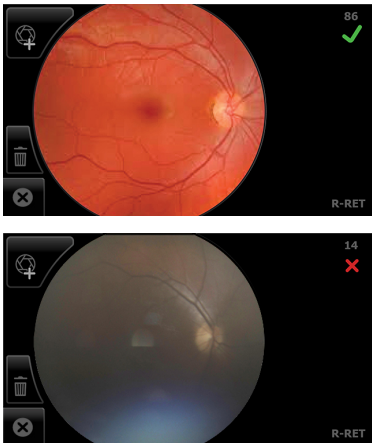
After both images have been captured, they appear on the Post-Acquisition screen.





- R-RET means right retina.
- L-RET means left retina.
- ✓ (score 40+) means good quality. The image is very likely to be read.
- ✓ (score 20–39) means good-enough quality. The image is likely to be read.
- ✗ (score 0–19) means lacking in quality. The image is very unlikely to be read.

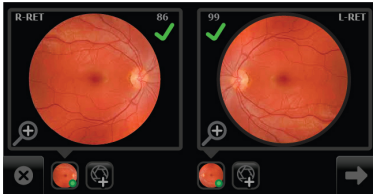
13. From the Post-Acquisition screen, touch  for the image you want to inspect.

The Inspection screen comes up, showing the eye that you chose. Here are two right-eye examples, one of good quality and one lacking in quality.



14. Optional: Delete or add images by touching  or .

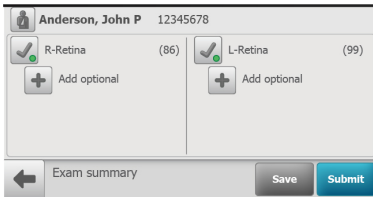
15. When finished, touch  (next) to complete the exam.



NOTE If no images are captured, this message appears: You must capture at least one image before continuing. See "Capture additional images using the same protocol" for information about adding an image.

If the image for one eye is captured and then you exit the exam, the following message appears: Discard unsaved images and patient data? Either touch **OK** to exit the exam without saving the image and patient data, or touch **Cancel** to resume the exam.


The Exam summary screen appears.

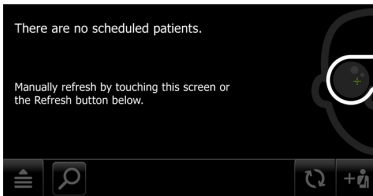


16. If the images contain a green or yellow quality-acceptance check mark, save or submit the exam.

- Touch **Save** to save the exam to the device for further review or editing.
- Touch **Submit** to submit the exam to the **RetinaVue** Network Customer Portal.

Create a patient on the camera

1. From the Patients screen, touch , if available, to create a patient. (Wireless workflow images are shown.)



2. Touch within the **Last name**, **First name**, or **Middle initial** box to launch the on-screen keyboard.

A screenshot of the 'Patient summary' form. The form contains several input fields: 'Last name*', 'First name*', 'Middle initial', 'DOB*', 'Gender*', 'Patient ID*', 'Diabetes type*', and 'Referring provider*'. Each field has a small keyboard icon to its right. At the bottom, there is a back arrow, the text 'Patient summary', and two buttons: 'Save' and 'Exam'.

- a. Enter **Last name**, **First name**, and (optionally) **Middle initial**. Touch **OK**.
 - b. Enter the **DOB** (date of birth). Touch **OK**.
 - c. Choose a gender: **Male**, **Female**, or (in the wireless workflow) **Other**.
 - d. Enter the **Patient ID**. Touch **OK**.
 - e. Select your clinic's **Referring provider**. Touch **OK**. (Required only for the wireless workflow.)
 - f. Select the patient's diabetes type: **Type I**, **Type II**, or **None**. (Required only for the wireless workflow.)
3. Touch **Exam** to open an exam or **Save** to save the information without starting an exam.

A screenshot of the 'Patient summary' form with data entered. The fields are: 'Last name' (Anderson), 'First name' (John), 'Middle initial' (P), 'DOB' (05/12/1962), 'Gender' (Male), 'Patient ID' (12345678), 'Diabetes type' (Type II), and 'Referring provider' (Murphy, Ryan MD). The 'Save' and 'Exam' buttons are visible at the bottom.

To edit patient data, touch within the desired field to launch the on-screen keyboard, touch the backspace key to delete information, type the correction, and then touch **OK**.


See "Perform a retina eye exam" or "Perform an anterior Image eye exam" for instructions on performing exams and acquiring images.

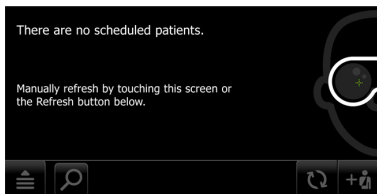
Search for a patient in the scheduled-patients list

You can search for scheduled patients who have been downloaded to the **RetinaVue** 700 Imager from the **RetinaVue** Network Customer Portal (**Wi-Fi**) or from the **RetinaVue** Network software application (USB).

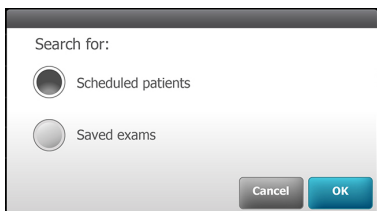
Any patients that were created and saved on the camera also appear in the list of scheduled patients.

Patient information is not editable for patients that were created on the **RetinaVue** Network Customer Portal or from the **RetinaVue** Network software application (USB).

1. From the main Patients screen, touch  to search for a patient. (Wireless workflow images are shown.)



2. Touch **OK**.

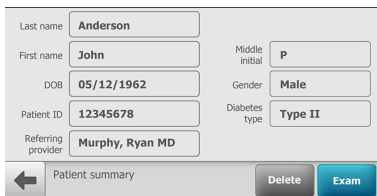


3. Type part or all of the patient's last name, first name, or ID (medical record number, MRN). Touch **OK**. Any scheduled patients that match your search parameters appear on the Patient list search screen.



4. Touch a patient's name or ID.


The Patient summary screen appears.

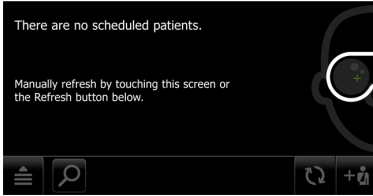


See "Perform a retina eye exam" or "Perform an anterior Image eye exam" for instructions on performing exams and acquiring images.

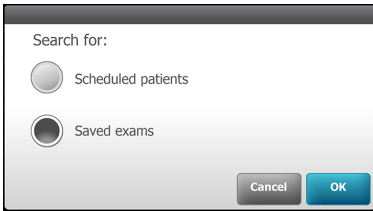
Search for a patient in the saved-exams list

Follow these steps to search for patients who have completed or partially completed exams that have been saved to the camera.

1. From the main Patients screen, touch  to search for a patient. (Wireless workflow images are shown.)

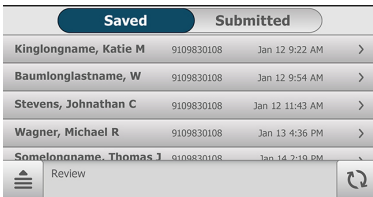


2. Touch **Saved exams**. Touch **OK** to launch the on-screen keyboard.



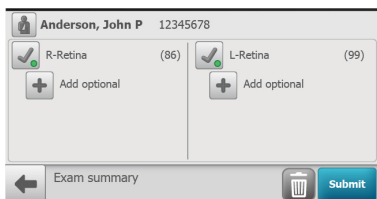
3. Type the patient's last name, first name, or patient ID (medical record number, MRN) into the search entry field, and then touch **OK**.

The Review screen appears.



4. Touch **Saved** or **Submitted** to see the exams that appear in those lists based on your search parameters.
5. Touch a patient's name or ID.


The Exam summary screen appears.

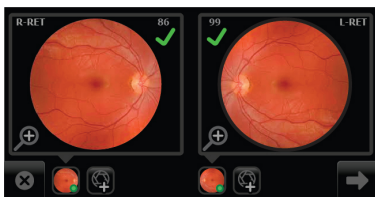





6. Optional: Delete or submit exams.

Delete an image during an eye exam

CAUTION Data deleted on the device cannot be recovered.

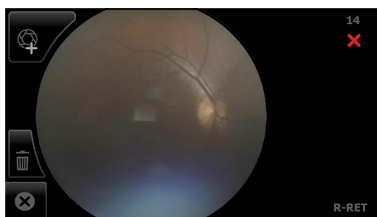
1. From the Post-Acquisition screen, touch  for the image you want to inspect.





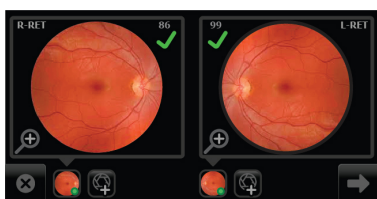
- R-RET means right retina; L-RET means left retina.
-  (score 40+) means good quality. The image is very likely to be read.
-  (score 20–39) means good-enough quality. The image is likely to be read.
-  (score 0–19) means lacking in quality. The image is very unlikely to be read and should be deleted.

The Inspection screen comes up, showing the eye that you chose. Here are two right-eye examples, one of good quality and one lacking in quality.






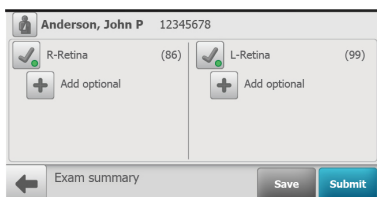
- For any image you want to delete and replace with a new image, touch . Then touch **OK** at the prompt Do you want to discard this image?
- From the Post-Acquisition screen, touch  (add image).



The Acquisition screen returns.

- Capture the remaining images. When the images contain a green or yellow quality-acceptance check mark, touch  (next).

The Exam summary screen appears.



- Save or submit the exam.
 - Touch **Save** to save the exam to the device for further review or editing.
 - Touch **Submit** to submit the exam to the **RetinaVue** Network Customer Portal. In wireless mode, this message appears: Exam is queued up to be submitted.

Delete a patient



CAUTION Data deleted on the device cannot be recovered.

1. From the main Patients screen, touch the patient's name or ID number.



2. Touch **Delete**.

Last name	Anderson	Middle initial	P
First name	John	Gender	Male
DOB	05/12/1962	Diabetes type	Type II
Patient ID	12345678		
Referring provider	Murphy, Ryan MD		

← Patient summary Delete Exam


3. Touch **OK** at the prompt: Are you sure you want to delete the patient file?

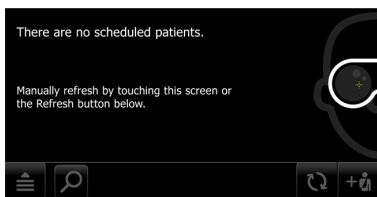
See "Troubleshooting" if you see the following **Wi-Fi** error message: Failure to connect to the portal. Unable to delete patient information.

Delete a patient and exam

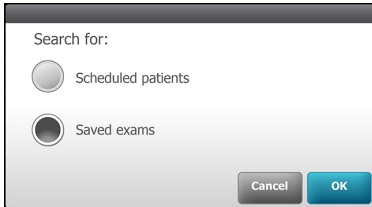


CAUTION Data deleted on the device cannot be recovered.

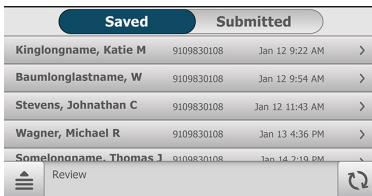
1. From the main Patients screen, touch  to search for a patient. (Wireless workflow images are shown.)



2. Select **Scheduled patients** or **Saved exams**.

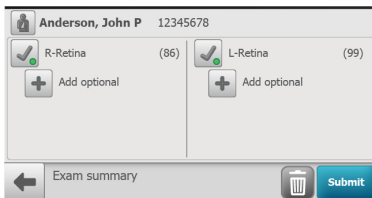



3. Touch **OK** to launch the on-screen keyboard. Begin typing the patient's last name, first name, or patient ID (MRN) into the entry field box, and then touch **OK**. The Review screen appears.




4. For saved exams, touch a patient's name or ID to select that patient.

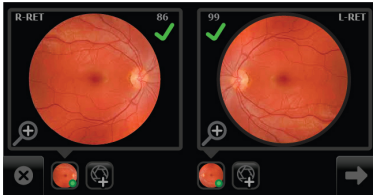
The Exam summary screen appears.




5. Touch  (delete) to remove the patient and the exam from the imager.
6. Touch **OK** at the prompt: Are you sure you want to delete this patient's information and exam?

Capture additional images using the same protocol

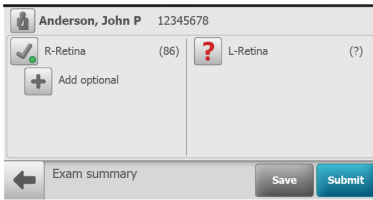
1. From the Post-Acquisition screen, touch  (add image).




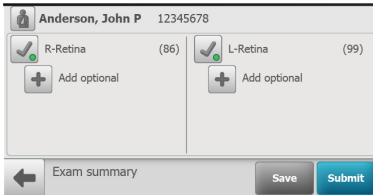
If an image has a yellow or blue information message, observe the tips in the message to capture a higher-quality image.


2. Capture new images. A new-image icon appears in the place of each image-capture icon.
3. When the image capture is complete and the images contain a green or yellow quality-acceptance check mark, touch  (next).

The Exam summary screen appears.




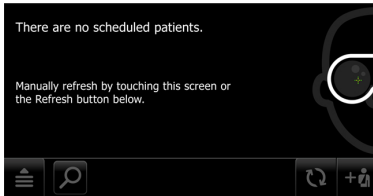
4. If you see a red question mark, there is a missing image. Touch  (missing image) to capture an image using the existing protocol.



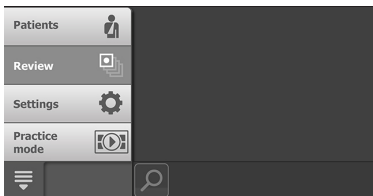
5. After all images are captured, touch  (next).
6. Save or submit the exam.
 - Touch **Save** to save the exam to the device for further review or editing.
 - Touch **Submit** to submit the exam to the **RetinaVue** Network Customer Portal.

Review saved exams

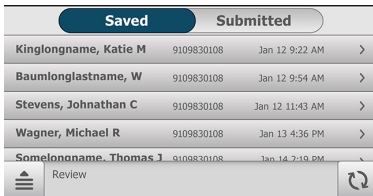
1. From the main Patients screen, touch .



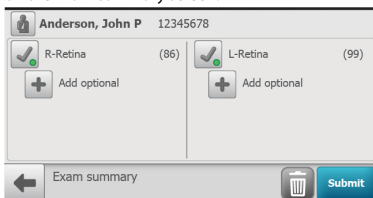
2. Touch Review.



The Review screen appears, listing saved exams.




3. Touch a patient's name or ID to select that patient. Any exams that have not been sent for overread appear on the Exam summary screen.

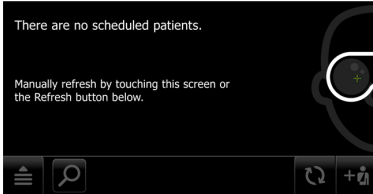


- For saved exams, touch the image-quality icon of the right or left eye to view the images associated with that patient.
- After the review is complete, touch **Submit** to send the exam for overread.

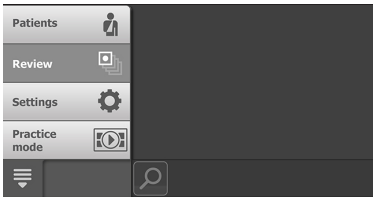
Review submitted exams

Submitted exams remain available to review until they have been viewed on the **RetinaVue** Network Customer Portal. At that point, they are deleted from the device.

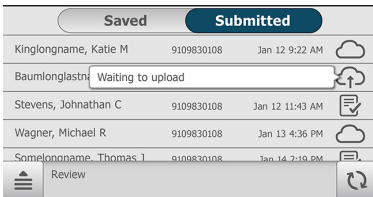
1. From the main Patients screen, touch  (navigation menu).






2. Touch **Review**.




On the Review screen, touch **Submitted**.



3. Touch any icon to see that exam's status:

Option	Description
	Waiting to upload
	Submitted
	Report available

The status icons are available only in wireless mode.

4. When finished reviewing, touch , and then touch **Patients** to return to the main Patients screen.



Update the RetinaVue 700 Imager software [firmware]


Before you begin, you need the following :

- A computer with an internet connection.
- A USB cable to connect the **RetinaVue 700 Imager** to a computer.

- The **RetinaVue** 700 Imager.
- The updated firmware downloaded from https://www.retinavue.net/RN_CustomerPortal/ and transferred to a computer

1. Take note of the current software (firmware) version as follows:

- From the main Patients screen, touch  (navigation menu).
- Touch **Settings > About**. (You may need to scroll down to see the About menu.)
- Note the version.
- Touch  (back) to return to the Settings screen.

2. From the main Patients screen, touch .

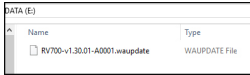
3. Touch **Settings > Advanced settings > Firmware update > Load firmware**.

4. Touch **OK** at the prompt Use a USB cable to connect the camera to the computer to transfer the new firmware to the camera.

5. Plug the USB cable into the computer and the camera.

The screen prompt appears: Camera plugged into computer. When finished loading file, unplug camera from the computer.

6. Transfer the firmware update from the computer to the camera by copying or dragging the file from the computer location to the **RetinaVue** 700 Imager device drive. In this example, the device drive is DATA (E:).




7. Eject the **RetinaVue** 700 Imager safely to ensure a complete software transfer. Possible methods:

- Right-click the **Start** button, click **File Explorer**, right-click **DATA**, and then click **Eject**.
- Click the taskbar and select **Show hidden icons**, then click **Safely Remove Hardware and Eject Media**, then click **Eject RetinaVue Imager**.
- Wait until the files have completely copied, and then manually eject the **RetinaVue** 700 Imager.


8. Remove the USB cable from the **RetinaVue** 700 Imager.


9. Touch **OK** at the prompt **Install firmware**.

A processing icon  appears for a few minutes while the imager updates.

10. Touch **OK** at the prompt **Firmware update successful**. Touch **OK** to restart the device.


11. After the **RetinaVue** 700 Imager boots up to the main Patients screen, confirm that the software (firmware) version has changed.

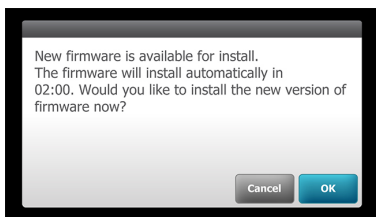
- From the main Patients screen, touch .
- Touch **Settings > About**.
- Note the version.


12. Touch  (back) to return to the Settings screen.

Install firmware when scheduled on the RetinaVue 700 Imager

Installing firmware on a scheduled basis is an optional service that is available for purchase. Contact your Baxter representative for more information.

1. Confirm that your sleep-mode timer is set to **Never**.
2. Confirm that the device battery charge is greater than 90 percent 
3. From the main Patients screen (or the currently active screen), if a firmware update is available, touch **OK** to install the update in the background.




The update process typically takes a few minutes, during which time you see the message `Firmware update in progress...` and a processing icon .


Once the firmware update progress has begun, do not interrupt the update. Do not power off the device.

Controls

Power down the **RetinaVue** 700 Imager

1. Press .
2. Three options appear:
 - Power down
 - Sleep
 - Cancel
3. Touch **Power down**.


Enter sleep mode [dark screen]

1. Press .
- Three options appear:
 - Power down
 - Sleep
 - Cancel
2. Touch **Sleep**.

The **RetinaVue** 700 Imager enters sleep mode (the screen goes dark).

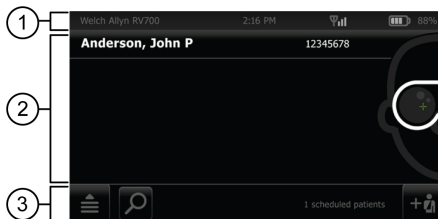
Exit sleep mode

If the screen is dark, the device is in sleep mode. To awaken the prior screen, do any of the following:

- Press .
- Touch the LCD touchscreen.
- Lift or move the **RetinaVue** 700 Imager.

Patients screen

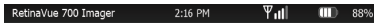
The main Patients screen includes the following 3 areas:



Item	Screen area	Details
1	Device status	See "Device status on the Patients screen."
2	Content	See "Content area on the Patients screen."
3	Navigation	See "Navigation options on the Patients screen."

Device status on the Patients screen

The device-status area at the top of the main Patients screen—area 1 in the example under "Patients screen"—displays the following information:



- Device model (if in USB workflow).
- Clinic name (if in **Wi-Fi** workflow and the clinic is selected at the **RetinaVue** Network Customer Portal). The clinic text indicates which clinic is selected.
- Time. Displayed in HH:MM format.
- Connection status. The icons indicate which connection type, if any, is currently active. (Wireless signal strength)
- Battery condition. Percentage of charge is displayed.

In the live-preview and exam-summary screens, the device-status area displays the following information:

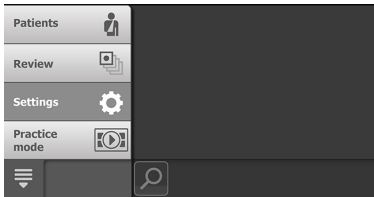


- Patient icon and patient name. The format of the patient name is last name, first name, and middle initial.
- Clinic name (The clinic text indicates which clinic is selected after it is entered at the **RetinaVue** Network Customer Portal). The clinic name appears only until a patient is selected.
- Time. Displayed in HH:MM format.
- Connection status. The icons indicate which connection type, if any, is currently active.
- Battery condition. Percentage of charge is displayed.

Content area on the Patients screen

The content area in the middle of the Patients screen—area 2 in the example under "Patients screen"—shows the patients list as well as the navigation options.

The pop-up navigation menu provides access to the Patients, Review, Settings, and Practice mode submenus.









Touch to open the navigation menu. Touch the same icon again to return to the main Patients screen.

Navigation submenu	Description
Patients	Presents a list of patients that were either created on the RetinaVue 700 Imager or transferred from the RetinaVue Network using a Wi-Fi connection or an additional software application.
Review	Presents images and exams from a list of patients contained on the RetinaVue 700 Imager.
Settings	<p>In the Wi-Fi workflow, this submenu provides controls to view or change the following:</p> <ul style="list-style-type: none"> • Wi-Fi Off/on • Wi-Fi • Clinic/states • Device defaults (volume & sleep mode) • Date & time <p>Advanced:</p> <ul style="list-style-type: none"> • Advanced-settings code • Date & time • Firmware update • Reset factory defaults • Service connection • Static IP config • Export log • Recovery time • Scheduled-patient expiration <p>Other:</p> <ul style="list-style-type: none"> • Software version (touch About) • Regulatory information • Network information • Open-source software information <p>In the USB workflow, this submenu provides controls to view or change the following:</p> <ul style="list-style-type: none"> • Device defaults (volume & sleep mode) • Date and time <p>Advanced:</p> <ul style="list-style-type: none"> • Device-access code • Advanced-settings code • Firmware update • Reset factory defaults • Export log • Recovery time <p>Other:</p> <ul style="list-style-type: none"> • Software version (touch About) • Regulatory information • Network information • Open-source software information
Practice mode	Provides interactive training that helps you learn to use the RetinaVue 700 Imager.

Navigation options on the Patients screen

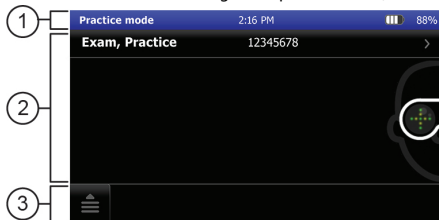
The options that appear in the navigation area at the bottom of the main Patients screen—area 3 in the example under "Patients screen"—vary depending on whether the **RetinaVue** 700 Imager is in the **Wi-Fi** or USB workflow.

Navigation option	Function	In the Wi-Fi workflow?	In the USB workflow?	Description
	Navigation menu	Yes	Yes	See "Content area on the Patients screen."
	Create a new patient	Yes	Yes	Goes to the Patient summary screen.
	Search	Yes	No	Goes to the patient-list search or the menus for reviewing saved or submitted exams.

Navigation option	Function	In the Wi-Fi workflow?	In the USB workflow?	Description
	Refresh	Yes	No	Downloads any new patients from the RetinaVue Network Customer Portal. The imager must be connected to the RetinaVue Network Customer Portal.
	Next	Yes	No	Goes to the next screen.
	Exit	Yes	No	Exits the screen.

Patients screen in practice mode

When the **RetinaVue** 700 Imager is in practice mode, the Patients screen looks like this:




Item	Description
1	The device-status area is blue and prominently displays "Practice mode."
2	The content area contains a single patient named "Exam, Practice."
3	The navigation submenus are Patients, Review, and Exit.

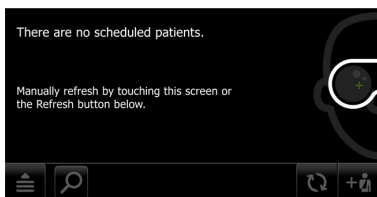
Use practice mode

Practice mode provides interactive training that helps you learn to use the **RetinaVue** 700 Imager.

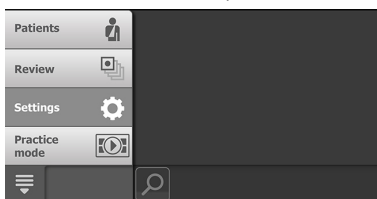


CAUTION Exiting practice mode deletes all exams. Data that's deleted from the device cannot be recovered.

1. From the main Patients screen, touch .

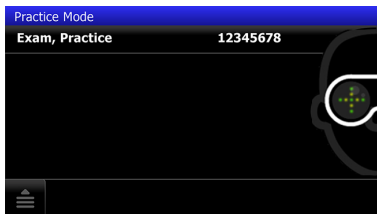


2. Touch **Practice mode** to enter practice mode.



3. Touch **OK** at the prompt **Active Practice mode**. Not intended for patient exams.

"Practice Mode" appears in a blue banner.



4. Touch the patient's name (in this case, **Exam, Practice**) or ID (**12345678**).

The patient-summary screen appears.

5. Touch **Exam**.

 A screenshot of the Patient summary screen. The title bar is blue and reads "Practice mode" and "2:17 PM" with a battery icon at 88%. The form contains the following fields:

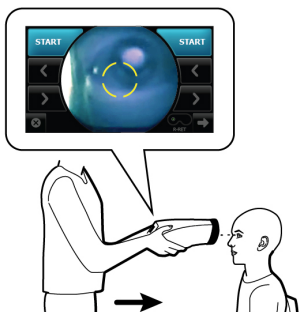
Last name	Exam	Middle initial	D
First name	Practice	Gender	Female
DOB	01/01/1970	Diabetes type	Type I
Patient ID	12345678		
Referring provider	Something		

 At the bottom left is a back arrow and "Patient summary" text. At the bottom right is a blue button labeled "Exam".

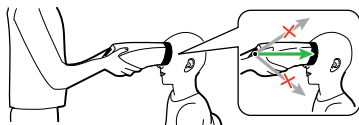
6. Touch **START EXAM**.



7. Position the **RetinaVue** 700 Imager about 4 inches directly in front of a practice patient, or a colleague. Keep the **RetinaVue** 700 Imager *level* and in line with your patient's eyes. Brace your arms against your body to help keep the **RetinaVue** 700 Imager steady.
8. Move the **RetinaVue** 700 Imager toward the patient and align the yellow circle to the patient's right pupil.

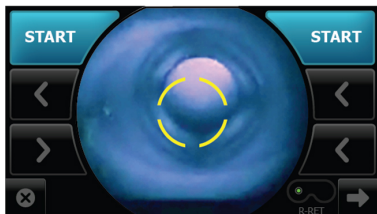


9. Place the face cup firmly on the patient's face. Do not hover near the face with the **RetinaVue** 700 Imager. Keep the **RetinaVue** 700 Imager level.

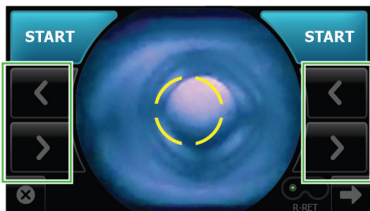


The right pupil should be visible within the screen.

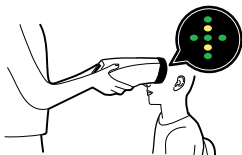
10. If the pupil is located above or below the yellow circle, as shown, slide the **RetinaVue 700 Imager** slightly up or down on the patient's face to align the yellow circle to the pupil.



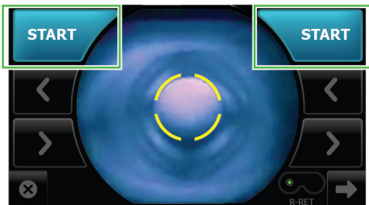
11. If needed, touch < or > to align the yellow circle to the pupil.



12. Ask the patient, "Can you see the entire plus sign?" Inform the patient that the plus sign will transition into a green dot. Ask the patient to follow the green dot.



13. Press the face cup firmly against the patient's face and then touch **START**.



14. Hold steady until the image is captured.



If the audio is set to an audible volume, a camera shutter tone alerts you once the right-eye image has been captured.

A timer appears and counts down. This wait time allows the patient's eyes to recover from the flash. After the timer ends, the **RetinaVue** 700 Imager automatically moves to the left eye and displays the message **Lens** moving to the next eye.

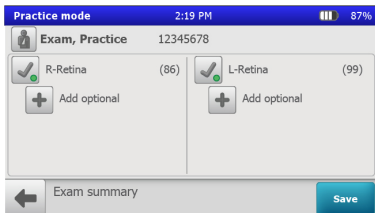
15. Repeat the steps to align the yellow circle to the pupil and capture an image of the left eye.

If the audio is set to an audible volume, a camera shutter tone alerts you once the left-eye image has been captured.

After both images have been captured, they are available to view on the Post-Acquisition screen.



16. Touch **Save**.




The exam appears as "Exam, Practice" on the Review screen.

17. Touch the patient's name (in this case, **Exam, Practice**) or ID (**12345678**) to return to the Review screen and view the images associated with your practice patient.




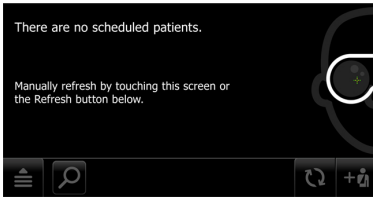
CAUTION No data is preserved in practice mode. Any data collected in practice mode will be deleted when practice mode is exited and cannot be recovered.

- 18. When you complete your practice exam, touch  and then touch **Exit**.
- 19. Touch **OK** at the prompt *Are you sure you want to exit practice mode?* to leave practice mode and to return to the main Patients screen.

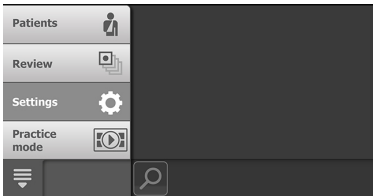
Select or change a clinic on the **RetinaVue 700 Imager** [wireless only]

If the camera has saved exams, changing a clinic is not permitted. To change clinics, first delete or submit exams.

- 1. From the main Patients screen, touch  (navigation menu).



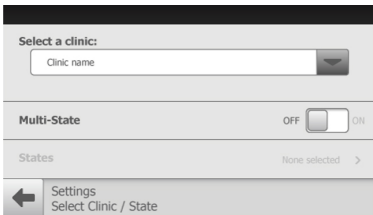
- 2. Touch **Settings**.





- 3. Touch **Clinic/States**.

See "Troubleshooting" if you see either of these messages: *Wi-Fi connection not available* or *No RetinaVue Network connection*. To switch clinics, reconnect to RetinaVue Network.


- 4. Use the dropdown menu to select a clinic.

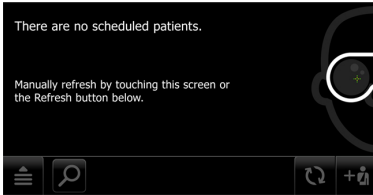


- 5. Touch  (back) to return to the Settings screen.

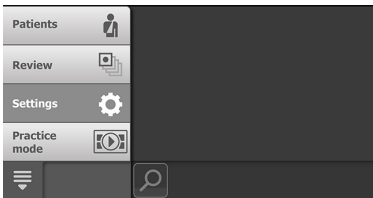
6. Touch  and then touch **Patients** to return to the main Patients screen.

Select or change a multi-state clinic on the **RetinaVue 700 Imager** [wireless only]

1. From the main Patients screen, touch  (navigation menu).

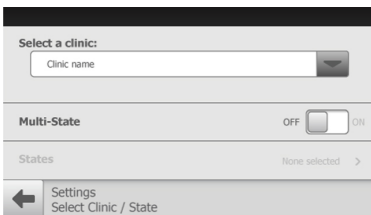


2. Touch **Settings**.



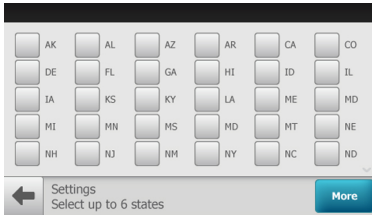
3. Touch **Clinic/States**.


The Select Clinic/State screen appears.



4. If multiple clinics are set up, use the drop-down menu to select the clinic you would like to set up for multi-state use.
5. Touch **Multi-State**. The switch changes from off to on.

6. Touch **States**. Then select 2–6 states for the clinic. Touch **More** to see additional states and to proceed to **OK** when you've selected the desired number of states.




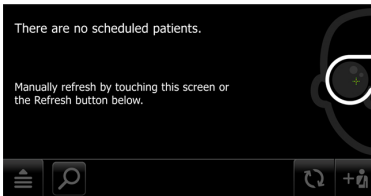
7. Touch **OK** to return to the Select Clinic/States screen.
8. Touch **←** (back) to return to the Settings screen.
9. Touch  and then touch **Patients** to return to the main Patients screen.



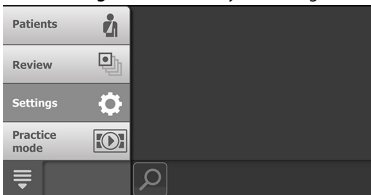
NOTE For each exam performed in a multi-state clinic, select the state where the exam was performed. Touch **OK** to confirm.

View or change the RetinaVue 700 Imager settings

From the main Patients screen, touch  (navigation menu) to view or change the settings.



Touch **Settings** and then modify the settings as desired.



In the Wi-Fi workflow:


- Touch **Wi-Fi Off/On**.
 - Touch **OFF** or **ON** to turn the wireless radio off or on.
- Touch **Wi-Fi** to view or reset available **Wi-Fi** networks.

The list of available wireless networks in range appears. The currently selected network appears with a check mark next to the network name.

- Touch > to view or modify the wireless network settings from the list of available wireless networks in range. Touch ◀ (back) to return to the Wi-Fi Setup screen
- Touch **Info** to view network information. The Network Information screen appears:


MAC address 00:17:23:e5:d5:a5
 IP address 10.20.200.70
 Subnet mask 244.244.244.1
 Gateway 10.20.244.1
 Version 2.00.02
 SSID (Your Network)
 Access Point MAC B2:DE:31:OC:32:B2
 RSSI -70

Touch ◀ (back) to return to the Wi-Fi Setup screen.

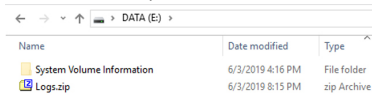
- Touch . The Wi-Fi Radio settings screen appears. See "Troubleshooting" for more information on updating **Wi-Fi** radio settings. Touch ◀ (back) twice to return to the main Settings screen.
- Touch **Clinic/States**. Up to 6 States may be selected for a clinic.
 - Touch **Multi-State**. The switch changes from Off to On.
 - Touch **States**. Touch the box next to the State abbreviation to select it.
 - Touch **More**. Touch OK.
 - Touch ◀ (back) twice to return to the main Settings screen.
- Touch **Device defaults**
 - Touch ▲ (up) or ▼ (down) to adjust the device sound volume. Touch ◀ (back) to return to the main Settings screen.
 - Touch ▼ (down) to adjust the device sleep time. Use the scroll bar to select 5 minutes, 7 minutes, 10 minutes, or Never. Touch ◀ (back) to return to the main Settings screen.
- Touch **Date & time**.
 - Touch ▲ (up) or ▼ (down) to adjust the hour, minute, Continent, and Location. Use the radio buttons to select the 24-hour or 12-hour format. Touch ◀ (back) to return to the Settings screen.
 If the up and down controls are not functional, NTP may be enabled. To disable NTP, see "Enable or disable NTP for automatic date and time" in the "Advanced features" section of this document.
- Touch **Advanced settings** and then modify the settings as desired.
 - *Advanced settings code*. Set the Advanced settings numeric code, retype the code to confirm, and touch **OK** to return to the Advanced settings screen.
 - *Firmware update*. Touch **Load firmware** and touch **OK** at the prompt to load the software from a computer.
 - *Reset factory defaults*. For **Wi-Fi**, touch **Restore Settings** and then touch **OK** to reset the device to the default setting.
 - *Service connection*. For **Wi-Fi**, at the "Sync with service server" screen, touch **Sync now** to test the operation of synchronization and then touch **OK** at the *Sync with server is complete* prompt to show the time of the last successful sync. The last successful sync appears on the screen. Touch ◀ (back) to return to the Advanced Settings screen.


- *Network Time Protocol (NTP).* For **Wi-Fi**, touch Date & time. Then, touch the checkbox next to **Enable NTP** to either add a check mark, enabling NTP, or remove a check mark, disabling NTP.
- *Static IP Config.* Touch **Static IP Config** to view or reset the Device IP. The list of current IP address, Subnet mask, Gateway, and DNS appears on the Wi-Fi Device IP screen.






Touch **DHCP** to view or modify the device IP settings. Use the drop-down menu to select *Static IP* in the left pane. Touch within the IP address, Subnet mask, Gateway, or DNS fields to launch the onscreen numeric keypad and to change the information in any of the associated fields, then touch **OK** on the numeric keypad. Touch **Apply** to save changes.

Touch  (back) to return to the Advanced Settings screen if necessary. The camera may automatically load the Advanced Settings screen.





- *Export log.* Touch **Export log** to export logs into a viewable zip file. Touch **OK** at the prompt The log files are available for export. Use a USB cable to connect the camera to the computer to export files. When finished copying the file, unplug camera from the computer. After the **RetinaVue 700 Imager** is connected to a computer by the USB cable, navigate to the drive ("DATA (E:)" in the sample screen) and copy the compressed zip file to a location on the computer where the files can be viewed in a text file.



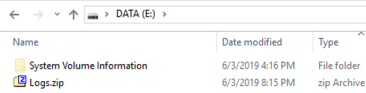
Touch  (back) to return to the main Settings screen.

- *Scheduled-patient expiration.* Select the number of days before patients scheduled via EMR interface or **RetinaVue** Network Customer Portal will be automatically removed from the camera's patient list. Touch  (back) to return to the Advanced Settings screen.
- *Network information.* Touch **Network information** to view the wireless radio (**Wi-Fi**) MAC address, IP address, Subnet mask, and Gateway addresses. Touch  (back) to return to the main Settings screen.
- Touch **About** to view the software version. Touch  (back) to return to the main Settings screen.
- *Regulatory information.* Touch **Regulatory information** to view Regulatory Information. Touch  (back) to return to the main Settings screen.
- *Open source.* Touch **Open source** to view this message: This product may contain software known as "free" or "open source" software (FOSS). Baxter uses and supports the use of FOSS. We believe that FOSS makes our products more robust and secure, and gives us and our customers greater flexibility. To learn more about FOSS that may be used in this product, visit our FOSS website: baxter.com/opensource. Where required, a copy of FOSS source code is available on our FOSS website. Touch  (back) to return to the main Settings screen.

In the USB workflow:

- Touch **Device defaults.**
 - Touch  (up) or  (down) to adjust the device sound volume.
 - Touch  (down) to adjust the device sleep time. Use the scroll bar to select 5 minutes, 7 minutes, 10 minutes, or Never. Touch  (back) to return to the main Settings screen.
- Touch **Date & time.**


- Touch ▲ (up) or ▼ (down) to adjust the Day, Month, Year, Hour, Minute (Min), Continent, and Location. Use the radio buttons to select the 24-hour or 12-hour format. Touch ◀ (back) to return to the main Settings screen.
- Touch **Advanced settings**.
 - *Device access code*. Set the Device access numeric code, retype the code to confirm, and touch **OK** to return to the Advanced settings screen (USB only).
 - *Advanced settings code*. Set the advanced settings numeric code, retype the code to confirm, and touch **OK** to return to the Advanced settings screen.
 - *Firmware update*. Touch **Load firmware** and touch **OK** at the prompt to load the firmware from a computer.
 - *Reset factory defaults*. Touch **Restore Settings** at the prompt Do you want to restore to factory defaults? This will rest all device settings. Any saved exams on this camera will be deleted. Touch **OK** at the prompt Reset all settings to defaults? Any saved exams on this camera will be deleted.
 - *Export log*. Touch **Export log** to export logs into a viewable zip file. Touch **OK** at the prompt The log files are available for export. Use a USB cable to connect the camera to the computer to export files. When finished copying the file, unplug camera from the computer. After the **RetinaVue 700 Imager** is connected to a computer by the USB cable, navigate to the drive ("DATA (E:)" in the sample screen) and copy the compressed zip file to a location on the computer where the files can be viewed in a text file.



Touch ◀ (back) to return to the main Settings screen.

- Touch **About** to view the software version. Touch ◀ (back) to return to the Settings screen.
- *Regulatory information*. Touch **Regulatory information** to view regulatory information. Touch ◀ (back) to return to the main Settings screen.
- *Open source*. Touch **Open source** to view this message This product may contain software known as "free" or "open source" software (FOSS). Baxter uses and supports the use of FOSS. We believe that FOSS makes our products more robust and secure, and gives us and our customers greater flexibility. To learn more about FOSS that may be used in this product, visit our FOSS website at baxter.com/opensource. Where required, a copy of FOSS source code is available on our FOSS website. Touch ◀ (back) to return to the main Settings screen.

Set the date and time

1. From main Patients screen, touch  (navigation menu) and then touch **Settings**.
2. Touch **Date and time**.
3. Touch ▲ (up) or ▼ (down) to adjust the day, month, and year in the DD/MM/YY format.




If the up and down controls are not functional, NTP may be enabled. To disable NTP, see "Enable or disable NTP for automatic date and time" in the "Advanced features" section of this document.

4. Touch ▲ (up) or ▼ (down) to adjust the hour, minute, and use the drop-down menu ▼ and scroll bar to view or change the continent and location. Use the radio buttons to select the 24-hour or 12-hour format.
5. Touch ◀ (back) to return to the Settings screen.




Set the device access code at the **RetinaVue 700 Imager (USB only)**

Setting the device access code before first use provides additional security features in the **RetinaVue 700 Imager** to prevent unintended access to patient information by unauthorized individuals.

See "First-time selection of Wi-Fi connectivity workflow" for instructions on setting the device access code on the **RetinaVue 700 Imager** from the **RetinaVue** Network Customer Portal.

1. From the main Patients screen, touch  (navigation menu).
2. Touch **Settings**.
3. Touch **Advanced settings**.
4. Touch **Device access code** to enter an access code for the **RetinaVue 700 Imager**.
5. Use the touchscreen numeric keypad to enter an access code into the **Access code** field, and then retype the same code into **Access code (retype)** field.
The access code password can contain a minimum of 1 digit and a maximum of 18 digits. Characters are only numeric: 0–9.
6. Touch **OK** to accept the code and touch **OK** again at the confirmation screen to return to the Advanced settings screen.
7. Touch  (back) to return to the Settings screen.
8. Touch  (navigation menu) and **Patients** to return to the Patients home screen.

Reset the device access code (USB only)

1. If you are not already logged in, enter the existing access code for the **RetinaVue 700 Imager**.
2. From the main Patients screen touch  (navigation menu).
3. Touch **Settings**.
4. Touch **Advanced settings**.
5. Touch **Device access code**.
6. Touch **Reset** to clear the existing access codes.
7. Use the touchscreen numeric keypad to enter an access code into the **Access code** field, and then retype the same code into the **Access code (retype)** field.
The access code password can contain a minimum of 1 digit and a maximum of 18 digits. Characters are only numeric: 0–9.
Alternatively, after the code reset, touch **OK**, and then touch **OK** again at the confirmation screen to return to the Advanced settings screen without using a device access code.
8. Touch **OK** to accept the code and touch **OK** again at the confirmation screen to return to the Advanced settings screen.
9. Touch  (back) to return to the Settings screen.
10. Touch  (navigation menu) and **Patients** to return to the Patients home screen.

Company and clinic administrators

Set the device access code at the **RetinaVue** Network Customer Portal (**Wi-Fi** only)

Setting the device access code before first use provides additional security features in the **RetinaVue** 700 Imager to prevent unintended access to patient information by unauthorized individuals.

Company and clinic administrators can set the device access code on the **RetinaVue** 700 Imager from the **RetinaVue** Network Customer Portal.

1. On the **RetinaVue** Network Customer Portal, enter your **RetinaVue** Network username and password, then click **Log In**.

2. On the **RetinaVue** Network Customer Portal, select **Manage Devices** and click **Next**.

Welcome to the RetinaVue Customer Portal

What would you like to do?

- Schedule a Patient (wireless only)
- View Exam Status
- View New Diagnostic Reports
- Search Diagnostic Reports
- View Statistics
- Manage Devices**
- Manage Clinics
- Edit Company Information

Next

3. See "Wi-Fi camera registration" if there are no currently registered devices.

Device Name	Device Location	Device Access Code	Registration Date	Status	Detail
No devices are currently authorized for clinics that you can manage.					
Back					

- 4. To enable a device access code for the **RetinaVue** 700 Imager, click **Edit**.

Device Management

Device Name	Serial Number	Device Access Code	Registration Date	Status	Detail
RV700 SKF	700044180025		7/6/2020		Edit

- 5. Select the **Device Access Code** checkbox, and enter your code into the field. The **RetinaVue** 700 Imager and the **RetinaVue** Network Customer Portal support 4–6 digits in the device access code.

Edit Device

Device Name
RV700 SKF

Device Serial Number
700044180025

Device Access Code
123456 ####

Select clinics to associate with this camera

- 6. Select each clinic to associate the **RetinaVue** 700 Imager camera's device access code by clicking the checkbox next to each clinic name and then clicking **Save**.

Each **RetinaVue** 700 Imager camera at each clinic will receive a notification after startup or after coming out of sleep mode: A new device access code has been downloaded. The camera will require this code at the next encounter.

Reset the device access code at the RetinaVue Network Customer Portal (Wi-Fi only)

Company and clinic administrators can reset the device access code on the **RetinaVue** 700 Imager from the **RetinaVue** Network Customer Portal.

- 1. To enable a device access code for the **RetinaVue** 700 Imager, click **Edit**.

Device Management

Device Name	Serial Number	Device Access Code	Registration Date	Status	Detail
RV700 SKF	700044180025		7/6/2020		Edit

- 2. Select the **Device Access Code** checkbox, and enter your revised code into the field. To remove an existing device access code, click within that field and use the backspace key to delete information, or select the entire code and use the delete key to remove the code, and then enter the revised code.

The **RetinaVue** 700 Imager and the **RetinaVue** Network Customer Portal support 4–6 digits in the device access code.

Edit Device

Device Name
RV700 SKF


Device Serial Number
700044180025

Device Access Code
123456 ####

Select clinics to associate with this camera

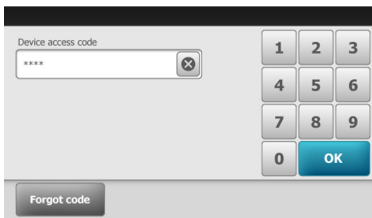
3. Select each clinic to associate the **RetinaVue** 700 Imager camera's device access code by clicking the checkbox next to each clinic name and then clicking **Save**.

Each **RetinaVue** 700 Imager camera at each clinic will receive a notification after startup or after coming out of sleep mode: A new device access code has been downloaded. The camera will require this code at the next encounter.

 **NOTE** Inform each of the affected clinics of the code change via your company channels.

Invalid device access code (Wi-Fi only)

The **RetinaVue** 700 Imager and the **RetinaVue** Network Customer Portal support from 4 to 6 digits in the device access code. Characters are numeric only (0–9). In the **Wi-Fi** workflow, the administrator sets these codes.



If you enter an invalid code, you may see one of the following messages:

Number of invalid codes entered	Message	Remedy
1 or 2 in a row	Invalid code. Contact your RetinaVue Network administrator to reset the code.	Reenter your code. If you need to reset the code, contact your RetinaVue Network administrator.
3–6 in a row	Invalid code. Device locked. Try again in [x]. Contact your RetinaVue Network administrator to reset the code.	The keypad and OK button are inactive (grayed out). Reenter your code when the countdown timer expires in [x] minutes—2, 10, or 30 depending on the number of times you entered an invalid code. If you need to reset the code, contact your RetinaVue Network administrator.

Lost or forgotten access code?

Contact your **RetinaVue** Network administrator to reset the device access code from the **RetinaVue** Network Customer Portal.

If necessary to regain access to the device, perform a factory reset to erase the code. Any saved exams or patient data on the camera will be deleted.






CAUTION Data deleted on the device cannot be recovered.

1. Touch **Forgot code**.
2. Touch **Factory reset**. A few prompts appear, asking you to confirm that you want to continue.

See "Troubleshooting" for more information about resetting the device access code.

Set the advanced settings code

1. If the **RetinaVue** 700 Imager is set with a device access code (in addition to the advanced settings code) and you are not already logged in, enter the existing device access code.
2. From the main Patients screen, touch  (navigation menu).
3. Touch **Settings**.
4. Touch **Advanced settings**.
5. Touch **Advanced settings code**.
6. Enter a code in both fields: Advanced settings code and Advanced settings code (retype). (The code can contain a minimum of 1 digit and a maximum of 18 digits. Characters are numeric only: 0–9.) Touch **OK**.
7. Touch **OK** again at the confirmation screen.
8. Touch  (back) to return to the Settings screen.
9. Touch  (navigation menu) and **Patients** to return to the Patients home screen.


Reset the advanced settings code

Setting the advanced settings code before first use provides additional security features in the **RetinaVue** 700 Imager to prevent unintended access to advanced settings. Touch **Forgot Pin** if you cannot recall your RetinaVue 700 Imager advanced settings code and need to erase the advanced settings code.





CAUTION Data deleted on the device cannot be recovered.

Touch **Factory reset** if necessary to regain access to the device. Any saved exams or patient data on the camera will be deleted.

1. If the **RetinaVue** 700 Imager is set with a device access code (in addition to the advanced settings code) and you are not already logged in, enter the existing device access code.
2. From the main Patients screen, touch  (navigation menu).
3. Touch **Settings** > **Advanced settings**.
4. Enter the existing advanced settings code for the **RetinaVue** 700 Imager, and touch **OK**.
If you cannot recall your advanced settings code and need to erase it, touch **Forgot Pin**.
5. Touch **Advanced settings code** again.
6. Touch **Reset** on the keypad and use the touchscreen numeric keypad to enter a code into the Advanced settings code field and then retype the same code into the Advanced settings code (retype) field and touch **OK** on the keypad.


The Advanced settings code password can contain a minimum of 1 digit and a maximum of 18 digits. Characters are only numeric: 0–9. Alternatively, touch **Reset** and touch **OK** on the keypad to clear the existing Advanced settings codes without using an Advanced setting code.

7. Touch **OK** again at the prompt **Removed Advanced settings code**. Touch **OK** to confirm removal of this security feature.
8. Touch  (back) to return to the Settings screen.
9. Touch  (navigation menu) and **Patients** to return to the main Patients screen.

Adjust the wireless network settings

Follow the steps below to tell the **RetinaVue 700 Imager** to remember a wireless network, to tell the device to forget a wireless network, or to enter a new wireless network username or password.

The recommended network bandwidth is 1 Mbps in a low-latency environment. A network bandwidth of 0.5 Mbps or less may delay or prevent the transmission of images and results.

1. From the **RetinaVue 700 Imager** main Patients screen, touch  (navigation menu).
2. Touch **Settings**.
3. Touch **Wi-Fi**.
4. Touch the wireless network that you would like to adjust.
5. Enter the credentials for the network.

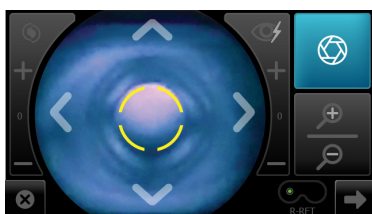
Two options appear at the bottom of the screen. The option on the right, **CONNECT**, will not allow you to change any settings and will, instead, connect the device to the network. The option on the left will provide one of a few different choices for adjusting the wireless network settings, as described in the following table.

Option	Purpose	User actions
SAVE	Remembers the network	<p>Touch SAVE to tell the device to remember the network.</p> <p>To confirm this action, touch OK at the prompt "Are you sure you want to remember this network?"</p> <p>To cancel the process and leave the network unremembered, touch CANCEL at the prompt.</p>
UPDATE	Changes the network credentials	<p>Touch UPDATE to tell the device to remember a new username or password for a previously saved wireless network.</p> <p>To confirm this option, touch OK at the prompt "Are you sure you want to change the network credentials?"</p> <p>To cancel the process and leave the network credentials unchanged, touch CANCEL at the prompt.</p>
FORGET	Removes a wireless network from the list of remembered networks	<p>To tell the device to forget the network, so that it no longer appears in the list of remembered networks, touch FORGET.</p> <p>To confirm this action, touch OK at the prompt "Are you sure you want to forget this network?"</p> <p>To cancel the process and leave the network remembered, touch CANCEL at the prompt.</p>

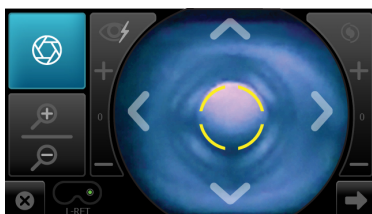
Advanced features

Manual-exam mode

Use the **RetinaVue** 700 Imager in manual mode to acquire images in those instances when automatic capture mode is not suitable. Manual operation of the **RetinaVue** 700 Imager allows control of the lens barrel movement, focus, brightness, and image acquisition. The manual mode operation is an optional mode intended for advanced users who understand eye physiology. Manual mode may not be suitable for novice users. Two images of each eye are captured in manual mode.



Right











Left

Manual mode contains advanced image capture options.

A manual touch of the capture button is required to obtain an image.

Available manual features include:

Screen element	Description
	Focus adjustment (from -1 to +1).
	Flash-brightness adjustment (from -2 to +2).

Screen element	Description
	Image-capture button. To obtain an image manually, you touch this button.
	X-axis control (horizontal movement).
	Y-axis control (vertical movement).
	Zoom in and out.
	One-touch exit.
	One-touch advancement to next screen. An additional manual feature is the sequential image-capture order of the right and left eye.

Perform a manual image capture



WARNING Clean and disinfect the face cup after each patient to avoid the risk of cross-contamination.


- From the Patients screen, touch the patient's name or ID (MRN).



Any scheduled patients appear on the Patients screen. (Wireless workflow images shown)

- Touch **Exam** to open a new exam.

Last name	<input type="text" value="Anderson"/>	Middle Initial	<input type="text" value="P"/>
First name	<input type="text" value="John"/>	Gender	<input type="text" value="Male"/>
DOB	<input type="text" value="05/12/1962"/>	Diabetes type	<input type="text" value="Type II"/>
Patient ID	<input type="text" value="12345678"/>		
Referring provider	<input type="text" value="Murphy, Ryan MD"/>		
<input type="button" value="← Patient summary"/>		<input type="button" value="Delete"/> <input type="button" value="Exam"/>	

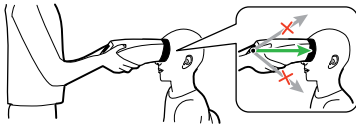
3. From the Pre-Acquisition screen, touch the default-protocol button (**Retina** .







4. From the Exam protocol selection screen, touch **Manual**.


To adjust settings before capturing an image, see "Manual exam mode" for additional information about using advanced image-capture options (such as focus adjustment, flash brightness adjustment, or X-axis and Y-axis adjustment).

5. Position the **RetinaVue** 700 Imager about 4 inches directly in front of the patient. Keep the **RetinaVue** 700 Imager level and in line with your patient's eyes. Brace your arms against your body to help keep the **RetinaVue** 700 Imager steady.
6. Place the face cup firmly on the patient's face. Do not hover near the face with the **RetinaVue** 700 Imager. Keep the **RetinaVue** 700 Imager level.




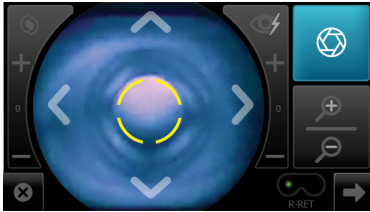
7. Move the **RetinaVue** 700 Imager toward the patient and align the yellow circle to the patient's right pupil.

8. Hold the **RetinaVue** 700 Imager steady and in line and use the touchscreen X-axis control   for horizontal movement, or the Y-axis control   for vertical movement to align the patient's right pupil in the oval.



9. While aligning the yellow circle to the patient's right pupil, also use the zoom functionality  to navigate the lens barrel towards the patient's eye until the retina comes into view.

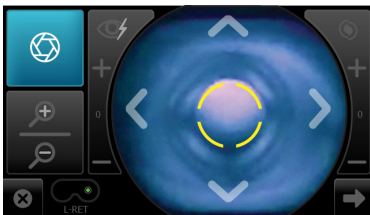
10. After the retina comes into view, continue to use the manual adjustment as needed while looking for a white circular reflection at the top of the eye's image on the LCD touchscreen.

11. Touch  (image capture) to manually capture an image of the right eye. (Right-eye manual capture is shown.)

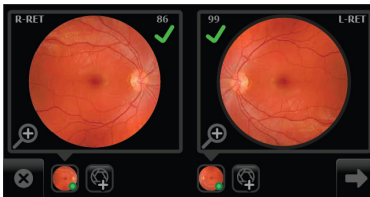


If the audio is set to an audible volume, a camera shutter tone alerts you that an image has been captured. A timer appears and counts down. This wait time allows the patient's eyes to recover from the flash.

12. Repeat steps 7 through 11 as needed. Touch  (image capture) to manually capture a second image of the right eye after the yellow circle is aligned to the patient's right pupil.
13. Repeat steps 7 through 11 as needed for the left eye. Touch  (image capture) to manually capture an image of the left eye after the yellow circle is aligned to the patient's left pupil. (Left-eye manual capture is shown.)

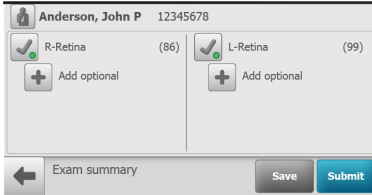


After a few seconds, the acquired images appear on the Post-Acquisition screen:



14. Repeat steps 7 through 11 as needed. Touch  (image capture) to manually capture a second image of the left eye after the yellow circle is aligned to the patient's left pupil.
15. When finished capturing images, touch  (next).

The Exam summary screen appears.



16. If the images contain a green or yellow quality-acceptance check mark, save or submit the exam.

- Touch **Save** to save the exam to the device for further review or editing.
- Touch **Submit** to submit the exam to the **RetinaVue** Network Customer Portal.

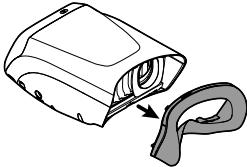
Use the Anterior Imaging Spacer for a patient anterior-image exam

The Anterior Imaging Spacer is an accessory available for the **RetinaVue** 700 Imager. When performing anterior imaging of the ocular structures (lids, lashes, and cornea) using the anterior protocol, attach the Anterior Imaging Spacer to the imager as follows.

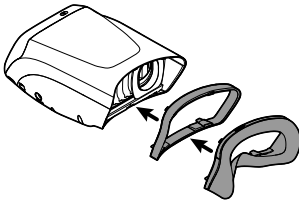



CAUTION Failure to install the Anterior Imaging Spacer before an anterior-image exam may result in unacceptable image quality or failure to capture an image.

1. Remove the face cup from the **RetinaVue** 700 Imager.



2. Attach the Anterior Imaging Spacer to the **RetinaVue** 700 Imager, and then attach the face cup to the Anterior Imaging Spacer.



3. From the Pre-Acquisition screen, touch  (settings).

4. Touch **Anterior**, and touch **OK**.5. Touch **OK** at the prompt. Before continuing with selected exam: insert the anterior imaging spacer between camera and face cup.

If the next patient exam is for an anterior protocol, leave the spacer in place.

If the next patient exam is for a retina protocol, remove the Anterior Imaging Spacer. Failure to do so may result in unacceptable image quality or failure to capture an image. See "Remove the Anterior Imaging Spacer for a patient retina exam."

Perform an anterior-image eye exam

WARNING Clean and disinfect the face cup after each patient to avoid the risk of cross-contamination.

WARNING Patient injury risk. The Anterior Imaging Spacer of the **RetinaVue** 700 Imager uses magnets to attach to the device and to the face cup. If your patient has any type of cranial implant, it is advisable to reduce direct contact of the Anterior Imaging Spacer or the face cup's magnets with the patient's skin surface containing the implant.


CAUTION Install the Anterior Imaging Spacer before doing a patient anterior exam. Failure to do so may result in unacceptable image quality or failure to capture an image. The Anterior Imaging Spacer is an accessory available for the **RetinaVue** 700 Imager.

1. From the Patients screen, touch a patient's name or ID (MRN). (Wireless workflow images are shown.)

2. Touch **Exam** to open a new exam.

Last name	Anderson	Middle initial	P
First name	John	Gender	Male
DOB	05/12/1962	Diabetes type	Type II
Patient ID	12345678		
Referring provider	Murphy, Ryan MD		

← Patient summary Delete Exam

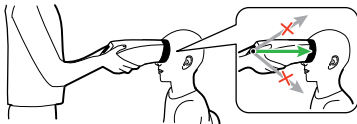
3. From the Pre-Acquisition screen, touch  (settings).

4. Touch **Anterior** and touch **OK**.

5. At the prompt Before continuing with selected exam: insert the anterior imaging spacer between camera and face cup, insert the Anterior Imaging Spacer if it's not already in place. See "Use the Anterior Imaging Spacer for a patient anterior image exam." Touch **OK**
6. Touch **START EXAM**.

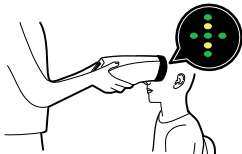


7. Position the **RetinaVue 700 Imager** about 4 inches directly in front of the patient. Keep the **RetinaVue 700 Imager** level and in line with your patient's eyes. Brace your arms against your body to help keep the **RetinaVue 700 Imager** steady.
8. Move the **RetinaVue 700 Imager** toward the patient and align the yellow circle to the patient's right pupil.
9. Place the face cup firmly on the patient's face. Do not hover near the face with the **RetinaVue 700 Imager**. Keep the **RetinaVue 700 Imager** level.

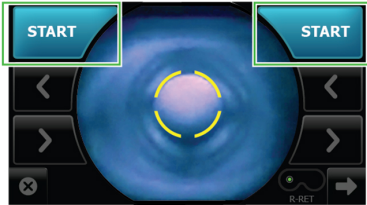


After placing the face cup firmly on the patient's face, the right pupil should be visible within the screen.

10. Ask the patient, "Can you see the entire plus sign?"



11. Press the face cup firmly against the patient's face and then touch **START**.



12. Hold steady until the image is captured.



If the audio is set to an audible volume, a camera shutter tone alerts you after the right-eye image has been captured.

The **RetinaVue** 700 Imer automatically moves to the left eye and displays the message `Lens moving` to the next eye.


13. Repeat the steps to align the yellow circle to the pupil and capture an image of the left eye.

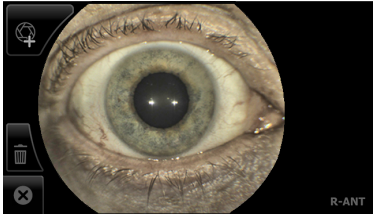
If the audio is set to an audible volume, a camera shutter tone alerts you after the left-eye image has been captured.




After both images have been captured, they appear on the Post-Acquisition screen.



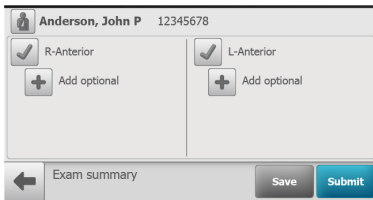
- R-ANT means right-eye anterior.
- L-ANT means left-eye anterior.

14. Touch  to view one of the images. The Inspection screen appears.



15. Optional: Delete or add images by touching  or .
16. Touch  (next) after all images are automatically captured.

The Exam summary screen appears.





17. Save or submit the exam.

- Touch **Save** to save the exam to the device for further review or editing.
- Touch **Submit** to submit the exam to the **RetinaVue** Network Customer Portal.

Enable or disable NTP for automatic date and time


In the wireless workflow, the camera can automatically update and maintain the camera date and time when connected to **Wi-Fi**. The network time protocol (NTP) setting enables this feature.

If the NTP option is enabled, you cannot manually adjust the date and time settings. To manually adjust the date and time, disable NTP.

1. From the main Patients screen on the **RetinaVue** 700 Imager, touch  (navigation menu).
2. Touch **Settings**.
3. Touch **Advanced settings**.
4. Touch **Date & time**.
5. Enable or disable NTP by selecting or clearing the **Enable NTP** checkbox.
6. Touch  (back) to return to the main Advanced settings screen.

Adjust wait time between image captures

1. From the main Patients screen on the **RetinaVue** 700 Imager, touch  (navigation menu).

2. Touch **Settings**.
3. Touch **Advanced settings**.
4. Touch **Recovery time**.
5. If it is not already enabled, touch the toggle switch next to **Enable wait time between image captures** to turn on the recovery-time feature.
6. Select the length of time from the dropdown menu.
7. Touch  (back) to return to the main Advanced settings screen.

Wireless certificate support overview for the IT department

The scope of this instruction is to provide information on the support of wireless client certificates, including the wireless client support of server certificate authentication. This instruction does not point to a specific authentication server, nor does it apply a specific mechanism (e.g., OpenSSL, Windows makecert) to create the certificates. This support only pertains to loading a customer's wireless certificates onto the **RetinaVue 700** Imager's IEEE802.11 a/b/g/n wireless radio card.

You can install certificates using a computer and a USB cable. The **RetinaVue 700** Imager's IEEE802.11 a/b/g/n radio supports files containing a device's client certificate or certificate chain and private key, and files containing a CA certificate or certificate chain. Certificates to be loaded to the device radio must be packaged in the appropriate file format as shown below. You may load only one client certificate file and one CA certificate file at a time. If you attempt to load more than one file of either type, the new file will replace the previous file of that type.

Reset factory default settings



NOTE Resetting all device and radio settings will remove all installed wireless certificates.

Wireless-radio security credentials

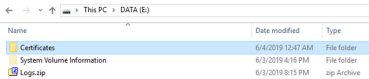
Purpose	Contents	Format	Filename extension ¹
EAP-TLS client authentication	Client certificate or certificate chain and private key	PKCS#12 or PEM	.p12, .pfx, or .pem
EAP-TLS or PEAP-MSCHAPv2 server validation	CA certificate or certificate chain	DER or PEM	.cer, .der, or .pem

¹ The **RetinaVue 700** Imager requires one of the extensions listed in this table to recognize the file. You may use any filename.

Load wireless certificates

1. Touch **RetinaVue Network - Wi-Fi** to select the wireless workflow and touch **Next**.
2. Select the network name from the displayed list, or select **Other** to enter the network name. Touch within the **Network name** field to launch the onscreen keyboard. Type your network name and touch **OK**.
3. Choose the **WPA2 Enterprise** security type and touch **Next**.
4. Touch either **EAP-TLS** or **PEAP-MSCHAPv2** for your appropriate network security type. Select the checkbox for **Server certificate validation** if you want the **RetinaVue 700** Imager to verify the wireless security server's identity. Touch **Next**.

- If the certificates are already installed touch **Skip** at the prompt: Using a USB cable, plug the camera in to a computer to copy Wi-Fi certificate(s) onto the camera. If the certificates are already installed touch **Skip**."
- Prepare the certificates on the computer and plug the USB cable into the computer and into the **RetinaVue 700 Imager**.
- Copy the certificates onto the **RetinaVue 700 Imager** into the folder titled Certificates when you see the following prompt: Camera is plugged in to a computer. Copy certificate file(s) to the camera's "Certificates" directory. When finished copying file(s), unplug the camera from the computer.




Name	Date modified	Type
Certificates	6/4/2019 12:47 AM	File folder
System Volume Information	6/3/2019 4:16 PM	File folder
Log.zip	6/3/2019 8:15 PM	zip Archive

- Unplug the **RetinaVue 700 Imager** from the computer.
- From the **Choose** drop-down menu, select a certificate file to install.
 - If you see the message Selected file is not recognized or not a supported type; select another, select another file type and try again.
 - For a PKCS#12 certificate file, enter the password.
 - Touch **OK** to install the certificate file for the **RetinaVue 700 Imager** radio.
- Touch **OK** at the prompt Certificate installed successfully. Select another certificate file to install, or touch **Done** if all certificates are installed.

Follow the on-screen instructions to complete the network connection.

Restore factory defaults

After first-time setup is complete, if you need to change the camera registration or for any other reason restore factory defaults, follow these steps. Doing so resets all device and radio settings and deletes any exams that have been saved on the camera.

- Touch .
- Touch **Settings > Advanced settings > Reset factory defaults**.
- Touch **Restore Settings** at the prompt Do you want to restore to factory defaults? This will reset all device and radio settings. Any saved exams on this camera will be deleted.
- Touch **OK** at the prompt Reset all settings to defaults? Any saved exams on this camera will be deleted.
- Follow the instructions under "First-time setup" to reregister the camera.

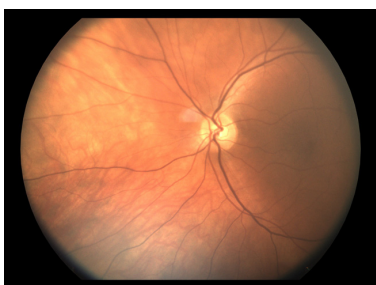
Troubleshooting



CAUTION Do not use a defective device. A device with parts that may be broken or missing, visibly worn, distorted, or contaminated should be replaced immediately.

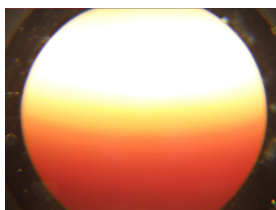
To correct an error, follow these instructions or contact Baxter Technical Support: [baxter.com/contact-us](https://www.baxter.com/contact-us).

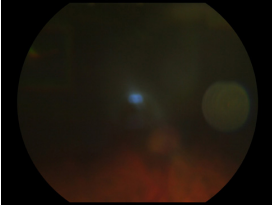
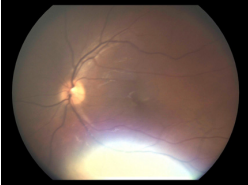
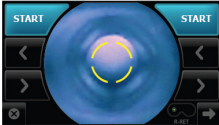
Troubleshooting image quality



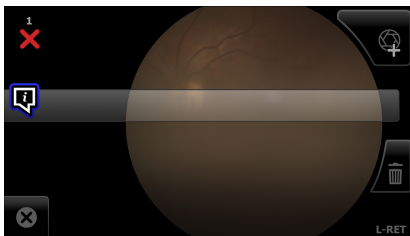
Good quality image

Condition	Remedy
Partial blink	Ask the patient to keep his or her eye open.

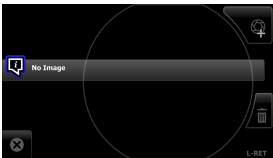




Condition	Remedy
<p>Dirty lens</p> 	<p>Clean the lens with a clean microfiber cloth or a dry, nonabrasive wipe (e.g., Kimtech wipe). Additional cleaning instructions can be found in the topic "Cleaning and disinfection."</p>
<p>Washed-out image</p> 	<p>Have the patient slightly tilt their head back during the image capture.</p>
<p>Large pupil (7 mm +)</p> 	<p>If the patient's entire pupil will not fit within the yellow circle, the automatic capture mode may not start promptly. Pull the RetinaVue 700 Imager slightly away from the patient, and realign the yellow circle to the pupil.</p>

Information messages



Message area

Condition	Remedy
<p>Dirty lens</p> <p>Clean the camera lens with a non-abrasive wipe.</p>	<p>Clean the camera lens with a clean microfiber cloth or a dry wipe that's not abrasive (e.g., Kimtech wipe). Additional cleaning instructions can be found in the topic "Cleaning and disinfection."</p>
<p>Small pupil</p> <p>Have the patient sit in a dark room for 5 minutes to dilate their pupils.</p>	<p>To ensure that the patient's pupils dilate sufficiently, adjust the room lighting to the lowest possible level. If necessary, have the patient sit in a dark room for 5 minutes to dilate their pupils.</p>
<p>Refer to technique guide and try again.</p>	<p>See the RetinaVue 700 Imager technique guide for further detail.</p>
<p>Exam paused - please have the patient remain still and don't move the camera.</p> <p>Touch Resume.</p>	<p>Keep camera steady. See the RetinaVue 700 Imager technique guide for further detail.</p>
<p>Unable to locate patient eye.</p> <p>Please restart exam or capture from exam summary.</p>	<p>Restart exam.</p>
<p>No Image</p> 	<p>Restart exam.</p> <p>Capture images by touching  (add image).</p>
<p>You must capture at least one image before continuing.</p>	<p>Take an image.</p> <p>Restart the exam. See the RetinaVue 700 Imager technique guide for further detail.</p> <p>Capture images by touching  (add image).</p>
<p>Discard unsaved images and patient data?</p>	<p>Confirm that you want to exit exam without saving the patient images and patient data or touch No and resume the exam.</p>
<p>Battery level low. Plug into AC power now.</p>	<p>When the battery charge level is below 10 percent, the low battery error message appears. Connect the camera to the power supply to charge the battery.</p>
<p>Battery level is too low to perform an exam. Plug into AC power now.</p>	<p>Connect the camera to the power supply to charge the battery.</p>

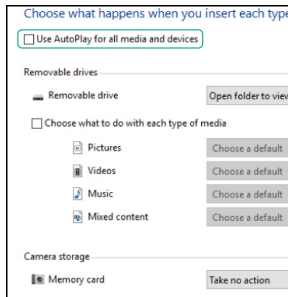
Condition	Remedy
There are unsubmitted exams that need to be sent.	See "Review saved exams" for information about submitting exams.
Invalid code. Contact your RetinaVue Network administrator to reset the code.	Contact your RetinaVue Network administrator to reset the code.
Invalid code. Device locked. Try again in 01:57. Contact your RetinaVue Network administrator to reset the code.	Try again after the time shown has passed. Contact your RetinaVue Network administrator to reset the code.
If you forgot your access code, touch Cancel and contact your network administrator for the code. If you are a network administrator and need to factory reset, touch Factory reset to begin this process, or reset your code at the RetinaVue Network Customer Portal.	If you are not a network administrator, touch Cancel and contact your network administrator. If you do not want to reset your device access code, touch Cancel . If you are a network administrator and would like to reset your device access code, touch Factory reset or reset your code at the RetinaVue Network Customer Portal.
If you proceed with the factory reset, the device will delete any exams or patient data saved to the camera and you will lose access to the device until your network administrator reconfigures the camera. Touch Cancel if you do not want to proceed with the factory reset.	If you are not a network administrator, touch Cancel and contact your network administrator. If you do not want to reset your device access code, touch Cancel . If you are a network administrator and would like to reset your device access code, touch Factory reset or reset your code at the RetinaVue Network Customer Portal.
If you proceed with the factory reset, your network administrator will need to reregister your device at the RetinaVue Network Customer Portal. Touch Cancel if you do not want to proceed with the factory reset.	If you are not a network administrator, touch Cancel and contact your network administrator. If you do not want to reset your device access code, touch Cancel . If you are a network administrator and would like to reset your device access code, touch Factory reset or reset your code at the RetinaVue Network Customer Portal.

Condition	Remedy
Are you sure you still want to proceed with the factory reset?	If you are not a network administrator, touch Cancel and contact your network administrator. If you do not want to reset your device access code, touch Cancel . If you are a network administrator and would like to reset your device access code, touch Factory reset or reset your code at the RetinaVue Network Customer Portal.
The selected exam request associated with this patient has been canceled.	Refresh the patient list.
Temperature warning: CPU is overheating. Power down, reboot, if problem persists contact tech support.	Power down and reboot. If the problem persists, contact Technical Support.
Invalid start position. Please restart exam or capture image from exam summary.	Restart exam or capture image from exam summary.
Focus motor not responding. Please reboot. Contact tech support if problem continues. Any captured images should be saved or submitted before reboot.	Save or submit any captured images, and then reboot. If the problem continues, contact Technical Support.
Calibration values missing. The device cannot capture images. Call tech support.	Contact Technical Support.
Database full. Unable to add a new patient or start a new exam. Reset to factory settings, delete saved exams, or submit exams.	Reset to factory settings, delete saved exams, or submit exams.
Database corrupt. The Patient list and Review screen might display incorrectly. Call tech support.	Contact Technical Support.
Data export failure. Exam disabled. Reboot or call tech support if the problem persists.	Reboot. If the problem persists, call Technical Support.

Condition	Remedy
Exam export failure. Exam disabled. Reboot or call tech support if the problem persists.	Reboot. If the problem persists, call Technical Support.
A motor did not respond. Save or submit any captured images and then reboot. Contact technical support if the problem continues.	Save or submit any captured images, and then reboot. If the problem continues, contact Technical Support.

Computer information messages (USB only)

Condition	Remedy
The Windows operating system displays the Scan and fix or Continue without scanning options after the camera USB cable is removed from the laptop or PC.	Select Scan and fix in situations when the camera is connected to a laptop or PC by the USB cable.
The Windows operating system displays the AutoPlay notification prompt each time the camera USB cable is connected to the laptop or computer.	By default, the AutoPlay notification appears each time a USB storage device is connected to the laptop or PC. To disable this notification, go to the Windows Start menu, and select Control Panel > AutoPlay . Clear the Use AutoPlay for all media and devices checkbox. Click Save .



Camera will not charge

Condition	Remedy
Battery is not installed. Camera will not charge. The power indicator LED light on the camera does not light and briefly blinks when the power supply is removed.	Install the battery and check to ensure that the connector pins on the battery and the device are properly seated.


Wireless radio messages

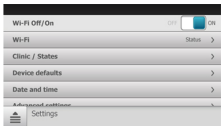
Condition	Remedy
Radio inoperable. Error connecting to the network.	Confirm that the network signal strength is sufficient. See "Wireless connectivity."
Invalid configuration. Error connecting to the network.	See "Wireless connectivity."
Error connecting to the network using the supplied credentials.	Reenter the network name, username, and password.
Failed to connect to the RetinaVue Network Portal. Please retry.	Reenter the network name, username, and password.
Unsuccessful wireless radio update. Download the new firmware update and try again.	Download the new firmware update and try again.
Camera connection error, new exams disabled. Reboot or call tech support if the problem persists.	Reboot. If the problem persists, call Technical Support.

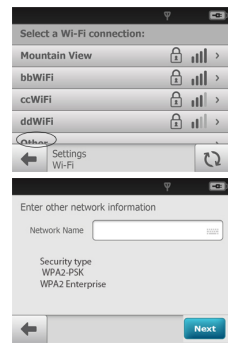
Condition	Remedy
<p>Certificate load failed.</p> <p>Unable to read the certificate. The password is incorrect.</p> <p>Certificate installation failed.</p> <p>Invalid certificate path.</p> <p>Selected file is not recognized or not a supported type; select another.</p>	<p>Reenter the password. Follow the on-screen instructions.</p>
<p>Certificate load successful.</p>	<p>No action required.</p>

Wireless connectivity

See "Technical specifications" for bandwidth requirements.

Condition	Remedy
<p>Cannot connect to the network.</p> <p>Connection drops.</p>	<p>Possible invalid username or password.</p> <p>Missing wireless certificate.</p> <p>Ensure that the signal strength is sufficient. The signal strength appears in the top right corner of the device status bar.</p> <div style="text-align: center;">  </div> <p>Wireless signal strength</p> <ul style="list-style-type: none"> - Best (4 bars) - Good (3 bars) - Fair (2 bars) - Weak (1 bar)

Condition	Remedy
<p>Cannot connect to the RetinaVue Network server.</p> <p>Message: Error connecting to the network using the supplied credentials.</p>	<p>Ensure that Wi-Fi is connected.</p> <p>Touch Settings.</p> <p>Touch Wi-Fi.</p> <p>Ensure that a network name appears. If no name appears, then select a network name again, enter a username and password, and touch OK.</p>
	<p>Ensure that IP address is populated and shows a valid IP address other than 00:00:00:00:00:00.</p> <p>Touch Settings.</p> <p>Touch Info. The Network Information screen appears.</p> <p>MAC address 00:17:23:e5:d5:a5 IP address 10.20.200.70 Subnet mask 255.255.255.1 Gateway 10.20.244.1 Version 2.00.02 SSID Your Network Access Point MAC B2:DE:31:OC:32:B2 RSSI -70</p>
<p>Cannot delete patient from the camera.</p> <p>Message: Failure to connect to the portal. Unable to delete patient information.</p>	<p>Follow all steps for connecting to RetinaVue Network Server.</p>
<p>Clinic network does not appear in the Wi-Fi list.</p>	<p>Ensure that your network meets the supported credentials type.</p> <p>Check with your network administrator and ensure the network you are attempting to connect with has one of the following security types: WPA2-PSK, WPA2 Enterprise, EAP-TLS or PEAP-MSCAPv2 with Server certificate validation.</p> <p>Follow the on-screen instructions to connect a USB cable to the RetinaVue 700 Imager and then copy the Wi-Fi certificate(s) onto the camera.</p> <p>If certificates are already installed, touch Skip.</p>

Condition	Remedy
Hidden SSID networks	<p data-bbox="404 332 665 354">Manually enter the network name.</p> <p data-bbox="404 373 526 394">Touch Settings.</p> <p data-bbox="404 414 505 435">Touch Wi-Fi.</p> <p data-bbox="404 454 938 516">Scroll to the bottom of the list. Touch Other and launch the keyboard to enter the network name followed by password, and then select security type.</p> 

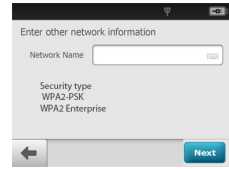
Camera does not connect to the network.


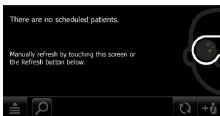




Ensure that correct network credentials are used.

For PSK, ensure that the correct username and password are entered.

Touch **Settings**. Touch **Wi-Fi**. Select a network name from the list, enter your username and password, and select the **Remember this connection** checkbox. Every time you reboot the camera, it will connect to the network automatically.

For TLS, ensure that the correct username is entered.






Condition	Remedy												
<p>Patient list is empty.</p>	<p>Follow all steps for connecting to the RetinaVue Network server.</p> <p>Touch  to refresh the scheduled patients list.</p> 												
<p>Exam was not sent to the RetinaVue Network server.</p> <p>Message: Exam not yet submitted. Exam will be submitted automatically when wireless connection is available.</p>	<p>Follow all steps for connecting to the RetinaVue Network server.</p> <p>To view or change the settings, touch  (navigation menu) from the main Patients screen.</p> <p>Touch Review.</p> <p>From the Submitted status, click these icons to see additional status messages:</p> <ul style="list-style-type: none">  - Waiting to upload  - Submitted  - Report available <p>After an exam has been overread and downloaded, the exam will be removed from submitted column of the RetinaVue Network Customer Portal and from the camera "Submitted" exams Review screen.</p> <p>Check your network connection. If your saved exam does not appear in the Review list, then it was successfully submitted to the RetinaVue Network server. Check the View New Diagnostic Reports area on the RetinaVue Network Customer Portal. Select your clinic name from the dropdown menu. Find your patient and check the Report column. A "Submitted" status confirms that the exam was successfully received by the RetinaVue Network server.</p> <table border="1" data-bbox="412 1079 633 1144"> <thead> <tr> <th>Exam Date</th> <th>Submission Date</th> <th>Report Date</th> <th></th> </tr> </thead> <tbody> <tr> <td>5/29/2019</td> <td>5/29/2019</td> <td>5/29/2019</td> <td>View</td> </tr> <tr> <td>5/29/2019</td> <td>5/29/2019</td> <td>5/29/2019</td> <td>View</td> </tr> </tbody> </table>	Exam Date	Submission Date	Report Date		5/29/2019	5/29/2019	5/29/2019	View	5/29/2019	5/29/2019	5/29/2019	View
Exam Date	Submission Date	Report Date											
5/29/2019	5/29/2019	5/29/2019	View										
5/29/2019	5/29/2019	5/29/2019	View										





Maintenance

Cleaning and disinfection

To help prevent injury and/or equipment damage, obey these warnings:

-  **WARNING** To avoid the risk of cross-contamination, do not reuse wiping materials for multiple steps or on multiple products.
-  **WARNING** Cleaning and disinfecting solutions may cause skin rash and/or irritation upon contact. Follow the manufacturer's instructions found on the product label and Safety Data Sheet (SDS).
-  **WARNING** Electric shock hazard. Before cleaning and disinfecting any component or accessory, disconnect the AC power cord from the mains outlet and the power source.

To help prevent equipment damage, obey these cautions:

-  **CAUTION** Do not use abrasive cleaning agents, thinners, or benzene for cleaning.
-  **CAUTION** Do not immerse the **RetinaVue** 700 Imager in water or other cleaning liquids.
-  **CAUTION** Do not use unapproved cleaning and disinfection agents. Use of these agents may cause damage to components.
-  **CAUTION** Consult the cleaning and disinfection agent manufacturer instructions for proper use and germicidal efficacy, prior to use.

Baxter recommends cleaning and disinfecting the face cup before first patient use, in between patient uses, and whenever the face cup is visibly soiled. The remaining areas of the device should be cleaned when soiled and disinfected when contaminated.

The **RetinaVue** 700 Imager lens may be routinely wiped with a soft microfiber cloth to help maintain a clear image.

Cleaning and disinfection processes

Cleaning and disinfection are distinct processes. Cleaning is the physical removal of visible and nonvisible soil and contaminants. Disinfection is intended to kill microorganisms.

When you clean and disinfect—see "Step 1: Clean" and "Step 2: Disinfect"—do the following:

- Make sure that the cleaning or disinfecting wipe is not dripping but is saturated with cleaner/disinfectant solution.
- Replace the wipe when it's visibly soiled or contaminated.
- Replace the wipe between cleaning and disinfecting.
- Use personal protective equipment (PPE).

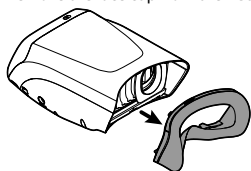
Approved cleaners and disinfectants

Cleaner/disinfectant	Recommended for routine cleaning and disinfecting	Maintain wetness (disinfection contact time)
CaviWipes	Yes	3 minutes

Cleaner/disinfectant	Recommended for routine cleaning and disinfecting	Maintain wetness (disinfection contact time)
Sani-Cloth Plus and Super Sani-Cloth	Yes	3 minutes

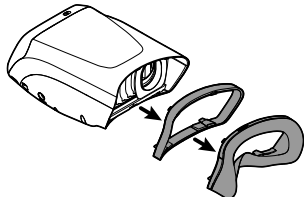
Prepare the **RetinaVue 700 Imager** for cleaning and disinfection

1. Disconnect the AC power cord from the mains outlet and power source.
2. Disconnect the USB cable from the camera.
3. If the **RetinaVue 700 Imager** is attached to the optional pedestal, remove the **RetinaVue 700 Imager** from the pedestal.
4. Remove the face cup from the **RetinaVue 700 Imager**.



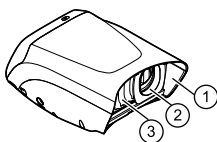
5. If the face cup is attached to the Anterior Imaging Spacer, remove the Anterior Imaging Spacer.

The Anterior Imaging Spacer is a separate accessory.



Step 1: Clean

CAUTION When cleaning the **RetinaVue 700 Imager**, use firm pressure—but do not apply force to the camera barrel, camera lens, dust shield, or touchscreen. Forceful wiping may cause damage.



No.	Feature
1	Camera barrel
2	Camera lens

No.	Feature
3	Dust shield

Remove visible soil

Whenever soil is visible on any part of the device, remove the soil using an approved wipe. (See "Approved cleaners and disinfectants.") Give special attention to any area where soil may accumulate, such as the fixation bracket and locking screw of the optional pedestal. Use as many wipes as needed.

Then continue to clean for nonvisible soil.

Remove nonvisible soil

1. After removing visible soil, remove nonvisible soil with a new approved cleaner/disinfectant wipe. Wipe all the surfaces of the device and accessories, including the following:
 - Face cup
 - Anterior Imaging Spacer (optional accessory)
 - Imager body
 - Touchscreen
 - Pedestal (optional accessory)
 - Camera barrel
 - Camera lens
 - Dust shield—each individual baffle
2. Allow all surfaces to air dry.
3. Wipe the camera lens, camera barrel, and touchscreen with a clean microfiber cloth or a dry, nonabrasive wipe (e.g., **Kimtech** wipe) to prevent residue build-up.

Step 2: Disinfect



CAUTION Use this disinfecting process on the lens and touchscreen only if a known contamination occurs. If you disinfect them routinely, damage may occur over time.

1. After cleaning the device, use a new approved cleaner/disinfectant wipe with light pressure to wipe all exterior surfaces of the **RetinaVue 700 Imager**. Keep all surfaces wet with the cleaner/disinfectant for the specified contact time, rewetting them with a new wiping cloth as necessary. (For contact times, see "Approved cleaners and disinfectants.")
2. Allow all surfaces to air dry.
3. Wipe the camera lens, camera barrel, and touchscreen with a clean microfiber cloth or a dry, nonabrasive wipe (e.g., **Kimtech** wipe) to prevent residue build-up.

Prepare the **RetinaVue 700 Imager** for use after cleaning or disinfecting

1. Examine the entire **RetinaVue 700 Imager** for damage.
2. Replace damaged items before use.
3. For anterior imaging, reattach the Anterior Imaging Spacer (separate accessory) to the face cup.
4. Reattach the face cup to the **RetinaVue 700 Imager** body.

Specifications

Technical specifications

The recommended network bandwidth is 1 Mbps in a low-latency environment. A network bandwidth of 0.5 Mbps or less may delay or prevent the transmission of images and results.

Field of view	60 degrees \pm 5% horizontal 45 degrees \pm 5% vertical
Pupil size ¹	2.5 mm and greater
Working distance	19–21 mm from objective lens to cornea
Dimensions	Width: 6.6 inches (167 mm) Height: 4.2 inches (106 mm) Length without Anterior Imaging Spacer: 11.4 inches (290.2 mm) Length with Anterior Imaging Spacer: 12 inches (305.4 mm) (The Anterior Imaging Spacer is an accessory available for the RetinaVue 700 Imager.)
Weight	2.8 pounds (with 2-cell battery, without Anterior Imaging Spacer)
Search fundus lighting	Infrared LED (light-emitting diode)
Camera flashlight	2 LEDs
Captures	Automatic capture and manual capture Anterior (ANT) image and retina (RET) image
Camera resolution	5 megapixels
LCD monitor	4.3-inch, full-color TFT-LCD
Image format	DICOM-compliant
Interface	Micro-USB
File transfer	Wired: USB to PC by micro-USB cable to PC running RetinaVue Network (requires additional software) Wireless: WPA2, FIPS certification to the RetinaVue Network server

File storage	Integrated storage: Ability to save a minimum of 2000 images (500 standard exams, both eyes, using the default protocol) with patient context and camera settings of each image in Integrated storage
Power source	Rechargeable lithium-ion battery
External power	
Rated input:	Input: 12 V DC, 3 A
Power adapter	Input: 100–240 V AC, 1.0–0.5 A, 50–60 Hz
EDAC POWER ELECTRONICS CO., LTD	Output: 12 V DC, 3 A
EM1024PR	
Operating time	Standard capacity battery: 3 hours continuous operation time. High-capacity battery: 4 hours continuous operation. Once set, the device enters sleep mode if idle for the set time of 2, 5, 7, or 10 minutes. Unless Never is selected, the RetinaVue 700 Imager powers down after 10 minutes of inactivity in sleep mode.
Charging time	5 hours to fully charge via 3 A @12 V. 3 hours to fully charge the empty standard capacity (2-cell) battery via 3 A @12 V DC adapter in power off. 5 hours to fully charge the empty high-capacity (4-cell) battery via 3 A @12 V DC adapter in power off.

¹ Optical capabilities defined according to the ISO 10940 standard. Image quality varies with patient physiology, including pupil size.

All specifications are subject to change.

Operating environment

Criterion	Environmental conditions
Temperature	+10 °C to +35 °C
Relative humidity	30% to 90%, noncondensing
Atmospheric pressure	800–1060 hPa

Storage environment

Criterion	Environmental conditions
Temperature	-10 °C to +55 °C
Relative humidity	10% to 95%, noncondensing
Atmospheric pressure	700–1060 hPa

Transportation environment

Criterion	Transportation conditions
Temperature	-40 °C to +70 °C
Relative humidity	10% to 95%, noncondensing
Atmospheric pressure	500–1060 hPa

Device radio

The **RetinaVue 700** Imager's radio operates on 802.11 networks.

Feature	Description
Regulatory domain support	FCC (Americas, parts of Asia, and Middle East)
2.4-GHz frequency bands, FCC	2.4–2.483 GHz
2.4-GHz operating channels, FCC	11 (3 nonoverlapping)
5-GHz frequency bands, FCC	5.15–5.35 GHz 5.47–5.725 GHz 5.725–5.825 GHz
5-GHz operating channels, FCC	24 nonoverlapping
WLAN standard	IEEE 802.11a/b/g/n, Wi-Fi compliant
Data rate	802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps OFDM 802.11b: 11, 5.5, 2, 1 Mbps DSSS 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps OFDM 802.11n: HT20 MCS0~7, OFDM

Feature	Description
Modulation	BPSK @ 1, 6, 6.5, 7.2 and 9 Mbps QPSK @ 2, 12, 13, 14.4, 18, 19.5 and 21.7 Mbps CCK @ 5.5 and 11 Mbps 16-QAM @ 24, 26, 28.9, 36, 39 and 43.3 Mbps 64-QAM @ 48, 52, 54, 57.8, 58.5, 65, and 72.2 Mbps
Host interface	USB 2.0
Encryption	Wireless Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), IEEE 802.11i (WPA2)
Antenna	PCB dipole, IPEX MHF. Max gain: 2.4-2.5 GHz: 2 dBi 5.15-5.35 GHz: 3.9 dBi 5.6 GHz: 4 dBi
Agency approvals	US: FCC Part 15 Subpart B, Part 15.247 Subpart C, Part 15.407 Subpart E (DFS)

Device lifetime

The lifetime of the device is five (5) years. The manufacture date of the device can be found on the device labels.

Baxter will service **RetinaVue** 700 Imager devices that are within their lifetime. Firmware updates and support may require an annual subscription service after the initial one (1) year warranty period. The expected battery life is at least one (1) year. If the **RetinaVue** 700 Imager device fails to hold a charge, a new battery can be ordered.

General compliance and standards

The **RetinaVue 700** Imager complies with the following standards:

- IEC 60601-1:2005/A1:2012
- IEC 60601-1-2:2014
- ISO 15004-1:2006
- ISO 15004-2:2007
- ISO 10940:2009
- ISO 10993-1:2009
- ISO 14971:2019
- IEC 62304:2006+A1:2015
- IEC 62366-1:2015
- IEC 60601-1-6:2010+A1

Storage and disposal

Disposal must be in accordance with the following steps:

1. Follow the instructions in this manual in the section "Cleaning and disinfection."
2. Delete all existing data related to patients/hospital/clinic/doctor.

Data backup may be performed prior to deletion.

3. Segregate material in preparation for the recycling process:

Components are to be disassembled and recycled based on type of material:

- Plastic to be recycled as plastic waste
- Metal to be recycled as metals
 - Includes loose components containing more than 90% metal by weight
 - Includes screws and fasteners
- Electronic components, including the power cord, to be disassembled and recycled as Waste of Electrical and Electronic Equipment (WEEE)
- Batteries to be dismantled from the device and recycled as per WEEE

Users must adhere to all federal, state, regional, and/or local laws and regulations as it pertain to the safe disposal of medical devices and accessories. If in doubt, the user of the device shall first contact Baxter Technical Support for guidance on safe disposal protocols.

For more specific disposal or compliance information, see bax.to/docs-weee, or contact Baxter Technical Support: baxter.com/contact-us.



Residual risk

This product complies with relevant electro-magnetic interference, mechanical safety, performance, and biocompatibility standards. However, the product cannot completely eliminate potential patient or user harm from the following:

- Harm or device damage associated with electro-magnetic hazards,
- Harm from mechanical hazards,
- Harm from device, function, or parameter unavailability,
- Harm from misuse error, such as inadequate cleaning, and/or
- Harm from device exposure to biological triggers that may result in a severe systemic allergic reaction.

General radio compliance

The wireless features of this device must be used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.

Federal Communication Commission Interference Statement

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

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

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

EMC compliance

Special precautions concerning electromagnetic compatibility (EMC) must be taken for all medical electrical equipment. This device complies with IEC 60601-1-2: 2014 (EN 60601-1-2: 2015).


- All medical electrical equipment must be installed and put into service in accordance with the EMC information provided in these instructions for use.
- Portable and mobile RF communications equipment can affect the behavior of medical electrical equipment.


The device complies with all applicable and required standards for electromagnetic interference.

- It does not normally affect nearby equipment and devices.
- It is not normally affected by nearby equipment and devices.
- However, it is good practice to avoid using the device in extremely close proximity to other equipment.
- It is not safe to operate the device in the presence of high-frequency surgical equipment.



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


 **WARNING** Use only accessories recommended by Baxter for use with the device. Accessories not recommended by Baxter may affect the EMC emissions or immunity.

 **WARNING** Maintain minimum separation distance between the device and portable RF communication equipment. Performance of the device may be degraded if proper distance is not maintained.

Emissions and immunity information

Electromagnetic emissions

The device is intended for use in the electromagnetic environment specified below. The customer or user of the device should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	 WARNING This equipment/system is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. ¹ It may be necessary to take mitigation measures, such as reorienting or relocating the device or shielding the location.
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

¹ The device contains a 5-GHz orthogonal frequency-division multiplexing transmitter or a 2.4-GHz frequency hopping spread-spectrum transmitter for the purpose of wireless communication. The radio is operated according to the requirements of various agencies, including FCC 47 CFR 15.247. The transmitter is excluded from the EMC requirements of 60601-1-2, but should be considered when addressing possible interference issues between this and other devices.

Electromagnetic immunity

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	±8 kV ±15 kV	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/ burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/ output lines	±2 kV ±1 kV	Mains power quality should be that of a typical professional healthcare facility environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Surge IEC 61000-4-5	±0.5 kV, ±1 kV Line- to -line	±1 kV	Mains power quality should be that of a typical professional healthcare facility environment.
	±0.5 kV, ±1 kV, ±2 kV Line-to-ground	±2 kV	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % U_T ; 0.5 cycle	0 % U_T ; 0.5 cycle	Mains power quality should be that of a typical professional healthcare facility environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
	At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°		
	0 % U_T ; 1 cycle	0 % U_T ; 1 cycle	
	70 % U_T ; 25/30 cycles Single phase: at 0°	70 % U_T ; 25/30 cycles	
	0 % U_T ; 250/300 cycle	0 % U_T ; 250/300 cycle	
Power frequency (50-60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical professional healthcare facility environment.




NOTE U_T is the AC mains voltage prior to application of the test level.

Electromagnetic immunity

The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
<i>Recommended separation distance</i>			
Conducted RF IEC 61000-4-6	3 Vrms	3 Vrms	$d = \lfloor \frac{3.5}{V_1} \rfloor \sqrt{P}$
	6 Vrms in ISM and amateur radio bands between 150 kHz and 80 MHz	6 Vrms .	$d = \lfloor \frac{12}{V_2} \rfloor \sqrt{P}$
Radiated RF IEC 61000-4-3	10 V/M, 80 MHz to 2.7 GHz	10 V/M	$d = \lfloor \frac{23}{E_1} \rfloor \sqrt{P}$ 800 MHz to 2.7 GHz
			$d = \lfloor \frac{12}{E_1} \rfloor \sqrt{P}$ 80 MHz to 800 MHz
			where P is the maximum output power rating of the transmitter in watts (W) and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ¹ , should be less than the compliance level in each frequency range. ² Interference may occur in the vicinity of equipment marked with the following symbol:
			



NOTE At 80 MHz and 800 MHz, the higher frequency range applies.



NOTE These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

- ¹ Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the device.
- ² Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the device

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device as recommended below, according to the maximum output power of the communications equipment.

Rated max. output power of transmitter (W)	Separation distance according to frequency of transmitter (m)			
	150 kHz to 80 MHz outside ISM bands	150 kHz to 80 MHz in ISM bands	80 MHz to 800 MHz	800 MHz to 2.7 GHz
	$d = \lfloor \frac{3.5}{V_1} \rfloor \sqrt{P}$	$d = \lfloor \frac{12}{V_2} \rfloor \sqrt{P}$	$d = \lfloor \frac{12}{E_1} \rfloor \sqrt{P}$	$d = \lfloor \frac{23}{E_1} \rfloor \sqrt{P}$
0.01	0.12	0.20	0.12	0.23
0.1	0.37	0.63	0.38	0.73
1	1.17	2.00	1.20	2.30
10	3.69	6.32	3.79	7.27
100	11.67	20.00	12.00	23.00

For transmitters rated at a maximum output power not listed above, the recommended separation distance in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.



NOTE At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.



NOTE These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Test specifications for enclosure port immunity to RF wireless communications equipment

Test frequency (MHz)	Band ¹ MHz	Service ¹	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380 - 390	TETRA 400	Pulse modulation ² 18 Hz	1.8	0.3	27
450	430 - 470	GMRS 460, FRS 460	FM ³ ±5 kHz deviation 1 kHz sine	2	0.3	28

710 745 780	704 - 787	LTE band 13, 17	Pulse modulation ² 217 Hz	0.2	0.3	9
810 870 930	800 - 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation ² 18 Hz	2	0.3	28
1720 1845 1970	1700 - 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation ² 217 Hz	2	0.3	28
2450	2400 - 2570	Bluetooth [®] , WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation ² 217 Hz	2	0.3	28
5240 5500 5785	5100 - 5800	WLAN 802.11 a/n	Pulse modulation ² 217 Hz	0.2	0.3	9



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 device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

The minimum separation distance for higher immunity test levels shall be calculated using the following equation:

$$E = \frac{6}{d} \sqrt{P}$$

where P is the maximum power in watts (W), d is the minimum separation distance in meters (m), and E is the immunity test level in V/m .

- ¹ For some services, only the uplink frequencies are included.
- ² The carrier shall be modulated using a 50 percent duty cycle square wave signal.
- ³ As an alternative to FM modulation, 50 percent pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

RetinaVue 700 Imager accessories

Miscellaneous items

Part number	Description
728134	Welch Allyn pedestal base for RetinaVue 700 Imager
RV700-B	RetinaVue 700 Imager with lithium-ion battery and US plug
106145	RetinaVue 700 Imager neck strap
106146	RetinaVue 700 Imager wrist strap
728131	Welch Allyn 7.2 V lithium-ion battery for RetinaVue 700 Imager, 3200 mAh (standard capacity) 33.0143250001
728132	Welch Allyn 7.2 V lithium-ion battery for RetinaVue 700 Imager, 6400 mAh (high capacity) 33.0146500401
728133	Welch Allyn battery charger for RetinaVue 700 Imager
728099	Welch Allyn power-supply set for RetinaVue 700 Imager; 100–240 V, 50–60 Hz AC, IEC Plug Type-B, -C, -G, and -I
728136	Welch Allyn power-plug set for RetinaVue 700 Imager; IEC Plug Type-B, -C, -G, and -I
728150	Welch Allyn USB cable for RetinaVue 700 Imager
728139	RetinaVue 700 battery cover
723671	Lens cloth
728135	Welch Allyn face cup (applied part) for RetinaVue 700 Imager
729097	Welch Allyn face-cup spacer for RetinaVue 700 Imager (referred to in this document as the Anterior Imaging Spacer)
778403	Welch Allyn premium hard storage case for RetinaVue 700 Imager with shoulder strap

Service

Part number	Description
S1-RV700-1	Welch Allyn Partners in Care Comprehensive Partnership Program Service for RetinaVue 700 Imager, 1 year
S1-RV700-2	Welch Allyn Partners in Care Comprehensive Partnership Program Service for RetinaVue 700 Imager, 2 years
S1-RV700-3	Welch Allyn Partners in Care Comprehensive Partnership Program Service for RetinaVue 700 Imager, 3 years
S1-RV700-5	Welch Allyn Partners in Care Comprehensive Partnership Program Service for RetinaVue 700 Imager, 5 years

Part number	Description
S1-RV700-1P	Welch Allyn Partners in Care Comprehensive Partnership Program Premium Service for RetinaVue 700 Imager, 1 year
S1-RV700-2P	Welch Allyn Partners in Care Comprehensive Partnership Program Premium Service for RetinaVue 700 Imager, 2 years
S1-RV700-3P	Welch Allyn Partners in Care Comprehensive Partnership Program Premium Service for RetinaVue 700 Imager, 3 years
S1-RV700-5P	Welch Allyn Partners in Care Comprehensive Partnership Program Premium Service for RetinaVue 700 Imager, 5 years

Literature and documentation

Part number	Description
778404	RetinaVue 700 Imager startup guide
778405	RetinaVue 700 Imager technique guide
729298	RetinaVue 700 Imager pedestal-stand assembly instructions

Warranty

Welch Allyn warrants the product to be free of defects in material and workmanship and to perform in accordance with manufacturer's specifications for the period of one year from the date of purchase from Welch Allyn or its authorized distributors or agents.

The warranty period shall start on the date of purchase. The date of purchase is: 1) the invoiced ship date if the device was purchased directly from Welch Allyn, 2) the date specified during product registration, 3) the date of purchase of the product from a Welch Allyn authorized distributor as documented from a receipt from said distributor.

This warranty does not cover damage caused by: 1) handling during shipping, 2) use or maintenance contrary to labeled instructions, 3) alteration or repair by anyone not authorized by Welch Allyn, and 4) accidents.

Shipping cost to return a device to a Baxter Service center is not included.

A service notification number must be obtained from Baxter prior to returning any products or accessories to Baxter's designated service centers for repair. To obtain a service notification number, contact Baxter Technical Support.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WELCH ALLYN'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT OF PRODUCTS CONTAINING A DEFECT. WELCH ALLYN IS NOT RESPONSIBLE FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM A PRODUCT DEFECT COVERED BY THE WARRANTY.