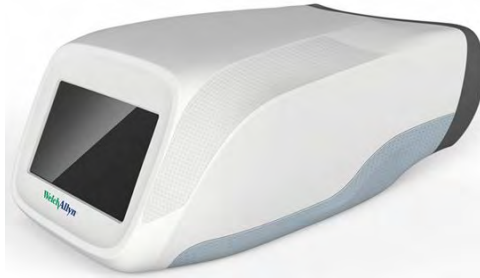


# Welch Allyn RetinaVue™ 700 Imager

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## Directions for use

Software version 1.XX

**WelchAllyn®**

Advancing Frontline Care™

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For information about any Welch Allyn product, contact Welch Allyn Technical Support: <http://www.welchallyn.com/support>.



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901103 Fundus Camera

Distributed by Welch Allyn, Inc.



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**WelchAllyn®**

Advancing Frontline Care™

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# Symbols

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## Documentation symbols

For information on the origin of these symbols, visit <http://www.welchallyn.com/symbolsglossary> for the Welch Allyn symbols glossary.



**WARNING** The warning statements in this manual identify conditions or practices that could lead to illness, injury, or death. Warning symbols will appear with a grey background 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 directions for use (DFU). A copy of the DFU is available on this website. A printed copy of the DFU can be ordered from Welch Allyn for delivery within 7 calendar days.



Meets essential requirements of the European Medical Device Directive 93/ 42/EC.

## Power symbols

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Power button



Direct current (DC)





Rated power input, DC





Rated power output, DC





---

	Fuse
	Rechargeable battery
<b>Li-ion</b>	

## Connectivity symbols








	USB
	Wireless

## Wireless radio symbols









	Non-ionizing electromagnetic radiation
	Wireless signal strength <ul style="list-style-type: none"><li>• Best (4 bars)</li><li>• Good (3 bars)</li><li>• Fair (2 bars)</li><li>• Weak (1 bar)</li><li>• No signal (no bars)</li></ul>
<b>FCC ID</b> 	The identification number assigned by the Federal Communication Commission
<b>IC ID</b>	Industry Canada identification number. The equivalent governing body to the FCC in the United States
	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

	Product Identifier
	Reorder Number
	Global Trade Item Number
	For indoor use only
	Type BF applied part
<b>R<sub>x</sub> ONLY</b>	Prescription only or "For Use by or on the order of a licensed medical professional"
	Clock; time switch; timer
	Serial Number
	Authorized Representative in the European Community



Manufacturer



Call for maintenance



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 connected to a power supply.



# Introduction

---

## Intended use

The 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.

No sterility requirements apply to this product.

## About warnings and cautions

Warning and caution statements can appear on the RetinaVue 700 Imager device, the packaging, the shipping container, or in this *Directions for use*.

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 *Directions for use*.

Before using the device, you must familiarize yourself with all warnings and cautions, with the steps to power up the device, and with the sections of this *Directions for use* 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** 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.



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



**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.



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



**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 Welch Allyn, Inc. or by a center approved by Welch Allyn, Inc.



**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** Results 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 delete the data.



**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 agent and germicidal cleaner agent manufacturer instructions for their proper use and germicidal efficacy prior to their use.

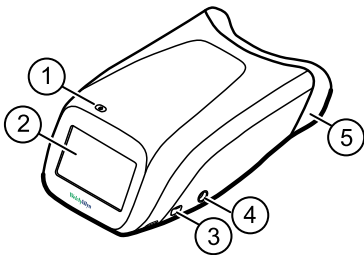


**CAUTION** Only use the cleaning or germicidal cleaner agent types listed or damage may occur.

**Note**

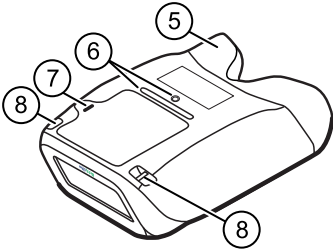
The RetinaVue 700 Imager can be used on patients with eye implants and intraocular lenses. While the RetinaVue 700 Imager can be used on patients with cataracts and other eye opacities, the use of the RetinaVue 700 Imager may result in a lower quality image due to the increased reflection of the flash off the patient's intraocular lens.

# Controls and connectors



No.	Feature	Description
1	Power button	<ul style="list-style-type: none"><li>• Push button to turn the device on and off.</li><li>• Push button to bring the device out of Sleep mode.</li><li>• Push button to launch a dialogue box with three options:<ul style="list-style-type: none"><li>○ Power down</li><li>○ Sleep</li><li>○ Cancel</li></ul></li></ul>
2	LCD touchscreen	6" color LCD touchscreen with a 16x9 aspect ratio. Displays information for charging, testing, and adjustments to the device.
3	USB port	Data transfer port
4	Charging port and power indicator	<p>Connect AC power supply</p> <ul style="list-style-type: none"><li>• When the LED light is green, it indicates that the device is fully powered.</li><li>• When the LED light is orange, it indicates that the device is in the process of charging.</li><li>• When the device is not charging the LED is off.</li></ul>
5	Face cup	Blocks ambient light during testing

Bottom



No.	Feature	Description
5	Face cup	Blocks ambient light during testing
6	(Optional) Pedestal mounting	Pedestal mounting well and attachment slot
7	Battery cover	Covers the battery compartment
<b>Note</b> 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 set up of the RetinaVue 700 Imager

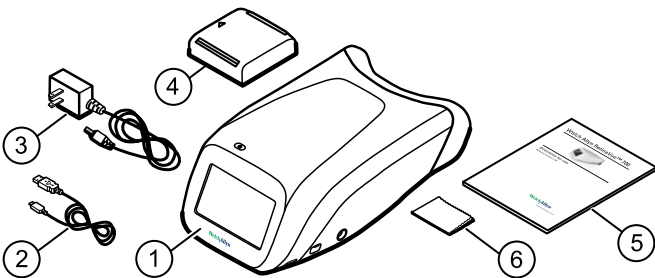
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Use the following topics when setting up the RetinaVue 700 Imager for the first time.

View images saved to the RetinaVue 700 Imager on the LCD touchscreen. The images saved on the RetinaVue 700 Imager are encrypted. To view the images on the PC, install the RetinaVue Network software application. For information on the RetinaVue Network Software visit [www.RetinaVue.com](http://www.RetinaVue.com).

## Unpack the system

The RetinaVue 700 Imager device is packaged with the following items. Confirm that all items are included.



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

Number	Item	Description
		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 results.
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	RetinaVue 700 Imager <i>Directions for use</i>	This document. The <i>Directions for use</i> (DFU) is also available on the Welch Allyn web site.
6	Lens cloth	RetinaVue 700 Imager lens cloth

If any item is missing, contact Welch Allyn Technical Support: [www.welchallyn.com/service](http://www.welchallyn.com/service). We recommend that you save the shipping box and packing materials in case you need to store or ship the system.

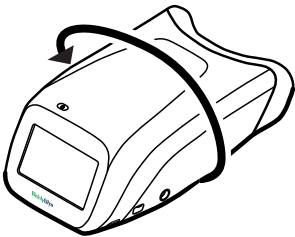
## Battery installation and replacement

Use the device on battery power once the battery is installed and charged.

**Note** The battery is charged when the AC power cable is plugged in to the device and the AC power supply.

### Install the battery/replace the battery

Turn the RetinaVue 700 Imager over to access the battery cover and set the RetinaVue 700 Imager on a flat, clean surface.





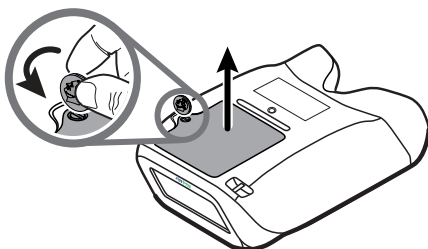


**WARNING** Personal injury risk. Improper handling of the battery can lead to heat generation, smoke, explosion, or fire. Do not short-circuit, crush, incinerate, or disassemble the battery. Never dispose of batteries in refuse containers. Always recycle batteries according to national or local regulations.

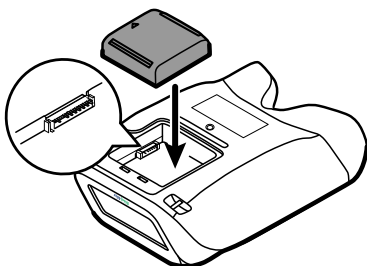


**WARNING** Use only Welch Allyn approved accessories, and use them according to the manufacturer's directions for use. Using unapproved accessories with the camera can affect patient and operator safety and can compromise product performance and accuracy, and void the product warranty.

1. Use a coin to loosen the screw at the edge of the battery cover.
2. Slide open the battery cover by tilting the cover upward.



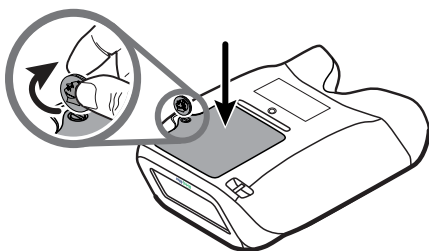
3. For first-time setup of the RetinaVue 700 Imager, insert the battery into the battery compartment.



For battery replacement, remove the existing battery and then insert the new replacement battery into the battery compartment.

4. Insert the two battery cover tabs into the slots, then push in the tab to close the battery cover.

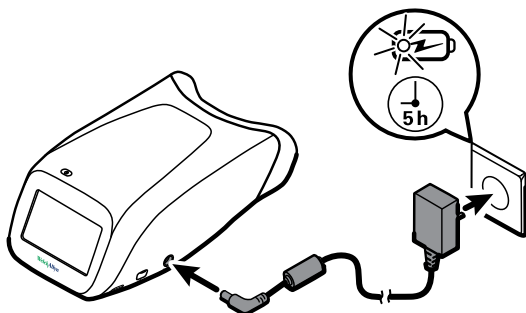
5. Tighten the screw at the edge of the battery cover.



**Note** Do not over-tighten the screw.

## Connect the power supply to the RetinaVue 700 Imager

1. Locate the power connector charging port on the RetinaVue 700 Imager and plug the power supply connector plug into the RetinaVue 700 Imager.



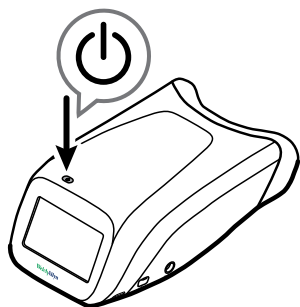
**CAUTION** The power supply connector easily inserts into the RetinaVue 700 Imager. Using force to connect the power supply connector plug can damage the device and will void the warranty.

2. Plug the power cord into an available wall outlet to charge the device. When the power indicator LED light is orange, it indicates that the device is in the process of charging.

**Note** For first time use, the device needs to be charged for 5 hours before use.

# Startup

## Power



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


- powers up the RetinaVue 700 Imager
- wakes the RetinaVue 700 Imager from Sleep mode
- opens a dialogue screen with controls to power down, enter Sleep mode, or to cancel and return to the prior screen, depending on the option you choose

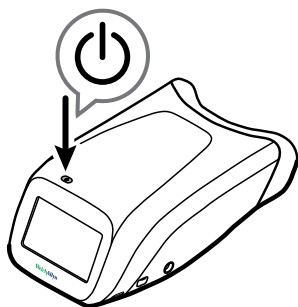
## Power up the RetinaVue 700 Imager

The RetinaVue 700 Imager runs a brief diagnostic self-test each time it powers up.



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

1. Press  to power up the RetinaVue 700 Imager.



As the device is powering up, the RetinaVue 700 Imager displays the Welch Allyn logo.

2. If this is the first time set up, select your preferred language from the drop-down list and then touch **Next**.

Select your language:

English

Device setup  
Language selection

Next

3. Touch ▲ (up) or ▼ (down) to enter, or adjust, the Day, Month, and Year.
4. Touch ▲ (up) or ▼ (down) to enter, or adjust, the Hour, Minute (Min), Continent, and Location. Touch **Next**.

Day 02

Month 05

Year 19

Hour 14

Min 25

Continent America

Location New York

24hr 12hr

Device setup  
Date and time setup

Next


**Note** Use the radio buttons to select the 24-hour or 12-hour format.

5. If you want to use the camera in practice mode before registering the camera, touch **Yes - I want to practice**.
  - a. If you want to proceed to registering the camera, touch **No - take me to registration** and then touch **Next**.

Do you want to practice using the camera  
before proceeding with registration?

☐ **Yes – I want to practice**

☒ **No – Take me to registration**



Device setup  
Choose Practice or Registration

**Next**

## First time selection of USB connectivity workflow

1. Touch **RetinaVue Network - USB** to select the USB workflow and touch **Next**.



2. Touch **OK** at the *Setup completed* screen and follow the touchscreen instructions to connect the camera to a computer.

**Note** For the USB workflow, the RetinaVue 700 Imager must be connected to a computer running the RetinaVue Network software application (requires additional software) to transfer exams.

**Note** *To change the connectivity workflow settings after the initial set up, touch **Settings > Advanced settings > Reset factory defaults**. Touch **All device settings** at the dialog: "Select the settings to reset to factory defaults." and then touch **OK** at the dialog "Reset all settings to defaults? All exams stored on this camera will be deleted."*



How to set up the camera, then acquire and submit images – RetinaVue 700 Imager camera and RetinaVue Network software application (USB only)

## Before you begin

1. Power on the RetinaVue 700 Imager and touch **Practice** on the main *Patients* screen.



2. See the *Practice mode* topic for further instructions.
3. Practice with interactive feedback from the integrated RetinaVue 700 Imager Practice mode.




## Set up the RetinaVue 700 Imager

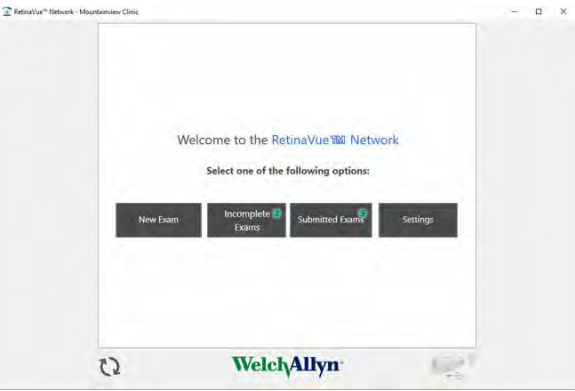
1. Power on the computer and the RetinaVue 700 Imager.

**Note** If prompted to log in to Windows enter your Windows credentials.

2. Ensure the RetinaVue Network software application is running.

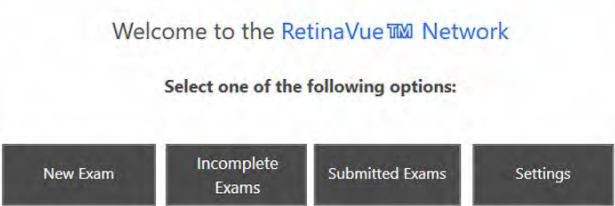
**Note** If the RetinaVue Network software application is not already open, double-click the desktop icon. 

3. Ensure that the RetinaVue 700 Imager is powered on and connected to the computer by the USB cable. Once the camera is connected to the computer, a notification appears on the RetinaVue 700 Imager display indicating that it is connected to the computer: "Camera is connected to computer, disconnect camera from computer to access camera functions."



## Start a new exam

1. Have the patient sit in a dark room for 5 minutes to dilate their pupils.
2. Click **New Exam** in the RetinaVue Network software application.

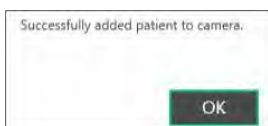


3. Complete all required fields. Required fields are highlighted in red.

Patient Information		
Basic Information		
MRN	First Name	Last Name
<input type="text"/>	<input type="text"/>	<input type="text"/>
Birth Date	Gender	Referring Provider
<input type="text" value="YYYY - MM - DD"/>	<input type="text"/>	<input type="text"/>
Risk Factor		
<input type="checkbox"/> None	<input type="checkbox"/> Diabetes Type 1	<input type="checkbox"/> Diabetes Type 2
<input type="checkbox"/> High Blood Pressure	<input type="checkbox"/> Pregnant	<input type="checkbox"/> High Cholesterol
	<input type="checkbox"/> Smoker	<input type="checkbox"/> Obesity
Comments		
<input type="text"/>		

4. Click **NEXT** to save the patient information. A message appears indicating the patient has been added to the camera. Click **OK**.





5. Disconnect the RetinaVue 700 Imager from the computer and USB cable.



**CAUTION** Do not disconnect the RetinaVue 700 Imager from the USB cable while the RetinaVue Network software application is transferring data. Data may be lost. The process status icon appears while data is being transferred.



6. The new patient appears on the RetinaVue 700 Imager main *Patients* screen.



7. Select the patient from the Patients list.
8. Ensure that the correct patient is selected and that the demographic information is correct.
9. Touch **Exam**.

Last name	<input type="text" value="Wilson"/>		
First name	<input type="text" value="Matthew"/>	Middle initial	<input type="text" value="V"/>
DOB	<input type="text" value="01/25/1955"/>	Gender	<input type="text" value="Male"/>
Patient ID	<input type="text" value="8675309"/>		

Patient summary


Exam




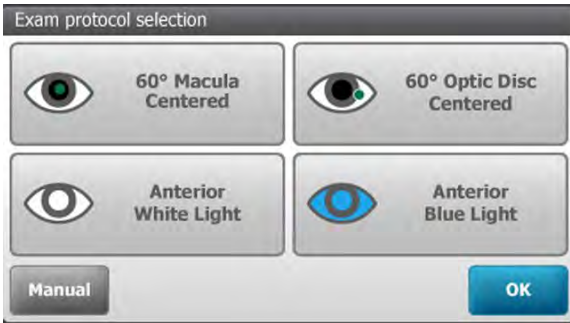
# Acquire images

1. To proceed with the default Exam protocol, touch **START**.



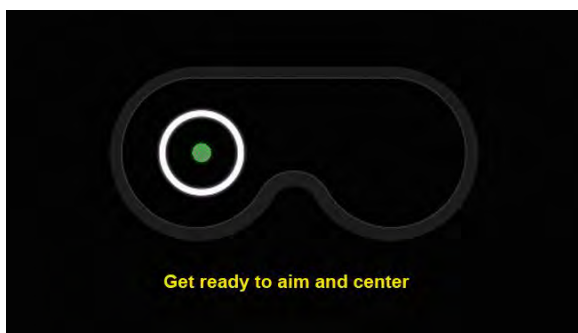
- a. (Optional) If creating the exam on the camera, touch  (**Settings**)

or touch within the currently displayed exam protocol  to launch the *Exam protocol selection* dialog box and to select the desired Exam protocol. Select the new protocol at the dialog screen prompt: "Which type of eye exam do you want to capture?"

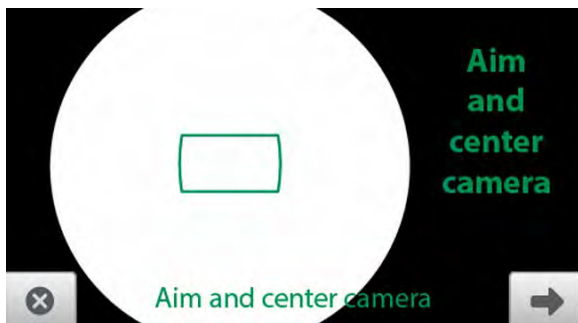


Touch **OK**.

2. Approach the patient from directly in front of the examined eyes and firmly press the facecup of the RetinaVue 700 Imager against the patient's forehead and nose. A message appears on the LCD touchscreen: "Get ready to aim and center camera" as the camera is entering the live preview mode.



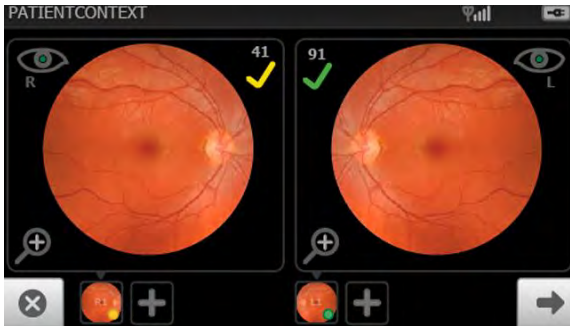
3. Instruct the patient to look at the green fixation light inside the RetinaVue 700 Imager. A message appears on the LCD touchscreen: *"Aim and center camera"* as the camera is entering the live preview mode.



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

4. Keep the RetinaVue 700 Imager in line.
5. While the camera is locating the eye and self-adjusting to capture the best image, the *"Keep camera steady and in place"* message appears on the LCD touchscreen for each eye along with an animation.
6. On the LCD touchscreen, the camera prompts to *"Aim and center the camera"* until the images for each eye are captured.
7. An audible tone alerts you that the images have been captured.

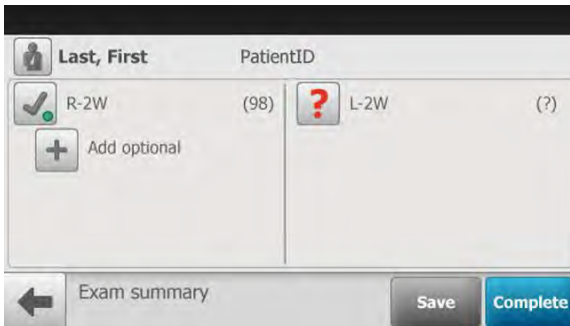
The acquired images appear on the LCD touchscreen for review after a few seconds.



- If the image is of good quality (scores of 40 +) ✓, it is very likely to be read.
  - If the image is of good enough quality (range of 20 — 39) ✓, it is likely to be read.
  - If the image is lacking in quality (range of 0 — 19) ✗, it is highly unlikely to be read.
8. If the quality indicator is green or yellow, touch ➡ (next) in the bottom right corner.

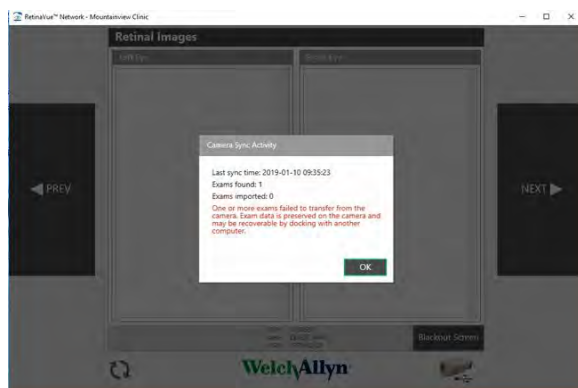
If the quality indicator is red, touch ✗ (Discard) in the bottom left corner. Wait at least 1 minute and then acquire a new image, or images.

9. Touch **Save** to save the exam for further review on the RetinaVue 700 Imager or touch **Complete** to transfer the exam to the computer running the RetinaVue Network software application.



10. Connect the RetinaVue 700 Imager to the computer with a USB cable.

**Note** If the exam does not transfer or if a syncing error message appears in the RetinaVue Network software application, see the *Troubleshooting* topic for further information.



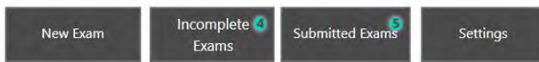


## Transfer exam images

1. Connect the RetinaVue 700 Imager to the computer with a USB cable.
2. Ensure that the camera remains powered on until the exams are transferred to the RetinaVue Network software application.
3. In the RetinaVue Network software application, click **Incomplete Exams**.

Welcome to the RetinaVue™ Network

Select one of the following options:



A list of patients with incomplete exams appears on the *Incomplete Exams* screen.



Select your patient and click **Next**.

4. If all required fields have been completed, click **Next**.

RetinaVue™ Network - Mountbatten Clinic

### Patient Information

Basic Information

MRN: 1234567 First Name: Emily Last Name: Lighter

Birth Date: 1981-09-10 Gender: Female Referring Provider: Elise A.H. Jans

Kick Factor:

☐ Diabetes Type 1 ☐ Diabetes Type 2 ☐ High Cholesterol

☒ High Blood Pressure ☒ Pregnant ☐ Smoker ☒ Obesity

Comments:

MRN: 1234567 Name: LIGHTER, EMILY DOB: 1981-09-10

Save For Later

WelchAllyn

Review the images and then click **Next** again.



5. From the *Exam Workflow Complete* screen, click **Submit Exam**.



6. Once the exam has been submitted, a message appears indicating the exam was successfully submitted. Click **OK**.





## View New Reports - RetinaVue Network Customer Portal

Once images are submitted from the computer running the RetinaVue Network software application and the images are evaluated, a new report is available on the RetinaVue Network Customer Portal.

1. Log in to the RetinaVue Network Customer Portal.

**WelchAllyn**  
**RetinaVue™ Network**

*Authorized users only. All activity on this website is monitored and recorded.*

User Name:  
\*\*\*\*\*

Password:  
●●●●●●●●

**Log In**

[Reset Password](#)

GTIN (01)00732094253443

The *Welcome* screen appears.

2. Select *View New Diagnostic Reports* and click **Next**.

Welcome to the RetinaVue Customer Portal

What would you like to do?

☐ Schedule a Patient *(wireless only)*

☐ View Scheduled Patients *(wireless only)*

☒ View New Diagnostic Reports

☐ Search Diagnostic Reports

☐ View Statistics

☐ Manage Devices *(wireless only)*

☐ Manage Clinics

☐ Edit Company Information

Next

The *New Diagnostic Reports* screen appears.

New Diagnostic Reports							
Select	Patient Name	MRN	DOB	Exam Date	Submission Date	Report Date	
<input checked="" type="checkbox"/>	Last-1061392784, First-737098007	MRN-2142456376	9/19/1926	5/5/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input checked="" type="checkbox"/>	Last-1098227554, First-1308520055	MRN-765994652	5/4/2016	3/7/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input checked="" type="checkbox"/>	Last-110659414, First-2071501028	MRN-1551057333	7/17/1979	2/19/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input checked="" type="checkbox"/>	Last-112511686, First-255903096	MRN-943453007	12/1/1954	3/3/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input checked="" type="checkbox"/>	Last-1184378607, First-2016600445	MRN-974555694	8/7/1925	3/12/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input checked="" type="checkbox"/>	Last-1195677642, First-2063846915	MRN-1145316609	1/3/1977	3/17/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input type="checkbox"/>	Last-1210354870, First-1775529970	MRN-1697099307	6/25/1968	3/16/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input type="checkbox"/>	Last-1234310294, First-509707291	MRN-1409561268	9/25/1962	3/15/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input type="checkbox"/>	Last-1243576161, First-643079565	MRN-118495221	11/4/1962	2/19/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
<input type="checkbox"/>	Last-134398823, First-1714893016	MRN-995677116	5/12/1989	5/28/2018	6/7/2018	6/7/2018	<a href="#">View</a> <a href="#">Edit</a>
12345678910...							

3. Select your patient and click **View** to view report.

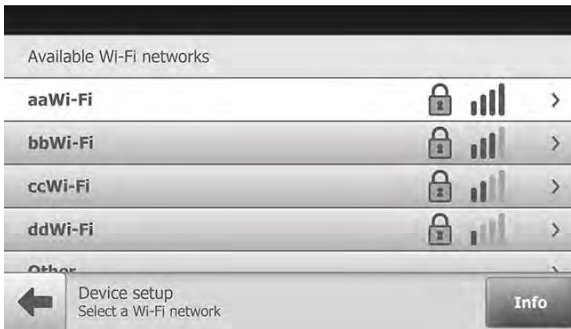
# First time selection of Wi-Fi connectivity workflow

**Note** The Wi-Fi camera setup only needs to be completed once unless a change to the connectivity workflow is desired.

1. Touch **RetinaVue Network - Wi-Fi** to select the wireless workflow and touch **Next**.



2. From the list of available networks, touch on the Wi-Fi connection that you want to connect to.

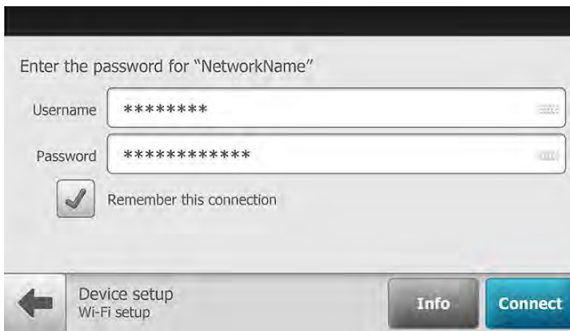


**Note** \*Wi-Fi network names shown here are examples.

**Note** If you don't see the desired Wi-Fi network that you want to connect to, you may need to scroll down.

**Note** During Wi-Fi communication, the RetinaVue 700 Imager supports the use of the following secure authentication types: WPA2-PSK and WPA2 Enterprise. If you don't see the network name in your list it might be a hidden network. Select "Other" and enter the network name. See the *Troubleshooting* section for further information.

3. Using a secured network, enter your network Wi-Fi Username and Password or a Passphrase and touch **Connect**. **Note:** if you are using PSK, leave the Username field blank.



The image shows a Wi-Fi connection interface. At the top, it says "Enter the password for 'NetworkName'". Below this are two input fields: "Username" with "\*\*\*\*\*" and "Password" with "\*\*\*\*\*". There is a checkbox labeled "Remember this connection" which is checked. At the bottom, there is a back arrow, the text "Device setup" and "Wi-Fi setup", an "Info" button, and a blue "Connect" button.

- a. (Optional). Touch **Remember this connection** and touch **Connect** to use the selected network for subsequent Wi-Fi connections.
4. To continue setup, launch an internet browser from a computer and enter the following address: [https://www.retinavue.net/RN\\_CustomerPortal/](https://www.retinavue.net/RN_CustomerPortal/).
5. On your RetinaVue 700 Imager , touch **Next**.
6. On the RetinaVue Network Customer Portal, enter your RetinaVue Network Username and Password then click **Log In**.

WelchAlllyn

RetinaVue™ Network

Authorized users only. All activity on this website is monitored and recorded.

User Name:

\*\*\*\*\*

Password:

●●●●●●●●

Log In

[Reset Password](#)

GTIN (01)00732094253443

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

7. On the RetinaVue Network Customer Portal, select *Manage Devices (wireless only)* and click **Next**.

Welcome to the RetinaVue Customer Portal

What would you like to do?

☐ Schedule a Patient (wireless only)

☐ View Scheduled Patients (wireless only)

☐ View New Diagnostic Reports

☐ Search Diagnostic Reports

☐ View Statistics

☒ Manage Devices (wireless only)

☐ Manage Clinics

☐ Edit Company Information

Next

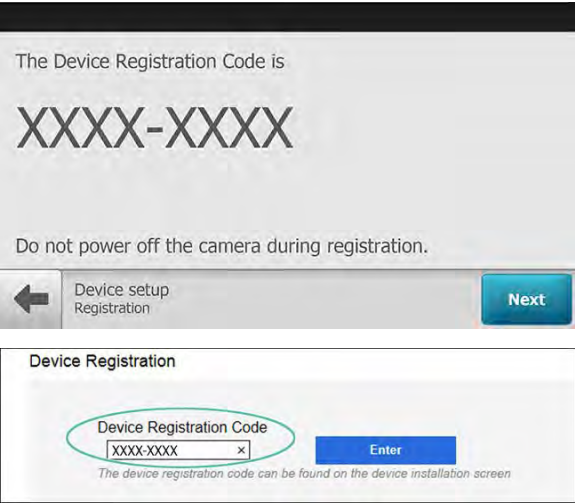
8. Click **Add Device**.

Add Device

Device Name	Serial Number	Device Access Code	Registration Date	Status	Detail
No devices are currently authorized for clinic(s) that you can manage.					

Back

- 9. On your RetinaVue 700 Imager, touch **Next** to generate a Device Registration Code.
- 10. On the RetinaVue Network Customer Portal, enter the Device Registration Code from the RetinaVue 700 Imager and then click **Enter**.



- Note** \*The Device Registration Code shown here is an example.
- Note** The *Next* button is greyed out until the Device Registration Code is received by the RetinaVue 700 Imager from the RetinaVue Network Customer Portal.
- Note** The Device Registration Code needs to be entered into the RetinaVue Network Customer Portal as it appears on the RetinaVue 700 Imager *device installation* screen including the dash (–).
- Note** The code expires after 30 minutes.
- 11. On the RetinaVue Network Customer Portal , enter a Device Name (optional) and select a clinic, or clinics, where the RetinaVue 700 Imager will to be used. Select each clinic by clicking the check box next to the clinic name and then click **Add Device**.

Warning: This registration request will expire if the device is not added by 10/3/2017 10:05:31 AM -04:00

Add New Device

Device Name

Mountain View And Valley View Clinics X

Device Serial Number

34160044

☐ Device Access Code

####

Select clinics to associate with this camera

	Clinic Name	Address
<input checked="" type="checkbox"/>	Mountain View Clinic	1234 Red River Road, Canyon Top, UT
<input checked="" type="checkbox"/>	Valley View Clinic	12345 Riverbend Ave, Valley View, UT

Back

Add Device

- a. (Optional) Test the WiFi and EMR connection by sending images to a test server. This mode is not intended to be used for patient exams.
- b. (Optional) To select multiple clinics where the RetinaVue 700 Imager will be used at, select each clinic by clicking the check box next to the clinic name.
- c. (Optional) 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.

**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.

- 12. On your RetinaVue 700 Imager, touch **Next** on the screen: *Camera registered successfully.*

Camera registered successfully.

Device setup  
Registration

Next

13. (Optional) If a Device Access Code was selected at the RetinaVue Network Customer Portal, touch **OK** at the dialogue: *A new device access code has been downloaded. The camera will require this code on next encounter.*
14. (Optional) 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**.
15. Touch **OK** at the *Setup completed* screen.
16. (Optional) 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**.

The screenshot shows a setup screen for the RetinaVue 700 Imager. It features two input fields for the 'Device access code' and 'Device access code (retry)', each with a clear button (X). To the right is a numeric keypad with digits 1-9, 0, and an 'OK' button. At the bottom left is a back arrow, and at the bottom right are the labels 'Advanced Settings' and 'Device Access Code'.

**Note** To change the connectivity workflow settings after the initial set up, touch **Settings > Advanced settings > Reset factory defaults**. Touch **All device and radio settings** at the dialog: *"Select the settings to reset to factory defaults."* and then touch **OK** at the dialog *"Reset all settings to defaults? All exams stored on this camera will be deleted."*



# About the Auto and Manual Exam modes

## Auto Mode

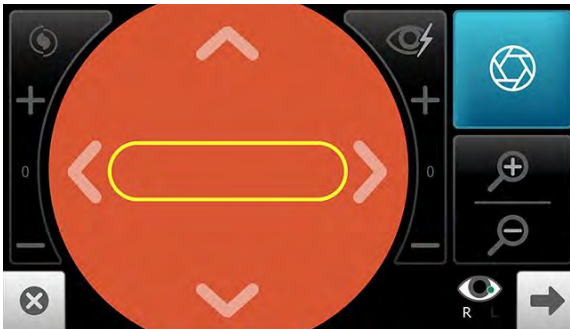


Auto Mode is the default image capture mode. Available features include:

- Automatic image capture
- Exam protocol selection
- Sequential image capture order of the right and left eye
- Navigation to the *Image Inspection* screen
- One touch exit

In addition to the automatic features, manual capture, manual focus adjustment, exam protocol selection, and manual flash brightness adjustment are also available.

## Manual Mode Right



Left









Manual mode contains advanced image capture options.

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

Available manual features include:

- Focus adjustment (values range from -1 to +1)
  - Flash brightness adjustment (values range from -2 to +2)
  - Sequential image capture order of the right and left eye
  - Image capture
  - X-axis control (horizontally movement)
  - Y-axis control (vertically movement)
  - Zoom
  - Auto focus
  - One touch exit
  - One touch advancement to next screen
-

# About image quality scores

<b>Good quality green</b> (Inspection screen)	<b>Good quality green</b> (Exam summary screen)	If the image is of good quality, it is very likely to be read.  (Scores of 40 +)
		
<b>Acceptable quality yellow</b> (Inspection screen)	<b>Acceptable quality yellow</b> (Exam summary screen)	If the image is of good enough quality, it is likely to be read.  (Range of 20 — 39)
		
<b>Unacceptable quality red</b> (Inspection screen)	<b>Unacceptable quality red</b> (Exam summary screen)	If the image is lacking in quality, it is highly unlikely to be read.  (Range of 0 — 19)
		

# About Exam protocols

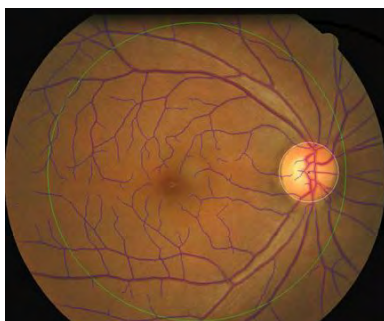
## Available Exam protocols include:

- 60 ° Macula centered
- 60 ° Optic disc centered
- Anterior white light

---

Macula centered imaging:

Evaluate and document the central retina and macula for clinical signs of Diabetic Retinopathy.

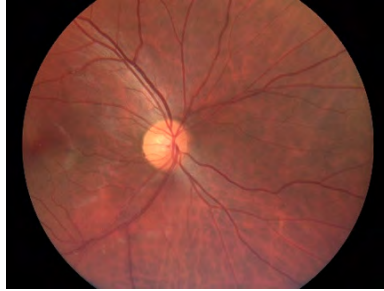


**60 ° Macula centered**



Optic disc centered imaging:

Evaluate and document the optic disc for clinical signs of glaucoma.

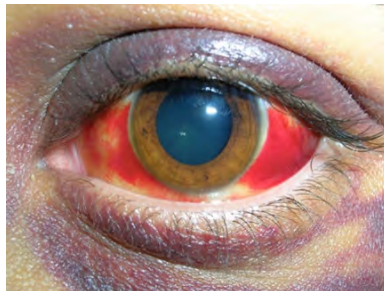


**60 ° Optic disc  
centered**



Anterior white imaging:

Evaluate and document anterior ocular structures like lids, lashes, and cornea.



**Anterior white light**



**CAUTION** Failure to install the face cup spacer plate before a patient anterior image exam may result in unacceptable image quality or failure to capture an image.



**CAUTION** Failure to remove the face cup spacer plate before a patient 60 ° Macula centered or 60 ° Optic disc centered exam may result in unacceptable image quality or failure to capture an image.

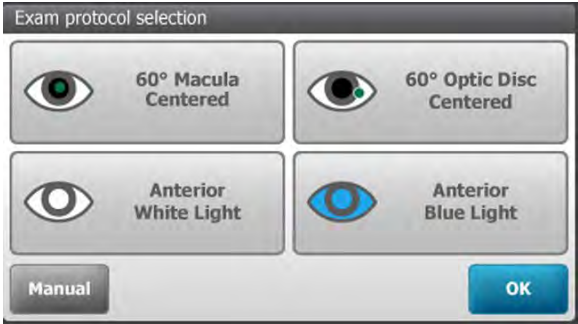
## Accessing exam protocols

From the *Pre Acquisition* screen, touch  (**Settings**) or touch within the current



exam protocol to launch the *Exam protocol selection* dialog box and to select the desired Exam protocol.

Touch the desired Exam protocol button and touch **OK** at the prompt.



**Note**

The currently selected Exam protocol becomes the default protocol for future exams on the RetinaVue 700 Imager until another protocol is selected.

**Note** If a patient has been scheduled from the RetinaVue Network Customer Portal in wireless mode, no changes can be made to the Exam protocol once the administrator has locked the protocols.

## Face cup

The face cup blocks ambient light during testing and covers both of the patient's eye sockets to allow them to best focus on the green fixation light.

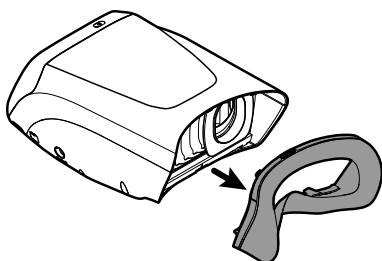
## Use the face cup for a patient exam

Use the face cup to cover the patient's examined eyes and allow them to focus on the green fixation light.

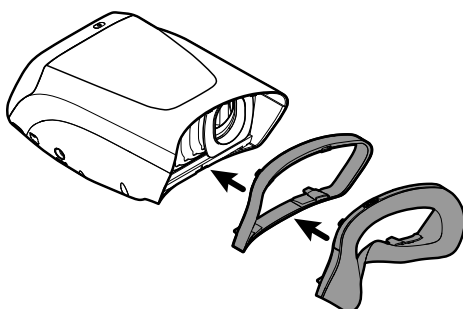


## Use the face cup spacer plate for a patient anterior image exam



1. When performing anterior imaging of the ocular structures (lids, lashes, and cornea) using the blue light or white light protocol, remove the face cup from the RetinaVue 700 Imager,

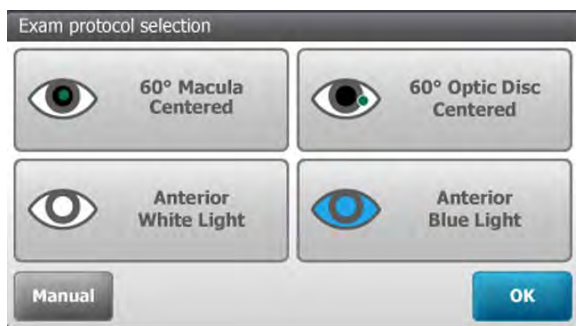


attach the face cup spacer plate to the RetinaVue 700 Imager , and then attach the face cup to the spacer plate.



**CAUTION** Failure to install the face cup spacer plate before a patient anterior image exam may result in unacceptable image quality or failure to capture an image.

2. From the *Pre Acquisition* screen, touch  (**Settings**) or touch within the current exam protocol  to launch the *Exam protocol selection* dialog box and to select the Anterior white light or Anterior blue light Exam protocol.
3. Touch the Anterior white light or Anterior blue light Exam protocol button and touch **OK** at the prompt.



4. Touch **OK** at the prompt: "The imaging ring is required for anterior imaging. Remove ring for regular imaging."
  - If the next patient exam is for an Anterior white light or Anterior blue light Exam protocol leave the face cup spacer plate on the RetinaVue 700 Imager
  - If the next patient exam is for a 60 ° Macula centered or 60 ° Optic disc centered protocol, see the instructions for



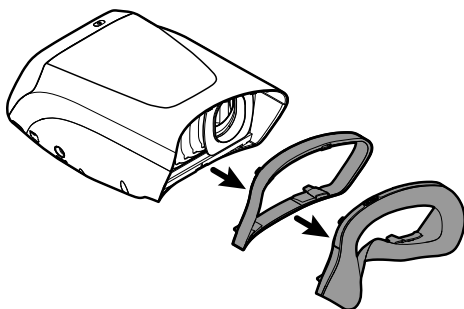
removing the face cup spacer plate from the RetinaVue 700 Imager



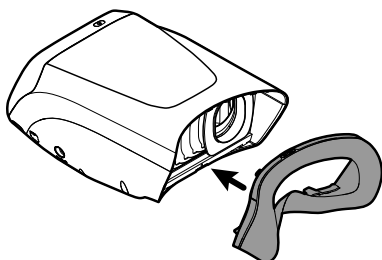
**CAUTION** Failure to remove the face cup spacer plate before for a patient 60 ° Macula centered or 60 ° Optic disc centered exam may result in unacceptable image quality or failure to capture an image.

## Remove the face cup spacer plate for a patient a 60 ° Macula centered or 60 ° Optic disc centered exam



1. When performing a 60 ° Macula centered or 60 ° Optic disc centered exam, remove the face cup and the face cup spacer plate from the RetinaVue 700 Imager

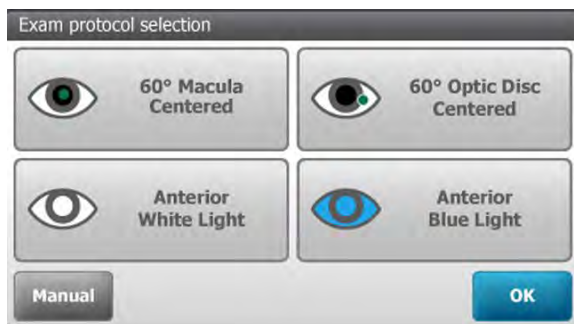


and then reattach just the face cup to the RetinaVue 700 Imager.



**CAUTION** Failure to remove the face cup spacer plate before for a patient 60 ° Macula centered or 60 ° Optic disc centered exam may result in unacceptable image quality or failure to capture an image

2. From the *Pre Acquisition* screen, touch  (**Settings**) or touch within the current exam protocol  to launch the *Exam protocol selection* dialog box and to select either the 60 ° Macula centered or 60 ° Optic disc centered Exam protocol.
3. Touch the 60 ° Macula centered or 60 ° Optic disc centered protocol button and touch **OK** at the prompt.



## Using the RetinaVue 700 Imager

---

The following topics describe using the RetinaVue 700 Imager for exams, creating new patients, deleting exams and reviewing exams.

### Perform an eye exam (wireless workflow)

**Note** To ensure that the patient's pupils sufficiently dilate to 3 mm, 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.

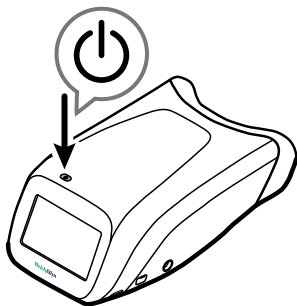
**Note** While the RetinaVue 700 Imager can be used on patients with cataracts and other eye opacities, the use of the RetinaVue 700 Imager may result in a lower quality image due to the increased reflection of the flash off the patient's intraocular lens.

- Ask your patient to remove their glasses, contacts can remain in place.
- If using the RetinaVue 700 Imager without the pedestal, ask the patient to sit in a chair and sit directly across from the patient with your legs together on the same side as the examined eye.
- If using the RetinaVue 700 Imager without the pedestal, ask the patient to sit up straight and hold their head in a stationary position during the entire procedure.
- Ensure that the patient is sitting in a position that allows for a straight and level approach of the RetinaVue 700 Imager into the patient's eyes. A stable approach minimizes the loss of the view of the eye and repeated image capture attempts.
- Keep the RetinaVue 700 Imager lens the same height as the patient's examined eye.

- Approach the patient from directly in front of the examined eyes and firmly press the face cup against the patient's forehead and nose.
- Ask the patient to focus on the fixation light.


**Note** For additional information about techniques to capture the highest quality image, see the *Technique guide* that came with the RetinaVue 700 Imager.

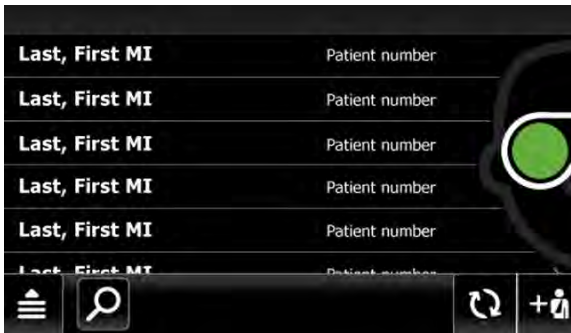
1. Press the power button.





**Note** To conserve power, the RetinaVue 700 Imager enters Sleep mode if it remains idle for the time set during set up. (Sleep mode settings include 2, 5, 7, 10 minutes, and Never). Touch the LCD screen or press the power button to wake up the RetinaVue 700 Imager from Sleep mode.

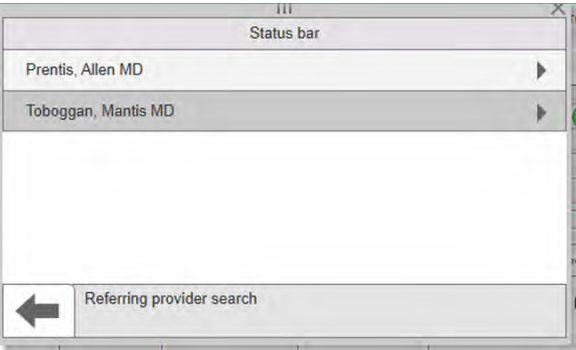
**Note** Unless *Never* is selected, the RetinaVue 700 Imager powers down after 10 minutes of inactivity in Sleep mode. Press the power button to activate the RetinaVue 700 Imager. (See the *Settings* sections for information about changing the Sleep mode settings.)

2. From the *Patients* screen, touch **+**  to create a new patient.

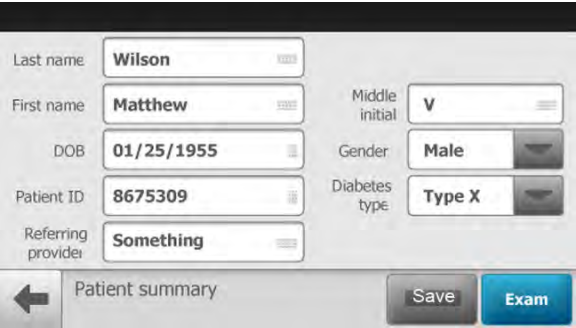


- a. Touch  to search for a patient with an existing exam within the *Scheduled patients* or *Saved exams* list.
  - b. Touch  to refresh the patient list from the RetinaVue Network Customer Portal Scheduled Patients list.
3. Touch within the Patient's Last name, First name, or Middle initial entry box to launch the on-screen keyboard.

4. Enter the patient's last name and first name. (Middle initial is optional.)
5. Enter the patient's DOB (Date of Birth). (Touch within the DOB field to launch the on-screen keyboard and to enter the patient's Date of Birth.)
6. Enter the patient's gender using the drop-down menu to select Male, Female, Other, or Unspecified.
7. Enter the patient's ID.
8. Touch within the Referring provider field entry box to launch the on-screen keyboard and search for your clinic's Referring provider.





- 9. Enter the patient's Diabetes type using the drop-down menu to select Type I, Type II, None, or Unspecified.
- 10. Once all the required fields are complete, touch **Exam** to open a new exam.

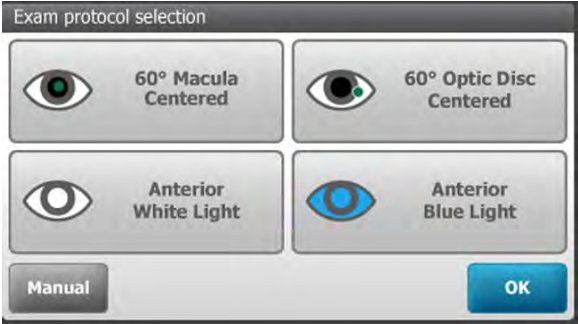


Optionally, to save the patient information without starting an exam, touch **Save**.

- 11. To proceed with the default Exam protocol, touch **START**.



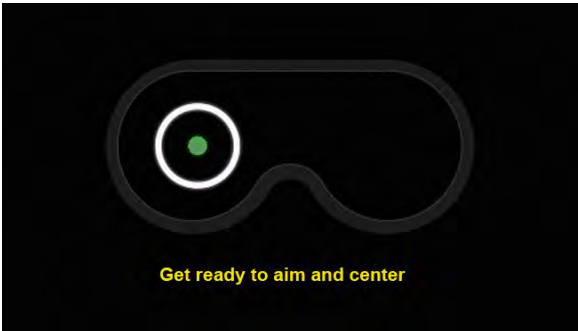
- a. (Optional) If creating the exam on the camera, touch  **(Settings)** or touch within the currently displayed exam protocol  to launch the *Exam protocol selection*.



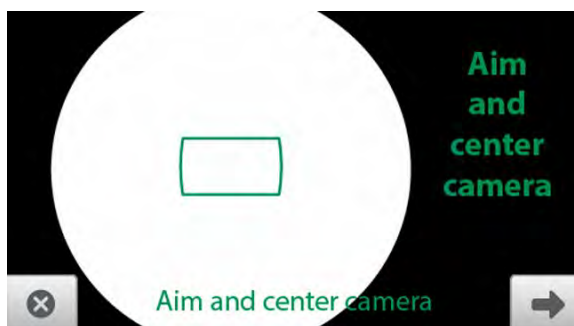
Touch **OK**.

**Note** If a patient has been scheduled from the RetinaVue Network Customer Portal in wireless mode, no changes can made to the Exam protocol once the administrator has locked the protocols.

12. Approach the patient from directly in front of the examined eyes and firmly press the facecup of the RetinaVue 700 Imager against the patient's forehead and nose. A message appears on the LCD touchscreen: *"Getting ready to aim and center camera"* as the camera is entering the live preview mode.



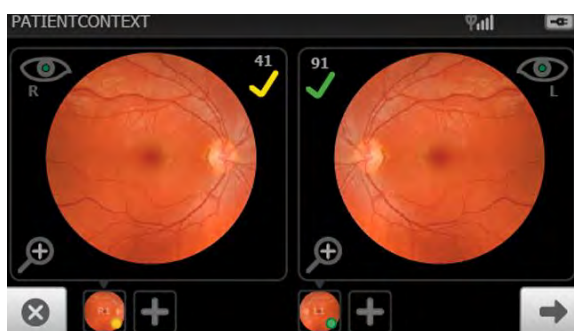
13. Instruct the patient to look at the green fixation light inside the RetinaVue 700 Imager. A message appears on the LCD touchscreen: *"Aim and center camera"* as the camera is entering the live preview mode.



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


14. Keep the RetinaVue 700 Imager in line.
15. While the camera is locating the eye and self-adjusting to capture the best image, the *"Keep camera steady and in place"* message appears on the LCD touchscreen for each eye along with an animation.
16. On the LCD touchscreen, the camera prompts to *"Aim and center the camera"* until the images for each eye are captured.
17. An audible tone alerts you that the images have been captured.

The acquired images appear on the LCD touchscreen for review after a few seconds.






- If the image is of good quality (scores of 40 +) ✓, it is very likely to be read.
- If the image is of good enough quality (range of 20 — 39) ✓, it is likely to be read.
- If the image is lacking in quality (range of 0 — 19) ✗, it is highly unlikely to be read.

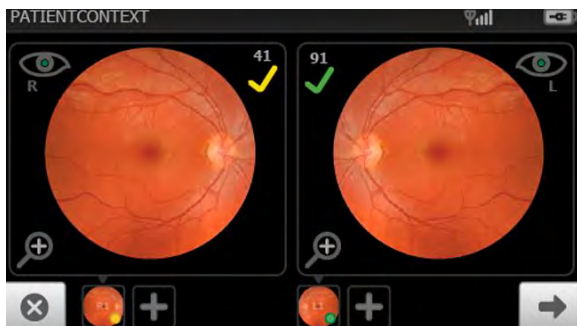


18. Touch  to review the displayed image on the *Inspection mode* screen.



Images with a red X (  ) and low score denote low quality images. Touch  to navigate back to the *Inspection mode* screen. Touch  (trash) to dispose of an image and to begin a capture of another image. Touch **OK** at the dialog prompt "Do you wish to discard this image and acquire again?". The Live acquisition screen appears.

19. Touch  (**Next**) after all images are automatically captured.



20. When the sequential image capture is complete and the images contain a green or yellow quality acceptance check mark, proceed to the *Exam summary* screen.
- Touch **Save** to save the exam to the device for further review or editing.
  - Touch **Submit** to send the exam to the RetinaVue Network Customer Portal for a reading.

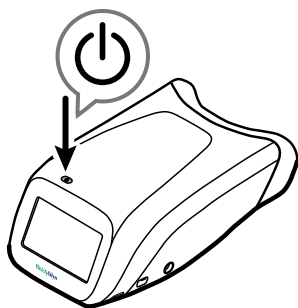
The screenshot shows the software interface for the RetinaVue 700 Imager. At the top, there is a header bar with a patient icon, the text 'Last, First', and 'PatientID'. Below this, the interface is divided into two columns. The left column shows 'R-2W' with a green checkmark and '(98)', and 'R-ExtWhite' with a green checkmark and '(18)'. The right column shows 'L-2W' with a green checkmark and '(score)', and 'L-ExtWhite' with a red question mark and '(?)'. Each entry has an 'Add optional' button with a plus sign. At the bottom, there is a navigation bar with a back arrow, the text 'Exam summary', and two buttons: 'Save' and 'Submit'.

## Perform an eye exam (USB workflow)

**Note** To ensure that the patient's pupils sufficiently dilate to 3 mm, 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.


**Note** While the RetinaVue 700 Imager can be used on patients with cataracts and other eye opacities, the use of the RetinaVue 700 Imager may result in a lower quality image due to the increased reflection of the flash off the patient's intraocular lens.

- Ask your patient to remove their glasses, contacts can remain in place.
  - If using the RetinaVue 700 Imager without the pedestal, ask the patient to sit in a chair and sit directly across from the patient with your legs together on the same side as the examined eye.
  - If using the RetinaVue 700 Imager without the pedestal, ask the patient to sit up straight and hold their head in a stationary position during the entire procedure.
  - Ensure that the patient is sitting in a position that allows for a straight and level approach of the RetinaVue 700 Imager into the patient's eyes. A stable approach minimizes the loss of the view of the eye and repeated image capture attempts.
  - Keep the RetinaVue 700 Imager lens the same height as the patient's examined eye.
  - Approach the patient from directly in front of the examined eyes and firmly press the face cup against the patient's forehead and nose.
  - Ask the patient to focus on the fixation light.
1. Press the power button.



**Note** To conserve power, the RetinaVue 700 Imager enters Sleep mode if it remains idle for the time set during set up. (Sleep mode settings include 2, 5, 7, 10 minutes, and Never). Touch the LCD screen or press the power button to wake up the RetinaVue 700 Imager from Sleep mode.

**Note** Unless *Never* is selected, the RetinaVue 700 Imager powers down after 10 minutes of inactivity in Sleep mode. Press the power button to activate the RetinaVue 700 Imager. (See the *Settings* sections for information about changing the Sleep mode settings.)

2. From the main *Patients* screen, touch  to create a new patient.





3. The *Patient summary* screen appears. Required fields are noted with a red asterisk.
4. Touch within the patient's last name or first name field to launch the on-screen keyboard. Enter the patient's last name and first name. (Middle initial is optional.)

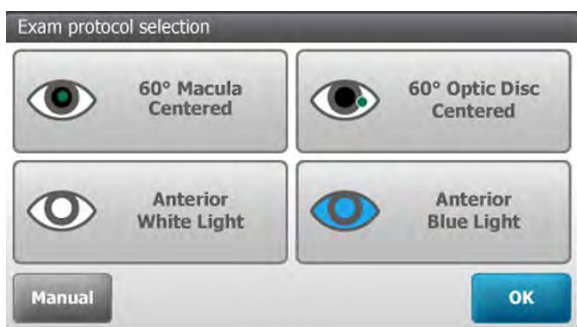
5. Enter the patient's DOB (Date of Birth). (Touch within the DOB field to launch the on-screen keyboard and to enter the patient's Date of Birth.)
6. Enter the patient's gender using the drop-down menu to select Male, Female, Unknown, or Other.
7. Enter the patient's ID.
8. Once all the required fields are complete, touch **Exam** to open a new exam.

The *Pre-acquisition* screen appears.

9. To proceed with the default Exam protocol, touch **START**.

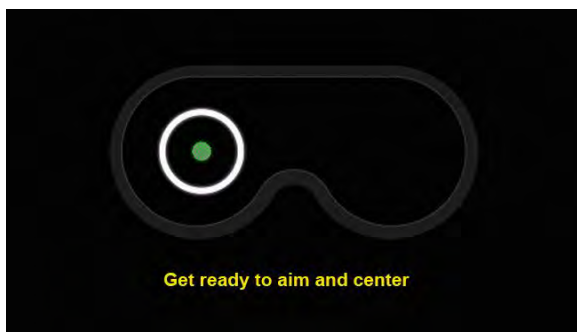


- a. (Optional) If creating the exam on the camera, touch  (**Settings**) or touch within the currently displayed exam protocol  to launch the *Exam protocol selection*.

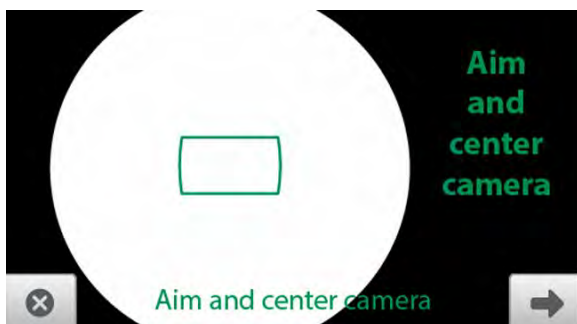


Touch **OK**.

10. Approach the patient from directly in front of the examined eyes and firmly press the facecup of the RetinaVue 700 Imager against the patient's forehead and nose. A message appears on the LCD touchscreen: *"Getting ready to aim and center camera"* as the camera is entering the live preview mode.



11. Instruct the patient to look at the green fixation light inside the RetinaVue 700 Imager. A message appears on the LCD touchscreen: *"Aim and center camera"* as the camera is entering the live preview mode.

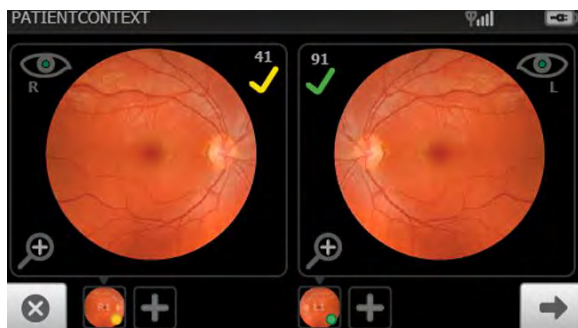








**WARNING** Clean and disinfect the face cup after each patient to avoid the risk of cross-contamination.

12. Keep the RetinaVue 700 Imager in line.
13. While the camera is locating the eye and self-adjusting to capture the best image, the *"Keep camera steady and in place"* message appears on the LCD touchscreen for each eye along with an animation.
14. On the LCD touchscreen, the camera prompts to *"Aim and center the camera"* until the images for each eye are captured.
15. An audible tone alerts you that the images have been captured.




The acquired images appear on the LCD touchscreen for review after a few seconds.



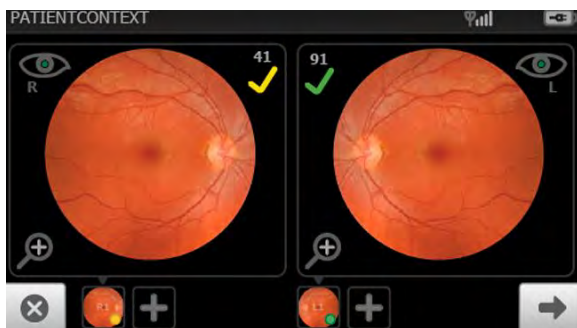
- If the image is of good quality (scores of 40 +) , it is very likely to be read.
- If the image is of good enough quality (range of 20 — 39) , it is likely to be read.
- If the image is lacking in quality (range of 0 — 19) , it is highly unlikely to be read.

16. Touch  to review the displayed image on the *Inspection mode* screen.

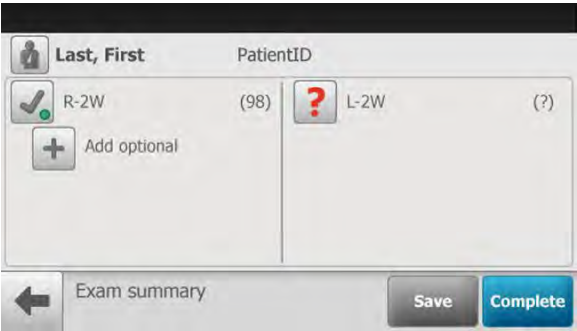


Images with a red X (  ) and low score denote low quality images. Touch  to navigate back to the *Inspection mode* screen. Touch  (trash) to dispose of an image and to begin a capture of another image. Touch **OK** at the dialog prompt "Do you wish to discard this image and acquire again?". The Live acquisition screen appears.

17. Touch  (**Next**) after all images are automatically captured.



18. When the sequential image capture is complete and the images contain a green or yellow quality acceptance check mark, proceed to the *Exam summary* screen.
- Touch **Save** to save the exam to the device for further review or editing.
  - Touch **Complete** and use a USB cable to transfer the exam to a computer running the RetinaVue Network software application to send the exam to the Customer Portal for a reading.

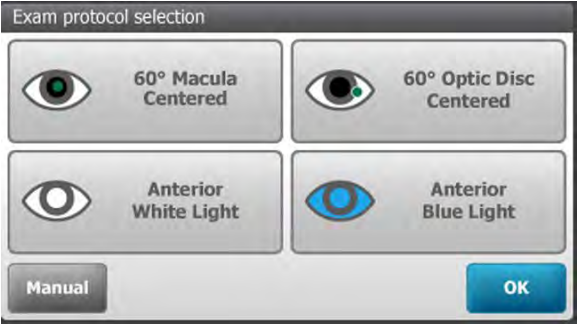


# Perform a manual image capture while in Auto exam mode

1. From the *Pre Acquisition* screen, touch **MANUAL**.




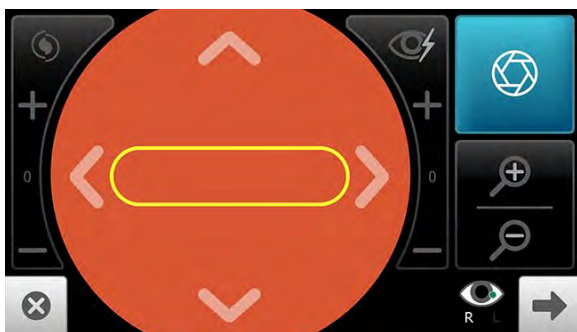
2. Select the desired manual Exam protocol from the *Exam protocol selection* screen.



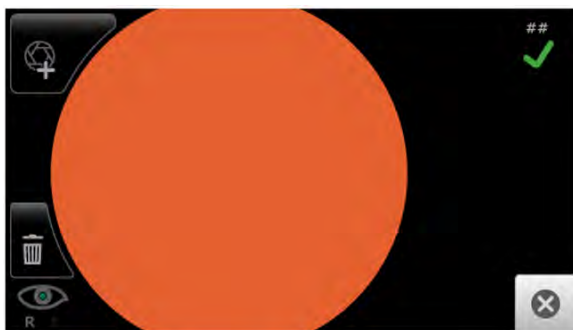


**Note** To adjust settings before capturing an image, see the topic *About the Auto and Manual Exam modes* for additional information about using advanced image capture options (such as Focus adjustment, Flash brightness adjustment, or X-axis and Y-axis adjustment).


3. Touch  (image capture) to manually capture an image of the right or left eye. (Right eye manual capture shown.)

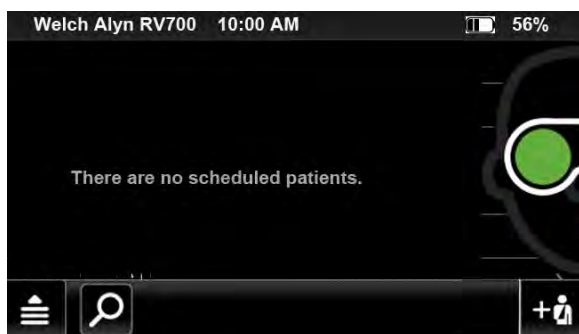


An audible tone alerts you that the image has been captured.



## Create a new patient on the RetinaVue 700 Imager (USB)

1. From the main *Patients screen*, touch  to create a new patient. (**USB workflow images shown**)



2. The *Patient summary* screen appears. Required fields are noted with a red asterisk.
3. Touch within the patient's last name or first name field to launch the on-screen keyboard. Enter the patient's last name and first name. (Middle initial is optional.)
4. Enter the patient's DOB (Date of Birth). (Touch within the DOB field to launch the on-screen keyboard and to enter the patient's Date of Birth.)
5. Enter the patient's gender using the drop-down menu to select Male, Female, Unknown, or Other.
6. Enter the patient's ID.
7. Once all the required fields are complete, touch **Exam** to open a new exam.

 A screenshot of the 'Patient summary' form. The form has a light gray background. It contains several input fields:
 

- 'Last name\*' with the value 'Wilson'.
- 'First name\*' with the value 'Matthew'.
- 'Middle initial' with the value 'V'.
- 'DOB\*' with the value '01/25/1955'.
- 'Gender\*' with a dropdown menu showing 'Male'.
- 'Patient ID\*' with the value '8675309'.


 At the bottom, there is a navigation bar with a back arrow, the text 'Patient summary', a 'Save' button, and an 'Exam' button.

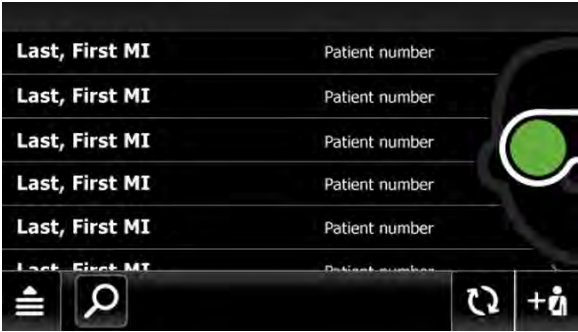
The *Pre-acquisition* screen appears.



8. Refer to *Perform an eye exam* for instructions on performing exams and acquiring images.

# Create a new patient on the RetinaVue 700 Imager (wireless)

1. From the main *Patients screen*, touch  to create a new patient. (**Wireless workflow images shown**)



2. The *Patient summary* screen appears. Required fields are noted with a red asterisk.

Last name\*   
 First name\*  Middle\* initial   
 DOB\*  Gender\*   
 Patient ID\*  Diabetes\* type   
 Referring provider\*

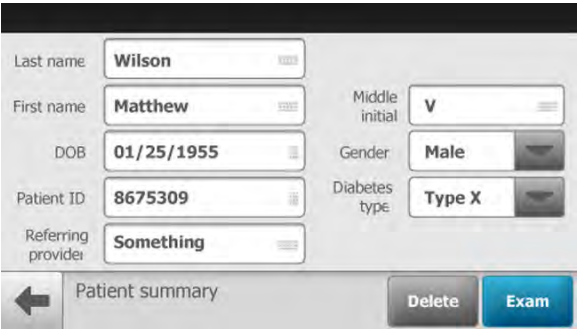
← Patient summary      Save      Exam

3. Touch within the patient's last name or first name field to launch the on-screen keyboard. Enter the patient's last name and first name. (Middle initial is optional.)
4. Enter the patient's DOB (Date of Birth). (Touch within the DOB field to launch the on-screen keyboard and to enter the patient's Date of Birth.)
5. Enter the patient's gender using the drop-down menu to select Male, Female, Unknown, or Other.
6. Enter the patient's ID.
7. Touch within the Referring provider field entry box to launch the on-screen keyboard and search for your clinic's Referring provider.

Status bar  
 Prentis, Allen MD  
 Toboggan, Mantis MD

← Referring provider search

8. Enter the patient's Diabetes type using the drop-down menu to select Type I, Type II, None, or Unspecified.
9. Once all the required fields are complete, touch **Exam** to open a new exam.



The screenshot shows a patient information form with the following fields and values:

Field	Value
Last name	Wilson
First name	Matthew
Middle initial	V
DOB	01/25/1955
Gender	Male
Patient ID	8675309
Diabetes type	Type X
Referring provider	Something


At the bottom of the form, there is a "Patient summary" section with a left arrow icon, and two buttons: "Delete" and "Exam".

The *Pre-acquisition* screen appears.



- 10. Refer to *Perform an eye exam* for instructions on performing exams and acquiring images.

## Select or change a clinic on the RetinaVue 700 Imager (wireless only)

1. Touch  (**Navigation Menu**) from the main *Patients* screen.
2. Touch **Settings**.




3. Touch **Clinic / States**.

**Note** With saved exams on the camera, switching a clinic is not permitted. Either save or delete the exam to switch clinics.


**Note** If the "Wi-Fi connection not available." message appears, see the *Troubleshooting* section.

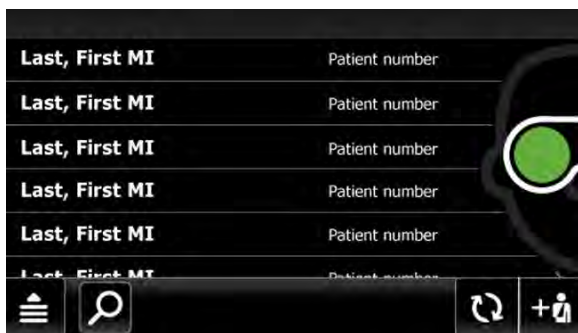
4. Use the drop-down menu to select a clinic.



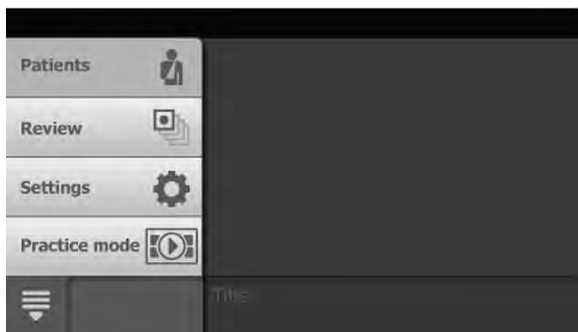
5. Touch  (Back) to return to the main *Patients* screen.

## Select or change a Multi-State clinic on the RetinaVue 700 Imager (wireless only)

1. Touch  (**Navigation Menu**) from the main *Patients* screen.



2. Touch **Settings**




3. Touch **Clinic / States**.
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** to select between 2 and 6 States for the clinic. Touch **More** to see additional States and to proceed to OK when the desired number of States are selected.



7. Touch **OK** to return to the *Clinic/State Settings* screen.
8. Touch  (Back) to return to the main *Patients* screen.

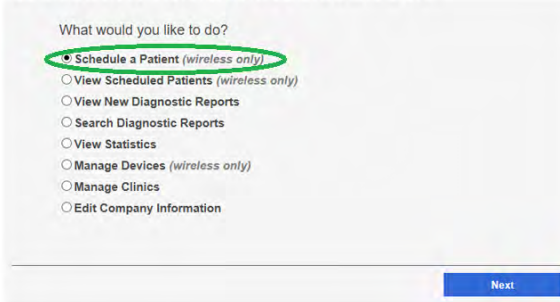
**Note** For each exam performed in multi-state use, select the state where the exam was performed. Touch **OK** to confirm.



# Schedule a patient from the RetinaVue Network Customer Portal (wireless only)

1. Select **Schedule a Patient (wireless only)** from the RetinaVue Network Customer Portal *Welcome screen* and then click **Next**.

Welcome to the RetinaVue Customer Portal



What would you like to do?

- ☒ **Schedule a Patient (wireless only)**
- ☐ View Scheduled Patients (wireless only)
- ☐ View New Diagnostic Reports
- ☐ Search Diagnostic Reports
- ☐ View Statistics
- ☐ Manage Devices (wireless only)
- ☐ Manage Clinics
- ☐ Edit Company Information

Next

2. Use the drop-down menu to select a clinic.

## Schedule a Patient



Select a Clinic

-Select a Clinic-  
Mountain View Clinic  
Valley View Clinic

Back

The *Schedule a Patient* screen appears for your clinic.

3. Complete the required fields and click **Schedule Patient**.

**Schedule a Patient**

Select a Clinic  
Mountain View Clinic

Clinics using the EMR workflow cannot be selected.

Search RetinaVue Network for a previous patient

**Search**

☒ MRN ☐ First Name ☐ Last Name

**Patient Information**

**MRN \*** 12345678 **First Name \*** John **Last Name \*** Anderson

**Birth Date \*** 1962/05/12 **Gender \*** Male **Referring Provider \*** Ricardo, Rebecca, RN

**Risk Factor\***


<input type="checkbox"/> None	<input type="checkbox"/> Diabetes Type 1	<input type="checkbox"/> Diabetes Type 2	<input type="checkbox"/> High Cholesterol
<input type="checkbox"/> Obesity	<input type="checkbox"/> Pregnant	<input type="checkbox"/> Smoker	<input type="checkbox"/> High Blood Pressure

**Comments**

**Back** **Schedule Patient**

**Note** Required fields contain a red asterisk. Required fields include: MRN, First and Last Name, Date of Birth, Gender, and Referring Provider. Optional Risk factor fields include: None, Diabetes Type, Obesity, Pregnant, Smoker, High Cholesterol, and High Blood Pressure.

**Note** To search for a patient who has had images captured in the past, select MRN, First Name, or Last Name and enter either the patient's MRN, or their First Name, or their Last Name in the Search field and click **Search**. Any previous patients of your clinic (within the RetinaVue Network) meeting any of the search parameters appear on the *Patients Search* screen.

4. Ensure that the RetinaVue 700 Imager is powered on and connected to a secure Wi-Fi network. Touch **Patients**. The *Patients screen* appears.
  - (Optional) Touch  to refresh the patient list from the RetinaVue Network Customer Portal Scheduled Patients list.
5. Select the patient from the patient list. Selected patients are highlighted in color.
6. Confirm the patient demographics on the *Patient summary* screen.

The screenshot shows the 'Patient summary' screen. It contains several input fields for patient information: Last name (Wilson), First name (Matthew), Middle initial (V), DOB (01/25/1955), Gender (Male), Patient ID (8675309), Diabetes type (Type X), and Referring provider (Something). At the bottom, there is a left arrow, the text 'Patient summary', a 'Delete' button, and an 'Exam' button.

7. Touch **Exam** to start a new exam. The *Pre-acquisition* screen appears.



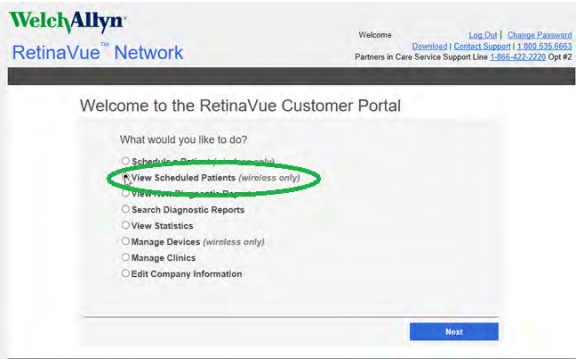
8. Refer to *Perform an eye exam* for instructions on performing exams and acquiring images.

**Delete a patient scheduled from the RetinaVue Network Customer Portal (wireless only)**

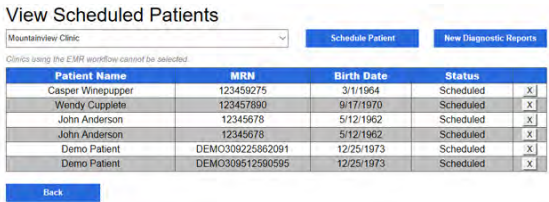
This screenshot is identical to the one above, showing the 'Patient summary' screen with patient information fields and 'Delete' and 'Exam' buttons at the bottom.

1. From the Patient summary screen, touch **Delete**. A patient scheduled from the RetinaVue Network Customer Portal is also deleted from the Scheduled patient's list.

2. To confirm that the patient deleted at the RetinaVue 700 Imager is deleted at the RetinaVue Network Customer Portal, log in and select **View Scheduled Patients (wireless only)** from the *Welcome screen* and then click **Next**.

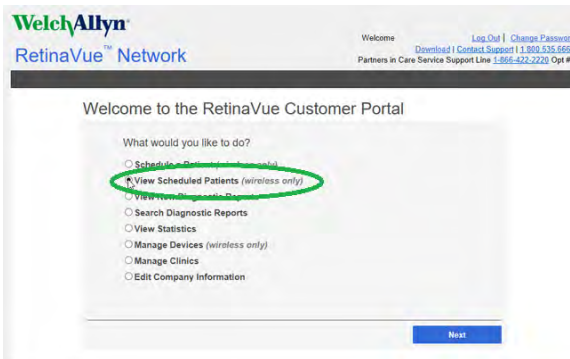


3. Use the drop-down menu to select a clinic and then confirm that the patient no longer appears in scheduled patients list.



## View Scheduled Patients on the RetinaVue Network Customer Portal (wireless only)

1. Select **View Scheduled Patients (wireless only)** from the RetinaVue Network Customer Portal *Welcome screen* and then click **Next**.



The *View Scheduled Patients* screen appears.

- Use the drop-down menu to select a clinic and then view scheduled patients.

View Scheduled Patients

Mountainview Clinic Schedule Patient New Diagnostic Reports

Clinics using the EMR workflow cannot be accessed

Patient Name	MRN	Birth Date	Status	
Casper Winepupper	123456275	3/1/1994	Scheduled	X
Wendy Cupplele	123457890	9/17/1970	Scheduled	X
John Anderson	12345678	5/12/1962	Scheduled	X
John Anderson	12345678	5/12/1962	Scheduled	X
Demo Patient	DEMO309225862091	12/25/1973	Scheduled	X
Demo Patient	DEMO309512980595	12/25/1973	Scheduled	X

Back

**Note** Scheduled patients appear as *Scheduled* in the Status column. If the patient's exam has been completed the patient record appears as *Submitted* until the patient's report is returned.

## Schedule a Demo patient from the RetinaVue Network Customer Portal without submitting an exam for over-read (wireless only)

- Select **Schedule a Patient (wireless only)** from the RetinaVue Network Customer Portal *Welcome* screen and then click **Next**.

Welcome to the RetinaVue Customer Portal

What would you like to do?

- ☒ **Schedule a Patient** (wireless only)
- ☐ View Scheduled Patients (wireless only)
- ☐ View New Diagnostic Reports
- ☐ Search Diagnostic Reports
- ☐ View Statistics
- ☐ Manage Devices (wireless only)
- ☐ Manage Clinics
- ☐ Edit Company Information

Next

2. Use the drop-down menu to select a clinic.

Schedule a Patient

Select a Clinic

--Select a Clinic--  
Mountain View Clinic  
Valley View Clinic

Back

The *Schedule a Patient* screen appears for your clinic.

3. Click **Create Demo Patient**, complete all required fields, and then click **Schedule Patient**.

Schedule a Patient

Select a Clinic  
Mountain View Clinic

Clinics using the EMR workflow cannot be selected.

Search RetinaVue Network for a previous patient  
 Search

☒ MRN ☐ First Name ☐ Last Name

Patient Information

MRN \* DEMO526318417974 First Name \* Demo Last Name \* Patient

Birth Date \* 1973/12/25 Gender \* Male Referring Provider \* Boydston, Erika, MD

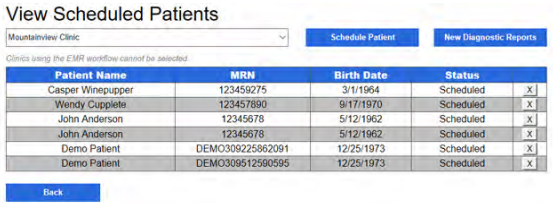
Risk Factor\*

None ☒ Diabetes Type 1 ☐ Diabetes Type 2 ☐ High Cholesterol ☐  
Obesity ☐ Pregnant ☐ Smoker ☐ High Blood Pressure ☐

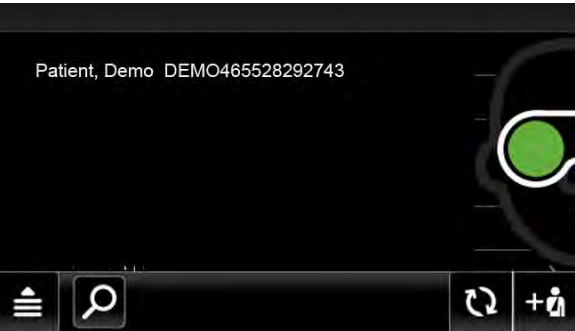
Comments

Back Schedule Patient

4. The *View Scheduled Patients* screen appears.




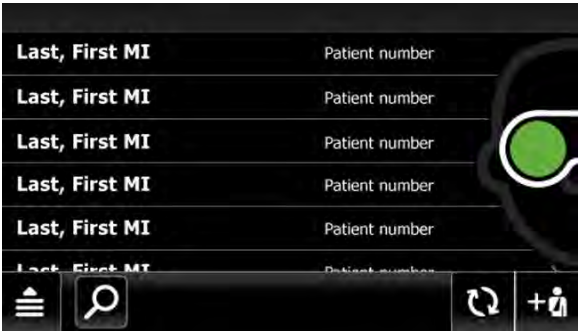
5. Ensure that the RetinaVue 700 camera is powered on and connected to a secure Wi-Fi network. Touch **Patients**. The *Patients* screen appears.



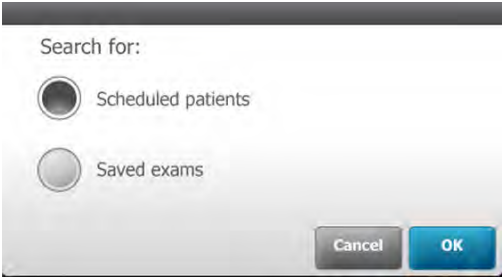
6. Touch on **Patient, Demo** to select the Demo Patient. The *Patient Summary* screen appears.
7. Touch **OK** to start a new exam to practice with a demo patient without submitting the exam for over-read on the RetinaVue Network Customer Portal.
8. Refer to *Perform an eye exam* for instructions on performing exams and acquiring images.

# Search for a patient in the Scheduled Patients list on the RetinaVue 700 Imager (wireless)

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



2. Search for *Scheduled patients* downloaded to the RetinaVue 700 Imager from the RetinaVue Network Customer Portal (the *Patients list search*).

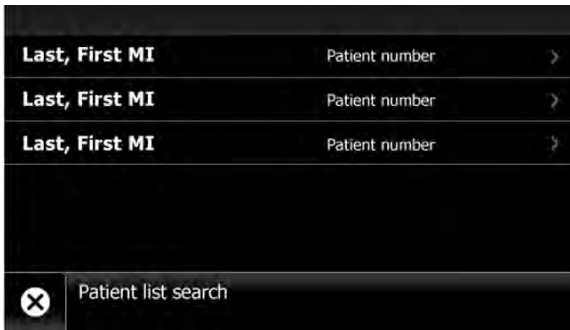


3. Touch **OK** to launch the on-screen keyboard and begin typing the patient's last name, first name, or Patient ID (MRN #) into the entry field box and then touch **OK** on the on-screen keyboard.



The *Patients list search* screen appears.





4. Touch on a patient's name or ID to select that patient. Selected patients are highlighted in color. The *Patient summary* screen appears.

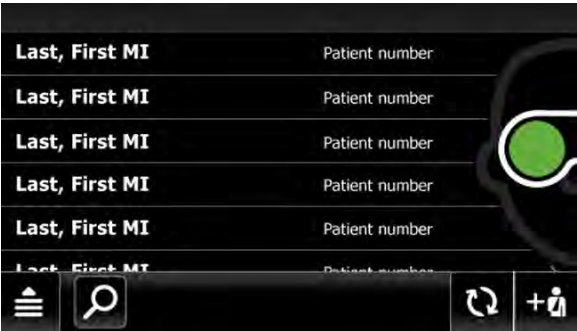
The screenshot displays the 'Patient summary' screen for a patient named Matthew Wilson. The form includes the following fields: Last name (Wilson), First name (Matthew), Middle initial (V), DOB (01/25/1955), Gender (Male), Patient ID (8675309), Diabetes type (Type X), and Referring provider (Something). At the bottom, there is a back arrow labeled 'Patient summary', a 'Delete' button, and an 'Exam' button.

**Note** Patient information is not editable for patients created on the RetinaVue Network Customer Portal.

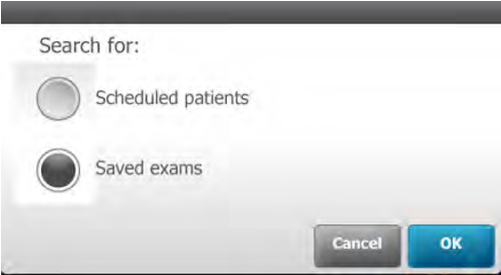
5. Refer to *Perform an eye exam* for instructions on performing exams and acquiring images.

## Search for a patient in the Saved exams list on the RetinaVue 700 Imager (wireless)

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



2. Touch **Saved exams** to search for patients in the *Saved exams* list of patients already contained on the camera and then touch **OK** to launch the on-screen keyboard.



**Note** Patients in the *Saved Exams* list already have completed or partially completed exams.

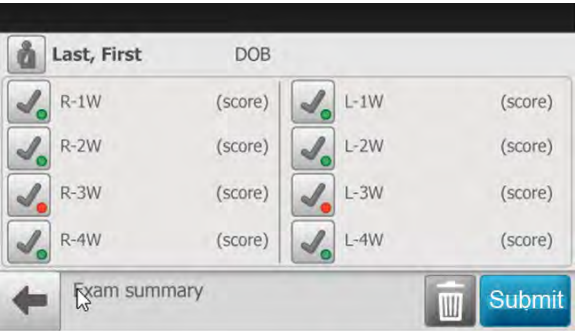
3. Begin typing the patient's last name, first name, or Patient ID (MRN #) into the *Search* entry field and then touch **OK** on the on-screen keyboard.



The *Saved/Submitted* list of patients appears on the *Review* screen based on search parameters.



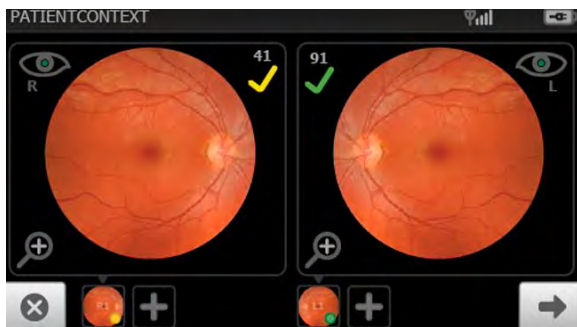
4. Touch on a patient's name or ID to select that patient. The *Exam summary* screen appears.






5. From the *Exam summary* screen, exams can be deleted or submitted.

## Delete an image during an eye exam


1. From the *Post Acquisition* screen,






touch  to review the current image on the *Inspection mode* screen.

- If the image is of good quality (scores of 40 +) , it is very likely to be read.
- If the image is of good enough quality (range of 20 — 39) , it is likely to be read.
- If the image is lacking in quality (range of 0 — 19) , it is highly unlikely to be read.




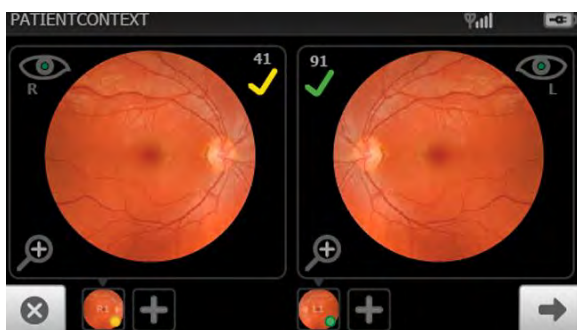
Images with a red X (  ) and a low score denote low quality images and should be deleted.

2. Either touch  twice to discard unsaved images and return to the *Patients list* screen to begin another exam, or touch  (trash) to dispose of an image and return to the *Acquisition* screen to begin a capture of another image.


- a. From the *Image Inspection* screen, touch  to navigate back to the *Post Acquisition* screen. (Right eye *Image Inspection* screen shown).



From the *Post Acquisition* screen, touch  again to discard unsaved images. Touch **OK** at the "Discard unsaved images and patient data?" dialog prompt.



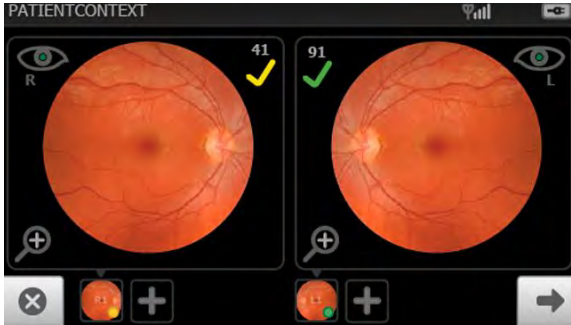
The home *Patients* screen appears.

- b. From the *Image Inspection* screen, touch  (trash) to dispose of an image and to begin a capture of another image.

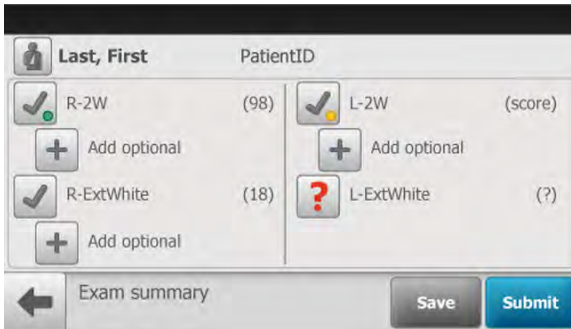


Touch **OK** at the dialog prompt "Do you wish to discard this image and acquire again?". The *Acquisition* screen appears.

3. Capture the remaining images and touch ➡ **(Next)** to complete the exam.



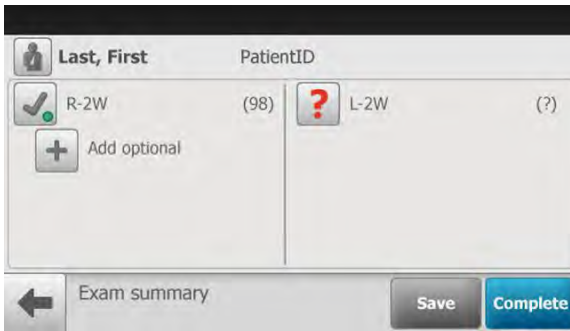
4. (Wireless option). When the image capture is complete and the images contain a green or yellow quality acceptance check mark, proceed to the *Exam summary* screen and touch **Save** or **Submit**.



- Touch **Save** to save an exam to the device for further review or editing. The *Exam Saved* dialog appears.
- Touch **Submit** to send the exam to the RetinaVue Network for a reading.

**Note** In the Wireless mode, the "Exam is queued up to be submitted." message appears.

5. (USB option). When the sequential image capture is complete and the images contain a green or yellow quality acceptance check mark, proceed to the *Exam summary* screen and touch **Save** or **Complete**.



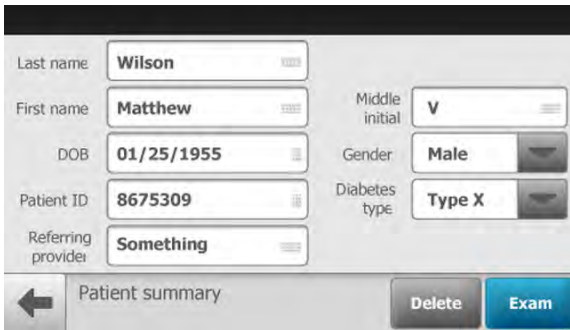
- Touch **Save** to save exam to the device for further review or editing. The *Exam Saved* dialog appears.
- Touch **Complete** and connect the USB cable to transfer the exam by USB cable to the RetinaVue Network Software application for a submission from software application on the computer to the RetinaVue Network Customer Portal for a reading.

## Delete a patient from the RetinaVue 700 Imager

1. From the main *Patients screen*, touch on Patient's name or ID number. The selected patient is highlighted in color. (**Wireless workflow images shown**)




2. Touch **Delete**.



A screenshot of a patient summary form. The form contains the following fields: Last name (Wilson), First name (Matthew), Middle initial (V), DOB (01/25/1955), Gender (Male), Patient ID (8675309), Diabetes type (Type X), and Referring provider (Something). At the bottom, there is a back arrow, a 'Patient summary' label, a 'Delete' button, and an 'Exam' button.

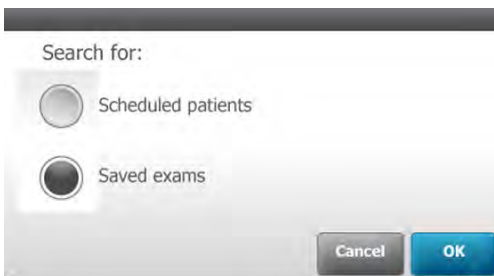
Touch **OK** at the prompt: "Are you sure you want to delete the patient file?".

3. (Optionally), from the main *Patients* screen, touch  to search for a patient. **(Wireless workflow images shown)**



A screenshot of the 'Patients' screen. It displays a list of patients with columns for 'Last, First MI' and 'Patient number'. The list is currently empty. At the bottom, there is a navigation bar with icons for a menu, search (magnifying glass), refresh, and add patient. A green circular highlight is visible on the right side of the screen.

4. Search for *Scheduled patients* downloaded to the RetinaVue 700 Imager from the RetinaVue Network Customer Portal (the *Patients list search*). Or search for patients from the *Saved Exams* list of patients already contained on the RetinaVue 700 Imager.



A screenshot of a 'Search for:' dialog box. It has two radio button options: 'Scheduled patients' and 'Saved exams'. The 'Saved exams' option is selected. At the bottom, there are 'Cancel' and 'OK' buttons.



- 5. Touch **OK** to launch the on-screen keyboard and begin typing the patient's last name, first name, or Patient ID (MRN #) into the entry field box and then touch **OK** on the on-screen keyboard.



Either the *Patients list search*



or the *Saved/Submitted (Wi-Fi)*












or the *Saved/Completed(USB) list*


Saved		Completed		
Kinglongname, Katie M	9109830108	Jan 12	9:22 AM	
Baumlonglastname, W	9109830108	Jan 12	10:42 AM	
Stevens, Johnathan C	9109830108	Jan 12	12:38 PM	
Wagner, Michael R	9109830108	Jan 13	1:38 PM	
Somelonnname Thomas 1	9109830108	Jan 14	3:38 PM	
	Review			

screen appears depending on the option chosen.

6. Touch on a patient's name or ID to select that patient. The *Exam summary* screen appears.

	Last, First	DOB
	R-1W (score)	 L-1W (score)
	R-2W (score)	 L-2W (score)
	R-3W (score)	 L-3W (score)
	R-4W (score)	 L-4W (score)
	Exam summary	 

**Note** Patient information is not editable for patients created on the RetinaVue Network Customer Portal.

7. Touch  (delete) to remove a patient from the RetinaVue 700 Imager. Touch **OK** at the screen dialog: "Are you sure you want to delete the patient file? This patient will also be deleted on the portal" (Wi-Fi). Or, "Are you sure you want to delete this patient's information and exam?"(USB).

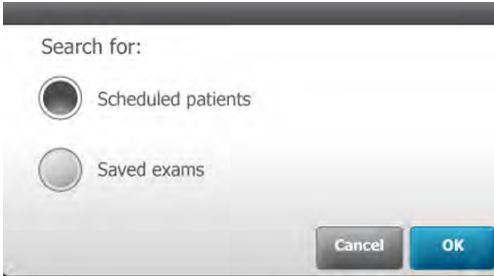
**Note** See the Troubleshooting section if the following error message appears: "Failure to connect to the portal. Unable to delete patient information".

# Delete a patient and exam from the RetinaVue 700 Imager

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



2. Search for patients from the *Scheduled patients/Saved exams* list of patients already contained on the RetinaVue 700 Imager.



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




The *Saved/Submitted*(Wi-Fi)











or the *Saved/Completed* (USB) list screen appears.





4. For Saved exams, touch on a patient's name or ID to select that patient. The *Exam summary* screen appears.


 **Last, First**

DOB

 R-1W (score)	 L-1W (score)
 R-2W (score)	 L-2W (score)
 R-3W (score)	 L-3W (score)
 R-4W (score)	 L-4W (score)

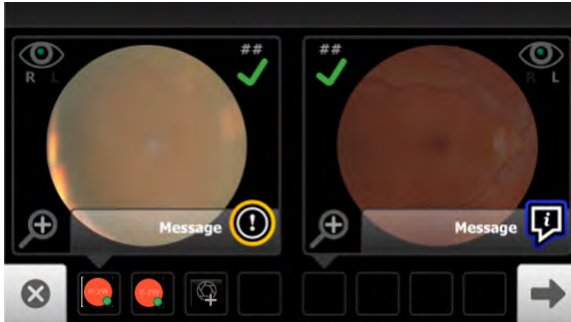
 Exam summary


 **Complete**


5. Touch  (delete) to remove the patient and the exam from the RetinaVue 700 Imager. Touch **OK** at the screen dialog: *"Are you sure you want to delete this patient's information and exam?"*.

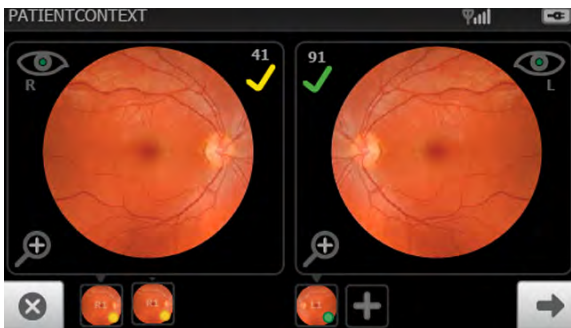
# Capture additional images using the same protocol

1. From the *Post Acquisition* screen,

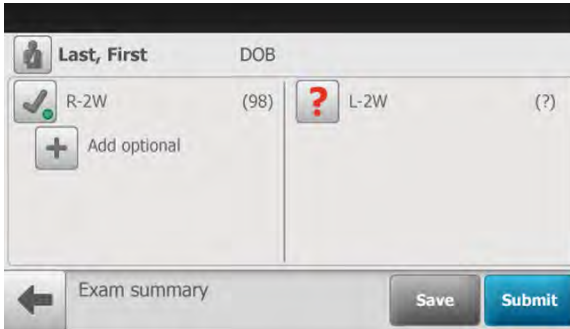


touch  (Missing Image) to capture an additional image using the existing protocol.

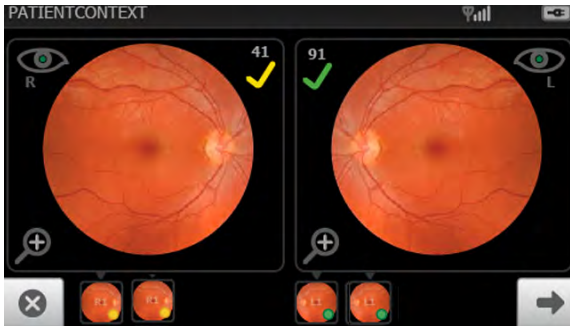
- If the image has a yellow or blue information message, observe the tips to capture another image to improve the image quality of the new image.
2. As the new images are captured by the RetinaVue 700 Imager, the new image icon appears in the place of the image capture icon. Touch  (**Next**) after all images are captured.



3. (Wireless option). When the image capture is complete and the images contain a green or yellow quality acceptance check mark, proceed to the *Exam summary screen* and touch **Save** or **Submit**. However, if there is a missing image on the Exam summary screen,



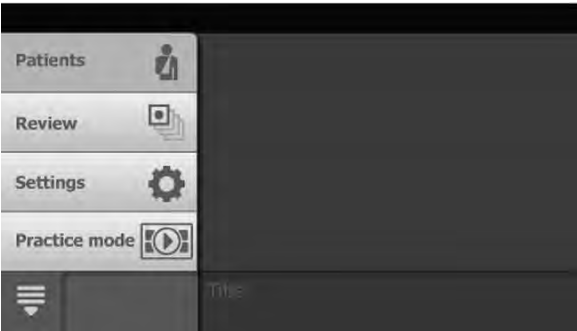
- Touch **+** (add optional) to capture an additional image using the existing protocol. The "Get ready to aim and center" and the *Pre Acquisition* screens appear. As the new images are captured by the RetinaVue 700 Imager , the new image icon appears in place of the image capture icon. Touch **➔** (Next) after all images are captured.



- (Wireless option). Touch **Save** to save the exam to the device or touch **Submit** to send the exam to the RetinaVue Network for a reading. (USB option). Touch **Save** or touch **Complete** and connect the USB cable to transfer the exam by USB cable to the RetinaVue Network Software application for a submission from software application on the computer to the RetinaVue Network Customer Portal for a reading.

## Review (USB workflow)

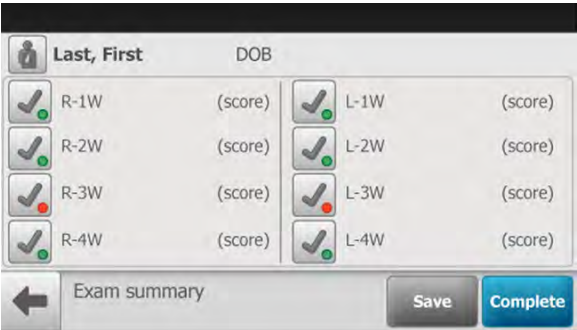
1. From the main *Patients* screen touch **Review**.





The patient's *Review* screen appears.



- 2. Touch on a patient's information to review the patient demographics and to view images associated with a patient.
- 3. Any images which have not been sent for overread appear on the *Exam summary* screen.

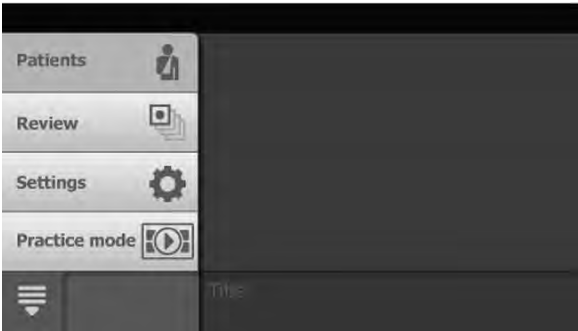


- 4. After the review is complete, touch **Save** to save any changes or touch **Complete** to sent for overread using USB.
- 5. Touch  (Back) to return to the *Review screen* and then touch  (Navigation Menu) to return to the main *Patients* screen.



# Review (Wi-Fi workflow)

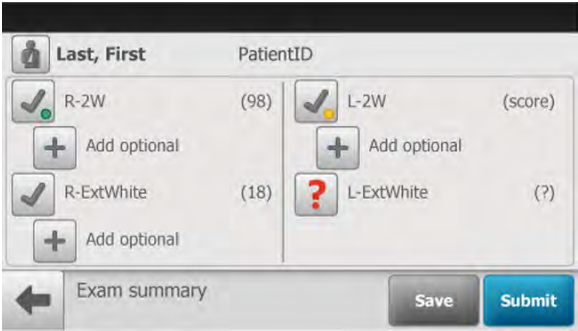
- 1. From the main *Patients* screen touch **Review**.



The patient's *Review* screen appears.




- 2. Touch on a patient's information to review the patient demographics and to view images associated with a patient.
- 3. Any images which have not been sent for overread appear on the *Exam summary* screen.





- 4. After the review is complete, touch **Save** to save any changes or touch **Submit** to sent for overread using Wi-Fi.
- 5. From the patient's *Review* screen,




click on the following icons for additional status messages:

 - Waiting to upload

 - submitted

 - report available

**Note** Once exam has been viewed on the RetinaVue Network customer portal it will be deleted from the device.



- 6. Touch  (Back) to return to the main *Patients* screen.

# Update the RetinaVue 700 Imager software

**Note** (USB only) Patient list changes will only be made to the RetinaVue 700 Imager after the USB cable is reattached and connected to a computer running the RetinaVue Network software application.


**Note** (USB only) DICOM files will be available to the RetinaVue Network once the RetinaVue 700 Imager is reattached and connected to a computer running the RetinaVue Network software application.

## Take note of the current software version:

1. From the main *Patients screen*, touch .
2. Touch **Settings**.
3. Touch **About** to view the software version.
4. Touch  (Back) to return to the *Settings screen*.

## Before you begin, you will need the following :

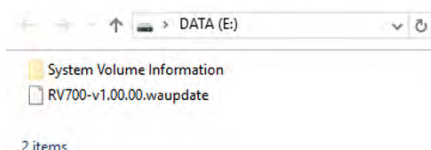
- A computer with an Internet connection.
- The RetinaVue 700 Imager connected to a computer with a USB cable.

1. Download the software update from [https://www.retinavue.net/RN\\_CustomerPortal/](https://www.retinavue.net/RN_CustomerPortal/) and transfer the software update to a computer.
2. From the main *Patients screen*, touch .
3. Touch **Settings**.
4. Touch **Advanced settings**.
5. Touch **software update**.
6. Touch **Load firmware**.
7. Touch **OK** at the prompt: "Using a USB cable, plug the device into the computer to put the new software file on the device."
8. Plug the USB cable into the computer and the RetinaVue 700 Imager .

The screen prompt appears: "Device plugged into the computer.  
When finished loading file, unplug the device from the computer."

9. Keep the RetinaVue 700 Imager plugged into the computer and transfer the software update from the computer to the RetinaVue 700 Imager by copying or dragging the file from the computer location into the RetinaVue 700 Imager device drive.

**Note** (In this example, "DATA (E:).")




**Note** Use a safe eject method when ejecting the RetinaVue 700 Imager to ensure a complete software transfer to the RetinaVue 700 Imager . (Options include right-clicking on the *Start Menu > Open File Explorer> right-click on EXAM , click Eject*. Or, click on the *Taskbar> Show hidden icons > click Safely Remove Hardware and Eject Media> click Eject RetinaVue Imager*.

If an eject menu is not available with your system settings, wait until the files have completely copied before manually ejecting the RetinaVue 700 Imager .


10. Remove the USB cable from the RetinaVue 700 Imager.

11. Touch **OK** at the prompt: "*Would you like to install the new version of software you just loaded to the device?*"

**Note** The update process typically takes a few minutes to cycle through the complete update. During the update process, it is normal to see a process update icon  that appears while the RetinaVue 700 Imager update successfully completes.

12. Touch **OK** at the prompt: "*Successful update. Touch OK to restart device.*"

13. After the RetinaVue 700 Imager boots up to the main *Patients* screen, confirm the software update.

- a. From the main *Patients* screen, touch  .
- b. Touch **Settings**.
- c. Touch **About** to view the software version.

14. Touch  (Back) to return to the *Settings* screen.

## Troubleshooting software updates

**Note** The RetinaVue 700 Imager boots up normally after a successful software update, however if a software update fails, the RetinaVue 700 Imager displays a failed update error message.

**Power loss during software update:**

- If a power loss occurs during the software update or if there are hardware issues, the RetinaVue 700 Imager posts a blank screen. Remove the battery, reinstall it, and restart RetinaVue 700 Imager. By performing this power cycle, the RetinaVue 700 Imager reverts to a previous version of software. Repeat the steps to perform the update again.

**Corrupted software files:**

- If the software update on the RetinaVue 700 Imager is corrupted, the RetinaVue 700 Imager displays a failed update error message indicating that the RetinaVue 700 Imager is unable to load the software from the computer. Repeat the steps to perform the update again.

**Unsuccessful update error**

If the RetinaVue 700 Imager displays the failed update error message, *Unsuccessful update. Try downloading the new software update again and redo the install.* Ensure that the update file successfully completed the download from the [https://www.retinavue.net/RN\\_CustomerPortal/](https://www.retinavue.net/RN_CustomerPortal/) site and perform the update again.



# Controls

## RetinaVue 700 Imager main *Patient* screen

The RetinaVue 700 Imager main *Patients* screen includes the following areas:




Item	Area
1	Device status
2	Patients list or Content Area
3	Navigation

### 1. Device Status Area

The Device Status Area, located at the top of the main *Patients screen*, displays the:

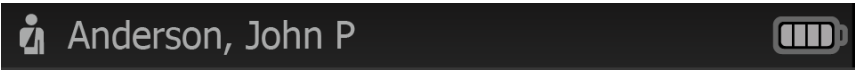
- Device Model
- Clinic Name (if in Wi-Fi workflow and the clinic is selected at the RetinaVue Network customer portal). The clinic text indicates which clinic is selected.
- Time. Displayed in an HH:MM format.

- Connection status. The icons indicate which connection type, if any, is currently active.

Icon	Connection type
	Wireless signal strength

- Battery condition. Percentage of charge is displayed.

In the *Live Preview*, *Exam Summary* and *Review screens*, the Device Status Area displays:



- 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 once it is entered at the RetinaVue Customer portal ). The Clinic Name only displays until a patient is selected.
- Time. Displayed in an HH:MM format.
- Connection status. The icons indicate which connection type, if any, is currently active.
- Battery condition. Estimated battery capacity is displayed in a charged or discharged status format.

2. Patients list/Content Area

At the main *Patients* screen, the **Context Area** shows patients.



The pop up navigation menu provides access to the *Patients*, *Review*, *Settings*, and *Practice mode* menus within the **Context Area** of the RetinaVue 700 Imager user interface.









- **Patients:** Presents a list of patients created on the RetinaVue 700 Imager or transferred from the RetinaVue Network (requires Wi-Fi connection to the RetinaVue Network or an additional software application).
- **Review:** Presents images and exams from a list of patients contained on the RetinaVue 700 Imager.
- **Settings.** Provides controls to view or change the following in the Wi-Fi configuration:
  - Wi-Fi Off/On
  - Wi-Fi
  - Clinic / States
  - Device defaults
    - Volume
    - Sleep mode
  - Date and time
- Wi-Fi configuration Advanced settings:
  - Advanced settings code
  - Software upgrade
  - Reset factory defaults
  - Camera configuration
    - RV700 PRO Unencrypted images only - (no RetinaVue Network compatibility)
    - RV700 RetinaVue Network required - (USB or Wireless)
  - Exam display settings
    - Animation
    - Transparent UI
    - Enable Flash



- Disable Flash
    - Disable Second Start
    - Enable Second Start
  - Export log
- **Settings.** Provides controls to view or change the following in the USB configuration:
  - Device defaults
    - Volume
    - Sleep mode
  - Date and time
- Advanced settings:
  - Device access code
  - Advanced settings code
  - Software upgrade
  - Reset factory defaults
  - Camera configuration
    - RV700 PRO Unencrypted images only - (no RetinaVue Network compatibility)
    - RV700 RetinaVue Network required - (USB or Wireless)
  - Exam display settings
    - Animation
    - Transparent UI
    - Enable Flash
    - Disable Flash
    - Disable Second Start
    - Enable Second Start
  - Export log
- About
  - Software version
- Regulatory Information
- Network Information
- Open source software information
- **Practice mode:** Provides interactive training help to practice the steps necessary to master the RetinaVue 700 Imager.

### 3. Navigation Area

In the Wi-Fi workflow, the Navigation Area, located at the bottom of the main *Patients screen*, displays the:

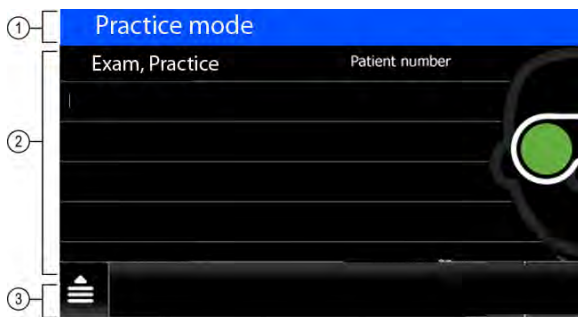
- **Navigation menu.** Touch  and then touch **Patients** to navigate to the *Patients* menu, touch **Review** to navigate to the *Review* menu, touch **Settings** to navigate to the *Settings* menu, touch **Practice** to navigate to the *Practice* menu. (See **Content Area** or **Patients list** for further details).
- **Search.** Touch  to navigate to the *Patient list search* or the *Saved/Submitted Review* menus.
- **Refresh.** Touch  to see new patients downloaded from the RetinaVue Network Customer Portal. Wi-Fi Connection must be activate and the RetinaVue 700 Imager must be connected to the RetinaVue Network.
- Create new patient on the RetinaVue 700 Imager. Touch  to navigate to the *Patient summary* screen.

In the USB workflow, the Navigation Area, located at the bottom of the main *Patients screen*, displays the:

- **Navigation menu.** Touch  and then touch **Patients** to navigate to the *Patients* menu, touch **Review** to navigate to the *Review* menu, touch **Settings** to navigate to the *Settings* menu, touch **Practice** to navigate to the *Practice* menu. (See **Content Area** or **Patients list** for further details).
- Create a new patient on the RetinaVue 700 Imager. Touch  to navigate to the *Patient summary* screen.

### Device Status Area in Practice mode

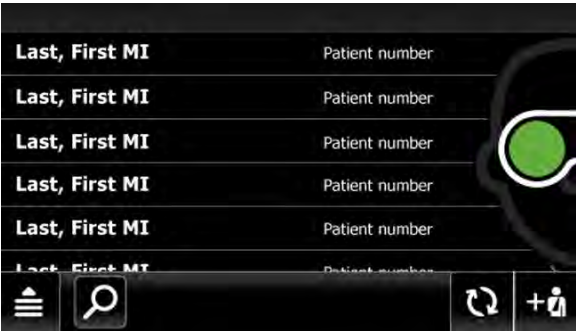
The Device Status Area in Practice mode is located at the top of the main *Patients screen* and is colored blue. It prominently displays "Practice mode" and it also contains the time and the battery condition.



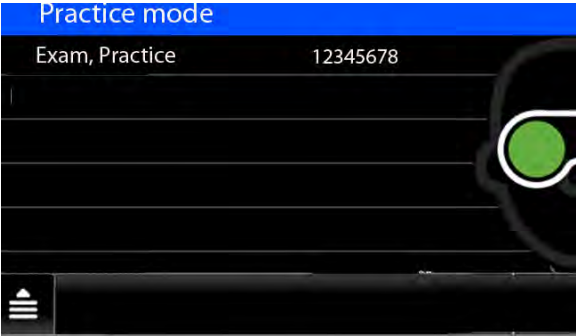
Item	Area
1	Device status colored blue
2	Single patient "Exam, Practice"
3	Navigation — touch <b>Patients</b> , <b>Review</b> , or <b>Exit</b>

## Practice mode

1. From the main *Patients* screen, touch .



2. Touch **Practice** to enter Practice mode. Touch **OK** at the prompt: "You are about to enter practice mode. This is not a place to capture a real exam." The *Practice mode* screen appears.



3. Touch on the "Exam, Practice" patient name or the patient number (12345678) to begin practicing with a patient exam.

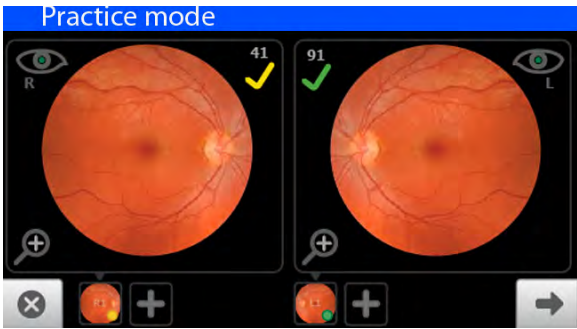
The *Practice mode Patient summary* screen appears.


Practice mode

Last name	Exam		
First name	Practice	Middle initial	D
DOB	01/01/1970	Gender	Female
Patient ID	12345678		

← Patient summary Exam

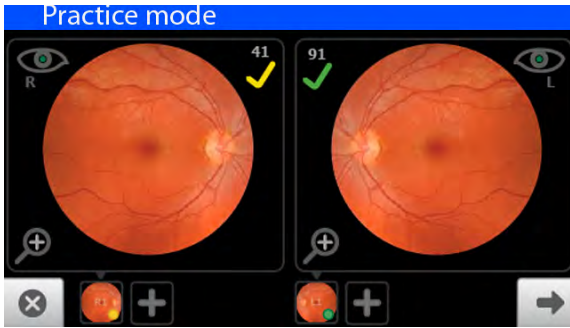
4. Touch **Exam**.
5. On the LCD touchscreen, the camera prompts to "*Aim and center the camera*" until the images for each eye are captured.
6. An audible tone alerts you that the images have been captured. The acquired images appear on the LCD touchscreen for review after a few seconds.



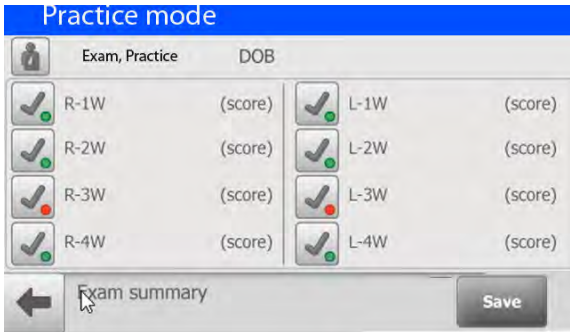
7. Touch  to review the current image on the *Inspection mode* screen.



8. Touch  (**Next**) after all images are automatically captured.




9. Touch **Save**.



10. When you complete your practice experience, touch  and then touch **Exit**.

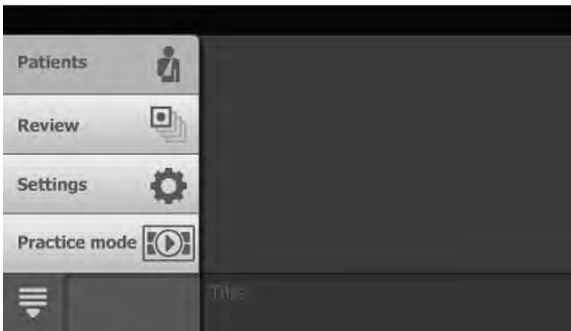
11. Touch **OK** at the prompt: "Are you sure you want to exit practice mode?" to leave *Practice mode* and to return to the main *Patients* screen.

# Viewing or changing the RetinaVue 700 Imager settings

To view or change the settings, touch  (**Navigation Menu**) from the main *Patients* screen.



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 checkmark next to the network name.
  - Touch **>** to view or modify the wireless network settings from the list of available wireless networks in range. 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 *Settings screen*.


- Touch . The *Wi-Fi Radio settings* screen appears. See "*Troubleshooting*" for more information on updating Wi-Fi Radio settings.
- 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) to return to the *Settings screen*.
- Touch **Device defaults**
  - Touch  (up) or  (down) to adjust the device sound volume.  
Touch  (Back) to return to the *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 *Settings screen*.
- Touch **Date and 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*.

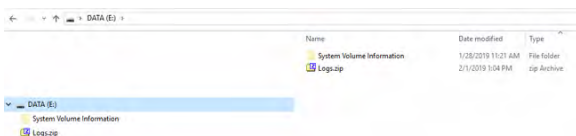
Touch **Advanced settings** and then modify the settings as desired.

- **Advanced settings code**. Set the Advanced settings numeric code, retype the code to confirm, and touch **OK** to return to the *Advanced settings screen*.
- **Software upgrade**. Touch **Load firmware** and touch **OK** at the prompt to load the software from a computer.
- **Reset factory defaults**. For Wi-Fi, select "*All device and radio settings*" and touch **OK** to reset the device to the default setting.
- **Exam display setting**. Use the radio buttons to select **Animation**, **Transparent UI**, **Enable Flash**, **Disable Flash**, **Disable Second Start**, or







**Enable Second Start** at the prompt: "Select what will be displaying on screen during an automatic acquisition." Touch  (Back) to return to the *Settings* screen.






- **Export Log.** Exports logs into a viewable zip file . Touch **OK** at the prompt: "The log files were exported. Using a USB cable, plug the device in to the computer to copy the exported logs. When finished copying the file, unplug the device 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.



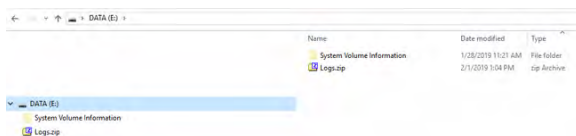
Touch  (Back) to return to the *Settings* screen.

- **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 *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 *Settings* screen.
- **Open Source information.** Touch **Open Source information** to view this open source information message: "This product may contain software known as "free" or "open source" software (FOSS). Welch Allyn 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, please visit our FOSS website at <http://www.welchallyn.com/opensource>. Where required, a copy of FOSS source code is available on our FOSS website." Touch  (Back) to return to the *Settings* screen.

### In the USB workflow:



- Touch **Device defaults.**
  - Touch  (up) or  (down) to adjust the device sound volume. Touch  (Back) to return to the *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 *Settings* screen.

- Touch **Date and 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*.
- 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*.
  - **Software upgrade.** Touch **Load firmware** and touch **OK** at the prompt to load the software from a computer.
  - **Reset factory defaults.** Touch **OK** and select "All device settings" to reset the device to the default setting and touch **OK** again to return to the *Advanced settings screen*.
  - **Exam display setting.** Use the radio buttons to select **Animation**, **Transparent UI**, **Enable Flash**, **Disable Flash**, **Disable Second Start**, or **Enable Second Start** at the prompt: "Select what will be displaying on screen during an automatic acquisition." Touch ◀ (Back) to return to the *Settings screen*.
  - **Export Log.** Exports logs into a viewable zip file. Touch **OK** at the prompt: "The log files were exported. Using a USB cable, plug the device in to the computer to copy the exported logs. When finished copying the file, unplug the device 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.




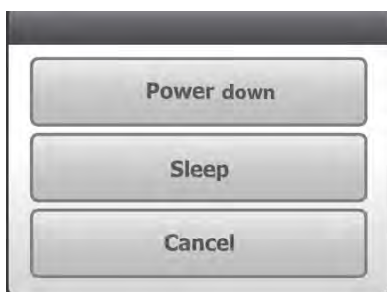
Touch ◀ (Back) to return to the *Settings screen*.

- 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 *Settings screen*.
- **Open Source information.** Touch **Open Source information** to view this open source information message: *"This product may contain software known as "free" or "open source" software (FOSS). Welch Allyn 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, please visit our FOSS website at <http://www.welchallyn.com/opensource>. Where required, a copy of FOSS source code is available on our FOSS website."* Touch  (Back) to return to the *Settings screen*.

## Power down the RetinaVue 700

1. Press .
2. A dialogue box appears with three options:
  - Power down
  - Sleep
  - Cancel



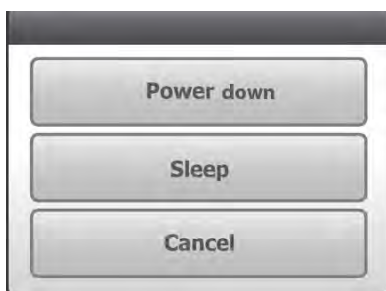
3. Touch **Power down**.

## Enter Sleep mode

1. Press .

2. A dialogue box appears with three options:


- Power down
- Sleep
- Cancel



3. Touch **Sleep**.

The RetinaVue 700 enters Sleep mode.

## Exit sleep mode




1. Press  or touch the LCD touchscreen.

**Note** Lifting or moving the RetinaVue 700 Imager also brings the RetinaVue 700 Imager out of Sleep mode.




2. After performing one of the options, the RetinaVue 700 Imager will awaken from Sleep mode, or return to the prior screen.

## Set the date and time

**Before first use, set the date and time:**

1. Follow the steps in the *Battery installation and replacement* section to install the battery and then press and hold the power button  to turn the device on.
2. Touch **Settings** on the RetinaVue 700 Imager main *Patients* screen.
3. Touch **Date/Time**. Touch  (up) or  (down) to adjust the hour, minute, Continent, and location.



**Note** Use the radio buttons to select the 24-hour or 12-hour format.

4. Touch  (up) or  (down) to adjust the day, month, and year in the DD/MM/YY format.
5. Touch  (Back) to return to the *Settings* screen.


## Set the Device access code at the RetinaVue 700 Imager (USB only)

**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.

**Note** 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. If not already powered on, press and hold the power button  to turn the RetinaVue 700 Imager on.
2. From the main *Patients* screen, touch  (**Navigation menu**).
3. Touch **Settings**.
4. Touch **Advanced settings**.
5. Touch **Device access code** to enter an access code for the RetinaVue 700 Imager.
6. 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.

**Note** The access code password can contain a minimum of 1-digit and a maximum of 18-digits. Characters are only numeric from 0 through 9.



7. Touch **OK** to accept the code and touch **OK** again at the confirmation screen to return to the *Advanced settings* screen.
8. Touch  (Back) to return to the *Patients* screen.


## Reset the Device access code (USB only)

**Note** See the *Troubleshooting* section if you cannot recall your RetinaVue 700 Imager access code and need to erase the access code.

1. If you are not already logged in, enter the existing access code for the RetinaVue 700 Imager.
2. Touch **Settings** on the RetinaVue 700 Imager main *Patients* screen.
3. Touch **Advanced settings**.
4. Touch **Device access code**.
5. Touch **Reset** to clear the existing access codes.
6. 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.

**Note** The access code password can contain a minimum of 1-digit and a maximum of 18-digits. Characters are only numeric from 0 through 9.

**Note** Alternatively, after the code reset, touch  (Back),  (Back), and to return to the RetinaVue 700 Imager main *Patients* screen without using a Device access code.

7. Touch **OK** to accept the code and touch **OK** again at the confirmation screen to return to the *Advanced settings* screen.
8. Touch  (Back) to return to the *Settings* screen.



## Reset the Advanced settings code


**Note** See the *Troubleshooting* section if you cannot recall your RetinaVue 700 Imager Advanced settings code or the Device access code and need to erase the 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. Touch **Settings** on the RetinaVue 700 Imager main *Patients* screen.
3. Touch **Advanced settings**.
4. Enter the existing Advanced settings code for the RetinaVue 700 Imager.
5. Touch **Advanced settings code**.
6. Touch **Reset** to clear the existing Advanced settings codes.

7. 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.

**Note** The Advanced settings code password can contain a minimum of 1-digit and a maximum of 18-digits. Characters are only numeric from 0 through 9.

**Note** Alternatively, after the code reset, touch  (Back),  (Back) to return to the RetinaVue 700 Imager main *Patients* screen without using an Advanced setting code.

8. Touch **OK** to accept the code and touch **OK** again at the confirmation screen.
9. Touch  (Back) to return to the *Settings screen*.





# Troubleshooting

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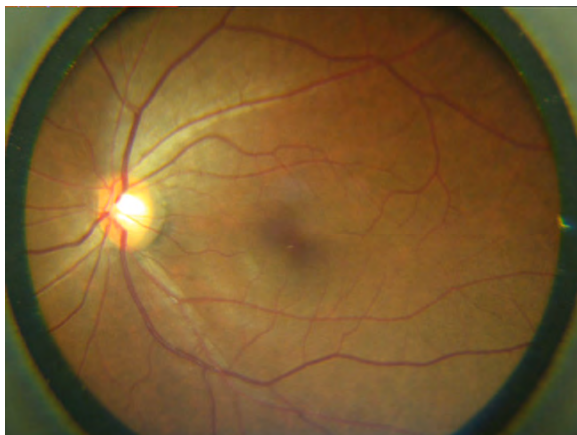


**CAUTION** A defective device should not be used. A device with parts which may be broken or missing, visibly worn, distorted, or contaminated should be replaced immediately.

To correct an error, follow these instructions or contact Welch Allyn Technical Support: [www.welchallyn.com/service](http://www.welchallyn.com/service).

## Troubleshooting image quality

### Good quality image

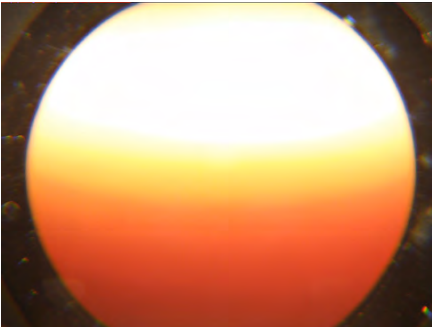


**Problem**

**Solution**

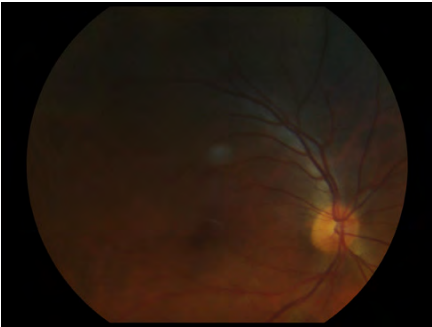
Partial blink

Ask the patient to keep his or her eye open.



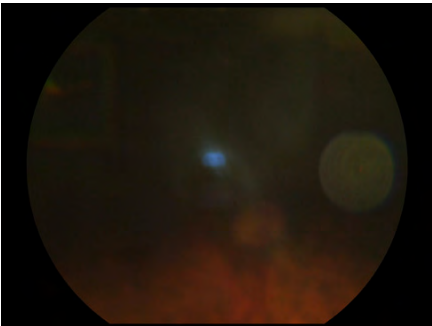
Dark semi-circle on top

Move the patient side of the camera down and away from dark semi-circle.



Dirty lens

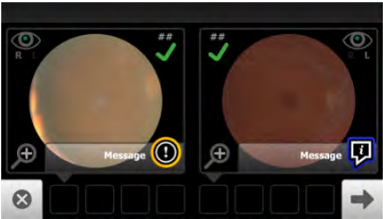
Clean the lens with an appropriate cleaning cloth.



# Information messages

Information message/problem

Solution



*Dirty lens*

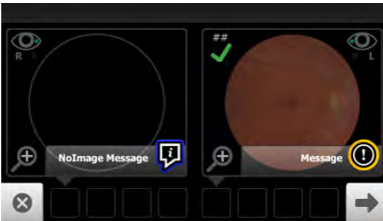
Clean the camera lens with the recommended cleaner such as Thorlabs Inc. found in the topic *Cleaning the RetinaVue 700 lens*

*Small pupil*


To ensure that the patient's pupils sufficiently dilate to at least 3.0 mm diameter, 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.

*Refer to instructions to improve score*

See the *Directions for use* and the *Technique guide* for further detail.



*Missing image*

If an image is missing touch  (Image Missing) to capture an image.

*The battery is running low. Please recharge.*

When the battery charge level is below 10 percent, the low battery error message appears. Connect the camera

**Information message/problem****Solution**


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to the power supply to charge the battery.

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*The battery level is too low to acquire any image. Please recharge now.*

---

Connect the camera to the power supply to charge the battery.

---

*There are unsubmitted exams that need to be sent so your patients can be diagnosed.*

---

See the *Review* topic for further information on submitting exams.

---

**Error message/problem****Solution**


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*Error connecting to the network.*

Confirm that the network signal strength is sufficient.

See *Wireless connectivity*.

---

*Error connecting to the network using the supplied credentials.*

---

Re-enter the network name, username and password.

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## Computer information messages (USB only)

**Problem****Solution**


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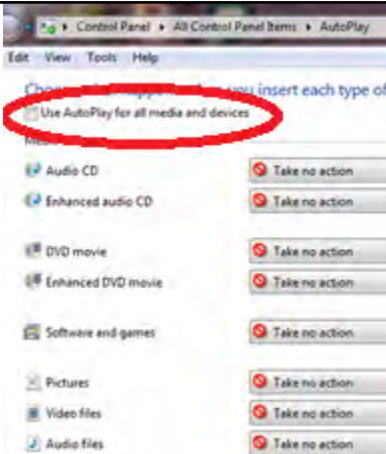
The Windows® operating system may display the *Scan and fix* or *Continue without scanning* message once the camera USB cable is removed from the laptop or PC.

Select *Scan and fix* if this Windows message appears in situations when the camera is connected to a laptop or PC by the USB cable.

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The Windows® operating system may display the Autoplay notification popup dialogue box each time the camera the USB cable is connected to the laptop or PC.

By default, the AutoPlay notification is displayed when a USB storage device is connected to the laptop or PC. To disable this notification, select **Control Panel > AutoPlay** from the Windows® Start menu. Uncheck the *Use AutoPlay for all media and devices* checkbox. Click **Save**.

Problem	Solution
	

Problem	Solution
Battery is not installed. Camera will not charge. The power indicator LED light on the camera blinks between green and amber when charging.	Install the battery and check to ensure that the connector pins on the battery and the device are properly seated.

## Wireless connectivity

Problem	Solution
Cannot connect to the network. Connection drops.	Ensure that the signal strength is sufficient. The signal strength appears in the top right corner of the device status bar.



Wireless signal strength

- Best (4 bars)
- Good (3 bars)

Problem	Solution
	<div>- Fair (2 bars)</div> <div>- Weak (1 bar)</div>
<div>Cannot connect to the RetinaVue Network Server.</div> <div>Message: <i>Error connecting to the network using the supplied credentials.</i></div>	<div>Ensure that Wi-Fi is connected.</div> <div>Touch <b>Settings</b>.</div> <div>Touch <b>Wi-Fi</b>.</div> <div>Ensure that a network name appears. If no name appears, then select a network name again, enter a Username and Password and touch <b>OK</b>.</div> <div></div>
	<div>Ensure that IP address is populated and shows a valid IP address other than 00:00:00:00:00.</div> <div>Touch <b>Settings</b>.</div> <div>Touch <b>Network Information</b>. The <i>Network Information</i> screen appears.</div> <div><b>MAC address 00:17:23:e5:d5:a5</b></div> <div><b>IP address 10.20.200.70</b></div> <div><b>Subnet mask 255.255.255.1</b></div> <div><b>Gateway 10.20.244.1</b></div> <div><b>Version 2.00.02</b></div>

Problem	Solution
	<b>SSID Your Network</b> <b>Access Point MAC B2:DE:31:OC:</b> <b>32:B2</b> <b>RSSI -70</b>
Message: <i>Failure to connect to the portal. Unable to delete patient information.</i>	Follow all steps for connecting to RetinaVue Network Server.
Clinic network does not appear in the Wi-Fi list.	<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:</p> <p>Enterprise WPA2-PSK, PEAP-MSCHAPv2, EAP-TLS with certificates</p>
Hidden SSID networks	<p>Manually enter the network name.</p> <p>Touch <b>Settings</b>.</p> <p>Touch <b>Wi-Fi</b>.</p> <p>Scroll to the bottom of the list. Touch <b>Other</b> and launch the keyboard to enter the network name, followed by password, and then select security type.</p>



**Problem**

**Solution**

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 check 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.

Touch **Settings**.

Touch **Wi-Fi**.

Select a network name from the list, enter your credentials and check the "Remember this connection" checkbox. Every time you reboot the camera, it will connect to the network automatically.






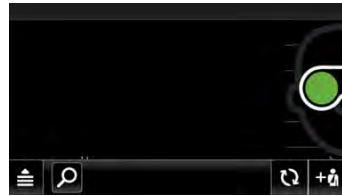
**Problem**

**Solution**

Patient List is empty.

Follow all steps for connecting to RetinaVue Network Server.

Touch  to refresh the scheduled patients list.



Exam was not sent to the RetinaVue Network Server.

Follow all steps for connecting to RetinaVue Network Server.

To view or change the settings, touch



**(Navigation Menu)** from the main *Patients* screen.

Touch **Review**.

From the Submitted status, click on the following icons for additional status messages:



- Waiting to upload



- submitted



- report available

Note: After exam has been over-read it will be removed from submitted column.

Check your network connection. If your saved exam does not appear in the Review list, then it was successfully submitted to the RetinaVue Network

### Problem

### Solution

Server. Check the "View New Diagnostic Reports" area on the RetinaVue Network Customer Portal. Select your clinic name from the drop-down menu. Find your patient and check the Report column. A "Submitted" status confirms that the exam was successfully received by the RetinaVue Network Server.

Case#	Patient Name	MRN	DOB	Exam Date	Subsequent Exam	Report Date
1	Gwen, Purpe	3639999	10/10/1986	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
2	Amelia, Lutz	4169488	9/2/1979	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
3	Cheryl, Gray	4169488	11/30/1950	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
4	Shirley, Day	31218886	12/3/1938	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
5	Almalee, Arred	113446	3/27/2008	11/9/2016	11/9/2016	11/9/2016 <a href="#">View</a> <a href="#">Edit</a>
6	Theresa, Padden	77785	10/11/1982	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
7	Yan, Dai	026874124	10/19/1980	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>
8	Jason, Mark	MaxZincZincZinc	9/31/1997	12/6/2016	12/6/2016	12/6/2016 <a href="#">View</a> <a href="#">Edit</a>

# Maintenance

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## Clean and disinfect



**CAUTION** Never submerge the RetinaVue 700 Imager in water or any other liquid.



**CAUTION** Never use abrasive cleaning agents, thinners or benzene for cleaning and never immerse the instrument in water or other cleaning liquids.



**CAUTION** Never insert a sharp object into the device or any open surface on the RetinaVue 700 Imager.



**CAUTION** Do not use unapproved cleaning or disinfection agents. Use of these agents may cause damage to components.



**CAUTION** When cleaning the device and the battery charger, avoid using cloths or solutions that include quaternary ammonium compounds (ammonium chlorides) or glutaraldehyde-based disinfectants.



**CAUTION** Do not use bleach solutions of any kind when cleaning metal electrical contacts. They will damage the battery charger and the device.

### Note

Clean on a routine basis according to your facility's protocols and standards or local regulations.

The RetinaVue 700 Imager has been tested to verify that it is compatible with the approved cleaning agents.

### **Cleaning the RetinaVue 700 Imager lens**

Wipe the surface of the lens with a cleaning cloth or a lens cleaning tissue such as Thorlabs Inc.. Avoid touching the lens except when cleaning is required.

### **Cleaning the RetinaVue 700 Imager and face cup**

Power off the RetinaVue 700 Imager before cleaning it.

Use a pre-moistened wipe or soft cloth slightly moistened with an approved cleaner to gently clean the RetinaVue 700 Imager and face cup.

### **Cleaning the battery charger**

Use a pre-moistened wipe or soft cloth slightly moistened with an approved cleaner to gently clean the battery charger.

### **Disinfecting the RetinaVue 700 Imager, face cup, and battery charger**

**Note**      Disinfect according to your facility's protocols and standards or local regulations.

Use a pre-moistened wipe or soft cloth slightly moistened with an approved disinfectant to disinfect the RetinaVue 700 Imager, face cup, and battery charger. Follow the manufacturers recommendations.

### **Approved cleaning agents**

Use only the following approved cleaning agents on the RetinaVue 700 Imager, face cup, and battery charger:

- 70 percent isopropyl alcohol
- CaviWipes
- Sani-Cloth® Plus
- Super Sani-Cloth®

The RetinaVue 700 Imager has been tested to verify these instructions as being capable of preparing the RetinaVue 700 Imager for re-use. You must ensure that cleaning and disinfection as actually performed by your personnel, with your equipment and materials, achieves the desired result. This may require validation and routine monitoring of your actual process.

# Specifications

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## Specifications

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Field of View	60 degrees $\pm$ 5% horizontal 45 degrees $\pm$ 5% vertical
Pupil size	3.0 mm (minimum)
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 adapter spacer: 11.4 inches (290.2 mm) Length with adapter spacer: 12 inches (305.4 mm)
Weight	2.8 pounds (with 2 cell battery, without adapter spacer)
Search Fundus Lighting	Infrared LED
Camera flash light	2 Light Emitting Diodes (LEDs)

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Captures	Auto capture and Manual capture
	Anterior image

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Camera Resolution	2048 x 1536 pixels
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LCD Monitor	6 inch Full Color TFT-LCD
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Image Format	DICOM compliant
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Interface	Micro USB
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File Transfer	Wired	USB to PC by micro USB cable to PC running RetinaVue Network (requires additional software)
	Wireless	WPA2, FIPS certification to Welch Allyn server

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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.

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Power Source	Rechargeable Lithium-ion Battery
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External Power	Source: 100~240 VAC, 50/60 Hz
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Power Adapter Spec.	Input Spec. : 100~240 VAC, 50/60 Hz, 0.5A-1.0A; Output Spec. : 12V DC, 3A
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Operating Time	3 hours at 5 minutes working mode.
	Once set, the device enters Sleep mode if idle for the set time of 2, 5, 7, or 10 minutes.
	Unless <i>Never</i> is selected, the RetinaVue 700 Imager powers down after 10 minutes of inactivity in Sleep mode.
Charging Time	5 hours to full charge via 3A @12V
	3 hours to full charge the empty 2-cell battery via 3A@12V DC adapter in power off.
	5 hours to full charge the empty 4-cell battery via 3A@12V DC adapter in power off.

All specifications are subject to change.

## Operating environment

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

## Storage environment

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

## Transportation environment

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

## Device lifetime

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

Welch Allyn 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.



# 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)	
	ETSI (Europe, Middle East, Africa, and Parts of Asia)	
	MIC (Japan) (formerly TELEC)	
	KC (Korea) (formerly KCC)	
2.4 GHz Frequency Bands	ETSI: 2.4 GHz to 2.483 GHz	MIC: 2.4 GHz to 2.495 GHz
	FCC: 2.4 GHz to 2.483 GHz	KC: 2.4 GHz to 2.483 GHz
2.4 GHz Operating Channels	ETSI: 13 (3 non-overlapping)	MIC: 14 (4 non-overlapping)
	FCC: 11 (3 non-overlapping)	KC: 13 (3 non-overlapping)
5 GHz Frequency Bands	ETSI: 5.15 GHz to 5.35 GHz	MIC: 5.15 GHz to 5.35 GHz
	5.47 GHz to 5.725 GHz	KC: 5.47 GHz to 5.725 GHz
	FCC: 5.15 GHz to 5.35 GHz	MIC: 5.15 GHz to 5.35 GHz
	5.47 GHz to 5.725 GHz	KC: 5.47 GHz to 5.725 GHz

Feature	Description	
	5.725 GHz to 5.825 GHz	
5 GHz Operating Channels	ETSI: 19 non-overlapping	MIC: 19 non-overlapping
	FCC: 24 non-overlapping	KC: 19 non-overlapping
WLAN standard	IEEE802.11a/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	
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	<b>US:</b> FCC Part15 Subpart B, Part 15.247 Subpart C, Part 15.407 Subpart E (DFS) <b>Europe:</b> EN 301 893 V2.1.1:2017, EN 300 328 V2.1.1:2017, EN 301 489-1 V2.2.0:2017, EN 301 489-17 V3.2.0:2017 <b>Australia and New Zealand:</b> Australian Communications and Media Authority (ACMA) Radio Compliance Mark (RCM)	



Feature	Description
	New Zealand maintains a Mutual Recognition Agreement (MRA) with Australia.

To ensure compliance with local regulations, be sure the correct country in which the access point is installed is selected. This product can be used with the following restriction(s):

Norway - Does not apply for the geographical area within a radius of 20 km from the center of Ny-Ålesund.

France - Outdoor use is limited to 10 mW EIRP within the band 2454 to 2483.5 MHz.

**Note**      Effective Isotropic Radiated Power (EIRP).



## General compliance and standards

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The RetinaVue 700 Imager complies with the following standards:

IEC 60601-1:2005/A1:2012 (EN 60601-1:2006/A1:2013)

IEC 60601-1-2 : 2014 (EN 60601-1-2 : 2015)

ISO 15004-1 : 2006

ISO 15004-2 : 2007

ISO 10940 : 2009

ISO 10993-1 : 2009

ISO/EN 14971

IEC/EN 62304+AC

IEC 62366

EN 1041



**Directive 2002/96/EC-WEEE:**

**Disposal of noncontaminated electrical and electronic equipment**

This product and its accessories must be disposed of according to local laws and regulations. Do not dispose of this product as unsorted municipal waste. Prepare this product for reuse or separate collection as specified by Directive 2002/96/EC of the European Parliament and the Council of the European Union on Waste Electronic and Electrical Equipment (WEEE). If this product is contaminated, this directive does not apply.

For more specific disposal or compliance information, see [www.welchallyn.com/weee](http://www.welchallyn.com/weee), or contact Welch Allyn Customer Service at +44 207 365 6780.

## 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.

## Innovation, Science and Economic Development Canada (ISED) – Canada Statement:

This device complies with ISED license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

(i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

(ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit.

(iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall

comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

(iv) the worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.

(v) users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de e.i.r.p.

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5825 MHz) doit se conformer à la limite de e.i.r.p. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

(iv) les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la e.i.r.p. applicable au masque d'élévation, et énoncée à la section 6.2.2.3), doivent être clairement indiqués.

(v) de plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Operations in the 5.25-5.35 GHz band are restricted to indoor usage only.

Les opérations dans la bande de 5.25-5.35 GHz sont limités à un usage intérieur seulement.

## Radiation Exposure Statement

These requirements set a SAR limit of 1.6 W/kg averaged over one gram of tissue. The highest SAR value reported under this standard during product certification for use when properly worn on the body is 0.97 W/kg.

Ces exigences établissent une limite SAR de 1.6 W / kg en moyenne sur un gramme de tissu. La valeur SAR la plus élevée déclarée selon cette norme lors de la certification du produit à utiliser lorsqu'il est correctement porté sur le corps est de 0.97 W / kg.

## European Union

Czech	Medimaging Integrated Solution Inc. (MiiS) tímto prohlašuje, že tento vysílač s nízkým výkonem je v souladu se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/ ES
Danish	Medimaging Integrated Solution Inc. (MiiS) erklærer herved, at denne lavt strøm transmitter er i overensstemmelse med de væsentlige krav og andre relevante bestemmelser i direktiv 2014/53/EF
Dutch	Hierbij verklaart Medimaging Integrated Solution Inc. (MiiS) dat deze low power transmitter voldoet aan de essentiële eisen en andere relevante bepalingen van Richtlijn 2014/53/EG
English	Hereby, Medimaging Integrated Solution Inc. (MiiS) declares that this low power transmitter is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EC.



Estonian	Käesolevaga Medimaging Integrated Solution Inc. (MiiS) teatab, et see väikese võimsusega saatja on vastavus olulistele nõuetele ja teistele asjakohastele sätetele direktiivi 2014/53/EÜ
Finnish	Näin ollen Medimaging Integrated Solution Inc. (MiiS) vakuuttaa, että tämä pienitehoinen lähetin on direktiivin 2014/53/EY olennaisten vaatimusten ja muiden asiaa koskevien säännösten mukainen
French	Par conséquent, Medimaging Integrated Solution Inc. (MiiS) déclare que cet émetteur de faible puissance est conforme aux exigences essentielles et autres dispositions pertinentes de la directive 2014/53/CE
German	Hiermit erklärt Medimaging Integrated Solution Inc. (MiiS), dass dieser Niedrigleistungssender den grundlegenden Anforderungen und anderen relevanten Bestimmungen der Richtlinie 2014/53/EG entspricht
Greek	Με αυτό τον τρόπο, η Medimaging Integrated Solution Inc. (MiiS) δηλώνει ότι αυτός ο πομπός χαμηλής ισχύος είναι σύμφωνος με τις βασικές απαιτήσεις και άλλες σχετικές διατάξεις της οδηγίας 2014/53/EK
Hungarian	A Medimaging Integrated Solution Inc. (MiiS) ezúton kijelenti, hogy ez az alacsony teljesítményű adó megfelel a 2014/53/EK irányelv alapvető követelményeinek és egyéb vonatkozó rendelkezéseinek
Italian	In questo modo, Medimaging Integrated Solution Inc. (MiiS) dichiara che questo trasmettitore di bassa potenza è conforme ai requisiti essenziali e alle altre pertinenti disposizioni della direttiva 2014/53/CE.
Latvian	Ar šo, Medimaging Integrated Solution Inc. (MiiS) paziņo, ka šis mazjaudas raidītājs atbilst būtiskajām prasībām un citiem attiecīgiem noteikumiem Direktīvā 2014/53/EK
Lithuanian	Šiuo dokumentu Medimaging Integrated Solution Inc. (MiiS) deklaruoja, kad šis mažas energijos siųstuvas atitinka esminius reikalavimus ir kitas susijusias nuostatas Direktyva 2014/53/EB
Malti	Hawnhekk, Medimaging Integrated Solution Inc. (MiiS) jiddikjara li din trasmettitur enerġġja baxxa hija konformi mar-rekwiżiti essenzjali u dispozizzjonijiet rilevanti ohra tad-Direttiva 2014/53/KE
Polish	Niniejszym Medimaging Integrated Solution Inc. (MiiS) oświadczam, że ten nadajnik o małej mocy jest zgodny z zasadniczymi wymaganiami i innymi istotnymi przepisami dyrektywy 2014/53/WE
Portuguese	Por este motivo, a Medimaging Integrated Solution Inc. (MiiS) declara que este transmissor de baixa potência está em conformidade com os requisitos essenciais e outras disposições relevantes da Diretiva 2014/53/CE
Slovak	Medimaging Integrated Solution Inc. (MiiS) týmto vyhlasuje, že tento vysielač s nízkym výkonom je v súlade so základnými požiadavkami a ďalšími príslušnými ustanoveniami smernice 2014/53/ES
Slovene	S tem, Medimaging Integrated Solution Inc. (MiiS) izjavlja, da je ta nizka moč oddajnik v skladu z bistvenimi zahtevami in drugimi ustreznimi določbami Direktive 2014/53/ES
Spanish	Por este medio, Medimaging Integrated Solution Inc. (MiiS) declara que este transmisor de baja potencia cumple con los requisitos esenciales y otras disposiciones pertinentes de la Directiva 2014/53/CE
Swedish	Medimaging Integrated Solution Inc. (MiiS) förklarar härigenom att denna låg effekt sändare överensstämmer med de väsentliga kraven och andra relevanta bestämmelser i direktiv 2014/53/EG

## 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 this *Directions 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 Welch Allyn for use with the device. Accessories not recommended by Welch Allyn 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	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	 <b>WARNING</b> 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 <sup>a</sup> . It may be necessary to take mitigation measures, such as re-orienting or relocating the device or shielding the location.

<sup>a</sup> 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 and Radio Equipment Directive 2014/53/EU. 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.
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.

Electromagnetic immunity

	±0.5 kV, ±1 kV, ±2 kV	±2 kV	
	Line-to-ground		
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0 % U <sub>T</sub> ; 0.5 cycle	0 % U <sub>T</sub> ; 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 <sub>T</sub> ; 1 cycle	0 % U <sub>T</sub> ; 1 cycle	
	70 % U <sub>T</sub> ; 25/30 cycles Single phase: at 0°	70 % U <sub>T</sub> ; 25/30 cycles	
	0 % U <sub>T</sub> ; 250/300 cycle	0 % U <sub>T</sub> ; 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 <sub>T</sub> is the a.c. 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.
Recommended separation distance			
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	$d = [\frac{3.5}{V_1}]\sqrt{P}$
	6Vrms in ISM and amateur radio bands between 150 kHz and 80 MHz.	6Vrms .	$d = [\frac{12}{V_2}]\sqrt{P}$
Radiated RF IEC 61000-4-3	10 V/M, 80 MHz to 2.7 GHz	10 V/M	$d = [\frac{23}{E_1}]\sqrt{P}$ 800 MHz to 2.7 GHz
			$d = [\frac{12}{E_1}]\sqrt{P}$ 80 MHz to 800 MHz
where <i>P</i> is the maximum output power rating of the transmitter in watts (W) and <i>d</i> is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey <sup>a</sup> , should be less than the compliance level in each frequency range <sup>b</sup> . Interference may occur in the vicinity of equipment marked with the following symbol:			
<div></div>			

Note1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

<sup>a</sup>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.

Electromagnetic immunity

<sup>b</sup>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.

Separation distance according to frequency of transmitter (m)				
Rated max. output power of transmitter (W)	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
	$d = [\frac{3.5}{V_1}] \sqrt{P}$	$d = [\frac{12}{V_2}] \sqrt{P}$	$d = [\frac{12}{E_1}] \sqrt{P}$	$d = [\frac{23}{E_1}] \sqrt{P}$
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 *d* 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 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

Note 2: 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 <sup>a</sup> MHz	Service <sup>a</sup>	Modulation <sup>b</sup>	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380 - 390	TETRA 400	Pulse modulation <sup>b</sup> 18 Hz	1.8	0.3	27
450	430 - 470	GMRS 460, FRS 460	FM <sup>c</sup> ±5 kHz deviation 1 kHz sine	2	0.3	28
710	704 - 787	LTE band 13, 17	Pulse modulation <sup>b</sup>	0.2	0.3	9

Test specifications for enclosure port immunity to RF wireless communications equipment

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

<sup>a</sup> For some services, only the uplink frequencies are included.

<sup>b</sup> The carrier shall be modulated using a 50 percent duty cycle square wave signal.

<sup>c</sup> 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.



**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  $V/m$ .





# RetinaVue 700 Imager Accessories

## Pedestal stand

Part number	Description
107145	RetinaVue 700 Imager Pedestal stand

## Miscellaneous items

Part number	Description
RV700-B	RetinaVue 700 Imager with lithium-ion battery and US plug
106145	RetinaVue 700 Imager neck strap
106146	RetinaVue 700 Imager wrist strap
107142	Battery (standard capacity) for RetinaVue 700 Imager; Lithium-Ion 3200mAh
107143	Battery (high capacity) for RetinaVue 700 Imager; Lithium-Ion 6400mAh
107144	Battery charger for RetinaVue 700 Imager
107147	Power supply wall adapter for RetinaVue 700 Imager. 100-240 V; IEC Plug Type B (US)
107148	Power supply wall adapter for RetinaVue 700 Imager. 200-240 V; IEC Plug Type C (EU)
107149	Power supply wall adapter for RetinaVue 700 Imager. 200-240 V; IEC Plug Type G (UK)
107180	Power supply wall adapter for RetinaVue 700 Imager. 200-240 V; IEC Plug Type I (AU)

Part number	Description
107181	Replacement USB Cable for RetinaVue 700 Imager
728139	RetinaVue 700 Battery cover
723481	Laptop for RetinaVue Network
723671	Lens cloth
729097	RetinaVue 700 Imager Spacer, Anterior Imaging

# Applied parts

Part number	Description
107146	Reusable Face Cup for RetinaVue 700 Imager: Qty. 1

# Service

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

# Literature/Documentation

Part number	Description
728140	RetinaVue 700 Imager Startup guide
728141	RetinaVue 700 Imager Technique guide

Part number	Description
728142	RetinaVue 700 Imager Quick start guide
728143	RetinaVue 700 Imager Patient education poster

# Carry Case

Part number	Description
107200	RetinaVue 700 Imager Premium carry case with shoulder strap



# Warranty

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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 Welch Allyn Service center is not included.

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

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