

Charging the vision screener

Note: The device needs to be charged for **4 hours** before use.

1. Connect the provided DC cord set and power supply/charger together.
2. Locate the DC power connector on the vision screener and connect the power supply/charger. The DC power connector easily inserts into the vision screener.



CAUTION Using force to connect the power charger can damage the device and voids the warranty.

3. Plug the DC power cord into an available wall outlet to charge the device.

Turning on the vision screener

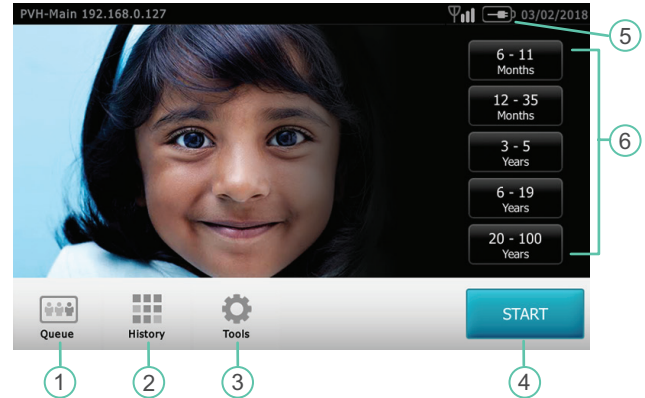
To turn the vision screener on, press and release the Power button ① located below the Welch Allyn logo. The start-up process takes approximately 30 seconds, then the device displays the Home Screen.

Controls, display window, and connections



- | | |
|--|-----------------------|
| 1. Ambient light sensor | 7. AC power connector |
| 2. LCD screen | 8. Power button |
| 3. Neck strap mount | 9. Wrist strap mount |
| 4. USB port | 10. Range finder |
| 5. Battery charge green LED indicator (Flashing) or charged (Continuous) | 11. Front glass |
| 6. Tripod mount | 12. Speaker |

Device home screen



1. **Queue** – View, select or search for queued subjects from a list to begin the screening process.
2. **History** – View already screened subjects (completed records).
3. **Tools** – A variety of options to customize the vision screener.
4. The **Start** button allows you to:
 - Enter subject information such as ID, First and Last Name, Gender and Date of Birth (DOB)/Age (Required)
 - Find queued subjects (exact match on the ID screen)
 - Begin the screening process (Binocular and Monocular available)
 - Review and print screening results
5. **Battery status** –
 - Battery Charging
 - Battery charge status
6. **Age Range** – To begin instant screening, with no personal subject data, select an age range of the subject from the **Home** screen. You can enter subject data after the screening if desired.

How to screen a subject

Before screening

1. Dim the lights, if possible.
2. Close blinds or curtains, if possible.
3. The subject's back should be positioned to the interfering light source.
4. Avoid direct light into the subject's eyes from:
 - Ambient light sources
 - Exterior light
 - Incandescent and halogen lights

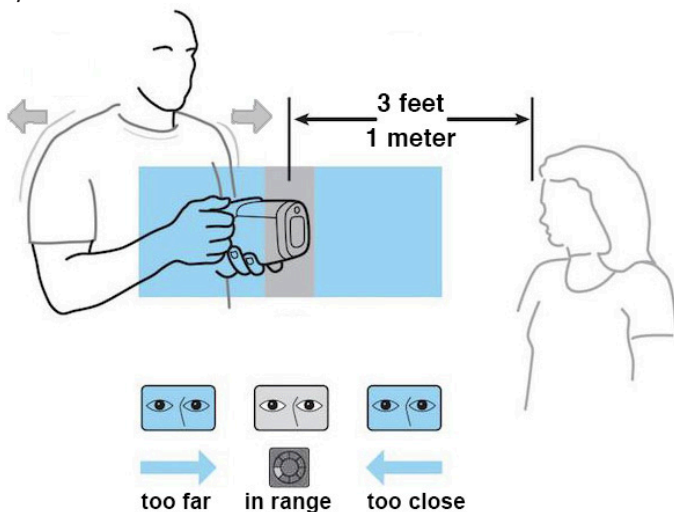
Note: Florescent light is the best testing environment, if options are limited.

Screening a subject

If the vision screener has a location specified, the name of the location is displayed on the top left of the screen in parentheses. If there is no location specified, and you want a location included in the screening information, on the Home screen touch **Tools**, and then touch **Location** to specify the screening location.

Completed exams are saved automatically.

1. Turn on the vision screener. The Home screen appears.
2. Have the subject close his or her eyes for 10 to 15 seconds to encourage dilation.
3. Stand approximately 3 feet (1 meter) from the subject with one foot ahead of the other for stability.
4. Hold the vision screener on an even plane with the subject's eyes.

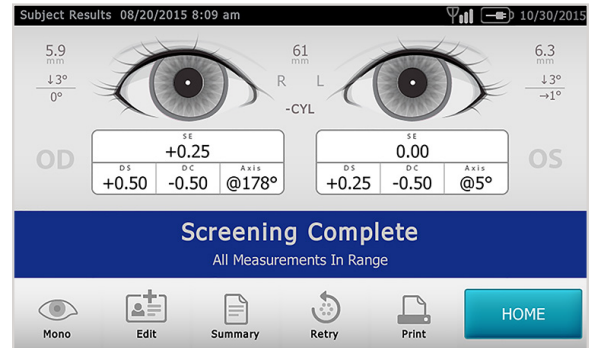


5. Touch the age range on the Home screen that matches the age of the subject.

The screening begins immediately. The vision screener emits the sound of chirping birds. This sound is intended to focus the subject's attention on the device. Touch the Loudspeaker icon to mute the device.

6. Keep the vision screener steady until the screening wheel appears, indicating the capture process is underway.

The Subject Results screen appears at the end of the screening process.



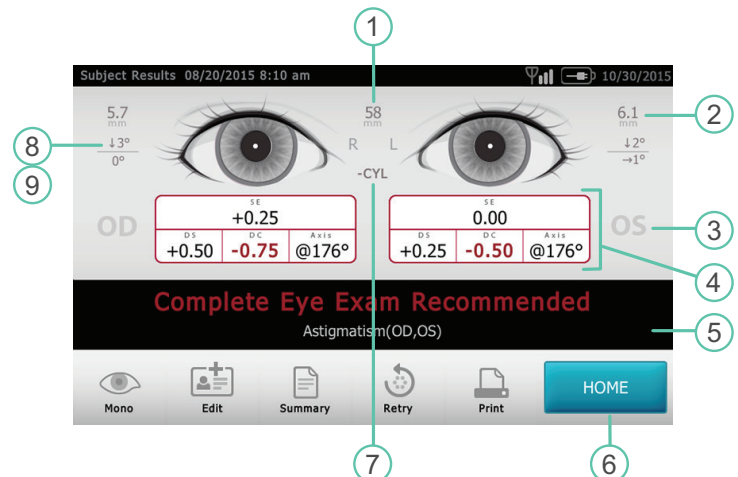
Note: Do not allow the device storage to become 100% full. For best results, when the device has accumulated 300 records, delete all records from the vision screener. Verify you have successfully exported the records to a USB flash drive before you select **Clear All**.

Understanding the results

All results viewing options are in the **Tools** menu under **Results**.

The device displays a message indicating whether the results are in or out of range. The message is intended to prompt the caregiver to assess whether the subject should be referred to an eye care specialist for further evaluation or simply be monitored at future screenings.

Results that are out-of-range are indicated in red.



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|----------------------------------|---------------------------------|
| 7. Pupillary distance | 5. Screening result |
| 8. Pupil size indicator | 6. Home |
| 9. Right eye (OD), Left eye (OS) | 7. Cylinder convention |
| 10. Complete refraction | 8. Alignment indicator |
| SE – Spherical equivalent | 9. Degree, horizontal, vertical |
| DS – Sphere | |
| DC – Cylinder | |
| Axis – Axis | |

Wireless network configuration

If the device is configured with your organization's wireless network settings, you can view screening results on a computer. If you want to print screening results, you can connect the device to a USB printer or you can add a wireless network printer. To view current network settings, touch **Tools** and then **Network** .

Wireless networks use security to protect your information. Your organization's system administrator can supply you with the case-sensitive security information needed to access the network.

Before you can connect the device to a network, you need the following:

Field	Description	Requirements
SSID	The name of your wireless network.	This name can consist of letters, numbers, or a combination of both, up to 32 characters.
Passphrase	A passphrase, or password, is used to protect the privacy of your wireless network.	The format of the passphrase or password depends on which security type you select.
Network Security Type	None	If this option is selected, the connection to the wireless network is not encrypted, and any information sent or received on this network is not necessarily confidential.
	WEP	The WEP passphrase must be either 5, 10, 13, or 26 characters.
	WPA/2 PSK	The WPA/2 PSK passphrase must be between 8 and 64 characters.
	WPA/2 EAP-PEAP	The WPA/2 EAP-PEAP username and the password must be between 1 and 64 characters.

To connect to a wireless network

1. Touch **Tools**, and then touch **Network** .
2. To connect a device to the network, add the network name (SSID), security type, and passphrase or password.
3. Touch **OK** to save your changes and return to the previous screen.

Icon	Meaning
	You have successfully connected the device to your wireless network. The vertical bars indicate the strength of the connection.
	The device is not connected to the network. For tips on connecting to the network, refer to Troubleshooting.

For more detailed information, see the device Directions for use.

Connect the vision screener to a printer

The vision screener is capable of connecting and printing to most network-capable Hewlett-Packard printers. The vision screener also contains some generic PCL drivers that can be used with older printers. For more information, see the device Directions for use.

You can connect the vision screener to a USB printer or, if the vision screener is connected to a wireless network, to a wireless network printer.

1. Touch **Tools**, and then touch **Printer**. The Available Printers screen appears.
2. Touch **Plus**. The Add Printer screen appears.
3. Select the printer to add, and then touch **Save**.
4. If you do not see the printer you want to add, touch **Refresh**.
5. To verify the printer is installed correctly, touch **Print test page**.

For more detailed information, see the device Direction for use.

Troubleshooting

Accommodation

Accommodation is the automatic adjustment of the focus of the eye by flattening or thickening of the lens.

Accommodation occurs when the subject fixates on the vision screener. This improves vision for hyperopia (farsighted) subjects.

To reduce the possibility for a subject to accommodate

- Once the subject is seated, have the subject close his or her eyes for 10 to 15 seconds to encourage dilation.
- Position the vision screener on the same plane with the subject's eyes.
- Activate the screening seconds before the subject opens his or her eyes.
- Ask the subject to open his or her eyes to obtain quick capture, prior to the subject's eyes readjusting to the lights.

To encourage dilation

The vision screener yields a "Pupils too small" message if the following occurs:

- The pupils are constricted below 4 mm.
- If the subject has something impeding the vision screener's infrared light source, such as blindness in one eye, cataract, media opacity, etc.

First attempt recommendation

- Once the subject is seated, have the subject close his or her eyes for 10-15 seconds to encourage dilation.
- Position the vision screener on an even axis with the subject's eyes.
- Activate the screening seconds before the subject opens his or her eyes.
- Ask the subject to open his or her eyes, which allows for a quick capture before the subject's eyes readjusts to the lights.

Second attempt recommendation

- In addition to the recommendations from the first attempt:
 - Have the subject use his or her hands to shield his or her eyes, or
 - Use a book or magazine to shield his or her eyes.

Third attempt recommendation

- In addition to the recommendations from the second attempt:
 - Have the subject wear non-prescription sunglasses to shield light, or
 - Use sunglasses that wrap to block light from his or her eyes.

Final recommendation

- Try new, darker environment and repeat the above recommendations.
- Turn the device out of view from the subject and reactivate the screen while rotating the device back to the subject.

Wireless issues

1. On the Home screen, verify the network name and IP address are displayed in the upper-left corner.
2. On the Home screen, verify the wireless icon is gray and there are vertical bars next to it indicating the strength of the connection. If the icon is red, restart the system.
3. If the connection does not automatically reconnect, touch **Tools > Network > Security Type** and enter the network information again.

For more information on wireless issues, see the device Directions for use.

Printer issues

1. Verify the printer is turned on and has sufficient ink or toner.
2. Print a test page directly from the printer.
3. Verify the printer is on a local network by printing to the printer from a computer on the same network.
4. If all of the above steps have not resolved the issue, restart the vision screener.

System restart

1. Press the **Power** button and hold until a confirmation screen appears.
2. Select **Confirm**.
3. After the screen turns black, wait 30 seconds and press the **Power** button again.
4. Verify the power cord is plugged in.

System freeze

If the vision screener locks up and becomes unresponsive to the touch, perform a hard system reset.



CAUTION: This procedure may cause some data loss (for example any printer configuration or subject information).

1. Press the **Power** button.
2. If the Power Off screen appears, touch **Confirm** to shut down the device.
3. If the Power Off screen does not appear, press and hold the **Power** button.
4. Wait one minute, and then restart the device.



For complete instructions, warnings and cautions, please consult the Directions for use that shipped with your device.