Charging the Vision Screener

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 will void the warranty.**

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

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

Powering on the Vision Screener

To turn the Vision Screener on, press and release the power button ⏻ located below the Welch Allyn logo (start-up process takes approximately 30 seconds). Once powered on, the device displays the Home Screen.

Controls, Display Window, and Connections

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

Lighting prerequisites

1. Turn off lights, if possible.
2. Close blinds or curtains, if possible.
3. The patient's back should be positioned to the interfering light source.
4. Avoid direct light into the patient'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

1. Press and release the **power button** to turn the vision screener on. Once powered on, the device Home Screen displayed.
2. Once the patient is seated, have the patient close his or her eyes for 10 to 15 seconds to encourage dilation.
3. Stand approximately **3 feet** from the subject with one foot ahead of the other for stability.
4. Hold the vision screener on an even plane with the patient's eyes. Avoid pointing the vision screener too high, which encourages the patient to look upward.

5. Touch the **age range** button on the Home screen that corresponds to the patient you are screening.
6. Touch **Go**.
7. Keep the vision screener device steady until the screening wheel appears, indicating the capture process is underway.
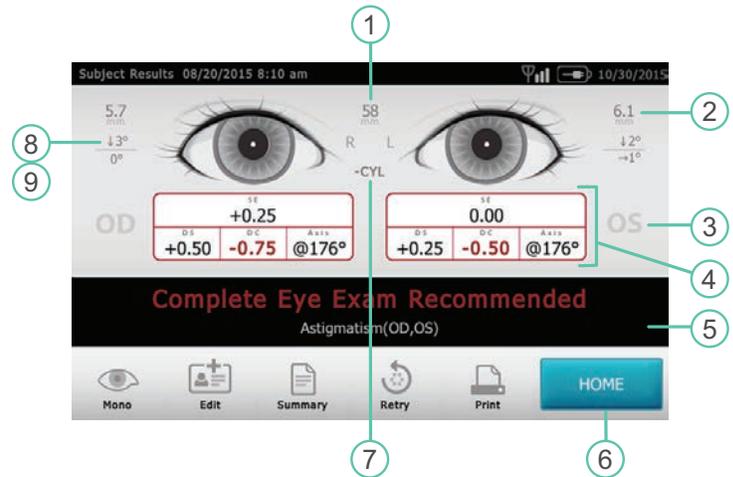8. The **Results** screen appears at the end of the screening process.
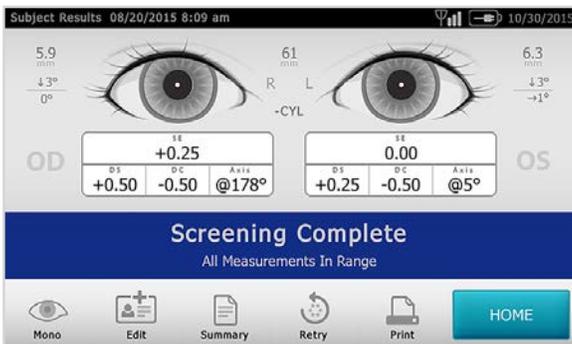
Viewing and understanding the results

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

- defaulting to a Summary screen
- defaulting to a Detailed Results screen
- hiding recommendations
- hiding screening results
- cylinder convention options
- raw or rounded data

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

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

Note: Screening results provide an output that is either in- or out-of-range, accompanied by the appropriate statement in the device output display ("Screening Complete" or "Complete Eye Exam Recommended"). The displayed 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.

Wireless network configuration

From the Tools menu, touch **Network** ▽ıll. Current network settings display on the screen. To add or edit any of the fields, see the device Directions for use for detailed information. If the network settings are correct, touch **Exit** to return to the Tools menu.

Connect the vision screener to a printer

The vision screener is capable of connecting and printing to most network capable Hewlett-Packard (HP) printers. The vision screener also contains some generic PCL drivers that can be used with non-HP printers.

1. From the Tools menu, select the **printer icon** .

2. To select or change a default printer, find and select the desired printer (it will auto-highlight in blue.) If more than one printer is listed, touch **Set as Default** for the highlighted printer.

To configure a printer

Select a printer then press the **Edit** button to view printer status or print a test page.

Adding a network printer

1. From the Printers Available screen, select the **plus sign +** to add a printer.

2. If any printers are found on the network, they will appear in the list. If your printer is not shown, select **+ Add New Printer** at the top of the screen or you can select the printer you wish to add then press the **continue** icon.

   Note: For the vision screener to display any available printers, it must be connected to a wireless network that contains available printers.

3. Review the printer details (Name, Driver and Location). To change or add settings touch the field you wish to change. If you need to add a driver, you can use the search feature by typing part of the driver name in the Search field.

4. Once changes have been made, select **Save**.

5. Once saved, the **Print Test Page** will appear dark.

6. A printer icon appears in the menu bar indicating the job is processing. The number of jobs in the print queue displays in the Jobs box at the top of the Printer Details screen, along with the current printer status.

   Note: If you are having a problem with your printer or a print job is stuck in the queue, select the **Reset** button to clear the print job and reset the printer.

7. Return to the Printers Available screen and be sure to highlight the desired installed printer and set it as the default by selecting the **Set as Default** button.

Troubleshooting

How to limit accommodation

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

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

To reduce the possibility for a patient to accommodate

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

How to encourage dilation

The vision screener will yield a "**Pupils too small**" message if the following occurs:

- The pupils are constricted below 4 mm.
- If the patient 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 patient is seated, have the patient close his or her eyes for 10-15 seconds to encourage dilation.
- Position the vision screener on an even axis with the patient's eyes.
- Activate the screening seconds before the patient opens his or her eyes.
- Ask the patient to open his or her eyes, which will allow for a quick capture before the patient's eyes readjusts to the lights.

Second attempt recommendation

- In addition to the recommendations from the first attempt:
  ° Have the patient 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 patient 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 patient and reactivate the screen while rotating the device back to the patient.

System restart

1. To power cycle the vision screener, press and hold the **On/Off** button until a confirmation screen appears. Select **Confirm** to power off.

2. When the screen turns black, wait 30 seconds and press the **Power** button to turn the vision screener back on. Ensure that the device has power by plugging in the power cord.

System freeze

In the event the vision screener locks up and is unresponsive to touch, you will need to perform a hard system reset.

1. Press the **On/Off** button.

2. If the Power Off window appears, select **Confirm** to shut down the device.

3. If not, press and hold the **On/Off** button until the screen goes black, then release the On/Off button.

4. Wait about one minute then perform the normal start-up process.

   Note: This procedure may cause some data loss (ex. printer configuration and subject data).

Printer issues

Check that your printer is turned on and has sufficient ink or toner:

1. Print a test print page directly from the printer.

2. After you confirm your printer is in proper working order, verify the printer is on a local network by printing to the printer from a PC on the same local network.

3. If all of the above are in working order, perform a System restart (see above).

Wireless issues

If you encounter problems connecting to a wireless network:

1. Check for the Wireless icon in the upper right corner. If the icon is red, try power cycling the vision screener first.

2. Verify all network settings are entered correctly.

3. If the settings are correct, try turning the vision screener off, then back on.

4. Check the Home screen to see if your network name and IP address is identified in the upper left corner in the black bar.

5. If the connection does not automatically reconnect, go to Tools, Network, select **Security Type**, reselect the correct type (None, WEP, WPA/2 PSK, and WPA/2 EAP-PEAP) then select the highlighted **OK**. This should re-instate the network connection.

System messages

Note: For a complete list of system messages, please consult the Directions for use that shipped with your device.

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

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