## 1 Basic PC Setup

Set up your Workstation Host PC (included) and Display PC as you would any other computer by connecting the keyboard, mouse, monitor, and power cables.

The Display PC can be any modern Windows (7 or 10), macOS (Intel Mac 10.6.8 or later), or Linux PC with Ethernet, and may have been optionally acquired from SR Research.

Surge Protector

Workstation Host PC

EyeLink® 1000 Plus with Desktop Mount

Display PC
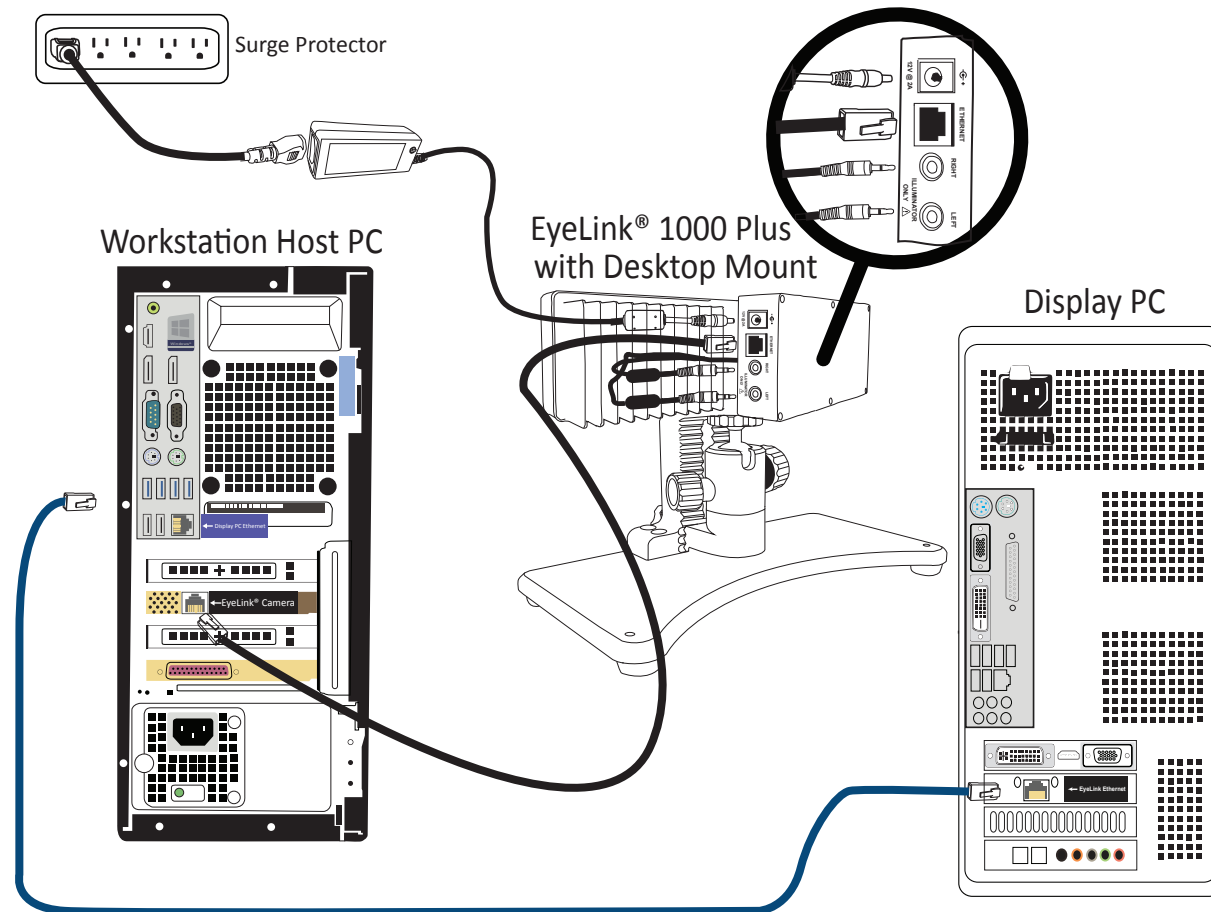
←EyeLink® Camera

2 Camera Connection

Using the **black** Ethernet cable, connect the Host PC Ethernet port labeled "EyeLink Camera" to the Ethernet port on the EyeLink 1000 Plus camera.
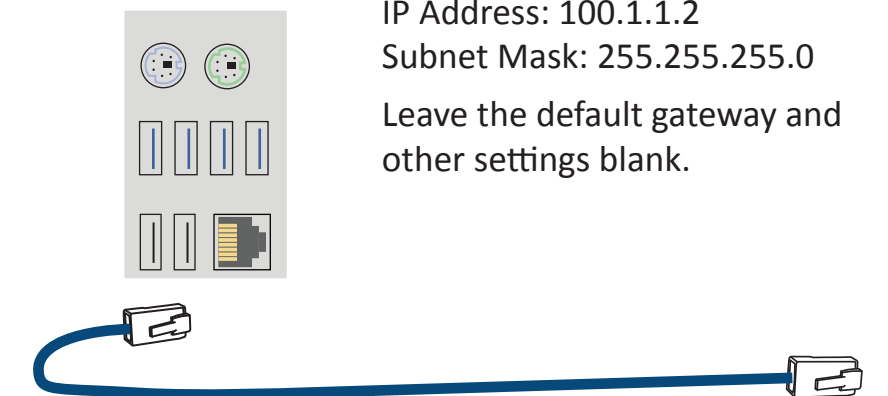
←EyeLink® Camera
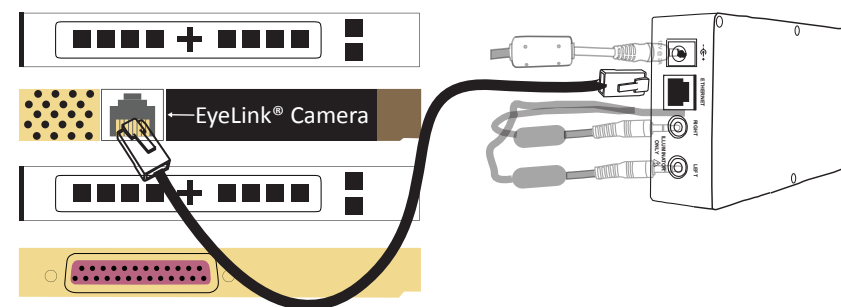
3 Host PC to Display PC Connection

Using the **blue** Ethernet cable, connect the Host PC Ethernet port labeled "Display PC Ethernet" to an Ethernet port on your Display PC. Configure that port with the following static IP address:

IP Address: 100.1.1.2
Subnet Mask: 255.255.255.0

Leave the default gateway and other settings blank.

See Chapter 9 of the EyeLink 1000 Plus Installation Guide for detailed instructions

4 Optional Response Box Connection

Connect the optional response box to the USB port of the computer. The MilliKey button box (Left) should be connected to the Display PC, while the Logitech F310 Gamepad (right) should be connected to the Host PC.

USB Port on Display PC   USB Port on Host PC

MilliKey Button Box   Logitech F310 Gamepad
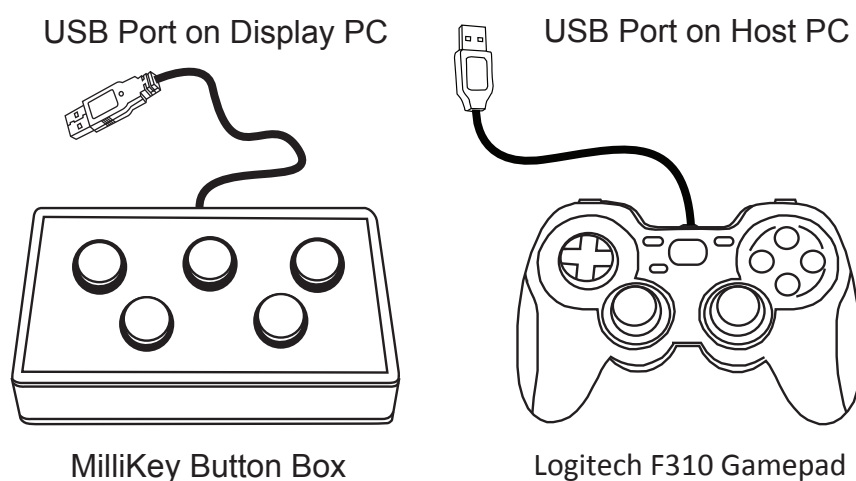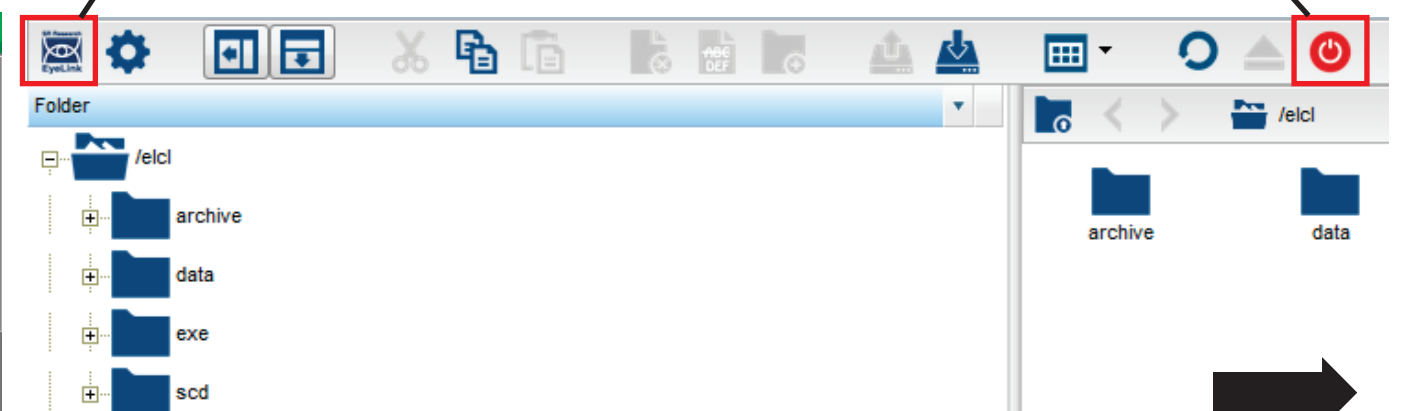
5 Test that the Setup is Working

Turn on the Host PC to verify that the Host Application starts. Once the Host PC is up and running you should see the Camera Setup screen.
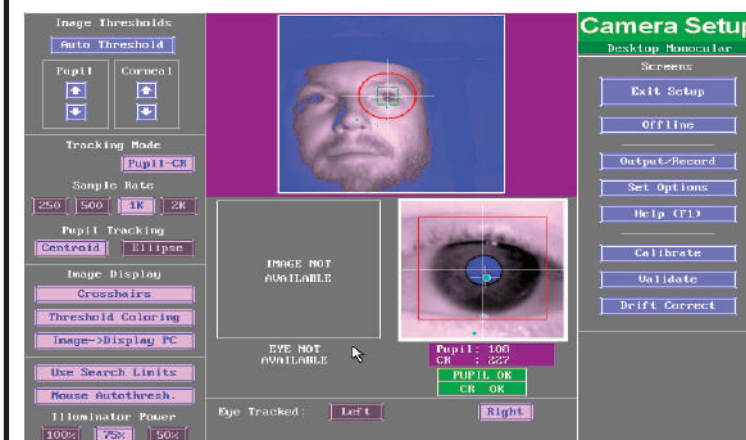
To exit to the File Manager from the Host Application, press Ctrl-Alt-Q (or click Offline and then Exit EyeLink). The File Manager interface is Illustrated below. You can use the buttons highlighted below to start the Host PC Application or shut down the Host PC.

Starts Host Application

Shuts down Host PC

Image Thresholds
Auto Threshold
Pupil   Corneal

Tracking Mode
Pupil-CR
Sample Rate
250 500 1K 2K
Pupil Tracking
Centroid   Ellipse
Image Display
Crosshairs
Threshold Coloring
Image->Display PC
Use Search Limits
Mouse Autothresh.
Illuminator Power
100% 75% 50%

Camera Setup
Desktop Monocular
Screens
Exit Setup
Offline
Output/Record
Set Options
Help (F1)
Calibrate
Validate
Drift Correct

IMAGE NOT AVAILABLE

EYE NOT AVAILABLE

Pupil: 106
CR : 227
PUPIL OK
CR OK

Eye Tracked: Left   Right

Folder
/elcl
archive
data
exe
scd

/elcl
archive   data

Continued on back

6 Tracker and Participant Positioning
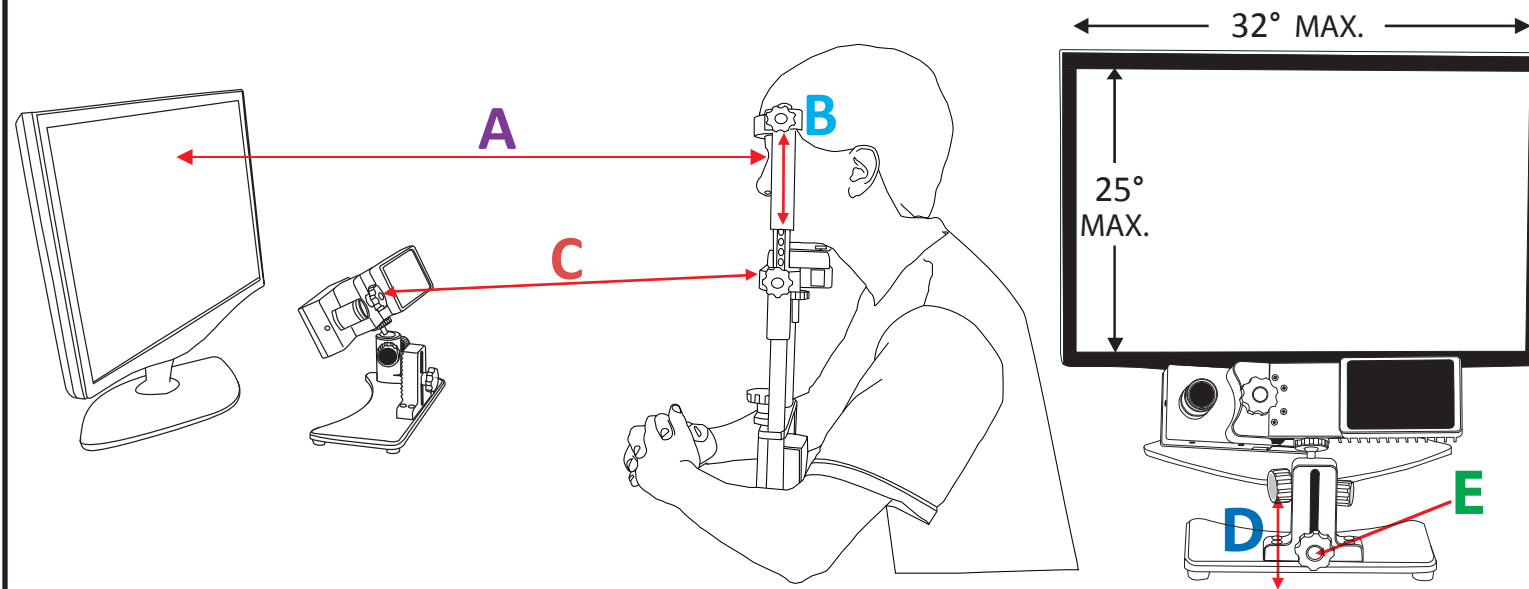
Step A) Position the monitor so that it subtends no more than 32 degrees of visual angle horizontally and 25 degrees of visual angle vertically for the participant. The eye-to-monitor distance should be at least 1.75 times the display width to ensure that it falls within the trackable range.

Step B) Position the participant so that the eyes align with the top quarter of the monitor – adjust the chair and/or head support to ensure this alignment.

Step C) Position the eye tracker so that the distance from the top knob on the front of the Desktop Mount to the front of the chinrest is 50-55 cm. If using Remote Mode, make sure that the reported target distance on the Host PC is around 60 cm (55-60 cm is ideal for calibration).

Step D) Adjust the height of the eye tracker so that it is as high as possible without blocking the participant's view of the display.

Step E) Position the eye tracker so that its bottom knob is centered horizontally on the front of the monitor.

See Chapter 3 of the EyeLink 1000 Plus User Manual for detailed instructions

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7 Enter Screen Settings

Exit to the File Manager if the Host Application is running (press Ctrl-Alt-Q or click Offline and then Exit EyeLink).

From the File Manager, press the Configuration Button.

Configuration

From the Configuration screen press the Screen Settings button.

Screen Settings

Follow the instructions that appear to enter the Screen Dimensions, Display Resolution, Eye-to-Screen Distance, and Camera-to-Screen Distance.

See Section 8.4 of the EyeLink 1000 Plus Installation Guide for detailed instructions

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8 Install Display PC Software

Display PC software installers are provided on the USB drive that came with the system; or, the most up-to-date installers can be downloaded from https://www.sr-support.com, or from the following links:
A) Experiment Builder (Windows and macOS):
   https://www.sr-research.com/experiment-builder
B) Data Viewer (Windows and macOS):
   https://www.sr-research.com/data-viewer
C) EyeLink Developers Kit (Windows, macOS, and Linux):
   https://www.sr-support.com/thread-13.html

Experiment Builder and Data Viewer require the use of a USB HASP license key. The license key driver can be installed in Windows from "Start → Programs → SR Research → Install Hasp Driver", or in macOS from the installer packages.

Run Experiment Builder to access example projects from the "File → Examples" menu. Even more examples can be found at:
   https://www.sr-support.com/thread-349.html

The system is also compatible with E-Prime, Psychtoolbox for Matlab, Presentation, LabView, Python, C/C++, C#, and the COM interface. After installing the EyeLink Developers Kit, example projects for other programming environments will be available in Windows under "Start → Programs → SR Research → EyeLink Sample Experiments" and in macOS under "Applications → EyeLink → SampleExperiments".

SR Research
EyeLink®

For additional support, please contact SR Research:
Email: support@sr-research.com
Support forums: www.sr-support.com
Phone: 613-271-8686
Toll Free: 1-866-821-0731