# iScreen Photoscreener

### *What Are You Testing?*

The iScreen is an eccentric photorefractor that identifies eye misalignment, cataract, nearsightedness, farsightedness, anisometropia (a difference in focusing power between the two eyes), and some degree of astigmatism.

### *What You Need to Do the Test:*

**1.** Digital camera unit.

**2.** Digital camera data cable (with white jacket).

**3.** Infrared data cable (bundled with white jacketed cable).

**4.** Portable computer.

**5.** Footswitch with plug.

**6.** Power plug (one for camera unit and one for laptop).

**7.** A dimly lit room.

**8.** Tripp Trapp chair and a booster seat.

**9.** Instrument cart.

### *Getting Ready:*

**1.** Connect the digital camera data cable to the camera unit and the computer. The female connector attaches to the 25-pin data port on the rear of the camera unit. The male connector attaches to the parallel (printer) port on the back of the computer. Tighten the two thumbscrews on each connector securely.

**2.** Connect the IR data cable (bundled with the white digital camera cable) to the IR data port (black) on the rear of the camera unit. Connect the triangular connector on the other end of the IR cable to the video card on the right side of the computer. Make sure that the logo on the connector (“AMP”) is facing up. Pinch the metal tabs together and gently push the connector into the video card. Release the metal tabs.

**3.** Insert the foot switch plug into the blue connector on the rear of the camera unit.

**4.** Attach the camera unit power plug into the red connector on the rear of the camera unit.

**5.** Attach the computer power plug into the rear of the computer.

**6.** Plug the camera unit power supply and computer power supply into a power strip.

**7.** Turn on the camera unit at the power strip. WAIT 10 seconds and then turn on the computer.

**8.** Locate the On/Off slide (with white vertical line) on the left side of the computer. WAIT a few seconds and then turn on the computer. Move and briefly hold the slide forward toward the I/O symbol.

***How You Do the Test:***

**1.** From the iScreen main menu, press the Image Acquisition button.

**2.** Type in the patient's VIP Name Code, VIP ID, and age (in years) as they appear on the VIP name tag.

**3.** Seat the child comfortably in the Tripp Trapp chair in front of the iScreen.

**4.** Fully extend the headrest until it locks and gently position the patient's forehead securely against the headrest, and adjust the vertical and horizontal position of the patient until the eyes are centered on the cross hairs in the video image on the Patient Alignment screen.

**5.** Activate the fixation lights by depressing the foot switch. Tell the child to look at the red lights with his/her eyes wide open (as if surprised) and to keep the eyes open.

**6.** When the patient is aligned and looking into the camera, press the ACQUIRE IMAGE button (or the *Enter* key on the keyboard).

**7.** The digital camera image of the patient will appear on the screen after about **10 seconds**.

**8.** Examine the image to make sure that the patient is looking directly into the lens and that the eyes are unobstructed. Use corneal reflexes to determine if patient is fixated properly.

**9.** Examine the image to make sure that the pupil of each eye is at least 4 mm in diameter.

**10.** If fixation is off, or pupil size is less than 4 mm, press the RE-ALIGN PATIENT button and repeat steps 5 to 9. A maximum of three attempts per child is permitted.

**11.** If fixation is good, press the SAVE button. This will take you to step 1 for the next patient.

**12.** After each screening session, the Project Coordinator will transmit all images from each session over a phone line or via the internet to iScreen to be scored.

***What You Tell the Child:***

**1.** Tell the child to sit very still.

**2.** Tell the child to look in the window of the camera.

**3.** Tell the child to open his/her eyes wide "like you are surprised" and keep them open.

***What You Write Down:***

**1.** Write down whether you were able or unable to complete the iScreen.

**2.** Check the box that indicates the number of photos that were taken.

***Remember!***

Realign the patient and acquire another image if fixation is not good or pupil size is smaller than 4 mm.