

CLARITY ACUITY



VERSION 3.0

Installation Manual

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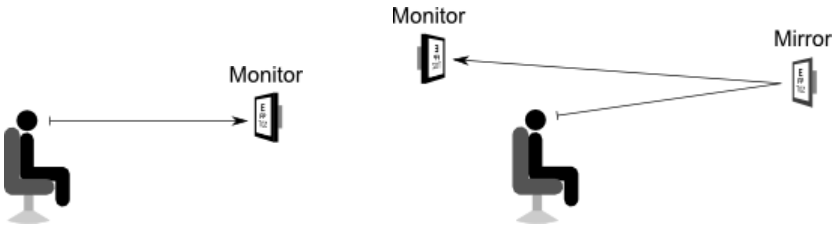
Thank you for purchasing Clarity Acuity. These instructions will help you set up and use your new digital visual acuity solution. If you run into any problems during installation, check our website at www.clarityacuity.com. If you are unable to find a solution there, e-mail us at Support@ClarityOptometric.com.

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Hardware Installation

Clarity Acuity is designed to function in either direct viewing or mirrored viewing configurations.



Direct viewing configuration

Mirrored Viewing Configuration

Refer to the instructions that came with your hardware and monitor mounting kit. We have compiled a few tips based on our experience installing and configuring these systems:

This is a two-person job. Lifting and positioning the monitor (and mirror) requires a second pair of eyes. Have your assistant sit in the chair to ensure a clear view for patients of varying heights, such as children and tall adults.

Make sure your cables are long enough. For a professional-looking setup, it is best to have monitor and power cables long enough to be run along the base of the wall and straight up to the monitor.

Clean your monitor when done. Once you have finished mounting the monitor, clean it (and the mirror) using lens cleaner and a lint-free cloth. This eliminates distortion that could be caused by dirt or fingerprints.

Use your monitor's native resolution. This is typically the highest resolution you can set for the monitor in Display Properties. Symbols will appear distorted at non-native resolutions.

Remote Receiver

Important: You must run the Clarity Acuity Installer before plugging in the remote control receiver. The remote requires two AAA batteries.

To attach the receiver to your system, plug it into any available USB port. Windows will detect the device and install the drivers.

Note: Since the remote uses an IR signal to communicate with Clarity Acuity, you must ensure that there is a clear line of sight between the remote and the receiver and that the remote is pointed at the receiver.

Software Installation

To ensure a smooth Clarity Acuity installation experience, we recommend that you ensure your system is running with the most current service pack, security updates and .NET framework before running our setup program. Clarity Acuity requires the following programs and updates to be installed:

- Microsoft DirectX 9.0c or higher (included in Windows XP Service Pack 2)
- Microsoft Windows Installer 3.1 (included in Windows XP Service Pack 3)
- Microsoft .NET Framework 3.5 SP1
- Foxit PDF Reader (or another PDF reader such as Adobe Acrobat Reader)

The setup software for each of these programs and updates is included on the Clarity Acuity installation disc (excluding Windows Service Packs) and will be installed by our setup software if needed. Be aware that while Clarity Acuity does not require a reboot for installation, one or more of these prerequisites may.

If you had to upgrade to Windows Installer 3.1, you will be required to restart your computer prior to continuing installation. Otherwise you should choose "Restart Later" for any other restart prompts you may receive, but be sure to restart your computer once the Clarity Acuity installer is complete prior to running Clarity Acuity for the first time.

Licensing

The first time you run Clarity Acuity, you will be required to activate your license against our server. **NOTE:** You must be connected to the internet to activate Clarity Acuity. Once the activation process is complete you can disconnect from the internet.

Trial Mode

If you are evaluating Clarity Acuity you may activate the software in trial mode and use all features for 15 days. To activate Trial Mode, you must fill out the owner information section. Once you have completed the Owner Information section, the Start Trial button will be enabled. Click the Start Trial button and you can begin evaluating Clarity Acuity.

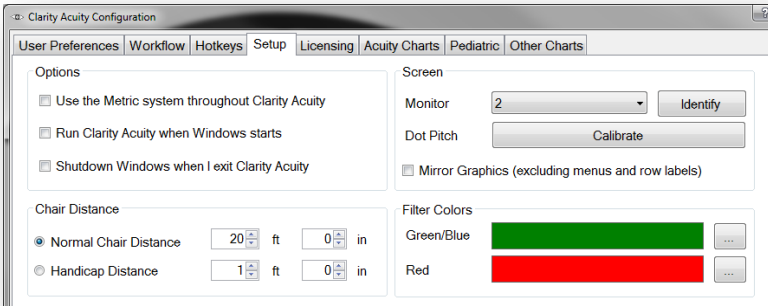
To Activate Clarity Acuity, complete the Owner Information section and type your serial numbers into their respective fields. Once the form is complete the Activate button will be enabled. Click it to activate your software and you can begin using Clarity Acuity.

The screenshot shows a 'Licensing' dialog box with the following components:

- Owner Information:** Fields for Name, Practice, Address, e-mail, and Phone.
- Licensing Information:** Fields for Site License/Serial Number and Lane License/Serial Number, both showing 'Evaluation: No License Present' in red.
- Buttons:** 'Activate', 'Deactivate', 'Machine Code', 'Start Trial', and 'Trial has not started'.
- Footer Buttons:** 'OK' and 'Cancel'.

You can always review your licensing information on the “Licensing” tab of the “Settings” dialog.

Software Configuration



Before you begin using Clarity Acuity with your patients, you will need to configure the software for your lane. When Clarity Acuity runs the first time, it will open the settings window to the setup tab.

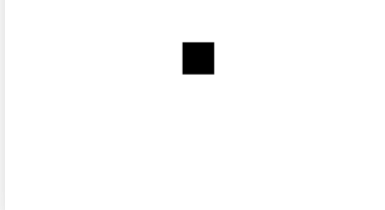
In the Options Group, you can specify that Metric measurements should be used for chair distance and for labels on acuity charts. You can specify that Clarity Acuity should automatically run when Windows starts. You can also change the exit option on the main menu to shutdown Windows. This last option is useful for dedicated computer systems used primarily via the remote control.

The Screen group of the Setup tab allows you to specify on which monitor Clarity Acuity should appear on systems configured with multiple displays. The Identify button will overlay numbers on each screen to establish which is which.

Dot Pitch refers to the density of picture elements (pixels) on your monitor. Clicking the Calibrate button will display a calibration screen on the selected monitor (shown below) on which the black box must be adjusted as close as possible to 3 cm in both dimensions using the directional buttons on the remote control or the arrow keys on the keyboard.

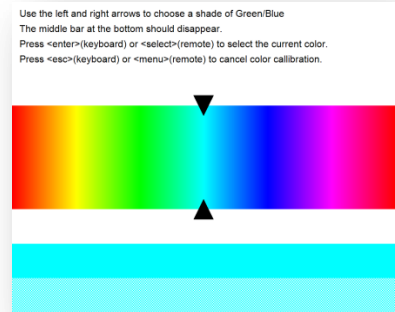
Use the arrow keys to make the box match your calibration square.
Down and Right to enlarge Up and Left to shrink.
The box should be 3cm X 3cm.
Press <enter> to finish.

On mirrored viewing configurations, check the Mirror Graphics box to cause all visual elements meant for the patient to be flipped horizontally for viewing through the mirror. Elements meant for the practitioner, such as menus and acuity labels, are unchanged.



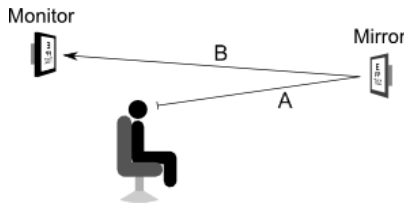
Configure the colors displayed for suppression charts. Note that this does not change the colors used for red and green on charts where the colors are used merely for illustration (such as the background on acuity charts). We have found that the red/green glasses that come with Clarity Acuity work best with a cyan hue.

To adjust Clarity Acuity to use the shade of green/blue and red that works best for your monitor and/or your favorite filter glasses, click the ellipsis (...) button next to color you wish to calibrate. The color calibration screen will display on the selected monitor. While looking through your filter glasses (with the appropriate eye occluded), use the left and right buttons on the remote, or the left and right arrow keys on your keyboard to change the hue until the two bands at the bottom of the screen blend with the background. Pressing Select on the remote control or Enter on the keyboard will save the current color. To cancel and retain the previous setting, press Menu on the remote control or hit ESC on the keyboard.



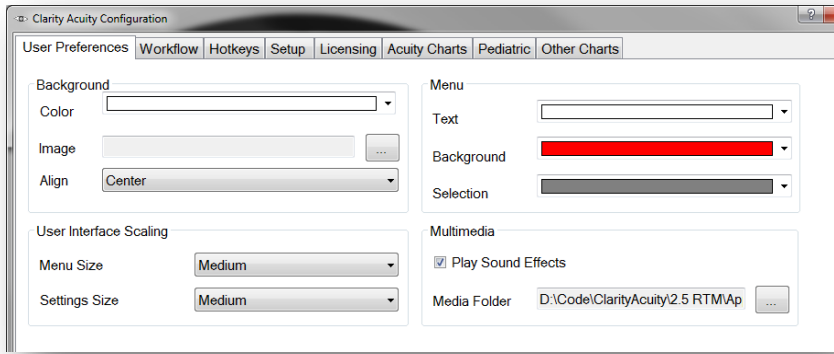
The final calibration step that must be made before Clarity Acuity is ready for an exam is to set the distance from the monitor to your patient. Clarity Acuity supports storing two settings. The *Normal Chair Distance* setting is for patients sitting in the exam chair. The *Handicap Chair Distance* allows you to easily switch to an alternative chair distance without losing your normal settings. This is useful for situations where you must position a wheelchair-bound patient in front of your exam chair. To change your chair distance, from the main menu select Settings → Chair Distance, and select Regular or Handicap.

In mirrored viewing configurations, the chair distance measurement is the sum of the distance from the chair to the mirror and the distance from the mirror to the monitor (A+B in the diagram).



Software Customization

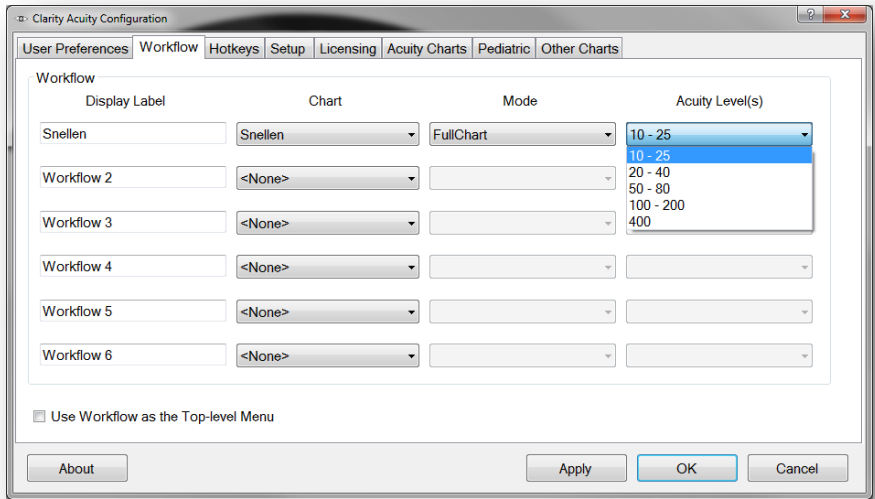
Once you have calibrated Clarity Acuity, you can customize various other aspects of the program's appearance and functionality via the Configuration Dialog. This dialog is accessible by selecting Settings → Configuration.



On the User Preferences tab, the background image can be changed to your logo, and the colors altered to match your color scheme. User Interface Scaling options control the size of the menus (and acuity labels) and the size of the settings window. These features are useful for long-distance direct viewing configurations where the monitor may be quite far away. Changing the Settings Size will immediately change the size of the window.

Workflow

The Workflow tab allows you to configure your workflow menu. The workflow can be accessed like any other menu in the system, or with the Workflow buttons on the remote. Any time you are not using the workflow, pressing the Next button in the workflow group will jump to the first chart in your workflow. Once your workflow has been activated, the Next and Previous buttons in the workflow group will then cycle through the items you have configured in the workflow group.



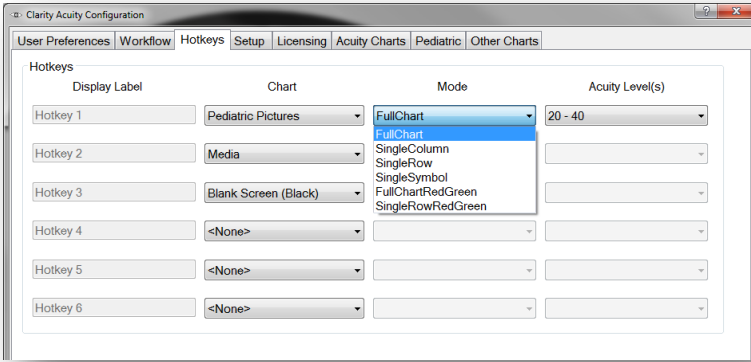
workflow.

In the workflow group, there are six rows. Each row represents an item in your workflow. To setup your workflow, choose a Chart, and then select the Mode and acuity level or range of acuity levels for that chart's initial presentation. Optionally, you can set the name to be shown in your workflow menu. The name will default to the name of the chart you have selected. **NOTE:** The range of acuity levels for full charts is dependent on the Maximum Chart Rows setting on the Acuity Charts tab.

Check the box labeled Use Workflow as the Top-level Menu if you would like the Workflow menu to be displayed when the program starts and act as the top-level menu when you hit the menu button in a sub-menu. With this setting turned on, the main menu can be reached by an option on the Workflow menu.

Hotkeys

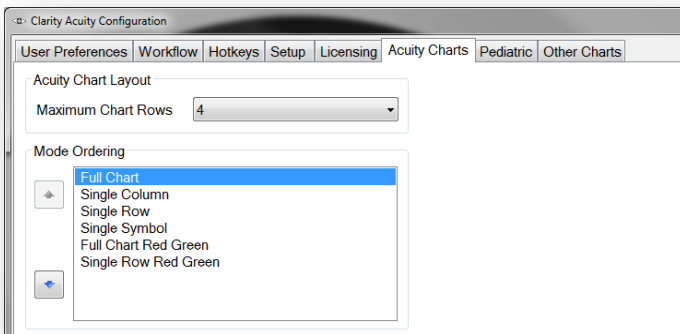
The Hotkeys tab allows you to configure the 6 hotkeys at the bottom of your remote control. Once configured, pressing any of the hotkey buttons will immediately jump to the configured chart.



Hotkeys are useful for charts you don't use as often as those in your workflow but like to access quickly; a good example might be the blank chart to darken the room during an internal exam.

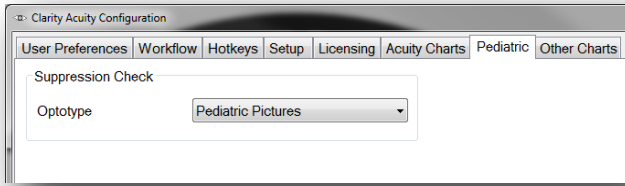
Acuity Chart Settings

The Acuity Charts tab allows you to set the maximum number of rows that will appear in full chart and single column modes. The Mode Ordering list allows you to change the order in which the modes appear in the mode switcher.



Pediatric

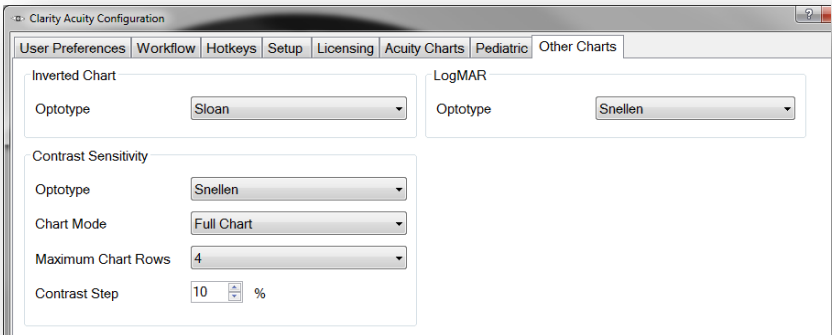
On the Pediatric tab, you can select which optotype will be used in the Suppression Check Chart.



Other Charts

The Other Charts tab allows you to configure the Inverted, LogMAR, and Contrast Sensitivity Charts. For Inverted and LogMAR, you can only select the optotype.

For the Contrast Sensitivity Chart, you can set the Optotype, Chart Mode, Maximum Chart Rows and the Contrast Step. **NOTE:** When using the Contrast Sensitivity Chart, the Right and Left buttons on the remote control will increase or decrease the contrast level by the value set in the Contrast Step field.



Using the Remote Control

Menu:

From anywhere in Clarity Acuity, the Menu button will take you to the previous menu. If you press Menu from the main menu you will enter standby mode. Pressing Menu again will display the main menu.

Pointer:

Pressing the Pointer button while in an acuity chart will activate or deactivate the pointer arrow which can be moved using the navigation buttons. **NOTE:** When the pointer is active you can change acuity levels but not modes.

Navigation Buttons:

Shown here with red labels, the functions of the Navigation buttons differ for Menus and Charts:

Menus:

- Up/Down: Move the selection box up or down.
- Enter: Select the highlighted Item.

Acuity Charts:

- Up/Down: Change the Acuity Level.
- Left/Right: Change the chart mode (Full Chart, Row, Column, or Letter, etc...)

Contrast Sensitivity:

- Up/Down: Change the Acuity Level.
- Right/Left: Change the Contrast Level.

Workflow:

Any time you are not using the workflow, pressing the Next button in the workflow group will jump to the first chart in your workflow. Pressing the Next and Prev buttons in the workflow group will move you through your workflow. **NOTE:** While viewing a chart in your workflow all navigation options are available.

Hotkeys:

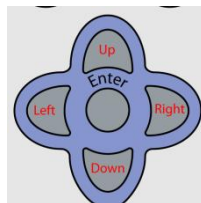
Pressing a button in the Hotkeys group will jump to the preconfigured chart associated with that hotkey (See Hotkeys on page 8).



Notes

Quick Reference Guide

Clarity Acuity can be used with the supplied remote control or the keyboard. These quick-reference tables show the functions of each of the buttons and keys. The basic functions of the remote are annotated here in red.



Main Menu	Remote	Keyboard	Function
	Up	Up	Move Selection Up
	Down	Down	Move Selection Down
	Enter	Enter	Choose Selection
	Menu	ESC	Hide Menu (standby)

Charts	Remote	Keyboard	Function
	Up	Up	Increase Acuity/Size
	Down	Down	Decrease Acuity/Size
	Left/Right	Left/Right	Switch Modes *
	Enter	Enter	Randomize Symbols
	Menu	ESC	Return to Menu

* When switching modes, pausing briefly will select to current mode.

Media Viewer	Remote	Keyboard	Function
	Enter	Enter	Play / Pause
	Menu	ESC	Return to Menu

Use Page Up/Down to cycle through your Workflow, F1-F6 to access Hotkeys, and the P key to activate/deactivate Pointer mode.