

IBEX

User Guide

IBEX LCD Acuity Chart



Introduction

Congratulations on your new purchase and welcome to IBEX! We appreciate your patronage and the opportunity to exceed your expectations with outstanding products and services. As a valued customer, your experience with IBEX is our top priority, and we strive for a 100% customer satisfaction rate.

Your new IBEX LCD Acuity Chart arrives with a comprehensive 3-Year Warranty, should you have any questions or concerns, please do not hesitate to contact us.

Product Registration

If you purchased your product directly through IBEX, your product is already registered.

If you purchased your product from one of our many Business Partners, please register your products.

As part of our ongoing efforts to provide you with the best possible customer support and user experience, we urge you to register your new product at <https://www.ibexeye.com/welcome>. It's fast & easy.

IBEX LCD Acuity Charts are serialized in order to track product versions and revision changes. The serial number may be required to complete any necessary services and or repairs. Registering your product serial number simply allows our IBEX support team to better understand the product revisions in order to expedite your service.



Before you begin using your new **IBEX LCD Acuity Chart**, please read, understand and follow all safety instructions. This will insure safe operation, optimum performance and a longer service life for your instrument. Be sure to retain this manual for future reference.

Warning and Information Symbols



General Warning



General Mandatory Action



Voltage Hazard



Read Operator's Manual



European Certificate of Conformity



Notes

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Product Overview

Indications for use

The **IBEX LCD Acuity Chart** is a specialized remote controlled digital acuity system. It is a precision instrument intended for use by professionally trained personnel. It is designed to provide a comprehensive system for measuring visual acuity.

Major Components



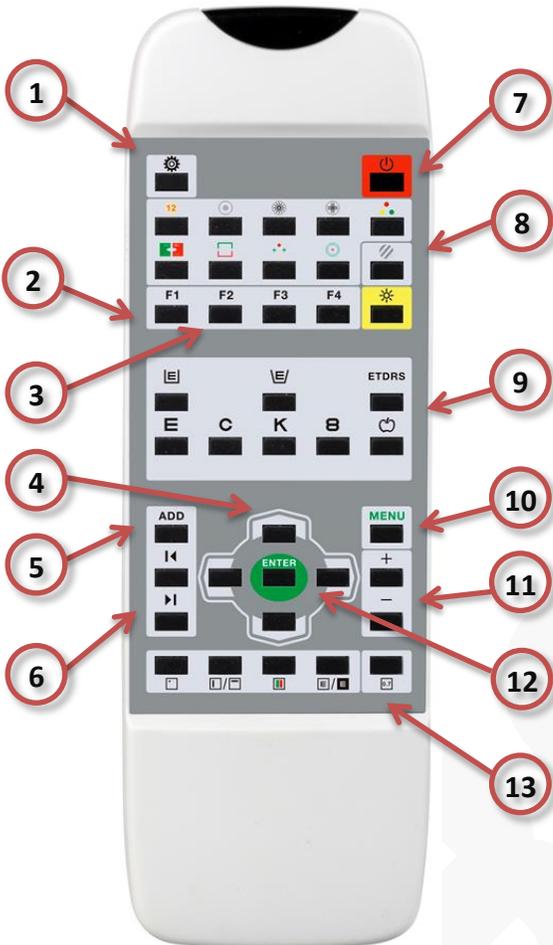
- 1 Factory Maintenance
- 2 SD card Port (for upgrade only)
- 3 USB Port
- 4 Power Inlet
- 5 Power Switch

- 6 Remote Controller
- 7 LCD display

Remote Controller



The function written in bold *italic type* below will only work in video mode
 The maximum operating distance of the remote control is 16 feet (5m).



- 1 Parameter Setting Key
- 2 F1: Video Playing
- 3 F2: Structure of Eye
- 4 Operation Cursor Key (***Forward / Backward***)
- 5 Quick Test Add (***Full Screen / Back***)
- 6 Quick Test Shift
- 7 Standby Key
- 8 Chart Selection
- 9 Optotype Selection
- 10 Menu / Home Key (***Exit Video playing***)
- 11 Contrast Control Key (***Volume +/-***)
- 12 Enter / OK Key (***Play / Pause***)
- 13 Mask Selection

Optotypes

- | | | | |
|--------------|---|----------|---------------|
| | Square opto – Snellen Letter | | Allen pics |
| | V-shape opto – Snellen letter | C | Landolt C |
| ETDRS | ETDRS (<i>Early Treatment Diabetic Retinopathy Study</i>) | K | Sloan Letters |
| E | Tumbling E | 8 | Numbers |

Specialty Charts



Ishihara



Cross Cylinder



Astigmatic test



Cross Grid



Traffic lights



Fixation Point



Red Green Panel



Coincidence test



Worth four dot



Schrober test



Contrast Sensitivity test

Masking Keys



Single Mask



Change background color (Black or White)



Vertical / Horizontal line mask



E-optotype return



Red / Green Mask

Operation / Cursor Keys



UP



DOWN

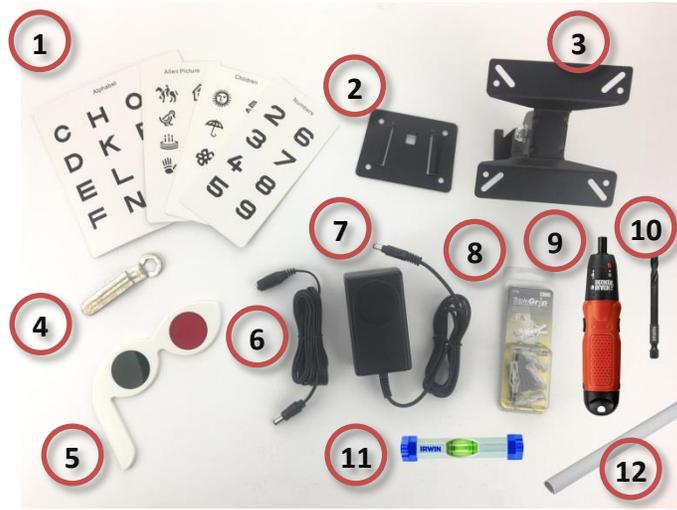


LEFT



RIGHT

Accessories



- | | | | |
|---|---|----|------------------------------|
| 1 | Reading Cards – Alphanumeric, Allen Pictures, Children Pictures | 7 | AC/DC Wall Plug Power Supply |
| 2 | Wall Bracket | 8 | Drywall Fasteners (4X) |
| 3 | Hanging Bracket | 9 | Mini Screw Driver |
| 4 | Wrench | 10 | ¼” drill bit |
| 5 | Red / Green Glasses | 11 | Mini Magnetic Bubble Level |
| 6 | 6 ft. Extension Cable | 12 | Cable Cover |

Mounting

Your **IBEX LCD Vision Chart** can be mounted as a Direct View or Folding Mirror configuration.



Whenever possible, you should try to find a wall stud to support the projector’s weight. It may be necessary to drill pilot holes in the stud before attaching the mount.

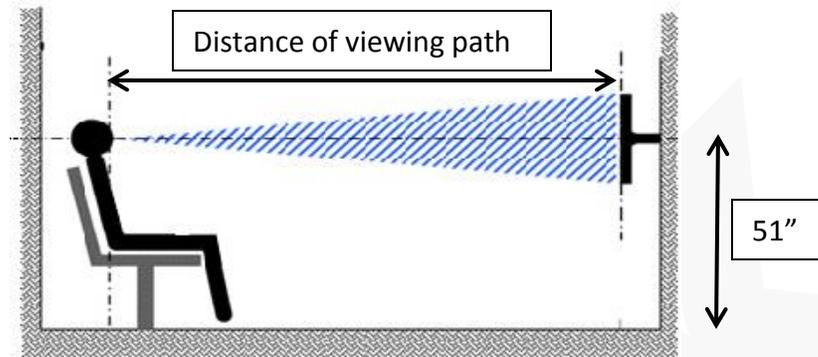


Improper installation may cause property damage or personal injury. If you do not understand these directions, or have doubts about the safety of the installation, contact a qualified contractor. To avoid potential injuries; do not over-tighten the mounting screws.



The LCD Chart must be positioned at patient eye level directly in front of the patient. The minimum test distance is 6 feet (2.0m) with a maximum test distance of 23.5 feet (7m).

Direct View

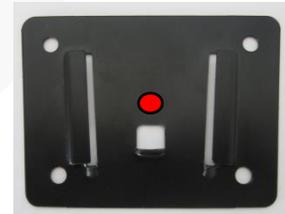


1. Measure the distance from the floor to 51", this is the height where the center of the wall mounting plate should be attached to the wall. Use a pencil to mark this spot on the wall.

2. Place the wall mounting plate directly on top of the marked spot.



The longer edge of the mounting plate must point upward.



3. Use the provided bubble level to level the mounting plate and mark the four mounting holes on the wall with a pencil.

4. **If installing on a wood stud wall,**

a. Drill pilot holes by using a 7/32" diameter drill bit.

b. Align the wall plate with the pilot holes; insert the mounting screws until they are firmly seated against the wall plate.

5. **If installing on drywall,**

a. Drill fasteners hole using a 1/4" diameter drill bit.

b. Using a hammer, carefully tap the insert into the wall until the flange is flat against the wall.

c. Align the wall plate and fastener holes; insert mounting screws and tighten until they are firmly against the wall plate.



6. Lay the LCD vision chart on its top on a soft surface and attach the hanging bracket with the provided washers and screws.



7. Insert the mounting bracket into the corresponding groove on the mounting plate.
8. The position of the LCD acuity chart can be adjusted in all four directions by loosening the two pivot adjustment bolts with the provided wrench.



9. Insert the safety screw on the bottom of the mounting bracket.

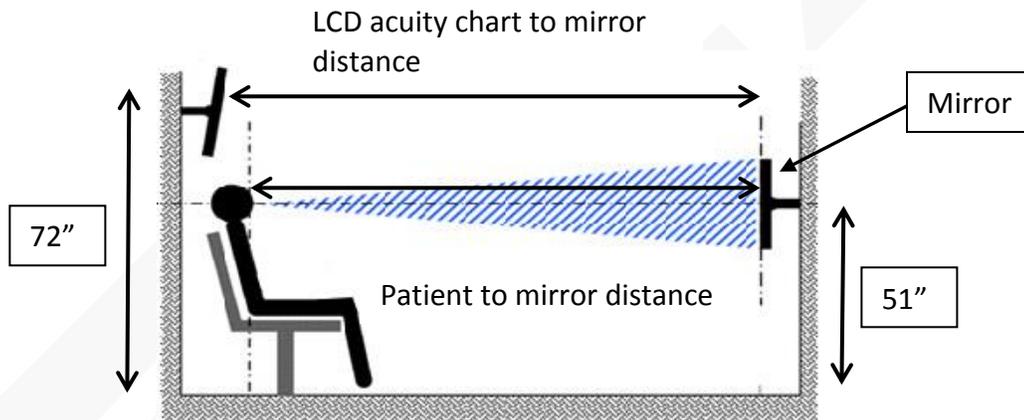


10. Insert one end of the wall plug power cord into the side of the acuity chart and the other into any standard AC outlet.

Folding Mirror



Before mounting folding mirror configuration, read and understand the 3rd party front surface mirror mounting installation guide



Setting of the Mirror Path Distance



Mirror Path Distance = Patient to Mirror Distance + LCD Acuity Chart to Mirror Distance

Measure the distance from the floor to 72", this is the height where the center of the wall plate should be mounted on the wall. Use a pencil to mark this spot on the wall.

Follow step 2 through 9 from the Direct View set up to complete the Acuity Chart installation.

Measure the distance from the floor to 51", this is the height where the center of the front surface mirror should be mounted on the wall. Use a pencil to mark this spot on the wall.

Follow mirror installation instructions to complete the mirror installation.

Sizing the chart

Calculate the mirror path distance by using the setting of the mirror path distance formula listed above.

Go to setting menu and turn on the “Mirror” function

In the setting menu, input the value of the “DISTANCE” parameter.

Usage - Getting Started



Do not touch the screen with hard objects such as pens, pencils or pointers.

Please read carefully and follow all precautions to avoid unexpected personal injury as well as product damages.



Never attempt to connect or disconnect this instrument with **wet or damp** hands.

Do not disconnect this instrument by pulling on the power cord. Grip and hold the connector firmly when disconnecting from the power source.

Main On/Off switch

The Main ON/OFF switch, located at the side of LCD acuity chart, controls the electric power for the unit. The power indication light at the bottom of the unit will turn red then go out after approximately 10 seconds. The red indication will come back on when the chart is in sleep mode.

Knowing the remote control

Batteries

Remove the back of the remote control by sliding it in the direction of the arrow

Insert two AA batteries in the position shown on the remote control.

Stand By Key

After the unit is turned on, the unit can enter the sleep mode by pressing the “Stand By” key on remote control. The power indication light at the bottom of the unit will turn red. Press again, the unit will awake.

Menu Key

This will allow you to go back to the home page.

Setting Key

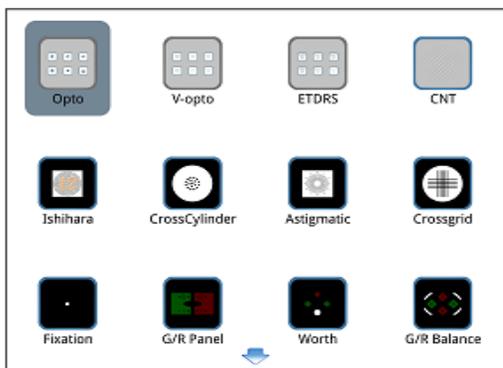
This will take you directly to the setting menu.

Knowing the screen

Navigate Home Menu 1 and Home Menu 2

Use the “UP”, “DOWN”, “LEFT” and “RIGHT” cursor keys on the remote control to navigate the test icons on the home menu 1 screen. Press the “Enter” button on any test icon will either start the test or go to its folder for more options if available.

Home menu 2 screen can be accessed by continue pressing the “DOWN ARROW” key on the remote control. In the home menu 2, use the “UP”, “DOWN”, “LEFT” and “RIGHT” cursor keys again to navigate the menu. Press the “ENTER” button on any test icon to start the test or perform the utility function.

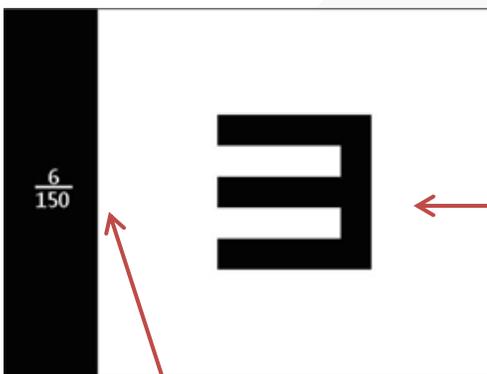


Home menu 1



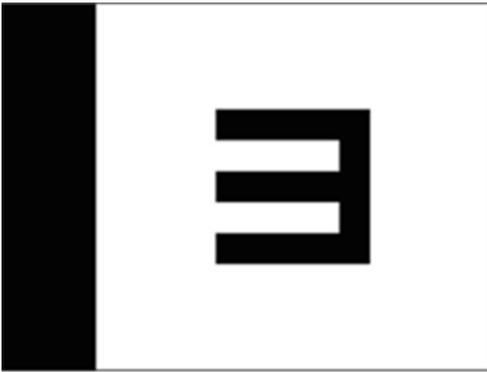
Home menu 2

Main Screen



The left area shows the size of the current chart.

This area shows the current chart



Pressing the “ENTER” key once will hide the chart sizing scale, press it again and the scale will reappear.

Change optotype sizes

Use the “UP” cursor key to increase the optotypes size by one step. And use the “DOWN” cursor key to decrease the optotypes size by one step.



The size of the optotypes will continue to run through a cycle by pressing either “UP” or “DOWN” keys multiple times.

Random Display

Use either “LEFT” or “RIGHT” cursor keys to randomly change the arrangement of the chart.

Masking

Individual line or single letter masking can be done by pressing the “Vertical Masking”, “Horizontal Masking” or “Individual Masking” key. The area of masking can be selected by pressing the “UP”, “DOWN”, “LEFT” or “RIGHT” cursor keys.

Red/Green Masking

Use the Red/Green masking key to activate the Red/Green mask. Press the key again to deactivate the mask.



The Red/green masking cannot be activated while using a single letter chart.

Change of Background color

The background color of the chart area can be changed from white to black or black to white by pressing the background color change key.

“E – Optotype” Return Key



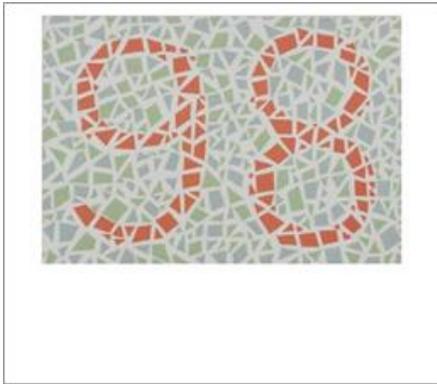
Use the  to remove all the masking and return to 20/80 E-optotype screen.

Ishihara

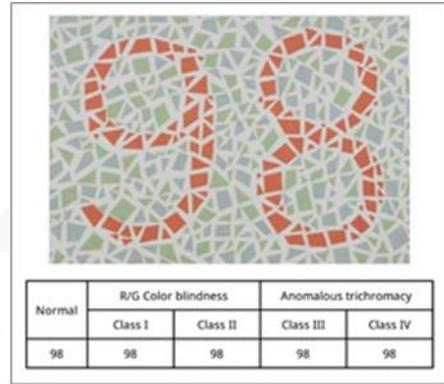
Press the Ishihara key on the remote control or enter the Ishihara from the home menu 1 to start this test.

Use the “LEFT” and “RIGHT” cursor keys to change the chart.

Use the “UP” and “DOWN” cursor keys to show and hide the result.

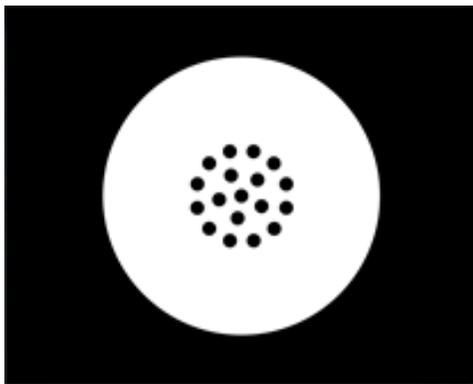


Hide test result



Show test result

Cross Cylinder

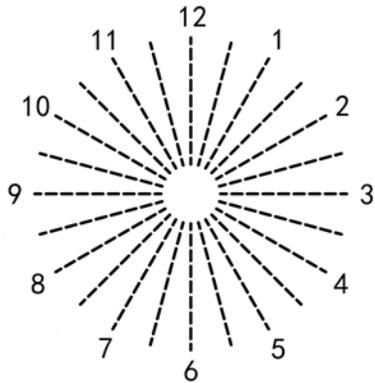


Enter the Cross Cylinder test by either pressing the “Cross Cylinder icon” on the remote control or select it from the home menu.1

Astigmatic Test

Enter the Astigmatic test by either pressing the “Astigmatic test icon” on the remote control or select it from the home menu 1.

Use the “LEFT” and “RIGHT” cursor keys to change the chart from “Dotted lines” to “Full Lines”



Dotted lines astigmatic test



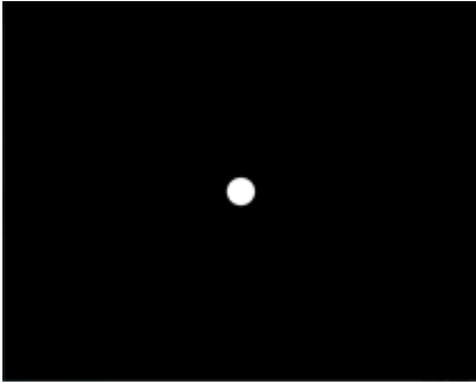
Full lines astigmatic test

Cross Grid



Enter the Cross Grid test by either pressing the “Gross Grid icon” on the remote control or select it from the home menu 1.

Fixation Point



Enter the Fixation point test **ONLY** from the home menu 1.

Traffic light



Enter the traffic light test by either pressing the “Traffic light icon” on the remote control or selecting it from the home menu 2.

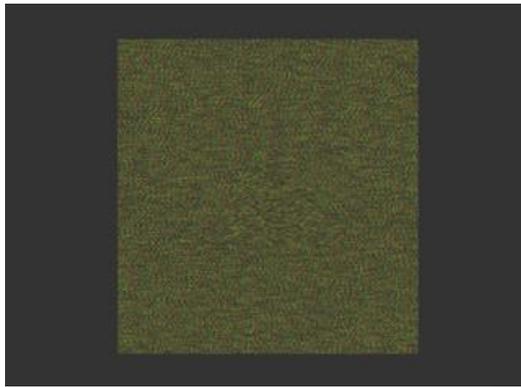
Stereo test



Stereo test can be performed by placing the Red/Green glasses in front of the patient's eyes.

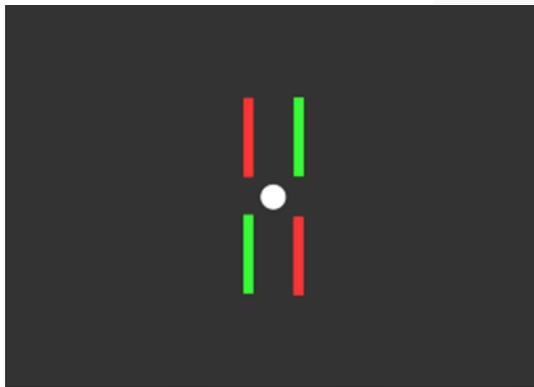
Enter the Stereo test **ONLY** from the home menu 2.

Use the "LEFT" and "RIGHT" cursor keys to change the chart.



Solid Figures

Solid figures – Total of 4 figures; ●, ▲, ■, ★

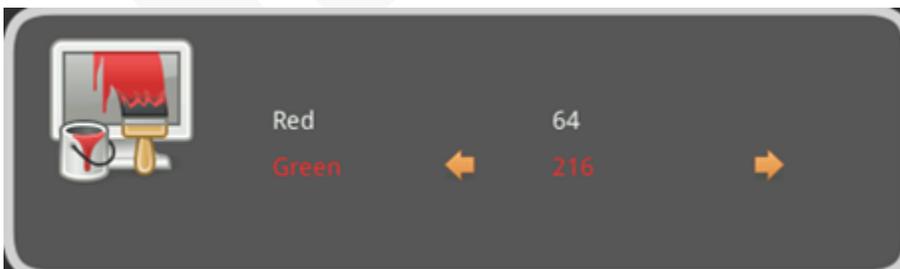


Lines and Dot

Use the "LEFT" and "RIGHT" cursor keys to change the figure. And use the "UP" and "DOWN" cursor keys to view the answer.

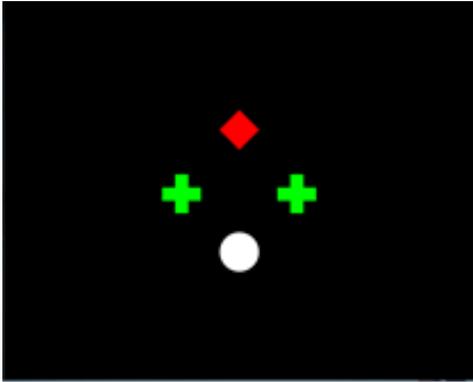


The value of Red and Green can be adjusted in real time by pressing the "ADD" key on the remote control.



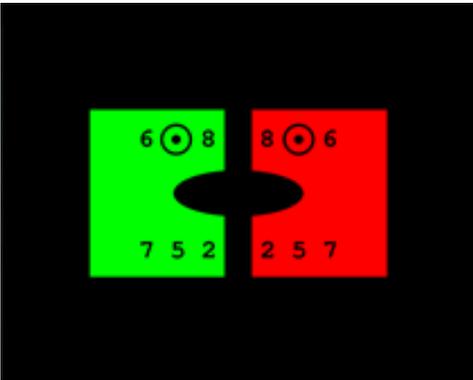
After pressing the "ADD" key, the adjustment panel will appear on the upper left corner of the screen. Use the "UP" and "DOWN" key to scroll and "LEFT" and "RIGHT" key to change the value.

Worth Four Dot



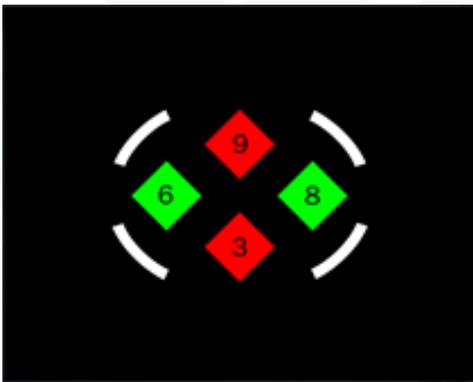
Enter the Worth Four Dot test by either pressing the “Worth Four Dot icon” on the remote control or select it from the home menu 1.

Red/Green Panel



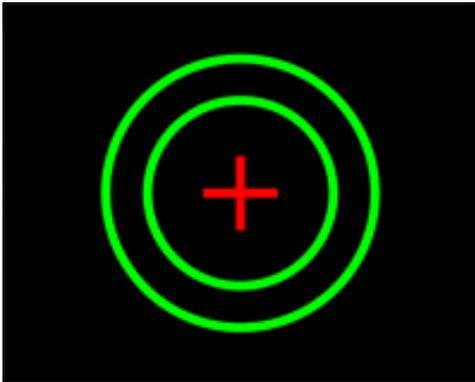
Enter the Red/Green Panel test by either pressing the “Red/Green Panel icon” on the remote control or select it from the home menu 1.

Red/Green Balance



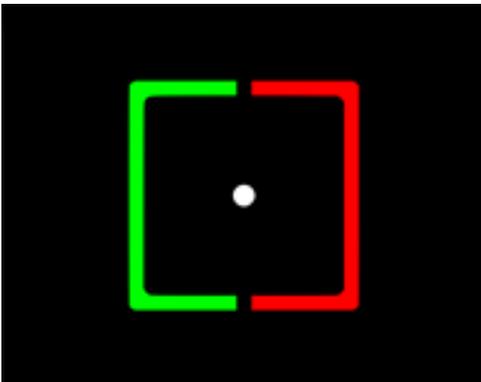
Enter the Red/Green Balance test **ONLY** from the home menu 1.

Schober Test



Enter the Schrober test by either pressing the “Schrober icon” on the remote control or select it from the home menu 2.

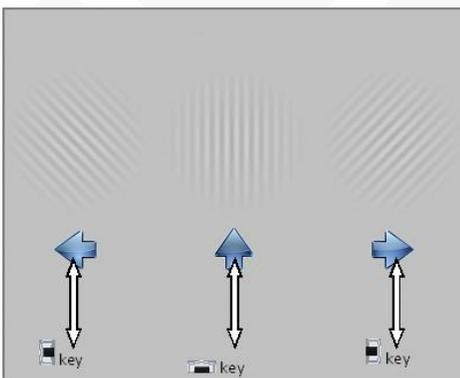
Coincidence test



Enter the Coincidence test by either pressing the “Coincidence icon” on the remote control or select it from the home menu 2.

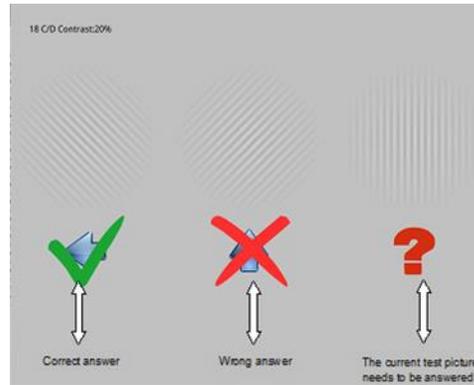
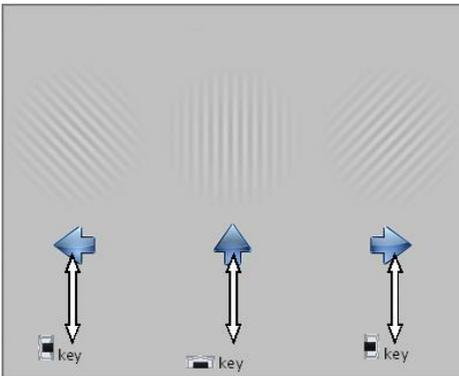
Press the “LEFT” and “Right” cursor keys to change the location of the opening.

Contrast Sensitivity Test



Enter the Contrast Sensitivity test by either pressing the “Contrast Sensitivity test icon” on the remote control or select it from the home menu 1. Press “RIGHT” key on the remote control to start the test. Restart the test at any time by pressing the “MENU” key and the current result will not be saved.

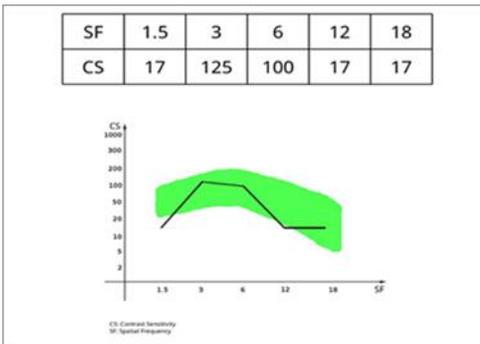
The contrast sensitivity of the test lines will increase or decrease by Log 0.25 each grade and the variation range is from 20% to30%



The default testing interface 18C/D (cycles/degree) contrast 20% and the variation is from 18C/D to 1.5C/D.

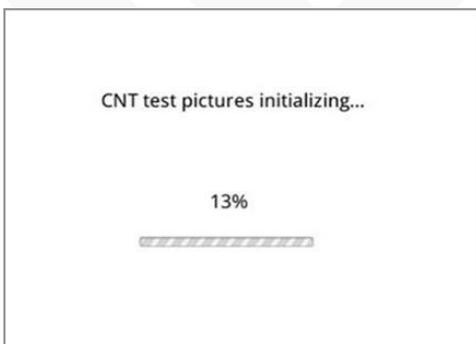
There will be three sinusoidal patterns shown on the screen. Starting from left to right ask the patient what is the orientation of the lines shown on each pattern: straight, clockwise or counterclockwise. Then the physician will enter the patient's answer by using the remote control "Arrow" keys. The Check or Cross mark will show on the screen for the "Correct" or "Wrong" answer. The test consist of 25 pages and each page consist of three patterns. The description of the test patterns will display in the upper left hand corner.

- "UP" – Straight
- "LEFT" – Counterclockwise
- "Right" – Clockwise



The entire test will take approximately 2 minutes to complete. After the test completion, a graph will be plotted based on the result.

SF = Spatial frequencies
CS = Contrast Sensitivity
Green Area = Norm



If one of the four parameters (Distance, Dist unit, DPI or Gamma) can be changed and saved at any time, the program will re-calculate and reset all test patterns according to the new parameters. This process may takes up to 2 minutes to complete.

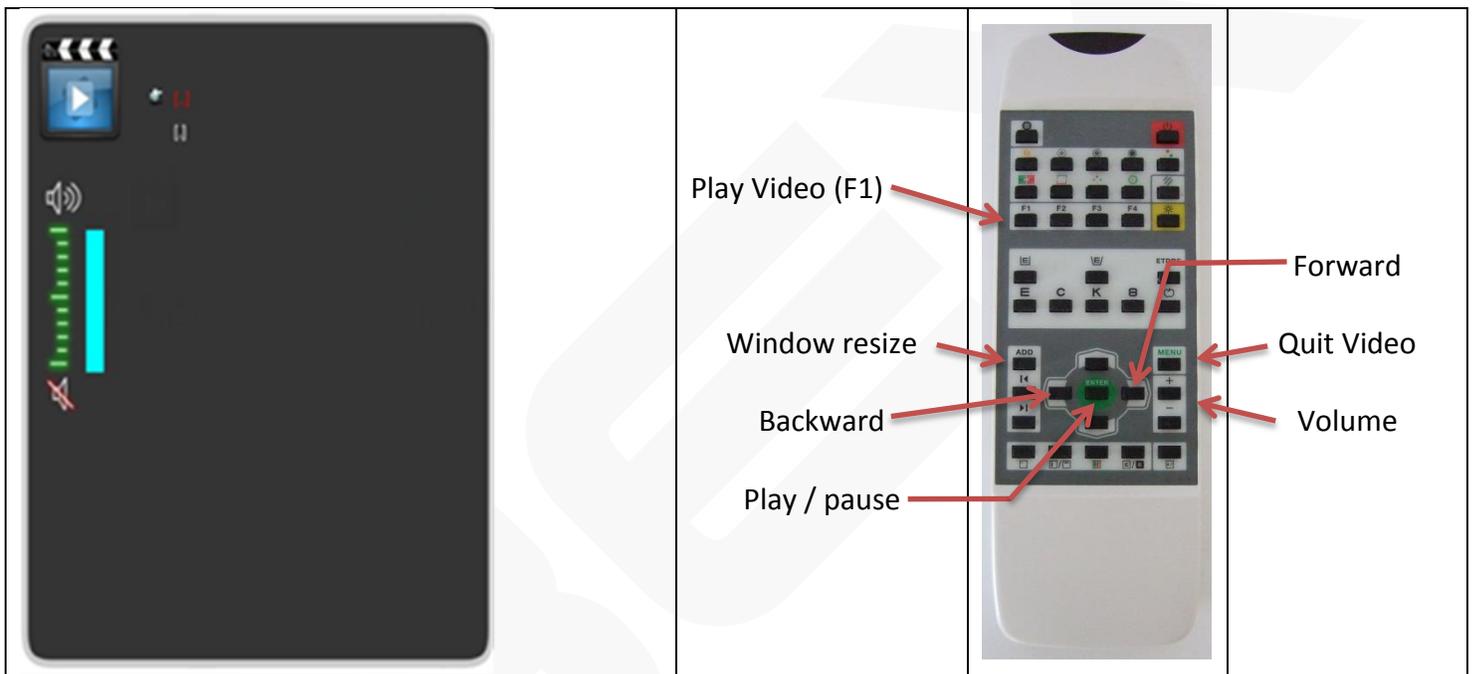


Do not shut down the power during initialization.

Video Playing

Video can be played on the LCD acuity chart through the USB drive.

1. Insert a USB drive to the USB port which is located on the left rear side of the display unit. Press “F1” on remote control or select the “VIDEO PLAY” icon from the home menu 2 to enter the video playing mode.
2. Choose [..] and click the video file list in the USB drive and press “ENTER” to confirm the selection.
3. The beep volume will be changed to 0 automatically when the video is playing.



The video playing mode will support AVI, MKV and MP4 format. For the best viewing, resolution of the recorded video should be 640 X 480. The video playing mode also supports .gif, .jpeg, .png format for pictures showing. The USB drive should be formatted to FAT32 before use.

Custom test sequences

Create Initial QuickTest List

1. From the Home Menu 1 or 2 highlight the test that you wish to put in your QuickTest program.
2. Press the Add button, the QuickTest dialog box will appear on the screen and the test you highlighted will be added to your program.



If the test is stored in a folder, press “ADD” key to enter the folder and then press “ADD” key again to add the desired test to the list.

3. Repeat step 1 and 2 until all the test and chart are added to your program.

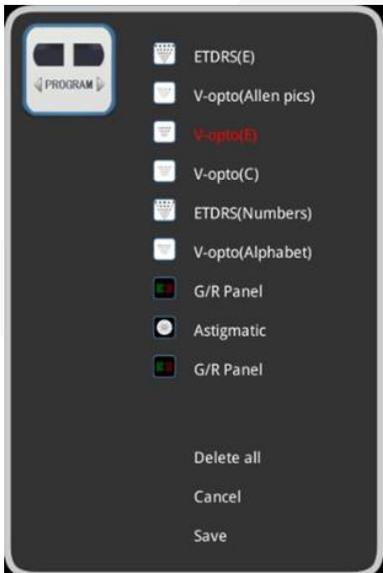


The same test icon can be added to the list repeatedly. The maximum test sequences that can be added to the list is 10. Once it reaches the limit. A warning box will show on the screen.

warn:The number has reached the maximum!

4. Go back to the home menu 2 and select QuickTest icon. Once you are in the QuickTest page, your program will display on the dialog box. Scroll down and select “Save” to save your program and return to home menu 2.

Add slides

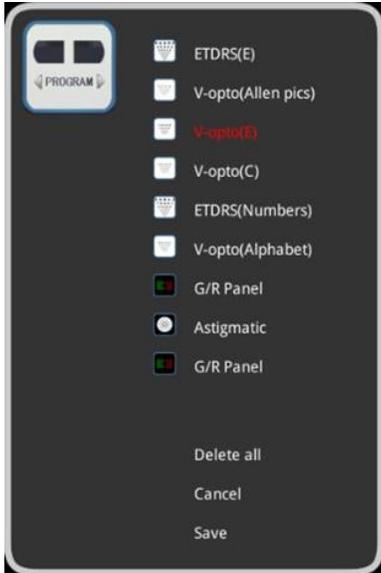


Select the test you want to add to the test sequences by pressing the “ADD” key on the remote control. Use the “LEFT” and “RIGHT” arrow keys on the remote control to shift between the tests on the test list. Once complete, click on save to save the test sequences.



If the test is stored in a folder, press “ADD” key to enter the folder and then press “ADD” key again to add the desired test to the list.

Delete slides



Enter the “Quick test” icon and select the test you want to modify. Use the “UP” and “DOWN” arrow key to scroll the list. The selected test will be high-lighted in RED.

- + key: advance the test up one spot
- key: push back the slide down one spot
- Single delete: high light the select test and press “ENTER”
- Delete all: select “DELETE ALL” and press “ENTER” to delete the entire test
- Save: select “SAVE” and press “ENTER” to save the changes
- Cancel: select “Cancel” and press “ENTER” to cancel all the actions. Or press “MENU” key.



If the test is stored in a folder, press “ADD” key to enter the folder and then press “ADD” key again to add the desire test to the list.

Set up for multiple LCD acuity charts



Physicians can have up to 4 LCD acuity charts in their practice. Each acuity chart can be set up as a unique machine so that they will not interference each other.

Type A: Press and hold both “SET” and “F1” button.

Type B: Press and hold both “SET” and “F2” button.

Type C: Press and hold both “SET” and “F3” button.

Type D: Press and hold both “SET” and “F4” button.

Cancel the setting: Press “SET” button first then press the “POWER” button 6 times.

Settings

Enter the “Settings” screen by either pressing the “Settings icon” on the remote control or selecting it from the home menu 2.

Language	English, Russian	
Red	Change the Red value to match the Red/Green glasses	
Green	Change the Green value to match the Red/Green glasses	
Visus Unit	5 units of measurement:	5-Grade: 3.7 – 5.3 Decimal: 0.05 – 2.0 LogMAR: -0.3 – 1.3 Snellen (ft.): 20/400 – 20/10 Snellen (m): 6/120 – 6/3
Dist. Unit	Meter or Foot	
Distance	2M to 7M in steps of 0.1M or 6ft to 24ft in steps of 0.5ft	
Low Vision (LV) Distance	0.6m to 1.5m in steps of 0.1m or 2in. to 5in. in steps of 0.5in.	
DPI	Resolution of screen. (Default value = 96)	
Image Scale	The size of the specialty chart. Zoom range from 0.4 to 1.3.	
Gamma	Parameter of contrast sensitivity. (Default value = 0.61)	
Font Size	Size of the scale display. (Default value = 48)	
Beep Volume	Range: 0 to 4	
Mirror	Folding mirror configuration; on or off	
Password	On or off	
Screen Saver	Disable	The display will stay on the latest chart without going to sleep mode
	Black Screen	The display will shut down and enters a low energy consumption mode. Press “POWER” key on the remote control will bring the unit back to the test screen
	Image	Unit will go through the preset images in cycle. Press “ANY” key on the remote control will bring the unit back to the test screen
Screen Saver Time	1 to 10 minutes, 15 minutes, 30 minutes , 60 minutes	
Set Password	Rest password	
Save	Save setting	
Cancel	Cancel modification in setting	
Upgrade Firmware	“Factory” use only	

Password setting



Default password is 1234 (four numbers only). Use “UP”, “DOWN”, “LEFT”, “RIGHT” cursor keys to scroll the keypad. And use the “ENTER” key on the remote control to confirm the input.

Rest the password



From the setting menu, choose “SET PASSWORD”. Input the old password and new password and then confirm the new password again. Then choose “OK” and then press “ENTER” key on the remote control to finish the setting.

Maintenance & Cleaning

Routine Maintenance

There is no periodic or routine user maintenance required.

General cleaning

It is suggested that you clean the LCD screen with a lint free cleaning cloth every month. The remote control and the LCD body can be cleaned with slightly dampened soft cloth with water.



Do not clean with any corrosive cleanser to avoid damage to the surface.

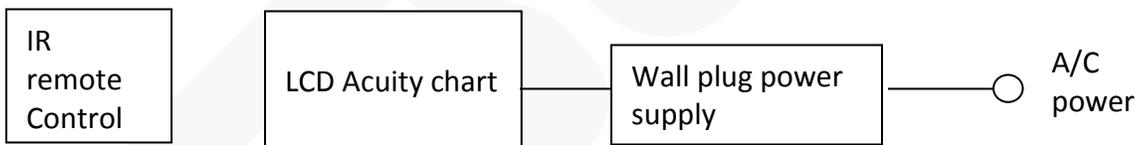
Technical Specifications

LCD	17 inch XGA panel
Remote Control	IR (2-AA batteries)
Brightness	>200 cd/m ²
Power	Input: 100/240V AC, 50/60 Hz Output: 12VDC
Power Consumption	20W (max)
Dimension (L/W/H)	17" X 14.5" X 1.6" (440mm X 370mm X 40mm)
Net Weight	5.5lb (2.5kg) without power supply

General Classifications

Mode of operation	Continuous
Degree of mobility	Portable
Type of protection against	Electrical Shock - Class I
Degree of protection against	Electrical Shock - Type B
Protection against harmful ingress of water	IPX-0
Classification	CE-Regulation 93/42/EEC

Block diagram



Storage, Transportation & Environment

Storage: Temperature -5°C to +50°C
Air Pressure 35% to 95%
Relative Humidity 700kPa to 1060kPa

Transport: Temperature -40°C to +70°C
Air Pressure 35% to 95%
Relative Humidity 700kPa to 1060kPa

Environment Condition of Use:

Temperature 0°C to + 50°C
Air Pressure 35% to 95%
Relative Humidity 700kPa to 1060kPa

Warranty

Three-Year Comprehensive Warranty

IBEX LCD Acuity Charts are guaranteed for thirty-six months against faulty workmanship, materials or factory defects. The Warranty is a Return-To-Base (RTB) Basis at the cost of the customer. All parts and services rendered are included at no additional cost to the customer and in most cases the work is completed within 2-3 business days.

In case of any defect during warranty period, the concerned person / hospital / institution, shall immediately contact Trevi Technology®. Trevi Technology® will rectify the problem and replace any parts if necessary with no cost.

Quality Systems

Safety Instructions



Read and follow the instructions, cautions and warnings before installing or using this instrument.

The repair/service of this instrument will only be performed by a qualified technician authorized by Trevi Technology®.

Trevi Technology® is responsible for the safety and performance of the equipment only if it is used in accordance with its intended use and the instructions given in the user guide.

This instrument is designed to perform as per the declared indications for safe and reliable service.

Do not modify and/or repair this equipment without authorization of the manufacturer. The manufacturer declines any and all responsibility for loss and/or damages resulting from unauthorized repair and/or modifications. Any repairs must only be performed by trained and authorized specialists.

Check your acuity chart periodically for any signs of damage or misuse.

This device is intended to be used only by suitably trained and authorized healthcare professionals. Federal law restricts this device to sale by or on the order of a licensed physician.



Never use this device in a potentially explosive environment where volatile solvents (alcohol, petrol, etc.) or flammable anesthetics are in use.



Connect the equipment to properly powered outlets. The entire electrical system in the room or building where your slit lamp is located should conform to IEC and/or local government regulations.

Disconnect the equipment from AC power before servicing and/or cleaning.

Never touch the cable and main power supply system with **wet or damp** hands.

Safety Standards

The FDA and CE marks on the **IBEX LCD Acuity Chart** indicates that it has been tested to meet and/or exceed the U.S. Department of Health and Human Services, Food and Drug Administration Guidance for Slit Lamp Optical Equivalency and Radiation Safety, International Standards within the 93/42/EEC Medical Device Directive and Electrical Safety.

The **IBEX LCD Acuity Chart** is manufactured under strict quality manufacturing systems and certifications as established by ISO 9001:2008 and ISO 13485:2012. These systems encompass materials, processes, assembly and packaging.

Standards Compliance

IBEX LCD Acuity Chart development, production, testing, set-up, maintenance and repair is compatible with IEC 60601-1 (electrical safety), IEC 60601-1-2 (electromagnetic compatibility), EN ISO 15004-2 (optical radiation safety). In addition IBEX LCD Vision Chart is compliant with the Directive 93/42/EEC as confirmed by the CE marking.

This device meets all the requirements for electromagnetic compatibility according to IEC 60601-1-2. This device is built so that the generation and emission of electromagnetic interference is limited to the extent that other devices are not disturbed in their use in accordance with the regulation and so that the slit lamp itself has appropriate immunity to electromagnetic interference.

This device is designed to comply with the following safety aspects.

Leakage current is less than 0.5mA in normal condition.

Leakage current is less than 1.0mA in a single fault condition.

Isolation voltage between ground and main wires is greater than 1500V.

20/400

H

20/400

3

20/300

K

20/300

6

20/200

V S

20/200

43

20/150

S V

20/150

78

20/100

ZKRN

20/100

4873

20/90

KHNO

20/90

9263

20/80

K D C V O S

20/80

3 8 9 6 7 4

20/70

H N D R K O

20/70

3 5 8 9 6 4

20/60

N S K R H C

20/60

6 2 5 4 9 3

20/50

V C S D Z O

20/50

8 2 7 5 3 9

20/40

D K Z S R C

20/40

6 3 7 5 8 2

20/30

H C S V N O

20/30

6 2 5 7 9 8

20/25

O C K H Z V

20/25

6 4 2 3 8 7

20/20

S R H D N V

20/20

8 7 9 3 2 4

20/15

S H V Z O R

20/15

8 4 2 5 9 7

20/10

O D R S V K

20/10

3 5 8 7 2 9

Square Optotypes

20/700	K	20/700	4
20/600	R	20/600	2
20/500	O	20/500	7
20/400	N	20/400	8
20/300	R	20/300	2
20/200	HVZ	20/200	245
20/150	KHZ	20/150	927
20/100	SRDNH	20/100	35496
20/90	SCVKO	20/90	52837
20/80	KRNSV	20/80	52896
20/70	SNZOH	20/70	68725
20/60	BDOSR	20/60	28657
20/50	DNSVK	20/50	28965
20/40	NRNHS	20/40	25469
20/30	HDZNV	20/30	35784
20/25	KSDRO	20/25	46859
20/20	RNCKS	20/20	32895
20/15	OCHSK	20/15	58293
	NVZDC	20/10	45978

V-Shaped Optotypes

Visual Acuity Scales

Foot	Meter	Decimal	LogMAR
20/200	6/60	0.10	1.00
20/160	6/48	0.125	0.90
20/125	6/38	0.16	0.80
20/100	6/30	0.20	0.70
20/80	6/24	0.25	0.60
20/63	6/19	0.32	0.50
20/50	6/15	0.40	0.40
20/40	6/12	0.50	0.30
20/32	6/9.5	0.63	0.20
20/25	6/4.5	0.80	0.10
20/20	6/6	1.00	0.00
20/16	6/4.8	1.25	-0.10
20/12.5	6/3.8	1.60	-0.20
20/10	6/3	2.00	-0.30

Contact Information

If for some reason your, **IBEX LCD Vision Chart** does not perform properly or you incur a problem with the instrument:

- a. Consult the applicable section of this manual.
- b. Check: www.ibexeye.com
- c. E-Mail: info@ibexeye.com
Attn: Engineering Department
- d. Call: 614-754-7175
Ask for the Engineering Department

IBEX

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