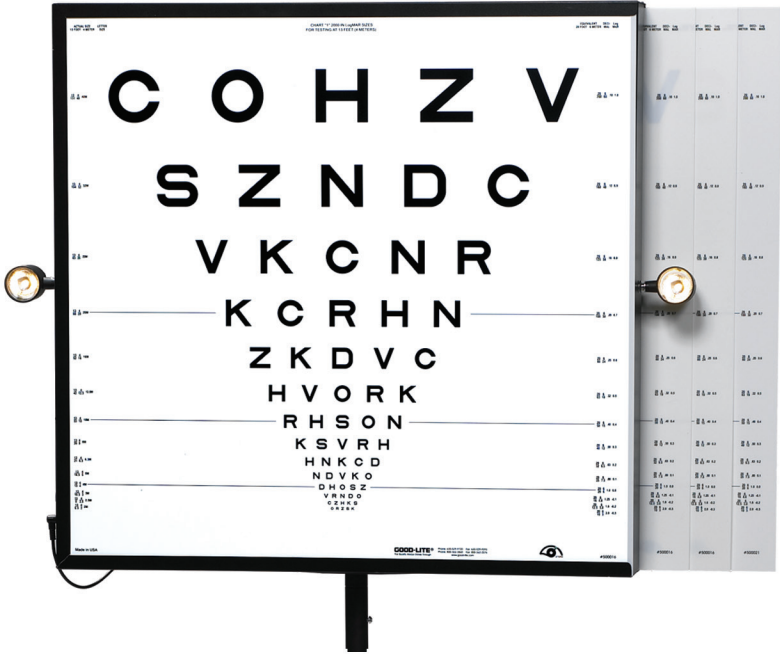
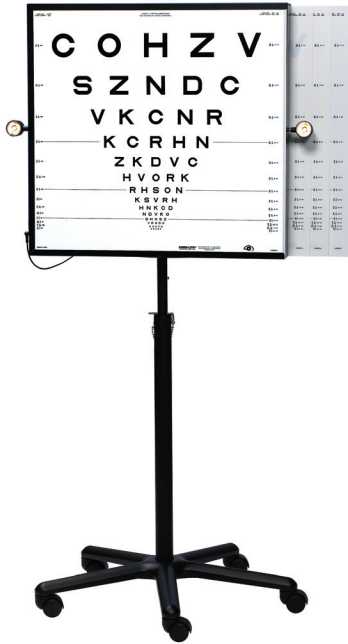


ESV3000 Quantum ETDRS Cabinet

INSTRUCTION MANUAL

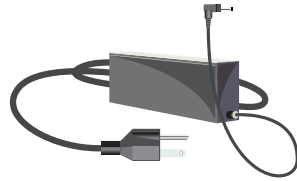




ESV3000 Quantum ETDRS Cabinet
shown with optional base and glare lights



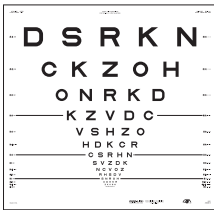
Remote Control



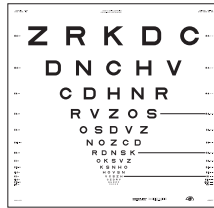
Power Supply



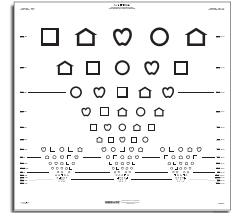
Optional Glare Lights



Original Series ETDRS
Translucent Distance Charts



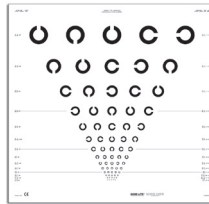
"2000" Series ETDRS
Translucent Distance Charts



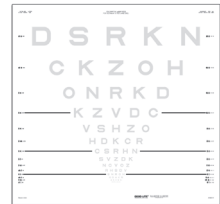
LEA Symbols ETDRS
Translucent Distance Chart



LEA Numbers ETDRS
Translucent Distance Chart



Landolt C ETDRS
Translucent Distance Chart



Low Contrast ETDRS
Translucent Distance Chart



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Introduction

CONGRATULATIONS on your purchase of a top-quality Good-Lite® product which has been thoroughly tested to meet our exacting quality control standards. The **ESV Series Cabinets** are designed to test high and low contrast visual acuity. They can be used to test visual acuity in preschool through adult populations. The ESV Series Cabinets are CSA and CE approved.

The ESV Series Cabinets can be powered with the power adapter or the optional rechargeable lead acid battery. These guidelines and safeguards help insure that your new ESV Series Cabinet operates effectively. Please read all instructions carefully before using your ESV Series Cabinet. Please take a few moments to review the following IMPORTANT INFORMATION before using this tool.

READ ALL INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. FAILURE TO FOLLOW ALL INSTRUCTIONS, WARNINGS AND CAUTIONS MAY RESULT IN SERIOUS PERSONAL INJURY, PROPERTY DAMAGE AND/OR MAY VOID YOUR WARRANTY.

IMPORTANT USE NOTE:

Due to the self-calibration of the ESV3000, the unit needs to be turned OFF when changing charts to maintain proper light levels.

Lights in the testing room must be dimmed and lower than the light level of the ESV3000 to ensure proper calibrated light level.



Service & Important Safeguards

Service Information

WARNING: Any repairs requiring disassembly should be performed by Good-Lite®. There are no user serviceable parts except for two (2) 3V CR2032 coin lithium batteries in the remote control.

WARNING: To reduce the risk of fire, electrical shock, injury, or damage to your machine:

Do not use if unit is damaged in any way.

Use this product only for its intended use as described in this manual.

Never leave your ESV Series Cabinet plugged in for long term storage.

Never insert or drop any object into any opening on the device.

Do not use on or near hot surfaces.

Only use the power adapter supplied to power this unit. Do not use the supplied power adapter with any other appliance.

To protect against risk of electrical shock, do not put power adapter in water or other liquid.

To avoid damage to the power adapter and cord, never carry the charger by the cord or yank to disconnect from an outlet. Instead, firmly grasp the charger body and pull to disconnect. Do not pull cord around sharp edges or corners.

Do not allow the cord to hang over the edge of a table or counter or touch hot surfaces.

Do not operate with a damaged cord or power adapter.

Do not use or store power adapter outdoors. Use the ESV Cabinet in a clean, dry place. Do not expose power adapter to rain, or extreme temperatures.



For best results, operate the power adapter in a location where the temperature is more than 50 degrees F but less than 100 degrees F.

Disconnect power adapter from power supply when not in use, and before any routine cleaning or maintenance.

The use of extension cords is not recommended. Plug the power adapter into a properly grounded standard electrical outlet (120v/60Hz) only.

If unit is not working as it should, or has been dropped or damaged in any way, return it to Good-Lite® before using.

Product Specifications

ESV3000 12 Volt, DC

Power Adapter Rating: 120VAC, 60 Hz AC (100VAC-240VAC, 47-63Hz with proper adapter)

Power Adapter Voltage: 12 Volt DC

Dimensions: 25.75"W x 24.875"H x 3.75"D (65.4 cm x 63.18 cm x 9.52 cm)

Weight: 20 lbs. (9 kgs.)

Calibration of the ESV3000

Calibration of the unit is done before shipment. If recalibration becomes necessary, the unit must be returned to Good-Lite®. User calibration is not advised and may void warranty if attempted.

Optional Glare Lights (#500100)

The optional glare lights install on other side of the cabinet. Insert glare lights into sockets provided.

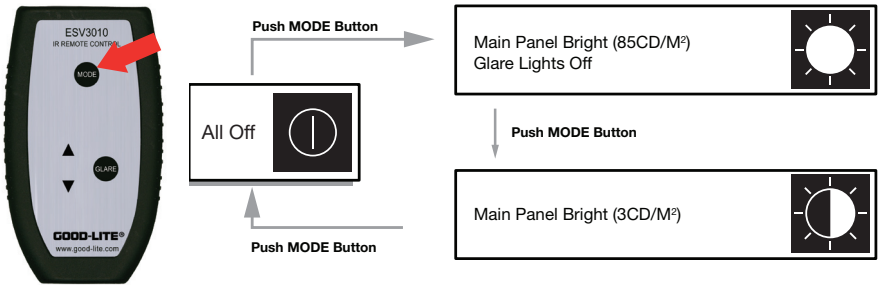




Using the Remote Control

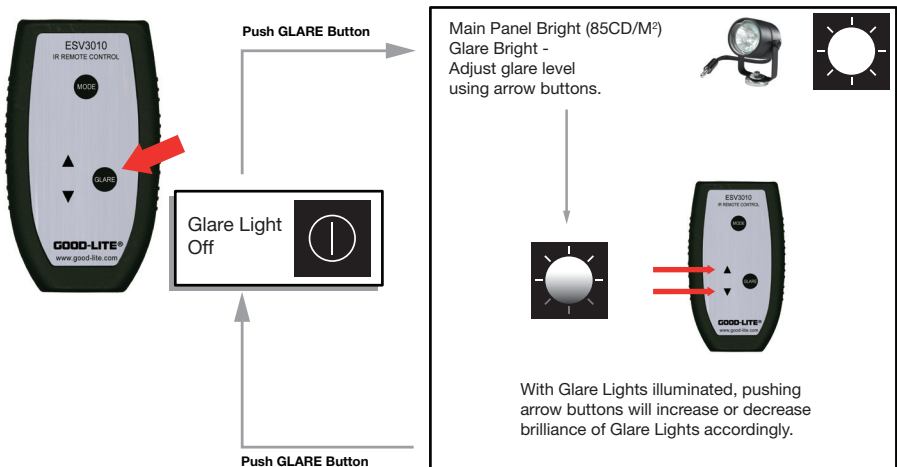
Operation of Remote with Main Unit

Single push button on left side of cabinet can be used for manual operation. Pressing "MODE" button once will illuminate ESV3000 to 85CD/M². Pressing "MODE" button again will illuminate ESV3000 to 3CD/M² with pressing one more time will turn the unit off.



Operation of Remote with Optional Glare Lights

Pressing the "GLARE" button once will illuminate the optional glare lights. While glare lights are on, pressing the arrow buttons will adjust the brilliance of the glare lights accordingly. Pressing the "GLARE" button again will turn off the optional glare lights.





Mounting Instructions

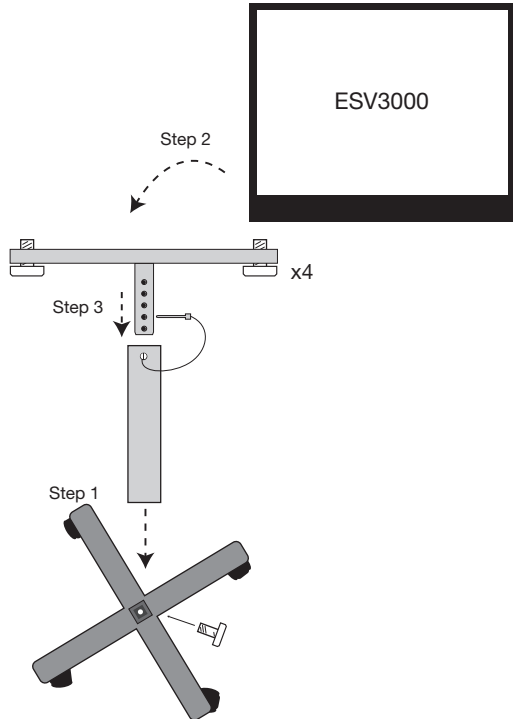
Mounting to a Wall

FAILURE TO SECURELY MOUNT CABINET EITHER TO A WALL OR OPTIONAL CASTER BASE (#500004) MAY RESULT IN SERIOUS PERSONAL INJURY, PROPERTY DAMAGE AND/OR MAY VOID YOUR WARRANTY.

The ESV3000 Cabinet is designed to be mounted on a wall or optional caster base. There are two (2) keyhole slots on 16-inch (40.64 cm) centers on the unit for wall mounting. Use appropriate fasteners designed for mounting surface and a minimum hanging weight of 60 lbs. (28 kgs.).

Mounting to Optional Caster Base (#500004)

1. Insert tapered end of large pole into the caster base. It may be necessary to tap pole into caster base to ensure proper seating of pole. Insert screw through bottom of base into the pole.
2. Flip ESV3000 unit upside down. Place flat bracket on the bottom aligning all 4 holes. Thread and securely tighten all 4 thumb screws through base plate into ESV3000.
3. Insert base plate with ESV3000 into the larger base pole hole.
4. Adjust stand to desired height and pin.





Maintenance and Service

All Good-Lite® products are warranted for one year from date of original purchase against defects in materials or workmanship after normal use. Good-Lite® will, at its option repair or replace products found to be defective.

If service is necessary, return the entire unit with the remote control to the factory for authorized repair.

Warning: Keep CR2032 coin lithium batteries away from small children. If swallowed call your doctor immediately. Do not incinerate battery as it will explode or leak if recharged or disposed of in fire. Always dispose of the battery in accordance with applicable laws.

- Batteries must be recycled. For recycling information inside USA CALL 800-278-8599.

Rechargeable batteries should never be used. When the remote control will not be used for several weeks, the batteries should be removed to prevent unnecessary drain.

Other than the two (2) 3V CR2032 coin lithium batteries in the remote control, there are no user serviceable parts inside the unit or the remote control.

Cleaning and Care

You may clean the exterior of your ESV Series Cabinet with any **NON-ABRASIVE** commercially available cleaner. Cleaners or water should **NEVER** be sprayed directly on the ESV Series Cabinet. Charts may also be cleaned in this manner. Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease etc.

CAUTION: Do not at any time let brake fluids, gasoline, petroleum based



products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

Disposal of unit

EU Customers: At the end of this product's life cycle, it must be sent to a WEEE recycling center.

Warning: Keep CR2032 coin lithium batteries away from small children. If swallowed call your doctor immediately. Do not incinerate battery as it will explode or leak if recharged or disposed of in fire. Always dispose of the battery in accordance with applicable laws.



- Batteries must be recycled. For recycling information inside USA CALL 800-278-8599.

Important Tips & Storage

WARNING: Do not attempt to modify this unit or create accessories not approved for use with this unit. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury. The ESV Series Cabinets have NO USER SERVICEABLE PARTS. Do not attempt in any way to destroy or disassemble unit or any of its components. Failure to follow these instructions may void your warranty agreement.

NOTE: Any repairs requiring disassembly must be performed by Good-Lite®. Unauthorized repairs will void the warranty.

Storing the ESV Series Cabinet

The circuit board in the ESV Series Cabinet are long lasting and proper care will help to prolong the life of your appliance.

Store your ESV Series Cabinet in a clean, dry place when not in use. Do not leave in direct sunlight, or exposed to extreme heat or cold when possible.



NOTE: Remove ESV Series Cabinet from power adapter before storage. When not in use, your ESV Series Cabinet must be stored indoors, in a clean dry location sheltered from direct sunlight, extreme temperatures and rain.

Long Term Storage

Follow the above storage instructions and unplug the power adapter from the electrical outlet.

Accessories, Charts and Replacement Parts

- ESV3000 ETDRS Standardized Viewer only
- ESV3006 Replacement Power Pack
- 500004 ESV3000 Floor Stand with Casters
- 500022 ESV3000 Glare Lights
- 914003 Rechargeable Battery Pack for all ESV Series illuminated cabinets.

Original Series ETDRS Sloan Letters Translucent Distance Charts (13 Feet, 4 Meter)

Proportional spaced (geometric progression) line sizes from 20/200 to 20/10 (6/60 to 6/3 equivalent). Standardized format used in National Eye Institute-sponsored studies. Used in clinical studies and low vision evaluations where accurate and repeatable visual acuity measurements are needed. Measures 24.5"H x 25.5"W (62 cm x 65 cm).

- 500013 Chart "R"
- 500014 Chart "1"
- 500015 Chart "2"

"2000" Series ETDRS Sloan Letters Translucent Distance Charts (13 Feet, 4 Meter)

Proportional spaced (geometric progression) line sizes from 20/200 to 20/10 (6/60 to 6/3 equivalent). Revised version of the original ETDRS series. Measures 24.5"H x 25.5"W (62 cm x 65 cm).

- 500016 Chart "1"
- 500017 Chart "2"
- 500018 Chart "3"



**270200 LEA Numbers® ETDRS Translucent Distance Chart
(13 Feet, 4 Meter)**

LEA Numbers® distance visual acuity test for the ETDRS Illuminator Cabinet. Proportional spaced line sizes from 20/200 to 20/8 (6/60 to 6/2.4 equivalent). Measures 24.5"H x 25.5"W (62 cm x 65 cm).

**"2000" Series ETDRS Sloan Letters Translucent Distance Charts
(10 Feet, 3 Meters)**

Proportional spaced (geometric progression) line sizes from 20/200 to 20/10 (6/60 to 6/3 equivalent). Revised version of the original ETDRS series. Measures 24.5"H x 25.5"W (62 cm x 65 cm).

- 500010 Chart "1"
- 500011 Chart "2"
- 500012 Chart "3"

**ETDRS Sloan Letters Translucent Low Contrast Charts
(13 Feet, 4 Meter)**

Proportional spaced (geometric progression) line sizes from 20/200 to 20/10 (6/60 to 6/3 equivalent). Measures 24.5"H x 25.5"W (62 cm x 65 cm).

- | | | | |
|--------|-----|--------|-------|
| 500023 | 25% | 500021 | 2.5% |
| 500019 | 10% | 500022 | 1.25% |
| 500020 | 5% | | |

**250300 LEA Symbols® ETDRS Translucent Distance Chart
(10 Feet, 3 Meters)**

LEA Symbols® distance visual acuity test for the ETDRS Illuminator Cabinet. Proportional spaced line sizes from 20/200 to 20/8 (6/60 to 6/2.4 equivalent). Includes response key, flash cards, and instructions. Measures 24.5"H x 25.5"W (62 cm x 65 cm).



Warranty

Good-Lite® warrants this product for one year from date of purchase against any defects in material or workmanship under normal use and service, subject to conditions and limitations as described below.

Parts not covered under warranty: Charts and accessories other than manufacturing defects.

This warranty covers only normal use. Damage, defect, malfunctions or any use, which does not comply with the operator instructions, are excluded. Damage or any failure caused by repair, which is done by anyone other than Good-Lite®, shall not be covered.

The warranty obligations of Good-Lite® shall be limited to repair or replacement of the product. Good-Lite® shall not be liable or responsible under any circumstances or in any amount for consequential or incidental damages, or for injury or damages to persons or property using or used in connection with the product or for loss of profits or other costs or expenses of any kind of character. There are no other warranties or representations by Good-Lite® other than as set forth herein, either expressed or implied and no person, firm or corporation is authorized to make any representation or incur any obligation in the name or on behalf of Good-Lite® except as stated herein.



Safety

This product is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control and laboratory use:

- CAN/CSA C22.2 No. 61010-1-04
- ANSI/UL 61010-1, 2nd Edition

Electromagnetic Compatibility

This product is designed to meet the requirements of the following standards of EMC for electrical equipment for measurement, control and laboratory use:

EMC Directive: 89/336/EEC

Generic Emissions Standard: EN 61000-6-3: 2001

Product Specific Emissions: EN 55022 Class B

Generic Immunity Standard: EN 61000-6-1: 2001

Immunity: EN 61000-4-2 Electrostatic Discharge

EN 61000-4-3 Radiated Susceptibility

EN 61000-4-4 Electrical Fast Transient/Burst

EN 61000-4-5 Surge

EN 61000-4-6 Conducted Susceptibility

EN 61000-4-11 Voltage Dips & Interruptions

EN 61000-3-2 Harmonic Current

EN 61000-3-3 Voltage Fluctuations & Flicker

CE Compliance

This product meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

- 73/23/EEC; Low-Voltage Directive (safety)
- 89/336/EEC; Electromagnetic Compatibility Directive (EMC)

Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, please contact Good-Lite®.



Legal Notices

Software License

The Good-Lite® products described in this manual may include copyrighted Good-Lite® and third party software stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Good-Lite® and third party software providers certain exclusive rights to distribute or reproduce the copyrighted software. Accordingly, any copyrighted software contained in the Good-Lite® products may not be modified, reverse-engineered, distributed, or reproduced in any manner to the extent allowed by law. Furthermore, the purchase of the Good-Lite® products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents, or patent applications of Good-Lite® or any third party software provider, except for the normal, non-exclusive, royalty-free license to use that arises by operation of law in the sale of a product

GOOD-LITE®

The Quality Always Shines Through

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ITEM #ESV3000