

Ophthalmic Stand

INS-11101



Operations Manual

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Warnings and Cautions

CAUTION: IN ORDER TO ENSURE THAT CORRECT OPERATION OF THIS UNIT IS MAINTAINED, ANY REPAIR OR SERVICE MUST BE PERFORMED BY EXPERIENCED PERSONNEL THAT ARE TRAINED BY FACTORY

CAUTION ESDS: THE INTERNAL CIRCUITRY OF THIS UNIT CONTAINS ELECTROSTATIC DISCHARGE SENSITIVE DEVICES (ESDS). SUCH COMPONENTS MAY BE SENSITIVE TO HIGH VOLTAGES PRODUCED BY STATIC CHARGES FROM THE HUMAN BODY. DO NOT REMOVE ANY OF THE COVERS OF THIS UNIT WITHOUT TAKING PROPER PRECAUTIONS OR DAMAGE TO THE UNIT MAY OCCUR.

CAUTION: DO NOT USE SOLVENTS OR STRONG CLEANING SOLUTIONS ON ANY PART OF THE UNIT OR DAMAGE TO THE UNIT MAY OCCUR.

ARNING: DO NOT REMOVE OR DEFEAT THE EARTH GROUND CONNECTION ON THE UNIT POWER INPUT CONNECTOR OR THE UNIT'S POWER CORD. DAMAGE TO THE UNIT AND/OR INJURY TO THE OPERATOR MAY OCCUR.

WARNING: THE UNIT SHOULD BE USED IN STRICT ACCORDANCE WITH THE INSTRUCTIONS OUTLINED IN THIS USERS GUIDE. THE SAFETY OF THE OPERATOR AND THE PERFORMANCE OF THE INSTRUMENT CANNOT BE GUARANTEED IF USED IN A MANNER NOT SPECIFIED BY FACTORY.

Warning Symbols

The following symbols appear on this manual



CAUTION - Indicates that important operating and maintenance instructions are included in this User's Guide.



The lightning bolt with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of "dangerous voltage" within the unit's enclosure that may be of sufficient magnitude to constitute risk of electrical shock.

The following symbols appear on the instrument:

DISCONNECT POWER BEFORE OPENING

Warning A mention position : The rear of the pump cover of the chair

The lower part of the rear of the stands

Caution GROUNDING RELIABILITY CAN ONLY BE ACHIVED WHEN THE EQUIPMENT IS CONNECTED TO AN EQUIVVALENT RECEPTACLE MARKED HOSPITAL ONLY OR HOSPITAL GRADE.

A mention position : In a power cable.



Alternating Current

A mention position : In a product ravel.

Protective Earth , A mention position

A base of the inlet backside of the stands

In the operation board of the stands

Introduction

Congratulations on the purchase of your new OPHTHALMIC UNIT

This User's Guide is designed as a training and reference manual for operation, maintenance, and troubleshooting. We recommend that you read it carefully prior to use and follow the instructions in the guide to ensure optimum performance of your new product. Please retain this manual for future reference and to share with other users. Additional copies can be obtained from your authorized dealer.

Unpacking

Remove the plastic banding straps from the shipping carton.

Note: Open the top of the shipping carton and look inside to make sure everything is secured before removing the carton.

Remove the accessories from the stand and set aside for later assembly. Remove the box containing the head rest from the seat of the chair and set aside. Remove the angle iron from base which secure the base to the skid. You will need a claw hammer or crow/pry bar.

CAUTION



To reduce the risk of personal injury or damage to the stand or chair, you should have someone assist you with removing the stand or chair from the skid. Never try moving the stand by holding on to the control panel and the base cover.

Carefully slide the stand or chair from the shipping skid. You will need to tilt the stand or chair to remove the skid. Maneuver the stand and chair to your desired location (*be sure your location is level*) and remove the remaining packing materials. Unpack the remaining component boxes.

Features, and Functions

The items listed below should be included in the Advantage packaging containers. If any of these items are missing, please contact dealer.

- Advantage Chair
- Foot Switch
- Stand Base With Control Panel and Charging Wells
- Lower Instrument Arm
- Overhead Lamp Assembly
- Refractor Arm
- Vertical Mounting Post
- Lamp Cord
- Allen Wrenches
- Spare Fuses
- User's Guide
- Power cable



Installation And Assembly

Refractor Arm Assembly

Weight : 4.5kg Max allowable Load : 9.0kg

1. With the locking ring facing down, feed the lamp cord through the mounting hole of the Refractor Arm
2. Slide the Refractor Arm (with the lock ring to the bottom) down over the Vertical Post to the desired position and tighten the locking ring Allen screw. (Fig. 9)
3. Screw the locking handle into the Refractor Arm and tighten. (Fig. 10)
4. Slide the refractor mounting bar in the Refractor Arm and tighten. (Fig. 11)

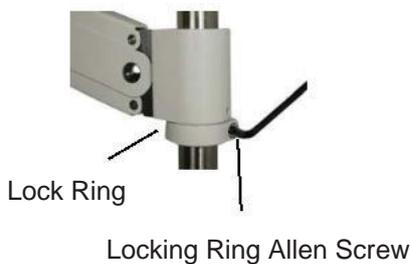


Fig.9



Fig.10



Fig.11

Overhead Lamp Assembly

1. Connect the Overhead Lamp cord to the Overhead Lamp. (Fig. 12)
2. Raise the Overhead Lamp and insert the lamp busing into the Vertical Post. (Fig. 13)
3. Reinstall the Vertical Post Screw removed from the top of the vertical post. (Fig. 13)



Fig.12

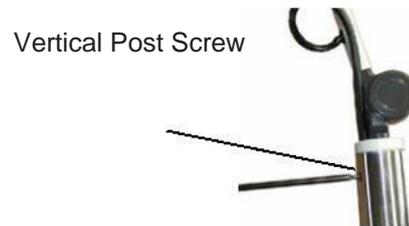


Fig.13

Optional

Keratometer

Arm Assembly

Weight : 6.0kg Max allowable Load : 8.0kg

1. With the locking ring facing down, feed the lamp cord through the mounting hole of the Third Arm.
2. Slide the Third Arm, with the lock ring toward the bottom, down over the Vertical Post to the desired location and tighten the locking ring Allen screw.
3. Remove the two shipping nuts. Do not remove the washers.
4. Install the two locking handles supplied with the Third Arm.
5. Remove the access cover over the Auxiliary Power Panel and plug the Third Arm power cord into the outlet labeled ACC.

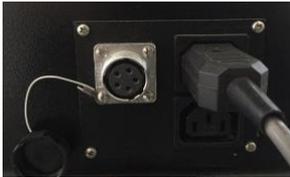
Optional Projector Arm Assembly

Weight : 0.8kg Max allowable Load : 6.0kg

1. Starting at the locking ring, feed the string through the mounting hole of the Projector Arm
2. Slide the Projector Arm, with lock ring to the bottom, down over the Vertical Post to the desired position and tighten the locking ring allen screw.

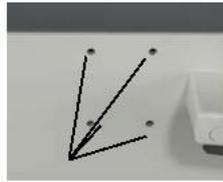
Chair Set-Up

1. Connect the chair power/control cord to the chair connector on the power input panel of the stand.
2. Install the headrest using the four Allen screws supplied. (Fig. 17 & 18)



Chair power Connection

Fig.16



Head Rest Mounting Holes

Fig.17



Fig.18

Operation

Control Panel

The control panel (See page for control panel diagram) contains all of the electrical controls except (1) the main power ON/OFF switch, (2) a secondary chair UP/DOWN switch and (3) the lower arm vertical UP/DOWN switch.

Main ON/OFF Switch

The Main ON/OFF switch controls the electric power for the entire stand. This switch is a rocker type with an internal lamp that glows green when the power is ON. Press the side with the straight line "I" to turn the stand ON. Press the side with the circle "O" to turn the stand OFF.

Charging Wells

The charging wells are designed for hand-held instruments with a rechargeable battery. The charging wells will charge instrument batteries as long as the instrument handle is fully inserted in the well.

NOTE

Your hand-held instruments must be turned OFF prior to placing them in the charging well. Additionally, the stand Main ON/OFF switch must be ON for the instrument batteries to charge.

Chair UP/DOWN Switch

Press and hold the UP arrow to raise the chair. Press and hold the DOWN arrow to lower the chair.

Chart Projector Outlet Switch

The C.P. switch is a push type on-off button. It controls the electricity to the C.P. outlet on the lower left of the auxiliary power panel. If the switch is OFF, pressing the switch once will turn it on. If the switch is on, pressing the switch once will turn it off. An LED just to the left of the switch lights up when the switch is ON.

Accessory Outlet Switch

The ACC switch is a push type on-off switch. It controls the electricity to the ACC outlets on the left and Upper right of the power input panel. If the switch is OFF, pressing the switch once will turn it ON. If the switch is ON, pressing the switch once will turn it OFF. An LED just to the left of the switch lights up when the switch is ON.

Lower Instrument Arm Outlet Switch

The S.L. switch is a push type on-off switch to control the electricity to the outlet on the Lower Instrument Arm. If the switch is off, depressing it once will turn it on and apply power to the outlet on the Lower Instrument Arm. If the switch is on, depressing it once will turn the switch off. An LED just to the left of the switch illuminates to indicate the switch is on.

Corded Instrument Voltage Selector

Locate the Voltage Limit Switch for Corded Instrument located on the rear of the stand. Using a small flathead screwdriver, adjust the switch to the maximum voltage of your corded instrument connected to the binding post.

Accessory Outlet Switch

The ACC switch is a push type on-off switch. It controls the electricity to the ACC outlets on the left and

Upper right of the power input panel. If the switch is OFF, pressing the switch once will turn it ON. If the switch is ON, pressing the switch once will turn it OFF. An LED just to the left of the switch lights up when the switch is ON.

Lower Instrument Arm Outlet Switch

The S.L. switch is a push type on-off switch to control the electricity to the outlet on the Lower Instrument Arm. If the switch is off, depressing it once will turn it on and apply power to the outlet on the Lower Instrument Arm. If the switch is on, depressing it once will turn the switch off. An LED just to the left of the switch illuminates to indicate the switch is on.

Corded Instrument Voltage Selector

Locate the Voltage Limit Switch for Corded Instrument located on the rear of the stand. Using a small flathead screwdriver, adjust the switch to the maximum voltage of your corded instrument connected to the binding post.

NOTE: Do not select a voltage that exceeds the voltage rating your corded instrument.

Once the maximum voltage has been selected, press the Power button in the area labeled "VOLTAGE" to turn your corded instrument on and off. Pressing the Left or Right Arrow one position at a time will increase or decrease the voltage to the corded instrument connected to the binding posts of the stand within the range of the maximum voltage set by the Voltage Limit Switch on the rear of the stand.

Overhead Lamp ON/OFF Intensity Controls

The area labeled "LAMP" has 3 separate buttons and a minimum to maximum LED scale. Pressing the Left or Right Arrow one position at a time will increase or decrease lamp intensity. Pressing the POWER switch will apply power to the Overhead Lamp. The LED on the scale will flash indicating power is applied to the lamp. You will hear a "beep" if the voltage has been changed from a previous setting. Pressing the POWER switch again removes power from the overhead lamp and the LED will remain ON.

Lower Instrument Arm

To move the lower instrument arm up or down, pressing the up or down switch while raising or lowering the arm.

The lower instrument arm can be rotated 180 deg. to the left or right about the lower pivot joint by releasing the locking handle located on the lower portion of the lower instrument arm.

The intermediate section of the lower instrument arm can be rotated about its pivot point by releasing the locking handle located in the middle of the lower instrument arm.

The outer-most portion of the lower instrument arm is a stiff friction joint capable of being rotated 180 deg. And will stay in position. The knob at the end of the arm locks the rotation of the instrument about its pivot point.

Refractor Arm

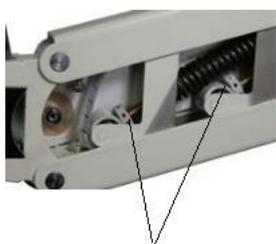
Caution: The refractor arm can rise abruptly if the locking handle is released, when the arm has been left in a downward position, and it has not been balanced. Do not lock the arm in the lower position without a refractor installed. The refractor arm can be operated by releasing the locking handle. Push the handle away from yourself to release it. Pull the handle toward yourself to lock the refractor arm in

place. The Locking handle controls all vertical and rotational movement of the arm.

Counterbalance Adjustment

To “fine tune” the counterbalancing action of the refractor arm:

1. Move the locking lever to the unlocked position.
2. Remove the side plate by removing the two 4mm allen screws. Leave the bushings and washers in place and set the side plate aside so it can be installed exactly as removed.
3. Turn the adjusting wheels counterclockwise to reduce spring tension, clockwise to increase spring tension. Turn both wheels equal amounts until the arm comes to rest in a horizontal or slightly above horizontal position when released from the full up or full down position. (Fig. 19)
4. Install the side plate. Adjust the friction of the vertical movement by adjusting the tension on the side plate bushing nearest the vertical post. Loosen the small set screw on the opposite side of the large screw. Tighten the large screw just until the arm will stay in the highest or lowest position when released. Tighten the small set screw to hold the adjustment. (Fig. 20)
5. The bushing on the other end of the arm is held in place by the large screw. Tighten the small set screw to hold the large screw in place. (Fig 20)



Overhead Lamp

Caution: The Overhead Lamp shade can get very hot. Do not grasp the lampshade near the bulb to adjust the Adjusting Wheels

Please do not adjust the overhead lamp socket and a patient at the same time.

To operate the Overhead lamp you must:

1. Switch on the main ON/OFF switch on the front of the stand.
2. Press the lamp POWER switch on the control panel.
3. Press the left or right arrow to increase or decrease lamp intensity.

Small Set Screw position of the lamp assembly. Do not touch it with an

Chair Operation

Note: To raise or lower the chair, the main power ON/OFF switch on the front of the stand must be ON.

To raise the chair press the up on the foot switch, the up arrow in the CHAIR section of the control panel, or the UP switch on the lower instrument arm. To lower the chair, press the down arrow on the foot switch, the down arrow in the CHAIR section of the control panel, or the DOWN switch on the lower instrument arm. Single press the DOWN button on the control panel for the chair's Auto-Down feature.

Head Rest

The head rest can be positioned by pulling the lock handle to the unlocked position, positioning the headrest in the desired position and squeezing the handle until it snaps into the locked position.

Chair Back Rest

The back rest can be positioned as required by squeezing the back rest lock handle and positioning the back rest as desired. When released, the handle will lock the back rest in position.

Arm Rests

The arm rests can be positioned in the vertical or horizontal position as desired.

Foot Rest

The foot rest can be positioned in the upright or horizontal position as needed.

Accessories, Optional Equipment, Maintenance, and Cleaning

Accessories:

1. Fuses
2. Metric Allen Wrench Set (2, 2.5, 3, 4, 5, 6, 8 mm)

Optional Equipment:

1. Keratometer Arm
2. Projector Arm

Maintenance:

There is no periodic or routine maintenance required.

Cleaning:

There are no special cleaning requirements. Do not use strong solvents when cleaning the unit.

CAUTION: Before cleaning with a damp cloth, disconnect or unplug the stand from any power source.