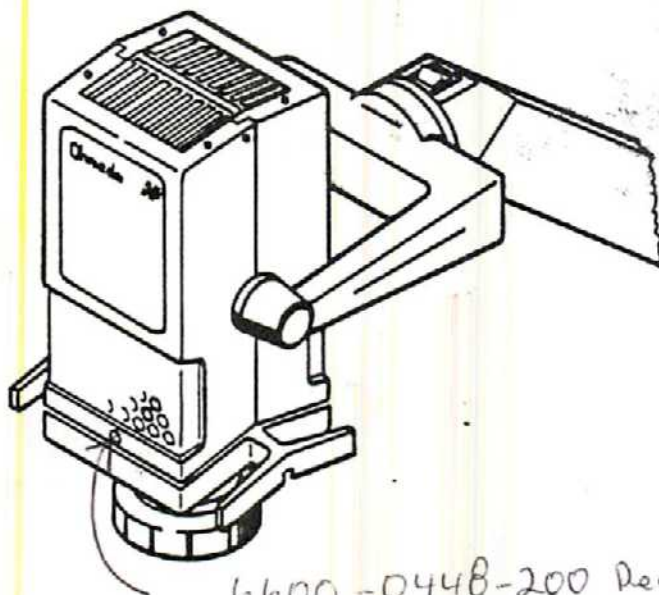


Halogen Phototherapy Light II Operation and Maintenance Manual



6600-0448-200 Receptacle

6600-0449-200 Stud 250

Lamp PDL

1.2 SPECIFICATIONS

Size: Lamp and arm fully extended - 34 inches long
Lamp housing and yoke 12 inches long by 6-1/2 inches wide by
4-1/2 inches high

Weight: Rail/Wall Mount Model - approximately 24 pounds unpacked
Floor Stand Model - approximately 37 pounds unpacked

Voltage: 115 volts 60 Hz

Current: 8.5 amp

Fuse: 3 amp, 125 volts, 1-1/4" slo-blow

Lamp type: Halogen, 150 watt, 20 Volt, type Burton

Irradiance: 3 to 76 microwatts/square centimeter/nanometer in the
425-475 nanometer spectrum at bed level, depending on
lamp to patient distance.

Lamp intensity: 6,500 foot candles

Lamp spot size: Variable from 3 to 20 inches depending on aperture
size selected and light to mattress distance.

Lamp color temperature: 3,150 degrees Kelvin

Average lamp life rating: 1,800 hours (lamp life will vary between
1000 and 3000 hours typically)

Leakage current: With the ground wire open less than 100 micro-
amperes. *

With the ground wire closed less than 5 micro-
amperes. *

* Measured at any exposed metal surface on 115 volt
units.

2/ SETUP AND CHECK OUT PROCEDURE

The Phototherapy Light should only be installed by qualified service personnel.

Follow the instructions carefully to ensure proper mounting and safe operation. Because of the variety of possible mounting configurations you may have to order specialized hardware. Hardware requirements for some applications are as follows:

1. Rail Mounting - For installation on the Ohmeda Infant Warmer System order a rail mounting kit (Stock no. 6600-0051-800).
2. Wall Mounting - Two 3/8 x 3 inch lag screws are provided. This hardware is satisfactory when properly installed on a typical wood frame drywall. However, different hardware may be required for other wall constructions.

2.1 INSTALLATION ON THE INFANT WARMER SYSTEM

WARNING: These mounting instructions must only be carried out by qualified service personnel. Be sure to install all components in the proper order and orientation.

CAUTION: Do not allow the wires to be pinched during installation.

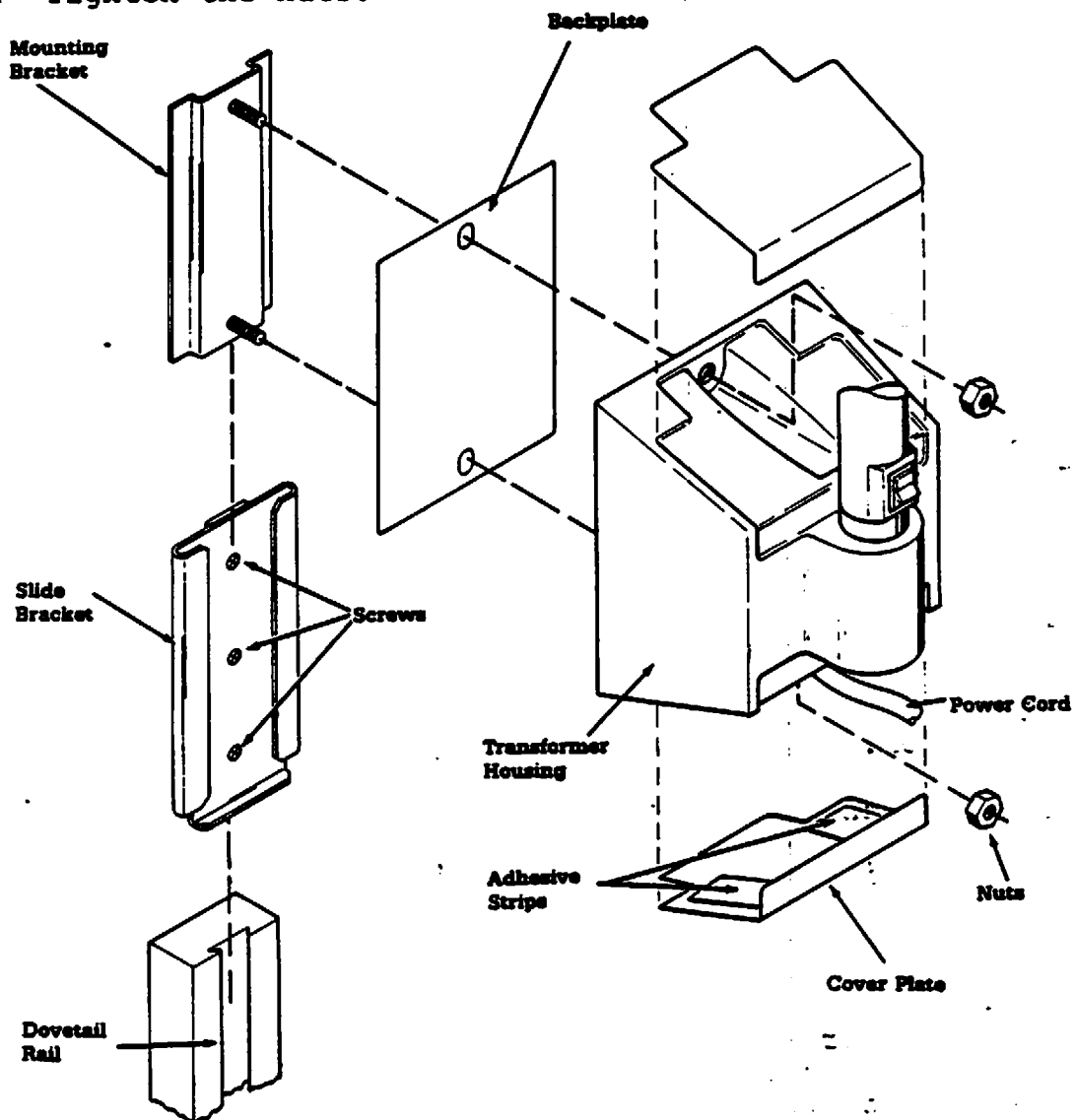
Verify that the following parts are included:

Qty.	Description
2	Cover plates
1	Hole plug
1	Arm end cap
1	Transformer housing assembly with wire harness
1	Backplate for transformer housing
1	Plastic washer
1	Friction plug
1	Spring
1	Threaded plug
1	Lamp-head assembly with wire harness
1	3/16 inch hex key wrench
1	Container of grease
2	Lag screws

Tools Required:

3/16 inch hex key wrench (included)
9/16 inch nut driver or socket wrench
Medium size flat blade screwdriver
Mallet

1. Insert the mounting bracket studs through the holes in the backplate and the transformer housing (Figure 2).
2. Secure the transformer housing and backplate to the mounting bracket. Use two nuts as shown in Figure 2.
3. Tighten the nuts.



NOTE: The articulating arm and the lamp-head assembly have been removed to show the bracket assembly in expanded detail.

Figure 2. Bracket Mounting Assembly

4. Attach the lamp-head and articulating arm assembly to the transformer housing (Figure 3):
 - a. Remove the wire cover panel from the extension arm.
 - b. Position the extension arm wires inside the arm as shown.
 - c. Route the wires from the articulating arm through the unpainted pivot cylinder into the extension arm.
 - d. Connect the articulating arm wires to the extension arm wires according to color. Mate brown to brown and blue to blue. Push the unused connector and the excess wire back into the extension arm.
 - e. Attach the wire cover panel to the underside of the extension arm.
 - f. Lightly lubricate the unpainted pivot cylinder and carefully slide it into the mating hole in the articulating arm. Reposition the wires if necessary.

NOTE: A washer is fitted between the extension arm and the articulating arm. This washer is required for proper arm operation.

- g. Insert the brass friction plug, concave surface first, into the hole in the rear of the articulating arm. Insert the spring and threaded plug to hold the friction plug firmly against the pivot cylinder (Figure 3). Tighten the plug until it is flush with the housing.
 - h. Use a plastic mallet to gently tap the black end cap into the open end of the extension arm.
 - i. Use the painted hole plug to cover the top of the hole where the pivot cylinder was inserted into the articulating arm.
5. Remove the end cap from the upright onto which the Phototherapy Light is to be mounted.

NOTE: Mounting the Phototherapy Light on the right hand rail allows unrestricted lamp-head positioning.

6. Loosen the screws on the slide bracket so that the bracket fits into the dovetail rail (Figure 2).
 7. Slide the slide bracket into the rail and position it. Firmly tighten the screws to secure the bracket (Figure 2).
-

8. Slide the mounting bracket on the rear of the transformer housing into the slide bracket on the Infant Warmer rail. The power cord must exit from the bottom (Figure 2).
9. Attach the two cover plates to the transformer housing. Peel the paper backing off of the adhesive strips and fit the cover plates into the recesses on the top and bottom of the transformer housing (Figure 2).
10. Replace the end cap for the Infant Warmer upright.

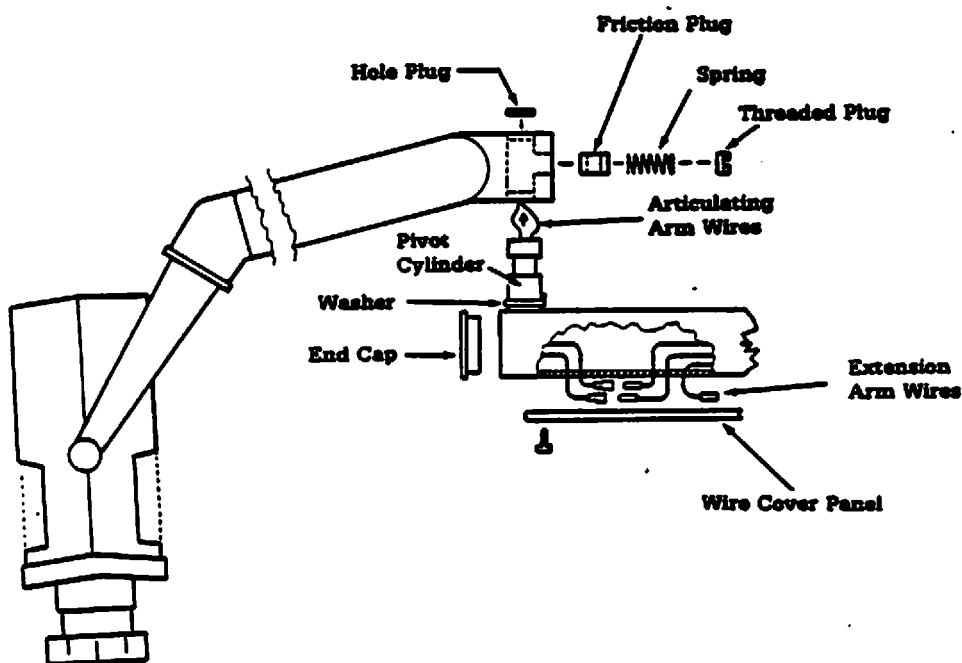


Figure 3. Assembling The Phototherapy Light

11. Check the movement of the Phototherapy Light by moving the articulating arm up and down approximately ± 40 degrees, and horizontally back and forth through 320 degrees. Verify that the articulating arm moves freely and will remain in position.
12. Adjust the spring tension in the articulating arm if required.
 - a. Locate the notch on the underside of the joint between the lamp-head and the articulating arm (Figure 4).

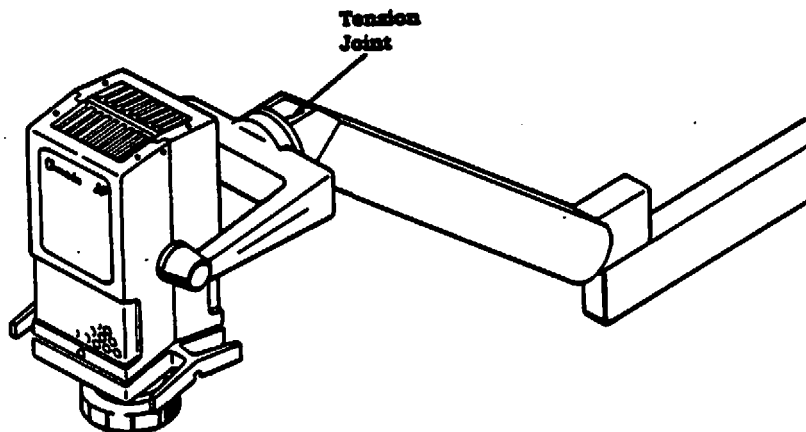


Figure 4. Tension Joint

- b. Rotate the lamp-head counterclockwise until the notch lines up with a hex head screw at the top of the joint.
 - c. Turn the screw clockwise to increase tension and counterclockwise to decrease tension. Use the 3/16 inch hex key wrench supplied with the unit. Check that the lamp-head assembly does not move more than one inch after being positioned.
13. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

2.2 WALL MOUNTING INSTALLATION

WARNING: These mounting instructions must only be carried out by qualified service personnel. Be sure to install all components in the proper order and orientation.

CAUTION: Do not allow the wires to be pinched during installation.

Verify that the following parts are included:

Qty.	Description
2	Cover plates
1	Hole cover
1	Arm end cap
1	Transformer housing assembly with wire harness
1	Backplate for the transformer housing
1	Plastic washer
1	Friction plug
1	Spring
1	Threaded plug
1	Lamp-head assembly with wire harness
1	3/16 inch hex key wrench
1	Container of grease
2	Lag screws

Tools Required:

Electric drill with 1/4" x 1-1/2" drill bit
3/16 inch hex key wrench (included)
9/16 inch nut driver or socket wrench
Medium size flat blade screwdriver
Mallet

1. Locate a wood stud in the wall near the desired mounting position. Draw a vertical line over the stud at the mounting height.
2. Use the backplate as a template to mark the location of the mounting holes on the vertical line drawn in step one.
3. Drill two holes (1/4 inch diameter) to the the required depth (approximately 1-1/2 inches) at the locations marked in step 2.
4. Place the transformer housing on top of the backplate with the power cord exiting from the bottom of the housing. Use the two lag screws provided to secure the assembly to the wall (Figure 5).

NOTE: This requires two people, one to support the Phototherapy Light and another to tighten the screws.

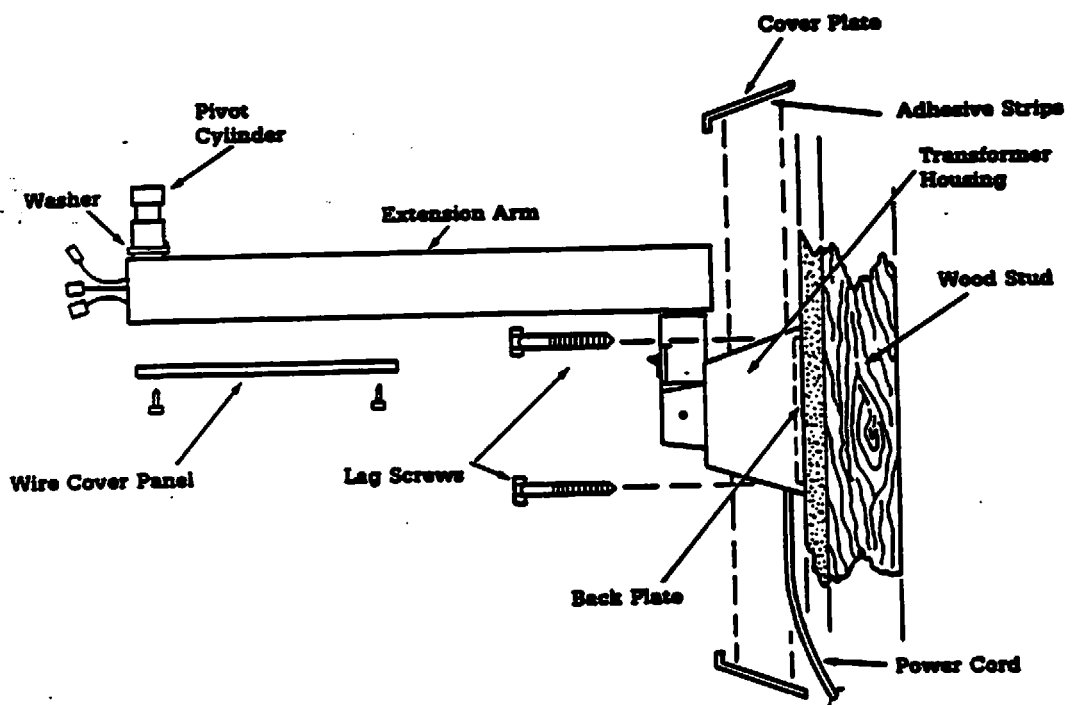


Figure 5. Wall Mounting the Phototherapy Light

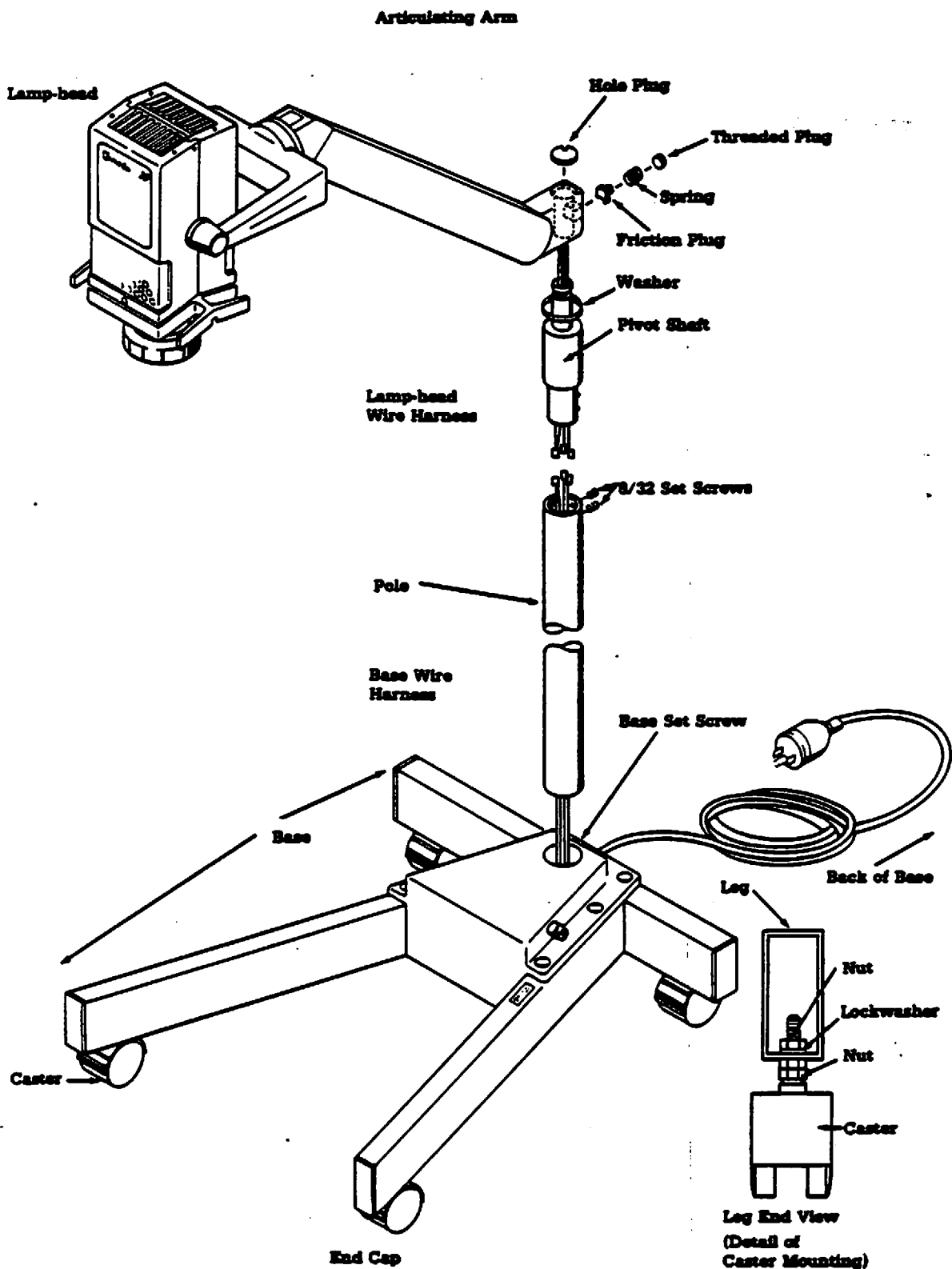


Figure 6. Assembling The Floor Stand Phototherapy Light

2.4 CHECKOUT PROCEDURE

A. Mechanical Checks

1. Check the overall appearance of the Phototherapy Light for any signs of damage.
2. Check that the Phototherapy Light is mounted securely to the Infant Warmer upright, suitable wall, or floor stand assembly.
3. Move the articulating arm back and forth and up and down. Verify that the arm moves freely and will stay in position.
4. Rotate and reposition the lamp-head assembly. If the lamp-head moves more than one inch after it is positioned, adjust the tension as detailed in Section 4.4.
5. Check that the lens assembly is mounted securely to the lens housing. If necessary tighten the set screw on the underside of the lens bezel.
6. For floor stand models, check that the pole assembly is securely mounted to the base. Tighten the mounting set screw if necessary.
7. Check the power cord for any visible damage. Have a qualified service person change the power cord if necessary.

B. Performance Checks

1. Plug the power cord into an appropriate power source.
2. Switch on the Phototherapy Light.
3. Check for warm air exiting the rear of the lamp-head assembly. This indicates that the fan is working.

CAUTION: Do not operate the Phototherapy Light if the cooling fan is not working.

4. Check light illumination.
5. Turn the aperture control wheel on the underside of the head and verify that the spot size changes.

If the unit fails any part of the checkout procedure it must be repaired and tested before use on a patient.

3/ OPERATION

WARNING: Do not open the lamp-head assembly with power connected. An electrical shock hazard exists.

CAUTION: To avoid overheating, do not cover any of the vents in the lamp-head assembly and do not operate the light if the cooling fan is not operating. Check for warm air exiting the rear of the lamp-head assembly during operation.

3.1 CONTROLS

(Figure 7)

A. On/Off Switch

On the rail/wall mounting model the On/Off switch is located on the column at the top of the transformer housing. On the free standing model the On/Off switch is located at the top of the pole.

B. Aperture Control Wheel

Spot size is a function of the aperture size and the distance between the bed and the light. To change the aperture size rotate the aperture wheel located on the underside of the lamp-head.

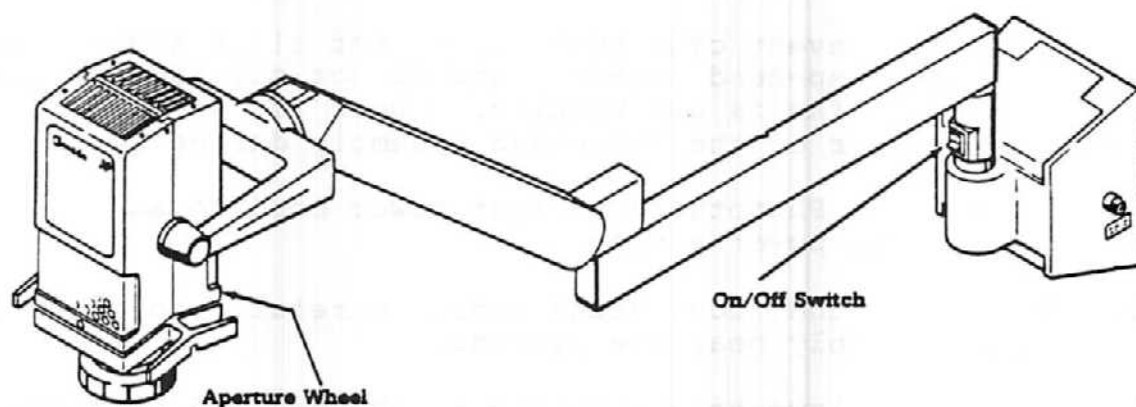


Figure 7a. Phototherapy Light Controls (Rail/Wall Mounted Model)

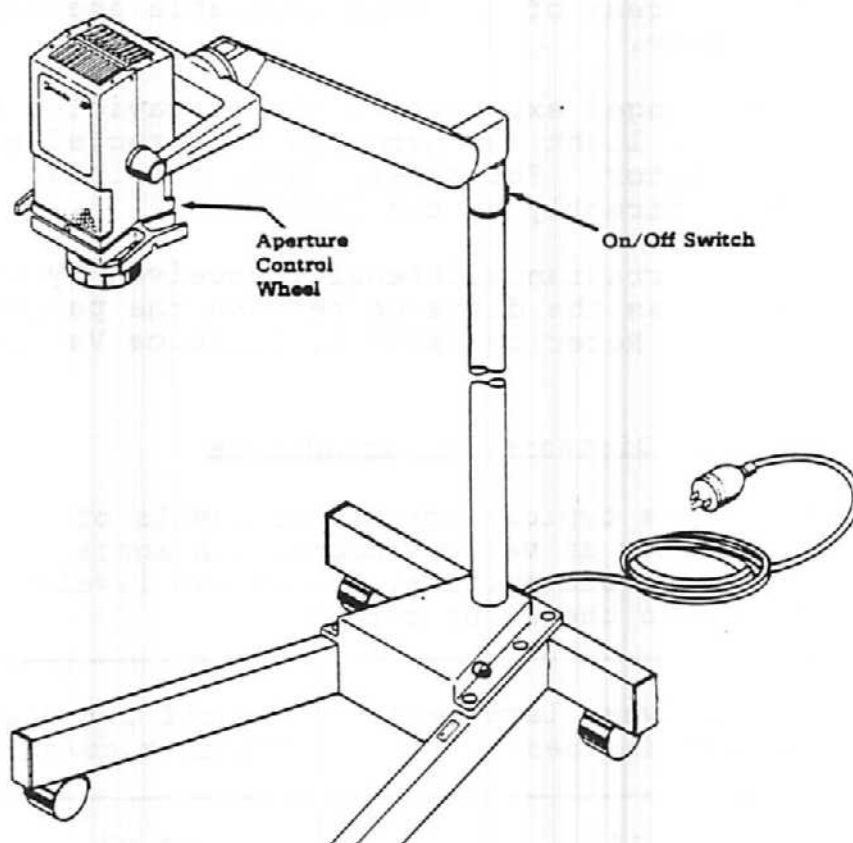


Figure 7b. Phototherapy Light Controls (Floor Stand Model)

3.2 OPERATING PROCEDURE

WARNING: Do not open the lamp-head assembly with power connected. An electrical shock hazard exists.

CAUTION: To prevent over heating, do not block any of the vents in the lamp-head assembly and do not operate the light if the cooling fan is not working. Check for warm air exiting the rear of the lamp-head assembly during operation.

1. Connect the Phototherapy Light power cord to an appropriate power source.
2. When using the floor stand model, carefully position the stand assembly near the patient.
3. Adjust the lamp-head assembly to the desired position.
4. Switch the power on.
5. Aim the light beam to the desired area.
6. Use the largest of the four available aperture sizes for phototherapy.

WARNING: Prolonged exposure to the ultraviolet radiation emitted by this light may harm the unprotected eyes of the infant or operator. For safety cover the infant's eyes and avoid looking directly at the light.

WARNING: The irradiance intensity received by the patient varies rapidly as the distance between the patient and the light changes. Refer to Table 1, Distance Vs. Irradiance.

Table 1 - Distance vs. Irradiance

This table lists typical irradiance levels of highest intensity at various mounting heights over the patient bed surface. Irradiance levels will vary within the light circle.

Distance between lamp-head and patient (inches)	Typical Irradiance (uw/cm x cm/nm) *
15	64.97
20	33.20
25	19.98
30	13.48
35	9.66

*Measured at the center of the light circle with a new lamp installed.

4/ OPERATOR MAINTENANCE

WARNING: After completing a repair of the Phototherapy Light perform the checkout procedure to make sure the unit is in proper operating condition. Also perform an electrical safety check and a leakage current test.

4.1 REPAIR POLICY

Do not use malfunctioning equipment. Have the equipment repaired by an Ohmeda Service Representative or by a competent person who has training and experience in repairing devices of this nature. Qualified service personnel should refer to Section 5, Service, for instructions. After repair, perform a leakage current test to ensure the leakage current is within the listed specification range. Always perform the checkout procedure before using the equipment on a patient.

Repair and service by an authorized Ohmeda Service Representative insures full reliability. If Ohmeda Service is not available, parts listed in this manual may be repaired or replaced by a competent person.

CAUTION: No repair should ever be undertaken by unqualified personnel.

Replace damaged parts with those manufactured or sold by Ohmeda.

Contact the nearest Ohmeda Service Office for assistance. If you send the unit to the Ohmeda National Service Center:

1. Use the original shipping container, if available.
2. Enclose a letter detailing the problem and the repairs which may be needed.
3. Prepay the shipping cost.

In all cases, other than where Ohmeda's warranty is applicable, repair will be made at Ohmeda's current list price for the replacement parts plus a reasonable labor charge.

4.2 REGULAR ELECTRICAL SAFETY INSPECTION

To ensure maximum performance change the lamp after every 4 months of use or every 1200 hours of operation.

This unit does not require further routine maintenance, only a regular inspection. Regularly inspect the power cord. If the power cord is damaged or appears to have deteriorated, it should be replaced by qualified service personnel.

Check the unit for normal appearance and operation as described in Section 2. If the unit fails to perform as specified it must be removed from use and referred to qualified personnel for service.

4.3 EXTERNAL CLEANING

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

CAUTION: Do not rest articles or liquids on top of the Phototherapy Light. Liquids will damage the lamp-head and power supply assemblies causing an electrical shock hazard.

CAUTION: Use only lens cleaner or a similar, nonresidual cleaning agent on the lens. Residue buildups on the lens can alter transmitted wavelengths.

Clean plastic and painted metal surfaces with a mild detergent solution. Clean the lens with lens cleaner or a similar, nonresidual cleaning agent. If sterilization is necessary, use a cold sterilization agent safe for use on the various light surfaces.

Apply the cleaning solution with a clean damp cloth or sponge. Do not allow the cleaning solution to leak inside of the Phototherapy Light. Liquids will damage the lamp and transformer, resulting in an electrical shock hazard and damage to the unit.

Dry the exterior surfaces with a clean soft damp cloth. Be careful not to scratch the lens surface.

Dust the exterior surfaces with a clean soft cloth which is free of any abrasive material.

4.4 LAMP REPLACEMENT

Reference Figure 8.

To ensure maximum performance change the lamp after every 4 months of use or every 1200 hours of operation.

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

CAUTION: Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new bulb. Body oils may significantly lower the life expectancy of the lamp.

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. Locate the slotted screw head at the top of the lamp-head assembly.
3. Use a screwdriver or coin to turn the screw 1/2 turn to unlock the top cover.
4. Open the top cover (tilt the head to allow the cover to open fully past the yoke).
5. The lamp shipped with the unit is wired into the holder to prevent movement during shipment. Remove this copper wire and discard it.
6. Lift the lamp straight up (at this point it is only held in place by two spring wires) and unplug the white ceramic socket from the bulb.

USE DDL

CAUTION: Use only halogen replacement lamps, type Burton (150 Watt, 20 volt) Ohmeda Stock Number 6600-0160-800. The use of other lamps will affect the operating specifications of the Phototherapy Light. Use of a higher wattage and/or lower voltage lamp may also cause a fire hazard.

7. Install a new lamp by aligning the lamp pins with the two small holes in the socket and then pushing the socket toward the bulb. It may help to wiggle the socket slightly while pushing.
8. Slide the lamp all the way down into the lamp bracket and under the spring wires.
9. Close the top cover and fully tighten the slotted screw.

10. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

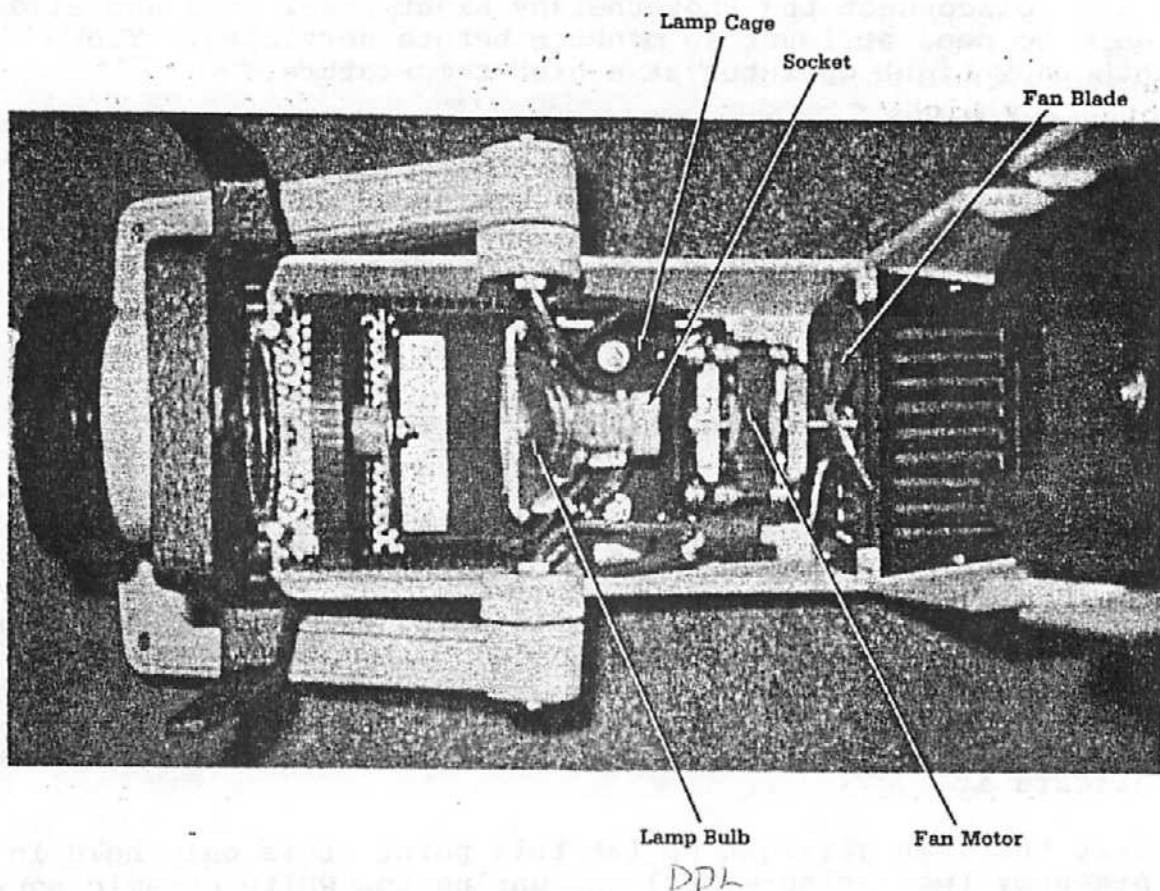


Figure 8. Interior of Phototherapy Light

4.5 TENSION ADJUSTMENT

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

Adjust the spring tension in the articulating arm if the lamp-head assembly moves more than one inch after being positioned.

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.

2. Locate the notch on the underside of the joint between the lamp-head assembly and the articulating arm (Figure 9).

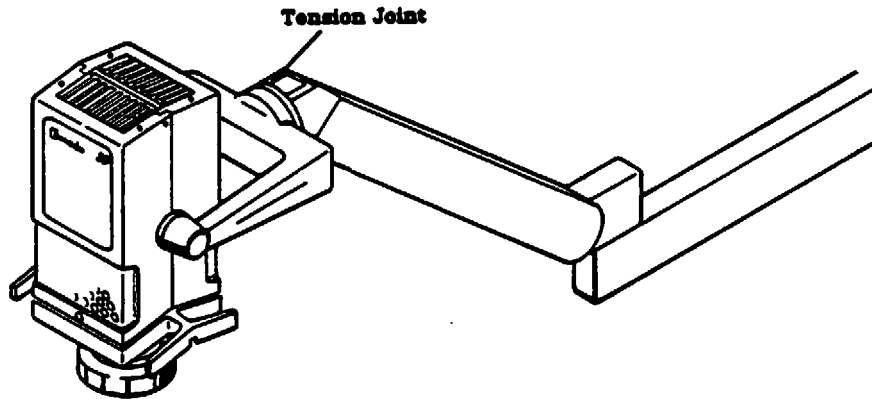


Figure 9. Tension Joint

3. Rotate the lamp-head counterclockwise until the notch lines up with a hex head screw at the top of the joint.
4. Turn the screw clockwise to increase tension and counterclockwise to decrease tension. Use the 3/16 inch hex key wrench included with the unit. Check that the lamp-head assembly does not move more than one inch after being positioned.
5. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

4.6 FUSE REPLACEMENT

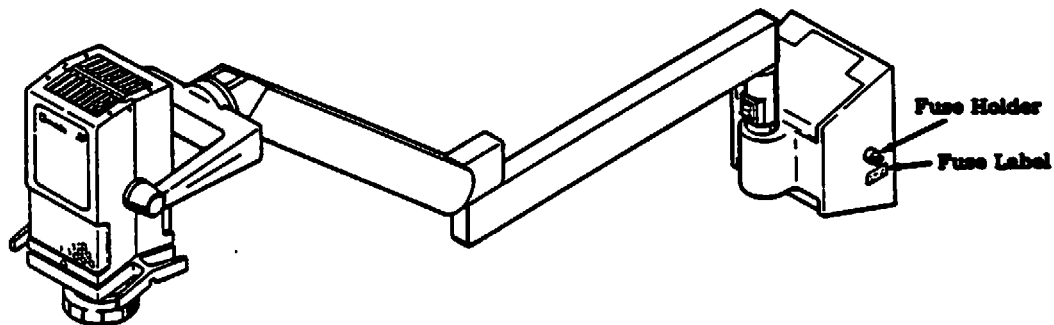
WARNING: Disconnect the power cord before replacing the fuse.

WARNING: For continued fire protection, replace the fuse with another of the same type and rating.

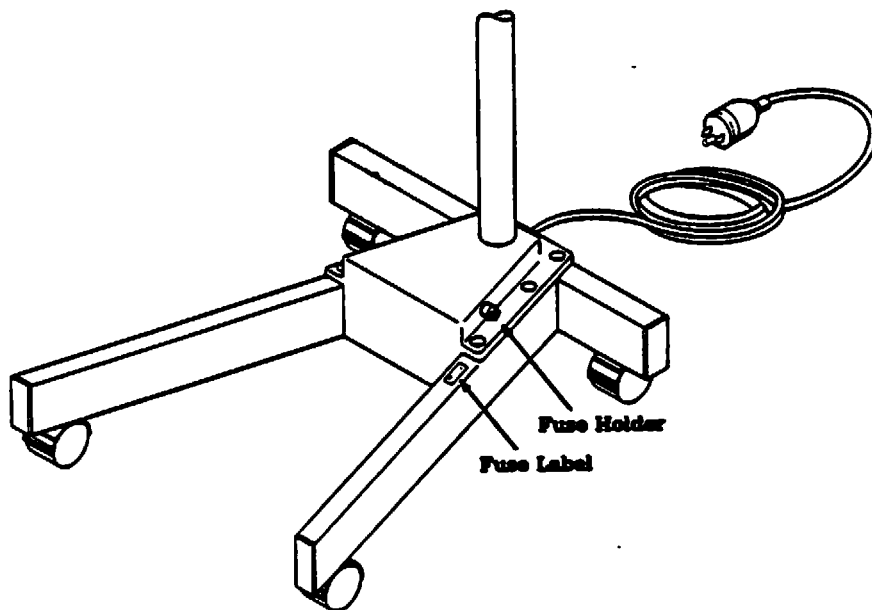
1. Disconnect the power cord for the Phototherapy Light.
2. Turn the fuse holder cap counterclockwise to remove the fuse.

3. Test continuity across the fuse. If the fuse is blown, replace it with a 3 amp, 125 volt, 1-1/4 inch slo-blow fuse.
4. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

If the fuse continues to open, the unit should be removed from use and examined by qualified service personnel.



Rail/Wall Mount Model



Floor Stand Model

Figure 10. Fuse Holder Location

5/ SERVICE

Reference Figure 8.

WARNING: The procedures described in the Section 5, Service, are to be performed by trained and authorized personnel only. The maintenance procedures in Section 4, Operator Maintenance, should be undertaken only by competent individuals who have general knowledge and experience with devices of this nature. No repairs or maintenance should be attempted by anyone not having such qualifications.

CAUTION: Genuine replacement parts manufactured or sold by Ohmeda must be used for repairs to this product.

Read completely through each procedure before starting the procedure. Any exceptions may result in failure to properly and safely complete the procedure attempted.

This manual is subject to periodic review and customers are cautioned to obtain and consult the latest revision thereof. Suggestions are invited from our customers for consideration by Ohmeda with these periodic reviews.

WARNING: After completing a repair of the Phototherapy Light perform the checkout procedure to make sure the unit is in proper operating condition. Also perform a final electrical safety check and leakage current test. Record the results for future reference.

CAUTION: Detailed drawings and procedures for more extensive repairs are included herein solely for service personnel having proper knowledge, tools, and test equipment, and for service representatives specially trained by Ohmeda.

5.1 CLEANING INTERIOR SURFACES

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

After every 100 hours of normal use, open the lamp-head assembly as described in Section 5.4 and vacuum out the loose dust. Use a damp cloth or swab to clean out remaining dust, especially around the vents.

5.2 TROUBLESHOOTING

1. NO LIGHT OUTPUT, FAN WORKS - Change the lamp. Replace the socket if necessary.
2. NO LIGHT OUTPUT, FAN DOES NOT WORK - Check the line voltage. Check the power switch and wiring. Refer to Section 7, Schematics.
3. LIGHT WORKS, FAN DOES NOT WORK - Check that the fan blade turns freely. Adjust the fan blades if necessary. Replace the fan motor if necessary.
4. ARM MOVES UP OR DOWN 1" OR MORE AFTER BEING POSITIONED - Adjust the spring tension in the arm. See Section 4.4.
5. ARM MOVES LEFT OR RIGHT - Check for a level installation. Tighten the threaded plug at the end of the articulating arm.

5.3 LAMP SOCKET REPLACEMENT

Reference Figure 8.

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

CAUTION: Be careful not to touch the small lamp or the inner surface of the reflector around the lamp when installing a new bulb. Body oils may significantly lower the life expectancy of the lamp. .

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. Locate the slotted screw head at the top of the lamp-head assembly.
3. Use a screwdriver or coin to turn the screw 1/2 turn to unlock the top cover.
4. Open the top cover (tilt the head to allow the cover to open fully past the yoke).
5. The lamp shipped with the unit is wired into the holder to prevent movement during shipment. Remove this copper wire and discard it.

6. Lift the lamp straight up (it is only held by two spring wires at this point) and unplug the white ceramic socket from the lamp.
7. Store the lamp in a safe place temporarily.
8. Remove the two wire nuts which hold the socket, fan motor and supply wires together.
9. Be sure an insulating sleeve is installed on each lead wire of the new socket.
10. Strip 3/8 inch of insulation off of the end of each socket lead.
11. Twist the stripped ends of one motor wire, one socket wire and one supply wire together and secure with a wire nut. Repeat this step with the remaining wires.
12. Install the lamp by aligning the lamp pins with the two small holes in the lamp socket and then pushing the socket toward the lamp. It may help to wiggle the socket slightly while pushing..
13. Slide the lamp all the way down into the lamp bracket and under the spring wires.
14. Close the top cover and fully tighten the slotted screw.
15. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

5.4 FAN MOTOR REPLACEMENT

Reference Figure 8.

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. Locate the slotted screw head at the top of the lamp-head assembly.
3. Use a screwdriver or coin to turn the screw 1/2 turn to unlock the top cover.
4. Open the top cover (tilt the head to allow the cover to open fully past the yoke).

5. The lamp shipped with the unit is wired into the holder to prevent movement during shipment. Remove this copper wire and discard it.
6. Lift the lamp straight up (at this point it is only held in place by two spring wires) and unplug the white ceramic socket from the lamp.
7. Store the lamp in a safe place temporarily.
8. Remove the two wire nuts which hold the socket, fan motor and supply wires together.
9. Remove the three screws which hold the lamp cage in place. Note that two of the mounting screws have an insulating washer present and the third mounting screw uses a lock washer for ground continuity.
10. Remove the lamp, fan motor and wheel assembly. Place them on a flat working surface.
11. Remove the two mounting screws for the fan motor and remove the motor assembly.
12. Loosen the collar set screw and remove the fan blade from the old motor shaft.
13. Mount the fan blade on the new motor. The collar should face away from the motor (toward the vents).
14. Install the new motor in position and mount it with the two mounting screws.
15. Place the lamp, fan motor and aperture wheel assembly in position inside the lamp-head assembly.
16. Replace the three lamp cage mounting screws. Ensure that two of the mounting screws have an insulating washer present and the third mounting screw has a lock washer to provide ground continuity.
17. Strip 3/8 inch of insulation off the end of the motor leads.
18. Twist the stripped ends of one fan motor, one socket, and one supply wire together and replace the wire nut. Repeat for the second nut.
19. Install the lamp by aligning the lamp pins with the two small holes in the lamp socket and then pushing the socket toward the bulb. It may help to wiggle the socket slightly while pushing the lamp into position.
20. Slide the lamp all the way down into the lamp bracket and under the spring wires. It may help to push the

back panel slightly back while pushing the bulb and socket into position.

21. Close the top cover and fully tighten the slotted screw.
22. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

5.5 POWER SWITCH REPLACEMENT

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. Use a small screwdriver and carefully lever the power switch out of the housing.
3. Unsolder the wire connections and discard the switch.
4. Slip heatshrink tubing over the wires.
5. Solder the wiring to the new switch. Ensure proper wire integrity.
6. Heat the heatshrink tubing until it is stretched tight over the connection.
7. Push the On/Off switch back in.
8. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

5.6 TRANSFORMER REPLACEMENT

Special Tools Required:

1. Four crimp on wire connectors or wire nuts
2. Molex pin extractor (Stock no. 0175-2355-000)
3. Wire wraps

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before

servicing. The Phototherapy Light operates at a high temperature.

A. Rail/Wall Models

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. On rail mounted units, slide the Phototherapy Lamp out of its mounting bracket and lay it on its side.
3. Remove the cover plates from the transformer housing to reveal the mounting screws (Wall Mount) or the mounting nuts (Rail Mount).
4. Support the lamp-head and remove the mounting hardware.

NOTE: On wall mounted units this requires two people, one to hold the unit and a second to undo the hardware.

5. Lay the Phototherapy Light down and remove the backplate.
6. Remove the four screws, lock washers and flat washers securing the transformer to the transformer housing. Also loosen and remove the screw securing the green wire (ground) to the transformer housing. If there is not enough slack in the wire harness to lift out the transformer:
 - a. Remove the wire cover panel from the underside of the extension arm.
 - b. Pull on the blue and brown wires until the connectors can be accessed.
 - c. Disconnect the connectors. Make sure that the connectors from the articulating arm do not slip back into the arm.
 - d. Pull out the old transformer.
7. Cut the wire tie and undo the wire bundle.
8. Remove the wire nuts.
9. Remove the pair of wires (blue and black) from pin 2 of the two pin Molex (R) connector Use an extractor tool to remove the pin for reuse.

(R) Molex is a registered trademark of Molex Inc.

10. Discard the defective transformer.
11. Strip off 1/4 inch of insulation on the ends of the new transformer wires.
12. Connect the new transformer wires as follows:
(Reference Section 7, Schematics)
 - a. With wire nuts -
 - 1) Crimp together the white power cord wire and the yellow and white transformer primary wires.
 - 2) Crimp the two orange wires together.
 - 3) Crimp the blue transformer secondary wire to the blue wire from the lamp-head assembly.
 - 4) Crimp the brown transformer secondary wire to the brown wire from the lamp-head assembly.
 - b. Molex connector-
 - 1) Crimp the blue and black transformer primary wires together with one Molex pin.
 - 2) Insert the blue and black transformer primary wires into pin 2.
13. Mate the transformer Molex to the On/Off switch Molex connector.
14. Align the holes in the transformer mounting plate with the holes on the inside of the housing. Orient the transformer so that the power cord lines up with the hole in the housing. Route the wires through the depressions between the mounting holes.
15. Install a wire wrap around the wire harness.
16. Use one screw, two lock washers and a flat washer to secure the ground wire ring terminal to the chassis ground point as shown in Figure 11.

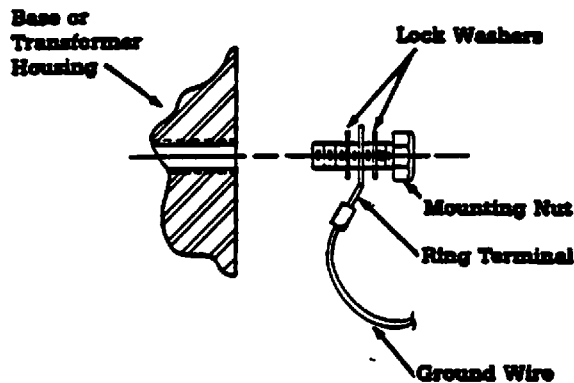


Figure 11. Ground Configuration

17. Use one mounting nut, lock washer, and flat washer to anchor the transformer and the power cord plate to the mounting hole right above the power cord.
18. Secure the remaining transformer holes to the housing. Use one screw, one lock washer and one flat washer per hole.
19. If you had to disconnect the lamp-head wires in order to remove the transformer, reconnect them according to color, slide the connectors up through the unpainted cylinder into the articulating arm, and replace the wire cover panel on the underside of the extension arm.
20. Remount the Phototherapy Light assembly as detailed in section 2.1 (rail) and 2.2 (wall).
21. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

B. Floor Stand Model

WARNING: Disconnect the Phototherapy Light power cord and allow the unit to cool for at least 30 minutes before servicing. The Phototherapy Light operates at a high temperature.

1. Disconnect the power cord for the Phototherapy Light and allow the unit to cool for at least 30 minutes.
2. While supporting the lamp-head assembly, lay the unit down on its side.

3. Remove the six mounting bolts and lift off the transformer mounting plate. Also loosen and remove the screw securing the green wire (ground) to the base. If there is not enough slack in the wire harness to remove the transformer mounting plate, disconnect the lamp-head assembly:
 - a. Remove the set screws from the top of the pole and slide off the the lamp-head assembly.
 - b. Unplug the three harness connectors between the lamp-head and stand assemblies.
 - c. Place the lamp-head assembly in a secure place off to the side.
4. Cut the wire wraps to separate the wires.
5. Remove the wire nuts.
6. Remove the four screws, lock washers and flat washers securing the transformer to the plate.
7. Discard the defective transformer.
8. Strip off 1/4 inch of insulation on the ends of the new transformer wires.
9. Use wire nuts to connect the new transformer wires as follows: (Reference Section 7, Schematics)
 - a. Crimp the white power cord wire and the yellow and white transformer primary wires together.
 - b. Crimp the two orange wires together.
 - c. Crimp the blue transformer secondary wire to the blue wire from the pole.
 - d. Crimp the brown transformer secondary wire to the brown wire from the pole.
 - e. Crimp the free black fuse holder wire to one of the two black wires protruding from the pole.
 - f. Crimp the blue and black transformer primary wires to the other black pole wire.
10. Attach the transformer to the transformer mounting plate. Align the power cord so that when the plate is mounted, the power cord will line up with the hole in the base assembly.
11. Use one screw, two lock washers and a flat washer to secure the ground wire ring terminal to the chassis ground point as shown in Figure 11.

12. Use one screw, a mounting nut, a lock washer, and a flat washer to anchor the transformer and the power cord plate to the mounting hole right above the power cord.
13. Secure the remaining transformer holes to the mounting plate.
14. Secure the transformer mounting plate to the base with six #10 machine screws.
15. If you have removed the lamp-head assembly:
 - a. Position the lamp-head assembly near the pole and connect the three connectors.
 - b. Slide the lamp-head assembly into the pole assembly
 - c. Rotate the assembly until it is properly centered over the transformer housing and tighten the set screws at the top of the pole.
16. Test the unit to be sure the lamp-head rotates approximately 30 degrees on either side of horizontal.
17. Test the casters for ease of movement.
18. Complete the electrical safety check, the checkout procedure, and a leakage current test before using the Phototherapy Light on a patient.

6/ PARTS LIST

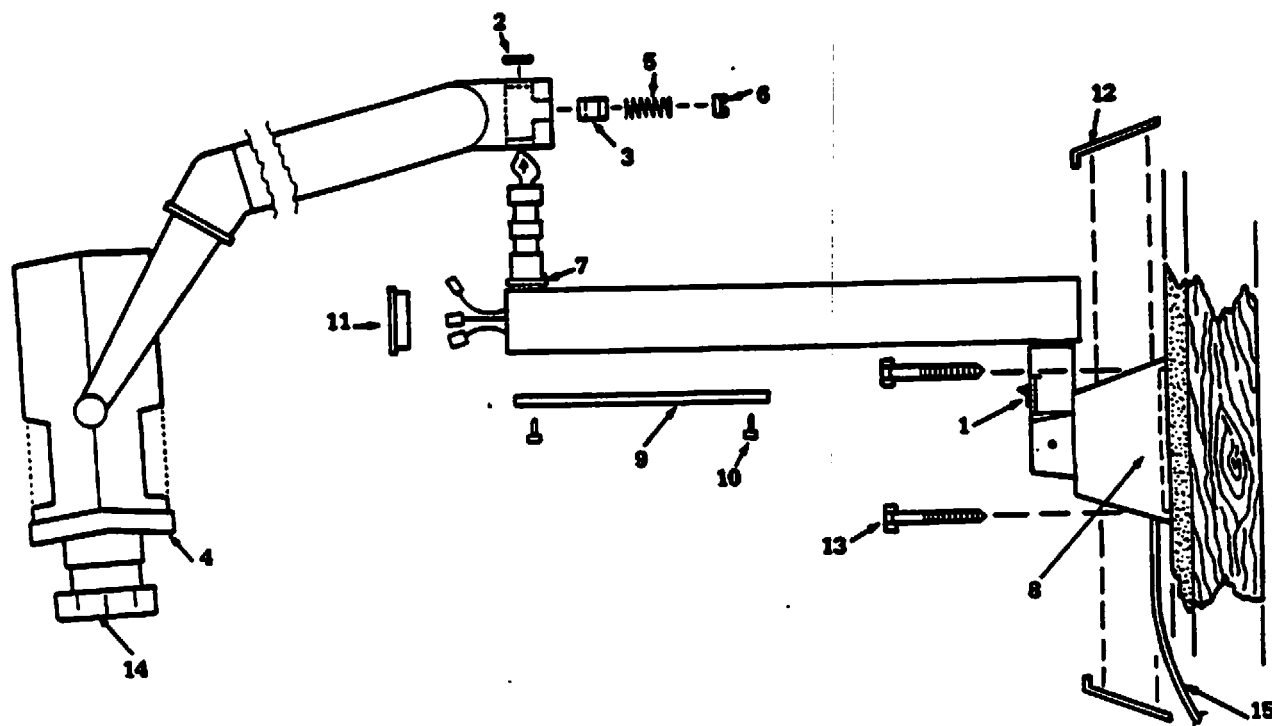


Figure 12. Phototherapy Light Rail/Wall Mount Model

1. On/Off switch	6600-0029-200
2. Hole plug	6600-0100-200
3. Friction plug.....	6600-0101-200
4. Handle assembly	6600-0035-200
5. Spring.....	6600-0102-200
6. Threaded plug.....	6600-0103-200
7. Plastic washer.....	6600-0105-200
8. Transformer housing.....	6600-0104-200
9. Wire cover panel.....	6600-0106-200
10. Cover panel screw.....	6600-0107-200
11. End cap arm.....	6600-0108-200
12. Cover plate.....	6600-0109-200
13. Lag screw.....	6600-0110-200
14. Filtering lens.....	6600-0026-200
15. Power cord.....	6600-0027-200

Rail/Wall Mounted Model Parts Not Shown:

Rail mounting kit.....	6600-0051-800
Rail mounting bracket *.....	6600-0183-500
Slide bracket *.....	6600-0184-500
Slide bracket lug *.....	6600-0182-500
Slide bracket screw *.....	6600-0051-800
Nut, mounting bracket.....	6600-0095-400
Transformer	6600-0024-200
Screw, transformer mounting.....	6600-0111-200
Two pin female Molex connector.....	0690-1565-308
Female pin 0.062 ".....	0690-2600-343
Two pin male Molex connector.....	0690-1565-307
Male pin 0.062 ".....	0690-2600-344
Backplate transformer housing.....	6600-0112-200
Fuse 3 amp, 125 volt, 1-1/4" slo-blow.....	0219-3683-300
Fuse holder and cap.....	0208-1040-300

* These items are included in the rail mounting kit.

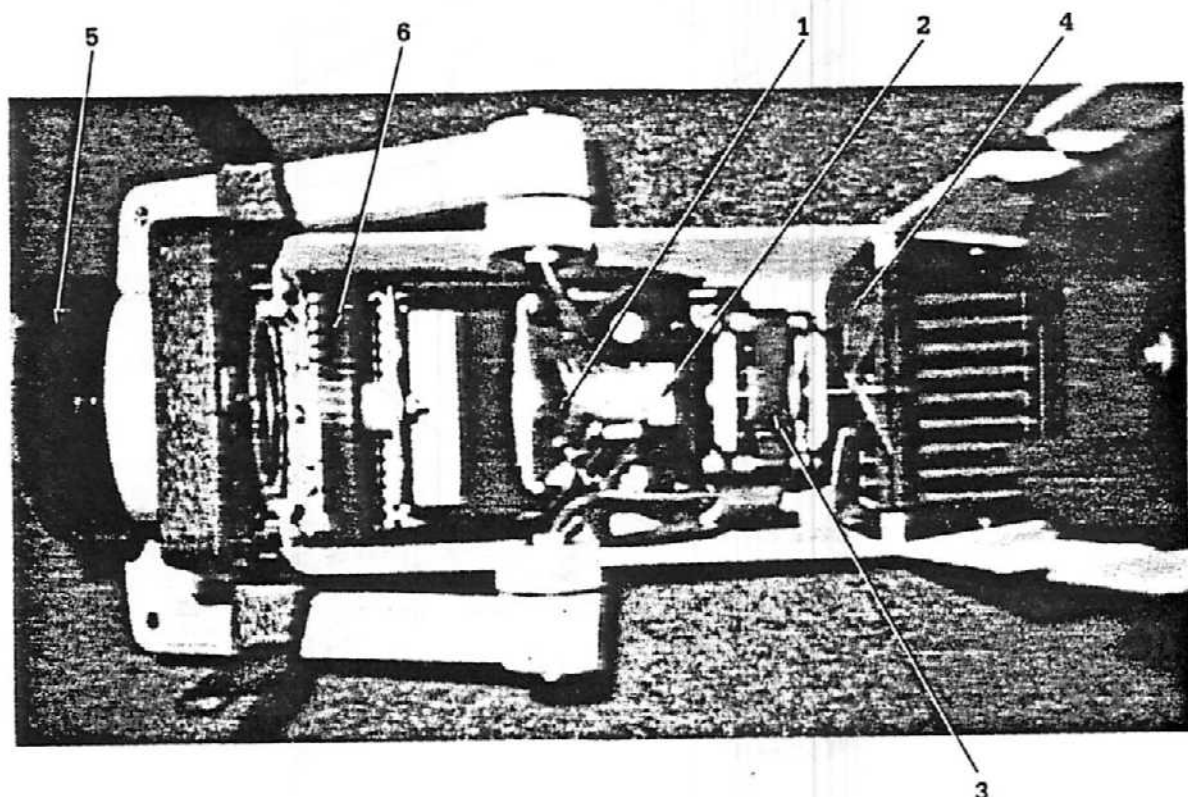


Figure 13. Lamp-Head Assembly Internal Parts

Description	Stock Number
1. Lamp	0160-800
2. Lamp socket	6600-0018-600
3. Fan Motor	6600-0022-200
4. Fan blade	6600-0023-200
5. Filtering lens	6600-0025-200
6. Aperture wheel	6600-0026-200
	6600-0038-200

✓
Note: USE
DDL
Instead!

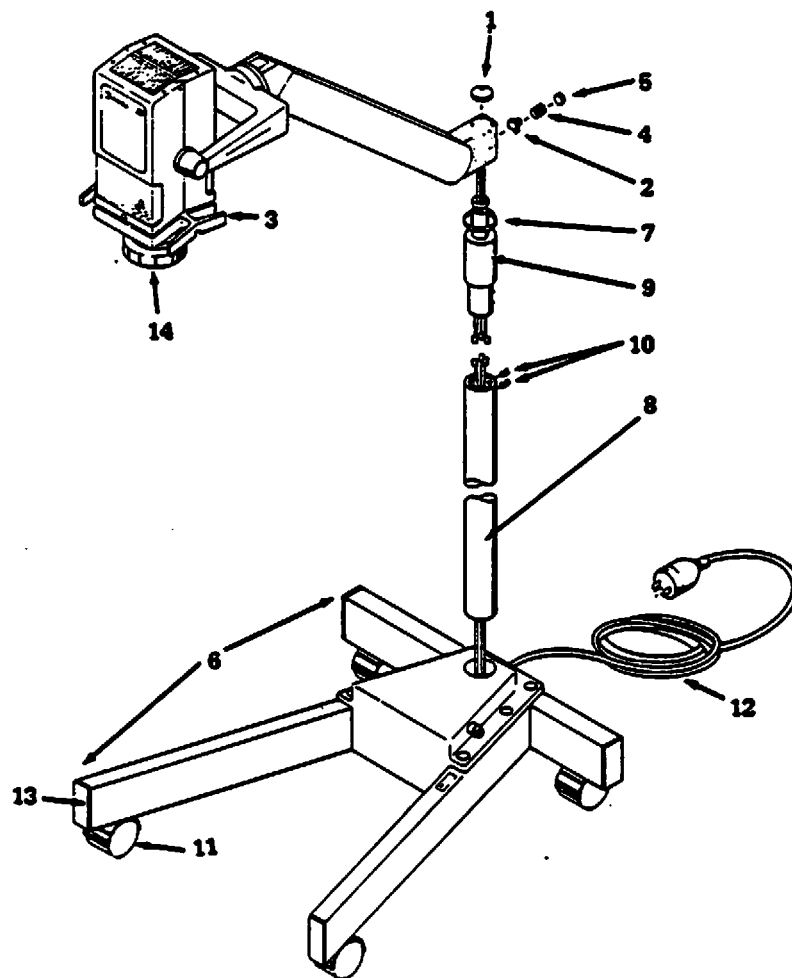


Figure 14. Phototherapy Light Floor Stand Model

Description	Stock Number
1. Hole plug	6600-0100-200
2. Friction plug.....	6600-0101-200
3. Handle assembly	6600-0035-200
4. Spring.....	6600-0102-200
5. Threaded plug.....	6600-0103-200
6. Base assembly.....	6600-0113-200
7. Plastic washer.....	6600-0105-200
8. Pole.....	6600-0114-200
9. Pivot shaft.....	6600-0115-200
10. 8-32 set screws.....	6600-0116-200
11. Caster.....	6600-0070-200
12. Power cord.....	6600-0027-200
13. End cap leg.....	6600-0118-200
14. Filtering lens.....	6600-0026-200

Floor Stand Model Parts Not Shown:

On/Off switch.....	6600-0029-200
Transformer	6600-0024-200
Transformer mounting plate.....	6600-0119-200
Screw, transformer mounting.....	6600-0120-200
Screw, transformer mounting plate.....	6600-0121-200
5/16" nut.....	6600-0119-200
Two pin female Molex connector.....	0690-1565-308
Female pin 0.062 ".....	0690-2600-343
Two pin male Molex connector.....	0690-1565-307
Male pin 0.062 ".....	0690-2600-344
Fuse holder.....	0219-3683-300
Fuse holder.....	0208-1040-300

7/ SCHEMATICS

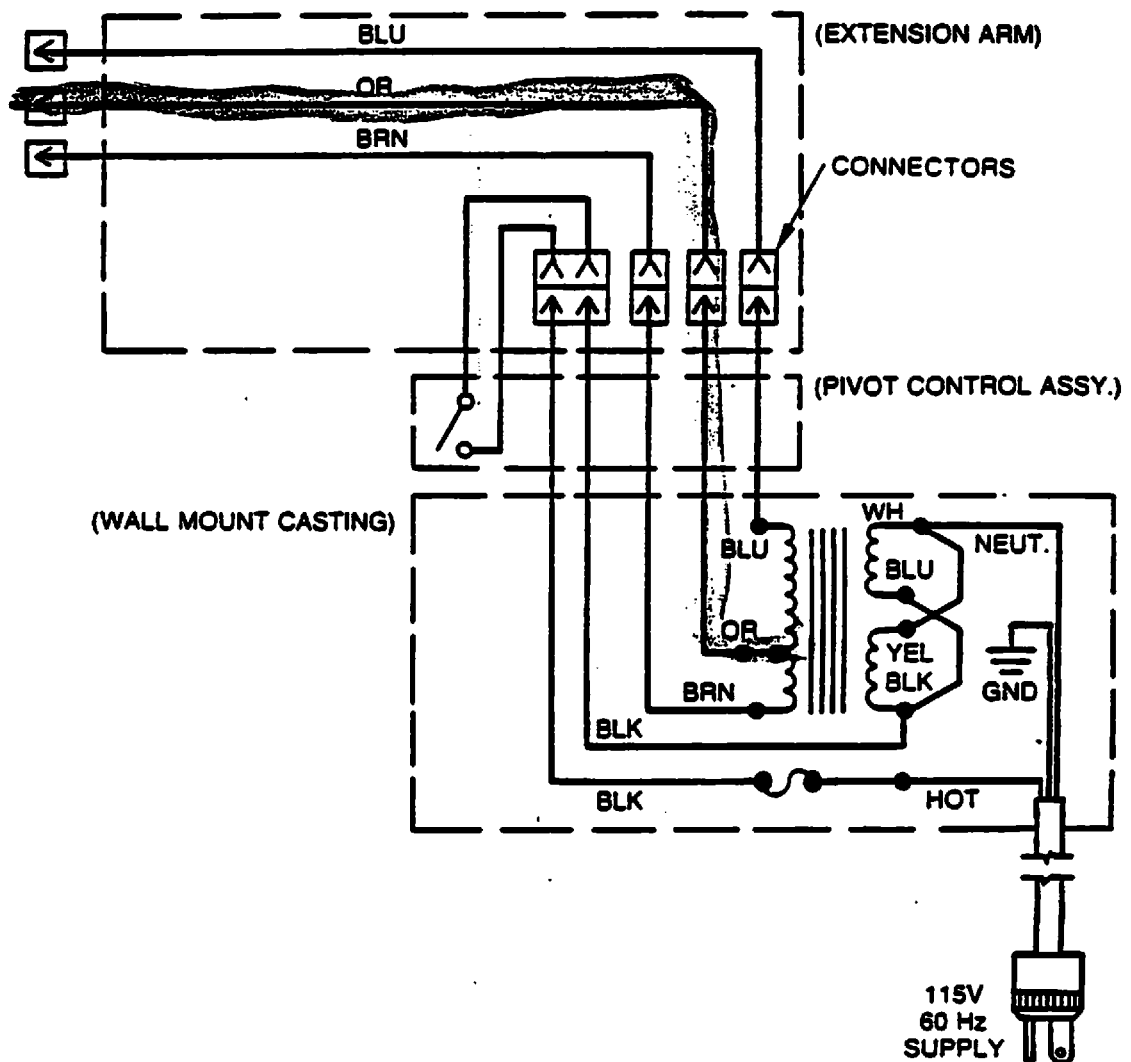


Figure 15. Wall/Rail Mount Model

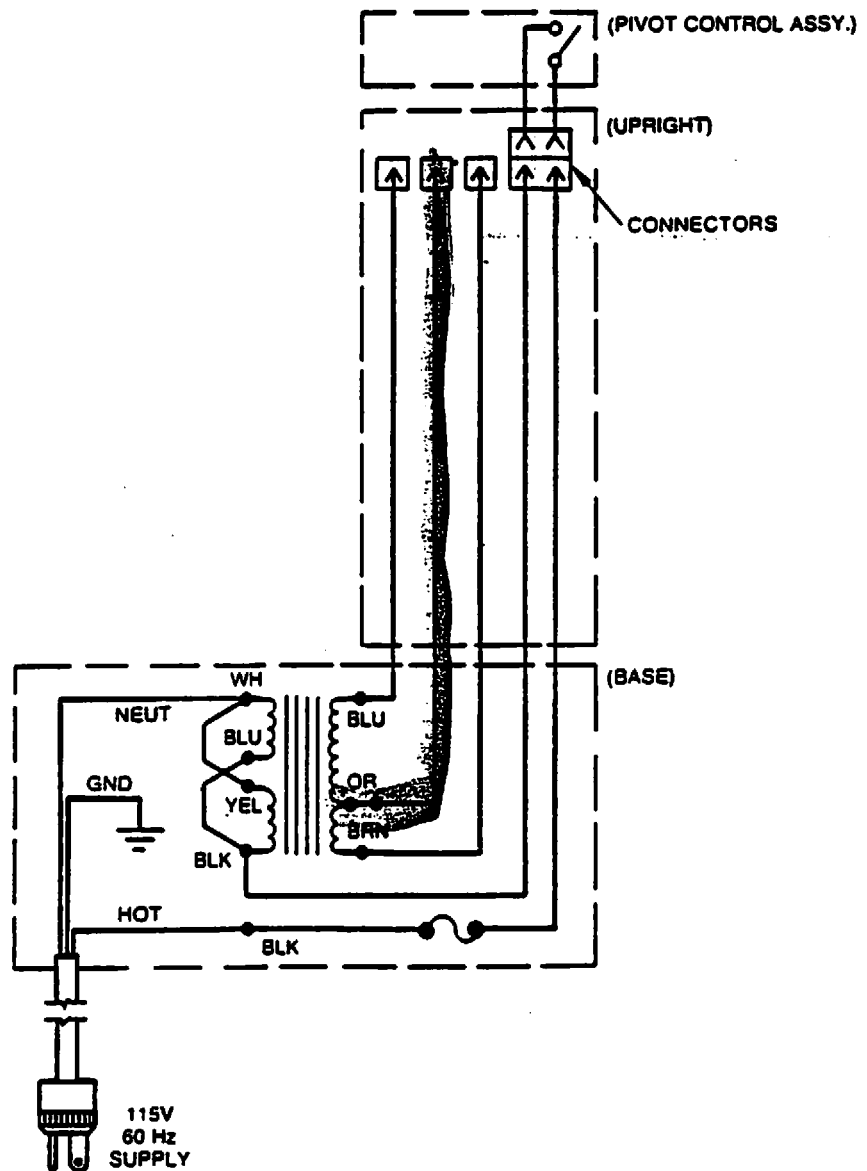


Figure 16. Floor Stand Model

WARRANTY

This Product is sold by Ohmeda under the warranties set forth in the following paragraphs. Such warranties are extended only with respect to the purchase of this Product directly from Ohmeda or Ohmeda's Authorized Dealers as new merchandise and are extended to the first Buyer thereof, other than for purpose of resale.

For a period of twelve (12) months from the date of original delivery to Buyer or to Buyer's order, but in no event for a period of more than two years from the date of original delivery by Ohmeda to an Ohmeda Authorized Dealer, this Product, other than its expendable parts, is warranted to be free from functional defects in materials and workmanship and to conform to the description of the Product contained in this operation manual and accompanying labels and/or inserts, provided that the same is properly operated under conditions of normal use, that regular periodic maintenance and service is performed and that replacements and repairs are made in accordance with the instructions provided. This same warranty is made for a period of thirty (30) days with respect to the expendable parts. The foregoing warranties shall not apply if the Product has been repaired other than by Ohmeda or in accordance with written instructions provided by Ohmeda, or altered by anyone other than Ohmeda, or if the Product has been subject to abuse, misuse, negligence, or accident.

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Ohmeda
9065 Guilford Road
Columbia MD 21046 1801 USA
301 381 2555
Cable Address OHMEDA
International Telex 023 497 2197
Technical Support 800 345 2700
A Division of The BOC Group Inc

Regional Service Offices

Eastern Region
Fort Lee Executive Park
One Executive Drive
Fort Lee NJ 07024
800 922 0443 Outside NJ
201 947 6100 In NJ

Midwestern Region
2101 S Arlington Heights Rd
Suite 145
Arlington Heights IL 60006
312 364 7090
800 372 5867

Pacific Region
5635 W Las Positas Blvd
Suite 406
Pleasanton CA 94577
800 227 2054 Outside CA
800 772 3517 In CA

Southeastern Region
4565 Winters Chapel Rd
Atlanta GA 30360
800 241 4300 Outside GA
404 449 7990 In GA

Southwestern Region
831 Greenview Drive
Grand Prairie TX 75050
800 433 5070 Outside TX
800 772 5420 In TX

International

Europe, Africa
Elizabeth Way
Harlow CM19 5AB
Essex
England
Telex 817566

Latin America, Caribbean
10700 N Kendall Dr
Suite 301
Miami FL 33176
Telex 810 8486057

Southeast Asia
#06 01 Eng Cheong Tower
5611 N Bridge Road
Singapore 0719
Telex RS35276

Middle East, Nigeria
Elizabeth Way
Harlow CM19 5AB
Essex
England
Telex 817566

National Service Center

Ohmeda
4507 C Mills Place SW
Atlanta GA 30336
800 241 6442
404 691 3635

Canada

Service Centre
172 Belfield Road
Rexdale Ontario M9W 1H1
416 243 9533
Telex 06989362

Addendum to the Infant Warmer System Model 5000

09 89

Service Manual

Stock Number 6600-0006-000

Dated 09 89

The current production Infant Warmer System includes a 24" x 30" bed.

This addendum includes revised pages to the Service Manual detailing the addition of an optional smaller bed.

Table of Contents

No changes required.

Precautions

No changes required.

Section 1/Functional Description

No changes required.

Section 2/Specifications

No changes required.

Section 3/Setup and Checkout Procedure

No changes required.

Section 4/Calibration and Adjustments

No changes required.

Section 5/Disassembly and Repair

Replace page 5-19 and 5-20, figure 5-13 Hydraulic System Assembly.

Section 6/Control Unit Troubleshooting Guide

No changes required.

Section 7/Illustrated Part and Parts List

Replace page 7-13, figure 7-14 Infant Warmer Bed, add page 7-13a.

Replace page 7-14, figure 7-15 Bed Assembly, and figure 7-16 Window Assembly.

Section 8/Schematics and Wiring Diagrams

No changes required.

Appendix

No changes required

ADD 6600-0098-000

D. Bed Platform Assembly (Figure 5-12)

1. Place the bed platform in position on the lower support.
2. Insert the two bed pivot rods into position on the lower support. The notch must face the bed platform (upwards) and be positioned between the notches in the bed platform.
3. Use a No. 2 Phillips screw driver and install the four retaining rods and hooks on the bottom of the bed platform. The open end of the hooks should face away from the bed platform.
4. Use a 1/2 inch wrench and 7/16 inch wrench to install the hydraulic system mounting nut and stud on the lower support.
5. Replace the four corner blocks on the bed platform.
6. Replace the four side panels on the bed platform.
7. Replace the Plexiglas cover.
8. Replace the mattress.

E. Hydraulic System Removal (Figures 5-13 and 5-14)

CAUTION: When lowering or lifting the Infant Warmer System to and from the floor for inspection or repair, use two people for safety. Always check to ensure that you lay the unit on its right side (as viewed from the front) when laying the unit down. The heater/lamp housing does not lock and pivots to the left for bed access.

Note: Ohmeda recommends replacing the hydraulic system as an assembly. The system uses a standard synthetic hydraulic oil.

1. Use a 1/2 inch wrench and 7/16 inch wrench to remove the hydraulic system mounting nut and stud from the lower support.
2. Remove the two Phillips head mounting screws which hold the outer (triangular shaped) cover plate in position.
3. Remove the four Phillips head mounting screws which hold the inner (square shaped) cover plate in position.

CAUTION: Take care to ensure that the tension on the hydraulic system spring is released carefully.

Note: The tilt lever, rod, spring, and mounting pin can be removed for replacement if necessary. Remove the pin from the top of the bed to remove the spring and rod.

4. Note how the tubing is installed in parallel and does not overlap until it reaches the storage area.
5. Remove the hydraulic system assembly for replacement.

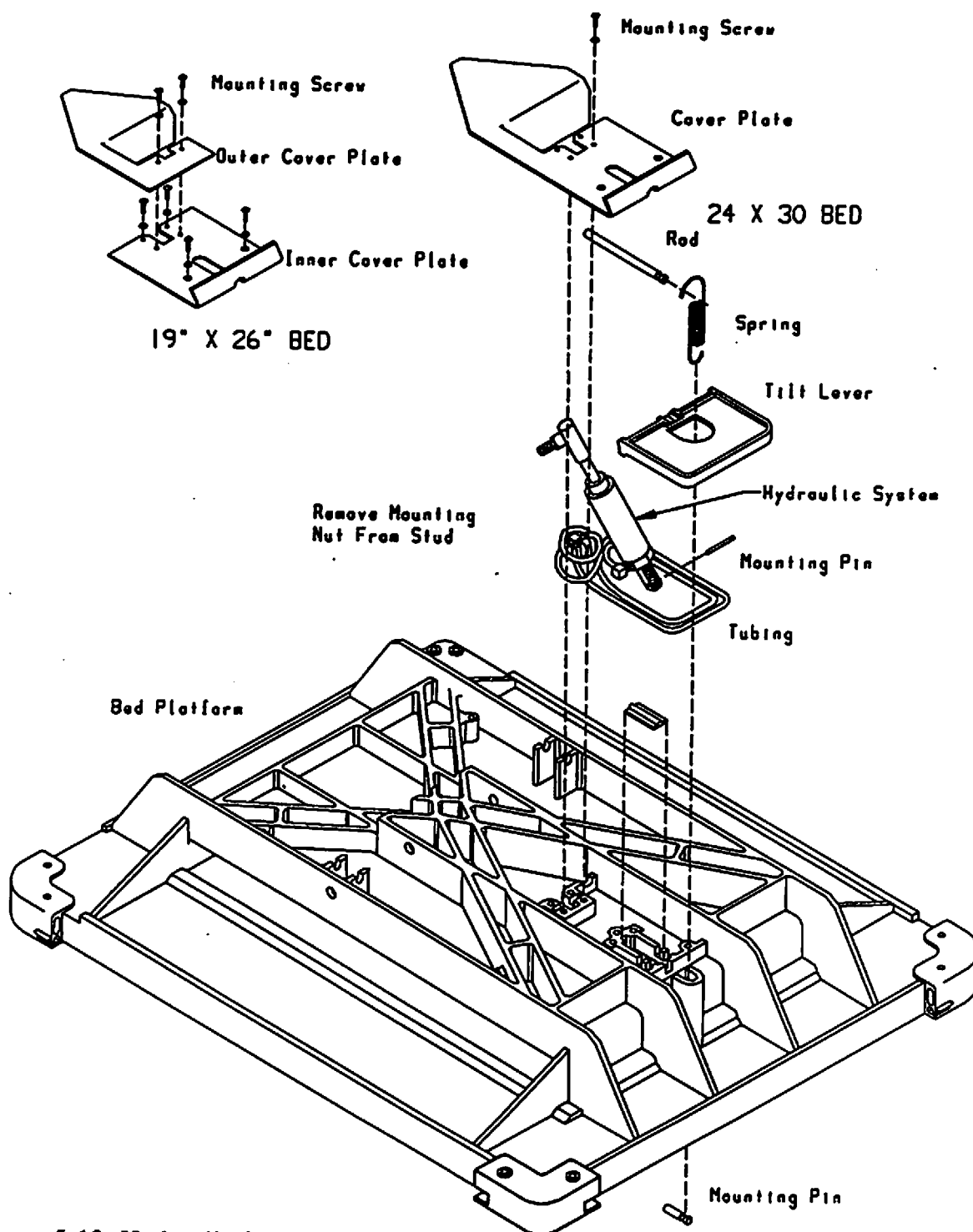
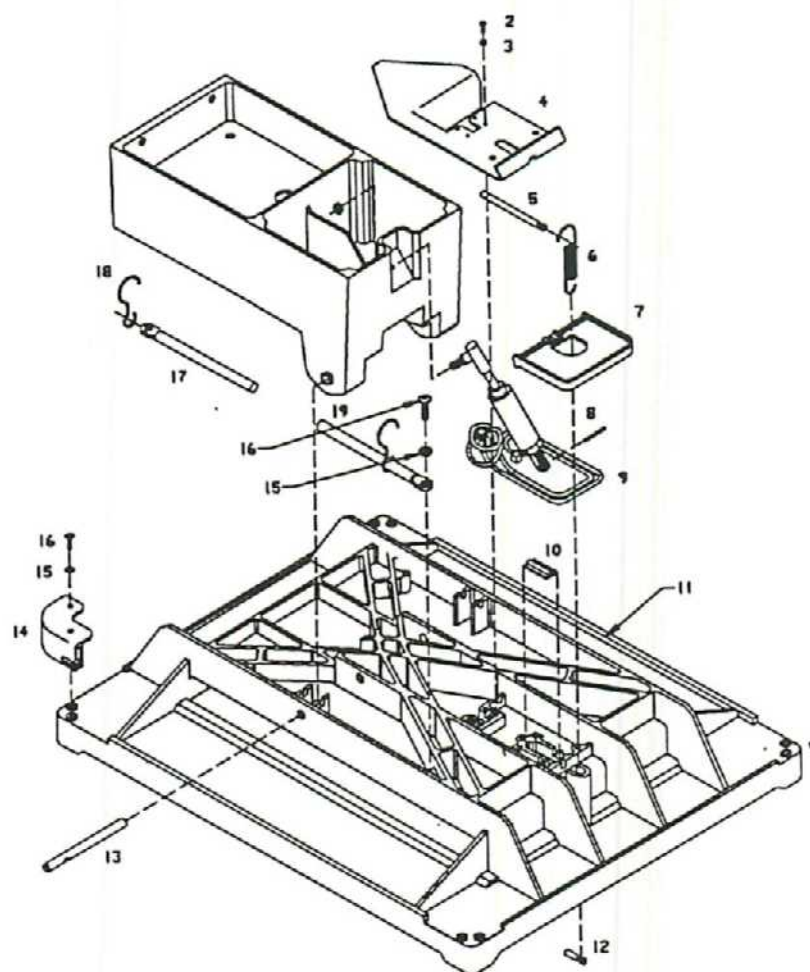


Figure 5-13. Hydraulic System Assembly

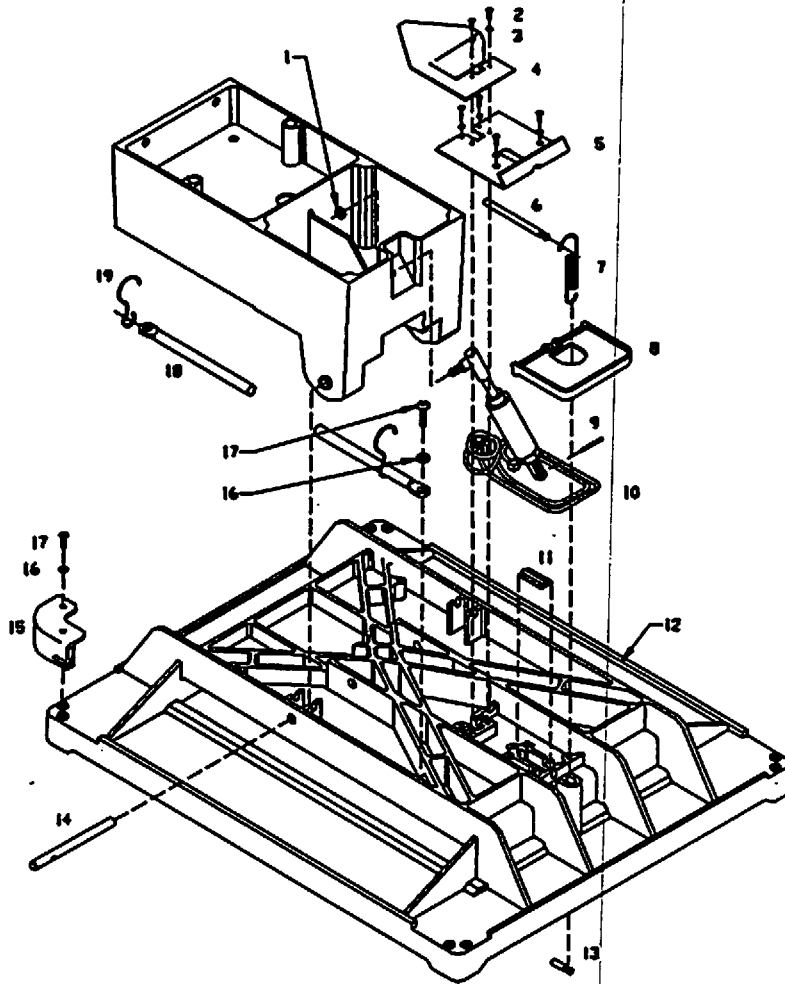
Illustrated Parts and Parts List



Description	Part Number
Elast Nut 5/16-24.....	0202-1017-300
Screw 10-24 x 5/16.....	0140-6530-106
Lockwasher No.10.....	0144-1110-131
Tubing Cover Plate Tilt Plate Cover.....	6600-0038-500
Tubing Actuator Rod.....	0217-5323-500
Extension Spring.....	6600-0013-300
Bed Tilt Lever.....	0217-5277-100
Pin.....	0217-5321-500
Hydraulic System Assembly.....	0217-5360-810
Ball Joint.....	0217-5318-300
Valve Bed Hydraulic Plate.....	0217-5283-100
Bed (Model 5000).....	0217-5381-100
Pin.....	0217-5322-500
Pivot Rod.....	0217-5312-549
Corner Block.....	0217-5278-100
Lockwasher No.10.....	0144-1110-131
Screw 10-24 x 5/16.....	0140-6530-105
Rod.....	0217-5190-300
Hook.....	0203-5194-300
Rod.....	0217-5187-300

Figure 7-14
Infant Warmer Bed 24 x 30 BED

7/Illustrated Parts and Parts List



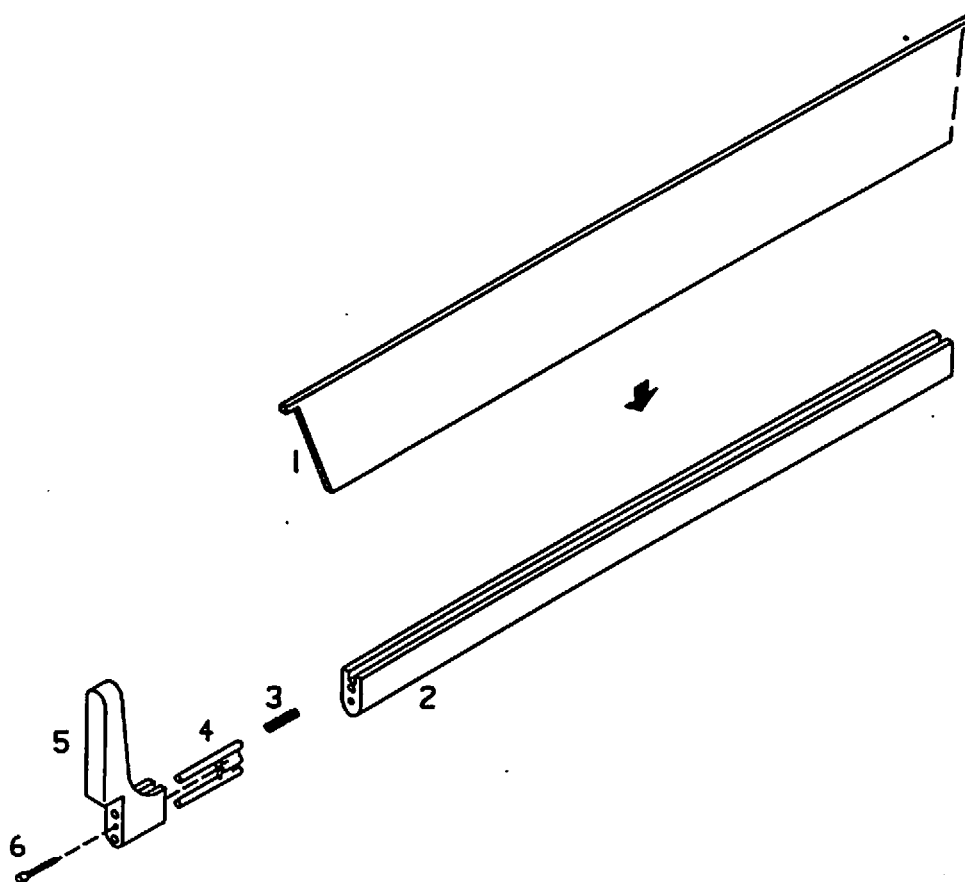
Description	Stock Number
1. Elast Nut 5/16-24.....	0202-1017-300
2. Screw 10-24 x 5/16.....	0140-6530-105
3. Lockwasher No.10.....	0144-1110-131
4. Tubing cover Plate.....	0214-2268-511
5. Tilt Plate Cover.....	0217-5261-510
6. Tubing Actuator Rod.....	0217-5323-500
7. Extension Spring.....	6600-0013-300
8. Bed Tilt Lever.....	0217-5277-100
9. Pin.....	0217-5321-500
10. Hydraulic System Assembly.....	0217-5360-810
Ball Joint.....	0217-5318-300
11. Valve Bed Hydraulic Plate.....	0217-5283-100
12. Bed (Model 3300).....	0217-5316-100
13. Pin.....	0217-5322-500
14. Pivot Rod.....	0217-5312-549
15. Corner Block.....	0217-5278-100
16. Lockwasher No.10.....	0144-1110-131
17. Screw 10-24 x 5/16.....	0140-6530-106
18. Rod.....	0217-5313-300
19. Hook.....	0203-5194-300

Parts Not Shown:

Replacement Bed Assembly.....	0217-5385-810
Kit Hose, Retaining Clips (Package of 6).....	0217-5290-870

Figure 7-14A
Infant Warmer Bed 19 x 26 BED

7/Illustrated Parts and Parts List



24 x 30 BED

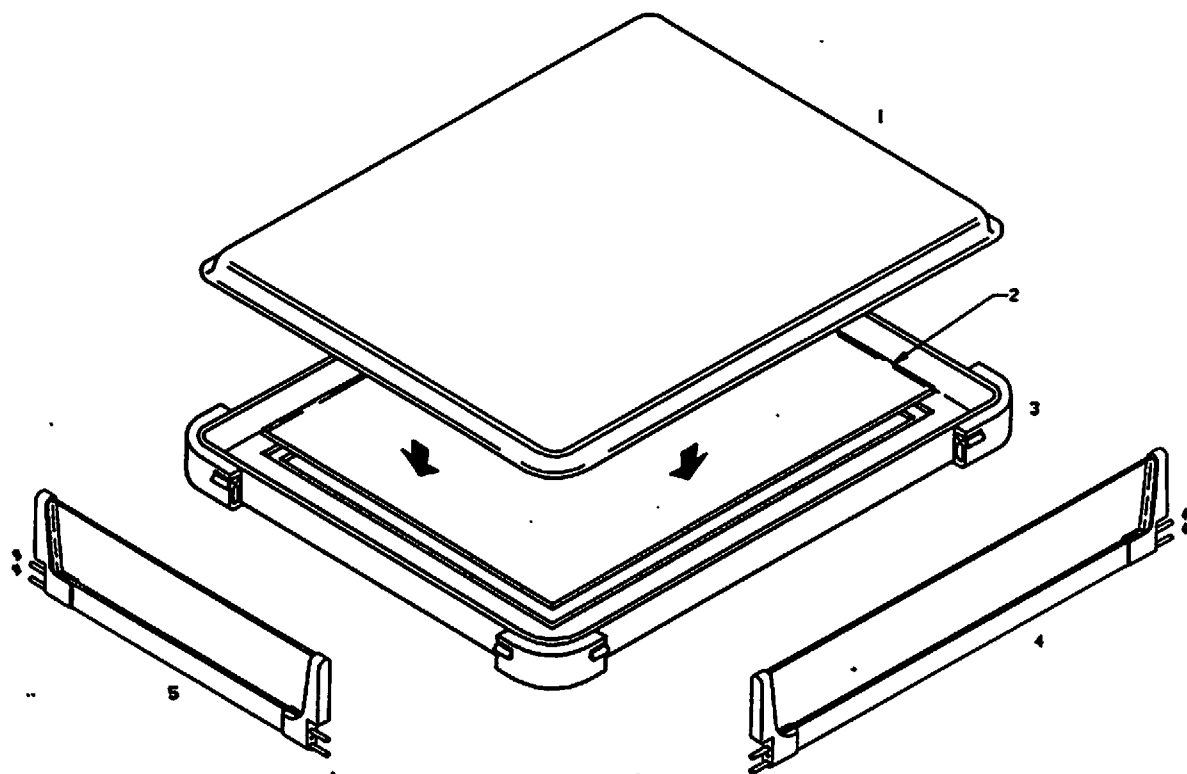
Description	Part Number
1. Window, Front and Rear.....	0212-1001-300
Window, Left and Right.....	0212-1004-300
2. Bed Side, Front and Rear.....	0217-5283-300
Bed Side, Left and Right.....	0217-5284-300
3. Spring.....	0203-3262-300
4. Support Button.....	0217-5275-100
5. End Bracket.....	0217-5291-100
6. Mounting Screw.....	0144-2130-224

19 x 26 BED

Description	Part Number
1. Window, Front and Rear*.....	6600-0021-500
Window, Left and Right.....	6600-0022-500
2. Bed Side, Front and Right.....	0217-5280-300
Bed Side, Left and Right.....	0217-5281-300
3. Spring.....	0203-3262-300
4. Support Button.....	0217-5275-100
5. End Bracket*.....	0217-5291-100
6. Mounting Screw*.....	0144-2130-224

Figure 7-16
Window Assembly

7/Illustrated Parts and Parts List



24 x 30 BED

Description	Part Number
1. Foam Mattress.....	0305-5061-300
2. Clear Plastic Bed Support.....	0217-5221-300
3. Corner Block.....	0217-5278-100
Mounting Screw.....	0140-6530-105
Washer.....	0144-1110-131
4. Left and Right Bed Side, 25 In....	6600-0009-700
5. Front and Rear Bed Side, 18 In....	6600-0008-700

19 x 26 BED

Description	Part Number
1. Foam Matress.....	0305-5060-300
2. Clear Plastic Bed Support.....	0217-5221-300
3. Corner Block.....	0217-5278-100
Mounting Screw.....	0140-6530-105
Washer.....	0144-1110-131
4. Left and Right Bed Side 20 In*....	6600-0005-800
5. Front and Rear Bed Side 15 In*....	6600-0004-800

Figure 7-15
Bed Assembly