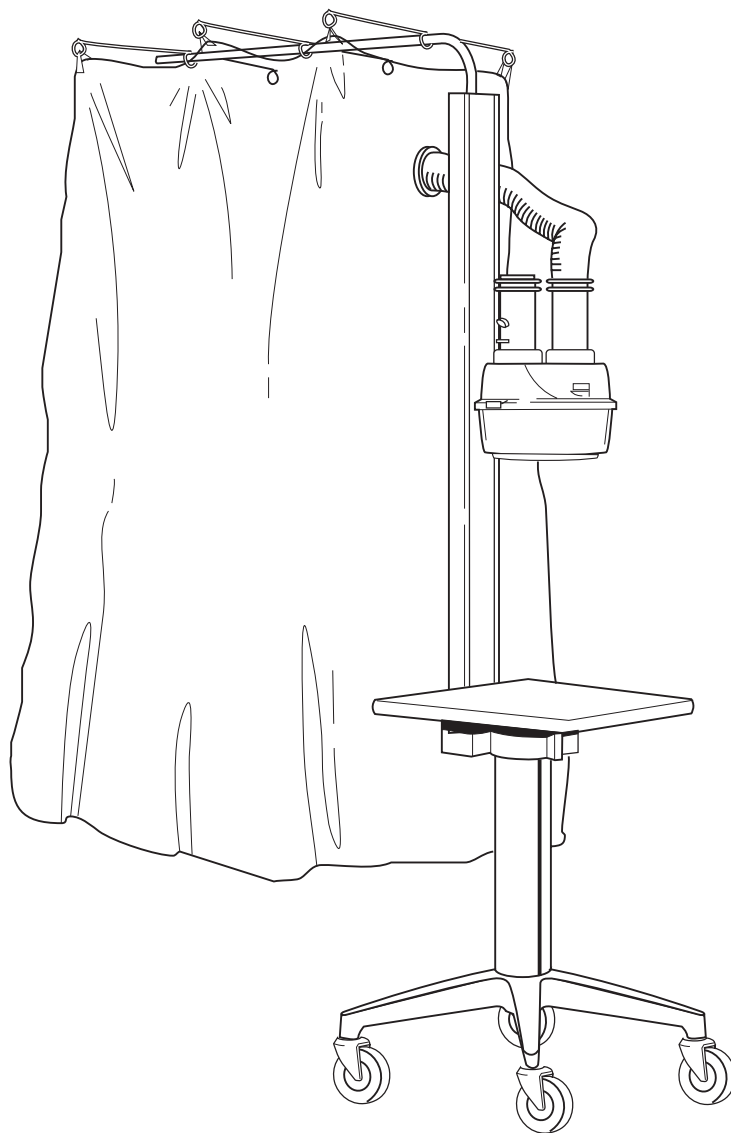

Pediatric Mist Tent

Operation, Maintenance and
Service Manual



User Responsibility

This Product will perform in conformity with the description thereof contained in this operating manual and accompanying labels and/or inserts, when assembled, operated, maintained and repaired in accordance with the instructions provided. This Product must be checked periodically. A defective Product should not be used. Parts that are broken, missing, plainly worn, distorted or contaminated should be replaced immediately. Should such repair or replacement become necessary, Ohmeda recommends that a telephone or written request for service advice be made to the nearest Ohmeda Regional Service Center. This Product or any of its parts should not be repaired other than in accordance with written instructions provided by Ohmeda and by Ohmeda trained personnel. The Product must not be altered without Ohmeda's prior written approval. The user of this Product shall have the sole responsibility for any malfunction which results from improper use, faulty maintenance, improper repair, damage or alteration by anyone other than Ohmeda.

CAUTION

⚠ Federal law in the USA and Canada restricts this device to sale by or on the order of a licensed medical practitioner.

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Definitions

What the attention symbol means

Next to each warning or caution, we have placed an “attention, read accompanying documents” symbol to alert you to the presence of these important statements. This is the attention symbol:



When the attention symbol appears in front of text that is printed on the system itself, it means that the text is elaborated upon in the operation manual.

WARNING: A Warning statement is used when the possibility of injury to the patient or the operator exists.

CAUTION: A Caution statement is used when the possibility of damage to the equipment exists.

Important: An Important statement is similar to a note but is used for greater emphasis.

Note: A Note provides additional information to clarify a point in the text.

The following are general Warnings and Cautions. **Precautions specific to certain procedures are found in the text of the manual.**

Warnings

Remove all sources of ignition including smoking materials, and sources of electrical discharge from the area when oxygen is in use. In the presence of high oxygen concentrations, even relatively nonflammable items can ignite and burn rapidly. Do not place auxiliary equipment producing sparks inside the tent. Even small quantities of highly flammable items (such as organic cleaning solvents) may explode.

Cautions

Only competent individuals trained in the repair of this equipment should attempt to service it as detailed in this manual.

1/Description

General Information

The Ohmeda Mist Tent consists of an Ohmeda High-Output® Pneumatic Nebulizer, an open top 2 or 4 mil. canopy of special design, and a stand for support of the nebulizer, canopy, and an accessory air compressor. It was developed for use in pediatric mist therapy when minimal cooling is required.

Fog is provided by the High Output Pneumatic Nebulizer, which utilizes the jet and dispersion principle. The nebulizer uses air or oxygen at 35-60 psig as a power source, and is capable of nebulizing up to 5.5 ml of liquid per minute. Additionally, the nebulizer comes equipped with both a large capacity (2500 ml) reservoir, and a smaller (150 ml) reservoir for more efficient nebulization of drugs. For more detailed information, refer to the Operation Manual for the High Output Pneumatic Nebulizer packaged with the tent (6600-0265-000).

Cooling of the tent is, in part, accomplished by evaporative cooling between the high humidity air within the canopy and the ambient air. The canopy provided is of an open top design. This open top allows convection currents to be set up between the canopy and its surroundings, thus additionally reducing the temperature within the canopy. Average temperature drop as a result of the evaporative and convective cooling effect is 2°F (1.1°C) depending on patient heat load.

The stand assembly incorporates a shelf which may be used for placement of medications or supplies. The crane arm assembly can be folded up for canopy support or down for storage. The complete patient circuit is removable for cleaning and sterilization.

WARNINGS

- ⚠ **The use of oxygen in therapy requires that special care be taken to prevent fire. Materials which will burn in air and some that will not are easily ignited and burn rapidly in high concentrations of oxygen. For safety, it is necessary that all sources of ignition be kept away from the product and preferably out of the room in which the product is being used. "NO SMOKING" signs should be prominently displayed.**
- ⚠ **A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. These substances shall be kept away from oxygen regulators, cylinder valves, tubing and connections, and all other oxygen equipment.**
- ⚠ **On high pressure oxygen cylinders use only approved reducing or regulating valves marked for oxygen service. Do not use these valves for air or gases other than oxygen, since they may be hazardous when returned to oxygen service. Such equipment must be operated strictly in accordance with manufacturer's directions.**
- ⚠ **It is recommended that wherever possible, the high pressure oxygen equipment be located outside the administering area. In any event, cylinders in use shall be fixed in place so they will not be knocked over and shall be located as far as practicable from the product.**
- ⚠ **Mixtures of oxygen and flammable vapors, such as alcohol, ether, ethylene, and cyclopropane, may explode if ignited. Such mixtures may be ignited by electrical static spark discharges or high temperature surfaces in addition to other more common sources of ignition. Only products designed for use in hazardous locations shall be used in areas where these mixtures may result. Refer to Article 517 of the National Electrical Code, NFPA 99, for the use of flammable anesthetics.**

1/Description

Specifications

Nebulizer Output:

Refer to Nebulizer O&M manual 6600-0265-000

Dimensions (w/o Canopy Extended):

Height:	2 m (79 in)
Width:	51 cm (20 in)
Depth:	51 cm (20 in)
Canopy:	51 x 81 cm (20 x 32 in)

2/Set-up, Check-out and Operation

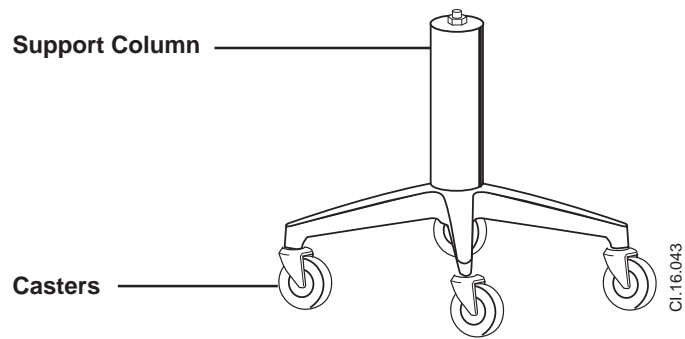


Figure 1
The Base Unit Support Column Casters

Receiving

Before removing the equipment from its shipping container, inspect the package for any sign of damage which may have been incurred during shipment. If damage is evident, immediately file a claim with the shipping carrier.

Assembly

Mainframe

1. Turn the base unit upside down and install the casters. Some force will be required to press the caster's mounting posts into their holes and, if necessary, a small hammer may be used to tap them into place.
2. Now turn the base upright (See Figure 1). Pick up the upper unit (Figure 2) and place it on the base. Make sure that the large hole in the extrusion under the shelf fits all the way onto the support column. Align the upper unit with the shelf between two casters. Tighten the bolts with the T" wrench provided.

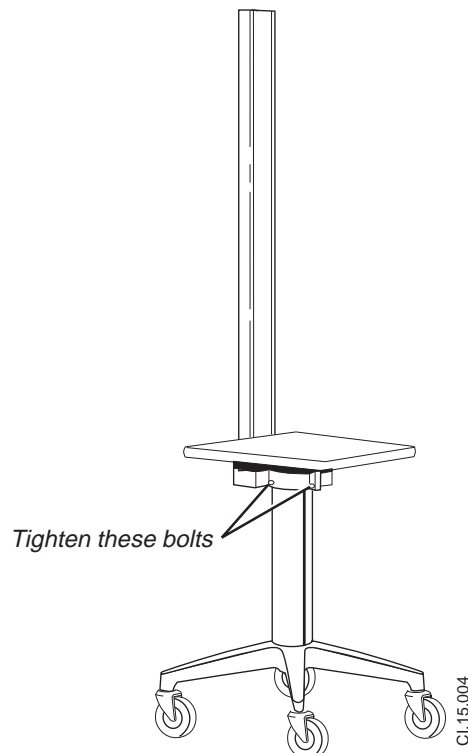
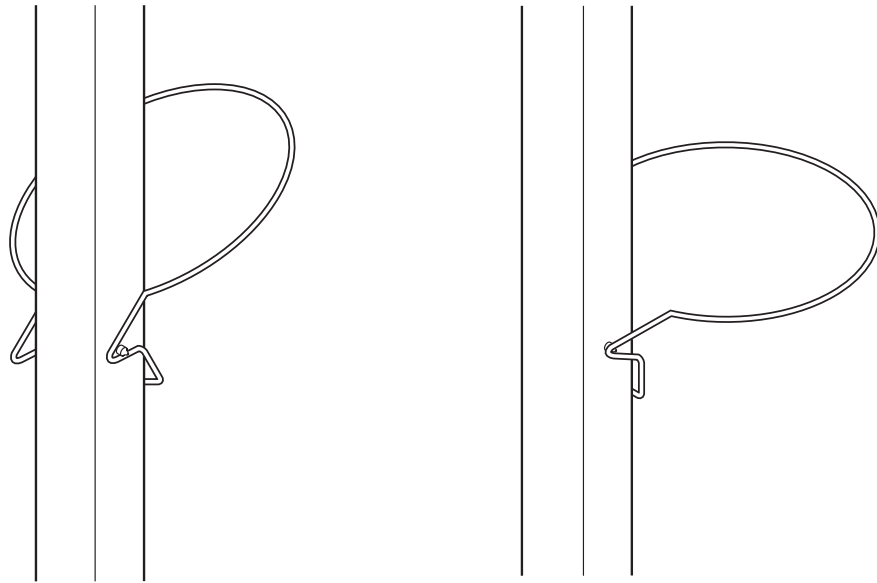


Figure 2
Place Upper Unit on Base and Tighten bolts in Extrusion.

2/Set-up, Check-out and Operation



Cl.16.041.042

Slide the bracket on from in front and underneath.

Rotate the bracket into position.

Figure 3
Nebulizer Bracket Installation

Nebulizer

1. Hang the nebulizer support bracket from the two studs on the upright extrusion (Figure 3). Place the nebulizer on the support bracket with its filler cap facing out. Pull back the metal lock tabs on the nebulizer and lift off the top portion. Remove any cleaning needles, instructions, or other material and replace the top section, locking it back into position by pressing in the tabs.
2. Connect a 50 psig (nominal) gas supply to the nebulizer. It is recommended that a flowmeter and a pressure regulator be installed in the supply line. If the Ohmeda High Performance Air Compressor[®] is used, a flowmeter is not necessary.

Canopy

1. Slide the three canopy hanger rods over the curved portion of the crane arm assembly; the crane arm assembly passes through the center loop of each hanger. Do not remove the rubber foot from the end of the rod. Make sure the hanger loops point down as shown in Figure 6.
2. Insert the short curved end of the crane arm into the hole at the top of the upright extrusion. Lift the long, straight portion of the arm until it is level, then slide it on the short curved section.
3. Unpack the canopy. Unfold it and smooth out as many wrinkles as possible; the end of the canopy with a hole in it should face the nebulizer. Orient the hanger rods so their loops point down and hang the canopy from them by passing the rubber bands on the canopy through the loops.
4. Insert the plastic duct hose into the small hole in the tent, with the edges of the hole fitting into the groove in the hose end (See Figure 4).

2/Set-up, Check-out and Operation

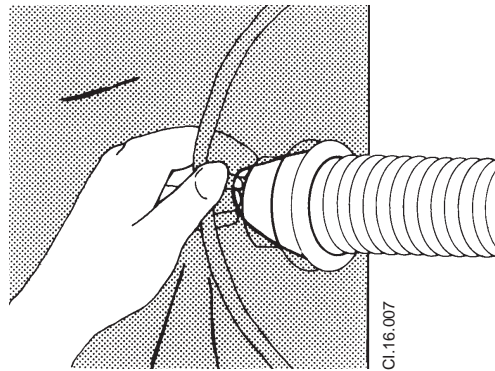


Figure 4
Stretching the Canopy over a plastic duct

Optional Air Compressor

1. If using the accessory Ohmeda High Performance Air Compressor, attach the bracket as shown (Figure 5) with the “U” bolt, lock washers and 1/4-20 nuts provided.
2. Orient the compressor in the bracket with the controls to the same side as the nebulizer’s gas connection. Lift the Air Compressor by the handles, tip it towards yourself and locate the rubber feet into the two front depressions of the mounting plate, then set it level. Fasten the air compressor in place with the fastening pins located under the bracket.

CAUTION

- ⚠ The air compressor fastening pins must be engaged. Otherwise, the air compressor can fall off its mounting bracket.

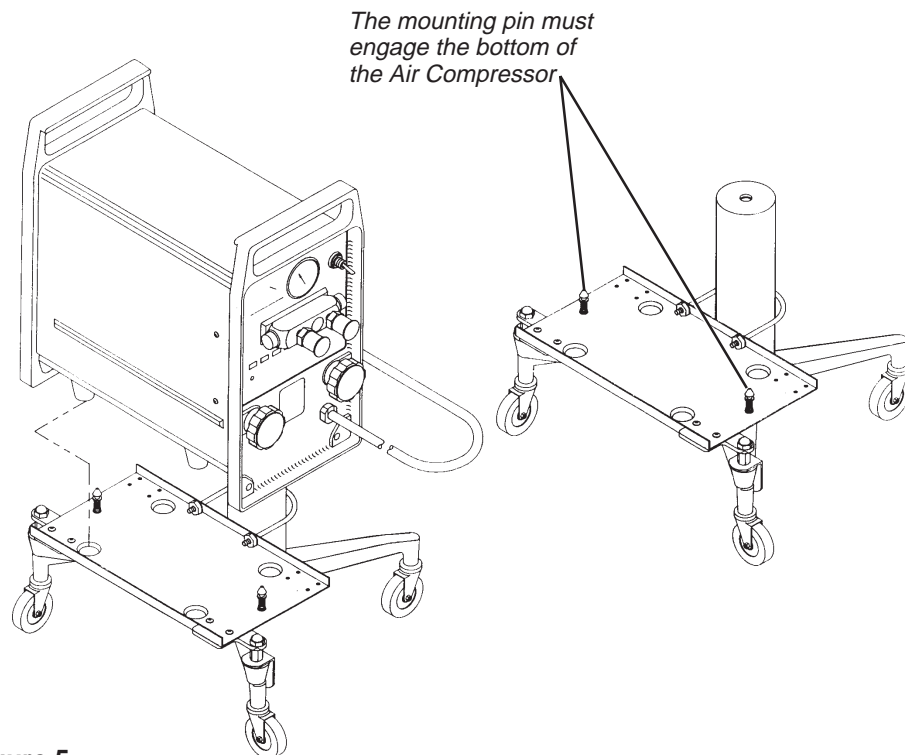


Figure 5
Air Compressor Bracket Installation

2/Set-up, Check-out and Operation

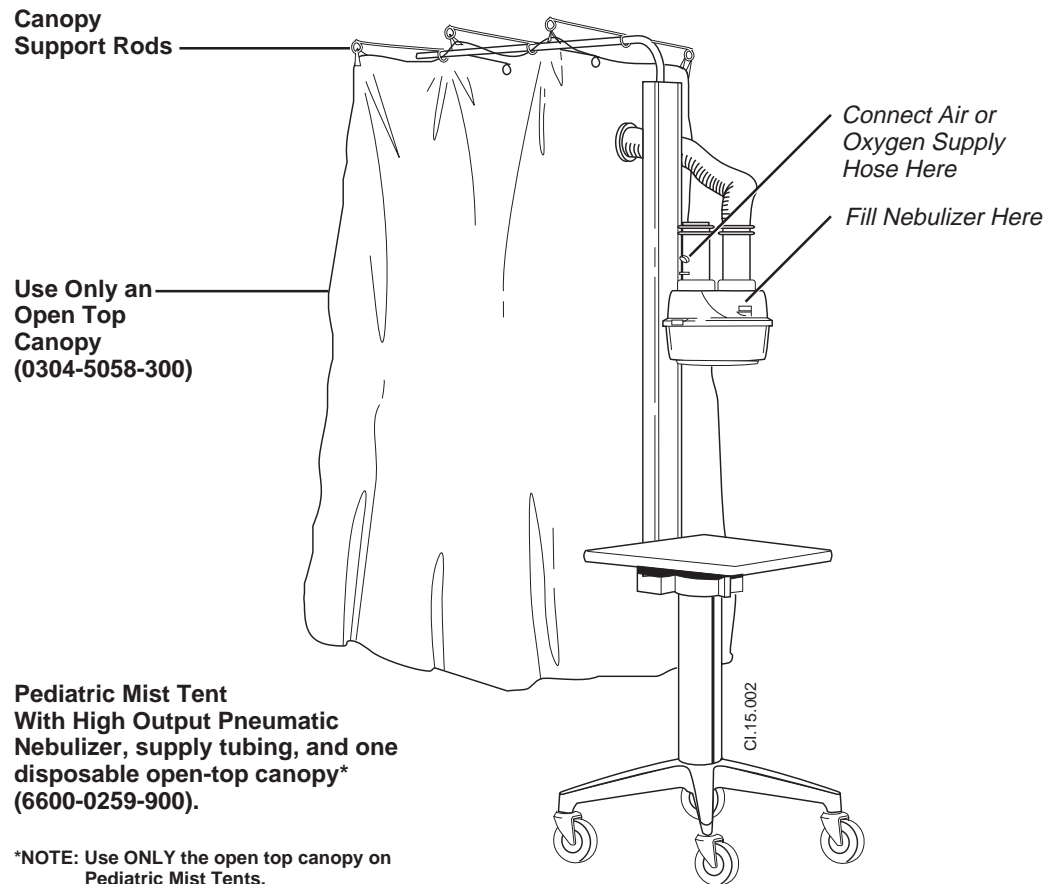


Figure 6
Pediatric Mist Tent

Operation

WARNING

⚠ **Do not use in the presence of flammable anesthetics.**

1. Check all fittings for tightness and correctness.
2. Prepare the nebulizer for operation in accordance with the instructions found in the nebulizer manual.
3. To circulate fresh air through the nebulizer and into the tent, leave the inlet of the nebulizer open, open the damper and connect the duct hose to the nebulizer outlet.
4. Start air or oxygen flow; then place the canopy over the patient's bed, tucking it tightly under the mattress.
5. Adjust the gas flow and damper position to obtain the desired mist output. A dense fog should be obtained in the tent within four to five minutes.

3/Maintaining the Mist Tent

Maintenance Policy

Maintenance procedures indicated in this section do not require special training or tools to accomplish. They may be performed by the operator or maintenance staff as needed.

Before attempting any maintenance procedure read the instructions given in this manual completely. If you do not understand the directions do not attempt the procedure. Always turn off the unit and disconnect it from the electrical outlet before maintenance. Pay close attention to all precautions during maintenance.

Cleaning and Sterilization

Nebulizer (Aerosol Tent/Mist Tent)

For cleaning and sterilizing instructions, refer to the High Output Nebulizer Operation and Maintenance manual (6600-0265-000).

Mainframe

The entire unit may be wiped clean with soap and water. Stains can be removed from the shelf with a mild detergent without damage to the finish. A cold sterilization agent can be used in addition to the above to disinfect exterior parts. Caution should be used if gas sterilization of the entire unit is desired. Surfaces are subject to damage by direct impingement of moisture or polymers unless protected with an impervious material such as polyethylene film. Plastic surfaces may show minute cracking after exposure to gas sterilization.

NOTE: When cleaning aluminum castings or laminated table top, do not use steel wool, abrasives, or any cleaning agent containing abrasive material, as damage to the transparent corrosion-protective coating on the aluminum surface could result.

Caster Lubrication

Use one drop of SAE 10 oil on each hub of the caster wheels if noisy. Wipe away any excess lubricant.

Notes

4/Service Procedures

4.1 Repair Policy

Do not use malfunctioning equipment. Make all necessary repairs, or have the equipment serviced by an Authorized Ohmeda Service Representative. After repair, test the equipment to ensure that it is functioning properly, in accordance with the manufacturer's published specifications.

To ensure full reliability, have all repairs and service done by an Authorized Ohmeda Service Representative. If this cannot be done, replacement and maintenance of those parts listed in this manual may be undertaken by a competent, trained individual having experience in the repair of respiratory therapy equipment.

CAUTION

⚠ No repair should ever be undertaken or attempted by anyone not having such qualifications.

Replace damaged parts with components manufactured or sold by Ohmeda. Then test the unit to ascertain that it complies with the manufacturer's published specifications.

Contact the Ohmeda Technical Support for service assistance. If you send the unit to an Ohmeda Service and Distribution Center, package it securely in the original shipping container, if possible, and ship it prepaid. Enclose a letter with the unit describing in detail any difficulties experienced and the repairs felt necessary. In all cases, other than where Ohmeda's warranty is applicable, repairs will be made at Ohmeda's current list price for the replacement part(s) plus a reasonable labor charge.

WARNING

⚠ **Remove the patient from the canopy during service procedures.**

4/Service Procedures

4.2 Base Unit

(Figure 7)

A. Disassembly

1. Loosen the bolts in the base plate extrusion.
2. Lift the upper unit off of the base unit.
3. Use a 1/2 inch wrench to remove the hex nuts from the tie rod.
4. Lift the tie rod and support column off the castor base.
5. Use a pry bar to snap the casters out of the caster base.

B. Reassembly

1. Install the casters. Use a small hammer to tap them into place if necessary.
2. Slide a lock washer and a circular spacer onto the tie rod. Then thread a hex nut onto the end of the tie rod.
3. Slide the support column over the tie rod.
4. Insert the end of the tie rod through the center hole in the caster base. Fit the support column into the groove in the caster base.
5. Place a flat washer, lock washer and hex nut on the end of the tie rod projecting under the caster base.
6. Tighten the hex nut. Make sure the support column fits in the groove in the caster base.

4/Service Procedures

4.3 Upper Unit

(Figure 7)

A. Disassembly

1. Lift the crane arm out of the upright extrusion .
2. Drive the groove pin out of the extension arm with a 3/32 in dia. pin punch.
3. Unscrew the bead chain connector from the crane arm.
4. Pry the O-ring out of its groove then slide it off the crane arm.
5. Remove two screws on the top of the assembly and slide the upright panel facing up off the upright extrusion.
6. Rotate the nebulizer support bracket off the upright extrusion.
7. Slide the hose support bracket out of the slide mount.
8. Unbolt the crane arm support and slide mount from the upright extrusion.
9. Remove the four bolts that fasten the upright extrusion to the base plate extrusion.
10. Remove the four screws that fasten the shelf to the base plate.
11. Unbolt the base plate from the base plate extrusion.

B. Reassembly

Reassembly is the reverse of disassembly.

4/Service Procedures

4.4 Parts List

Description	Stock Number
1. Arm Assembly, Crane	0217-0599-801
A. Foot, cond rubber	0211-1266-100
B. Arm extension	0217-0540-510
C. Beaded chain with connector	0203-0076-735
D. Groove pin	6600-0647-400
E. O-ring, 0.652 ID, 0.750 OD	6700-0136-500
F. Crane arm, curved	0217-0542-510
2. Socket, Crane Arm	0217-0541-500
3. Nut, Keps 1/4-20	6600-0074-400
4. Washer, Flat	0202-4004-300
5. Bracket, Nebulizer Support	0217-0551-300
6. Table, Support 11.75 X 17.75 in.	
light grey	6600-0873-500
beige	0217-0557-300
7. Screw, G10 X 1/2	0142-9375-120
8. Screw 1/4 - 20 X 5/8	6600-0482-400
9. Plate, Base, Mist Tent	0214-0750-500
10. Nut, Hex 1/2 X 13	0144-3155-113
11. Wash/Lock, Int - 1/2	0202-3425-300
12. Spacer, Circular	0214-0739-540
13. Extrusion, Base Plate	0217-0552-249
14. Screw, 1/4 - 20 X 3	0144-2136-248
15. Column, Support, Mist Tent	0217-0553-510
16. Rod, Threaded 28.50 in.	0400-5466-500
17. Base, Caster, Ped Tent (light gray)	6600-0786-500
Base, Caster, Ped Tent (beige)	0215-8060-300
18. Caster, 4 in. Dia., Cond., Swivel	
gray	6600-0616-400
black	0215-8060-300
19. Washer, 0.562 ID 1.250 OD	0202-4138-300
20. Nut, Hex 1/2-13	0202-3425-300
21. Nut, AC, 1/2-13	0144-3155-123
22. Screw, 1/4-20 X 1/2	0140-6236-110
23. Nut, Acorn, 1/4 X 20	0144-3536-113
24. Extrusion, Upright, Mist Tent	0217-0555-210
25. Pin, Nebulizer Mtg Bracket	0401-5641-500
26. Closure, Hanger Bracket	0203-0184-300
27. Bracket, Mtg. Neb. Hose	0217-0562-500
28. Screw, 1/4-20 X 1.25 in.	0144-2536-224
29. Hanger, Nebulizer Hose	0217-0556-342
30. Panel, Upright, Mist Tent (light gray)	6600-0874-500
Panel, Upright, Mist Tent (beige)	0214-0749-510
31. Screw, #6 X 1/4	6600-0653-400
Parts Not Shown:	
Hanger, Canopy	0217-1819-549
O ₂ Supply Tube	0217-1545-700

4/Service Procedures

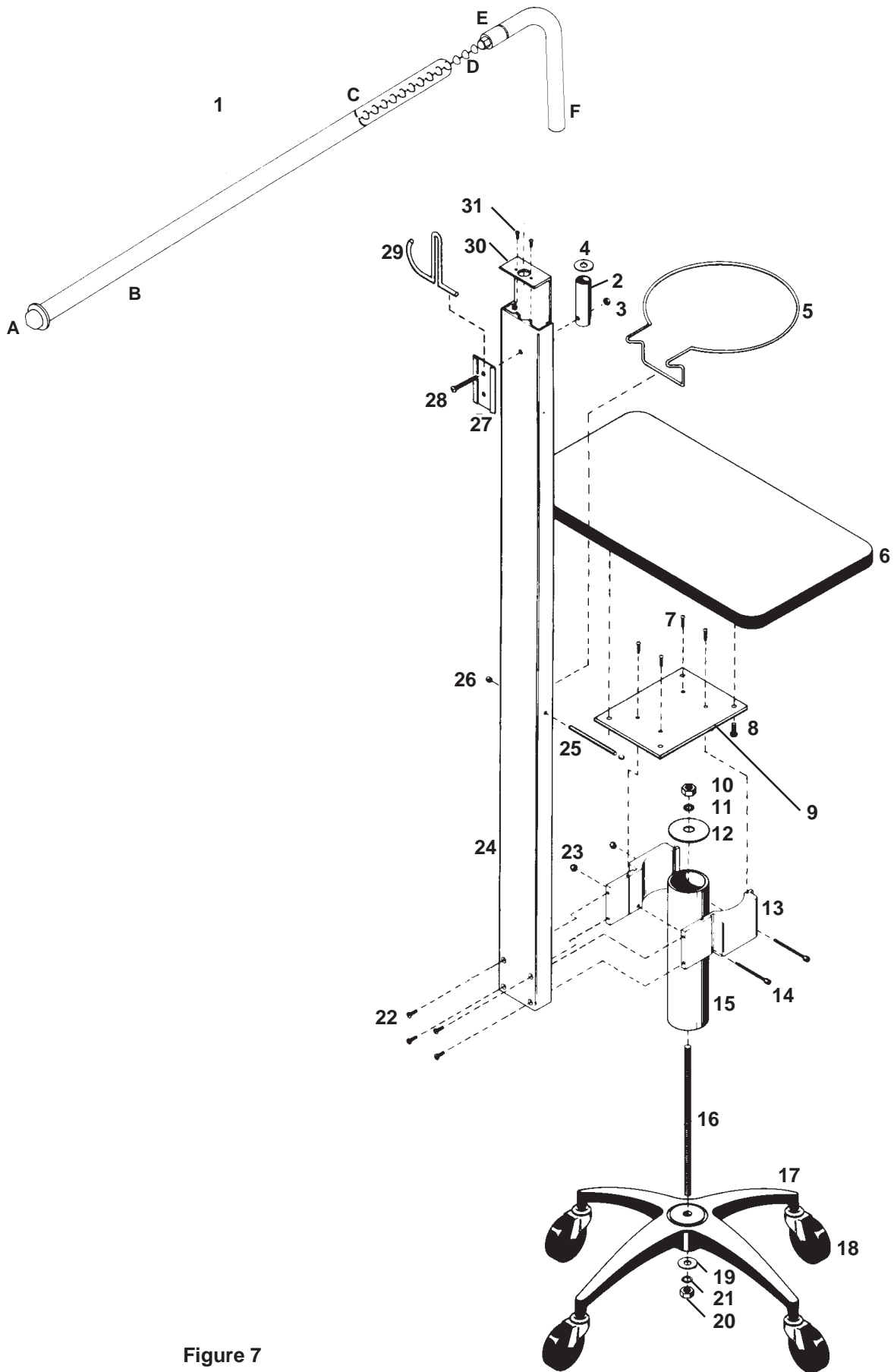


Figure 7
Illustrated Parts

CI:15.005.003

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 Buyer thereof, other than for the 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 the 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 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.

Ohmeda's sole and exclusive obligation and Buyer's sole and exclusive remedy under the above warranties is limited to repairing or replacing, free of charge, at Ohmeda's option, a Product, which is telephonically reported to the nearest Ohmeda Regional Service Office and which, if so advised by Ohmeda, is thereafter returned with a statement of the observed deficiency, not later than seven (7) days after the expiration date of the applicable warranty, to the designated Ohmeda Service Center during normal business hours, transportation charges prepaid, and which, upon Ohmeda's examination, is found not to conform with above warranties. Ohmeda *shall not be otherwise liable for any damages including but not limited to incidental damages, consequential damages, or special damages.*

There are no express or implied warranties which extend beyond the warranties hereinabove set forth. Ohmeda makes no warranty of merchantability or fitness for a particular purpose with respect to the product or parts thereof.

Ohmeda Medical
9065 Guilford Road
Columbia MD 21046-1801
USA
410-381-2555

North America

United States

Customer Service and Distribution Center

Datex-Ohmeda, Inc.
Ohmeda Drive
PO Box 7550
Madison, WI 53707-7550
Tel 1 800 345 2700
Fax 1 608 221 4384

Technical Support

Datex-Ohmeda, Inc.
Three Highwood Drive
Tewksbury, MA 01876
Tel 1 800 345 2755

Sales and Service

Datex-Ohmeda, Inc.
Three Highwood Drive
Tewksbury, MA 01876
Tel 1 800 635 6099
Fax 1 978 640 0469

Equipment Service Center

Datex-Ohmeda, Inc.
1315 West Century Drive
Louisville, CO 80027-9560
Tel 1 800 345 2755

Canada

Datex-Ohmeda (Canada) Inc.
1093 Meyerside Drive, Unit 2
Mississauga, Ontario
L5T 1J6
Canada
Tel 1 800 268 1472
Tel 1 905 565 8572
Fax 1 905 565 8592

Asia/Pacific

Datex-Ohmeda K. K.
TRC Annex 9F
6-1-1 Heiwajima
Ohta-ku, Tokyo 143-0006
Japan
Tel 81 3 5763 6801
Fax 81 3 5763 6838

Datex-Ohmeda K. K.
Technical Center
TRC A Bldg. AE 4-8
6-1-1 Heiwajima
Ohta-ku, Tokyo 143-0006
Japan
Tel 81 3 5763 6850
Fax 81 3 5763 6852

Malaysia

Datex-Ohmeda
Malaysian Oxygen Berhad
13 Jalan 222
46100 Petaling Jaya
Selangor
Malaysia
Tel 60 3 755 4233
Fax 60 3 756 6389

Singapore

Datex-Ohmeda Pte. Ltd.
152 Beach Road
#12-05/07 Gateway East
Singapore 189721
Tel 65 391 8618
Fax 65 291 6618

Australia

Datex-Ohmeda Pty. Ltd.
Units 1 & 2
149 Arthur Street
P O Box 356
Homebush
NSW 2140
Australia
Tel 61 132 229
Fax 61 297 461796

India

Datex-Ohmeda (India) Pvt Ltd
Oxygen House
P43 Taratala Road
Calcutta 700 088
India
Tel 91 33 478 4401
Tel 91 33 468 9659
Fax 91 33 478 4342

Europe

France

Datex-Ohmeda S.A.S.
Parc de Pissaloup
8 Avenue Jean d'Alembert
78191 Trappes-Cedex
France
Tel 33 1 30 68 60 00
Fax 33 1 30 68 60 01

Datex-Ohmeda S.A.S.
Siege Social Lyon
17, rue Jean-Elysee Dupuy
69410 Champagne Au Mont d'Or
France
Tel 33 04 78 66 62 10
Fax 33 04 78 43 26 58

Germany

Datex-Ohmeda GmbH
Langemarckplatz 3
D 91054 Erlangen
Germany
Tel 49 91 31 81 01 10
Fax 49 91 31 81 01 77

Datex-Ohmeda GmbH
Davis-Ricardo-Strasse 14
D28832 Achim
Germany
Tel 49 421 48 64 211
Fax 49 421 48 64 236

Italy

Datex-Ohmeda S.p.A.
Via Cassanese, 100
20090 Segrate, Milan
Italy
Tel 39 2 21693431
Fax 39 2 26926226

Netherlands

Datex-Ohmeda B.Z.
Kantemarsweg 18
Post Box 22
3870 CA Hoevelaken
Netherlands
Tel 31 33 253 5404
Fax 31 33 253 7223

Spain

Datex-Ohmeda S.L.
C/Manuel Tovar 26
28034 Madrid
Spain
Tel 34 1 334 26 00
Fax 34 1 358 12 84

United Kingdom

Datex-Ohmeda Ltd.
Ohmeda House
71 Great North Road
Hatfield Hertfordshire
AL9 5EN England
Tel 44 1707 263570
Fax 44 1707 260191

Latin America, Caribbean

Datex-Ohmeda Inc.
10685 N Kendall Drive
Miami, FL 33176
USA
Tel 305 273 9940
Fax 305 273 4382

Middle East

Datex-Ohmeda
Middle East Operations
P O Box 5527
Dubai
United Arab Emirates
Tel 97 14 822653
Fax 97 14 822659