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...better by degrees.

# DH15/DH16 CONVECTED AIR INSUL-PLUS<sup>TM</sup> Base Heaters



INSTALLATION, OPERATION & MAINTENANCE MANUAL

# CONVECTED AIR INSUL-PLUS<sup>TM</sup> BASE HEATERS

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### I. MODELS

The Aladdin Convected Air Insul-Plus Base Heaters are available in two capacities. These units are designed specifically for use with the Aladdin Insul-Plus<sup>tm</sup> wax filled bases.

The Aladdin Convected Air Insul-Plus Base Heaters are mobile, modularly designed products which are able to be used independently or in conjunction with other units in a tray line arrangement.

Aladdin Sales Codes Number of Stacks	<b>DH16</b> 2	DH15
Capacity per Stack	33	33
Capacity (Total)	66	99
Overall Dimensions:		
Length	33 3/8"	46 11/16"
Width	23 3/4"	23 3/4"
Height	42 13/16"	42 13/16"
Electrical Requirements:		
Voltage / Phase	208 V /1	208 V /1
Amperage	13.5	6.3
Cycle	60	60
NEMA Plug Configuration	6-20P	
Approximate Shipping Weight	270 lbs.	300 lbs.

## II. RECEIVING INSPECTIONS

NOTE: All Aladdin® units are factory tested for performance and certified free from defects and customer ready prior to shipment.

You should carefully inspect your Insul-Plus Base Heaters to assure that no damage has occurred in transit. If however, damage is detected see the following damaged goods policy. Under no condition may a damaged unit be returned to Aladdin Temp-Rite without first obtaining written permission (return authorization). No credit will be issued for claims not reported to Aladdin within ten (10) business days from receipt of shipment.

#### ALADDIN DAMAGED GOODS POLICY

There are two types of damaged merchandise:

- A. VISIBLE DAMAGE OR SHORTAGE
- B. CONCEALED DAMAGE
- A. VISIBLE DAMAGE OR SHORTAGE (All claims should be reported within 10 business days)
  - 1. Receiver should refuse the damaged portion of the shipment.
  - 2. Receiver should sign the bill of lading indicating (delivery receipt) what merchandise is being "refused due to damage" and have the driver initial the notation.
  - 3. Receiver should note any shortages on the bill of lading (delivery receipt) in the same manner.
  - 4. Receiver should contact Aladdin Customer Service at 1-800-888-8018 and alert them to the situation.
- B. CONCEALED DAMAGE- (All claims should be reported within 10 business days) Any receiving operation should inspect for this type of damage.

#### IF PRODUCT IS DAMAGED

1. Receiver should hold the shipping container and its contents in the same condition as when the damage was discovered insofar as possible and call the delivering carrier to arrange

## III. INSTALLATION

#### **NOTE:** The installation instructions are similar for all the heaters.

- A. All models are equipped with a self-leveling mechanism that is removable through the top of the unit. No adjustments are required to the tension springs as they are preset at the factory.
- B. See ELECTRICAL (section IV) and START-UP (section V) before plugging unit into power supply.

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## IV. ELECTRICAL

Refer to the specifications data on page 4, the serial tag, your local code or the National Electrical Code to be sure the unit is connected to the proper power source. A protected circuit of the correct voltage and amperage must be available for connection of the line cord.

All Insul-Plus Base heaters are provided with a NEMA plug type 6-20P

## **MARNING**

Every heater is fitted with a grounded power cord and must be connected to a properly grounded receptacle. Each receptacle must be wired to a dedicated circuit breaker rated at not more than 20 amps.

# **MARNING**

To prevent electrical shock hazard, the main power switch must be turned to "off" position and the heater disconnected from the power source whenever performing service or maintenance.

## **MARNING**

Hazardous voltage inside back of cabinet. Only qualified personnel totally familiar with electrical circuits, service manual and service procedures should open or work inside unit.

## V. START-UP

#### A. OVERVIEW

<u>These units are designed to heat Insul-Plus Wax filled bases only.</u> Once the unit is turned on, the fan motor, heater and power indicator light will come on. There is a power indicator light to let the operator know the power is on.

The fan motor will begin to circulate the heated air in and around the bases in a convection process that promotes a quick and even heat absorption by the bases.

Once the air inside the cabinet has reached the desired and preset temperature, the thermostat will continue to maintain this temperature by regulating the power to the heater. The fan motor will run as long as the unit is energized.

#### **B. LOADING**

Load carrier tray by carefully stacking the bases in each cavity. <u>Always keep the load leveled on the carrier or it may bind</u>. Never try to exceed the recommended base capacities that are shown in the models chart on page 4.

#### C. POWER

Set the power switch to the "ON" position. The power switch will light up when the unit is on. Keep the cover closed completely to insure proper and efficient heating. The heater should always be turned on 75 to 90 minutes before dispensing.

#### D. DISPENSING



Operators should always wear gloves or use base lifters when dispensing bases.

After the unit is turned off or unplugged, the bases remaining inside the unit will remain hot for sometime. Leave the lid open to allow the unit and its contents to cool.

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## VI. CLEANING

The following procedures should be followed during the regular cleaning regimen on all of the dish heaters.

- 1. Turn the unit off and disconnect the plug from the outlet, and allow the cabinet to cool. Remove plug by pulling it straight out. Never pull on the cord.
- 2. Pull the elevator mechanism up and out, place it on a work surface. You can now wipe down the mechanism with a damp cloth to clean it.
- 3. Clean out any debris inside the cabinet and wipe the cabinet down with a damp cloth.
- 4. Place the elevator mechanisms back inside the cabinet and clean the outside of the cabinet with a mild, non-abrasive soap or detergent in a warm water solution. A commercial stainless steel cleaner can also be used for this procedure.
- 5. After the heater has been thoroughly cleaned and dried with a soft cloth the plug can be replaced.

NOTE: Do not use abrasives, harsh chemicals, or chlorine products for cleaning.



Do not steam or pressure clean or hose down the cabinet. This could damage the equipment and possibly cause an electrical shock to the operator.



Repairs to be done by qualified service personnel only.

# VII. TROUBLESHOOTING

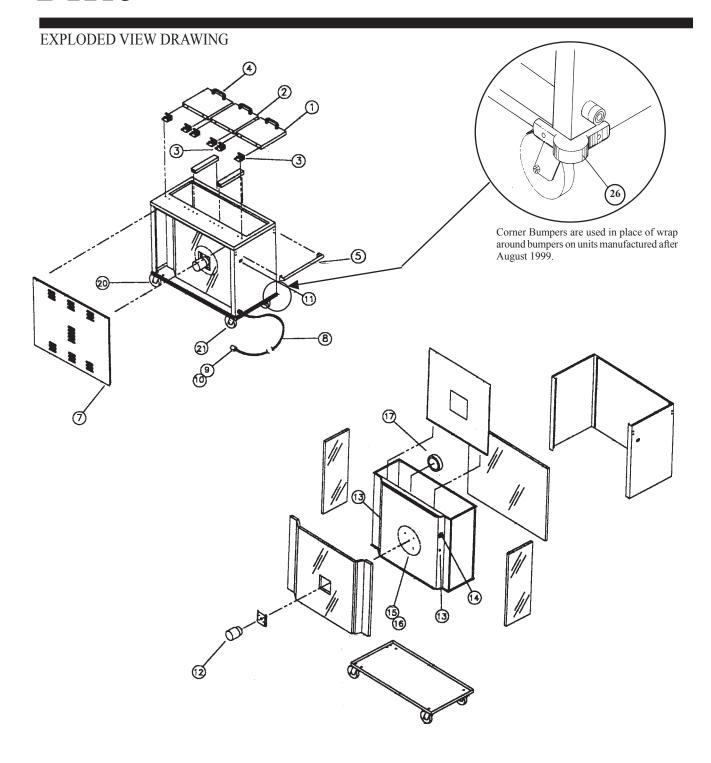
COMPLAINT	PROBLEM	SOLUTION
A. Unit does not operate and no lights are on	1. No power	Make sure plug is connected and switch is ON.
		Check for power to the receptacle
	2. Bad power switch	Replace power switch
	3. Loose wiring	3. Check and secure wiring
B. Unit heats, but fan does not operate	Defective motor	Replace motor
	2. Jammed or loose fan blade	2. Replace or tighten blade
	3. Loose wiring	Determine fault and correct
C. Unit does not heat, but fan operates	Defective heating element	Replace heating element
	2. Open high limit switch	Replace switch. Check for causes before restarting equipment
	3. Loose wiring	3. Check and secure wiring
D. Plate temperature is too low, fan operating	Thermostat set too low	Readjust thermostat
	2. Jammed or loose fan blade	2. Replace or tighten blade
	3. Cover is open	3. Close cover
E. Plate temperature is too high, fan is operating	1. Thermostat set too high	Readjust thermostat
	2. Closed thermostat	2. Replace thermostat
	3. Closed high limit switch	3. Replace high limit switch
F. Cover is loose	Hinge screws are missing or loose	Replace or tighten screws
G. Elevator Binds	1. Improper springs	Check springs chart and use correct number of springs. Make sure identical number and size of springs are on each side of elevator
	2. Debris on guide rods	2. Clean off debris
H. Cabinet does not roll easily	1. Debris on wheel or axle	1. Clean out debris
	2. No lubrication	2. Lubricate axles with load bearing grease. Lubricate swivel bearings with 30-weight oil.

# VIII. PARTS LIST/DIAGRAMS

ITEM #	DESCRIPTION	ALADDIN PART#	DH16 Qty.	DH15 Qty.
1	Lid assembly-End	92496	2	2
2	Lid assembly-Center	92497	_	1
3	Hinge, RH & LH	92203	4	6
4	Lid handle	92500	2	3
5	Push/Pull handle	92501	1	1
6	Rear louvered panel DH16	92502	1	_
7	Rear louvered panel DH15	92503	_	1
8	Cord-10 foot length	24719	1	1
9	Plug- NEMA 6-20 straight blade	92504	1	1
10	Plug-NEMA L6-20 twist lock	39169	1	1
11	On/off switch	93989	1	1
12	Motor-208/230V,60hz.1ph. 3200 rpm	92506	1	1
13	High limit switch- manual reset 265F	92507	2	2
14	Thermostat-230 °F, non-adjustable	93103	1	1
15	Heating element-208V	92510	1	1
16	Heating element-240V ("A" Models only)	92511	1	1
17	Fan Blade, 5/16" bore	92512	1	1
18*	Wrap around bumper-DH16(Obsolete-Use 93052)	92513	1	-
19*	Wrap around bumper-DH15 (Obsolete-Use 93052)	92514	-	1
20	Caster 5" swivel	92515	2	2 2
21	Caster 5" swivel with brake	92516	2	2
22	Elevator spring	93104	12	18
23	Elevator bushing	92518	8	12
24	Elevator guide rod	92519	4	6
25	Elevator assembly	93105	2	3
26*	Corner Bumper	93052	4	4

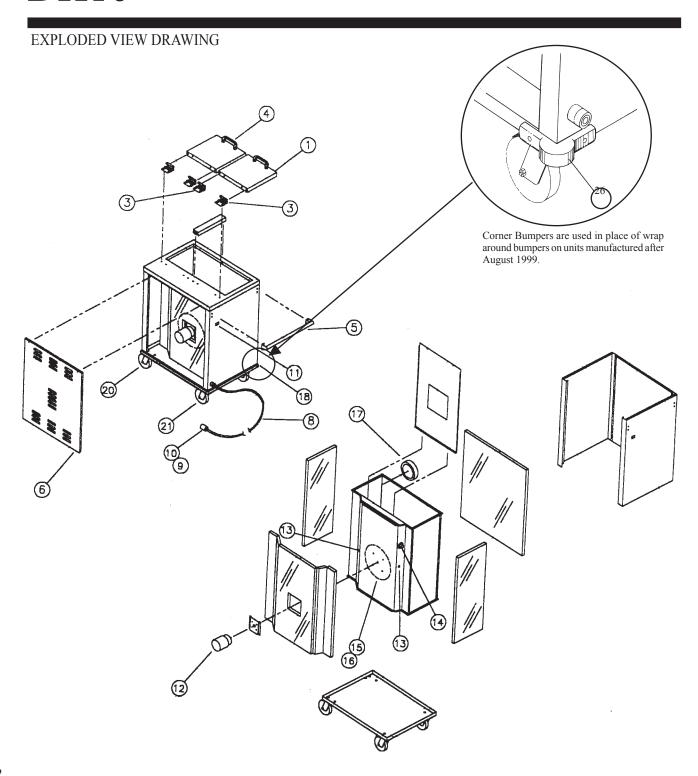
<sup>\*</sup>Corner Bumpers are used in place of wrap around bumpers on units manufactured after August 1999.

## **DH15**



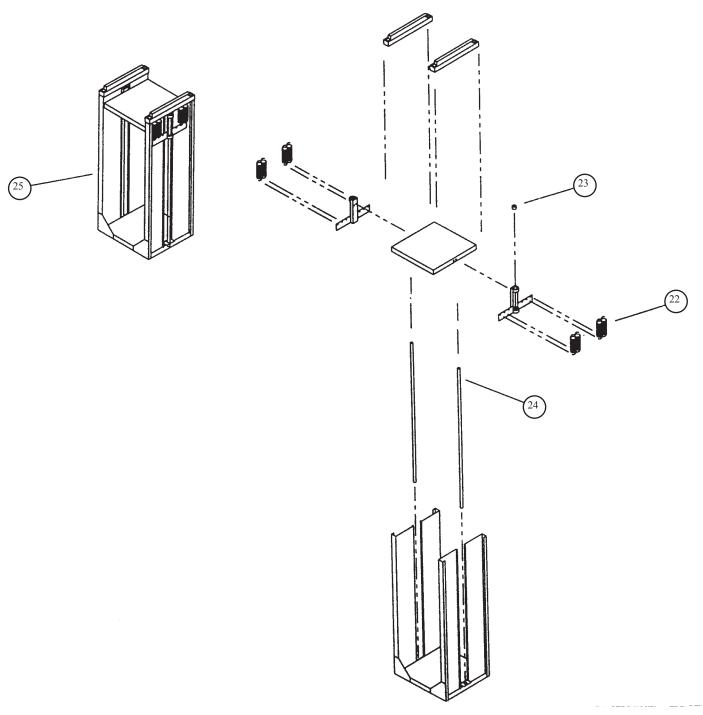
# CONVECTED AIR INSUL-PLUS $^{\mbox{\tiny TM}}$ BASE HEATERS

## DH<sub>16</sub>

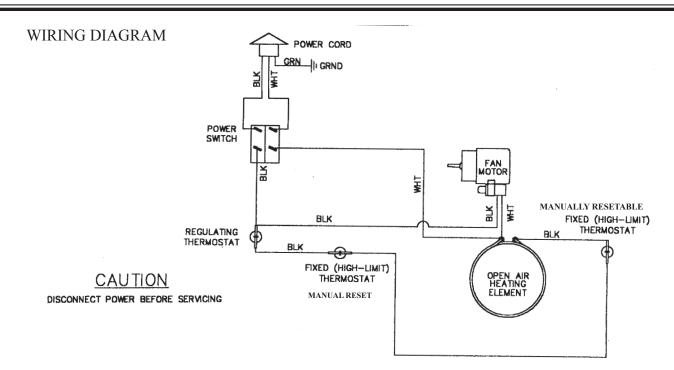


# DH15/DH16

#### ELEVATOR ASSEMBLY EXPLODED VIEW DRAWING



# CONVECTED AIR INSUL-PLUS $^{TM}$ BASE HEATERS



# IX.PREVENTATIVE MAINTENANCE

#### **CASTERS**

- 1. Check casters for freedom of movement and proper brake retention.
- 2. Maintain casters free of debris. (mop strings, paper plastic, hair nets, etc.)
- 3. Clean or replace as required.
- 4. Replace caster when rubber tread is less than ½" from rim.

#### CORD & PLUG

- 1. Inspect plug blades for distortion and replace if any blades are missing, bent or broken.
- 2. Inspect cord wiring for integrity at termination points by having qualified service person remove the back panel from cabinet. Make sure the cord sheathing extends into the cabinet interior. If wires are showing on the outside of the cabinet, remove the unit from use and have repairs made before turning on power to the unit.

#### **DISPENSING MECHANISM**

1. Periodically check springs for proper base dispensing by filling each cavity with bases and checking to see that it indexes as bases are removed. If bases do not index properly, and unit is not overloaded replace springs.

## X. SERVICE

In the event service is required on your Aladdin DH15 / DH16 Series Base Heaters please call:

ALADDIN TEMP-RITE SERVICE DEPARTMENT 1-800-888-5426

### XI. WARRANTY

#### ALADDIN TEMP-RITE® EQUIPMENT LIMITED WARRANTY

Effective April 1, 1998

Aladdin Temp-Rite ("ATR") warrants to the original purchaser that the equipment listed below shall be free from defects in material and workmanship under normal use for the applicable warranty term set forth below. ATR's obligation under this warranty is limited to the repair or replacement, at the sole option of ATR, of any part which upon inspection and examination by ATR or its authorized agent is found to be defective. A written description detailing the nature of the claimed defect, together with the equipment claimed to be defective if required by ATR, must be delivered to ATR or its authorized agent within 30 days of discovery of the claimed defect (but in no event later than 30 days after the expiration of the applicable warranty term).

EQUIPMENT	WARRANTY TERM*	
	PARTS	LABOR
DH15 / DH16	1 Year	90 Days

<sup>\*</sup>The warranty term commences 30 days after Aladdins invoice for the equipment.

THE WARRANTIES AND REPRESENTATIONS OF ATR CONTAINED HEREIN ARE EXPRESSLY IN LIEU OF, AND THE BUYER WAIVES, ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY OTHER REMEDIES AGAINST ATR, WHETHER BASED UPON CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE. ATR SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES OR ECONOMIC LOSS OF ANY NATURE (INCLUDING WITHOUT LIMITATION LOSS OF REVENUES AND/OR PROFITS) THAT MAY BE CLAIMED TO RESULT FROM ANY NEGLIGENCE OR BREACH OF WARRANTY OR CONTRACT BY ATR.

#### Exceptions and Exclusions

This warranty is issued only to the original purchaser, and is not transferable and applies only to the products installed within the United States of America, its territories and Canada. During the term of any labor warranty, ATR will pay all pre-approved shipping charges incurred in returning defective equipment to ATR and labor costs incurred in the removal and reinstallation of such equipment. Contact ATR before returning any claimed defective equipment or otherwise performing warranty repairs. ATR assumes no liability for any work or repair performed without its prior approval. After the expiration of any labor warranty, the original purchaser is responsible for all shipping charges incurred in returning defective equipment to ATR and labor for removing and reinstalling such equipment. ATR shall not be responsible for the replacement of expendable items like lamps and fuses or product failure resulting from normal wear and tear, improper installation, misuse, sabotage, abuse, neglect, accident, unauthorized alterations or repair, or other factors beyond the control of ATR. Neither this warranty nor the liability of ATR may be modified or extended by action of any agent, distributor or other person or by custom or practice.

CALL ALADDIN TOLL FREE AT 1-800-888-5426 IF YOU HAVE ANY QUESTIONS ABOUT THIS WARRANTY OR YOUR ATR PRODUCT.