

CONTENTS

Introduction	2	Operation	6
General	2	Ambient Light Levels	6
Manufacturer	2	Control Devices	6
European Representative	2	Tower Set Up	7
Name and Model	2	Power Failure	11
Machine Description	2	Abnormal Uses	11
EC Declaration of Conformity	3	Replacement Parts	12
Installation	4	Training	12
Warranty	4		
Dimensions	4		
Stage Load Specifications	5		
Floor Level Specifications	5		
Required Working Environment	5		
Main Electrical Power Supply	5		
Ground Connection	5		

Note: Please read and understand these User Instructions before working with or using the Diva® Air Transporter.

Note: If you need additional information about the Diva Air Transporter, contact the Wenger Corporation using the information below.

INTRODUCTION

GENERAL

Copyright © 2011 by Wenger Corporation

All rights reserved. No part of the contents of this manual may be reproduced, copied, or transmitted in any form or by any means including graphic, electronic, or mechanical methods or photocopying, recording, or information storage and retrieval systems without the written permission of the publisher, unless it is for the purchaser's personal use.

The information in this manual is subject to change without notice and does not represent a commitment on the part of Wenger Corporation. Wenger Corporation does not assume any responsibility for any errors that may appear in this manual.

In no event will Wenger Corporation be liable for technical or editorial omissions made herein, nor for direct, indirect, special, incidental, or consequential damages resulting from the use or defect of this manual.

The information in this document is not intended to cover all possible conditions and situations that might occur. The end user must exercise caution and common sense when assembling or installing Wenger Corporation products. If any questions or problems arise, call Wenger Corporation at 1-507-455-4100.

MANUFACTURER

The Diva Air Transporter is manufactured by:

Wenger Corporation
555 Park Drive
Owatonna, MN 55060
001-507-455-4100
www.wengercorp.com

EUROPEAN REPRESENTATIVE

See the EC Declaration of Conformity for information about a European Representative.

NAME AND MODEL

Diva Air Transporter 230 volt.

MACHINE DESCRIPTION

A Diva Air Transporter is designed to receive acoustic towers. The machine is only intended to lift and transport acoustic towers.

The operator loads and unloads a Diva Air Transporter manually. It requires a 230 VAC 50 Hz single-phase 15 Amp mains electrical supply.

The air blower operates at a maximum pressure of 0.15 Bar (2.25 psig) at the maximum load and flow rate of 1840 to 3681 liters/min (65 to 130 cubic feet/min).

INTRODUCTION (CONTINUED)

EC DECLARATION OF CONFORMITY

Manufacturers Name: Wenger Corporation
Manufacturers' Address: 555 Park Drive
Owatonna, MN 55060 USA

Declare that the machinery described below complies with applicable health and safety requirements of Part 1 of Annex 1 of the Machinery Directive 98/37/EC taking full account of the additional requirements of Machinery Directive 2006/42/EC and the EMC Directive. Confidential technical documentation has been compiled in accordance with Part A of Annex VII of Machinery Directive 2006/42/EC and is available to European national authorities on written request only. If a request is received documentation will be transmitted by post.

Description: Diva Air Transporter 230 volt
Model Number: 185A455

Sizes: An Air Transporter is designed to receive acoustic towers varying in size from 4.8 m (192 inches) to 9.7 m (384 inches) high, 3 m (120 inches) to 3.6 m (144 inches) wide and length 1.4 m (56 inches) deep weighing up to 885 Kg (1950 lbs). The machine is only intended to lift and transport acoustic towers. The different types of acoustic tower that can be lifted and transported are identified in operating instructions.

The following standards have either been referred to or been complied with in part or in full as relevant:

- ENISO 12100 - 2 Machinery Safety - Basic concepts, general principles for design – Part 2: Technical principles and specifications
- EN 954-1 Machinery Safety - Safety Related Parts of Control Systems – Part 1: General Principles for Design
- EN 811 Machinery Safety - Safety distances to prevent danger zones being reached by the lower limbs
- EN 614 Machinery Safety - Ergonomic design principles
- EN 953 Machinery Safety -General requirements for the design and construction of guards
- EN 418 Machinery Safety - Emergency stop equipment, functional aspects. Principles for design
- EN 60204-1 Machinery Safety - Electrical Equipment of Machines
- EN61000-6-3:2001 EMC - Generic emissions standard
- EN61000-6-1:2001 EMC - Generic susceptibility standard

Full Name of Responsible Person:.....(Typed)

Position:.....(Typed) Place of Signing:.....

Signature: Date:

Full Name of Authorized European Representative:.....(Typed)

Position:.....(Typed) Place of Signing:.....

Signature: Date:

Full Name of Authorized European Representative:.....(Typed)

Position:.....(Typed) Place of Signing:.....

Signature: Date:

INSTALLATION

WARRANTY

The Diva Air Transporter is guaranteed free of defects in materials and workmanship for five full years.

Our guarantee assures you of either a full refund or repair or replacement of the defective materials or workmanship without charge, at the discretion of our Customer Service Department. Just call a Customer Service Representative at 001-507-455-4100 and state the reason you are dissatisfied. If a product return is necessary, your representative will issue a return authorization. This is your sole remedy for breach of this warranty.

Should you have a question or problem with any Wenger product, don't hesitate to call, even if the product is past warranty. It's important to us that all our customers be satisfied.

This is the sole warranty made by Wenger. Wenger disclaims all other warranties, including the warranties of merchantability and fitness for a particular purpose, as well as all liability for incidental, consequential, special, and indirect damage. Wenger liability for direct damages shall be limited to the amount you paid for the product involved. Wenger reserves the right to make product changes without obligation to incorporate such changes into products previously sold.

Some countries do not allow the exclusion or limitation of damages or warranties, so the above may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from country to country.

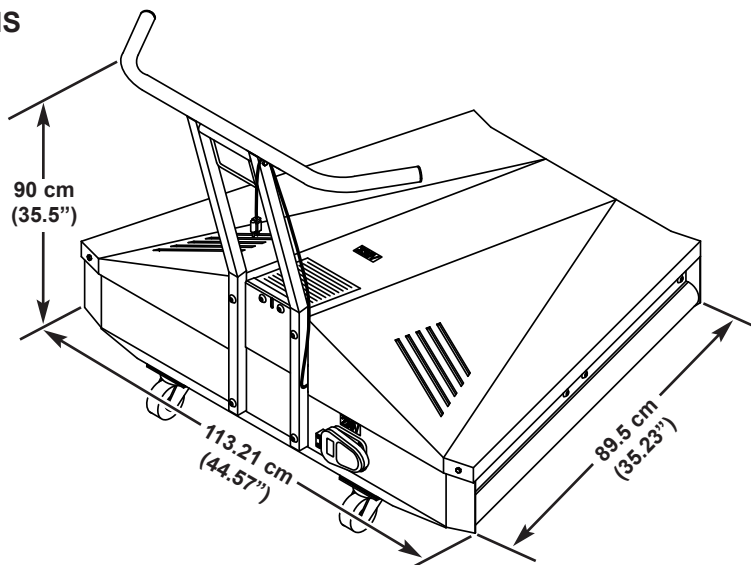
SAFETY PRECAUTIONS

Throughout this manual you will may find cautions and warnings which are defined as follows.

- **WARNING** means that failure to follow the instruction may result in serious injury or death.
- **CAUTION** means that failure to follow the instruction may result in serious injury or damage to property.



DIMENSIONS



INSTALLATION (CONTINUED)

STAGE LOAD SPECIFICATIONS

A Diva Air Transporter is designed to receive acoustic towers varying in size from 4.8 m (192 inches) to 9.7 m (384 inches) high, 3 m (120 inches) to 3.6 m (144 inches) wide and length 1.4 m (56 inches) deep weighing up to 885 Kg (1950 lbs). The machine is only intended to lift and transport Wenger Diva Acoustic Towers.

FLOOR LEVEL SPECIFICATIONS

A Diva Air Transporter must only be used on level ground.

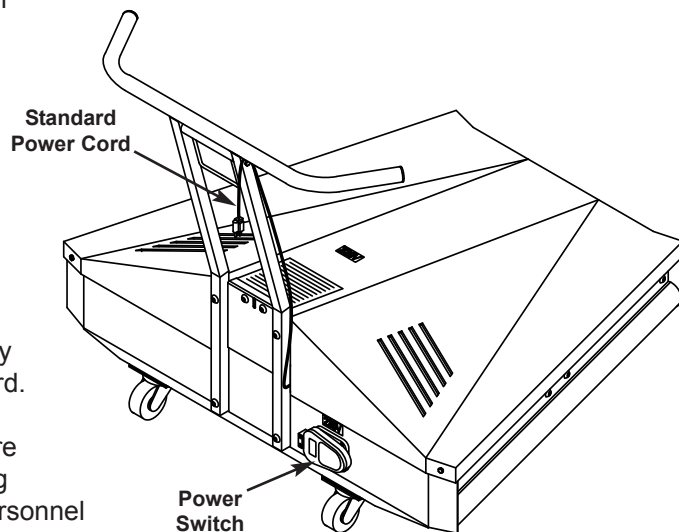
REQUIRED WORKING ENVIRONMENT

A Diva Air Transporter is designed for use indoors in a normal working environment. The intended operating temperature range is 7°C (45°F) to 35°C (95°F). It must only be used on level ground, on a smooth solid floor with no ridges, holes or obstructions.

MAIN ELECTRICAL POWER SUPPLY

A power switch is provided to enable a Diva Air Transporter to be disconnected from the main electrical supply. When the power switch is switched from the OFF position to the ON position, the earth connection is made before power connections are made. When the power switch is switched from the ON position to the OFF position, power connections are broken before the earth connection is broken. In the OFF position, the electrical power supply is removed from the entire machine. The electrical power supply is provided by the use of a standard power cord.

The standard power cord must be routed where there is no risk of personnel tripping and falling because it has been routed in areas where personnel are expected to walk. It is recommended that cables should be routed away from such areas, run in rubber ramps or the area cordoned off to keep people away.



GROUND CONNECTION

The blower motor, electrical control box, and metalwork of the machine are bonded to earth (ground) to prevent a build up of static electricity. This is necessary to ensure that there is no risk of an increase in the voltage potential of the blower motor, electrical control box and metalwork of the machine as a result of static electricity that might be generated.

The earth conductor in the incoming main power supply is connected to a protective earth terminal and one cable taken from this terminal to an earth distribution connector block. Functional earth connections to the blower motor, electrical control box, and metalwork of the machine, etc. are connected to the earth distribution connector block.

OPERATION

AMBIENT LIGHT LEVELS

A Diva Air Transporter is only intended for use inside buildings where there will be artificial lighting. Ambient lighting must be sufficient for operators to see inside and around all parts of the machine. There is no need to provide additional internal lighting under the hood. Maintenance personnel can see all internal parts when access covers have been removed and there is no need to provide additional internal lighting.

Local ambient lighting should achieve a light intensity of 300 LUX around the Air Transporter and in the immediate vicinity of those parts of the machine where maintenance must be performed.

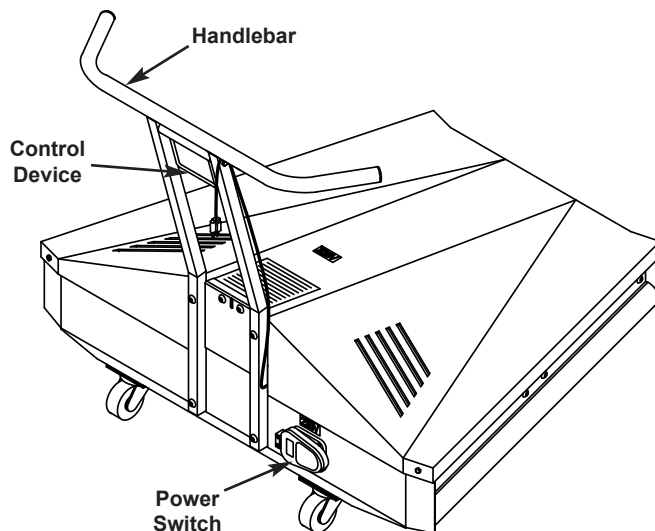
There are no exposed rotating parts on an Air Transporter that might put operators at risk if there are stroboscopic effects due to lighting powered by a 50 or 60 Hz AC mains electrical supply. This is because all rotating parts of an Air Transporter are behind plain metal panels or hoods.

CONTROL DEVICES

The control device for raising and lowering the front caster is a finger grip. This is located just below the handlebar in a readily accessible position. Operators stand behind the handlebar of the machine where they are able to see all parts of the machine while it is being maneuvered. A second person is needed to determine whether there are other personnel who might be in the path of the machine. This makes it possible for operators to safely maneuver acoustic towers.

The power switch is foot-operated and located at low level. In this position it is easy to access and operate. There is no need for adjustment, the power switch is accessible to persons of all heights. The power switch is a positive action on/off switch that has immediate feedback of being engaged or disengaged. The device only provides lift and does not provide locomotion. One person can lift all heavy items that need to be lifted for maintenance with ease. The machine does not determine the work rate because the operator is not required to position acoustic towers onto the machine at a rate that is set by the machine.

Control devices are located in the vicinity of the handlebar at levels where tall and short operators have ease of access and where they are in full view of the operator. The function of each control device and what it achieves is marked alongside each control using characters that are typically 6 mm or more high. There is only one set of controls and no risk of a second operator being able to control the machine using a second set of controls in conflict with the first.



OPERATION

TOWER SET UP

In normal operation, a Diva Air Transporter can be maneuvered manually with ease once the air cushion has been inflated. There is little risk of fatigue by the operator. The force needed to push the assembly is 13.6 Kg (30 lbs) and this is not excessive. Acoustic towers weigh up to 885 Kg (1950 lbs) and are positioned manually, with minimal physical effort.

While maneuvering the machine, two people are required. One person is needed to push the Diva Air Transporter while the second person is needed to ensure that the way is clear for an acoustic tower to be moved forward. To assist operators, the acoustic towers are positioned simply by engaging lugs on the Diva Air Transporter in the feet of an acoustic tower. This enables tall and short operators to position the acoustic towers without the need to reach or stoop and is not stressful.

Provided acoustic towers of the correct type are presented to the machine, there should be no handling problems. Operating instructions provide instruction on how to attach acoustic towers to a Diva Air Transporter and how to check the security of acoustic towers so that they cannot come loose.

CAUTION

Never use the Diva Air Transporter for any purpose other than to move and transport Diva Acoustical Towers.

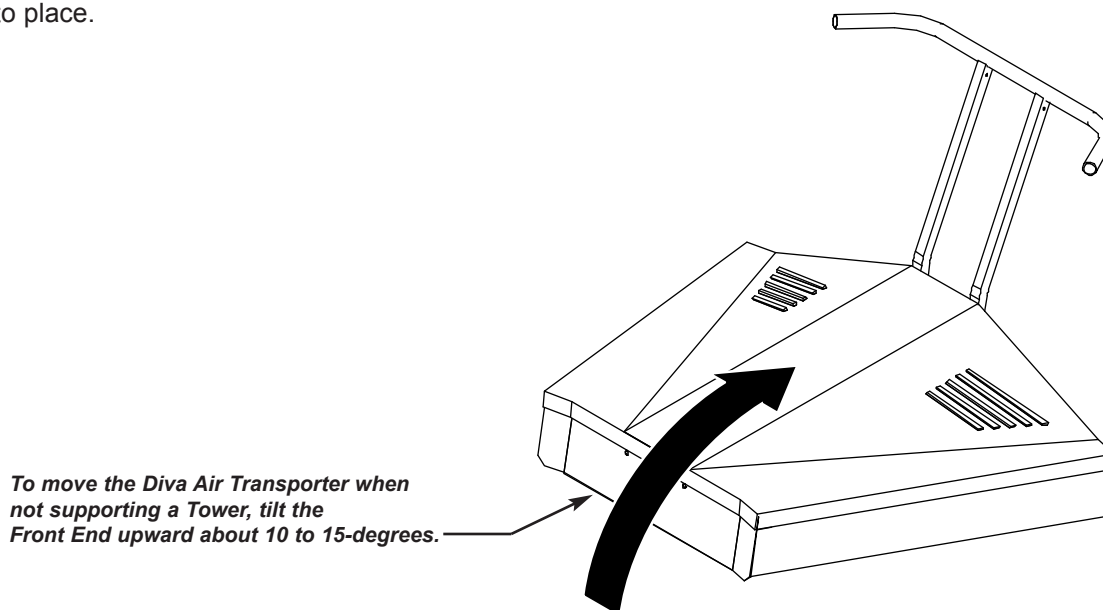
CAUTION

Never attempt to manually lift or move a Diva Acoustical Tower without using a Diva Air Transporter.

CAUTION

Never move a Diva Acoustical Tower on an inclined surface or ramp while in the performance position.

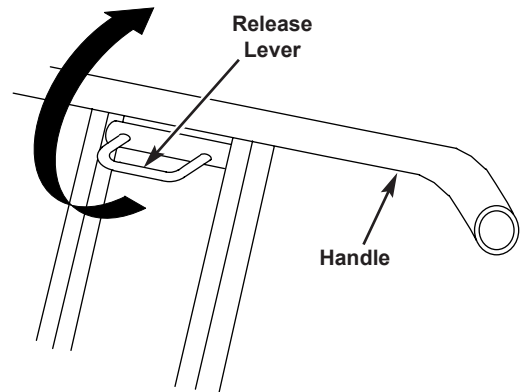
1. To move the Diva Air Transporter when it is not supporting an acoustical tower, tilt the front of upward on the rear casters about 10 to 15-degrees. The front caster will drop downward into place.



OPERATION (CONTINUED)

TOWER SET UP (CONTINUED)

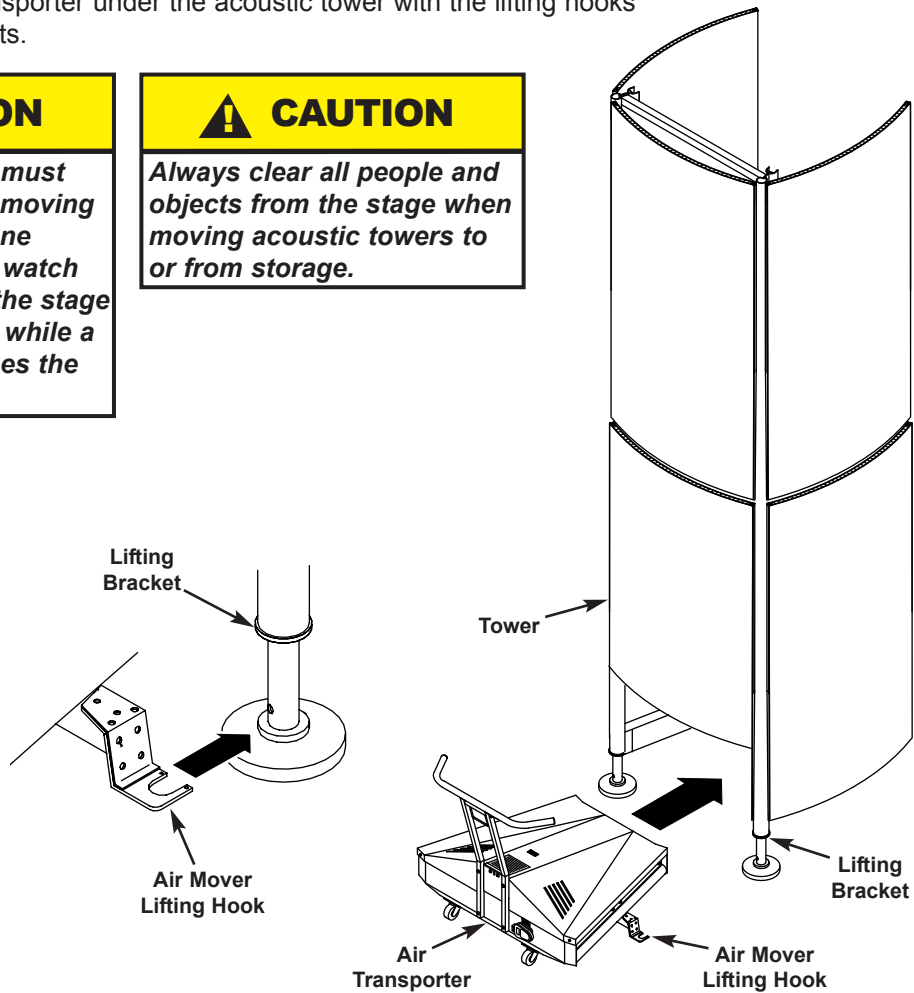
2. Lift the release lever on the handle to extend the air pads to the floor.



3. Place the Diva Air Transporter under the acoustic tower with the lifting hooks under the lifting brackets.

CAUTION
Two or more people must work together when moving an acoustic tower. One person must always watch for obstructions on the stage and above the stage while a second person pushes the Diva Air Transporter.

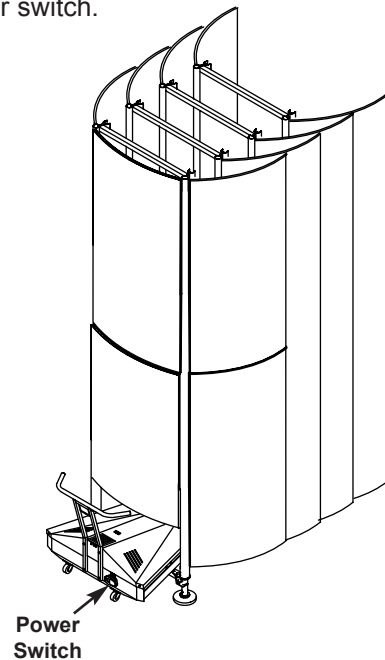
CAUTION
Always clear all people and objects from the stage when moving acoustic towers to or from storage.



OPERATION (CONTINUED)

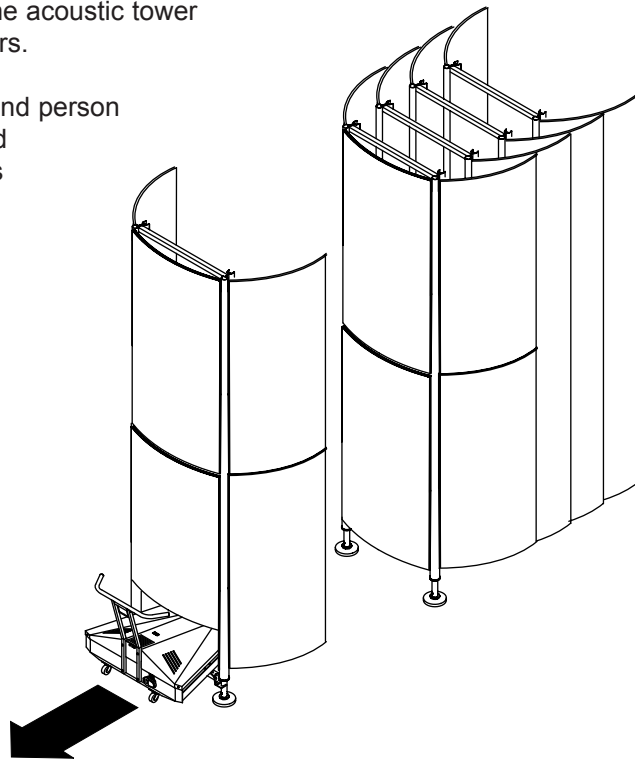
TOWER SET UP (CONTINUED)

4. Turn on the Diva Air Transporter air blower by pushing in the power switch.
Note: Make sure that both lift hooks engage the lifting brackets.



5. Slowly pull the Diva Air Transporter to move the acoustic tower approximately 1.5 m (5 feet) out from the others.
6. Stop moving the acoustic tower so that a second person can make sure that the wing panels are locked in the storage position and that the wing doors are locked to the wing panels.

CAUTION
Always rotate and lock the tower wing panels to the storage position before moving an acoustic tower to or from the performance location.



OPERATION (CONTINUED)

TOWER SET UP (CONTINUED)

7. With one person pushing the Diva Air Transporter and a second person ensuring that the way is clear, slowly move (***no faster than 50 cm per second***) the acoustic tower to the performance location. Be careful to not push the acoustic tower into any obstructions on the stage floor or above the stage floor (such as ceiling panels, etc).

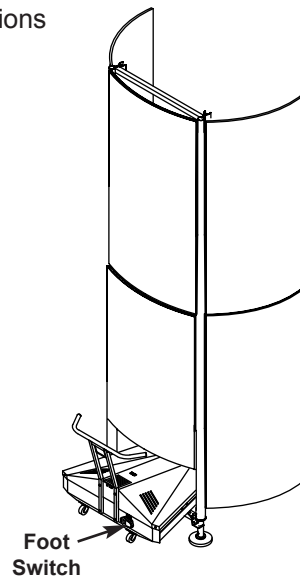
⚠ CAUTION

Never move an acoustic tower faster than 50 cm per second when transporting to or from the storage location. Moving an acoustic tower carelessly or too fast can cause an accident such as tipping it over or running into objects.

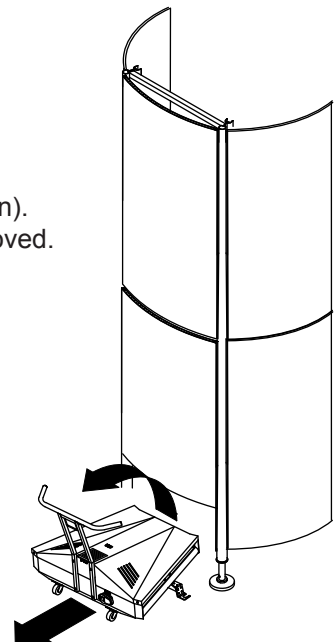
Note: It is best to create permanent marks for the final performance locations for all acoustical towers before moving the them from storage.

8. When the acoustic tower is in the final performance location, turn off the air blower by pushing in the foot switch.

Note: As the air escapes from the air pads, the acoustical tower will tilt slightly forward.



9. Remove the Diva Air Transporter from the acoustic tower as follows.
 - a. When the air pads are deflated, pull the Diva Air Transporter away from the acoustical tower until the lift hooks are clear of the tower lift brackets.
 - b. Place a foot against the rear of the Diva Air Transporter and tilt the front upward until the front caster locks into place (down position).
 - c. Move the Diva Air Transporter to the next acoustical tower to be moved.
10. Move other acoustic towers to their performance locations by repeating steps 2 to 9.



Pull the Diva Air Transporter clear of the acoustic tower and tip front end upward to deploy the front caster (lock into the down position).

OPERATION (CONTINUED)

POWER FAILURE

If there is a failure of the main electrical power supply, the Diva Air Transporter ceases to operate. When the main electrical power supply has been restored, power is returned to the Diva Air Transporter and the air cushions will inflate. The Diva Air Transporter only provides lift, and does not provide locomotion. There is therefore, no risk of a Diva Air Transporter moving unexpectedly following failure of the main electrical power supply.

CAUTION

Be sure that all electrical connections will not separate and interrupt power to the Diva Air Transporter when moving an acoustic tower.

ABNORMAL USES

Examples of abnormal uses to which a Diva Air Transporter should not be put. Wenger takes no responsibility for the safety of machines if they are used for any purpose other than the intended purpose as specified in these instructions.

- Crushing, impact or entrapment should an acoustic tower topple because an air mover is used to transport shells or other panels besides those prescribed.
- Crushing, impact, or entrapment as a result of failing to connect acoustic towers to the machine using a suitable means of attachment.
- Crushing, impact or entrapment should an air mover be used to lift and transport a heavy load other than an acoustic tower and the machine fails structurally.
- Exposure to any hazards on the machine as a result of operating the machine under the influence of drugs or alcohol or while wearing loose clothing.
- Exposure to flying or ejected objects caused by using poor quality replacement parts that have been obtained from an unauthorized source.

CAUTION

Never use the Diva Air Transporter for any purpose other than to move and transport Diva Acoustical Towers.

REPLACEMENT PARTS

Should there be a need for replacement parts, contact Wenger at 001-507-455-4100.

TRAINING

Training is provided at the time of installation.