

*Owner's Guide*

*CASCADE*  
*MASTER SERIES*<sup>®</sup>  
*TOUCH PAD*

(For Cascade<sup>®</sup> and Radius<sup>®</sup> Chair-Mounted  
Handpiece Control Delivery Systems)

Warranty Information	
Serial Number	<u>          N/A          </u>
Model Number	<u>          N/A          </u>
Date Purchased	<u>                          </u>

Date of Service	Model/Description of Service	Technician's Initials

*For service information contact your local authorized A-dec dealer.  
Check with local codes and A.D.A. (Americans with Disabilities Act) requirements for installation of this product.*

Warranty:  
A-dec warrants all products in this owner's guide against defects in material or workmanship for one year from time of delivery. A-dec's sole obligation under the warranty is to provide parts for the repair, or at its option, to provide the replacement product (excluding labor). The buyer shall have no other remedy. All special, incidental, and coincidental damages are excluded. Written notice of breach of warranty must be given to A-dec within the warranty period. The warranty does not cover damage resulting from improper installation or maintenance, accident or misuse. The warranty does not cover damage resulting from the use of cleaning, disinfecting or sterilization chemicals and processes. The warranty also does not cover light bulbs. Failure to follow instructions provided in the A-dec owner's guide (operation and maintenance instructions) may void the warranty. A-dec warrants A-dec dental chair cylinders, both lift and tilt, for ten years from the date of purchase of the chair or the cylinder. This warranty is retroactive to A-dec chair cylinders already in the field. The warranty covers chair cylinders A-dec finds to have manufacturing related irregularities. Stool cylinders are covered under A-dec's one-year warranty.

NO OTHER WARRANTIES AS TO MERCHANTABILITY OR OTHERWISE ARE MADE.

Return Policy:

U.S. and Canadian dealers wishing to return overstock (unopened) merchandise to A-dec for credit consideration must include a copy of the original invoice number. A return authorization form from an A-dec Territory Manager must be included with serial numbered equipment or A-dec/W&H handpieces. A 15% restocking fee will be assessed. Merchandise that cannot be returned for credit includes parts assembled to the dental unit, chair, light, or dental furniture; obsolete parts; and specials. Dental furniture cannot be returned for credit. Standard color upholstery ordered for obsolete chairs or stools cannot be returned for credit. In the case of a defective warranty item, a copy of the replacement invoice, serial number of the unit under which it was replaced, and a description of the symptoms of the defect must be returned with the part to:

A-dec Inc. 2601 Crestview Drive,  
Newberg, Oregon 97132, USA.

Equipment Alterations Policy:

Certain modifications or alterations of A-dec equipment which expand the use of A-dec equipment beyond its design and intent, or which override any safety features of A-dec equipment may jeopardize doctor, patient or staff safety. Field modifications that alter the electrical and/or mechanical safety of A-dec dental devices are in conflict with Underwriters Laboratory (UL) construction file requirements and are not sanctioned by A-dec. Examples of field modifications that diminish safety design include, but are not limited to, rendering access to the line voltage without the use of tools, modification of supporting elements that increase or shift loading characteristics, and the addition of any powered device that exceeds the design limits of the dental system. The use of accessory equipment not complying with the equivalent safety requirements of A-dec equipment may lead to a reduced level of safety of the resulting system. It is the responsibility of the equipment distributor and the installer to assure that the installation complies with all building code requirements. The responsibility to determine whether a modification or alteration of A-dec equipment falls within these constraints is with the person(s) who initiates, approves and/or performs such modification or alteration. A-dec will not respond to inquiries on an individual basis. This person(s) will be deemed to have assumed all associated risks with such alteration or modification and will hold A-dec harmless from resulting claims, including product liability claims. Additionally, such modification or alteration voids A-dec's warranty and may invalidate UL or other regulatory agency approval.



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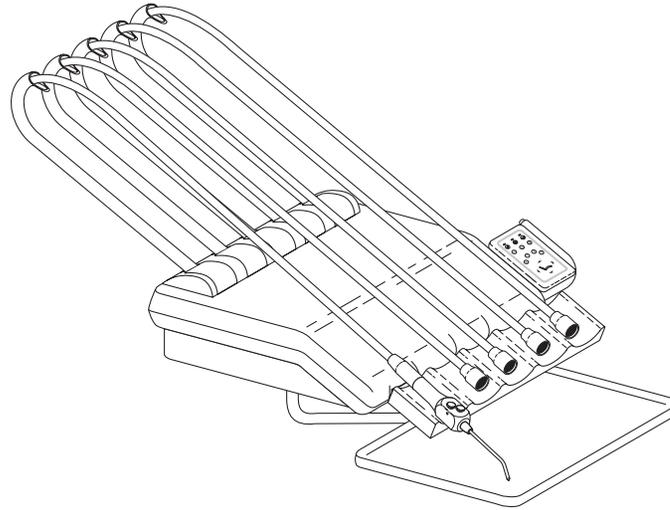
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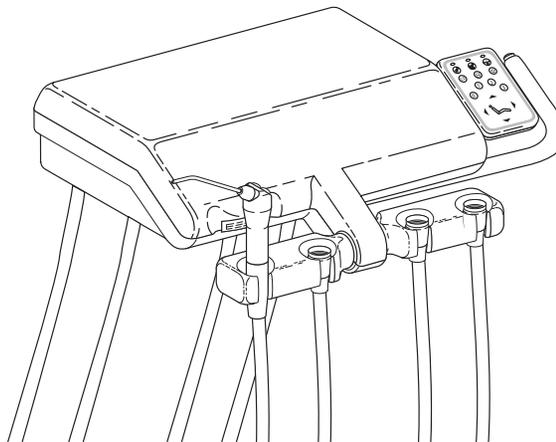
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*Cascade Master Series Touch Pad*



Cascade Master Series Touch Pad  
on Cascade Continental-style Control head



Cascade Master Series Touch Pad  
on Radius Traditional-style Control head

# CONTENTS

*Service information and warranty information are located on the inside front cover and front page.*

Delivery System Controls .....	2
Chair Controls .....	4
Foot Control .....	4
Air Signal Valve Manifold Assembly .....	5
Manual Override of the Air Signal Valve .....	6
Care Instructions .....	9
Maintenance .....	9
Adjustments and Specifications .....	9
Identification of Symbols .....	10
Classification of Equipment (EN 60601-1) .....	10

## Delivery System Controls

The LED displays above the master on/off, air coolant on/off, and water coolant on/off controls illuminate when the control function is turned ON.

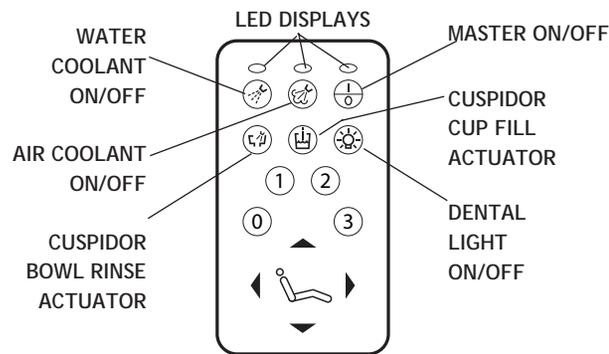


Figure 1. Master Series Touch Pad with Cuspidor Functions

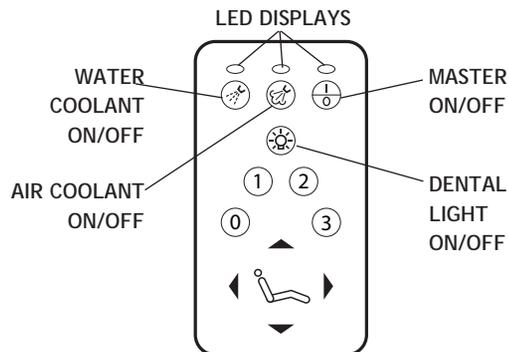


Figure 2. Master Series Touch Pad without Cuspidor Functions



### Master On/Off:

Air, water, and electrical power to the handpiece control system, dental light, and dental chair are turned on or off when pressed. The unit should be OFF whenever it is not in use.



### Air Coolant On/Off:

When pressed, air coolant to the handpiece is turned on or off. (Refer to your Cascade Handpiece Control System Owner's Guide for air coolant flow adjustment.)



### Water Coolant On/Off:

When pressed, water coolant to the handpiece is turned on or off. (Refer to your Cascade Handpiece Control System Owner's Guide for water coolant flow adjustments.)



### Dental Light On/Off:

When pressed, it turns the dental light on or off. (Refer to your 6300 Dental Light Owner's Guide for light adjustments.)



### Cuspidor Cup Fill Actuator:

Activates the cuspidor cup fill. Water will flow from the cup fill spout for approximately four seconds. (Refer to your Cascade 7284 and Radius 7285 Cuspidor Owner's Guide for cup fill adjustments.)



### Cuspidor Bowl Rinse Actuator:

Activates the cuspidor bowl rinse. The bowl rinse will flow for approximately 15-20 seconds. (Refer to your Cascade 7284 and Radius 7285 Cuspidor Owner's Guide for bowl rinse flow adjustments.)

### Chair Controls

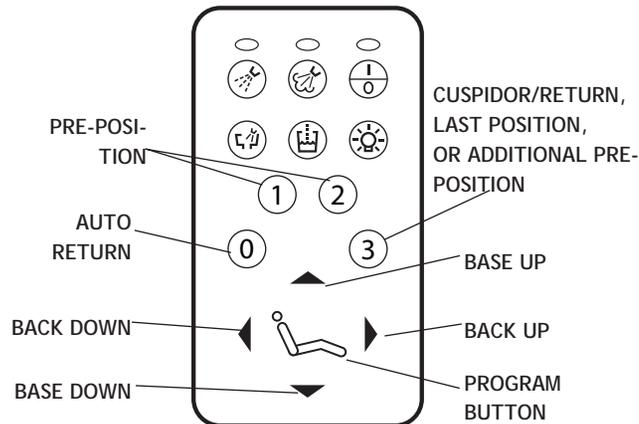


Figure 3. Master Touch Pad, Chair Controls

For complete instructions to the touch pad chair control functions, refer to the *Cascade 1040 Chair Owner's Guide (A-dec Publication No. 85.2605.00)* or *Decade 1011/1021 Chair Owner's Guide (85.2635.00)*.

### Foot Control

The foot control (see Figure 4) modulates drive air to the active handpiece and provides an air signal that turns on air and water coolant flow. The foot control is operated by light foot pressure applied to any part of the foot control disc.

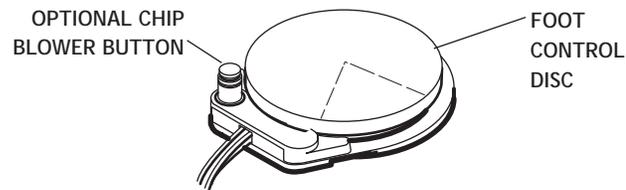


Figure 4. Foot Control

The optional chip blower button (see Figure 4), sends a jet of air through the handpiece when it is not running.

### Air Signal Valve Manifold Assembly

The air signal valve manifold assembly (see Figure 5), located in the Cascade post box or in the Master junction box on the Radius chair-mount adapter, directs air signals which turn the unit and light functions on or off. Each signal valve has its own indicator to visually indicate whether the valve is on or off.

Each air signal valve has a manual override feature

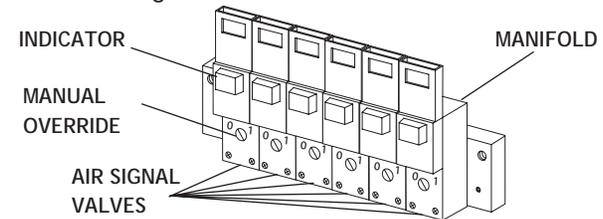


Figure 5. Air Signal Valve Manifold Assembly (Radius-style manifold shown)

which can allow the operator continued use of a unit function while by-passing the Master touch pad. (Refer to *Manual Override of the Air Signal Valve on page 6.*)

### Manual Override of the Air Signal Valve

#### Note

If your dental unit has a malfunctioning air signal valve, the system can remain in use by using the air signal valve manual override. Manual override is available to keep the unit working—it is only a temporary solution.

Manual override is a means of turning the Master Touch Pad function ON. The function will remain ON until the unit has been turned OFF or the function has been manually turned OFF.

**DO NOT** use manual override for cuspidor functions. Instead, use the actuator buttons located on top of the cuspidor (refer to your cuspidor *Owner's Guide*).

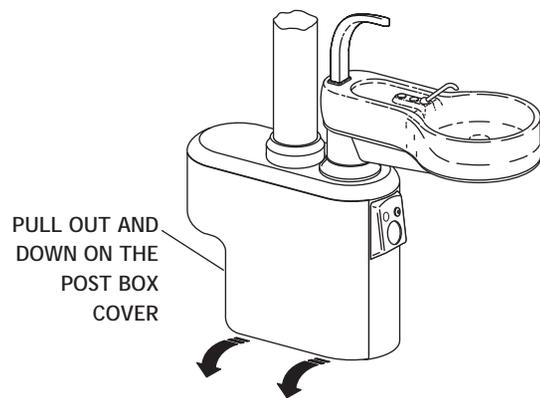


Figure 6. Remove the Post Box Cover

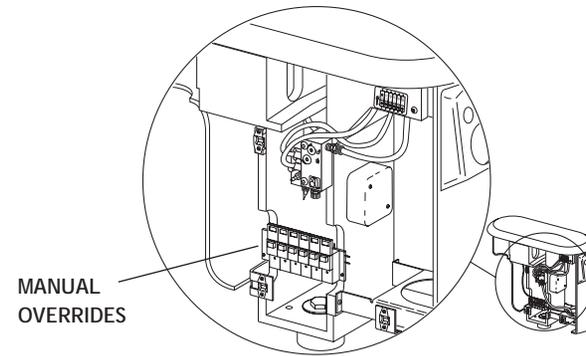


Figure 7. Manual Overrides Location  
(Shown on Cascade post box)

*If you have a Radius unit, raise the chair to full base up. Locate the Master junction box mounted on the chair-mount adapter (see Figure 8) then locate the window to the manual overrides on the side of the junction box cover.*

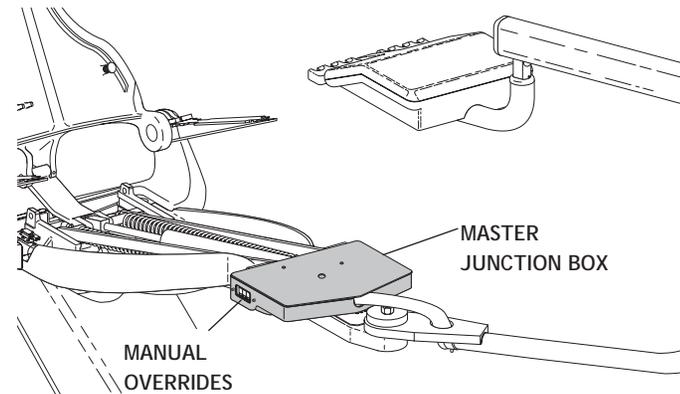


Figure 8. Master Junction Box Location  
(Shown on Cascade 1040 Chair)

### Manual Override

To turn a function ON, locate the override on/off (orange) selector on the air signal valve (see Figure 9). Using the small narrow-tipped screwdriver provided with the unit, *carefully* turn the override on/off selector clockwise a 1/4 turn to the ON (1) position. **Do not** turn the override on/off selector beyond the ON (1) position.

#### Caution

Use minimal force when adjusting the override on/off selector (see Figure 9). Excessive force or turning the override on/off selector too far will permanently damage the air signal valve.

When the manual override is used, the indicator on the air signal valve will not illuminate (see Figure 9). Manual override is a means of turning a Master touch pad function ON. The function will remain ON until the unit has been turned OFF or the air signal valve has been manually turned OFF.

To turn the air signal valve off, *carefully* turn the override on/off selector counterclockwise 1/4 turn to the OFF (0) position. **DO NOT** turn the override on/off selector beyond the OFF (0) position.

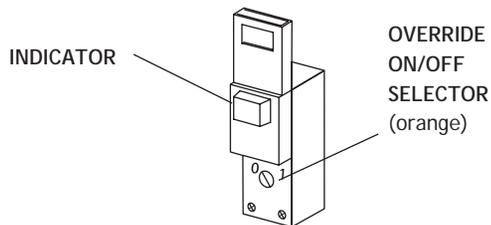


Figure 9. Air Signal Valve

## Care Instructions

For recommended asepsis instructions, refer to *Equipment Asepsis Owner's Guide* (A-dec Publication No. 85.0696.00).

## Maintenance

### Care Instructions

#### Equipment Asepsis

Owner's Guide ..... 85.0696.00

### Parts

#### Maintenance Parts

Owner's Guide ..... 85.2634.00

## Adjustments and Specifications

Manual Override of the Air Signal Valve ..... page 6

### Chair Touch Pad Instructions

#### Cascade 1040 Chair

Owner's Guide ..... 85.2605.00

#### Decade 1011/1021 Chair

Owner's Guide ..... 85.2635.00

Specifications are subject to change without notice.

## Identification of Symbols

Symbol	Description
	Recognized by Underwriters Laboratories Inc. with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1 (2601-1) and under mutual recognition agreement with CAN/CSA C22.2, No. 601.1.
	Classified by Underwriters Laboratories Inc. with respect to electric shock, fire and mechanical hazards only in accordance with UL 60601-1 (2601-1) and under mutual recognition agreement with CAN/CSA C22.2, No. 601.1.
	UL listed to UL 61010A-1, BS EN 61010-2-010 and Canadian (CAN/CSA C22.2, No. 1010.1-92) safety standards.
	Conforms to applicable European Directives (refer to Declaration of Conformity).
	Protective earth (ground).
	Functional earth (ground).
	Attention, consult accompanying documents. No user servicable parts . Attention, line voltage. Only licensed electrician should remove cover.
	Type B applied part.
	Class II equipment.
	Caution: Metal surfaces can be hot during and following the dry cycle.

## Classification of Equipment (60601-1)

Type/Mode	Classification
Types of shock protection	CLASS I EQUIPMENT: Dental chairs, dental lights, and power supplies CLASS II EQUIPMENT: Chair, wall, and cart-mounted delivery systems
Degree of shock protection	TYPE B APPLIED PART: Delivery systems only
Degree of protection against water ingress	ORDINARY EQUIPMENT: All products
Mode of operation	CONTINUOUS OPERATION: All models except dental chairs CONTINUOUS OPERATION WITH INTERMITTENT LOADING: Dental chairs - 5% duty cycle
Flammable Gasses:	Not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen, or nitrous oxide, where such gasses may accumulate in concentration (closed space).

## Electrical Rating

Type	Specification
Volts	100/110-120/220-240 VAC
Frequency	50-60 Hz
Current	As configured and specified in equipment manual (products labeled 15A or greater require dedicated circuit, identified in distribution panel).

## Environmental Specifications

Temperature/Humidity	Specification
Storage/Transportation Temperature:	-40°C to 70°C (-40°F to 158°F) - Relative humidity: 80% for up to 31°C, decreasing linearly to 50% at 40°C.
Operating Temperature:	10°C to 40°C (40°F to 104°F) - Relative humidity: 80% for up to 31°C, decreasing linearly to 50% at 40°C.
Indoor Use:	Altitude up to 2,000M (6,563 ft.), installation category II, pollution degree 2. (UL 61010A-1 and CAN/CSA C22.2, No. 1010.1-92 only)



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