



Midmark Ultra-Series Chair Installation

Applies to Models:
Ultra Trim® and UltraComfort®
Dental Chairs
Special Tools:
none

Language of origin: English

Note
Chair and all installation hardware are shipped in a box covered skid. Headrest, seat and back upholstery are shipped in additional boxes.

Step 1: Unpacking the Chair.
A) Remove box over the skid (not shown).
B) Remove four lag screws and skid clamps.
C) Remove chair from skid.

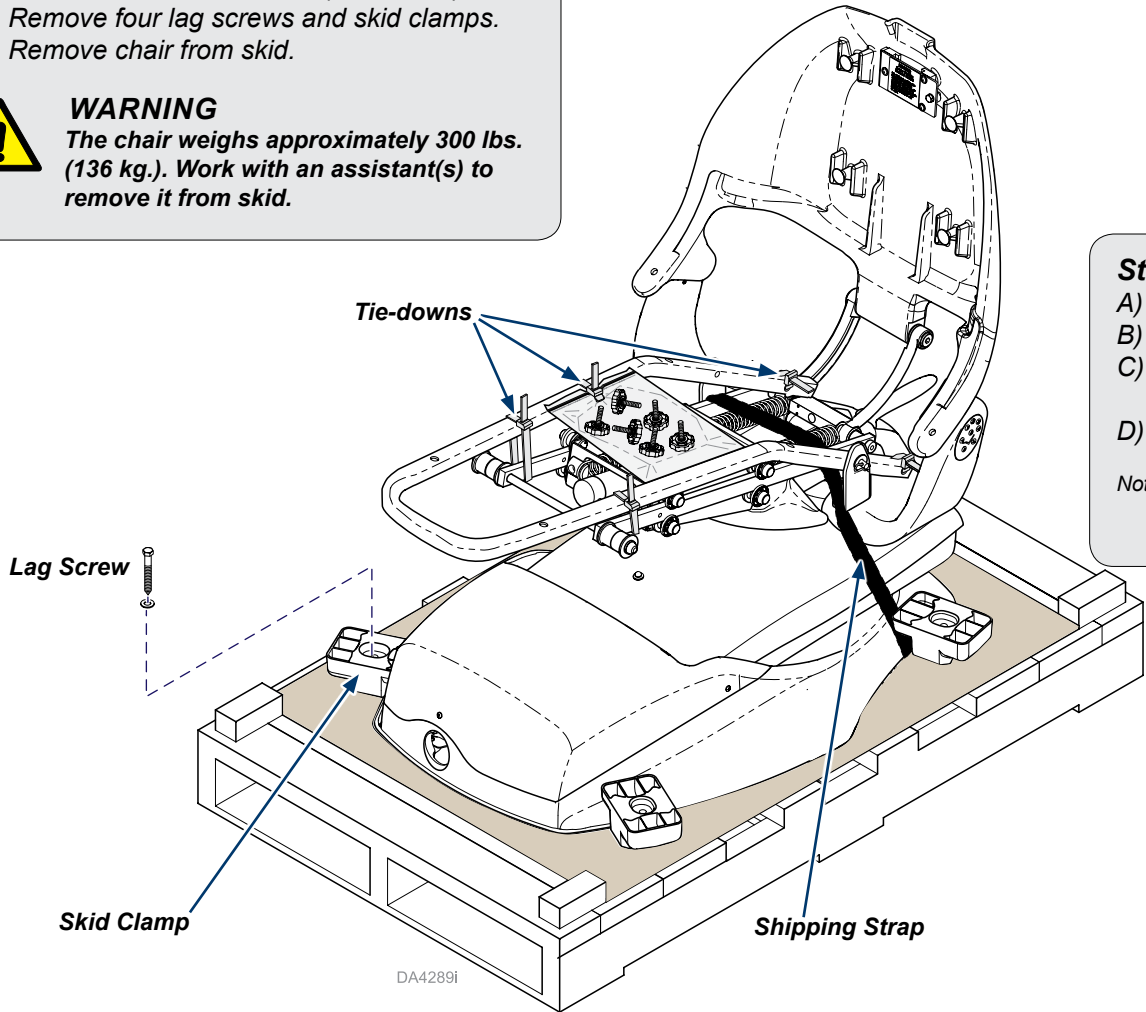
WARNING
The chair weighs approximately 300 lbs. (136 kg.). Work with an assistant(s) to remove it from skid.

WARNING
Equipment is not suitable for use in the presence of a flammable anesthetic mixture with oxygen, air, or nitrous oxide.

Clarification: Equipment is suitable for use in the presence of oxygen, air, or nitrous oxide.

Step 2: Remove Shipping Restraints.
A) Remove shipping strap from chair.
B) Cut tie-downs.
C) Remove clevis, cotter pins and washers. (Keep for later use)
D) Remove the seat frame from the chair.

Note: The shipping strap helps stabilize the chair as you remove it from the skid. Leave strap in place until chair is placed in the desired location.



Equipment Alert
Anchoring your chair to the floor for optimal stability is recommended when mounting a delivery unit.

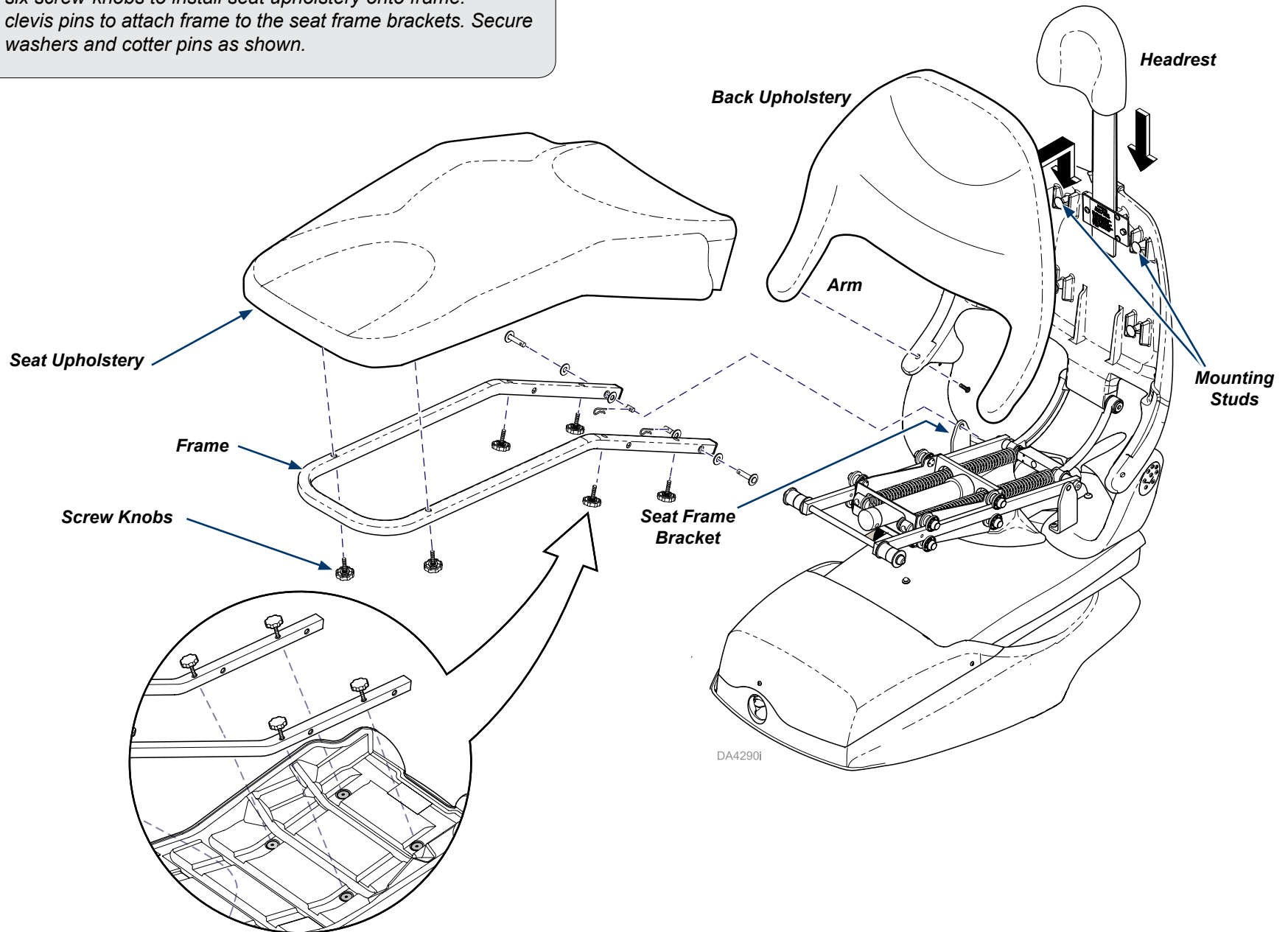
Step 3: Install Upholstery.

- A) Slide headrest into the mounting slot on chair back.
- B) Align holes in back upholstery with mounting studs on chair back. Push downward while securing with one screw in each arm.
- C) Use six screw-knobs to install seat upholstery onto frame.
- D) Use clevis pins to attach frame to the seat frame brackets. Secure with washers and cotter pins as shown.



Equipment Alert

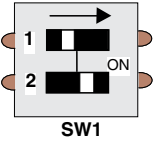
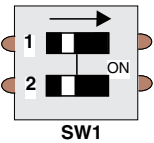
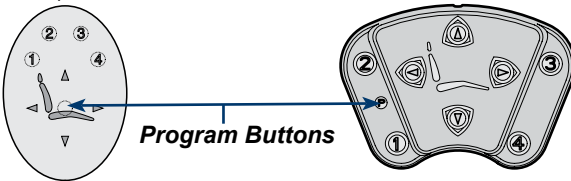
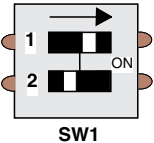
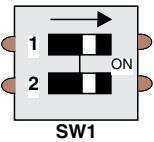
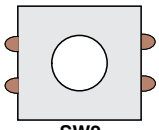
Wait to install upholstery if you are installing additional operator components on the chair.

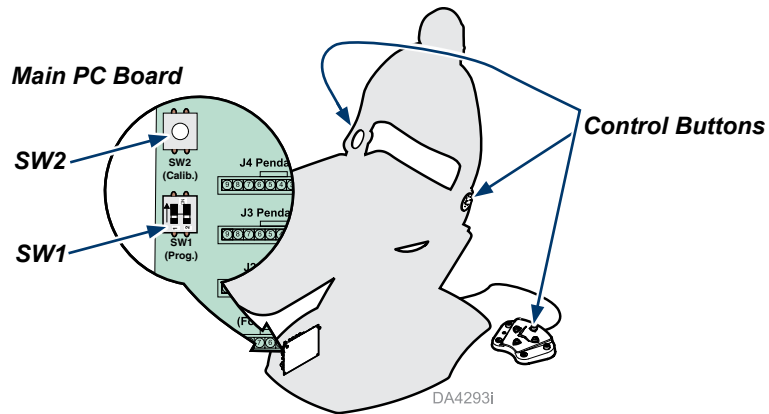



DA4290i

SW1 Program Switches and Calibration

Program switches, located on the Main PC Board, allow users to set the chair to perform automated positioning functions when control buttons are pressed. The table below shows all the available program options.

Set SW1 Switches to:	Program Option Mode	Prompt the Option	What Happens...
	<p>Cuspidor Position</p> <p>Chair moves to the user programmed position for button 4 and activates the bowl flush cycle on the cuspidor*.</p> <p>*Chair must be equipped with a cuspidor for this mode.</p>	<p>Press Button 4 on any control pad.</p> <p>Press button 4 again.</p>	<p>Chair moves to button 4 position, bowl flush function cycles.</p> <p>Chair returns to its last position.</p>
	<p>Normal</p> <p>Programmable position buttons (numbered buttons 1 - 4) can be programmed for desired chair positions.</p>	<p>To program a numbered button to a position - use arrow buttons to move the seat and back to the desired positions, then press the Program button and listen for a beep.</p> <p>Then, within three seconds, press the desired numbered button to set it. You will hear three beeps confirming that the button is programmed.</p>	<p>After programming buttons 1, 2, 3 and 4 you can simply press each one to move the chair seat and back to that button's programmed position.</p> 
	<p>Return to Last Position</p> <p>Allows user to "toggle" chair between two "remembered" positions.</p> <p>A position is remembered any time the chair remains in any position, motionless for at least 1/2 a second.</p>	<p>Press Button 4 on any control pad.</p> <p>Press button 4 again</p>	<p>Moves the chair to the last remembered position.</p> <p>Moves the chair back to the previous remembered position.</p>
	<p>Calibration</p> <p>Calibration is a factory automated routine where the chair goes through two cycles of movements.</p>	<p>Press SW2 button to start calibration.</p> 	<p>The chair goes through two cycles of full-range movements as the control software determines, stores and checks coordinates for the limits of movement.</p> <p>Note: Arrow and numbered buttons on the control pads DO NOT WORK when the chair is in calibration mode. Reset SW1 switches to another mode to resume operation.</p> <p>Note: Press the program button and an arrow button at the same time to override the calibration mode. The chair will move in the direction of the arrow button pressed.</p>

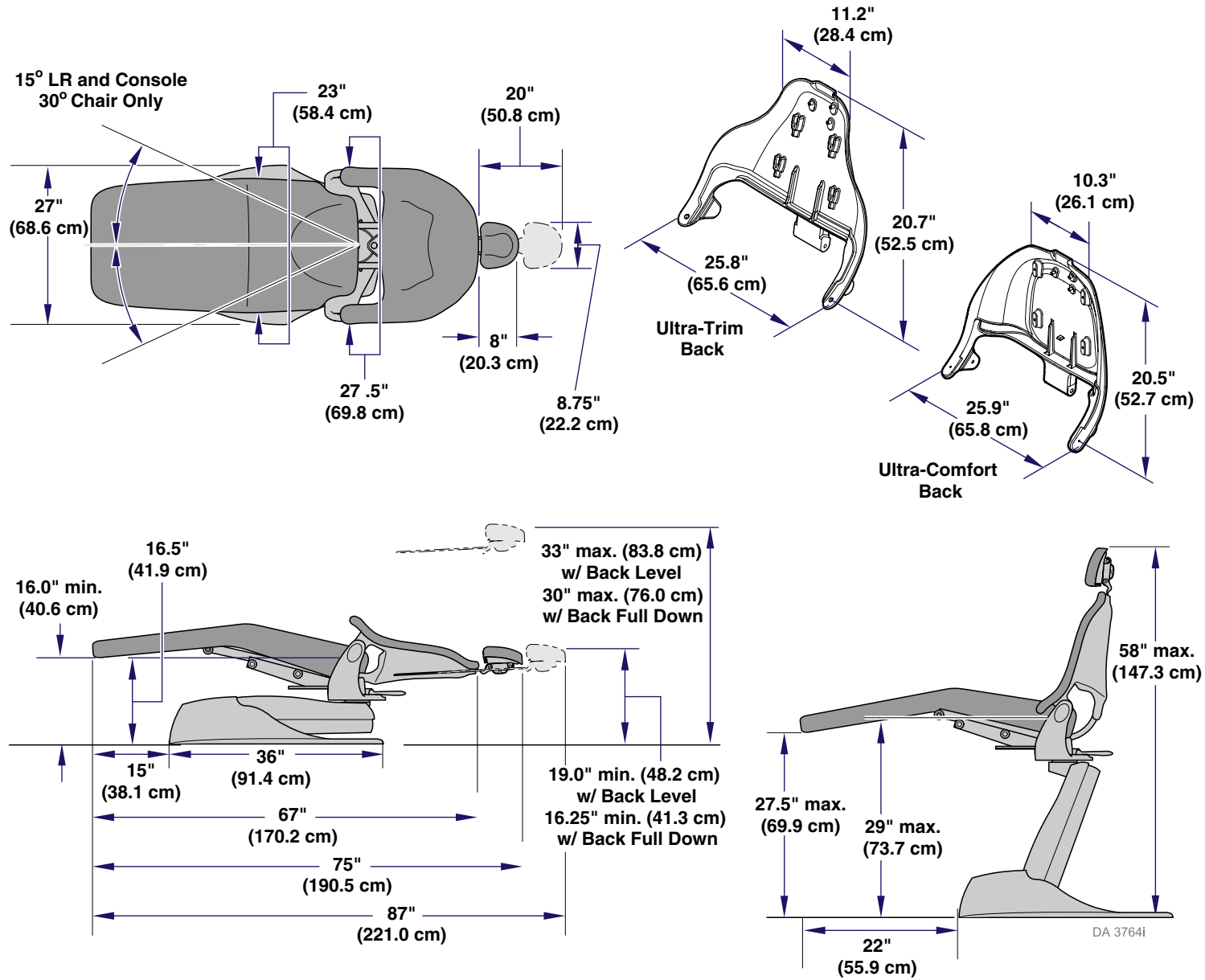




Equipment Alert
Unplug chair prior to changing SW1 Switch settings.

TP201 Rev. A

Dimensions



TP201 Rev. A

Specifications

Chair Weight:	
Chair Only:	290 lbs. (131.5 kg)
Chair w/umbilical	310 lbs. (140.6 kg)
Shipping Carton Dimensions:	49.5 in. L x 30.5 in. W x 39.5 in. H (125.7 cm x 77.5 cm x 100.3 cm)
Umbilical Length:	48.0 in (121.9 cm)
Electrical Requirements:	
115 VAC Units	115 VAC Nominal +/- 10%, 50/60 Hz, 5.0 amp, single phase
230 VAC Units	230 VAC Nominal +/- 10%, 50/60 Hz, 2.5 amp, single phase
Duty Cycle	Intermittent Operation, 30 seconds ON / 5 minutes OFF (motor run time)
Fuse Ratings (Fuses are located on PC Board)	
F1 Line Fuse	
115 VAC	250 V, T6.3AL, 5 x 20mm, Type Slo-Blo
230 VAC	250 V, T3.15AL, 5 x 20mm, Type Slo-Blo
F2 Line Fuse	
115 VAC	250 V, T6.3AL, 5 x 20mm, Type Slo-Blo
230 VAC	250 V, T3.15AL, 5 x 20mm, Type Slo-Blo
F3 Transformer Fuse	
115 VAC	250 V, T0.10 AL, 5 x 20mm, Type Slo-Blo
230 VAC	250 V, T0.05 AL, 5 x 20mm, Type Slo-Blo
Classifications:	Class I, Type B Applied Part, Ordinary Equipment ,Intermittent Operation
Certifications:	
Midmark Corporation	ISO 9001 Certified
115 VAC units	ES/IEC/EN 60601-1, CAN/CSA 22.2, No. 60101-1 (Safety Standards), EN/IEC 60601-1-2 (EMC Standards)
230 VAC Units	Complies to the applicable revision of the MDD 93/42/EEC, Annex VII Complies to the applicable requirements of ES/EN60601-1, EN60601-1-2, EN60601-1-4

Transportation / Storage Conditions

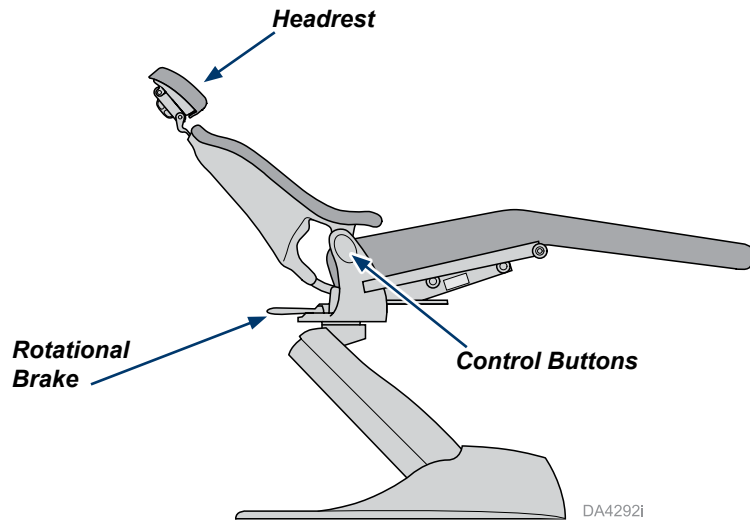
- Ambient Temperature Range:** -22°F to 140°F (-30°C to 60°C)
Relative Humidity Range: 10% to 90% (non-condensing)
Atmospheric Pressure Range: 500hPa to 1060hPa (0.49atm to 1.05atm)



WARNING

The position of the chair is critical to ensure safety when transporting. Before attempting to move / transport:

- Lower the chair to its **MINIMUM** height.
- Lock in place at 0° rotation



Installation Checklist



Equipment Alert

If stored in a cold environment, allow chair to warm to room temperature before operating the chair.



Equipment Alert

Answering NO to any of the following questions indicates improper installation or a product malfunction. Check all connections, then refer to Midmark Ultra-series Dental Chair Troubleshooting information in the technical library at midmark.com.

Yes	No	Check
<input type="checkbox"/>	<input type="checkbox"/>	Does Rotational Brake function correctly?
<input type="checkbox"/>	<input type="checkbox"/>	Do Control Buttons on chair function correctly?
<input type="checkbox"/>	<input type="checkbox"/>	Does Headrest stay in position after being adjusted?
<input type="checkbox"/>	<input type="checkbox"/>	With someone sitting on the chair, run each function to its limit 2 to 4 times.
<input type="checkbox"/>	<input type="checkbox"/>	Do all chair functions operate smoothly?



Because we care.