

A-dec 511 Dental Chair and Related Systems

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A-dec 511B Dental Chair with 532B Delivery System,
572L Dental Light, and 482 Monitor Mount

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Regulatory Information and Warranty

For required regulatory information and the A-dec warranty, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00) available in the Resource Center at www.a-dec.com.

Product Service

Product service is available through your local authorized A-dec dealer. For service information, or to locate an authorized dealer, contact A-dec at 1.800.547.1883 in the USA and Canada or 1.503.538.7478 worldwide, or visit www.a-dec.com.

Product Models and Versions Covered in This Document

Model	Versions	Description
511	B	Dental Chair
532/533	B	Delivery System
551	A	Assistant's Instrumentation
461	A	Support Center
572L	A	Dental Light
482	A	Monitor Mount

Structural Requirements



NOTE Job site construction should be completed before the dental equipment installation (including finished floors, ceiling, plumbing, lighting, paint, etc.).

Dental Patient Chair Interface Requirement

The dental chair requires a solid, level mounting surface that meets these minimum specifications:

- Support a nominal weight of 1192 lb (5302 N) for the chair, dental light, delivery system, and patient.
- Capability to anchor the chair to the floor, with a minimum pullout load of 350 lb (1557 N) for one anchor-bolt.

Utility Requirements



CAUTION Local regulation may require licensed plumbers and electricians to install the utilities. All plumbing and utilities must conform to prevailing local codes.



CAUTION The manner and method for accessing the utilities within the wall is the responsibility of the design team working on the project (dental dealer, architectural services, and contractors). Utilities must be accessible without the use of tools.

General utility requirements and electrical ratings are provided on pages 2 and 4.



IMPORTANT For additional electrical specifications and vacuum head loss data, see the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00), which is available in the Resource Center at www.a-dec.com.

Utility Specifications

Utility	Finish	Requirements
Air	Protrude 1" to 2" (25 mm to 51 mm) for 1/2" (13 mm) compression	<ul style="list-style-type: none"> Right-angle manual shutoff valve with 3/8" compression outlet supplied and installed by the contractor, with the top of the handle no higher than 3-3/4" (95 mm) above the finished floor. 80-125 psi (550 to 860 kPa), 2.5 scfm (71 SL/min) minimum, during normal use (7.5 scfm [210 SL/min] peak intermittent flow). 90 psi (621 kPa) (minimum unregulated) is recommended for delivery systems with Advanced Air. Flush lines prior to making connections to dental equipment.
Water*	Protrude 1" to 2" (25 mm to 51 mm) for 1/2" (13 mm) compression	<ul style="list-style-type: none"> Right-angle manual shutoff valve with 3/8" compression outlet supplied and installed by the contractor, with the top of the handle no higher than 3-3/4" (95 mm) above the finished floor. 60±20 psi (410 ± 140 kPa), 1.5 gpm (5.7 L/min) minimum, not to exceed 40 °C (104 °F). Flush lines prior to making connections to dental equipment.
Central vacuum	Protrude 1" (25 mm) for 5/8" (16 mm) O.D. tubing and other specified by the central vacuum supplier	<ul style="list-style-type: none"> Wet systems: 10±2 inches of Hg (34±7 kPa), 9 scfm (255 SL/min) minimum. Dry/semi-dry systems: 4.5±1 inches of Hg (16±3.5 kPa), 12 scfm (340 SL/min) minimum.
Gravity Drain**	Protrude 1" (25 mm) for 1-1/2" (38 mm) nominal pipe	<ul style="list-style-type: none"> Place trap in line, conforming to local codes, contractor-supplied. Waste water drain must have a minimum slope of 1/4" per foot (21 mm per meter) and accommodate a flow of 4.5 gpm (17 L/min) without overflow. Floor mount only. Not recommended for wall mount utilities.
Electrical	1/2" (13 mm) conduit and electrical box with a hospital-grade quad power receptacle	<ul style="list-style-type: none"> Conduit, electrical box, and power receptacle supplied and installed by the contractor (wired as per code). Electrical box should be oriented vertically, with the top no higher than 5" (127 mm) above the finished floor. See the "Electrical Ratings" table for voltage and amperage ratings.

* The delivery system comes with a self-contained water bottle. Municipal water is only required if the equipment configuration includes a cuspidor or if the facility has special requirements.

** Gravity drains are needed only on systems with a cuspidor.

Head Loss With Respect to Flow

The following table includes information about high volume evacuator (HVE) and saliva ejector (SE) head loss with flow for an A-dec 551 assistant's instrumentation on an A-dec 511 dental chair.

Tubing and HVE/SE	90 NL/min (3.18 SCFM)	150 NL/min (5.30 SCFM)	200 NL/min (7.06 SCFM)	250 NL/min (8.83 SCFM)	300 NL/min (10.59 SCFM)	350 NL/min (12.36 SCFM)	*400 NL/min (14.13 SCFM)
11 mm HVE (standard bore) valve with 13 mm Easy Flex Tubing (p/n 11.1357.00)	0.33 in-Hg 1.12 kPa	1.09 in-Hg 3.69 kPa	1.88 in-Hg 6.37 kPa	2.97 in-Hg 10.06 kPa	4.51 in-Hg 15.27 kPa	6.65 in-Hg 22.52 kPa	9.54 in-Hg 32.31 kPa
15 mm HVE (large bore) valve with 16 mm Easy Flex Tubing (p/n 11.1287.01)	0.11 in-Hg 0.37 kPa	0.32 in-Hg 1.08 kPa	0.54 in-Hg 1.83 kPa	0.82 in-Hg 2.78 kPa	1.17 in-Hg 3.96 kPa	1.62 in-Hg 5.49 kPa	2.16 in-Hg 7.31 kPa
11 mm HVE (standard bore) valve with 16 mm Easy Flex Tubing (p/n 11.1288.01)	0.20 in-Hg 0.68 kPa	0.54 in-Hg 1.83 kPa	0.91 in-Hg 3.08 kPa	1.41 in-Hg 4.77 kPa	2.07 in-Hg 7.01 kPa	2.93 in-Hg 9.92 kPa	4.03 in-Hg 13.65 kPa
11 mm HVE (standard bore) valve with 13 mm PVC Tubing (p/n 11.1286.01)	0.38 in-Hg 1.29 kPa	1.03 in-Hg 3.49 kPa	1.70 in-Hg 5.76 kPa	2.57 in-Hg 8.70 kPa	3.72 in-Hg 12.60 kPa	5.22 in-Hg 17.68 kPa	7.14 in-Hg 24.18 kPa
SE (standard bore) valve with 10 mm Easy Flex Tubing (p/n 12.1228.01)	5.03 in-Hg 17.03 kPa	Exceeds 12 in-Hg (40.64 kPa) at flow rates above ~125 NL/min.					
SE (standard bore) valve with 6 mm PVC Tubing (p/n 11.1227.01)	8.89 in-Hg 30.10 kPa	Exceeds 12 in-Hg (40.64 kPa) at flow rates ~100 NL/min.					

*Note: 400 NL/min values are calculated extrapolations from previously measured data points.

Electrical Ratings

Power	Required Electrical Supply
240 Volt	220–240 VAC, 50–60 Hz, 10 Amps minimum
120 Volt	110–120 VAC, 50–60 Hz, 15 Amps minimum

Shipping Weights

Product/Box	Estimated Shipping Weight
A-dec 511 Dental Chair	422 lb (191 kg)
A-dec 532 or 533 Delivery System <i>(includes front mount weight)</i>	95 lb (43 kg)
A-dec 551 Assistant's Instrumentation	39 lb (18 kg)
A-dec 461 Cuspidor and Support Center	66 lb (30 kg)
A-dec 572L Dental Light	47 lb (21 kg)
482 Monitor Mount <i>(without monitor)</i>	11 lb (5 kg)

Documentation References

Document Title	Part Number
Templates	
<i>A-dec 511 (Version B) Dental Chair Full-Size Template</i>	86.0755.00
<i>A-dec 511 (Version B) Dental Chair Mini Template</i>	86.0756.00
<i>A-dec 511 (Version B) Dental Chair Related Modules</i>	86.0757.00
Installation Guides	
<i>A-dec 511 Dental Chair Installation Guide</i>	86.0648.00
<i>A-dec 532/533 Delivery System Installation Guide</i>	86.0479.00
<i>A-dec 551 Assistant's Instrumentation on A-dec 311/411/511 Dental Chair Installation Guide</i>	86.0388.00
<i>A-dec 461 Support Center on A-dec 311/411/511 Dental Chair Installation Guide</i>	86.0387.00
<i>A-dec 572L Dental Light on A-dec 511 Dental Chair Installation Guide</i>	86.0795.00
<i>A-dec 482/381 Monitor Mount Installation Guide</i>	86.0410.00

Plan Views and Dimensions



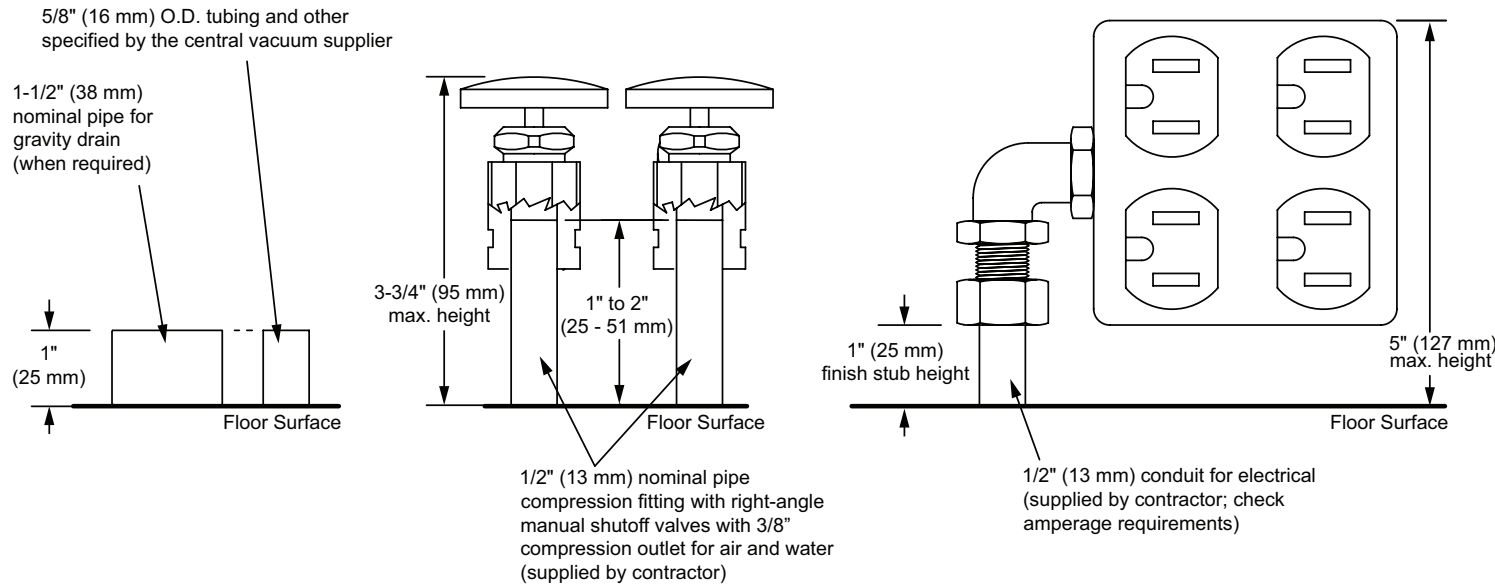
NOTE The dimensional drawings in this section are not to scale and are for reference only. For complete accuracy, use the appropriate full-sized templates.

Utility Placement

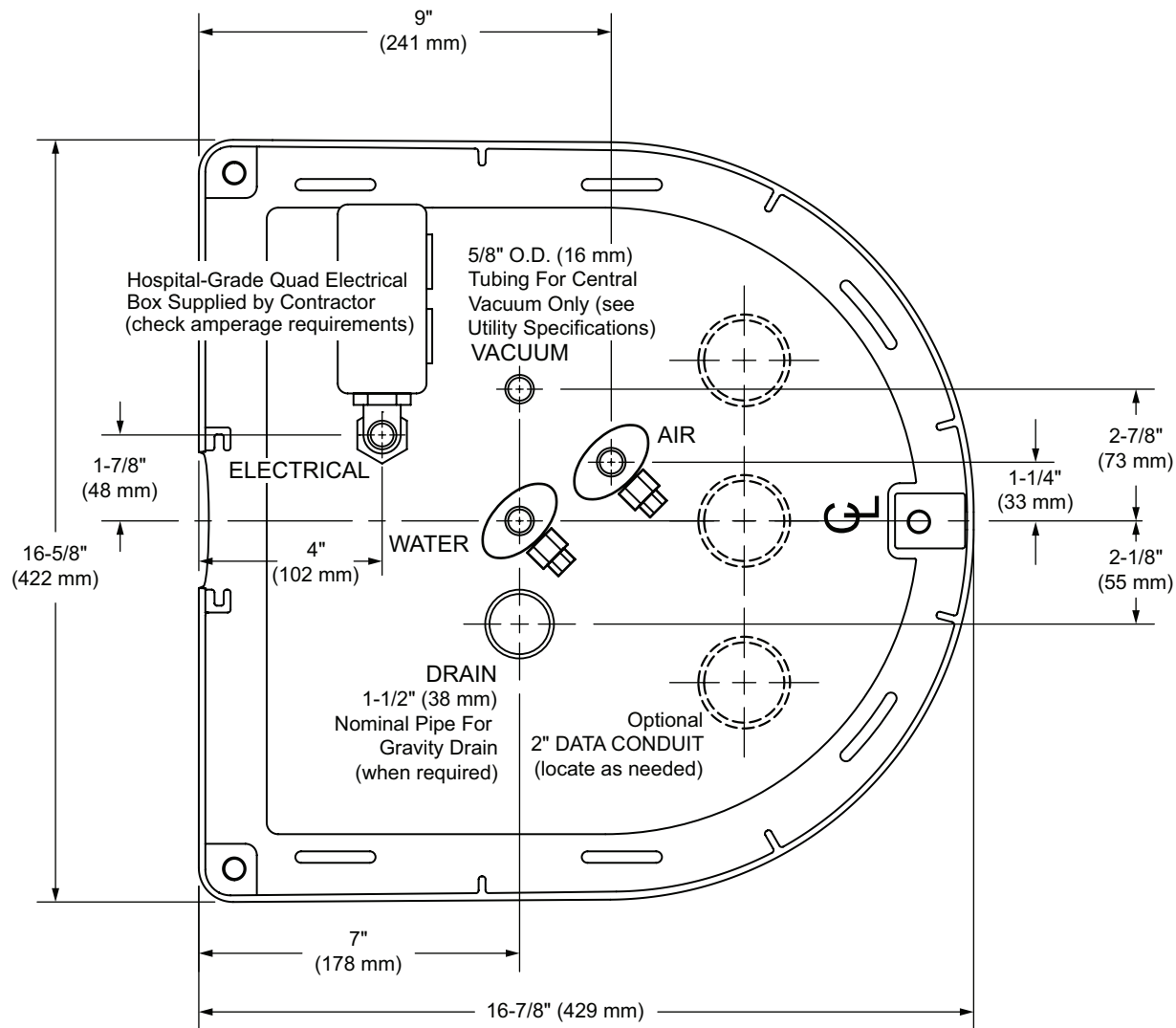


CAUTION Due to specific plumbing elevation restrictions, the height and placement of utilities in the floor box can affect the ability to use the floor box cover. Failure to provide adequate space will prevent installation and removal of the cover. See "Utility Elevations." Please reference the appropriate full-size template which includes all of the necessary space constraints.

Utility Elevations

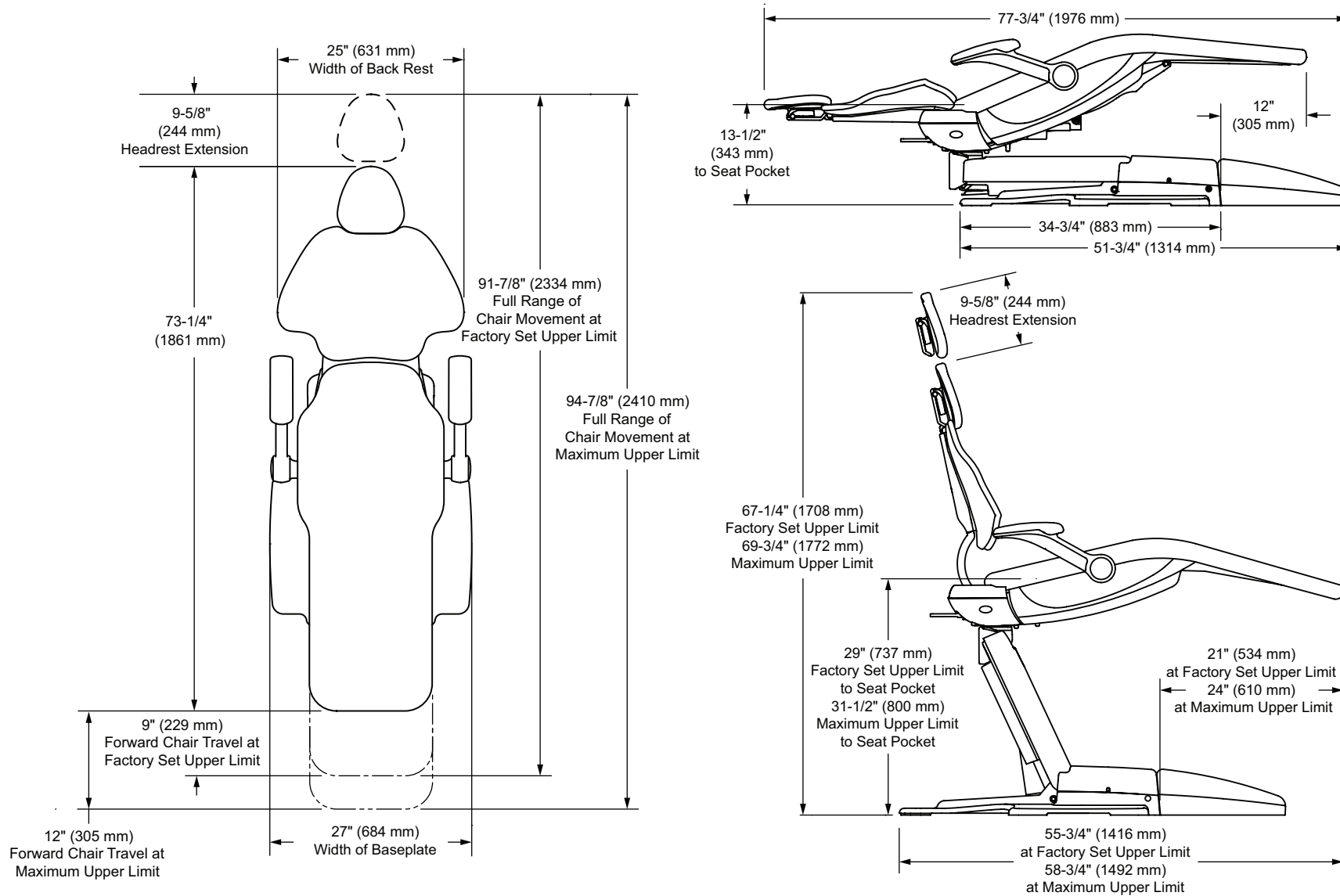


Floor Box Utility Connections



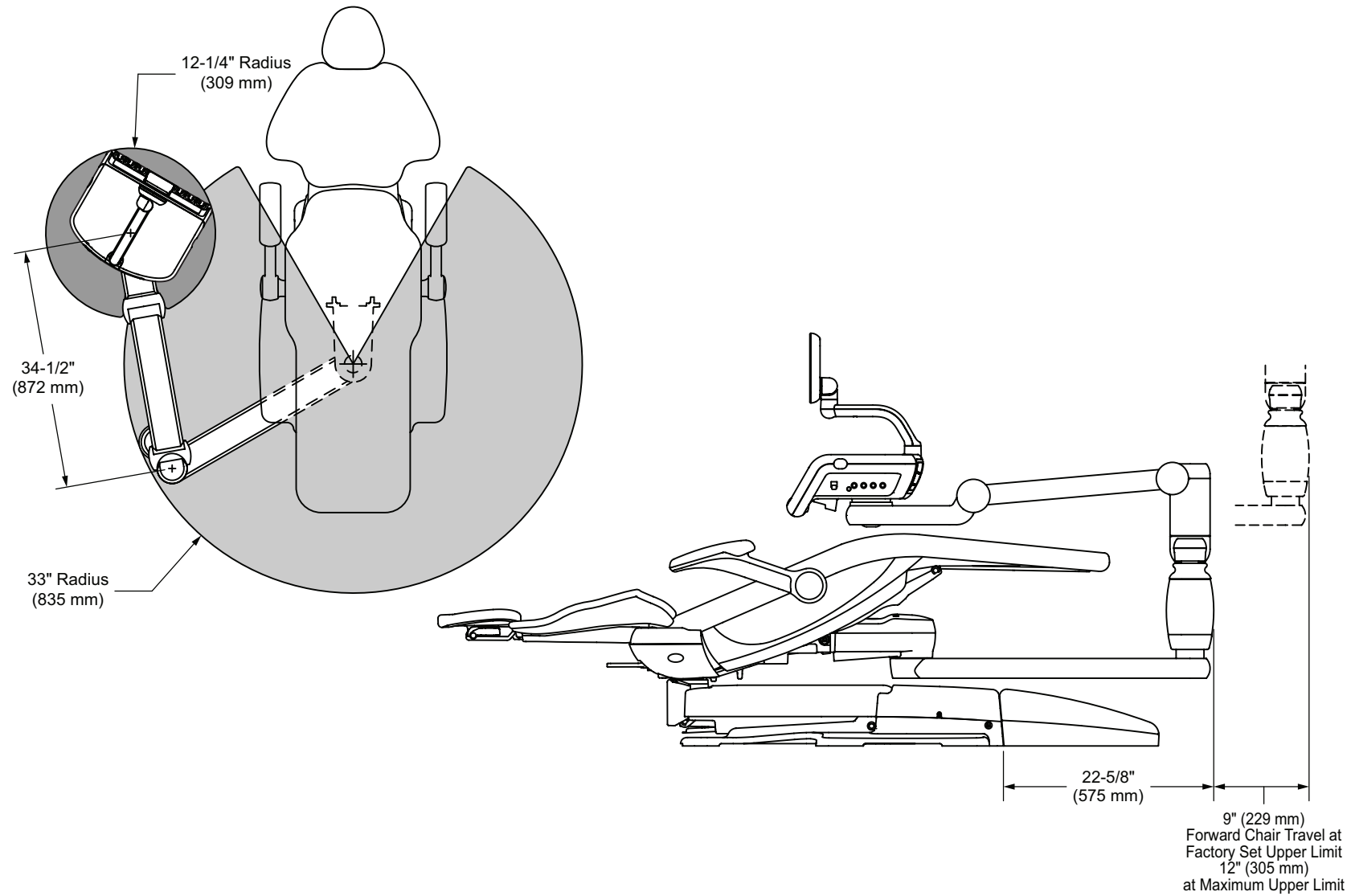
A-dec 511B Dental Chair

Plan View with Elevation



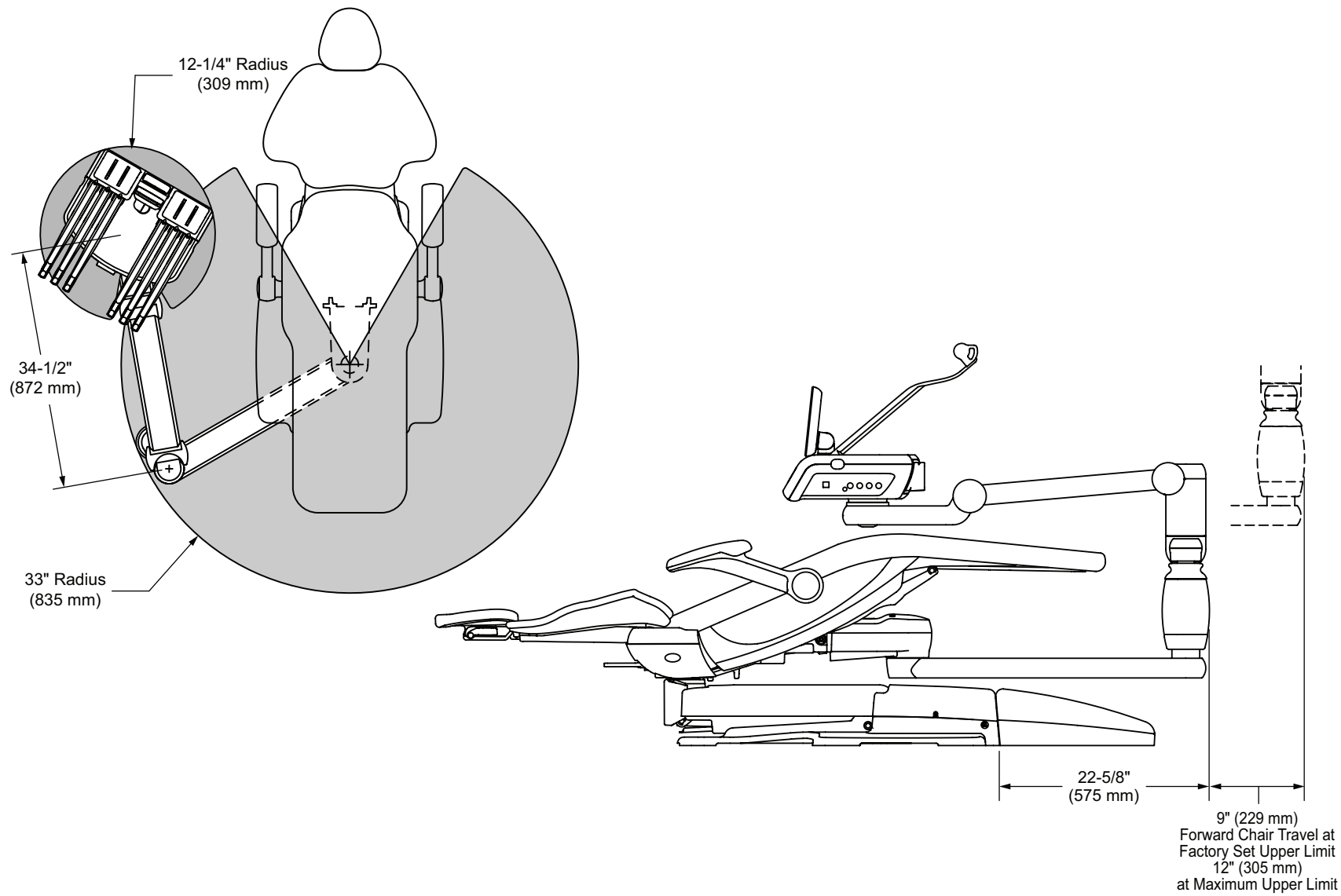
A-dec 532B Delivery System

Plan View with Elevation



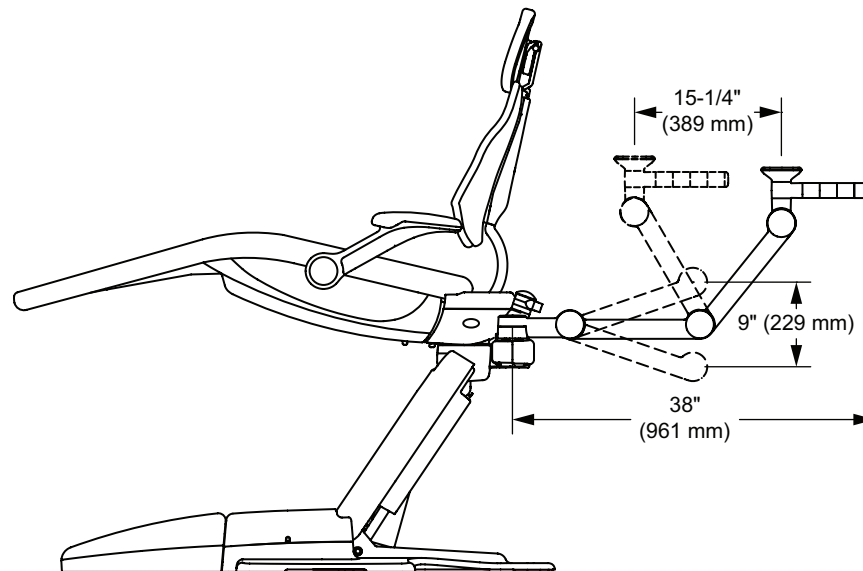
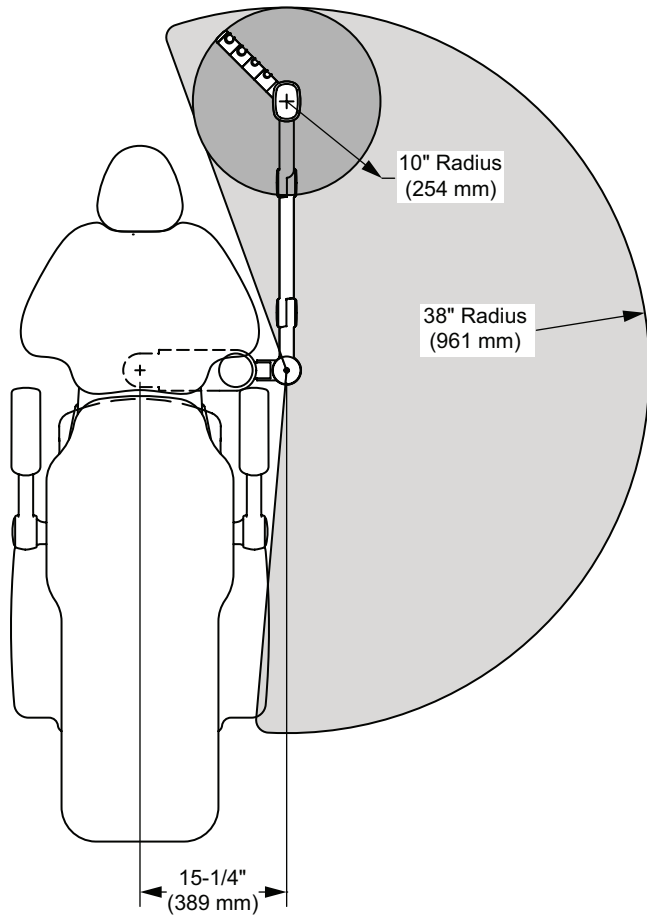
A-dec 533B Delivery System

Plan View with Elevation



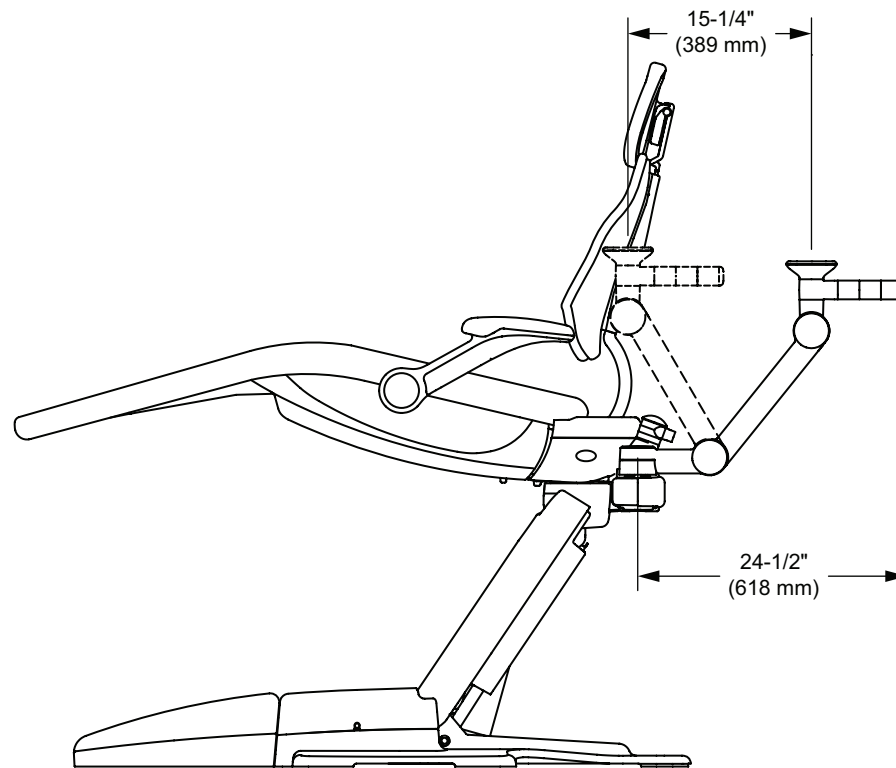
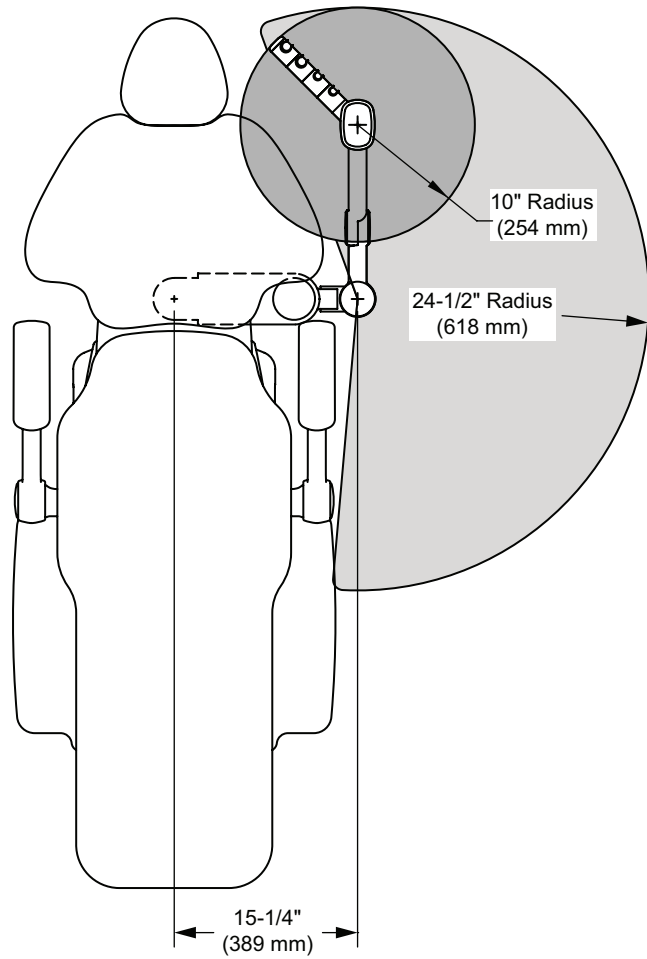
A-dec 551 Assistant's Instrumentation - Long Arm

Plan View with Elevation



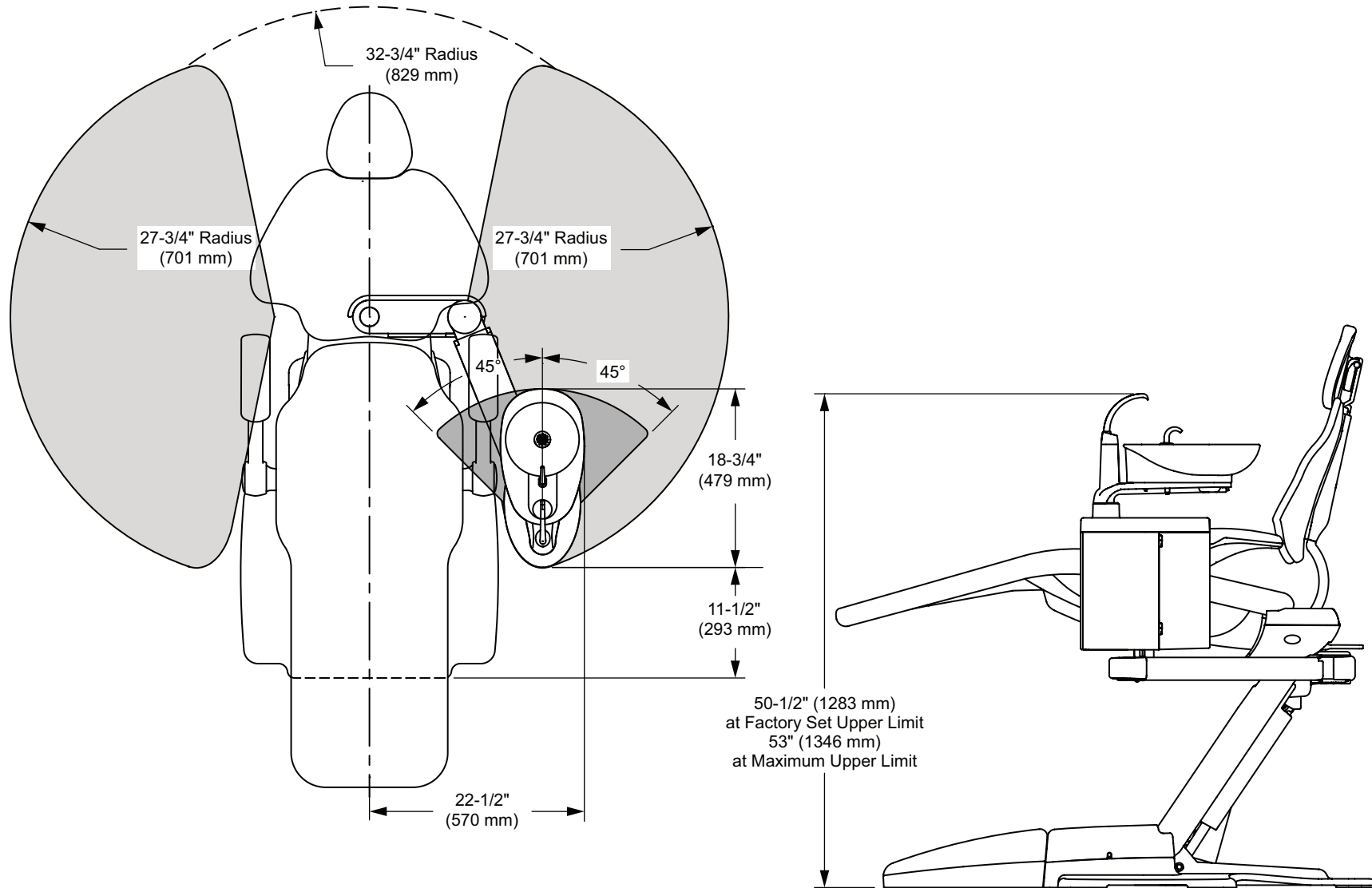
A-dec 551 Assistant's Instrumentation – Short Arm

Plan View with Elevation



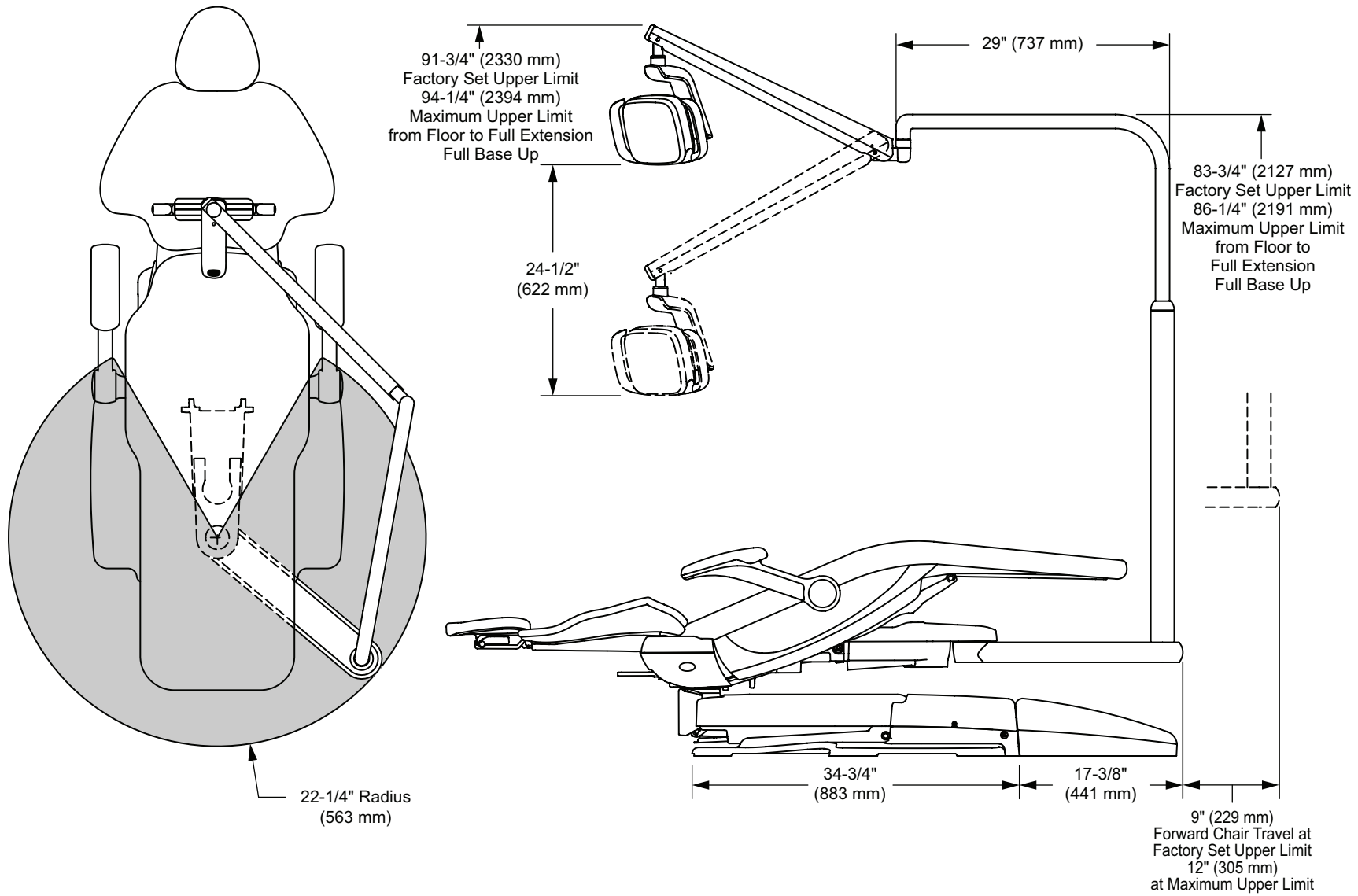
A-dec 461 Support Center and Cuspidor

Plan View with Elevation



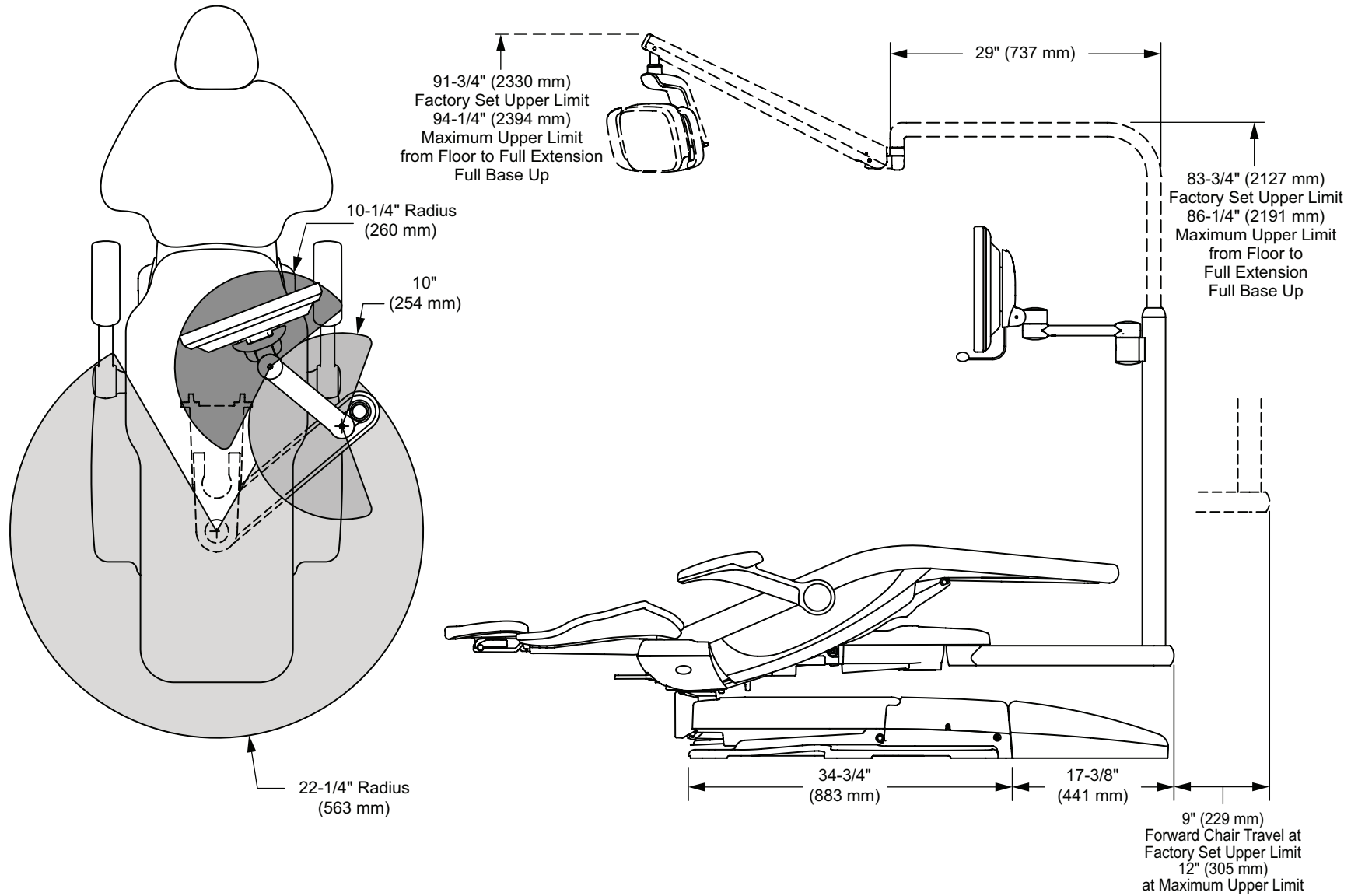
A-dec 572L Dental Light

Plan View with Elevation



A-dec 482 Monitor Mount

Plan View with Elevation





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