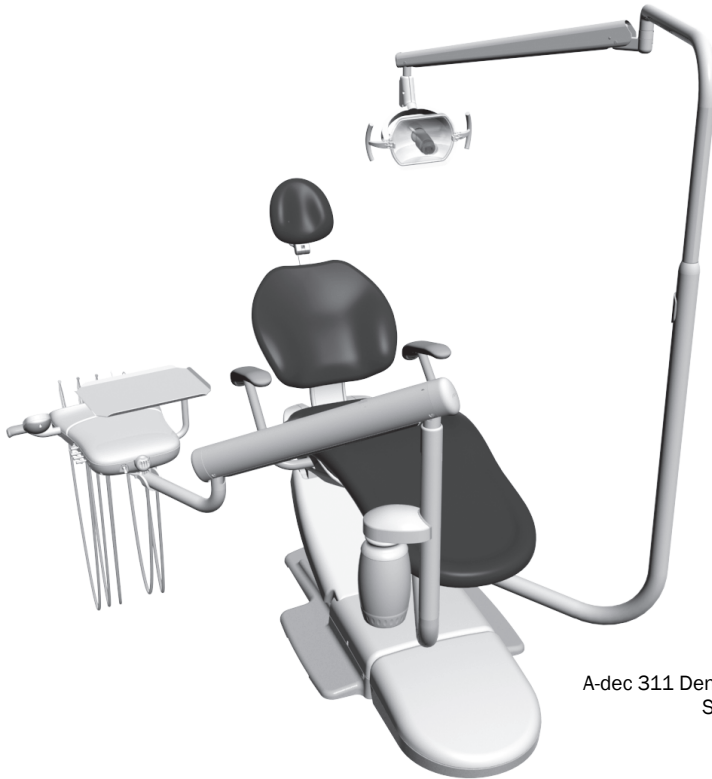


# A-dec 311 Dental Chair and Related Systems



A-dec 311 Dental Chair with 332 Radius®-Style Delivery System and 572 Dental Light

This document contains technical specifications for installing the A-dec 311 dental chair and related systems.

## Product Models and Versions Covered in this Document

Model	Versions	Description	Model	Versions	Description
311	B	Dental Chair	352	A	Assistant's Instrumentation
332	A	Delivery System	353	A	Assistant's Instrumentation
333	A	Delivery System	551	A	Assistant's Instrumentation
334	B	Delivery System	571	A	Dental Light
335	B	Delivery System	571L	A	Dental Light
336	A	Delivery System	572	A	Dental Light
362	A	Support Center and Cuspidor	572L	A	Dental Light
363	A	Support Center and Cuspidor	381	A	Monitor Mount
461	A	Support Center and Cuspidor	382	A	Monitor Mount
351	B	Assistant's Instrumentation	482	A	Monitor Mount

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## 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:

- Weight of 1000 lb (4448 N) for the chair, dental light, delivery system, and patient.
- Capability to anchor the chair to the floor, with a minimum pullout load of 100 lb (445 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.

### Air

- 1/2" (13 mm) nominal pipe compression fitting protruding 2" (51 mm) from the finished floor or wall, supplied by the contractor.
- Right angle manual shut-off valve supplied by the dental dealer and installed by the contractor.

- Air pressure and flow of 80-100 psi (550-860 kPa), 2.5 scfm. (71 sl/min) during normal use; 7.5 scfm (210 sl/min) peak intermittent flow.
- Air plumbing to be flushed clean before the final connection to the dental equipment.

### Water



**NOTE** 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.

- 1/2" (13 mm) nominal pipe compression fitting protruding 2" (51 mm) from the finished floor or wall, supplied by the contractor.
- Right angle manual shut-off valve supplied by the dental dealer and installed by the contractor.
- Water pressure and flow of 60 ± 20 psi (410 ± 140 kPa), 1.5 gpm (5.7 L/min), not to exceed 104°F (40°C).
- Water plumbing to be flushed clean before the final connection to the dental equipment.

### Electrical

- 1/2" (13 mm) conduit and box with a hospital-grade duplex receptacle supplied by the contractor.
- Wire box to conform to local codes.
- Top of duplex should not be higher than 4.25" (108 mm) above the finished floor to fit within the floor box.
- Voltage: 120 volts, 3 wire.
- 110-120 VAC, 50-60 Hz, 15 Amp mains breaker min.



**NOTE** The A-dec 311 dental chair is rated at 10 Amps max.

- The 10 Amp rating breaks down as follows for 120 VAC @ 60 Hz:
  - 3.5 Amps for the chair pump motor to move the chair base up.
  - 1.0 Amps for the chair back motor to move the chair back up or down.
  - 2.5 Amps for the 300-watt power supply (located in the utility area) to power the chair-mounted dental light and other ancillaries.
  - 3 Amps of additional current for mains voltage ancillary products, such as video monitors.

## Central Vacuum

- Plumbing up to the floor box utility center and its termination point is to be specified by the central vacuum supplier (terminates in the utility center).
- Wet systems:
  - Plumbing to terminate with 5/8" (16 mm) O.D. tube protruding 1" perpendicular to the floor.
  - 10 ± 2 in Hg, 9 SCFM minimum.

## Gravity Drain



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

- 1-1/2" (38 mm) nominal pipe protruding 1" (25 mm) from finished floor. Trap to be placed in line, conforming to local codes, contractor-supplied.
- Floor mount only. Not recommended for wall mount utilities.

## Shipping Weights

Product/Box	Estimated Shipping Weight
A-dec 311 Dental Chair	401 lb (182 kg)
A-dec 332 Delivery System	61 lb (27.7 kg)
A-dec 333 Delivery System	55 lb (24.9 kg)
A-dec 334 Delivery System	61 lb (27.7 kg)
A-dec 335 Delivery System	55 lb (24.9 kg)
A-dec 336 Delivery System	61 lb (27.7 kg)
A-dec 362 Cuspidor and Support Center	84 lb (38.1 kg)
A-dec 363 Cuspidor and Support Center	73 lb (33.1 kg)
A-dec 461 Cuspidor and Support Center	66 lb (29.9 kg)
A-dec 351 Assistant's Instrumentation <i>(assistant's arm only)</i>	28 lb (12.7 kg)
A-dec 352 Assistant's Instrumentation <i>(assistant's arm only)</i>	15 lb (6.8 kg)
A-dec 353 Assistant's Instrumentation <i>(assistant's arm only)</i>	7 lb (3.2 kg)
A-dec 551 Assistant's Instrumentation <i>(assistant's arm only)</i>	20 lb (9.1 kg)
Back Mount and Support Link <i>(required with 551 module)</i>	15 lb (6.8 kg)
A-dec 571/571L Dental Light	35 lb (15.9 kg)
A-dec 572/572L Dental Light	47 lb (21.3 kg)
A-dec 381 Monitor Mount <i>(mount hardware only; without monitor)</i>	9 lb (4.1 kg)
A-dec 382 Radius-Style Monitor Mount <i>(mount hardware only; without monitor)</i>	27 lb (12.2 kg)
A-dec 482 Monitor Mount <i>(mount hardware only; without monitor)</i>	11 lb (5.0 kg)

## Documentation References

Document Title	Part Number
<b>Installation Guides</b>	
A-dec 311 Dental Chair with Radius-Style Delivery System and A-dec 572 Dental Light	86.0543.00
A-dec 363 Support Center on the A-dec 311 Dental Chair	86.0544.00
A-dec 362 Support Center	86.0563.00
A-dec 461 Support Center on an A-dec 311, 411, or 511 Dental Chair	86.0387.00
A-dec 551 Assistant's Instrumentation	86.0388.00
A-dec 482 and 381 Monitor Mount	86.0410.00
A-dec 382 Monitor Mount	86.0413.00
A-dec 572L Dental Light on an A-dec 311, 411 or 511 Dental Chair	86.0333.00
<b>Templates</b>	
A-dec 311 (Version B) Chair Template	86.0550.00
A-dec 311 (Version B) Chair Mini Template	86.0552.00
A-dec 311 (Version B) Chair Related Modules Template	86.0551.01
A-dec Floor Boxes	85.0472.00



**NOTE** Use only full-scale templates for locating the plumbing and electrical.



**NOTE** The floor box mounting hole placements appear on the floor box base that is being installed.

## 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.

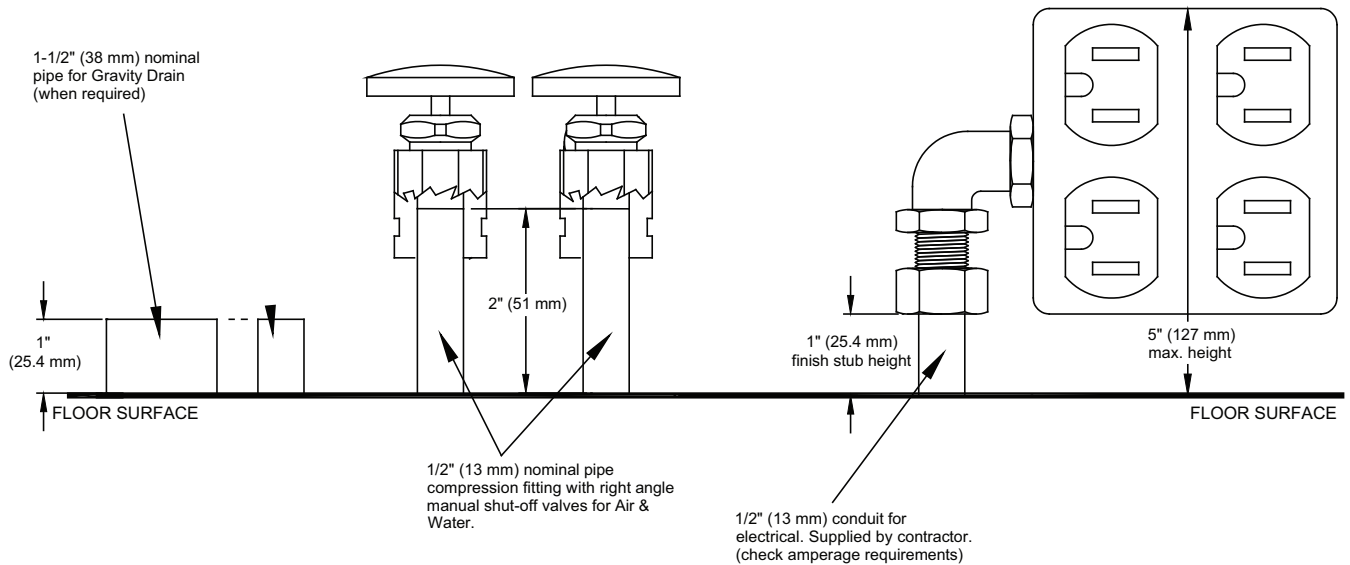
### Utility Placement



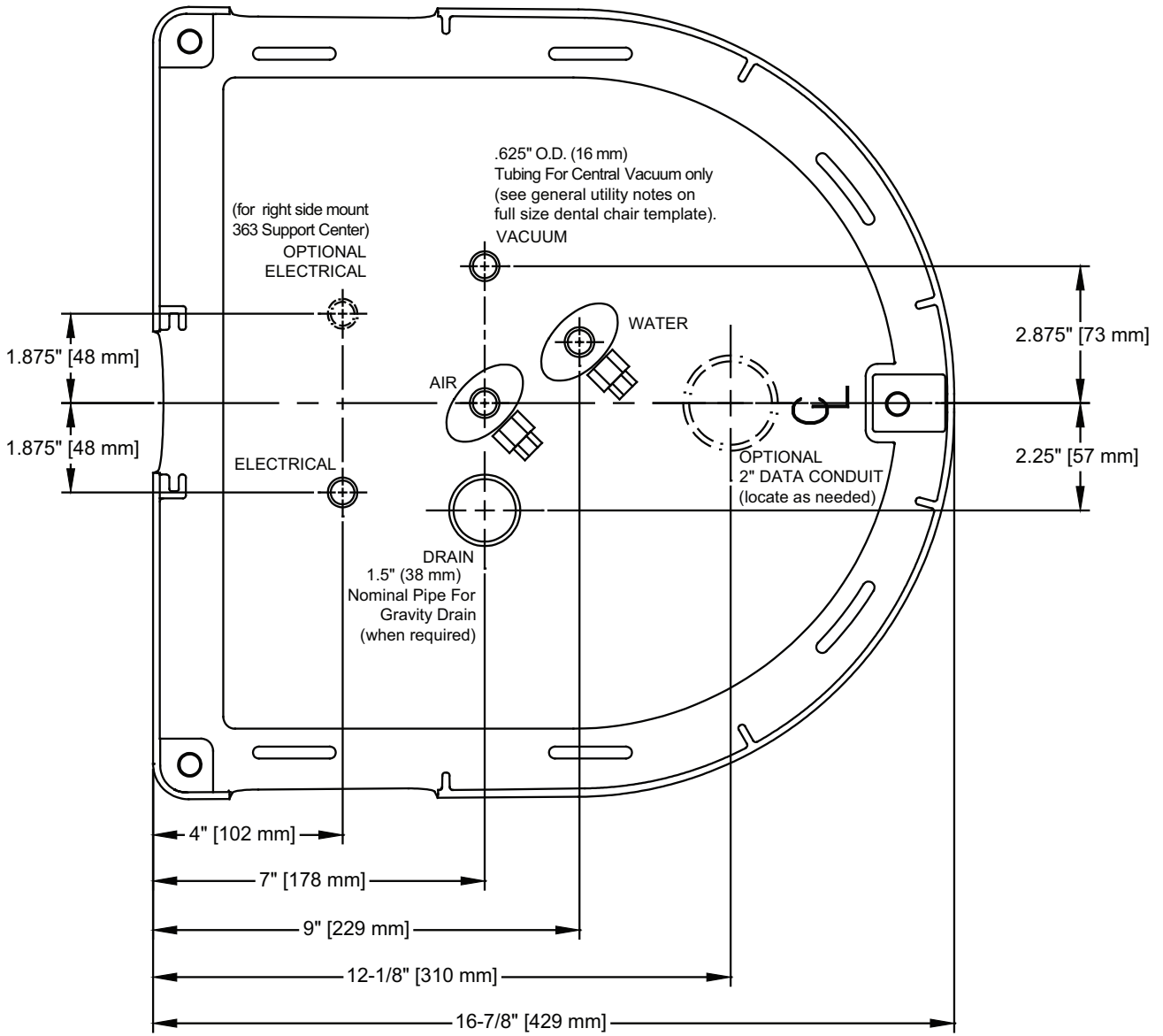
**CAUTION** Due to specific plumbing elevation restrictions, the height and placement of utilities in the floor box can affect the ability to use the floor box cover. Failure to provide adequate space will prevent installation and removal of the cover. See "Plumbing Elevations". Please reference the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

### Plumbing Elevations

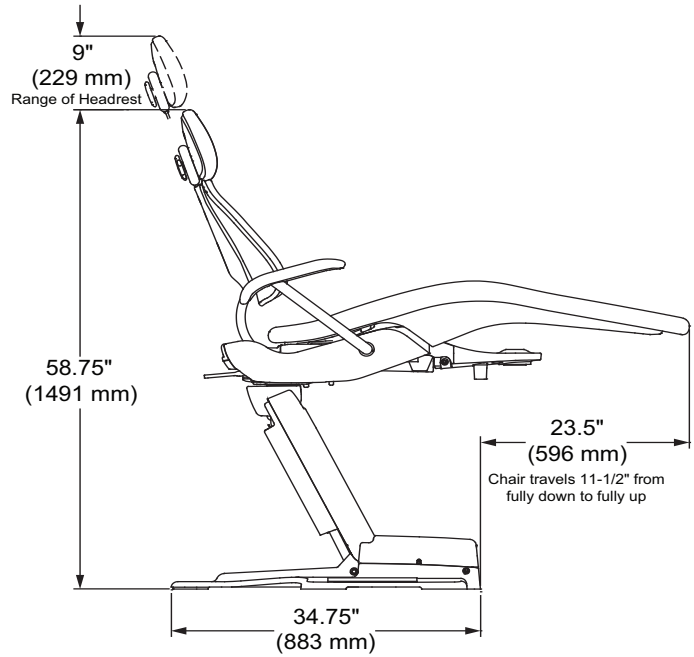
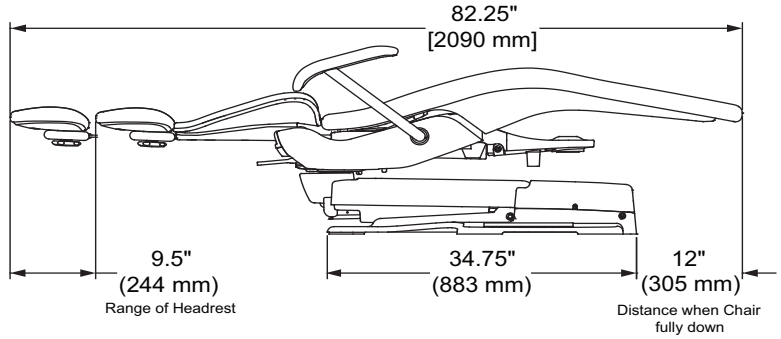
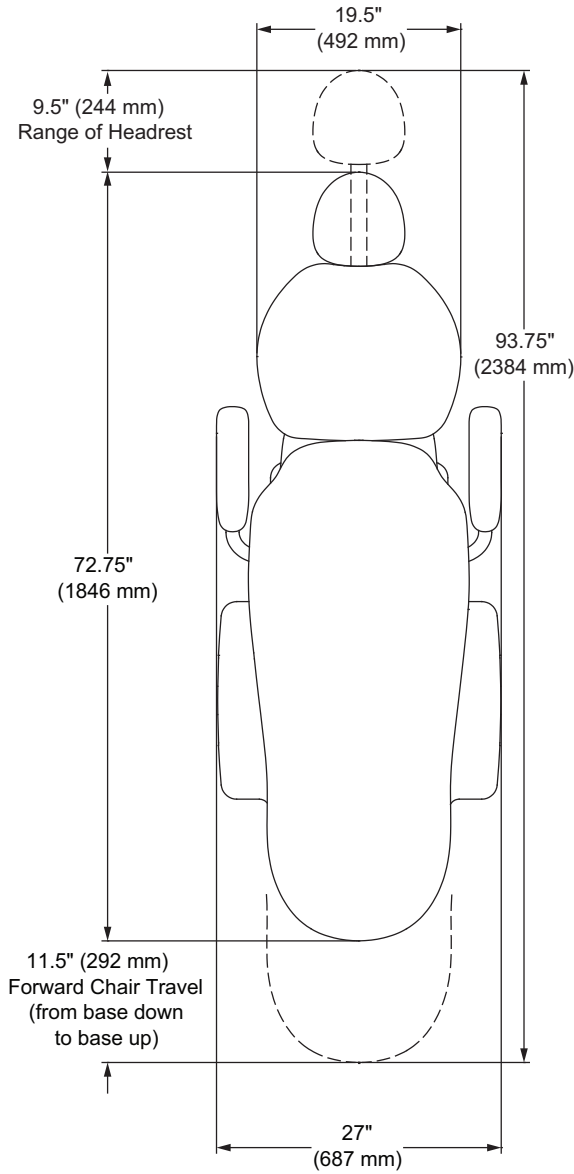
5/8" (16 mm) O.D. tubing for Wet systems.  
40 mm O.D. tubing for Dry/Semi-Dry systems.  
Central Vacuum Only (see general utility notes  
on full size dental chair template).



**Floor Box Utility Connections**



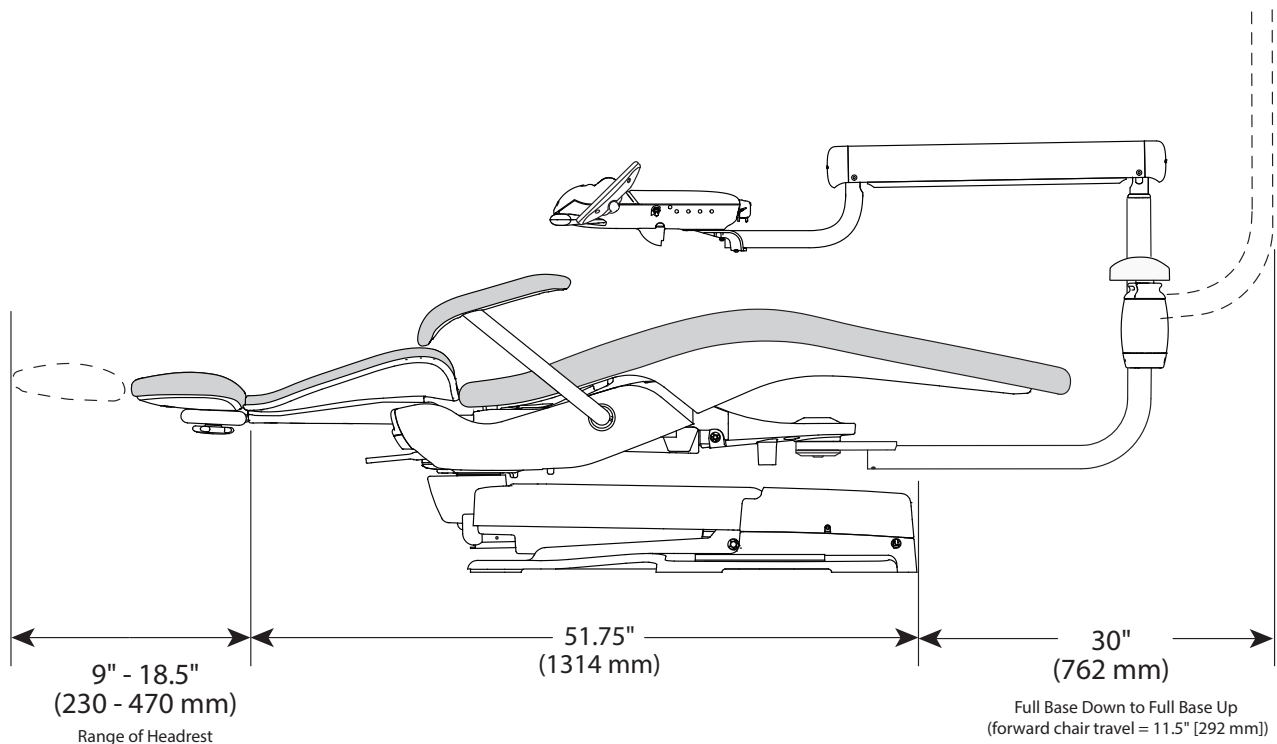
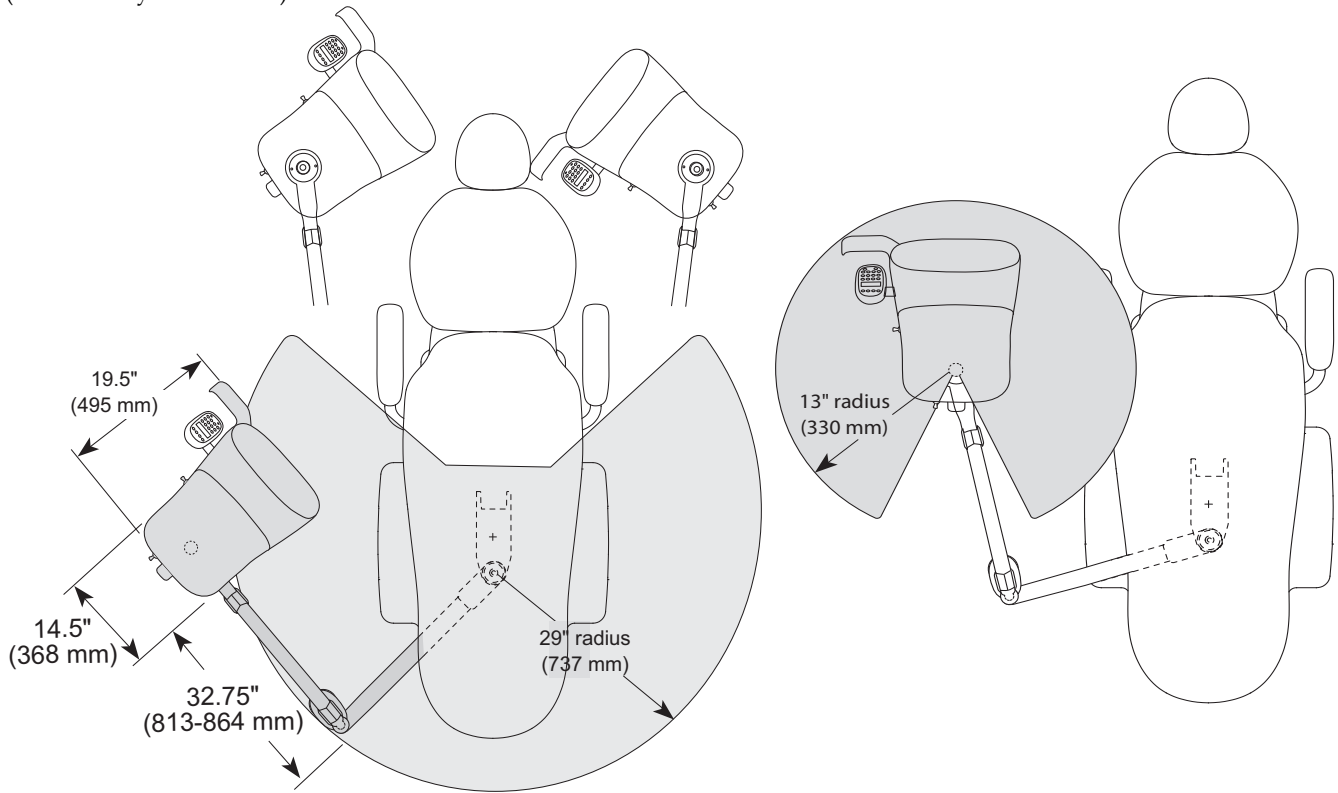
### A-dec 311 Dental Chair Plan View with Elevation





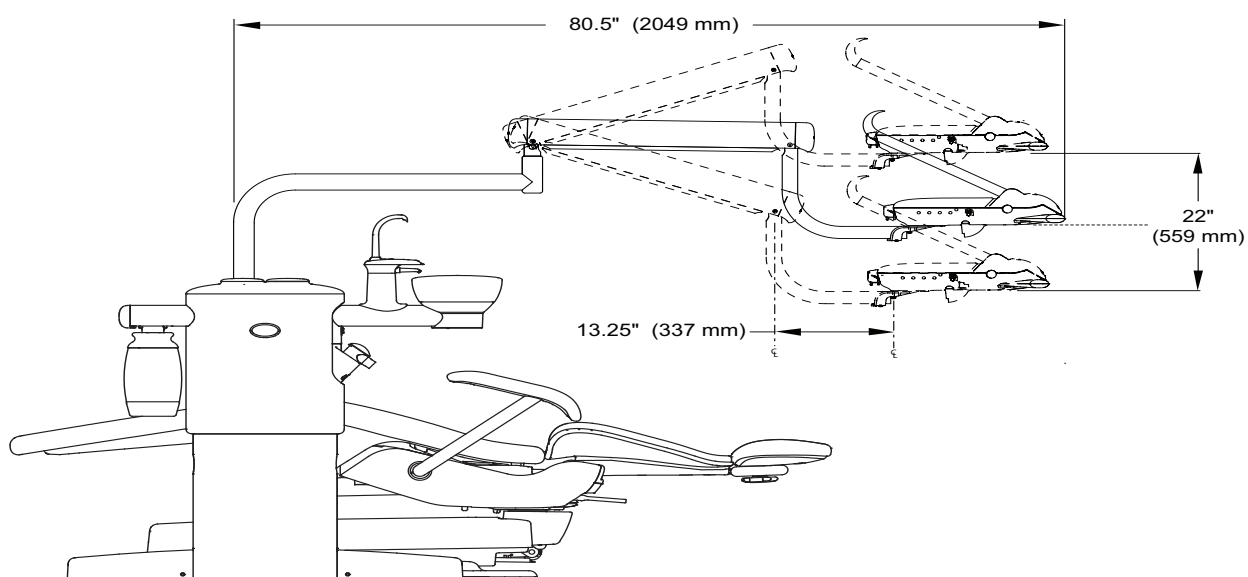
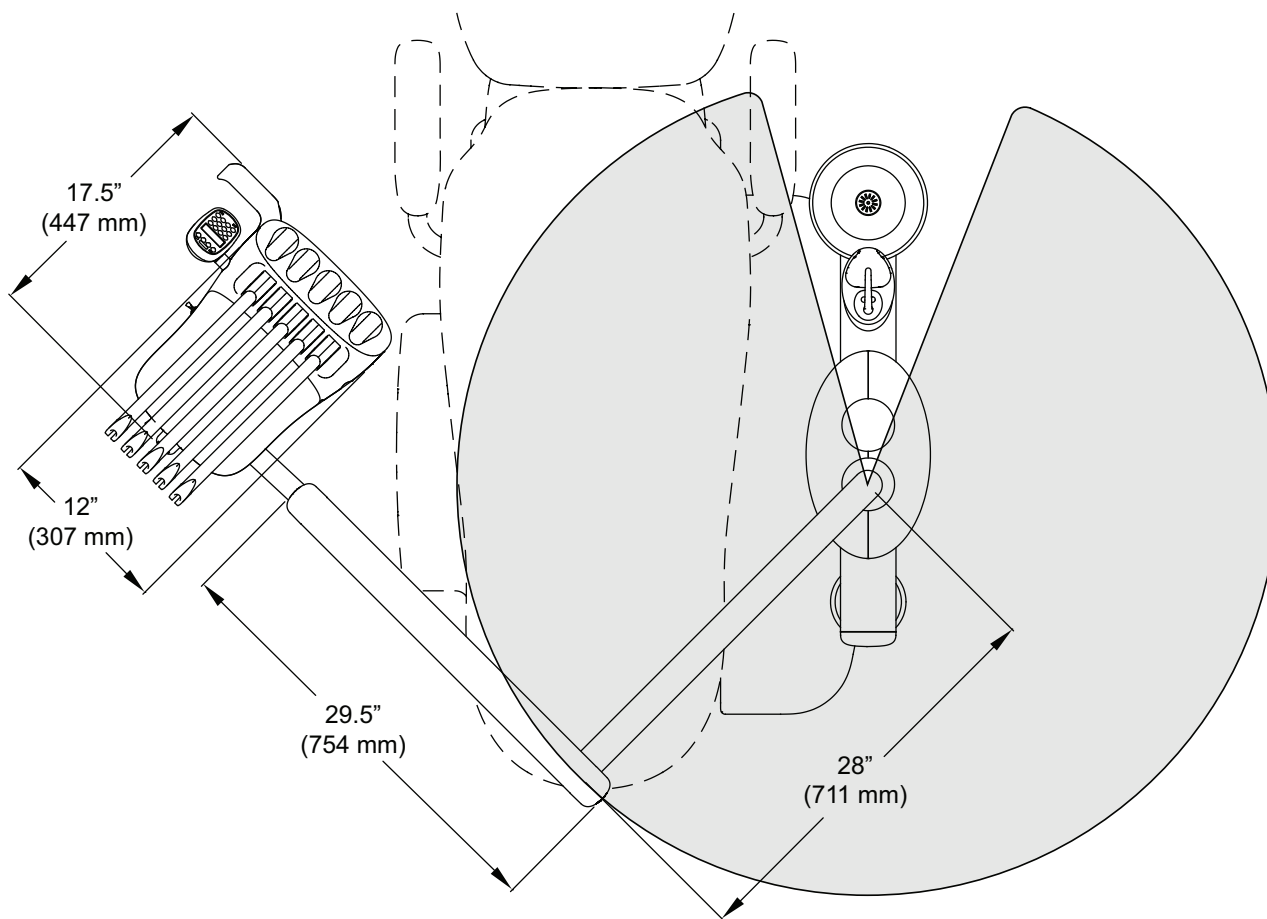
**A-dec 332/333 Radius-Style Delivery System**  
**Plan View with Elevation**

(A-dec 332 System Shown)

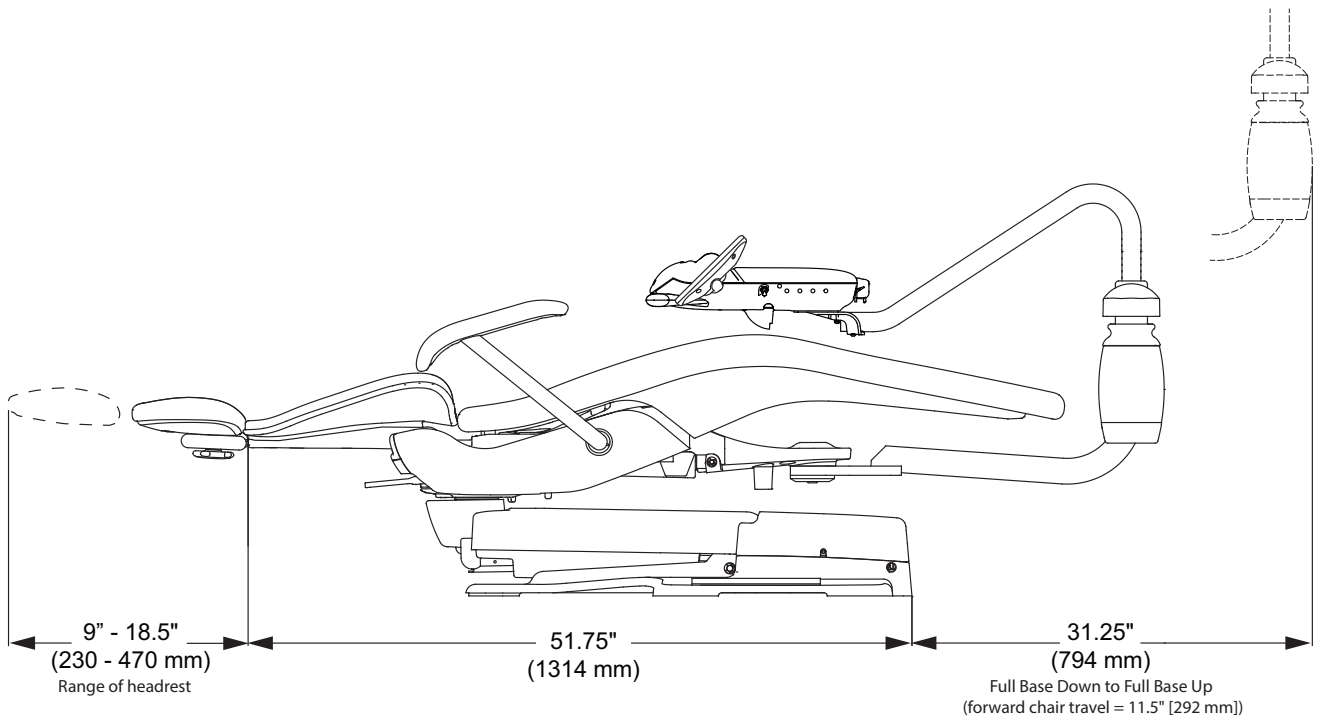
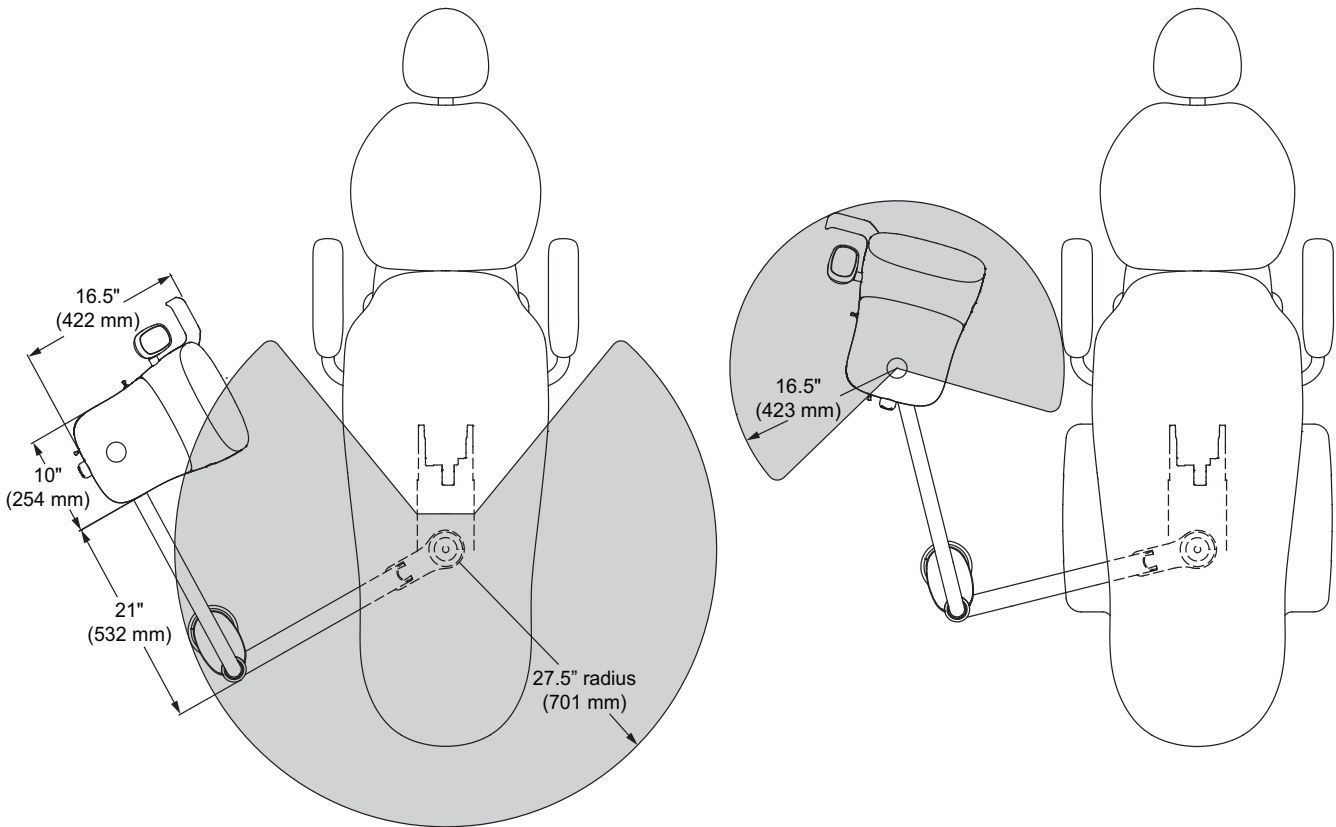


### A-dec 334/335 Delivery System Plan View with Elevation

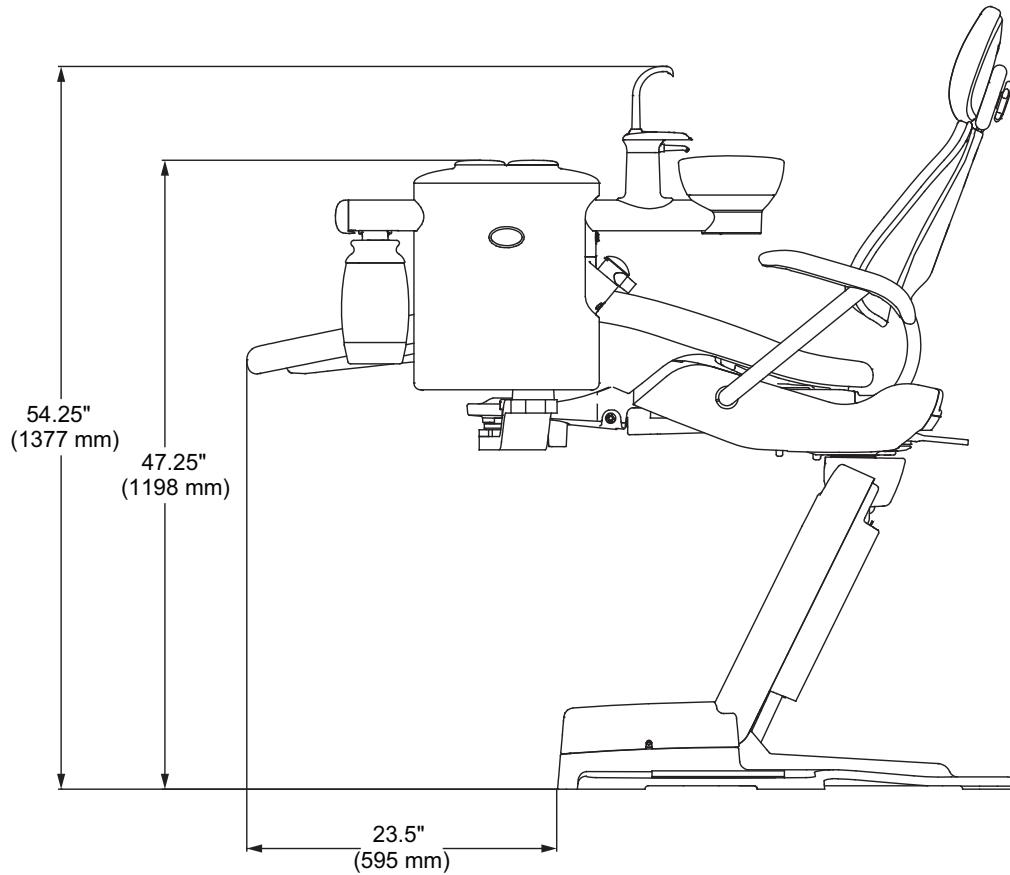
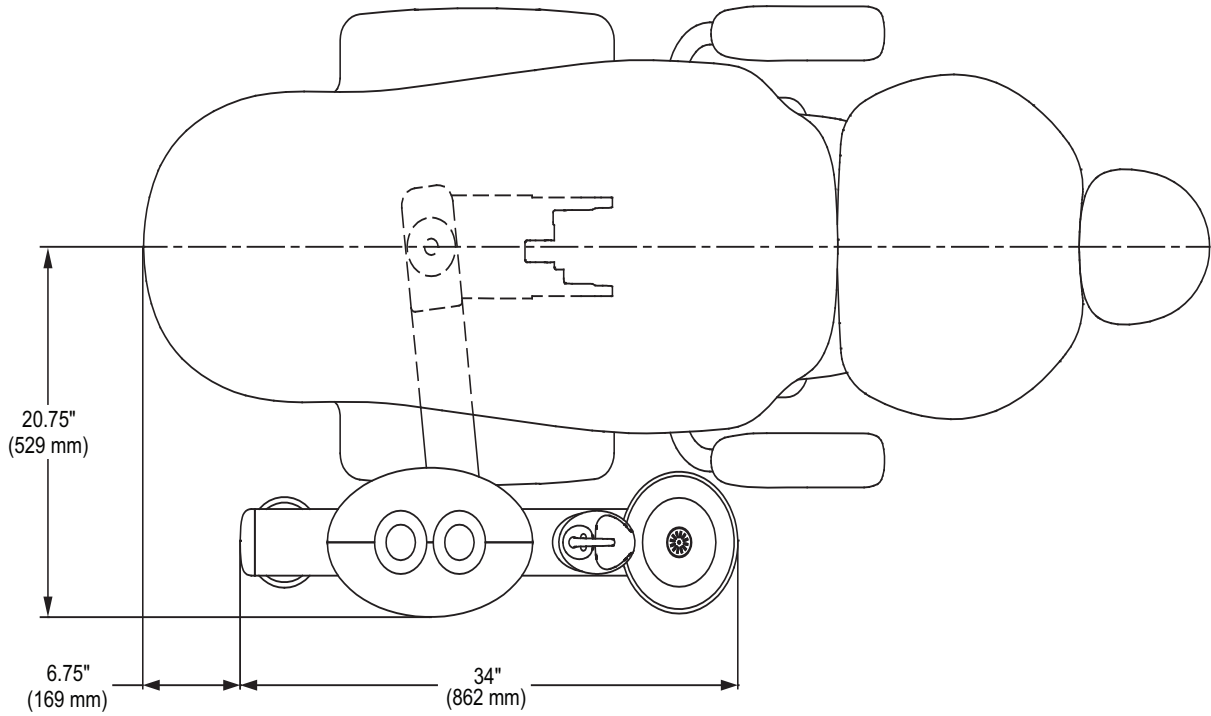
(A-dec 335 System Shown)



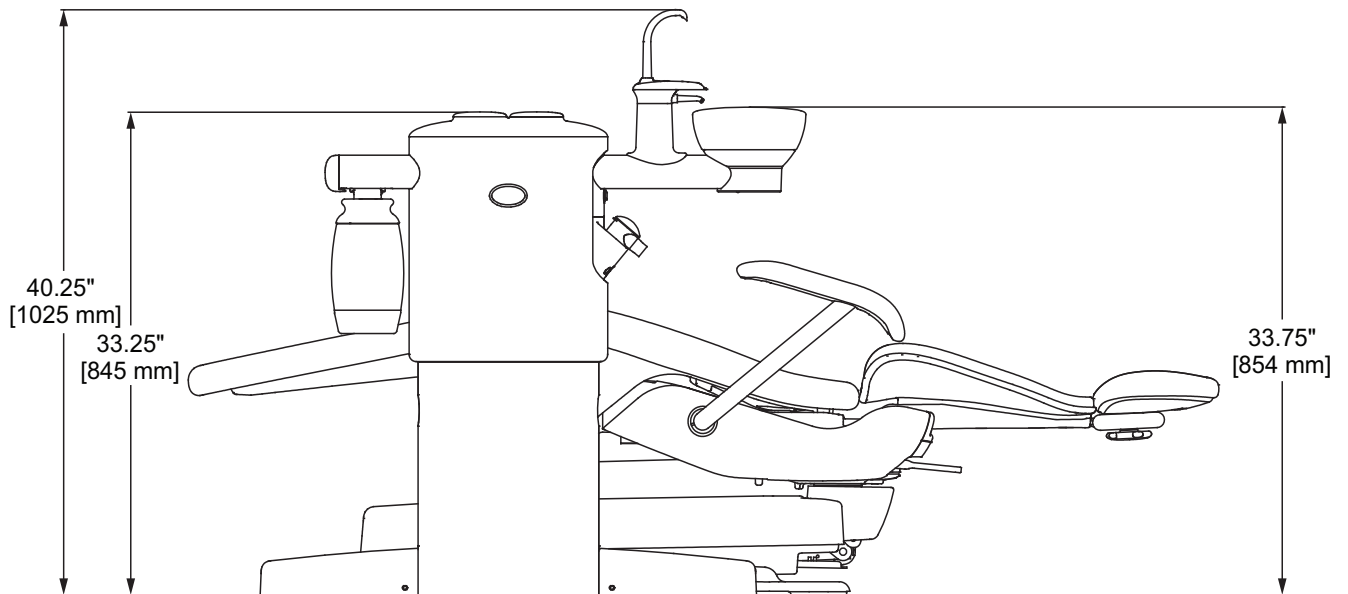
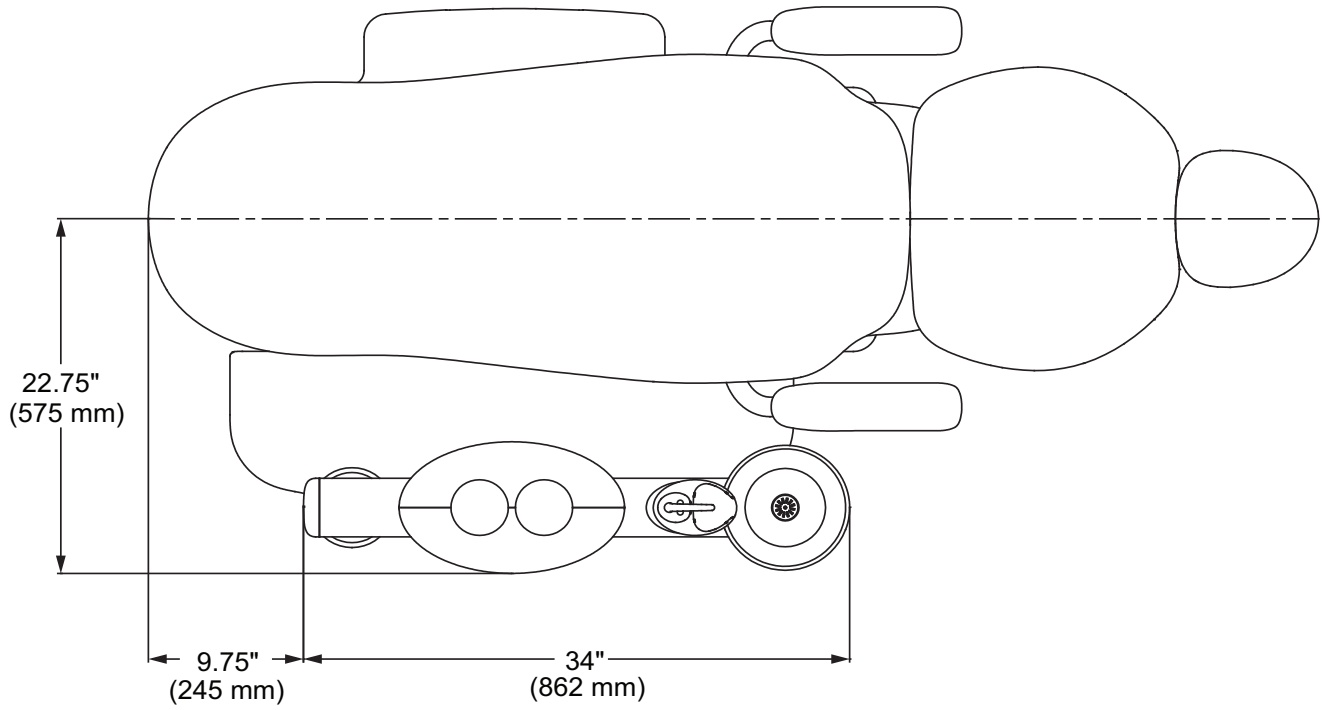
**A-dec 336 Radius-Style Delivery System**  
**Plan View with Elevation**



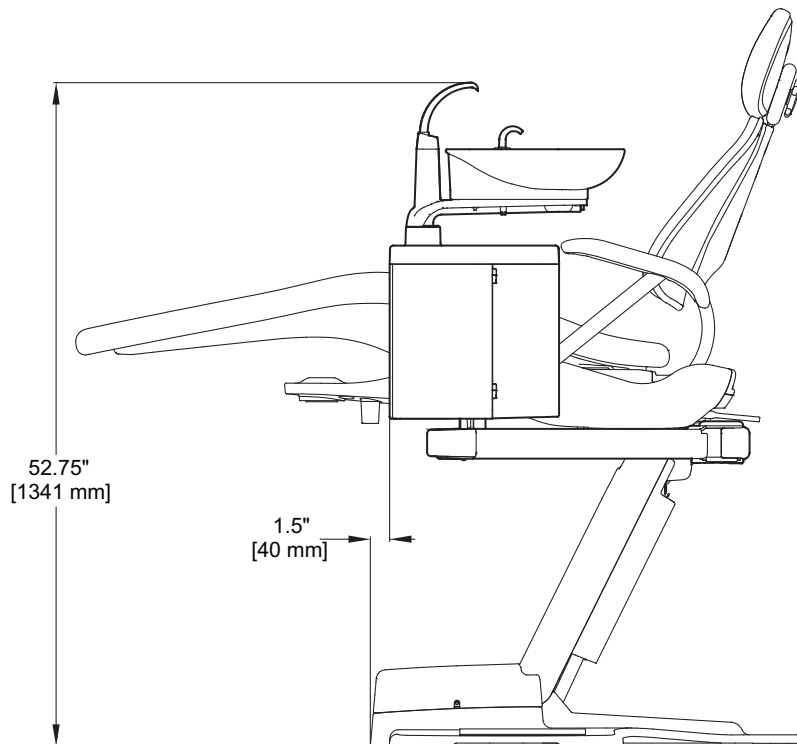
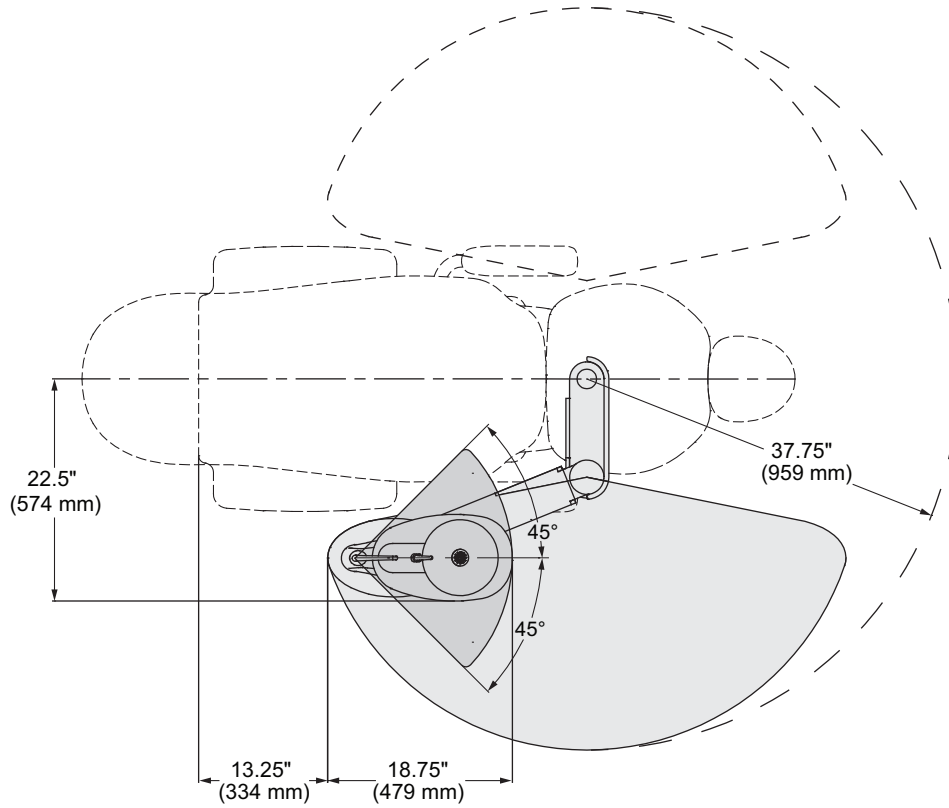
**A-dec 362 Cuspidor and Support Center**  
**Plan View with Elevation**



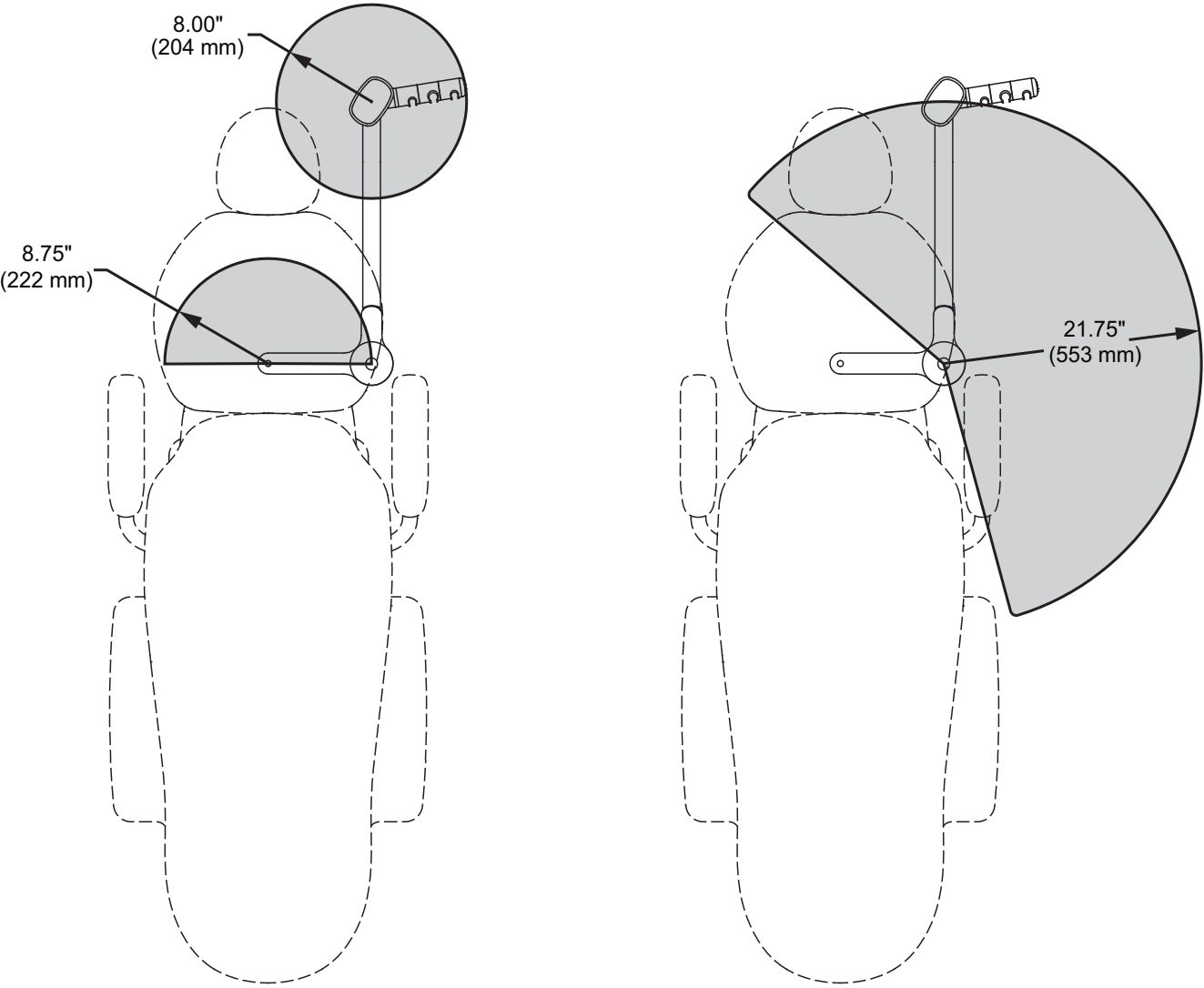
**A-dec 363 Cuspidor and Support Center  
Plan View with Elevation**



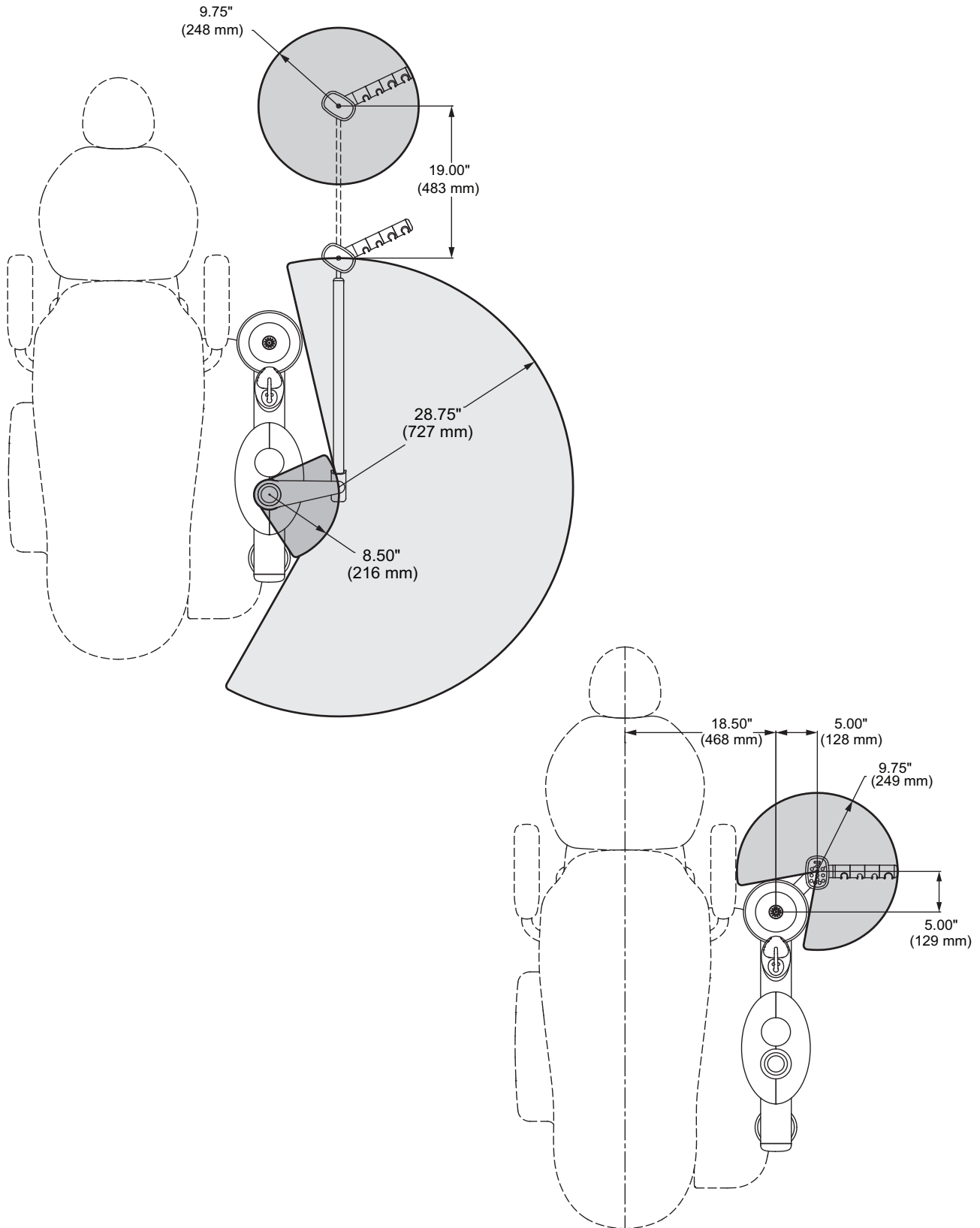
### A-dec 461 Cuspidor and Support Center Plan View with Elevation



**A-dec 351 Assistant's Instrumentation  
Plan View**



### A-dec 352 and A-dec 353 Assistant's Instrumentation Plan View

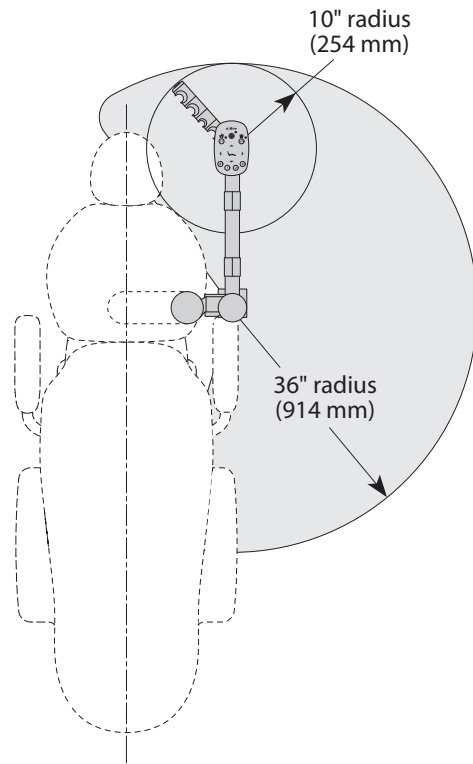
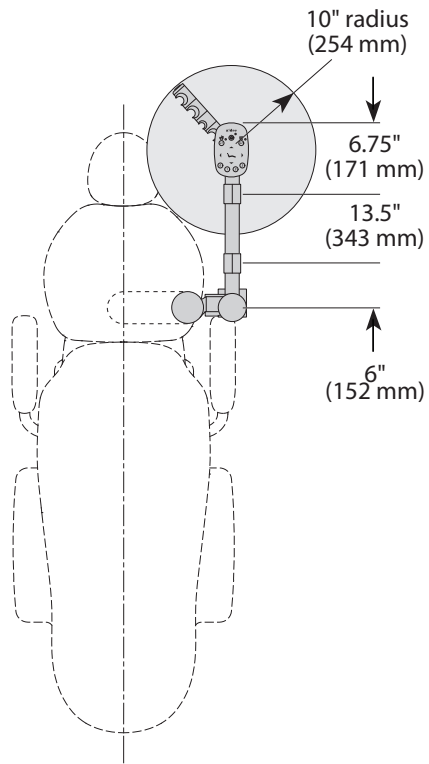




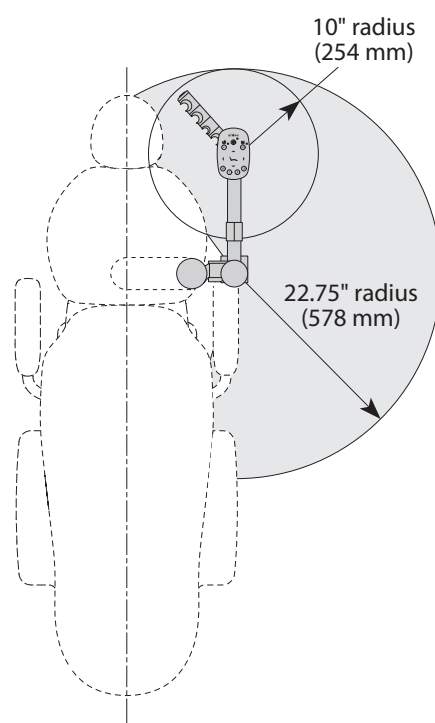
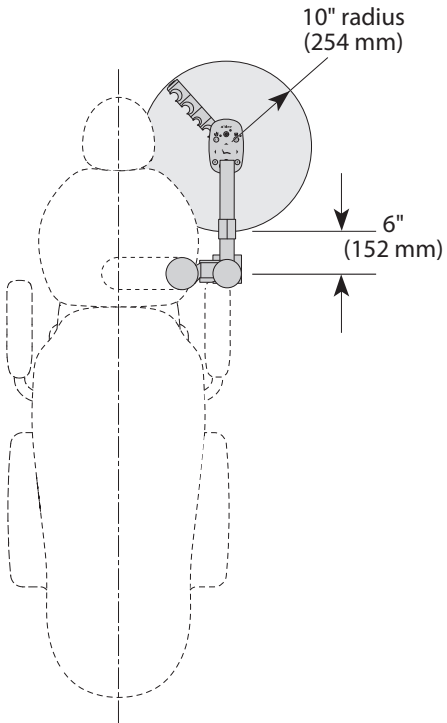
### A-dec 551 Assistant's Instrumentation

#### Plan View

##### Long Arm

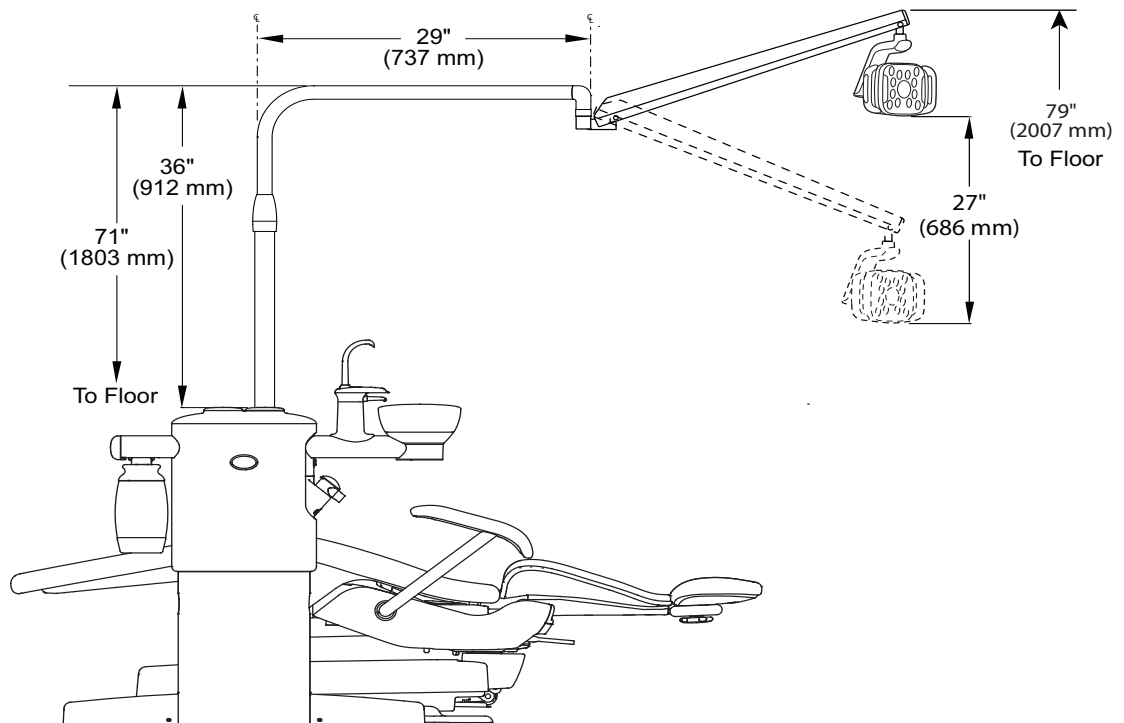
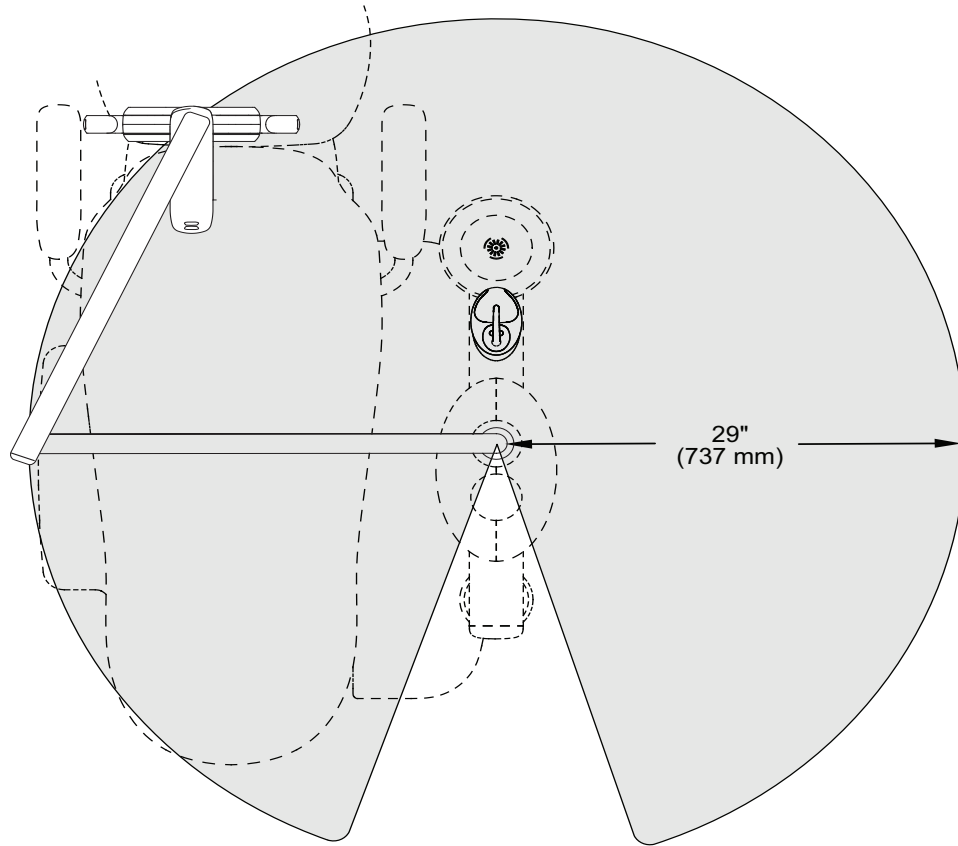


##### Short Arm



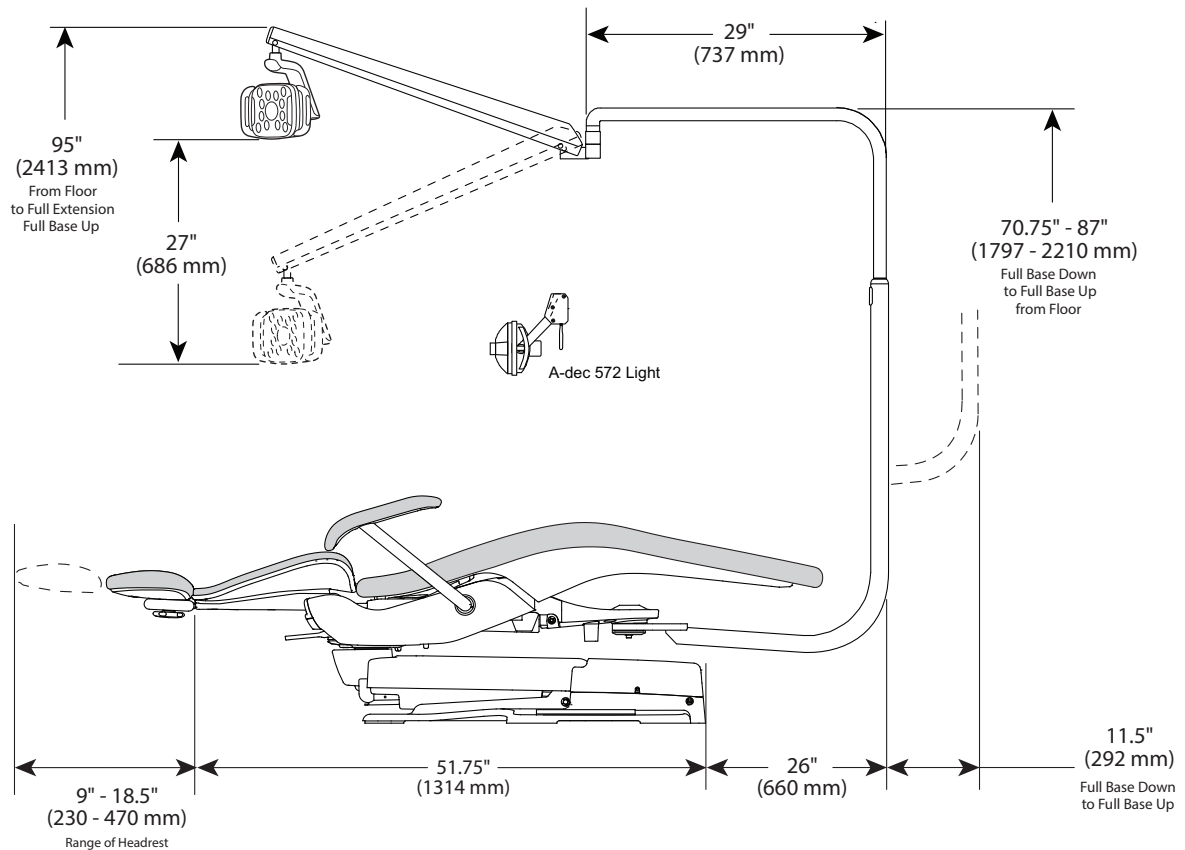
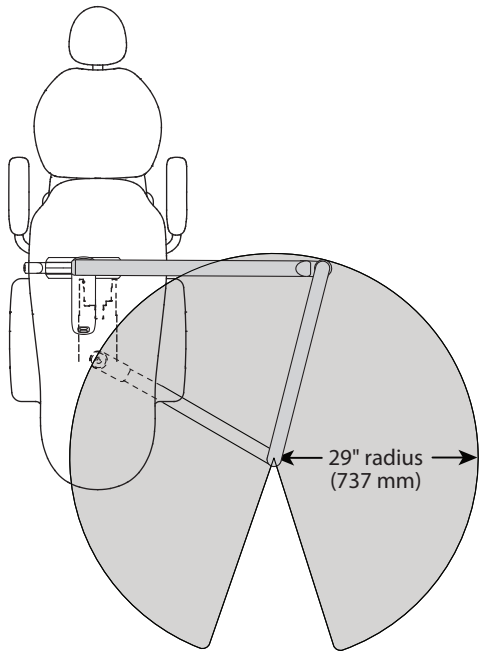
### A-dec 571 and 571L Dental Light Plan View with Elevation

(A-dec 571L Dental Light Shown)

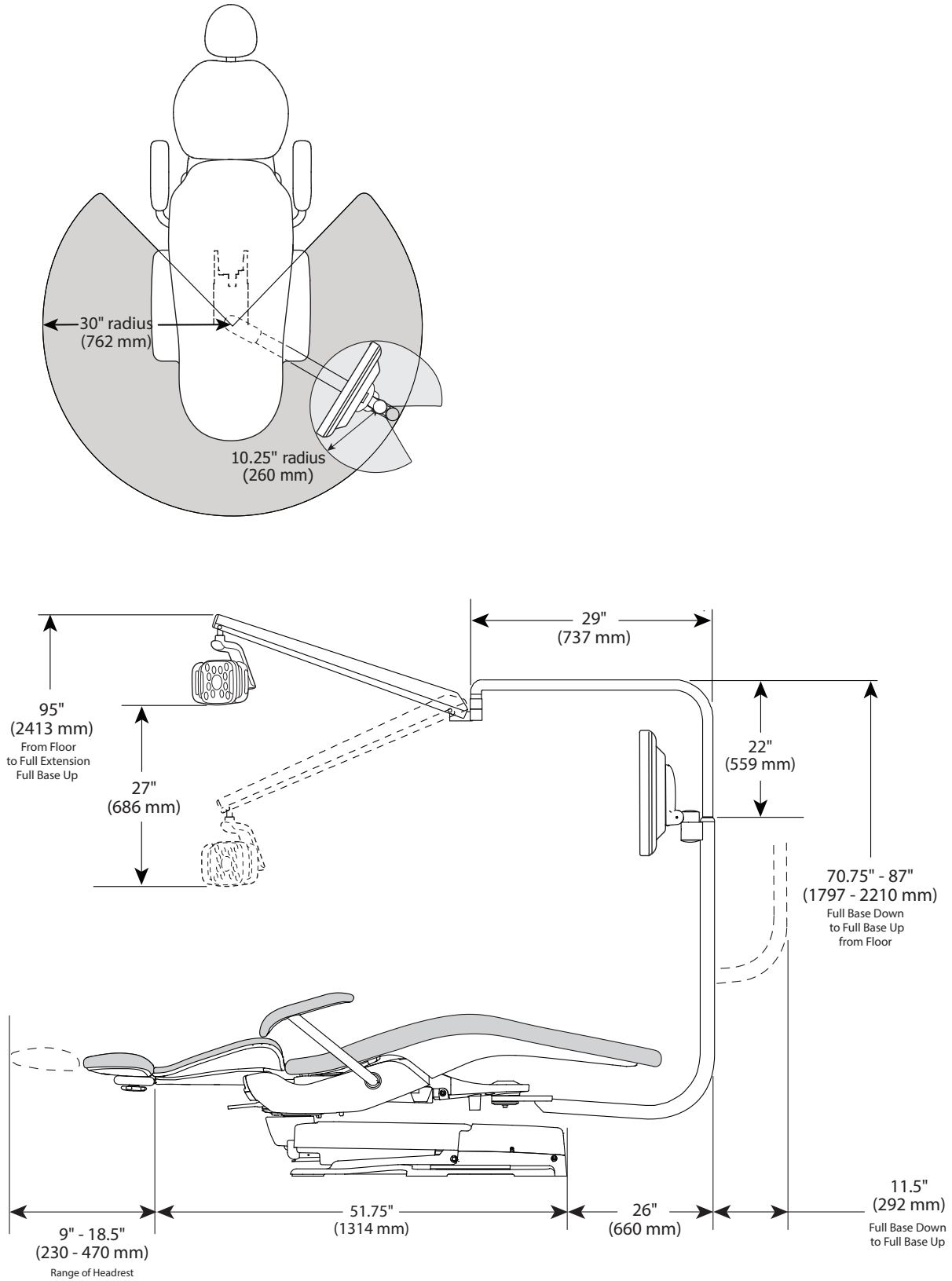


**A-dec 572 and 572L Dental Lights**  
**Plan View with Elevation**

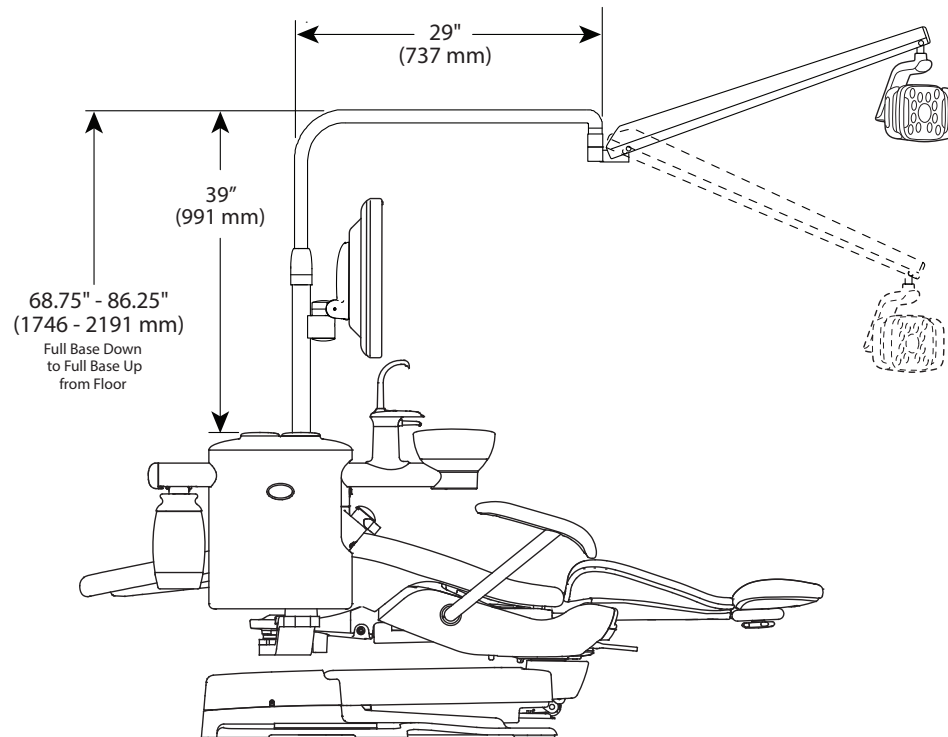
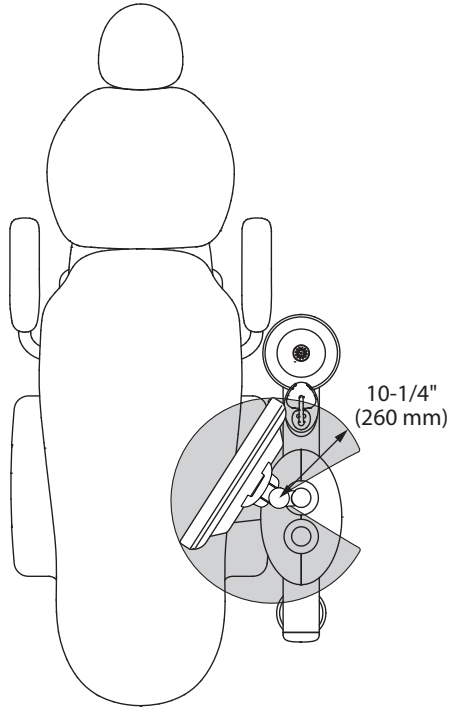
(572L Dental Light Shown)



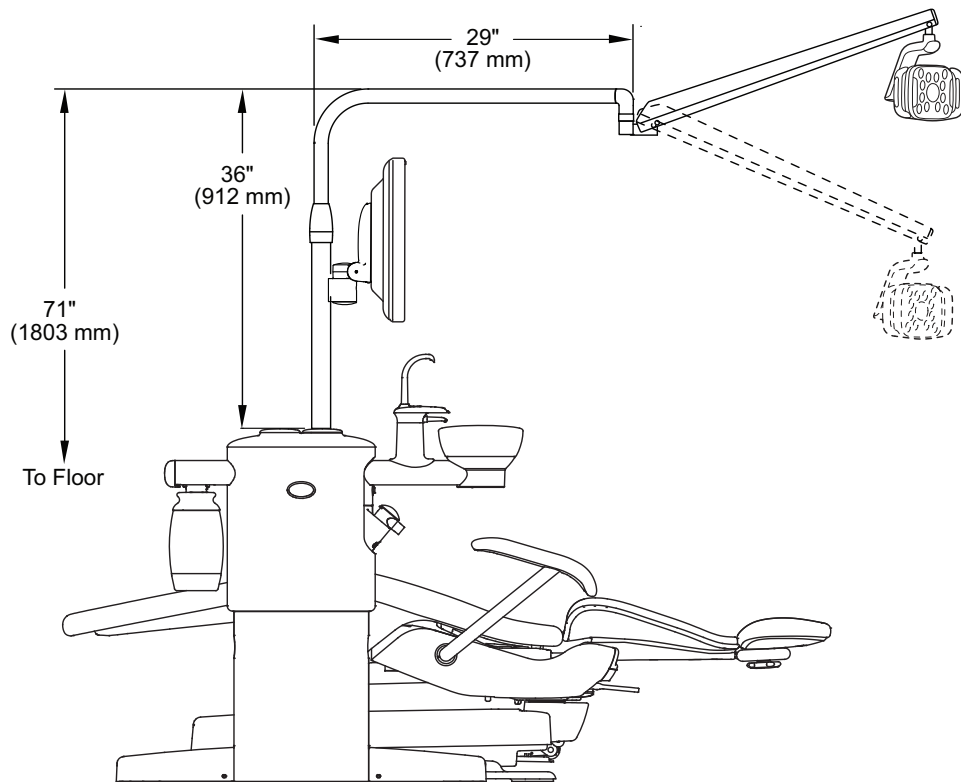
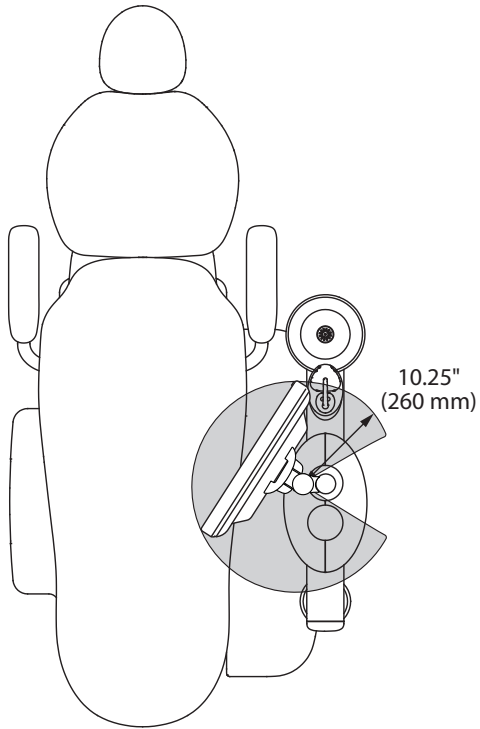
**A-dec 381 Monitor Mount with Radius-Style Dental Light**  
**Plan View with Elevation**



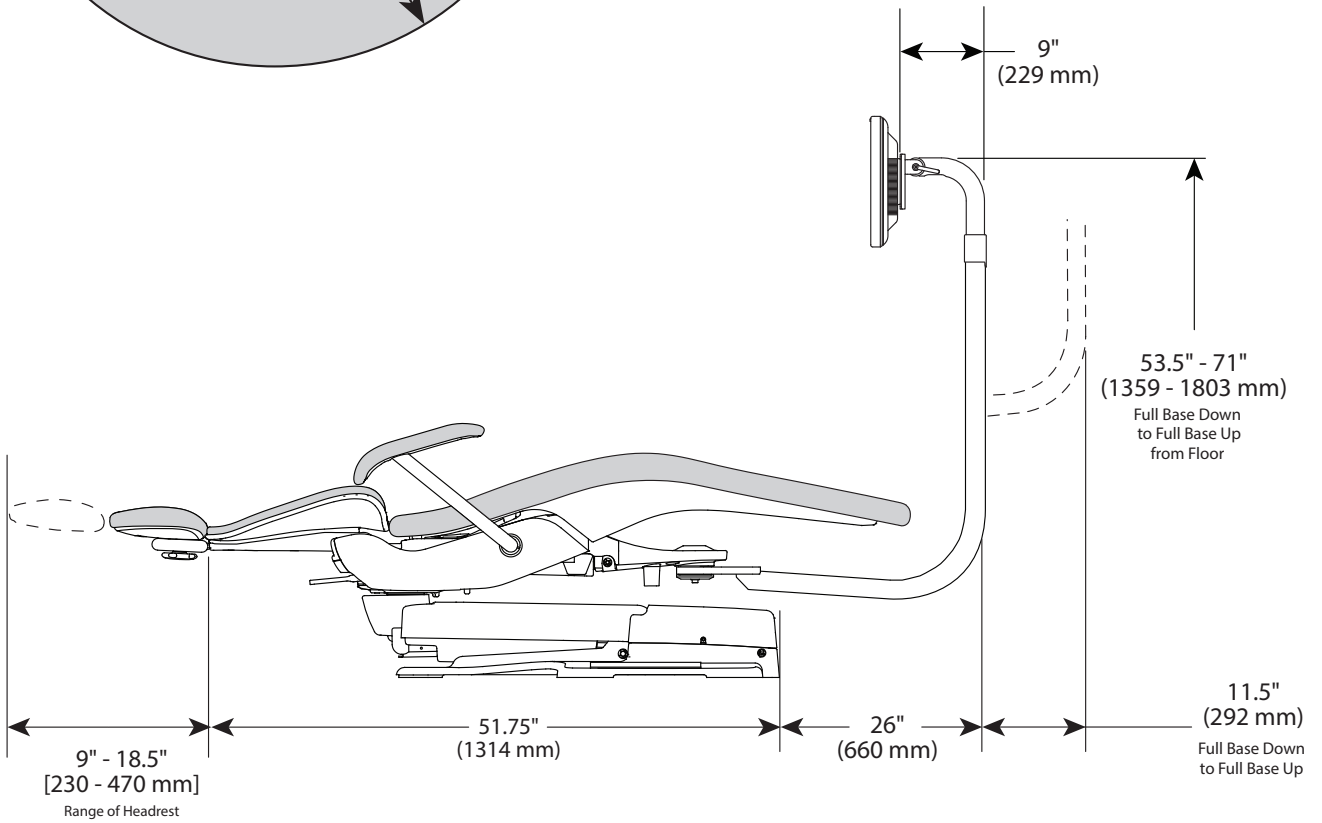
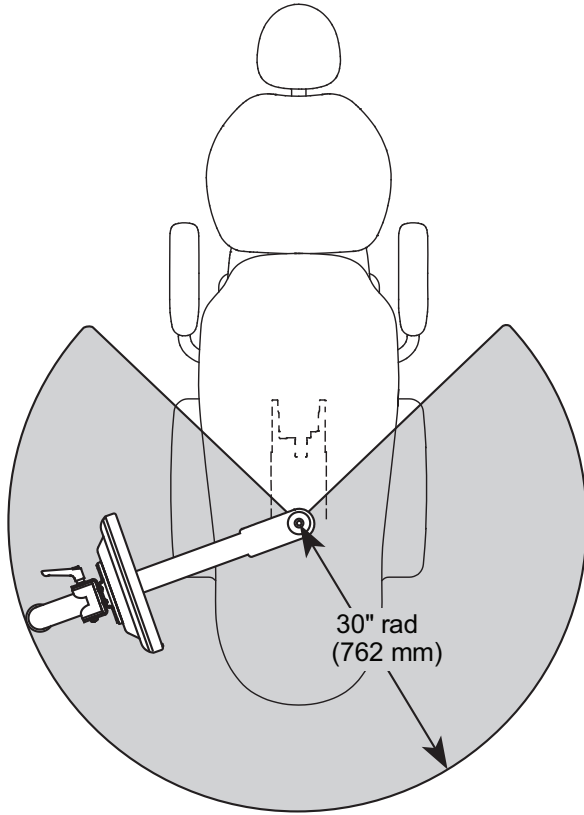
**A-dec 381 Monitor Mount with 362 Support Center Mount Dental Light**  
**Plan View with Elevation**



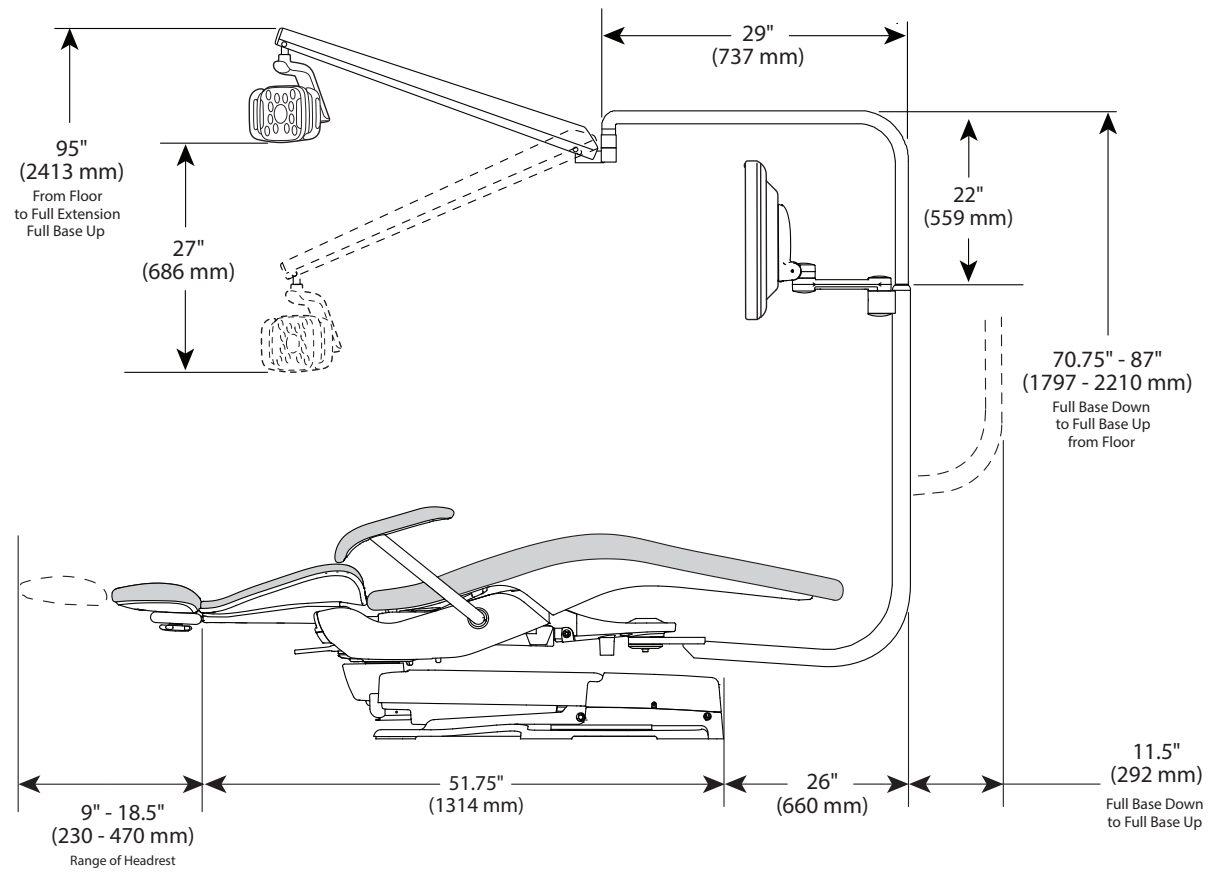
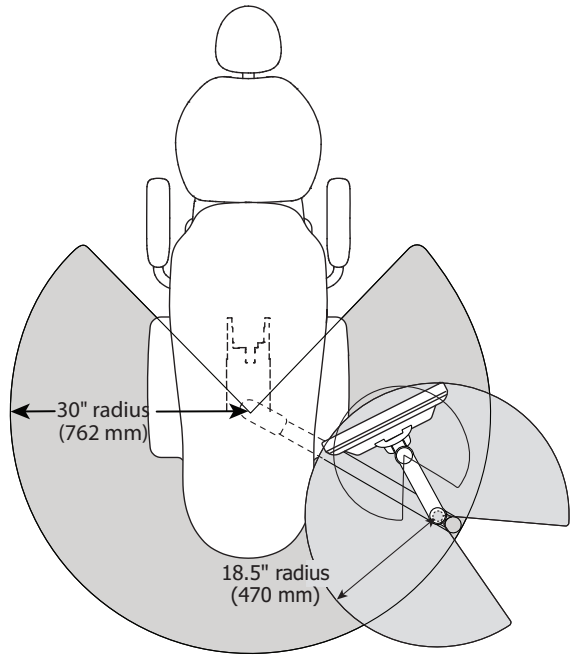
**A-dec 381 Monitor Mount with 363 Support Center Mount Dental Light**  
**Plan View with Elevation**



**A-dec 382 Radius-Style Monitor Mount**  
**Plan View with Elevation**

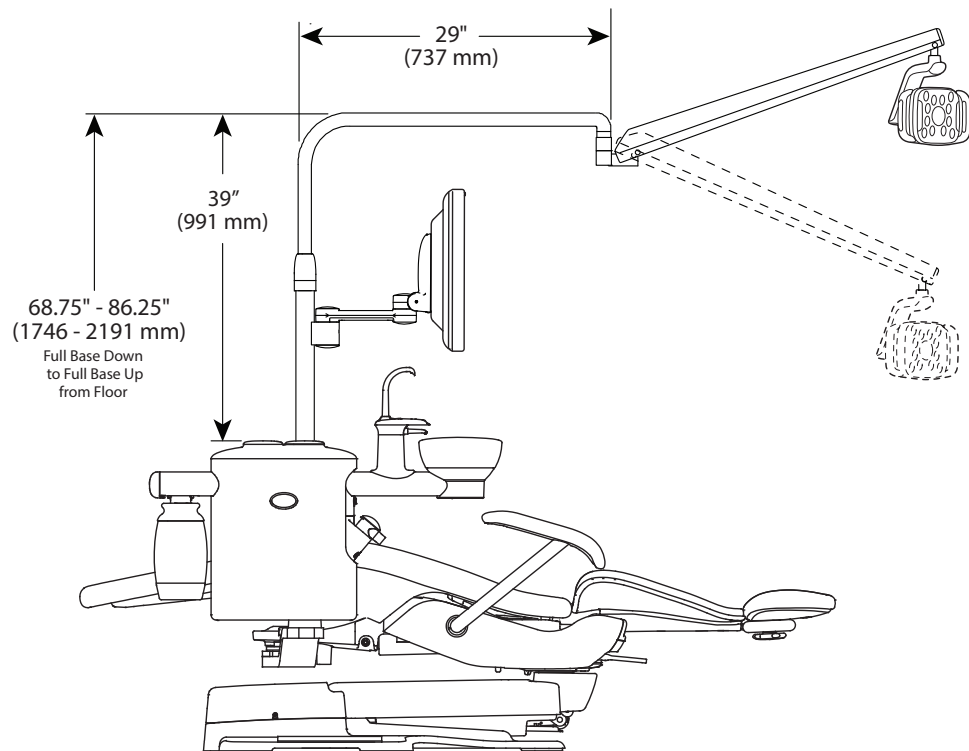
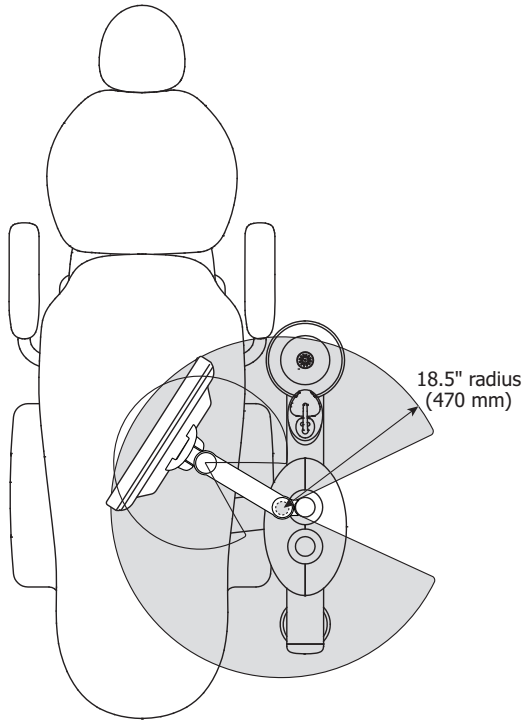


**A-dec 482 Monitor Mount with Radius-Style Dental Light**  
**Plan View with Elevation**

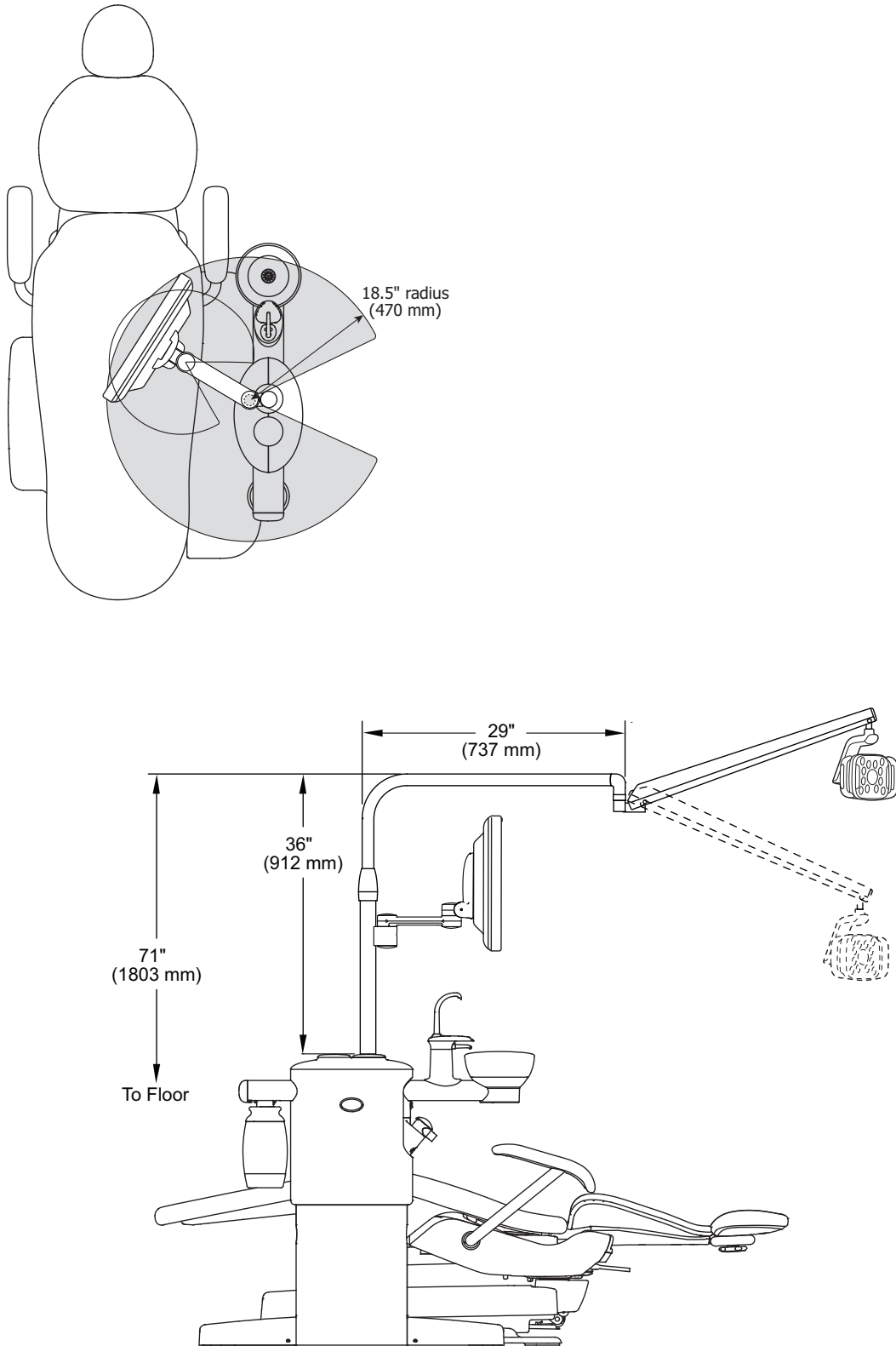




### A-dec 482 Monitor Mount with 362 Support Center Mount Dental Light Plan View with Elevation



**A-dec 482 Monitor Mount with 363 Support Center Mount Dental Light**  
**Plan View with Elevation**





## Regulatory Information

Regulatory information mandated by agency requirements is provided in the *Regulatory Information, Specifications, and Warranty* document (p/n 86.0221.00), which is available in the Document Library at [www.a-dec.com](http://www.a-dec.com).



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