# **Pre-Installation Guide**

# a dec

# **Performer**®

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#### **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
Performer 8000	В	Dental Chair
Performer 8100	В	Delivery System
332/333	Α	Delivery System
334/335	Α	Delivery System
Performer 8200	В	Support Center and Cuspidor
Performer 8500	В	Assistant's Instrumentation
352/353	Α	Assistant's Instrumentation
362/363	Α	Cuspidor
571/572/371L/ 372L/571L/572L	Α	Dental Light
Performer 8800	В	Monitor Mount
381/482	А	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:

- 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.

#### **Utility Specifications**



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

Utility	Finish	Requirements
Air	1/2" (13 mm) compression protruding 2" (51 mm)	<ul> <li>A right-angle manual shutoff valve with 3/8" compression outlet, supplied and installed by the contractor.</li> </ul>
		<ul> <li>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).</li> </ul>
		Flush lines prior to making connections to dental equipment.
Water*	1/2" (13 mm) compression protruding 2" (51 mm)	<ul> <li>A right-angle manual shutoff valve with 3/8" compression outlet, supplied and installed by the contractor.</li> </ul>
		• 60 $\pm$ 20 psi (410 $\pm$ 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	1" PVC Pipe (1.315" OD) protruding 2" (51 mm)	<ul> <li>Wet systems: 10 ± 2 inches of Hg (34 ± 7 kPa) and 9 scfm (255 SL/min) minimum.</li> </ul>
		• Dry/semi-dry systems: $4.5 \pm 1$ inches of Hg (16 $\pm 3.5$ kPa), 12 scfm (340 SL/min) minimum.
Gravity drain**	1-1/2" (38 mm) nominal pipe	Place trap in line, conforming to local codes, contractor-supplied.
	protruding 1" (25 mm)	<ul> <li>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.</li> </ul>
		Floor mount only. Not recommended for wall mount utilities.
Electrical	1/2" (13 mm) conduit and box	Wire box per code.
	with a hospital-grade power receptacle	<ul> <li>Top of the receptacle should not be higher than 5" (127 mm) above finished floor for fit within floor box.</li> </ul>
		See the "Electrical Ratings" table for voltage and amperage ratings.

<sup>\*</sup> 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.

<sup>\*\*</sup> Gravity drains are needed only on systems with a cuspidor.

#### **Head Loss with Respect to Flow**

#### **Performer**

The following table includes information about high volume evacuator (HVE) and saliva ejector (SE) head loss with flow for a Performer assistant's instrumentation on a Performer 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
Durr 15mm HVE (large bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1339.00)	0.04 in-Hg (0.14 kPa)	0.12 in-Hg (0.41 kPa)	0.26 in-Hg (0.88 kPa)	0.57 in-Hg (1.93 kPa)	1.27 in-Hg (4.30 kPa)	2.81 in-Hg (9.52 kPa)	6.22 in-Hg (21.06 kPa)
Durr 11mm HVE (standard bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1339.00)	0.06 in-Hg (0.20 kPa)	0.15 in-Hg (0.51 kPa)	0.32 in-Hg (1.08 kPa)	0.69 in-Hg (2.34 kPa)	1.47 in-Hg (4.98 kPa)	3.12 in-Hg (10.57 kPa)	6.63 in-Hg (22.45 kPa)
A-dec 15mm HVE (large bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1315.00)	0.03 in-Hg (0.10 kPa)	0.09 in-Hg (0.30 kPa)	0.21 in-Hg (0.71 kPa)	0.48 in-Hg (1.63 kPa)	1.10 in-Hg (3.73 kPa)	2.52 in-Hg (8.53 kPa)	5.76 in-Hg (19.51 kPa)
A-dec 11mm HVE (standard bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1305.01)	0.06 in-Hg (0.20 kPa)	0.14 in-Hg (0.47 kPa)	0.30 in-Hg (1.02 kPa)	0.64 in-Hg (2.17 kPa)	1.38 in-Hg (4.67 kPa)	2.96 in-Hg (10.02 kPa)	6.37 in-Hg (21.57 kPa)
A-dec 11mm HVE (standard bore) valve with 13mm PVC Tubing & 15mm canister connection (PN: 11.1296.01)	0.11 in-Hg (0.37 kPa)"	0.29 in-Hg (0.98 kPa)	0.65 in-Hg (2.20 kPa)	1.42 in-Hg (4.81 kPa)	3.14 in-Hg (10.63 kPa)	6.91 in-Hg (23.40 kPa)	Exceeds 12 in- Hg (40.64 kPa) at flow rates above ~350 NL/ min.
Durr 15mm HVE (large bore) valve with 16mm Easy Flex Tubing & 11mm canister connection (PN: 90.1287.00)	0.06 in-Hg (0.20 kPa)	0.15 in-Hg (0.51 kPa)	0.33 in-Hg (1.12 kPa)	0.72 in-Hg (2.44 kPa)	1.56 in-Hg (5.28 kPa)	3.39 in-Hg (11.48 kPa)	7.38 in-Hg (24.99 kPa)
Durr 11mm HVE (standard bore) valve with 16mm Easy Flex Tubing & 11mm canister connection (PN: 90.1287.00)	0.08 in-Hg (0.27 kPa)	0.19 in-Hg (0.64 kPa)	0.42 in-Hg (1.42 kPa)	0.90 in-Hg (3.05 kPa)	1.93 in-Hg (6.54 kPa)	4.15 in-Hg (14.05 kPa)	8.92 in-Hg (30.21 kPa)
A-dec 11mm HVE (standard bore) valve with 16mm Easy Flex Tubing & 11mm canister connection (PN: 90.1566.00)	0.06 in-Hg (0.20 kPa)	0.15 in-Hg (0.51 kPa)	0.34 in-Hg (1.15 kPa)	0.76 in-Hg (2.57 kPa)	1.72 in-Hg (5.82 kPa)	3.86 in-Hg (13.07 kPa)	8.67 in-Hg (29.36 kPa)

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
A-dec 11mm HVE (standard bore) valve with 13mm PVC Tubing & 11mm canister connection (PN: 11.1343.00)	0.11 in-Hg (0.37 kPa)	0.28 in-Hg (0.95 kPa)	0.62 in-Hg (2.10 kPa)	1.38 in-Hg (4.67 kPa)	3.09 in-Hg (10.46 kPa)	6.92 in-Hg (23.43 kPa)	Exceeds 12 in- Hg (40.64 kPa) at flow rates above ~350 NL/ min.
A-dec SE (standard bore) valve with 6mm PVC Tubing (PN: 12.1260.00)"	1.73 in-Hg (5.86 kPa)	10.14 in-Hg (34.34 kPa)	Exceeds 12 in-H <sub>g</sub>	g (40.64 kPa) at flow	rates above ~200 NI	_/min.	
Durr SE (standard bore) valve with 6mm PVC Tubing (PN: 12.1261.00)	1.81 in-Hg (6.13 kPa)	11.90 in-Hg (40.30 kPa)	Exceeds 12 in-H <sub>g</sub>	g (40.64 kPa) at flow	rates above ~200 N	L/min.	

#### A-dec 300

The following table includes information about high volume evacuator (HVE) and saliva ejector (SE) head loss with flow for an A-dec 352/353 assistant's instrumentation on a A-dec 362/363 support center.

Tubing and HVE/SE	90 NL/min	150 NL/min	200 NL/min	250 NL/min	300 NL/min	350 NL/min	400 NL/min
	(3.18 SCFM)	(5.30 SCFM)	(7.06 SCFM)	(8.83 SCFM)	(10.59 SCFM)	(12.36 SCFM)	(14.13 SCFM)
A-dec 15mm HVE (large bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1315.00)	0.05 in-Hg (0.17 kPa)	0.11 in-Hg (0.37 kPa)	0.23 in-Hg (0.78 kPa)	0.47 in-Hg (1.59 kPa)	0.96 in-Hg (3.25 kPa)	1.96 in-Hg (6.64 kPa)	3.99 in-Hg (13.51 kPa)
A-dec 11mm HVE (standard bore) valve with 16mm Easy Flex Tubing & 15mm canister connection (PN: 11.1305.01)	0.06 in-Hg	0.13 in-Hg	0.28 in-Hg	0.57 in-Hg	1.18 in-Hg	2.43 in-Hg	5.02 in-Hg
	(0.20 kPa)	(0.44 kPa)	(0.95 kPa)	(1.93 kPa)	(3.40 kPa)	(8.23 kPa)	(17.00 kPa)
A-dec 11mm HVE (standard bore) valve with 13mm Easy Flex Tubing & 15mm canister connection (PN: 11.1357.00)	0.09 in-Hg	0.22 in-Hg	0.49 in-Hg	1.09 in-Hg	2.41 in-Hg	5.33 in-Hg	11.80 in-Hg
	(0.30 kPa)	(0.75 kPa)	(1.66 kPa)	(3.69 kPa)	(8.16 kPa)	(18.05 kPa)	(39.96 kPa)
A-dec 11mm HVE (standard bore) valve with 13mm PVC Tubing & 15mm canister connection (PN: 11.1296.01)	0.10 in-Hg	0.26 in-Hg	0.56 in-Hg	1.21 in-Hg	2.60 in-Hg	5.59 in-Hg	12.01 in-Hg
	(0.34 kPa)	(0.88 kPa)	(1.90 kPa)	(4.10 kPa)	(8.80 kPa)	(18.93 kPa)	(40.67 kPa)

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)
A-dec SE (standard bore) valve with	1.27 in-Hg	6.39 in-Hg	Exceeds 12 in-H	g (40.64 kPa) at flow	rates above ~200 NL	/min.	
6mm PVC Tubing & 15mm canister connection (PN: 12.1235.01)	(4.30 kPa)	(21.64 kPa)					
A-dec SE (standard bore) valve with	0.66 in-Hg	2.72 in-Hg	8.81 in-Hg	Exceeds 12 in-Hg	(40.64 kPa) at flow	rates above ~250 NI	
10mm Easy Flex Tubing & 15mm canister connection (PN: 12.1228.01)	(2.24 kPa)	(9.21 kPa)	(29.83 kPa)				

Performer Pre-Installation Guide Shipping Weights

### **Electrical Ratings**

Chair Type	Required Electrical Supply	Amperage Rating	Amperage Breakdown
240 Volt Chair	220-240 VAC, 50-60 Hz, 10 Amps minimum	10 Amps maximum	240 VAC @ 50-60 Hz: 2 Amps — chair pump motor 1.4 Amps — 300-watt power supply 2 Amps — ancillary products
120 Volt Chair	110–120 VAC, 50–60 Hz, 15 Amps minimum (20 Amps recommended)	10 Amps maximum	120 VAC @ 50-60 Hz: 3.5 Amps — chair pump motor 2.5 Amps — 300-watt power supply 2 Amps — ancillary products

# **Shipping Weights**

Product/Box	Estimated Shipping Weight
Performer Dental Chair	302 lb (137.0 kg)
Performer Delivery System	57 lb (25.9 kg)
A-dec 332/333 Delivery System	88 lb (40.0 kg)
Performer Cuspidor and Support Center	64 lb (29.0 kg)
Performer Assistant's Instrumentation	19 lb (8.6 kg)
A-dec 371L/571/571L Dental Light	35 lb (15.9 kg)
A-dec 372L/572/572L Dental Light	47 lb (21.3 kg)
Performer Monitor Mount	7 lb (3.2 kg)
A-dec 381 Monitor Mount	9 lb (4.1 kg)
A-dec 482 Monitor Mount	11 lb (5.0 kg)

Performer Pre-Installation Guide

Documentation References

### **Documentation References**

Document Title	Part Number
Installation Guides	
A-dec Performer Dental Chair with Delivery System, Dental Light, and Support Center Installation Guide	86.0556.00
A-dec Performer Monitor Mount on an A-dec Performer, 571, 572, 571L, or 572L Dental Light Installation Guide	86.0628.00
Service Guide and Reference	
A-dec Performer Service Guide	86.0606.00
A-dec Performer Service Reference	86.0610.00
Instructions for Use	
Performer Instructions for Use	86.0593.00
Regulatory Information, Specifications, and Warranty	86.0221.00
Templates	
A-dec Performer (Version B) Dental Chair Template	86.0640.00
A-dec Performer (Version B) Dental Chair Mini Template	86.0641.00
A-dec Performer (Version B) Dental Chair Related Modules Template	86.0642.00

#### **Plan Views and Dimensions**



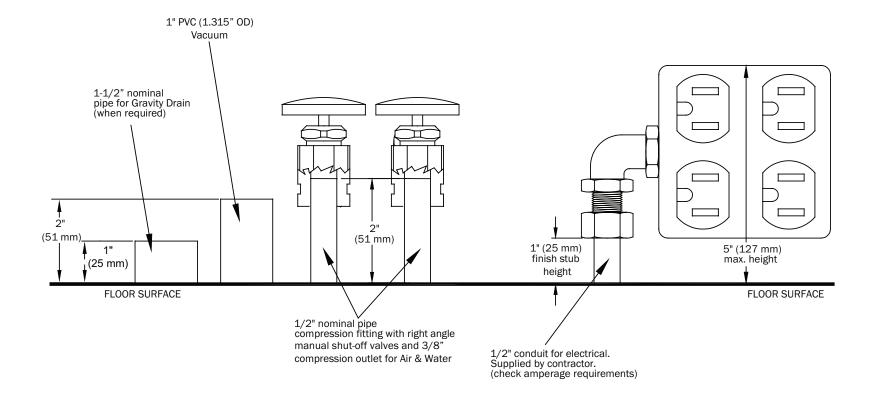
**NOTE** The dimensional drawings in this section are not to scale and are for reference only. For complete accuracy, use the appropriate full-sized templates.

#### **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.

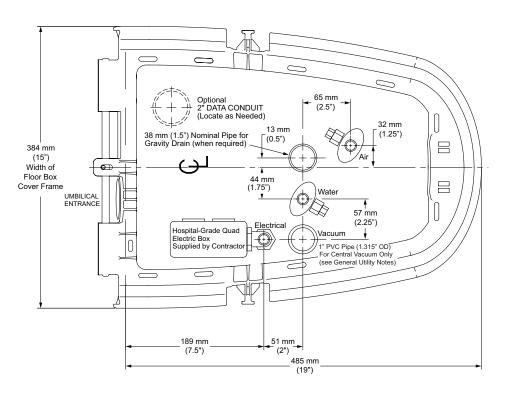
#### **Utility Elevations**



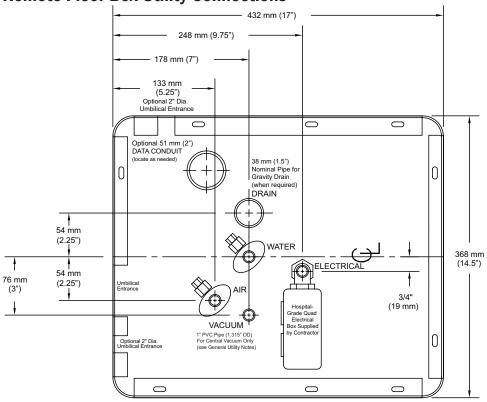


**NOTE** Use only full-scale templates for locating the plumbing and electrical.

#### **Contoured Floor Box Utility Connections**

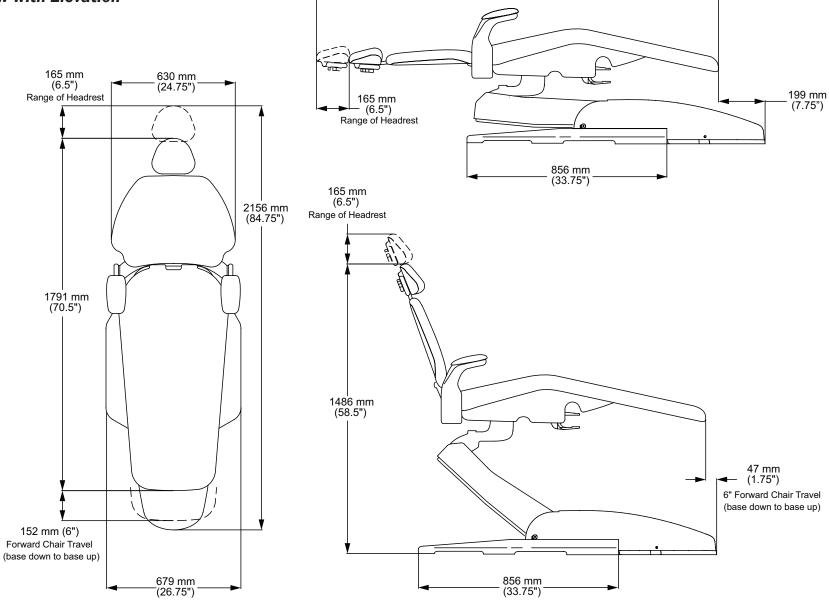


#### **Remote Floor Box Utility Connections**

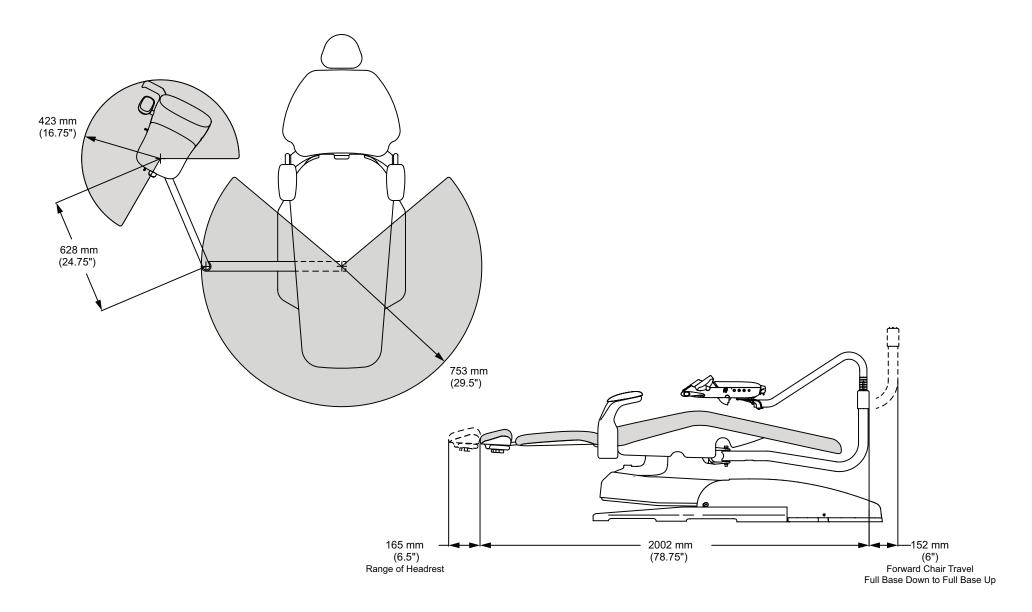


1956 mm (77")

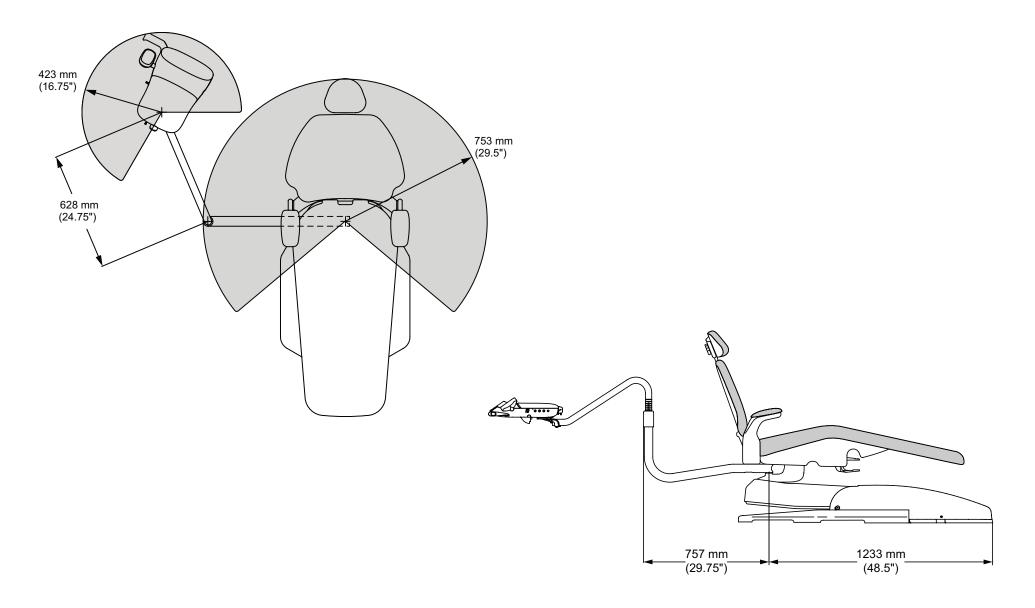
# Performer Dental Chair Plan View with Elevation



#### Performer Front-Mount Delivery System Plan View with Elevation



#### Performer Back-Mount Delivery System Plan View with Elevation

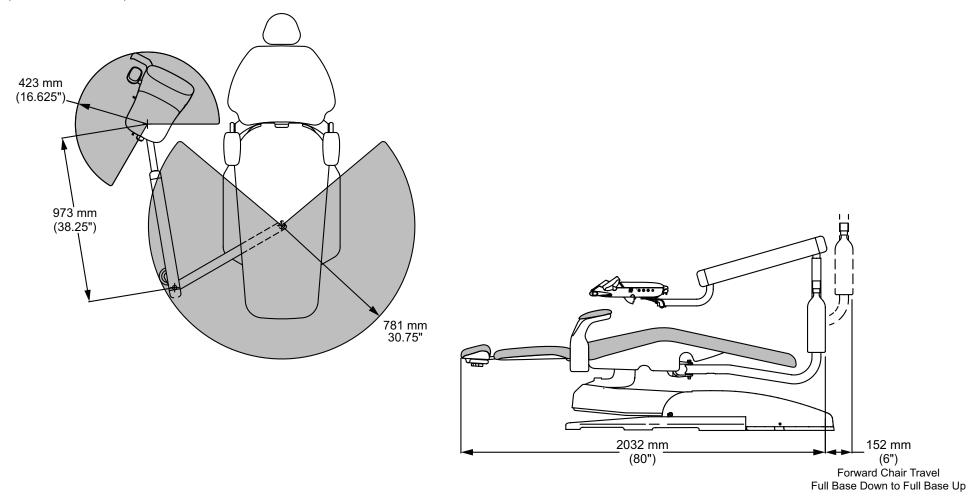


#### Performer with A-dec 332/333 Delivery System Plan View with Elevation



**NOTE** This configuration is not available in all countries.

(A-dec 332 Shown)

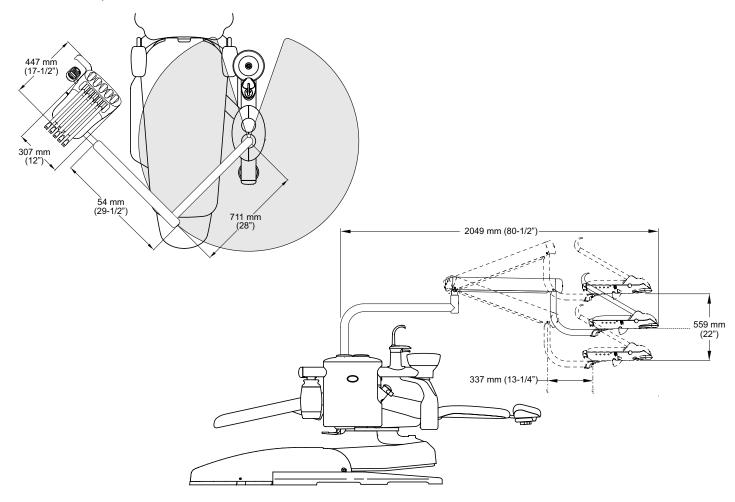


#### Performer with A-dec 334/335 Delivery System Plan View with Elevation

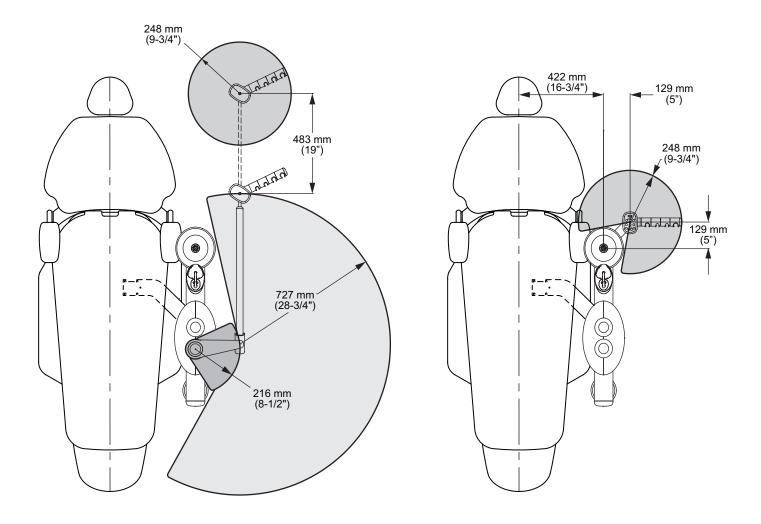


**NOTE** This configuration is not available in all countries.

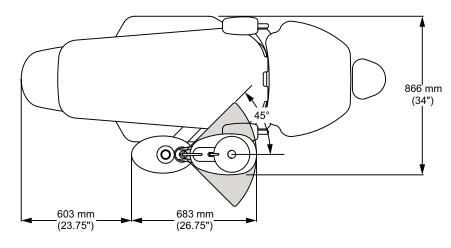
(A-dec 335 Shown)

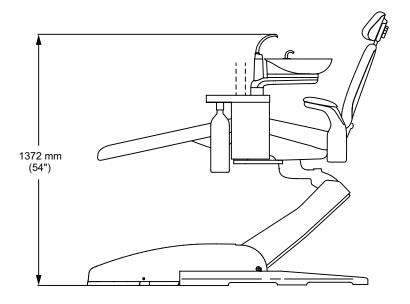


#### Performer with A-dec 352/353 Delivery System Plan View

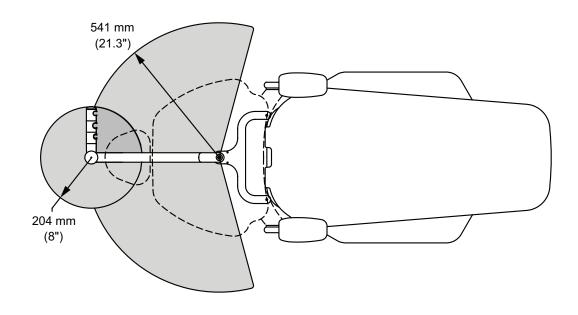


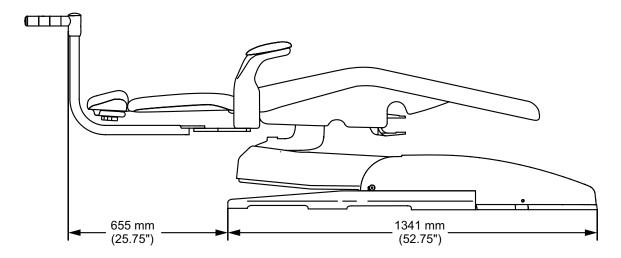
#### Performer Cuspidor and Support Center Plan View with Elevation





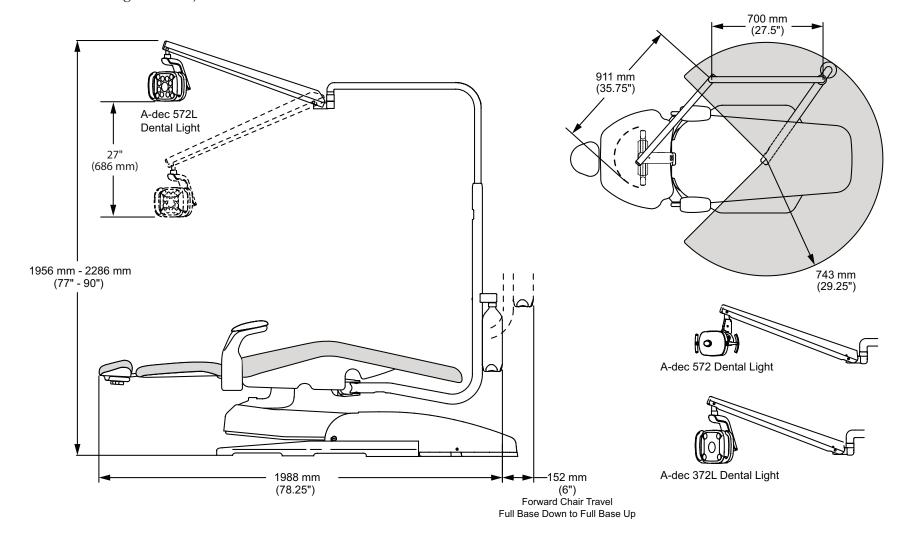
# Performer Assistant's Instrumentation Plan View with Elevation



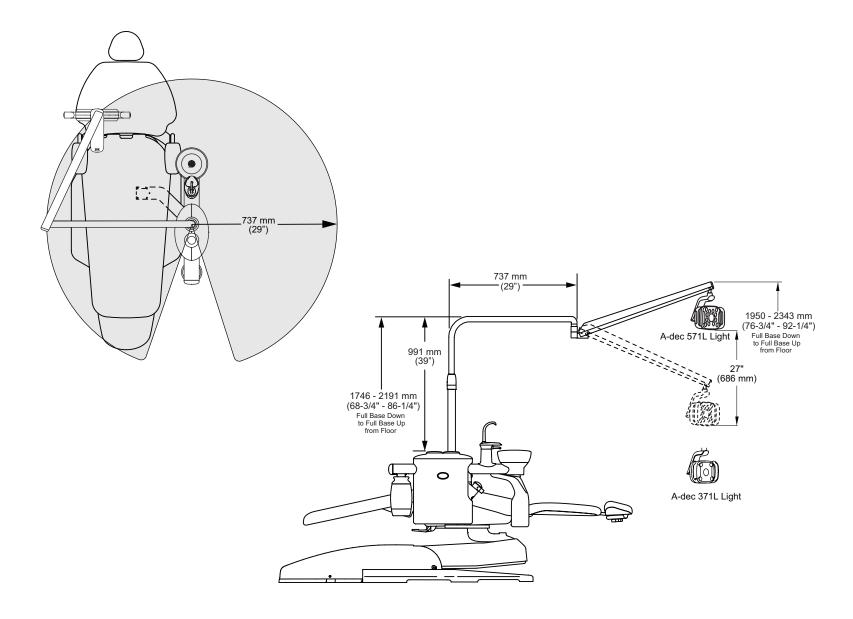


#### Performer with Front-Mount Dental Light Plan View with Elevation

(A-dec 572L Dental Light Shown)

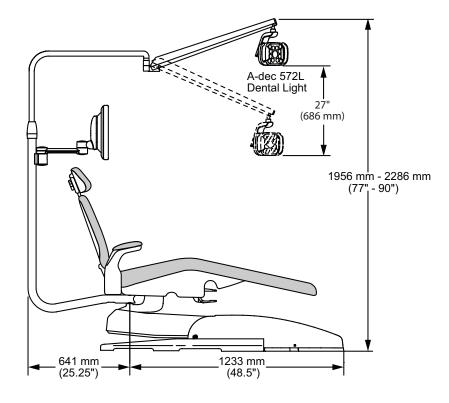


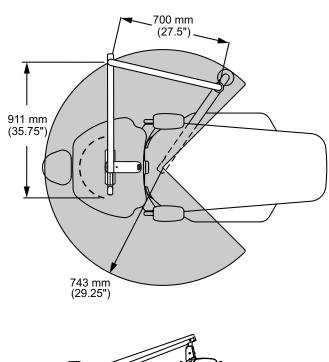
# Performer with 371L/571L Dental Light Plan View with Elevation



#### **Performer with Back-Mount Dental Light Plan View with Elevation**

(A-dec 572L Dental Light Shown)



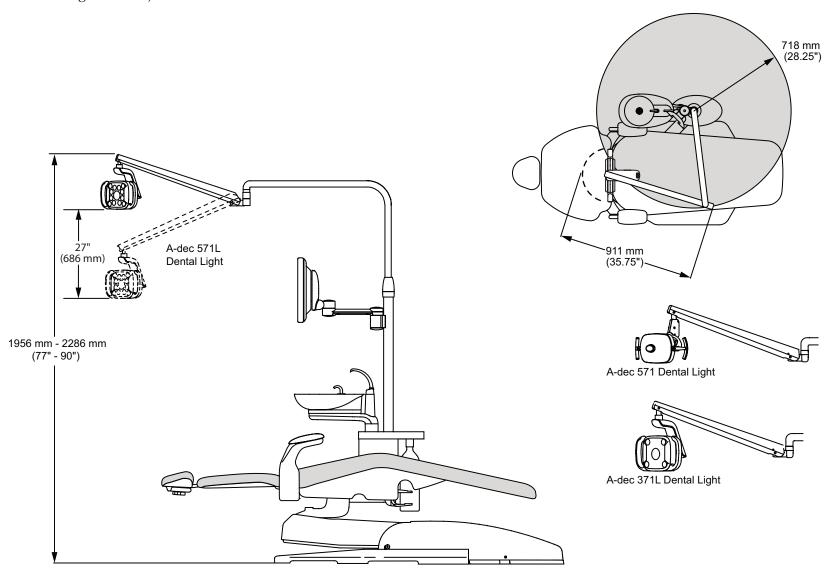






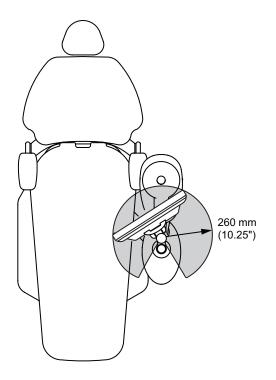
#### Performer with Support Center Mount Dental Light Plan View with Elevation

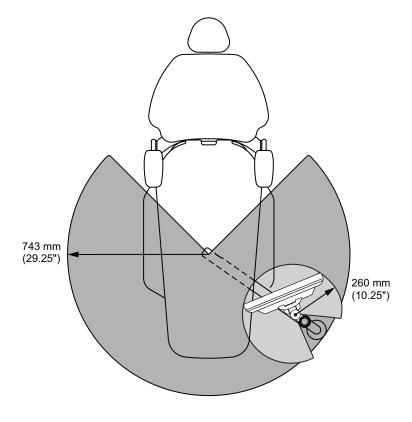
(A-dec 571L Dental Light Shown)



Performer Pre-Installation Guide

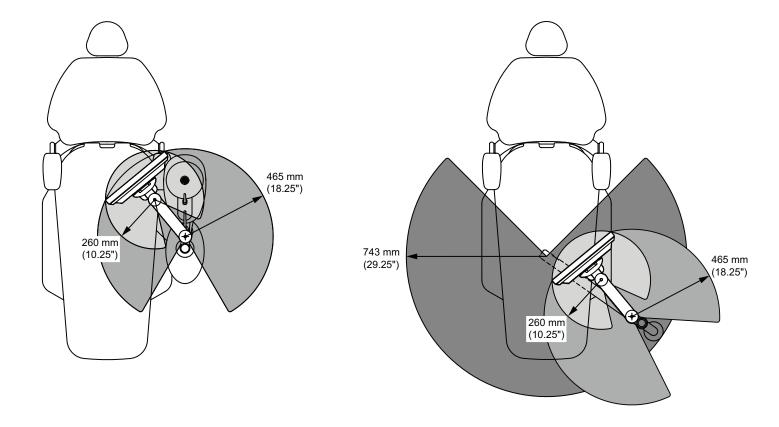
#### Performer/A-dec 381 Monitor Mount Plan View



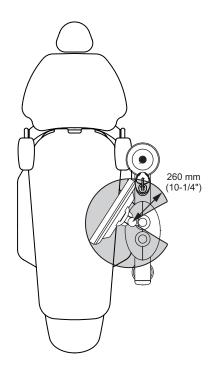


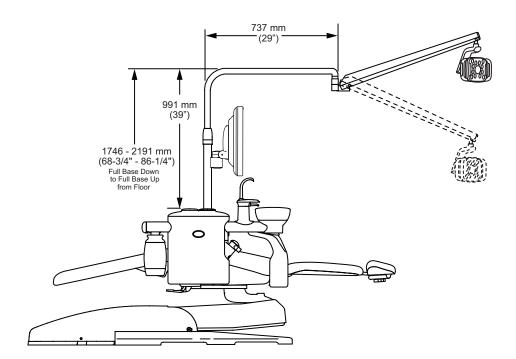
Performer Pre-Installation Guide

#### A-dec 482 Monitor Mount Plan View

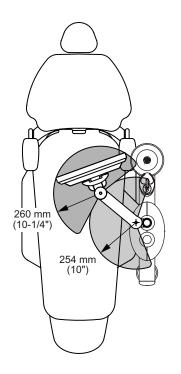


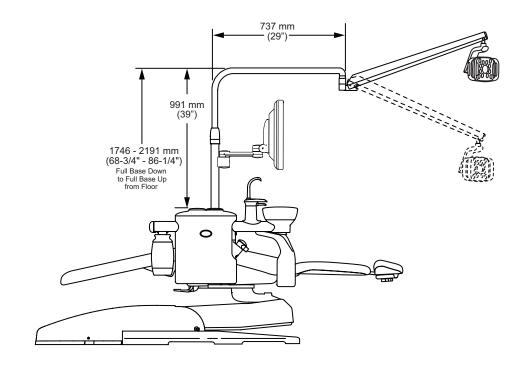
#### Performer 381 Monitor Mount with 362 Support Center Plan View with Elevation





#### Performer 482 Monitor Mount with 362 Support Center Plan View with Elevation









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