

# *Belmont Dental Delivery Systems*

*Installation Instructions:  
Over-The-Patient Units  
(& Cuspidors)*

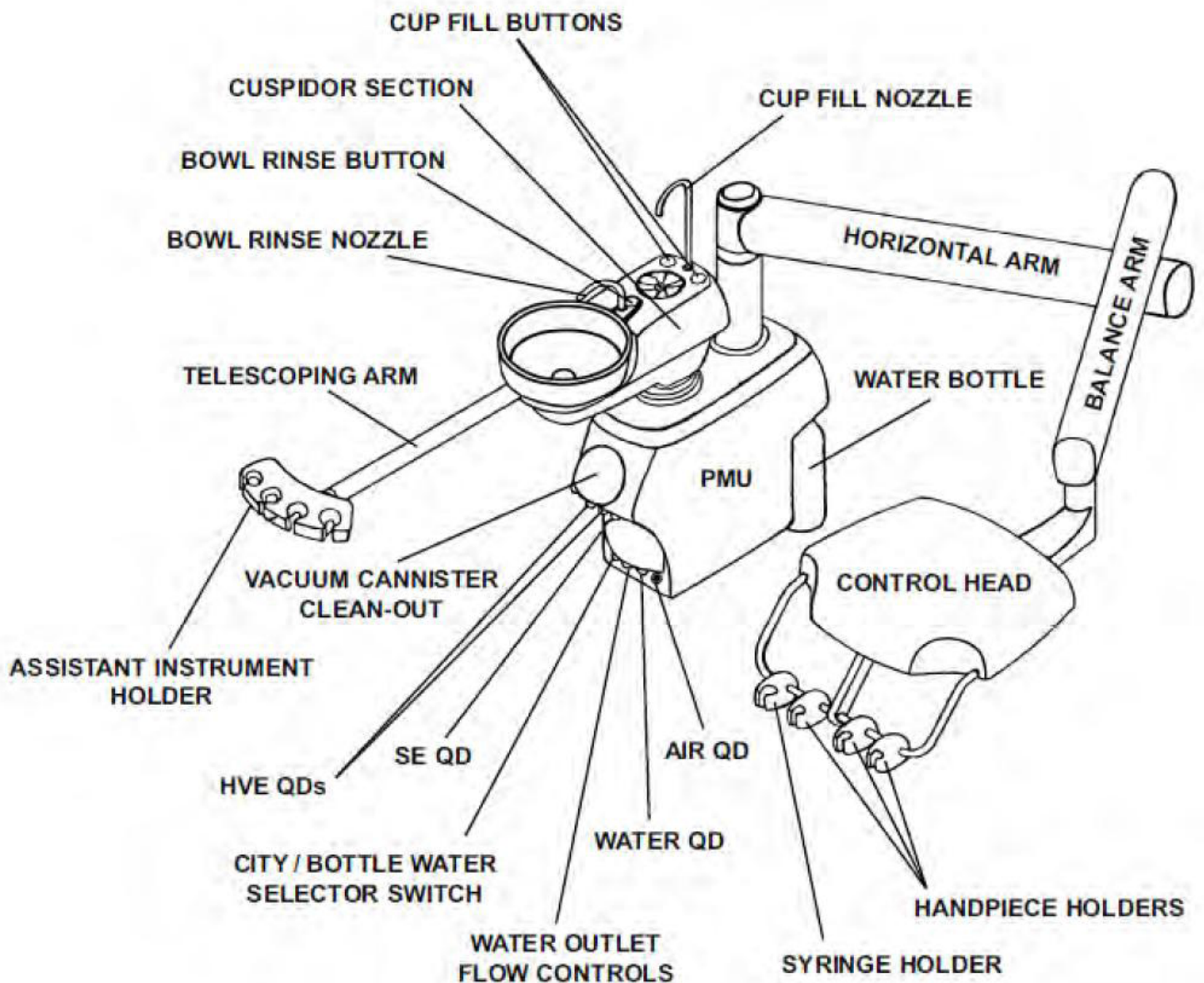
***BDS2500***

***BDS2510***

***BDS2520***

X-Calibur BDS Delivery Systems

## Over-the-Patient Style



*Installation Instructions  
for BDS2500, 2510, 2520  
X-Calibur Dental Units*

<b>2500 Series    Over-the-Patient Units, Chair Mounted Style</b>
---

Installation Time: Approximately 1-1/2 hours

Shipping Packages:

2 Boxes:

1- Doctor Table/Arm Assembly

1- Post Mounted Utilities Section

(3 Boxes: if ordered with BDS2536N Bel-Halo LED, BDS2538N Bel-Nova LED,  
or BDS2537N Clesta LED lights)

Tools Needed:

3mm, 4mm, 6mm, 8mm hex key wrench

13mm socket drive

Adjustable wrench

Flat screwdriver

Phillips head screwdriver

Bubble Level

Mounting The PMU to the Chair

- 1) Attach chair adapter to chair. Use an 8mm hex key wrench to tighten (4) M10 x 35 mm bolts and split ring washers, as shown. All adapter hardware is packed and shipped inside of the chair adapter hub.



*Side Mounted Adapter with Hub, For Attaching  
OTP units and Cuspidors to X-Calibur Series Chairs*

- 2) Insert the unit mounting post inside of the chair adapter hub.  
Position unit mounting post with the large side hole for umbilical feed, facing the backrest of the chair and 2 small holes on side facing away from chair as shown below.



*Unit mounting post insertion into the hub of the chair adapter.*

- 3) Level the unit mounting post by placing a Bubble Level vertically in 2 places (90° apart).  
Use a 4mm hex key wrench to tighten the chair adapter hub setscrews.

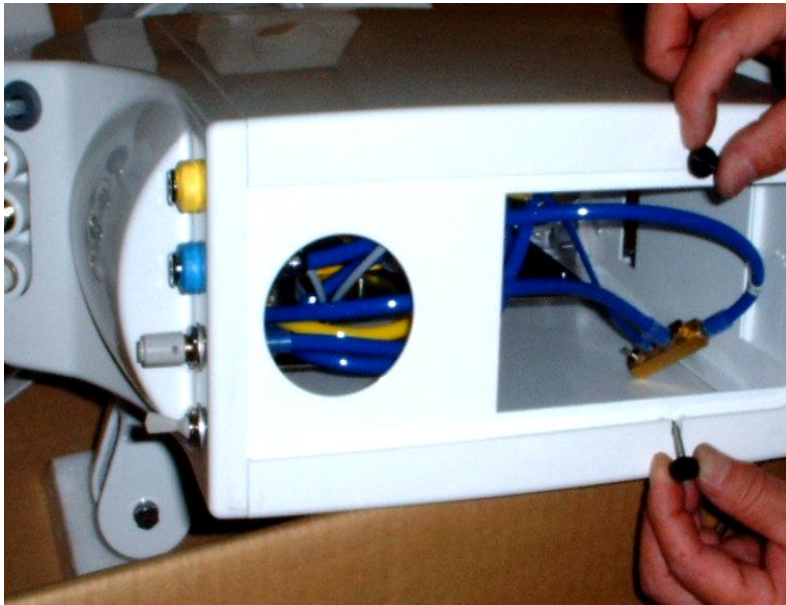


*Leveling the unit mounting post with a Bubble Level.*



*Repeat leveling with Bubble Level placed at 90° to original position, then tighten hub set screws.*

- 4) Remove the 2 thumbscrews from the bottom of the PMU. Remove PMU side cover.



*Removing the thumbscrews from the bottom of the PMU.*

- 5) Loosen PMU mounting clamp bolt with a 6mm hex key wrench, then hang the PMU onto the unit mounting post with the water system end toward the toe end of the chair. Set the PMU at the desired height and re-tighten the clamp bolt with a 6mm hex key wrench.



*Tightening the PMU mounting clamp to the unit mounting post.*

## Mounting The Doctor Table/Arm Assembly to the PMU

**Caution:** Do not remove plastic restraint straps from the arm assembly until after it has been secured to the Unit Mounting Post. The Balance Arm spring is pre-tensioned at the factory. Un-strap the arm assembly carefully to avoid potential physical injury or damage to the dental unit.

- 1) Remove the bag of tubing collars from the end of the touchpad wire harness.



*Removing bag of tubing collars from the umbilical prior to insertion into the PMU*

- 2) Align the two threaded holes at the bottom of the arm assembly with the holes on the unit mounting post. Insert the umbilical from the arm assembly into the top of the unit mounting post. Pull the umbilical through side hole of post inside of the PMU.



*Inserting the upper umbilical from the Dr. Table/ Arm assembly into the top of the unit mounting post.*

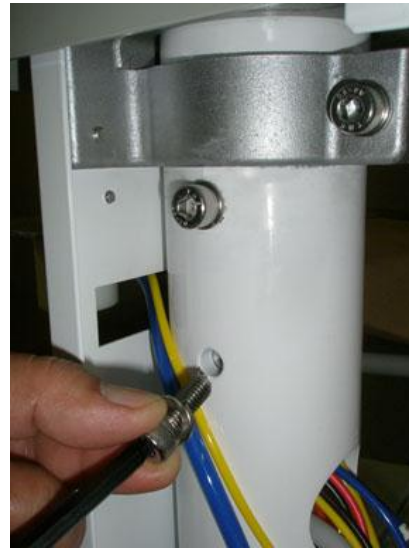


*Pulling the upper umbilical tubing into the PMU.*

- 3) Remove the socket cap screws taped to the top of the water system bracket and insert into the 2 holes on the unit mounting post. Tighten screws using a 6mm hex key wrench. This will fasten the arm assembly to the unit mounting post.



*Socket cap screws are taped to the top of the water system bracket prior to shipment from the factory.*



*Inserting the socket cap screws to secure the arm assembly to the unit mounting post.*

### Attaching the Telescoping Arm Assembly to the PMU

- 1) Remove the Pivot Pin by loosening the (2) setscrews in the assistant rotation bracket with a 3mm hex key wrench.



*The assistant Rotation Bracket is shipped with the Pivot Pin retained by (2) setscrews.*



*Remove the Pivot Pin by loosening the (2) setscrews with a 3mm key wrench.*

- 2) Insert Pivot Pin into pivot hole on telescoping arm assembly.



- 3) Re-insert Pivot Pin/Telescoping arm assembly into the bottom of the rotation yoke and re-tighten (2) setscrews with 3mm hex key wrench.



*The telescoping arm assembly attached to the PMU section*

## Connecting the J-Box, Umbilical, and Doctor Table Arm Assembly.

- 1) The lower umbilical end is shipped from the factory with the Foot Control, Air Assembly and Water Assembly pre-connected, as shown below. Remove the entire assembly from the shipping box and place the frame over the floor utilities location for the J-Box.

**Note:** Consult Floor Template supplied with each delivery system.  
It is the dealer's responsibility to install the delivery system in accordance with all state and local codes.



*The lower end of the umbilical is connected to the air/water assemblies, foot control and J-Box frame at the factory.*

- 2) Connect angle stop/manual shut-off valves to the air and water feed pipes in the floor. Purge air and water feed pipes to eliminate all residual matter prior to connecting the umbilical air/water assemblies to angle stops/manual shut-off valves.

- 3) Snap the upper umbilical collar into the circular hole in the bottom of the PMU.



*Upper umbilical snaps into the bottom of the PMU frame.*

- 4) Connect tubing from the upper Umbilical inside of the PMU with tubing from the Doctor Table/ Arm Assembly. Connect tubing by matching numbered tags on tubing or simply match by tubing color. (Refer to Schematic Flow Diagrams)
- 5) Attach gravity drain (cuspidor models) and vacuum canister (models with assistant instruments) to floor plumbing. Attach electric lines from umbilical, as required.
- 6) Test the system and verify that there is no air or water leakage and that the unit is fully functional prior to replacing the PMU side cover and thumb screws.
- 7) Place J-Box cover over frame and fasten with the (4) 10-32 screws provided.



**BELMONT EQUIPMENT**  
101 Belmont Drive  
Somerset, NJ 08873-1204  
Phone: (800) 223-1192 • Fax: (732) 356-1035  
[www.belmontequip.com](http://www.belmontequip.com)