

# *Belmont Dental Delivery Systems*

*Installation Instructions:  
Side Delivery Units*

# *BDS-2555*

X-Calibur™ Units



*Installation Instructions  
for BDS-2555  
X-Calibur Dental Units*

7-18-06

**BDS Side-Delivery Unit**

Installation Time: Approximately 1 hour

Shipping Packages:

1 Carton:

1- Doctor Table/Arm Assembly with Mounting Bracket

Tools Needed:

Metric and Inch Hex Key Wrench Set

Inch Box Wrench set

Phillips head screwdriver

Bubble Level

Wire cutter or knife

Masking Tape

(Silicone Spray Lube)

- 1) Open shipping carton and remove plastic bag with tubing collars tied to the end of the umbilical.
- 2) Remove Mounting Bracket with Leveling Plate and attachment hardware from cardboard accessory enclosure.
- 3) Using a 5mm hex key wrench, insert (3) M10 x 20 Leveling Set-Screws into Mounting Bracket.



*Insert (3) M10 x 20 setscrews into the Mounting Bracket using a 5mm hex key wrench*

4) Attaching Mounting Bracket

- a. If you are attaching the BDS-2555 to a Doctor's Side Cabinet (D-1 or A-1 Cabinet)
- b. If you are attaching the BDS-2555 to a Center Island Console (D-4 or A-4 Cabinet)
- c. If you are attaching the BDS-2555 to a Wall (Use BDS-2557 Wall Mounting Board)

Insert (4) 3/8-16 x 2" Socket Cap Mounting Bolts with Split Ring Washers through holes in Mounting Bracket and steel Leveling Plate.

(The steel leveling plate protects cabinetry wall from damage by eliminating contact between leveling setscrews and the cabinet wall or wall mounting board.)



**a. Attaching BDS-2555 Side Delivery Unit to a Doctor's Side Cabinet (D-1 or A-1 Cabinet)**

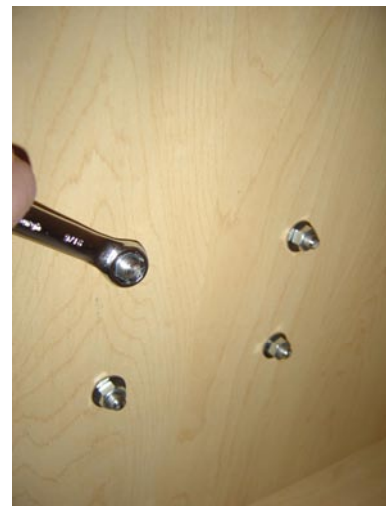
Remove sink compartment doors from the cabinet.

Remove floor utilities access cover panel from bottom of the sink compartment.

Attach Mounting Bracket to cabinet by inserting (4) Mounting Bolts with Spring Washers through the bracket and through the holes in the cabinetry wall.

Place (4) Flat Washers over bolts on the inside wall of the cabinet, followed by the 3/8 Hex Nuts.

Place bubble level on top surface of the Mounting Bracket and use a 5mm hex key wrench to adjust set screws for leveling Mounting Bracket.



Using a 5/16 hex key wrench on the mounting bolts and a 9/16 box wrench on the hex nuts inside of the cabinet, tighten Mounting Bracket to cabinet.

**b. Attaching a BDS-2555 Side Delivery unit to a Center Island Console (D-4 or A-4 Cabinet)**

Remove floor utilities access panel from side of cabinet before installation.



Attach Mounting Bracket by inserting (4) Mounting bolts with Spring Washers through the bracket and steel Leveling Plate, and into the threaded steel plate inside of cabinet.



Place bubble level on top surface of Mounting Bracket and use a 5mm hex key wrench to adjust set screws for leveling Mounting Bracket.

Using a 5/16 hex key wrench, tighten mounting bolts and Mounting Bracket to cabinet.

**c. Attaching a BDS-2555 Side Delivery unit to a Wall Mounting Board**  
(Order BDS2557 Wall Mounting Board)

Attach Mounting Bracket with Leveling Plate to pre-installed BDS2557 Wall Mounting Board using mounting bolts and spring washers against the Mounting Bracket. Place bubble level on flat surface of Mounting Bracket and use a 5mm hex key wrench to level Mounting Bracket against the Leveling Plate/ Wall Mounting Board. Gradually tighten mounting bolts using a 5/16 hex key wrench.

**BDS2557 WALL-MOUNT PLATE INSTALLATION**  
**(FOR BDS-2555, CABINET MOUNTED SIDE DELIVERY)**

**TOOLS REQUIRED:** HAND DRILL, 5/32" DIAMETER DRILL BIT, 1/2" WRENCH, 7/32" HEX KEY, AND LUBRICANT FOR LAG-SCREWS (SOAP WORKS WELL).

**MATERIALS REQUIRED (ALL PROVIDED):** 1-BDS2557 WALL MOUNT, 4-5/16" FLAT WASHERS, 4-5/16"X 3"L LAG SCREWS, 4- 3/8"-16 X 1 1/4" BUTTON HEAD SCREWS, 4- 3/8" FLAT WASHERS.

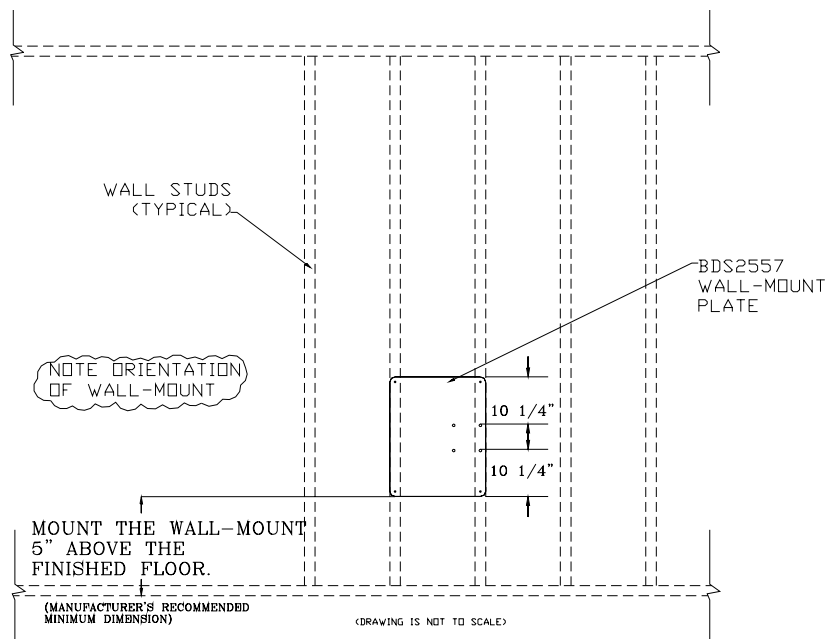
**INSTRUCTIONS FOR A WOODEN STUD WALL CONSTRUCTION:**

- 1) LOCATE THE WALL STUDS IN THE AREA YOU WANT THE WALL-MOUNT PLATE, AND MARK THE CENTER OF THE TWO STUDS ONTO WHICH YOU WILL ATTACH THE WALL-MOUNT PLATE.
- 2) WITH A PENCIL, DRAW A HORIZONTAL LINE 5" ABOVE THE FINISHED FLOOR (USE A LEVEL TO ENSURE PROPER INSTALLATION). ALIGN THE BDS2557 WALL-MOUNT'S BOTTOM EDGE WITH THIS LINE, AND POSITION THE WALL-MOUNT SO THE LAG-SCREW HOLES ARE CENTERED UPON THE WALL STUDS. (SEE THE **SKETCH BELOW** FOR PROPER ORIENTATION)
- 3) WITH A PENCIL, TRANSFER THE FOUR SCREW HOLE LOCATIONS TO THE WALL.
- 4) PRE-DRILL THESE HOLES WITH THE 5/32" DIAMETER DRILL.
- 5) LUBRICATE THE FOUR LAG-SCREWS WITH LUBRICANT (SOAP MAY BE USED).
- 6) POSITION THE WALL-MOUNT PLATE AS SHOWN IN THE **SKETCH BELOW**, AND FASTEN THE PLATE TO THE WALL WITH THE PROVIDED LAG-SCREWS (USE THE 5/16" FLAT WASHERS WITH THE LAG-SCREWS).

**INSTRUCTIONS FOR METAL STUD WALL CONSTRUCTION:**

**NOTE: METAL STUDS WILL NOT ADEQUATELY SECURE THE WALL-MOUNT. THE WALL WILL NEED TO BE STRENGTHENED WITH WOOD FRAMING BEFORE INSTALLATION CAN PROCEED.**

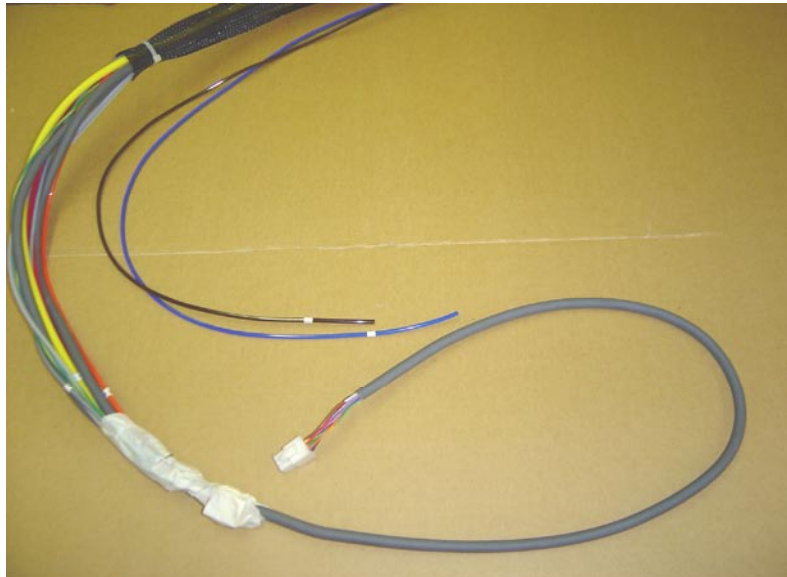
**\*\*THE PROVIDED LAG BOLTS NEED TO BE SCREWED INTO WOODEN FRAMING\*\***



5) Separate 1/8" O.D. brown (#7) and 1/8" O.D. blue (#2) tubing from the main umbilical bundle.



6) Tape the end of the umbilical tubing with masking tape and also tape touchpad wire harness to the umbilical tubing, as shown below.



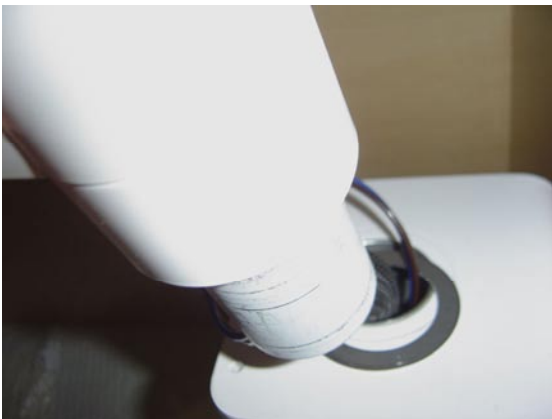
7) Spray umbilical lightly with Silicone spray lubricant.



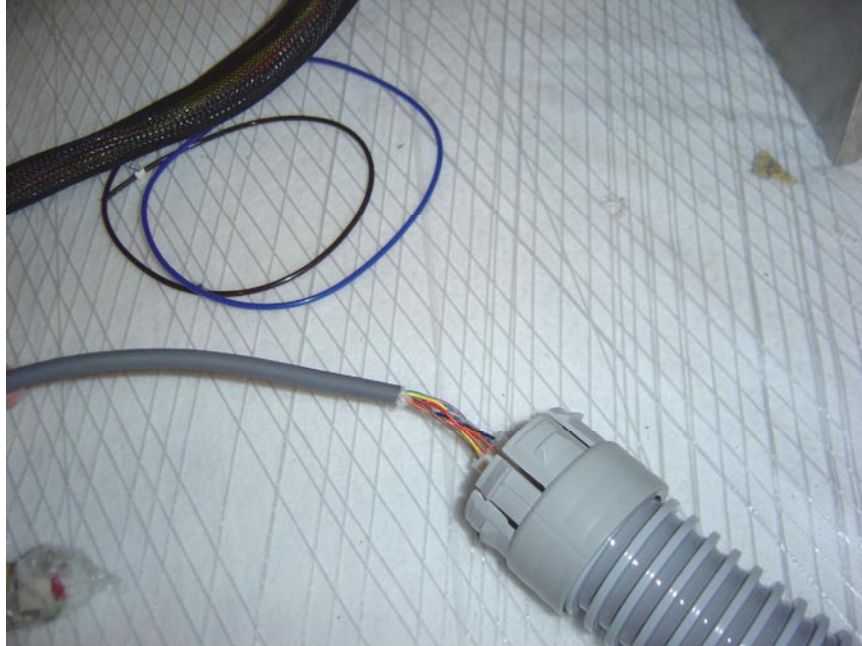
- 8) Route the main umbilical down through top of mounting bracket and out of the bottom of the Hub. Feed  $\frac{1}{8}$ " O.D brown tubing (# 7) and  $\frac{1}{8}$ " O.D. blue tubing (#2) down through top of mounting bracket and out through  $\frac{1}{2}$ " dia. hole on the side of the unit mounting hub, as shown below. These 2 tubes will be attached to the bottled water system in a later step.



Mount the unit arm with thrust washer onto the top of the Mounting Bracket.



- 9) Insert umbilical through end of Duct Hose with the plastic collar, as shown below.  
NOTE: The 1/8" O.D. brown & blue tubing remain outside of the Duct Hose.



- 10) Duct Hose Collar attaches to the Hub on the underside of the Mounting Bracket.  
Note: 1/8" brown and blue tubing are not inserted into the Duct Hose, as shown.  
These lines exit through the side hole of the Hub for attachment to Bottled Water System.



Insert umbilical tubing through access hole in the cabinet and into the floor utility compartment.  
Remove Masking Tape (applied in step 7) from umbilical tubing end.

- 11) Screw the open end of umbilical Duct Hose into access hole in cabinetry wall, as shown below.  
(If mounting side delivery onto a wall mounting board, feed umbilical through access hole in wall provided by contractor, or attach to a J-Box.)

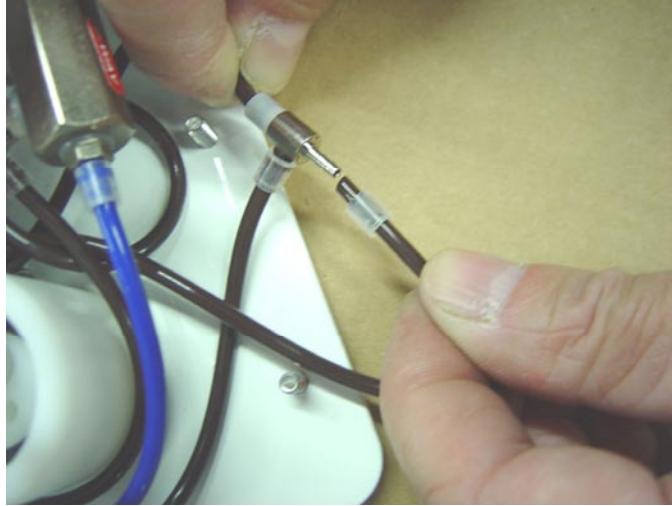


- 12) Connect Duct Hose collar to Umbilical Mounting Hub.

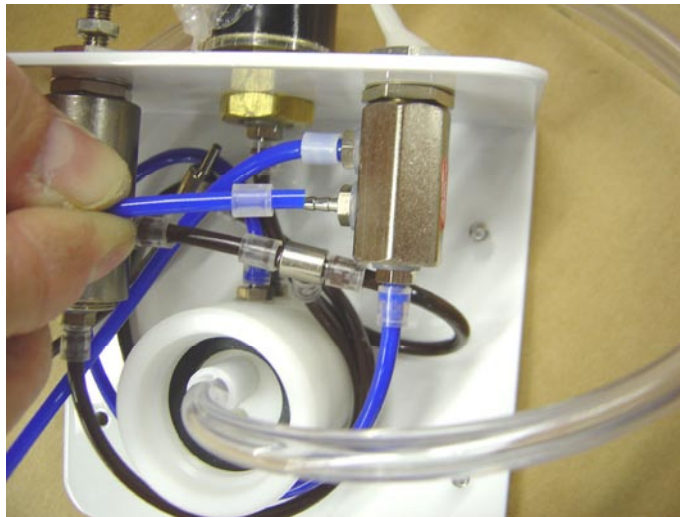


- 13) Using wire cutters or a utility knife, trim  $\frac{1}{8}$ " brown and  $\frac{1}{8}$ " blue tubing to desired length for connection to Bottled Water System Assembly.

Connect  $\frac{1}{8}$ " brown line to Tee Fitting and secure with a tubing collar.



Connect  $\frac{1}{8}$ " blue tubing to the Routing Valve and secure with a tubing collar.



- 14) Using a Phillips screw driver, attach Bottled Water System Mounting Bracket to the Unit Mounting Bracket with the (2) M4 x 12 screws provided.



15) Attach water bottle



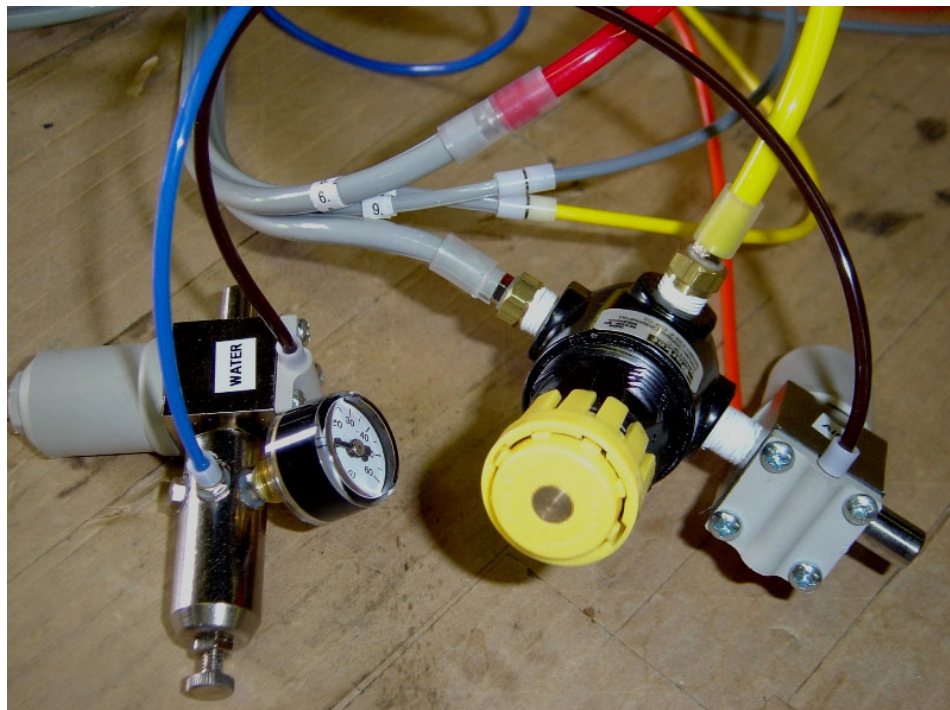
16) Attach Manual Shut-off valves (Angle Stops) to incoming supply air and water lines. Purge lines.

17) Connect Foot Control and unit umbilical to the automatic valve/filter/regulator assembly for AIR:

- a)  $\frac{1}{8}$ " O.D. orange tube (#8) from umbilical to barb on the side of the automatic valve
- b)  $\frac{1}{4}$ " O.D. yellow tube (#10) from umbilical to barb on the air regulator
- c)  $\frac{1}{8}$ " O.D. yellow tube (#5) from umbilical to foot control tubing
- d)  $\frac{1}{8}$ " O.D. grey tube (#9.) from umbilical to foot control tubing
- e)  $\frac{1}{4}$ " O.D. red tube (#6.) from umbilical to foot control tubing
- f) Connect remaining foot control tube to  $\frac{1}{4}$ " barb on the air regulator

18) Connect unit umbilical to the automatic valve/filter/regulator assembly for WATER:

- a)  $\frac{1}{8}$ " O.D. blue tube (#2) from bottled water system assembly to barb on the water regulator



- 19) Connect 1/8" brown line (#7) from bottled water system assembly to tee fitting that connects with both the AIR and WATER assemblies.
- 20) Connect AIR & WATER assemblies to air and water Manual Shut off valves.
- 21) Open Manual Shut off valves and set floor utility air pressure to 80psi (lock air pressure setting by pushing yellow knob down) and water pressure to 40psi (lock water pressure setting by tightening hex nut).
- 22) Set air pressure on bottled water system to 35-40 psi and lock setting by tightening hex nut.
- 23) Verify that there are no air or water leaks in the Delivery System connections.
- 24) Replace floor utility access panel and if installed on a side cabinet, reattach doors to the cabinet.





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