NLZ E RETROFIT KIT
FOR A DCI EDGE DELIVERY SYSTEM
Installation Instructions
INTRODUCTION

BEFORE YOU BEGIN

Verify that the product you have received is the correct one for mounting to your intended DCI Edge delivery unit.

Review the applicable section of this booklet and check to ensure that you have the correct tools needed to perform the installation as shown in the “Tools Needed” section.

Ensure that all parts are present as shown in the “Included Tools” and “Included Parts” sections.

SYMBOLS USED IN THIS MANUAL

The following symbols may be used throughout this product manual:

WARNING: Failure to carefully follow the described procedure may result in damage to the equipment or the operator.

CAUTION: Failure to carefully follow the described procedure may result in damage to the equipment.

NOTE: Take note of additional important information. Not a warning or caution.

ELECTRICAL HAZARD: Risk of electrical shock present. Ensure that power is disconnected before attempting procedure.

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REGULATORY INFORMATION

Regulatory information is delivered with DCI Edge dental equipment as mandated by agency requirements and can be found in the accompanying Instructions for Use for this device.
RETROFIT TO SERIES 5 DELIVERY

TOOLS NEEDED FOR INSTALLATION

#2 Philips head screw driver
Small cutting pliers
Sleeve pusher
Allen wrench set, imperial

INCLUDED TOOLS

Drill guide (see right)
3/16” drill bit
9/16” to 1” Step Bit

INCLUDED PARTS

Device tray w/ motor control box & terminal strip
DCI / NSK Display Assembly
Micromotor cord
NLZ E micromotor
1 ft 4 hole tubing with terminal and nut
Holder bar with holders
3 - 6-32 x 3/8” long machine screws

PREPARATION

1. Read the entire section of this manual that pertains to the Series 5 delivery.

2. Identify the drill guide included in this kit (shown above right).

3. Remove the top cover to access the internals of the delivery head.

4. Remove the 3 screws securing the snout cover to the chassis on the underside of the snout. Remove the snout by lifting the nose and pulling forward (shown right).
RETROFIT TO SERIES 5 DELIVERY

### REMOVE PARTS

1. Remove the bracket and terminal strip assembly from the back end of the delivery head and disconnect the 8-conductor wire harness from the terminal strip.

2. Disconnect the signal tubing from the autoblock and the distribution block and then pull the tubing through the slot in the snout.

3. Remove the 2 screws which attach the tubing managers.

4. Disconnect the syringe tubing from the syringe block and remove the syringe block.

### DRILL HOLES

5. Using a step drill or 1” drill bit, enlarge the 2nd egress hole to a 1” diameter.

6. Insert the drill guide to the back side of the snout block as shown.

7. Using a 3/16” drill bit, add the two holes located on the drill guide. Ensure signal tubing is clear of the drill bit.
INSTALL

1. Place the device tray in position with the 2 tabs aligned with the holes in the chassis (right) and use a Philips head screw driver to attach the screws.

2. Re-attach the harness to the new terminal strip located on the device tray, following the wiring diagram.

3. Reinstall syringe block and reconnect syringe tubing through the 1st egress hole as shown.

BAR AND HOLDERS

4. Replace the new holder bar with the one included in this kit which is longer to accommodate more than 4 instrument holders. Do so by removing the 4 additional screws on the bottom of the snout as shown in the illustration on page 4.

5. Connect the signal tubings to the autoblock and distribution block.
ATTACH DISPLAY

Assemble the NSK display to the snout using the 3 included #6 machine screws.

Underside of snout on head chassis

ATTACH USING 3 SCREWS
**MAKE CONNECTIONS**

1. Route the display cable between the motor control box and the display as shown below.

2. Route the motor cord through the 1” hole that you have drilled. Use cutting pliers to create a split in the 1” rubber grommet. Add the grommet onto the cord and plug it in to fill the 1” hole. Connect the motor cord to the motor control box.

3. Connect the 4 hole tubing with terminal nut included in this kit to the motor control box and then make connections to the auto-block and the water combo valve as shown.
RETROFIT TO SERIES 4 DELIVERY

TOOLS NEEDED FOR INSTALLATION

- #2 Philips head screw driver
- Small cutting pliers
- Sleeve pusher
- Tubing stringer

INCLUDED PARTS

- Bracket w/ motor control box & display assembly
- Micromotor cord
- NLZ E micromotor
- 2 ft 4 hole tubing with terminal and nut
- 2 - 10-32 x 1/2” long machine screws
- 2 - #10 lock washers
- 2 - 10-32 nuts

PREPARATION

1. Read the entire section of this manual that pertains to the Series 4 delivery.

2. Open the top cover of the delivery head by removing the screw on the underside of the head just left of the snout.
MOUNTING TO THE DELIVERY

1. Assemble the display and control box assembly to the underside of the control head using the included hardware:
   - 2 - 10-32 x 1/2" screws
   - 2 - #10 lock washers
   - 2 - 10-32 nuts
   Attach through the 2 small holes on the right side of the control head as shown (right).

2. Connect the 4 hole tubing with terminal and nut (included) to the motor control box and route through the large hole in the bottom of the chassis adjacent to the mounting holes.

3. Attach the motor cord to the motor control box and hang the micromotor in the right-most holder.

4. Connect the 4 hole tubing to the auto-block and the water combo valve according to the below diagrams.

   AUTO-BLOCK CONNECTIONS
   WATER COMBO VALVE
   4 HOLE TERMINAL DIAGRAM

   DRIVE AIR
   AIR COOLANT
   WATER COOLANT
   WATER COOLANT
   EXHAUST
   DRIVE AIR

5. Place the included NSK power supply in the j-box of the chair and route the power cable up through the chair and through the arms to the control head. Continue to route the cable through the large hole in the chassis and connect to the female connector on the bottom of the motor control box.
RETROFIT TO 12 O’CLOCK MOBILE DELIVERY

TOOLS NEEDED FOR INSTALLATION

#2 Philips head screw driver
Small cutting pliers
Sleeve pusher
Tape
Hammer

INCLUDED TOOLS

23/64” drill bit and stop collar
2 part epoxy

INCLUDED PARTS

Bracket w/ motor control box & display assembly
Micromotor cord
NLZ E micromotor
2 -#10-32 x 3/8” long machine screws
2 - #10 lock washers
2.5 ft 4 hole tubing with terminal and nut
2 10-32 inserts

PREPARATION

1. Read the entire section of this manual that pertains to the 12 o’clock mobile delivery.

ADD INSERTS

1. If the underside of the mobile work surface does not have inserts for mounting the NSK bracket, remove the 12 O’clock Delivery Template on page 17, align it according to the instructions, and use tape to secure it.

2. Use the 23/64” drill bit and bit stop to drill 2 holes to a 3/4” depth according to the template.

3. Apply 2 part epoxy to the holes.

4. Using a mallet or hammer, drive the inserts into the holes with the serrated end nearest the opening.

CAUTION: When drilling holes in the work surface, be careful not to exceed a depth of 3/4”. Doing so may cause visual damage to the top side of the work surface.

CAUTION: When applying epoxy, only apply small amount that is sufficient to coat the outside surface of the threaded insert. Otherwise, epoxy may fill into the inserts and hinder the insertion of the screws.
**RETROFIT TO 12 O’CLOCK MOBILE DELIVERY**

**MOUNTING TO THE DELIVERY**

1. Assemble the display and control box assembly to the threaded inserts on the underside of the work surface using the included hardware:
   - 2 - 10-32 x 1/2” screws
   - 2 - #10 lock washers

**MAKE CONNECTIONS**

2. Connect the motor cord to the motor control box and hang the cord in the 2nd holder from the left (HP position 1).

3. Remove the rubber grommet that is 2nd from the left from the tubing management comb that is positioned behind the holders. Use cutting pliers to split the grommet and then attach it to the motor cord. Then insert the motor cord with grommet back into the comb, ensuring that there is adequate reach for the motor cord to the head of the patient chair. Avoid setting a cord length that would allow the motor cord to drag on the floor.

4. Connect the 4 hole tubing with terminal and nut included in this kit to the motor control box as shown and route into the back of the unit drawer.

5. Connect the individual lines from the 4 hole tubing to the auto-block and the water combo valve according to the below diagrams.

6. Place the included power supply in the sub-base of the cabinet and route the power cable through the arms to the motor control box. Insert the connector of the power cable into the corresponding female connector on the motor control box.
RETROFIT TO UNDER COUNTER DELIVERY

TOOLS NEEDED FOR INSTALLATION

- #2 Philips head screw driver
- Small cutting pliers
- Sleeve pusher
- Drill bit lubricant

INCLUDED TOOLS

- #21 Pre-drill bit
- 10-32 Tap

INCLUDED PARTS

- Bracket w/ motor control box
- Bracket w/ display assembly
- Micromotor cord
- NLZ E micromotor
- 2.5 ft 4 hole tubing with terminal and nut
- 3 - #10 3/8" long machine screws
- 3 - #10 lock washers
- Adhesive-backed cable manager

PREPARATION

1. Read the entire section of this manual that pertains to the 12 O’Clock Under Counter Delivery units which comprise DR40-- series (slideout deliveries) and the DR 41-- series (fixed mount deliveries).

2. Remove the fixed mount unit from the mount by unscrewing the unit from the countertop, or remove the slideout unit by releasing the black lever on each drawer slide to allow the drawer slides to separate.

3. Remove the Under Counter Delivery Template on page 16, align it according to the instructions, and use tape to secure it.

4. Using the provided #21 drill bit, pre-drill 2 holes as indicated on the template. Use a tap handle with the provided 10-32 tap to form the threads. Use drill bit lubricant to reduce the possibility of breaking the bit or tap.
RETROFIT TO 12 O’CLOCK UNDER COUNTER DELIVERY

MOUNTING TO THE DELIVERY

1. Assemble the control box and bracket assembly to the newly drilled and tapped holes using the included hardware:
   - 2 - 10-32 x 3/8” screws
   - 2 - #10 lock washers

2. Assemble the display and bracket assembly to the 3 tapped holes at on the underside of the unit drawer near the front using the included hardware:
   - 3 - 10-32 x 1/2” screws
   - 3 - #10 lock washers

3. Apply the included adhesive-backed cable manager to support the display cable under the unit drawer. Ensure that there is sufficient slack between the motor control box and the cable manager to allow the unit drawer to be pulled out for servicing the unit.

4. Reinstall the unit onto the drawer slide for a slideout delivery or screw back up to the underside of the countertop in the case of a fixed mount delivery.
RETROFIT TO UNDER COUNTER DELIVERY

MAKE CONNECTIONS

1. Connect the motor cord to the motor control box and insert into the holder for handpiece position 1 next to the syringe.

2. Connect the 4 hole tubing with terminal and nut included in this kit to the motor control box as shown and route into the back of the unit drawer.

3. Remove the screw holding the unit drawer in place on the bottom of the drawer. Slide the drawer forward to access the internal components. Connect the individual lines from the 4 hole tubing to the auto-block and the water combo valve according to the below diagrams.

4. Slide the unit drawer back into place and replace the screw to secure the unit drawer closed.

5. Place the included power supply in the sub-base of the cabinet and route the power cable to the motor control box. Insert the connector of the power cable into the corresponding female connector on the motor control box.
UNDER COUNTER DELIVERY TEMPLATE
UNDERSIDE OF DRAWER SLIDE MOUNT

LEFT SIDE WALL OF BLACK DRAWER SLIDE MOUNT PLATE

DRILL AND TAP 2 HOLES USING A #21 TAP DRILL AND A 10-32 TAP

BACK EDGE OF BLACK DRAWER SLIDE MOUNT PLATE
Tape this template to the underside of the countertop on the left hand side of the unit drawer for a right-handed application.

- Drill 2 holes
- 23/64” drill bit
- 3/4 inch depth

Dimensions:
- 4.84"
- 0.60" - 0.71"

Locations:
- Back corner of drawer
- Side of drawer (fold along this line)
- Bottom edge of mobile work surface