

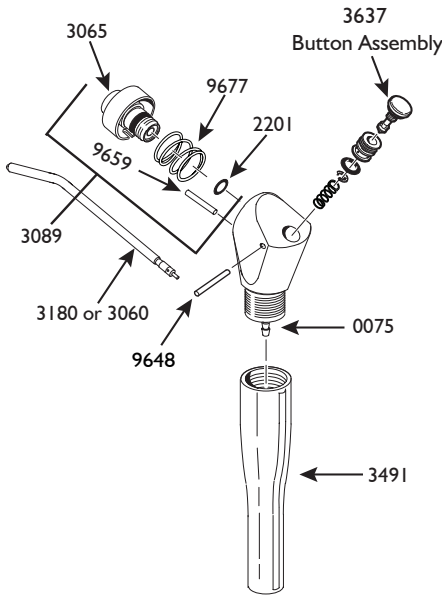
**PRECISION COMFORT, ONE BUTTON STANDARD SYRINGE**

Models: 3640, 3480

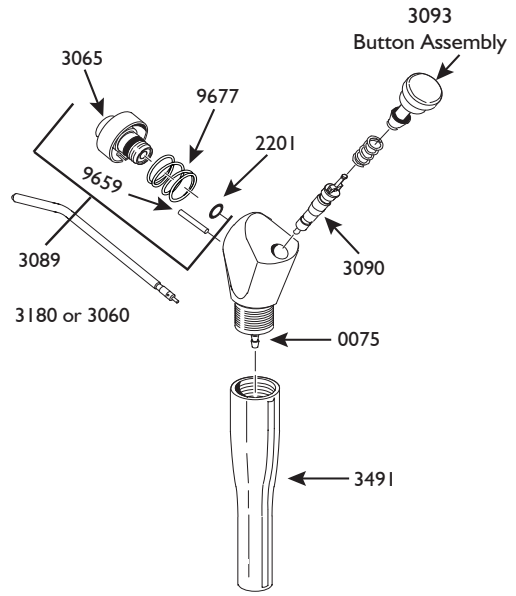
## OVERVIEW

DCI One-Button syringes are designed for professionals in the dental industry to supply either air or water to the oral cavity during dental procedures for rinsing purposes. It is operated by depressing the button to precisely deliver water or dry air for rinsing, cooling or drying the preparation area. This document applies to the following PNs:

Model	PNs
3640	3640, 3641, 3642, 3643, 3644, 3645
3480	3480, 3485, 3487, 3489, 3480-1



**Model 3640 Precision Comfort,  
 One Button Standard Syringe**



**Model 3480 Quick Clean  
 One Button**

Table I: Syringe Parts

PN 0075	10-32 Barb & Washer	(Pkg. 10)	PN 3065	Tip Adapter Assembly	
PN 2201	O-Ring	(Pkg. 12)	PN 3637	Button Valve Assembly	
PN 3060	Syringe Tip	(1 ea.)	PN 3093	Button Assembly, QC Syringe	
PN 3180	Syringe Tip Indexing	(1 ea.)	PN 3090	Valve Core	(Pkg. 10)
PN 3061	Syringe Tip	(Pkg. 5)	PN 3491	Handle, Quick-Clean Syringe	
PN 3181	Syringe Tip Indexing	(Pkg. 5)	PN 9648	Pin, Quick-Clean Syringe Button	
PN 3059	Syringe Tip	(Pkg. 50)	PN 9659	Pin, Tip Adapter	
PN 3182	Syringe Tip Indexing	(Pkg. 50)	PN 9677	Spring, Tip Adapter	

# INTRODUCTION

## SYMBOLS

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.



Manufacturer



Manufacturing date



Conforms to applicable European Directives (Essential Requirements)



Non-sterile



Advisable to consult accompanying documents



Medical device



Unique Device Identifier



Steam autoclave temperature for sterilization

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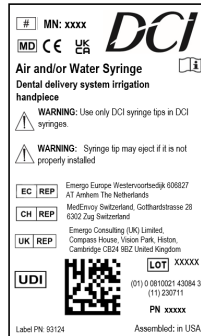
## GENERAL INFORMATION

### INTENDED APPLICATION AND USE

DCI One-Button syringes are designed for professionals in the dental industry to supply either air or water to the oral cavity during dental procedures for rinsing purposes. It is operated by depressing the button to precisely deliver water or dry air for rinsing, cooling or drying the preparation area.

### PRODUCT IDENTIFICATION

The product label and direct markings on the device provide essential information such as the model number, lot number, and unique device identifier, which can be used to identify the device. Note the **sample** label at right.



### APPLICABLE MODEL

3480, 3640

### TECHNICAL DOCUMENTATION

The manufacturer will make available upon request circuit diagrams, component part lists, descriptions, and calibration instructions to technical personnel responsible for the installation and service of this equipment.

### AIR AND WATER SUPPLY

<b>AIR</b>	<b>WATER</b>
Air Quality: Dry and clean	Water Quality: Potable
Pressure: 80-105 psi	Hardness: 7.2 - 7.8 pH
	Pressure: 40-80 psi

### PRODUCT DISPOSAL

Contact your local, authorized dealer for disposal of this device to ensure compliance with your local environmental regulations.

### ENVIRONMENTAL CONDITIONS

Operating Conditions:  
Temperature: 67-76° F  
Humidity: 20-60%

Shipping conditions:  
Temperature: -68 - 122° F  
Humidity: 10-90%



**NOTE:** Scan the engraved Unique Device Identifier (UDI) data matrix on the syringe using any data matrix reader or with your phone using standard off-the-shelf apps for data matrix reading.

## INSTALLATION

Turn off the air and water supplies. Connect tubing to the air or water outlet on the dental unit or syringe manifold. Maximum operating pressures: Air 80 psi, Water 40 psi. DCI dental units use a manifold block to which the tubing from the syringe gets attached. Supply lines going into the block are: Red or Blue tubing for water and Clear, Gray or Yellow for air. See Figure 1.



**NOTE:** Verify installation by pressing the syringe buttons; ensure water is supplied when pressing the water button and air is supplied when pressing the air button.

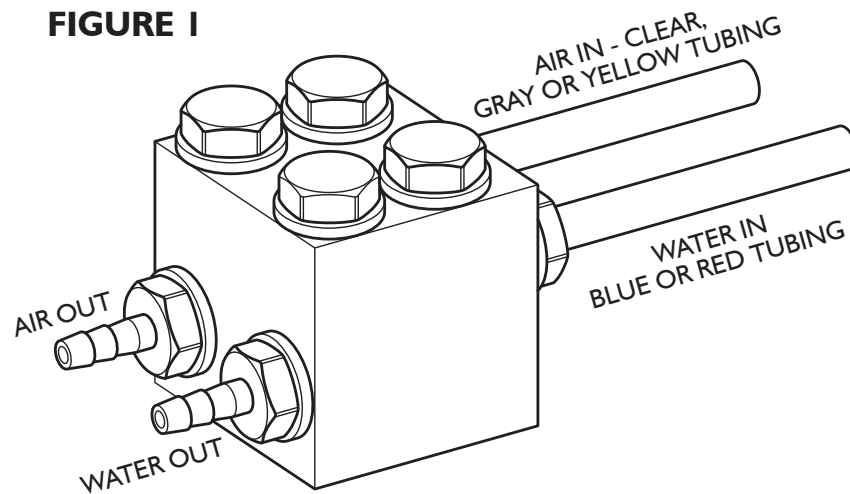


Figure 1: Output Details

## OPERATION

### CONTROLS

To operate the one button syringe, simply depress the button and air or water is delivered to the treatment area.

### CHANGING THE TIP

A sterile syringe tip should be installed for each patient. To prevent contamination, sterile tips should be handled with a sterile gauze pad. To remove the syringe tip, press down on the large collar. When you feel a soft “click”, the tip may be pulled straight out. Hold the collar down and insert the new tip. Be sure to press it all the way in, and then release the collar.



**CAUTION:** Syringe tip may eject if it is not properly installed. Test the installation by giving a firm pull on the tip to assure that it is inserted all the way, and that the locking mechanism is fully engaged.



**WARNING:** Use only DCI syringe tips in DCI syringes. DCI syringe tips are designed for use with DCI syringes. Syringe tips manufactured by a company other than DCI may not properly lock in place, potentially resulting in syringe tip ejection or impaired performance. Tip ejection may result in ingestion or aspiration of the tip requiring immediate medical attention.

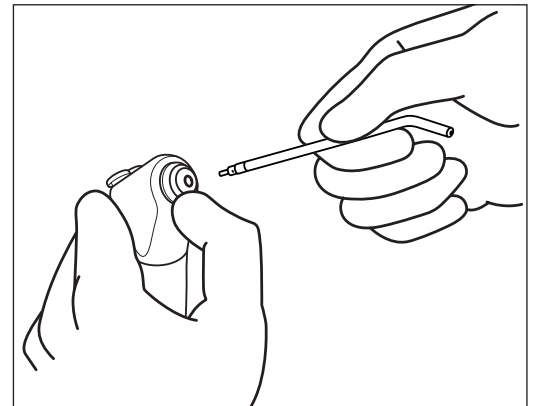


Figure 2: Changing the Tip

### ASEPSIS



**WARNING** Follow proper CDC Guidelines for Infection Control in Dental Health-Care setting for proper personal protective equipment to prevent cross contamination.

DCI dental syringes are considered a noncritical item. Use disposable barrier protection or a hospital disinfectant to disinfect the syringe between each patient or when the barrier has been compromised. When visibly contaminated with blood or other potentially infectious materials, an EPA-registered hospital disinfectant with a tuberculocidal claim should be used.

Syringe tips are considered semicritical and must be sterilized after use.

## CLEANING, DISINFECTING AND STERILIZATION

### CLEANING

Clean the external surfaces of the syringe using a solution of mild detergent and warm water. A soft-bristled brush may be used to clean around the buttons and tip collar. Thoroughly rinse the syringe with clear water, then dry with a clean, soft, lint-free cloth.

### DISINFECTING

The use of an EPA-registered hospital disinfectant is adequate. Follow disinfectant manufacturer's instructions for use when disinfecting syringes.

### STERILIZATION

The Quick-Change syringe tips should always be replaced with sterile ones before each patient.

Before sterilizing:

Clean syringe tips under running water for 30 seconds with a soft brush and place in an ultrasonic bath with an enzymatic cleaner to remove superficial debris prior to sterilization; any debris may reduce the effectiveness of the sterilization. Sterilization process is by steam autoclave.



Parameters:

For wrapped syringe tips: 132°C (270°F) for 15 minutes at temperature with a 30-minute drying time when using a gravity displacement autoclave.

Parameters for unwrapped: 132°C (270°F) for 3 minutes at temperature when using a gravity displacement autoclave.



**CAUTION:** Do not use powdered cleansers, scouring pads or abrasive scrubbers on any of the painted, plastic or metal surfaces of this dental delivery system. To remove dried-on material, use a soft bristled brush and a solution of mild detergent.

## MAINTENANCE

### LUBRICANT

Use only silicone-based lubricant, DCI PN 8032, to lubricate syringe button assemblies and all other O-rings in the syringe.



**CAUTION:** The use of other types of lubricants may cause O-ring deterioration, resulting in syringe malfunction or failure.

### REPLACING THE BUTTON



**NOTE:** Before removing button, turn off the dental unit to turn off the air and water supply. Bleed pressure from the system by running a handpiece or depressing the button on the syringe while pointing the tip into a container to capture residual water from the system.

Depress the button and hold. Use DCI syringe tool (PN 9287), or similar tool, to push the dowel pin retaining the buttons and once exposed on the opposite end, pull it out. Slowly release the buttons and pull the button away from the head.

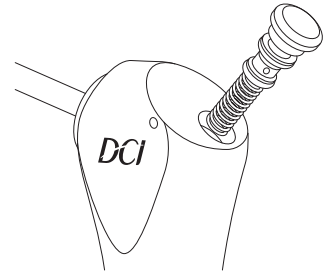


Figure 3: Removing the button



## MAINTENANCE

### TIP ADAPTER & COLLAR

Remove the syringe tip, and then use the hex key furnished with the Syringe Repair Kit to unscrew the tip adapter. Remove the adapter, collar and spring from the syringe body.

Use a dental pick or similar tool to remove the tiny O-Ring from the bottom of the bore in the syringe body. Be especially careful not to nick or scratch the sealing surfaces. The easiest way to install the replacement is to slip it onto the end of a syringe tip, lubricate the O-Ring, and then insert it into the bore. The O-Ring around the outside of the adapter is thin and fragile, so the new one has to be installed with care.

Before reinstalling the adapter and collar assembly, look down into the bore in the syringe body and assure that the alignment pin is in place. With the spring in place in the collar, align the slot in the collar with the pin, and then push the collar into the syringe body.

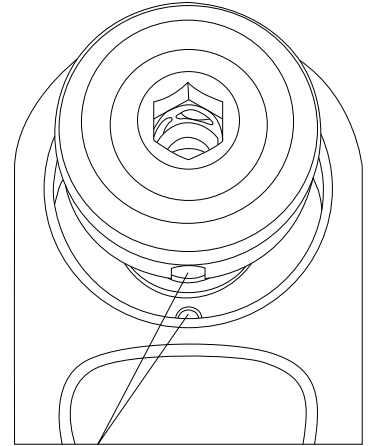


Figure 4: Aligning pin and slot in the collar



**CAUTION:** Incorrect installation of the adapter parts may impair syringe functionality. Verify Tip can be properly installed and that it locks in place by giving it a firm pull. Tips shall remain in syringe head. Verify tip can also be easily removed by pressing on the collar and pulling the tip out of the syringe head.

Use the hex key to carefully screw in the adapter. Tighten the adapter firmly (35 in-lbs torque). If you don't have a torque measuring device, hold the hex key by the short end and tighten the adapter as tight as you can. This method installs the adapter to approximately 35 in-lbs torque.

### SERVICE PARTS AND TOOLS

Use only genuine DCI replacement parts which are designed specifically for your syringe to properly function.



**NOTE:** Syringe parts that are subject to wear under normal use are provided in a syringe repair kit included with your new syringe. Repair kit includes all necessary tools to repair the syringe.

## MAINTENANCE

### TROUBLESHOOTING

The DCI one-button syringe is engineered for dependability. The troubleshooting guide gives the corrective action to be taken for the problems you may encounter.

Table I: Troubleshooting Guide

Problem	Solution
Leakage around button	Replace button assembly.
Leakage from Syringe tip	<ul style="list-style-type: none"> <li>• Replace button assembly.</li> <li>• Replace small O-ring located behind the Quick- Change adapter.</li> <li>• Replace the tip.</li> </ul>
Momentary or constant water spray when air button is pressed	<ul style="list-style-type: none"> <li>• Replace the small O-Ring located behind the Quick-Change adapter.</li> <li>• Verify barbed fittings are tightened.</li> </ul>
Leakage from the syringe handle	Replace nylon washer.

### STORAGE

Store in a dry, dust free location and do not mix with contaminated instruments.

Sterilized syringe tips shall be kept in a sterilization wrap or pouch to maintain sterility. Refer to the Instructions for Use from the sterilization packaging manufacturer to determine how long sterility can be maintained.

### DISPOSAL

Contact your local authorized dealer for disposal of this device to ensure compliance with local environmental regulations.

### PRODUCT SUPPORT

For additional product support, contact DCI Customer Service at 1(800)624-2793 or visit [www.dcionline.com](http://www.dcionline.com).

## ONE YEAR GUARANTEE

DCI has put a lot of time and effort into designing, manufacturing or selecting all the fine products we sell. Therefore we are able to fully guarantee all our products to be free of manufacturing defects for one year from time of purchase. Should product fail for any reason due to manufacturing defect, DCI will repair or replace that product at no charge to the customer. Beyond the one-year period, we still back everything we sell with service at little or no cost to you.

You are responsible for proper care and maintenance of products purchased from DCI, and our guarantee does not cover damage resulting from improper maintenance or installation, accident or misuse. The guarantee does not cover damage resulting from use of surface disinfectants not approved by DCI.

No other warranties as to merchantability or otherwise are made.

