

Symmetry IQ® 3000

Piezoelectric Ultrasonic Scaler

Product Information Guide

Version 3.0 HF-47x/0520, 21-May-2020



Hu-Friedy



How the best perform

Description of Version	Date	Author
Rev 1.0, Document Plan Created	1-May-20	KJL Krupnow
Rev. 1.0 APPROVED	3-May-20	BMK
Rev. 2.0, Cover Image and Figure 1 replaced, Figures 5-6, How-to change water filter and handpiece bulb, video links added.	12-May-20	KJL Krupnow
Rev 2.0 APPROVED	13-May-20	CAJ
Rev. 3.0 Added images to Ch. 1, reformatted Ch. Subsections, added Glossary, Running Headers	21-May-20	KJL Krupnow
Rev. 3.0 APPROVED		

COPYRIGHT ©2020 Hu-Friedy Mfg. Co., LLC.

All rights reserved. No portion of this document may be reproduced in any form without permission from Hu-Friedy, except as permitted by U.S. copyright law. For permissions contact Hu-Friedy at the address below. This document is the outcome of a student project and does not necessarily represent the views of Hu-Friedy or any other individuals or companies referenced or acknowledged within this document.

The Hu-Friedy Logo and Symmetry IQ 3000 are registered trademarks of Hu-Friedy.

Hu-Friedy Mfg. Co., LLC

3232 N. Rockwell St.

Chicago, IL 60618-5935

www.hu-friedy.com

Contents

1	Introduction	1
2	Quick Start Guide	2
3	Parts and Functions	3
4	Customizable Features	4
4.1	Power Adjuster and Color-Coded Power Modes	4
4.2	Water Knob and Option	4
4.3	Memory Function	4
4.4	Tips	4
5	Handpiece and Accessories	5
5.1	Symmetry IQ Handpiece.....	5
5.2	Guardian™ Wrench/Tip Carrier.....	5
5.3	Symmetry Piezo Tips	7
5.4	After Five Designs	7
5.5	Symmetry Piezo Scaling Tips	7
5.6	Symmetry Piezo Perio Tips.....	8
5.7	Perio & Diamond-Coated	8
6	Care and Maintenance.....	9
6.1	Cleaning & Sterilization of Tips:.....	9
6.2	Replacement Parts	9
7	Conclusion.....	10
8	Appendix.....	11
8.1	Handpiece Bulb	11
8.2	Water Filter	12
8.3	Power Setting Guide.....	12
8.4	Memory Function	12
9	Hu-Friedy Ultrasonic Satisfaction Guarantee	13
9.1	Contact Us.....	13
10	Glossary	14
11	Index	15

List of Figures:

Figure 1. Symmetry IQ 3000 Parts 2

Figure 2. Guardian Wrench/Tip Carrier 2

Figure 3. Symmetry IQ 3000 Parts 3

Figure 4. Symmetry IQ Customizable Features 4

Figure 5. Symmetry IQ Handpiece 5

Figure 6. Guardian Wrench/Tip Carrier 5

Figure 7. Piezo Tip Wear Guide 9

Figure 8. Handpiece Bulb 11

Figure 9. Water Filter 12

List of Tables:

Table 1. Recommended Power Settings for Symmetry IQ Tips 6

Table 2. Symmetry IQ Piezo Tips and Suggested Uses 7

Table 3. Hu-Friedy Points of Contact 13

1 Introduction

Hu-Friedy's Symmetry IQ piezoelectric ultrasonic scalers increase efficiency and are comfortable for the patient. The Symmetry IQ features touchpad controls and a compact design. The large diameter, ergonomic Symmetry IQ handpiece relaxes hand grasp for accuracy and control, eliminates pressure points and improves tactile sense. The lightweight handle reduces muscle strain and hand fatigue, enhancing clinician comfort. Fiber-optic illumination reduces eye strain and enhances visibility. The modular design provides convenient disconnection of the handpiece for sterilization and serviceability of the unit, eliminating the cost and inconvenience associated with sending the entire unit out for repair. The customizable tip and power selections provide for better access for the clinician and increased patient comfort.

In this document, dental clinicians will learn how to use the features of the Symmetry IQ 3000 Piezoelectric Ultrasonic Scaler to benefit their patients and themselves.

Regarding the efficacy of removing calculus, a review of collective studies reveals, "The best results are probably obtained by combining sonic/ultrasonic instrumentation with manual scaling."-Annals of periodontology, Proceedings of the 2000 World Workshop in Periodontics. Non-surgical Pocket Therapy: Mechanical, Charles M. Cobb

For optimal clinical outcomes, clinicians need both hand and ultrasonic scaling instrumentation to effectively remove calculus, plaque and debris. Ultrasonic scalers need to provide efficiency during each procedure, plus be comfortable for both the practitioner and the patient. These benefits are provided by the Symmetry IQ 3000.

2 Quick Start Guide



Figure 1. Symmetry IQ 3000 Parts

1. Toggle **on-off switch** into the ON position.
2. To attach **tip**, turn **Guardian™ Wrench** tip carrier (see Fig. 2, below) clockwise until a single click is heard.
3. Press **color-coded power mode button** matching the color of the Guardian Wrench used in step 2.
4. Press **W button** to turn water off or on (light adjacent to W will be off or on, respectively).
5. Dial **water knob** counterclockwise to increase the flow of water, or dial water knob clockwise to decrease the flow of water from the handpiece.
6. Use **power adjuster** up arrow to increase (or down arrow to decrease) within the suggested range for the selected tip.
7. Seat Guardian Wrench base over the tip and turn counterclockwise to remove.
8. Use Guardian Wrench tip carrier to transport and sterilize tip.



Figure 2. Guardian Wrench/Tip Carrier

CAUTION:

- Over-tightening a tip may result in damage to the tip and/or handpiece.
- Using a power range or mode that is not intended for a specific tip may result in damage to the tip or patient's tooth.
- Waterless option should be used with great care, as damage may result to the tip, handpiece or patient's tooth.

3 Parts and Functions

In this section, we review the features of the Symmetry IQ® 3000 and their functions.



Figure 3. Symmetry IQ 3000 Parts

1. **On-Off Switch:** turns the unit on or off.
2. **Power Indicator:** indicates whether the unit is on or off.
3. **Power Adjuster:** adjusts the power up or down, within a color mode.
4. **Memory:** saves a configuration setting.
5. **Water Option:** turns the water supply on or off.
6. **Tip:** interchangeable scaler attachment.
7. **Silicone Grip:** provides a stable grip on the handle.
8. **Handpiece:** holds instrumentation tip.
9. **Handpiece Connection:** where handpiece is removed to sterilize.
10. **Water Knob:** changes the amount of water produced.
11. **Handpiece Holder:** holds handpiece when not in use.
12. **Three Color-Coded Power Modes:** change power range.

4 Customizable Features

The following section contains further descriptions of the six parts of the Symmetry IQ that can be customized and their functions.



Figure 4. Symmetry IQ Customizable Features

4.1 Power Adjuster and Color-Coded Power Modes

A light beside each of the orange, blue and green buttons indicates the active **power mode**. Use the **power adjuster** up and down arrows to further adjust power within each **power mode**. See Appendix for link to video.

CAUTION: Using a power range or mode that is not intended for a specific tip may result in damage to the tip or the patient's tooth.

4.2 Water Knob and Option

To adjust the amount of water flowing out of the handpiece, dial the **water knob** (not shown, located on the right side of the unit). Dial the **water knob** counterclockwise to increase the flow of water. Dial the **water knob** clockwise to decrease the flow of water.

A light beside the **W** button indicates whether the **water option** is on or off. Press the **W** button to turn the light and the **water option** off, e.g. for endodontic procedures requiring no water. Press the **W** button to turn the light and the **water option** back on, as needed.

CAUTION: Waterless option should be used with great care, as damage may result to the tip, handpiece or patient's tooth.

4.3 Memory Function

Press and hold the **M** button for two seconds to save the current power and water settings to **memory**. See Appendix for link to video.

4.4 Tips

Twist color-coded Guardian™ **Tip** Carrier (discussed in Chapter 2) clockwise until you hear a single click to securely attach desired stainless-steel S-series **tip** to the handpiece. Twist Guardian counterclockwise to remove **tip** from the handpiece. Transport and sterilize **tip** within Guardian.

CAUTION: Over-tightening tip may result in damage to the tip and/or handpiece.

5 Handpiece and Accessories

In this section, we discuss in detail the handpiece and available accessories for the Symmetry IQ 3000.

5.1 Symmetry IQ Handpiece

The large diameter, ergonomic Symmetry IQ handpiece relaxes hand grasp for accuracy and control, eliminates pressure points and improves tactile sense. The lightweight handle reduces muscle strain and hand fatigue, enhancing clinician comfort. Fiber-optic illumination reduces eye strain and enhances visibility. The modular design provides convenient disconnection of the handpiece for sterilization and serviceability of the unit, eliminating the cost and inconvenience associated with sending the entire unit out for repair.

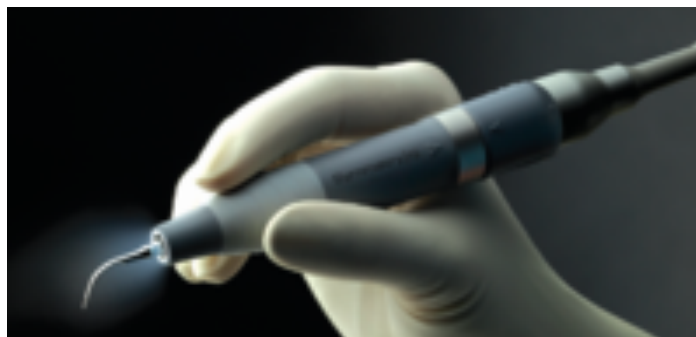


Figure 5. Symmetry IQ Handpiece

5.2 Guardian™ Wrench/Tip Carrier

Symmetry Piezo Tips each come with a color-coded Guardian Wrench; a torque-limiting wrench/tip carrier designed for safe and easy connection to the handpiece. The color coding helps ensure proper power setting selection for optimal tip performance. Guardian Wrenches also feature exclusive power range indicators. Each tip is recessed in the patented Guardian to minimize the risk of injury when attaching the tip to the handpiece. The Guardian holds the tip during cleaning and sterilization to prevent loss or damage.



Figure 6. Guardian Wrench/Tip Carrier

CAUTION: Over-tightening tip may result in damage to the tip and/or handpiece.

Table 1. Recommended Power Settings for Symmetry IQ Tips

Color Mode and Power Range			
TIP			
USS10	X	2 - 8	1 - 4
USP10	X	1 - 4	1 - 4
USP	X	2 - 10	1 - 4
US100	X	4 - 10	1 - 3
USU	X	4 - 10	1 - 3
USAFS	X	1 - 5	X
USAFI	X	1 - 5	X
USAFR	X	1 - 5	X
USP3	4 - 10	X	X
US4R	6 - 10	1 - 6	X
US4L	6 - 10	1 - 6	X
US1D	7 - 10	1 - 6	X
US2RD	1 - 5	X	X
US2LD	1 - 5	X	X
X = Not Recommended			

CAUTION: Using a power range or mode that is not intended for a specific tip may result in damage to the tip or the patient's tooth.

5.3 Symmetry Piezo Tips

A special blend of stainless steel works in harmony with ultrasonic energy to optimize vibration for superior scaling efficiency and unmatched durability. S-Series tips are compatible with Hu-Friedy's Symmetry IQ®, Satelec and NSK generators.

Satelec, NSK, and EMS are trademarks of Acteon, Inc., Nakanishi Inc., and Electro Medical Systems, respectively.

Table 2. Symmetry IQ Piezo Tips and Suggested Uses

TIP		Suggested Use
After Five Designs		
Straight	USAFS	Perio pockets, interproximals.
Right	USAFR	
Left	USAFL	
Scaling Tips		
S10 Universal	USS10	Heavy supragingival deposits.
P Universal	USP	Moderate to heavy supragingival deposits, shallow pockets.
P10 Universal	USP10	Light deposits and plaque.
100 Universal	US100	Light deposits in shallow to moderate pockets, perio maintenance.
Perio Tips		
Universal Perio	USU	Light deposits and plaque.
Right Perio	US4R	Premolars and molars.
Left Perio	US4L	
3 Perio	USP3	Heavy deposits and necrotic cementum, anteriors, premolars.
Diamond-Coated		
Straight Diamond	US1D	Residual debris, deep perio pockets, anteriors.
Right Diamond	US2RD	
Left Diamond	US2LD	

5.4 After Five Designs

5.4.1 Straight, Left & Right

These probe-sized tips are designed to enhance access into periodontal pockets and improve adaptation in interproximal areas, allowing the clinician to thoroughly debride difficult-to-reach areas to achieve better clinical results.

5.5 Symmetry Piezo Scaling Tips

5.5.1 S10 Universal

Standard diameter tip used to remove heavy supragingival deposits.

5.5.2 P Universal

Standard diameter tip used to remove moderate to heavy deposits located supragingivally and in shallow pockets.

5.5.3 P10 Universal

Standard diameter tip used to remove light deposits and plaque. Tip features smooth edges for safe removal of soft and hard deposits.

5.5.4 100 Universal

Probe-sized tip used to remove light deposits in shallow to moderate pockets and for periodontal maintenance.

5.6 Symmetry Piezo Perio Tips

5.6.1 Universal Perio

Thin tip used to remove light deposits and plaque. Tip features smooth edges for safe removal of soft and hard deposits.

5.6.2 Left Perio

Standard diameter contra-angle tip used to remove calculus on all surfaces of premolars and molars, especially difficult-to-reach interproximal surfaces.

5.6.3 Right Perio

Standard diameter contra-angle tip used to remove calculus on all surfaces of premolars and molars, especially difficult-to-reach interproximal surfaces.

5.7 Perio & Diamond-Coated

5.7.1 3 Perio

Thin-bladed curette-like tip used to remove heavy deposits and necrotic cementum on anteriors and premolars.

5.7.2 Left Diamond

Thin, contra-angle diamond-coated finishing instrument used for removal of residual debris and designed to enhance access to deep periodontal pockets and furcations.

5.7.3 Right Diamond

Thin, contra-angle diamond-coated finishing instrument used for removal of residual debris and designed to enhance access to deep periodontal pockets and furcations.

5.7.4 Straight Diamond

Thin, straight diamond-coated finishing instrument used for removal of residual debris and designed to enhance access to deep periodontal pockets, primarily in anterior areas.

6 Care and Maintenance

6.1 Cleaning & Sterilization of Tips:

Piezo tips remain in the Guardian tip carrier during the complete cleaning, disinfection and sterilization reprocessing cycle.

1. Clean using ultrasonic bath cleaner or thermodisinfectant.
2. Steam sterilize for at least 5 minutes at 273°F/134°C or 20 minutes at 250°F/121°C.

CAUTION:

- Do not heat above 350°F/177°C.
- Do not expose to phenols, iodophors or dry heat sterilization.

6.2 Replacement Parts

6.2.1 Tips

Scaling efficiency can significantly diminish with worn insert tips. Inferior performance and poor water delivery can result from worn, damaged, bent or altered tips. For optimal scaling efficiency, check tips regularly for signs of wear.

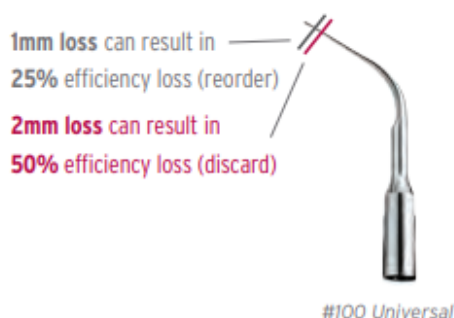


Figure 7. Piezo Tip Wear Guide

6.2.2 Water Filter

The water filter is located within the water line in the rear of unit. See Appendix for instructions for changing and part code for reorder.

6.2.3 Handpiece Bulb

The handpiece bulb is located within the base of handpiece. See Appendix for instructions for changing and part code for reorder.

7 Conclusion

- The Symmetry IQ has been designed to shorten patient chair time and lengthen practitioner careers by delivering superior performance and efficiency.
- Adjustable power and water flow allow for a better patient experience.
- Convenient memory feature allows for faster set-up time between patients.
- The state-of-the-art circuitry, touchpad controls and compact design improve practice productivity.
- The smooth surface simplifies infection control procedures and minimizes the risk of cross contamination.
- The lightweight, large-diameter handpiece featuring fiber optic illumination delivers unsurpassed ergonomics.
- Modular design provides convenient serviceability and eliminates the cost and inconvenience associated with sending the unit out for repair.

8 Appendix

8.1 Handpiece Bulb

The handpiece bulb is located within the base of handpiece.



Figure 8. Handpiece Bulb

8.1.1 To change the handpiece bulb:

See these instructions in the video tutorial “Changing Fiber-Optic Lightbulb in Symmetry IQ Handpiece” at the following address: <https://youtu.be/eP1WDX9dtsA> Part code: UPB, set of 3

1. Grip the front section of the handpiece and the back section of the handpiece cord and pull gently to separate.
2. Gently remove the handpiece sheath.
3. Use a small plier to help push the lightbulb out of the casing.
4. Align the pins of the new lightbulb with the holes in the handpiece cord connector.
5. Gently push the bulb into place.

CAUTION: Do not touch the glass on the bulb with bare fingers.

6. Align the dot on the handpiece sheath with the dot on the handpiece cord and push together until a click is heard.
7. Align the two arrows on the handpiece and the handpiece cord and gently push straight to connect.

CAUTION: Do not twist the handpiece or handpiece connector while reattaching.

8.2 Water Filter

The water filter is located within the water line in the rear of unit.



Figure 9. Water Filter

8.2.1 To change the water filter:

See these instructions in the video tutorial “Changing the Water Filter” at the following address: <https://youtu.be/bqvMP8tVhOI> Part code: UPWF

1. Disconnect the irrigation tube from the water source.
2. Mount two spanner wrenches on the water filter case and turn in opposite directions to loosen the water filter case.
3. Continue to loosen by hand to fully separate the water case from the lines.
4. Remove the old water filter.
5. Insert a new water filter with the O-ring side pointing toward the control unit end of the tubing.
6. Reassemble the filter case and tighten with two spanner wrenches.
7. Reconnect the irrigation tube to the water source.

8.3 Power Setting Guide

See Power Setting Guide video tutorial by Hu-Friedy at <https://youtu.be/6Qmo2fY6mOQ>.

8.4 Memory Function

See Memory Function video tutorial by Hu-Friedy at <https://youtu.be/hxrHGdeVDII>.

9 Hu-Friedy Ultrasonic Satisfaction Guarantee

Hu-Friedy is committed to YOU, our valued customer. If for any reason you are unhappy with your Hu-Friedy Symmetry IQ Ultrasonic Scaler or Piezo Tip within the first 30 days of purchase, **simply return it with the invoice for a product exchange or full refund**-no questions asked. No other company offers such a comprehensive guarantee.

In addition to the Satisfaction Guarantee, Hu-Friedy warranties our ultrasonic tips and inserts and Symmetry IQ piezoelectric devices for failure resulting from a defect in material/or workmanship. For complete details regarding these warranties, please visit:

<http://www.hu-friedy.com/support/warranties.aspx>

9.1 Contact Us

Table 3. Hu-Friedy Points of Contact

Replacement Parts:	www.hu-friedy.com	
Service and Repairs:	(888)832.8324	
Equipment Repairs:	(888)456.7895	
General Customer Care:	(800)729.3743	
Email:	care@hu-friedy.com	

10 Glossary

contra-angle: set at an angle that is not parallel to the handpiece, which allows better access to hard-to-reach areas	9
debride: to remove damaged tissue or objects (in this case calculus and plaque) from the oral environment.....	8
dry heat sterilization: uses hot air that is either free from water vapor or has very little of it.....	10
endodontic: this citation is referring to root canal therapy.....	5
iodophors: chemical disinfectants	10
phenols: chemical disinfectants	10
piezoelectric ultrasonic scalers: use transducers that convert electricity into mechanical energy using materials like quartz crystals or specialized ceramics that change shape with electricity, which generate up to 50,000 vibrations per second.....	1
spanner wrenches: in this case, a wrench with an open head in the shape of a C.....	13
supragingival: above the gumline	8
thermodisinfectors: a machine which pre-washes, washes, and thermally disinfects instruments in lieu of an ultrasonic bath.....	10
torque-limiting: helps protect mechanical equipment from damage by mechanical overload.....	6

11 Index

A

appendix · 5, 10, 12

B

bulb · 10, 12

G

Guardian™ · 2, 5, 6, 10

H

handpiece · 1, 2, 3, 4, 5, 6, 10, 11, 12

K

knob · 2, 4, 5

M

memory · 4, 5, 11, 13
mode · 2, 3, 4, 5, 7

O

on-off switch · 2, 4

P

parts · 4, 5
power adjuster · 2, 4, 5
power range · *See* range
power setting guide · 13

R

range · 2, 3, 4, 5, 6, 7, *See* power range

S

sterilize · 2, 5, 10

T

tip · 2, 3, 4, 5, 6, 7, 8, 9, 10

V

video tutorial · 12, 13

W

W button · 2, 5, *See* water option
warranties · 14
water filter · 10, 13
water option · 4, 5, *See* W button