

MIDWEST®

Stylus™ Standard

180S, 181S, 360S, 361S, 540S, 541S

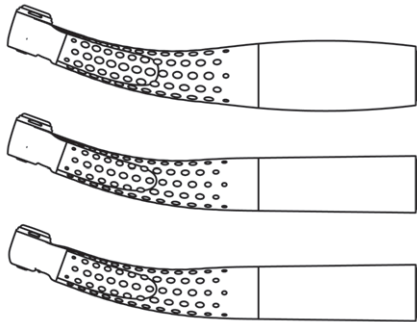
High Speed Handpiece with Fiber Optics & Push Button Chuck

Midwest® Stylus™ Standard

180S, 181S, 360S, 361S, 540S, 541S

High Speed Handpiece
with Fiber Optics and Push Button Chuck

**Installation, Maintenance
and Operation Instructions**



Midwest® Stylus™ Standard High Speed Handpiece

Standard Description	Series	SKU Ref
Stylus	180S	790300
Stylus Compatible with MULTiflex® LUX Coupler	181S	790330
Stylus Lite	360S	791300
Stylus Lite Compatible with MULTiflex® LUX Coupler	361S	791330
Stylus Mini	540S	792300
Stylus Mini Compatible with MULTiflex® LUX Coupler	541S	792330

Caution: US Federal law restricts this device to sale by or on the order of a Dentist.

INDICATIONS FOR USE:

This air-turbine high-speed handpiece is intended to be used for general dentistry.

CONTRAINDICATIONS:

Do not use this handpiece within the oral cavity when a soft tissue wound is present. Air pressure may force septic materials into these tissues.



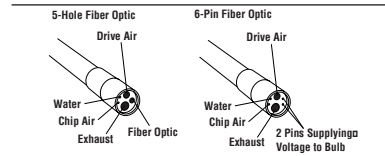
WARNINGS:

- This product is intended for use by dental professionals only.
- It is the responsibility of the Dental Healthcare Professional (DHCP) to understand the intended uses of this product, the health of each patient, the dental procedures being undertaken and industry and governmental agency recommendations, requirements, and regulations for safe practice of dentistry.
- Before operating handpiece, carefully read and follow these instructions and save them for future reference.
- Handpieces should be heat-sterilized between patients to prevent cross-contamination which could result in serious illness or even death from infectious organisms such as HIV (the virus that causes AIDS) or hepatitis B.
- Do not cut with the handpiece unless you are sure the bur is secure. Do not extend the bur outward from the handpiece head. A loose or extended bur could eject from the head or break and cause personal injury.
- Sterilize handpiece prior to first use.
- Midwest turbines should not be rebuilt. Replacing bearings only could result in unexpected failure and patient injury due to different wear factors of new vs. old components.

Installation

Checking Handpiece Hose

Make sure all tubing supplying the handpiece hose is properly connected within the dental unit. Be sure the air and water are delivered to the handpiece as shown in the illustration below.



Air Requirements

The handpiece delivers designed speed and torque when operated with clean, filtered, moisture-free air at the recommended operating pressure of **40 psi (2.7 Atm.) for 180S, 360S, 540S series and 42 psi (2.9 Atm.) for 181S, 361S, 541S series.** Air pressure should be measured at the handpiece end of the hose.

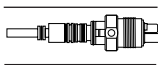
Have your dealer or serviceman use an analyzer gauge. Connect gauge to hose, then handpiece to gauge. Fully depress foot control and run the handpiece. Adjust drive air pressure to 40 or 42 p.s.i. (see requirements above) as indicated on analyzer gauge. Remove gauge and connect handpiece to hose.

Installation, continued

Midwest Coupler Installation

(Applicable instructions for 180S, 360S, 540S Series)

Do not sterilize coupler. Screw the coupler onto the handpiece hose line. Tighten securely by hand. Coupler remains installed on the hose.



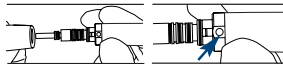
Connecting and Disconnecting Handpiece From Midwest Coupler

(Applicable instructions for 180S, 360S, 540S Series)

Insert handpiece into coupler until it "clicks" into place. Check for secure connection by tugging on the handpiece.

4 To disconnect, push both buttons at the base of coupler and remove

handpiece. Coupler remains installed on the hose.



NOTE: Do not attempt to remove handpiece from coupler without pushing buttons at the base of coupler!

WARNING: DO NOT depress coupler removal buttons during operation. Doing so may result in handpiece projecting from coupler.

Connecting and Disconnecting Handpiece From MULTiflex LUX Coupler

(Applicable instructions for 181S, 361S, 541S Series)

Insert handpiece onto MULTiflex LUX coupler until it audibly "clicks" into place. Check for secure connection by gently tugging on the handpiece.

Installation, continued

To disconnect, pull and twist handpiece while securely holding coupler and hose nut. Coupler remains installed on the hose.

Water Spray Requirements

The Midwest Stylus uses delivery unit chip air to deliver fine mist water spray. The recommended operating pressure for chip air is **25 psi for 180S, 181S, 360S, 361S series and 30 psi for 540S, 541S series**. The recommended operating pressure for water is **12 psi for 180S, 181S, 360S, 361S series and 6 psi for 540S, 541S series**. If you get a stream of water instead of a fine mist, adjust water and chip air pressure to achieve desired spray mist.

Water Supply Recommendations

- It is highly recommended that all dental water supply systems

conform to applicable CDC (Centers for Disease Control and Prevention) and ADA (American Dental Association) standards, and that all recommendations be followed in terms of flushing, chemical flushing and general infection control procedures.

- As a medical device, this product must be installed in accordance with applicable local, regional and national regulations including guidelines for water quality.

Cleaning and Maintenance

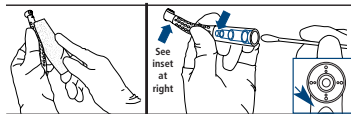
DENTSPLY recommends the following steps between each patient use to prevent cross-contamination and to ensure continued trouble-free operation of your Stylus handpiece.

IMPORTANT: Use only Midwest® Plus™ Aerosol Spray as recommended by DENTSPLY to maintain your handpiece. See **Parts** section for ordering information.

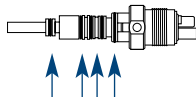
Cleaning and Maintenance, continued

Scrub and Rinse

1. Disconnect handpiece from coupler.
2. Push button to remove bur.
3. Scrub and rinse handpiece under warm tap water with a soft brush or sponge. **While scrubbing and rinsing, it is best to keep the handpiece in the upright position (see illustration at below).**
4. Make sure fiber optic light port near head of handpiece is scrubbed well. Once a week or as needed, gently rub an alcohol-soaked cotton swab against both ends of the fiber optic element to remove debris.



DENTSPLY Professional also recommends lightly lubricating the coupler O-rings with Midwest Plus Handpiece Lubricant.



Lubricate and Expel Using Midwest Plus™ Aerosol Spray

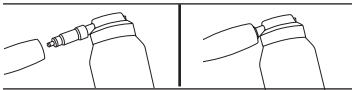
1. While holding can of Midwest Plus™ Aerosol Spray upright, insert

Cleaning and Maintenance, continued

nozzle fully into handpiece (without a bur). Cover head of handpiece with Midwest spray guard or paper towel. Spray for no more than one (1) second. If excess debris appears, spray again for one (1) second.

2. Run handpiece (without a bur) until it reaches normal speed, or until all excess lubricant is expelled (a minimum of 20 seconds). Expel in operatory or using Midwest Air Station. Wipe off any excess lubricant on outside of handpiece with a dry gauze pad or paper towel.

3. On a weekly basis or if button gets stiff, spray Midwest Plus™ Aerosol Spray into chuck for one second.



NOTES:

- A KaVo MULTiflex lubricating nozzle will conveniently fit onto Midwest Plus™ Aerosol Spray.
- If a coupler is needed for use with Midwest Air Station, order Midwest Maintenance Coupler, REF 380090. (For 180S, 360S, 540S series.)

Cleaning Water Spray Holes

Run the cleaning wire (supplied with your handpiece) back and forth in the water spray holes and in the air spray holes to loosen and remove any mineral build-up at spray surface.



Bag and Autoclave

Insert handpiece (without a bur) into sterilization bag and load into autoclave. (DENTSPLY Professional recommends using sterilization bags with at least one paper side.) Handpieces should be processed in the autoclave for 15 minutes at a sterilization temperature of **135°C/275°F**.

*For cassette chamber saturated steam devices, handpieces should be processed unbagged for 3.5 minutes at a sterilization temperature of **135°C/275°F**.*

Keep handpiece in bag until ready to use in the operatory.

Operation

Insert the coupler into the handpiece until it “clicks” into place. Check for secure connection by tugging the handpiece. To operate the handpiece, simply depress the foot control on your dental unit.

Note: The Midwest Stylus uses delivery unit chip air to deliver fine mist water spray. If you get a stream of water instead of a fine mist, just increase the “chip air” or “coolant air” on the delivery unit until the desired fine mist spray is achieved (see page 5 for recommended settings).

Operation, continued



CAUTION: Never operate the handpiece under the following conditions:

1. In the presence of a soft tissue wound.
2. With a bur extended out from handpiece head.
3. Under "no load" conditions for extended periods of time.
4. At air pressure exceeding 40 p.s.i. (2.7 Atm.) for 180S, 360S, 540S series and 42 psi (2.9 Atm.) for 181S, 361S, 541S series.
5. With a loose or bent bur.
6. If you experience a sudden and noticeable change in handpiece noise or vibration.
7. If bur moves forward more than 1 mm while operating handpiece.

Recommended Burs & Diamonds For:

180S and 360S Series

- Regular Friction Grip (FG) burs
- Shaft diameter of 1.6 mm per ISO 1797-1
- Total length not to exceed 23 mm

540S Series

- Regular Friction Grip (FG) or Short Shank (SS) burs
- Shaft diameter of 1.6 mm per ISO 1797-1
- Total length not to exceed 23 mm

Operation, continued

Installing and Removing Burs

To install a bur: Insert the bur into the handpiece until you meet resistance. Now press the button and push the bur all the way into the chuck until it stops.

 **CAUTION:** Make sure bur is secure before operating handpiece.

To remove bur: Push the button to open chuck and remove bur.

Note: The water spray will adequately cover bur and diamond cutting instruments up to .906 inches (23 mm) long. You can fine tune the water spray by adjusting the chip air on your unit.

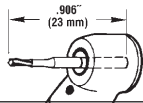


WARNING: Use of cutting instruments over .906 inches (23 mm) in length could possibly result in handpiece failure or personal injury due to bur ejection or inadequate cooling.



WARNING: Do not extend burs outward from handpiece head. Burs must be inserted all the way into chuck for proper bur retention. Extended burs could result in personal injury due to bur ejection, bent burs, or inadequate cooling.

**Maximum
Recommended
Bur Length**



Repair — Within the United States

Midwest Air Repair™ Service

Should your Midwest Stylus High Speed Handpiece need repair, call **1-800-800-7202** to schedule a free pick-up:



Send to:

DENTSPLY Professional Division
Midwest Dental Products

Attn: Midwest Air Repair
901 West Oakton Street
Des Plaines, IL 60018-1884

Provide the following information with your repair:

Your complete name and address

Dealer name and address

Nature of repair

Air Repair offers:

- Repairs DOOR TO DOOR ROUNDTRIP IN 2 BUSINESS DAYS
- Genuine Midwest Parts and Midwest Quality
- Expert Troubleshooting and Diagnosis
- Repair Service Warranty equal to the new product warranty

***For Customers Outside the United States,
Contact Your DENTSPLY Representative.***

Parts

REF

Midwest Plus Aerosol Spray

500 ml. Cleaner/Lubricant

380080

Midwest Plus Nozzle

Nozzle for above

380085

Midwest Handpiece Air Station

includes box of 12 FREE Spray Guards

380800

Midwest Maintenance Coupler

for use with Air Station

380090

Midwest Spray Guards

Box of 100

380150

Cleaning Wire

for all Midwest Stylus Handpieces

464197

Parts

REF

Replacement o-rings, 5-Hole Coupler

2 sets

790255

Replacement o-rings, 6-Pin Coupler

2 sets

790256

Replacement Bulbs for 6-Pin Coupler and 5-Hole Power Optic Tubing

package of 2

790257

Handpiece Gaskets:

5-Hole Fiber Optic, Blue

773018

6-Pin Coupler, Clear

790258

Warranty

Your Midwest® Stylus™ Handpiece is guaranteed to be free of defects in materials and workmanship for a period of eighteen (18) months from its date of purchase — provided that the handpiece has been operated and maintained as prescribed in these instructions (at the discretion of DENTSPLY Professional) and has not been subjected to apparent misuse, abuse or accident. All questionable, defective, or loose parts must be returned to the dealer, with handpiece and proof of purchase, transportation prepaid.

The Fusion Optics™ fiber optics in your Midwest Stylus handpiece is guaranteed to be free of defects in materials and workmanship for a period of five (5) years from date of purchase — provided that

the handpiece has been operated and maintained as prescribed in these instructions (at the discretion of DENTSPLY Professional) and has not been subjected to apparent misuse, abuse or accident. All questionable, defective, or loose parts must be returned to the dealer, with proof of purchase, transportation prepaid.

Within the United States:

The enclosed business reply card (warranty registration) must be filled out completely and returned within ten (10) days of purchase for this warranty to apply. DENTSPLY Professional makes no other guarantees, expressed or implied.

For the Dentist and Staff:

Handpiece Infection Control and
Maintenance Information

Information on your Midwest Repair

Handpiece Problem Solving

Phone: 1-800-800-7202
1-847-640-4800

Web: www.professional.dentsply.com



***Outside the United States:
Contact your DENTSPLY Representative***

European Union Representative:
DENTSPLY DeTrey GmbH
De-Trey Strasse 1
D-78467 Konstanz - Germany

Canada:
DENTSPLY Canada
161 Vinyl Court
Woodbridge, Ontario L4L4A3
800-263-1437



FM 72416

Operating a quality system which complies with
the requirements of ISO 13485:2003

DENTSPLY
PROFESSIONAL

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Des Plaines, IL 60018-1884 USA

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