



**Medtronic**

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# MIDAS REX<sup>®</sup> MR7

## Pneumatic High-Speed System

Preventive Maintenance/Service Manual

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Rx Only

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The scheduled maintenance information included in this Preventive Maintenance/Service manual is provided as a guide to assist the customer in getting the greatest ownership value from their MR7 system, while helping to maximize its performance, safety and reliability. This scheduled maintenance program is in addition to the required routine cleaning after each use. (The scheduled maintenance program is one of three programs, Limited Warranty and Extended Maintenance Agreement are the other two, intended to help you keep your system in good condition.)

This manual is divided into two sections.

Section 1 contains the preventive maintenance/service schedule. How much scheduled maintenance an MR7 system requires depends upon how often it is used and the conditions to which it is subjected, such as cleaning and sterilization. The demands on pneumatic systems can vary greatly from facility to facility. Twelve maintenance intervals have been defined. The time interval is determined by tool usage per year per system and has been identified as levels A, B, C, or D in accordance with the following chart.

<b>Maintenance Level</b>	<b>No. of Tools Used Per Motor Per Year</b>	<b>Usage Rate Uses Per Month Per Motor</b>	<b>Time Interval</b>
A	150—200	12—16*	3 months
B	100—149	8—11	4 months
C	50—99	4—7	5 months
D	< 50	< 4	6 months

\*A motor with usage rates greater than 16 uses per month should be returned for Factory Maintenance at a 6 months interval.

Identifying and following the maintenance level for an MR7 system will assist in reducing the potential for unanticipated down time as a result of wear.

The preventive maintenance schedule found in Section 1 details the specific checkpoints that are recommended and its associated interval. It also provides a convenient place to document your system's maintenance history. If any of these checkpoints indicate excessive wear or damage, DO NOT USE. Return the respective product to Medtronic Powered Surgical Solutions (MPSS) for service.

The maintenance checkpoints have been designed for a facility's Biomedical Department or equivalent to perform. The following symbols are used throughout this manual to indicate whether the maintenance step may be performed by the customer or must be returned to MPSS:



Customer Performed Maintenance



MPSS Performed Maintenance

Section 2 contains the detailed instructions for servicing the MR7 system in accordance with the Twelve Maintenance Intervals.

Your MR7 system has a limited warranty for a period of 1 year from the date of purchase for Motors, Hoses, Pneumatic Control Unit, Regulator Hose, Regulator, Adapters, and Instrument Cases and Trays. The Attachments and Telescoping Tubes have a limited warranty for a period of 90 days from the date of purchase. After the warranty period, any costs incurred for repair/refurbishing become the responsibility of the customer. This limited warranty does not include the cost associated with any of the factory level service requirements identified in the Preventive Maintenance Schedule.

Extended Maintenance Agreements are available.

For service, please call 817-788-6440 or toll free 1-800-335-9557 to schedule. For additional or replacement products, please call 817-788-6400 or toll free 1-800-433-7080 to order.

## Section 1

### Preventive Maintenance/Service Schedule 12 Maintenance Intervals



Customer Performed Maintenance











Medtronic Powered Surgical Solutions (MPSS) Performed Maintenance

Date of System Purchase:\_\_\_\_\_

Maintenance Level:\_\_\_\_\_

# 1<sup>st</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 3 months <input type="checkbox"/> B, 4 months <input type="checkbox"/> C, 5 months <input type="checkbox"/> D, 6 months			
 Motor	 Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping	 Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting	 Pneumatic Control Unit (PCU), Regulator, Regulator Hose
<ul style="list-style-type: none"> <li><input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear.</li> <li><input type="checkbox"/> Exhaust hose does not remain oily after wiping.</li> <li><input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly.</li> <li><input type="checkbox"/> Air Fitting does not exhibit any signs of damage.</li> <li><input type="checkbox"/> Serial number remains legible.</li> <li><input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet.</li> <li><input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released.</li> <li><input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Footed attachment foot is not bent.</li> <li><input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.</li> </ul> <p>Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Etching remains legible.</li> <li><input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play.</li> <li><input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear.</li> <li><input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule.</li> <li><input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas.</li> <li><input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.)</li> <li><input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris.</li> <li><input type="checkbox"/> Motor does not continue to run when foot pedal is released.</li> <li><input type="checkbox"/> Motor port cover is undamaged.</li> </ul>

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

## 2<sup>nd</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 6 months <input type="checkbox"/> B, 8 months <input type="checkbox"/> C, 10 months <input type="checkbox"/> D, 12 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

### 3<sup>rd</sup> Scheduled Maintenance (See Section 2 for Details)

Date Performed: \_\_\_\_\_ By: \_\_\_\_\_









Level: <input type="checkbox"/> A, 9 months <input type="checkbox"/> B, 12 months <input type="checkbox"/> C, 15 months <input type="checkbox"/> D, 18 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear.</li> <li><input type="checkbox"/> Exhaust hose does not remain oily after wiping.</li> <li><input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly.</li> <li><input type="checkbox"/> Air Fitting does not exhibit any signs of damage.</li> <li><input type="checkbox"/> Serial number remains legible.</li> <li><input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet.</li> <li><input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released.</li> <li><input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Footed attachment foot is not bent.</li> <li><input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.</li> </ul> <p>Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Etching remains legible.</li> <li><input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play.</li> <li><input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear.</li> <li><input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule.</li> <li><input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas.</li> <li><input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.)</li> <li><input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris.</li> <li><input type="checkbox"/> Motor does not continue to run when foot pedal is released.</li> <li><input type="checkbox"/> Motor port cover is undamaged.</li> </ul>

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.



# 4<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 12 months <input type="checkbox"/> B, 16 months <input type="checkbox"/> C, 20 months <input type="checkbox"/> D, 24 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  <input type="checkbox"/> Contra-Angled Attachment — Replace  Please call 817-788-6400 or toll free 1-800-433-7080 to order.  Ordered on _____	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 5<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 15 months <input type="checkbox"/> B, 20 months <input type="checkbox"/> C, 25 months <input type="checkbox"/> D, 30 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 6<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 18 months <input type="checkbox"/> B, 24 months <input type="checkbox"/> C, 30 months <input type="checkbox"/> D, 36 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<ul style="list-style-type: none"> <li><input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear.</li> <li><input type="checkbox"/> Exhaust hose does not remain oily after wiping.</li> <li><input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly.</li> <li><input type="checkbox"/> Air Fitting does not exhibit any signs of damage.</li> <li><input type="checkbox"/> Serial number remains legible.</li> <li><input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet.</li> <li><input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released.</li> <li><input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Footed attachment foot is not bent.</li> <li><input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.</li> </ul> <p>Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.</p>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Etching and color ring remains legible and distinguishable.</li> <li><input type="checkbox"/> Attachment tube and base is clean and free of debris.</li> <li><input type="checkbox"/> Attachment has no loose components.</li> <li><input type="checkbox"/> Attachment tip shows no signs of wear or deformation.</li> <li><input type="checkbox"/> Etching remains legible.</li> <li><input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play.</li> <li><input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch.</li> <li><input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear.</li> <li><input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule.</li> <li><input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas.</li> <li><input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.)</li> <li><input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris.</li> <li><input type="checkbox"/> Motor does not continue to run when foot pedal is released.</li> <li><input type="checkbox"/> Motor port cover is undamaged.</li> </ul>

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 7<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)





Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 21 months <input type="checkbox"/> B, 28 months <input type="checkbox"/> C, 35 months <input type="checkbox"/> D, 42 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 8<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)









Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 24 months <input type="checkbox"/> B, 32 months <input type="checkbox"/> C, 40 months <input type="checkbox"/> D, 48 months			
 <p><b>Motor</b></p>	 <p><b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b></p>	 <p><b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b></p>	 <p><b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b></p>
<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  <input type="checkbox"/> Contra-Angled Attachment — Replace  Please call 817-788-6400 or toll free 1-800-433-7080 to order.  Ordered on _____	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 9<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)

Date Performed: \_\_\_\_\_ By: \_\_\_\_\_









Level: <input type="checkbox"/> A, 27 months <input type="checkbox"/> B, 36 months <input type="checkbox"/> C, 45 months <input type="checkbox"/> D, 54 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 10<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)

Date Performed: \_\_\_\_\_









By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 30 months <input type="checkbox"/> B, 40 months <input type="checkbox"/> C, 50 months <input type="checkbox"/> D, 60 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.

# 11<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)

Date Performed: \_\_\_\_\_ By: \_\_\_\_\_









Level: <input type="checkbox"/> A, 33 months <input type="checkbox"/> B, 44 months <input type="checkbox"/> C, 55 months <input type="checkbox"/> D, 66 months			
 <b>Motor</b>	 <b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b>	 <b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b>	 <b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b>
<input type="checkbox"/> Exhaust hose does not have any nicks, cracks, holes, tears, or other visible signs of wear. <input type="checkbox"/> Exhaust hose does not remain oily after wiping. <input type="checkbox"/> Lubricant/diffuser connection does not show any signs of damage that would prevent the oiler from fitting properly. <input type="checkbox"/> Air Fitting does not exhibit any signs of damage. <input type="checkbox"/> Serial number remains legible. <input type="checkbox"/> Connect a straight or footed attachment to the motor and run for 5 minutes. Motor does not become uncomfortably hot to the touch, and, there is no oil leaking from the motor collet. <input type="checkbox"/> (MR7 Touch only) Motor does not continue to run when the finger control lever is released. <input type="checkbox"/> (MR7 Touch only) Finger control lever and safety slide has no signs of debris or damage, and the lever moves freely.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> (Straight/Footed) Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Footed attachment foot is not bent. <input type="checkbox"/> Collet on Perforator or Jacobs Chuck Drive Attachment shows no signs of wear or deformation. <input type="checkbox"/> Connect the attachment to the motor and run for 5 minutes. Motor case, attachment base and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each straight, footed, telescoping, perforator, and Jacobs Chuck drive attachment in this system.  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Etching and color ring remains legible and distinguishable. <input type="checkbox"/> Attachment tube and base is clean and free of debris. <input type="checkbox"/> Attachment has no loose components. <input type="checkbox"/> Attachment tip shows no signs of wear or deformation. <input type="checkbox"/> Etching remains legible. <input type="checkbox"/> Connect the angled or metal cutting attachment to the motor and run for 5 minutes. Motor case, attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Head to tube joint for the contra-angled attachment is stable, i.e., no play. <input type="checkbox"/> Connect the contra-angled attachment to the motor and run for 1 minute. Motor case, contra-angled attachment base, knuckle and tip does not become uncomfortably hot to the touch. <input type="checkbox"/> Repeat for each angled, contra-angled or metal cutting attachment in this system.	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.



# 12<sup>th</sup> Scheduled Maintenance (See Section 2 for Details)

Date Performed: \_\_\_\_\_ By: \_\_\_\_\_

Level: <input type="checkbox"/> A, 36 months <input type="checkbox"/> B, 48 months <input type="checkbox"/> C, 60 months <input type="checkbox"/> D, 72 months			
 <p><b>Motor</b></p>	 <p><b>Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping</b></p>	 <p><b>Attachments: Angled (Fixed and Variable Exposure), Contra, Metal Cutting</b></p>	 <p><b>Pneumatic Control Unit (PCU), Regulator, Regulator Hose</b></p>
<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  Note: Telescoping tubes are multi-use disposable. Discard if excessive heat or vibration is present.	<input type="checkbox"/> Requires factory level service.  Please call 817-788-6440 or toll free 1-800-335-9557 to schedule.  Sent out on _____  Returned on _____  <input type="checkbox"/> Contra-Angled Attachment — Replace  Please call 817-788-6400 or toll free 1-800-433-7080 to order.  Ordered on _____	<input type="checkbox"/> Air fittings and regulator hose do not show any signs of blockage, damage or wear. <input type="checkbox"/> Pressurize the PCU or regulator and confirm gage functionality. NOTE: The pressure gages should be placed on your facilities routine calibration schedule. <input type="checkbox"/> Pressurize the PCU and press Pressure Relief button. Ensure that it releases the compressed gas. <input type="checkbox"/> Confirm that the Finger/Foot Control Switch is functional by connecting a motor to the PCU and moving the switch to the  position, and then removing the motor and moving the switch back to the  position. (In the  position, the foot pedal will be depressed. In the  position, the foot pedal will be released.) <input type="checkbox"/> Foot pedal moves freely and there is no build-up of debris. <input type="checkbox"/> Motor does not continue to run when foot pedal is released. <input type="checkbox"/> Motor port cover is undamaged.

If any damage, excessive rust/corrosion, or wear is observed with the product, or if action is required beyond cleaning, **DO NOT** use the product and return to MPSS for service.



## **Section 2**

### **Instructions for Completing Preventive Maintenance Steps**

## Scheduled Maintenance Intervals 1, 2, 3, 5, 6, 7, 9, 10, 11

### Motor

1. Visually inspect the exhaust (green) hose and ensure that it does not have any nicks, cracks, holes, tears, or other visible signs of wear.
2. Wipe the external surface of the exhaust (green) hose with a cloth. Perform the heat and seal check below (Step 6) and then inspect the hose. If an oily film remains on the hose, **DO NOT** use and return the motor to MPSS for service.
3. Visually inspect the air fitting and ensure that it does not exhibit any signs of damage.
4. Visually inspect the serial number and ensure that it remains legible.
5. Heat and Seal Check
  - Attach and lock a straight or footed attachment onto the motor. Check to ensure that there is a tactile feel and an audible click when the attachment is locked on the motor.
  - Connect the motor to a pneumatic control unit attached to a compressed gas source.
  - Run the motor for 5 minutes.
  - Feel the motor case and the attachment base and ensure they are not uncomfortably hot to the touch.
  - Remove the Attachment and visually inspect the tool collet area, and the finger control valve area (if applicable) for any signs of oil.
6. (MR7 Touch only) Run the motor for a short duration and then release the finger control lever. If the motor continues to run after the finger control lever is released, **DO NOT** use and return the motor to MPSS for service.
7. (MR7 Touch only) Visually inspect the finger control lever and safety slide for any signs of debris or damage. Ensure the lever moves freely.

## Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, and Telescoping

Telescoping tubes are multi-use disposable and do not receive scheduled maintenance.

1. Visually inspect the etching and color ring to ensure it remains legible and the color is distinguishable.
2. Visually inspect the attachment tube and base for any signs of debris or damage.
3. Visually and physically inspect (pulling and twisting by hand) the attachment for any loose or loosening components. If any components are loose, **DO NOT** use and return the attachment to MPSS for service.
4. (Straight/Footed) Visually inspect the attachment tip for any signs of wear. The tip should remain round with no evidence of deformation.
5. (Footed) Visually inspect the foot. The foot and/or leg of the attachment should not be bent or damaged.
6. (Perforator and Jacobs Chuck) Visually inspect the perforator collet for any signs of wear or deformation.
7. Heat Check
  - For telescoping attachment, insert an appropriate telescoping tube into the base.
  - Attach and lock the attachment onto the motor. Check to ensure that there is a tactile feel and an audible click when the attachment is locked on the motor.
  - Connect the motor to a pneumatic control unit attached to a compressed gas source.
  - Run the motor for 5 minutes.
  - Feel the motor case, the attachment base, and the attachment tip (except Telescoping) to ensure they are not uncomfortably hot to the touch.
8. Repeat steps 1-7 for each straight/footed/perforator/Jacobs Chuck attachment that is part of this system.

## Attachments: Angled (Fixed and Variable Exposure), Contra and Metal Cutting

1. Visually inspect the etching and color ring to ensure it remains legible and the color is distinguishable.
2. Visually inspect the attachment tube and base for any signs of debris or damage.
3. Visually and physically inspect (pulling and twisting by hand) the attachment for any loose or loosening components. If any components are loose, **DO NOT** use and return the attachment to MPSS for service.
4. Visually inspect the attachment tip for any signs of wear. The tip should remain round with no evidence of deformation.
5. Heat Check Angled and Metal Cutting Attachment
  - Attach and lock the attachment onto the motor. Check to ensure that there is a tactile feel and an audible click when the attachment is locked on the motor.
  - Connect the motor to a pneumatic control unit attached to a compressed gas source.
  - Run the motor for 5 minutes.
  - Feel the motor case, the attachment base, the knuckle (angled area for angled attachment only), and the attachment tip to ensure they are not uncomfortably hot to the touch.
6. (Contra) Visually inspect the head to tube joint for the contra-angled attachment for stability, i.e., there is no loosening of this joint.
7. Heat Check Contra-Angled Attachment
  - Attach and lock the contra-angled attachment onto the motor. Check to ensure that there is a tactile feel and an audible click when the attachment is locked on the motor.
  - Connect the motor to a pneumatic control unit attached to a compressed gas source.
  - Run the motor for 1 minute.



- Feel the motor case, the attachment base, the knuckle (contra-angled area), and the attachment tip to ensure they are not uncomfortably hot to the touch.
8. Repeat steps 1-7 for each angled/contra-angled/metal cutting attachment that is part of this system.

### **Pneumatic Control Unit, Regulator, and Regulator Hose**

1. Visually inspect the air fittings and regulator hose for any signs of blockage, damage, or wear.
2. Static Gage Check
  - Connect the pneumatic control unit/regulator to a compressed gas source.
  - Pressurize the pneumatic control unit/regulator.
  - Confirm that the gage is functional.

NOTE: This is a static functional test only. The pressure gages should be placed on your facility's routine calibration schedule and be assessed for accuracy during its regular calibration date.

3. (Pneumatic Control Unit) Pressure Relief Button Check
  - Connect the pneumatic control unit to a compressed gas source.
  - Pressurize the pneumatic control unit.
  - Turn off the compressed gas source.
  - Press the Pressure Relief Button.
  - Confirm that the compressed gas has been released and the gage on the pneumatic control unit drops to zero.
4. (Pneumatic Control Unit) Finger/Foot Control Switch Functionality Check

- Connect a motor to the pneumatic control unit.
  - Place the switch in the  position.
  - Confirm the foot pedal is depressed.
  - Remove the motor from the pneumatic control unit.
  - Place the switch in the  position.
  - Confirm the foot pedal is released.
5. (Pneumatic Control Unit) Visually inspect the motor port cover for any signs of wear or damage.
  6. (Pneumatic Control Unit) Visually inspect the foot control pedal for any build-up of debris or indication of damage. Ensure the pedal moves freely.
  7. (Pneumatic Control Unit) Pedal Check
    - Attach the motor to the pneumatic control unit.
    - Connect the pneumatic control unit to a compressed gas source.
    - Depress the foot pedal and run the motor for a short duration.
    - Release the foot pedal and observe the motor.

If the motor continues to run after the foot pedal control lever is released, DO NOT use and return the foot control to MPSS for service.
  8. Visually inspect the motor port cover for damage.



## Scheduled Maintenance Intervals 4, 12

### **Motor, Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping, Angled (Fixed and Variable Exposure), Contra and Metal Cutting**

At these maintenance intervals it is important that the units be returned to MPSS for factory level inspection and service. Please call 817-788-6440 or toll free 1-800-335-9557 to schedule. As a reminder, the costs associated with any of the factory level service requirements are not included in the limited warranty. Extended Maintenance Agreements are available.

Telescoping tubes are multi-use disposable and do not receive scheduled maintenance.

### **Contra-Angled Attachment**



The Contra-angled attachment does not contain user or factory serviceable components and must be replaced at the 4th, 8th and 12th maintenance intervals. Please call 817-788-6400 or toll free 1-800-433-7080 to order.

### **Pneumatic Control Unit, Regulator, and Regulator Hose**

1. Visually inspect the air fittings and regulator hose for any signs of blockage, damage, or wear.
2. Static Gage Check
  - Connect the pneumatic control unit/regulator to a compressed gas source.
  - Pressurize the pneumatic control unit/regulator.
  - Confirm that the gage is functional.

NOTE: This is a static functional test only. The pressure gages should be placed on your facilities routine calibration schedule and be assessed for accuracy during its regular calibration date.

3. (Pneumatic Control Unit) Pressure Relief Button Check
  - Connect the pneumatic control unit to a compressed gas source.
  - Pressurize the pneumatic control unit.

- Turn off the compressed gas source.
  - Press the Pressure Relief Button.
  - Confirm that the compressed gas has been released and the gage on the pneumatic control unit drops to zero.
4. (Pneumatic Control Unit) Finger/Foot Control Switch Functionality Check
    - Connect a motor to the pneumatic control unit.
    - Place the switch in the  position.
    - Confirm the foot pedal is depressed.
    - Remove the motor from the pneumatic control unit.
    - Place the switch in the  position.
    - Confirm the foot pedal is released.
  5. (Pneumatic Control Unit) Visually inspect the motor port cover for any signs of wear or damage.
  6. (Pneumatic Control Unit) Visually inspect the foot control pedal for any build-up of debris or indication of damage. Ensure the pedal moves freely.
  7. (Pneumatic Control Unit) Pedal Check
    - Attach the motor to the pneumatic control unit.
    - Connect the pneumatic control unit to a compressed gas source.
    - Depress the foot pedal and run the motor for a short duration.
    - Release the foot pedal and observe the motor.

If the motor continues to run after the foot pedal control lever is released, **DO NOT** use and return the foot control to MPSS for service.

## Scheduled Maintenance Interval 8

### **Motor, Attachments: Straight (Fixed and Variable Exposure), Footed (Fixed and Rotating), Perforator, Jacobs Chuck, Telescoping, Angled (Fixed and Variable Exposure), Contra, Metal Cutting; Foot Control, and Regulator**

At this maintenance interval it is important that the units be returned to MPSS for factory level inspection and service. Please call 817-788-6440 or toll free 1-800-335-9557 to schedule. As a reminder, the costs associated with any of the factory level service requirements are not included in the limited warranty. Extended Maintenance Agreements are available.

Telescoping tubes are multi-use disposable and do not receive scheduled maintenance.

### **Contra-Angled Attachment**

The Contra-angled attachment does not contain user or factory serviceable components and must be replaced at the 4th, 8th and 12th maintenance intervals. Please call 817-788-6400 or toll free 1-800-433-7080 to order.



# Medtronic

*Alleviating Pain · Restoring Health · Extending Life*

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## Orders:

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Toll-Free: 1-800-433-7080

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Toll-Free: 1-800-335-9557

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