OPERATION and MAINTENANCE INSTRUCTION MANUAL

AEU-25T Electronic Endodontic System
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SPECIFICATIONS:

- Console Size: 3.5" x 5" x 7"
  (9 cm x 13 cm x 18 cm)
- Console Weight: 3.55 lbs (1.6 kg)
- Power Source: Dual Voltage
  115V or 230V AC
- Power Consumption
  Maximum: 100 W (approx.)
  Sleep Mode: 6 W

INDICATIONS FOR USE:
The Endo DTC® is an electric handpiece control system that is used in dentistry to drive endodontic files and instruments.

CONTRAINDICATIONS:
- None Known

WARNINGS:
- Equipment not suitable for use in the presence of a flammable mixture with air or with oxygen or nitrous oxide.
- Do not use near standing water. Dropping the unit into water may cause electric shock.
- This equipment provides ordinary protection against harmful ingress of liquids (IPX0). Do not submerge the electric hand motor in any liquid.

PRECAUTIONS:
- Always unplug the unit before changing fuses.
- Do not clean unit with a flammable cleaning solution.

ADVERSE REACTIONS:
- None Known

- STEP-BY-STEP INSTRUCTIONS BEGIN ON PAGE 2
- STERILIZATION METHOD INSTRUCTIONS BEGIN ON PAGE 14

To prevent injury to people and damage to property, please heed relevant warnings and remarks. They are marked as follows:

WARNING: Serious injury or death may result if ignored.

CAUTION: Damage to property or the environment may result if ignored.

NOTE: Important additional information and hints.
Your new Endo DTC® is one of the most advanced units available to the dental profession. This system features advanced digital torque control technology with auto-stop reverse to help prevent file breakage in the canal, five programmable memory buttons with an onboard file library, an integrated calibration system, and the versatility of an autoclavable 30,000 RPM brushless micro motor. These features combine to make the perfect rotary file system for endodontic and other dental procedures.

Congratulations!

This system is engineered to provide many years of reliable service. Please read the instructions provided in this manual to receive the best and longest service from your Aseptico equipment.

Separate manuals may be provided to cover the operation and maintenance of handpieces or other accessories for your unit.

PACKAGE CONTENTS

- Electronic Control Console
- Remote Power Cord
- AE-4B-30 Autoclavable 30K Brushless Micro Motor
- Autoclavable Motor Holder
- AE-7P Foot Switch (971-S)
STEP-BY-STEP INSTRUCTIONS
SETTING UP THE UNIT:

1. Unpack the console and check that the Voltage Selector is set to the proper voltage. Use 115v for 110-120v 60Hz voltages, and the 230v for 220-250v 50Hz voltages. To change the Voltage Selector, see page 15.

2. Attach the power cord to the back of the Console and plug into a grounded electrical outlet.

3. Connect the AE-4B-30 motor to the receptacle on the lower front panel of the console.

4. Attach the "E" Type handpiece to the motor. See Figure 2.

5. Attach the supplied AE-7P On/Off Foot Switch to the connector on the back of the unit marked "Foot Switch."

![Figure 1](attachment:image1.png)

![Figure 2](attachment:image2.png)

**CAUTION**

Do not attempt to operate the Endo DTC® while configured in the 115V mode with a 230V power source. This could damage the electrical components and will void the warranty.
Figure 3 - Console Front

Figure 4 - Console Back

* See page 6 for **ADVANCED OPERATION AND FUNCTIONS**
QUICK START OPERATION

After the unit has been set up, you are ready for quick start operation as follows:

1. Turn the Power Switch on the rear panel of the console from the 'OFF' (0) to the 'ON' (+) position. The Console LCD Display will light and the Startup Screen (shown below) will be displayed for a few seconds. The Startup Screen displays the software version onboard your Endo DTC®.

ASEPTICO AEU25
Software Rev. TUL06

2. Set The Default Handpiece:
On your first use (and after Recalling Factory Setup, see System Setup Menu page 7) you must specify which handpiece you are using with the Endo DTC®. This ensures accurate torque response. The handpiece included with your Endo DTC® has either Tul 8M or Anthogyr 1/8" written on it.

A. The screen will display:

1/8 TUL HANDPIECE
1=next 2=ok
- If your 1/8 reduction contra-angle handpiece is the Tul 8M model, press Button #2 to set this as your default handpiece, then go on to Step 3 below.
- If you do not have the Tul 8M model, press Button #1 and go on to Step B.

B. The screen will display:

1/8 AG HANDPIECE
1=next 2=ok
- If you have the Anthogyr 1/8 handpiece, press Button #2 to set the Anthogyr 1/8 as your default handpiece.

3. Insert an endodontic rotary file into the handpiece.

4. Use the Calibration function to calibrate the Endo DTC®. See Caution at right. Press and release the "CAL" button. The unit will run for a few seconds, measuring the handpiece for an accurate display of speed and torque values.

5. Select the Preset Button corresponding to the endodontic rotary file series you are using.
By default, the Endo DTC® preset buttons are set for the file series shown in Chart 1. Pressing the Preset Button repeatedly will cycle through the individual files listed below each series name.

6. Press the foot pedal to activate motor and begin operation.
When using the optional AE-7D Dual Foot Control:
The black (right side) pedal controls the on/off operation of the handpiece (exactly like the standard AE-7P foot pedal).
The blue (left side) pedal provides a hands-free way to operate the preset buttons:
- To step to the next individual file of an entire file series on the active preset button: Press and release the blue pedal.
- To step to the next preset button: Press and hold the blue pedal for 1/2 sec. (until you hear a double beep), then release the blue pedal.

7. After 20 minutes of inactivity, the Endo DTC® will go into Sleep Mode to conserve power. To exit Sleep Mode and resume operation, press the Foot Pedal.

*The ratios 8:1 and 1/8 are equivalent; one is a U.S. term (8:1), one is a European term (1/8).
### Chart 1 - Endo DTC® Default Presets

<table>
<thead>
<tr>
<th>Preset Button 1 Default File Series:</th>
<th>DENTSPLY Tulsa Dental Specialties PathFile® All Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>File #1:</td>
<td>PathFile (All Files)</td>
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</table>

<table>
<thead>
<tr>
<th>Preset Button 2 Default File Series:</th>
<th>DENTSPLY Tulsa Dental Specialties ProTaper Next™ Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>File #1:</td>
<td>ProTaper Next High All</td>
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<tr>
<td>File #2:</td>
<td>ProTaper Next Low All</td>
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</table>

<table>
<thead>
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<th>Preset Button 3 Default File Series:</th>
<th>DENTSPLY Tulsa Dental Specialties ProTaper® Universal Files</th>
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<tbody>
<tr>
<td>File #1:</td>
<td>ProTaper Universal S1 &amp; SX</td>
</tr>
<tr>
<td>File #2:</td>
<td>ProTaper Universal S2 &amp; F1</td>
</tr>
<tr>
<td>File #3:</td>
<td>ProTaper Universal F2, F3, F4, F5</td>
</tr>
<tr>
<td>File #4:</td>
<td>ProTaper Universal Retreatment D1 &amp; D2</td>
</tr>
<tr>
<td>File #5:</td>
<td>ProTaper Universal Retreatment D3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Preset Button 4 Default File Series:</th>
<th>DENTSPLY Tulsa Dental Specialties Vortex® 04 &amp; 06 Taper Files</th>
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</thead>
<tbody>
<tr>
<td>File #1:</td>
<td>Vortex Orifice (All)</td>
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<tr>
<td>File #2:</td>
<td>Vortex 04, .35 through .50 taper</td>
</tr>
<tr>
<td>File #3:</td>
<td>Vortex 04, .25 and .30 taper</td>
</tr>
<tr>
<td>File #4:</td>
<td>Vortex 04, .15 and .20 taper</td>
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<tr>
<td>File #5:</td>
<td>Vortex 06, .35 through .50 taper</td>
</tr>
<tr>
<td>File #6:</td>
<td>Vortex 06, .25 and .30 taper</td>
</tr>
<tr>
<td>File #7:</td>
<td>Vortex 06, .15 &amp; 20 taper</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Preset Button 5 Default File Series:</th>
<th>DENTSPLY Tulsa Dental Specialties GT® Series 20, 30, 40 Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>File #1:</td>
<td>Accessory 90, 70, 50, .35/.12 taper</td>
</tr>
<tr>
<td>File #2:</td>
<td>GT Yellow 20 Series, .10 and .08 taper</td>
</tr>
<tr>
<td>File #3:</td>
<td>GT Yellow 20 Series, .06 and .04 taper</td>
</tr>
<tr>
<td>File #4:</td>
<td>GT Blue 30 Series, .10 and .08 taper</td>
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<td>File #5:</td>
<td>GT Blue 30 Series, .06 and .04 taper</td>
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<tr>
<td>File #6:</td>
<td>GT Black 40 Series, .10 and .08 taper</td>
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<tr>
<td>File #7:</td>
<td>GT Black 40 Series, .06 and .04 taper</td>
</tr>
</tbody>
</table>
ADVANCED OPERATION AND FUNCTIONS

1. HANDPIECE RATIO SELECTOR:
   Sets the Handpiece Ratio Indicator on the Console LCD Display to read accurately for different handpiece ratios.
   Multiple handpieces with different ratios are often required to obtain the various speed ranges used in dental procedures.
   The available handpiece ratios and speed & torque ranges for each are shown in Chart 2 below.

   Chart 2 - Ratio, Speed and, Torque

<table>
<thead>
<tr>
<th>Handpiece Ratio</th>
<th>Speed Range (RPM)</th>
<th>Torque Range (g·cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/1 TUL or AG</td>
<td>1,500 - 150,000</td>
<td>2-15 (No ASR)</td>
</tr>
<tr>
<td>1/1 TUL or AG</td>
<td>300 - 30,000</td>
<td>4 - 125</td>
</tr>
<tr>
<td>1/4</td>
<td>75 - 7,500</td>
<td>15 - 500</td>
</tr>
<tr>
<td>1/8 TUL or AG</td>
<td>40 - 3,750</td>
<td>30 - 1,000</td>
</tr>
<tr>
<td>1/16 TUL or AG</td>
<td>20 - 1,800</td>
<td>60 - 2,000</td>
</tr>
<tr>
<td>1/64</td>
<td>5 - 460</td>
<td>400 - 7,000</td>
</tr>
</tbody>
</table>

   Note: Speed and torque ranges are accurate when handpieces are used with the supplied 30K motor.

   Push the Handpiece Ratio Selector up or down arrows until the displayed handpiece ratio matches the handpiece ratio you are using.
   Ratio settings are held in memory even after unit is turned off.
   Auto Stop Reverse (ASR) is not available with Incease handpieces.

2. SPEED (RPM) SELECTOR:
   Controls the speed of the motor and handpiece. Push the Speed Up arrow to increase speed and the Speed Down arrow to decrease speed. The Speed (RPM) Indicator on the Console LCD Display shows actual RPM. For display accuracy, the displayed handpiece ratio must exactly match the ratio of the handpiece being used. Speed settings are held in memory even after unit is turned off.

3. TORQUE SELECTOR:
   Allows the user to adjust exact torque limits in Gram-Centimeter increments. Push the Torque Selector up/down arrows until the desired torque level is indicated on the Console LCD Display. By adjusting the torque control to reduced limits for each instrument size and operating the handpiece at a constant RPM, the risk of instrument breakage is greatly reduced.
   Torque settings are held in memory even after unit is turned off.

   For most endodontic root canal applications, the included 1/8 reduction contra-angle handpiece is normally used. Proper contra-angle maintenance, including cleaning and lubrication are essential to minimize torque losses when using the torque reduction settings.

4. FORWARD/REVERSE SELECTOR (FWD/REV):
   Determines the rotation of the motor and handpiece. A red LED light above this button will indicate the reverse rotation during operation. When the Reverse Beeper (BPR) feature is active, an audible beeper (and the red LED light) will indicate the reverse rotation.

5. MAXIMUM TORQUE BUTTON (MAX):
   Press and release to override the Endo DTC® Torque Control feature.

   With MAX Torque activated:
   The LED above the Max. Torque Button will display a steady red light, the Torque Indicator will display "MAX", and the motor will operate at full torque. When the Max function is enabled, the Auto Stop Reverse (ASR) and torque warning tone features are automatically disabled.

   With MAX Torque disabled:
   When the motor reaches the programmed maximum torque level, the LED above the Max. Torque Button will blink green. This is the normal setting for endodontic procedures.
6. CALIBRATION AND SYSTEM SETUP BUTTON:

Calibration (CAL):
Press and release the "CAL" button to activate the integrated Calibration System. The AEU-25 will automatically run the handpiece and system through a self test.

Use the Calibration function in the following circumstances:
- At the beginning of each day
- After changing handpieces (especially when changing handpiece type)
- After changing files or burs (optional)

System Setup Menu:
Press and hold the "CAL" button until you hear a double beep to enter the System Setup Menu. After entering the System Setup Menu, the following setup options will be displayed on the Console LCD Display.

PRESET MEMORY LOCK
1=on, 2=off, 3=esc

By default, the Preset Memory Lock is activated to prevent the user from inadvertently entering the File Library during a procedure. To customize the Preset Buttons with other File Library Settings or User Defined Presets, the Preset Memory Lock must be disabled. To protect any customized presets, re-enable the Preset Memory Lock after programming the Preset Buttons. This is a system-wide setting and is not saved on a Preset Button when programming.
- To enable the Preset Memory Lock, press 1.
- To disable the Preset Memory Lock, press 2.
- To exit the System Setup Menu without changes, press 3.

RECALL FACTORY SETUP
1=no, 2=yes, 3=esc

Recalling the Factory Setup allows you to reset your Endo DTC® to factory specifications. NOTE: Any customized presets will be lost if you Recall Factory Setup.
- To keep your customized settings, press 1.
- To return the Endo DTC® preset buttons to the factory settings (as shown in Chart 1 on page 5), press 2.
- CONFIRM RECALL will appear. Select 2 to confirm recall or select 1 to reject changes.
- To exit the System Setup Menu and save changes, press 3.

AUTO STOP REVERSE
1=on, 2=off, 3=esc

When the Auto Stop Reverse (ASR) feature is enabled, rotation of the handpiece will automatically stop and reverse when the selected torque limit is reached. Do not release the foot pedal when this occurs; keep the foot pedal activated and the Endo DTC® will automatically alternate between forward and reverse rotation in an attempt to free the instrument.

The Auto Stop Reverse setting is saved when programming Preset Buttons.
- To enable the Auto Stop Reverse feature, press 1.
- To disable the Auto Stop Reverse feature, press 2.
- To exit the System Setup Menu, press 3.

SAVE CHANGES selection will appear. Select 1 to save changes and exit or select 2 to reject all changes and exit.
SYSTEM SETUP MENU - CONTINUED:

REVERSE BEEPER
1=on, 2=off, 3=esc
When the Reverse Beeper (BPR) feature is active, an audible beep will sound when the handpiece is rotating in the reverse direction. This is a system-wide setting and is not saved on a Preset Button when programming.
- To enable the Reverse Beeper feature, press 1.
- To disable the Reverse Beeper feature, press 2.
- To exit the System Setup Menu, press 3.
  SAVE CHANGES selection will appear. Select 1 to save changes and exit or select 2 to reject all changes and exit.

SLEEP MODE
1=on, 2=off, 3=esc
After 20 minutes of inactivity, the Endo DTC® will enter Sleep Mode to conserve power. In Sleep Mode, the lighted Console LCD display will turn off and the green LEDs above the CAL, FWD/REV, and MAX buttons will blink once every second.
To resume normal operation when the Endo DTC® is in Sleep Mode, press any button on the console or press the foot control.
This is a system-wide setting and is not saved on a Preset Button when programming.
- To enable the Sleep Mode, press 1.
- To disable the Sleep Mode, press 2.
- To exit the System Setup, press 3. SAVE CHANGES selection will appear. Select 1 to save changes and exit or select 2 to reject all changes and exit.

TORQUE WARNING TONE
1=on, 2=off, 3=esc
When the Torque Warning feature is active, a chirping warning noise will be audible when the torque level reaches approximately 75% of the selected torque limit. This is a system-wide setting and is not saved on a Preset Button when programming.
- To enable the Torque Warning Tone, press 1.
- To disable the Torque Warning Tone, press 2.
- To exit the System Setup Menu, press 3.
  SAVE CHANGES selection will appear. Select 1 to save changes and exit or select 2 to reject all changes and exit.

ACCESSORY WARNING TONE
1=off, 2=on, 3=esc
When the Accessory Warning feature is active, a warning tone will be audible when a GT Accessory file or ITR Emulation Accessory file is in use. This is a system-wide setting and is not saved on a Preset Button when programming.
- To disable the Accessory Warning, press 1.
- To enable the Accessory Warning press 2.
- To exit the System Setup, press 3.
  SAVE CHANGES selection will appear. Select 1 to save changes and exit or select 2 to reject all changes and exit.

7. POWER SWITCH:
Controls power on/off to console. On the switch, the on position is represented by a '1' and the off position is represented by a '0'. When the AEU-25 is turned on and not in Sleep Mode, the Console LCD Display will light.
8. INTRODUCTION TO PROGRAMMING PRESET BUTTONS:

By default, the Preset Buttons are programmed to recall the file series shown in Chart 1 on page 5. The Preset Buttons are also used to navigate the various menus in the System Setup and File Library.

The Preset Buttons can be customized to suit individual preferences. There are three ways to program a preset button:

1. An Entire File Series from the File Library
2. A Single File from the File Library
3. A User Defined Preset

When recalling a preset button, three different displays will appear depending on how the preset button was programmed:

1. If an Entire File Series was programmed on the preset button (as is the case for the factory default setup), the File Series and File Name will be displayed, as shown in the example below.

   File Series
   GT SERIES 20, 30, 40
   ACC 90, 70, 50, 35/12
   File Name #1

   Pressing the same preset button again will step to the next file in the file series, as shown below.

   File Series
   GT SERIES 20, 30, 40
   GT YEL 20/10 & 20/08
   File Name #2

2. If a Single File was programmed on the preset button, the words "Single File Preset" and the File Name will be displayed, as shown in the example below.

   Preset Type
   SINGLE FILE PRESET
   PROTAPER S1 & SX
   File Name

3. If a User Defined Preset was programmed on the preset button, the words "User Defined Preset" and the Handpiece Ratio, Speed in RPM, and Torque in Gram-Centimeters, will be displayed, as shown in the example below.

   Preset Type
   USER DEFINED PRESET
   1/8 AG 300 240
   Ratio Speed Torque

4. For all programming modes:

   When the Endo DTC® is in operation (with the foot pedal pressed), the Operation Screen will be displayed. The Operation Screen will show the Handpiece Ratio, Speed (in RPM), Torque (in Gram-Centimeters), Reverse Beep (if enabled), and Auto Stop Reverse (if enabled).

   Ratio Speed Torque
   1/8 AG 300 240
   ASR BPR RPM g-cm

   (Auto Stop Reverse) (Reverse Beep)

* NOTE: When PRO-POST DRILLS is selected, there will not be a prompt for "LOAD ENTIRE SERIES" because there is only one selection.
9. PROGRAMMING A PRESET BUTTON WITH AN ENTIRE FILE SERIES:

1. Disable the Preset Memory Lock. For instructions, read about the System Setup Menu beginning on page 6.

2. Press and hold the desired Preset Button for 1 second (until you hear a double beep).

3. The display will show:
   ACCESS FILE LIBRARY?
   1=Yes, 2=No, 3=Esc
   Press Button #1 to access file library.

4. The display will show:
   PATHFILE ALL
   1=next, 2=ok, 3=esc
   Press Button #1 repeatedly until the desired file series is shown on the display. See the Chart 3 on page 11 for a list of available file series.

Example 1:
To go to the Protaper® Universal series, press preset button #1 three times.
The display will then show:
   PROTAPER UNIVERSAL
   1=next, 2=ok, 3=esc

5. Press Button #2 to select the displayed file series.

6. The display will show:
   LOAD ENTIRE SERIES?
   1=Yes, 2=No, 3=Esc
   Press Button #1 to load the entire series.

7. The display will show:
   USE DEFAULT HP?
   1=next, 2=ok, 3=esc
   NOTE: The default handpiece is the handpiece that was shipped with the Endo DTC®, specified in Quick Start Operation Section 2 on page 4.
   • If you are using the default handpiece with this file series, press Button #1 and go on to step 6.
   • If you are using a handpiece other than the default handpiece, press Button #2.

   i. The display will show:
   1/8 TUL HANDPIECE or
   1/8 AG HANDPIECE
   1=next, 2=ok, 3=esc
   When the displayed handpiece ratio matches the handpiece ratio you are using with this File Series, press Button #2.

   ii. Press Button #1 repeatedly to cycle through the available handpiece ratios.

8. The Preset Button is now set with the selected file series.

For Example 1:
The display will now show:
   PROTAPER UNIVERSAL
   PROTAPER S1 & SX
   Pressing the Preset Button repeatedly will cycle through the individual files in the selected series.

9. When you have completed the customization of the desired preset buttons, re-enable the Preset Memory Lock to avoid inadvertently entering the File Library during a procedure. For instructions, read about the System Setup Menu beginning on page 6.
### Chart 3 - Endo DTC® File Library Settings

<table>
<thead>
<tr>
<th>File Size</th>
<th>Speed (RPM)</th>
<th>Torque (g-cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL</strong></td>
<td>600</td>
<td>250</td>
</tr>
<tr>
<td><strong>ALL (ALL Files)</strong></td>
<td>900</td>
<td>350</td>
</tr>
<tr>
<td><strong>ALL (ALL Files)</strong></td>
<td>1200</td>
<td>550</td>
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<tr>
<td><strong>ALL (ALL Files)</strong></td>
<td>1500</td>
<td>750</td>
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<td><strong>ALL (ALL Files)</strong></td>
<td>1800</td>
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<td><strong>ALL (ALL Files)</strong></td>
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**NOTE:** Before programming your endo, disable Password Memory Lock in System Setup menu. Hold down the Pause Button until you hear a double beep. After programming proceeds, re-enable Password Memory Lock.

1. Pathfile torque is set at user's preference.
2. Recommended torque is between 200-500 g-cm.
3. SPM represents SERIES 26.
4. Lexicon Gates and Pro-Post Drills are not compatible with 1183 resists and tempers, which have a minimum speed of 1000 RPM.
10. PROGRAMMING A PRESET BUTTON WITH A SINGLE FILE

1. Disable the Preset Memory Lock.
   For instructions, read about the System Setup Menu beginning on page 6.

2. Press and hold the desired Preset Button for 1 second (until you hear a double beep).

3. The display will show:
   
   **ACCESS FILE LIBRARY?**
   
   1=yes, 2=no, 3=esc

   Press Button #1 to access the File Library.

4. The display will show:
   
   **PATHFILE ALL**
   
   1=next, 2=ok, 3=esc

   Press Button #1 repeatedly until the desired file series is shown on the display. See Chart 3 on page 11 for a list of available file series.

   **Example 2:**
   To go to the Protaper® Universal series, press preset button #1 three times. The display will then show:

   **PROTAPER UNIVERSAL**
   
   1=next, 2=ok, 3=esc

5. Press Button #2 to select the displayed file series.

6. The display will show:
   
   **LOAD ENTIRE SERIES?**
   
   1=yes, 2=no, 3=esc

   Press Button #2. Do not load entire series.

7. Press Button #1 repeatedly until the desired file is shown on the display. See Chart 3 on page 11 for a list of available files in each file series.

   **Example 2:**
   To go to the F2 and F3 files in the Protaper series, press Button #1 twice. The display will show the following:

   **PROTAPER F2 F3 F4 F5**
   
   1=next, 2=ok, 3=esc

8. Press Button #2 to select the displayed files.

9. The display will show:
   
   **USE DEFAULT HP?**
   
   1=yes, 2=no, 3=esc

   NOTE: The default handpiece is the handpiece that was shipped with the Endo DTC®, specified in Quick Start Operation Section 2.

   a. If you are using the default handpiece with this file series, press Button #1 and go on to Step 10.

   b. If you are using a handpiece other than the default handpiece, press Button #2 and choose the correct handpiece. For instructions, refer to i and ii on page 10.

10. The Preset Button is now set with the selected single file settings.

    **For Example 2 above:**

    The display will now show:

    **SINGLE FILE PRESET**

    **PROTAPER F2 F3 F4 F5**

11. When you have completed the programming of the desired preset buttons, re-enable the Preset Memory Lock to avoid inadvertently entering the File Library during a procedure. For instructions, read about the System Setup Menu beginning on page 6.
11. PROGRAMMING A PRESET BUTTON WITH A USER DEFINED PRESET

1. Disable the Preset Memory Lock and enable or disable Auto Stop Reverse and torque warning tone. For instructions, read about the System Setup Menu beginning on page 6.

2. Set the Handpiece Ratio to the correct setting.
Press the Handpiece Ratio Selector up or down arrows until the Handpiece Ratio Indicator matches the ratio of the handpiece to be used.

3. Set the speed to the desired setting.
Press the Speed Selector up/down arrows until the desired speed is shown on the display.

4. Set the torque level to the desired setting.
Press the Torque Selector up/down arrows until the desired torque is shown on the display.
To operate the motor at full torque, press the "MAX" Torque Button. The LED above the "MAX" Torque Button will display a steady red light, the Torque Indicator on the display will read "MAX". Operating at max. torque will override the Auto Stop Reverse feature.

5. Set Handpiece Rotation to the desired direction.
Press the Forward/Reverse Selector to change the direction of handpiece rotation. A red L.E.D. light above the Forward/Reverse Selector indicates reverse rotation.

6. Press and hold the desired Preset Button for 1 second (until you hear a double beep).

7. The display will show:
   ACCESS FILE LIBRARY?
   1=yes, 2=no, 3=esc
Press Button #2. Do not access the file library.

8. The display will show:
   SAVE CURRENT SETTING
   1=yes, 2=no, 3=esc
Press Button #1 to record settings on the Preset Button.

9. The display will resemble the following:
   (The handpiece ratio, speed and torque values will vary according to your settings).
   USER DEFINED PRESET
   1/8 AG 300 240
   The Preset Button is now programmed with the specified settings.

10. When you have completed the programming of the desired preset buttons, re-enable the Preset Memory Lock to avoid inadvertently entering the File Library during a procedure. For instructions, read about the System Setup Menu beginning on page 6.
STERILIZATION:

**WARNING** - Sterilize the motor between each patient use.

**WARNING** - Use of a sterilization method or temperatures other than what are prescribed may damage the motor or present a risk of cross-contamination between patients.

**CAUTION** - Do not soak or submerge the motor in any liquid.

**STERILIZATION PROCEDURE:**

**Pre-clean**
1) Thoroughly brush off any visible signs of debris from the motor and cord.
2) Thoroughly clean the device with a moist cloth or towel to remove any remaining signs of debris.

**Sterilize**
3) Select one of the three following sterilization methods (A, B, or C):

- **Wrapped Sterilization** – Place in an appropriately sized sterilization pouch and seal it.
  
  **A. Gravity Wrapped:**
  - Minimum Temperature: 132° C (270° F)
  - Full Cycle Time: 20 minutes
  - Minimum Dry time: 30 minutes

- **B. Prevacuum Wrapped:**
  - Preconditioning Pulses: 3
  - Minimum Temperature: 132° C (270° F)
  - Full Cycle Time: 4 minutes
  - Minimum Dry time: 40 minutes

- **Flash Sterilization** – For immediate use only.
  
  **C. Gravity Unwrapped:**
  - Minimum Temperature: 132° C (270° F)
  - Full Cycle Time: 10 minutes
  - No dry time is required for flash sterilization.

**MOTOR & CORD ASSEMBLY:**

- The entire motor and cord assembly is fully autoclavable. Before autoclaving the assembly, remove any handpiece from motor and install autoclaving plugs into the end of the motor and motor cord connector as shown below. The plugs are supplied with the motor and cord.
- Loosely coil the motor cord when autoclaving. Avoid sharply bending the cord when autoclaving.

- Always install the autoclaving plugs into motor and motor connector before autoclaving.

- If the autoclaving plug for the motor becomes difficult to remove or install, apply silicone grease or similar lubricant to the O-rings.

**MAINTENANCE & CLEANING:**

**HANDPIECES** - Thorough cleaning and lubrication of handpieces after each use and before sterilization is very important to ensure proper operation and service life of the handpiece. Follow the instructions provided with the handpiece purchased for complete maintenance instructions.

**CONSOLE MAINTENANCE** - The exterior of the console may be cleaned by wiping with a soft cloth moistened with mild detergent or disinfecting solution.

**WARNING**
- Do not attempt to disassemble the motor or motor connector.
- Do not oil or lubricate the motor.
- Do not attach a handpiece to the motor while motor is running.
- Do not bend motor cord sharply.

Failure to comply with any of the above instructions may void your warranty.
CHANGING THE FUSE OR VOLTAGE -

**WARNING**

Turn the power off and unplug the unit before following the steps below.

1. Use a small flathead screwdriver to open the Fuse/Voltage Selector Panel on the back of the unit.
2. Remove the red Fuse holder from the unit.
3. Changing the fuse:
   - Replace the blown fuses on either side of the Fuse holder.
   - **Replacement Fuses:**
     - 115V: 1.0A/250V slo-blo fuse
     - 230V: 0.5A/250V slo-blo fuse
3b. Changing the voltage:
   - The proper fuses for the country of use are sent in the unit. When changing voltage, replace the fuses with fuses that are rated for the new voltage.
   - Turn the Fuse holder until the white lettering with the proper voltage is right side up.
4. Replace the Fuse holder and close the Fuse/Voltage Selector Panel.
5. Select a power cord or grounded plug adapter specific to the country of use.

**CAUTION**

Do not attempt to operate the Endo DTC® while configured in the 115V mode with a 230V power source. This could damage the electrical components and will void the warranty.
## Troubleshooting:

<table>
<thead>
<tr>
<th>Problem: Console does not light when turned on:</th>
<th>Correction: If lights are blinking, press a button or foot switch to exit Sleep Mode. Check console to power connection. Check voltage setting. Check fuse. If blown, replace with 1.0A/250V slo-blo fuse for 115 volts, &amp; 0.5A/250V slo-blo fuse for 230 volts.</th>
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<tr>
<td>Console lights when turned on, but handpiece does not turn:</td>
<td>Check motor plug connection. Check foot switch connection. Depress foot switch. Check that a file is properly seated in the handpiece and the latch is closed.</td>
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<td>Improper display:</td>
<td>Verify that ratio setting matches handpiece ratio. Use Calibration function. Turn power switch off, wait 5 seconds, then turn back on to reset.</td>
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<tr>
<td>Motor slowing down or sluggish:</td>
<td>Dirty, under-lubricated handpiece. Handpiece lubricant is running into motor. After lubricating and before autoclaving, set handpiece with head down to let excess lubricant drain out. Check voltage setting.</td>
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</tbody>
</table>
AEU-25T Endodontic System
Distributed By:
DENTSPLY Tulsa Dental Specialties
DENTSPLY International, Inc.
608 Rolling Hills Drive
Johnson City, TN 37604
1-800-662-1202 • Fax: 1-800-597-2779
www.TulsaDentalSpecialties.com
Manufactured By:
Aseptico, Inc.
8333 216th St. SE
Woodinville, WA 98072, USA

The UL 2601 Standard Duty Cycle for intermittent use is 1 min. on / 5 min. off.

WARRANTY:
Tulsa Dental Specialties warrants this product against defects in material or workmanship for a period of two (2) years, from date of original invoice. Handpieces are warranted for one year under the same conditions. Expendable components such as light bulbs, are covered by shorter warranty periods, or are not warranted. Tulsa Dental Specialties' sole obligation under product warranty is (at its sole option and discretion) to repair or replace any defective component or product in part or whole. Tulsa Dental Specialties shall be the sole arbiter of such action.

In the event of alleged defect under warranty, the purchaser is to notify Tulsa Dental Specialties Customer Service Department promptly. Customer Service will provide instructions, usually directing that the product be returned for service. Shipment to Tulsa Dental Specialties and the cost thereof is always the responsibility of the purchaser.

Accidental misuse, inappropriate installation, or failure to perform directed maintenance voids the warranty. Deliberately defacing, modifying, or removing the serial number voids the warranty.

Tulsa Dental Specialties does not assume, under this warranty, any risks or liabilities arising from the clinical use of its products, whether or not such use involves coincidental utilization of products manufactured by others.

Tulsa Dental Specialties makes no warranty other than that stated above, express or implied.

WARNING: This device has been tested and found to comply with the emissions requirements of EN 55011:1991. These requirements provide reasonable protection against harmful electromagnetic interference in a typical medical installation. However, high levels of radio-frequency (RF) emissions from electrical devices, such as cellular phones, may disrupt the performance of this device. To mitigate disruptive electromagnetic interference, position this device away from RF transmitters and other sources of electromagnetic energy.

SYMBOL DEFINITIONS:

- ![Symbol](image)
  - Type B Equipment
- ![Symbol](image)
  - Dangerous Voltage
- ![Symbol](image)
  - Attention - Consult Accompanying Documents
- ![Symbol](image)
  - Serial Number