

EXL-M40 Laboratory Electric Handpiece (Project 03-27) (6/04)



The EXL-M40 is a low-speed electric handpiece designed for dental laboratory use. The EXL-M40 components include a tabletop power console, LHP12 handpiece, L12M brushless micromotor with MC cord, MVFP variable-speed foot-pedal, handpiece holder, and accessory kit (i.e., cleaning brush, chuck wrench, spindle holder, fuses). The handpiece speed ranges from 1,000 to 40,000 rpm with a reported torque of 4.8 Ncm, and maximum torque of 8 Ncm at 30,000 rpm. It has a lever quick-release chuck with a standard size of 2.35mm, but optional sizes of 1.6 and 3.0mm are available. Features on the power console are: on/off switch, forward/reverse switch, activation switch

(manual/foot mode), and a large variable-speed dial. The variable-speed dial has a blue indicator light, which shows the speed of the handpiece. In addition, on the back of the power console is a constant/variable speed switch. In the variable mode the foot-pedal varies the handpiece speed from 1,000 rpm to the desired setting on the speed-dial. In the constant mode the user simply taps the foot-pedal to turn on auto-cruise at the desired speed-dial setting and then taps the foot-pedal again to stop the auto-cruise. The EXL-M40 has several built-in safety features. A built-in circuit breaker ceases rotation if irregularities are sensed. An automatic shut-off stops the handpiece if left unattended for 60 minutes. Also, the handpiece will not start by turning the power switch "on" while in the manual mode to prevent unattended operation of the handpiece. The power console is 4" x 4" x 7", weighs 6.4 lbs and is available in 120V, 50/60Hz or 220/230V, 50/60Hz. The handpiece is 1.1" x 5.5", weighs 6.2 oz, and has a six-foot straight cord.



Manufacturer:

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Suggested Retail Price:

\$1390.00 EXL-M40
Distributor, Lincoln Dental Supply
(800) 289-6678

Government Price:

\$1278.80 EXL-M40
Distributor, Lincoln Dental Supply
(800) 289-6678

ADVANTAGES:

- + Smooth, quiet operation
- + Auto-cruise or variable-speed foot control
- + Easy-to-use lever-chuck release
- + Easy-to-use instruction manual
- + Minimal maintenance required
- + Large variable-speed-dial with blue indicating light
- + Blue pulsating warning signal for irregular rotation
- + Sufficient torque

DISADVANTAGES:

- Available as tabletop model only
- Higher than average price

SUMMARY AND CONCLUSIONS:

The Osada EXL-M40 is a dental laboratory electric handpiece with a tabletop power console. Its brushless motor requires less maintenance than traditional brush-type motors and was found to run smoothly and quietly with minimal vibration. The handpiece has a lever type chuck release that allows for one-handed bur changing. The handpiece has sufficient torque to perform a variety of tasks. The EXL-M40's power console has easy-to-use push-button switches and a constant/variable speed mode for the foot control. The constant (auto-cruise) mode was found by evaluators to be advantageous and helped to reduce foot fatigue. Evaluators also found the large speed-dial easy to use and see with its blue speed-indicator light. The EXL-M40 has a higher than average cost, but was recommended for use by all evaluators. The **EXL-M40** is rated **Acceptable** for use in the federal dental service.