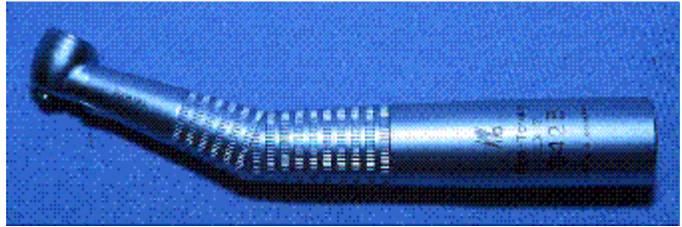


55-16 KaVo 642B High-Speed Fiberoptic Handpiece (Project 96-49) (10/98)

The KaVo 642B fiberoptic high-speed handpiece features a compact turbine head and is designed for use in a wide range of dental restorative procedures. The 642B is connected to the dental unit handpiece hose by either the KaVo Multiflex Lux 465 LRN or the KaVo Multiflex Lux 1390 Coupler. Both couplers provide easy handpiece



interchangeability, anti-retraction valves and 360-degree swivel. In addition, the Multiflex Lux 465 LRN Coupler contains the fiberoptic bulb and water spray adjustment. The KaVo Multiflex Lux 1390 Coupler allows connection of the handpiece to 5-hole fiberoptic handpiece hoses that provide the fiberoptic light with a bulb at the end of the hose or from a remote source. The handpiece has a push-button auto-chuck and can be heat sterilized in either an autoclave or chemiclave. The free running speed is reported to be 410,000 RPM @ 33 psi which was confirmed by DIS testing. The handpiece contains an automatic air regulator valve to sense line air pressure and automatically reduces the air pressure to the correct 33 psi. This allows all handpiece hose pressures to be set at the higher air pressures required for slow-speed handpieces without damaging the high-speed handpiece. The turbine is field replaceable to reduce handpiece down time but KaVo recommends returning the handpiece to them for servicing. The KaVo 642B handpiece (including coupler) measures 14 cm in length and weighs 2.8 ounces. The handpiece head diameter and length measure 11 mm and 13.2 mm respectively. The distance from the back of the handpiece to the tip of a standard 19 mm bur (interocclusal clearance) is 21.75 mm. The handpiece is warranted against defects in materials and workmanship for six months.

Manufacturer:

KaVo America
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(800) 323-8029
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(847) 550-6825 FAX

Suggested Retail Prices:

642B Highspeed Handpiece \$875.00
Replacement Turbine Cartridge \$300.00
Multiflex Lux 465 LRN Coupler \$245.00
Multiflex Lux 1390 Coupler \$205.00

Government Prices:

642B Highspeed Handpiece \$399.00
Replacement Turbine Cartridge \$167.30
Multiflex Lux 465 LRN Coupler \$147.00
Multiflex Lux 1390 Coupler \$98.00

ADVANTAGES:

- + 66.6% of test handpieces were operating at 1000 simulated clinical use/sterilizations.
- + Adequate power (11.1 watts).
- + Maintained 75% of fiberoptic intensity after 1000 simulated clinical use/sterilizations.
- + Automatic air pressure regulator.
- + 360-degree swivel coupler.
- + Excellent concentricity.
- + Push-button bur release.
- + Excellent visibility and interocclusal clearance.

- + Turbine is field replaceable.
- + Requires lubrication before sterilization only.

DISADVANTAGES:

- Coupler easily damaged if dropped or misused.
- Cellular fiberoptics can break if dropped.

SUMMARY AND CONCLUSIONS:

The KaVo 642B fiberoptic high-speed handpiece performed much better than average for most parameters evaluated. Its power (11.5 watts) was in the lower third of all models evaluated, but was well over the 5 watts required to be clinically acceptable. The 642B maintained 75% of its fiberoptic intensity after 1000 simulated clinical use/sterilization cycles, but significantly improved to 93% after the fiberoptic lenses were polished. The noise level of the 642B was measured at 75 decibels. The noise level of all handpieces evaluated ranged from 69 decibels to 77 decibels. One hundred percent of the KaVo 642B test handpieces functioned over 750 uses and 66.6% were functioning after 1000 cycles. The compact head increases operator visibility and interocclusal access. The **KaVo 642B** is rated **Recommended** for use by the federal dental services.