

68-17 Command Air X-ray System II (Project 02-23) (5/03)

The Command Air X-ray System II is described as a technologically-advanced radiographic unit that is designed to support portable and field dental radiography procedures. The unit is advertised as being a high-frequency, full-wave-rectified X-ray unit with electronic timing control. The Command Air X-ray System II is said to be compatible with all intraoral imaging and digital modalities. The manufacturer lists the following parameters:

- Top-mounted, touchpad controls with LED digital readouts.
- 10 mA output at 60, 65, or 70 kV DC.
- 0.8-mm focal spot.
- 7.5-inch focus-to-cone tip.
- A 99-step exposure timer with a range of 0.02 to 1.98 seconds.
- 70-kHz inverter frequency.
- Compatible with 110-130 and 210-230 volts AC at either 50 or 60 Hz.
- Two-stage "deadman" exposure switch with phone jack connection.
- Underwriters Laboratory (UL) Certified.



The Command Air X-ray System II includes a leaded, clear backscatter shield for hand-held operation. The system includes a tripod (ARU-01S) that has a 57.5-inch maximum center post height and includes a vinyl storage/carrying case. The X-ray unit is 6" H x 8.25" W x 10.75" L (including dental cone) and weighs 9.25 pounds. Stored in the MILSPEC shipping/storage container, the entire assembly is 15.5" H x 19" W x 19" L and weighs 31 pounds.

Manufacturer:

MinXray, Inc.
3611 Commercial Avenue
Northbrook, IL 60062-1822
(800) 221-2245
(847) 564-0323
(847) 564-9040 FAX
www.minxray.com

Marketed by:

Aseptico International
P.O. Box 1548
Woodinville, WA 98072-1548
(800) 426-5913
(425) 487-3157
(360) 668-8722 FAX
www.aseptico.com

Retail Price:

The Command Air X-ray System II is currently not offered for the civilian market

Government Price:

\$12,100 Command Air X-ray System II (ARU-HF70D) contains:

- X-ray tubehead and control
- Mounting handle
- Dental cone
- Scatter shield
- Exposure cord
- MILSPEC carrying case

- Tripod (ARU-01S) with vinyl carrying case
- Operating manual

ADVANTAGES:

- + Easy to set up with intuitive operation.
- + Unit functioned reliably during an actual deployment mission.
- + Unit allows clinicians to provide adequate radiographs in field conditions.
- + Is small and lightweight.
- + Electrical system meets all safety requirements.
- + "Dead man" safety exposure switch design.
- + Instructions are complete and are easy to understand.
- + Instruction manual contains helpful schematic diagrams and illustrations.
- + Shipping/storage case meets MILSPEC requirements.
- + Has National Stock Number (NSN) allocation for Defense Service Center Philadelphia (DSCP) electronic catalog purchase.

DISADVANTAGES:

- Fused-based electrical system.
- Tripod does not allow positioning for all anatomic locations.
- Tripod crank adjustment is too slow.
- More expensive than another field X-ray unit evaluated by DIS.

SUMMARY AND CONCLUSIONS:

The Command Air X-ray System II is a dental-radiographic unit marketed to meet mobile/remote dental needs and is also designed for the military-operational environment. The unit is compact, lightweight, easy to assemble, and met all electrical safety requirements. It provided reliable function while deployed in the military-operational environment and consistently enabled a dental officer to provide dental radiographs of acceptable quality. The clinical user was clearly impressed with the simple set up and intuitive, easy operation of the unit. The tripod-adjustment mechanism was reported to be slow during operation and the tripod mount did not allow tube head positioning to meet all radiographic anatomical requirements. The evaluator described the X-ray unit as a good choice for the military-operational environment. The **Command Air X-ray System II** is rated **Acceptable** for use by the federal dental services.