KVp / mAs Meter and Exposure Time Meter
Model 820 / Low Range 820L

FEATURES

- Combines two instruments
  - KVp and mAs in one package
- Easy to use
- No need to set for AC/DC
- mAs meter is self-resetting
- mA is stored permitting short exposures
- KVp is noninvasive
- AC or DC x-rays
- High accuracy
- Measures KVp, mA, mAS, exposure time
- Battery operated
- Two year warranty
- Custom carrying case option
- Solid state digital design
- Durable ABS plastic case

TYPICAL APPLICATIONS

- Verification of peak x-ray voltage
- Constancy checks
- Calibration of x-ray
- Quality assurance
- Measurement of exposure time
- Half value layer determination
- Troubleshooting and repair of x-rays
- Maintain quality of x-ray

DESCRIPTION

- Use as mAs Meter or kVp Meter
- mA and mAs measure x-ray tube current
- KVp measures the peak x-ray accelerating voltage from tungsten x-ray generators.
- Direct Measurement of peak kV from the x-ray head, simply place 820(L) in beam and take x-ray.
- Push Mode button to display Exposure Time.
- Indicates x-ray waveform type - e.g. Half-wave, Full-wave or DC / 3 Phase.
- Optimized for Dental x-rays, also works on radiographic and fluoroscopic x-rays.
- Large display readable from outside x-ray room.
- Alphanumeric display provides easy to understand status and error messages.
- Plug in mAs cable to measure mA and mAs.
- Remove mAs cable to measure KVp
**SPECIFICATIONS FOR 820/820L kVp**

**RANGE**
- 820: 45 to 125Kv
- 820L: 40 to 115Kv

**KVP ACCURACY**
- 2% +/- 1 kV, at 25 to 100 mA (820) or 10 to 50 mA (820L) both
- 18 to 42 cm from head, for Tungsten target x-ray tube with 1.5 mm Aluminum equivalent filtration.

**EXPOSURE TIME ACCURACY**
- 1% +/- 2 millisecond (1/5 to 2 sec)
- Minimum exposure time is 100 millisecond

**MINIMUM EXPOSURE TIME**
- 100 millisec - High Speed Mode
- 200 millisec - High Resolution Mode

**MINIMUM CURRENT (mA)**
- 7 mA (820) or 5 mA (820L) at 50 kV, 10 cm from x-ray, depending on focus

**GENERAL SPECIFICATIONS**

**DISPLAY**
- 0.4” (10.2mm) Liquid Crystal
- 8 Character Alphanumeric

**CONTROLS/INDICATORS**
- ON/OFF Switch - Illuminated push-button with green power-on indication
- MODE Switch - momentary push-button
- 8 Character Liquid Crystal Display
- No connections needed for kVp measurement

**POWER**
- 4 AA batteries accessible from bottom of case
- Low battery indicator

**BATTERY LIFE**
- 48 hours continuous
- Typically 9 months of normal use

**WARRANTY**
- 2 years from ship date

**PHYSICAL SIZE**
- 150 X 120 X 58.5 mm
- 5.9 X 4.7 X 2.3 inches

**WEIGHT**
- 0.7 kg, (1.5 lb)

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**SPECIFICATIONS FOR 820/820L mAs**

**RANGE**
- 200 mA Full Scale
- 0.1 mA Resolution (mA or mAs)
- 10 Ohms Input impedance
- 2A Full Scale
- 1 mA Resolution (mA or mAs) 1 Ohm Input impedance
- Meter automatically selects AC/DC
- Set Range via pushbutton switch

**mAs ACCURACY**
- 2% +/- 1 mA on both ranges

**CONNECTION**
- Via 1 meter cable with two alligator clips

**ORDERING INFORMATION**

Model 820 X-ray kVp /mAs / Exposure Time Meter

Model 820L Low Range X-ray kVp / mAs / Exposure Time Meter

Please note that the Model 815 X-ray kVp/Exposure Time Meter is still available.

**OPTIONS**

Model 800CC- Tailored cordura Carrying Case specifically designed for instrument

Model 800HC- Custom made hard case with space for cable and accessories.

Contact us about factory upgrade of Model 815 to 820.

**ABOUT ECC:**
ECC is recognized throughout the world, having sold to over forty countries, as well as military installations. ECC has been in business for 16 years, and has become known for quality, reliability, and price.