



SERVICE & QUALITY CONTROL KITS

Nuclear Associates is pleased to offer *four* Service & QC Kits

Each complete kit (Radiography/Fluoroscopy, Mammography, Cardiac Cath /Special Procedures, and Dental) contains the essential instruments that service personnel, physicists and QC technicians rely on to check and calibrate today's most vital equipment. Every Nuclear Associates instrument selected for inclusion in our Service/QC Kits was chosen for its reliability, accuracy and ease-of-use.

These qualities are critically important when others are depending on you to get the job done, and get it done right!
Each Service/QC Kit includes an easy-to-carry, durable, insulated carrying/storage case, to keep your equipment safe, wherever you go.

MAMMOGRAPHY QC KIT



Model 18-526-1000

Weight of Kit (Approximate): 15.5 lbs (7 kg)

Contents:

Rad-Check

Mammo X-Ray Exposure Meter
(Model 06-526-5290)

Mammographic Digital kVp Meter II (Model 07-492)

Digital X-Ray Pulse-Counter/Timer (Model 07-453)

Remote Sensor (Model 07-453-2000) for use with 07-453

Mammographic Ionization Chamber (Model 06-529)

Carrying/Storage Case (Model 89-426)

CARDIAC CATH/SPECIAL PROCEDURES QC KIT



Model 18-526-3000

Weight of Kit (Approximate): 15.5 lbs (7 kg)

This comprehensive kit contains the essential noninvasive test tools for cardiac cath and special procedures. Now you can quickly and easily read micro-R, obtain dose per frame, and determine entrance and exit dose.

Contents:

Rad-Check Micro-R (Model 06-526-5240)

Wide-Range Digital kVp Meter (Model 07-494)

Digital X-Ray Pulse Counter/Timer (Model 07-453)

Remote Sensor (Model 07-453-2000) for use with 07-453

Image Intensifier Ion Chamber (Model 06-524-3000)

Carrying/Storage Case (Model 89-426)



Model 18-526-2000

Weight of Kit (Approximate): 15.5 lbs (7 kg)

Features the noninvasive test devices that are necessary to perform QC in radiographic and fluoroscopic suites.

Contents:

Rad-Check™

Plus X-Ray Exposure Meter (Model 06-526)

Wide-Range Digital kVp Meter (Model 07-494)

Digital X-Ray Pulse-Counter/Timer (Model 07-453)

Remote Sensor (Model 07-453-2000) for use with 07-453

Remote Ionization Chamber (Model 06-528)

Carrying/Storage Case (Model 89-426)

DENTAL QC KIT



Model 18-526-4000

Weight of Kit (Approximate): 15.5 lbs (7 kg)

Service and QC of dental units will be easier and more cost-effective than ever, with this comprehensive kit.

Contents:

Rad-Check Plus X-Ray Exposure Meter (Model 06-526)

Dental kVp Meter (Model 07-479)

Digital X-Ray Pulse-Counter/Timer (Model 07-453)

Remote Sensor (Model 07-453-2000) for use with 07-453

Remote Ionization Chamber (Model 06-528)

Carrying/Storage Case (Model 89-426)

SERVICE & QC KIT PRODUCT SPECIFICATIONS

RADIOLOGY/ FLUOROSCOPY 14 MODEL 06-526 RAD-CHECK™ PLUS

SPECIFICATIONS:

Ranges: 0.001 to 2 R, 0.01 to 20 R/min

Internal Chamber: 30 cc volume, energy response $\pm 5\%$ from 15-65 keV (30-150 kVp filtered). 20.5 cm²

(5.1 cm diameter) effective measurement area. Center of Chamber 1.03 cm below top of chamber

Standard Calibration: At 75 kVp with 4 mm Al filtration at 22° C and one atmosphere

Reproducibility: Within 2% short-term over 100 mR to 2 R range (1 mGy to 20 mGy)

Electrometer Drift: 0.5 to 1 mR/minute typical; 6 mR/minute max (5 μ y to 10 μ Gy; 60 μ Gy/minute max)

Maximum Exposure Rate: Min. 90% collection efficiency at 20 R/second

Automatic Reset: Resets display to zero. Can also be reset manually

Operating Conditions: 10-40°C, max; 90% relative humidity

Display: 3" digit LCD, 1/2" inch high, low battery indicator

Controls: Auto or manual reset selector. Display zero reset button. Dose or dose rate output selector

Integral or remote ion chamber selector. On/off switch. Tilt stand to adjust display visibility

Power: 9 V battery, Mallory MN1604 or equal, greater than 100 hour life (50 hours in manual reset mode)

Size: 2.75" high x 6" wide x 6.25" deep (7 cm x 15.25 cm x 15.9 cm). **Net Weight:** 18 oz. (0.51 kg.)

MODEL 06-526-5290 RAD-CHECK™ MAMMO

SPECIFICATIONS:

Ranges: .001 to 2 R; .001 to 2 R/min

Standard Calibration: At 23, 28, 30 and 35 kVp (Mo/Mo) at 22° C and one atmosphere using model

06-529 chamber (chamber optional)

Reproducibility: Within 2% short-term over 100 mR to 2 R range (1mGy to 20 mGy)

Electrometer Drift: 10 mR/minute typical; 60 mR/minute max (10 μ Gy; 60 μ Gy/minute max)

Maximum Exposure Rate: Min. 90% collection at 20 R/second

Manual Reset: Resets display to zero

Operating Conditions: 10-40° C, max; 90% relative humidity

Display: 3 1/2 digit LCD, 1/2" high, low battery indicator

Controls: Reset button. Dose or dose rate output selector. On/off switch.

Power: 9V battery, Mallory MN1604 or equal, greater than 50 hour life

Size: 2.75" high x 6" wide x 6.25" deep (7cm x 15.25 cm x 15.9 cm). **Net Weight:** 18 oz. (0.51 kg.)

MODEL 06-526-5240 RAD-CHECK™ MICRO-R

SPECIFICATIONS:

Ranges: Low: 0.01 to 19.99 mR; 0.1 to 199.9 R/min

High: 0.01 to 19.99 R; 0.1 to 1999 R/min

Standard Calibration: At 75 kVp with 4 mm Al filtration at 22° C and one atmosphere using model

06-524-1000 chamber (chamber optional)

Reproducibility: Within 2% short-term over 100 mR to 2 R range (1mGy to 20 mGy)

Electrometer Drift: Low Range: 1 mR/minute typical; 6 mR/minute max

High Range: 10 µR/min typical; 60 µR/min max

Maximum Exposure Rate: Min. 90% collection at 20 R/second

Manual Reset: Resets display to zero

Operating Conditions: 10-40° C, max; 90% relative humidity

Display: 3 1/2 digit LCD, 1/2" high, low battery indicator

Controls: Reset button. Dose or dose rate output selector. High or low range selector. On/off switch.

Power: 9 V battery, Mallory MN 1604 or equal, greater than 50 hour life

Size: 2.75" high x 6" wide x 6.25" deep (7 cm x 15.25 cm x 15.9 cm). **Net Weight:** 18 oz. (0.51 kg.)

kVp METERS (see model numbers below)

SPECIFICATIONS:

Ranges:

(Model 07-492) Mammographic: 24-40 kVp, 0.1 kVp resolution

(Model 07-479) Dental: 45-90 kVp, 0.1 kVp resolution

(Model 07-494) Wide-Range: Low: 50-90 kVp, 0.1 kVp resolution

High: 80-150 kVp, 0.1 kVp resolution

Accuracy:

Mammographic: ±3% or 1.5 kVp, whichever is greater

Dental: ±3% or 3 kVp, whichever is greater

Wide-Range: ±3% or 3 kVp, whichever is greater

mAs Requirements:

Mammographic: (25cm SDD) 100 mAs at 24 kVp. Minimum exposure time 1/20 (0.05) sec

Dental: 8.5 mAs at 45 kVp; .026 mAs at 90 kVp

Wide-Range: (45.7cm SDD) 18 mAs at 120 kVp; 50 mAs at 60 kVp, single phase.

Minimum

exposure time 1/20 (0.05) sec

MODEL 07-453 DIGITAL X-RAY PULSE-COUNTER/TIMER

SPECIFICATIONS:

Accuracy

AC Input: ± 1 Count

DC Input: 2%, ± 1 Count

X-Ray Detection: ± 1 Count

Sensitivity

AC Input: 65 VAC minimum

X-Ray Input: 50 kVp, 5 mA at 5 cm from top surface of case, pointed to target on case

Range

9999 pulses

9999 milliseconds

Display

0.4" liquid crystal

Power

9-volt battery; alkaline or equivalent

Battery Life

24 hours continuous; typically 6 months of normal use

AC Input Jacks

130 volts AC maximum

65 volts AC minimum

Input circuit not affected by reversed polarity

Controls/Indicators

Three-position switch: pulse, Off, Milliseconds

4-digit liquid crystal display; 0.4" character

Low battery Indicator; "Low Batt" appears in display when battery voltage reaches

4.8 volts ± 0.5 volts

Power-on: LED (green)

Oscilloscope output

MODEL 07-453-2000 REMOTE SENSOR

For use with Model 07-453 Digital X-Ray Pulse-Counter/Timer

Includes: 3-meter cable

MODEL 06-529 MAMMOGRAPHIC IONIZATION CHAMBER

SPECIFICATIONS:

Volume: 3.3 cc

Energy Response: Within 5% from 0.2 to 5.0 mm Al HVL (16 to 90 kVp)

Includes: 15 foot (4.5 meter) cable

Dimensions: 4 cm diameter x 1.5 cm thick

MODEL 06-528 REMOTE IONIZATION CHAMBER

SPECIFICATIONS:

Volume: 30 cc

Energy Response: Within 7% from 30 to 150 kVp (15-65 keV)

Includes: 15 foot (4.5 meter) cable

Dimensions: 10.2 cm x 10.2 x 1.4 cm thick

MODEL 06-524-3000 IMAGE INTENSIFIER ION CHAMBER

SPECIFICATIONS:

Volume: 100 cc

Nominal Sensitivity: 30 nC/R @ M75

Rate: 10 μ R/s

Exposure: 100 μ R in 10 seconds

Max. Exposure Rate: Min. 90% collection at 20R/Sec

Total Attenuation: 0.275 (mm Al) equivalent @ 30 KeV

Operating Voltage: 200 to 300 volts DC

Handle Length: 21" (53.34 cm)

Cable Length: 10 feet (3 m). Cable Termination, BNC/Banana

Window Thickness: .110" (2.79 mm)

Housing Material: Acrylic

Housing Color: Clear

Housing Dimensions: 5.5" diameter (14.0 cm diameter)

Surface Area: 100 cm², 4.5" diameter

Thickness: 0.720" (18.3 mm)

Weight: 30 oz. (840 g)

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