

QA BEAMCHECKER™ PLUS



LINAC AND TOMOTHERAPY QA

The **NEW QA BeamChecker Plus** is a reliable and uncomplicated daily QA instrument for linear accelerators and TomoTherapy® systems. With wire-free technology, integrated build-up, and automatic energy detection, radiation therapists can quickly and easily perform daily QA.



QA BeamChecker Plus
Patent Pending



Tomotherapy Baseline Review

● TOMOTHERAPY QA CAPABILITY **NEW!**

The QA BeamChecker Plus allows the radiation therapists to perform daily QA checks recommended by Fenwick et al, 2004¹ for helical TomoTherapy systems

- Output constancy, energy constancy, and lateral profile constancy QA tests from a static field exposure
- Combined dynamic dosimetric check from a treatment plan
- Daily laser QA tests

● MULTIPLE VAULT CAPABILITY **NEW!**

The QA BeamChecker Plus can be used for multiple linear accelerator and TomoTherapy treatment rooms, saving time and money because there is only one daily QA instrument needed and one software program to learn.

● PHYSICS MODULE FOR ADVANCED QA MEASUREMENTS **NEW!**

A user controlled physics measurement mode with access to raw data is available to the physicist for creating custom measurements for enhanced dynamic wedge tests, machine QA tests, and research applications.

Features

Wire-free Technology

- Simplifies set-up and allows technicians to quickly complete daily QA procedures. There are no cables to handle or break and less clutter in the treatment room.

Automatic Energy Detection

- The QA BeamChecker Plus automatically detects the energy type and simultaneously determines beam constancy, flatness, and symmetry.

Integrated Build-up

- Build-up for all energies is integrated into the device, eliminating the need to enter the vault between measurements. There are no extra pieces to handle.

Data Storage and Network Capability

- Data for approximately one month can be stored on the QA BeamChecker before downloading is required, although this may be done at any time. Data can be stored to a network location via the host computer.

Reduce Unnecessary Trips into the Treatment Room

- With the push of a button and a flip of the device, the QA BeamChecker Plus allows you to switch between photons and electrons quickly and easily. Large, brightly lit display characters, easily visible from the patient monitor, rotate depending on which side of the QA BeamChecker Plus is chosen.

QA BEAMCHECKER PLUS (REF 90501) SPECIFICATIONS

8 VENTED IONIZATION CHAMBERS, FULLY GUARDED

One center detector

Four quadrant detectors, 7.5 cm from center

Three energy identification chambers

CHAMBER VOLUME 0.6 cm³

PARALLEL PLATE SEPARATION 4.0 mm

COLLECTION ELECTRODE 1.39 cm diameter

INHERENT BUILDUP

PHOTONS: 3.5 cm water-equivalent material

ELECTRONS: 1.5 cm water-equivalent material

RADIATION MEASURED

PHOTONS: ⁶⁰Co to 25 MV

ELECTRONS: 6 MeV to 25 MeV

TEMPERATURE AND PRESSURE MEASUREMENT

Precision sensor on board, automatic compensation

PRESSURE RANGE: 600 - 800 mmHg

PRESSURE RESOLUTION: 0.1 mmHg

TEMPERATURE RANGE: 10 - 40 °C

DIMENSIONS Height: 6.15 cm, 2.42 in Width: 30.86 cm, 12.15 in
(QA BeamChecker) Length: 40.64 cm, 16 in Weight: 5.0 kg, 11 lbs

DIMENSIONS Height: 7.16 cm, 2.82 in Width: 10.16 cm, 4.0 in
(Power/Data Cradle) Length: 29.21 cm, 11.50 in Weight: 1.8 kg, 4 lbs

LIGHT FIELD ALIGNMENT 20 cm x 20 cm alignment grid for easy setup

REAL TIME CLOCK Date and time stamp for all measurements for easy setup

INTERNAL MEMORY Store 256 data points before transfer required

POWER/DATA CRADLE

Interface for battery charging and serial communications

Two 9 pin serial cables provided, 7.6 m (25 ft) and 33 m (100 ft)

POWER

BATTERY: 1.3 Ah SLA, provides approximately 4 hours of continuous use

CHARGER INPUT: 90 - 240 VAC, 50-60 hz, IEC 60601-1 approved wall mounted power supply

OPERATING SYSTEM

Microsoft® Windows® 2000
Microsoft® Windows® XP

PROCESSOR Intel® or AMD®, 350 MHz or greater

MEMORY 64 MB (256 MB recommended)

HARD DRIVE 50 MB or greater

SCREEN RESOLUTION 800 x 600 (1024 x 768 recommended)

PERIPHERALS CD-ROM Drive, One available serial port

OPTIONS

Gantry Mount (REF 70500)

Additional Power/Data Cradle (REF 70502)

Serial to USB adapter (REF 70503)

Leveling Platform, for TomoTherapy use (REF 70505)

TomoTherapy® is a registered trademark of TomoTherapy Incorporated. Windows® is a registered trademark of Microsoft Corporation.

¹ J D Fenwick et al, "Quality assurance of a helical tomotherapy machine", Phys. Med. Biol. 49(2004) 2933-2953. Specifications subject to change without notice.



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