

UNICHECK[®]

The Daily QA Solution



UNICHECK®

Built to Last.



Every Single Day. Year after Year.

Daily checks of linac performance are crucial for ensuring safe patient treatments.

The new wireless, web-based UNICHECK solution is designed to meet your daily QA needs perfectly. Today and tomorrow. With its exceptionally durable hardware and future-proof software, UNICHECK delivers reliable results quickly and consistently. Streamline your daily QA workflow to save time and effort for everyone on your team.

UNICHECK is built to perform for you day in and day out, for years to come. Guaranteed.



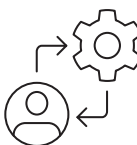
Up to
10 Years'
Warranty



Buy or
Lease



Instant
Readiness



Flexible Task
Management



Seamless from Setup to Documentation

UNICHECK accelerates your daily QA with automated, task-oriented workflows.



Step 1

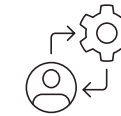
Set up your UNICHECK



UNICHECK is a wireless, battery-operated system ready for immediate use. Simply place it on the patient couch, align it with the lasers, and turn it on – that's it! Once powered, UNICHECK connects with the software quickly and seamlessly. Just log in to access your dashboard.

Step 2

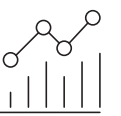
Perform daily QA



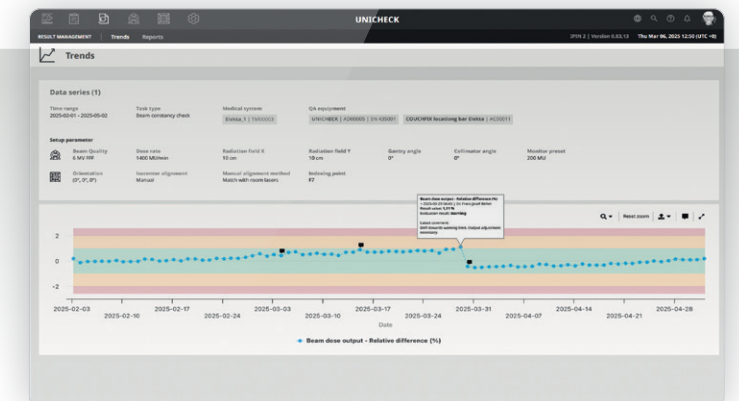
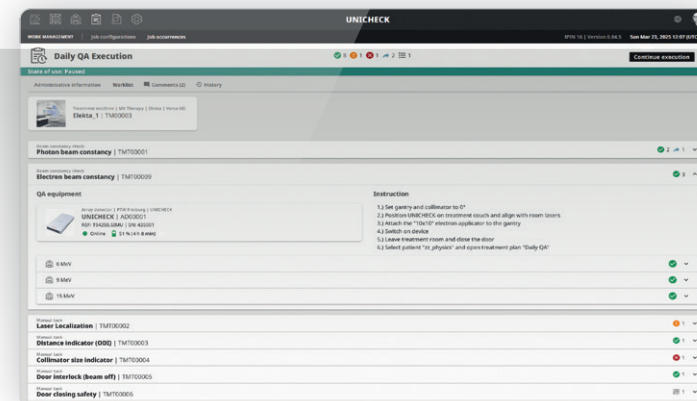
Select your measurement task from your dashboard. UNICHECK detects radiation when the beam is on and stops when it is off. Once initiated, UNICHECK software performs all measurements fully automatically. You can also include additional tests, such as safety and mechanical checks (e.g., door interlock, positioning/repositioning), in the daily job list for complete documentation. Results are calculated based on preset tolerance levels and displayed instantly, allowing you to complete all tasks with confidence.

Step 3

Analyze and document



Results appear on the responsible medical physicist's dashboard for final review and approval. Display trends of data types like beam dose output to identify critical outliers. Analyze specific measurements for detailed information and investigate warnings. Once approved, results are stored for documentation and later retrieval. They can be printed as a report for sign-off or saved as a PDF.



Key Facts

- “Plug-and-play” IoT device – automatic connection with UNICHECK software
- Installation-free – no cables, warm-up time, or pre-irradiation
- Secure wireless or wired connection
- Rechargeable battery with 8 hours of battery life
- Reproducible positioning with optional COUCHFIX

Key Facts

- Automated, task-oriented workflows
- Immediate, easy-to-interpret results (fail/pass/warning)
- Repeat, skip, and resume tasks
- Integrate additional daily QA tasks, such as safety checks
- Customizable warning levels
- Results based on common or custom dosimetry protocols

Key Facts

- Approve or reject results
- Use statistical tools for trend analysis
- Visualize tolerances to identify deviations
- Compare results across treatment machines and QA equipment
- Export results for further analysis
- Maintain traceable documentation of actions
- Add comments to clarify actions

Because Every Minute of Your Workday Matters

Why choose UNICHECK for daily QA

Exceptional durability and reliability

Featuring integrated shielding, robust components, and rigorous testing, UNICHECK is built to last and exceptionally resilient against radiation. Engineered for flawless operation, it offers true peace of mind, backed by first-class global support and service. Rely on consistent, dependable performance – day after day, year after year. Guaranteed.

Streamlined operation from measurement to documentation

With the intuitive UNICHECK software, you can efficiently plan, manage, complete, and document all daily QA tasks in one place. Your personal dashboard provides quick access to scheduled tasks and results, running automatically based on predefined rules and triggers. Adapt your workflow to meet site-specific requirements and streamline operations from measurement to reporting. Control who does what with role-based permissions, ensuring smooth and efficient operations for everyone on your team—whether they are radiation therapists or medical physicists.

Comprehensive daily QA, fast and compliant

UNICHECK precisely verifies all key beam parameters and energies in one go, fully compliant with major guidelines. Perform checks at different gantry angles, such as 90°, without a gantry mount using the optional ANGLEFIX holder. Easily integrate additional tests, like safety and mechanical checks (e.g., door interlock check, positioning/repositioning), ensuring complete documentation of all daily QA tasks.

Access from anywhere for authorized users

UNICHECK software is an intuitive, web-based application that gives you remote, role-based access through a web browser, with no need for local software installation. Ideal for multi-user environments in hospital networks or satellite clinics, it lets you organize and track all daily QA tasks, as well as to review and analyze results. It also allows all data and functions to be accessed from any location on any device, like tablets or smartphones.

Up-to-date insights into linac performance

Equipped with the largest number of ionization chambers, UNICHECK covers all relevant spots, delivering precise and trustworthy results. With fully covered centerlines, it facilitates a more detailed analysis of beam performance parameters. Results are immediately available in the UNICHECK software and are easy to interpret, enabling you to spot deviations and take timely action. Leverage the software's intuitive trend function and statistical tools to efficiently monitor performance over time, analyze trends, and compare results across treatment machines and clinical sites.



Fast charging, durable battery for long operation



Reproducible positioning with COUCHFIX



Daily check of the collimator size indicator



Measurements at different gantry angles with ANGLEFIX

Quick Overview

- Daily QA completed in a few minutes
- New radiation-resistant hardware design – ideal for long-term use
- Up to 10 years' warranty
- Buy or lease options
- Complete daily QA, including dosimetric and non-dosimetric tasks
- Fast constancy check of all key beam parameters
- Complete coverage of all relevant spots, including main axes, for a detailed performance analysis
- Highly customizable web application to adapt to site needs
- Automated, task-oriented workflows with role-based user rights
- Web-based access from any location and device
- Protocol-based worklist configuration
- Suitable for all major linacs, including ring-gantry linacs
- Wireless or wired connectivity
- Compatible with WFF and FFF beams – no additional components needed
- Battery and mains operation
- Reproducible positioning with COUCHFIX (optional)
- Independent checks at multiple gantry angles with ANGLEFIX (optional) - no gantry mount needed

Technical Specifications

QA tests supported	Photon and electron output constancy, photon and electron beam profile and area constancy, e.g., symmetry, flatness, stability index, photon and electron beam energy constancy, collimator size indicator
Detector type	Air-vented ionization chambers
Number of detectors	173 (including 47 chambers on each main axis and 4 BQF chambers)
Nominal useful energy range	Co-60, (4 ... 25) MV photons (4 ... 25) MeV electrons
Nominal range of dose rate	(0.5 ... 25) Gy/min
Field sizes	10 cm x 10 cm, 20 cm x 20 cm
Interfaces	WLAN, Ethernet (LAN)
Power supply	Rechargeable lithium-ion battery
Dimensions	535 mm x 270 mm x 60 mm
Optional accessories	Mains Adapter (T42041.1.100) COUCHFIX Locating Bar Varian (T20020.1.100) COUCHFIX Locating Bar Elekta (T20020.1.110) ANGLEFIX 90°/270° (T42041.1.300) ANGLEFIX 180° (T42041.1.310)
Extent of supply	UNICHECK (T94255) UNICHECK Beam Constancy Check (S080060.102)



Making Radiation Safer.

PTW is a global market leader for dosimetry and quality control solutions in radiation medicine, serving the needs of medical radiation experts in more than 160 countries worldwide. Starting with the famous Hammer dosemeter in 1922, the German manufacturer is the pioneer in medical radiation measurement, known for its unparalleled quality and precision.

For PTW, making medical radiation safer is both a passion and lifetime commitment. The family-run, high-tech company operates the oldest and largest accredited calibration laboratory in the field of ionizing radiation and established THE DOSIMETRY SCHOOL to globally promote the exchange of knowledge in clinical dosimetry.

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D1011.139.00/00 2025-05

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