



INVIVO COUNTING

2252

AutoScan™ Option

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FEATURES

- Adds automatic self-service operation to any FASTSCAN™ Whole Body Counting (WBC) System
- As easy to use as simple gross counting monitors, BUT ALSO:
 - Provides the low MDAs of spectroscopic WBC systems, and
 - Gives the full legal and regulatory protection of a gamma spectroscopy record
- Makes a FASTSCAN system as easy to use as your bank's ATM:
 - Card Reader and Keypad for Subject ID input
 - Occupancy Sensor for the FASTSCAN counter
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- Alphanumeric Display to guide the subject through the count
- Saves time and money by providing a 24 hour WBC capability without the need for a full time operator
- Compatible with totally remote system management

DESCRIPTION

The Model 2252 AutoScan Option converts any FASTSCAN Whole Body Counting System into a self-service WBC system that's as easy to use as your local bank's ATM. And just like an ATM does for your bank, the Model 2252 unit gives you:

1. 24 hour unattended operation.
2. Simple card reader and push-button control.
3. Remote monitoring and management capability.

The net result is both improved service and reduced operating costs, and without sacrificing the quality and low MDAs of full spectroscopic Whole Body Counting. For most installations, the payback on installing a Model 2252 unit is less than a year, making it one of the most cost-effective investments you can make in your personnel dosimetry program.

USING THE MODEL 2252 SYSTEM

Unattended self-service operation on a 24 hour per day basis is literally what the Model 2252 system provides. A subject walks up to FASTSCAN unit equipped with the Model 2252 system, pushes the Ready button, and runs his or her ID card through the reader. After confirming the ID is valid, the system instructs the subject to enter the counter.

Once the occupancy sensor detects that the subject is in position, the count is started and a message displayed to let your subject know that he or she is not to leave the chamber until the count is completed. The occupancy sensor continues monitoring the subject throughout count, and an alarm will be reported if the subject leaves the chamber before the count is finished.

The assay is completed in a minute or so, the results stored in the system's database, and a new message displayed.

Depending upon the results of the count (Normal, Exceeds an Action Required level, or Exceeds an Alarm level) and your installation's preferences, this can be anything from "See you tomorrow" to "Please take another shower" or "Please call the HP Office".

That's all there is to it. In a matter of a minute or so per subject, a FASTSCAN system with a Model 2252 unit yields the benefits of a true spectroscopic in vivo assay with the cost-savings of an automatic unattended system.

SYSTEM HARDWARE

The Model 2252 system includes a subject interface panel and a programmable logic controller, all contained within the physical package shown at right.



2252 AutoScan Option Subject Interface Panel

SUBJECT INTERFACE

All interactions between the system and the subject being counted are through the ATM-like interface panel of the Model 2252 system. A two line display with 20 characters per line is used to guide the subject through the counting process, displaying facility-specific messages such as "Swipe your ID Card to begin the Count", "Please enter the Counter", and so forth. In the standard configuration, the Ready button is used to start the counting process, and a bar-code reader and keypad are used for any required responses from the subject. (Other input devices are also available; consult the factory for details.)

OCCUPANCY SENSOR

A pressure-sensitive mat in the FASTSCAN counting chamber is used to sense subject occupancy. Once the subject has been told to enter the chamber, an "occupied" signal from the sensor starts the assay process. Should the sensor send an "unoccupied" signal prior to the completion of the count, an alarm condition will be generated. This initiates an audible alarm, sends the alarm to the Host, and displays a facility-specific message to the subject.

PROGRAMMABLE LOGIC CONTROLLER

All functions of the Model 2252 system, including controlling the bar-code reader and display panel, are performed via a built-in programmable logic controller (PLC). An RS-232C serial communications link between this PLC and the FASTSCAN unit's Host computer is used for message passing and Host supervision.

SYSTEM SOFTWARE

Automated operation for both AbacosPLUS™ (for the VAX) and AbacosGPC (for PC-based systems) software include the added functionality required to take advantage of the Model 2252 unit. Additional enhancements to the basic WBC software also provide functions useful to the facility using the FASTSCAN system in the automated operation mode. The software includes:

1. The ability to communicate with the PLC in the Model 2252 unit.
2. A special password-protected Unattended Counting Mode menu.
3. A Batch Report Printing facility to allow the results from a series of unattended counts to be printed.
4. A Batch Data Review facility to allow the System Manager to easily review the results of a series of unattended counts.

FASTSCAN counters equipped with the 2252 unit also benefit from the following standard ABACOS software features that are available on networked systems:

1. The ability for a System Manager to remotely view the data from the counter and the results of the analysis, making any needed corrections.
2. The ability to remotely adjust the controls of ICB NIM signal processing electronics.

OPERATIONS TRAINING

Operations training for the Automated FASTSCAN option will be incorporated into the normal five day ABACOS training course material for persons purchasing new systems. A one-day Operations training course will be provided by the service person installing the upgrade option at facilities in the U.S. for no extra cost. Training materials will be provided to local service representatives upgrading FASTSCAN systems outside the U.S. so that they may provide this service to customers who are not receiving ABACOS training at the time the Automated FASTSCAN option is installed.

HARDWARE

Subject Interface

- Ready button: Momentary contact push button used to initiate an unattended count procedure
- Bar-code reader: Used to enter the Subject ID. Most popular formats are supported
- Alpha keypad: Standard English alpha keypad, used with the numeric keypad for manual entry of Subject ID and any other required inputs
- Numeric keypad: Standard numeric keypad (0-9 plus the dash and decimal characters)
- Alphanumeric display: A two line, 20 characters per line, LCD display for use in displaying messages to the subject being counted

Communications

- Type: RS-232C serial link between the internal PLC and the Host computer
- Speed: 9600 Baud

Physical

- Size: 75 x 51 x 21.5 cm (29.5 x 20 x 8.5 in.) H x W x D
- Weight: 18 kg (40 lb)

Power

- Specify: 110/220 V ac, 50 or 60 Hz
- Requirements: 220 VA

Environmental

- Temperature: Stable to within ± 2 °C (for proper detector stability)
- Humidity: Non-condensing
- General: Clean dust free area

SOFTWARE

Prerequisites

- VAX-based systems: AbacosPLUS software, latest version
- PC-based systems: AbacosGPC software, latest version

Host Computer Software

- Communications: All needed communications drivers and software for Host/2252 interactions
- Unattended operations mode: All needed menus and functions for establishing and managing an unattended Fastscan counting station, including special password protection
- Reporting: Batch Reporting to handle report generation for a group of unattended counts
- Data review: Batch Data Review to allow the System Manager to review a group of unattended counts

Model 2252 PLC Software

- Communications: All needed communications drivers and software for Host/2252 interactions
- Subject interface: All needed functions for subject interactions with the 2252 system

