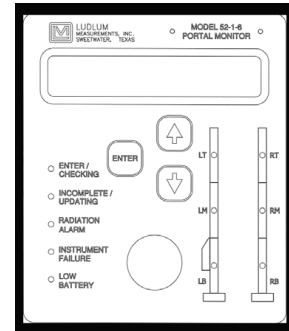


Model 52-1-6 Vehicle Beta/Gamma Radiation Portal Monitor

Features

- Easy Transport, Setup, & Operation
- Dynamic Alarm Setting Capabilities
- Six Plastic Scintillation Detectors
- Audible Alarms May be Silenced if Desired
- Drive-Through and Stop-and-Count Modes
- User-Selectable Individual, Sum, or Both
- Individual and Sum Alarm Modes
- Battery or Line Power Operation



Model 52-1-6 operation and display panel drawing
Part Number: 48-4165

Introduction

The Model 52-1-6 is designed for detecting beta/gamma contamination on vehicles. Six highly sensitive plastic scintillation detectors are arranged in two towers of three detectors each, permitting thorough scanning when operated in a stop-and-count mode. The instrument can also be used in quick scan mode as a drive-through portal monitor. Self-diagnostic routines check background counts and warn if levels are either too high or too low. User-adjustable alarms allow the operator to select individual alarms only, sum alarms only, or both individual and sum alarms. Sum alarms group detector pairs horizontally and also the two separate towers of detectors.



Storage, transportation, and setup of the Model 52-1-6 Vehicle Monitor is made simple as the instrument is contained in two rugged cases (provided). Assembly takes five minutes or less and requires no tools. All parameters are factory pre-set, but may be easily adjusted using pushbuttons located below the LCD. Parameters are stored in non-volatile memory requiring no battery backup so instrument operation can begin promptly at the scene using minimally trained personnel. Support wires and stakes are provided to give extra stability to the unit during operation, if required.

Specifications

DISPLAY- SETUP: two-line x 20-character LCD, backlit when operated from AC power

DISPLAY - USER: five large status LCDs on one side of the portal, and detector LEDs to show location of alarm

DETECTORS: 6 ea. 2.75 L (168 in³), plastic scintillators (total 16.5 L [1008 in³])

DETECTOR HIGH VOLTAGE: 700 to 1200 V

DETECTOR THRESHOLD: -4 mV

COUNT TIME: adjustable from 0 to 20 seconds ("0" indicates drive-through mode)

POWER: 95 - 250 VAC supplied through wall adapter, cable included for powering unit through 12V car lighter adapter, and 6 "D" cell batteries. Typical battery life is 59 hours.

FUSE: two each Littelfuse F-1A, 1 amp, 5 x 20 mm, 250 volt

OUTPUT: RS-232 and dry contacts for radiation alarm and failure conditions

SENSITIVITY: dependent on mode and distance between detectors

ENERGY RESPONSE: 60 keV to 3 MeV

AUDIO: an alarm with an adjustable baffle for portal entry and incomplete audio, and a continuous beeping for radiation alarm and instrument failure audio. The "AUDIO ON?" parameter in setup mode (default Yes or enabled) can be changed to NO to disable the audio.

CONSTRUCTION: aluminium housing with beige powder coat

WEATHER PROTECTION: On level and stable ground, the instrument is designed to withstand wind gusts of up to 32.2 km/h (20 mph) without additional support. However, the use of support wires or tie-down straps is recommended for all installations if possible. Six ratcheting tie down straps, 3.7 m (12 ft) are included for this purpose. In addition, clear polypropylene tubing is provided to cover monitor whenever protection against wet weather conditions is desired.

CASES: System may be contained in two cases when arranged according to the packing instructions. Each case is 122 x 61 x 30.5 cm (48 x 24 x 12 in.) (H x W x D); one case holds the detector sections and the other holds the car base components.

HEIGHT: 312.4 cm (123 inches) tall

WEIGHT: Model 52-1-6 instrument without cases: 52 kg (115 lb) **SHIPPING:** 2 packages of 85 kg (188 lb) total, 44 kg (96 lb) for one and 42 kg (93 lb) for the second (packed according to instructions)