

BETA-GAMMA PORTAL MONITOR

MODEL # PPM-21A

FEATURES:

- FULL DYNAMIC BACKGROUND SUBTRACT
- 8 CHANNELS OF COUNTING ELECTRONICS
- LEAD SHIELDING ON DETECTORS
- WEATHER RESISTANT PORTAL AND FOOTDECK
- SAFE LIGHT
- SYSTEM FAILURE LIGHT
- AUDIO AND VISUAL RADIATION ALARMS
- SCALER OPERATION FOR GREATER SENSITIVITY AND DEPENDABILITY
- SINGLE BUTTON RESET
- UNIQUE FRONT PANEL "DETECTOR POSITION LIGHT UP" INDICATES AREA OF CONTAMINATION OF INDIVIDUAL IN PORTAL
- LIGHT BEAM INTERRUPT SWITCHING
- TIMED COUNTING WITH RESET AND RECOUNT LIGHT INDICATES A PERSON IS LEAVING PORTAL TOO SOON



Figure: PPM-21A Portal (top), Console panel (bottom).

DESCRIPTION: The **PPM-21A** is a Doorway Monitor consisting of a frame or portal, a footdeck and a console plus connecting cables. For full body coverage including head, shoulders, and bottom of shoes, the portal includes eight channels of GM detectors. Seven GM tubes scan the body. The eighth channel is in the footdeck, which includes four GM tubes. All electronics are housed in the console including Power Supply, fully redundant readouts, alarm and system failure indicator. A light beam switch which senses the presence of a person in the portal and starts counting cycle is also included.

At the end of the time preset on the console (1 to 99 seconds, settable in 1 second increments) a green safe light is illuminated if present count limit has not been exceeded; or a red flasher beeper is activated if present count is reached within set time. In the latter event, individual lights on console show the location of excessive contamination. Should the person being checked leave the portal prior to the preset counting time, a reset and recount light so indicates.

OPERATION: No skill is required by person being monitored. The person enters the portal, pauses and then walks on. Radiation above a present level (1 to 99counts/Channel above background) causes an alarm to sound and indicator light(s) to show the location of the contamination on the person.

TA **TECHNICAL ASSOCIATES**
7051 ETON AVENUE * CANOGA PARK, CA 91303 TELEPHONE (818) 883-7043 * FAX(818) 883-6103

\$Revision: 1.1 \$

BETA-GAMMA PORTAL MONITOR

MODEL # PPM-21A

Model **PPM-21A**, since it includes a light beam switch, can be preset for any given dwell time from 1 to 99 seconds. The unit then acts as a counter and accumulates total counts for the given period.

The person being monitored steps into the portal thus interrupting the light beam and starting the timing cycle. The end of the timing cycle is indicated by a green safe light or a flashing red light plus alarm beeper. Should the person being monitored leave the portal prior to the appearance of the safe light or alarm, the amber "reset and recount" light on the console so indicates. When the green safe light is illuminated (either by the count time termination or by resetting after alarm or interrupted cycle) the portal is ready for the next person.

SPECIFICATIONS:

Detectors:	Eleven halogen quenched, infinite life stainless steel GM tubes (TA Model T-1120) in frame in positions indicated on DETECTOR POSITION SILHOUETTE. Each tube 5/8" dia. x 7" long with 30 mg/cm ² stainless steel wall. Model PPM-21P uses 10 - 2" diameter pancake GM detectors.
Shielding:	1/4" lead provides 180° shielding for each detector to reduce background. Light beam switch including source, collimator, detector. Foot deck shielding is 1" lead, 180°.
Dimensions:	(Overall) 88" H x 15" W x 28" Deep - for flush mount on floor, height is 83".
Weight:	155 LBS.
Shipping Weight:	210 lbs.

CONSOLE

Dimensions:	9" H x 10 1/4" W x 13" D.
Weight:	18 lbs.
Shipping Weight:	26 lbs.
Open Controls:	Covered Controls:
Power: Off/On	Time Constant: 1-99 Thumbwheel Switch (Gate Time PPM-21A)
Alarm Reset: Single Push Button	Counts to Alarm: 10-990 Thumb Wheel Switch

Indicators:	6 Lamps, 1 Sonalert, and 16 LED's. Safe: Steady Green System Failure: Steady Amber. Alarm: Flashing Red plus 2900 Hz beeper. Power on: Green Contamination Locator: 8 pairs of solid state LED's about person silhouette. Interrupted Count: Steady Amber. Count Gate On: Steady Blue.
--------------------	--

10 ft. of shielding connector cable normally furnished with system.



TECHNICAL ASSOCIATES

7051 ETON AVENUE * CANOGA PARK, CA 91303 TELEPHONE (818) 883-7043 * FAX(818) 883-6103

\$Revision: 1.1 \$