

# Model CPCM-1 Wall Mountable Composite Based Alpha Palm Contamination Monitor (Dual)

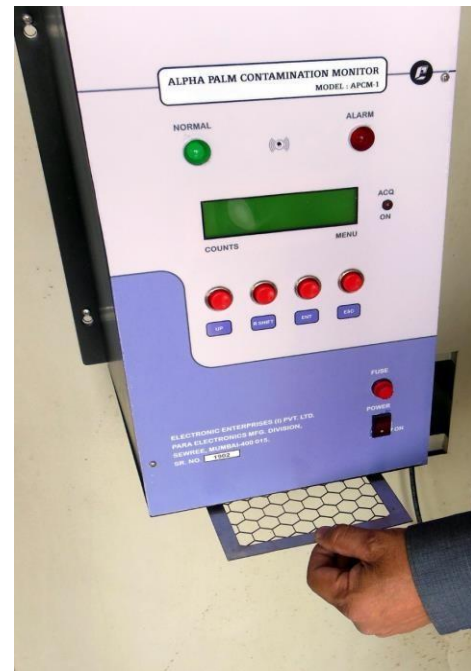


Model CPCM-1 is a wall mountable Alpha Palm Contamination Monitor developed for measurement and detection of alpha and Beta contamination on Palm. CPCM-1 is designed and manufactured indigenously by Para Electronics Mfg. Division of Electronic Enterprises (I) Pvt. Ltd., Mumbai, India.

Model CPCM-1 uses 2 nos. of  $120 \times 110 \text{ mm}^2$  ZnS(Ag) based Alpha Scintillator adhered to 0.10" thick plastic scintillator mounted on 78 mm dia PMT with Perspex light guide for detection of Alpha and Beta Particles on palm/hand. These detectors are covered with Mylar layers to protect it from ambient light. A demountable hexagonal SS mesh is provided on the Mylar layer to protect it from accidental touching and damaging it. It is also possible to remove this SS mesh for decontamination if required.

The detector is mounted upside down so that the palm can be held below the SS mesh, thereby reducing the chances of alpha/Beta particles falling on active area of the detector. One IR sensor and other touch switch sensor detect the presence of palm automatically. This will automatically start the measurement for preset time. At the end of measurement, if the measured value is greater than the set alarm value, appropriate message, and audio, visual alarm indications are provided. Should the palm moves during the measurement time, the measurement is aborted with message on LCD.

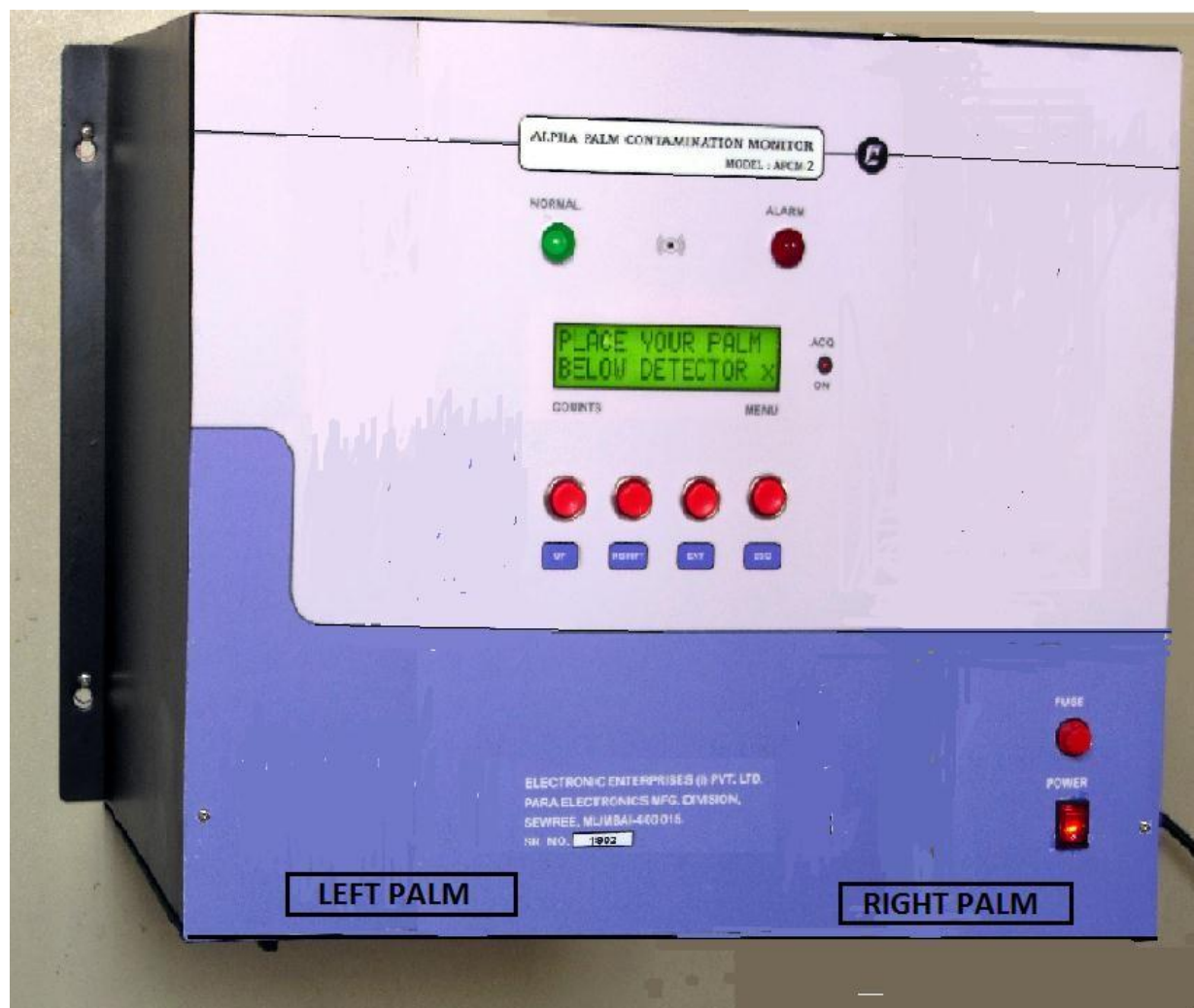
Model CPCM-1 is a mains operated unit which includes the HV supply for detector, front end electronics and micro controller for all the operations. Setup mode allows user to set the counting time, alarm level (CPS) and background subtraction ON or OFF. While there is no palm under the detector, instrument measures the background level which is used for getting the net counts in CPS for alarm activation.



Hexagonal Removable

## Stainless Steel Mesh

Model CPCM-1 is useful for detection of alpha contamination on palms. It is designed for ease of measurement to be used for health physics application in nuclear facilities like R&D labs, nuclear power plants etc.



# Specifications : Model CPCM-1



Contamination detected		Alpha & Beta
Detector	LEFT & RIGHT hands	Minimum Dimension of 120 mm (L) x 110 mm (W), ZnS(Ag) Scintillator Adhered to maximum 0.10" thick plastic scintillator mounted on minimum 70mm dia PMT with light guide
SS Mesh Arrangement		Removable Hexagonal SS mesh.
Display		Minimum 2 x 15 char. LCD for menu and other messages
Keypad		4 Keys to set the parameters
Palm Detection	LEFT	Automatic using one IR switch and one touch switch
	RIGHT	Automatic using one IR switch and one touch switch
Efficiency	Alpha	minimum 20% for Am <sup>241</sup>
	Beta	minimum 10% for Sr <sup>90</sup>
HV supply		up to 1000 V internally pre-set
Counting Time		Settable from 1 to 900 seconds (minimum) or more.
Alarms		Green / Red bright LEDs with audio buzzer
Alarm Setting		Settable from up to 900 CPS (minimum)
Mechanical Enclosure		Powder coated Wall Mountable Steel housing
		Dimensions: 220 W x 360 H x 260 D mm
Power		230V / 50 Hz AC Mains

*Due to continuous R&D, specifications are likely to change without notice*

For further details contact :

**Electronic Enterprises (I) Pvt. Ltd.**  
**Para Electronics Manufacturing Division**



306, Nimesh Industrial Estate  
Vidyalaya Marg, Mulund (East)  
Mumbai 400 081  
Phone : 022-25635600 / 25632741  
Fax : 022-25637835  
Website : [www.eeipl.in](http://www.eeipl.in)  
Email: [pemd@eeipl.in](mailto:pemd@eeipl.in)

**Mumbai**  
022-25639904  
[eeimulund@eeipl.in](mailto:eeimulund@eeipl.in)  
**Kolkata**  
033-25770551  
[eeecal@eeipl.in](mailto:eeecal@eeipl.in)

**SALES OFFICES**  
**Hyderabad**  
040-23243352  
[eehyd@eeipl.in](mailto:eehyd@eeipl.in)  
**Delhi**  
011-27240436  
[eedelhi@eeipl.in](mailto:eedelhi@eeipl.in)

**Bangalore**  
080-23380451  
[eebng@eeipl.in](mailto:eebng@eeipl.in)  
**Kota**  
0744-2501113  
[eekota@eeipl.in](mailto:eekota@eeipl.in)