

# ULTRA SENSITIVE PORTABLE TRITIUM MONITORS

## MODELS

### SP1400DD

#### **ULTRA HIGH SENSITIVITY, FAST RESPONSE TO 1.0 $\mu$ Ci/m<sup>3</sup>.**

True, unambiguous measurement to low levels combined with a fast response (10 sec. electronic time constant), not matched by any other portable tritium survey monitor.

#### **INSTANTANEOUS WARM UP**

The instrument will generally settle to 1.0uCi/m<sup>3</sup> within one minute after application of power.

#### **NO LONG TERM DRIFT**

The instrument is free from long term drift by using a highly stable electrometer design.

#### **SMALL IONIZATION CHAMBERS, EFFECTIVE GAMMA COMPENSATION**

Dual 1400 cc ionization chambers keep the overall instrument size and weight to a manageable size.

#### **HEAVY DUTY PUMP**

A generously sized pump provides up to 4 volume changes per minute to ensure a fast overall measurement response.

#### **DIGITAL DISPLAY**

The SP1400 series uses a 4-1/2 digit LCD display



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## TRULY PORTABLE

A shoulder strap frees both hands for directing the sniffer hose when the instrument is used for leak detection, or similar purposes.

## DISPOSABLE IN LINE FILTER

A small throw away cartridge filter fits directly onto the plastic sniffer hose, ensuring that the ionization chambers are protected against debris and dust.

## SUPPLIED COMPLETE WITH WALL CHARGER

A wall charger for NiMH batteries maintains full battery charge under all instrument operating conditions.

## HTO (DTO) MEASUREMENTS

By interposing a desiccant cartridge between the two ionization chambers, the monitor will respond only to HTO (DTO), even in the presence of other radioactive gases as well as background gamma radiation.

## SEMI PERMANENT AREA/STACK MONITOR

The sensitivity of the SP1400 exceeds that of most "fixed" monitors, it can therefore be used for similar duty. The internal pump has been rated for 2000 hours MTBF. Model SP1400 can be used for area monitoring for several months at a time.

## REMOTE FACILITIES

A multi pin connector on the front plate of the instrument has been provided for the connection to remote meter displays, alarms and chart recorders.

## COVER WITH CARRYING HANDLE

A matching cover which attaches with two draw latches serves to stow the carrying strap, the sniffer hose and spare dust filters.



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# PORTABLE TRITIUM MONITOR SP 1400DD

## SP1400DD SPECIFICATIONS

### TECHNICAL SPECIFICATIONS, micro Curie units of measure

Range	Single Range 0 - 19,999 $\mu\text{Ci}/\text{m}^3$
Display	4 1/2 digit LCD display in steps of $1\mu\text{Ci}/\text{m}^3$
Stability	0.5 $\mu\text{Ci}/\text{m}^3$ long term, for temperatures 0° C to 40° C
Alarm (acoustic)	set point adjustment with a ten position attenuator RESET/ON/OFF toggle switch
Interface	connector for remote display or chart recorder, alarm output
Power	6 D size batteries, NiMH, furnished with a detachable wall charger
Ionization Chambers	dual chambers, one chamber used for gamma compensation, volume $1400\text{ cm}^3$ each, deep drawn aluminum
Pump	brushless dc miniature pump for 4 to 6 volume changes per minute, ON - OFF switch
Size	front panel approximately 5" x 13", depth 12" including carrying handle
Weight	16 lbs
Accessories	carrying strap; sniffer hose; dust filter; wall charger



# PORTABLE TRITIUM MONITOR SP 1400DD

SP1400DD  
SPECIFICATIONS

## TECHNICAL SPECIFICATIONS, mega Becquerel units of measure

Range	Single Range 0.01 - 199.99MBq/m <sup>3</sup>
Display	4 1/2 digit LCD display in steps of 0.01MBq/m <sup>3</sup>
Stability	0.5 μCi/m <sup>3</sup> long term, for temperatures 0° C to 40° C
Alarm (acoustic)	set point adjustment with a ten position attenuator RESET/ON/OFF toggle switch
Interface	connector for remote display or chart recorder, alarm output
Power	6 D size batteries, NiMH, furnished with a detachable wall charger
Ionization Chambers	dual chambers, one chamber used for gamma compensation, volume 1400 cm <sup>3</sup> each, deep drawn aluminum
Pump	brushless dc miniature pump for 4 to 6 volume changes per minute, ON - OFF switch
Size	front panel approximately 5" x 13", depth 12" including carrying handle
Weight	16 lbs
Accessories	carrying strap; sniffer hose; dust filter; wall charger



**PARTS LIST FOR MODEL SP1400DD TRITIUM MONITOR**

**SP1400DD  
PARTS LIST**

<u>Qty Req'd</u>	<u>Part No.</u>	
		<u>Consumables</u>
1	BP06C>NNNF28VC3	Pump
1	DMO-742	Panel Meter
1	FW7304/10	Battery Charger
1	1020421	Battery Cover Gasket
1	1020415-M	Ionization Chamber Measurement side
1	TCCM773	Shoulder Strap
1	MS3116F14-15P	remote output connector plug
1	1020423	calibration control cover
		<u>Consumables</u>
1	12082	Dust Filter (3 ea. per pkg)
1	GP450-DHC	Primary Battery (6 ea. per pkg)
1	415	Polarizing Battery (4 ea. per pkg)
1	5233K53	Sniffer Hose, 10 ft
		<u>Accessories</u>
1	1020216-1T	Calibration Resistor Low Range

