



InVivo Solutions

Therapist Friendly - Physicist Approved

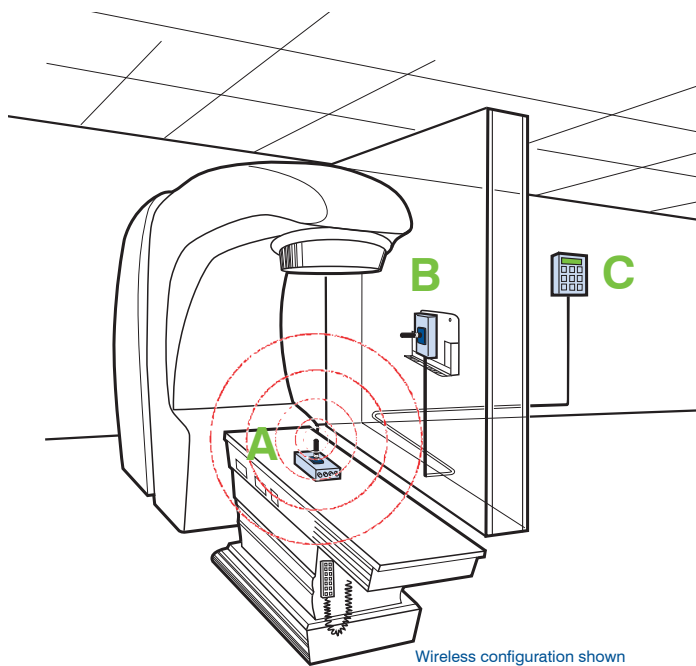
Easy to use real-time patient dose radiation monitoring with available wireless technology.

The IVD 2 / rf-IVD 2 Advantage

- Simple to install, and easy to use
- Automatic patient temperature compensation
- Real-time wireless available (rf-IVD 2)
 - Safely keep cables off the treatment floor
- Use with Control Module or PC Software
- Patient database and correction factor tools
- Accuracy and reliability proven worldwide

Hardware

- Choose four (wired) or eight (wireless) input channels
 - Expand to 52 inputs for TBI
- Programmable Control Module
- Use with industry standard re-usable detector options
 - QED – flat for easy patient placement
 - ISORAD – cylindrical for isotropic response



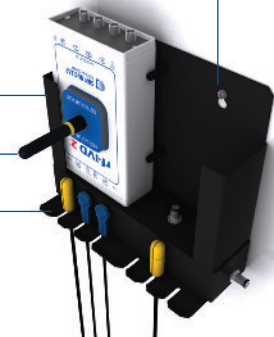
A,B IVD 2 wireless (1136)

Wall mounted charger

Wireless IVD 2 pod (B)

Detector holder

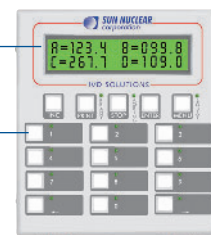
Charging slot for (A)



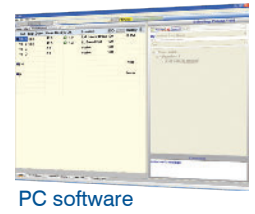
C IVD 2 Control Module

16 character display

12 programmable measurement options



InVivo Choices



IVD 2:

- Real-time wired operation
- Four standard channels
 - Expandable to 52
- Standard Control Module and PC software

rf-IVD 2 adds:

- Wireless operation
 - No cables on treatment room floor
- Eight standard channels

Control Module:

- PC not required
- Takes up less space
 - Wall mountable

PC Software adds:

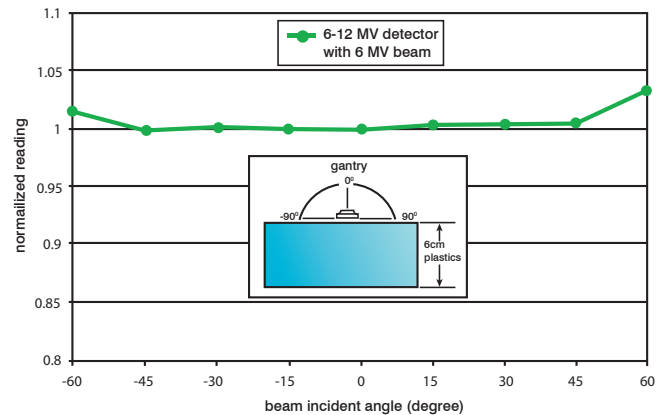
- Patient database
- Automatic correction factors
- Record and Verify interface
- Additional measurement options

Detector Choices

QED^{Detector}™ Easy Placement Dose Monitoring

Features

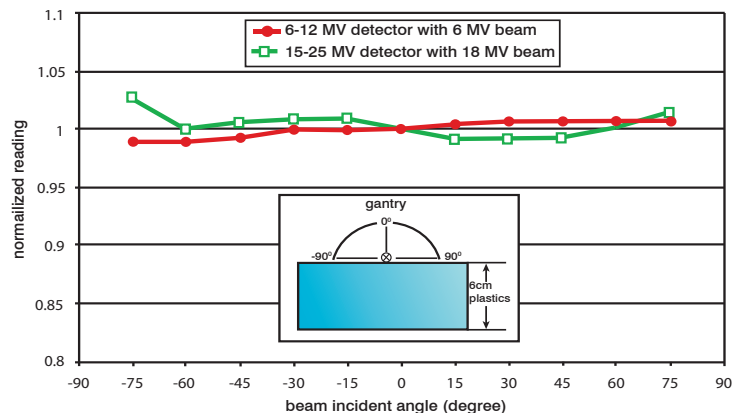
- Flat design for easy placement on patient
- Accurate and stable SunPoint™ Diode Detector
- Active dimension of 0.8 x 0.8mm
- 32 nC/Gy sensitivity
- 3m/1.5m cable lengths available



IsoRAD^{Detector}™ Angular Independent Dose Monitoring

Features

- Cylindrical design for isotropic response
- Accurate and stable SunPoint Diode Detector
- Active dimension of 1.4 mm in diameter
- 27 nC/Gy sensitivity
- 3m/1.5m cable lengths available

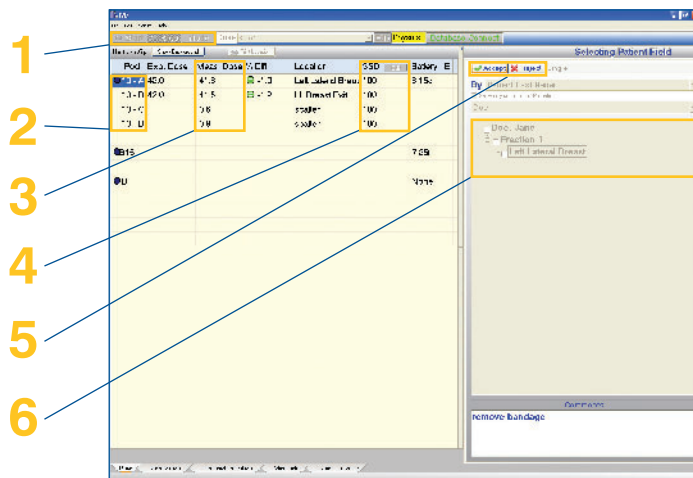


Software

- Networkable patient database for storing results
- Programmable templates
- 'Single Measurement' and 'Patient Measurement' mode
 - For multiple fraction dose recording
- Expected vs measured dose difference and visual indicator
- Automatically apply selected correction factors
- Password protection
- Electronic signatures
- Record & Verify (R&V) interface links

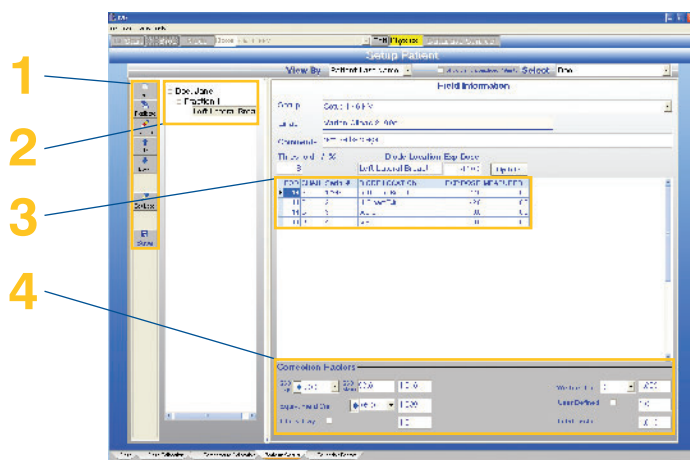
Patient measurement

1. Start/Stop measurement buttons
2. Channel results (expandible to 52)
3. Measured, expected dose and percent difference
4. Option to change SSD prior to measurement
5. Accept or reject collected measurement
6. Select patient, fraction and field



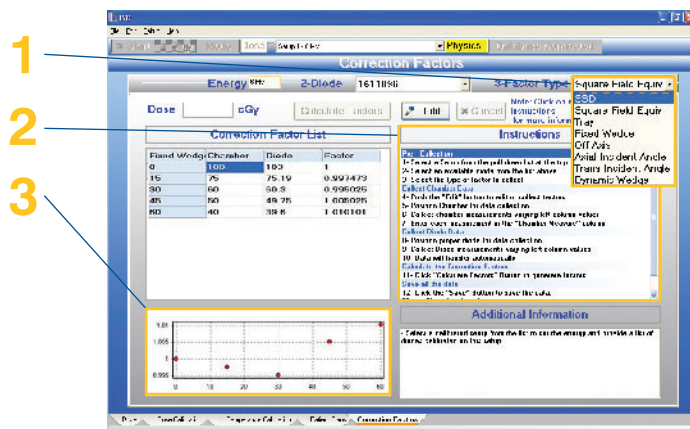
Patient database

1. Database edit toolbar
2. Patient specific tests
3. Measurement results per channel (up to 52)
4. Correction factors applied per test



Correction factors

1. Correction factor type
2. Instructions for setting up correction factor
3. Currently selected correction factor



Features and Specifications



Pods



Control Module

Pods:

Channels:	Standard: 4 (IVD 2) / 8 (rf-IVD2) Maximum: 52	
Temperature compensation:	Automatic-within 0.1°C (Negative polarity only)	
Repeatability:	± 0.2% or ± 0.1cGy	
Polarity:	Bipolar (negative or positive polarity detectors)	
Leakage:	Automatic compensation	
Calibration:	User calibrated	
Warm-up time (sec):	< 30	
Wireless frequency (MHz):	rf-IVD 2 : USA: 916.5 EU: 433.92	IVD 2: N/A
Power:	rf-IVD 2 : Rechargeable NiMH battery (12 hr) IVD 2 : Power supply	
Dimension (cm) / Weight (kg):	7.0 x 12.0 x 3.0 / 0.34	

Control Module:

Display Range:	0 to 99.999Gy; 0 to 9999.9cGy; 0 to 9999.9R
Display:	LCD, 2 Line, 16 characters/line
Power:	Medical power supply operating on 100-240 VAC, 47-63Hz mains, providing 18 VDC output
Dimension (cm) / Weight (kg):	14.0 x 16.0 x 3.5 / 0.78

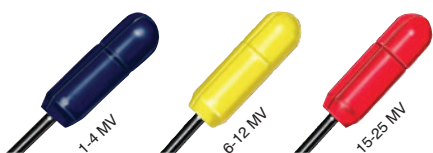
What is included:

Control module:	Standard
PC Software:	Standard
Number of pods:	IVD 2: one (four channels) rf-IVD 2: two (eight channels)
Wall mounted charging cradle:	Standard

IsoRad:

QED:

	1-4 MV	6-12 MV	15-25 MV	ELECTRON	SKIN	1-4 MV	6-12 MV	15-25 MV
Voltage range:	1-4 MV	6-12 MV	15-25 MV	ELECTRON	SKIN	1-4 MV	6-12 MV	15-25 MV
Buildup material:	Brass	Molybdenum	Tungsten	Acrylic	None	Aluminum	Brass	Brass
Buildup (g/cm ²):	1.4	1.6	2.6	0.36	0.11	1.09	1.91	3.10
Energy used for directional response:	Co-60	6 MV	18 MV	6 MeV	Co-60	Co-60	6 MV	18 MV
Detector area (mm ²):	0.97			0.64				
Active dimension (mm):	1.4 diameter			0.8 x 0.8				
Dose rate dependence:	± 1%, 75 - 250cm SSD			± 1%, 75 - 250cm SSD				
Detector sensitivity (nC/Gy):	27.0			27.0				
Detector stability:	0.5%/kGy at 6MV			0.5%/kGy at 6MV				
Color:	BLUE	YELLOW	RED	GREY	BLACK	BLUE	YELLOW	RED
Negative output P/N:	1162000-2	1163000-2	1164000-2	1112000-2	1113000-2	1114000-2	1115000-2	1116000-2
Positive output P/N:	1162000-3	1163000-3	1164000-3	1112000-3	1113000-3	1114000-3	1115000-3	1116000-3



All data used is best available at time of publication. Data is subject to change without notice. All Content ©2010, Sun Nuclear Corporation. All Rights Reserved.