# 3880 portable mri monitoring system



# WE ARE MRIPatient Care

IRadimed is a leader in MRI patient care with vast experience in MRI innovation. Roger Susi, our president and CEO, is the founder of Invivo Research where he pioneered the world's first and best selling MRI patient vital signs monitoring brand, as well as founding IRadimed Corporation, the world's first and best selling non-magnetic MRI infusion pumps and patient monitors.

The leadership team at IRadimed has a deep history in developing and advancing MRI patient care and is proud to introduce the world's first and only portable, MRI multi-parameter vital signs monitor that maintains the continuum of care throughout the patient's entire MRI care cycle. Below are a few of this team's most notable contributions to MRI patient care.



#### FIRST MRI MONITOR

The 3100 Omni-Trak was the world's first MRI patient monitor to receive FDA clearance. The 3100 opened the doors for patients to receive a MRI that would have been previously turned away.



### FIRST WIRELESS USE

Roger Susi and his team pioneered the use of wireless technology in MRI with the 3150 Omni-Trak. The simple setup of the wireless display expanded the benefits of MRI monitoring to a global scale.



#### FIRST MRI IV PUMP

The MRidium is the world's first non-magnetic IV infusion system. This unique infusion pump allows the delivery of fluids at the MRI bore safely for I.V. sedations and critical care patients.



### FIRST AT MOBILITY

The IRadimed 3880 is a non-magnetic patient monitoring solution, designed to move with the patient between their care unit and the MRI suite while safely maintaining the 'continuity of care'.

## WHAT DOES NON MAGNETIC MEAN TO YOU?



### CLINICIANS

"I have the freedom to use this monitor on the MRI patient table which keeps both the monitor and the cables off the floor. I now have more room to work and less tangling of lines making me more efficient."



### MRI SAFETY OFFICER

"It means safety. Being nonmagnetic gives me piece of mind knowing that patients arrive to MRI on a monitor that will not create any hazard should hospital staff use it in too strong of a magnetic field."



### MRI MANAGEMENT

"There are certain economic realities that I must face everyday. Having the IRadimed monitor allows us to stay on schedule and meet clinical standards of care without straining my capital or operating budgets."



# All in a day's WORK [FLOW]

Mount it on an anesthesia cart, patient table, stretcher or freestanding pedestal and get rolling toward a more efficient workflow.

## "Finally, an efficient way to transport our critical patients to the MRI"

The days of transferring a patient from a traditional transport monitor to the MRI monitor in the hallway outside of the MRI suite is now a thing of the past. The IRadimed 3880 MRI patient monitor is a small, lightweight, and easy to use, designed to travel with the patient between the MRI and their care unit. These unique transport attributes increase MRI efficiency while decreasing the amount of time critically ill patients are away from their care unit.

> Minute Reduction in time slots would open capacity for more MRI cases each day.

Additional MRI Slots per day can equal more than 500 additional MRI exams annually.

### HAVE A SAFE TRIP

Patient safety is increased when you provide uninterrupted vital sign monitoring from their care unit to MRI and back. IRadimed partners with your team to evaluate your current procedural workflow and will recommend strategies on how our MRI patient monitor and IV infusion pump will improve your overall patient workflow and staff efficiency.

## WORK SMARTER NOT HARDER

Portability is at the heart of the IRadimed 3880 MRI patient monitoring system. Transferring the patient to the MRI monitor in the originating department such as an Intensive Care Unit, Emergency Department or Anesthesia induction room reduces the need for unnecessary equipment transfers providing the following benefits:

- More efficient use of the MRI scanner and staff can improve throughput
- Continuity of care during intradepartmental patient transports
- Reduces the time that critical patients are away from the ICU



#### PRE MRI SET-UP

Connecting the MRI patient care devices to the patient within the 'safety-net' of their care unit insures patient stability prior to their MRI appointment.

#### TRANSPORT

The lightweight 3880 monitor allows a single staff member to easily transport the patient to the MRI without the need to transfer monitors again once they arrive.

### MRI EXAM

With its 30,000 gauss rating and small footprint, clinicians have the freedom to position the 3880 monitor where it best enhances patient care for the required procedure.

#### TRANSPORT

Using the 3880 monitor for the entire care cycle helps streamline patient transitions and maintains patient care without a lapse in monitoring during equipment transfers.

### POST MRI

Whether it is the patient's originating department or a recovery area, the IRadimed 3880 is with you and your patient every step of the way to ensure continuity of care.

## SHAPING THE FUTURE OF MRI MONITORING

Slim, lightweight, with enough battery life to go the distance, this patient-side monitor has been meticulously engineered to meet the needs of today's complex MRI workflow. From bedside through transport, the 3880 non-magnetic monitor is mountable anywhere: wall, roll-stand, bed rail, or anesthesia cart and can quickly be detached for immediate mobility. IRadimed 3880 provides MRI safety and full functionality in a compact, non-magnetic package.



## THE 3880 MRI MONITOR

The IRadimed 3880 non-magnetic patient monitoring system combines a legacy of proven performance with the ultimate fusion of both form and function.



## MRI PATIENT MONITOR

The 3880 non-magnetic patient side monitor is used to acquire, process, and display all vital sign measurements during patient intradepartmental transport as well as during the MRI procedure.



## EXTENDED RANGE REMOTE TABLET

The non-magnetic wireless Remote Tablet has industry leading wireless technology that allows for remote monitoring that can go the distance inside the MRI control room.

## IRadimed understands the challenges that are facing

LIFELONG AFFORDABILITY

healthcare providers and has designed the 3880 MRI patient monitoring system around today's sensitive budgets. Consideration was taken into every aspect of the monitor design to lower acquisition cost and reduce the cost of ownership burden traditionally associated with MRI monitors in the following areas:

- Start up cost
- Per patient case cost
- Service & maintenance cost
- Hardware and software upgrades extending life
- Individual lead replacement instead of 'whole cable'



## BASE STATION CONTROL CENTER

The Base Station is the control room communication hub that facilitates the printing and wireless communication through the MRI shielding between the Patient Monitor and the Tablet.

## LONG LIFE WIRELESS ECG AND SPO2 PODS

IRadimed non-magnetic PODs feature extended battery life lasting greater than 12 hours. This simplifies operation and eliminates the need for managing external battery chargers and batteries.

## WIRELESS MULTIGAS MODULE

The 3886 multigas module preserves patient mobility by residing on the anesthesia machine and wirelessly communicating patient gas information to 3880 MRI monitor.

## YES, IT'S SMALL AND NON-MAGNETIC

The non-magnetic design allows the 3880 to operate safely in a 30,000 gauss magnetic field without the need for a heavy roll cart used by traditional MRI monitors.

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## **IRADIMED**

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# **FMD<sup>1</sup> SMART MRI** FERROUS METAL DETECTOR



## The ONLY FMD With Trusense Threat Qualification

Significantly reduces alarm fatigue hazards!



# **Don't Become A Statistic**

## **MRI Accidents Continue To Happen Everyday**



The value of a true MRI Ferrous Metal Detector that reduces false alarms may not be readily apparent to you until a catastrophic event occurs. This preventable event can be a devastating, life changing situation for patients, staff and to your facility.

# **Don't Risk Being Non-Compliant** FACILITIES ARE REQUIRED TO:

- Joint Commission : Document all ferrous items entering zone IV [1]
- Joint Commission : Report of adverse events causing harm or damage
- Facility Guideline Institute : Site FMDs for MRI construction projects [3,4]
- American Society Of Healthcare Engineering : Site FMDs for MRI projects [3,4]
- Medicines And Healthcare Products Regulatory Agency : Have an FMD on site 🔊
- Veterans Health Administration : Recommends audible alarm FMDs [6]
- American College of Radiology: Recommends FMDs for zones III & IV 151

## **COMPLIANCE AND LIABILITY RISKS MAY LEAD TO:**

- Required Corrective Action By Joint Commission
- Serious Damage To Your Imaging Technology
- Costly Disruption To Your Patient Throughput
- Breached Standard-of-Care
- Life Threatening Injuries To Patients And Staff

# **An FMD That Has A Cause For Alarm**

## AN FMD WORTHY OF A PhD

- The FMD<sup>1</sup> dynamic signal processor adaptively adjusts for environmental changes while sensing the speed and direction of an approaching threat to determine the threat's validity.



## MINIMIZES FALSE ALARMS

- The FMD<sup>1</sup> has the ability to correctly identify a real hazard from a false alarm improving the staff's reliance on the system.

## AMORPHOUS SENSING

 The Zone III magnetic signature changes as staff and equipment move around and Zone IV doors open, making it difficult for other FMDs to identify a threat. The IRadimed FMD<sup>1</sup> continuously adapts to its ever changing environment by employing advanced, highly sensitive sensors allowing true magnetic threats to be detected.



## SPEED OF THE THREAT

- The FMD<sup>1</sup> utilizes radar like sensing to determine the speed and direction of a ferrous item so staff is only alerted of true potential threats heading towards Zone IV.



## POSITION OF THE THREAT

 Ferrous Location Awareness helps identify where a ferrous threat is located on a person or device by flashing the corresponding LEDs allowing staff to quickly identify an item before it becomes a hazard.



## **TRI-COLOR LED INDICATORS**

 The FMD<sup>1</sup> alerts staff with color coded LED lights that illuminate Red, Yellow, or Green combined with an intuitive STOP sign on the RALU instructing the individual how to proceed into Zone IV.

# **FMD<sup>1</sup> Trusense Ahead Of Its "Time"**







## DYNAMIC SIGNAL PROCESSING (D.S.P)

- The Trusense neural-engine can determine the difference between ferromagnetic background noise caused by ferrous objects that are not a legitimate threat to the MRI such as an HVAC, Elevator, or other non-threatening ferrous objects.



## THREAT DIRECTIONAL CHANGE DETECTION

- The Trusense sensors can detect when a threat changes direction parallel, away or towards Zone IV and alert accordingly.





### STATUS OF THE DOOR'S POSITION

- The Trusense "eyes" can recognize whether the position of the door to Zone III/IV is open or closed at all times and adjusts the threat level.

IRadimed's patent pending Trusense technology predicts an approaching ferrous hazard by uniquely combining *Time of Flight* sensing of a threat's *speed, trajectory* and Zone IV *door status,* with IRadimed's expertise in Dynamic Signal Processing. This clever technology reduces false alarms, all while simultaneously *circumventing background magnetic field noise,* resulting in the True Sense of a True Hazard.



# Remote Alarm Logging Unit

## RALU Wireless Touch Screen Incident Logging and Reporting



## WIRELESS TOUCH SCREEN DISPLAY

- Logging and reporting alarms and incidents has been streamlined with IRadimed's RALU touch screen interface.



## AUDIBLE AND VISUAL ALARMS

- When the FMD<sup>1</sup> recognizes a threat, the RALU will sound an audible alarm and flash on screen a visual alert.



## STATUS OF THE DOOR'S POSITION

- The status of the Zone IV door is displayed and will trigger an MRI safety alert when a door is left open for a period of time.



## EXPORT REPORTS FOR ACCREDITATION AGENCY

- Staff can utilize the RALU to generate weekly, monthly, and annual reports to fulfill mandated Joint Commission audits.



## SIMPLIFIED INCIDENT LOGGING

- The RALU touch screen interface allows for staff to quickly and easily log all ferrous items as they enter Zone IV which improves reporting accuracy.



- False Alarm: Ferrous threat has been detected, but no threat present.
- **X** Event With Injury: Ferrous item caused injury to patient or staff member.













# A True Plug And Play FMD



## NO DRILLING OR SPECIAL TOOLS REQUIRED

- For most facilities, the IRadimed FMD<sup>1</sup> will not require any drilling or special tools to install.



## NO CONTRACTORS OR ELECTRICIANS REQUIRED

- Simplified installation requires no third party contractors which saves you time and money. Your facility's Biomedical technicians can easily complete the task.



## PLUG AND PLAY, LITERALLY

- The FMD<sup>1</sup> is powered by a standard AC outlet. Simply plug the system in and wirelessly connect to the RALU remote to start.



# **Configurations That Have You Covered**



## **Trusense Zone IV Entryway Protection**

Detects Zone IV projectile hazards protecting patients, staff, and equipment.

- Trusense technology addresses false alarms like no other.
- Fully adjustable sensitivity levels to conform to your MRI safety strategy.
- Features wireless RALU incident logging for Joint Commission compliance.



## Trusense Zone II or III Patient Screening

No buttons required to detect small hazards protecting patients & MRI image quality.

- Trusense technology automatically recognizes a patient and activates FMD.
- Detects small ferrous objects on the patient that can cause image artifact.
- Identifies potential burn risks from ferrous objects before the scan starts.