



P1442-SMS SENTRY MOBILE RADIATION SHIELD

User Guide

P1442-UGD, Rev. A
LBL-117, Rev. A
Date of Issue: June 2025

This document should be stored with or within the immediate vicinity of the P1442-SMS Sentry Mobile Radiation Shield and the medical team using the unit.

Rampart[®], Shed the Lead[®], Fight the Good Fight[®], Protect The Team[™], and You Are Worth It[™] are trademarks of Rampart^{IC}.

The contents of this publication may not be reproduced, copied, or translated in whole or in part without prior consent from Rampart^{IC}.

Pursuant to continuous product improvement, Rampart^{IC} reserves the right to change the equipment design and the technology at any time.

All rights under the copyright laws are expressly reserved by Rampart^{IC}.

Within the bounds of legal requirements, the manufacturer is only responsible for the technical safety characteristics of this device if the maintenance, repairs, and modifications to this apparatus are performed by Rampart^{IC} or an approved Rampart^{IC} representative.

The Rampart^{IC} P1442-SMS Sentry Mobile Radiation Shield is available in the following options:

- Sentry Mobile Shield (P1442-SMS)

Manufacturer

Rampart^{IC}
Birmingham, Alabama USA
Phone: (205) 236-3000
Website: www.RampartIC.com
Email: info@RampartIC.com

Live Technical Support

Live technical support is available at (855) 236-3777 between the hours of 8 am to 5 pm Central Standard Time (CST), Monday through Friday. Phone calls received outside business hours will be returned as quickly as possible.

Training

A PDF version of this user guide is available at www.RampartIC.com/training.

CONTENTS

Overview	3
Intended Use	3
Safety & Liability	3
Safety & General Symbols	3
Explanation of Symbols	5
P1442 System Overview	6
Key Characteristics	7
Technical Specifications	8
Dimensions	8
Operating Environment	8
Weight	8
IP Protection Class	8
Identification Tag	8
Storage Mode	10
Place the Unit in Storage Mode	10
Instructions for Use	11
Using the P1442 Sentry	11
Intended User Group	11
Warnings and Cautions	11
Maintenance	12
Cleaning	12
Clean	12
Disinfect	12
Storage	13
Preventative Inspection	13
Parts and Accessories	13
Disposal	14
Limited Warranty	15

Overview

Congratulations on your purchase of the Rampart[®] P1442[®] Sentry Mobile Radiation Shield! Rampart^{IC} ensures your team is equipped with the latest, state-of-the-art radiation protection equipment and has freedom of mobility during fluoroscopic procedures. We hope you will **PROTECT THE TEAM[™]** and **SHED THE LEAD[®]** associated with lead aprons as you **FIGHT THE GOOD FIGHT[®]** in the cath lab. We think **YOU ARE WORTH IT[™]**.

This user guide provides guidance for the proper use of the Rampart^{IC} P1442 Sentry and for training personnel. Please read this document in its entirety, especially the warnings and caution statements identified throughout and summarized under [Safety & General Symbols](#) before use.



WARNING!

To reduce risk of injury to user(s) and patient(s), user(s) must read and understand this user guide and be trained prior to using the P1442 Sentry.

Note: A PDF version of this user guide is available at www.RampartIC.com/training.

Intended Use

The Rampart^{IC} P1442 Sentry is a protective radiation shield intended to safeguard users from radiation exposure during fluoroscopic medical procedures.

Safety & Liability

Rampart^{IC} assumes no liability for the safe and reliable operation of the P1442 Sentry radiation protection system where:

- Installation, modifications, or repairs are not performed by Rampart^{IC} technicians or people authorized by Rampart^{IC}.
- Authorized Rampart^{IC} replacement parts are not used.
- Authorized Rampart^{IC} sterility protection accessories are not used.
- The P1442 Sentry has not been installed or set up for a procedure in accordance with the steps in this user guide.
- The P1442 Sentry is not operated in accordance with steps in this user guide.
- The P1442 Sentry is used in a manner other than its intended use as stated above.

Notice to Users: Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the Member State in which the user and/or patient is established.

Safety & General Symbols

Please pay special attention to important safety information marked with **WARNING**, **CAUTION**, or **ATTENTION** keywords and symbols.

Indicates a potentially hazardous situation which could result in the *serious risk* of injury or death to the patient or operator, and/or damage to equipment or property.



WARNING!

- To reduce risk of injury to user(s) and patient(s), user(s) must carefully read and understand this user guide and be trained prior to using the P1442 Sentry.
- Repairs must only be performed by Rampart^{IC} authorized personnel.
- The weight of the P1442 Sentry system must not be altered in any way.
- The system must be carefully monitored during positioning to avoid damage to persons or property.



**WARNING:
MR-Unsafe**

The P1442 Sentry system is MR-unsafe. MR-unsafe items should not be brought into MRI scanner rooms.



**WARNING:
Radiation
Exposure**

- Failure to set the P1442 Sentry lead-equivalent acrylic panel at the proper height and position may cause radiation exposure. The P1442 Sentry is designed to be used with under-table and above-table lower body protection.
- According to the *Expert Consensus Document on Optimal Use of Ionizing Radiation in Cardiovascular Imaging*¹, proper radiation protection is in place when a minimum of 0.5 mm lead equivalency is placed between the radiation source and medical personnel. When used correctly, the Rampart^{IC} P1442 Sentry panel provides a protection level of 0.5 mm lead equivalency, and the soft shielding provides 0.5 mm lead equivalency against radiation exposure.
- The acrylic panel must be handled with care so that it is not damaged due to contact with other objects. If the panel is damaged, it must be rechecked according to the [Maintenance](#) section on page 12 of this user guide.

The P1442 Sentry acrylic panel and soft shielding will be permanently damaged if cleaned with abrasive cleaners. **When cleaning the acrylic panel and soft shielding, DO NOT use the following cleaning supplies:**



ATTENTION!

- Alcohol wipes or Sporidican² disinfectant towelettes, rough or abrasive-faced sponges, brushes, cleaning pads, scrapers, or metal tools, paper towels, and linen washcloths
- Strong detergents or abrasives such as scouring powders
- Aerosol cleaners with Butyl Cellosolve³
- Hydrocarbon or chlorinated solvents, ammonia (more than 0.5%), or strong alkali cleaners
- Cleaners that are designed for grease cutting
- Excessively hot water or steam

¹ J. W. Hirshfeld and V. A. Ferrari, "2018 ACC/HRS/NASCI/SCAI/SCCT Expert Consensus Document on Optimal Use of Ionizing Radiation in Cardiovascular Imaging: Best Practices for Safety and Effectiveness," 2018, <http://www.onlinejacc.org/content/early/2018/04/30/j.jacc.2018.02.016> (accessed August 10, 2019).

² Sporidican® is a registered trademark of Contec, Inc.

³ Butyl Cellosolve™ is a trademark of the Dow Chemical Company.
















CAUTION!

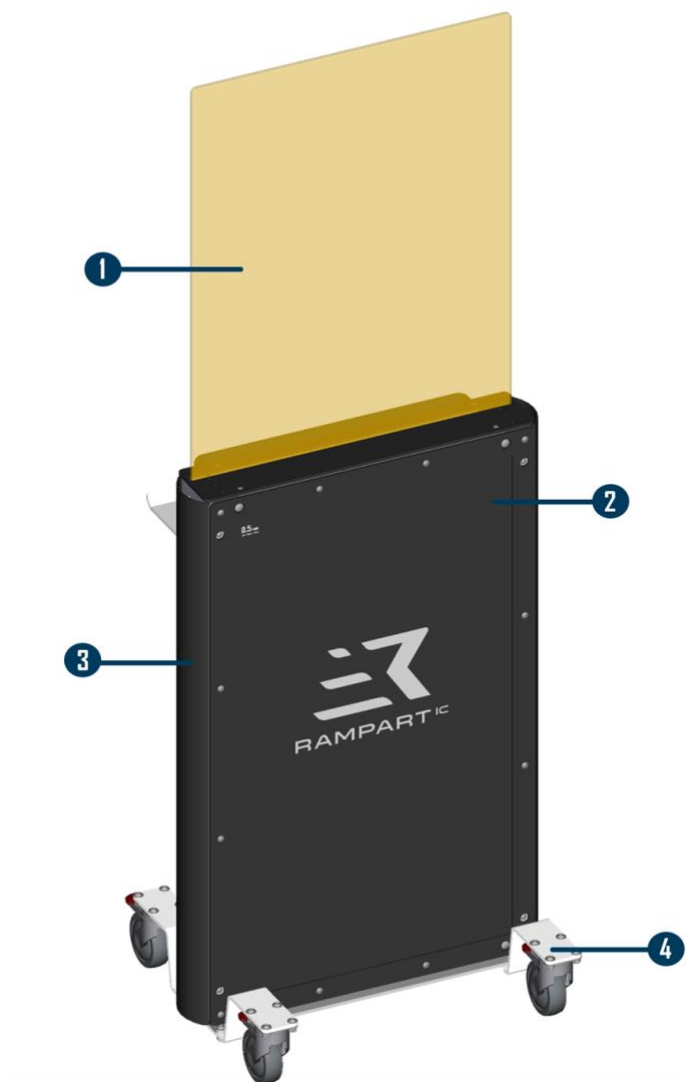
Indicates a potentially hazardous situation which could result in a *minor or moderate risk* of injury to the patient or operator, and/or damage to equipment or property.

- When cleaning the acrylic panel and soft shielding, never use rough or abrasive sponges, steel wool, brushes, or cleaning pads.
- When cleaning any component of the P1442 Sentry, never use scrapers or metal tools of any kind.

Explanation of Symbols

	Catalogue Number		Keep Dry
	Serial Number		Instructions for Use Found at www.RampartIC.com
	Quantity		Complies with Applicable European Union Regulations
	Batch Code		Prescription User or Licensed Healthcare Practitioner Use Only
	Manufacturer		Authorized Representative in the European Community/European Union
	Date of Manufacture		Do Not Use If Package is Damaged and Consult Instructions for Use Found at www.RampartIC.com
	Medical Device		

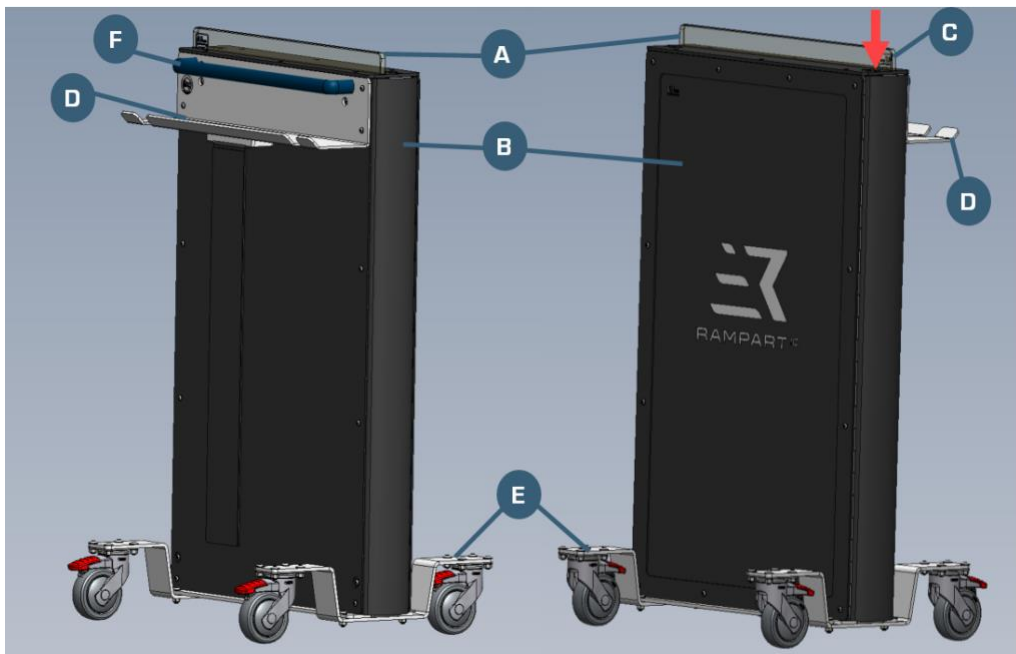
P1442-SMS System Overview



1	Transparent Panel: The transparent panel serves as the primary radiation shield. This panel can be raised and lowered from the frame to accommodate specific user needs. The panel features 0.5 mm lead-equivalent protection and can extend vertically to a maximum height of 72 in. (183 cm).
2	Lower Shield: The lower shield is comprised of pliable soft shielding material with 0.5 mm lead-equivalent protection. This shielding ensures that the user maintains optimal radiation protection regardless of the transparent panel position.
3	Side Shield: The two (2) side shields are made of pliable soft shielding material with 0.5 mm lead-equivalent protection. These shield assemblies are designed to minimize potential radiation leaks if multiple Sentry shields are used in tandem.
4	Base: The base has four lockable caster wheels to ensure that the P1442-SMS Sentry can be easily maneuvered into position and locked into place for procedures. The low-profile design of the base plate assembly minimizes potential tripping hazards.

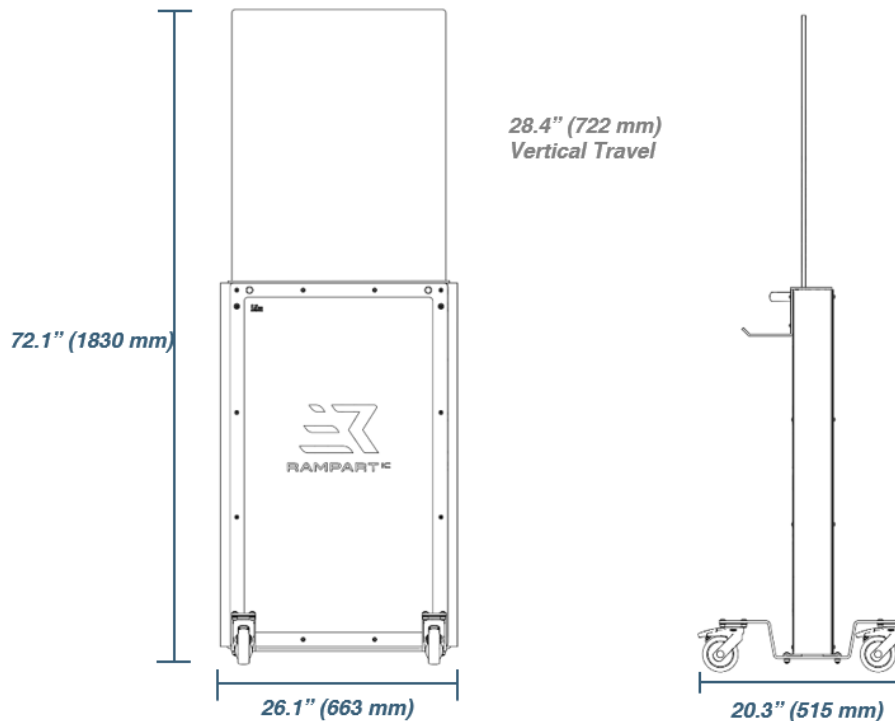
Key Characteristics

- A. Acrylic panel with 0.5 mm of lead-equivalent protection can be adjusted vertically to adapt to table and physician height.
- B. Pliable radiation shielding covers the base and sides to ensure optimal radiation protection when the distal panel assembly is deployed.
- C. When the distal panel assembly is fully lowered, the system provides 1.0 mm of lead-equivalent protection.
- D. Includes a built-in shelf for convenient storage, freeing up the user's hands, along with hooks to securely hang lead aprons, ensuring easy access and organization.
- E. Equipped with locking caster wheels for smooth, easy movement, and stability when stationary.
- F. Includes an ergonomic handle that allows for one-handed maneuvering while keeping the user safely behind the shield.
- G. The P1442-SMS Sentry panel can be configured into storage position when not in use. See the [Storage Mode](#) section on page 10.



Technical Specifications

Dimensions



The P1442-SMS Sentry at its **maximum dimensions** is positioned with the transparent panel fully extended. With the P1442-SMS Sentry configured in this manner, the maximum dimensions are 26.1 in. (663 mm) wide and 72.1 in. (1830 mm) tall.

Operating Environment

The P1442-SMS Sentry system is designed for indoor use and storage only and must not be subjected to weathering, UV light, or corrosive environments. The working environment defined for this device is a clinical or hospital surgical suite with a working temperature range of 50°F (10°C) to 77°F (25°C) at 20% to 75% non-condensing humidity. The storage temperature is between 14°F (-10°C) to 104°F (40°C).

Weight

The weight of the assembled P1442-SMS Sentry is 114 lbs. (51.7 kg).

IP Protection Class

The P1442-SMS Sentry mobile shield is rated in the IPX6 washable protection class.

Identification Tag

An identification tag is located on the bottom of the shelf. This tag identifies key information about your product that may need to be referenced during service calls:

- Product Name
- Reference Number
- Serial Number
- Data Matrix
- Manufacturer Name
- Manufacturer City, State, and Zip Code
- Manufacturer Website
- Manufacturer Phone

Storage Mode

The P1442-SMS Sentry must be placed into storage mode when not in use to ensure the system remains free of damage. When in storage mode, the distal panel is lowered to its minimum height so that the dimensions are 26.1 in. (663 mm) wide by 43.7 in. (1109 mm) tall.

Place the Unit in Storage Mode

1. **Lower the transparent panel** to its lowest position inside of the P1442-SMS Sentry.
2. **Reposition** to a designated area away from foot traffic.
3. **Lock** the caster wheels.



Panel Lowered and Casters Locked

Instructions for Use

The transparent panel of the P1442-SMS Sentry can be vertically positioned to a variety of configurations to accommodate physician or staff location, multiple procedure table types, and other lab equipment.

Using the P1442-SMS Sentry

To access instructions related to the storage and use of the P1442-SMS Sentry, please visit www.RampartIC.com.

Intended User Group

The intended user group for the P1442-SMS Sentry are physicians and their staff.

Warnings and Cautions



WARNING:
Radiation
Exposure

- Failure to set the panels at the proper height and position may cause unwanted radiation exposure.
- According to the *Expert Consensus Document on Optimal Use of Ionizing Radiation in Cardiovascular Imaging*⁴, proper radiation protection is in place when a minimum of 0.5 mm lead equivalency is placed between the radiation source and medical personnel. When used correctly, the Rampart^{IC} P1442-SMS Sentry panel provides a protection level of 0.5 mm lead equivalency, and the soft shielding provides 0.5 mm lead equivalency against radiation exposure.
- The panels and shielding must be handled with care, so they are not damaged due to contact with other objects. If the panels or shielding are damaged, they must be rechecked according to the [Maintenance](#) section on page 12.



WARNING:
MR-Unsafe

The P1442-SMS Sentry is MR-unsafe. MR-unsafe items should not be brought into MRI scanner rooms.

⁴ J. W. Hirshfeld and V. A. Ferrari, "2018 ACC/HRS/NASCI/SCAI/SCCT Expert Consensus Document on Optimal Use of Ionizing Radiation in Cardiovascular Imaging: Best Practices for Safety and Effectiveness," 2018, <http://www.onlinejacc.org/content/early/2018/04/30/ajacc.2018.02.016> [accessed August 10, 2019].

Maintenance

The Rampart^{IC} P1442-SMS Sentry requires post-procedure cleaning, routine inspections, and repairs by Rampart^{IC} authorized personnel to maintain optimal performance.

Cleaning

The P1442-SMS Sentry must be thoroughly cleaned and disinfected in accordance with standard operating room practices and CDC guidelines. Clean each component after use and prior to maintenance. Always use disposable drape kits to maintain sterility during procedures and dispose of them after.



CAUTION!

- When cleaning acrylic panels and curtains, never use rough or abrasive-faced sponges, steel wool, brushes, or cleaning pads.
- When cleaning any component, never use scrapers or metal tools of any kind.

The P1442-SMS Sentry acrylic panels and shielding will be permanently damaged if cleaned with abrasive cleaners. **When cleaning acrylic panels and shielding, DO NOT clean with the following cleaning supplies:**



ATTENTION!

- Paper towels or linen washcloths
- Alcohol wipes
- Sporidican⁵ Disinfectant Towelettes
- Rough or abrasive-faced sponges, brushes, cleaning pads, scrapers, or metal tools
- Strong detergents or abrasives such as scouring powders
- Aerosol cleaners with Butyl Cellosolve⁶
- Hydrocarbon or chlorinated solvents, ammonia (more than 0.5%), or strong alkali cleaners
- Cleaners that are designed for grease cutting
- Excessively hot water or steam

Clean

Clean by wiping with a soft cloth and a neutral pH enzymatic detergent (typically pH 6-8) diluted in water.

Disinfect

Disinfect using one of the following:

- 70% or less isopropyl alcohol (Dry shielding immediately after application.)
- Sani-HyPerCide⁷ Germicidal Disposable Wipes
- Super Sani-Cloth⁸ Germicidal Disposable Wipes
- CaviWipes⁹ 2.0 Disinfecting Wipes

⁵ Sporidican® is a registered trademark of Contec, Inc.

⁶ Butyl Cellosolve™ is a trademark of the Dow Chemical Company.

⁷ Sani-HyPerCide® is a registered trademark of PDI.

⁸ Super Sani-Cloth® is a registered trademark of PDI.

⁹ CaviWipes® is a registered trademark of Metrex Research LLC.

Notes:

- Always use detergent or wipe products according to safety precautions and use directions provided by the manufacturer.
- The use of disinfecting products may cause panel discoloration over time.
- Rampart^{IC} cleaning cloths are designed for safely cleaning P1442-SMS Sentry panels and shielding and are available for purchase. To purchase, email info@RampartIC.com.

Storage

Rampart^{IC} recommends placing the P1442-SMS Sentry in *Storage Mode* (page 10) when not in use due to the minimal footprint of this configuration.

1. Make sure the P1442-SMS Sentry is cleaned, as described in *Cleaning* on page 12, before storage.
2. Place the P1442-SMS Sentry in *Storage Mode* (page 10) and reposition to the side of the cath lab or other suitable location where there is minimal foot traffic and activity.

Preventative Inspection

Rampart^{IC} recommends an annual preventative maintenance inspection by a Rampart^{IC} authorized representative.

1. Make sure the P1442-SMS Sentry is cleaned, as described in *Cleaning* on page 12, before performing preventative inspection.
2. Inspect the panel and soft shielding to ensure:
 - a. All parts are fastened tightly.
 - b. There are no cracks or damage to any of the panels and soft shielding.
 - c. The transparent panel raises and lowers smoothly.
 - d. The transparent panel maintains the desired height setting.
3. Preventative maintenance following the equipment specific maintenance plan will default to the policies and procedures of the institution related to inspecting shielding. The Rampart service team will perform a visual inspection of attenuating components to determine appropriateness. If institution participation is available to operate fluoroscopic equipment, such testing will be performed via institution staff.
4. The Rampart^{IC} authorized representative will perform or schedule repairs necessary including ordering replacement parts.

Parts and Accessories

Part Number	Description
P1442-SMS	P1442 Sentry Mobile Shield

Disposal

The P1442 Sentry contains lead-equivalent panels and lead-equivalent soft shielding. The system and all components should be disposed of in an environmentally safe manner per local, state, and Federal laws.

Limited Warranty

Rampart^{IC} warrants to Customer that this product, manufactured by Rampart^{IC} and sold to Customer, will be free from defects in materials and workmanship for a period of one (1) year after delivery to Customer. This warranty shall not apply to any products which have been subjected to misuse, improper installation or repair, alteration, neglect, accident, abnormal conditions of operation, or use under conditions other than those for which the products were designed.

EXCEPT FOR THE FOREGOING LIMITED WARRANTY, SELLER MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING ALL WARRANTIES OF FITNESS OR OF MERCHANTABILITY.



RAMPART IC

P1442-SMS-SMS

1500 Urban Center Drive, Suite 140, Birmingham, Alabama USA
(205) 236-3000 Office, (855) 236-3777 Technical Support

info@RampartIC.com
www.RampartIC.com



CS Lifesciences UK Ltd
Suite 10, Dunswood House,
1 Dunswood Road,
Cumbernauld Glasgow, G67 3EN



CS Lifesciences Europe, Limited
The Black Church, St. Mary's Place
Dublin 7, Dublin, D07P4AX, Ireland
eurep@cslifesciences.com