SENTINEL BETWEEN CAR BARRIER SYSTEM

PRODUCT CATALOG

MPACT recovery systems°

ABOUT OUR COMPANY



IMPACT RECOVERY SYSTEMS, INC.

Over 25 Years of Excellence

We have been in business for over 25 years as a manufacturer providing high-performance, flexible traffic and safety devices throughout the world.

Our products have prominent applications in the United States, Canada, France, Japan, England, Belgium, Taiwan, The Netherlands, Turkey, Brazil and more.

We have received multiple awards for manufacturer and product innovation and we continually work to bring our customers the high quality and lasting durability they expect from our products.

CONTACT US



PHONE: +1(210) 736-4477 FAX: +1(210)734-6448



www.ImpactRecovery.com info@ImpactRecovery.com



Impact Recovery Systems, Inc. 4955 Stout Dr. San Antonio, TX 78219 United States



CONTENTS

罐

ĥ

About Sentinel Features Product Specifications Warranty

> IMPACT recovery s y s t ∈ m s°

03

04

06

80

Urban Light Rail has revolutionized public transportation world-wide.

0

While these systems have helped to ease road congestion and make daily commuting possible for many, they have also presented risks for pedestrians; particularly the visually impaired.

CTC/Arena

NGER

0

0

Sentinel[™] was developed by Impact Recovery Systems to address safety issues experienced by the transit industry.

SENTINEL[™] BETWEEN CAR BARRIER

Rail Platform BCB System

Sentinel is a platform-mounted guarding system designed to alert visually impaired riders of the space between the rail cars, letting them know that it is not a door opening. This allows them to avoid the gap and deters them from falling to the rails below.

Sentinel[™] is ideal for rail transportation systems that have elevated platforms and level boarding conditions with consistent rail car length. Its modular design allows for easy customization of rail lengths and post heights in order to meet situational and local legislative requirements. Uprights are also available with retro-reflective sheeting.



EMERGENCY ACCESS

Reactive Spring Technology

Built into every Sentinel upright is our patented reactive spring system. A unique compression spring assembly concealed within each post offers optimal strength to support our flexible uprights while allowing them to remain traversable.

In the case of an emergency, or should the

train experience errant docking, our Sentinel posts allow wheelchairs, motorized carts or maintenance vehicles to roll over them. Once crossed, the internal spring mechanism returns the post to its original, upright position for uninterrupted, lasting protection

MEETS SAFETY REQUIREMENTS

For Metropolitan Transit Authorities

Sentinel is the only platform-mounted between-car barrier system that meets the provisions placed by the Federal Transit Administration.

The Federal Americans With Disabilities Act (ADA) and the Federal Transit Administration (FTA) require transit agencies to take steps to ensure the visually impaired patrons do not fall from the elevated platform to the trackway below in the space between the train's coupled vehicles.

Sentinel is comprised of a proprietary blend of materials that satisfy the mechanical, cosmetic & fire retardant requirements for metropolitan transit authorities.

Flammability: Meets UL94 V-0 Fire Rating Standard.

Chemical Resistance: Provides Delta E measurements of 2

Weathering: Accelerated weathering tested according to ASTM G 26 2500kl. Minimum gloss retention level of 60% after 4 years of weathering.

Rail Height: 1" ADA Compliant. Sentinel's ultra low-profile rail was developed to minimize trip hazards. **Traversability:** Posts are traversable to allow wheelchairs or motorized carts to roll over them in case of train docking errors or emergencies.

Minimal Connection Points to Platform: Addresses electrical conductivity concerns within the platform. Only 3 anchors per rail.

Theft Resistance: All hardware, except anchors, is tamper resistant.







DURABLE CONSTRUCTION

For Lasting Protection

Sentinel BCB is suitable for both interior and exterior applications. It is comprised of a proprietary blend of materials that satisfy the mechanical, cosmetic and flame resistance requirements of metropolitan transit authorities.

This highly durable material is resistant to ultraviolet light, ozone and hydrocarbons.

INTEGRAL COLORIZATION *Fade Resistant*

An integral colorization process produces bright, vivid, fade-resistant color throughout for lasting visibility.



QUICK & EASY INSTALLATION Instantly Operational

This lightweight, surface-mounted rail protective system is quickly and easily installed using common tools and anchors.

Once secured, the unit is instantly operational.



INCREASED SAFETY For The Visually Impaired

Sentinel helps to deter visually impaired individuals from entering the area between the train cars and falling to the rails below.

In many locations, the Sentinel BCB protection system has also been used by the visually impaired passengers as a way-finding device. Passengers can align themselves with the last bollard of the Sentinel protection barrier, using it as a reference point and know exactly how many paces to walk in order to more easily find the door to the train.



FEATURES



MODULAR DESIGN

For Seamless Integration

The innovative, component-based design of our Sentinel Between Car Barrier System allows for seamless integration into any new or existing light rail platform design.

Each rail is interconnected to allow the length of the installation to be customized to meet the needs of each unique application.

Post heights can also be customized in order to meet local situational needs.

Posts feature a yellow domed cap and are available with or without optional retro-reflective sheeting bands.

PATENTED REACTIVE SPRING

A unique, built-in compression spring returns the post to its original, upright position after impact, maintaining continuous, lasting protection.

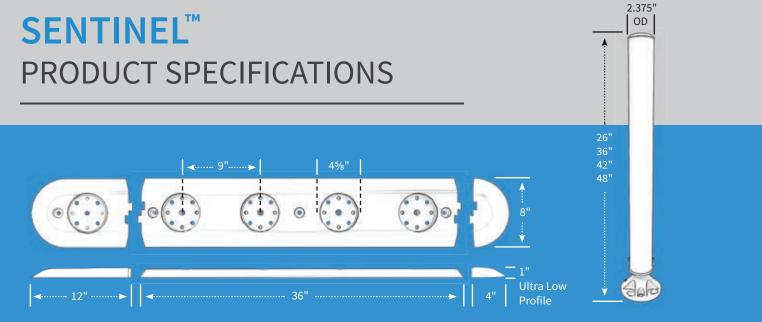
REDUCED MAINTENANCE

Save time and money by only replacing the components that have worn out.

ULTRA LOW PROFILE DESIGN

Sentinel rails have an ultra low, 1" profile for increased safety.





RAIL COMPONENT PIECI	ES
-----------------------------	----

RAIL COMPONENT FIELES										
		Dimensions	Weight	Color	Hardware		Installation	Upright Support		
SENTINEL RAIL		36" x 8" x 1"	6 lbs	Yellow	Stainless Steel		3 Anchor Points	4 Sentinel Posts		
LARGE SENTINEL E	ND-CAP	12" x 8" x 1"	1.2 lbs	Integral	Tamper Resistant		1 Anchor Point	Single Sentinel Post		
SENTINEL END-CA	C	4" x 8" x 1"	0.3 lbs	Color	N/A		N/A	N/A		
Stainless steel wedge anchors (Rail mounting) and tamper-resistant hardware (Securing uprights) included.										
UPRIGHT COMPONENT PIECES										
	Available	Height(s)	Diameter	Color		Installation		Spring Type		
SENTINEL POST	26" 36"	42" 48"	2.375" OD	Yellow - I	ntegral color	Secures to BCB Rail or End-Cap* Fi		Fixed - Sentinel		
Retro-reflective sheeting bands are NOT included, but are available for an additional cost.										
*Tommer resistant stainlass stall bardurers included with DAIL & End Care for securing Contined unrights to wail										

*Tamper-resistant, stainless steel hardware included with RAIL & End Caps for securing Sentinel uprights to rail.

BUILD YOUR SENTINEL BCB PACKAGE

Sentinel Features interconnecting rail and end-piece components making custom solutions simple and cost-effective. Build a protective barrier according to individual station needs.

SENTINEL RAIL

Single-Piece Rail Section

Each Sentinel Rail section is 36" in length and secures four (4) Sentinel Posts (Sold Separately). Stainless Steel rail and post mounting hardware included.

LARGE SENTINEL END-CAP

Large End Cap and Rail Extension

The Large Sentinel End-Cap can be used to extend the rail length by 12". It supports one (1) Sentinel Post and features a gently sloped edge to provide a smooth transition to the platform and create a finished look. Stainless steel hardware included.

SENTINEL END-CAP

Standard End Cap

The Sentinel End-Cap is 4" in length and features a gently sloped edge to provide a smooth transition and create a finished look.

SENTINEL POST

Traversable Bollard Uprights

Posts are available in multiple heights and mount securely to the Sentinel Rail and End-Cap sections. They feature a yellow plastic cap and are available with optional retro-reflective sheeting bands (Not Included).

Our unique compression spring, built into the core of every Sentinel Post, allows the posts to be rolled over by wheelchairs or motorized carts in case of an emergency.

SAMPLE SENTINEL UNIT

10.3 Feet Wide

- 13 Sentinel Posts
- 3 Sentinel Rails
- 1 Sentinel End-Cap
- 1 Large Sentinel End-Cap

26"

36"

42'

18

IMPACT RECOVERY SYSTEMS LIMITED WARRANTY



DISCLAIMER OF WARRANTIES

EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED HEREIN. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IRS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, REGARDING IN ANY MANNER ITS PRODUCTS OR PRODUCT CONDITIONS, INCLUDING, WITHOUT LIMITATION, THAT OF MERCHANTABILITY, SUITABILITY, ORIGINALITY, FITNESS FOR A PARTICULAR USE OR PURPOSE, OR A **RESULT TO BE DERIVED FROM THE USE** OF ITS PRODUCTS THEREOF, AND IRS EXPRESSLY DISCLAIMS ANY AND ALL WARRANTIES ARISING FROM COURSE OF DEALING, USAGE OF TRADE, COURSE OF PERFORMANCE, AND THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE. BUYER ACKNOWLEDGES THAT IT IS A SOPHISTICATED USER OF TRAFFIC SAFETY PRODUCTS, AND AGREES THAT THIS PROVISION IS AN INTEGRAL PART OF IMPACT RECOVERY SYSTEMS' PRICING AND AN IMPORTANT FACTOR IN ITS WILLINGNESS TO PROVIDE/SELL SUCH PRODUCTS TO BUYER.

LIMITATION OF LIABILITY

IRS AND ITS DISTRIBUTOR'S AGGREGATE CUMULATIVE LIABILITY AND OBLIGATION SHALL BE TO REPAIR OR REPLACE SUCH **QUANTITY OF PRODUCT SOLD TO BUYER** WHICH IS PROVEN TO BE DEFECTIVE **OR NON-CONFORMING, IN A MANNER** SUITABLE TO IRS TO ASCERTAIN THE DEFECT OR NON-CONFORMITY COMPLAINED OF IF REPORTED TO **IRS IN WRITING WITHIN THIRTY (30)** DAYS OF THE DISCOVERY OF THE DEFECT OR NON-CONFORMITY. IN NO EVENT WILL IRS OR ITS DISTRIBUTOR BE LIABLE IN TORT OR CONTRACT FOR CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, OR ANY OTHER NON-DIRECT DAMAGES, INCLUDING, WITHOUT LIMITATION LOSS PROFITS, OR DAMAGES ARISING OUT OF ANY CLAIM FOR PERSONAL INJURIES OR DEATH, ARISING OUT OF THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT.

IMPACT RECOVERY SYSTEMS®

This product has been manufactured and tested to the highest quality standards by Impact Traffic[™]. This Limited Warranty covers defects in material or workmanship in new Impact Traffic[™] products. This warranty extends to the original purchaser only and is non-transferable. Only users purchasing Impact Traffic[™] products from Impact Traffic[™], its authorized distributors or resellers, or through Impact Recovery Systems, Inc. authorized websites may obtain coverage under this Limited Warranty.

What is Covered?

Impact Recovery Systems, Inc. warrants this product against defects in material or workmanship as follows:

Impact Recovery Systems, Inc. will replace at no charge any product or part of the product or, at its option, replace parts only for any product that proves defective because of improper workmanship and/or material, under normal installation, use, service and maintenance. If Impact Recovery Systems, Inc. is unable to provide a replacement and repair is not practical or cannot be made in a timely fashion, Impact Recovery Systems, Inc. may elect to refund the purchase price in exchange for the return of the product.

How Long Does The Coverage Last?

One Year: Our warranty period is one year from the documented date of purchase.

What Our Warranty Does Not Cover

Our warranty does not cover any problems that are caused by:

- A. Conditions, malfunctions, or damage not resulting from defects in material or workmanship
 B. Conditions, malfunctions, or damage resulting from normal wear and tear, improper installation, improper maintenance, misuse, abuse, negligence, accident, or alteration.
- **C**. Conditions, malfunctions, or damage resulting from the addition, incorporation, and use and association with any accessory or product not manufactured by Impact Recovery Systems, Inc.

Limited warranty is void if a product is returned with removed, damaged, or tampered labels or any alterations (including removal of any component).

How To File a Claim

Impact Recovery Systems, Inc. will not provide any warranty coverage unless claims are made in compliance with all terms of the controlling warranty statement included with your product and you follow proper return procedure. To request warranty service, you will need to provide the following to receive a Return Merchandise **Authorization (RMA) number:**

1. The Purchase Order Number or other evidence of the date and place of purchase.

2. A description and photo documentation of the defect or non-conformity, in writing within thirty (30) days of the discovery.

3. If requested, delivery of the product or the defective part, postage prepaid, and carefully packed and insured, along with the RMA number, to:

- Impact Recovery Systems
- Attn: Customer Service
- 4955 Stout Drive
- San Antonio, Texas 78219

When warranty service is completed, any repaired or replacement product or part will be returned to you postage prepaid. If replacement is being provided the customer will be responsible for shipping costs.

What State Laws Apply?

This limited warranty has been accepted and made performable in Bexar County, Texas. The agreement for the sale of these products manufactured by Impact Recovery Systems, Inc., and the rights and obligations of the parties shall be construed under and governed by the laws of the State of Texas, without giving effect to principles of conflicts of laws. Exclusive venue for resolution of any dispute between the parties related to the sale of such products shall be in Bexar County, Texas.

TERMS AND CONDITIONS

Ordering Information: Orders subject to factory acceptance. Original, faxed, or emailed purchase orders are required. Returned items require authorization and are subject to a 15% restocking fee.

Freight Terms

Prices are F.O.B San Antonio, Texas. Taxes added where applicable. If you choose to ship your order prepaid, the exact shipping charges from the freight carrier will be added to the invoice.





PROVIDING PROTECTION TO TRANSIT AGENCIES EVERYWHERE

Our platform-mounted between-car-barrier system is used by many transit agencies across North America to effectively protect visually impaired passengers from falling between the train cars and onto the tracks below. LA METRO • Los Angeles, CA SANTA CLARA VTA • Santa Clara, CA LYNX CHARLOTTE • Charlotte, NC PITTSBURGH METRO • Pittsburgh, PA NFTA-METRO • Niagra Falls, NY ST LOUIS METRO • St. Louis, MO SOUND TRANSIT LINK • Seattle,WA OTTAWA • Canada AND MORE!









IMPACT RECOVERY SYSTEMS®





©2017 Impact Recovery Systems, Inc. All rights reserved. Sentinel™ | Sentinel Catalog Version 1.0 June 2017.

Impact Recovery Systems, IRS and Sentinel are registered trademarks of Impact Recovery Systems, Inc. The products illustrated or described in this catalog are covered by the following U.S. patent numbers: 6,416,248; 6,036,400; 6,616,369; D620,825 5 7,377,717 and 7,621,691 and corresponding foreign patents. Other U.S. and international patents pending.

