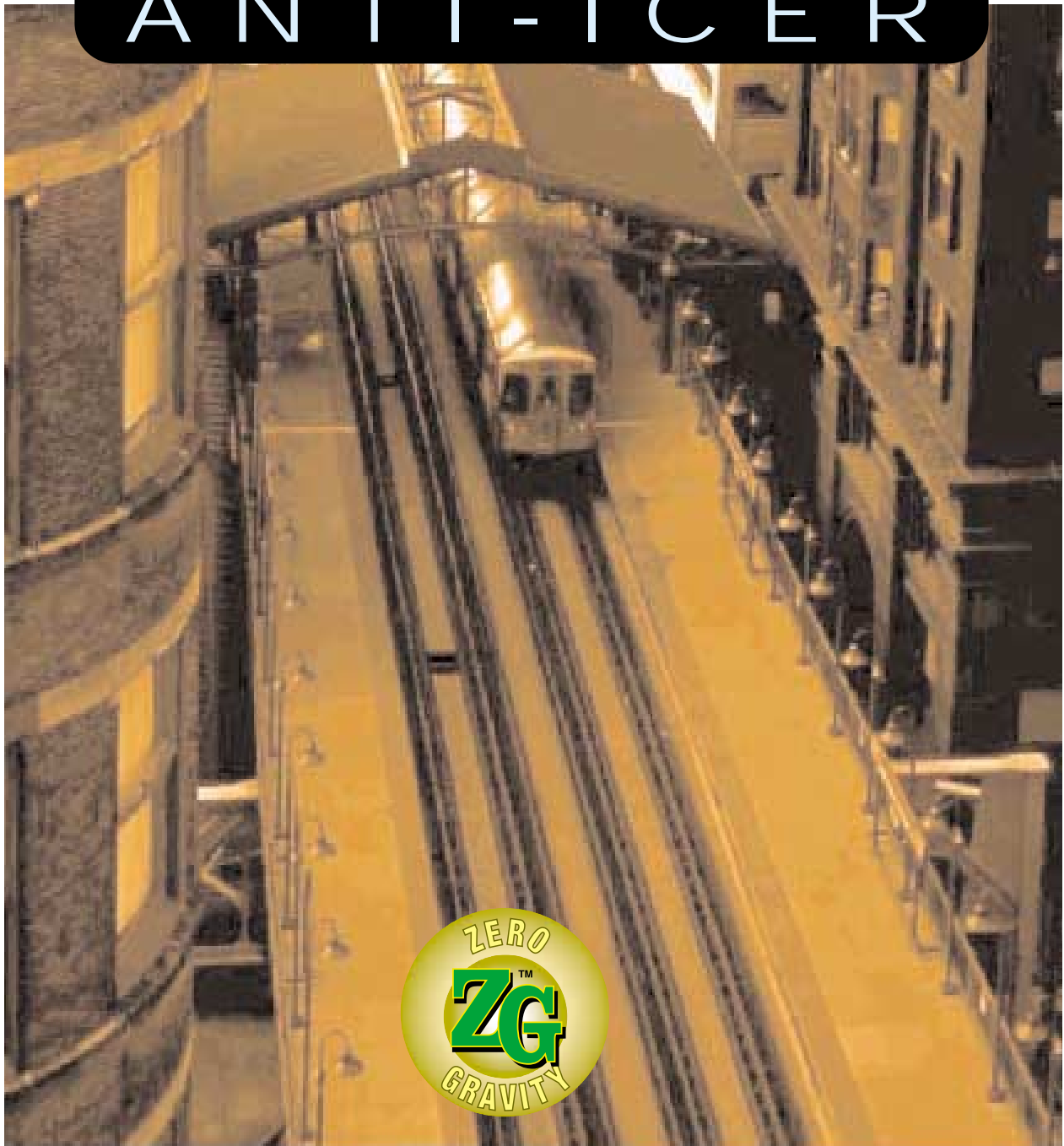


Third Rail[®]

ANTI-ICER



Eliminate The Nightmare Of Transit System Shut Down Due To Icing

Prevent Third Rail Icing With An Anti-Icing Strategy

Icing on the third rail will produce insufficient electrical contacts, causing power problems and preventing mass transit trains from operating. Be pro-active and stay ahead of the storm, after all, *“an ounce of prevention is worth a pound of cure”*. An old cliché perhaps, but very true.

Anti-icing provides the maintenance manager with two major benefits: keeping transit trains running on schedule and maintaining maximum safety for passengers. *Third Rail Anti-Icer* is applied prior to a severe storm event. Ongoing applications during the storm will maintain a clear, ice-free third rail.

If you wait until ice forms, “De-icing” requires 5 to 10 times more product to melt ice than what is required to “Anti-ice” in the first place. This is because typical de-icers, due to their lower viscosity, create more runoff and make de-icing highly ineffective. When you compare your options, anti-icing is more economical, faster, easier and is the far superior choice. You save time, money and operational interruption when you prepare an anti-icing strategy. Midwest Industrial Supply, Inc. helps you prepare your anti-icing strategy and provides you peace of mind.

“Zero Gravity” Smart Fluid

Third Rail Anti-Icer utilizes a NASA “Smart Fluid” technology we call **Zero Gravity™**, co-developed by NASA/Ames Research Center and Midwest Industrial Supply, Inc. (licensee of U.S. patent 5,772,912). When a small amount of this non-corrosive, biodegradable substance is sprayed



Third Rail Anti-Icer™ is sprayed directly onto the rail.



Zero Gravity™ “Smart Fluid” technology is a patented and licensed capability which permits our *Third Rail Anti-Icer®* to be sprayed or poured, in a liquid state, and become “jello-like” in its activated state. “Smart Fluid” technology allows the same substance to be a liquid and then become an extremely resilient coating that will stay in place, even on vertical surfaces. This



Liquid

extraordinary product retains its longlasting anti-icing properties which are re-activated by freezing rain, sleet or snow. It absolutely prevents ice from forming on the third rail! Zero Gravity™ is one of the many reasons we have been the leader in anti-icing... since 1975.



Activated “Smart Fluid” - (actual coating is .01 inches thick)

onto the third rail to produce a thin film of .01", its viscosity reverts to high "zero" shear or static viscosity which enables it to stay in place.

Third Rail Anti-Icer remains in place to be triggered later by sleet, rain or snow. It positively prevents moisture from becoming ice on the third rail!

Third Rail Anti-Icer was developed to permit uninterrupted equipment operation at freezing temperatures.

With the absence of electrolytes, there is no possibility of galvanic action and corrosion. Electrical shorts and arcing are eliminated as well. Because of its non-tacky nature, it will also reduce the wear-and-tear on the contact shoe.

Third Rail Anti-Icer is the twenty-first century "Smart Choice" for busy maintenance managers who have many other responsibilities on their minds. When you keep trains running on time, your passengers stay happy and that maintains high quality customer service.



Benefits:

- ***Eliminates Power Loss And Stalled Trains***
- ***Prevents Ice & Snow From Bonding To The Third Rail***
- ***Maximizes Safety Conditions For Passengers***
- ***Defies The Effects Of Rain, Sleet, Snow, Wind & Gravity***
- ***Does Not Conduct Electricity or Cause Shorting***
- ***Holds Fast to Vertical Surfaces & Remains In Place***
- ***Reduces Wear And Tear On "Contact Shoes"***
- ***More Effective Than Electric Rail Heaters***
- ***Safe To Use/Environmentally Friendly***
- ***Biodegradable/Non-Corrosive***
- ***No Electrolytes/Non-Galvanic***
- ***Efficient & Economical to Use***

**Third Rail Anti-Icer Makes Anti-Icing The
Twenty-First Century "Smart Choice"**

ICE-SLICER® Application System

A custom designed application system specifically fabricated to apply *Third Rail Anti-Icer* to dual sides of the third rail. ICE-SLICER® is positioned inside revenue cars, where it applies the fluid directly onto the third rail. Once engaged, ICE-SLICER® becomes fully automatic. Sensors and solenoid valves determine which side of the track (either cab side or non-cab side) receives the fluid at the appropriate time. Once the system is set to the required volume, (based on pressure settings and orifice sizes), no other adjustments are required.



ICE-SLICER® is the twenty-first century way to keep your third rail free and clear of ice. Its more cost effective than using rail heaters, which drain maintenance budgets and require even higher power costs. ICE-SLICER® is implemented only as needed and eliminates the need for specialized "storm trains". Best yet, ICE-SLICER® keeps trains running on schedule.

Give Us A Call Today

If you want to be on the "Cutting Edge", find out more about ICE-SLICER®. Call one of our service representatives at **1-800-321-0699** and let's get something going for you!



Third Rail Anti-Icer is applied through the hose barb to the rail surface below

