



FIRETRACE[®]
AUTOMATIC FIRE SUPPRESSION SYSTEMS

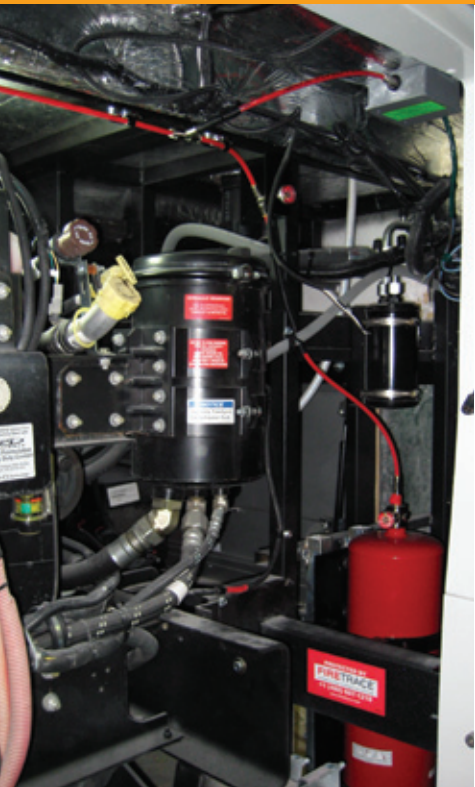
TRANSIT AND SCHOOL BUS

Fire Protection Solutions



More than 2,600 bus fires are reported annually, with a great many more going unreported.

Source: NTSB



The red Firetrace tubing seen here can be routed through the critical areas of the vehicle ensuring fire detection is fast and reliable.

THE PROBLEM

Mass transit is a critical component to many communities' transportation plans. Buses, heavy and light rail all combine to move large numbers of people efficiently while reducing the congestion of personal vehicles on roads and highways. Meanwhile, every day school buses transport millions of children to and from school.

Unfortunately, the impact of a fire in one of these vehicles is wide ranging. Issues include:

- ✦ Loss of passenger capacity
- ✦ Passenger safety concerns
- ✦ Injuries due to fire or during passenger exiting of vehicle
- ✦ Disruption of traffic
- ✦ Costs to city

FIRETRACE ADVANTAGES:

- ✦ Fast, reliable fire detection
- ✦ Requires no power to operate, offering 24/7 protection
- ✦ Installs quickly in new or existing vehicles
- ✦ Tolerant of the harsh working environment, including temperature extremes, vibration and dirt/dust
- ✦ Doesn't interfere with maintenance of vehicles

THE SOLUTION: EFFECTIVE FIRE SUPPRESSION

Firetrace offers a unique approach to protecting many of the fire-prone areas of these vehicles. Firetrace systems detect fire using the proprietary Firetrace Detection Tubing. This heat sensitive polymer tubing is pressurized and reacts to the heat and radiant energy of a fire by bursting, thus releasing the fire suppression agent.

Why Firetrace is ideal for transit fire protection:

- ✦ Firetrace Detection Tubing tolerates the vibration, dirt, and temperature extremes of the environments in which the vehicles operate
- ✦ Firetrace systems are self-operated and require no power to activate
- ✦ No false activations, systems are failsafe and react only to fire or extreme heat
- ✦ Very easy to install and maintain
- ✦ Cost effective protection for engines, electrical systems or HVAC

TAILORED SOLUTIONS



Direct Release Systems

The Direct Release System utilizes the Firetrace Detection Tubing as both the fire detection device and the fire suppressant delivery system. The portion of the tube nearest the hottest point of the fire ruptures, forming an effective discharge “nozzle”. The pressure drop in the tube releases the entire contents of the cylinder through this nozzle.

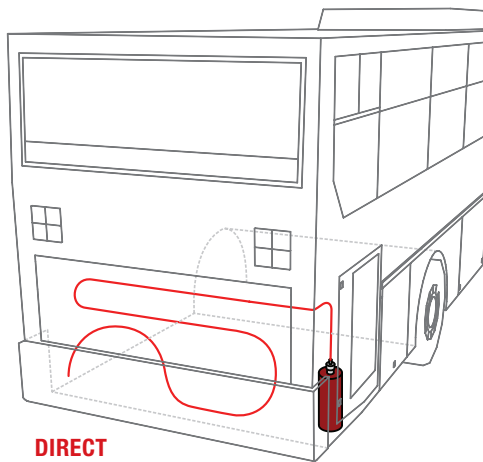


Indirect Release Systems

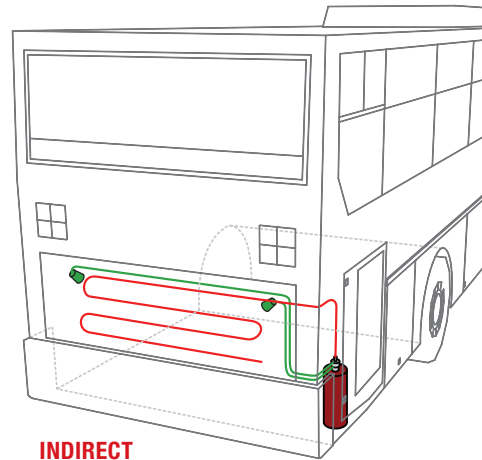
With the Indirect Release System, the Firetrace Detection Tubing is used only as a detection device. The fire suppression agent is delivered via copper tubing, stainless steel tubing or braided copper hose. Once the tube “bursts”, the suppressant is discharged through strategically placed nozzles within the protected enclosure.

AREAS PROTECTED:

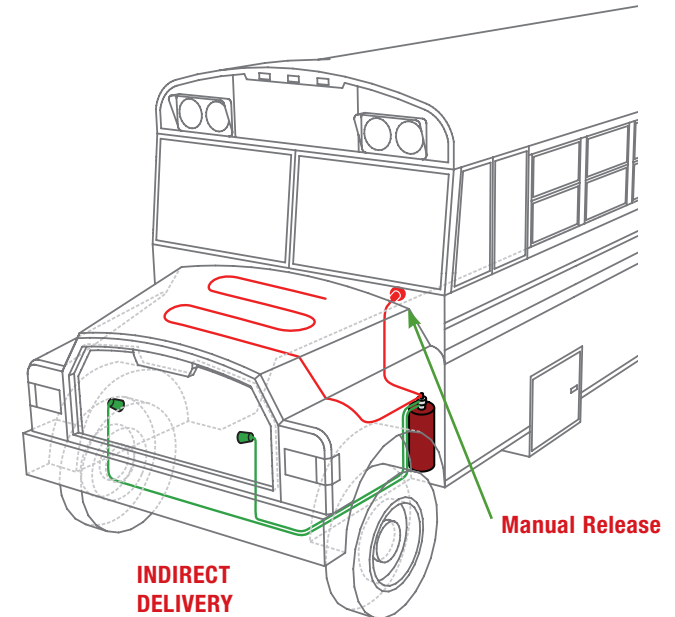
- ✦ Engine compartment
- ✦ Generator
- ✦ Electrical systems



**DIRECT
DELIVERY**



**INDIRECT
DELIVERY**



**INDIRECT
DELIVERY**

Manual Release



FIRETRACE[®]

AUTOMATIC FIRE SUPPRESSION SYSTEMS

FIRETRACE[®] Vehicle Applications

Firetrace is in use on more than 7,500 buses worldwide. In fact, Firetrace receives reports monthly on buses being saved from fire thanks to their Firetrace systems. Firetrace systems can be easily retrofitted to your existing fleet by maintenance personnel or by authorized Firetrace distributors.

In 2001, the worldwide rights to Firetrace were purchased by Firetrace USA, a group of fire suppression industry veterans who saw the value in creating fire suppression systems for “micro-environments.” This concept is simply providing supplemental protection that suppresses fire quickly within the protected space before larger room or building systems would activate. As a result of this supplemental protection, fire damage, both direct and collateral, and costs associated with cleanup and downtime are significantly reduced or eliminated. Available in multiple system sizes (ranging from one pound systems to 50 pound systems) utilizing a variety of fire suppressing agent options, Firetrace is now the choice fire suppressing system for virtually any enclosed application.

Firetrace can be fitted in virtually any bus, new or existing.



Firetrace currently has more than 20 international approvals and listings, including: UL, CE, FM, ULC & ISO9001. Approvals and listings vary by system type and agent.