



OWNER'S MANUAL

MANUAL P/N 10722

DRY CHEMICAL VEHICLE FIRE SUPPRESSION SYSTEM

MODELS: V13ABC,V25ABC,VH25ABC,V30ABC,VH30ABC,V50ABC, VS50 ABC,
VS75 ABC,V250ABC, V13PK, V25PK, VH25PK, V50PK,VS50 PK

THIS MANUAL WILL GIVE YOU A BRIEF DESCRIPTION OF HOW YOUR AMEREX DRY CHEMICAL VEHICLE FIRE SUPPRESSION SYSTEM OPERATES. IT OUTLINES PROCEDURES FOR THE VEHICLE OWNER AND OPERATOR(S) IN CASE OF A FIRE AND YOUR RESPONSIBILITIES REGARDING FIRE PROTECTION. IT IS EXTREMELY IMPORTANT THAT ALL WARNINGS, CAUTIONS AND NOTES IN THIS MANUAL BE CAREFULLY OBSERVED. FAILURE TO HEED THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY. AMEREX ASSUMES NO LIABILITY FOR SERVICE OR MAINTENANCE OF THE FIRE SUPPRESSION SYSTEM BY PUBLISHING THIS MANUAL. FOR ADDITIONAL INFORMATION REFER TO THE AMEREX WEBSITE: WWW.AMEREX-FIRE.COM

WARNING! This is not a maintenance, recharge or inspection manual. All Amerex dry chemical vehicle fire suppression systems shall be installed, inspected and maintained in accordance with the requirements of the Amerex dry chemical pre-engineered systems installation and maintenance manuals, P/N 13980 (VS Dry Chem), and the requirements of local authorities having jurisdiction (AHJ). **FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.**

When maintenance is indicated, it should be performed by trained persons having proper equipment. Agent cylinders are pressure vessels and must be treated with respect and handled with care. They are mechanical devices and require periodic maintenance to be sure that they are ready to operate properly and safely. For all maintenance procedures, refer to the Amerex modular dry chemical vehicle fire suppression system installation, operation, and maintenance manual, P/N 13980.

Amerex Corporation makes original factory parts available to ensure proper maintenance - **USE OF SUBSTITUTE PARTS RELEASES AMEREX OF ITS WARRANTY OBLIGATIONS.** Amerex parts have machined surfaces and threads that are manufactured to exacting tolerances. O-rings, hoses, nozzles and all metal parts meet precise specifications and are subjected to multiple in-house inspections and tests for acceptability. There are substitute parts available that may be incorrectly labeled as having third-party approvals; some of these are advertised as Amerex type. None of these meet the approval requirements and all of them void the Amerex warranty and third-party listing. **DO NOT SUBSTITUTE.**



Quality is Behind the Diamond

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INSTALLATION

CONGRATULATIONS! The installation of an Amerex fire suppression system on your vehicle is a commendable step toward securing total fire protection for your valuable vehicle. Suppression systems have been shown to reduce equipment loss and equipment downtime, and most importantly, preserve human life.

This manual is provided to you, the vehicle owner, to explain the basics of the suppression system components and their operation, and how to use the system in case of a fire. It is imperative that all persons expected to operate the equipment on which the suppression system is installed read and understand this manual and become proficient in the suppression system use and operation.

In addition, this manual describes the owner's role in suppression system maintenance and in vehicle maintenance that will help to ensure proper fire prevention. The manual is not intended to provide detailed information concerning suppression system installation or diagnostics.

For all warranty information refer to the Amerex internet website:

<https://amerex-fire.com/terms-and-conditions>

COMMON VEHICLE HAZARDS

A complete hazard analysis must be performed for each piece of equipment being protected to determine the machine components that would require fire suppression and cooling of potential hot surfaces. Protection may include, but is not limited to:

- Engine compartments - The engine compartment contains many components which can be heated above the ignition temperature of the fuels that are present in the compartment. Examples are turbochargers, engine blocks, exhaust manifolds, and other heat exchangers.
- Transmission areas.
- Gearboxes.
- Battery compartments.
- Ancillary compartments.
- Electrical or high voltage components or compartments.

PROTECTION

Vehicles are susceptible to fires because they contain fuel sources (diesel, gasoline, hydraulic oil, debris, insulation, etc.) and overheat/ignition sources (manifolds, turbochargers, battery boxes, brakes, wiring harnesses, electric motors, etc.) co-existing in high pressure, high vibration, and long operating shift environments. Areas likely to produce fire are called "Hazard Areas" and have been identified by your Amerex certified distributor. Amerex fire suppression options are designed to protect those high risk hazard areas.

HOW THE SYSTEM WORKS - TYPICAL FIRE SCENARIO

The following steps and graphics outline a typical scenario for an installation utilizing **automatic fire detection** and **electrical system actuation**. This example shows how automatic activation of the system occurs through the use of heat detection devices, such as linear heat detectors or spot heat detectors.

(1) Fire starts in a protected area.



(2) Heat and flames cause the temperature to rise to the set point of spot heat detectors or linear heat detectors. Upon reaching temperature, the contacts of the spot heat detectors close or the insulation of the linear heat detection cables melt causing a completed circuit.



(3) The completed circuit activates the releasing circuit to open the agent cylinder valve allowing pressurized fire suppression agent to flow into the distribution hoses leading to the discharge nozzles. The pressure of the fire suppression agent causes the protective dust caps located on the nozzles to be blown off, then discharges agent into the protected area to suppress the fire.



HOW THE SYSTEM WORKS - MANUAL OPERATION

In Case of Fire:

- (1) Bring the vehicle to a safe and controlled stop, and set the brakes. **Turn off the vehicle!**
- (2) Activate the fire suppression system by pulling the ring safety pin and pressing the red "**FIRE**" button.
- (3) Get away from the equipment, taking the hand portable fire extinguisher with you, assisting others to exit the vehicle as appropriate.
- (4) Call First Responders.
- (5) Stand by with the hand portable fire extinguisher and watch for signs of reignition.

Reasons Behind The Actions:

A running piece of equipment can continue to pump fuel or hydraulic fluid, adding to the fire. Its cooling fan creates wind currents that can reduce the effectiveness of the suppression system discharge. Its electrical system or other hot spots can continue to reignite the fire. Powering the vehicle down reduces the possibility of reignition.

By getting away from the equipment, the operator, as well as others, are protected from possible explosions or heat injuries.

What To Expect:

Discharge of the fire suppression system is noisy and can produce a cloud of extinguishing chemical. Breathing the chemical is unpleasant and may cause some irritation.

If automatic activation of the suppression system occurs on a vehicle equipped with automatic vehicle shutdown, be prepared to utilize the shutdown delay feature as required to bring the vehicle to a safe stop.

WARNING!: Vehicles equipped with the optional vehicle engine shut-down may experience loss of power and/or steering and braking. Once a fire condition is detected, the delay button on the panel may be depressed repeatedly as needed to delay engine shut-down and allow sufficient time to bring the vehicle to a safe and controlled stop. All potential operators must be thoroughly instructed in the use of this feature.

CAUTION!: Vision may be temporarily obstructed following system discharge. Vehicles equipped with Amerex Fire Suppression Systems should be evaluated. Visual warnings such as "CAUTION: VEHICLE EQUIPPED WITH AUTOMATIC FIRE SUPPRESSION SYSTEM. KEEP BACK 200 FEET" may be required on rear of vehicle.

After The Fire Has Been Extinguished:

DO NOT restart the equipment until it has been serviced and cleaned. Use a water stream, compressed air or pressure washer to remove chemical residue.

DO NOT return the equipment to service until the suppression system has been serviced by an Amerex certified distributor, and until the source of the fire has been located and neutralized.

THE OWNER'S ROLE IN PROTECTING THE VEHICLE

Vehicle owners play the primary role in protecting the vehicle by being responsible for **FIRE PREVENTION**. Vehicle fire prevention includes:

VEHICLE HOUSEKEEPING: Inspect and clean vehicle regularly to remove accumulations of solid combustibles such as dry vegetation, paper, wood, coal dust, flammable liquids such as grease, fuel and oil. Pay particular attention to all hazard areas including engine area, hydraulic manifolds and belly pan. Use high pressure water or steam spray when required.

VEHICLE MAINTENANCE: Proper vehicle maintenance is essential to successful fire prevention. Ensure maintenance is always up-to-date on the vehicle.

Vehicle owners also play the primary role in protecting the vehicle by ensuring that the fire suppression system is used and maintained properly. This must be accomplished by:

TRAINING OPERATORS: All operators must be thoroughly trained in manual actuation of the suppression system, electrical monitoring or control panel interpretation and fire relay delay operation.

PROVIDING FOR VEHICLE MODIFICATION: Your Amerex certified distributor should be notified of **any** modifications to the vehicle so that potential changes in hazard can be identified and protected.

ENSURING DESIGN INTEGRITY: Your Amerex Fire Suppression System has been designed and installed by an Amerex certified distributor. **Never** attempt to modify the suppression system in any way or relocate any components. Enlist the help of your Amerex certified distributor when modifications or repairs are required.

SCHEDULING REGULAR MAINTENANCE: It is the vehicle owner's responsibility to schedule monthly inspections, and semi-annual maintenance. Amerex Corporation warrants only those systems that are properly maintained.

PERFORMING QUICK CHECKS: Fire suppression systems can become damaged in between routine inspections. An added measure of safety can be achieved through vehicle owner/operator self-inspections.

MAINTENANCE

The Amerex Fire Suppression System is to be maintained and tested every six (6) months by an Amerex certified distributor. Amerex Corporation also recommends the following inspection and maintenance requirements to be performed by the OWNER / OPERATOR to ensure safe and reliable system performance.

Daily Inspection: OWNER / OPERATOR

- On systems with electronic display panels, verify that a green “OK” status LED is illuminated.
- Check pressure gauges if no pressure switch is used. Check nitrogen cylinder pressure gauge if equipped.

Monthly Inspection: OWNER / OPERATOR

- Verify that all components are present and in their original location and securely fastened.
- Verify that all mechanical actuation devices are unobstructed by vehicle modifications or clutter.
- Verify that the maintenance tag or certificate is in place and up to date. Record the date of inspection and initials of inspector.
- Verify the physical condition of all components. Inspect for damage or conditions that may prevent operation.
- Inspect the agent cylinder pressure gauge(s). The yellow pointer on the agent cylinder pressure gauge must be in the green pie area.
- Verify that dust cap (P/N 25685-P012) or (P/N 22973-P006) is installed on safety rupture disc on agent cylinder.
- All protective caps must be in place on nozzle tips. Nozzle outlets must be unobstructed and properly aimed at the hazard(s) which are intended to be protected.
- Verify that all “IN CASE OF FIRE” instruction labels are intact, clean and legible. Verify that all “CAUTION” labels are intact, clean and legible.

If any service is required as a result of monthly inspections, it should be done only by an authorized Amerex certified distributor.

Your Amerex Fire Suppression System will give you years of reliable protection if installed and maintained in accordance with the system design, installation and maintenance manual. Failure to heed the instructions and warnings in this owner's manual will void all warranties. When in doubt, always contact your Amerex certified distributor.

