OWNER'S OPERATION AND MAINTENANCE MANUAL

P/N 15064

Amerex Industrial Dry Chemical Fire Suppression System

MODELS
IS18ABC (18 lb. ABC) /
IS35ABC (35 lb. ABC) /
IS45ABC (45 lb. ABC) /

Manufactured by:
AMEREX CORPORATION
P.O. BOX 81
7595 Gadsden Highway
TRUSSVILLE, AL 35173-0081
Phone: (205) 655-3271
Fax: (205) 655-3279
E-Mail: amerex@usit.net
Home Page: http://www.amerex-fire.com

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CONGRATULATIONS! The installation of an Amerex Industrial Dry Chemical Fire Suppression System is a commendable step toward securing total fire protection for your industrial application. Suppression systems

have been shown to reduce equipment loss and equipment downtime, product loss, and most importantly, human life.

This manual is provided to you, the equipment 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 suppression system use.

WARNING: This is not a Maintanence, Recharge, or Inspection Manual. Your system must be designed, installed, and maintained by a Factory Trained and Authorized Amerex Industrial Fire Suppression System Distributor in accordance with the Amerex P/N 15040 "Installation, Operation, and Maintenance Manual" (available upon request from Amerex Corp.), NFPA 17, and Local Codes. Failure to do so may result in personal injury and/or property damage. Documentation such as drawings, permits, and testing by the Local Authority having Jurisdiction should be in your possession. RETAIN THESE DOCUMENTS FOR FUTURE USE.

In addition, this manual describes the owner's role in suppression system maintenance and in equipment maintenance that will help to ensure proper fire prevention. This manual is not intended to provide detailed information concerning suppression system installation or diagnostics. Information of this type is available in the Service and Installation Manual P/N 15040.

The Amerex limited warranty is stated below. To validate this warranty, THE WARRANTY REGISTRATION FORM ON LAST PAGE OF THIS MANUAL MUST BE COMPLETED AND RETURNED TO AMEREX CORPORATION WITHIN 15 DAYS OF SYSTEM INSTALLATION.

Warranty:
Amerex warrants its Industrial Dry Chemical Fire Suppression Systems to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. During the warranty period, any defective part will be repaired or replaced (at Amerex option). This warranty is valid only if each system is installed, serviced, and maintained by an Amerex factory trained Authorized Distributor in strict accordance with Amerex Manual No. 15040; all work must be performed using genuine Amerex replacement parts. This Warranty does not cover defects resulting from modification, alteration, misuse, exposure to corrosive conditions or improper installation or improper maintenance. Warranties on component items not manufactured by Amerex are provided by others whose warranty, evaluation, and judgement will be final.
ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF FITNESS FOR PURPOSE AND MERCHANTABILITY, ARE LIMITED TO THE TIME PERIOD AS STATED ABOVE. IN NO EVENT SHALL AMEREX CORP. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so that the above limitations or exclusions may not apply to you. Amerex Corp. neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than as expressly set forth herein. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To obtain performance of the obligation of this Warranty, write to Amerex Corp., P.O. Box 81, Trussville, AL 35173-0081, U.S.A. for instructions.

WHAT IS PROTECTED BY AN INDUSTRIAL FIRE SUPPRESSION SYSTEM? There are relatively few generic types of dry-chemical fire suppression system applications. They vary from each other in terms of the nature, NFPA Class designation, and physical layout of the flammable materials involved and whether or not the area to be protected is enclosed. The main application types covered by the Amerex system are:

LOCAL APPLICATION – OVERHEAD:
This system is used for applying agent to an area from above. Typical applications include dip-tanks, power generators, and transformers.

LOCAL APPLICATION – TANKSIDE:
This system is used for applying agent across an area from a few inches above the surface. Typical applications include dip-tanks and quenching tanks.

TOTAL FLOODING :
This system is used to fill an enclosure with agent to protect a flammable Class A solid or a Class B or C flammable liquid or gas within that volume. Typical applications include hazardous storage containers and warehouses where sprinkler protection is unavailable. Total flooding systems require that an enclosure be present around the hazard area to allow the system to build up the proper concentration of agent within the hazard area.

VEHICLE PAINT SPRAY BOOTHS:
This system is used to protect the various work area, exhaust plenum and duct configurations found on a vehicle paint spray booth. The system is designed to discharge dry chemical into these regions following a the automatic shutdown of the duct fan.

OPEN FRONT PAINT SPRAY BOOTHS:
This system is used to protect the work area, exhaust plenum and duct found on a typical open front paint spray booth. The open front booth system does not require the exhaust fan to be shut down prior to the dry chemical discharge.

SYSTEM OPERATION:

HOW THE SYSTEM IS OPERATED (MECHANICAL RELEASING MODULE (MRM) SYSTEMS): Dry Chemical fire suppressant is discharged through a fixed nozzle network onto the hazard area. This is accomplished either by automatic means or by manual means. During automatic system actuation, the heat from the fire causes two halves of a Fusible Link (Detector) to separate, releasing tension in the detection line, which, in turn, allows high pressure nitrogen gas to pneumatically open the Agent Cylinder(s) to disperse the Dry Chemical through the fixed nozzle network. In a Manual actuation, the operator must first pull the ring pin (safety pin) and then pull the handle of Manual Pull Station firmly.

HOW THE SYSTEM IS OPERATED (ELECTRICAL RELEASING MODULE (ERM) SYSTEMS): Dry Chemical fire suppressant is discharged through a fixed nozzle network onto the hazard area. This is accomplished either by automatic means or by manual means. During automatic system actuation, the heat from the fire causes the contacts inside a thermal detector to close, which, in turn, releases the solenoid, allowing high pressure nitrogen gas to pneumatically open the Agent Cylinder(s) to disperse the Dry Chemical through the fixed nozzle network. In a Manual actuation, the operator must first lift the cover of the Electric Manual Pull Station and then pull down on the handle firmly.

Note: This system is made up of units tested within limitations contained in the detailed installation manual, p/n 15040. The system designer must be consulted whenever changes are planned for the system or area of protection. An authorized Amerex installer or system designer must be consulted after the system has discharged.

IN CASE OF FIRE:

To Manually Operate the Suppression System:

1) **EVACUATE ALL NON-ESSENTIAL PERSONNEL.**
2) **NOTIFY THE FIRE DEPARTMENT.**
3) **ACTUATE THE FIRE SUPPRESSION SYSTEM (1) BY PULLING THE RING SAFETY PIN AND (2) BY PULLING THE HANDLE OF THE MANUAL PULL STATION. [FOR ERM SYSTEMS, LIFT COVER OF ELECTRIC MANUAL PULL STATION, PULL DOWN HARD ON HANDLE].**
4) **STAND BY WITH A HAND PORTABLE FIRE EXTINGUISHER AND WATCH FOR RE- IGNITION.**
5) **DO NOT resume operation until system is recharged and source of fire is corrected.**

Reasons Behind The Actions:

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

Because residual heat could cause a reignition of the fire, or because the fire may be deep seated (industrial suppression systems are not intended to extinguish deep seated fires) it is important to stand by with a portable fire extinguisher. Maintain the standby until all possibility of reflash is eliminated and all residual heat has dissipated.

What To Expect:

Discharge of the Fire Suppression System is noisy and can produce a large cloud of extinguishing chemical. Breathing the dry chemical is unpleasant and may cause some irritation, although dry chemical is non-toxic in all forms and is classified by OSHA as a nuisance dust.

CAUTION: Vision may be temporarily obstructed following system discharge.

After The Fire Is Out:

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

DO NOT return the equipment to service until the suppression system has been serviced and recharged by Amerex Factory Certified Personnel, and until the source of the fire has been located and neutralized.

WHAT ELSE CAN OWNERS DO TO PROTECT THE FACILITY

Owners also play the primary role in protecting the facility and equipment by insuring 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 and any auxilary shutdown functions.

....PROVIDING FOR EQUIPMENT MODIFICATION: Your Amerex Systems Installer should be notified of **any** modifications to the equipment so that potential changes in the hazard can be identified and protected.

....INSURING DESIGN INTEGRITY: Your Amerex Industrial Suppression System has been expertly designed and installed by personnel certified in these operations. **Never** attempt to modify the suppression system in any way or relocate any components. Enlist the help of your Certified Amerex Systems Installer when modifications or repairs are required.

....SCHEDULE MAINTENANCE: It is the owner's responsibility to conduct daily and monthly inspections, and semi-annual maintenance by your Certified Amerex Distributor. Amerex Corporation warrants only those systems that are properly maintained. Inspections and maintenance will often reveal the need for 12 year hydrostatic retest or 6 year teardown of the Agent Cylinder as required by the National Fire Protection Association (NFPA).

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

On a daily basis: Check the pressure gauges on all agent cylinders and N2 cylinders, for proper operating pressure. Proper pressurization is indicated when the pointer is in the "green pie" zone.

On a weekly basis: Confirm that the “Status Indicator” on the Mechanical Release Module (MRM) does not show a “Discharged” (red) condition. The green “System OK” LED of the ERM should be on. Ensure that no obvious damage has occurred that could prevent the system from operating properly. Check to make sure that the Inspection/Maintenance tag is in place. Check all system components for corrosion or damage, and to insure that all mountings are secure. Check all 3/4 and 1 inch chemical delivery piping for tightness and

orientation. Ensure that all 1/4 inch system actuation tubing is free from cuts, abrasion or kinks, and that all joints are tight. Carefully clean thermostats to remove caked residue when required. Check all Manual Pull Stations to insure that tamper indicators are in place, that operating instructions are clearly legible, and that access is unobstructed. Finally, check that all nozzles are unobstructed and that blow-off caps are in place.

On a monthly basis: In addition to the items shown above in the daily and weekly sections, perform the following: Confirm that all components of the extinguishing system is in their proper location. Inspect the system to determine that no physical damage or condition exists that might prevent operation. Verify that neither the protected equipment nor the hazard has been replaced, modified, or relocated. If any deficiencies are found, appropriate corrective action shall be taken immediately. Personnel making inspections shall keep records for those extinguishing systems that were found to require corrective actions. At least monthly, the date the inspection is performed and the initials of the person performing the inspection shall be recorded. The records shall be retained until the next semiannual maintenance.

....PROTECTING AGAINST FIRES OUTSIDE THE HAZARD AREAS: Make sure that your facility is equipped with sufficient portable extinguishers to suppress fires in areas not covered by the fixed nozzles of the industrial fire suppression system. Your Amerex Distributor can provide the proper size and type of portable extinguisher required.

AMEREX INDUSTRIAL FIRE SUPPRESSION SYSTEM SERVICE RECORD

Installation Description _____

_____

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Date	Certifed Amerex Systems Distributor	Inspection	Maintenance	Action taken

YOUR CERTIFIED AMEREX SYSTEMS DISTRIBUTOR:

tape tape

----------fold here----------

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 33 TRUSSVILLE, AL

POSTAGE WILL BE PAID BY ADDRESSEE:

AMEREX CORPORATION
Systems Group
Warranty Registration Department
P.O. Box 81
Trussville, Alabama 35173-0081

----------Tear or cut at perforations ----------

RETURN MAIL INSTRUCTIONS:

1. Fill out the following page completely.

2. Tear off entire sheet along vertical perforation. Tear off this instruction tab along horizontal perforation.

3. Fold card one time along the scored line so that "BUSINESS REPLY MAIL" printing is facing outward. Likewise, cut and fold the Warranty Registration Form, and insert into the first page.

4. Place two pieces of tape over the printed word "TAPE" along the bottom edge of the card. Tape both sides, as well.

5. Drop folded taped card in mailbox. **NO POSTAGE REQUIRED.**

AMEREX INDUSTRIAL FIRE SUPPRESSION SYSTEM
WARRANTY REGISTRATION FORM

In order that we may fulfill obligations of the warranty on this Amerex Industrial Fire Suppression System, please complete the information requested below and return within 15 days of installation of the system per instructions on the reverse side of this form.

OWNER INFORMATION: **SYSTEM INS INSTALLER INFORMATION:**

Name:_____ Name:_____

Company:_____ Company:_____

Address:_____ Address:_____

_____ _____

_____ _____

Phone:_____ Phone:_____

Date of Installation:_____

Installation Description:

_____

Equipment involved:_____ _____

SYSTEM DESCRIPTION:

Agent Cylinder: Model _____ Serial No. _____

Number of nozzles this agent cylinder:_____ Number of Manual Pull Stations used: _____

Gas shut-off used: YES _____ NO _____; if yes, then Mechanical____or Electrical____

Other auxiliary activation_____

Owner Signature:_____

Installer Signature:_____

_____