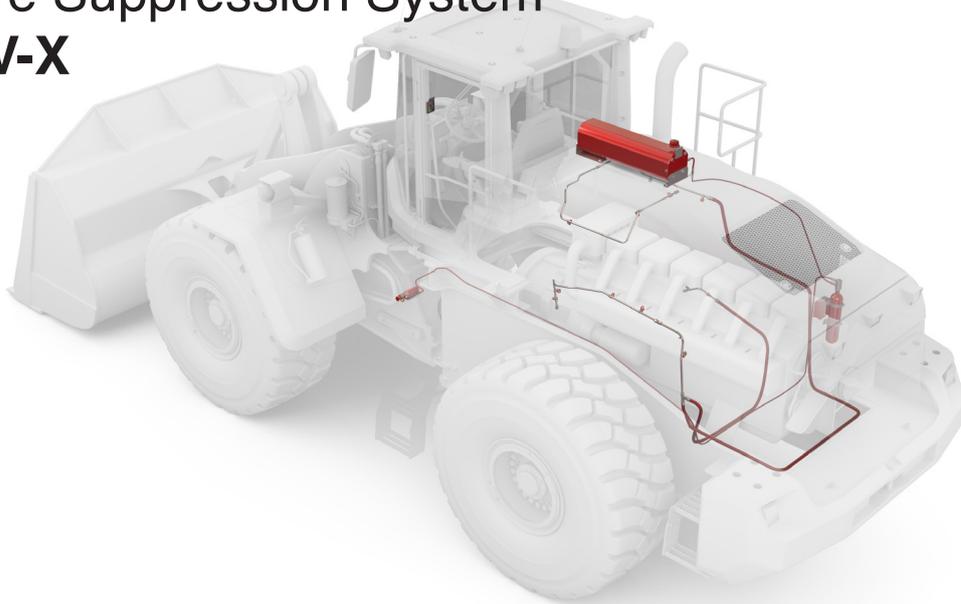




## Instructions for Use

### Fire Suppression System

### CV-X



#### Ensure you have the latest manual

This manual may be updated as required.  
Always make sure you are using the latest version.

#### Scan the QR code or visit:

<https://dafo-vehicle.com/knowledge-center/manuals>

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## 1. General Information

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The fire suppression system described in this manual provides first-aid fire protection. It is not designed to extinguish all types of fires, particularly those involving large quantities of flammable liquids with ample oxygen supply.

Additional fire extinguishing equipment should be available to manage potential re-ignition or fires not fully extinguished by the system.

Accumulation of combustible debris, oil, or flammable fluids in the vehicle should be avoided, as this may intensify or spread a fire.

If major modifications are made to the vehicle, or if the alarm or suppression system has been disconnected, an authorized service company must restore and test the system.

If the automatic alarm or suppression function is not available, the system must be activated manually, which normally results in a delayed response to fire.

## 2. Product Notices

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### 2.1 Authorized Personnel

- Installation, adjustment, commissioning, use, and maintenance must only be performed by properly trained personnel following applicable codes of practice.
- Personnel must be trained either by Dafo Vehicle or by a Dafo Vehicle–certified training partner to perform any service, maintenance, refilling, installation, or design of the Dafo Vehicle VFSS.

### 2.2 Proper Use

- Any use of this Product in a manner not specified by Dafo Vehicle may impair its protective features.
- Read this manual and any additional resources to ensure proper handling of the product.

### 2.3 Liability & Warranty

- Dafo Vehicle does not accept responsibility for improper use, handling, or installations that do not comply with the instructions and recommendations in this manual or other Dafo Vehicle guidelines.
- Deviations may void warranties and could affect compliance with standards such as SBF 127:17, AS 5062:2016, and UNECE R107.

### 2.4 Safety & Environmental Conditions

- Operate the Product only within an ambient temperature range of  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$ ).
- Do not use cleaning agents for cleaning.

### 2.5 Intellectual Property

- The examples and diagrams in this manual are for illustrative purposes only.
- Reproduction of this manual, in whole or in part, is prohibited without prior written permission from Dafo Vehicle AB.

### 3. System Description

The VFSS typically consists of one or more SV-K agent tanks, hoses/pipes, and nozzles placed in the protected areas. The system can be complemented by a fire detection/ alarm panel providing optical and audible warnings. Depending on operational requirements, the VFSS can be configured for manual, semi-automatic, or fully automatic discharge.

#### 3.1 Manual (M / EM)

- M: Mechanical actuation only. The extinguishing system is activated from a manual release point.
- EM: Manual actuation combined with a fire alarm. The extinguishing system must be activated manually from the control unit or from a manual release point.

#### 3.2 Semi-Automatic (EAM)

- EAM: Combination of manual and automatic discharge. In manual mode the system provides alarm only and discharge must be activated manually by the operator. When manual mode is deactivated, the system returns to automatic detection and actuation.

#### 3.3 Automatic Systems (EAWS, EAA, EAF)

- EAWS: Automatic discharge without engine shutdown
- EAA: Automatic discharge plus engine shutdown, fuel cutoff, master switch off
- EAF: Automatic discharge after a preset delay (also applies to manual panel release), with engine/fuel/ master switch off

#### NOTE

For detailed design specifications, refer to Dafo Vehicle's Design Manual or consult Dafo Vehicle.

#### DANGER

Nitrogen cartridges must only be handled by authorized personnel.  
The cartridge is pressurized up to 160 bar.

#### DANGER

The gas generator contains a small explosive charge. Incorrect handling may cause serious injury.  
Handling and replacement must only be performed by authorized personnel.

## 4. Operator Alarm Panel

### Gen 1 Alarm Panel – Control Panel Functions

#### 4.1 Manual Release Button

Press and hold to manually activate the extinguishing system.

**All suppression zones enabled in the Control Unit are activated.**

#### 4.2 Fire Alarm LED

Blinking – Fire alarm detected. Release delay countdown active.

Steady ON – Actuator released.

#### 4.3 Extinguisher Fault LED

Indicates a fault in the extinguishing system.

Possible causes:

- Release circuit fault
- Actuator released
- Broken cable
- CO sensors warming up
- Internal power mode issue
- Communication or cable fault between Alarm Panel and Control Unit
- Pressure fault
- Input 3 – Manual release circuit fault

Note:

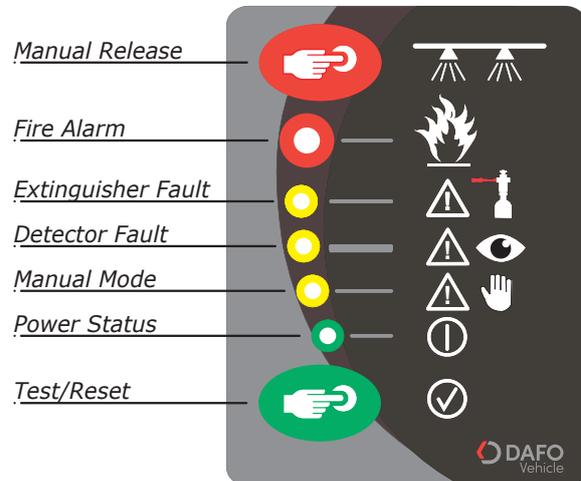
*Internal power mode faults can be reset by pressing the Test/Reset button for more than 3 seconds, at least 2 hours after power-up.*

#### 4.4 Detector Fault LED

Indicates a fault in the detection circuit.

Possible causes:

- Detector circuit fault
- Broken cable



#### 4.5 Manual Mode LED

Manual Mode active.

#### 4.6 Power Status LED

- i. Steady ON – Normal operation.
- ii. Fast blinking – Supercapacitors charging.
- iii. Blinking every 10 seconds – Internal power mode.

#### 4.7 Test / Reset Button

- i. Short press (<3 s):
  - Reset release delay countdown
  - Activate panel LEDs
  - Activate internal sounder
  - Activate alarm output for testing
  - Silence fault sounder for 1 hour or until a new fault occurs
- ii. Long press (>3 s):
  - Reset system after alarm or release
  - Clear alarm indications

## NOTE

### Internal Sounder

- i. Activated once every 10 seconds when a fault is active or when the system is operating in secondary power mode.
- ii. Activated twice (0.3 s each) within 5 seconds when the system is releasing.
- iii. Continuously ON when the system has been released.

## 5. Operating instructions

### 5.1 In case of fire

1. Stop the engine.
2. Activate the extinguishing system either electrically from the alarm panel or mechanically from the manual release points.
3. Turn OFF the master switch.
4. Cut the fuel supply if possible.
5. Be prepared to use a portable fire extinguisher to prevent possible re-ignition.

### 5.2 After fire

Open ventilation hatches to clear smoke and gases. During ventilation, keep a portable fire extinguisher ready in case of re-ignition. Avoid inhaling fire gases. Disconnect the main battery.

Deactivate the extinguishing system until inspection and recharging have been performed by **authorized personnel**.

### 5.3 Operator actions after fire

Deactivate the system by:

- Removing the fire suppression system fuse, or
- Disconnecting the red power cable to the control unit.

The extinguishing system must be cleaned with water and blown dry with compressed air within 24 hours after discharge.

The vehicle or machine must be cleaned using high-pressure washing within 24 hours, in areas where the fire suppression system has been activated.

### CAUTION

#### **Do not restart the vehicle or machine until**

- The cause of the fire has been investigated
- The extinguishing system has been inspected and recharged by authorized personnel
- Any detected faults have been repaired

### CAUTION

#### **Disconnect the control unit before performing the following work**

- Electric welding, battery charging and auxiliary starting can damage the electronics due to detrimental currents
- Steam cleaning – High temperature can damage electrical components and activate heat detectors.
- High-pressure cleaning - Electrical components or cables can be damaged and discharge the system

### NOTE

If assistance is required, contact Dafo Vehicle Fire Protection or an authorized Dafo service partner.

## 6. Inspection and Maintenance

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### 6.1 Daily inspection

- Check that the pressure gauge needle on the extinguishers is within the green zone.
- Check that the green LED on the control unit is illuminated.

### 6.2 Weekly inspection

- Check that the LEDs on the control unit operate according to the description on page 5.
- Press the Test button and verify that the alarm signals are activated.

### 6.3 Annual maintenance

- The system must be inspected once per year by a service company authorized by Dafo.
- After the inspection, a service report will be issued which may be required by insurance companies in case of fire damage.

#### NOTE

A service agreement is recommended to ensure that the annual inspection is performed regularly.

## 7. Warranty

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The warranty is valid only if any malfunction is reported immediately to Dafo Vehicle, the installation contractor, or an authorized service company.

Faults or malfunctions caused by component replacement or service performed by unauthorized companies are not covered by the warranty.

Secondary damage or losses caused by a malfunction are not compensated, even if the malfunction itself is covered by the warranty.

The warranty does not cover transport damage or faults caused by external mechanical impact.

## 8. Documentation and Revision Information

### 8.1 Changes and Revision History

This document contains new and updated information. Major changes throughout this revision are marked by change bars. The list below and markings are used for substantive updates only and are not intended to reflect all minor changes.

Version	Date	Author	Changes
1.10	04.03.2026	DKoglin	Visual layout improved; minor formatting adjustments.
1.00	11.01.2026	LNirgi	Original document created.

### 8.2 Documentation Feedback

our comments help us serve your documentation needs better. If you have any suggestions on how to improve our content, please e-mail those to [support@dafo-vehicle.com](mailto:support@dafo-vehicle.com)

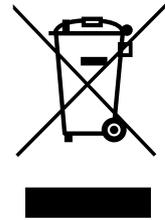
### 8.3 Waste Electrical and Electronic Equipment (WEEE)

This product is subject to the Waste Electrical and Electronic Equipment (WEEE) Directive. Electronic products and their components must be disposed of responsibly to minimize environmental impact.

Do not dispose of this product as unsorted municipal waste. Instead, use designated collection points or recycling facilities for proper disposal and recovery.

For more information about recycling, contact your local authorities or the retailer where the product was purchased.

Proper disposal helps prevent environmental harm and supports the sustainable reuse of materials.



### 8.4 Additional Resources

Further information about related Dafo Vehicle AB products is available in the following documents:

Document	Description
CEV-3, CV-X and CV-Xe Maintenance Manual	Includes maintenance and troubleshooting guide for CV-X
Product Manual - Alarm Panel Gen. 1	To get detailed overview about the Alarm Panel
Product Manual - CV-X	To get overview about CV-X Control Unit

Manual may be updated as required. Always make sure the latest version is in use.



Scan the QR code or visit <https://dafo-vehicle.cloud/> for the most recent manuals and documentation.