



# CrewProtect™ 50

## Multi-Threat Air Decontamination System

### INSTRUCTION FOR INSTALLATION, OPERATION, AND MAINTENANCE

#### **⚠ DANGER**

Understand manual before use. Operation of this device without understanding the manual and receiving proper training is a misuse of this equipment. Obtain safety information at [tft.com/serial-number](http://tft.com/serial-number).

This instruction manual is intended to familiarize installers, end users, and maintenance personnel with the operation, servicing, and safety procedures associated with this product. This manual should be kept available to all operating and maintenance personnel.



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A poster with a black and red geometric background. At the top, the word "DANGER" is written in large, bold, red capital letters. Below it, "PERSONAL RESPONSIBILITY CODE" is written in white capital letters. The text "The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:" is in white. Below this is a numbered list of six items in white text. At the bottom left, the FEMSA logo is shown, consisting of a black diamond shape with the word "FEMSA" in white. To the right of the logo, the text "Fire and Emergency Manufacturers and Service Association, Inc. PO Box 147, Lynnfield, MA 01940 • www.FEMSA.org" is written in small white font. Below that, "© 2020 FEMSA. All Rights Reserved." is written in even smaller white font.

# DANGER

## PERSONAL RESPONSIBILITY CODE

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. **Firefighting and Emergency Response** are inherently **dangerous activities** requiring proper training in their hazards and the use of **extreme caution** at all times.
2. **IT IS YOUR RESPONSIBILITY** to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called on to use.
3. **IT IS YOUR RESPONSIBILITY** to know that you have been properly trained in **Firefighting and/or Emergency Response** and in the use, precautions, and care of any equipment you may be called upon to use.
4. **IT IS YOUR RESPONSIBILITY** to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. **IT IS YOUR RESPONSIBILITY** to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns or other severe injury.

Fire and Emergency Manufacturers and Service Association, Inc.  
PO Box 147, Lynnfield, MA 01940 • [www.FEMSA.org](http://www.FEMSA.org)

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## 1.0 MEANING OF SAFETY SIGNAL WORDS

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. Per ANSI Z535.6, the definitions of the four signal words are as follows:



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.



**NOTICE** is used to address practices not related to physical injury.

## 2.0 GENERAL INFORMATION

The CrewProtect 50 cabin air decontamination system is connected to the vehicle power system to decontaminate the air in the cabin anytime the truck is actively powered. Periodic replacement of cartridges ensures maximum decontamination of harmful particulates, VOCs, viruses, bacteria, and mold.

### 2.1 PART IDENTIFICATION

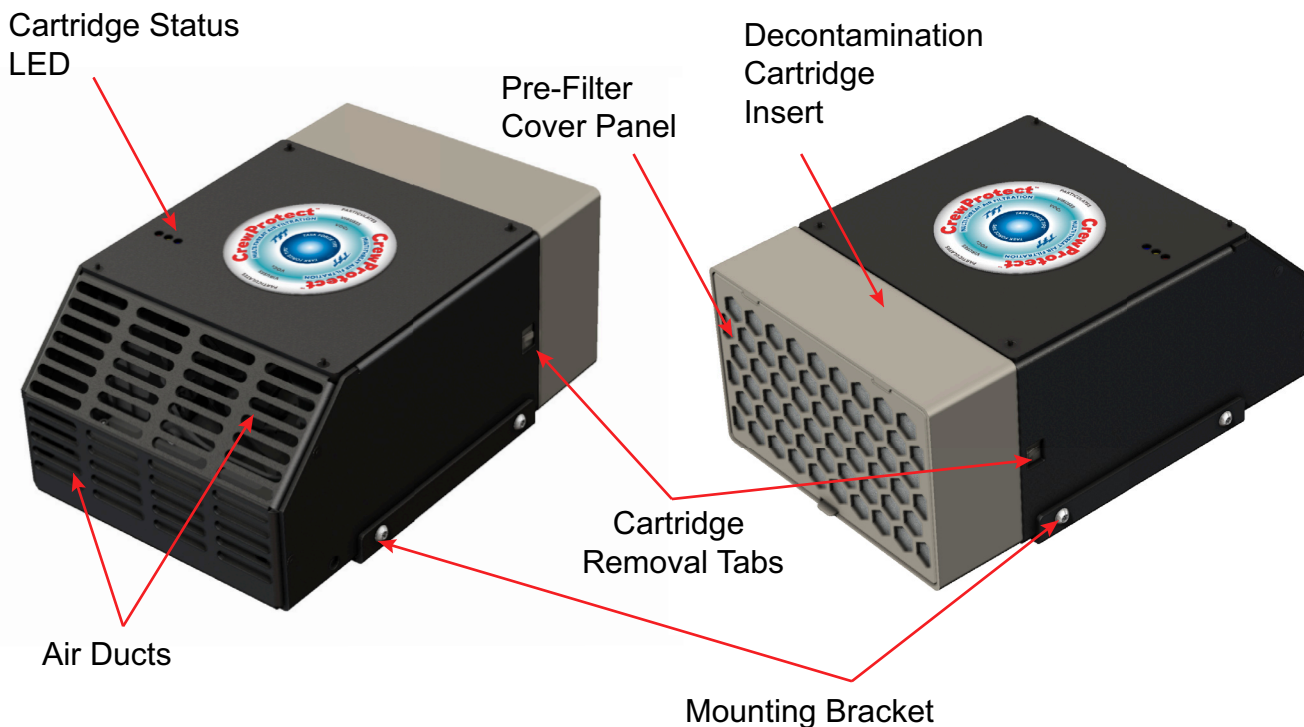


Figure 2.1

### 2.2 SPECIFICATIONS

Dimensions inch (mm)	9 x 6 x 4 (233 x 152 x 102)
Decontamination Protection	Particulates, VOCs, Mold
Cartridge Status Indicator	Tri-color LED
Flow Rate	50 CFM (nominal)
Operating Pressure	1 Atmosphere
Current Draw	2A @ 12V or 1A @ 24V
Power Draw	24W (nominal)
Recommended Fuse	4A for 12V or 2A for 24V
Sound (fan running)	55 dB (nominal)

Table 2.2

### 3.0 INSTALLATION

#### 3.1 CARTRIDGE INSTALLATION

The cartridge is shipped in the unit with a protective wrap covering. Prior to starting the unit, remove the protective wrap and reinstall the cartridge following the instructions in "Changing the cartridge" on page 7.

#### NOTICE

Protective plastic wrap should not be removed from the cartridges until ready for installation as the effectiveness of the molecular material starts degrading after exposure to ambient air. Failure to remove the protective wrap from the cartridge prior to installation will cause the unit to overheat and turn off due to lack of air flow.

#### 3.2 MOUNTING

#### WARNING

An inadequately secured unit may become dislodged as a result of a sudden stop or collision, causing injury or equipment damage. To reduce the risk of injury:

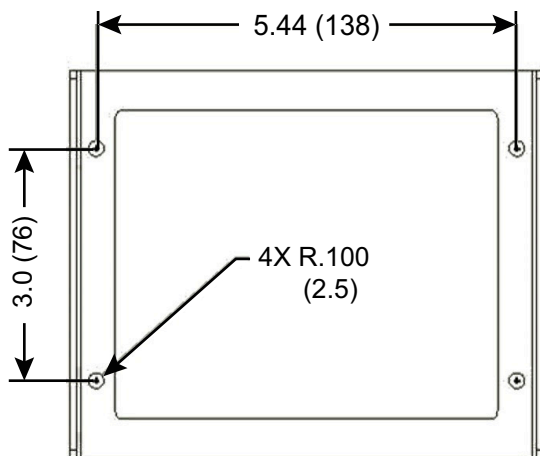
- Mount the device on a surface material capable of supporting 50 pounds in the direction of truck travel and 15 pounds in any other direction, per NFPA 1900.
- Use fasteners of a size, strength, and length adequate to securely hold the device.

#### NOTICE

To ensure proper air flow and function of the CrewProtect:

- Choose a location where there is at least 1" of free space around all air ducts.
- Keep air ducts free from obstruction by loose items such as clothing, paper, dirt, or equipment.
- Do not place heavy objects on the unit.
- Do not use the unit as a shelf.

1. Choose a mounting location.
2. To ensure proper hole location, use the mounting bracket as a template.
  - A. Remove (2) screws from the right and left sides of the unit to separate the mounting bracket from the unit.
3. Secure the bracket using (4) nuts and bolts (not provided).
4. Secure the unit to the bracket by replacing the screws removed in step 2A.



**MOUNTING BRACKET  
HOLE PLACEMENT**



**COMPLETE UNIT  
OVERALL DIMENSIONS**

Figure 3.2

### 3.3 WIRING

The CrewProtect 50 is wired to the truck electrical system, allowing continuous decontamination of cabin air while the truck is actively powered. Use the provided wiring diagram to ensure proper wiring.

#### NOTICE

**Always disconnect power before installing or servicing electrical components. Failure to do so could cause damage to the circuit boards.**

Requirements:

Minimum Wire Gauge - 18 AWG

Minimum Fuse

12V system - 2A slow blow fuse

24V system - 1A slow blow fuse

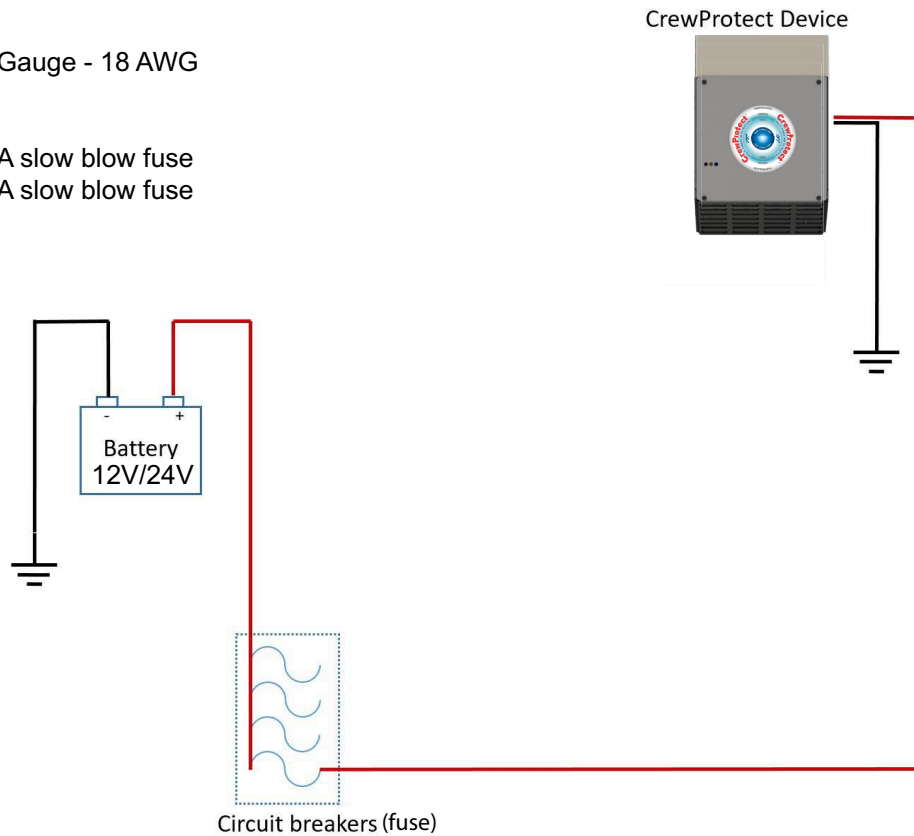


Figure 3.3

### 4.0 OPERATION

Because the CrewProtect 50 is wired directly to the truck electrical system, continuous air decontamination occurs the entire time the truck is actively powered.

Regular cartridge replacement ensures optimal air decontamination. See section 6.0 on page 6 for cartridge life cycle and replacement instructions.

### 5.0 WARRANTY

Go to [tft.com](http://tft.com) for warranty information.

## 6.0 MAINTENANCE

### 6.1 CARTRIDGE LIFE CYCLE

The cartridge will function for 1,800 hours of continuous usage or 6 months of intermittent use. The current condition of the cartridge is tracked via the three LED lights on the prominent face of the device with the following statuses:

Hours of Continuous Use	or	Months of Intermittent Use	LED Color
0-1500		0-4.9	Solid Blue
1501-1799		5-5.9	Solid Yellow
1800+		6+	Solid Red

Table 6.0

## NOTICE

To ensure the device is optimally decontaminating the cabin air, the cartridge should be changed when the LED color is **YELLOW**.

When the indicator blinks **RED**, the device will stop operating until the cartridge is replaced with a new cartridge.

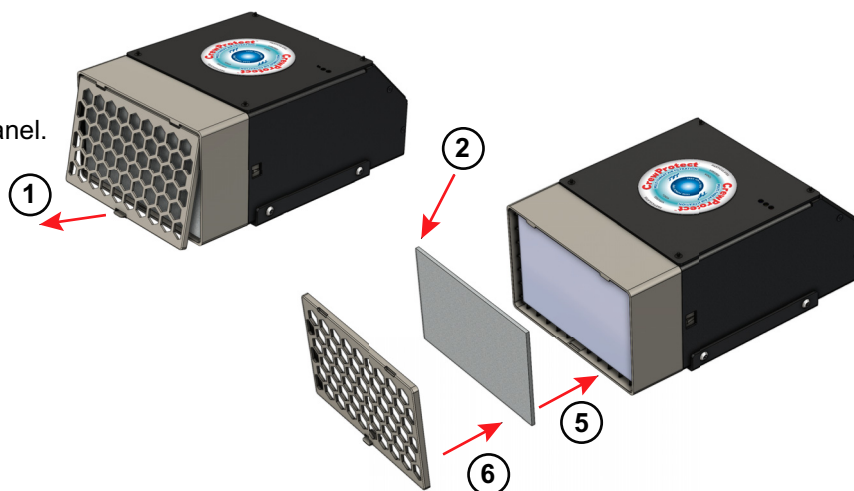
### 6.1 CLEANING THE PRE-FILTER

The CrewProtect 50 is equipped with a reusable pre-filter. It is recommended that the pre-filter be removed and washed every 2 months.

### 6.2 CHANGING THE CARTRIDGE

To Clean the Pre-Filter (every 2 months):

1. Pull tab to remove the Pre-Filter Cover Panel.
2. Remove The Pre-Filter.
3. Wash the Pre-Filter with warm water.
4. Allow the filter to dry before re-inserting.
5. Re-insert the Pre-Filter.
6. Re-install the Pre-Filter Cover Panel.



To Change the Cartridge:

1. Press the cartridge tabs in on both sides.
2. Pull the old cartridge off of the unit.
3. Place the new cartridge into the unit.  
The cartridge only fits in 1 orientation.  
Push the new cartridge in until the tabs click into place.

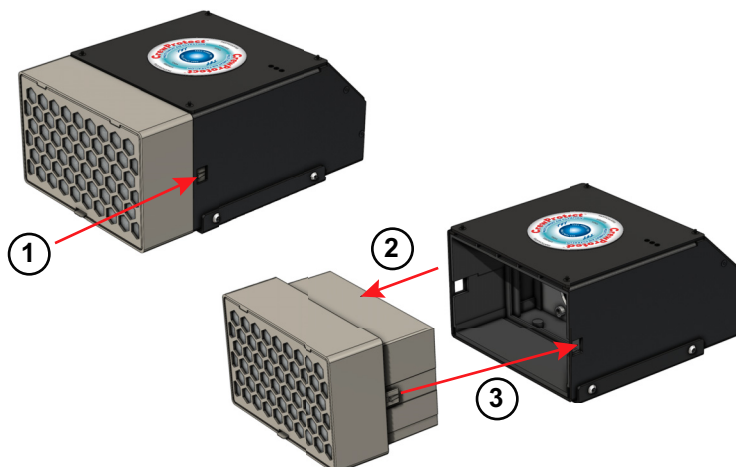


Figure 6.2

## NOTICE

All replacement parts must be obtained from Task Force Tips and its approved dealer network to assure proper performance and operation of the device.

### 6.3 DISPOSING OF THE CARTRIDGE

The cartridge material is designed to neutralize the toxins captured in the cartridge, rendering them no longer hazardous. Used cartridges can be disposed of in normal refuse.

### 7.0 REPAIR

Factory service is available. Factory serviced equipment is repaired by experienced technicians, tested to original specifications, and promptly returned. Call TFT service department at 1-800-348-2686 to troubleshoot and if needed, directions for return.



**Any alterations to the product or its markings could diminish safety and constitutes a misuse of this product.**

### 8.0 OPERATION AND INSPECTION CHECKLIST

**BEFORE EACH USE and BEFORE BEING PLACED BACK IN SERVICE**, the CrewProtect 50 must be inspected to this checklist:

1. There is no obvious damage such as missing, broken or loose parts, damaged labels, etc.
2. The unit is securely fastened to the truck.
3. LED status lights indicating cartridge status are in the acceptable range (Blue or Yellow).
4. All air ducts are clean and unobstructed.
5. The area around the device is clean and free of loose debris.
6. There are no objects sitting on top of the device.
7. All markings are legible.



**Equipment failing any part of the checklist is unsafe for use and must have the problem corrected before use or being placed back into service. Operating equipment that has failed the checklist is a misuse of this equipment.**