



**fantech**<sup>®</sup>  
a systemair company

Installation, Operations, and Maintenance instruction

EN

---

# **CSF4**

## **Crawlspace Ventilation Fan**



# Table of contents

1	Introduction .....	1
1.1	Product Description .....	1
1.2	Intended Use .....	1
1.3	Document Description .....	1
1.4	Fantech Warranty .....	1
1.5	Product Overview .....	1
1.6	Name Plate .....	1
1.6.1	Type Designation .....	2
2	Safety .....	2
2.1	Safety definitions .....	2
2.2	Safety Instructions .....	2
2.3	Personal protective equipment .....	3
3	Installation .....	3
3.1	To Install the Product .....	3
4	Electrical connection .....	4
4.1	To do before the electrical connection .....	4
4.2	Motor Protection .....	4
4.3	Wiring Diagrams .....	4
5	Troubleshooting .....	5
6	Maintenance .....	6
6.1	To Maintain the Product .....	6
7	Product Dimensions .....	6

---

# 1 Introduction

## 1.1 Product Description

This product is made to pull stale air from non-conditioned areas, such as a non-encapsulated crawlspace, to bring fresh air in.

This fan has rotating parts and personnel must exercise safety precautions during installation, operations, and maintenance.

## 1.2 Intended Use

Use this product only in the manner intended by Fantech. If you have any questions, please contact a Fantech representative.

## 1.3 Document Description

This document contains instructions for installation, operation and maintenance of the product. The procedures must be done by approved personnel only.

Speak to a Fantech representative for more information on how to install the product in different installation locations.

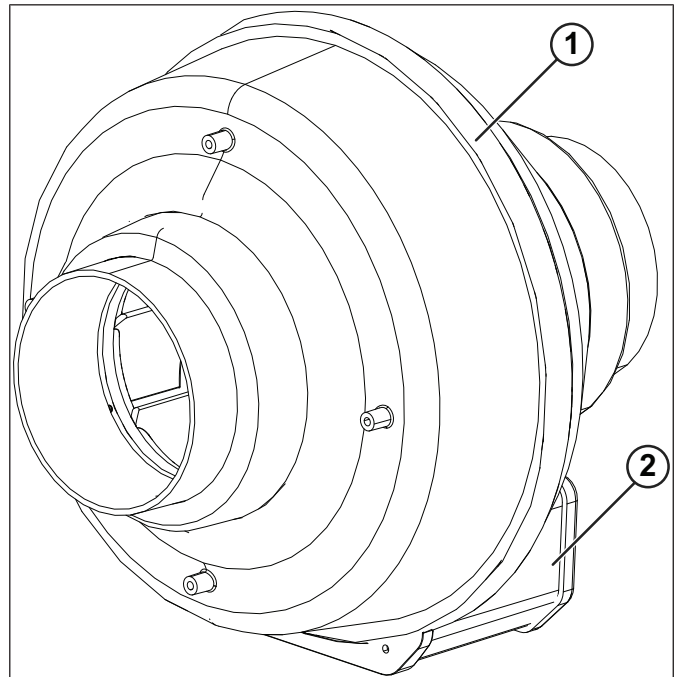
## 1.4 Fantech Warranty



Make a scan of the code above to access Fantech's warranty in English, French, or Spanish. This product has a 5 year warranty.

If additional support is needed to retrieve the warranty, visit [fantech.net](http://fantech.net); call (800) 747-1762 (US), (800) 565-3548 (Canada), or +52 55 1328-7328 (Latin America); email [support@fantech.net](mailto:support@fantech.net); or mail us at 10048 Industrial Blvd, Lenexa, KS 66215 United States or at 50 Kanfläkt Way, Bouctouche, NB E4S 3M5 Canada.

# 1.5 Product Overview



1. Casing, quantity 1
2. Electrical Box, quantity 1

## 1.6 Name Plate



### Note:

Do a check of the voltage at the fan to see if it corresponds to the motor name plate.

1. Cubic Feet per Minute at 0.20 Inches of Water Column
2. Voltage, Volt
3. Type Designation: Product Name, Dimension, and Motor Type. Refer to the [1.6.1 Type Designation](#) section.
4. Frequency, Hertz
5. Input Power, Watt
6. Item Number
7. Current, Ampere
8. Serial Number
9. Date of manufacture (MM/YY)
10. Certifications

## 1.6.1 Type Designation

<b>Product Name</b>	CSF4 #79415 and CSF4 #79415A
<b>Duct Collar Dimensions</b> in inches (mm)	4 (102)
<b>Motor Type</b>	AC: Alternating Current, 1-phase

## 2 Safety

### 2.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



#### Warning

If you do not obey these instructions, there is a risk of death or injury.



#### Caution

If you do not obey these instructions, there is a risk of damage to the product, other materials or the adjacent area.

#### Note:

Information that is necessary in a given situation.

### 2.2 Safety Instructions



#### Warning

This product is intended for general ventilation use only. If you have questions, contact Fantech. To decrease the risk of fire, electric shock, or injury, read and obey the following warning instructions before you do work on the product:

- The ventilation contractor and the operator are responsible for correctly installing the product.
- When installing the product, obey all applicable local conditions and laws, and fire-rated construction codes and standards.
- Because the product has rotating parts, exercise safety precautions when installing, operating, and maintaining the product.
- Before installing, servicing, or cleaning, set the product's electrical power supply source in the OFF position, and lock the service disconnecting means. If the service disconnecting means cannot be locked, tightly attach a large warning device to the service panel.
- When installing the product over a tub or shower, identify as appropriate for the application and connect to a GFCI (Ground Fault Circuit Interrupter) – protected branch circuit.
- Do not place the switch where it can be touched from a shower or tub.



#### Caution

To decrease the risk of product malfunction or damage to the product or surrounding finishes and walls, read and obey the following caution instructions before you do work on the product:

- When cutting or drilling into walls or ceilings, watch for electrical wiring and other hidden utilities to prevent damage.

- Ducted exhaust fans must always be released to the outdoors
- Install screen guards within 7 feet (2.1 meters) from the working area of the product.
- Do not release air into spaces within walls or into attics, crawl spaces, or garages.
- Do a check of the voltage at the fan to see if it corresponds to the motor name plate.

Ducting has a strong effect on the air flow, noise and energy use of the fan. Use the shortest, straightest duct routing possible for best performance, and avoid installing the fan with smaller ducts than recommended. Insulation around the ducts can reduce energy loss and inhibit mold growth. Fans installed with existing ducts may not achieve their rated air flow.

## 2.3 Personal protective equipment

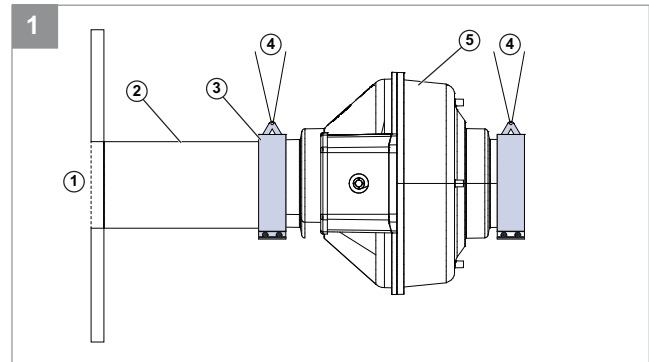
Use personal protective equipment during all work on the product.

- Approved eye protection
- Approved protective helmet
- Approved hearing protection
- Approved protective gloves
- Approved protective shoes
- Approved work clothing

## 3 Installation

### 3.1 To Install the Product

- 1 Using supplied hardware with FC 4 Mounting Clamps (#411295, not provided), attach the two (2) clamps to the inlet and outlet of the CSF4 #79415 or of the CSF4 #79415A.
- 2 Attach steel wire (not provided) to the two (2) tabs of each clamp.
- 3 Using attached steel wire, hang the product correctly.
- 4 Attach one (1) section of 4 inch (102mm) duct to the exhaust side of the CSF4 #79415 or of the CSF4 #79415A.



1. Exhaust point
2. 4 inch (102mm) duct
3. FC 4 Mounting Clamps (#411295)
4. Steel wire
5. CSF4 #79415 or CSF4 #79415A

## 4 Electrical connection

### 4.1 To do before the electrical connection

- Make sure that the electrical connection agrees with the product specification on the motor name plate.
- Make sure that the environment for electrical connection is clean and dry.
- Make sure that the wiring diagram that is included with the supply of the product agrees with the terminals in the connection box.

### 4.2 Motor Protection

This product has integrated motor thermal overload protection. Reset the motor protection by disconnecting the fan from power supply for 60 seconds.

### 4.3 Wiring Diagrams

Legend for Diagram	
English Terminology	Meaning
Supply Voltage 115V	Supply Voltage 115 Volts
(White) N	White wire Neutral
(Black) L	Black wire Line voltage
Capacitor	Capacitor
Speed Control	Speed Control
Blue	Blue wire
Black	Black wire
Brown	Brown wire
Motor Leads	Motor Leads
SPST Switch	Single Pole Single Throw Switch
Multiple location switching	Multiple location switching



#### Caution

Do not apply more than 0.79 nanometers (7 pounds per inch) of torque to the terminal block screws.

#### Note:

To connect power to this product, use a minimum of 14 American Wire Gauge (AWG) conductor with temperature rating of at least 90° Celsius (190° Fahrenheit).

#### Note:

All product motor and capacitor connections are prewired from the factory.

#### Note:

There are two open ports on the terminal strip: Neutral (white wire) and Line (black wire).

#### Note:

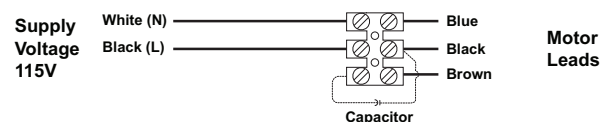
Since the fan motor is isolated within a plastic housing, grounding is not necessary.

#### Note:

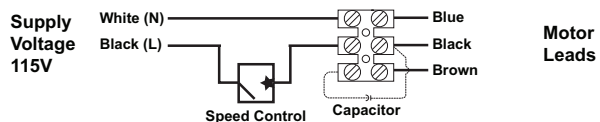
Refer to the following wiring diagrams to attach the wires of the product to the wires of the house.

- 1 Remove and save the screws that secure the terminal box cover plate to the terminal box from the CSF4 #79415 or from the CSF4 #79415A.
- 2 Using a 3/8 inch (10mm) flat cable strain relief, insert the wiring through the strain relief.
- 3 Insert the strain relief through the hole on the side of the terminal box.
- 4 Place the connector nut of the strain relief over the wiring coming into the terminal box.
- 5 Using a small regular screwdriver, tighten the neutral (white) wire of the incoming supply into the open terminal strip port shown as "N".
- 6 Using a small regular screwdriver, tighten the line (black) wire of the incoming supply into the open terminal strip port shown as "L".
- 7 Safety the strain relief to the terminal box.
- 8 Safety the incoming supply with the strain relief.
- 9 Using the removed screws from the terminal box cover plate, attach the cover plate to the terminal box again correctly.

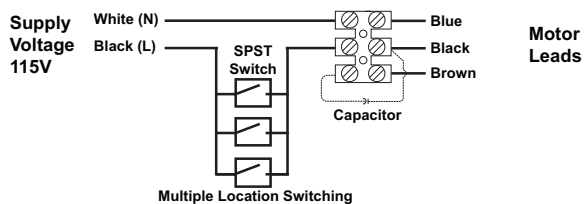
#### Without Motor Speed Controller



With Motor Speed Controller



Multiple Location Switching



## 5 Troubleshooting

Problem	Cause	Solution
The product does not operate at startup.	Incorrect wiring	Refer to section <a href="#">4.3 Wiring Diagrams</a> . Then, do a check of the wire connections to make sure they are correctly connected
	The capacitor is faulty.	<ol style="list-style-type: none"> <li>1. Disconnect the capacitor.</li> <li>2. Using a multimeter, test for continuity across the product motor leads.</li> </ol> <p>If motor leads show continuity, speak to Fantech for a replacement capacitor.</p>

## 6 Maintenance



### Warning

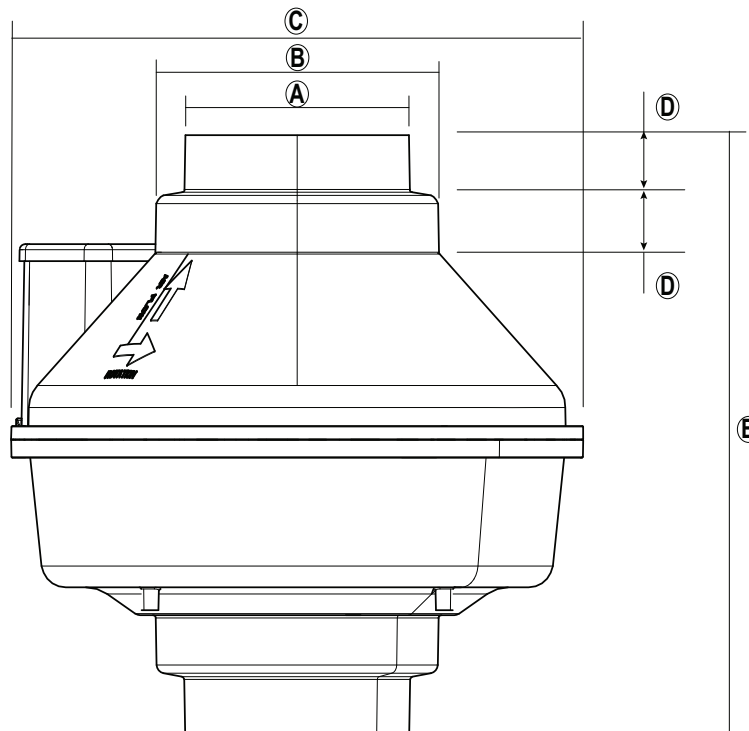
Set the service disconnect switch in the OFF position before you do maintenance unless the instructions tell you differently. Make sure that the switch is not accidentally set in the ON position.

### 6.1 To Maintain the Product

**Note:**

Because the product bearings are sealed and provided with an internal lubricating material, no additional maintenance is necessary.

## 7 Product Dimensions



**Note:**

Dimensions are given in inches (mm).

	A	B	C	D	E
CSF4 #79415	3-31/32 (101)	4-31/32 (127)	10 (254)	1 (25)	10-9/16 (268)
CSF4 #79415A					







USA  
(800) 747 1762  
support@fantech.net

Canada  
(800) 565 3548  
support@fantech.net

Latin America  
+52 55 1328 7328  
support@fantech.net

© Copyright Fantech  
All rights reserved

Fantech reserves the rights to alter their products without notice. This also applies to products already ordered, as long as it does not affect the previously agreed specifications.