MADE IN
THE U.S.A.

OWNER'S MANUAL

DPF PULSE CLEANER

FILTERTHERM®

WWW.FILTERTHERM.COM

888-792-2922 INFO@FILTERTHERM.COM

Note: Do not make any system modifications or adjustments that would alter the original retrofit installation. Modifications may not meet regulatory requirements, be considered illegal devices and may result in denial of warranty coverage. Consult your Filtertherm® certified emissions dealer if you have questions regarding the installation, operation, maintenance or warranty.

DES
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FILTERTHERM®

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PRODUCT RECORD

FILTERTHERM®

Record the information from your Filtertherm® DPF Pulse Cleaner's serial number label here for easy product reference.

Part Number:

Serial Number:

Save these instructions and your sales receipt for future reference. Use the information above to complete your Warranty Registration. You can register your Filtertherm® via online, email or fax. For email or fax, complete the registration instructions listed in the back of this manual. **Register online your Filtertherm® DPF Pulse Cleaner within 45 days of purchase to activate your warranty.**

WARRANTY REGISTRATION

[web] www.filtertherm.com/warranty
[email] warranty@filtertherm.com
[fax] 530-241-0870

TECH SUPPORT

[web] www.filtertherm.com
[USA/Canada] 888-792-2922
[International] 00-1-530-241-3950

MANUFACTURED BY

Diesel Emissions Service
Redding, CA 96001

INTRODUCTION & SYSTEM SPECS

The **Filtertherm® DPF Pulse Cleaner** removes accumulated ash and particulate matter using a high-velocity, low-pressure air pulse. If more thorough cleaning is required, bake the DPF in the Filtertherm® DPF Thermal Oven to remove any hydrocarbons (HC) and unburned particulate matter remaining in the filter. After a filter goes through the baking cycle, it needs to be pulse cleaned a second time to remove any ash freed during baking.

The **Filtertherm® DPF Pulse Cleaner** provides vehicle maintenance facilities an enclosed, automated unit that quickly and efficiently pulse cleans filters (in ~15 minutes). The unit uses a standard electrical connection (120VAC, 15amp).

The Filtertherm® Pulse Cleaner

Pulse cleaning a filter is required in one of two situations: during routine service as required by your filter-based muffler manufacturer's warranty, or as indicated by your on-board filter service monitor.

Consult a certified dealer for questions regarding the installation, operation and maintenance of this unit.

Available Accessories

Adapters are available, contact your certified dealer for more information.

System Specifications

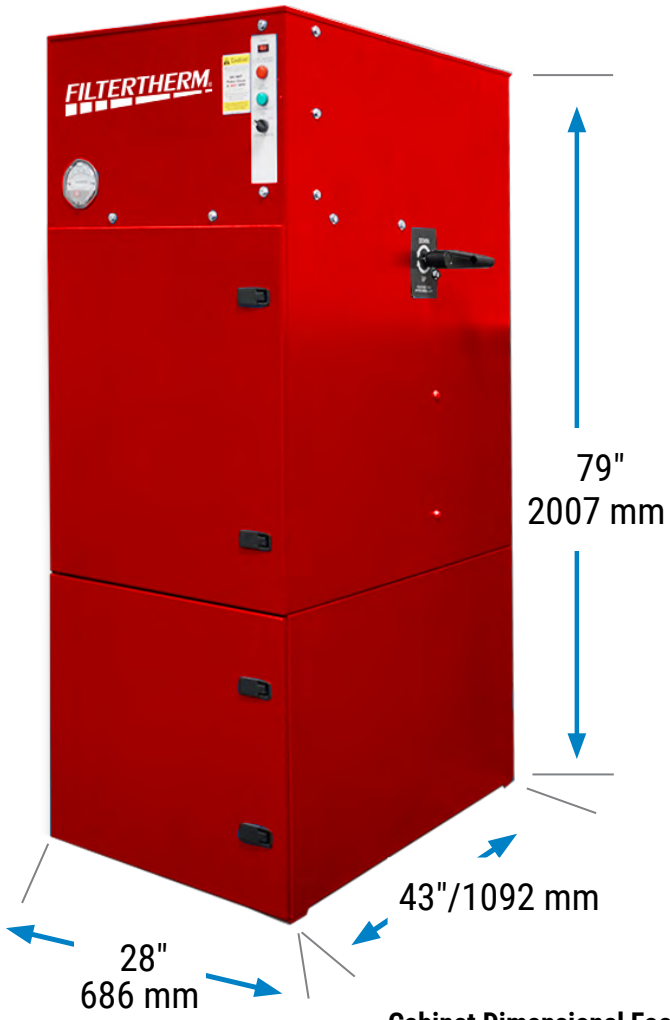
System Requirements:

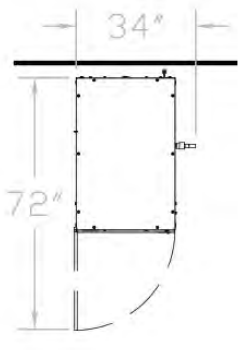
Electrical: 120VAC, 15amp Service
Air: 4 CFM @ 90psi
Pressure: 90 - 110psi

!!!! CAUTION !!!! CABINET IS TOP HEAVY!

The pulse cleaner upper cabinet is top heavy. Be extra careful to properly balance all sides when you position or move the cabinet to avoid personal injury or damage to the unit.

System Specifications Continued



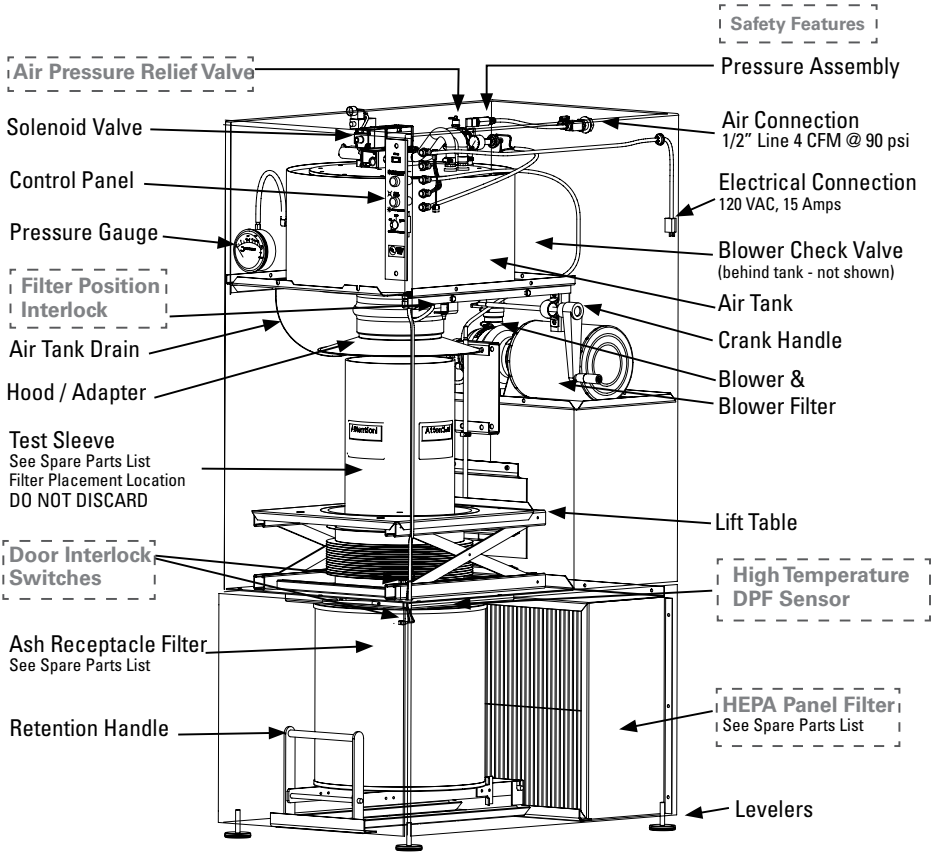


Cabinet Dimensional Footprint:
28" W x 43" D x 79" H
686 mm W x 1092mm D x 2007 mm H

Clearance Requirement:
Right side: 12" for crank handle***
Back side: 12" for filter service
Left side: 4"

Filter Limits:
Unit Weight: 700 lbs.
Diameter: 11"-15"
Length: 13"-20"

Filtertherm® DPF Pulse Cleaner



Control Panel

Power Switch
Turns Power On(Reset)/Off

High Temperature Filter Shutdown
Flashes when sensor detects HOT filter and shuts down.

Filter Positioned Indicator
Illuminates when the filter is properly positioned. The light will flash when PULSE cycle complete.

Operation Selector Switch
TEST - Used to determine the relative restriction of the filter and ash receptacle filter.
PULSE - Starts the pulse cleaning cycle.

Pressure Gauge

The pressure gauge, located on the front top panel of Filtertherm® DPF Pulse Cleaner, is your primary indicator for determining filter cleanliness and the service life of the ash receptacle filter. The pressure gauge measures restriction from 0-25" H_2O.

A clean filter will measure 1-3" H_2O restriction depending its size.

The Ash Receptacle Filter should be replaced when test reading is > 2" H_2O.

Package Contents

The Filtertherm® **DPF Pulse Cleaner FTM9981** unit includes the following package contents:

Qty.	Description
1	**FTM9981 Filtertherm® Pulse Cleaner**
1	**FTMPM24R 12" Diam Riser Set**, to accommodate filters of different heights.
1	**Documentation**: includes this owner's manual & warranty registration info.

Note: Electrical Wiring Schematic detailed in this manual.

Pulse Cleaner Location

Consider the following when choosing a location for the **Filtertherm® Pulse Cleaner**:

- Install indoors only and on a hard flat surface
- Unit weight: 700 lbs.
- Unit rests on foot levelers
- Consider placing near a **Filtertherm® DPF Cleaning Oven** (requirement for passive DPF filter maintenance)

!!!! CAUTION !!!! CABINET IS TOP HEAVY!

The pulse cleaner upper cabinet is top heavy. Be extra careful to properly balance all sides when you position or move the cabinet to avoid personal injury or damage to the unit.

Pre-Installation

NOTE	DO NOT DISCARD the Test Sleeve! It is required to test and service the ash receptacle filter.

Inspection

Thoroughly inspect the Pulse Cleaner for damage that may have occurred during shipping. Any damage should be noted and reported to the freight carrier immediately.

To protect and prevent movement of internal components during shipping, the cabinet will arrive with a test sleeve secured between the hood and the lift table. **DO NOT DISCARD this sleeve!** The test sleeve is required to test the service life of the ash receptacle filter.

Pre-installation Requirements

- Space requirement (including clearance) for proper operation: minimum 44" wide x 55" deep x 79" high
- The crank handle on right side of cabinet used to raise and lower the lift table must be easily accessible
- The upper and lower cabinet doors must be able to open completely
- Dedicated clean, dry, filtered compressed air source: 90 PSI minimum shop air at 4 CFM (3/4" minimum air line)

!!!! CAUTION !!!! USE CLEAN, DRY AIR SUPPLY

An appropriate clean, dry, filtered compressed air supply source is required to ensure proper pulse cleaner operation and prevent premature component failure.

- **Power Supply:** 120VAC, 15amp
- **Disposal Plan:** Contact your local disposal company for proper ash disposal regulations and procedure.

Installation

1. Position the pulse cleaner on a solid, level surface with recommended clearances.
   a. Allow 4” clearance on left side, 12” clearance on back and right sides.
2. Adjust the leg levelers until cabinet is level.

!!!! CAUTION !!!! CABINET IS TOP HEAVY!

The pulse cleaner upper cabinet is top heavy. Be extra careful to properly balance all sides when you position or move the cabinet to avoid personal injury or damage to the unit.

3. Connect a clean, dry compressed air supply (90psi@4scfm) to the pulse cleaner air connection (use 3/4” line with 3/8” NPT adapter coupling). Adjust supplied regulator to 90 PSI.

!!!! CAUTION !!!! AIR SUPPLY MUST BE LESS THAN 110 PSI

Excessive air pressure can damage the pressure regulator and make the unit inoperable.

!!!! CAUTION !!!! DO NOT EXCEED FACTORY AIR PRESSURE REGULATOR SETTINGS

The internal air tank pressure regulator is factory preset to 14.5 PSI. The pressure switch for pulse control is factory set to 13 PSI. DO NOT EXCEED either setting. The air tank has a 20 PSI Air Pressure Relief Valve. DO NOT remove or tamper with the Air Pressure Relief Valve OR damage to equipment or filter may result.

4. Connect the electric supply. The **Filtertherm® Pulse Cleaner** requires 120VAC, 15 amp electrical service. Work with a qualified electrician and follow local codes.

Activate the Warranty

Complete registration and return via email, fax, mail or online within **45 days of purchase** to activate your warranty (at **www.filtertherm.com/warranty**).

Initial Start-Up

1. Turn the front panel POWER switch to RESET (on). The switch will illuminate.
2. Make sure the test sleeve that was shipped in the unit is still in place.
3. Turn the OPERATION SELECTOR switch to TEST to verify the blower operates.
4. Close/latch door.
5. Turn the OPERATION SELECTOR switch to PULSE for one pulse. There is a 1-1/2 minute delay (temperature sensing) before the first pulse occurs.
6. Turn the OPERATION SELECTOR switch to OFF after one pulse. Do not pulse more than once or damage to the Ash Receptacle Filter may occur.
7. Remove (and retain) the test sleeve after the preliminary startup check out.

Operation

Intended Use

The Pulse Cleaner efficiently removes and collects ash and particulate matter from a filter-based component (i.e., DPF, DMF center body). The cabinet's unique design accommodates and cleans most round filters with non-keyed flanges. Keyed flanges may be accommodated with adapters.

Safety Features

The **Filtertherm® DPF Pulse Cleaner** safety features are interspersed through the manual. Key features include:

- ***A High Temperature Filter Sensor*** to prevent operation if the filter is hot.
- ***Door Interlock Switches*** prevent operation if the doors are not closed.
- ***A Filter Position Interlock*** prevents operation if the filter is not properly positioned.
- ***A HEPA Panel Filter*** captures and contains contaminant from exiting the cabinet during operation.
- ***An Air Pressure Relief Valve*** that releases pressure in the tank in case of pressure regulator malfunction.

Hot DPF Label

!!!! CAUTION !!!! DO NOT DISABLE SAFETY MECHANISMS

DO NOT disable any safety interlocks. Disabling the safety interlocks may result in personal injury or damage to the unit.

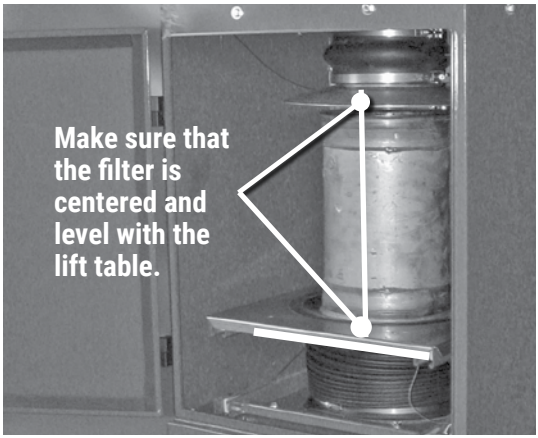
Filter Cleaning Procedure

How to clean a filter using the **Filtertherm® DPF Pulse Cleaner.**

!!!! CAUTION !!!! DO NOT PULSE CLEAN A HOT OR OIL SOAKED FILTER

The filter inlet / outlet surface must be below 150° F (65° C) before placing into the unit. Pulse cleaning a HOT filter may result in fire leading to personal injury or property damage. Pulse cleaning an oil-soaked filter will cause the ash receptacle filter to load prematurely and fail.

1. Turn the POWER Switch to RESET (ON)
2. Turn the crank handle counter-clockwise to lower the lift table until the filter will fit between the hood/adapter and lift table.
3. Center the filter on the lift table with the **dirty side facing down**. Visually check that the flange/face of the filter is horizontally level for proper sealing against the hood/adapter.



4. Raise the lift table by turning the crank handle clockwise until the DPF makes contact with the hood/adapter and the FILTER POSITIONED light is illuminated (green). For a proper seal, continue turning the crank handle approximately one more turn clockwise until you feel resistance.

NOTE	DO NOT rotate the handle more than one turn after the filter contacts the hood or damage to the machine or filter may occur.

5. To insure a proper seal, turn the OPERATION SELECTOR switch to the TEST position and check for air leaks where the filter face/flange makes contact with the hood/adapter and lift table. Reposition filter if necessary.
6. Close and latch the upper door.

!!!! CAUTION !!!! DO NOT DISABLE SAFETY MECHANISMS

The pulse cleaner has door interlocks to prevent the system from pulsing if the filter is not securely in place or if either of the upper or lower cabinet doors are not closed. DO NOT disable the door interlocks and secure the doors before operating the Pulse Cleaner. Disabling the door interlocks may result in damage or personal injury.

7. While in the TEST position, record the filter restriction from pressure gauge prior to cleaning. Record and save the reading for comparison after the PULSE cycle is complete to determine filter cleanliness.

    a. The blower will start and the pressure gauge will indicate the relative restriction of the filter in inches of water.

    b. A High Temperature Filter Sensor checks the filter temperature. If too hot (200ºF or greater), the HIGH TEMPERATURE FILTER SHUTDOWN light will flash and shut down the unit. Turn the switch back to the OFF position and restart the process after the filter has cooled.

8. Turn the OPERATION SELECTOR switch to the PULSE position.

    a. The Pulse Cleaner will pulse after 1-1/2 minute delay and continue to pulse automatically about every 45 seconds for 20 pulses. There will be a loud, intermittent sound generated during the air pulse operation. The sound level meets OSHA's indoor sound standards.

9. When the PULSE cycle is complete, the blower will turn off and the CYCLE COMPLETE light will flash. Turn the OPERATION SELECTOR switch back to the TEST position. Make note of the pressure gauge reading and compare the new relative restriction level to the reading from the TEST mode in Step 7.

10. Turn the OPERATION SELECTOR switch to the OFF position. Open the upper door. Turn the crank handle counter-clockwise until the filter can be removed from the lift table.

11. Bake the DPF in the Filtertherm® Thermal DPF Oven. Please refer to the Filtertherm® Thermal DPF Oven Installation, Operation and Maintenance document for more information.

12. After a successful bake, pulse the DPF a final time to remove leftover ash/soot.

13. Reinstall the filter in the vehicle per the manufacturer's instructions.

NOTE	Operating Conditions That Increase Filter Cleaning Frequency
EXTENDED IDLING:	Extended engine idling will plug filters prematurely and the contaminant is difficult to remove with a pulse cleaner. The filter may need to be baked with a Filtertherm® DPF Oven.
ENGINE FAILURES:	Engine turbo or injector failures or other engine faults may lead to increased filter service.
COOL ENGINE OPERATION:	If the engine operates with an exhaust gas temperature below the emissions device recommended duty cycle, the filter may plug prematurely and require more frequent cleaning.
UNRESOLVED ENGINE ISSUES:	Engine maintenance issues that create excess soot.

Routine Maintenance

Filter Replacement

This section provides the recommendations and procedures for filter replacement (refer to the cabinet schematic for location). There are three filters in the Filtertherm® DPF Pulse Cleaner: a round, cartridge-style ash receptacle filter (ARF); a panel filter; and a blower filter.

!!!! CAUTION !!!! WEAR RESPIRATORY PROTECTION

Wear respiratory protection when replacing filters. Change the ash receptacle filter in an area with neutral airflow. Cap the ash receptacle filter immediately upon removal to avoid spill and airborne particulate.

NOTE: Properly dispose of the filters in accordance with your local laws and regulations.

Receptacle Filter Replacement

The Ash Receptacle Filter (ARF) is expected to last from 10 to 30 cleaning cycles, although the actual service life will vary depending on the amount of ash/soot present in the filters being cleaned. Due to the life variability, we recommend that you keep an extra Ash Receptacle Filter in stock.

Filtertherm® recommends testing the ash receptacle every five (5) filter cleanings. The Ash Receptacle Filter must be replaced when the pressure gauge reading is above 2" of H_2O using the test sleeve.

Life Test Procedure Ash Receptacle Filter Replacement

Checking the life of the ash receptacle filter is accomplished by a pressure test using the test sleeve that was shipped with the unit. DO NOT DISCARD the test sleeve.

1. Install the coned hood / adapter if another adapter is in place.
2. Make sure the POWER switch is in the RESET (ON) position.
3. Turn OPERATION SELECTOR Switch to OFF
4. Turn the crank handle counter-clockwise to lower the lift table until the test sleeve will fit between the hood and lift table.
5. Center sleeve on the cone shaped lift table. Visually check that the sleeve is horizontally level.
6. Raise the lift table by turning the crank handle clockwise until the sleeve makes contact with the hood and the FILTER POSITIONED light is illuminated (green), then rotate the crank handle one additional revolution for a proper seal.
7. Turn the OPERATION SELECTOR switch to the TEST position, check for air leaks, and observe the pressure. If the test pressure is above 2" of H_2O on the pressure gauge, replace the ash receptacle filter. If not, the Ash Receptacle Filter does not need to be replaced.

Service Procedure

1. Turn the POWER switch OFF.
2. Open the carton containing the replacement Ash Receptacle Filter. Remove and save the white styrofoam cap installed in the inner diameter of the new Ash Receptacle Filter.

NOTE	DO NOT Dispose of Cap!
Retain the cap from the new Ash Receptacle Filter packaging to contain the contaminant in the old Ash Receptacle Filter.	

3. Open the bottom cabinet door.
4. Pull the retention handle outward, releasing the Ash Receptacle Filter.
5. Remove the Ash Receptacle Filter carefully and cover the opening with the cap to contain the contaminant during handling.
6. Place a new Ash Receptacle Filter, open side up, on the retention lift. Make sure the filter is pushed all the way back to the two stops on the lift.

NOTE	Check Position of New Ash Receptacle Filter
The Ash Receptacle Filter gasket is a critical seal to ensure that ash/soot don't escape into the lower cabinet during pulse cycles. The critical seal is formed when the new Ash Receptacle Filter is pushed back to both stops on the back of the retention lift.	

7. Lift the retention handle towards the Ash Receptacle Filter, locking the new unit into place.
8. Package and dispose of the old filter (using the box from the new Ash Receptacle Filter) according to local regulations.

9. Close bottom cabinet door.

NOTE	DO NOT Clean or Reuse the Ash Receptacle Filter!
The ash receptacle filter cannot be cleaned or reused. A dirty ash receptacle filter will negatively affect the pulse cleaning and may cause ash to leak.	

HEPA Panel Filter Replacement

There is one large HEPA panel filter in the lower cabinet accessible from the back side. The panel filter collects particulate if the ash receptacle filter leaks or if the DPF is incorrectly installed. Under normal operation, the panel filter will not need to be replaced. If the panel filter is damaged or comes into contact with particulate it must be replaced. Access filter through the rear side of the pulse cleaner.

1. Turn the POWER switch OFF.
2. Remove the bolts and retainer clips on the back panel of the cabinet.
3. Remove the old panel filter and replace with new panel filter. Make sure panel filter is installed properly - refer to the directional air flow arrows on the filter label.
4. Reinstall the retainer clips and bolts.
5. Move the cabinet back into place (if moved for service).
6. Dispose of filter according to your local ordinances.

Blower Filter Replacement

The blower filter should be changed at every 200 filter cleanings. To replace, follow these steps

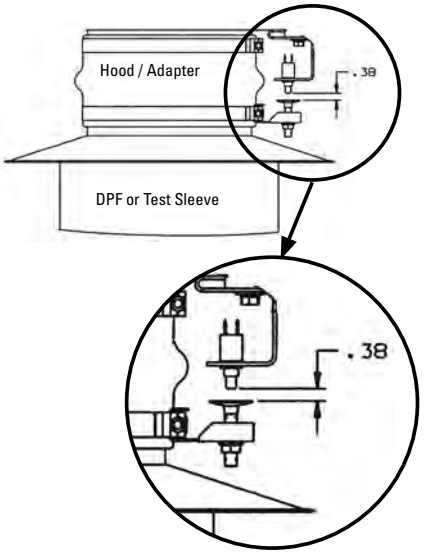
1. Turn POWER switch to OFF, unplug electrical and disconnect the compressed air line from the unit.
2. Remove the upper cabinet cover (top) by removing the eight (8) screws.
3. Loosen the blower filter clamp and slide clamp off filter inlet.
4. Remove old filter and install new filter.
5. Slide old clamp over filter inlet and tighten to 60 in. lbs.
6. Replace upper cabinet cover (top) and tighten the eight screws.
7. Reconnect compressed air line, plug electrical back in.

Drain Condensate in Air Tank

The air tank has a integral condensate drain. On a monthly basis, drain the internal air tank by pulling on the cable located in the upper compartment. Pull the cable to drain a small amount of air. If condensate is present, your air supply may need service.

Filter Position Switch Alignment

The illustration below shows the proper alignment of the Filter Position Switch. If the FILTER POSITIONED Light does not illuminate when the filter is in position, use this as a guide to check for proper alignment. There should be a 3/8" gap between the switch button and contact bolt when there is no filter positioned on the lift table.



Trouble Shooting Guide

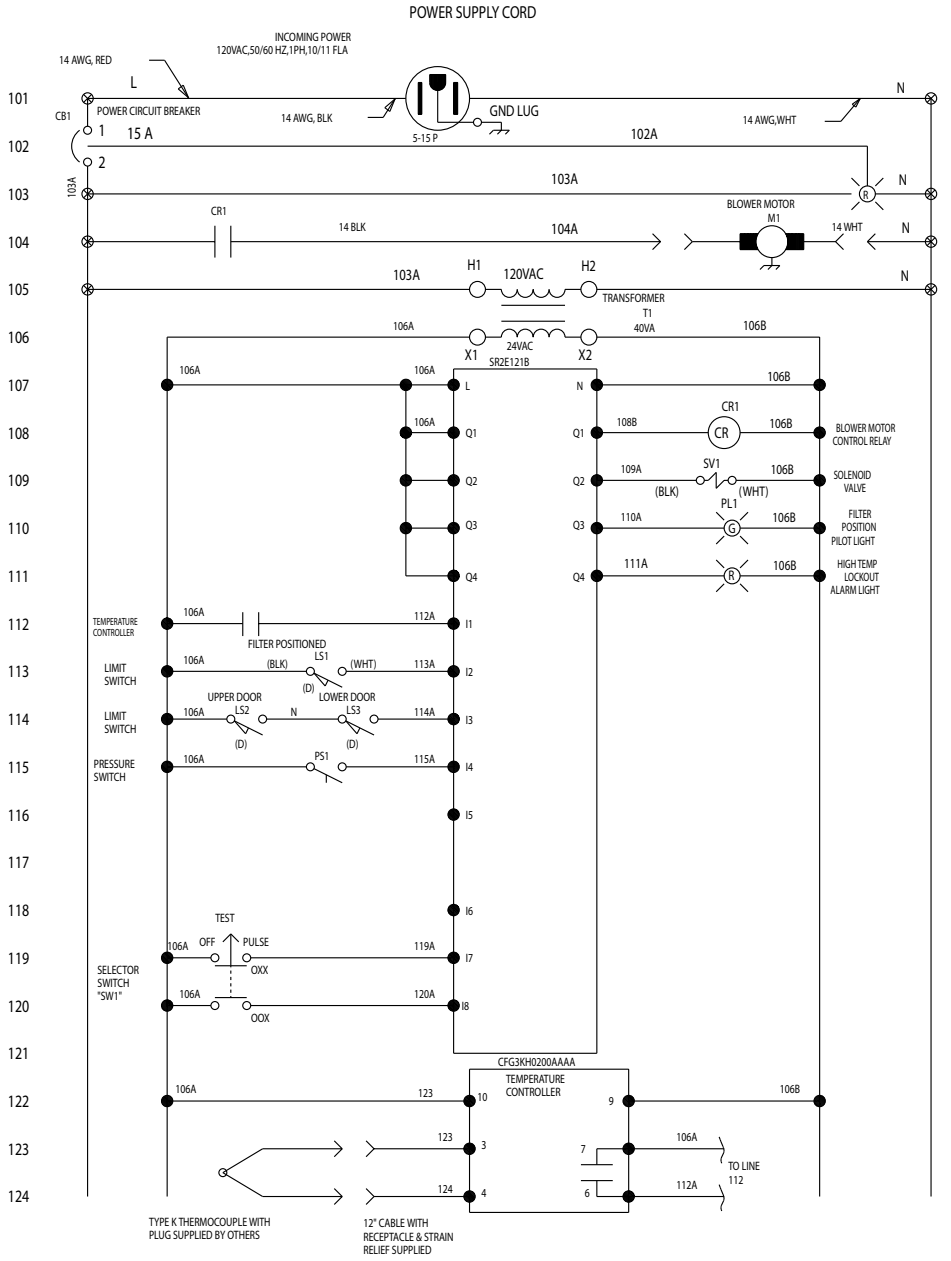
Before making any repairs or replacements unplug the unit and disconnect the air connection. After fixing or repairing any remedy in the guide, you must switch to OFF and restart.

Trouble	Possible Cause	Remedy
POWER switch does not illuminate	POWER switch is OFF	Turn POWER switch to RESET (ON)
	No power to unit	Check the electrical connection
Blower does not come on with OPERATION SELECTOR switch in TEST position	Failed switch	Repair or replace the Control Panel Assembly
	Blower disconnected or failed	Repair or replace blower
	Blower check valve failure	Replace the blower
Blower comes on, but no pressure reading on gauge	Blower filter plugged	Replace the blower
	Pressure gauge failed	Repair or replace the pressure gauge
Air leak	Pressure relief valve discharging	Adjust pressure regulator to 14.5 psi
	Failed solenoid	Replace solenoid
	Failed tank sealing plate	Replace tank sealing plate
DPF lift table does not operate smoothly	Right angle drive damaged or lift table bearing mis-aligned or damaged	Repair or replace lift table mechanism
FILTER POSITIONED light does not illuminate when DPF is raised	*Filter Position Interlock* mis-aligned or mis-adjusted (bracket bent)	Check the *Filter Position Interlock*. There should be a 3/8" gap between the switch button and contact bolt when there is no filter installed (see image on page 10)
High Temperature Filter Shutdown light flashing when switch is in TEST or PULSE position	DPF too hot to pulse clean	Turn OPERATION SELECTOR switch to OFF and wait for filter to cool (below 150° F skin temperature)
	Thermocouple disconnected or failed	Repair or replace thermocouple
Unit does not pulse with OPERATION SELECTOR switch in PULSE position	Lack of compressed air	Check compressed air supply for 90psi minimum
	Improper pressure regulator setting	Adjust to 14.5 PSI
	Filter not positioned properly	FILTER POSITIONED light should be on. If not, turn crank slowly until light illuminates
	Doors not closed properly	Check *Door Interlock Switches*
	Door opened during cleaning process	Close door. Turn POWER OFF and RESET
	Door Interlock Switches and *Filter Position Interlock* are not adjusted properly	Readjust and position switches properly
	Temperature sensing not complete	Wait 1-1/2 minutes
	Filter is too hot to pulse clean	Turn OPERATION SELECTOR switch to OFF and wait for DPF to cool (below 150° F skin temperature)
	Failed air solenoid valve	Replace air solenoid valve
	Failed pressure assembly	Replace pressure assembly
	Failed tank sealing plate	Replace tank sealing plate
Less than one pulse/ minute	Inadequate or restricted air supply	Check air supply and pressure regulator in-line sintered filter for plugging
	Air leak	Check for leaks around the tank, tank sealing plate and air connections.
Only one pulse	Pressure assembly mis-adjusted?	Adjust pressure switch to 13.5 or pressure regulator to 14.5 psi
Muffled pulses	Ash Receptacle Filter plugged	Replace
Particulate in upper cabinet	Filter improperly installed	Reposition filter
	Lift table bellows or hose clamps may be damaged or loose	Repair or replace
	Filter flanges are bent, damaged or keyed.	Replace filter unit if bent or damaged. For keyed filter, make sure you're using proper filter adapters.
Particulate in lower cabinet	Ash Receptacle Filter improperly installed, plugged, or damaged	Reposition or replace
	Ash Receptacle Filter is full or plugged	Replace Ash Receptacle Filter

Electrical Schematic

Notes:

a. 15amp Field Supplied branch circuit protection requried to meet N.E.C. and local codes.



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Spare Parts List

Description	Part No.	Note
Ash Receptacle Filter	P228279	Use box from new filter to dispose of the used filter
HEPA Panel Filter	MFG100910	Replaces ASHRAE 95% Filter (upgraded to comply with air quality standards)
Blower Filter	B085011	
Blower Check Valve	P228025	
Solenoid Valve	P233369	
Control Panel Assembly	P230113	
Test Sleeve	P230116	Required to test ash receptacle filter
Lift Table Top Plate	P230122	Top plate with urethane seal
Lift Mechanism Rebuild Kit	X009719	
Bellows Rebuild Kit	X009720	Bellow + two clamps
Hood Replacement	X010930	Hood, adapter and clamps(2)
Blower Assembly	P228093	
Pressure Assembly	P231595	For air tank
Tank Sealing Plate Assembly	P233362	For air tank
Thermocouple	P228775	
Door Rebuild Kit	X009716	Latches and hinge replacement
Door Interlock Switch	P228028	
Door Flap Kit	P231616	

FILTERTHERM®

WARRANTY INFORMATION

Diesel Emissions Service ("Seller") warrants to the original purchaser of the Filtertherm® DPF Pulse Cleaner ("product"), subject to all of the terms and conditions hereof, that the Product and all components thereof will be free from defects in materials and workmanship for the following period(s) of time, measured from the date of purchase:

Diesel Emissions Service warrants the Filtertherm® DPF Pulse Cleaner for a period of ONE (1) YEAR.

Register your Filtertherm® DPF equipment within 45 days of purchase to activate your warranty. Online: **filtertherm.com/warranty**

Seller's obligation under this warranty is specifically limited to repairing or replacing, at its option, the product or any part thereof which is determined by Seller to be defective during the applicable warranty period.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is made to the original purchaser of the Product only, and is not transferable or assignable. This warranty applies only to components of the Filtertherm® DPF Pulse Cleaner. This warranty does not apply to any unauthorized or improper installation, alteration or repair of the Product, or to any Product or component which has been damaged or deteriorated due to misuse, neglect, accident, failure to provide necessary maintenance, normal wear and tear, or acts of God or any other cause beyond the reasonable control of Seller, missing or damaged parts due to clearance, repairs, and maintenance to components.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE APPLICABLE WARRANTY PERIOD REFLECTED ABOVE. NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE LIMITED WARRANTY PERIOD HAS EXPIRED.

Some states do not allow limitations on how long an implied warranty lasts. **IN NO EVENT SHALL DIESEL EMISSIONS SERVICE OR ITS AFFILIATES BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES**, even if Seller has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of use, cost of any substitute product, or other similar indirect financial loss. Some states do not allow the exclusion or limitation of incidental or consequential damages. Claims under this warranty must be made promptly after discovery and within the applicable warranty period.

To obtain warranty service, you must contact DIESEL EMISSIONS SERVICE customer service and provide proof of the date and location of purchase and identification as the original purchaser. Call (DES) Customer Service toll free at 1-888-792-2922 to speak with a trained representative.

Purchaser must allow seller a reasonable opportunity to inspect Product claimed to be defective prior to removal or alteration of its condition. Upon determination by Seller that the Product or any part thereof is defective during the applicable warranty period (which may require purchaser to return the Product to Seller at purchaser's expense), Seller will supply the purchaser with replacement parts or, at its option, a replacement Product. Seller may use new or reconditioned parts, or a new or reconditioned Product of the same or similar design.

PURCHASER'S WARRANTY RESPONSIBILITY

- Warranty form submitted within 45 days of purchase - submit online, fax or email
- Detailed description of failure
- Pictures of failure
- Contact ***Diesel Emissions Service*** within 24 hours of failure

WARRANTY INFORMATION

Complete registration and return via email, fax, mail or online (at www.filtertherm.com/warranty) within 45 days of purchase to activate your warranty.

Name	Email Address
Company Name	Phone Number
Address	Model Name
Address 2	Serial Number
City	Date of Purchase
State	Dealer Purchased From
Zip	Date of Installation

REDLINE®
EMISSIONS PRODUCTS

Filtertherm® DPF Cleaning Equipment now available exclusively from Redline Emissions Products®

"Offering Filtertherm® under the REP brand is a logical extension, adding enormous value to our robust all-makes line of DPF parts & accessories."

Wayne Cochrane - REP National Sales Manager

FILTERTHERM® DPF OVEN

THE INDUSTRY'S FIRST "SMART TOUCHSCREEN"

MADE IN THE USA!

- Autoselects correct temperature profile for single or multiple filters
- Manufacturer-Approved Temperature Profiles with Safe & Effective Ramp Rates
- Temperature-Controlled Auto Door Lock
- Multiple Sizes & Power Options Available
- Powder-Coated for Durability
- Employee Pass Codes Lock Out Untrained Users
- Pre-Programmed for all DPF Substrates
- On-Screen Operator's Manual & Training Aids
- Auto Shutoff for Over-Temp Conditions
- High-Voltage Plug & Receptacle Included

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