



**MODEL GS1-100  
Air Filtration System**

**Operations Manual**

**READ AND SAVE THESE INSTRUCTIONS**

**WARNING:**



Disconnect from power supply before performing maintenance procedures such as cabinet cleaning, changing filters or servicing of electric motor or other electric components

**WARNING:**



To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.

**WARNING:**



For general ventilating use only. Do not use to exhaust hazardous or explosive materials or vapors.

**CAUTION:**

Do not operate without having all filters in place.



Do not operate any fan with a damaged cord or plug. Discard fan or return to an authorized service facility for examination and/or repair.

Do not run cord under carpeting. Do not cover cord with throw rugs, runners or similar coverings. Arrange cord away from traffic area and where it will not be tripped over.

# GETTING STARTED

## Initial set-up

1. Open all cartons & locate Hose/clamps & Wheels
2. Remove ALL filters & packing materials from cartons and inside the GS1-100 cabinet
3. Place the GS1-100 on its side & install wheels in bottom plate
4. Remove plastic wrap from gas filter (Part # FA201D)
5. Carefully remove perforated cardboard from top and bottom of filter to expose filter media
6. Place gas filter (Part # FA201D) into bottom of cabinet – note direction of airflow arrow
7. Place polyester-pre-filter ( Part # FA103) on top of panel filter
8. Close and latch lid

## Locating the air cleaner:

Placing the GS1-100 as close as possible to the pollution source reduces the amount of hose or duct required, reduces back-pressure, lowers power consumption and improves overall performance. Wheels are standard equipment on the GS1-100, but rubber isolators are available if the unit is to be placed permanently in position. If you prefer isolators, call 800-432-7550 to arrange a no-charge exchange.

## Inlet hose attachment:

The GS1-100 ships standard with a 1 x 2" or 1 x 3" inlet place the flex hose over the metal air inlet tube and tighten securely with the stainless steel clamp. Connect the hose to a Fumex suction hood or place as close as possible to the pollution source.

## Electric power

GS1-100 is manufactured with a universal blower/motor assembly (90-250/1/50-60). Default power cord/plug is US (120v). Contact Fumex for additional information or options.

**Confirm that correct power supply is available.**

# CONTROLS

## On/Off Switch

Simple one touch controls – Green light indicating blower speed will confirm power to the unit.

## Blower/Fan

The GS1-100 utilizes a variable speed blower with three speed settings. Press the fan button to adjust speed control. Green light will indicate current speed.

## Filter monitoring

The GS1-100 contains a VOC indicator to monitor odors/gases in the exhaust stream. When the gas filter becomes saturated (breakthrough occurs) the “Change Gas Filter” warning light will illuminate.

# GENERAL FILTER CARE

## **STANDARD FILTERS:**

### Part # 103 – Polyester pre-filter

The disposable polyester pre-filter is the first stage of the filtration process. Its main function is to remove dust particles 100 $\mu$  and larger in advance of the more carbon filter.

#### *Replacement:*

The service life of the polyester pre-filter is determined by the type and volume of large particles collected.

### Part # FA201D – Gas / Odor Filter

Most process plumes contain several gases, some odorous – some not, some toxic at elevated concentrations – some completely harmless regardless of concentration. To ensure employee safety the type and concentration of pollutants must be determined. Please contact Fumex Engineering for selection assistance.

The GS1-100 utilizes a blended activated carbon and activated alumina impregnated with KMnO<sub>4</sub> filter to capture and treat gases/odors. This combination of materials provides protection across a broad range of gases commonly found in industrial manufacturing processes.

#### *Replacement:*

The life of the gas/odor filter is highly dependent on the type and quantity of gases extracted from the process. Average service life is 4-6 months.

# GENERAL MAINTENANCE

- 1) The blower motor is a sealed unit, 24,000 hr. MTBF rated. It is permanently lubricated and does not require oiling – keep it free of dust accumulations to prevent overheating.
- 2) Remove any loose accumulations of dust/debris from the air filter chamber periodically.

“This product employs overload protection (fuse). A blown fuse indicates an overload or short-circuit situation. If the fuse blows, unplug the product from the outlet. Replace the fuse as per the user servicing instructions (follow product marking for proper fuse rating) and check the product. If the replacement fuse blows, a short circuit may be present and the product should be discarded or returned to an authorized service facility for examination and/or repair”

## Remote Start/Stop (Optional)

The GS1-100 can be supplied with an optional remote start feature. If this option is factory installed on your unit, simply provide 24v to the red wire and the black wire is “common”. The unit will start when the signal is applied and turn-off when signal is removed.

### WARNING

“Connect Remote Starter Cable to 24v, Class 2 Power Supply Only”



### WARNING

“Disconnect From All Power Supplies Before Servicing”

## R e p l a c e m e n t   P a r t s

| Part # | Item                       | Part #  | Item                                 |
|--------|----------------------------|---------|--------------------------------------|
|        | <b>Cabinetry</b>           |         | <b>Electrical</b>                    |
| FA108  | Wheels, standard           | FAAU500 | Blower motor assembly 90-250/1/50-60 |
| FA109  | Vibration Isolators        |         |                                      |
| FA117  | Cabinet latch              | FA003   | Control board assembly               |
| FA118  | Cabinet hinge              | FA114   | Fuse, 10 amp (120vac)                |
| FA106A | Flanged air inlet 3"Ø      | FA114A  | Fuse, 15 amp (240vac)                |
| FA106B | Flanged air inlet 2 x 2"Ø  | FA115   | Cordset (120vac)                     |
| FA106C | Flanged air inlet 1 x 2" Ø | FA115B  | Cordset (230vac)                     |
|        |                            | FA113   | Fuseholder                           |
|        | <b>Filters</b>             |         | <b>Gas Filters</b>                   |
| FA103  | Polyester pre-filter       | FA201D  | A/C + A/A cell w/ KMnO4              |
|        |                            | FA201C  | Activated carbon filter              |
|        |                            |         |                                      |
|        |                            |         |                                      |

## W a r r a n t y   a n d   L i a b i l i t y   l i m i t a t i o n s :

Fumex GS1-100 air cleaners are guaranteed for 24 months from date of invoice to be electrically and mechanically sound. This warranty covers the material and workmanship only. Any defective item will be repaired or replaced, at our option, free of charge provided it has not been misused, abused, or otherwise damaged and is returned PREPAID to:

Fumex, Inc. 1150 Cobb International Pl., Kennesaw, GA 30152

There are no warranties which extend beyond the descriptions set forth in this warranty, notwithstanding any knowledge of Fumex, Inc. regarding the use or uses intended to be made of goods, proposed changes or additions to goods, or any assistance or suggestions that may have been made by Fumex personnel. Customer is responsible for determining the suitability of Fumex products for customer's use or resale, or for incorporating them into objects or applications which customer designs, assembles, constructs or manufactures. Fumex reserves the right to discontinue any item and to make changes in the specifications, terms and conditions or prices at any time without prior notice. Information furnished in the specifications is believed to be accurate and reliable at time of printing, however Fumex accepts no responsibility for product use, or the effect of future design or specification changes.

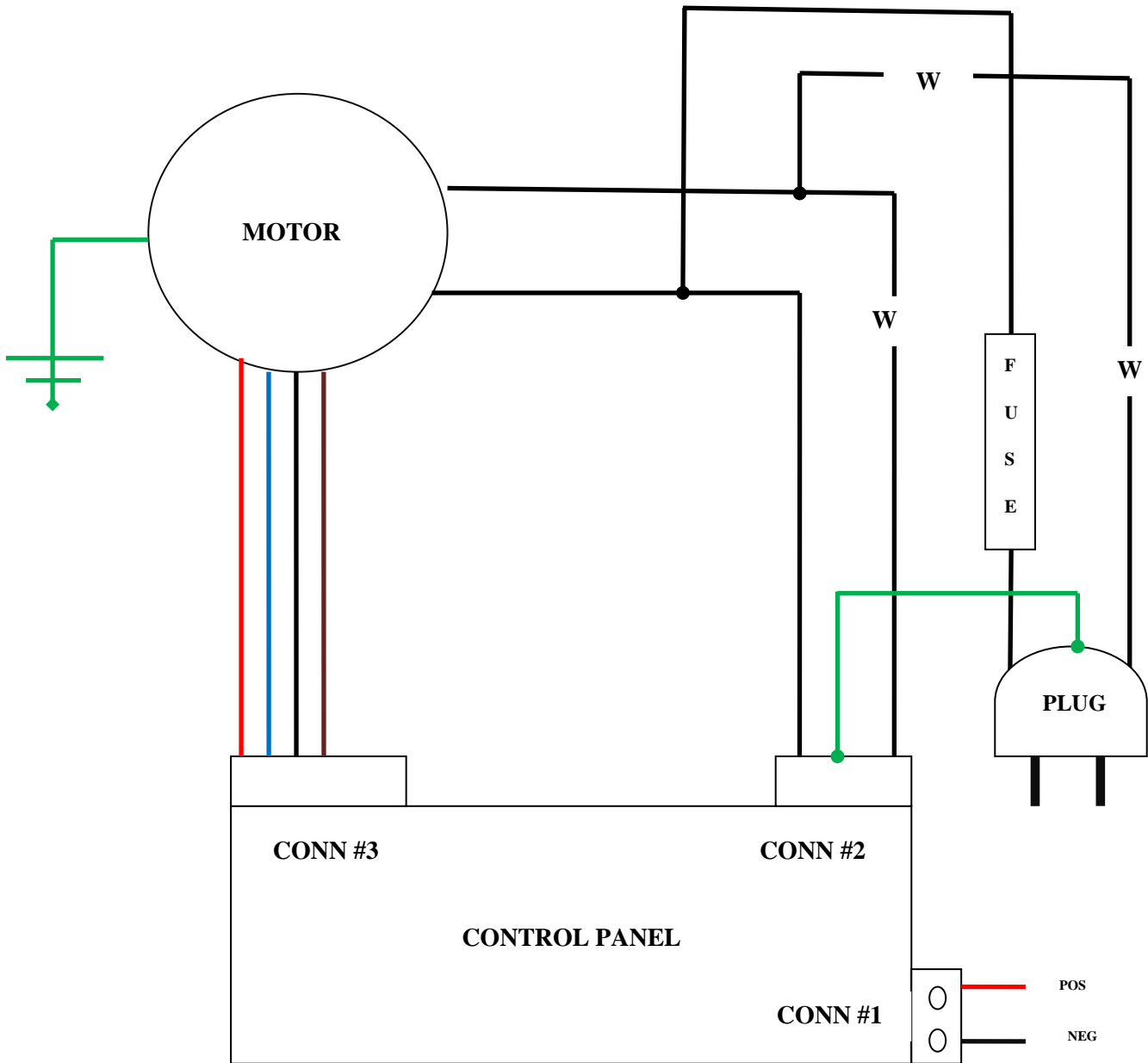
***For Assistance or Technical Support please Contact Fumex Inc.***

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USA toll-free 800-432-7550  
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Specifications subject to change without notice

**GS1-100**  
**90-250/1/50-60**



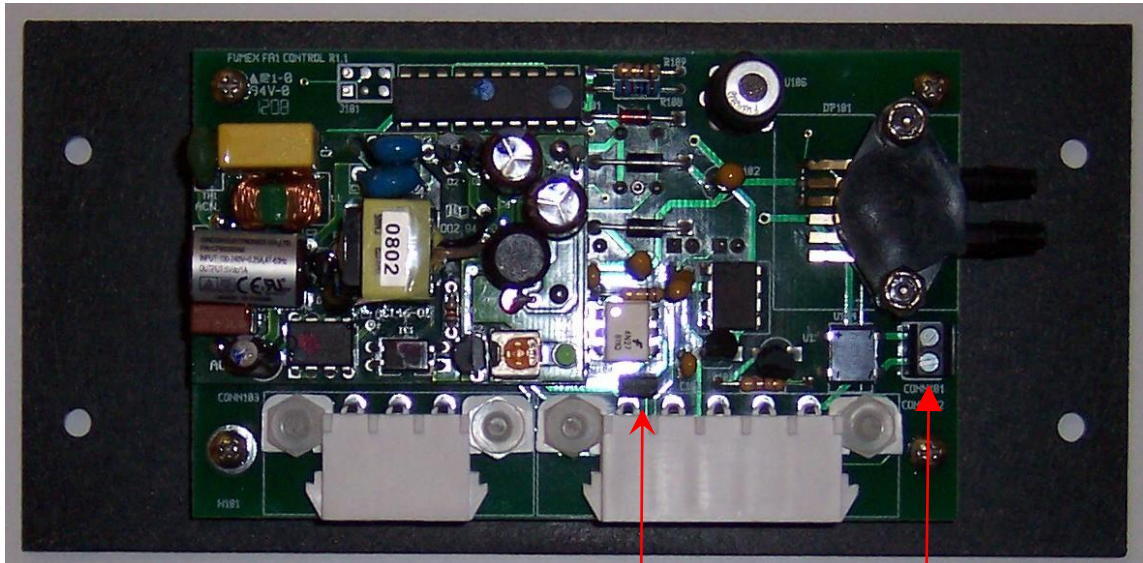
| LEGEND |                       |
|--------|-----------------------|
| W      | WHITE                 |
| 1      | REMOTE START CONECTOR |
| 2      | THREE PIN CONNECTOR   |
| 3      | FIVE PIN CONNECTOR    |

## RELAY ACTIVATION PROCEDURES FOR GS UNITS

1. Remove all power sources from GS unit
2. Locate eight screws securing cabinet bottom panel
3. Remove all and gently pry bottom panel loose

### CAUTION

**Do not work on panel with power applied**



**Relay activation jumper**

**24 volt start connector**

4. Locate relay activation Jumper on rear of control panel. (Small plastic rectangle)
5. Gently remove jumper by pulling cap off pins. Shorting cap should be installed over a single pin for storage and to prevent loss of cap.

**Once the jumper has been removed the unit will only start by applying the proper voltage to the start stop relay. When the unit is running the on and off switch can be used as long as start relay has power.**

6. Reinstall bottom panel and screws
7. Apply power to start relay (see wiring diagram for your unit)