Gasoline Fume Detection System With Blower Control

Single Channel Systems
G-1BB-R (Black, Round, Blower Control, 12V Solenoid)
G-1BB-24-R (Black, Round, Blower Control, 24V Solenoid)
G-1CB-R (Chrome, Round, Blower Control, 12V Solenoid)
G-1CB-24-R (Chrome, Round, Blower Control, 24V Solenoid)

Dual Channel System
G-2BB-R (Black, Square, Blower Control, 12V Solenoid)
G-2BB-24-R (Black, Square, Blower Control, 24V Solenoid)

Owner's Manual
&
Installation Instructions

Read and comply with all instructions, warnings and limitations before installing, servicing or removing this device.

Part Number 18141, H, 01/28/2020

Additional copies of this manual are available on the Fireboy-Xintex website. Fireboy-Xintex reserves the right to change features without notice.

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General Information

WARNING

GASOLINE FUME DETECTORS ARE MEANT TO SERVE AS A SUPPLEMENTAL WARNING SYSTEM. IT IS NOT MEANT TO REPLACE STANDARD SAFETY PRACTICES WHICH SHOULD BE CARRIED OUT AROUND EXPLOSIVE GASES.

The G-1BB-R, G-1CB-R, and G-2BB-R Gasoline Fume Detectors are an effective means to monitor gasoline fumes in an engine compartments, leaking fuel tanks, or fumes from un-burnt hydrocarbons emitted from faulty exhaust systems. In addition, these units automatically actuate your bilge Blower to purge the space of fumes. The systems use sensors, located in a place of interest, and a central display unit that notifies you of the state of the system.

Specification

System Specifications (G-1BB-R / G-1CB-R)
Operating Voltage: 9-30V DC
Nominal Current Draw: 55mA @ 12V DC
Maximum Current Draw: 95mA @ 9V DC
Maximum Blower Output Current: 2A
Operating Temperature: -40°F (-40°C) to 185°F (85°C)
Alarm Horn: ≈ 68 dB

System Specifications (G-1BB-24-R / G-1CB-24-R)
Operating Voltage: 18-30V DC
Nominal Current Draw: 34mA @ 24V DC
Maximum Current Draw: 46mA @ 18V DC
Maximum Blower Output Current: 2A
Operating Temperature: -40°F (-40°C) to 185°F (85°C)
Alarm Horn: ≈ 68 dB

System Specifications (G-2BB-R)
Operating Voltage: 9-30V DC
Nominal Current Draw: 95mA @ 12V DC
Maximum Current Draw: 150mA @ 9V DC
Maximum Blower Output Current: 2A
Operating Temperature: -40°F (-40°C) to 185°F (85°C)
Alarm Horn: ≈ 68 dB

System Specifications (G-2BB-24-R)
Operating Voltage: 18-30V DC
Nominal Current Draw: 47mA @ 24V DC
Maximum Current Draw: 62mA @ 18V DC
Maximum Blower Output Current: 2A
Operating Temperature: -40°F (-40°C) to 185°F (85°C)
Alarm Horn: ≈ 68 dB

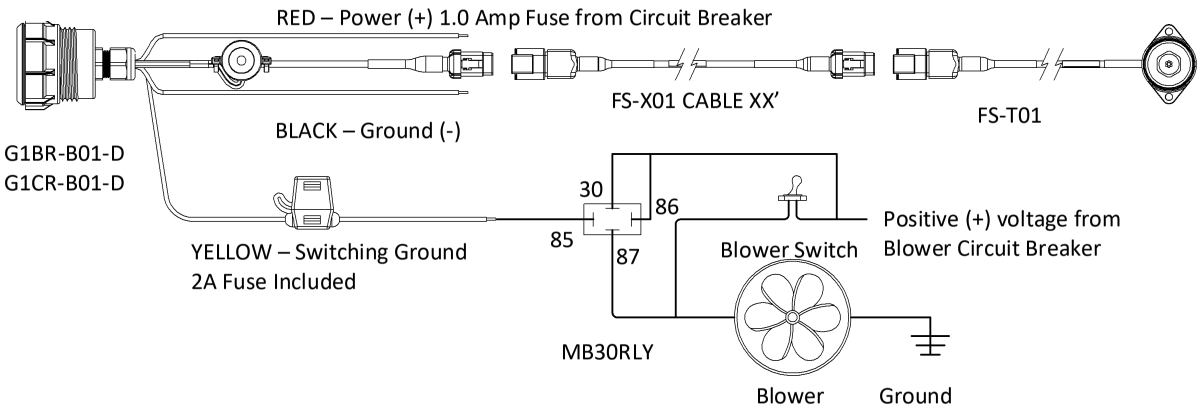
Operation of Xintex Gasoline Fume Detector(s)

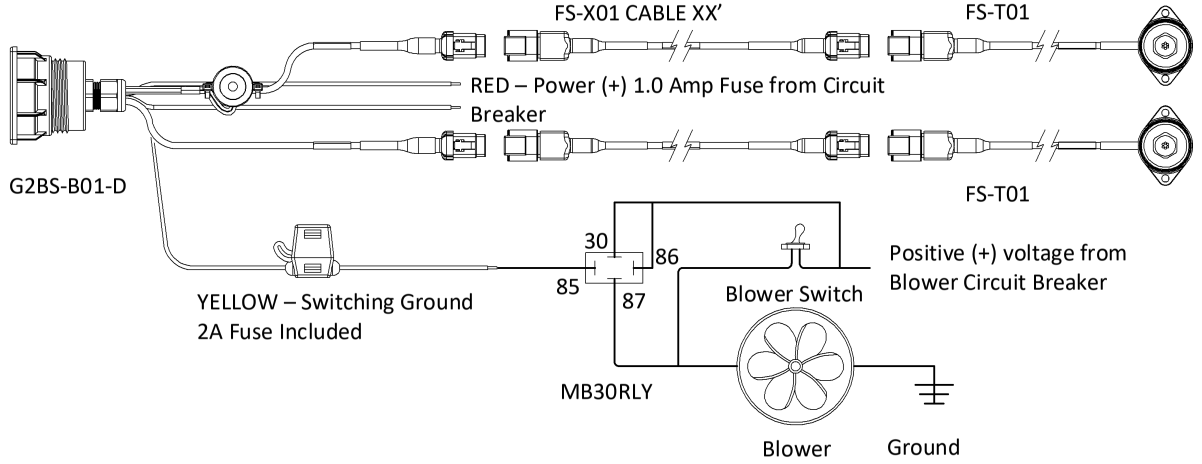
There are 3 LEDs located on the Display Unit for each channel on the system, as well as an LED for the Blower status. The Green LED, located at the top, indicates that the system is operational. The Yellow LED, located in the center, indicates that there is a Fault in the system. This is to notify the user to check the connections and wire runs of the sensors. There may be a break in the wiring or a disconnected sensor on that channel. The Red LED, located at the bottom, indicates a fume buildup of 20% of the LEL (Lower Explosive Limit) which is considered an alarm. The Blower status LED and alarm horn will actuate when the Red LED is illuminated. Whenever the Blower status LED is illuminated, the Blower is active.

G1BR-B01-D
G1CR-B01-D

G2BS-B01-D

The alarm status will continue as long as the fume level remains at an elevated level. The alarm horn may be silenced by pressing the “Check/Reset” button, but the Blower will remain active until the alarm status has ended. The alarm will reactivate after 30 seconds as long as the Detector remains in alarm status. The problem should never be considered corrected as long as the Red LED is illuminated.


RED – Power (+) 1.0 Amp Fuse from Circuit Breaker
FS-X01 CABLE XX'
FS-T01
BLACK – Ground (-)
G1BR-B01-D
G1CR-B01-D
30
86
85
87
Positive (+) voltage from Blower Circuit Breaker
YELLOW – Switching Ground
2A Fuse Included
Blower Switch
MB30RLY
Blower
Ground


FS-X01 CABLE XX'
FS-T01
RED – Power (+) 1.0 Amp Fuse from Circuit Breaker
G2BS-B01-D
FS-T01
30
86
85
87
Positive (+) voltage from Blower Circuit Breaker
YELLOW – Switching Ground
2A Fuse Included
Blower Switch
MB30RLY
Blower
Ground

Installation

Installing the Display Unit (G1BR-B01-D/G1CR-B01-D or G2BS-B01-D)

The Display Unit should be located at the instrument panel, so that the visible and audible indicators may be easily observed.

Drill a 2-1/16" hole to accommodate the G1BR-B01-D/G1CR-B01-D Display Unit.
Drill a 2-1/8" hole to accommodate the G2BS-B01-D Display Unit.

Insert Display Unit into hole and secure with the provided threaded mounting nut. A Trim Ring is available if needed.

NOTE

DO NOT MAKE ELECTRICAL CONNECTIONS AT THIS TIME. THEY WILL BE ADDRESSED IN A LATER SECTION.

Routing Sensor Cable(s) (FS-X01 CABLE XX')

A 20 FT Sensor Cable is provided for each Gasoline Fume Sensor. The Sensor Cables should be routed starting at the Display Unit, then to the pre-determined location of the Gasoline Fume Sensor. Connect to the Display Unit using the attached quick-disconnect connectors. Take care not to pinch, break, or cut the Sensor Cable or put too much stress on the connectors while routing the cable. Secure the Sensor Cable with the appropriate hardware for the application.

NOTE

DO NOT CUT EXTENSION CABLE FOR ANY PURPOSE. DOING SO VOIDS THE PRODUCTS WARRANTY. LONGER CABLES ARE AVAILABLE FROM 20 FT TO 100 FT.

Installing Gasoline Fume Sensor(s) (FS-T01)

The Gasoline Fume Sensor should be located in the Bilge, just above the "Slosh Line". A good rule of thumb is to install no lower than the height of the starter solenoid. Avoid locating sensors near manifold or exhaust systems, as high heat may damage the sensor.

Use the appropriate #8 mounting hardware to mount the Gasoline Fume Sensor in the desired location. The rubber gasket should be installed between the sensor and the mounting surface.

Connect to the Extension Cable using the attached quick-disconnect connectors.

Electrical Connections (G1BR-B01-D/G1CR-B01-D or G2BS-B01-D)

The Display Unit operates on 9-30V DC. A Red and a Black 16 GA wire are provided for connecting to the power source. Connect the Red wire to Power (+) with an inline 1.0 Amp fuse. Connect the Black wire to Ground (-).

A 2A fused Yellow 16 GA wire is provided for connecting the Display Unit to the Bilge Blower system. Connect the Yellow wire to terminal 85 of MB30RLY/MB30RLY-24. Connect the positive (+) voltage to terminals 30, 86, and the Manual Blower Switch. Connect the Ground to the Blower System.

NOTE

UNITS MANUFACTURED PRIOR TO JANUARY 01, 2018 DO NOT INCLUDE THE 2A FUSE. A DEDICATED 2A FUSE OR BREAKER SHOULD BE USED TO POWER THE BILGE BLOWER SYSTEM.

NOTE

IMPROPER CONNECTIONS WILL DAMAGE THE DISPLAY UNIT AND WILL VOID WARRANTY.

Testing the System Operation

The Gasoline Fume Detectors can be tested by pressing the “Check/Reset” button on the face of the Display Unit. The Display Unit will cycle through the LEDs and the alarm horn will activate while the LEDs cycle.

Unplug the Gasoline Fume Sensor from each channel of the Detection System one at a time. The Yellow “Fault” LED should illuminate. If the Yellow LED does not illuminate, remove Display Unit and return direct to manufacturer following the instructions at the back of this manual.

Press the Blower button on the Display Unit. The Blower system should turn on until the button is released.

Testing the Gasoline Fume Sensors

WARNING

DO NOT USE A GASOLINE SOAKED RAG OR A PARTIALLY FULL CONTAINER OF GASOLINE TO TEST A SENSOR. THE RAW GASOLINE COULD IGNITE, RESULTING IN SERIOUS INJURY.

Test the Sensors by holding an unlit Butane lighter to the sensor. Within a few seconds, the Red “Danger” LED should illuminate, Blower will activate, and the alarm horn will sound. Remove the lighter from the Sensor and mute the alarm horn. After approximately one minute, the Red LED will shut off.

Maintenance

The system should be tested periodically in the fashion described in the previous sections. Due to the harsh environmental conditions in marine applications, it is recommended to replace the Gasoline Fume Sensors every 3-4 years.

In the Event of an Alarm

Immediately have all passengers and crew exit the passenger compartment and vessel if possible.

Ventilate the space being monitored.

Carefully check all fuel lines and other potential sources of gasoline fume leaks. If leaks are identified, shut off fuel supply and make any necessary repairs.

Repairing Xintex Gasoline Fume Detection Components

Xintex Gasoline Fume Detection Components are not field serviceable. Components must be returned to the factory for any repairs.

Returning Xintex Gasoline Detection Components

No product may be returned for credit or repair without a written “Returned Material Authorization” (RMA) form. Purchaser must call or email Fireboy-Xintex 616-735-9380 or fireboy@fireboy-xintex.com for a RMA. If due to extenuating circumstances a product is to be returned, after approval it must be received in 100% new/resalable condition. Products stored by the buyer for more than 26 weeks may not be returned for any reason. Maintaining fresh and current inventory is the responsibility of the buyer.

1 Year Limited Warranty

This Warranty is in lieu of all other expressed or implied Warranties

Seller warrants title, materials, and workmanship on equipment, except components manufactured by others for which the Seller assigns, as permitted, the original manufacturer's warranty. Seller's warranty shall be for a period of (1) one year from the date of sale to the ORIGINAL CONSUMER PURCHASER, during which non-conforming equipment returned to the Seller at Buyer's expense and risk, be repaired or replaced at the Seller's option. Fireboy-Xintex LLC will repair or replace products found to be defective in materials or workmanship within the period set forth above, provided that: (a) the product has not been subjected to abuse, contamination, neglect, accident, incorrect wiring not our own, improper installation or servicing, or used in violation of instructions furnished by Fireboy-Xintex LLC and (b) as to any prior defects in materials or workmanship covered by this warranty, the product has not been repaired or altered by anyone except Fireboy-Xintex LLC and (c) the serial number has not been removed, defaced or otherwise changed, and (d) examination discloses, in the judgment of Fireboy-Xintex LLC, does not assume the costs of removal and/or installation of the product or any other incidental costs of removal and/or installation of the product or any other incidental costs which may arise as a result of any defect in material or workmanship, and (e) upon discovery of defect, Buyer shall immediately cease use of and notify Fireboy-Xintex LLC.

Any warranty implied by law, including warranties of merchantability or fitness, is in effect only for the duration of the expressed warranties set forth above, no person is authorized to give any other warranty, or to assume for Fireboy-Xintex LLC any other liability in connection with the sale of its products; Fireboy-Xintex LLC shall not be liable for the loss of use, revenue, or profit or for any injury, or for any other consequential or incidental damages, buyer is not relying on seller's judgment regarding his or her particular requirements, and has had an opportunity to inspect the product to his or her satisfaction.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.

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