

MGS CONTROLLER

INSTALLATION GUIDE

P/N: 6709-9002
Revision 0
January 25, 2016



CAUTION: DO NOT MOUNT the MGS Controller in an area that may contain flammable liquids or vapors. Operation of electrical equipment in such an area constitutes a safety hazard.



WARNING: Strictly follow the instructions in the Controller Manual (part number 6709-9000) available at www.MyBacharach.com.

1: OPERATING AREA AND CONDITIONS

The Bacharach MGS Series controllers provide local alarm status indications (via multi-colored, per-channel LEDs) as well as common single-level or dual-level digital (relay) alarm outputs based on 1, 2, 4, or 6 input signals and 1 or 2 user-definable set-points.

MGS Controllers support multiple input sensors/transmitters (1, 2, 4, or 6 channels) based on the model of the controller. Inputs are standard 4-20 mA signals from MGS-series sensors or any standard, linear, 4-20 mA transmitter.

The instrument is powered 100V-230V AC (50-60Hz) or 12V DC (specified at time of order).

2: SAFETY INSTRUCTIONS

USER MANUAL: Before using this equipment, carefully read and strictly follow the User Manual (part number 6709-9000). The user must fully understand and strictly observe the instructions. Use the equipment only for the purposes listed and under the conditions specified in those documents.

CODE COMPLIANCE: Comply with all local and national laws, rules and regulations associated with this equipment.

GENUINE PARTS: Use only genuine Bacharach spare parts and accessories, otherwise proper functioning of the equipment may be impaired.

TECHNICIAN USE ONLY: This unit must be installed by a suitably qualified technician who will install this unit in accordance with these instructions and the standards in their particular industry/country. Operators of the unit should be aware of the regulations and standards in their industry/country for the operation of this unit. These notes are only intended as a guide and the manufacturer bears no responsibility for the installation or operation of this unit.

Failure to install and operate the unit in accordance with these instructions and with industry guidelines may cause serious injury including death and the manufacturer will not be held responsible in this regard.

SAFE MOUNTING: This controller must be connected by a marked, suitably located and easily reached switch or circuit-breaker as means of disconnection.

3: MOUNTING

ENVIRONMENTAL CONSIDERATIONS: Carefully consider the full range of environmental conditions to which the instruments will be exposed.

APPLICATION CONSIDERATIONS: The specifics of the application (for example, possible leaks, air movement/draft, etc.) must be observed.

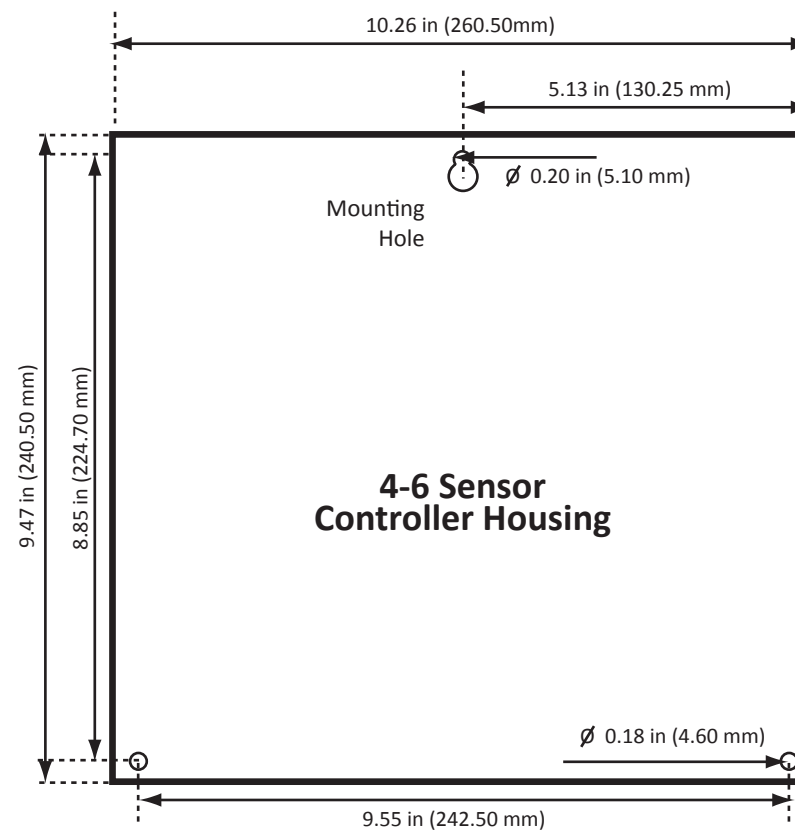
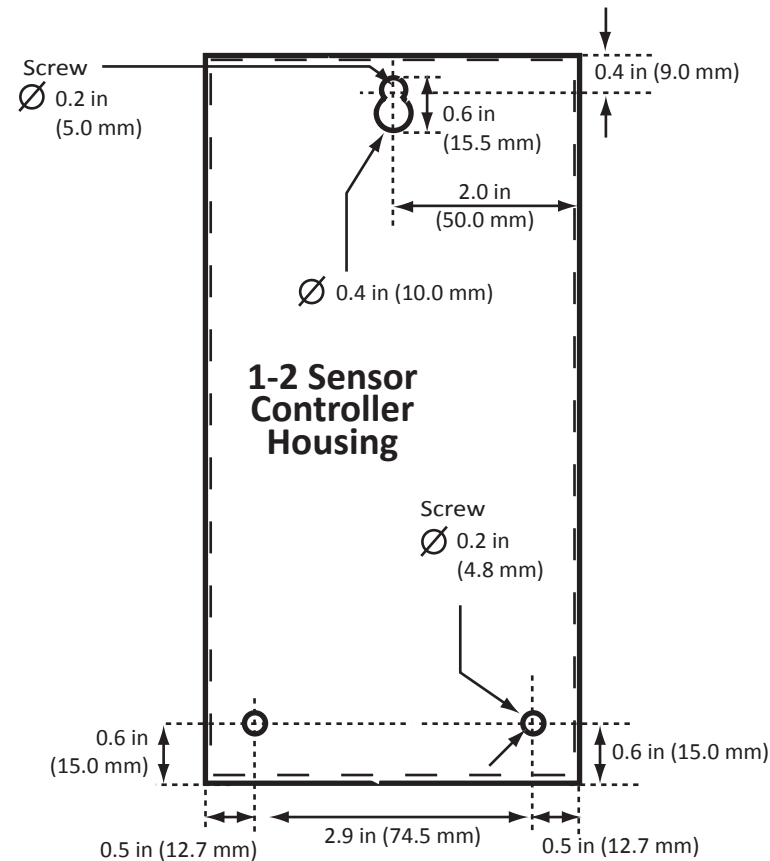
ACCESSIBILITY CONSIDERATIONS: The degree of accessibility required for maintenance purposes must be granted.

ACCESSORY CONSIDERATIONS: The types of optional and accessory equipment that will be used with the system must be kept in mind.

ELECTRONIC CONSIDERATIONS: The system contains sensitive electronic components that can be easily damaged. Do not touch nor disturb any of these components.

Mount the MGS Controller according to the above considerations, product dimensions (see Section 4), and the maximum wiring lengths (see Section 5).

4: DIMENSIONS



5: WIRING

CABLE OPENINGS: The metal controller housing provides a number of PG7 openings for cable glands or plugs.

Refer to the User Manual (part number 6709-9000) at www.MyBacharach.com for detailed instructions on accessing the internal components for wiring.



WARNING: The mains power supply cable should be of an approved type based on local regulations. Connection to the mains power supply must be made via an approved, readily-accessible, switched and fused plug and socket (or as per local wiring regulations) which should be within 19 feet (3 meters) of the sensor/transmitter.



SHIELD WIRE WARNING: Connect the shield of the power wires to the earth ground of the central control system (e.g., chassis, ground bus bar, etc.).

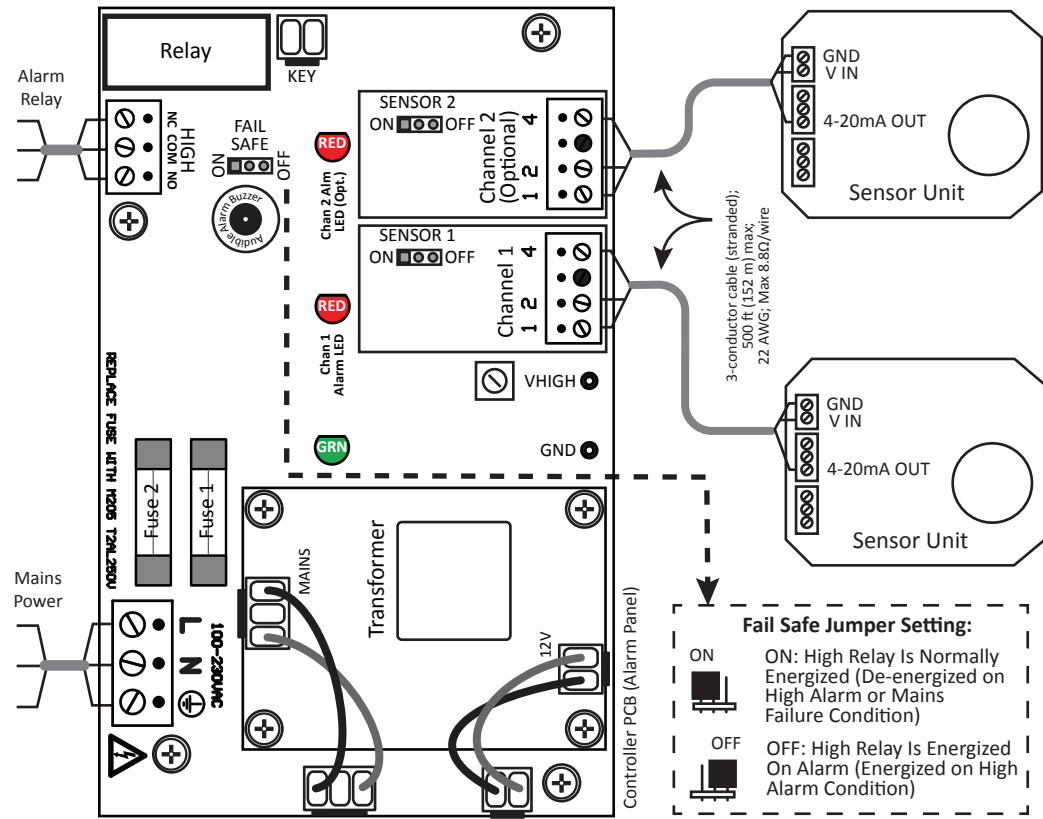
- 1: Strip 0.2 to 0.25 inches (5 to 7 mm) of wiring insulation.
- 2: Connect the wires as indicated.

Refer to the Controller manual (part number 6709-9000) at www.MyBacharach.com for additional wiring configurations.

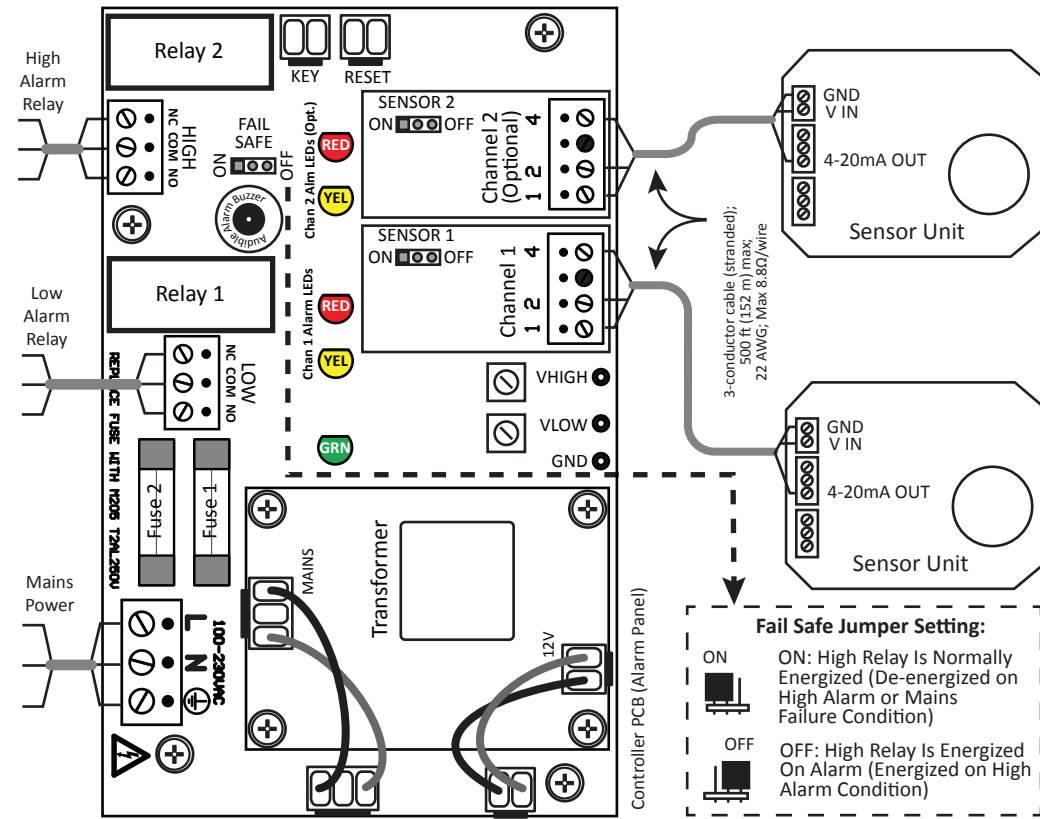


NOTE: After wiring is completed, carefully re-assemble the enclosure and its components.

2 Sensor 1 Alarm Configuration



2 Sensor 2 Alarm Configuration



Fail Safe Jumper Setting:

ON: High Relay Is Normally Energized (De-energized on High Alarm or Mains Failure Condition)

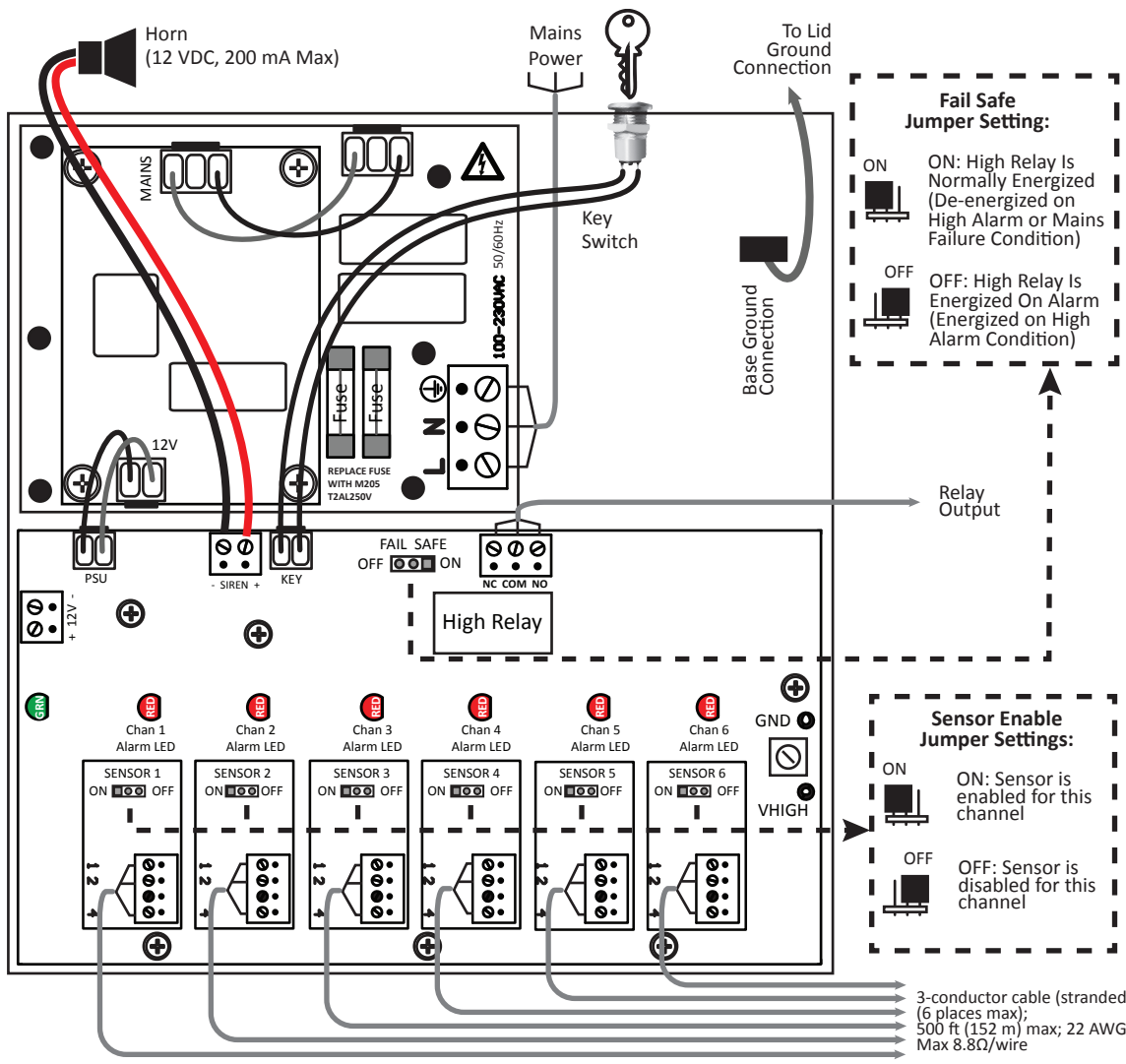
OFF: High Relay Is Energized On Alarm (Energized on High Alarm Condition)

Fail Safe Jumper Setting:

ON: High Relay Is Normally Energized (De-energized on High Alarm or Mains Failure Condition)

OFF: High Relay Is Energized On Alarm (Energized on High Alarm Condition)

6 Sensor 1 Alarm Configuration



Fail Safe Jumper Setting:

ON: High Relay Is Normally Energized (De-energized on High Alarm or Mains Failure Condition)

OFF: High Relay Is Energized On Alarm (Energized on High Alarm Condition)

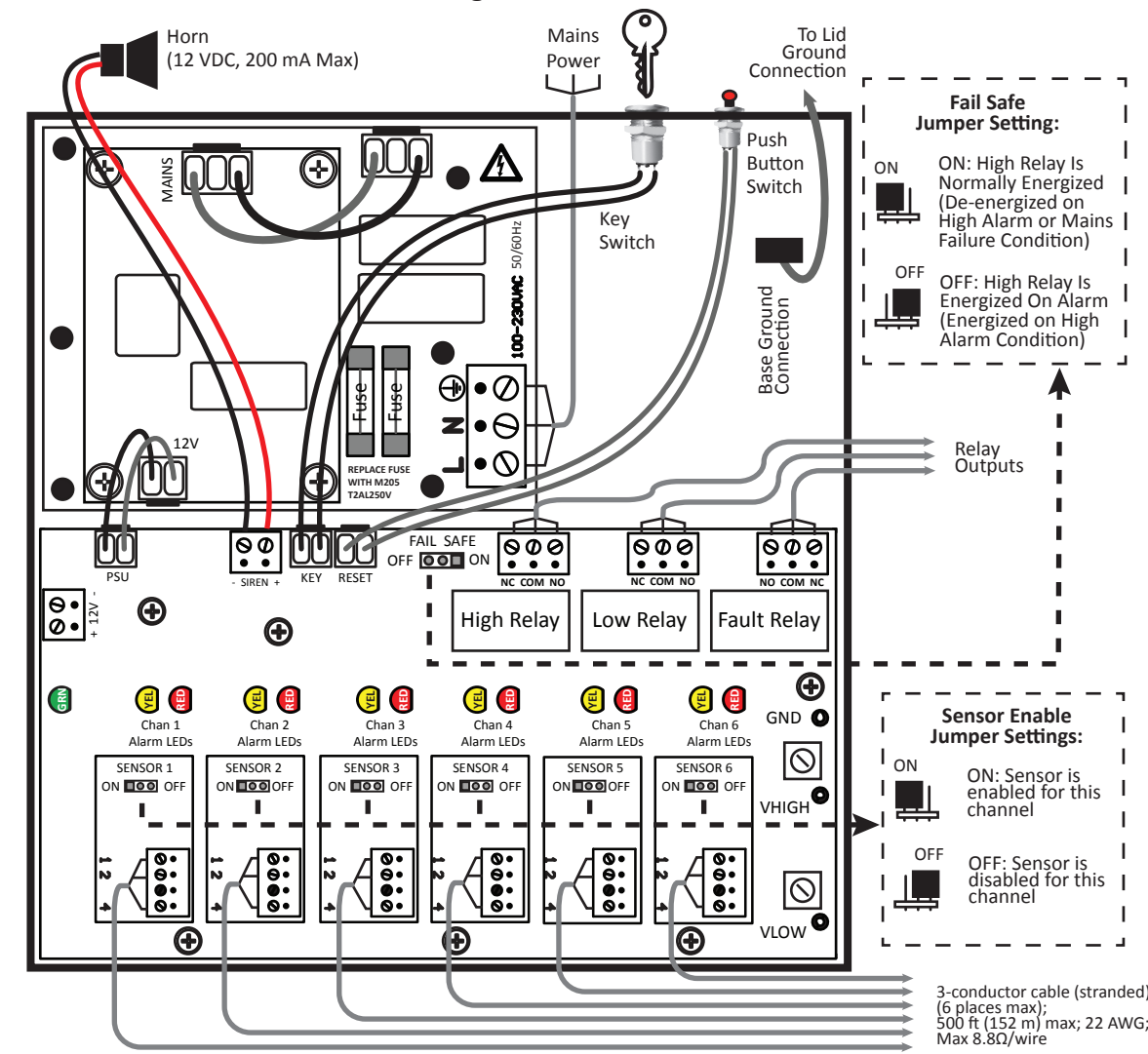
Sensor Enable Jumper Settings:

ON: Sensor is enabled for this channel

OFF: Sensor is disabled for this channel

Ensure that connections 1 to 4 on each sensor connect to their corresponding numbers on the terminal block in the main alarm unit, otherwise the system will not function correctly and could be damaged.

6 Sensor 2 Alarm Configuration



Fail Safe Jumper Setting:

ON: High Relay Is Normally Energized (De-energized on High Alarm or Mains Failure Condition)

OFF: High Relay Is Energized On Alarm (Energized on High Alarm Condition)

Sensor Enable Jumper Settings:

ON: Sensor is enabled for this channel

OFF: Sensor is disabled for this channel

Ensure that connections 1 to 4 on each sensor connect to their corresponding numbers on the terminal block in the main alarm unit, otherwise the system will not function correctly and could be damaged.