

GE-V1/V2



Installation / User's Guide

ATTENTION ELECTRICIAN
SEE WIRING DETAILS ON PAGES A-3, A-4 AND A-5
ADDITIONAL INFORMATION IN SECTION B

WIRING DIAGRAM

SECTION A

INSTALLATION

SECTION B

INDEX / WARRANTY

SECTION C

WARNINGS AND PRECAUTIONS

Although the manufacturer has made every effort to ensure the accuracy of the information contained herein, this document is subject to change without notice due to ongoing product development.

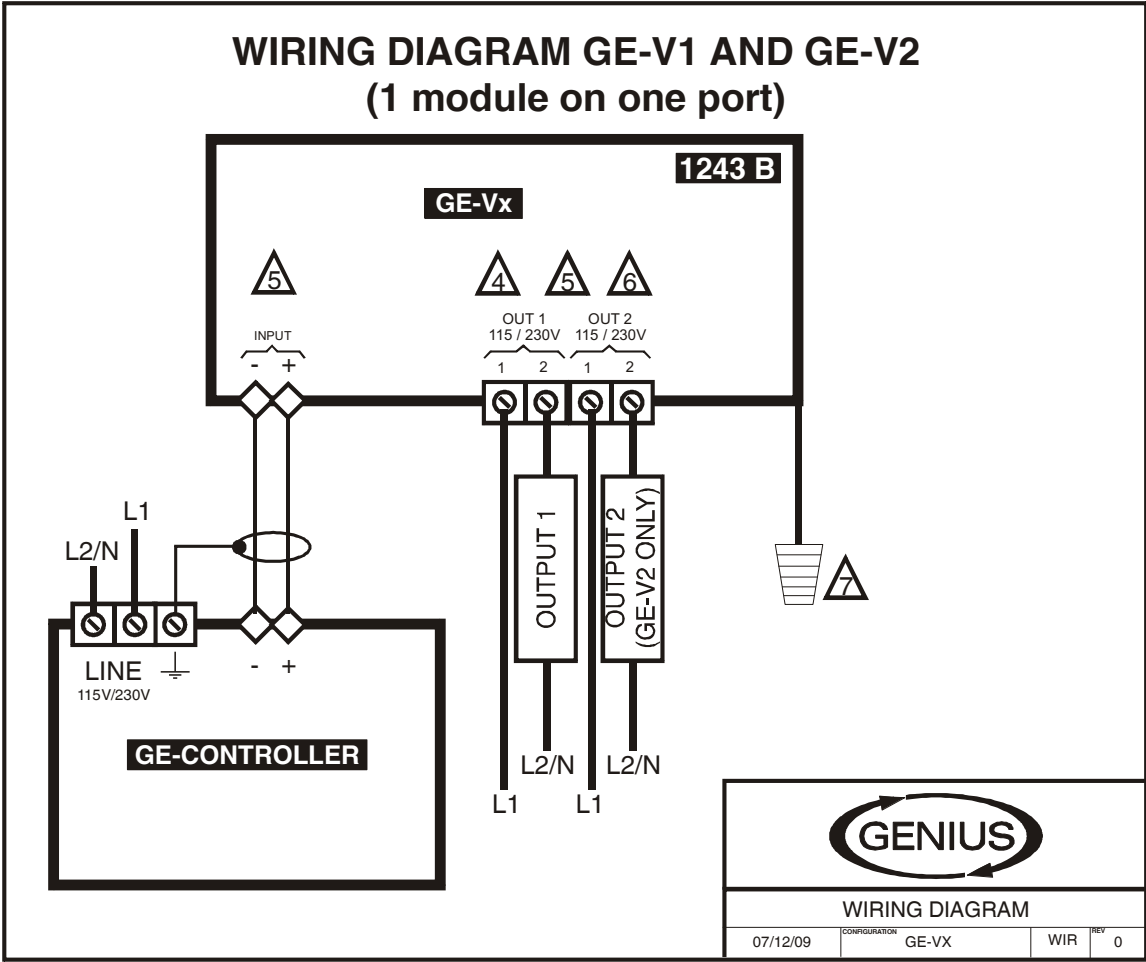
WARNINGS AND PRECAUTIONS

Equipment, blown fuses and/or tripped breakers may prove harmful to the contents of the building. Therefore, it is strongly recommended to install backup devices. Spare equipment should also be available at the owner's site. Equipment manufactured by the manufacturer is protected against normal line surges. High surges caused by thunderstorms or power supply equipment may damage this equipment. For added security against line voltage surges it is recommended that surge and noise suppression devices be installed at the electrical distribution panel. These devices are available from most electrical supply distributors. Shielded cables for probes are highly recommended for more protection against lightning. It is also prohibited to use overhead cables outside the building.

RECOMMENDATIONS

The manufacturer recommends that all installation procedures described herein be performed by a qualified electrician or installation technician. Furthermore, the manufacturer recommends testing all the functions, including the backup devices, after installation, after changes to the installation and every month after that.

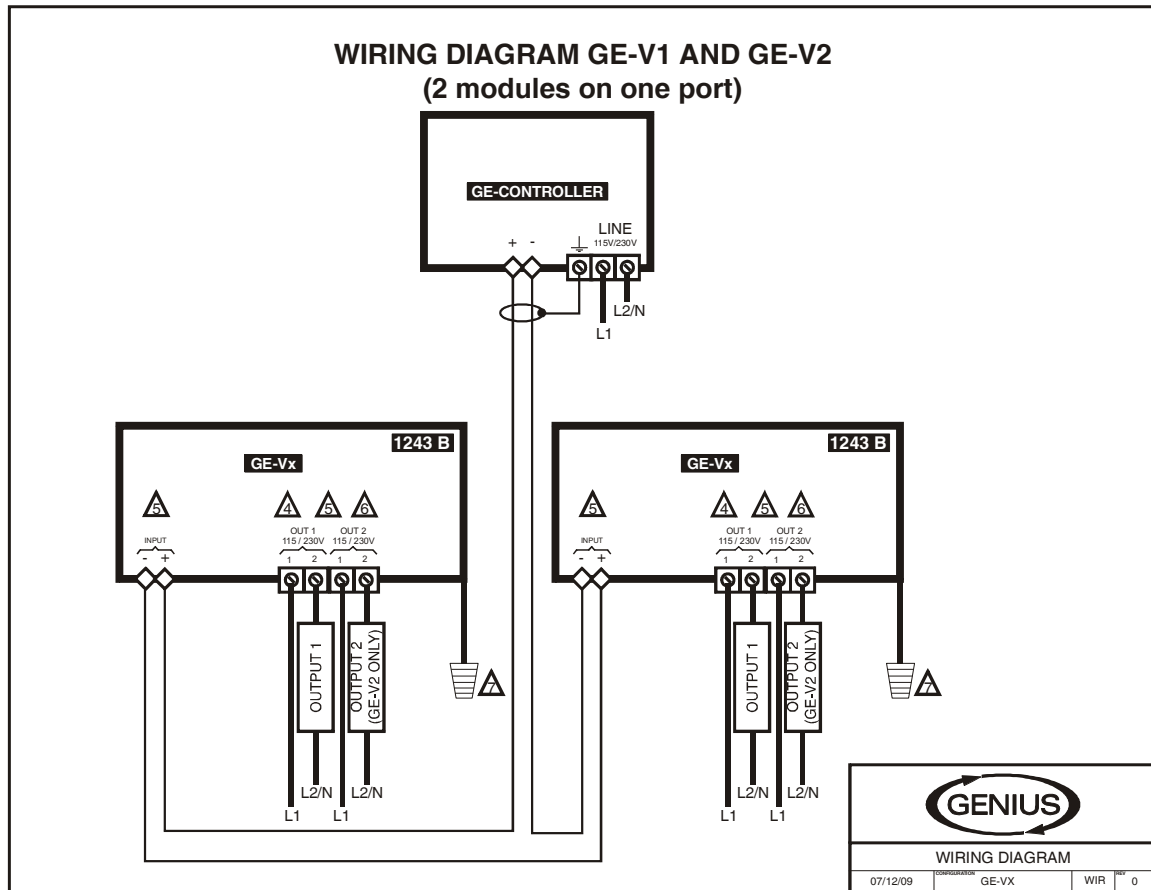
Fuse verification and replacement, as well as the proper setting of control values shall be the responsibility of the owner of this equipment.



SECTION A

GE-VX WIRING DIAGRAM

SECTION A



GE-V1 and GE-V2 Electrician's notes wiring tips and hints (see guide for details)

1 ——— SEE THE ELECTRICIAN'S NOTE OF THE MASTER CONTROL. IF NOT STATED USE: COMMUNICATION WIRING SHEILDED, TWISTED PAIR (8 TWIST/FT). MAX LENGTH FOR 350pF/M CABLE: 492FT (150M). MAX LENGTH FOR 89pF/M CABLE: 820FT (250M).

2 ————— HIGH VOLTAGE WIRE INSTALLED ACCORDING TO LOCAL WIRING CODE.

3 INSTALL LOW VOLTAGE WIRES (PROBES, COMPUTER LINK OR POTENTIOMETER WIRES) AT LEAST 12 INCHES (30cm) AWAY FROM HIGH VOLTAGE WIRES (120/230VAC, 24VDC). ALWAYS CROSS HIGH AND LOW VOLTAGE WIRES AT A 90-DEGREE ANGLE.



THE CURRENT SHALL NOT EXCEED 12.5A AT EACH OUTPUT (OUT 1-2) FOR A RESISTIVE LOAD. FOR AN INDUCTIVE LOAD, THE CURRENT SHALL NOT EXCEED 10A AT EACH OUTPUT (OUT 1-2).



1 WIRE ONLY PER GREEN TERMINAL. USE WIRE CONNECTOR IF YOU WANT TO CONNECT MORE THAN 1 WIRE.



THESE MODULES MUST BE ON SAME POWER PHASE AND LINE VOLTAGE AS THE BOARD TO WHICH IT IS CONNECTED TO.



USE THE WIRE CONNECTOR TO CONNECT THE GROUND WIRE TO THE GROUND OF THE ELECTRICAL INSTALLATION.

INSTALLATION GE-V1 and GE-V2 SECTION B

This section will inform the electrician on proper wiring and installation procedures for the GE-VX.

The manufacturer recommends that the following installation instructions be followed to as closely as possible, and that all work be performed by a certified electrician. Failure to do so may void the warranty.

Unpacking

Unpack the GE-VX and inspect contents for damage. Should the contents appear to be damaged, contact your local distributor to return the material.

The package should contain the following standard items:

- 1 GE-V1 or GE-V2 module
- 4 Bracket / 4 screws
- 1 Spare fuses
- 1 Installation / User's Guide

Mounting Hardware Required

This is the list of the mounting hardware needed, which is not included with the product:

- Shielded two-wire low capacitance cable, AWG #22 (used for communication), see the electrician notes for the capacitance selection.
- 4 screws (to hang the unit onto the wall)
- Screwdrivers
- Soldering iron kit or approved sealed connectors

General installation guidelines

GE-V1 or GE-V2 Module

- It is recommended to install the module unit in a hallway to limit the GE-VX exposure to noxious gases.
- In order to avoid condensation problems inside the module, it is recommended to install the GE-VX on an inside wall. If it is not possible, use spacers to have an air gap between the wall and the GE-VX.
- It is required to install the GE-VX right side up with the cable entry holes facing down.
- The enclosure is watertight, but do not spray water or submerge the GE-VX in water. Cover it carefully with plastic when cleaning the room.
- The GE-VX should be installed in easy-access location but away from damaging elements (heat, cold, water, direct sunlight, ...).
- Do not drill the face, the side, the top or the underside of the control.
- Do not install the GE-VX module near high-voltage equipment, power supply or transformer.

Electrical Cables

- All electrical cables must be installed according to local wiring codes.
- All cable shields must be connected to the main control only. Do not connect it to the GE-VX. The shield is needed to protect the modules against any electromagnetic interference generated by lightning or nearby operating machinery.
- Never use the shield as a conductor.
- Use separate conduits for the low voltage cables (communication) and the high voltage cables. There must be at least 1 foot (30 cm) between low-voltage and high-voltage conduits.
- If a low voltage cable has to cross over a high voltage cable, make this crossing at 90°.
- All cable connections must be soldered or done with approved sealed connectors.
- See main control manual for cable length.
- It is prohibited to use overhead cables outside the building.
- Use the wire connector to connect the ground wire to the ground of the electrical installation.

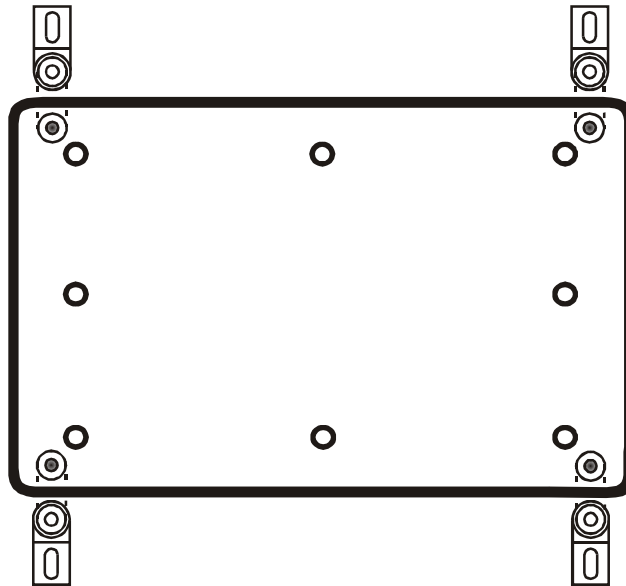
Electrical Power

- Protection from electrical surges should be included in the planning of each installation.
- Every module should have a separate breaker to avoid possible problem.
- This module requires the same phase and voltage as the board to which it is connected to (GE Control, Var Board (X1204), etc.).

Mounting

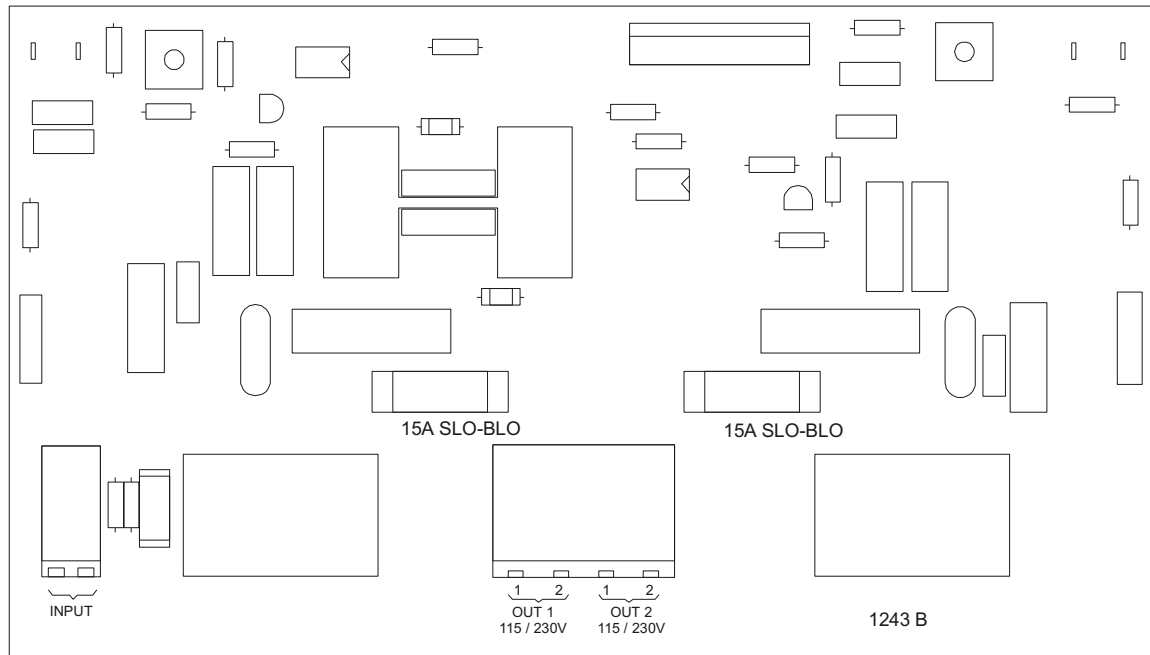
- The enclosure must be mounted in a location that will allow the cover to be completely opened right up against the wall.
- Fasten the four brackets to the four mounting holes on the back of the enclosure, using the four screws provided with the brackets.
- Then mount the enclosure on the wall by inserting screws through the brackets' adjustment slots, into the wall. Make sure to position the enclosure so that all wires extend out of the bottom section of the enclosure.
- The bracket slots also serve to adjust the position of the GE-VX.
- Once you have adjusted the controller position, tighten the four mounting screws.

FIGURE NO. 1 Mounting Position and Devices



Layout Board

FIGURE NO. 2 GE-V2 and GE-V1 Electronic module Board



Connection Procedure

Detailed Wiring Diagrams

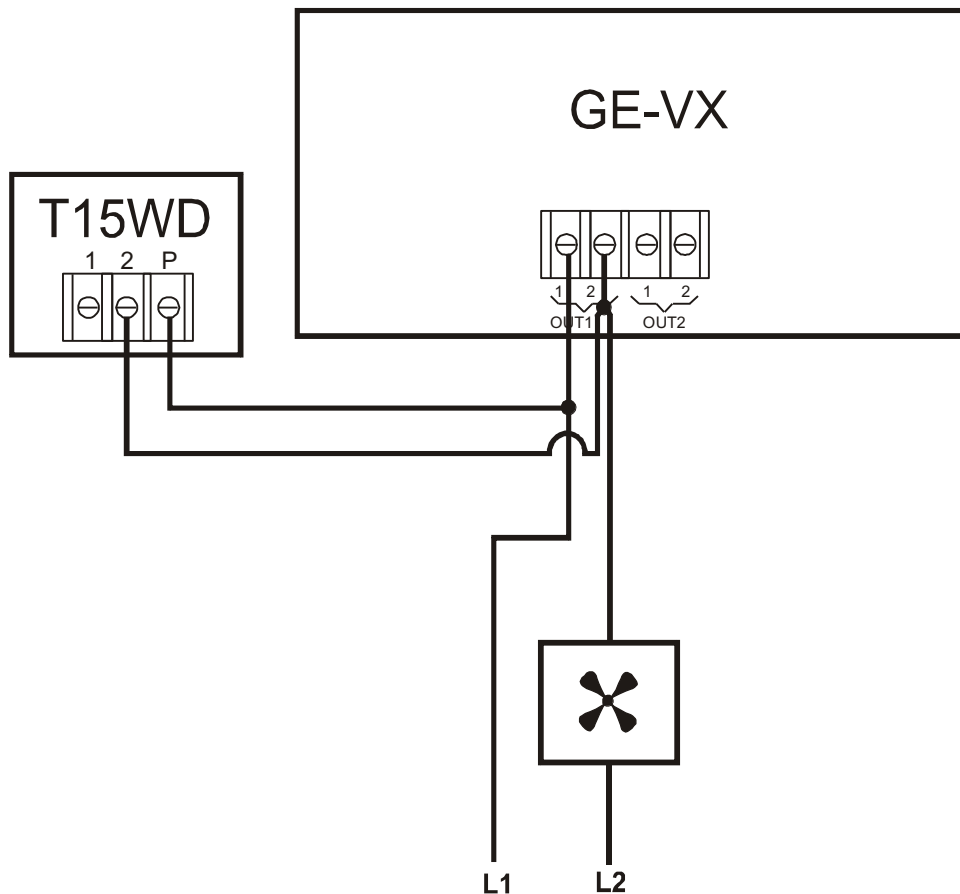
Communication Port Connection

Connect the GE-VX positive communication port terminal block with the module positive communication port terminal block. Connect the GE-VX negative communication port terminal block with the module negative communication port terminal block.

Typical Thermostat Backup Wiring

If the GE-VX Module fails, the backup thermostats will activate the dedicated fan as soon as temperature reaches the set point of the thermostat. The thermostat must be accessible for adjustment and must be set at 3 to 5 degrees above the fan's set point.

FIGURE NO. 3 Typical Thermostat Backup Wiring on variable stage



Powering Up Procedure

Verify all Connections

Once the GE-VX is properly mounted on the wall and all modules to the terminal block, perform the following steps:

- Ensure the flat cable between the bottom electronic board and the faceplate electronic board is properly connected.
- Seal all cable entry holes.

Hermetically Close the GE-VX

Close the front panel and the lower access cover.

Put the power on

Secure the front panel with a lock

Specifications

Module GE-V1 and GE-V2

DESCRIPTION	VALUE
Storage temperature	-4°F to 131°F (-20°C to 55°C)
Operating temperature	32°F to 122°F (0°C to 50°C)
Humidity	90% maximum Non-condensing
Weight	2 lb (0.9Kg)
Size	12 1/4" x 11" x 4 3/4" (32 cm x 28.8 cm x 11.5 cm)
Norms	CSA (NRTL/C)
Protection index	IP 54 (dust and splashing water)
Warranty	2 years
VARIABLE OUTPUT	
Fuse for output 1 and 2	15 A @ 250 VAC
Maximum load for output 1 and 2	The current shall not exceed 12.5A at each output (OUT 1-2) for a resistive load. For an inductive load, the current shall not exceed 10A at each output (OUT 1-2).

Important Notice.

- Low-voltage and high-voltage wire must be passed through different conduits at least 1 foot (30 cm) apart. If low-voltage and high-voltage conduits must be crossed, the crossing must be at a 90-degree angle.
- All wiring must be made by a certified electrician and conform to local electrical regulations.

**INDEX /
WARRANTY
GE-V1 and GE-V2
SECTION C**

TABLE OF CONTENTS

	Section A
WARNINGS AND PRECAUTIONS	2
Wiring Diagram GE-V1 and GE-V2 (1 module on one port)	3
Wiring Diagram GE-V1 and GE-V2 (2 modules on one port)	4
Electrician's notes	5

TABLE OF CONTENTS

	Section B
Unpacking	7
Mounting Hardware Required	7
General installation guidelines.....	7
GE-V1 or GE-V2 Module	7
Electrical Cables.....	8
Electrical Power	8
Mounting.....	9
Layout Board	10
Connection Procedure	11
Detailed Wiring Diagrams.....	11
Communication Port Connection	11
Typical Thermostat Backup Wiring	11
Powering Up Procedure	12
Verify all Connections.....	12
Hermetically Close the GE-VX.....	12
Put the power on.....	12
Secure the front panel with a lock	12
Specifications	12

TABLE OF FIGURES

	Section B
FIGURE NO. 1 Mounting Position and Devices	9
FIGURE NO. 2 GE-V2 and GE-V1 Electronic module Board	10
FIGURE NO. 3 Typical Thermostat Backup Wiring on variable stage	11

TABLE OF CONTENTS

	Section C
Limited Warranty	16

Limited Warranty

The manufactured equipment and supplied components have gone through rigorous inspection to assure optimal quality of product and reliability. Individual controls are factory tested under load, however the possibility of equipment failure and/or malfunction may still exist.

For service, contact your local retailer or supplier. The warranty period shall be for two years from manufacturing date. Proof of purchase is required for warranty validation.

In all cases, the warranty shall apply only to defects in workmanship and specifically exclude any damage caused by over-voltage, short circuit, misuse, acts of vandalism, lightning, fortuitous events, acts of God, flood, fire, hail or any other natural disaster. Any unauthorized work, modification or repair on this product automatically voids the warranty and disclaims the manufacturer from all responsibility.

The manufacturer assumes only those obligations set forth herein, excluding all other warranties or obligations. This warranty stipulates that in all cases the manufacturer shall be liable only for the supply of replacement parts or goods and shall not be liable for any personal injury, damages, loss of profits, interrupted operations, fines for infringement of the law or damages to the production of the PURCHASER and the PURCHASER shall take up the defense and hold the manufacturer faultless regarding any legal or extra legal proceedings, notice, or claim by the customer or by a third party, and regarding any legal and extra legal expenses and fees brought forward on by such damages.

GE-V1 GE-V2 VER:1.3
March 21, 2022