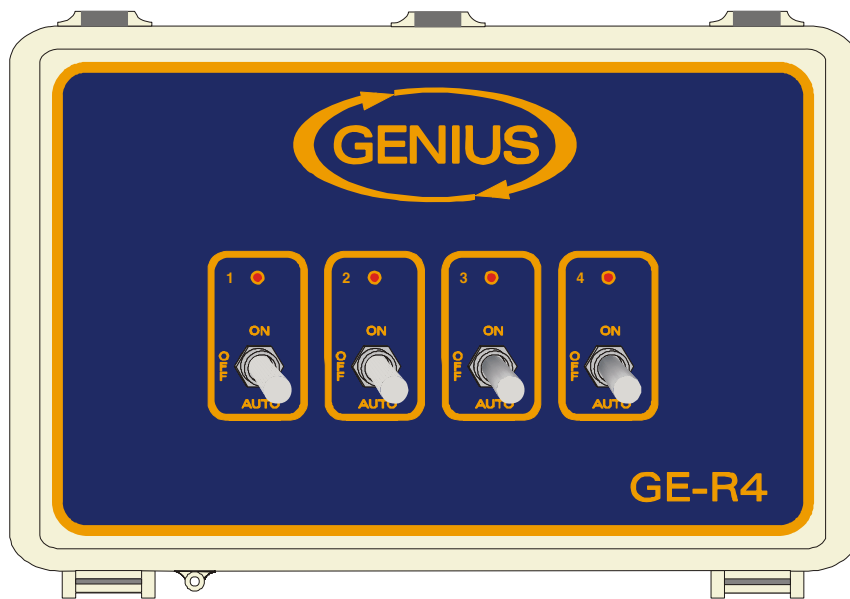


# GE-R4 MANUAL

WIRING DIAGRAM

SECTION A



INSTALLATION

SECTION B

INDEX / WARRANTY

SECTION C

## Installation / User's Guide

**ATTENTION ELECTRICIAN**  
SEE WIRING DETAILS ON PAGES A-3  
ADDITIONAL INFORMATION IN SECTION B

## 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.

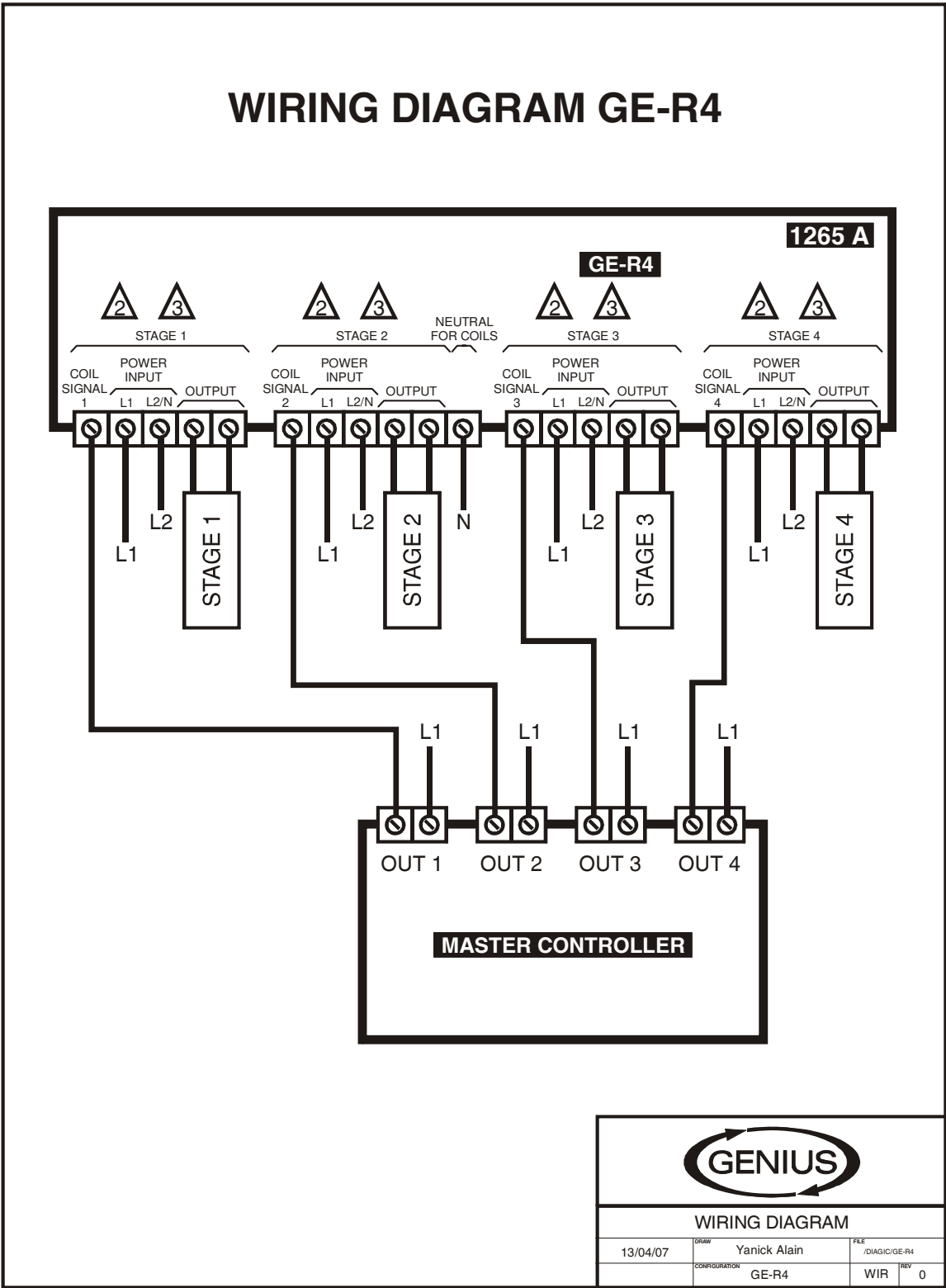
### WARNINGS AND PRECAUTIONS

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 thunder storms 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.

### RECOMMENDATIONS

The manufacturer recommends that all installation procedures described herein be performed by a qualified electrician or installation technician. Further more the manufacturer recommends to test 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.



## GE-R4 WIRING DIAGRAM

### GE-R4 Electrician's notes wiring tips and hints (see guide for details)

1



HIGH VOLTAGE WIRE INSTALLED ACCORDING TO LOCAL WIRING CODE.

2



THE CURRENT SHALL NOT EXCEED 25A, 3HP AT EACH OUTPUT (OUT).

3



MAXIMUM 2 WIRES OF SAME SIZE PER BLACK TERMINAL, NO BIGGER THAN AWG #12, NO SMALLER THAN AWG #22.

## GE-R4 INSTALLATION

This section will inform the electrician on proper wiring and installation procedures for the GE-R4.

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.

### Description

The GE-R4 is designed to drive four stages of up to 25A under the control of a master control system resulting in a clean air environment for your livestock.

It provides you with automated control over its four stages via the use of the master control or alternatively by manual switch.

It will also keep you constantly informed of its four stages via LED indications. As the LED will be lighted when the output is activated.

### Unpacking

Unpack the GE-R4 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-R4 module
- 4 Bracket / 4 screws
- 1 Spare fuse
- 1 Installation / User's Guide

### Mounting Hardware Required

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

- 4 screws (to hang the unit onto the wall)
- Screwdrivers
- Soldering iron kit or approved sealed connectors

### General installation guidelines

#### GE-R4 Module

- It is recommended to install the module unit in a hallway to limit the GE-R4 exposure to noxious gases.
- In order to avoid condensation problems inside the module, it is recommended to install the GE-R4 on an inside wall. If it is not possible, use spacers to have an air gap between the wall and the GE-R4.
- It is required to install the GE-R4 right side up with the cable entry holes facing down.
- The enclosure is watertight, but do not spray water or submerge the GE-R4 in water. Cover it carefully with plastic when cleaning the room.
- The GE-R4 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-R4 module near high-voltage equipment, power supply or transformer.

#### Electrical Cables

- All electrical cables must be installed according to local wiring codes.
- Use separate conduits for the low voltage cables (communication) and the high voltage cables. There must be at least 30 cm (1 foot) 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°.
- It is prohibited to use overhead cables outside the building.

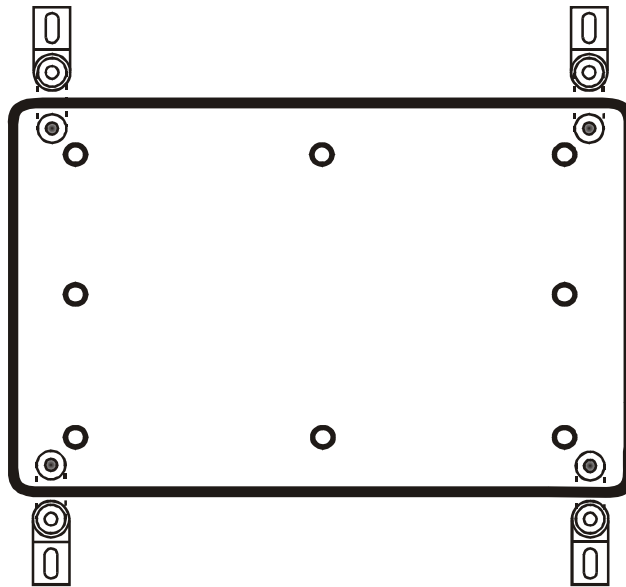
#### Electrical Power

- Protection from electrical surges should be included in the planning of each installation.
- Every module should have a separate breaker to avoid possible problem.

## 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 controller.
- Once you have adjusted the controller position, tighten the four mounting screws. (see figure 1).

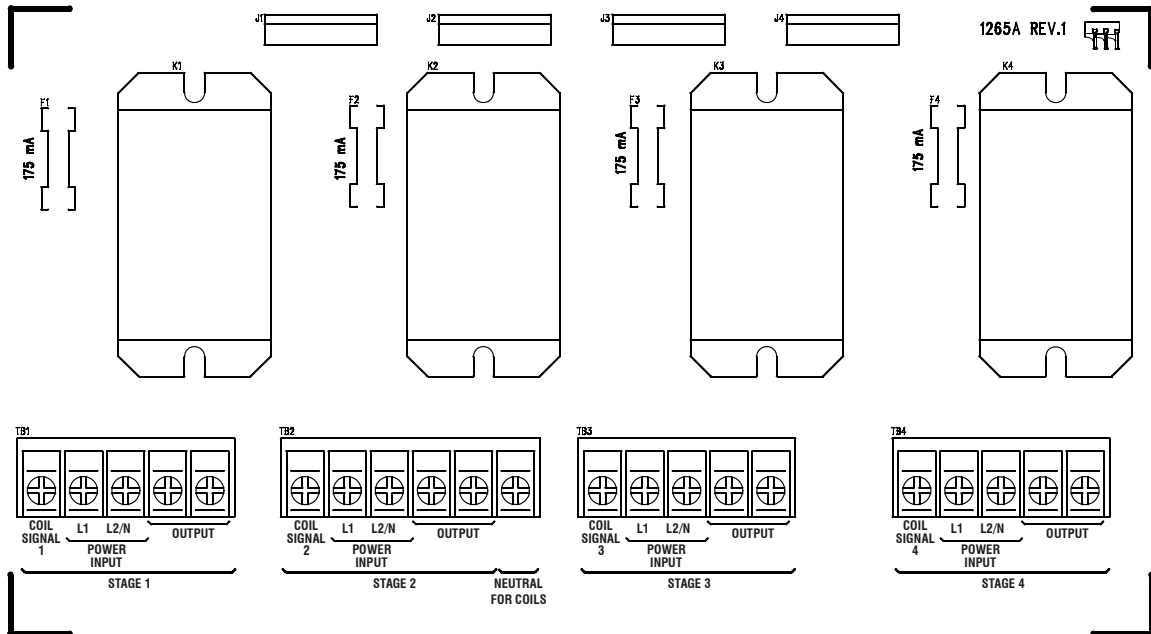
FIGURE NO. 1 Mounting Position and Devices



# GE-R4 INSTALLATION

## Layout Board

FIGURE NO. 2 GE-R4 Electronic module Board



SECTION B



## Powering Up Procedure

### Verify all Connections

Once the GE-R4 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-R4

Close the front panel and the lower access cover.

### Put the power on

### Secure the front panel with a lock

### Using the toggle switches

The toggle switches permit the stage to be set in one of three modes as follows:

- OFF**      To turn the stages permanently off, set the toggle switches to the OFF position.
- ON**        To turn the stages continually on, set the toggles switches to the ON position.
- AUTO**     To allow the stages to operate under the master control, set the toggles switches to the AUTO position.

### Output LED

The output LED indicates if power is present at the stage output either in auto or manual mode.

### Changing fuse

The fuse protects the relay coil from any surge or over voltage. **Remove stage input power and coil signal power before changing a fuse.**

### Troubleshooting

Set the toggle switches on the GE-R4 to ON.

Are the outputs operating?

If not, verify the power connections to the GE-R4, fuses and connections to the outputs (i.e. Fans).

## GE-R4 INSTALLATION

### Specifications

Module GE-R4

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 lbs. (0.9Kg)
Size	11" x 17" x 5.5" (27.9 cm x 43.2 cm x 14 cm)
Norms	CSA (NRTL/C)
Protection index	IP 54 (dust and splashing water)
Warranty	2 years
<b>RELAY OUTPUT</b>	
Maximum Load For Stages 1 -4	1HP @ 120VAC, 3HP @ 240VAC, 25A @ 250VAC resistive

#### 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.

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## 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.

MAG GE-R4 VER:1.0  
April 17, 2007