

# **MICRO GROW**

## **GREENHOUSE SYSTEMS, INC**

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Revision 1.4  
04-19-04

**Automated Alarm System  
And Dialer**

# AUTOMATED GREENHOUSE ALARM SYSTEM AND TELEPHONE DIALER

## INSTALLATION, TELEPHONE WIRING.

1. Contact your local telephone company. Inform them that you will be installing an automated alarm dialer. They will have to install a special alarm jack at the site of the dialer location. The jack must be a line seizure type RJ31X specialty jack.
2. Have the telephone installer follow the enclosed manual for the Delta Vox alarm dialer.

## INSTALLATION, ALARM SENSORS.

1. The Greenhouse Alarm System has two separate channels. The first channel is for high or low temperatures. This channel may be connected to an unlimited number of temperature sensors. The second channel is for power outage. The control will detect a power loss internally; no other connections are required for the power outage sensor other than the system transformer.
2. Locate one set of high and low temperature sensors in each range to be monitored. The sensors will connect to each other by means of the common and normally closed terminals for each condition.

Example:

High Temperature will use.....Common, Open on Rise

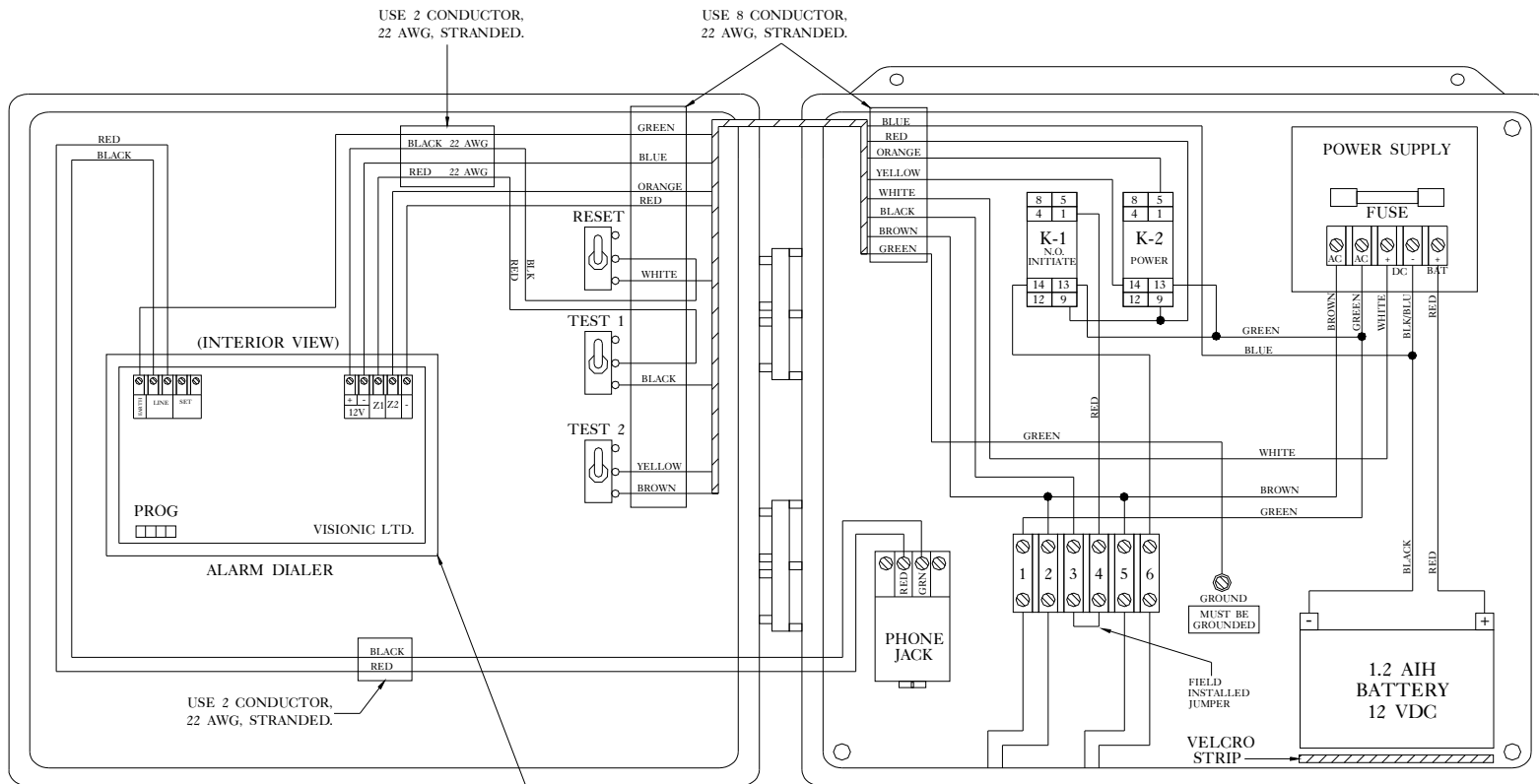
Low Temperature will use.....Common, Open on Drop

3. A continuous loop must join all of the sensors in use. Opening the loop at any temperature sensor must activate the alarm system.
4. Set the temperature sensors at realistic alarm level for high and low temperature setting to avoid unwanted calls.

**Temperature Sensor Notes:** Do not locate the high temperature sensor directly in the sun, as this will cause false high readings. If a shaded area is unavailable in the greenhouse range, shade the bulb with a PVC pipe or similar material. Locate both temperature sensors in the center of the greenhouse range to be controlled. Make sure that the sensors are out of direct moisture contact to avoid false readings.

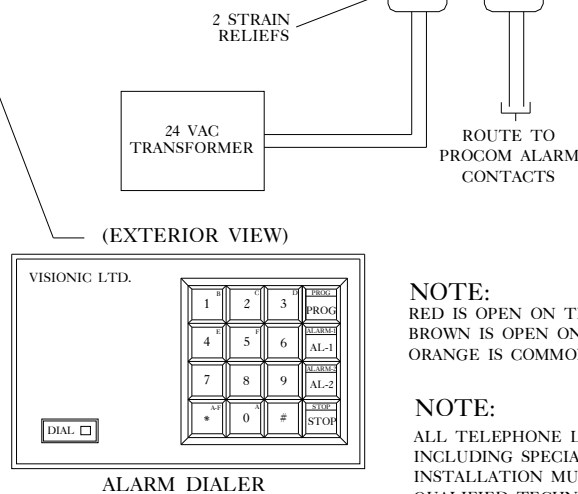
## SYSTEM OPERATION

1. Check each sensor by itself initially by turning the sensor up or down accordingly to verify that the alarm is triggered.
2. Check power outage channel by disconnecting the transformer momentarily. Reconnect for normal operation.
3. SYSTEM MUST BE CHECKED MONTHLY FOR CORRECT OPERATION.



**NOTE:**

1. SYSTEM MUST BE TESTED INITIALLY FOR CORRECT OPERATIONS ON BOTH CHANNELS. VERIFY THAT ALL NUMBERS ARE CALLED IN THE CORRECT ORDER. VERIFY THAT ALL PARTIES CALLED RECEIVED THE CORRECT MESSAGE.
2. MOUNT THE ALARM PANEL IN A VIBRATION-FREE ENVIRONMENT.
3. ALL CONNECTIONS TO THE ENCLOSURE MUST BE MADE USING WEATHERPROOF METHODS.
4. FOLLOW THE ENCLOSED INSTRUCTIONS FROM THE MANUFACTURER OF THE DIGITAL DIALER PANEL FOR CORRECT CONNECTION TO THE PHONE SYSTEM AND OPERATION.
5. ALARM SYSTEM MUST BE CHECKED MONTHLY! ONCE THE ALARM MESSAGE IS RECEIVED, THE SYSTEM MAY BE RESET SO AS NOT TO CONTINUE CALLING THE SECOND NUMBER. CONSULT THE DIGITAL DIALER PANEL INSTRUCTION SHEET FOR DETAILS.
6. FOR APPLICATIONS WITH MULTIPLE ZONES, INSTALL ADDITIONAL SETS OF HIGH AND LOW SENSORS, JUMPERED IN THE SAME LOOP.



**NOTE:**

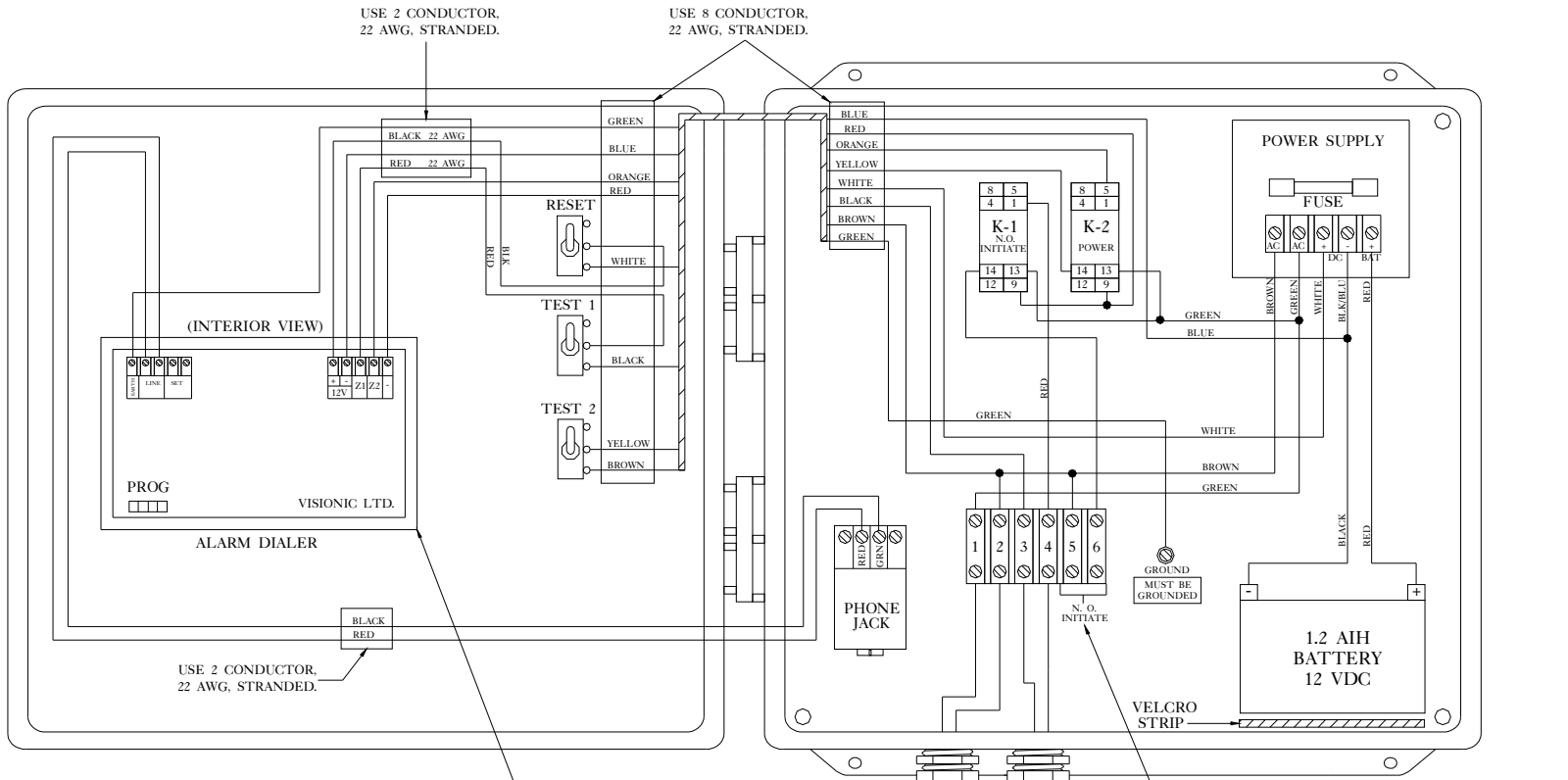
RED IS OPEN ON TEMPERATURE DROP.  
BROWN IS OPEN ON TEMPERATURE RISE.  
ORANGE IS COMMON.

**NOTE:**

ALL TELEPHONE LINE CONNECTIONS, INCLUDING SPECIAL RJ31X JACK INSTALLATION MUST BE DONE BY A QUALIFIED TECHNICIAN. RJ31X MUST BE INSTALLED BY PHONE COMPANY WITH LINE SEIZURE.

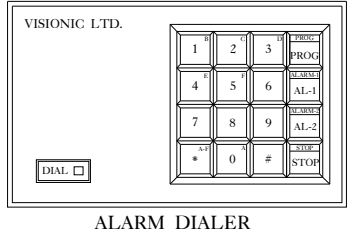
Project **ALARM DIALER FOR PROCOM**  
 Order ID **XXXX**  
 Distributor **XXXX**  
 Date **3/3/06**  
 Drawn by **CE**

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IF N.O. INITIATE IS USED, JUMPER MUST BE FIELD INSTALLED BETWEEN 3 AND 4

## **LIMITED WARRANTY**

Micro Grow Greenhouse Systems, Inc. warrants that all of the products Micro Grow Greenhouse Systems, Inc. manufactures are free from defects at the time of shipment by Micro Grow Greenhouse Systems, Inc. This warranty covers defects in workmanship and materials. No warranty is extended on any parts, materials, or components manufactured by others and purchased by Micro Grow Greenhouse Systems, Inc., and any warranty on these materials is limited to the warranty supplied by the original manufacturer or supplier of said products only. This warranty excludes any and all damages cause by installation by unqualified individuals, damage by misuse or neglect, shipment damage, alterations to original manufacturing, and improper installation or use for any reason than intended by manufacturer. This warranty may not be altered in any manner except with the written authorization of one the officers or owners of Micro Grow Greenhouse Systems, Inc. The only and sole liability of Micro Grow Greenhouse Systems, Inc. under this warranty is limited to repairing, replacing or the issuance of credit for any products returned to Micro Grow Greenhouse Systems, Inc., during the warranty period of twelve (12) months from date of shipment. This warranty is specifically conditioned upon Micro Grow Greenhouse Systems, Inc. being notified in writing promptly upon discovery of any product defects by the buyer or end user. The product must then be returned prepaid to Micro Grow Greenhouse Systems, Inc. within the twelve month warranty period for inspection by Micro Grow Greenhouse Systems, Inc. Upon inspection of said product, Micro Grow Greenhouse Systems, Inc. will notify buyer or end user of its findings. At Micro Grow Greenhouse Systems, Inc. sole discretion, the product will be replaced, repaired or a credit will be issued for the original sale price of the product, provided that damage has not occurred due to misuse, neglect, improper use or installation as outlined above, shipping damages or accident.

**MICRO GROW GREENHOUSE SYSTEMS, INC. SHALL NOT BE LIABLE FOR ANY DAMAGES BEYOND THE ACTUAL ORIGINAL COST OF THEIR PRODUCT EITHER DIRECTLY OR INDIRECTLY ARISING FROM DEFECTIVE PRODUCTS OR WORKMANSHIP.**