

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

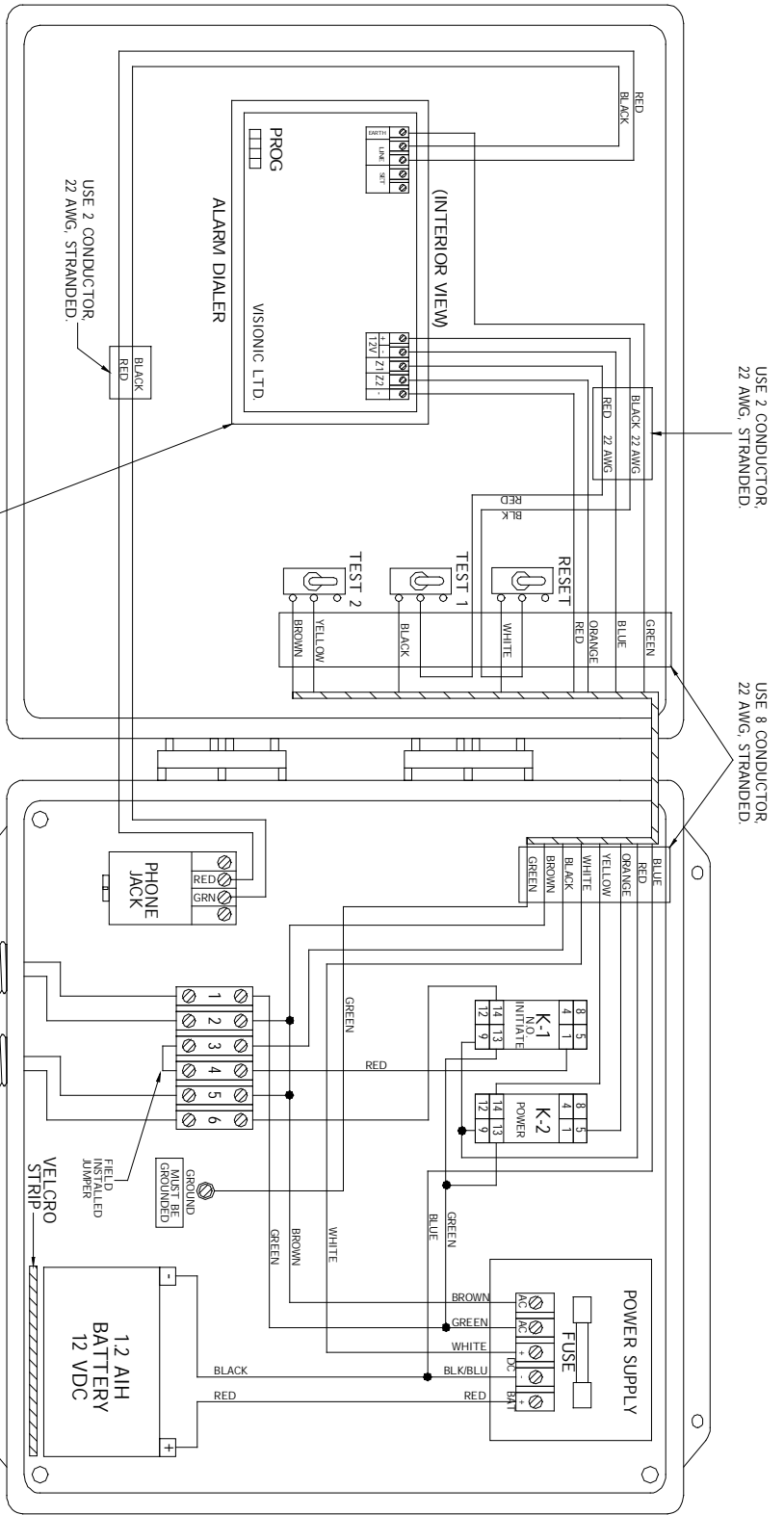
Low Temperature will use.....Common, Open on Drop

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

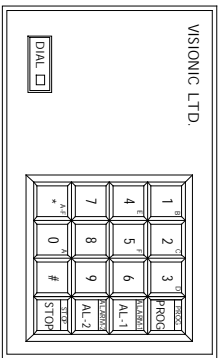
1. Check each sensor by itself initially by turning the sensor up or down accordingly to verify that the alarm is triggered.
2. Check power outage channel by disconnecting the transformer momentarily. Reconnect for normal operation.
3. SYSTEM MUST BE CHECKED MONTHLY FOR CORRECT OPERATION.



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 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 INSTRUCTION SHEET FOR DETAILS.
6. FOR APPLICATIONS WITH MULTIPLE ZONES, INSTALL ADDITIONAL SETS OF HIGH AND LOW SENSORS, JUMPERED IN THE SAME LOOP.

(EXTERIOR VIEW)



ROUTE TO PROCOM ALARM CONTACTS

NOTE:

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

NOTE:

ALL TELEPHONE LINE CONNECTIONS INCLUDING SPECIAL R31X JACK INSTALLATION MUST BE DONE BY A QUALIFIED TECHNICIAN. R31X MUST BE INSTALLED BY PHONE COMPANY WITH LINE SEIZURE.

Project **ALARM DIALER FOR PROCOM**

Drawn by **CE**

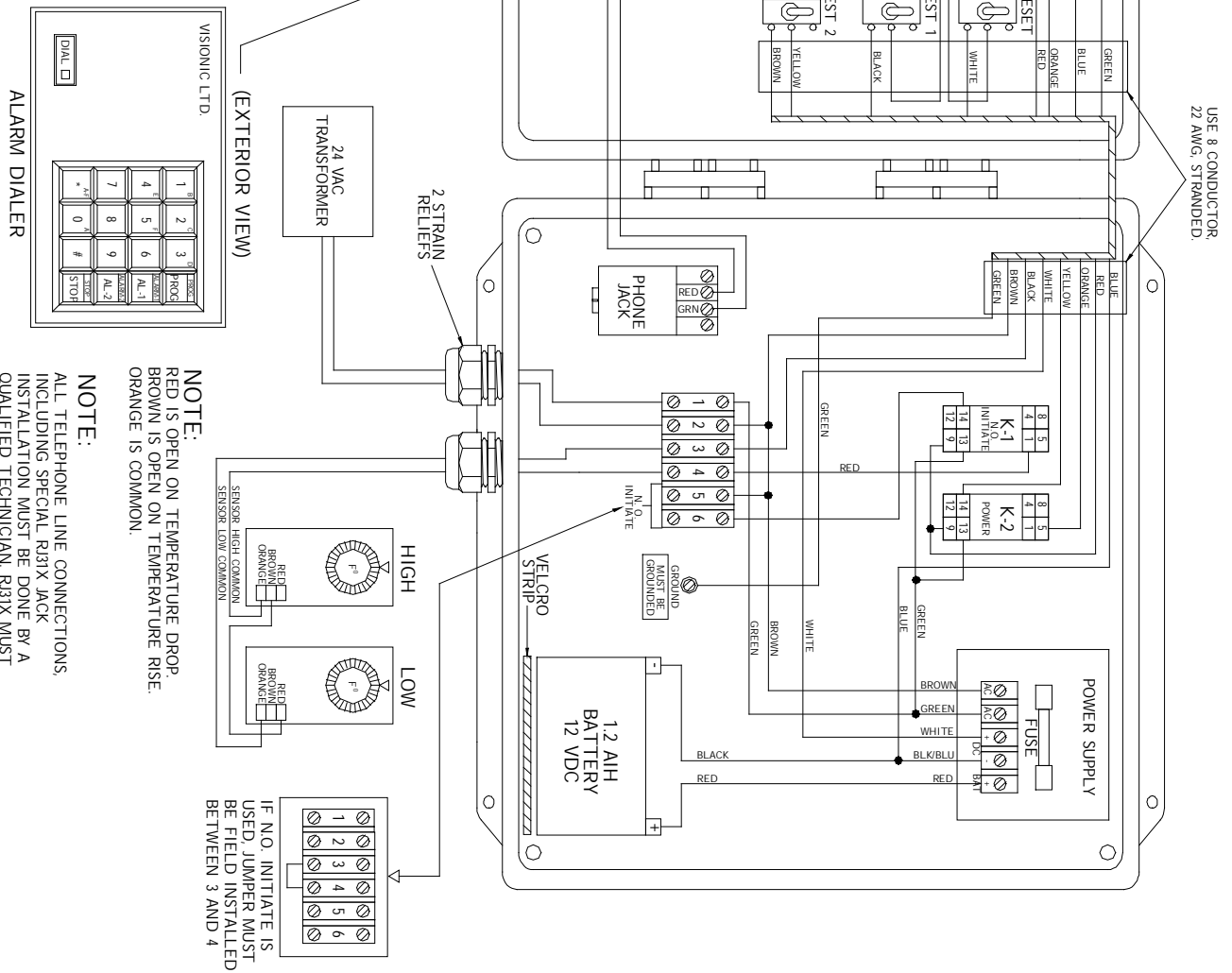
Date **3/3/06**

Distributor **XXXX**

Order ID **XXXX**

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 4. FOLLOW THE ENCLOSED INSTRUCTIONS FROM THE MANUFACTURER OF THE DIGITAL DIALER PANEL FOR CORRECT CONNECTION TO THE PHONE SYSTEM AND OPERATION.
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 6. FOR APPLICATIONS WITH MULTIPLE ZONES, INSTALL ADDITIONAL SETS OF HIGH AND LOW SENSORS, JUMPERED IN THE SAME LOOP.



Project				
STAND ALONE ALARM DIALER				
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LIMITED WARRANTY

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