HIRED-HAND®

Farm Hand Back Up System

Temperature Controller

Hired Hand, Inc.
1733 Co Rd 68
PO Box 99
Bremen, AL 35033

Ratings and specifications

- 115/230 Volts (Depending on switch position.)
- 50/60 Hz.
- 12 Amps per stage.
- Room must be kept above 32°F/0°C.

Warnings

Warning!

When this controller is used in a life support heating and ventilation system where failure could result in loss or injury, the user should provide adequate back-up, or accept the risk of such loss or injury!

Limited Warranty

All products are warranted to be free from defects in material and workmanship for a period of one year from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturers option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.
This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)
This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

Warrantor:

Hired-Hand, Inc.
1733 Co. Rd. 68
PO Box 99
Bremen, AL 35033

1. Install

1.1 Unpacking Components

Unpack system, and check that components are present. Locate required tools.

1	Farm Hand Back UpTemperature Controller	Tools Required:
1	Installation Kit	Mini Screwdriver
1	Temperature Sensor	Wire Strippers
1	Manual	Standard Screwdriver

1.2 Installation Instructions

1. Hang Farm Hand Back Up with four screws and the plastic mounting brackets included.
2. Make sure all power supplies are disconnected before breaking any wires, or reaching into the enclosure.
3. Open the Farm Hand Back Up and locate sensor connections. Refer to Wiring Diagrams, Schematics, etc.
4. Run sensors out to locations inside the house. Be sure that the sensors are in a safe location, free from any extreme temperature influences (direct sunlight, water, etc.) Use care when securing sensor wires so that you do not cut the wire. Any short or break in the wire will cause improper sensor operation.
5. Connect each sensor to its appropriate terminals inside the enclosure. See Section 2.
6. Connect wires from stage terminals to a relay box or directly to equipment. See Sections 9.1 and 9.2.
7. RECHECK THE POSITION OF THE VOLTAGE SELECTOR SWITCH. Connect the wires for 115v/230v power to the terminals specified in the Wiring Diagram.
8. Close the Farm Hand Back Up and tighten the two screws in the lid to secure the unit shut.

1.3 Checklist For Setting Up Control Of House Temperature

Please read and follow the Installation instructions on the following pages. Refer to the following checklist as an aid in setting the Farm Hand Back Up controllers.

1. Physically install the controller, temperature sensors, and wires leading from the output stages to cooling and/or heat equipment or to a control panel.	Refer to Section 1, Install Refer to Section 2, Wire Stages Refer to Section 3, Adjust Switches
2. Set internal switches according to your requirements and line power. Make sure to set voltage switch to 115v or 230v whichever is required. Set Heat/Cooling Stage options.	Refer to Section 3, Adjust Switches Refer to Section 2, Wire Stages
3. Install power to controller.	Refer to Section 4, Apply Power
4. Set High Limit & Low Limit	Refer to Section 6, Set Limits
5. Calibrate Sensors	Refer to Section 8, Calibrate Sensors

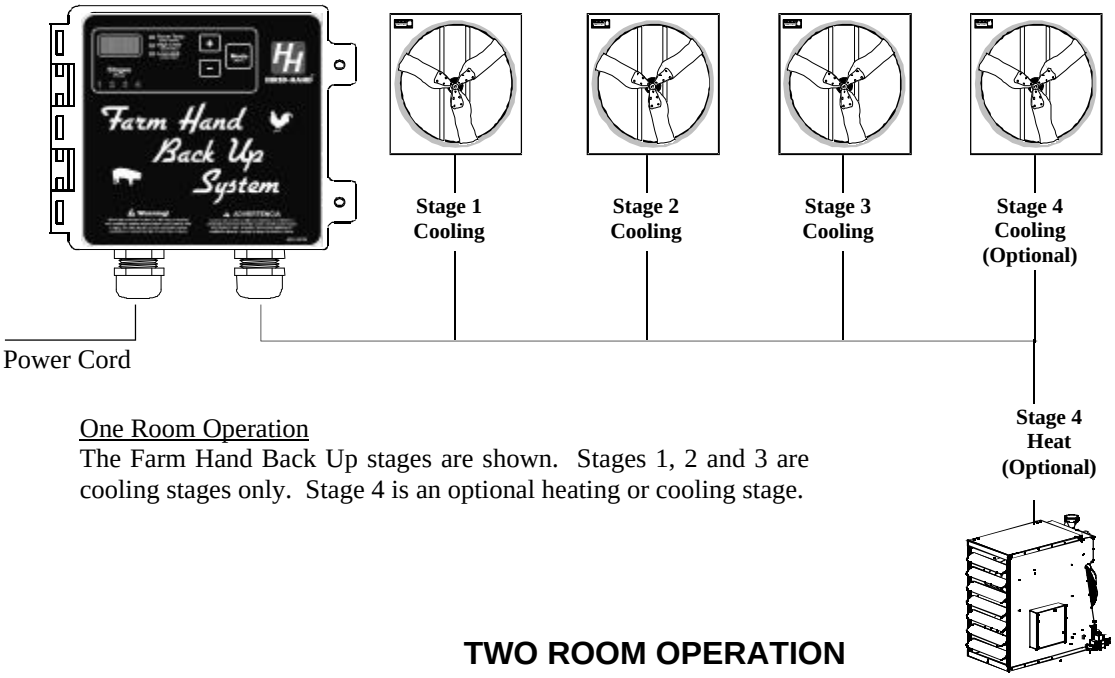
2. Wire Stages

Note: Refer to Wiring Diagrams in the back of this manual.

2.1 Illustration Of Farm Hand Back Up Stages

The Farm Hand Back Up controls four stages. The Farm Hand Back Up can operate as a one room controller or as a two room controller. (See Section 3.2)

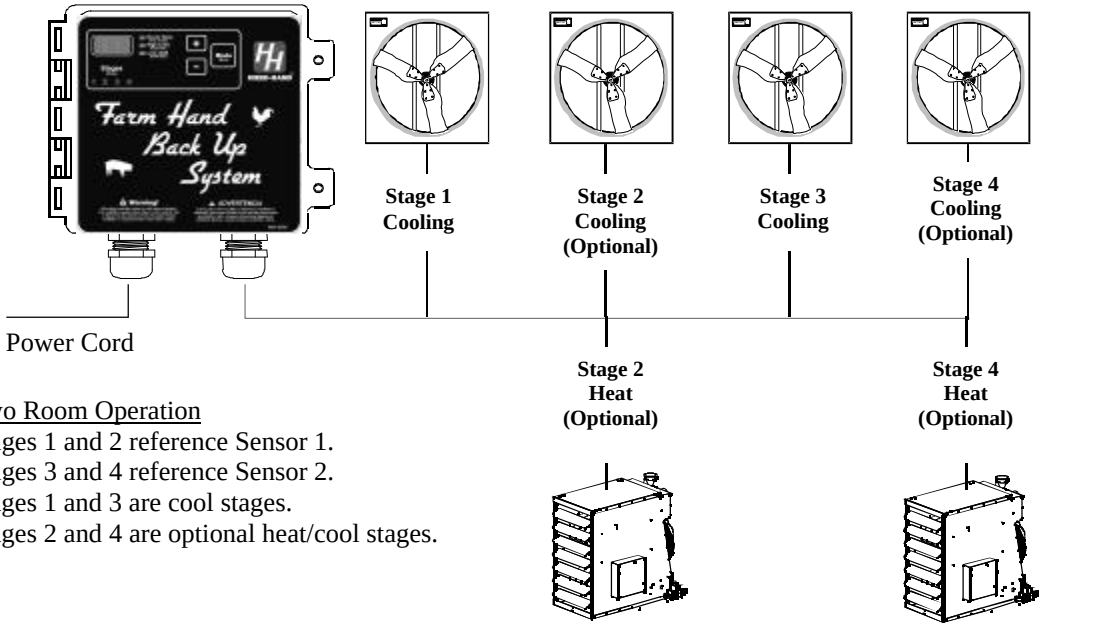
ONE ROOM OPERATION



One Room Operation

The Farm Hand Back Up stages are shown. Stages 1, 2 and 3 are cooling stages only. Stage 4 is an optional heating or cooling stage.

TWO ROOM OPERATION

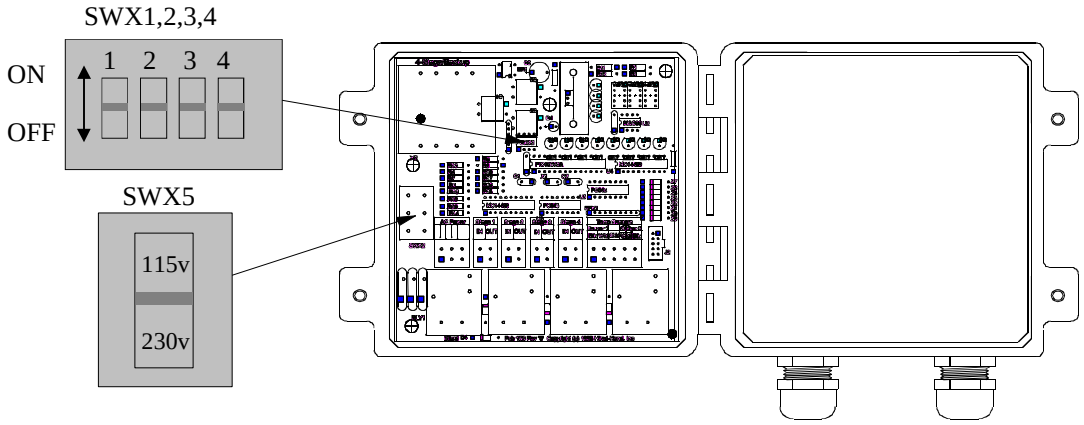


Two Room Operation

Stages 1 and 2 reference Sensor 1.
Stages 3 and 4 reference Sensor 2.
Stages 1 and 3 are cool stages.
Stages 2 and 4 are optional heat/cool stages.

3. Adjust Switches

3.1 Switch Locations



3.2 Farm Hand Back Up Switch Settings

Table 1. Farm Hand Back Up DIP Switch Options

Switch Position	Switch Numbers 1 (Temp. Units)	2 (Operation)	3 (Heat/Cool)	4 (Sensors)
ON	Fahrenheit (°F)	Two Rooms	*See Table 2*	2 Sensors
OFF	Celsius (°C)	One Room	*See Table 2*	1 Sensor

SWX1-Fahrenheit/Celsius

This switch toggles between Fahrenheit and Celsius operation. If the switch is set to ON, the controller will display the temperature as Fahrenheit. If the switch is set to OFF, the controller will display the temperature as Celsius. **(Note: If you change the switch, you will have to reset your High Limit and Low Limit).**

SWX2-1/2 Rooms

This switch selects between one or two room operation.
If switch is ON, then the controller is set for two room operation.
If switch is OFF, then the controller is set for one room operation.

SWX3-Heat/Cool Options Of Stages 2 and 4

This switch selects the heat or cool option for stages 2 and 4. See Table 2.

Table 2. Heat/Cool Options

Two Room Operation	Switch Settings SWX 2	SWX 3	Stages 2/4 Options Stage 2	Stage 4
(Stages 1,3	ON	ON	Heat	Heat
Cool Only)	ON	OFF	Cool	Cool

One Room Operation	Switch Settings SWX 2	SWX 3	Stage 4 Options Stage 4
(Stages 1,2,3	OFF	ON	Heat
Cool Only)	OFF	OFF	Cool

SWX4-One /Two Sensor Option

For one room operation, this switch selects either one or two sensors. If the switch is in the ON position then the average temperature of Sensor 1 and Sensor 2 is used as reference and displayed as Room Temp. If the switch is in the OFF position then Sensor 1 is selected as the reference and displayed as the Room Temp. For two room operation and with this switch either ON or OFF, sensor 1 is used as a reference for stages 1 and 2 and sensor 2 is used as a reference for stages 3 and 4. Sensor 1 and sensor 2 readings are alternately displayed as Room Temp.

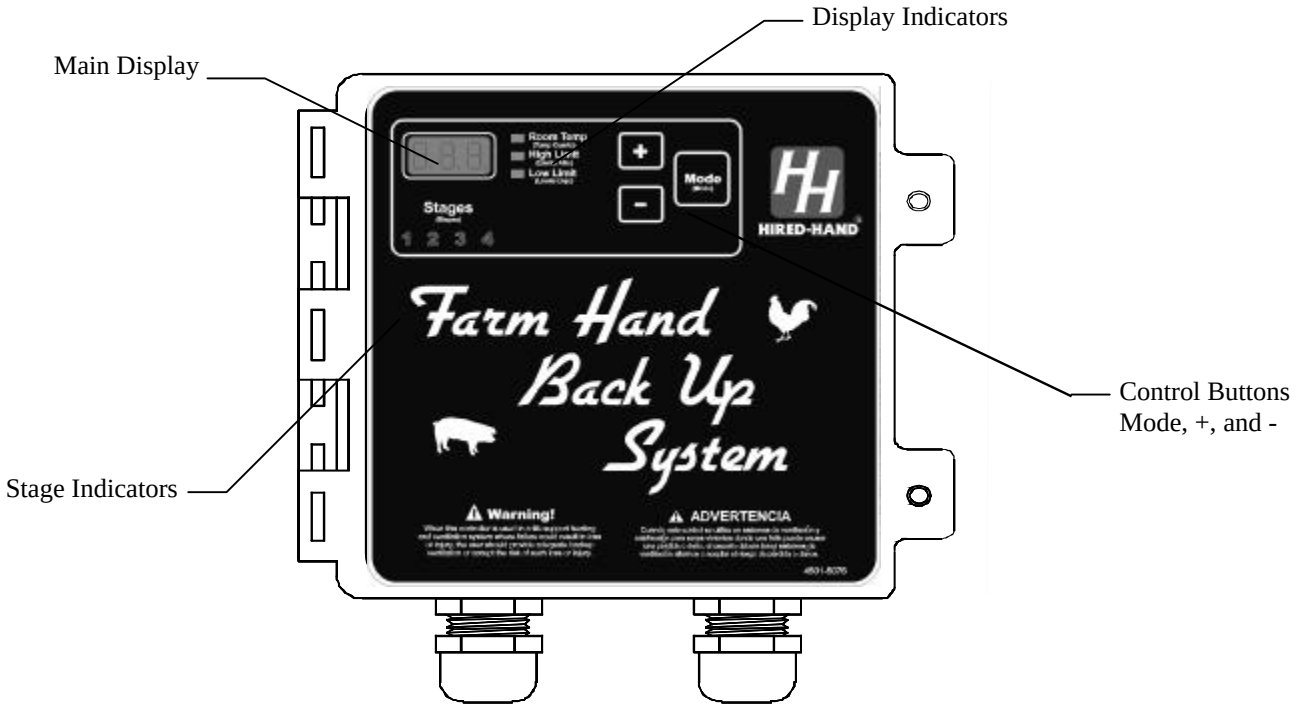
SWX5-115/230v Switch

This switch selects the line voltage. The voltage positions are labeled on the switch. **IMPORTANT: THIS SWITCH MUST BE SET TO THE CORRECT POSITION BEFORE PLUGGING THE UNIT INTO POWER SOURCE.**

4. Apply Power

Connect the electrical wires to the controller as shown. (**Note: Refer to Wiring Diagrams in the back of this manual).** After setting the SWX5 switch to the correct voltage, turn on the electrical power.

5. Day to Day Operating Instructions



The Farm Hand Back Up System supplements a primary temperature controller such as a Farm Hand ST by providing auxiliary heat/cool stages and optional one room or two room temperature sensors. The Farm Hand Back Up can be set so that the High and Low Limits provide "back up" for a primary controller in the event of extreme variations from the target temperature or if the primary controller malfunctions.

One Room Operation

For one room operation, stages 1, 2, and 3 are cool stages, and stage 4 is an optional heat or cool stage. (Optional settings are discussed later in this manual). The "Mode" button is used to select the Room Temp. indicator, the High Limit indicator, or the Low Limit indicator. Room Temp. displays the average temperature of the two sensors. The High Limit is set above the Target Temperature, and the Low Limit is set below a target temperature by using the + and - buttons. Stage 1 turns on when the temperature of the room reaches the High Limit. If the temperature of the room continues to rise, each successive cooling stage will turn on at 2º increments above the High Limit setting. For example, if the High Limit is set for 70º, then stage 1 turns on at 70º, stage 2 turns on at 72º, stage 3 turns on at 74º, and stage 4 turns on at 76º. If stage 4 is used as a heat stage, then stage 4 turns on when the temperature of the room drops to the Low Limit. The cool stages turn off when the temperature drops 2º below the temperature at which each stage turned on. For example, if stage 3 turns on at 74º, stage 3 turns off at 72º. Stage 1 will always turn off at a temperature 2º below the High Limit. If stage 4 is used as a heat stage, then stage 4 turns off at a temperature 2º above the Low Limit.

Two Room Operation

For two room operation, sensor 1 and sensor 2 are placed in different rooms. Sensor 1 gives the reference temperature for stages 1 and 2. Sensor 2 gives the reference temperature for stages 3 and 4. Stages 1 and 3 are always Cool stages. Stages 2 and 4 are optional Cool/Heat stages. The High Limit and Low Limit are set using the same procedures as in one room operation. If the temperature of room 1 rises to the High Limit setting, then stage 1 turns on. If stage 2 is set for cooling, then stage 2 turns on if the temperature of room 1 rises 2º above the High Limit. If the temperature of room 2 rises to the High Limit setting, then stage 3 turns on. If stage 4 is set for cooling, then stage 4 turns on if the temperature of room 2 rises 2º above the High Limit. Cool stages turn off as described in one room operation. If stage 2 is set for Heat and the temperature of room 1 drops to the Low Limit, then stage 2 turns on. If stage 4 is set for Heat and the temperature of room 2 drops to the Low Limit, then stage 4 turns on. Heat stages turn off as described for one room operation..

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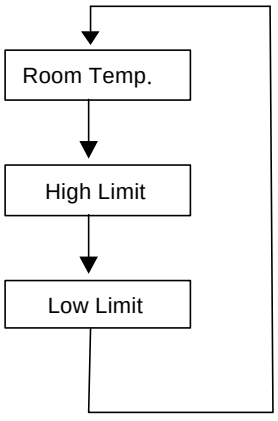
5.1 Toggle Sequence Of Mode Button



5.2 Checking/Adjusting Temperatures, and Settings

When you press the Mode button, watch the green LED's beside the main display. Whichever LED is lit is the parameter you are viewing: "Room Temp.", "High Limit", and "Low Limit" values.

Note: To adjust these parameters, press the Mode button until you see the parameter you want to adjust, then use the + button to increase the value, and the - button to decrease the value.

5.3 Normal Mode Parameters

Room Temperature

The average of the sensors located inside the house if one room operation is selected, or the temperatures of sensors 1 and 2 alternately displayed in the main display if two room operation is selected.

High Limit

The temperature inside the house at which the controller will turn on the first back up cooling stage.

Low Limit

The temperature inside the house at which the controller will turn on the first back up heating stage.

5. Set Limits

The Farm Hand Back Up System requires setting of a High Limit and a Low Limit at which cool/heat stages will turn on. To determine where to set the High Limit and the Low Limit, first decide on a target temperature of the house. This is usually the target temperature of the primary controller. Then set the High Limit to a temperature several degrees above the desired target temperature. Set the Low Limit to a temperature several degrees below the desired target temperature. **Note: It is recommended that the High Limit be at least 10º above the room's target temperature and that the Low Limit be 10º below the room's target temperature.**

6.1 Set High Limit

To set High Limit:

1. Press the "Mode" button to select the High Limit Indicator.
2. Press the + and – buttons to enter the value of the High Limit
3. Setting Complete

6.2 Set Low Limit

To set Low Limit:

1. Press the "Mode" button to select the Low Limit Indicator.
2. Press the + and – button to enter the value of the Low Limit.
3. Setting Complete.

7. Program Mode Parameters

Settings that are usually set up once per growout, or maybe even just for summer or winter are referred to as program parameters and are accessed by taking the controller to program mode. For the Farm Hand Back Up this is mainly limited to Sensor Calibration.

To get to program mode, press and hold the "Mode" button for five seconds. When the controller has entered program mode, the main display will flash between "P41" and the value of this parameter.

The "P41" is known as a parameter number. All the program items for the controller have a parameter number assigned to them. The numbers are listed in the table "Program Mode Parameters" below with a short description of each parameter.

When in program mode, you change the value of certain parameters by using the + and - buttons as needed. When you have finished with the current setting, press the "Mode" button to move to the next parameter. The program mode parameters for the Farm Hand Back Up are shown in Table 3.

Table 3. Program Mode Parameters

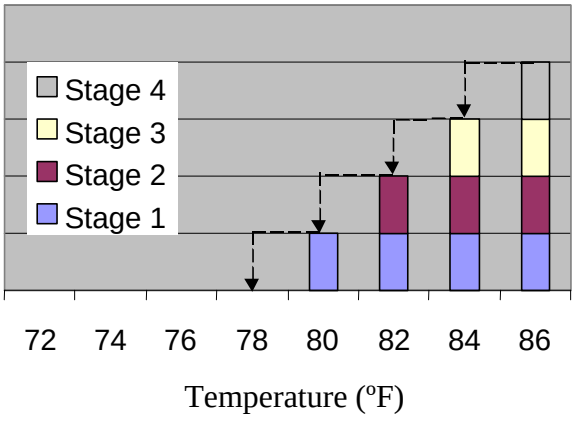
Parameter	Description
P41	This is the software version number. Not Changeable.
P42	This is the Setup Number which represents the controller type. Not Changeable.
P51	This is the calibration temperature for Sensor 1. Instructions: With the controller operating, use a digital thermometer or similar independent temperature measuring device to measure the temperature at Sensor 1 location. With P51 selected, use the + and – buttons to set the calibration temperature to the thermometer reading.
P52	This is the calibration temperature for Sensor 2. Instructions: Same as Sensor 1 except substitute P52 for P51 in the instructions above.

Farm Hand Back Up Examples:

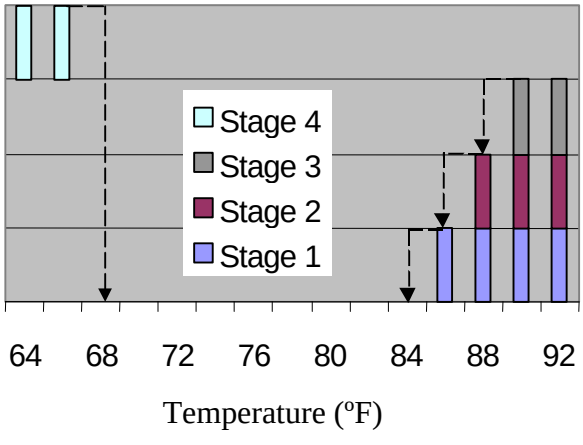
Example Of One Room Operation

Set SWX2 (Section 3.2) for one room operation. **Stages 1,2,3,4 Set For Cool:** Set all stages for cooling (Section 3.2). In this example, the High Limit is set as 80ºF. Refer to Graph 1. If the temperature rises to 80ºF, then stage 1 turns on. If the temperature rises to 82ºF (2º above the High Limit), then stage 2 turns on. If the temperature rises to 84ºF (4º above the High Limit), then stage 3 turns on. If the temperature rises to 86ºF (6º above the High Limit), then stage 4 turns on. Stages turn off at temperatures as indicated by the arrows in graph 1. **Stages 1,2,3 Set for Cool and Stage 4 Set For Heat:** Refer to Graph 2. In this example the Low Limit is set as 66ºF, and the High Limit is set as 86ºF. Set stage 4 for heating according to instructions in Section 3.2. If the temperature drops to 66ºF, then stage 4 turns on. Stage 4 turns off when the temperature rises to 68ºF (2º above the Low Limit). If the temperature rises to 86ºF, then stage 1 turns on. If the temperature continues to rise to 88ºF (2º above the High Limit), then stage 2 turns on. If the temperature rises to 90ºF, then stage 3 turns on. Stages turn off at temperatures as indicated by the arrows in graph 2.

Graph 1 **Stages 1,2,3,4 Cool**



Graph 2 **Stages 1,2,3 Cool and Stage 4 Heat**

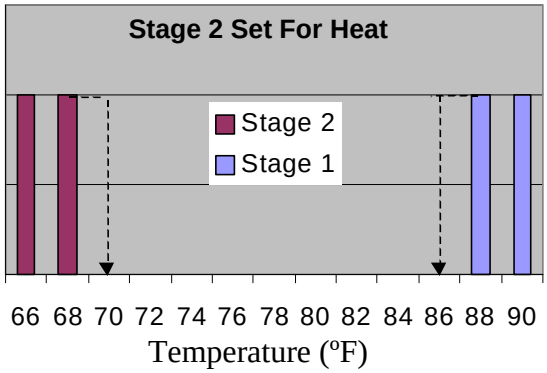


Example Of Two Room Operation

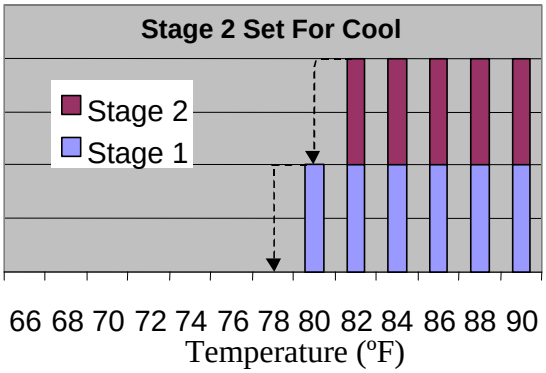
Set SWX2 (Section 3.2) for two room operation. Recall that for two room operation, the temperature reference of stages 1 and 2 is sensor 1, and the temperature reference of stages 3 and 4 is sensor 2. Sensor 1 is placed in room 1 and sensor 2 is placed in room 2. **Stages 2 and 4 Set For Heat:** In this example, the High Limit is set as 88ºF and the Low Limit is set as 68ºF. If stages 2 and 4 are set for heating (Section 3.2), and the temperature of room 1 drops to 68ºF, then stage 2 turns on Heat (Graph 1). If the temperature of room 2 drops to 68ºF, then stage 4 turns on (Graph 3). The stages turn off at temperatures as indicated by arrows. **Stages 2 and 4 Set For Cool:** In this example, the High Limit is set as 80ºF. If the temperature of room 1 rises to 80ºF then stage 1 turns on (Graph 2). Stage 2 turns on if the temperature of room 1 rises to 82ºF (2º above the High Limit). If the temperature of room 2 rises to 80ºF, then stage 3 turns on (Graph 4). If the temperature of room 2 rises to 82ºF (2º above the High Limit), then stage 4 turns on. Stages turn off at the temperatures indicated by arrows.

Stages For Sensor 1 (Room 1)

Graph 1

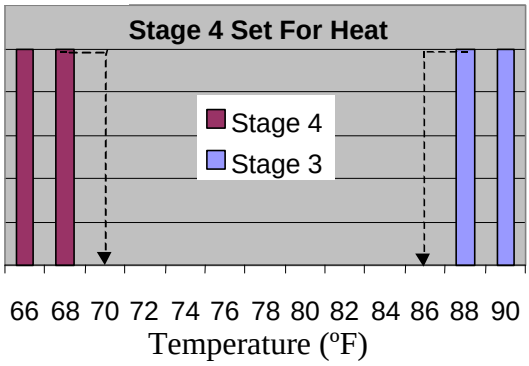


Graph 2

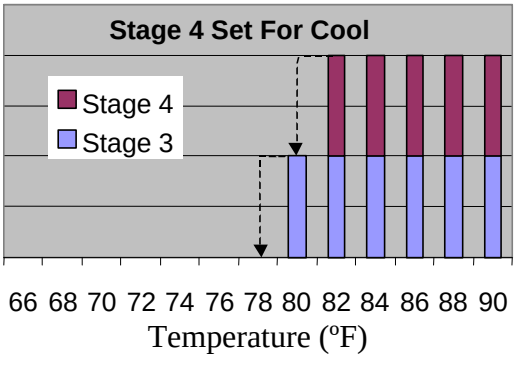


Stages For Sensor 2 (Room 2)

Graph 3



Graph 4



8. Calibrate Sensors

The temperature sensors should be calibrated to ensure accurate temperature detection. To calibrate the sensors an independent temperature measurement is required such as a thermometer or thermocouple.

1. Place a thermometer inside the house at the location of each sensor Allow a few minutes for the temperature to stabilize.
2. Take readings from the thermometers located at Sensor 1 and Sensor 2.
3. Use the Program Mode to set calibrations of Sensor 1 and Sensor 2 (Refer to Table 3).

9. Wiring Diagrams

Warning!

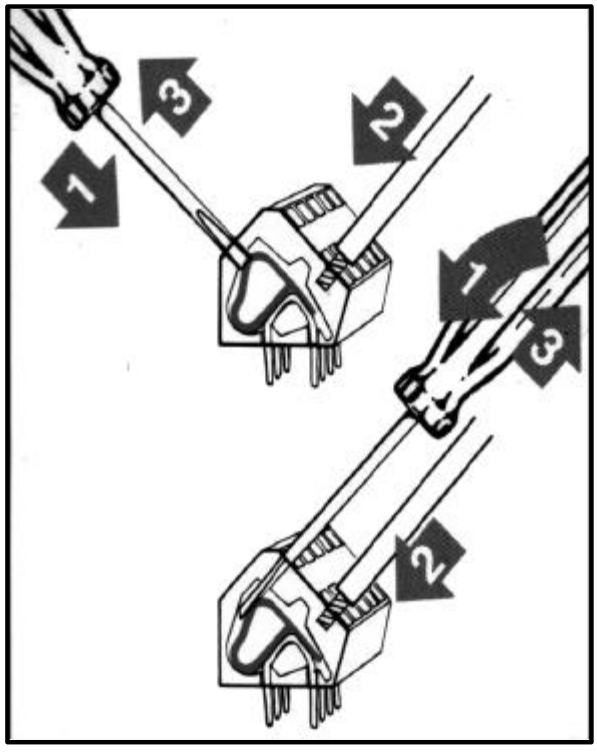
Before connecting power to the machine, be sure to check the position of the voltage selector switch located next to the transformer on the relay board. Improper positioning of this switch will cause system failure.

Warning!

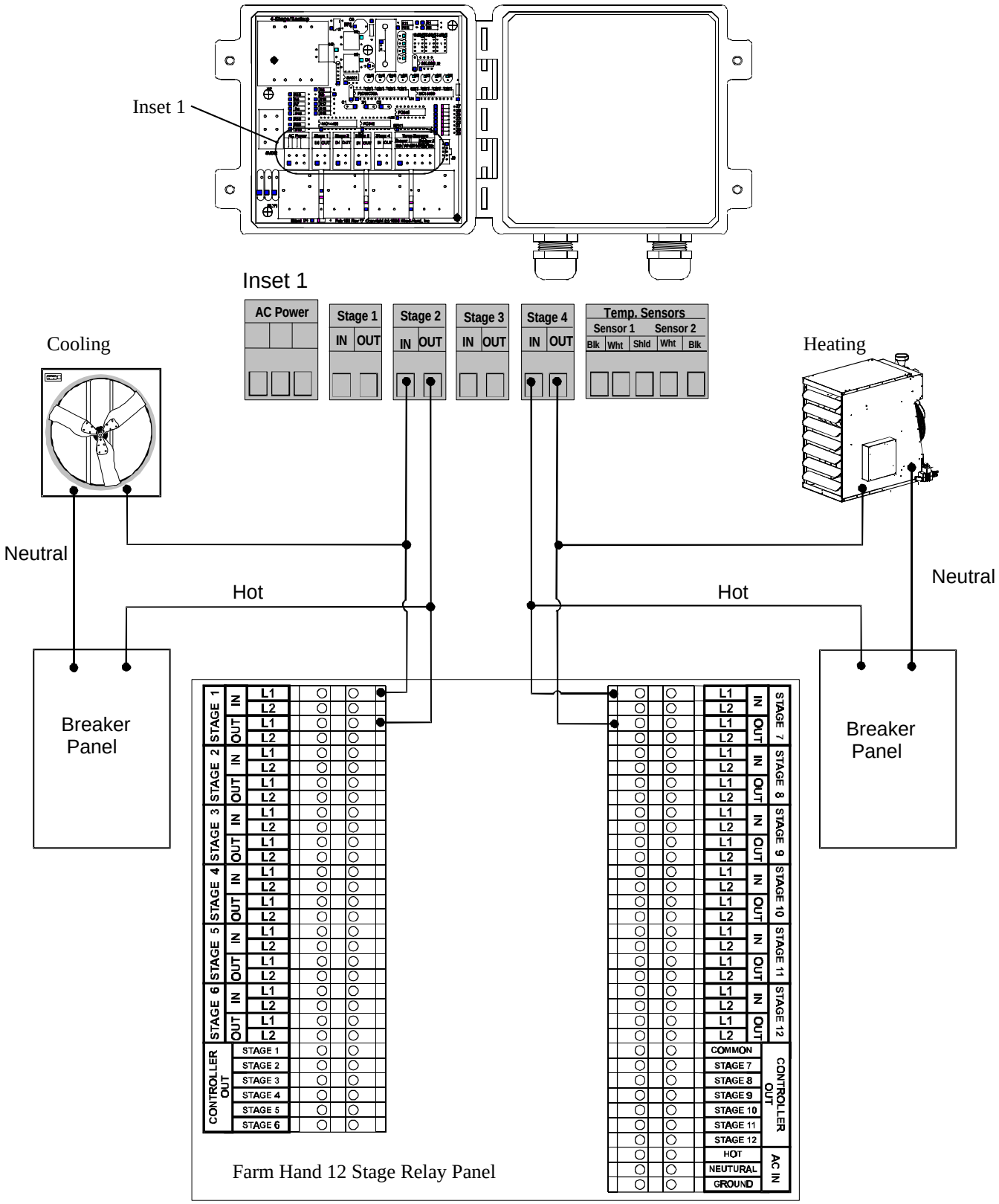
Do not connect more than twelve (12) amps of load to any one stage.

All wiring connections for stages, inside the controller are made without terminals on the end of the wire. To make the connection, strip about ¼" of the insulation off the wire, and follow the diagram below.

1. Insert a small screwdriver into either the hole shown in the diagram.
2. Insert the stripped end of the wire into the hole shown in the diagram.
3. Remove the screwdriver, and tug slightly on the wire to check that it is snug.

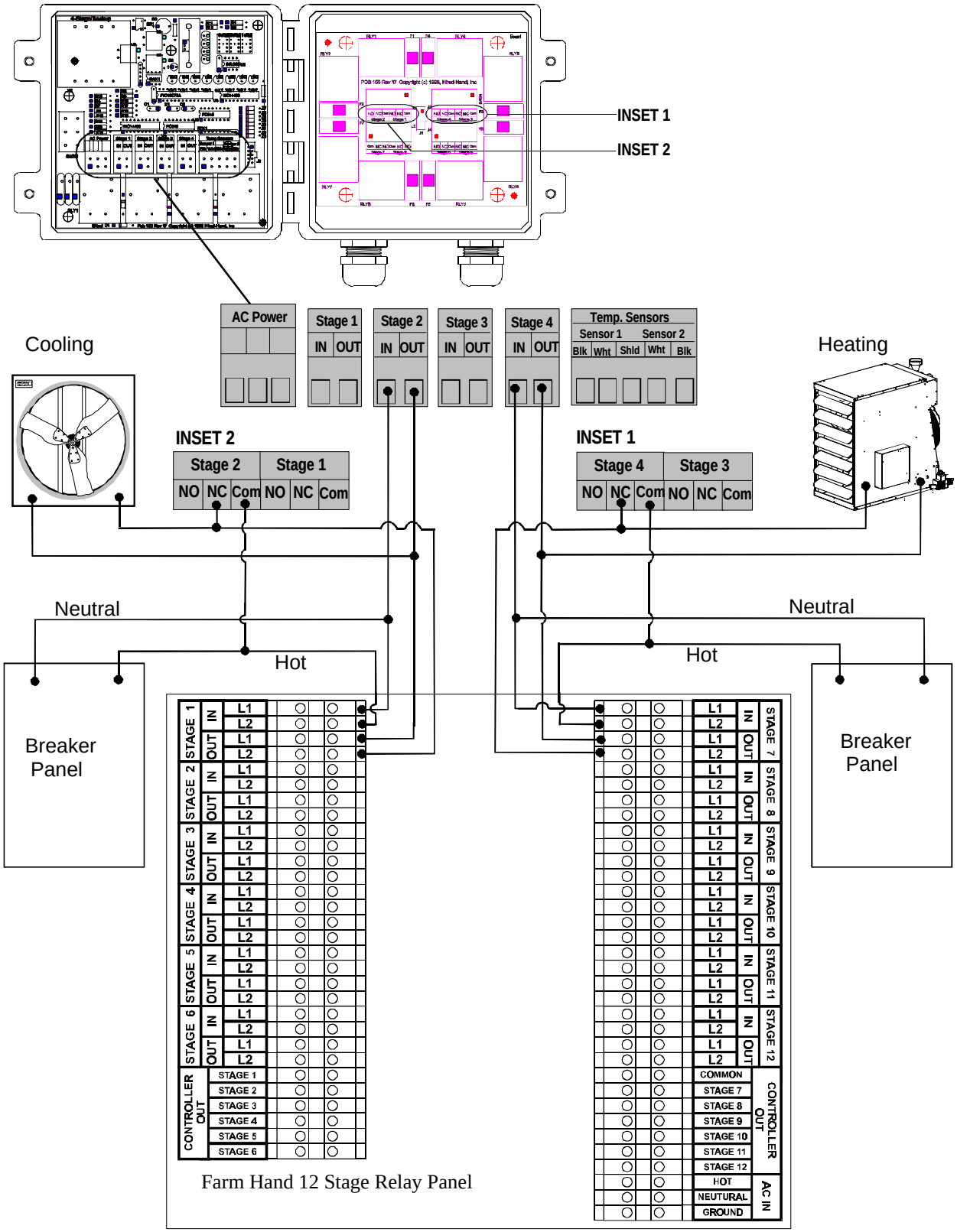


9.1 Connecting Stages To Farm Hand Back Up (Single Pole)



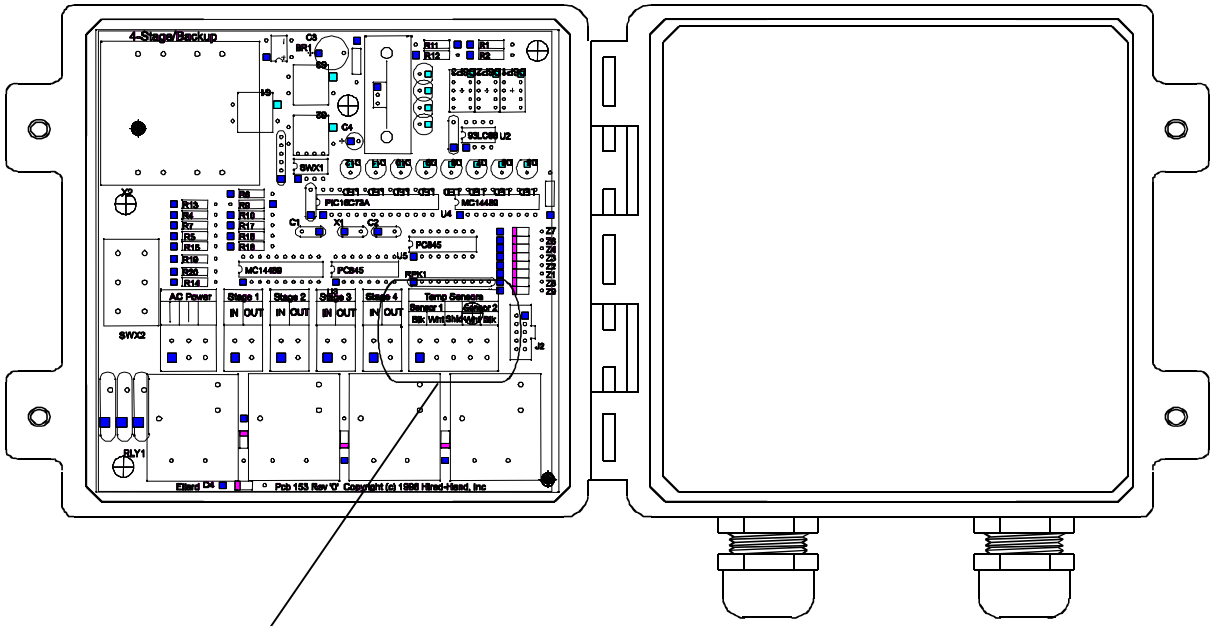
Farm Hand 12 Stage Relay Panel

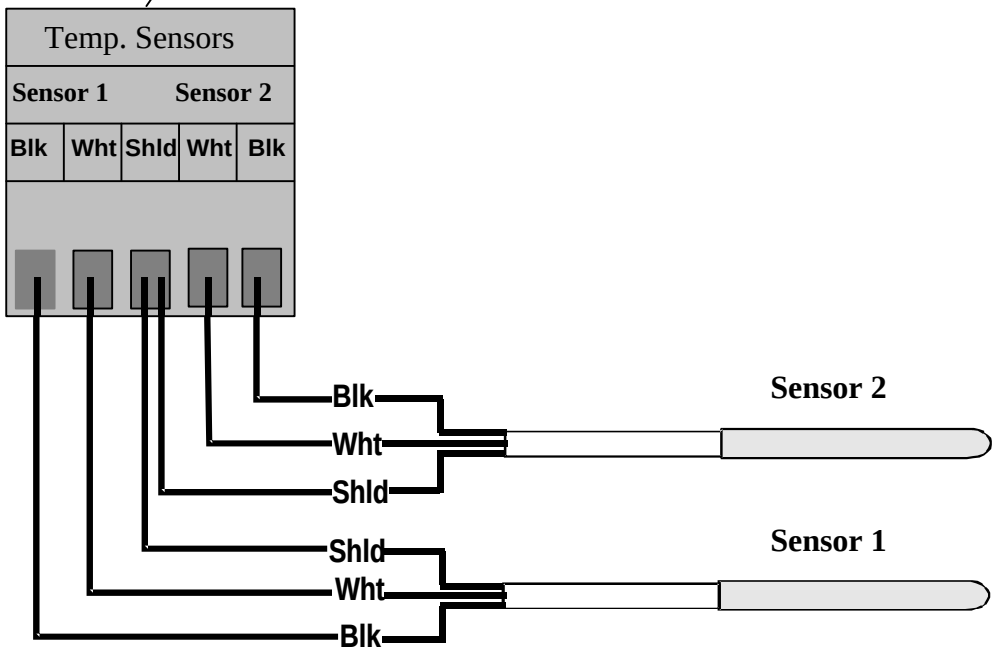
9.2 Connecting Stages To Farm Hand Back Up (Double Pole)



Farm Hand 12 Stage Relay Panel

9.3 Sensor Wiring

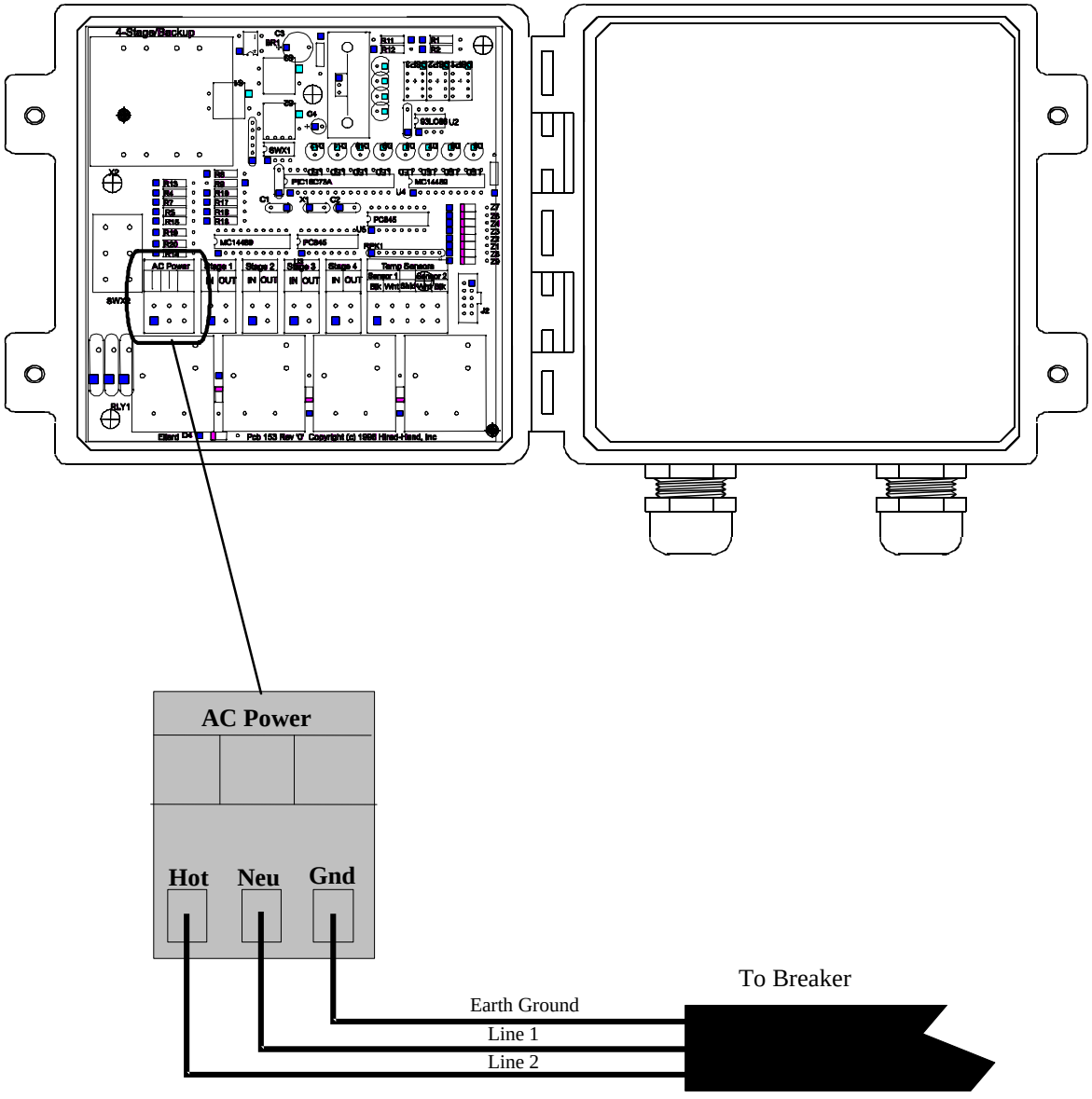




Important!

Shield Wire is not required. Care should be taken to insure that bare shield wires do not touch electronic components.

9.4 Wiring the Power Cord



Note: Make Sure that the SWX5 switch is set to the correct line voltage.

10. References

Program Parameters

P41- Software Version Number	This parameter is a software version number. This is a read-only parameter.
P42-Setup Number	This parameter is the setup number. This is a read-only parameter.
P51-Sensor 1 Temperature Calibration	This is the calibration temperature for Sensor 1. Refer to Table 3 for setting instructions.
P52-Sensor 2 Temperature Calibration	This is the calibration temperature for Sensor 2. Refer to Table 3 for setting instructions.

Farm Hand Back Up

SWX1- Fahrenheit or Celsius	Switches the temperature readings from Fahrenheit to Celsius. If the switch is set to ON the controller will read the sensors as Fahrenheit.
SWX2-Rooms Option	If switch is set to ON two rooms are selected. If switch is set to OFF one room is selected.
SWX3-Heat/Cool Option Stages 2 and 4	This switch selects the heat or cool option for stage 4. If the switch is set to the ON position, then stage 4 is programmed to control heater(s). If this switch is set to the OFF position, then stage 4 is programmed to control cooling. If two room operation is selected this also applies to stage 2.
SWX4-One/Two Sensor Option	If the switch is in the ON position, then the average temperature of Sensor 1 and Sensor 2 is used as reference and displayed as the Room Temp. readout. If the switch is in the OFF position, then Sensor 1 is selected as the reference and displayed as the Room Temp. parameter. For two room operation sensor 1 is referenced by stages 1 and 2 and sensor 2 is referenced by stages 3 and 4 regardless of switch setting.
SWX5 115/230v Switch	This switch selects the line voltage. The voltage positions are labeled on the switch. **IMPORTANT: THIS SWITCH MUST BE SET TO THE CORRECT POSITION BEFORE PLUGGING THE UNIT INTO THE POWER SOURCE.**

11. Error Codes

If your controller is displaying an “E1” or “E2”, etc. the controller has recorded an error.
The controller records errors from sensor reading.

Error Codes for the Farm Hand Back Up System

Error Code	Description	Explanation
E1	Sensor 1 Error	Usually indicates a shorted sensor wire. Check sensor resistance.
E2	Sensor 2 Error	Usually indicates a shorted sensor wire. Check sensor resistance. **Note**: **If Sensor 2 is switched OFF, then this error code is not active**
E3	Sensor 1 and Sensor 2	Sensors 1 and 2 both shorted.

<u>One Room Operation</u>
Note: If sensor 2 fails, but sensor 1 is still operating normally, then the controller automatically ignores the defective sensor (sensor 2) and uses sensor 1 (one room operation).
If both sensors fail, it automatically loads a value 0.1ºF greater than the High Limit so you will get proper ventilation.

<u>Two Room Operation</u>
If either sensor fails, it automatically loads a value 0.1ºF greater than the High Limit so you will get proper ventilation.

12. Temperature vs. Sensor Resistance Table

The following chart gives the resistance when measured between the white and black sensor wires at a given temperature. To check a sensor, first know the temperature in the area, then, use a multi-meter to check the resistance.

Resistance Kohms	Temp (F)	Temp (C)	Resistance Kohms	Temp (F)	Temp (C)	Resistance Kohms	Temp (F)	Temp (C)
32.654	32	0	15.714	59	15	8.59	83.3	28.5
32.158	32.5	0.3	15.568	59.4	15.2	8.517	83.7	28.7
31.671	33.1	0.6	15.353	59.9	15.5	8.408	84	28.9
31.191	33.6	0.9	15.211	60.3	15.7	8.336	84.6	29.2
30.72	34.2	1.2	15.001	60.8	16	8.23	85.1	29.5
30.257	34.7	1.5	14.863	61.2	16.2	8.125	85.6	29.8
29.802	35.2	1.8	14.658	61.7	16.5	8.056	86	30
29.355	35.8	2.1	14.457	62.2	16.8	7.954	86.5	30.3
28.915	36.3	2.4	14.325	62.6	17	7.853	87.1	30.6
28.482	36.9	2.7	14.128	63.1	17.3	7.787	87.4	30.8
28.057	37.4	3	13.999	63.5	17.5	7.689	88	31.1
27.777	37.8	3.2	13.808	64	17.8	7.592	88.5	31.4
27.363	38.3	3.5	13.682	64.4	18	7.496	89.1	31.7
26.957	38.8	3.8	13.496	64.9	18.3	7.433	89.4	31.9
26.557	39.4	4.1	13.373	65.3	18.5	7.34	90	32.2
26.164	39.9	4.4	13.192	65.8	18.8	7.248	90.5	32.5
25.777	40.5	4.7	13.073	66.2	19	7.157	91	32.8
25.523	40.8	4.9	12.896	66.7	19.3	7.098	91.4	33
25.147	41.4	5.2	12.779	67.1	19.5	7.009	91.9	33.3
24.777	41.9	5.5	12.607	67.6	19.8	6.922	92.5	33.6
24.413	42.4	5.8	12.493	68	20	6.836	93	33.9
24.055	43	6.1	12.325	68.5	20.3	6.779	93.4	34.1
23.82	43.3	6.3	12.215	68.9	20.5	6.695	93.9	34.4
23.472	43.9	6.6	12.051	69.4	20.8	6.612	94.5	34.7
23.13	44.4	6.9	11.943	69.8	21	6.531	95	35
22.793	45	7.2	11.783	70.3	21.3	6.45	95.5	35.3
22.572	45.3	7.4	11.678	70.7	21.5	6.371	96.1	35.6
22.244	45.9	7.7	11.522	71.2	21.8	6.319	96.4	35.8
21.922	46.4	8	11.42	71.6	22	6.241	97	36.1
21.71	46.8	8.2	11.268	72.1	22.3	6.165	97.5	36.4
21.397	47.3	8.5	11.168	72.5	22.5	6.089	98.1	36.7
21.088	47.8	8.8	11.02	73	22.8	6.015	98.6	37
20.886	48.2	9	10.874	73.6	23.1	5.941	99.1	37.3
20.586	48.7	9.3	10.778	73.9	23.3	5.869	99.7	37.6
20.29	49.3	9.6	10.636	74.5	23.6	5.798	100.2	37.9
20.096	49.6	9.8	10.542	74.8	23.8	5.728	100.8	38.2
19.809	50.2	10.1	10.404	75.4	24.1	5.658	101.3	38.5
19.526	50.7	10.4	10.312	75.7	24.3	5.59	101.8	38.8
19.34	51.1	10.6	10.177	76.3	24.6	5.522	102.4	39.1
19.065	51.6	10.9	10.088	76.6	24.8	5.456	102.9	39.4
18.884	52	11.1	9.956	77.2	25.1	5.39	103.4	39.7
18.616	52.5	11.4	9.869	77.5	25.3	5.326	104	40
18.352	53.1	11.7	9.741	78.1	25.6	5.262	104.5	40.3
18.179	53.4	11.9	9.614	78.6	25.9	5.199	105.1	40.6
17.503	54.9	12.7	9.53	79	26.1	5.137	105.6	40.9
17.339	55.2	12.9	9.407	79.5	26.4	5.076	106.2	41.2
17.095	55.8	13.2	9.325	79.9	26.6	4.995	106.9	41.6
16.856	56.3	13.5	9.205	80.4	26.9	4.936	107.4	41.9
16.698	56.7	13.7	9.086	81	27.2	4.877	108	42.2
16.465	57.2	14	9.007	81.3	27.4	4.82	108.5	42.5
16.312	57.6	14.2	8.891	81.9	27.7	4.763	109	42.8
16.085	58.1	14.5	8.815	82.2	27.9	4.688	109.8	43.2
15.935	58.5	14.7	8.702	82.8	28.2			

Programming

P 40-49 System Setup

P41 = Software Version Number

P42 = Controller Setup Number

PS Sensor Calibration

PS1 = Sensor 1 Calibration

PS2 = Sensor 2 Calibration

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