

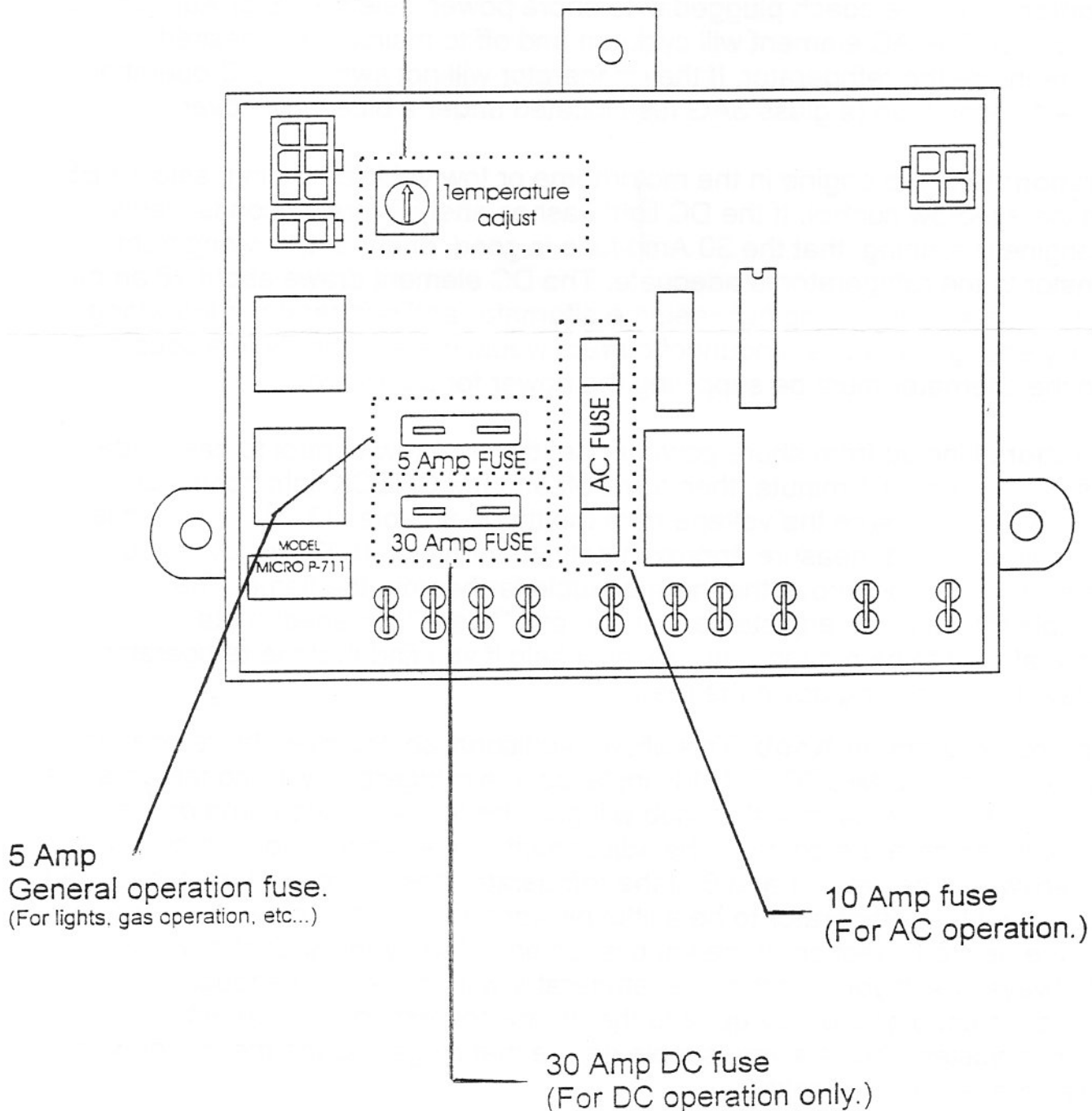
# Owner's Information Sheet for the MICRO P-711

INSTALLED 5/20/2011

Temperature Adjustment knob

Gives 1-5 temp. settings to Freedom  
and Americana refrigerators.

Allows fine-tuning of other models.



# Operating Instructions

**General operation:** Absorption refrigerators operate by using a flame or electric heating element to drive a convective refrigeration cycle that moves heat from the inside of the refrigerator to the outside. This cycle first cools the freezer compartment, and then the refrigerator compartment is cooled by what is left over. There is no individual control over each compartment, and the controls are set to give the desired temperature in the refrigerator compartment. This cycle can last from 30 minutes to several hours, and the heat sources (flame or AC element or DC element) are on full during the cycle. The temperature control then turns off the heat source when the desired refrigerator temperature is reached. Until the temperature inside the refrigerator rises several degrees, the control board will maintain the lights and monitor the switch positions, but all heat sources will be off.

**AC operation:** With the coach plugged in to shore power, select AES or Auto on the eyebrow control. The AC element will cycle on and off to maintain the desired temperature inside the refrigerator. If the refrigerator will not switch to AC operation, replace the 10 Amp fuse (a glass 3AG fuse located under a blue vinyl cover.)

**DC operation:** With the engine in the motorhome or tow vehicle running, select AES or DC on the eyebrow control. If the DC light flashes after several seconds, verify that the engine is running, that the 30 Amp fuse is good, and that the wiring from the alternator to the refrigerator is adequate. The DC element draws about 18 amps, which will cause a voltage drop between the alternator and refrigerator if the wiring is not heavy enough, and this amount of current would drain a battery in a couple of hours, so the alternator must be supplying the power for DC mode.

**Gas operation:** Unplug from shore power or set the eyebrow control to gas mode. If the gas runs for about 1 minute, then turns off and the CHECK light comes on, use a voltmeter to measure the voltage from the thermocouple (J3 - & J11 +) while the flame is lit. It should measure approximately 25 millivolts (0.025 volts). If you measure a lower voltage, move the thermocouple farther into the flame. The thermocouple mount is not adjustable, but you can "tweak" the sheet metal holding it to allow it to be moved. This will also help if you find that the refrigerator will not stay lit while driving down the road.

**Temperature Adjustment Knob:** This allows additional control over the refrigerator temperature. When the MICRO P-711 is installed in a refrigerator with no temperature settings on the eyebrow control, the knob will give the full 1-5 range found on the eyebrows with temperature control. The adjustment range is continuous, that is, you can set it anywhere between 1 and 5. If the refrigerator has a temperature control, but you always want the refrigerator to be a little bit warmer or colder, move the knob slightly in the desired direction. If the knob is left on 3, the eyebrow control will work just as it always has. If you find that the refrigerator will not get cold enough, even after turning the knob all the way up, and the thermistor tests good, contact us for a thermistor adjuster. This is a very simple device that plugs into the thermistor wire, and makes the refrigerator colder.

# Micro P-711

## Features

- 1) **Universal:** Fits 2-way, 3-way, AMES, AES, adjustable-temperature and fixed-temp. refrigerators with the following model #'s:  

S 1521, S1531, S 1621, S 1631, S 1821, S1831  
NDR1062, NDR1272, NDR1282, NDR1292, NDR1492  
RM2551, RM2554  
RM 2607, RM 2611, RM 2612, RM 2652  
RM 2807, RM 2811, RM 2812, RM 2852  
RM 3607, RM 3662, RM 3663  
RM 3807, RM 3862, RM 3863  
RM 4872, RM 4873  
RM 7030, RM 7130, RM 7732, RM 7832
- 2) **Built-in temperature adjustment:** Allows adjustment of operating temperature - especially useful with fixed-temp. refrigerators.
- 3) **Automatic system detection:** Detects the eyebrow type in the refrigerator and automatically selects the proper mode. (some systems use a serial communication link, others use a more simple one-button selector.)
- 4) **Food Saver features:** If the eyebrow (communication) fails, the MICRO P-711 will switch to a special mode that allows it to continue operating as an AC/Gas fixed-temp system. If the gas operation fails (check light comes on), the board will re-try every 30 minutes until proper gas operation is restored.
- 5) **Improved thermocouple circuit:** The MICRO P-711 has connections for both thermocouple leads, to eliminate ground bounce problems.
- 6) **Surge protection:** The 12 volt circuits are protected by a fuse and surge absorber from transients and installation errors. (have you ever noticed that the 12v and 120v connectors are side-by-side?)
- 7) **No wiring kit is necessary.** The MICRO P-711 works just as well with the original wiring as with the updated wiring.
- 8) **Connections are clearly marked** - right on the circuit board, so you can properly re-connect it after the paperwork is lost.

Note: The MICRO P-711 is not PAL™ tester compatible.

# Dometic "black box" part #'s

## **2-Way**

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2931842.01

2931842.02

2931842.03

2931842.04

2932694.017

2932177.01

2932695.01

2932881.01

2932881.010

2932770.01

## **3-Way**

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2931843.01

2931843.02

2931843.03

2931843.04



# Dinosaur Electronics

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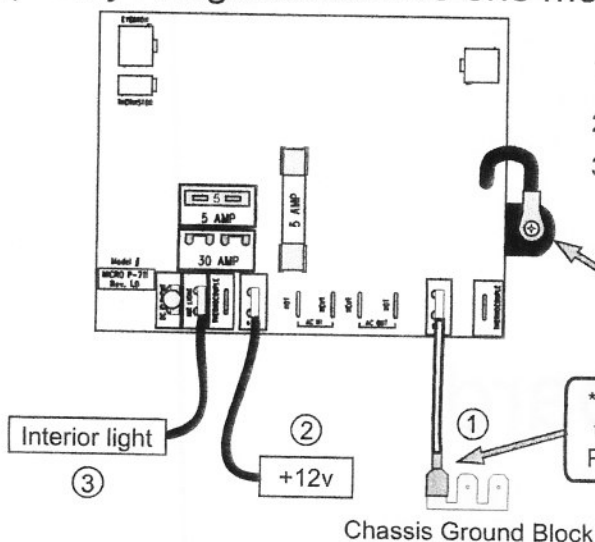
## 2-way Installation

(2-way refrigerators have one mode button only, marked Auto, and no DC lights)

1. MAKE SURE THE AC POWER CORD IS UNPLUGGED FIRST, Hook up the Ground wire first (see below).\*
2. Hook up the +12v wire.
3. Hook up the interior light.

The MICRO P-711 has a additional chassis ground wire attached, which is secured by one of the mounting screws. (you still need to connect the wire from J10 to GND, as shown below)

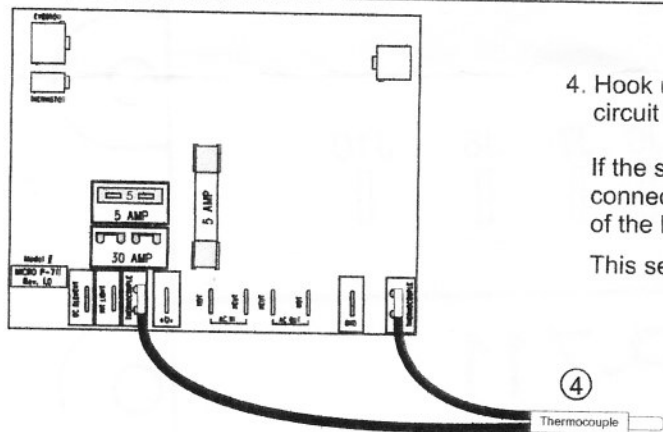
\*The GND terminal on the MICRO P-711 board MUST be connected to the ground block of the refrigerator. IF THIS WIRE IS NOT PRESENT, YOU MUST MAKE ONE.



4. Hook up the thermocouple. Note that both leads connect to the circuit board. HOOK IT UP JUST LIKE THE DRAWING INDICATES.

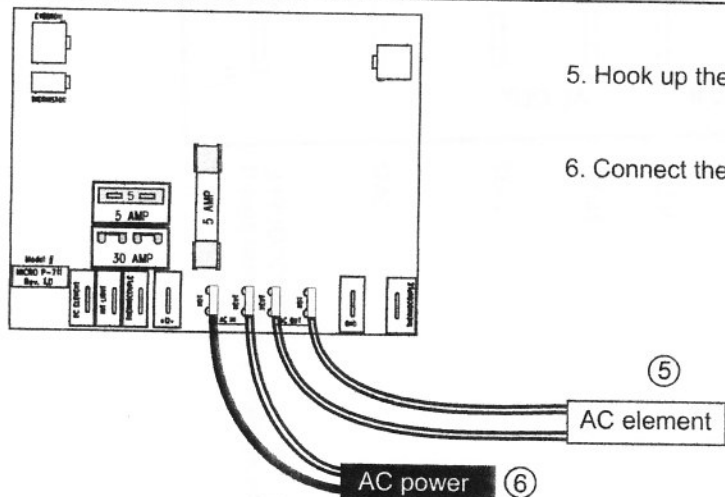
If the short wire is connected to the chassis ground block, disconnect it and put it on the terminal at the bottom-right corner of the board.

This set-up prevents check light problems caused by ground bounce.

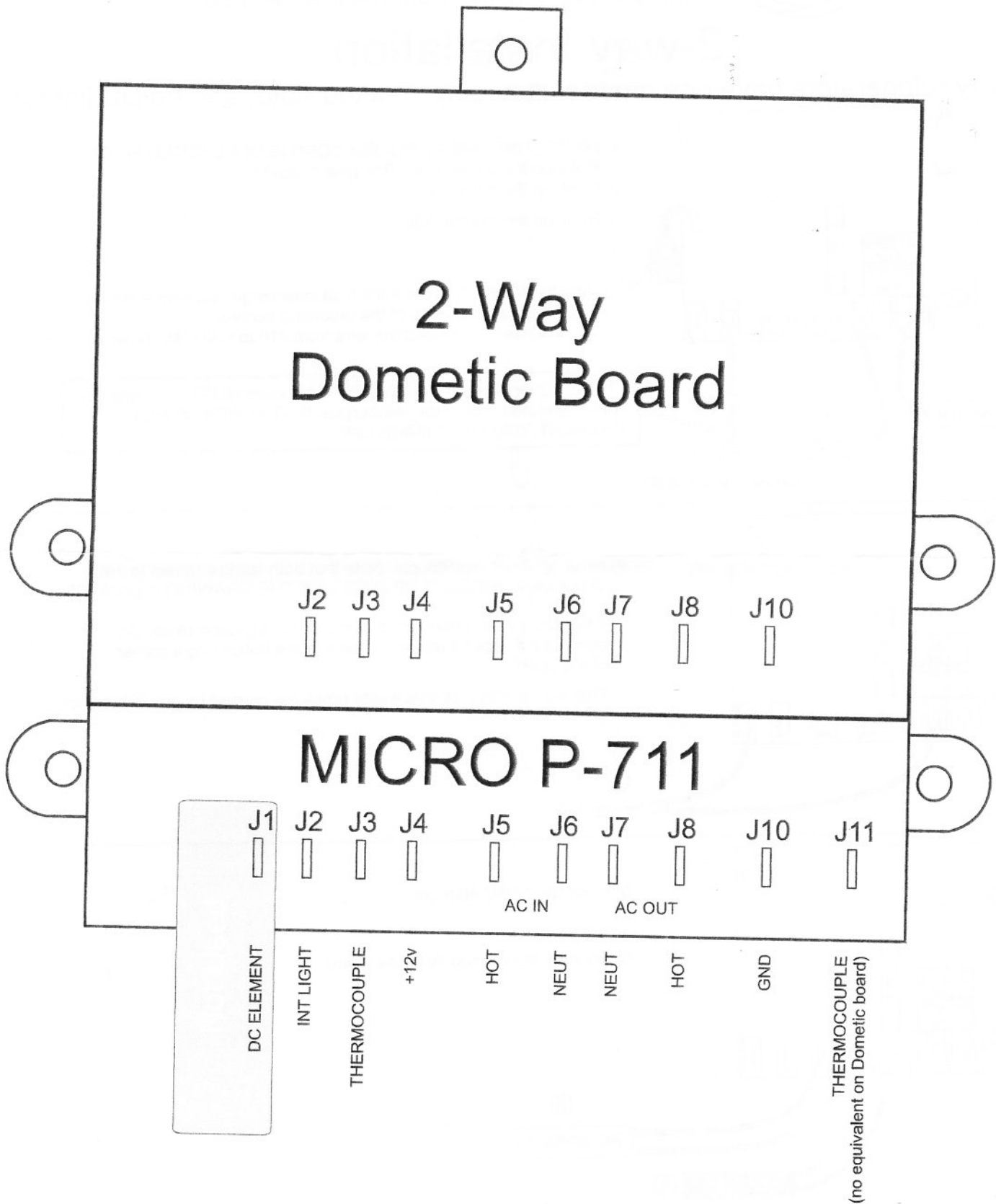


5. Hook up the AC element.

6. Connect the AC supply to the board.



Wire transfer drawing  
for 2-way refrigerator.





# 3-way Installation

(3-way refrigerators HAVE DC LIGHT)

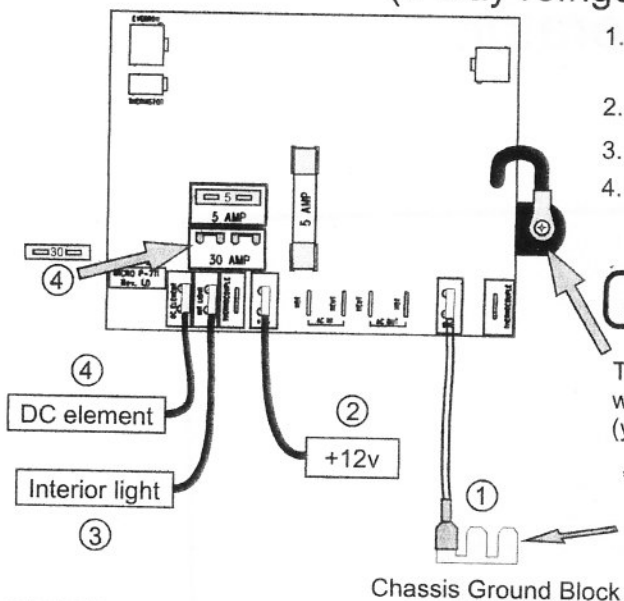
1. MAKE SURE THE AC POWER CORD IS UNPLUGGED FIRST  
Hook up the Ground wire first (see below).\*
2. Hook up the +12v wire.
3. Hook up the interior light.
4. Remove the shipping cap and hook up the DC element.

Then, install the 30 amp fuse (included in box)

**For proper 3-way operation, the 30 amp fuse must be installed!**

The MICRO P-711 has a additional chassis ground wire attached, which is secured by one of the mounting screws.  
(you still need to connect the wire from J10 to GND, as shown below)

\*The GND terminal on the MICRO P-711 board MUST be connected to the ground block of the refrigerator. IF THIS GROUND WIRE IS NOT PRESENT, THEN YOU MUST MAKE ONE.

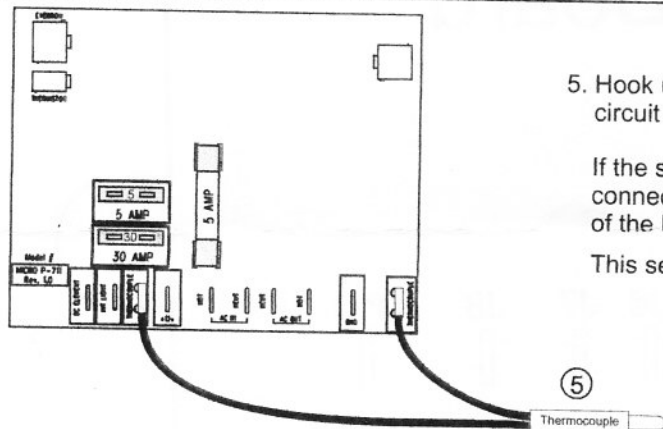


Chassis Ground Block

5. Hook up the thermocouple. Note that both leads connect to the circuit board. HOOK IT UP JUST LIKE THE DRAWING INDICATES.

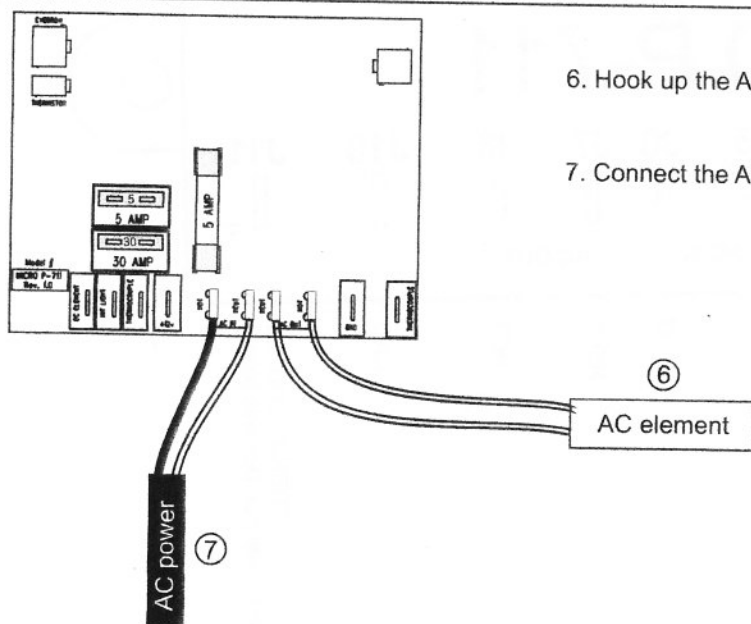
If the short wire is connected to the chassis ground block, disconnect it and put it on the terminal at the bottom-right corner of the board.

This set-up prevents check light problems caused by ground bounce.



6. Hook up the AC element.

7. Connect the AC supply to the board.



# Wire transfer drawing for 3-way refrigerator.

