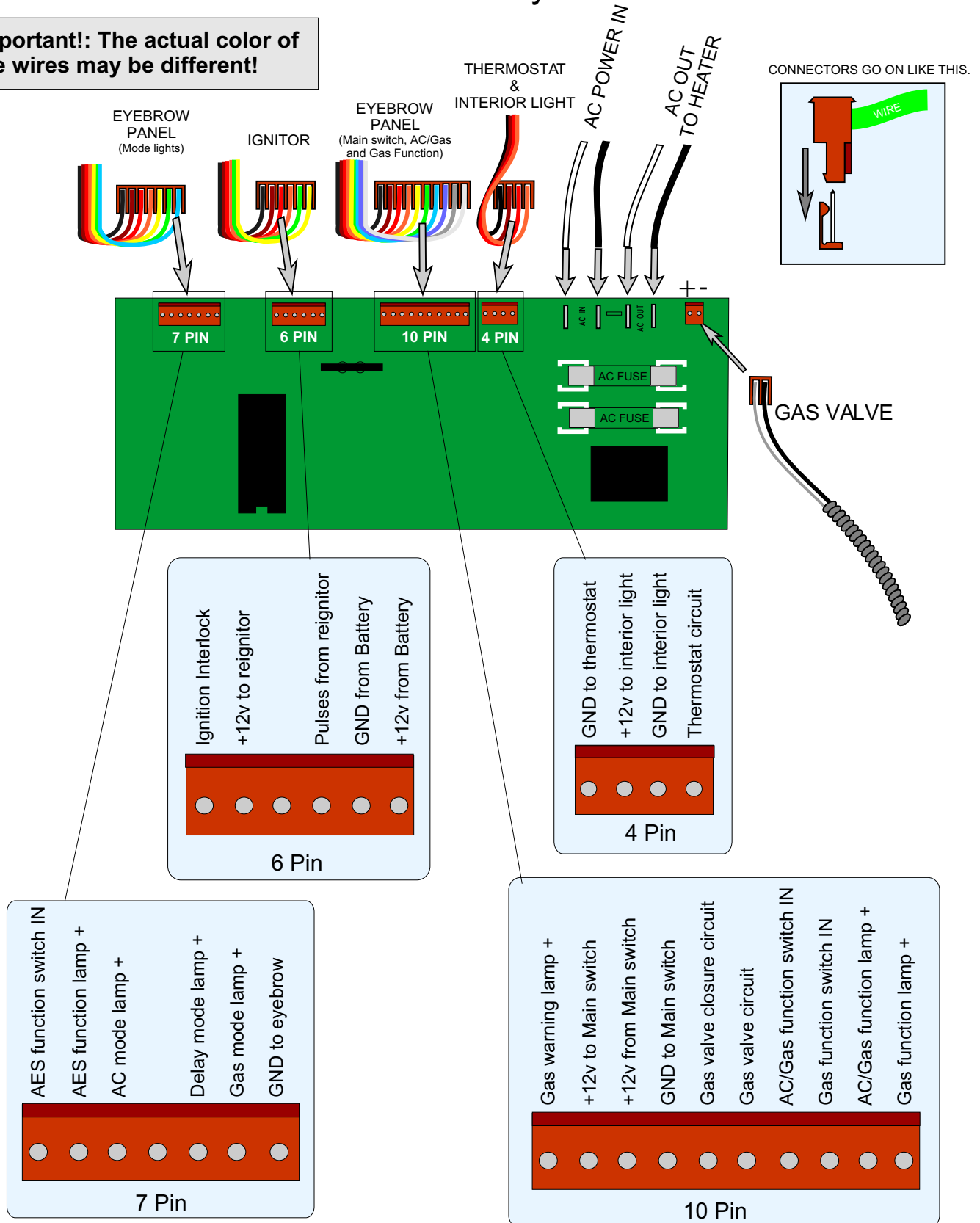# Dinosaur Electronics

PO Box 1263, 1160 SE 27th St.
Lincoln City, OR   97367
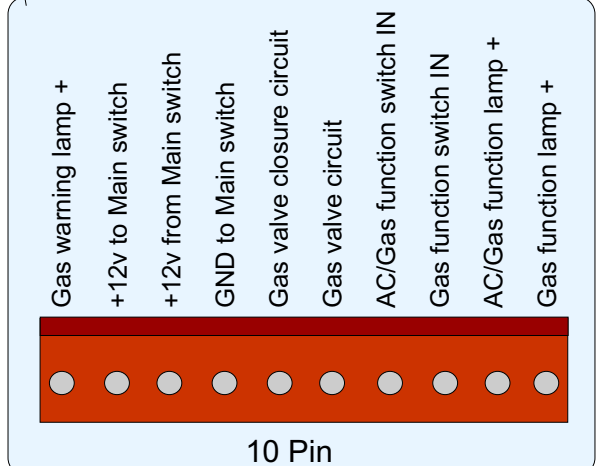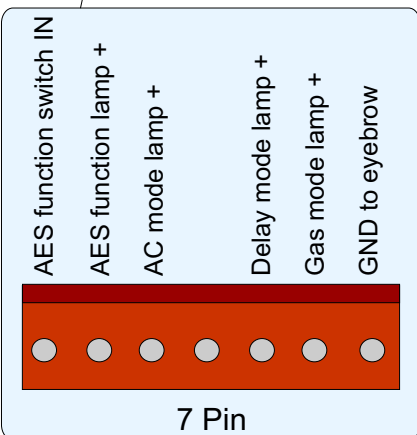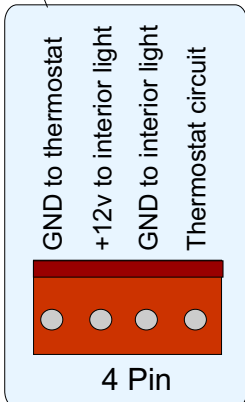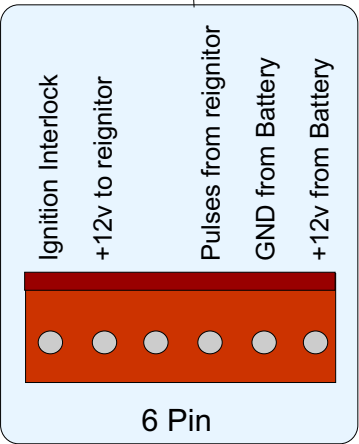Ph. (541) 994-4344   Fax: (541) 994-2796

INSTALLING THE 2-way MICRO P-24

Important!: The actual color of the wires may be different!

THERMOSTAT & INTERIOR LIGHT

AC POWER IN

AC OUT TO HEATER

CONNECTORS GO ON LIKE THIS.

WIRE

EYEBROW PANEL (Mode lights)

IGNITOR

EYEBROW PANEL (Main switch, AC/Gas and Gas Function)

7 PIN

6 PIN

10 PIN

4 PIN

AC IN

AC OUT

+ -

AC FUSE

AC FUSE

GAS VALVE

6 Pin

- Ignition Interlock
- +12v to reignitor
- Pulses from reignitor
- GND from Battery
- +12v from Battery

4 Pin

- GND to thermostat
- +12v to interior light
- GND to interior light
- Thermostat circuit

7 Pin

- AES function switch IN
- AES function lamp +
- AC mode lamp +
- Delay mode lamp +
- Gas mode lamp +
- GND to eyebrow

10 Pin

- Gas warning lamp +
- +12v to Main switch
- +12v from Main switch
- GND to Main switch
- Gas valve closure circuit
- Gas valve circuit
- AC/Gas function switch IN
- Gas function switch IN
- AC/Gas function lamp +
- Gas function lamp +

Owner's Information Sheet

(Please give this to the owner of the refrigerator.)

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) 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.
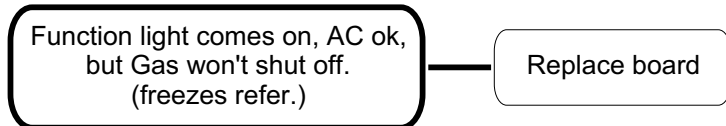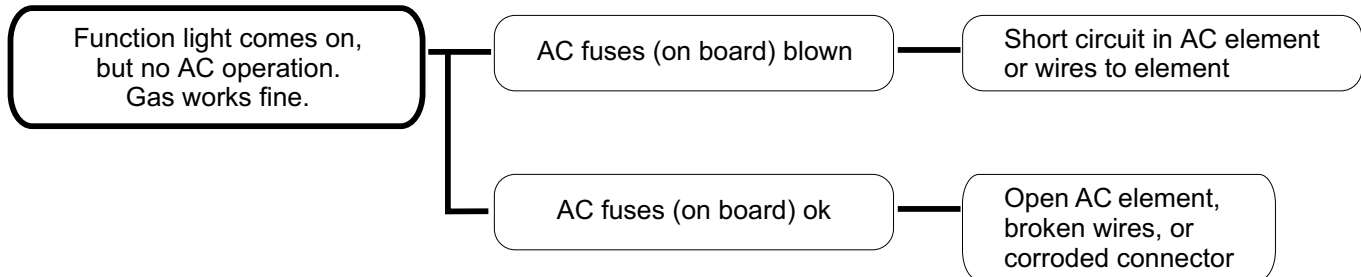
AC operation: With the coach plugged in to shore power, select AES or AC/Gas on the eyebrow control. The AC element will cycle on and off to maintain the desired temperature inside the refrigerator. If the refrigerator will not switch to AC operation, replace the 5 Amp fuses (2 glass 3AG fuses located under blue vinyl covers.)

Gas operation: Unplug from shore power or set the eyebrow control to the Gas Function. The reignitor will produce sparks, the gas valve will open, and the flame will stay lit until the thermostat is satisfied If the tow vehicle engine is turned off, the gas operation will be turned off for about 30 minutes and the "wait" mode lamp will be lit.
 If the gas runs for about 2 minutes, then turns off and the CHECK light comes on, verify that you have propane, and check the burner for rust flakes from the flue.
If the CHECK light comes on after about 10 seconds, clean the ceramic insulator on the spark electrode. If this does not solve the problem, replace the reignitor.

Refrigerator board troubleshooting
2-way MICRO P-24

No Function lights come on
- Gas burner runs continuously — Charge coach battery
- Gas is not running
  - Light inside refer. works — Replace board
  - Light inside refer. does not work
    - Short cicuit indicator on — Short in wires to main switch or interior light
    - Short circuit indicator off — Corroded connectors, bad main switch, or broken wires

Function light comes on, but no AC or Gas operation
- Bad thermostat, broken t'stat wires, or corroded connector

Function light comes on, but no AC operation. Gas works fine.
- AC fuses (on board) blown — Short circuit in AC element or wires to element
- AC fuses (on board) ok — Open AC element, broken wires, or corroded connector

Function light comes on, AC ok, but Gas won't shut off. (freezes refer.)
- Replace board

Refrigerator board troubleshooting (continued)
2-way MICRO P-24

```
Function light comes on,
AC ok, no Gas op.
    │
    ├── Ignitor does not spark ─── Bad ignitor, or
    │                              corroded connector
    │
    └── Ignitor
        sparks ok
            │
            ├── Valve opens ─── Clean burner
            │
            └── Valve does
                not open
                    │
                    ├── Check light on ─── Bad ignitor, broken
                    │   after 12 sec.       wires to ignitor, or
                    │                       corroded connnectors
                    │
                    └── Check light on ─── Bad valve (no continuity),
                        after 2 min.        broken wires to valve,
                                            or corroded connector
```