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## BakeTechPros Digital Humidity Control System

### Overview:

The OEM Lucks Digital Sensor and Control board are no longer available. BakeTechPros has developed a direct replacement system that will perform the same function without user changes required. This system **MUST** be purchased as a set ( Sensor, Control Board and Mounting Bracket ) on first installation as the old parts are **NOT COMPATABLE**.

MEL-110: Sensor, Humidity, with 72 inch long cable ( sensor ONLY ).

MEL-111: Control Board, Sensor, Humidity ( board ONLY )

MEL-112: Digital Replacement KIT: Humidity System, Lucks and OEM  
 ( sensor, bracket and control board. reuse transformer, and relay )

MEL-114: Horse Hair Humidity Sensor RETRO KIT, ( Sensor, CTRL Board, Control Knob, transformer, Relay )

**Please Note:** MEL-110 and MEL-111 are the replacement parts **AFTER** you have installed either MEL-112 or MEL-114 Kits.

### Sensor Wiring: Connector J2

During Lucks production of the **DISCONTINUED** sensor system the color of the wires used on the humidity sensor **CHANGED**.

Lucks Sensors	Early Lucks Sensors	Function	Location
Black	Brown	POS Volts	J2 P1
White	Gray	SIGNAL	J2 P2
Green	Blue	NEG Volts / SIGNAL GND	J2 P3

**OLD LUCKS**

NEW SENSOR SYSTEM - MEL-110	Function	Location
Orange	POS Volts	J2 P1
Yellow	SIGNAL	J2 P2
Black	NEG Volts / GND	J2 P3
(UNUSED: Purple )		

**NEW SENSOR**

## Power Transformer: Connector J1

Transformer 24Vac - J1 P1 (Interchangeable P1 or P2)  
Transformer 24Vac - J1 P2 (Interchangeable P1 or P2)

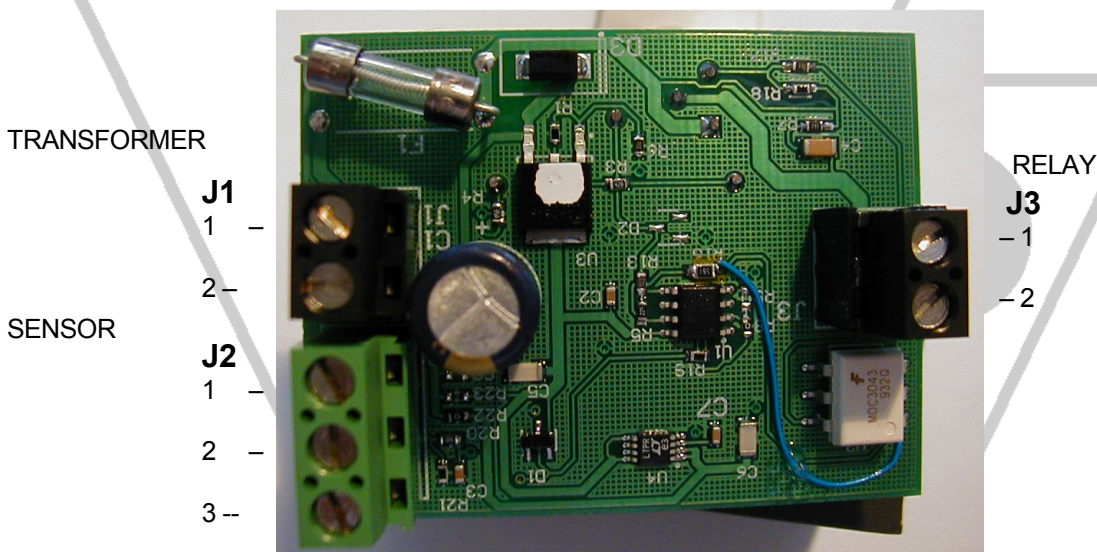
## Control Relay: Connector J3

Relay 24Vac COIL contact - J3 P1 (Interchangeable P1 or P2)  
Relay 24Vac COIL contact - J3 P2 (Interchangeable P1 or P2)



**Check Wiring CAREFULLY  
Before Applying Power**

Picture:



## REPLACING an Existing Digital Humidity System

Installation Instructions:

- 1) Remove old Sensor and Control Board
- 2) Using New bracket mount new sensor about where the old sensor was using existing screws.
- 3) Route sensor cable through same hold as old cable went through into header control area. Plug hole with silicone sealant.
- 4) Mount new control board into control panel and connect the sensor cable wires to connector J2, the transformer to connector J1 and the relay to connect J3, all as shown above.
- 5) The humidity controller works just as before.

## **REPLACING an Existing ANALOG (horse hair) Humidity System Installation Instructions:**

- 1) Remove the analog horse hair controller and humidity control shaft assy.
- 2) Trace the wires that went to the old controller back to the electrical control enclosure. These wires will need to go directly behind the control panel, reroute as necessary.
- 3) Temporarily mount the new control board into the hole in the control panel where the humidity control shaft was. Mount the transformer and the 24Vac coil relay close to this location.
- 4) Mount the humidity sensor about where the horse hair sensor was using the included bracket and TEK screws. Route the cable to the controller board through the old control rod hole, seal with silicone.
- 5) Connect the sensor cable wires to connector J2, the transformer 24vac secondary output to connector J1 and the relay COIL contacts to connector J3, all as shown above.
- 6) Connect the two wires that went to the old horse hair controller to the Common and NO contacts of the relay.
- 7) Wire the transformer primary to any switched 120Vac available power.
- 8) Secure the control board into the shaft hole. Rotate the controller shaft full right and install the knob aligning the knob marker at 100% humidity or the highest setting shown.

### **USE:**

- > Control knob full left is humidity OFF
- > Control knob full right is FULL ON
- > Control knob at half rotation is about 75 % humidity

