

ELECTRO-BOILER

Commercial Series

Installation Instructions

EB-CO-KIT

APPLICATION:

This Electro-Boiler kit is designed for the conversion of the EB-C-** boiler to outdoor temperature sensing. Included are the outdoor sensor, replacement microchip for the boiler board, and replacement temperature set point decal.

WARNING

ENSURE ALL POWER IS TURNED OFF AT THE BOILER BEFORE INSTALLING THIS KIT. FAILURE TO DO SO MAY CAUSE SEVERE INJURY OR DEATH.



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Installation Instructions:

Step 1

Turn off all boiler circuit breakers; this will disconnect power to the boiler circuit board.

Step 2

When replacing the boiler control microchip, note the orientation of the U-shaped indent on one end of the chip (see Figure 2). The new chip must have the indent in the exact same position when installed onto the circuit board.

CAUTION

THE MICROCHIPS ARE STATIC SENSITIVE. EVERY EFFORT SHOULD BE MADE BY THE TECHNICIAN TO USE A PROPERLY CONNECTED GROUND STRAP WHEN HANDLING THE MICROCHIPS.

Removing existing chip (see Figure 2): With a small flat blade screwdriver gently pry up on one end of the chip. As the chip lifts out of its carrier, carefully work the screwdriver underneath until it completely lifts out.

Installing the new chip: With the indent properly orientated, carefully align the pins and insert the chip into the carrier. When it appears all the pins are properly inserted, use medium thumb pressure to push on the chip and assure all pins are fully seated.

Note: If the space between the rows of pins on the chip is wider than the space on the chip carrier, it may be necessary to carefully bend the rows of pins inward. This is best accomplished by holding the chip on edge so all the pins in one row are against a flat surface. Carefully roll the body of the chip slightly toward the surface. This will bend the entire row of pins inward, and prevent individual misaligned pins.

Step 3

Affix the new temperature setting decal UAI839 over the existing decal.

Installing the outdoor sensor (OT):

Note: Outdoor Sensor (OT) is identified by the longer cable and the metal mounting bracket (see Figure 1).



Figure 1

Step 4

Determine best location for the OT sensor using the following ground rules.

- a. Locate on the outside of the building to sample outside temperature least affected by sun.
- b. Locate sensor away from other objects that produce a heat or cool effect such as heat pump Freon line sets, drier vents, direct sunlight, steel siding, or other miscellaneous objects that affect the air temperature.
- c. Do not install sensor in an enclosure which may have a “heat build up” or insulation effect.
- d. Must be mounted on exterior of building with probe tip pointing up.

Step 5

The factory supplied OT cable is approximately 25'. Determine necessary length of cable to route to the predetermined outside location. If the sensor wire cable is too short, you must use the following rules for extending the cable.

- a. Use unshielded (low capacitance, prefer twisted) 3 or 4-wire low voltage cable, 50-foot maximum.

WARNING

DO NOT, UNDER ANY CIRCUMSTANCES, USE LEFTOVER WIRES WITHIN THE THERMOSTAT CABLE GOING TO THE OUTDOOR UNIT.

Step 6

Mount OT sensor with sensor tip up (cable downward).

- a. Drill ¼” hole near the outside sensor location.
- b. Route wire from outside making sure not to crimp, cut, staple, or damage cable in any way.

Step 7

Keep the sensor cables at least 12" away from any line voltage wiring, Romex, etc.

WARNING

DO NOT, UNDER ANY CIRCUMSTANCES, USE PART OF EXISTING THERMOSTAT CABLE, LEFTOVER WIRES, FOR THE SENSOR CABLE.

Note: Do not reconnect OT sensor wires to the 4-screw terminal block until sensor is properly installed (see Figure 2).

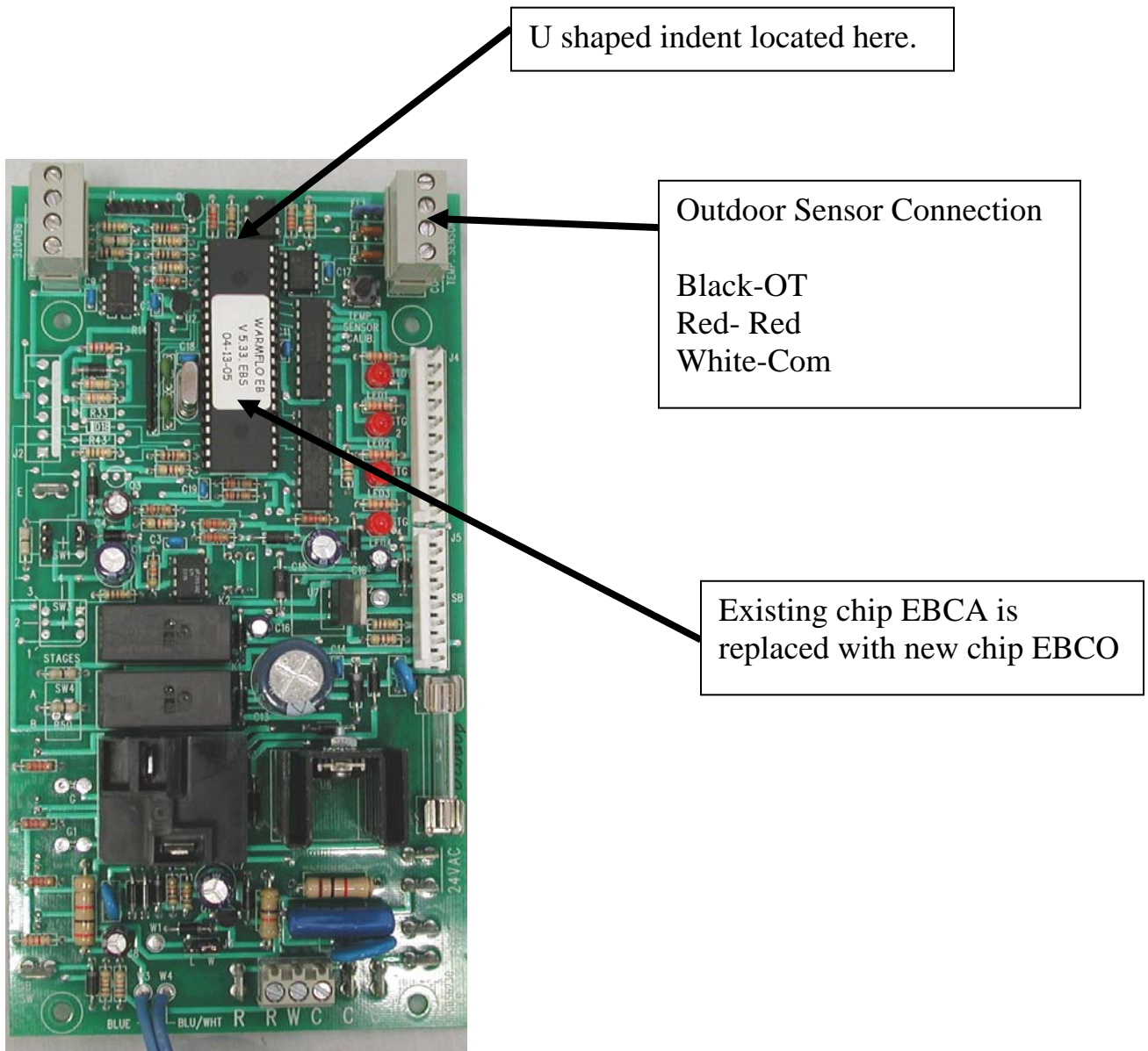


Figure 2