

DOMESTIC HOT WATER SENSOR KIT

INSTRUCTIONS FOR CHB-100, CHB-130, CHB-150

Kit #550002958

Kit installation shall be completed by qualified agency.

⚠ WARNING

Fire, explosion, asphyxiation and electrical shock hazard. Improper installation could result in death or serious injury. Read this instruction and understand all requirements, including requirements of authority having jurisdiction, before beginning installation. Installation not complete until appliance operation verified per Installation, Operation & Maintenance Manual provided with boiler.

Sensor can be used on a standard Indirect Hot Water tank. When it is connected to the boiler, sensor will control Indirect Tank temperature.

1. Follow instructions To TURN OFF GAS TO APPLIANCE found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual. Verify all electrical power to boiler is turned off.

⚠ WARNING

Electrical shock hazard. Turn OFF electrical power supply at service panel.

2. Remove front jacket.

⚠ WARNING

Burn hazard. Verify heat exchanger has cooled or use appropriate personal protection equipment.

3. Before inserting sensor into Indirect tank well, thoroughly coat sensor with Thermopaste supplied with sensor kit.
4. Slide sensor into well until it bottoms out. See figure 1.
5. Secure sensor wire to well with included clip. See Figures 1 and 2.
6. Route sensor wire to boiler low voltage terminal block. Remove the two resistors on terminals 7 & 8 of 8-pin terminal strip, item #155. See Figure 4 - wiring diagram.
7. Install sensor wires onto terminals 7 & 8. See Figures 5 and 6.
8. Secure sensor wire.
9. Restore power to boiler. Boiler will automatically recognize the sensor.

Figure 1 - Slide Sensor Into well of Indirect Tank



Figure 2 - Secure Sensor Wire to Well With Clip



Figure 3 - Sensor Wire Secured to Well With Clip



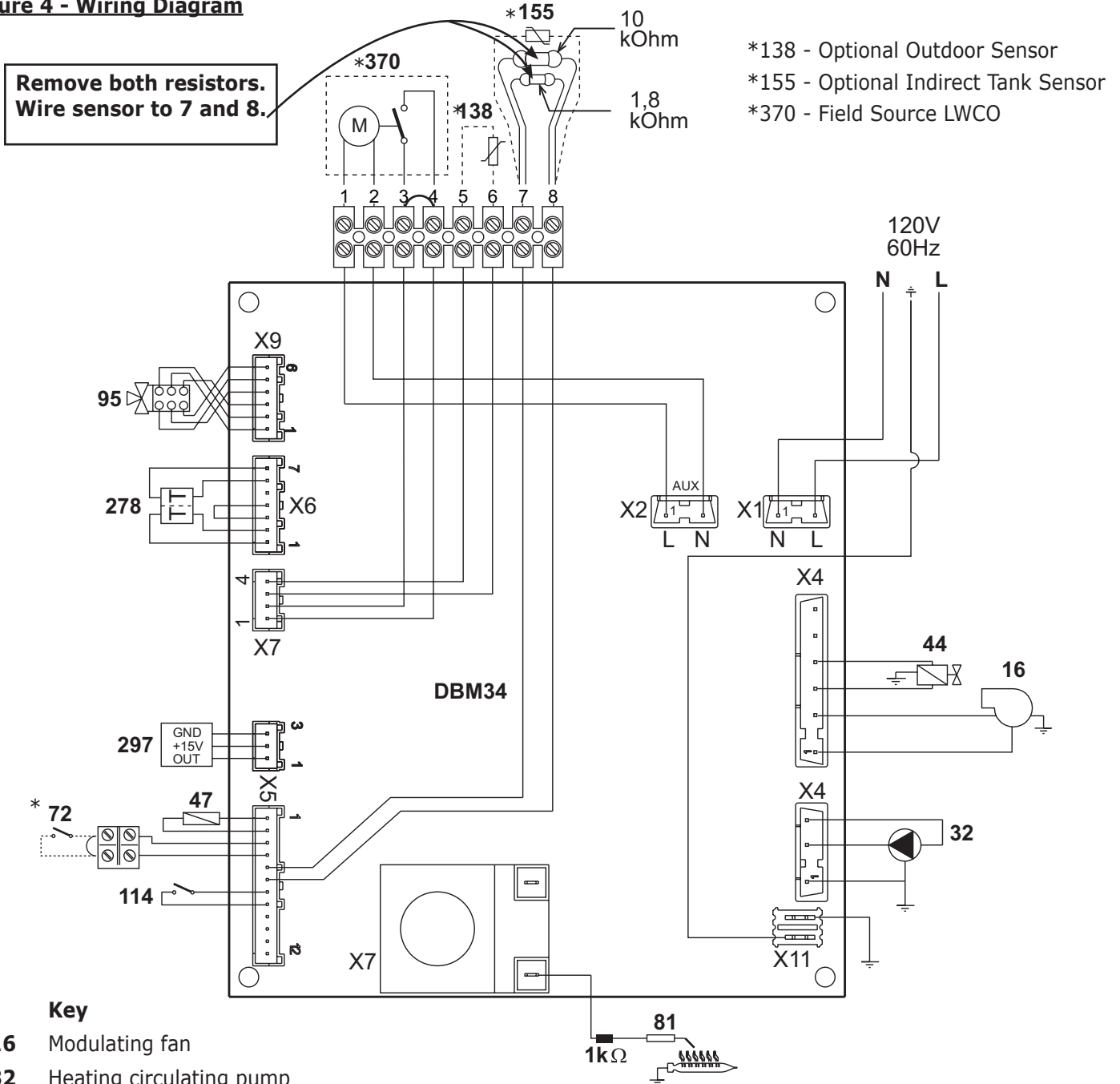
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10. See Installation, Operation & Maintenance Manual for adjusting DHW tank temperature and operation.
11. Resume operation using Installation, Operation & Maintenance Manual.
12. Verify proper operation by following START UP PROCEDURE in Installation, Operation & Maintenance Manual.
13. Install front cover.

DOMESTIC HOT WATER SENSOR KIT FOR CHB-100 & CHB-130 #550002958		
DESCRIPTION	PART #	QTY
DHW Tank Sensor	-	1
Clip	-	1
Thermopaste	-	1
Instructions	240010745	1

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Figure 4 - Wiring Diagram



Key

- 16** Modulating fan
- 32** Heating circulating pump
- 42** DHW temperature sensor (see kit)
- 44** Gas valve
- 47** Modulation Regulator (24V)
- *72** Room thermostat (field sourced)
- 81** Ignition/detection electrode
- 114** Water pressure switch
- *138** Optional Outdoor Sensor (field sourced)
- *155** Optional Indirect Tank Sensor (See parts list)
- 278** Double sensor (Safety + Heating)
- 297** Air pressure transducer
- *370** Low Water Cutoff (LWCO) - (field sourced)

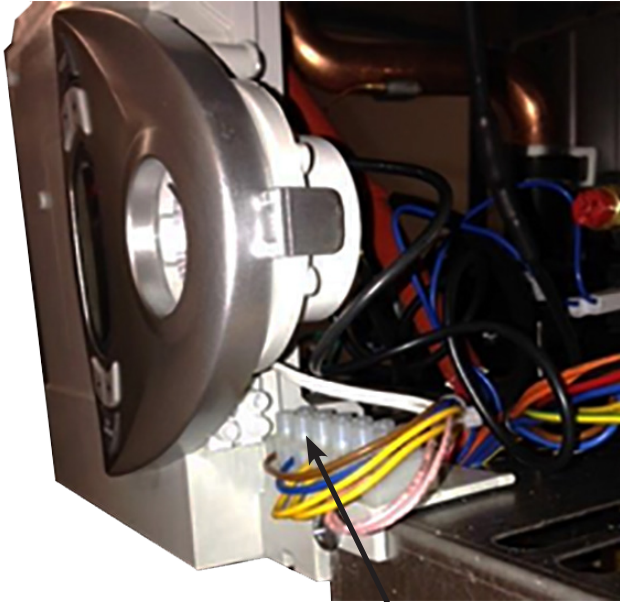
NOTICE

***Important:**

- Before connecting the room thermostat, remove jumper on terminal block. (Key 72)
- Before connecting optional Indirect Tank Sensor, remove two resistors. (Key 155)
- Before connecting the Low Water Cutoff, remove the jumper on terminal block. (Key 370)

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Figure 5 - Low Voltage Terminal Strip, CHB-130 Shown



Low Voltage Terminal Strip

Figure 6 - Low Voltage Terminal Strip Removed from Boiler, CHB -130 Shown



Low Voltage Terminal Strip Removed

Temperature Deg F	Resistance in Ohms
32	32505
60	15689
70	11935
77	10000
100	8060
110	4732
120	3748
130	3104