



# Light Duty Commercial Electric Voltage and Wattage Conversion Instructions

**Conversion to be performed by a Qualified Service Person only.**

Underwriters Laboratories Inc. recognizes this procedure as herein presented and no deviation from these instructions are allowed.



LDWH-6U      LE16WV  
 LDWH-12U    LE112WV  
 LDWH-20L    LE120WV  
 LDWH-30L

LD-20L      LE120L  
 LD-30L      LE130L  
 LD-30R      LE230S  
 LD-40L      LE140L  
 LD-40S      LE240S  
 LD-50L      LE150L  
 LD-50S      LE250S  
 LD-65R      LE265T  
 LD-80R      LE280T  
 LD-120R    LE2120T

LD-6U        LE16U  
 LD-12U      LE112U  
 LD-12UT     LE112T  
 LD-20U      LE120U  
 LD-30U

The conversion procedure outlined in the instruction manual is to be executed only by Qualified Service Personnel.

Read these instructions first before proceeding with the conversion.

The purpose of this instruction manual is to instruct about the changing of wattage and voltage for Light Duty Commercial Electric water heaters manufactured by Bradford White Corporation. ETL recognizes this procedure as herein presented and no deviation from these instructions are allowed.

Special factory prepared kits must be used for these conversions. Below is a list of the kits that have been prepared for the various wattages and voltages.

These instructions do not allow for the modification that adds or deletes the number of heating elements originally supplied with the water heater; therefore such a modification must not be attempted.

**Voltage and Wattage conversion kit part numbers:**

Element Wattage	Non-Simultaneous Max Wattage	Simultaneous Max Wattage	Voltage			
			120	208	240	277
1500	1500	3000	265-46409-01	265-46409-05	265-46409-13	265-46409-16
2000	2000	4000	265-46409-02*	265-46409-06	265-46409-05	265-46409-17
2500	2500	5000	265-46409-03*	265-46409-07	265-46409-06	265-46409-18
3000	3000	6000	265-46409-04*	265-46409-08	265-46409-14	265-46409-19
3500	3500	7000	N/A	265-46409-09	265-46409-07	N/A
4000	4000	8000	N/A	265-46409-10	265-46409-08	265-46409-20
4500	4500	9000	N/A	265-46409-11	265-46409-09	265-46409-21
5000	5000	10000	N/A	265-46409-12	265-46409-15	265-46409-22
5500	5500	11000	N/A	265-46409-46*	265-46409-10	265-46409-40
6000	6000	12000	N/A	265-46409-47*	265-46409-48*	265-46409-23

\* These kits contain only one (1) element. These are non-simultaneous kits only.

Element Wattage	Non-Simultaneous Max Wattage	Simultaneous Max Wattage	Voltage		
			380	415	480
1500	1500	3000	265-46409-24	265-46409-41	265-46409-32
2000	2000	4000	265-46409-43	265-46409-24	265-46409-33
2500	2500	5000	265-46409-25	265-46409-43	265-46409-34
3000	3000	6000	265-46409-26	265-46409-25	265-46409-35
3500	3500	7000	265-46409-27	265-46409-26	N/A
4000	4000	8000	265-46409-29	265-46409-27	265-46409-36
4500	4500	9000	265-46409-30	265-46409-28	265-46409-37
5000	5000	10000	265-46409-31	265-46409-29	265-46409-38
5500	5500	11000	265-46409-44	265-46409-30	265-46409-42
6000	6000	12000	265-46409-45	265-46409-31	265-46409-39

**Tools required for conversion:**

1. 1 ½" deep-well socket or wrench.
2. Phillips head screwdriver.
3. ¼" nut-driver or socket.
4. Thread lubricant.

**⚠ WARNING**

**High voltage potential exposure. To avoid personal injury, be sure water heater is disconnected from power source prior to performing the procedure.**

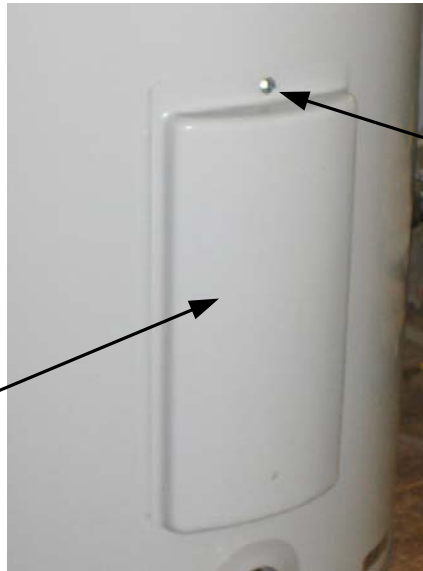
**Element(s) Removal:**

1. Turn off electrical power to water heater, DISCONNECT FROM POWER SOURCE.

2. Drain water heater.

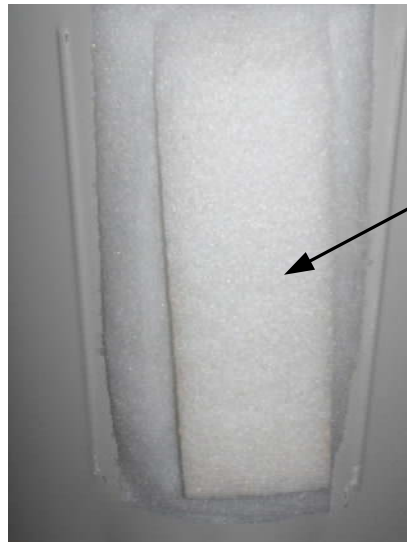
3. Remove element access cover(s).

Element access cover



Remove screw

4. Remove Insulation.



Remove insulation

5. Remove thermostat(s) protector.

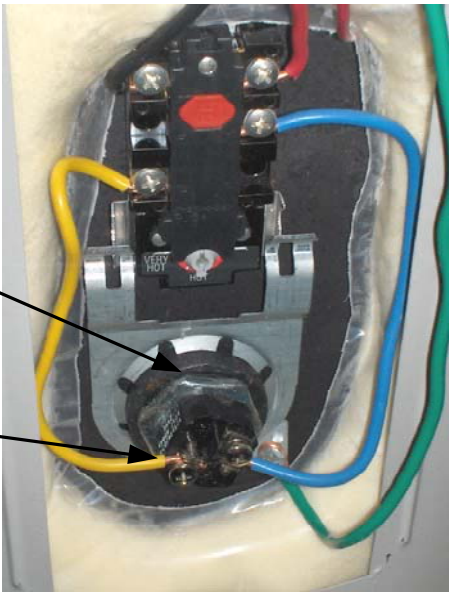


Remove thermostat protector

6. Disconnect wire leads from element(s) terminal block.

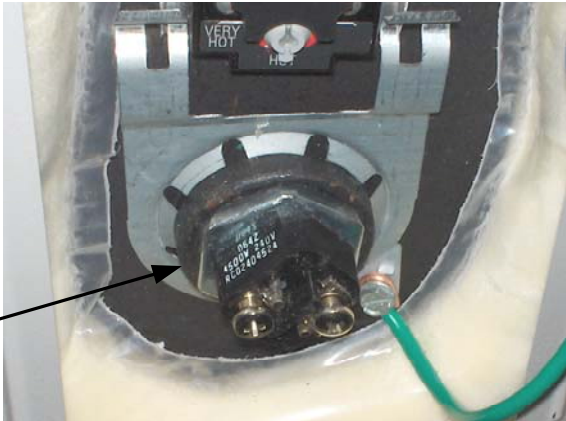
Element terminal block

Disconnect wire leads from element terminal block



7. Remove element(s) from tank using 1½" deep well socket or wrench. Unscrew element(s) counter-clockwise to remove from tank.

Unscrew element(s) counter-clockwise to remove from tank



**Element(s) Installation:**

8. Check element terminal block for proper electrical rating.

Note: Some elements have a dual rating, so be sure to check all surfaces on element terminal block.

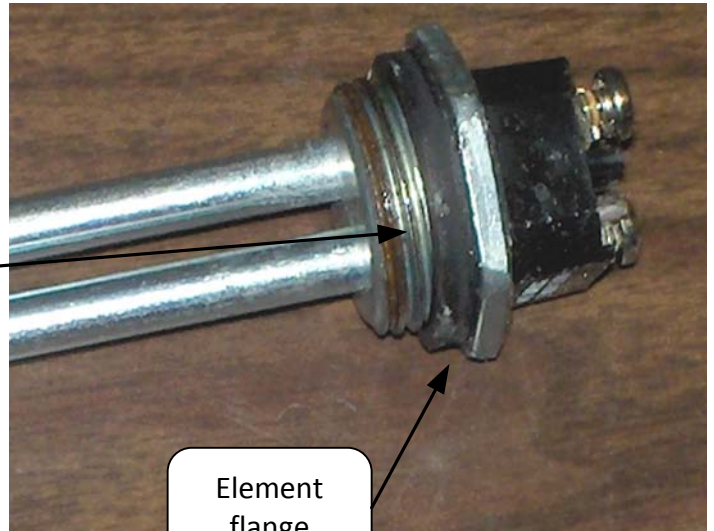
Check rating(s) on element



9. Apply new gasket(s) to new element(s) from conversion kit.

Note: Make sure gasket is seated flat against element flange without rolls or gaps.

Gasket



10. Thread new element(s) clockwise into tank. Tighten element(s) with a 1 1/2" deep well socket or wrench. Do not over tighten. Over-tightening may damage gasket.

Note: Clean any debris from element(s) fitting to tank. Lubricate element(s) threads as needed with thread lubricant.

Element flange

11. Be sure tank is filled with water and check for leaks.

12. Reconnect wire leads to element(s) terminal block.

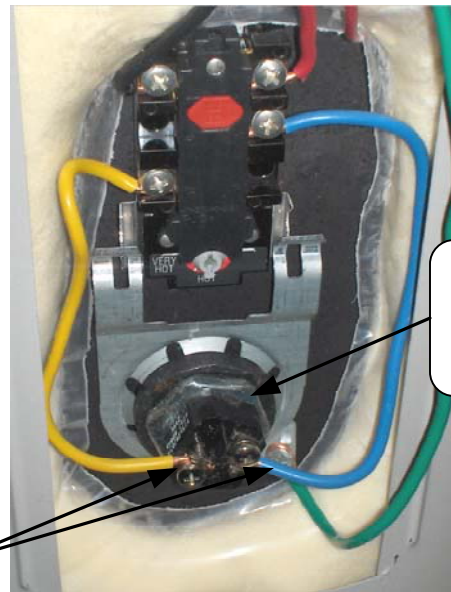
13. When converting from 208, 240, or 480 volt to 120 or 270 volt it is acceptable to tag the red wire with white electrical tape to identify wire. It is also acceptable to tag the white wire with red electrical tape when converting from 120 or 270 volt to 208, 240, or 480 volt.

14. Replace thermostat(s) protector and insulation.

15. Replace access cover(s).

16. Restore electrical power.

Reconnect wires leads to element(s) terminal block



Thread element(s) clockwise into tank

17. Place appropriate label (supplied with kit) so it covers electrical information on water heater rating plate.

Note: Be certain not to cover model number, serial number and capacity information.

Cover electrical information only with appropriate overlay

Water heater rating plate

