

LED Diagnostic System

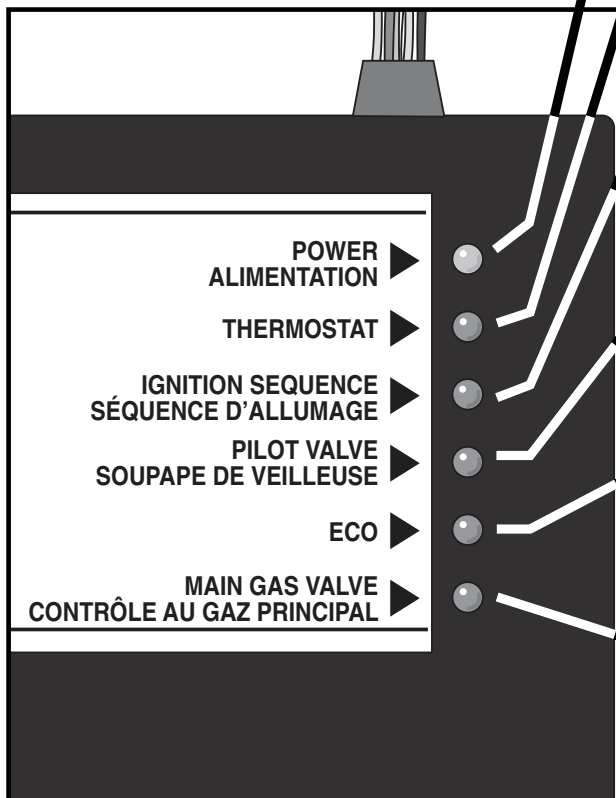
This water heater is equipped with a LED (light emitting diode) diagnostic system, which is located in the black electrical box on the front left hand side of the water heater. The diagnostic system is designed to give the user or qualified service technician, a visual indication of the operational status of the different parts of the water heater's control system. A fast look at the

LED panel will identify where to begin troubleshooting a non functioning water heater. A green light means that the sequence is operating properly and a red light means an on-going action or a problem with the sequence.

• • • • • Before you start! • • • • •

- Before you start troubleshooting your water
- heater, it is important to verify that all of the
- electrical connections are tight as wire con-
- nections can become loose during handling
- and transportation.

The LED's are arranged on the panel based on their order in the normal sequence of operation. Each LED represents the following:



POWER

(refer to Part 1 of the *Troubleshooting Guide*)

When this green LED is illuminated:

- 120 VAC power is being supplied to the water heater.
- the "ON/OFF" switch is working properly.
- the 24 VAC transformer is working properly.
- the 2 A fuse is in good condition.

THERMOSTAT

(refer to Part 2 of the *Troubleshooting Guide*)

When this green LED is illuminated:

- the thermostat is calling for heat.
- 24 VAC power is being supplied to the flue damper assembly.

IGNITION SEQUENCE

(refer to Part 3 of the *Troubleshooting Guide*)

When this green LED is illuminated:

- the thermostat has called for heat.
- the flue damper has fully opened.
- 24 VAC is being supplied to the pilot module.
- ignition sequence will begin.

PILOT VALVE

(refer to Part 4 of the *Troubleshooting Guide*)

When this green LED is illuminated:

- the pilot module is in the ignition sequence and is providing 24 VAC power to the ECO inside the thermostat.

ECO

(refer to Part 5 of the *Troubleshooting Guide*)

When this green LED is illuminated:

- the ECO (energy cut-off or high limit) is closed and the power is being supplied to the "PV" terminal on the main gas valve.

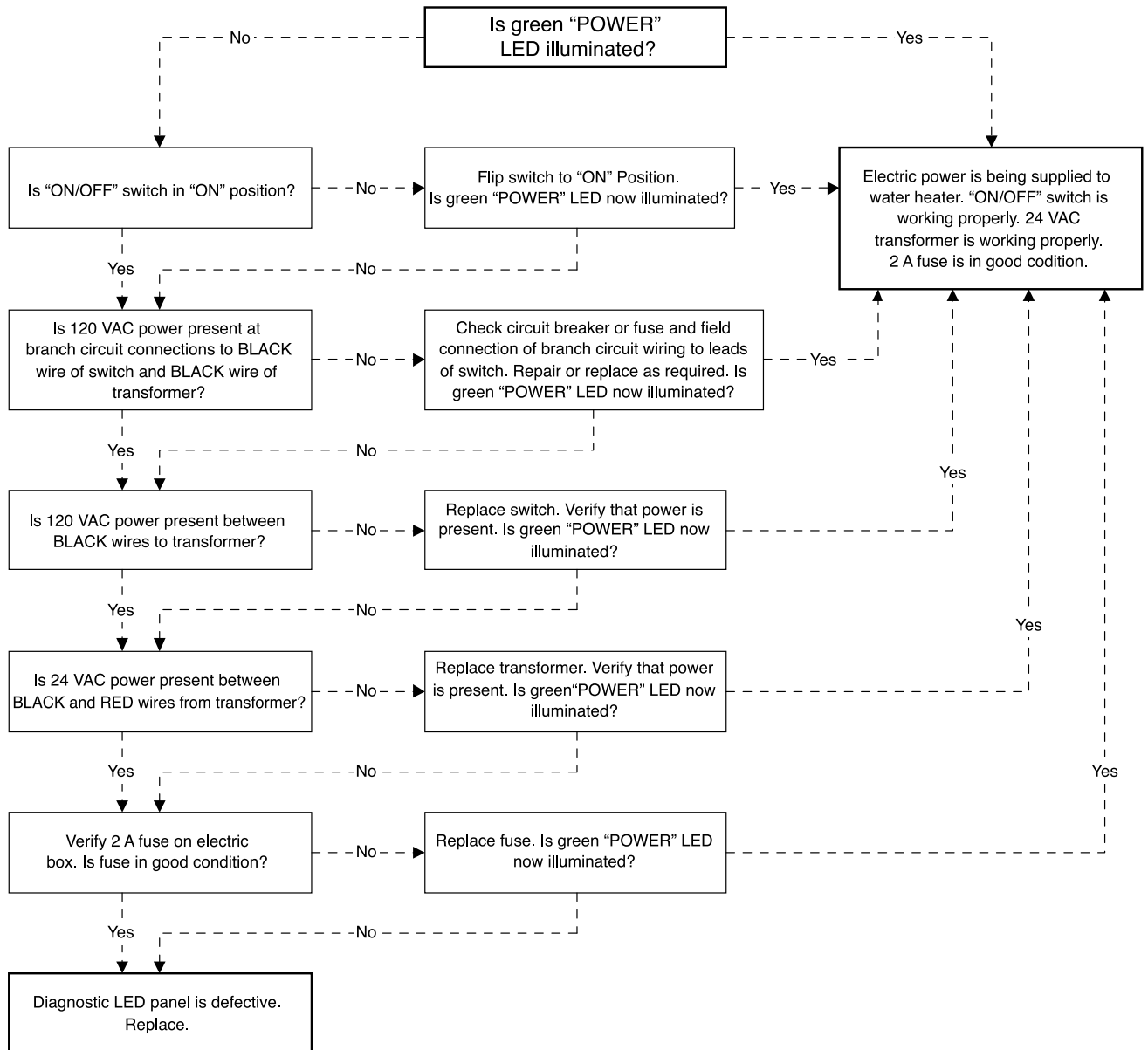
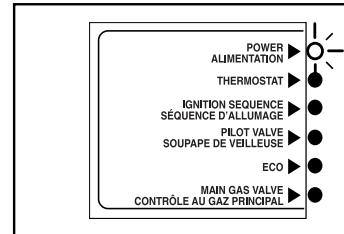
MAIN GAS VALVE

(refer to Part 6 of the *Troubleshooting Guide*)

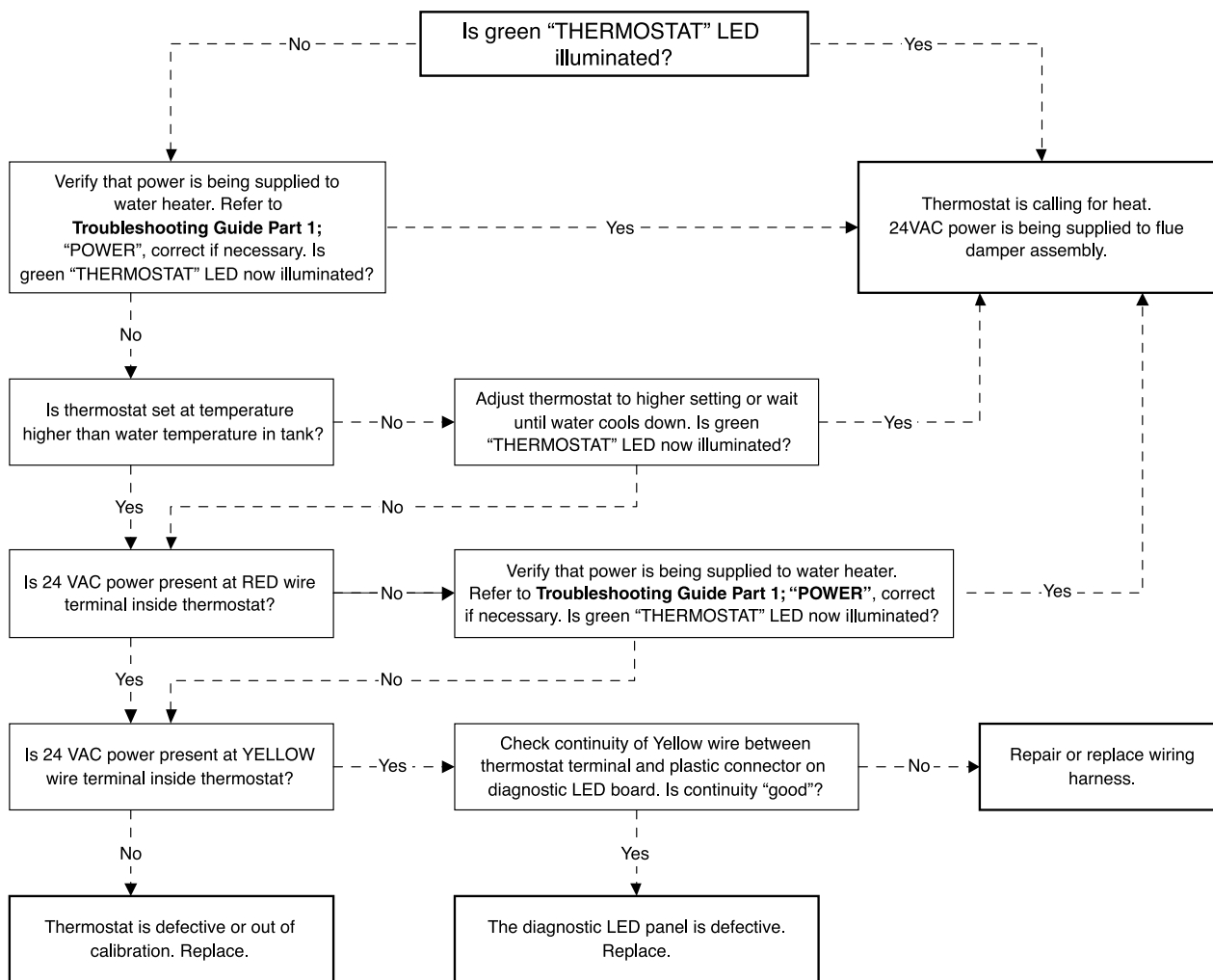
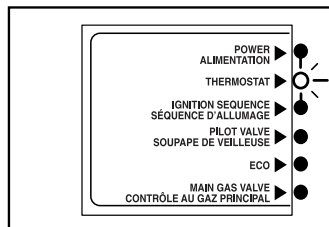
When this green LED is illuminated:

- the pilot module is providing 24 VAC between the "MV" and the "MV/PV" terminals on the main gas valve.
- the main burner should be operating.

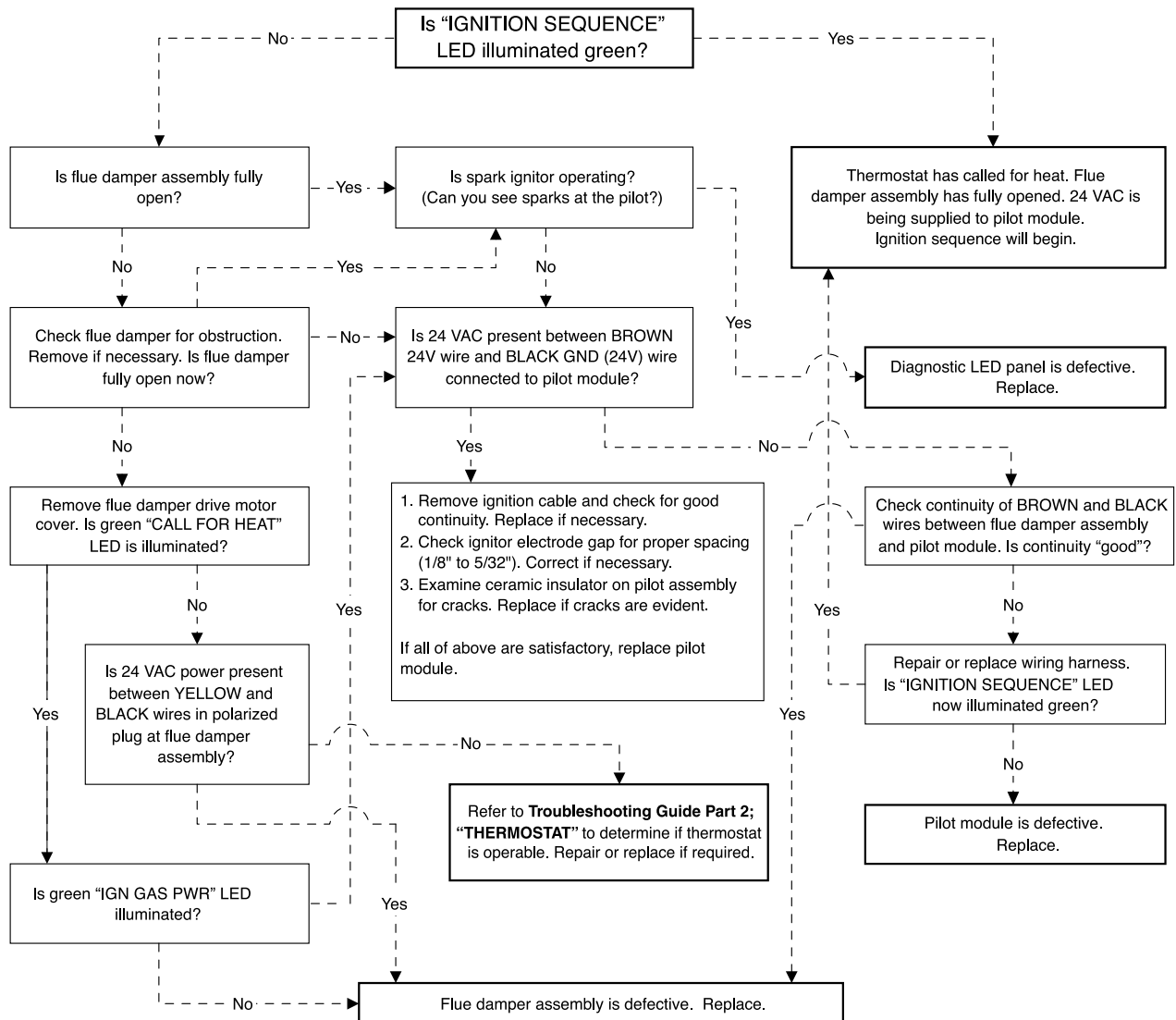
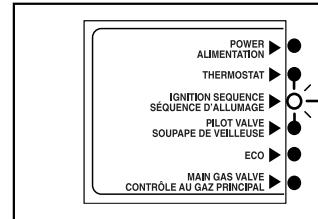
Part 1
“POWER” LED



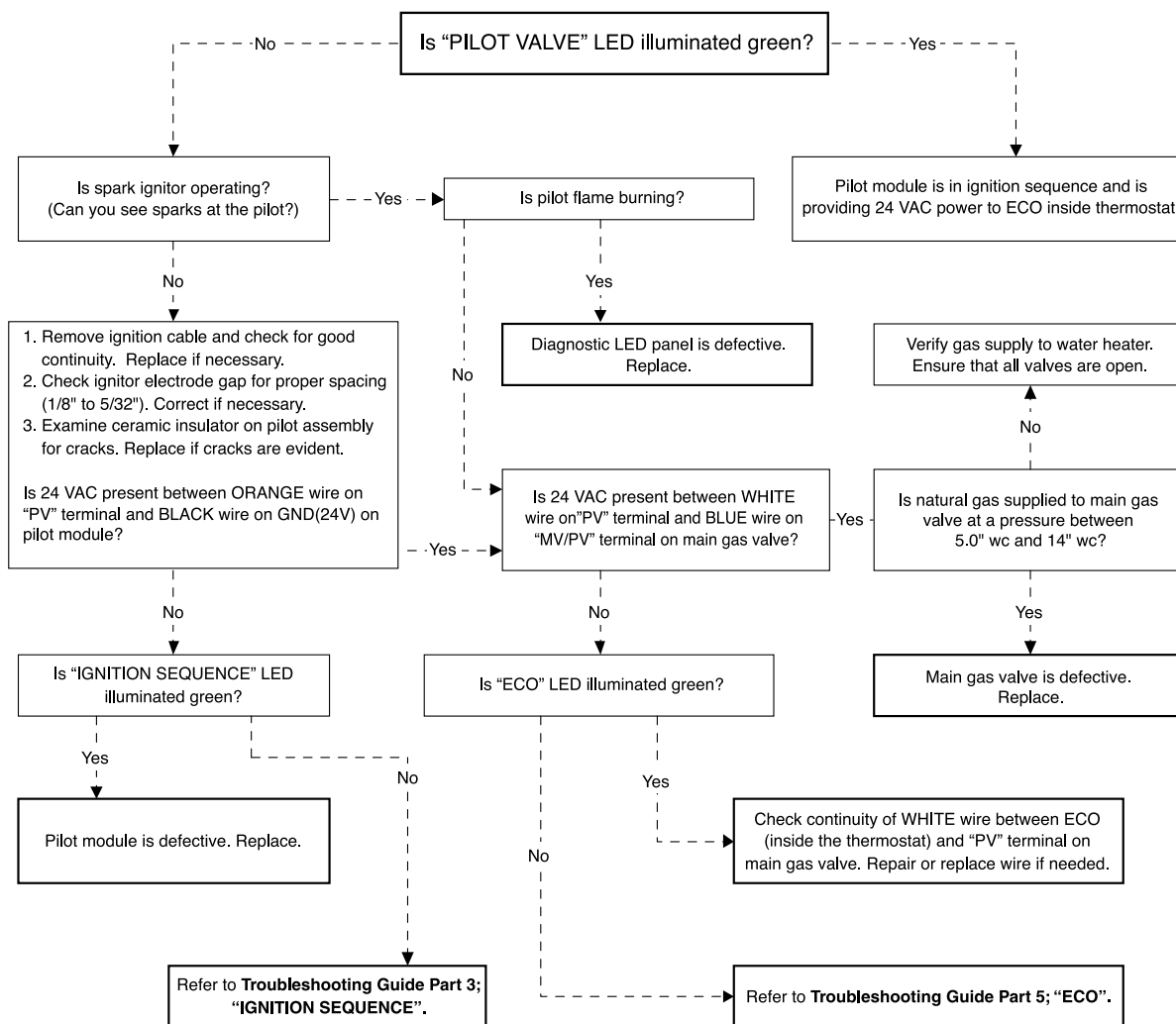
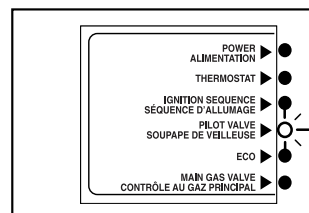
Part 2
“THERMOSTAT” LED



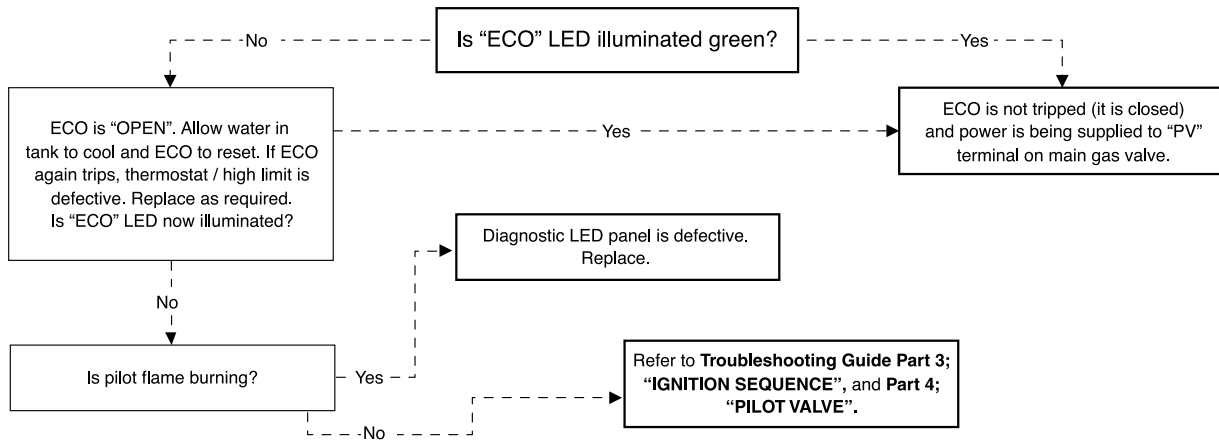
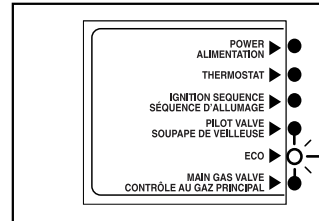
Part 3
“IGNITION SEQUENCE” LED



Part 4
“PILOT VALVE” LED



Part 5
“ECO” LED



Part 6 “MAIN GAS VALVE” LED

