

50A55 INTEGRATED FURNACE CONTROL MODULE

Qualified Serviceman's Troubleshooting Guide

TROUBLESHOOTING PROCEDURE

If the light on the module is on continuously, the fault is likely to be internal to the module. To make sure, interrupt line or 24 volt thermostat power for a few seconds and then restore. If internal fault is indicated again, and flame sensor is not shorted to ground, replace control. A flashing light indicates the problem is most likely in the external components or wiring. Proceed as follows:

⚠ WARNING

Turn power off before any troubleshooting or servicing begins.

⚠ WARNING

Failure to read and follow all instructions carefully before installing or operating this control, could cause personal injury and/or property damage.

Line voltage (120 VAC) could be present on the surface of the ignitor, if the system is not correctly wired. Such voltage can cause serious injury or death.

The following steps must be performed first before any troubleshooting begins.

- 1) Disconnect electric power to system at main fuse or circuit breaker.
- 2) Visually inspect equipment for apparent damage. Check wiring for loose connections.
- 3) Check for proper grounding and reversed polarity.
 - A. Check continuity for C terminal on module to electrical service ground and connection at the furnace junction box. If ground connection is open, check module ground connection and the electrical service ground connection. Repair and retest.
 - B. Re-connect electric power to system.
 - C. Check for voltage between the line neutral terminal and furnace ground. If voltage exists, the main power supply lines are improperly connected to the furnace (REVERSED POLARITY). Again disconnect electric power to system; then reverse incoming supply leads to furnace. Repeat step.
 - D. Recheck system for proper operation.

If neither apparent damage, loose connection nor reversed polarity is the problem, proceed to troubleshooting chart or fault index chart that is suggested by the actual condition.

NOTE: This troubleshooting guide is not for 50A55-4XX modules found on Trane equipment or 50A55-1XX modules found on Lennox equipment.

FAULT INDEX CHART

No manual fan	1A - 1K
Power supply and voltage	1C - 1G
No fan at cooling speed	2A - 2L
No induced draft motor	3A - 3H
LED flashing 2X without inducer	3E
LED flashing 3X with inducer	3I - 3O
Ignitor does not glow	4A - 4D
Burner does not stay lit	4E - 4N
Gas supply problem	4F - 4K
No outlet pressure	4H - 4J
Gas valve does not energize	4L - 4N
Flame sensor fault	5A - 5P
Burner ground	5K
Polarity check	5L - 5M
Ignitor stays on after burner ignition	5B - 5C

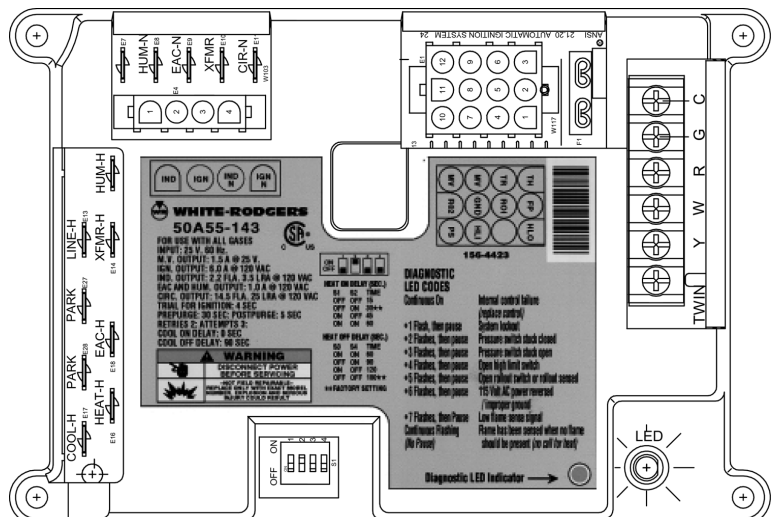
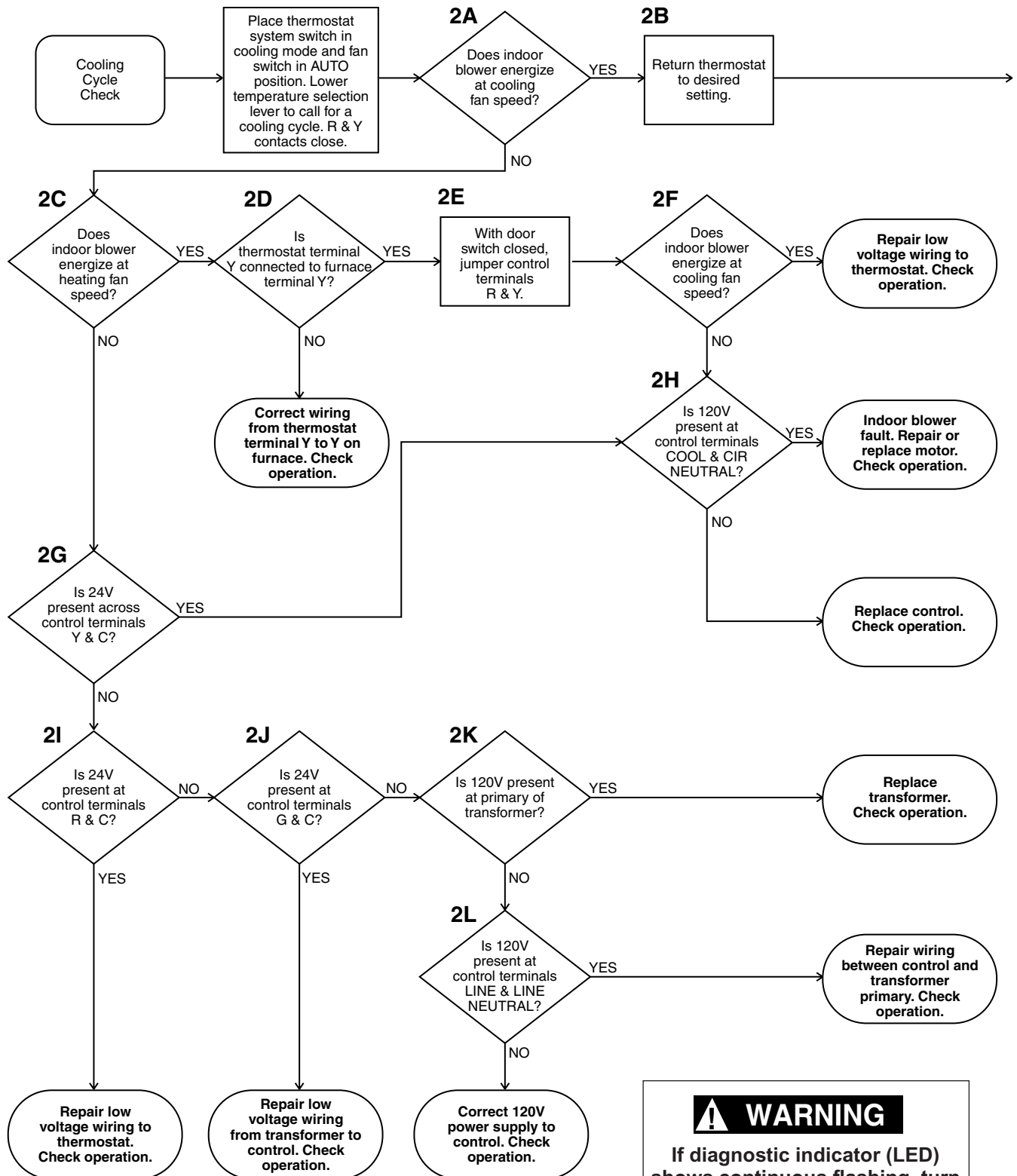


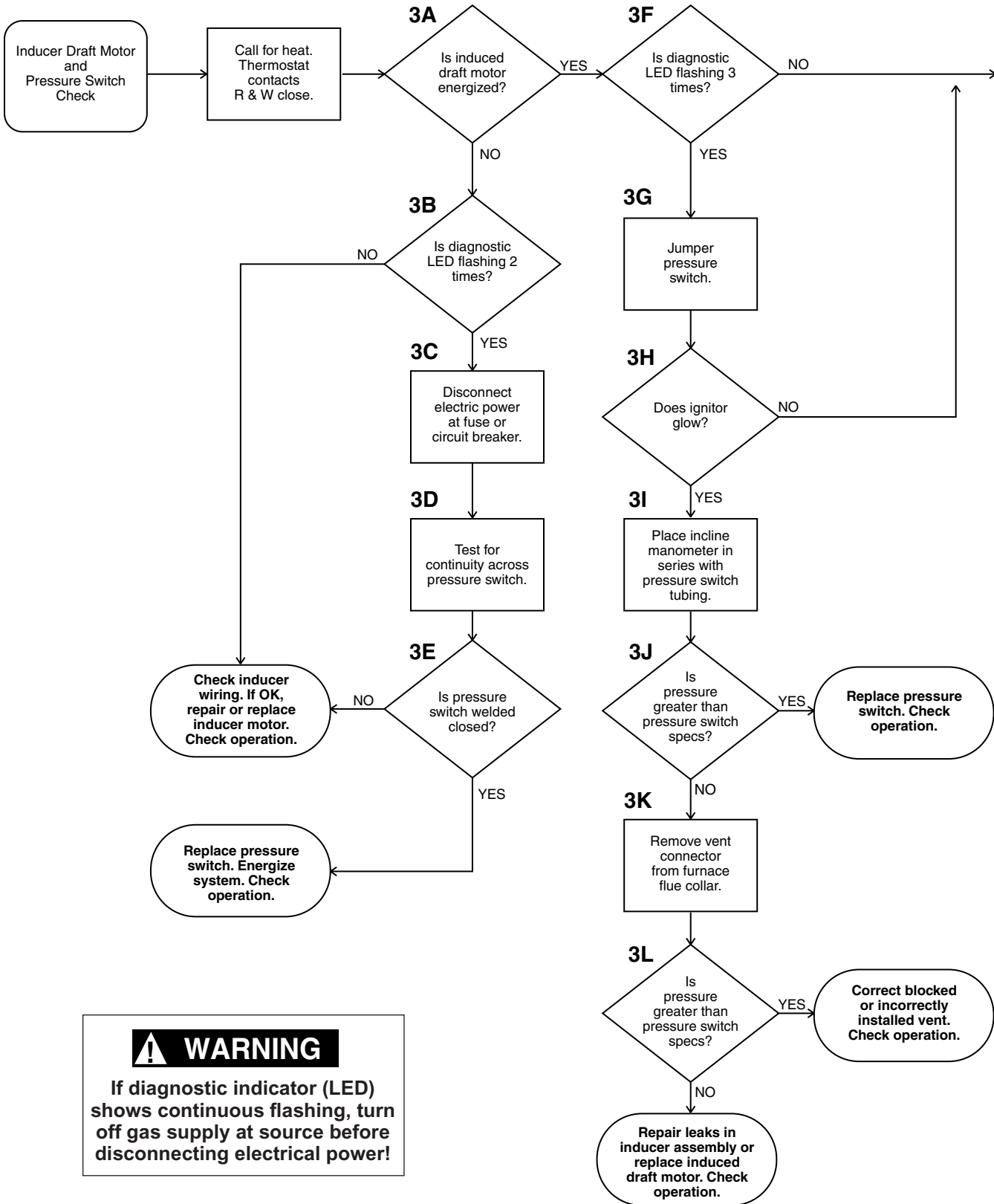
CHART 2



⚠ WARNING
If diagnostic indicator (LED) shows continuous flashing, turn off gas supply at source before disconnecting electrical power!

TECHNICAL HELP

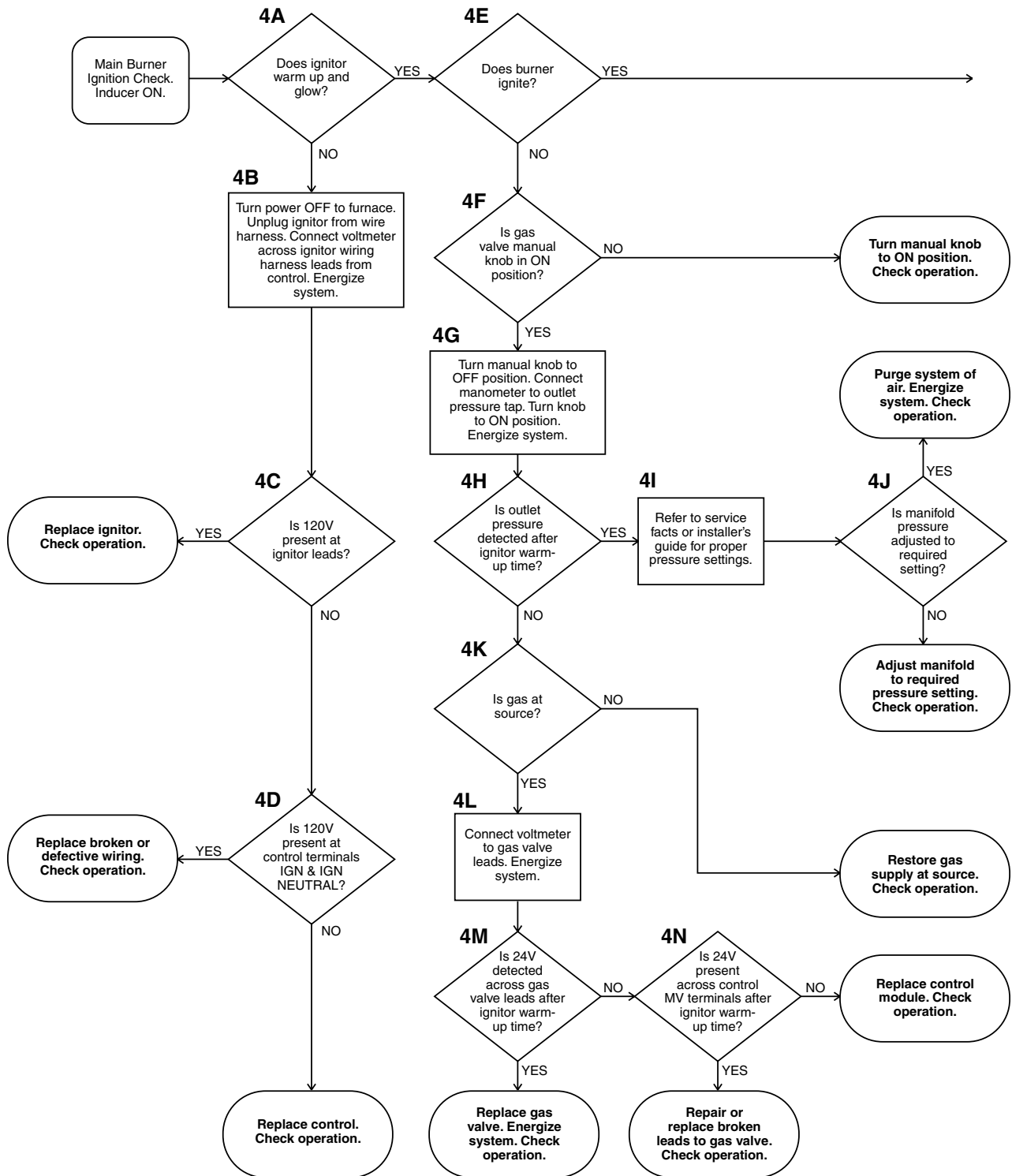
CHART 3



⚠ WARNING
 If diagnostic indicator (LED) shows continuous flashing, turn off gas supply at source before disconnecting electrical power!

TECHNICAL HELP

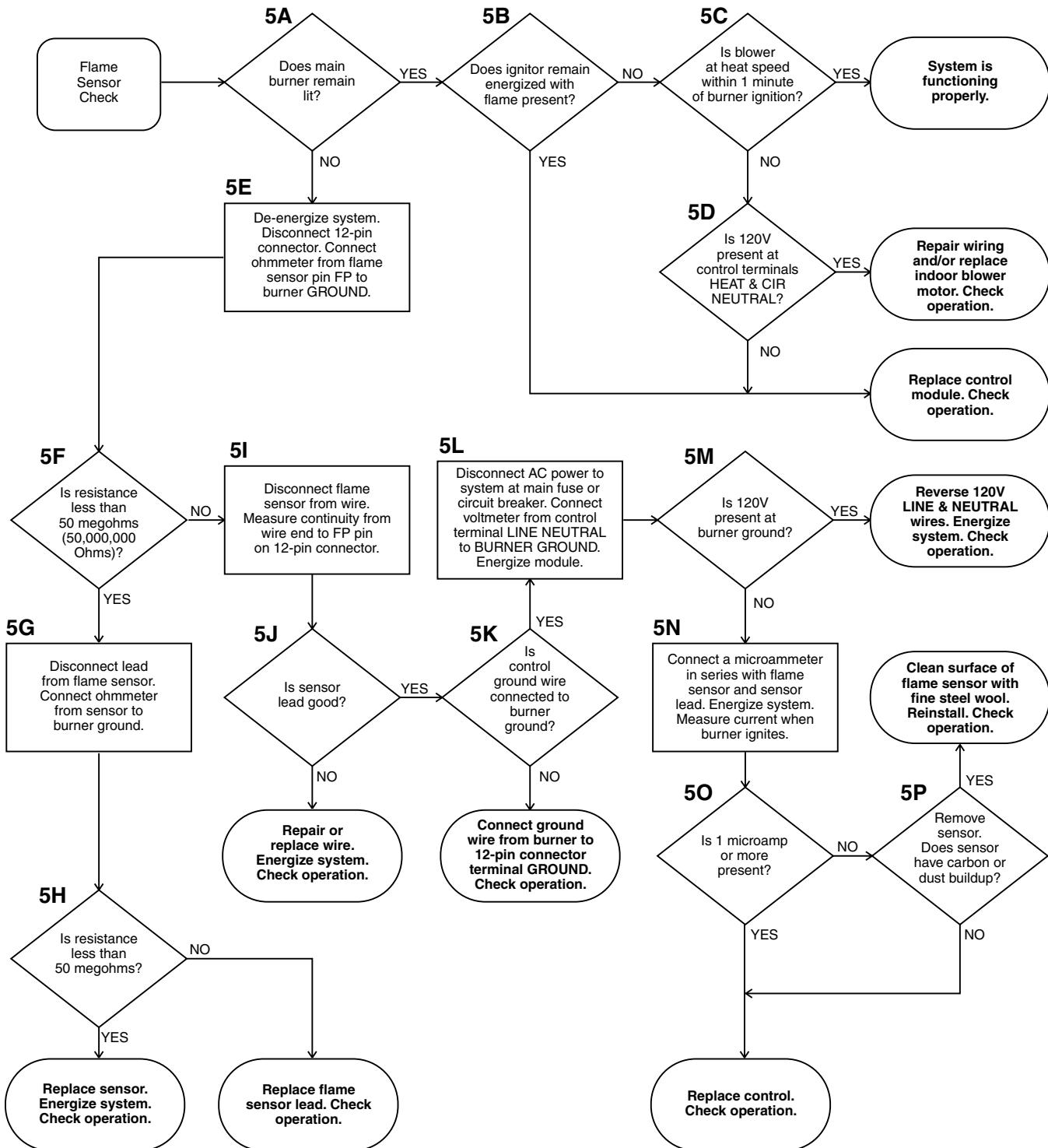
CHART 4



⚠ WARNING

If diagnostic indicator (LED) shows continuous flashing, turn off gas supply at source before disconnecting electrical power!

CHART 5



⚠ WARNING
If diagnostic indicator (LED) shows continuous flashing, turn off gas supply at source before disconnecting electrical power!

TECHNICAL HELP