

# Drying Tumblers

25 Pound Capacity

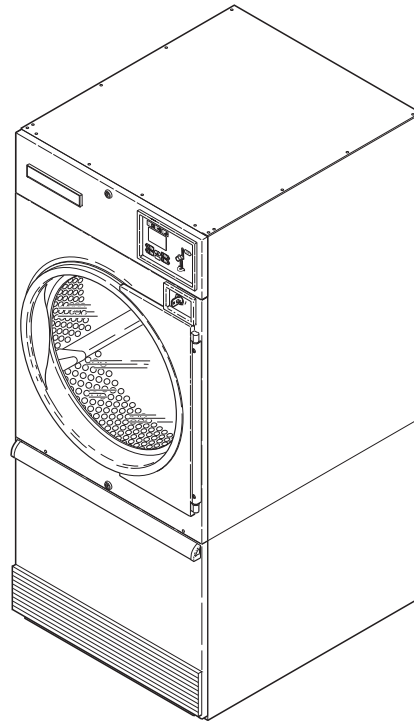
30 Pound Capacity

35 Pound Capacity

55 Pound Capacity

Starting Serial No. 0602004144

Refer to Page 7 for Model Numbers





# Table of Contents

<b>Section 1 – Safety Information .....</b>	<b>4</b>
Locating an Authorized Service Person .....	6
Safety Warnings and Decals .....	6
Safety Precautions for Servicing Tumblers .....	6
<b>Section 2 – Introduction .....</b>	<b>7</b>
Model Identification .....	7
Serial Plate Location.....	9
Customer Service.....	9
Wiring Diagram .....	9
How a Tumbler Works .....	10
<b>Section 3 – Troubleshooting.....</b>	<b>11</b>
1. Tumbler Does Not Start .....	12
2. Motor Does Not Start.....	13
3. Motor Overload Protector Cycles Repeatedly .....	14
4. Motor Runs But Cylinder Does Not Turn.....	15
5. Motor Does Not Stop .....	16
6. Burner Does Not Ignite .....	17
7. Burner Ignites and Goes Out Repeatedly.....	20
8. Burner Does Not Shut Off .....	21
9. Clothes Do Not Dry .....	22
10. Tumbler Overheating .....	24
11. Burner Not Burning Properly.....	25
12. Loading Door Opens During Operation.....	26
13. Cylinder Continues to Spin with Door Open .....	27
14. Coin Does Not Fall into Coin Vault or Coin Drop Sensor Does Not Register that Coin Has Been Entered.....	28
<b>Section 4 – Adjustments .....</b>	<b>29</b>
15. Loading Door Switch.....	29
16. Loading Door Strike.....	29
<b>Section 5 – Micro Display Control (MDC) Troubleshooting.....</b>	<b>30</b>
<b>Models with BC, BL, BX and BY Control Suffixes</b>	
17. Coins Ignored When Entered .....	30
18. Control Has No Display .....	31
19. Door Open Indicator .....	33
20. Motor Will Not Start/Run .....	35
21. Unit Will Not Heat – Gas.....	39
22. Unit Will Not Heat – Steam .....	42
23. Unit Will Not Heat – Electric .....	45
24. Error Codes .....	48
Gas and Steam Models	
Control Circuit Schematic .....	49
Control Circuit Connection .....	50
Gas and Steam Models	
Control Box Schematic .....	51
Control Box Connection .....	52

© Copyright 2009, Alliance Laundry Systems LLC

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the expressed written consent of the publisher.


Gas and Steam Models	
Control Circuit Schematic.....	53
Gas and Steam Models	
Control Circuit Schematic.....	54
Gas and Steam Models	
Control Box Schematic .....	55
Control Box Connection .....	56
Electric Models	
Control Circuit Schematic.....	57
Control Circuit Connection .....	58
Electric Models	
Control Box Connection .....	59
Control Box Schematic .....	60
<b>Section 6 – NetMaster Troubleshooting .....</b>	<b>61</b>
<b>Models with NC, NR, NX, NY, ZC, ZR, ZX and ZY</b>	
<b>Control Suffixes</b>	
25. No Infra-red (IR) Communication .....	61
26. Coins Ignored When Entered.....	62
27. Control Has No Display.....	63
28. Door Open Indicator .....	65
29. Motor Will Not Start/Run .....	67
30. Unit Will Not Heat – Gas.....	71
31. Unit Will Not Heat – Steam.....	74
<b>Section 7 – Hybrid Timer Control Troubleshooting .....</b>	<b>76</b>
<b>Models with QT, SD and SX Control Suffixes</b>	
32. Coins Ignored When Entered.....	76
33. Control Has No Display – OPL Models .....	77
34. Display Flashes “dr” With Door Closed – OPL Models .....	80
35. Vend Satisfied, No In Use LED – Coin Models .....	83
36. In Use LED Lit, No Motor Run – Coin Models .....	87
37. Motor Will Not Start/Run – Coin Models .....	90
38. Motor Will Not Start/Run – OPL Models.....	93
39. Unit Will Not Heat – Gas – Coin Models.....	96
40. Unit Will Not Heat – Gas – OPL Models.....	99
41. Unit Will Not Heat – Electric OPL.....	102
42. Error Codes .....	106
<b>Section 8 – On Premise Micro Control Troubleshooting.....</b>	<b>107</b>
<b>Models with OM Control Suffix</b>	
43. Control Has No Display.....	108
44. Door Open Indicator .....	110
45. Motor Will Not Start/Run .....	113
46. Unit Will Not Heat – Gas.....	116
47. Unit Will Not Heat – Steam.....	119
48. Unit Will Not Heat – Electric .....	122
49. Error Codes .....	125


<b>Section 9 – Quantum Control Troubleshooting.....</b>	<b>126</b>
<b>Models with LC, LX, LY, WC, WX and WY Control Suffixes</b>	
50. No Infrared Communication .....	127
51. Coins Ignored When Entered .....	128
52. No Display .....	129
53. “Door Open” Indicator .....	131
54. No Start/Run .....	133
55. Unit Will Not Heat – Gas.....	135
56. Unit Will Not Heat – Steam .....	138
57. Unit Will Not Heat – Electric .....	140
58. CE Models No Display .....	143
59. CE Models “Door Open” Indicator.....	145
60. CE Models No Start/Run .....	147
61. CE Models Will Not Heat – Gas/Steam.....	149
62. CE Models Will Not Heat – Electric .....	152


# Section 1

## Safety Information

Throughout this manual and on machine decals, you will find precautionary statements (“CAUTION”, “WARNING”, and “DANGER”) followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

	<b>DANGER</b>
Danger indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.	

	<b>WARNING</b>
Warning indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.	


	<b>CAUTION</b>
Caution indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.	

Additional precautionary statements (“IMPORTANT” and “NOTE”) are followed by specific instructions.

**IMPORTANT:** The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

**NOTE:** The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.


In the interest of safety, some general precautions relating to the operation of this machine follow.


	<b>WARNING</b>
<ul style="list-style-type: none"><li>• Failure to install, maintain and/or operate this product according to the manufacturer’s instructions may result in conditions which can produce serious injury, death and/or property damage.</li><li>• Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and unless you understand and have the skills to carry out the servicing.</li><li>• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury or death.</li></ul>	
W006R2	


**IMPORTANT INFORMATION:** During the lifetime of a tumbler, it may require service. The information contained in this manual was written and is intended for use by qualified service technicians who are familiar with the safety procedures required in the repair of a tumbler, and who are equipped with the proper tools and testing equipment.

**NOTE:** The **WARNING** and **IMPORTANT** instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which **CANNOT** be built into this tumbler. These factors **MUST BE** supplied by the person(s) installing, maintaining or operating the tumbler.

Always contact your dealer, distributor, service agent or the manufacturer on any problems or conditions you do not understand.

	<b>WARNING</b>
<p>To reduce the risk of electric shock, fire, explosion, serious injury or death:</p> <ul style="list-style-type: none"> <li>• Disconnect electric power to the tumbler before servicing.</li> <li>• Never start the tumbler with any guards/panels removed.</li> <li>• Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.</li> </ul>	
<small>W240</small>	

	<b>WARNING</b>
<p>Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you, or the inexperienced person making such repairs, to the risk of serious injury, electrical shock, or death.</p>	
<small>W007</small>	

	<b>CAUTION</b>
<p>If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.</p>	
<small>W008</small>	

## Locating an Authorized Service Person

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

## Safety Warnings and Decals

SAFETY WARNINGS and decals have been provided in key locations to remind you of important precautions for the safe operation and maintenance of your tumbler. Please take the time to review these warnings before proceeding with service work.

All decals have been designed and applied to withstand washing and cleaning. Decals should be checked periodically to be sure they have not been damaged, removed, or painted.

## Safety Precautions for Servicing Tumblers

### Prior to servicing tumbler:

- Disconnect electrical service and “lockout” to prevent unintentional connection.
- Shut off supply gas valve.
- Allow machine to cool prior to servicing.

### After servicing tumbler:

- Control/access panels must be reinstalled.
- Motor/drive/belt guards must be reinstalled.
- Contactor/junction/accessory box covers must be reinstalled.
- Use a non-corrosive leak detection solution to check all pipe connections for gas leaks. **DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!**
- The loading door switch, lint door switch and airflow switch must be operating properly.



# Section 2 Introduction

## Model Identification

Information in this manual is applicable to these models:

	Gas			Steam	Electric
<b>25 Pound</b>	CHD25G2-CA025L	HT025L	PA025N	CHD25S2-CT025S	CHD25E2-CT025E
	CHD25G2-CA025N	HT025N	PT025L	CHD25S2-CU025S	CHD25E2-CU025E
	CHD25G2-CT025L	HU025L	PT025N	DR25S2-BT025S	DR25E2-BT025E
	CHD25G2-CT025N	HU025N	PU025L	DR25S2-BU025S	DR25E2-BU025E
	CHD25G2-CU025L	IPD25G2-IT025L	PU025N	GT025S	GT025E
	CHD25G2-CU025N	IPD25G2-IT025N	SA025L	GU025S	GU025E
	DR25G2-BA025L	KA025L	SA025N	HT025S	HT025E
	DR25G2-BA025N	KA025N	ST025L	HU025S	HU025E
	DR25G2-BT025L	KT025L	ST025N	IPD25S2-IT025S	IPD25E2-IT025E
	DR25G2-BT025N	KT025N	SU025L	KT025S	KT025E
	DR25G2-BU025L	KU025L	SU025N	KU025S	KU025E
	DR25G2-BU025N	KU025N	UA025L	LT025S	LT025E
	GA025L	LA025L	UA025N	LU025S	LU025E
	GA025N	LA025N	UT025L	PT025S	PT025E
	GT025L	LT025L	UT025N	PU025S	PU025E
	GT025N	LT025N	UU025L	ST025S	ST025E
	GU025L	LU025L	UU025N	SU025S	SU025E
	GU025N	LU025N	YT025L	UT025S	UT025E
	HA025L	PA025L	YT025N	UU025S	UU025E
	HA025N			YT025S	YT025E
<b>30 Pound</b>	CHD30G2-CA030L	HA030L	PT030L	CHD30S2-CT030S	CHD30E2-CT030E
	CHD30G2-CA030N	HA030N	PT030N	CHD30S2-CU030S	CHD30E2-CU030E
	CHD30G2-CT030L	HT030D	PU030L	DR30S2-BT030S	DR30E2-BT030E
	CHD30G2-CT030N	HT030L	PU030N	DR30S2-BU030S	DR30E2-BU030E
	CHD30G2-CU030L	HT030N	SA030L	GT030S	GT030E
	CHD30G2-CU030N	HU030L	SA030N	GU030S	GU030E
	DR30G2-BA030L	HU030N	ST030D	HT030S	HT030E
	DR30G2-BA030N	IPD30G2-IT030L	ST030L	HU030S	HU030E
	DR30G2-BT030D	IPD30G2-IT030N	ST030N	IPD30S2-IT030S	IPD30E2-IT030E
	DR30G2-BT030L	KT030L	SU030L	KT030S	KT030E
	DR30G2-BT030N	KT030N	SU030N	LT030S	LT030E
	DR30G2-BU030L	LA030L	UA030L	LU030S	LU030E
	DR30G2-BU030N	LA030N	UA030N	PT030S	PT030E
	GA030L	LT030L	UT030L	PU030S	PU030E
	GA030N	LT030N	UT030N	ST030S	ST030E
	GT030L	LU030L	UU030L	SU030S	SU030E
	GT030N	LU030N	UU030N	UT030S	UT030E
	GU030L	PA030L	YT030L	UU030S	UU030E
	GU030N	PA030N	YT030N	YT030S	YT030E

Models continued on next page.

**Introduction**

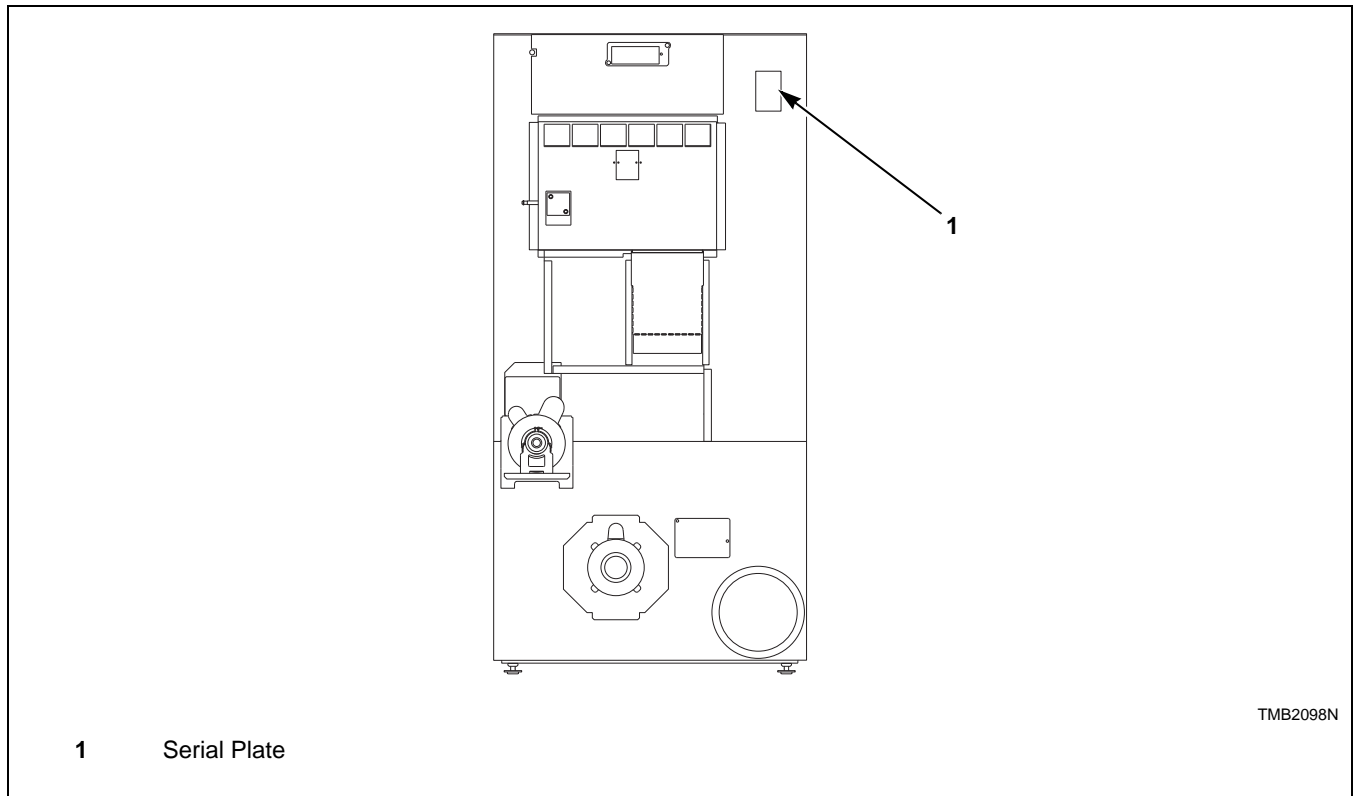
	<b>Gas</b>			<b>Steam</b>	<b>Electric</b>
<b>35 Pound</b>	AT035L	HA035L	PA035L	AT035S	AT035E
	AT035N	HA035N	PA035N	CHD35S2-CT035S	CHD35E2-CT035E
	CHD35G2-CA035L	HT035L	PT035L	CHD35S2-CU035S	CHD35E2-CU035E
	CHD35G2-CA035N	HT035N	PT035N	DR35S2-BT035S	DR35E2-BT035E
	CHD35G2-CT035L	HU035L	PU035L	DR35S2-BU035S	DR35E2-BU035E
	CHD35G2-CT035N	HU035N	PU035N	GT035S	GT035E
	CHD35G2-CU035L	IPD35G2-IT035L	SA035L	GU035S	GU035E
	CHD35G2-CU035N	IPD35G2-IT035N	SA035N	HT035S	HT035E
	DR35G2-BA035L	KA035L	ST035L	HU035S	HU035E
	DR35G2-BA035N	KA035N	ST035N	IPD35S2-IT035S	IPD35E2-IT035E
	DR35G2-BT035L	KT035L	SU035L	KT035S	KT035E
	DR35G2-BT035N	KT035N	SU035N	KU035S	KU035E
	DR35G2-BU035L	KU035L	UA035L	LT035S	LT035E
	DR35G2-BU035N	KU035N	UA035N	LU035S	LU035E
	GA035L	LA035L	UT035L	PT035S	PT035E
	GA035N	LA035N	UT035N	PU035S	PU035E
	GT035L	LT035L	UU035L	ST035S	ST035E
	GT035N	LT035N	UU035N	SU035S	SU035E
	GU035L	LU035L	YT035L	UT035S	UT035E
	GU035N	LU035N	YT035N	UU035S	UU035E
			YT035S	YT035E	
			YU035S	YU035E	
<b>55 Pound</b>	CA055L	HT055L	ST055L	Not Applicable	CT055E
	CA055N	HT055N	ST055N		CU055E
	CT055L	HU055L	SU055L		GT055E
	CT055N	HU055N	SU055N		HT055E
	CU055L	IPD55G2-IT055L	UA055L		HU055E
	CU055N	IPD55G2-IT055N	UA055N		IPD55E2-IT055E
	GT055L	KT055L	UT055L		KT055E
	GT055N	KT055N	UT055N		ST055E
	HA055L	SA055L	UU055L		SU055E
	HA055N	SA055N	UU055N		UT055E
	HT055D	ST055D			UU055E

Includes models with the following control suffixes:

- |                                      |                                       |                                       |
|--------------------------------------|---------------------------------------|---------------------------------------|
| 3O – DX4 OPL                         | LC – network adaptable coin           | SX – single drop, prep for coin       |
| 3V – DX4 vended                      | LX – network adaptable, prep for coin | WC – network ready coin               |
| 3X – DX4 prep for coin               | LY – network adaptable, prep for card | WX – network ready, prep for coin     |
| BC – basic electronic, coin          | NC – NetMaster coin                   | WY – network ready, prep for card     |
| BL – basic electronic, central pay   | NR – NetMaster card                   | ZC – NetMaster network coin           |
| BX – basic electronic, prep for coin | NX – NetMaster, prep for coin         | ZR – NetMaster network card           |
| BY – basic electronic, prep for card | NY – NetMaster, prep for card         | ZX – NetMaster network, prep for coin |
| DO – DMP OPL                         | OM – OPL micro                        | ZY – NetMaster network, prep for card |
| DV – DMP vended                      | QT – dual digital timer               |                                       |
| DX – DMP prep for coin               | SD – single drop                      |                                       |

## Serial Plate Location

When calling or writing about your product, be sure to mention model and serial numbers. Model and serial numbers are located on serial plate as shown.



## Customer Service

If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name and address of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

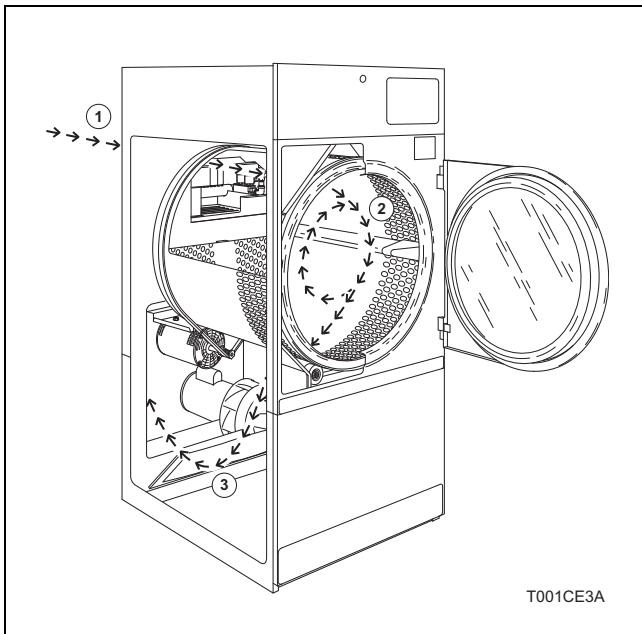
## Wiring Diagram

The wiring diagram is located inside the contactor or junction box.

The wiring diagram part number is located in the lower portion of the electrical data on the serial plate.

## Introduction

### How a Tumbler Works



A tumbler uses heated air to dry loads of laundry.

- ① When the motor is started, the exhaust fan pulls room temperature air in through the air intake at the rear of the tumbler and over the heat source (burner flame for gas, heating element for electric, and coil for steam).
- ② The heated air moves into the cylinder, where it is circulated through the wet load by the tumbling action of the cylinder.
- ③ The air then passes through the lint filter, exhaust fan, and is vented to the outdoors.

# Section 3

## Troubleshooting



### WARNING

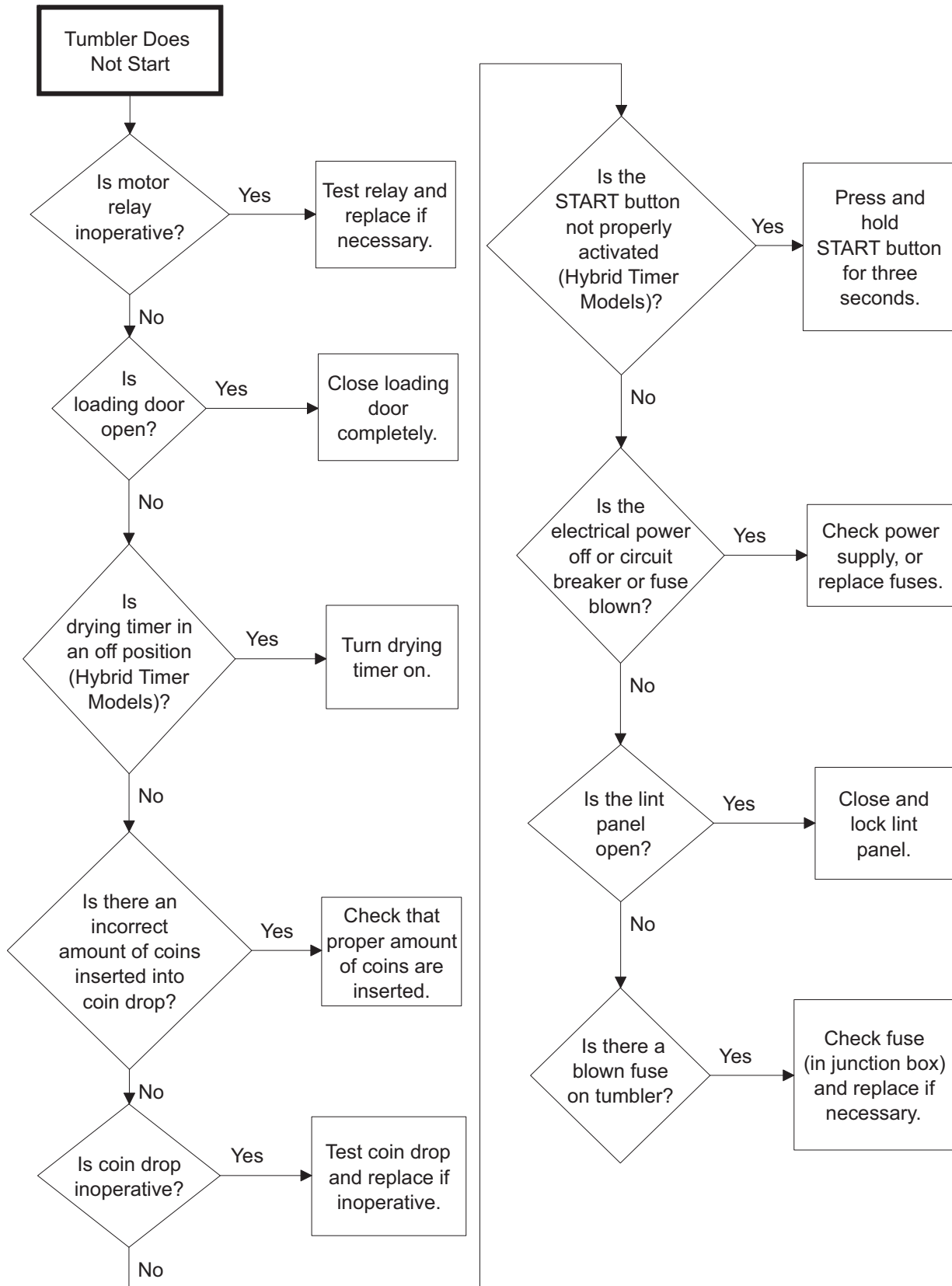
To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

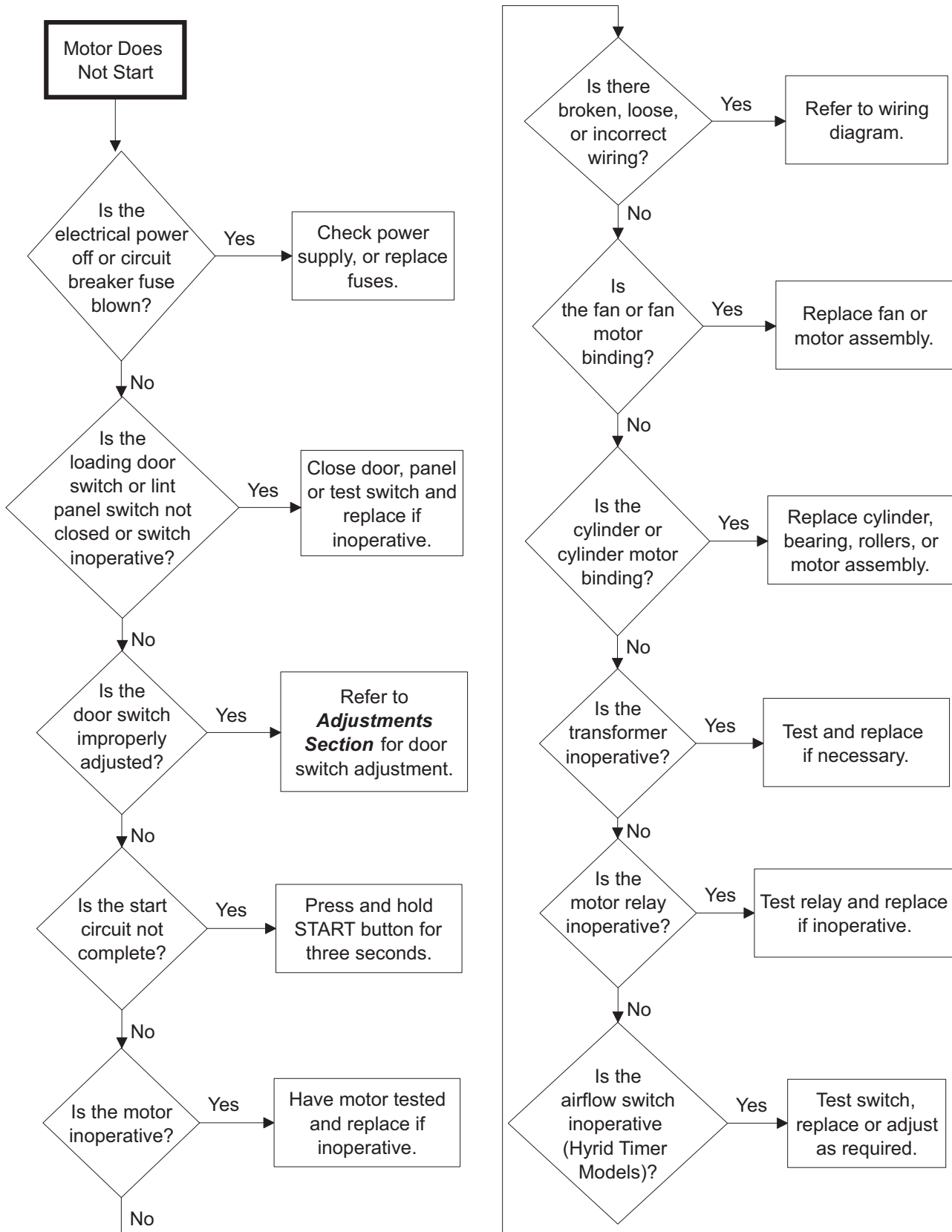
**IMPORTANT:** Refer to wiring diagram for aid in testing tumbler components.

# 1. Tumbler Does Not Start



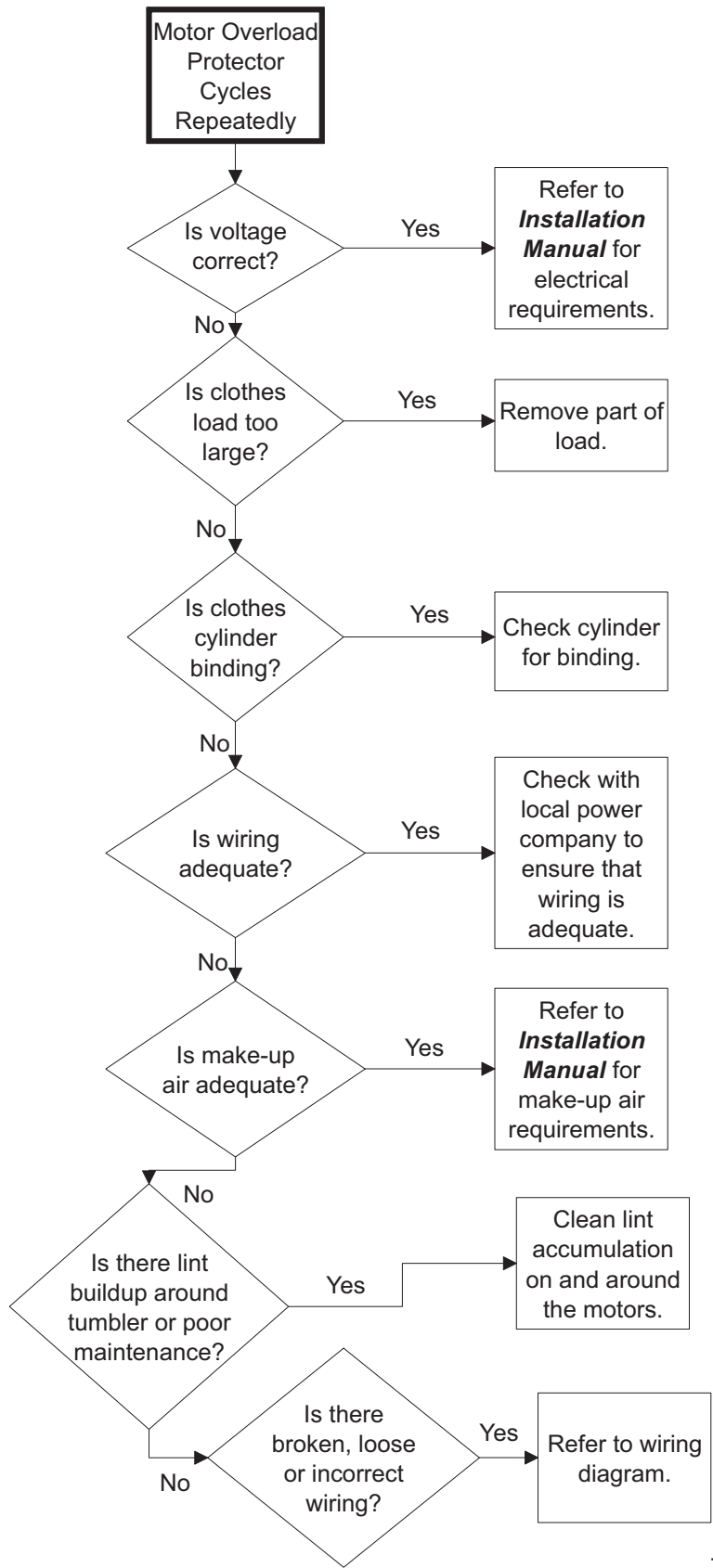
TMB2036S

## 2. Motor Does Not Start



TMB2037S

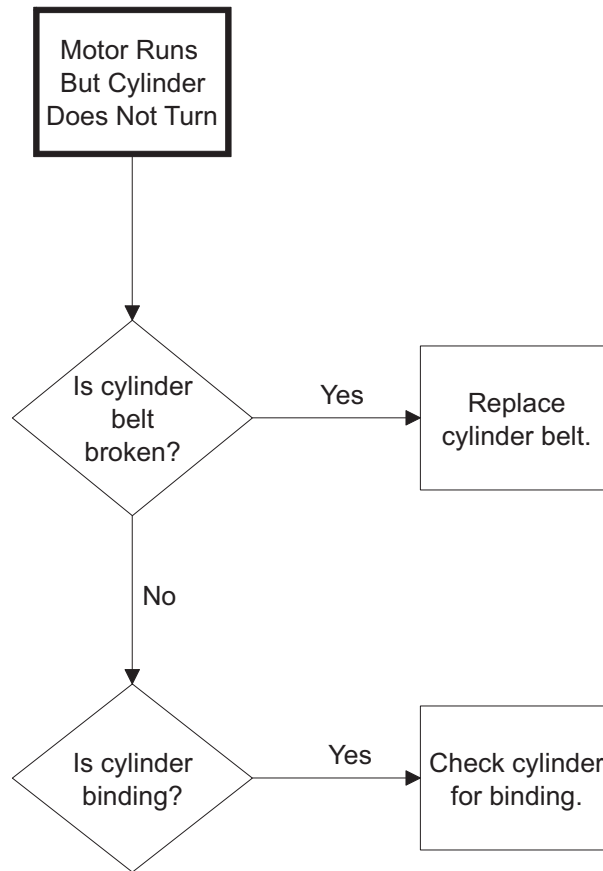
### 3. Motor Overload Protector Cycles Repeatedly



TMB1904S

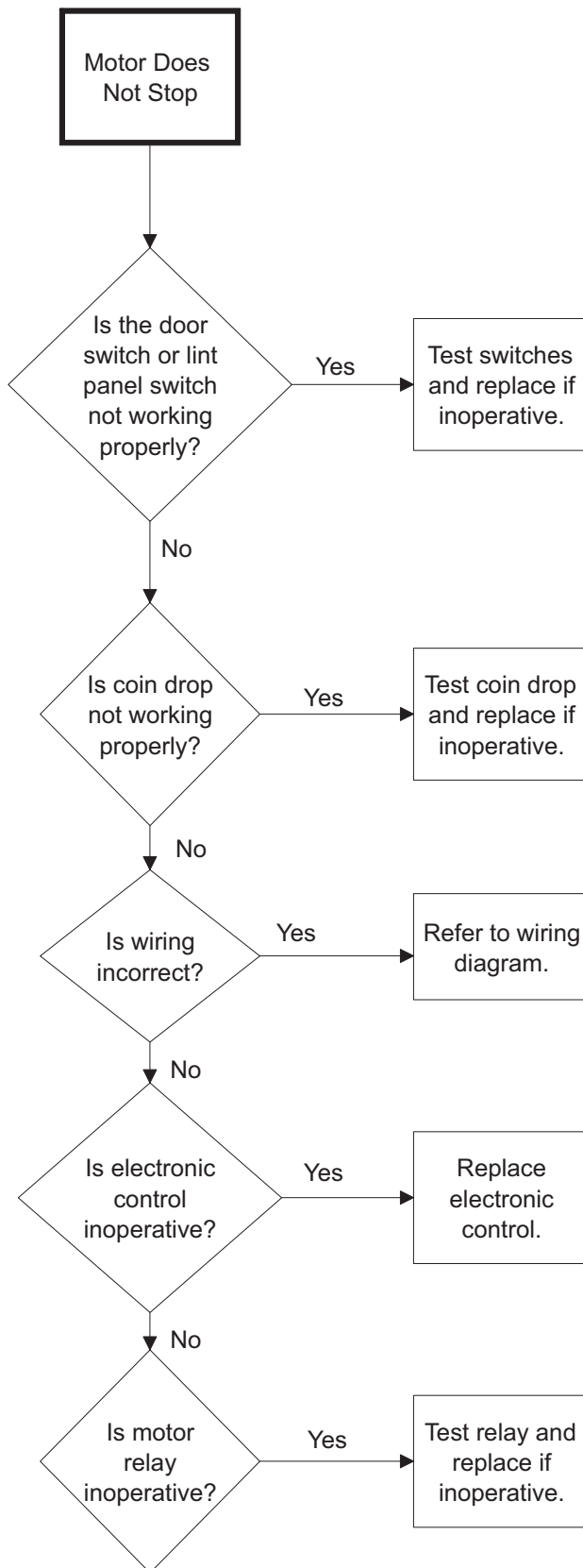


### 4. Motor Runs But Cylinder Does Not Turn



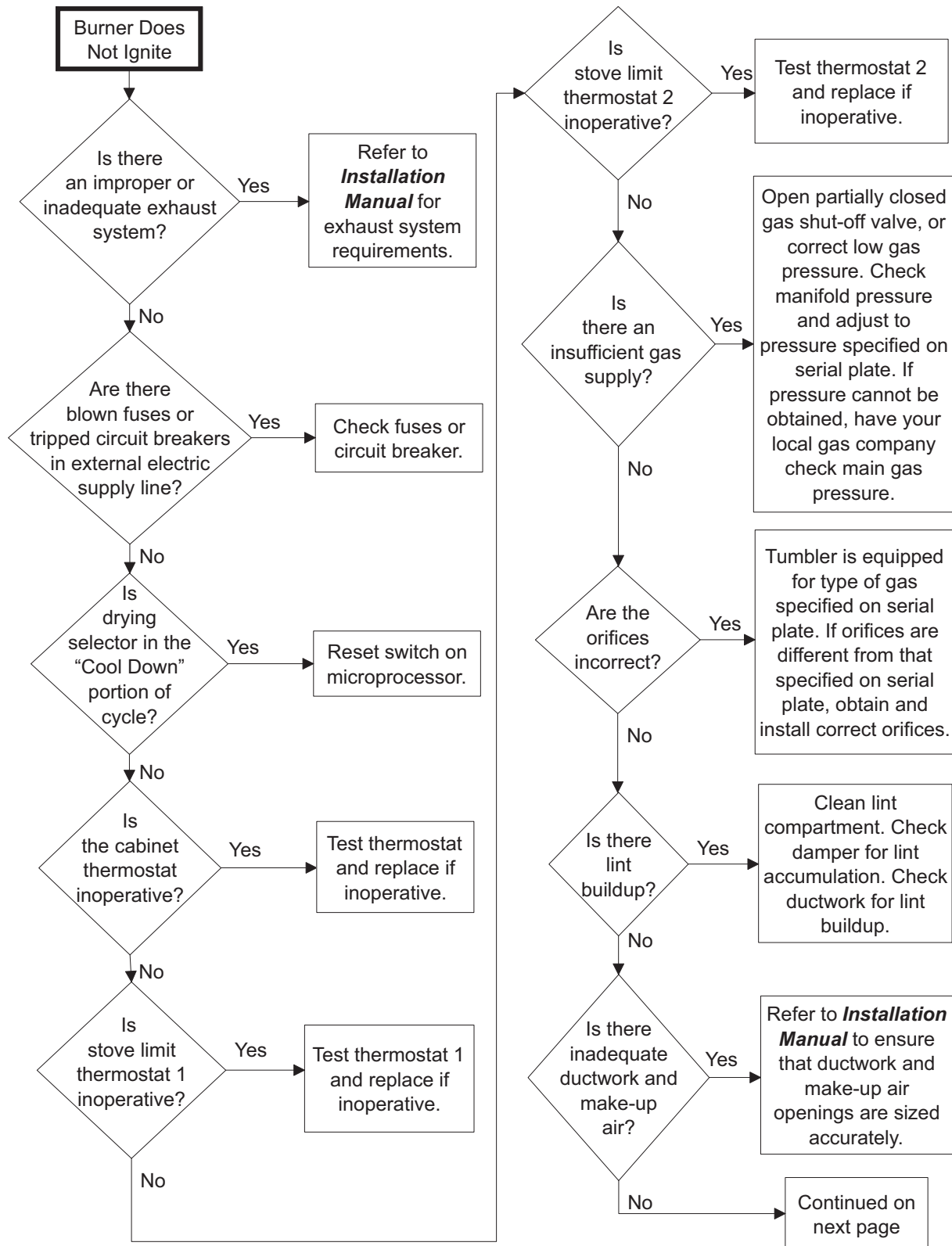
TMB1905S

### 5. Motor Does Not Stop



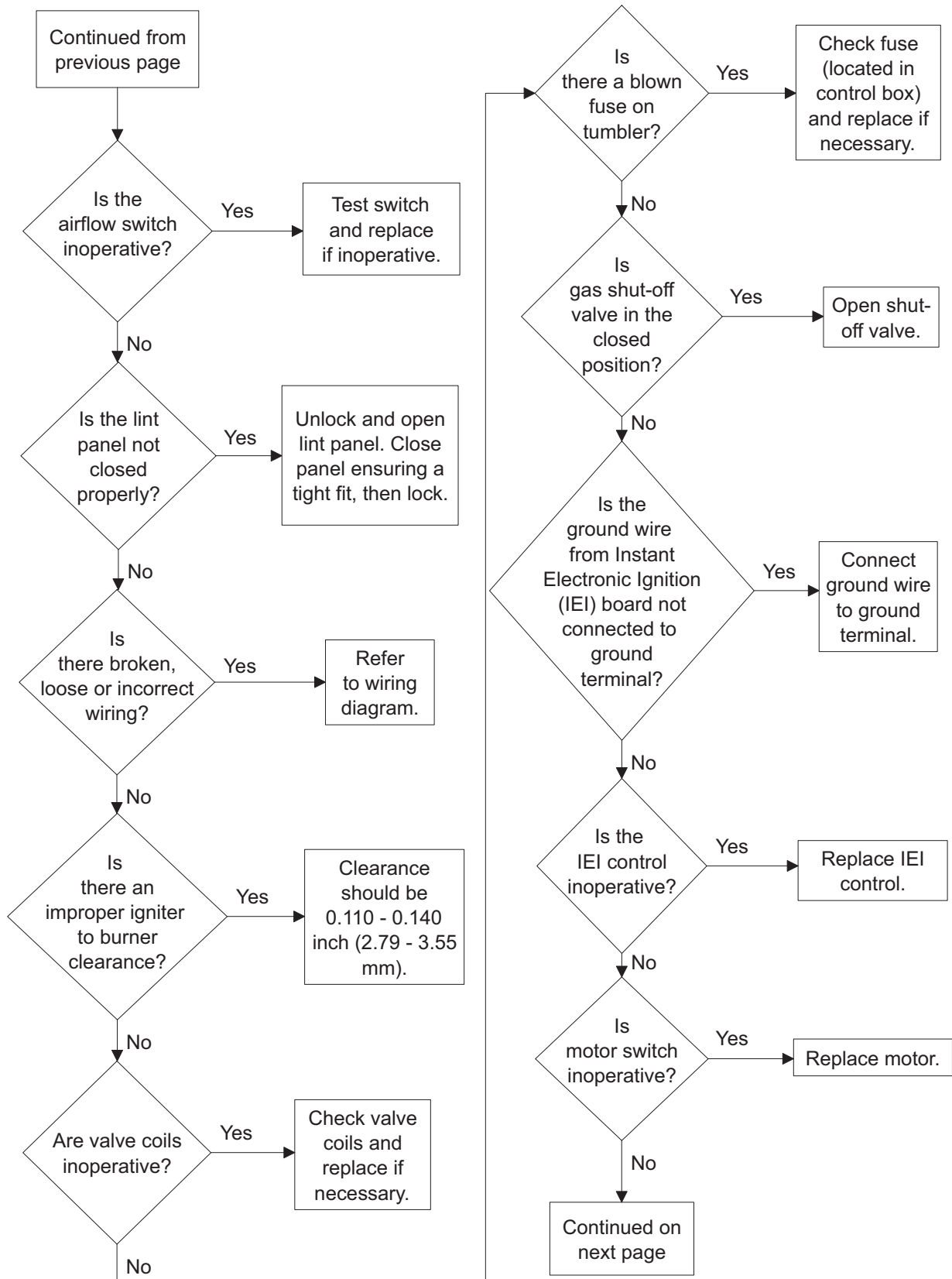
TMB2038S

## 6. Burner Does Not Ignite



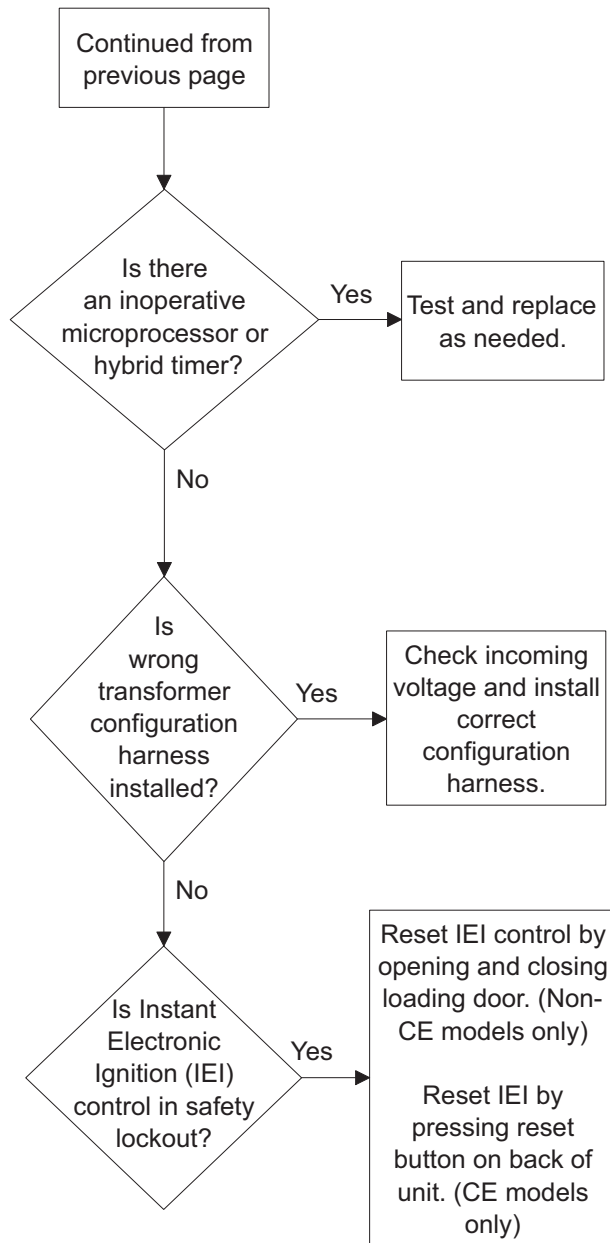
TMB2187S-a

### 6. Burner Does Not Ignite (continued)



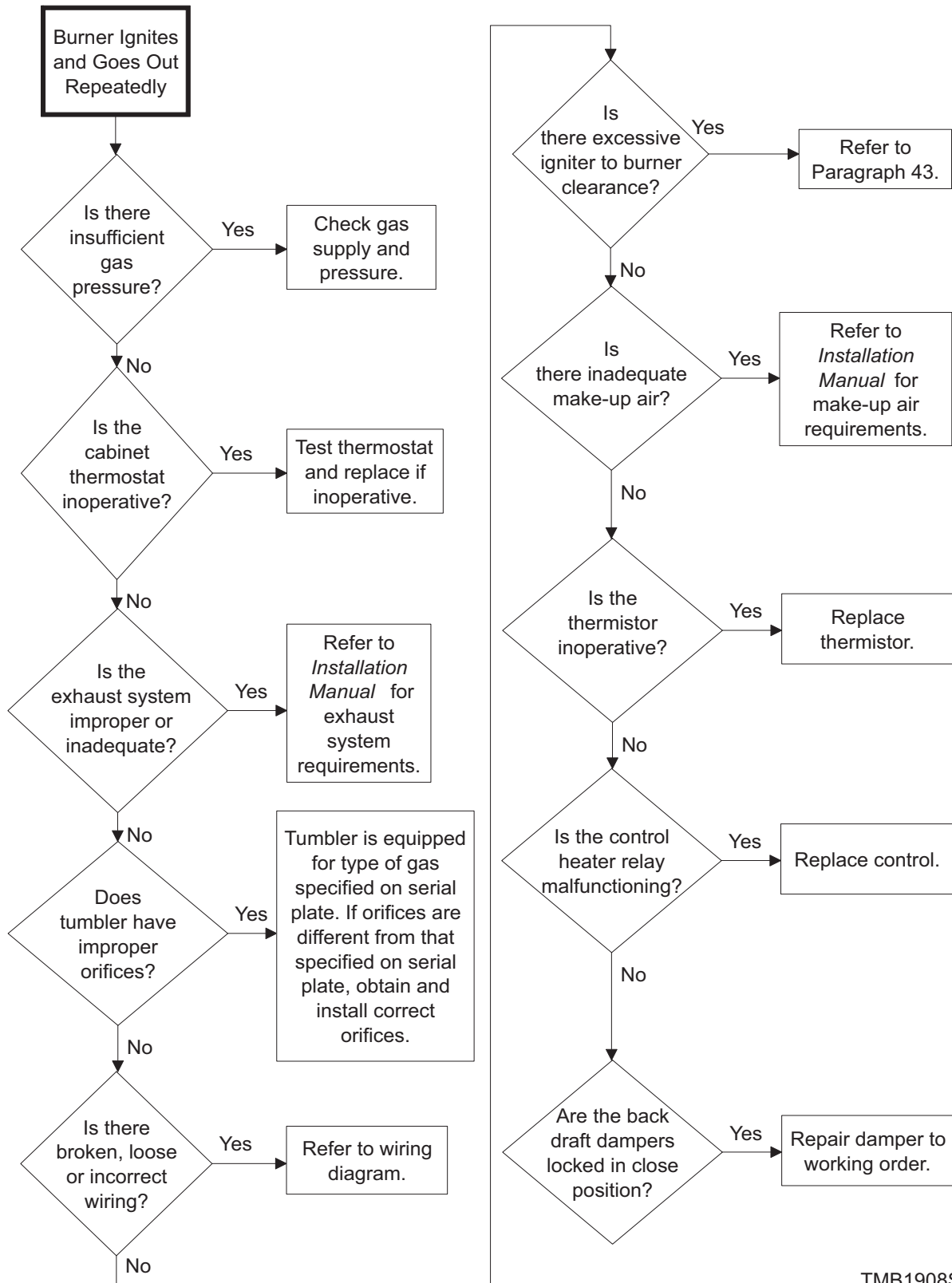
TMB2187S-b

## 6. Burner Does Not Ignite (continued)



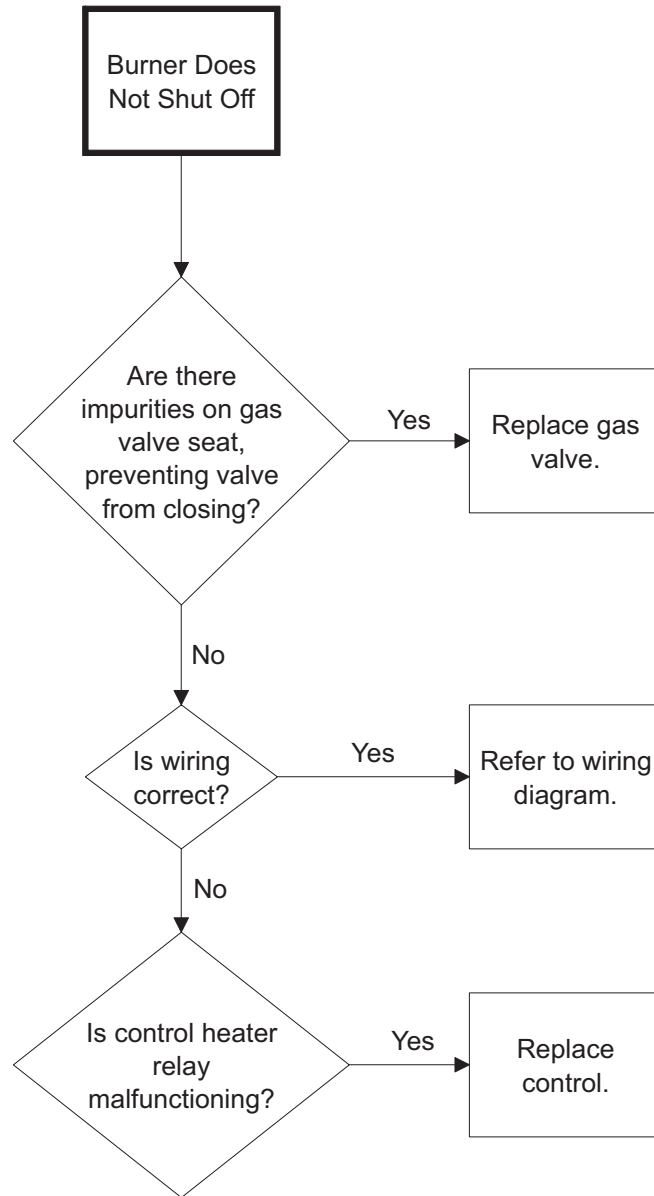
TMB2187S-c

## 7. Burner Ignites and Goes Out Repeatedly



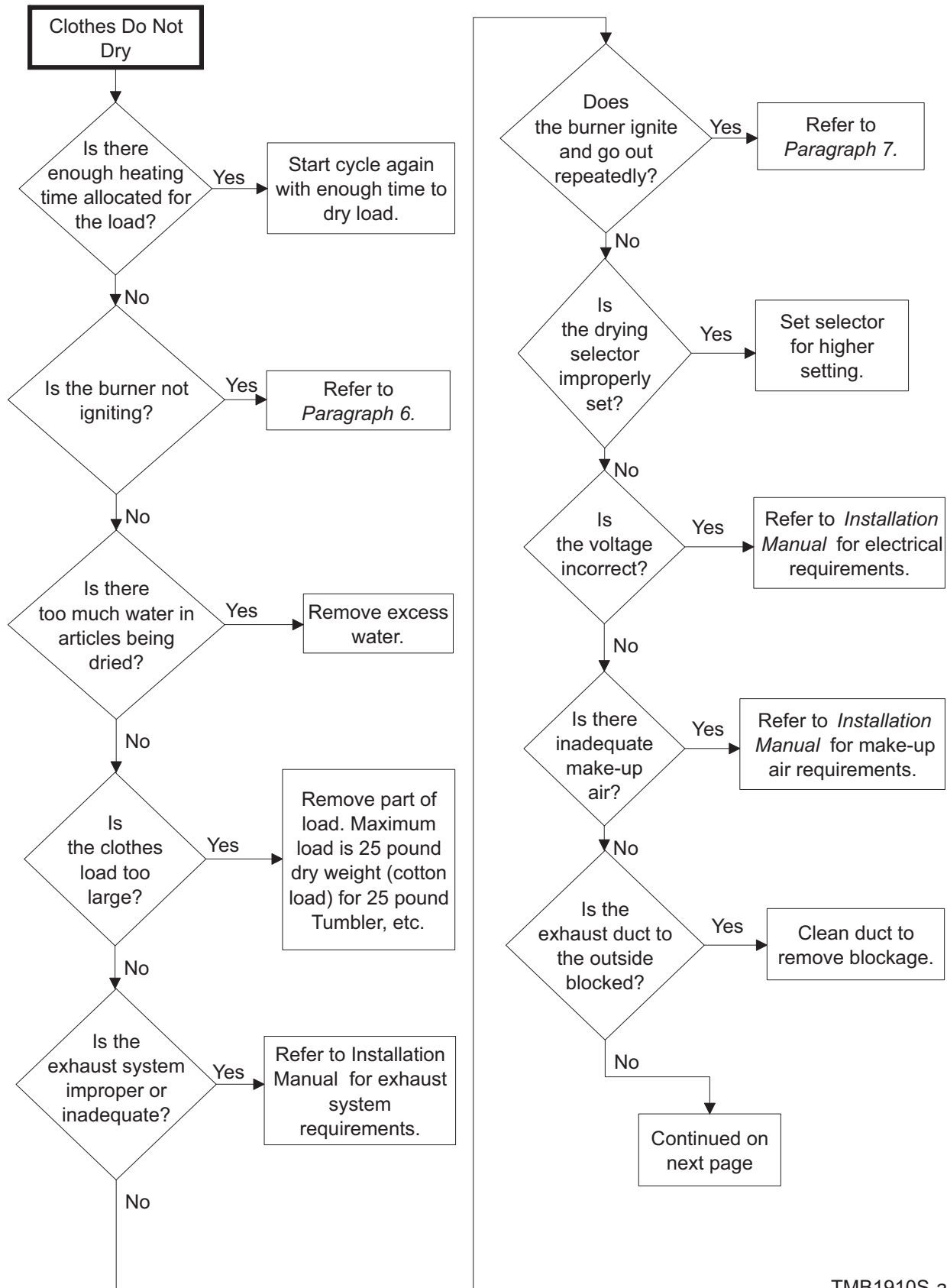
TMB1908S

## 8. Burner Does Not Shut Off



TMB1909S

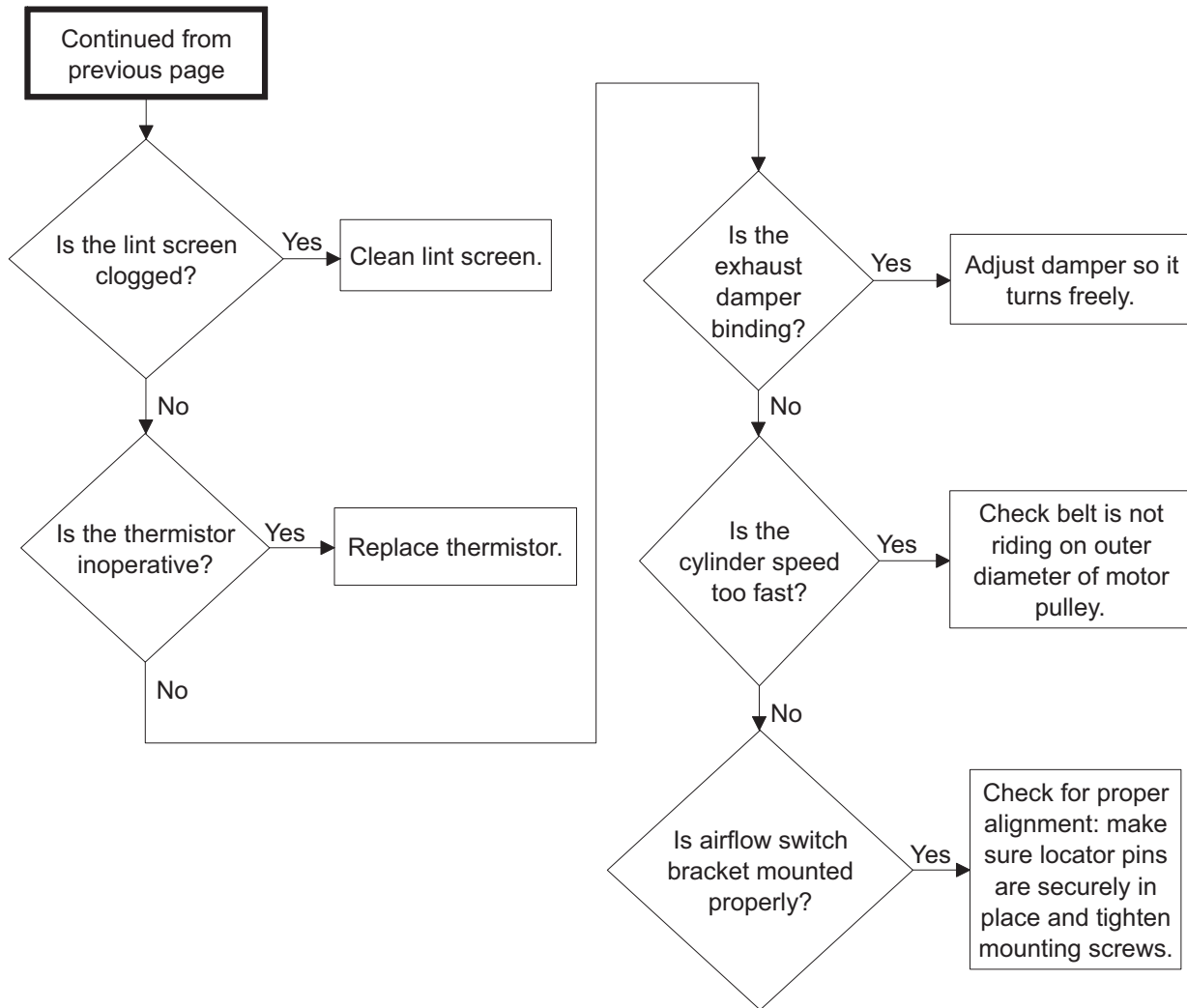
### 9. Clothes Do Not Dry



TMB1910S-a

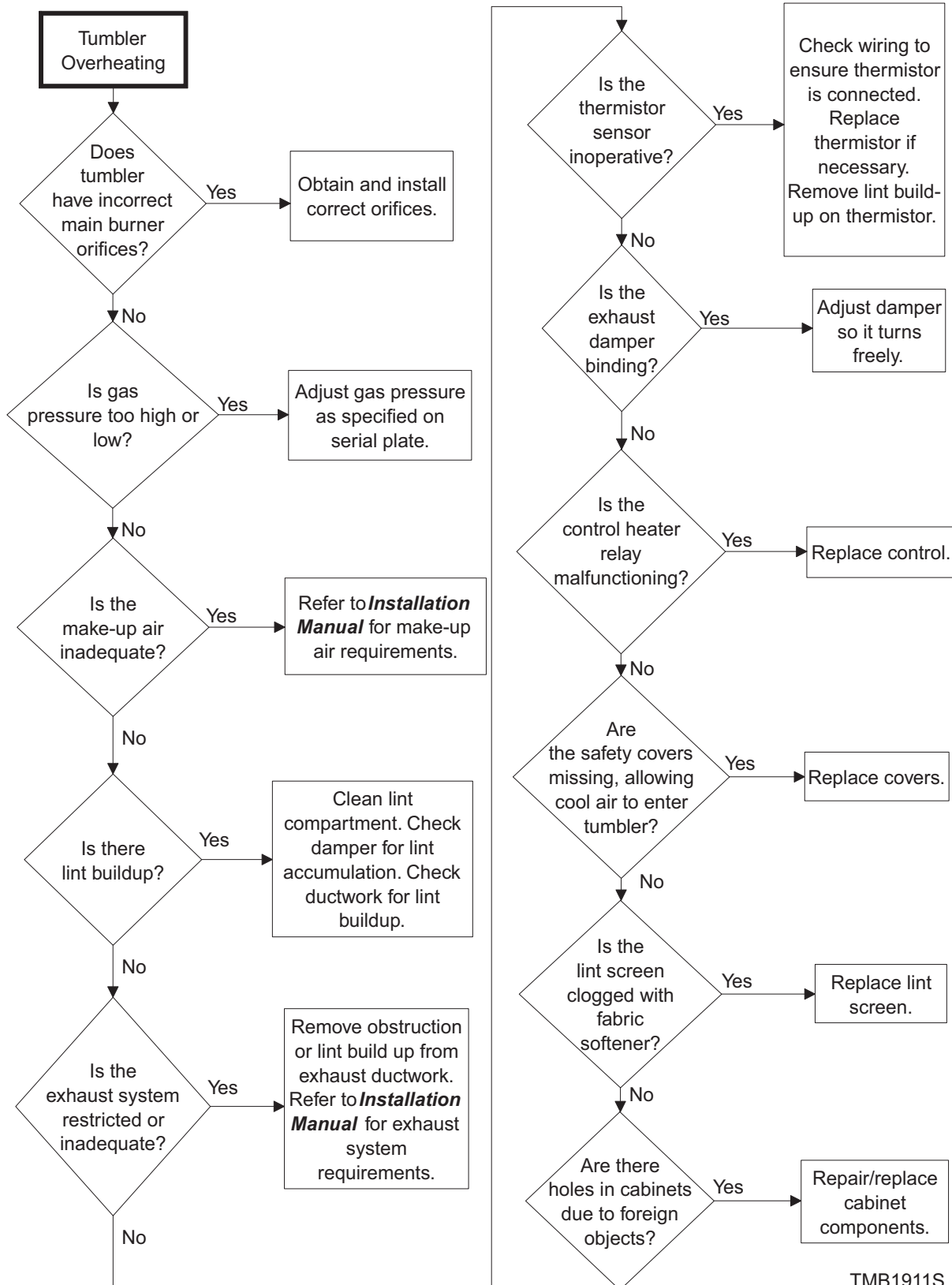


### 9. Clothes Do Not Dry (continued)



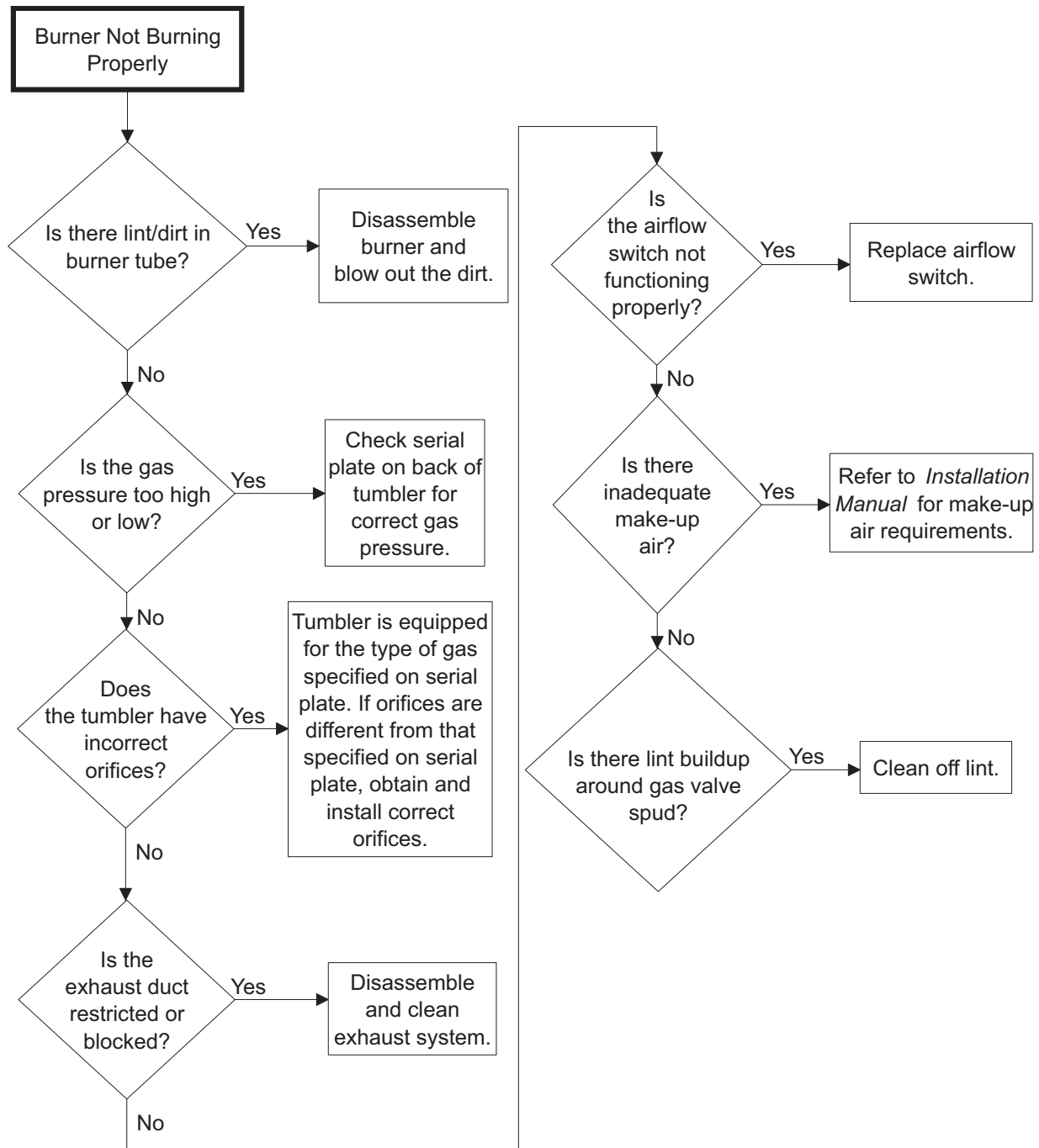
TMB1910S-b

# 10. Tumbler Overheating



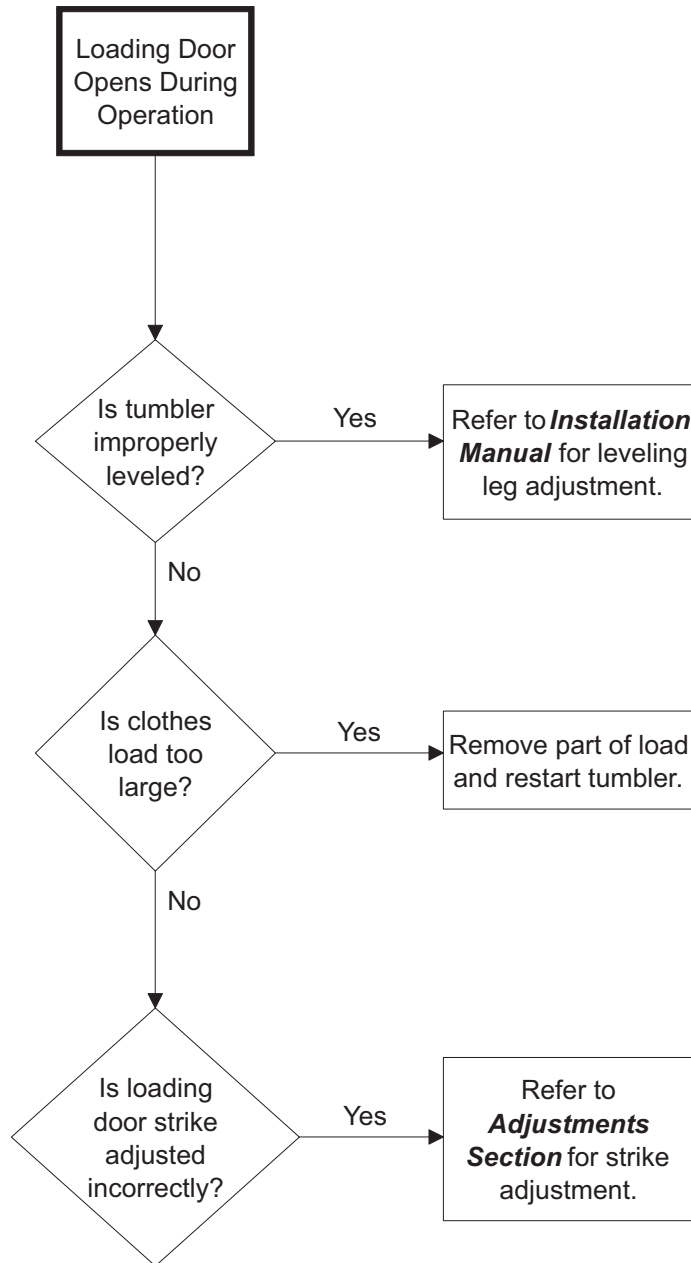
TMB1911S

## 11. Burner Not Burning Properly



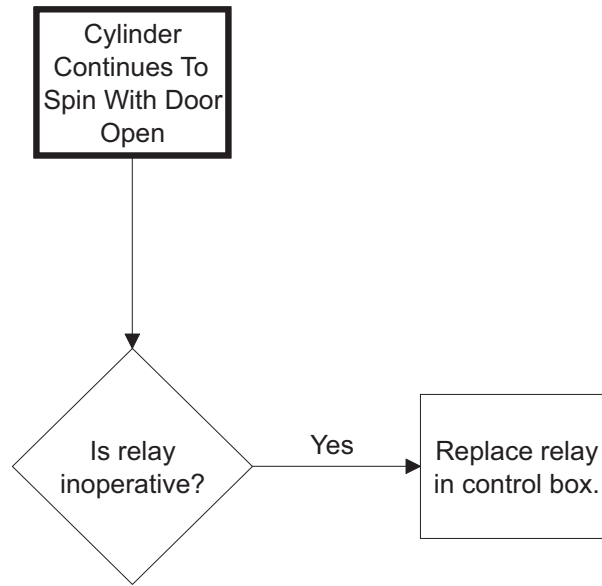
TMB1912S

## 12. Loading Door Opens During Operation



TMB1913S

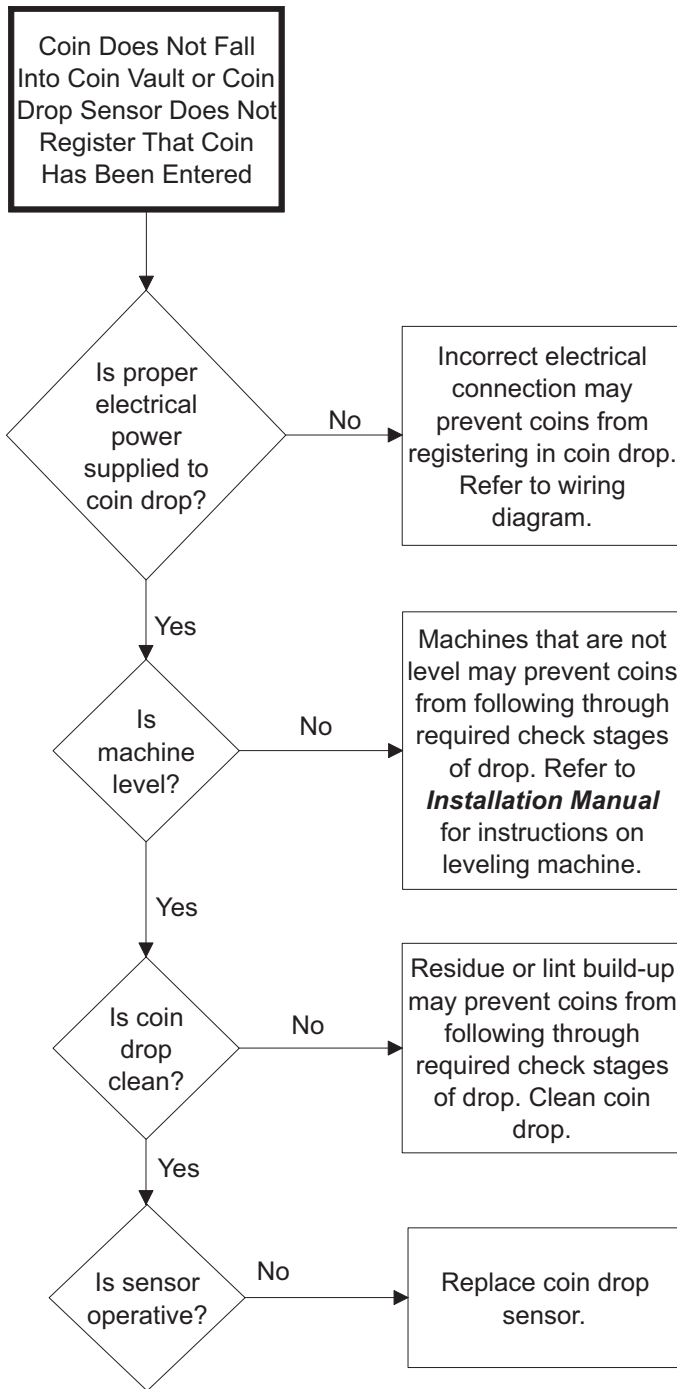
### 13. Cylinder Continues to Spin with Door Open



TMB1914S

**NOTE: All tumbler panels must be in place and on the machine for proper operation.**

### 14. Coin Does Not Fall into Coin Vault or Coin Drop Sensor Does Not Register that Coin Has Been Entered



TMB1915S

**IMPORTANT:** Never use oil to correct coin drop problem. Oil residue will prevent coins from rolling properly.

**IMPORTANT:** Do not bend or damage mechanical parts within coin drop.

# Section 4 Adjustments



## WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

### 15. Loading Door Switch

The door switch should be adjusted so the cylinder stops when door is opened 2 inches (51 mm), plus or minus 1/4 inch (6 mm). The switch is normally open and is closed when the door is closed. If adjustment is needed, proceed as follows: Refer to *Figure 1*.

- Close door and start tumbler. Slowly open loading door. Cylinder and heat system should shut off when door is open 2 inches (51 mm), plus or minus 1/4 inch (6 mm).
- Slowly close loading door. When door is 2 inches or less from being fully closed, the switch actuator on the door should contact the switch plunger and depress it enough to close the switch with an audible “click”.
- If switch actuator does not depress the switch plunger enough to operate the switch, bend switch actuator OUTWARD and repeat steps “a” and “b.”.

### 16. Loading Door Strike

Refer to *Figure 1*.

The door strike must be adjusted so that sufficient tension holds loading door closed against the force of a load tumbling against it. The door is properly adjusted when 8-15 lbs. (3.60-6.75 kg) of pull is required to open door.

If adjustment is needed, follow these steps:

- Open loading door.
- Loosen jamnut.
- Turn door strike screw in or out as required.
- Retighten jamnut.

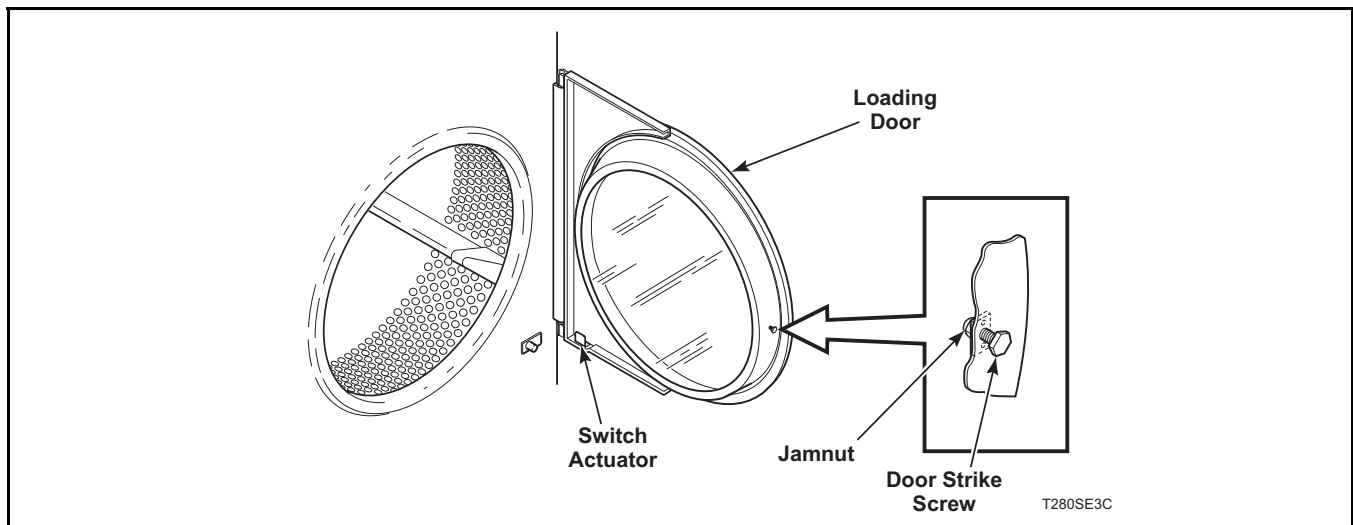


Figure 1

# Section 5

## Micro Display Control (MDC) Troubleshooting

### Models with BC, BL, BX and BY Control Suffixes



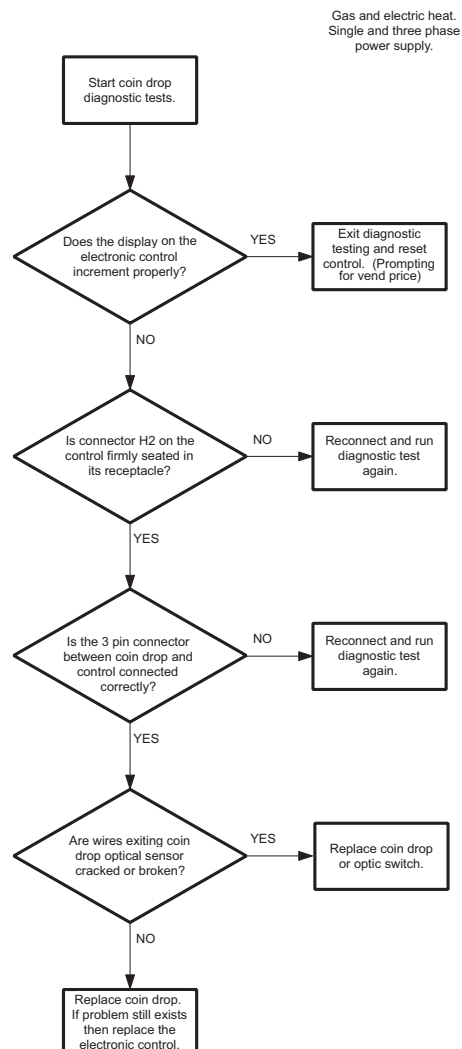
#### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

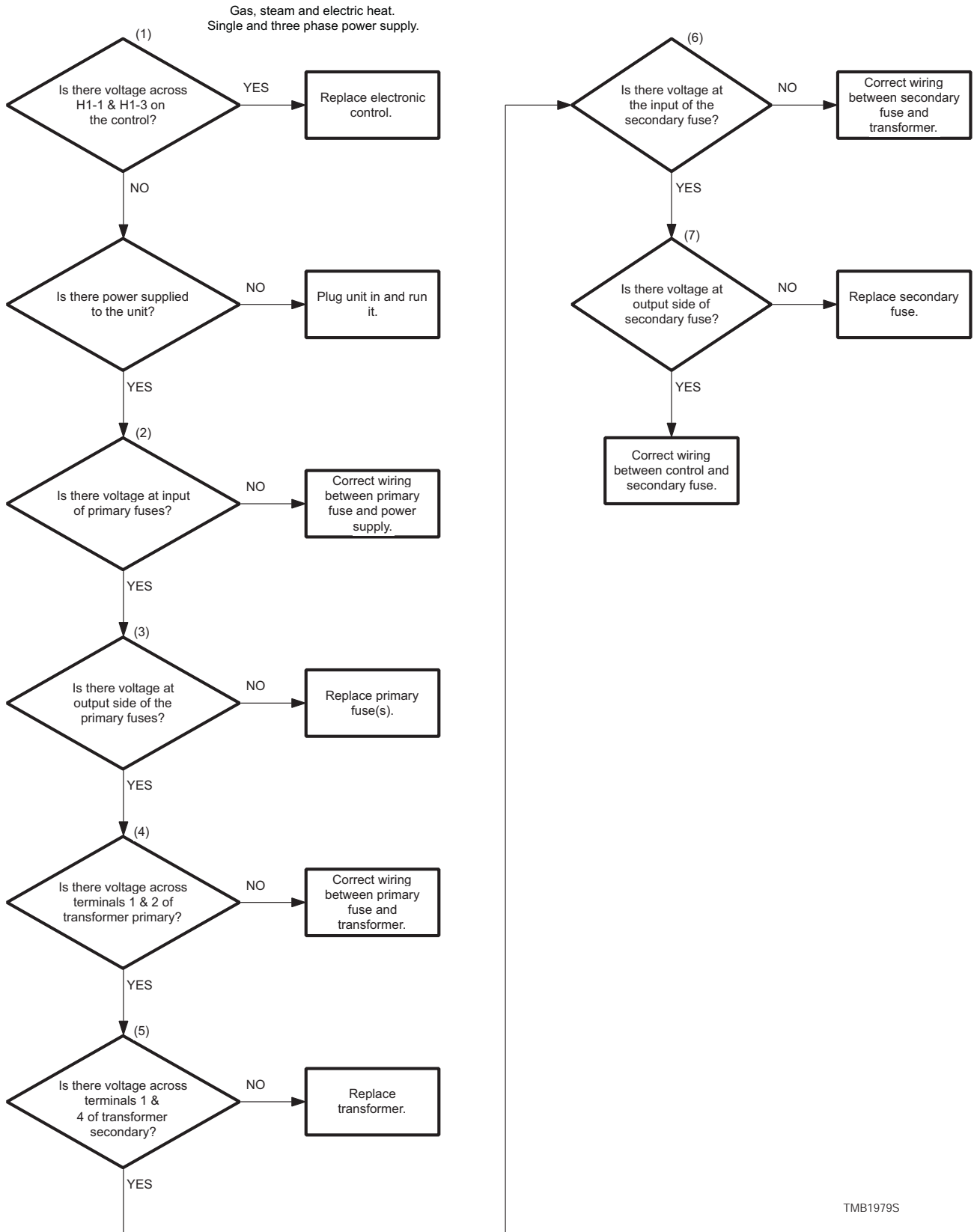
### 17. Coins Ignored When Entered



TMB1978S

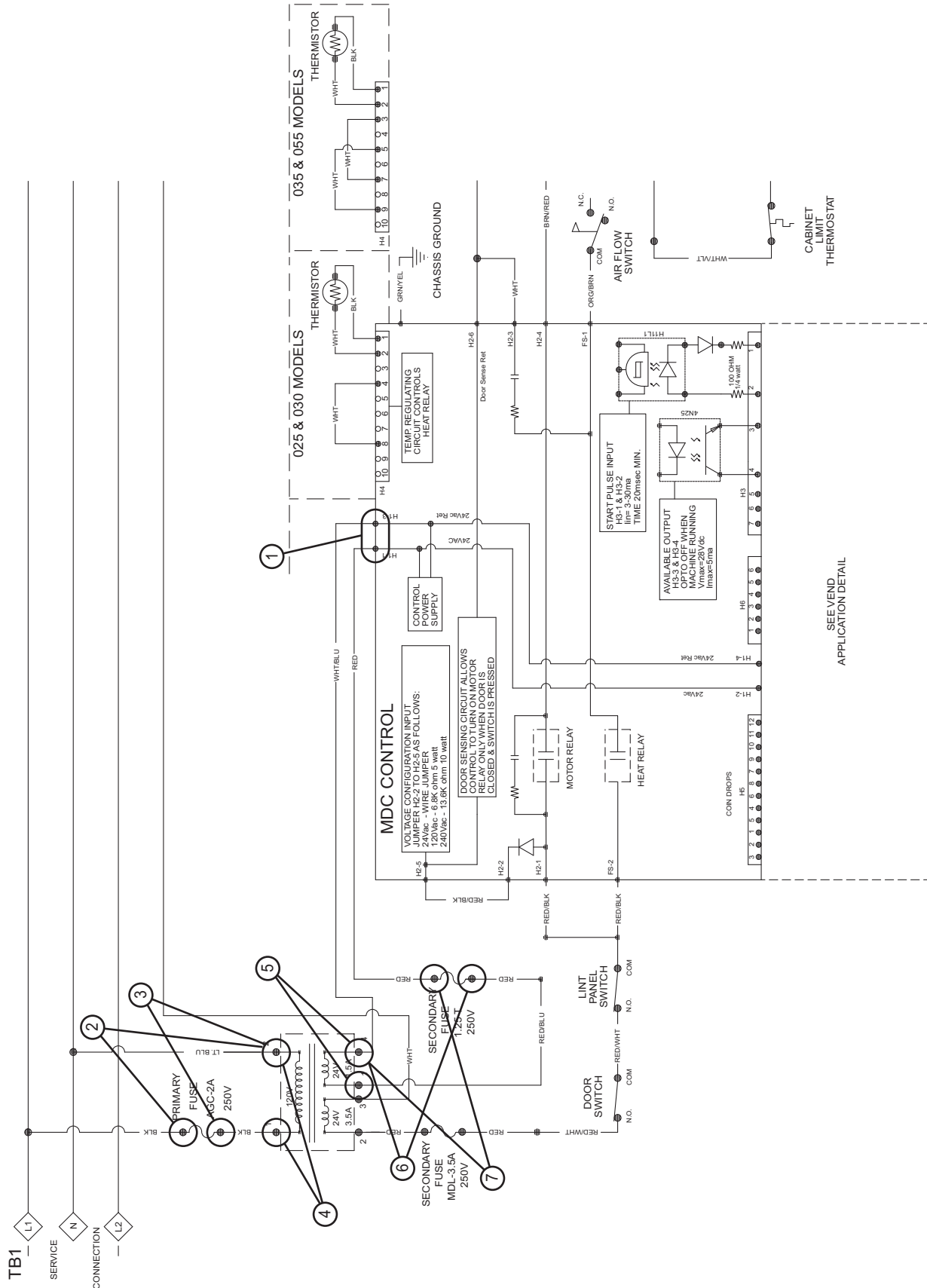


# 18. Control Has No Display



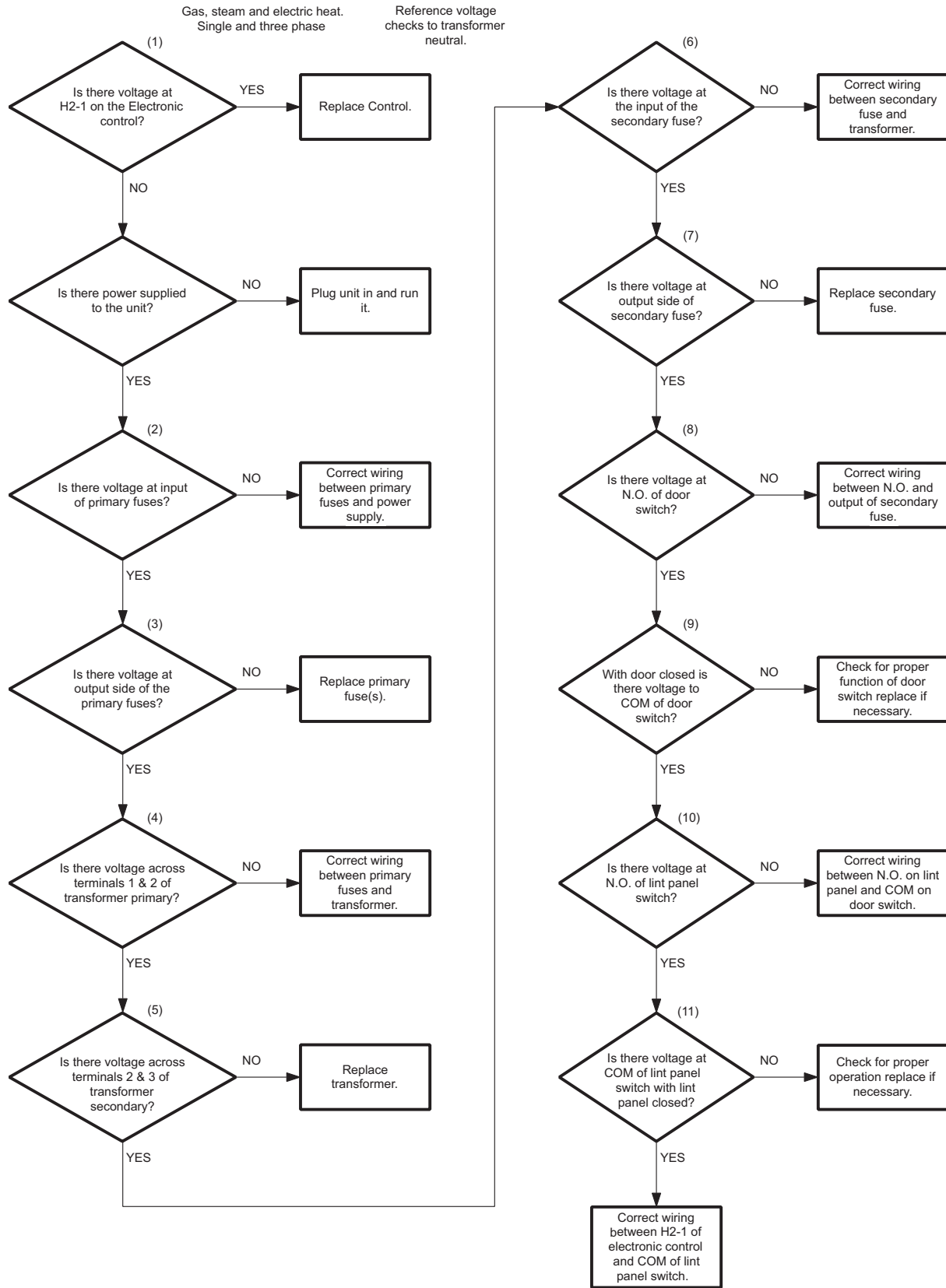
TMB1979S

Control Has No Display



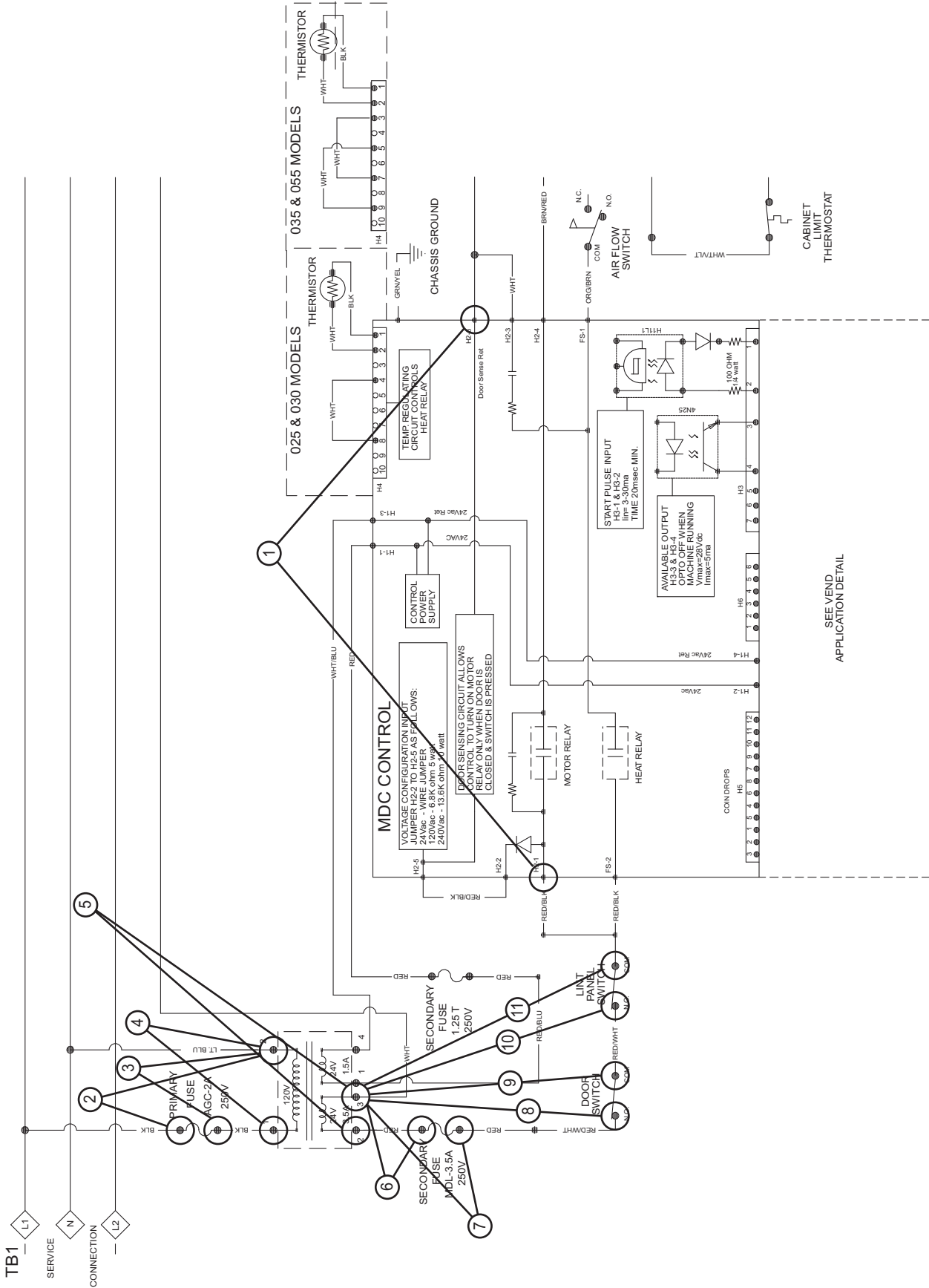
TMB2213S

# 19. Door Open Indicator



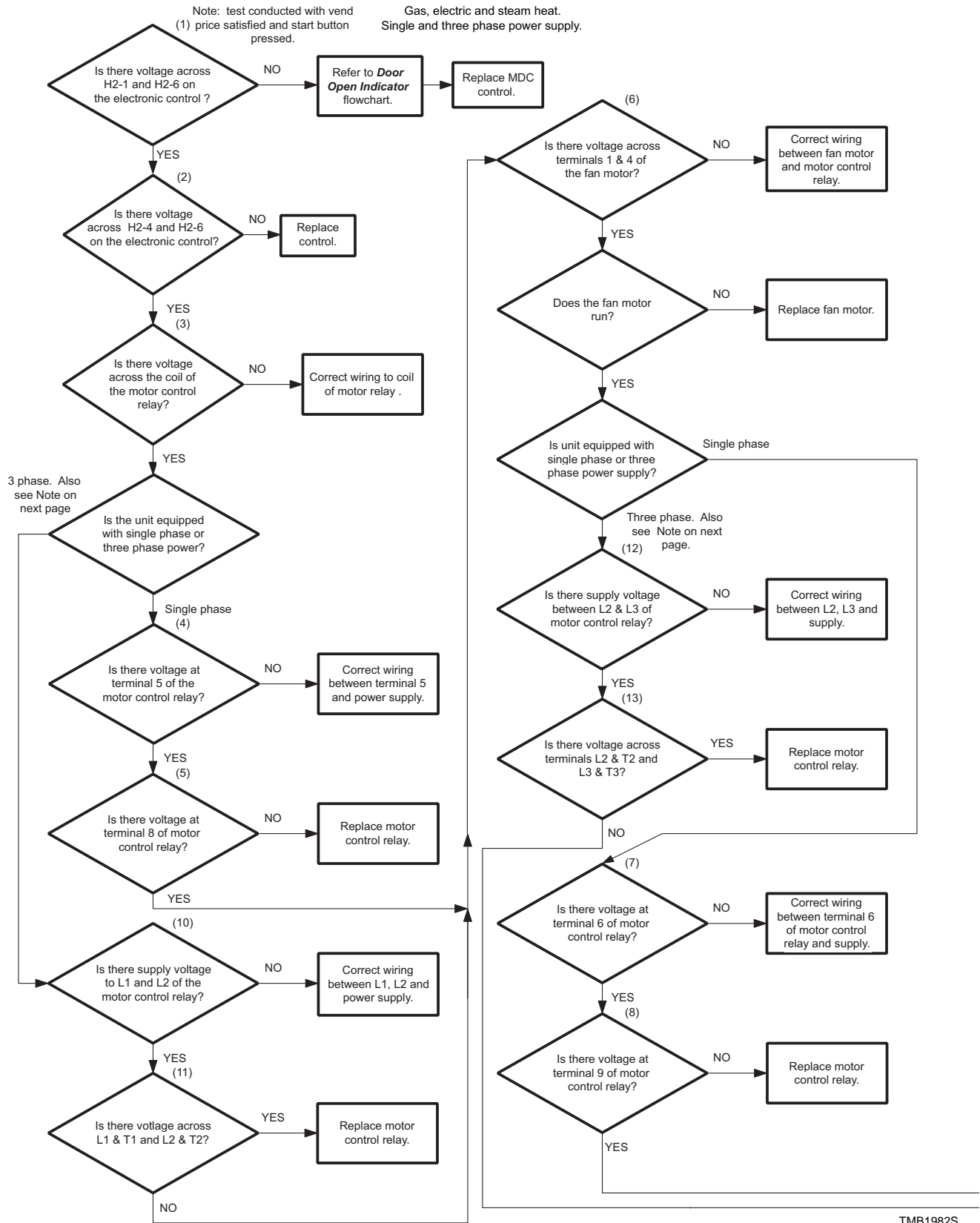
TMB2039S

# Door Open Indicator

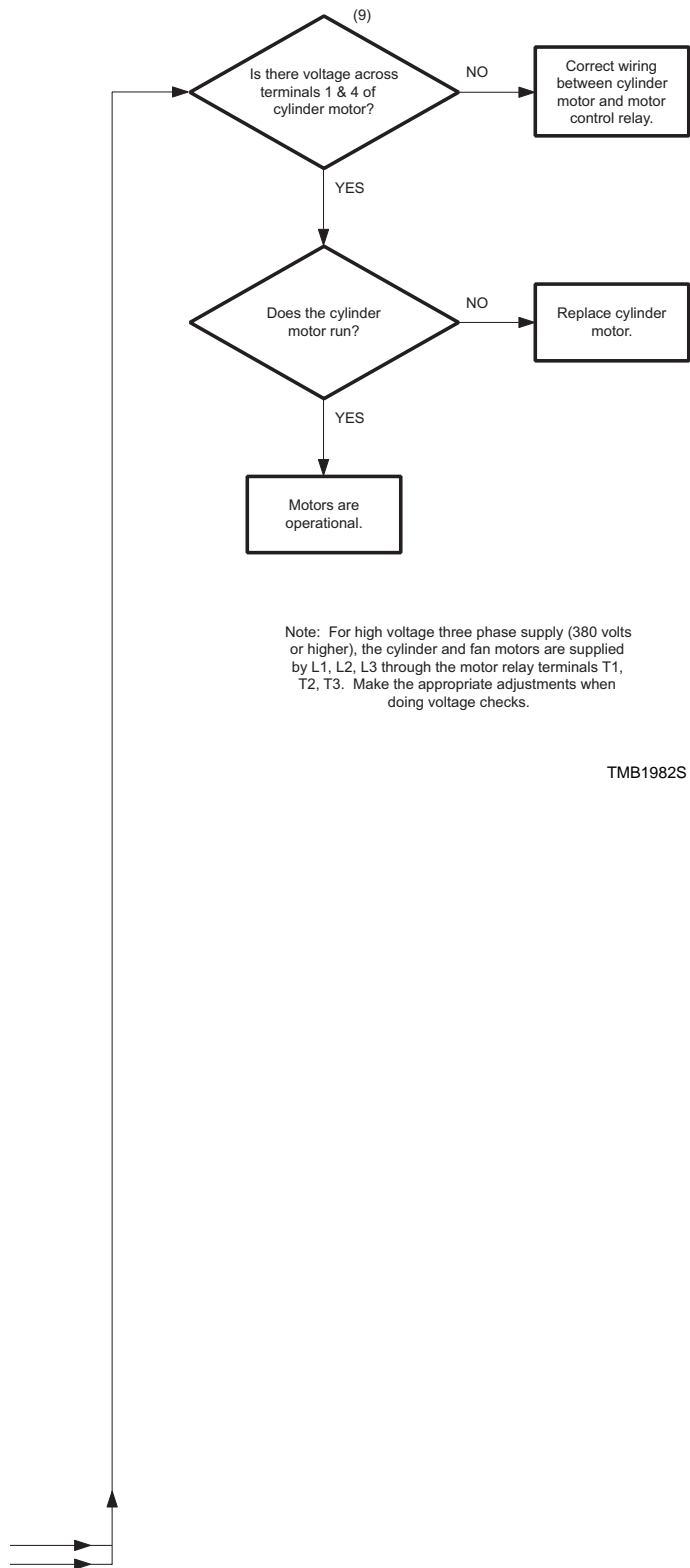


TMB2214S

## 20. Motor Will Not Start/Run

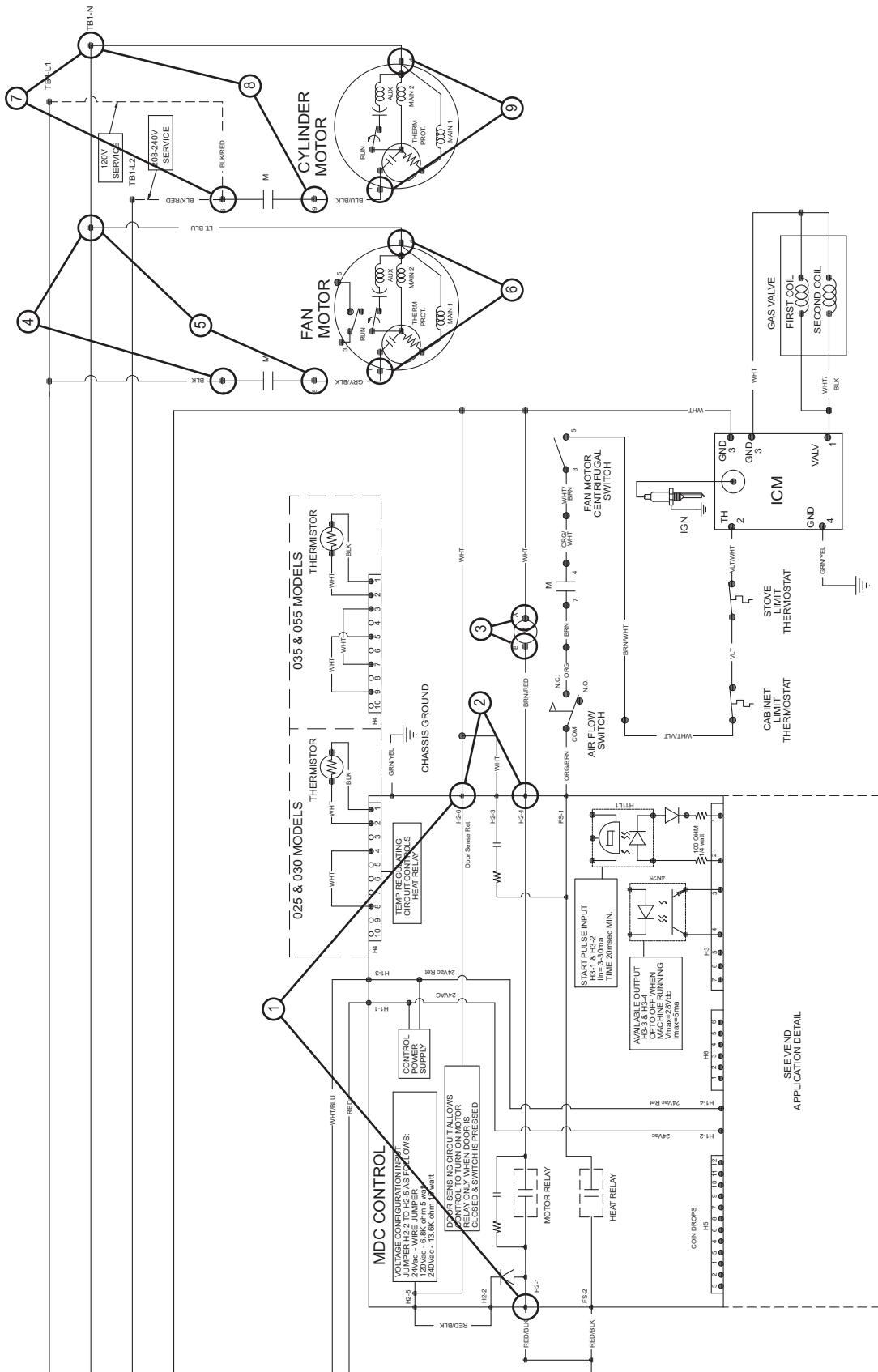


## 20. Motor Will Not Start/Run (continued)



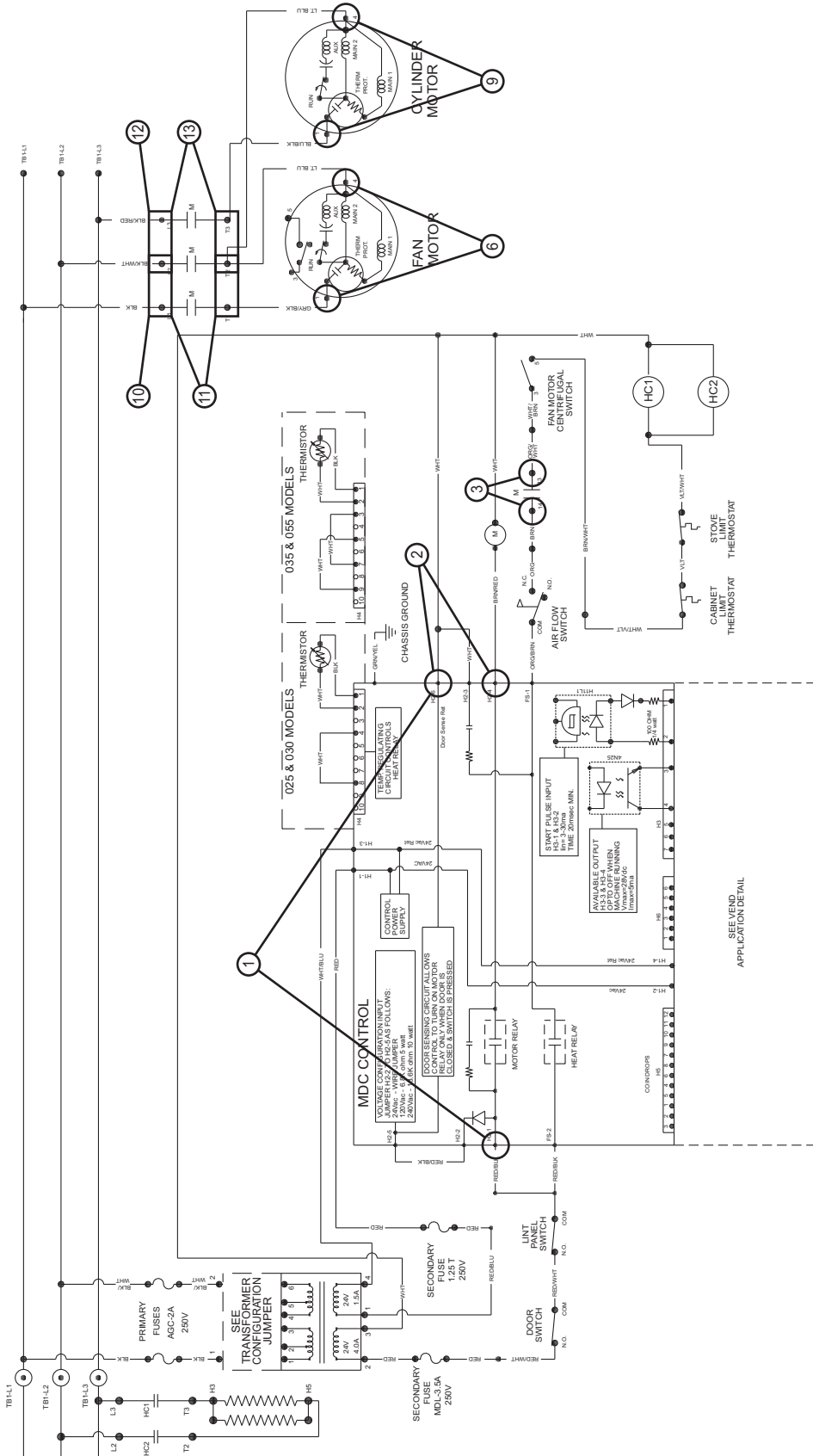
Please see following 2 pages for wiring diagram information.

Motor Will Not Start/Run (Sheet 1 of 2)



TME2215S

Motor Will Not Start (Sheet 2 of 2)



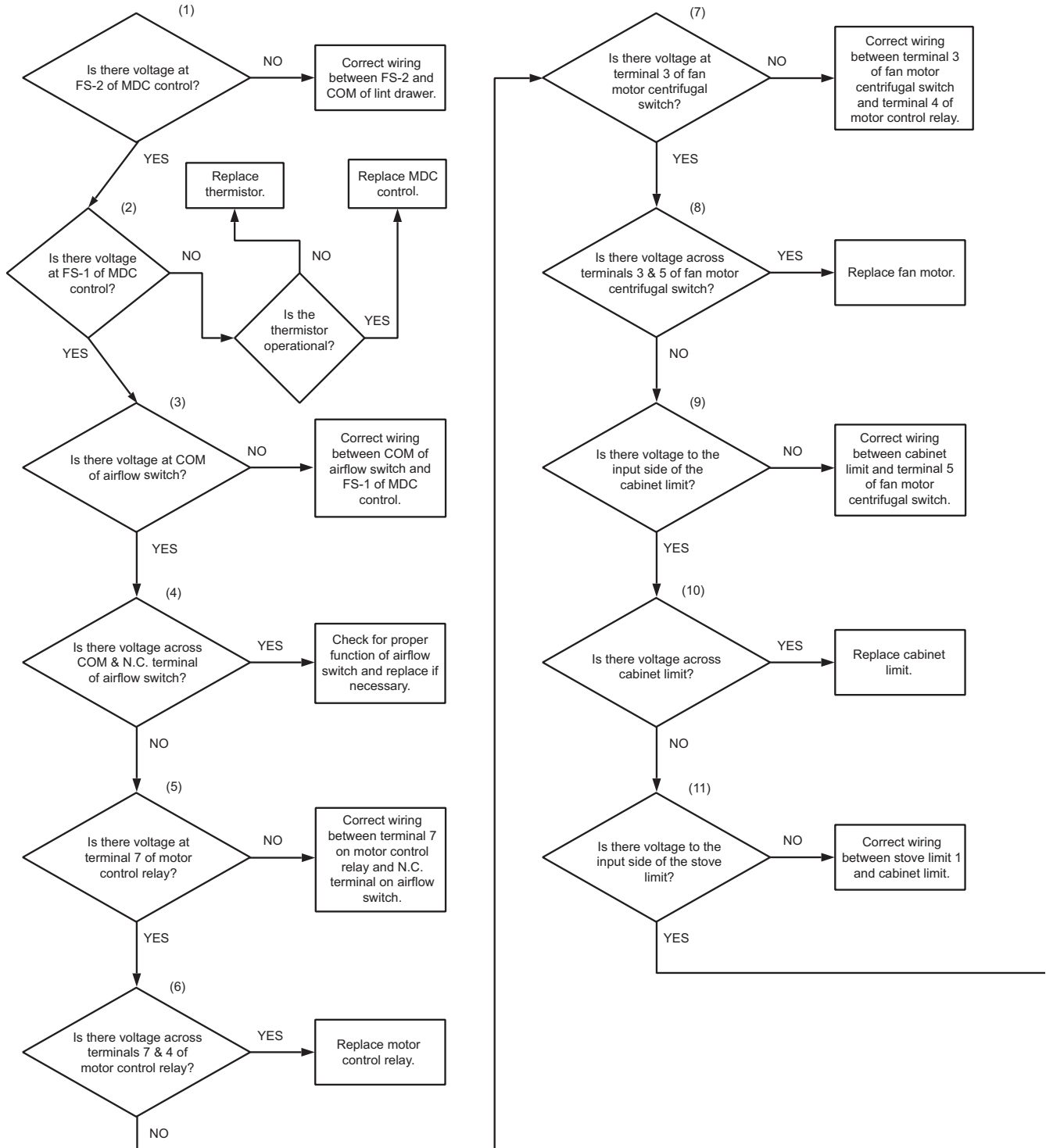
TMB216S



## 21. Unit Will Not Heat – Gas

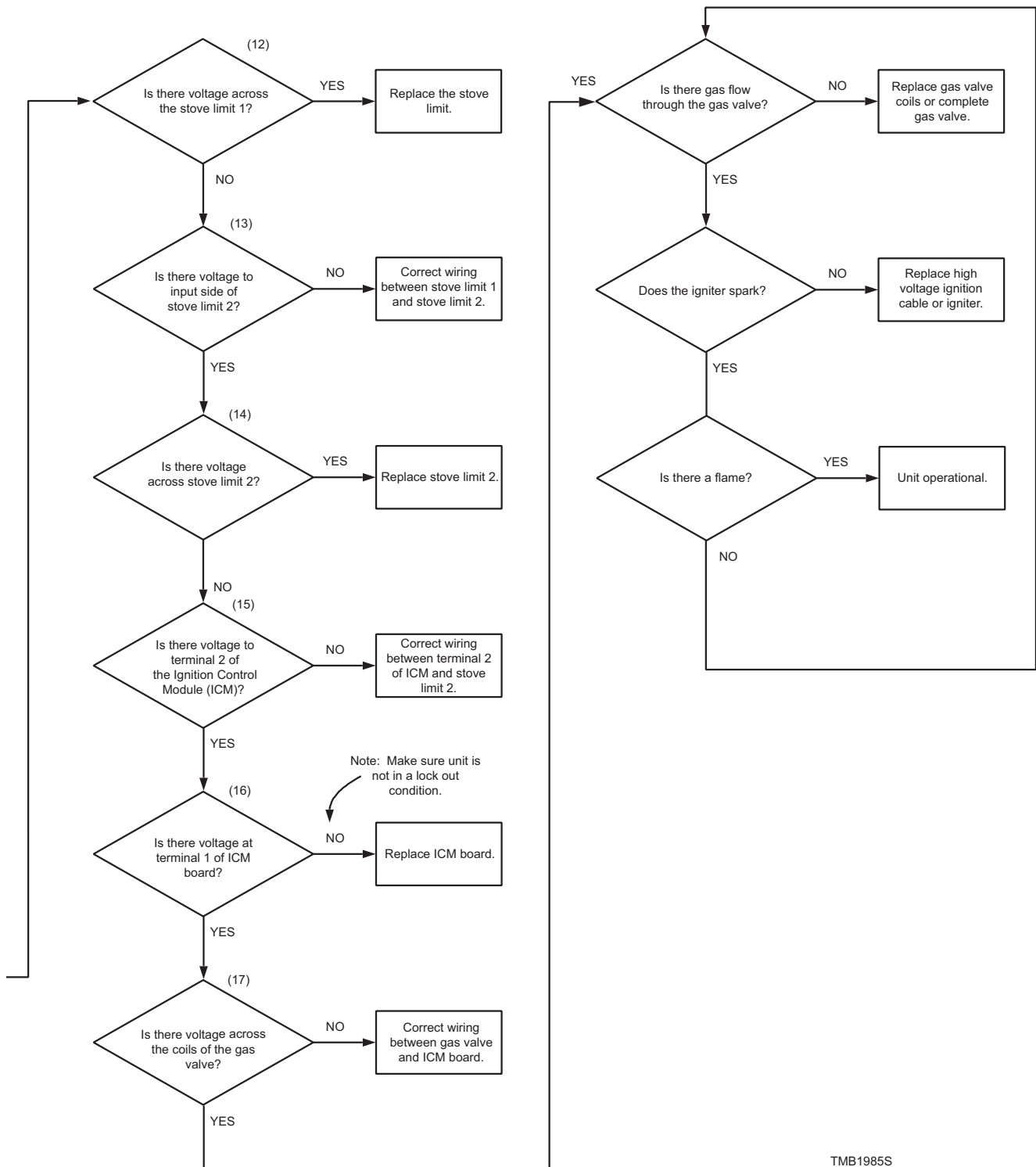
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB1985S

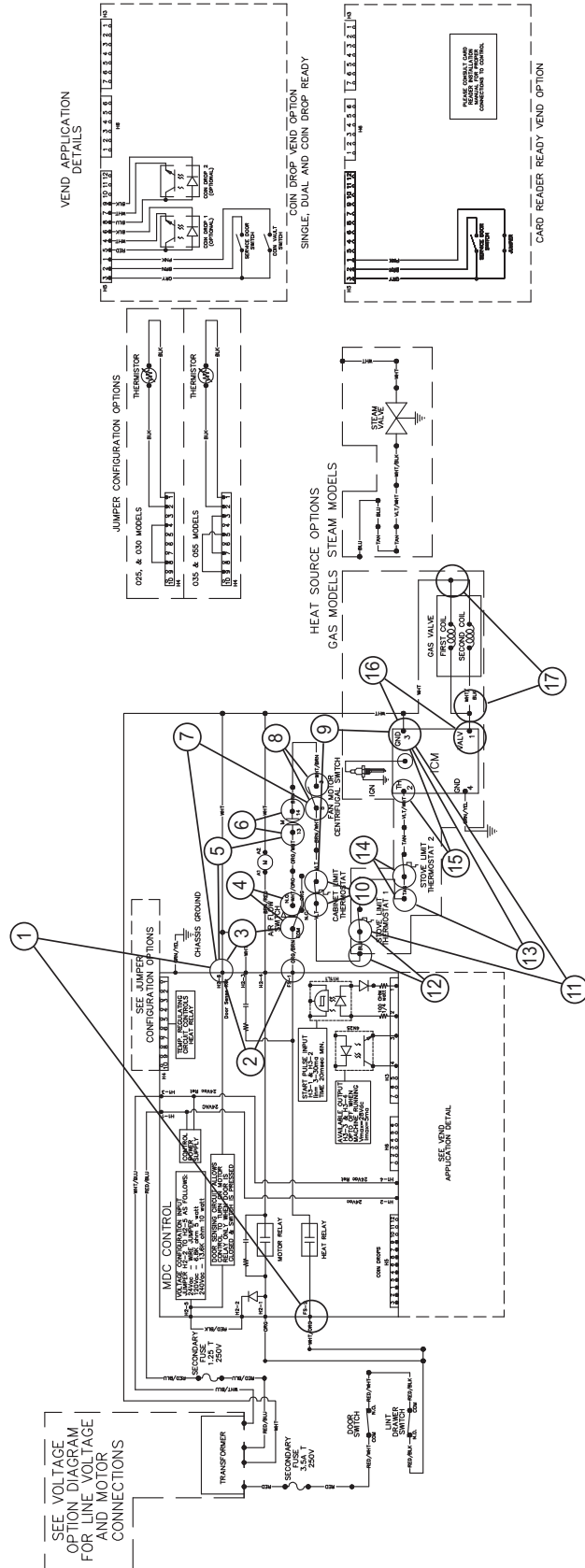
## 21. Unit Will Not Heat – Gas (continued)



TMB1985S

Please see following page for wiring diagram information.

# Unit Will Not Heat – Gas

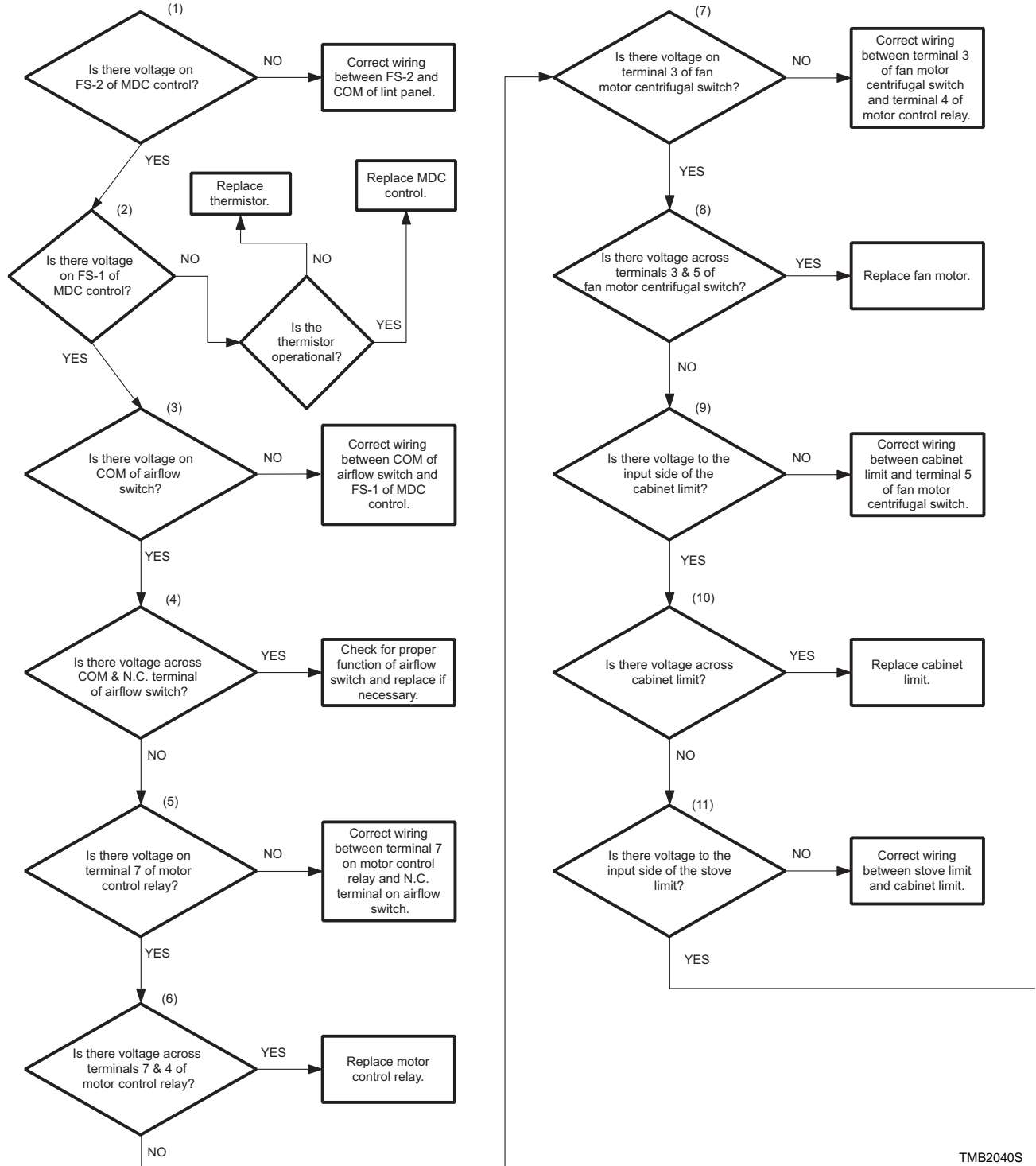


TMB2217S

## 22. Unit Will Not Heat – Steam

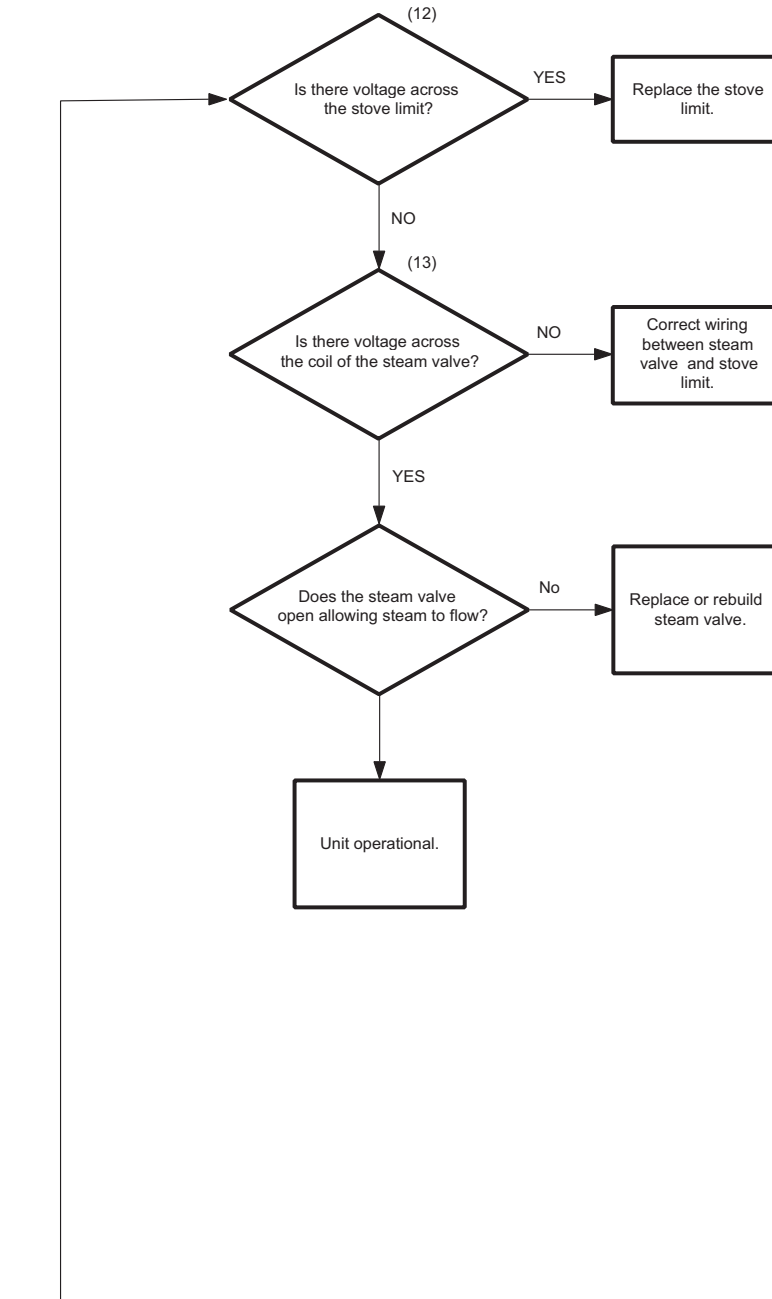
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2040S

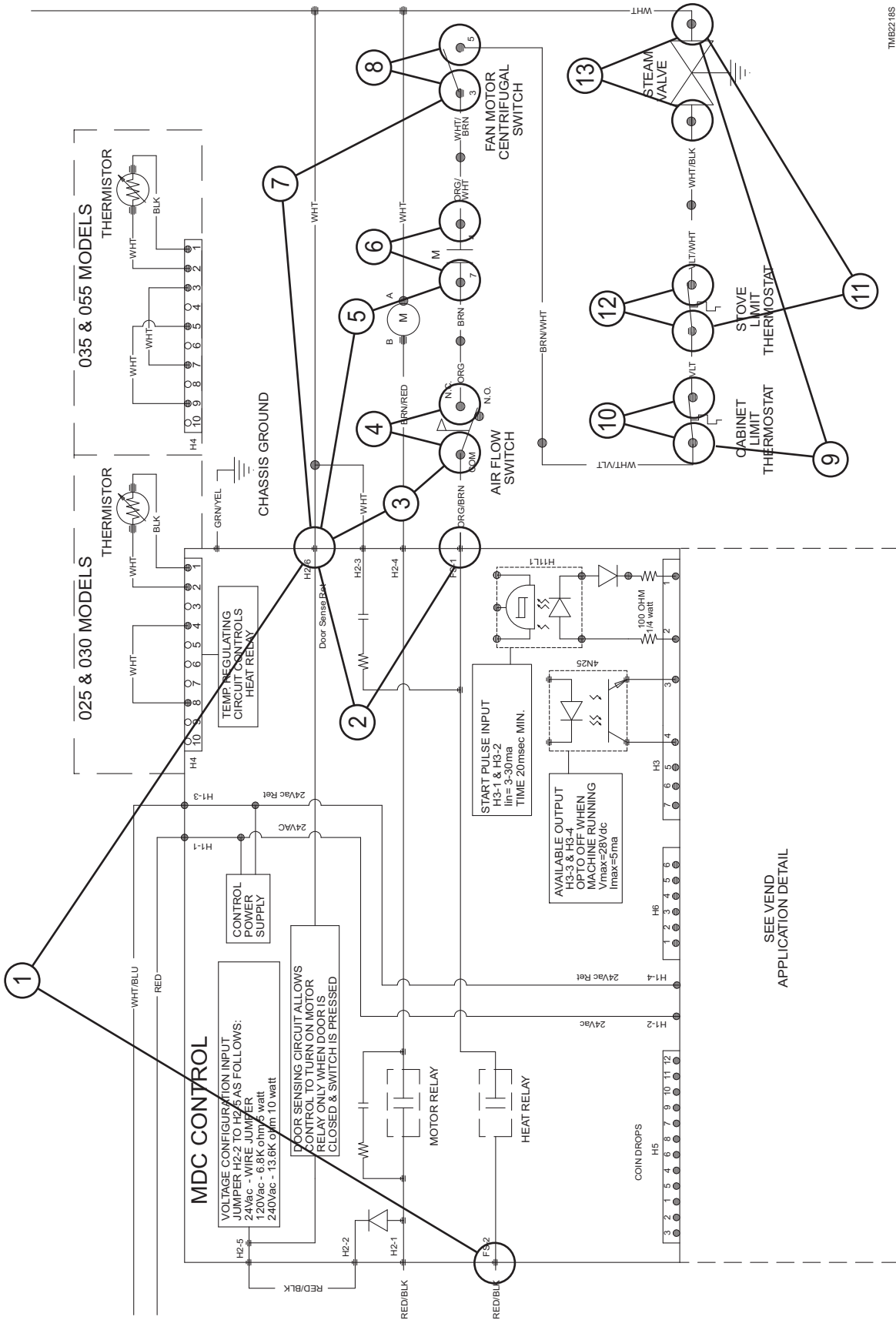
## 22. Unit Will Not Heat – Steam (continued)



TMB2040S

**Please see following page for wiring diagram information.**

Unit Will Not Heat – Steam



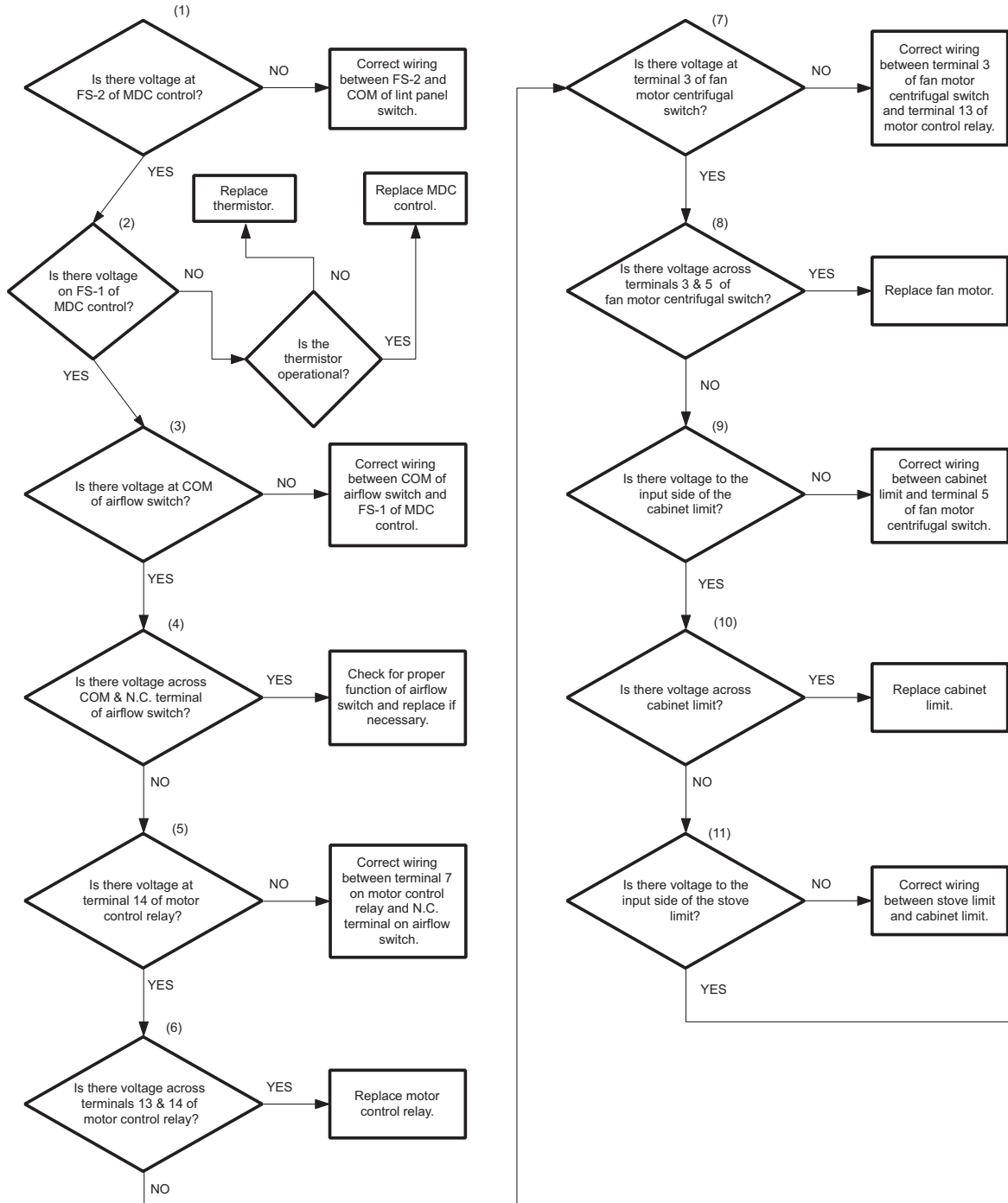
TM82185

SEE VEND APPLICATION DETAIL

## 23. Unit Will Not Heat – Electric

Note: Tests are conducted with unit running and calling for heat.

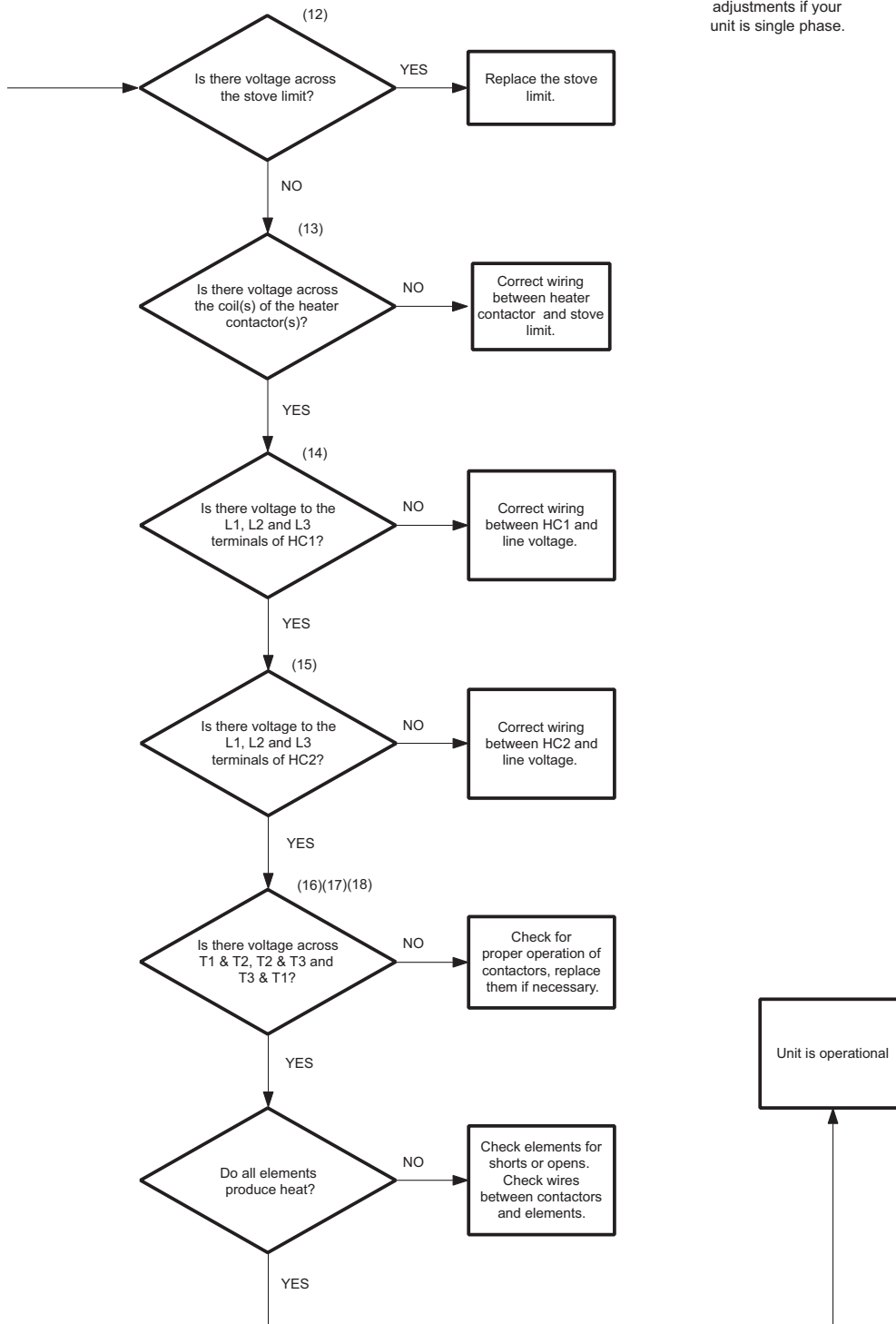
All voltage checks are referenced to transformer neutral.



TMB2041S

## 23. Unit Will Not Heat – Electric (continued)

Note: Please make the appropriate adjustments if your unit is single phase.

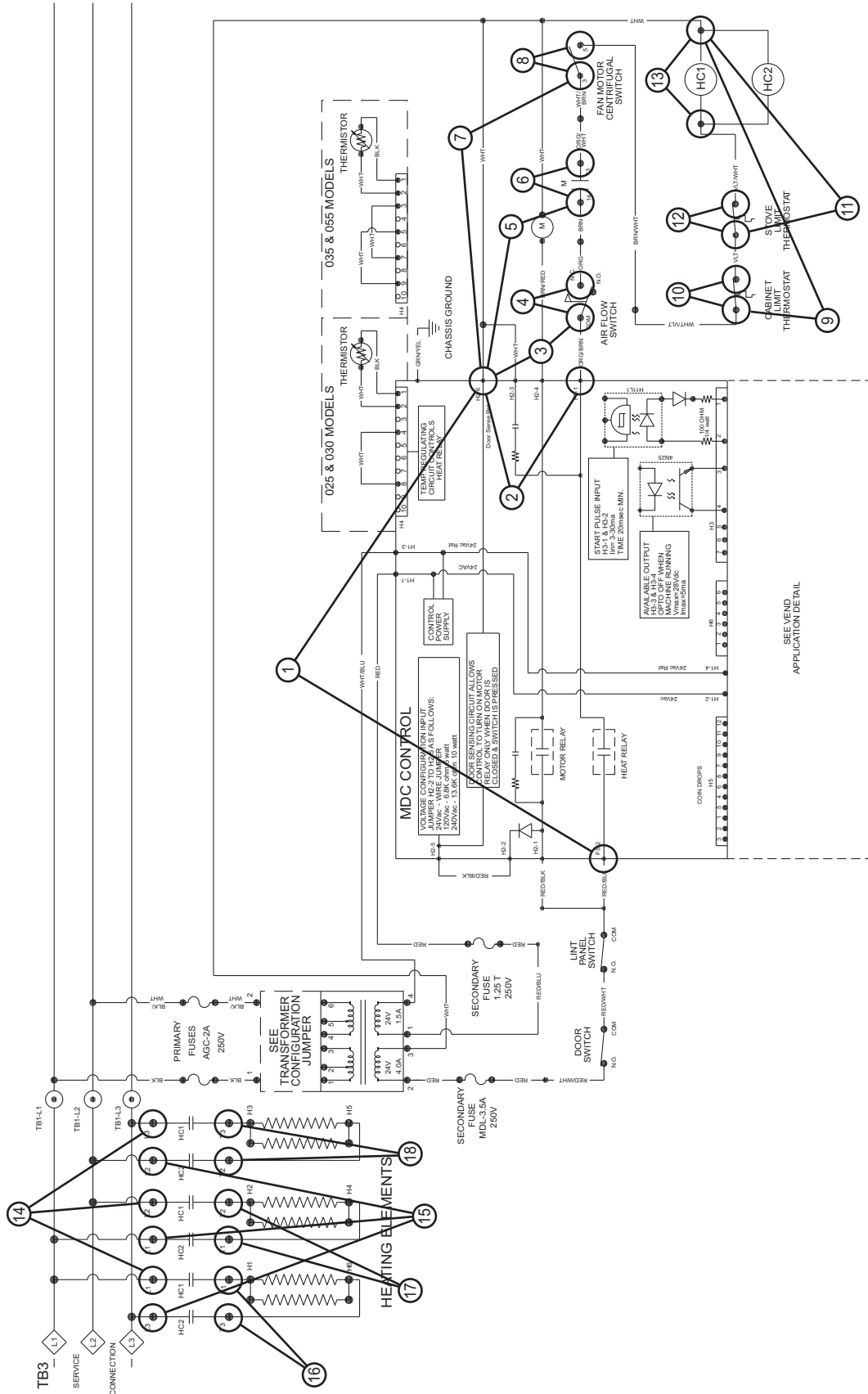


TMB2041S

Please see following page for wiring diagram information.



Unit Will Not Heat – Electric



TMB22195



## WARNING

**To reduce the risk of electric shock, fire, explosion, serious injury or death:**

- **Disconnect electric power to the dryer(s) before servicing.**
- **Close gas shut-off valve to gas dryer(s) before servicing.**
- **Never start the dryer(s) with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.**

W001R1

## 24. Error Codes

**OP** - Indicates physical “open” in the thermistor circuit. Possible causes are: 1) thermistor, 2) wiring between control and thermistor, 3) control.

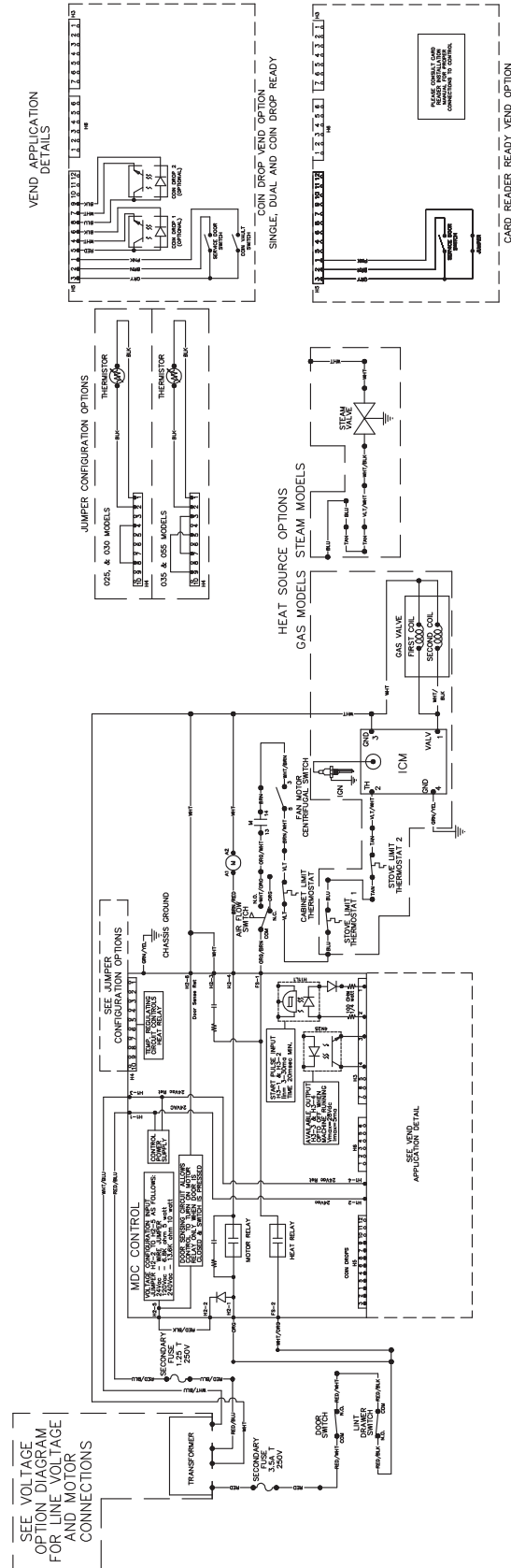
**SH** - Indicates a “short” in the thermistor circuit. Possible causes are: 1) shorted thermistor, 2) a short in the wiring between control and thermistor, 3) control.

**Card Reader Machines:** (In addition to the above errors)

**EC:19** - Indicates no card reader communication. The control and the reader cannot communicate. Check reader, control and harness.

**NOTE: For all other card reader errors, consult the card reader manual provided by the manufacturer.**

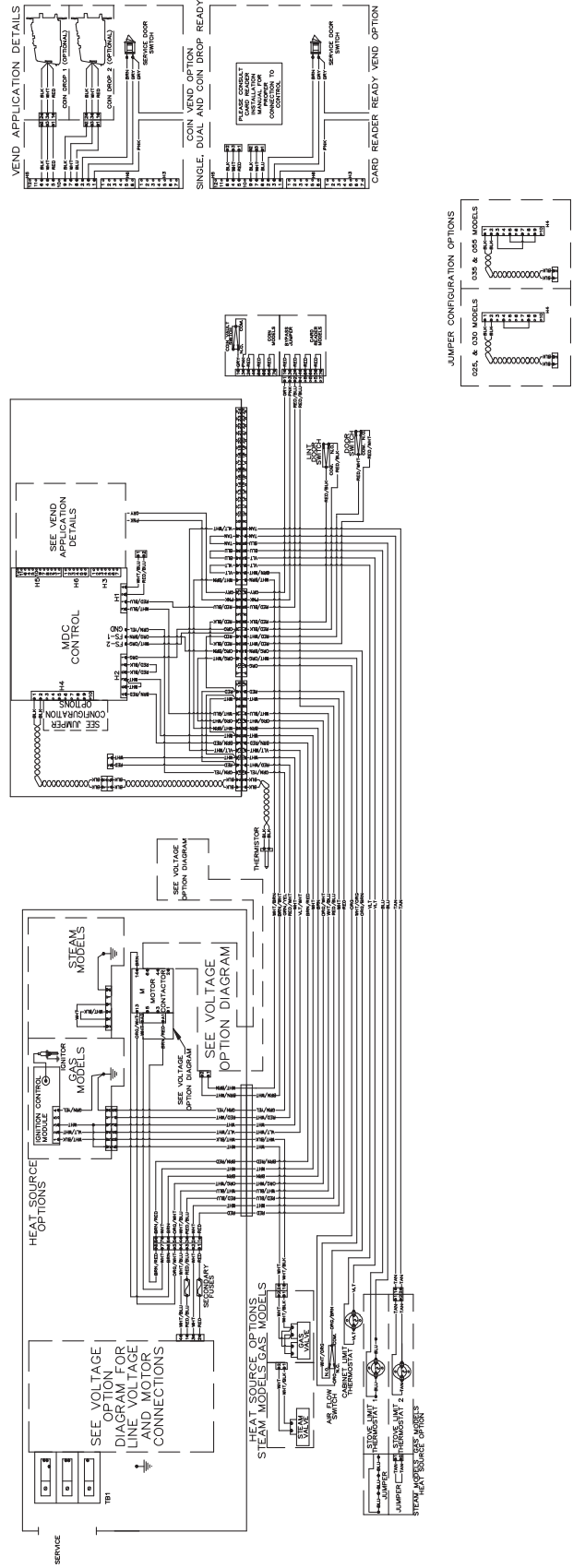
Display	Definition	Corrective Action
OP	Indicates an open circuit in the thermistor.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>
SH	Indicates a short circuit in the thermistor.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>
EC:19 *Card Reader models only	Indicates no communication between control and card reader.	<ul style="list-style-type: none"> <li>• Check card reader. Replace if inoperative.</li> <li>• Check wire harness connecting card reader and control. Replace if inoperative.</li> <li>• Check control. Replace if inoperative.</li> </ul>



TMB2241S

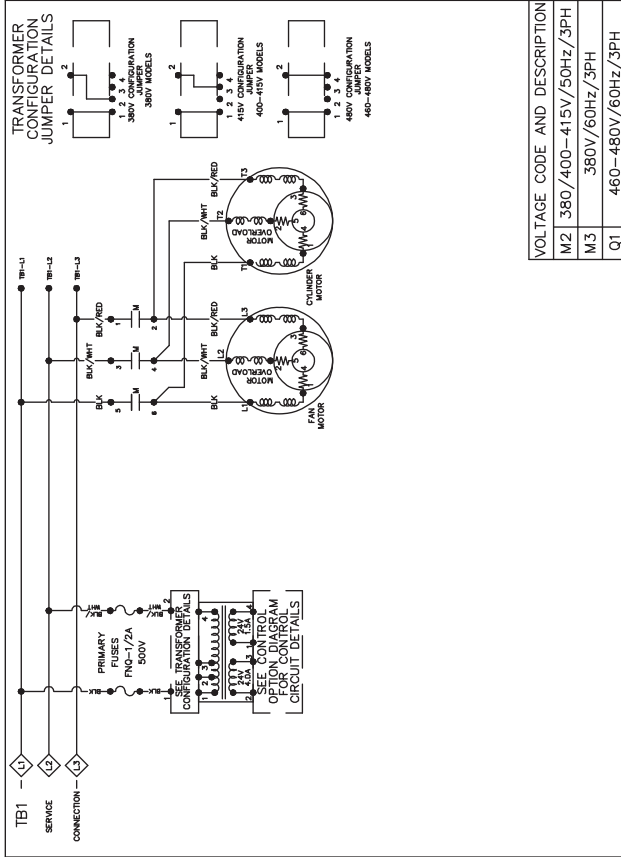
Gas and Steam Models Control Circuit Schematic

# Micro Display Control (MDC) Troubleshooting

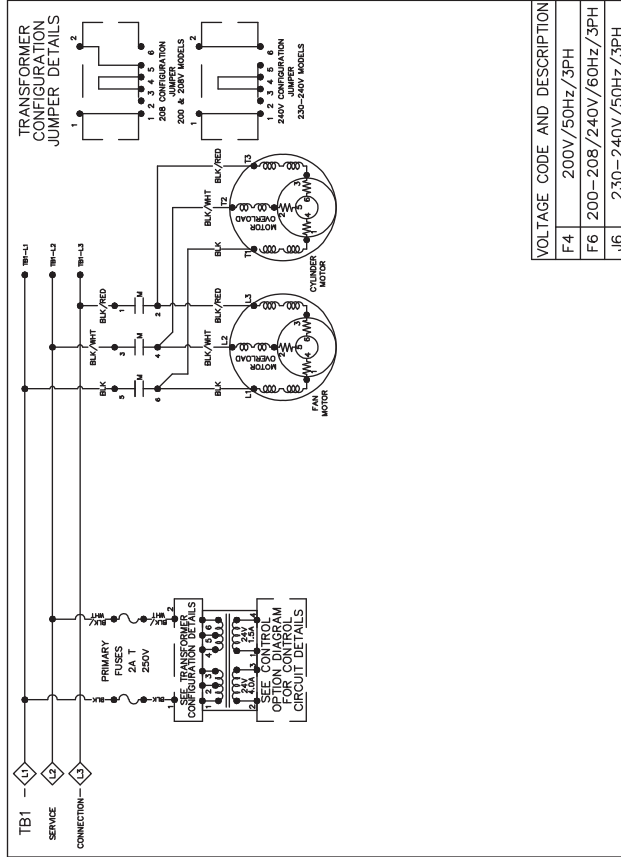


**Gas and Steam Models Control Circuit Connection**

TMB221S

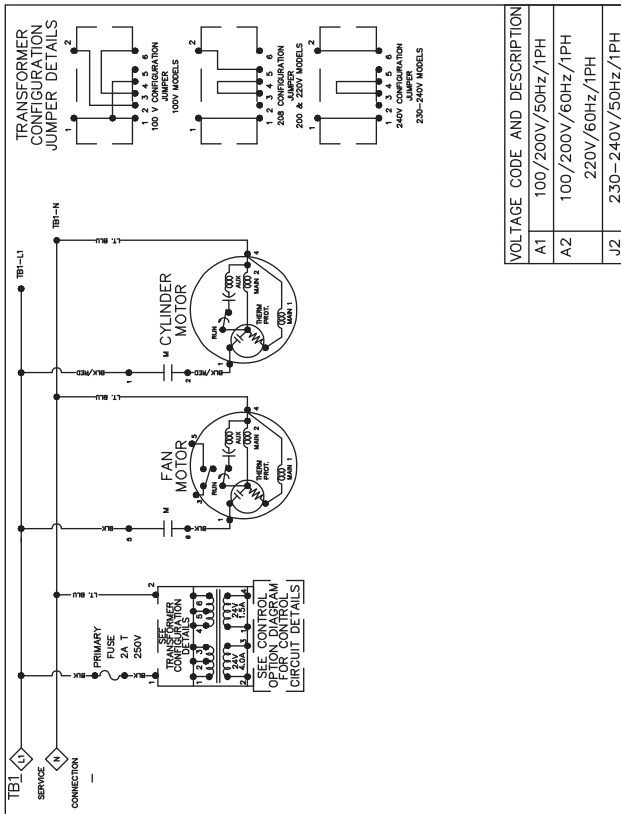


VOLTAGE CODE AND DESCRIPTION	
M2	380-415V/50Hz/3PH
M3	380V/60Hz/3PH
Q1	460-480V/60Hz/3PH

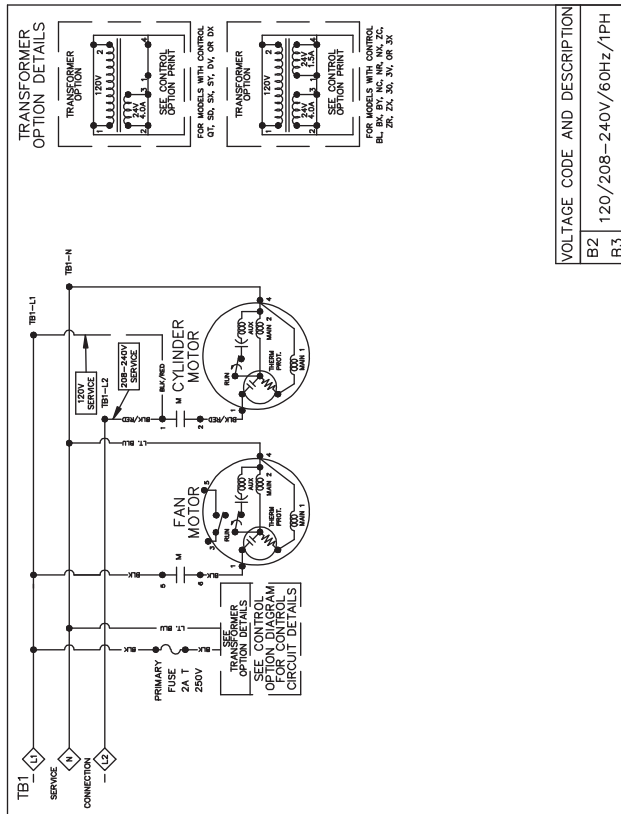


VOLTAGE CODE AND DESCRIPTION	
F4	200V/50Hz/3PH
F6	200-208/240V/60Hz/3PH
J6	230-240V/50Hz/3PH

TMB2027S

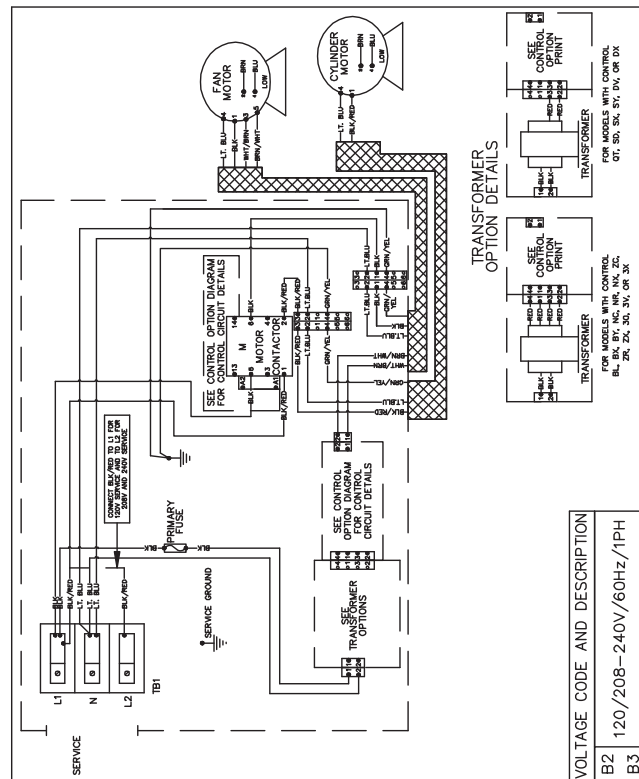
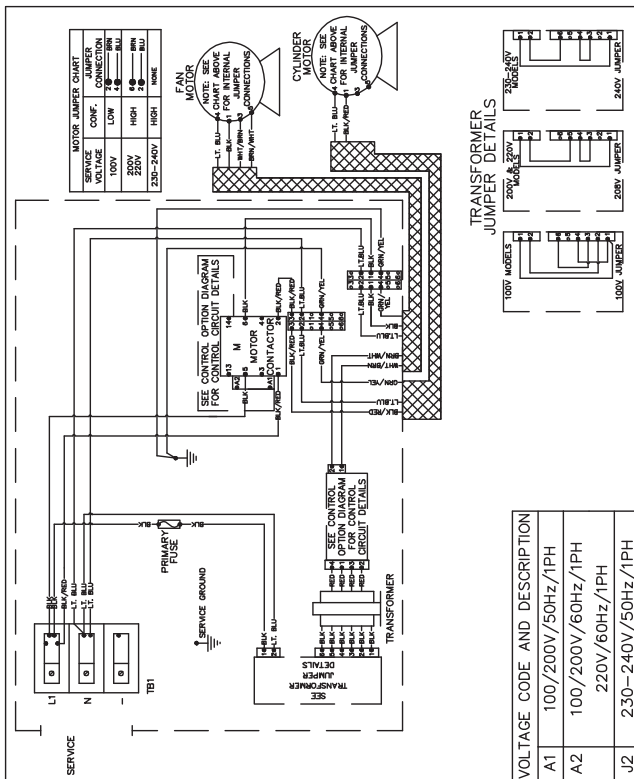
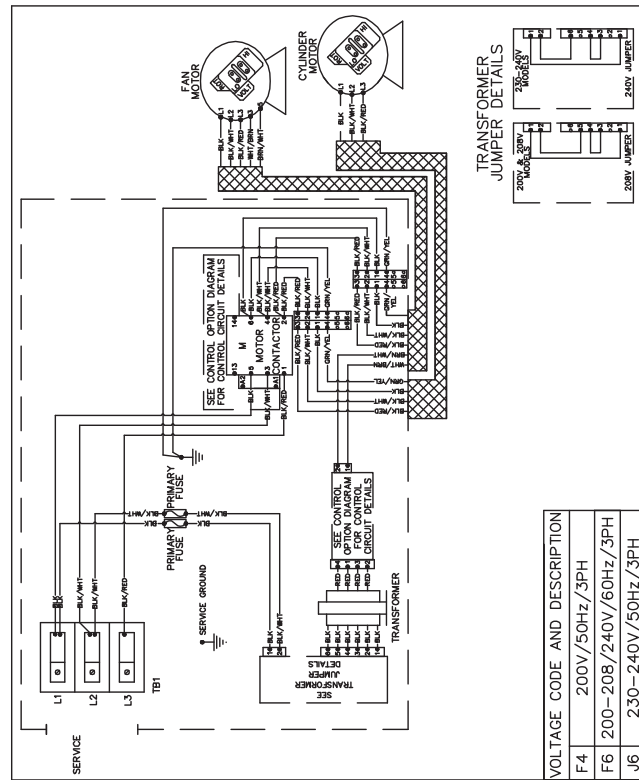
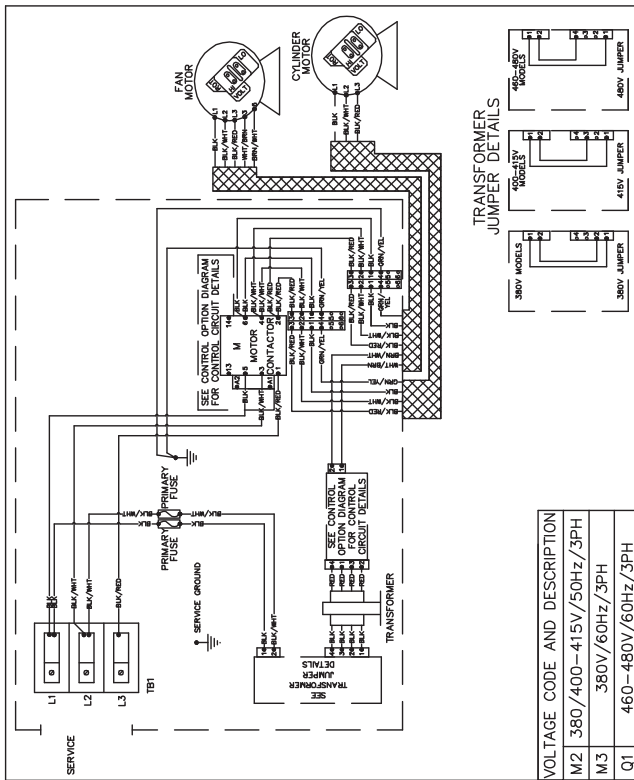


VOLTAGE CODE AND DESCRIPTION	
A1	100/200V/50Hz/1PH
A2	100/200V/60Hz/1PH
J2	230-240V/50Hz/1PH

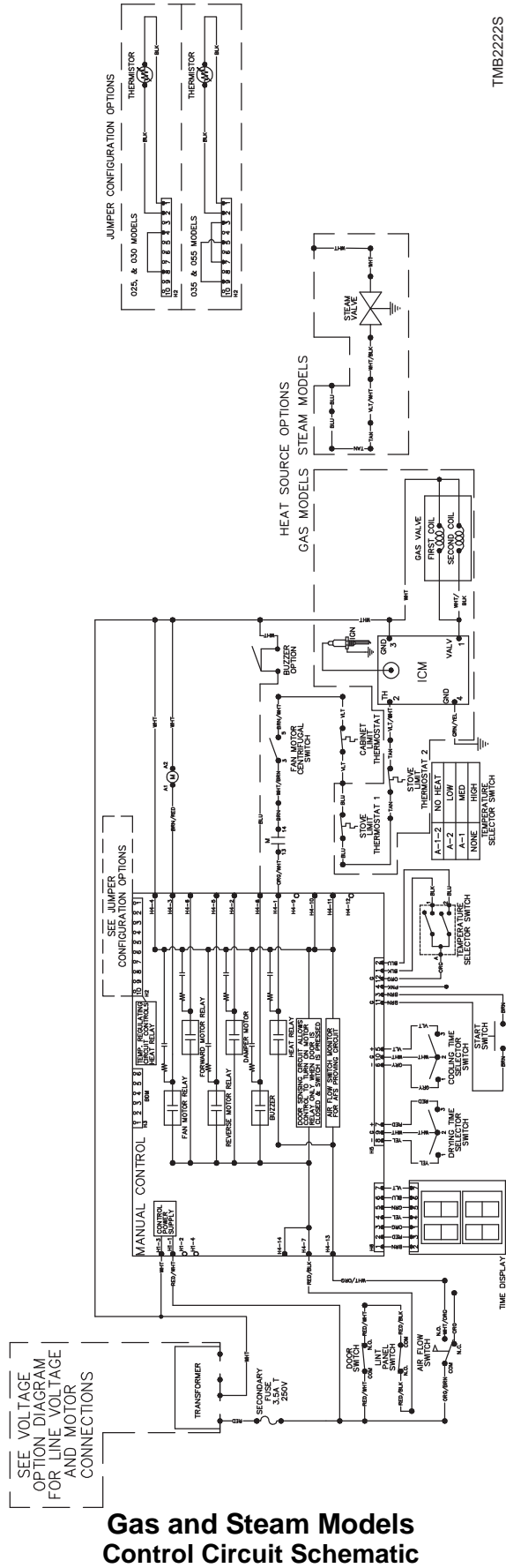


VOLTAGE CODE AND DESCRIPTION	
B2	120/208-240V/60Hz/1PH
B3	

Gas and Steam Models Control Box Schematic

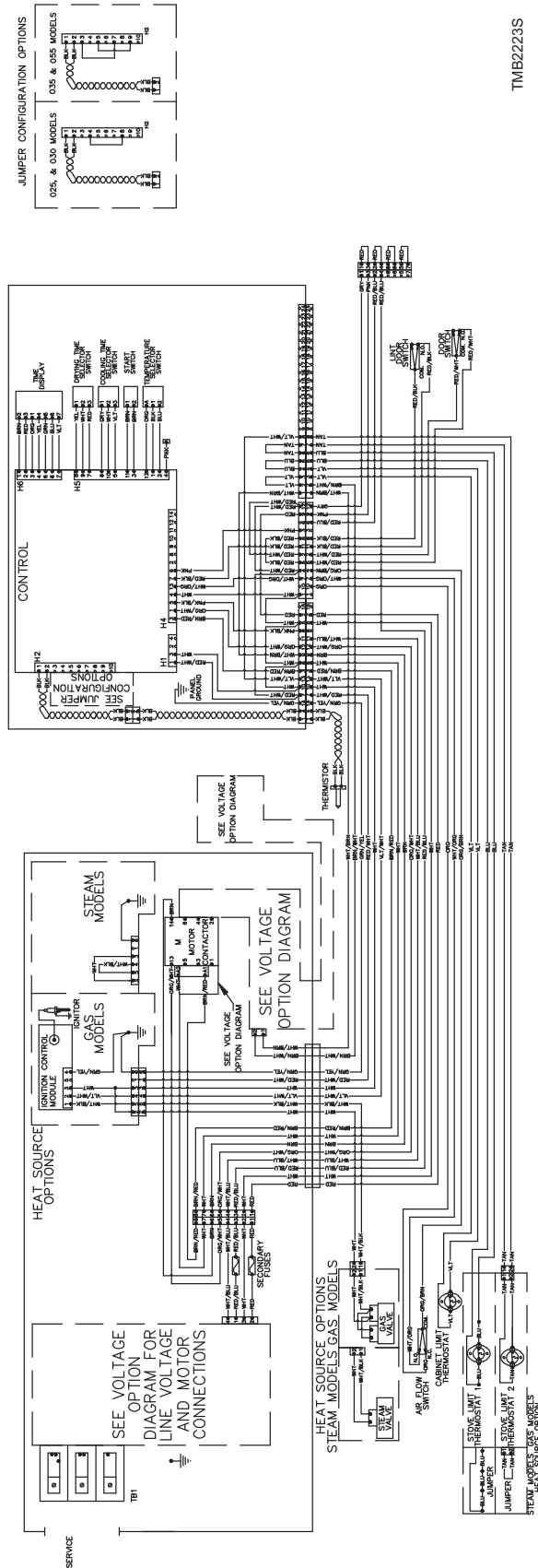


**Gas and Steam Models  
Control Box Connection**



TMB2222S

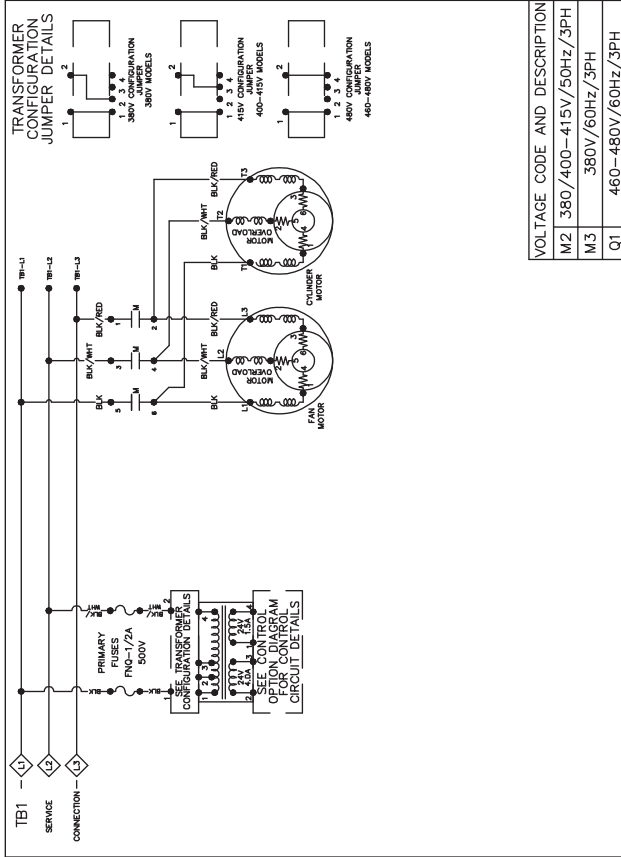
Gas and Steam Models Control Circuit Schematic



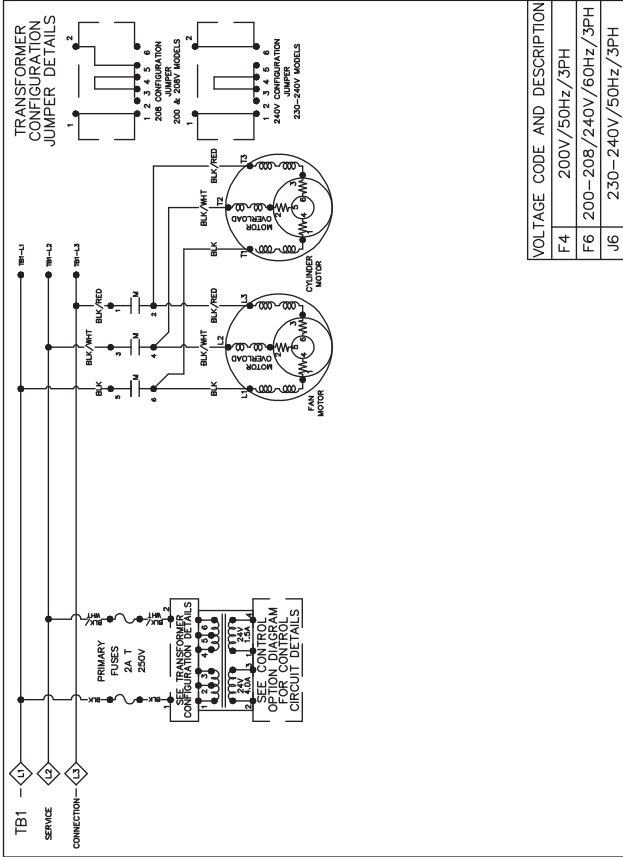
TMB2223S

**Gas and Steam Models Control Circuit Schematic**

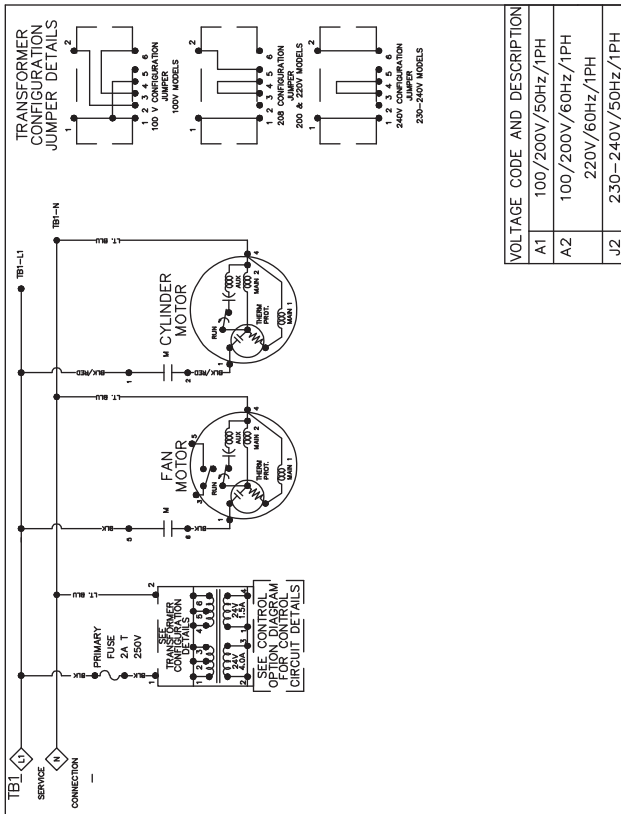




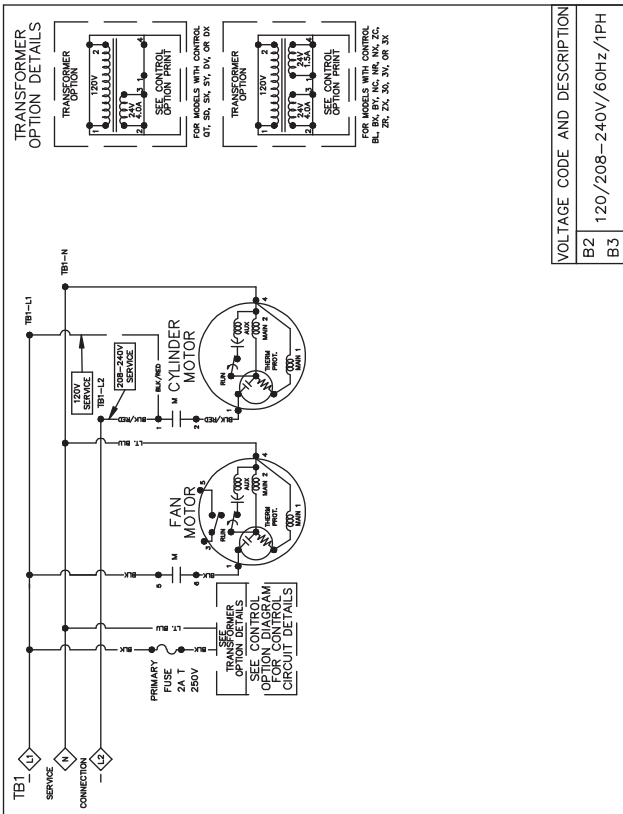
VOLTAGE CODE AND DESCRIPTION	
M2	380V/60Hz/3PH
M3	415V/60Hz/3PH
Q1	460V/60Hz/3PH



VOLTAGE CODE AND DESCRIPTION	
F4	200V/50Hz/3PH
F6	200-208/240V/60Hz/3PH
J6	230-240V/50Hz/3PH



VOLTAGE CODE AND DESCRIPTION	
A1	100/200V/50Hz/1PH
A2	100/200V/60Hz/1PH
J2	230-240V/50Hz/1PH



VOLTAGE CODE AND DESCRIPTION	
B2	120/208-240V/60Hz/1PH
B3	

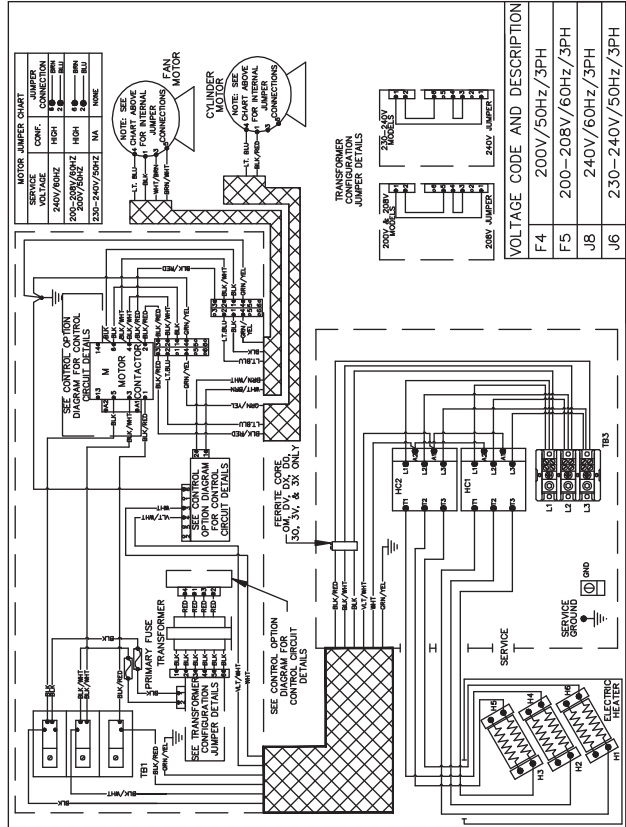
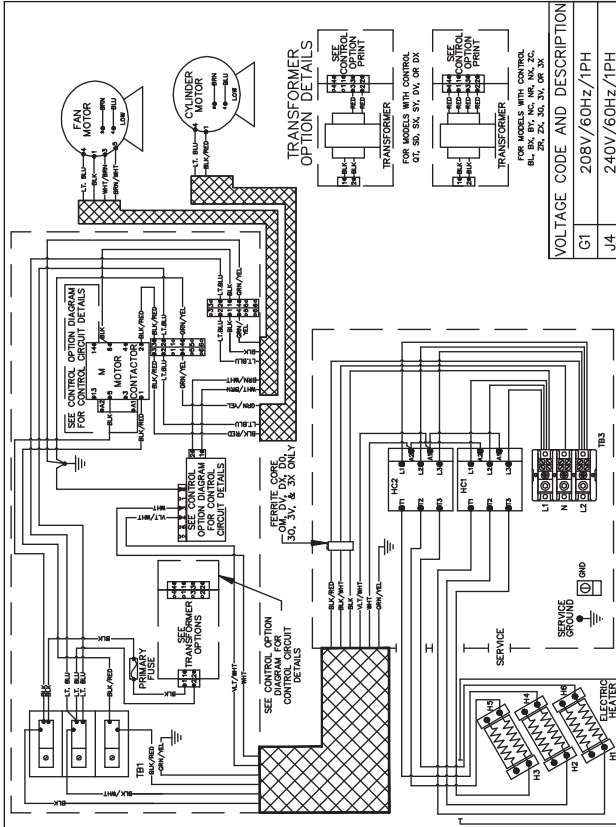
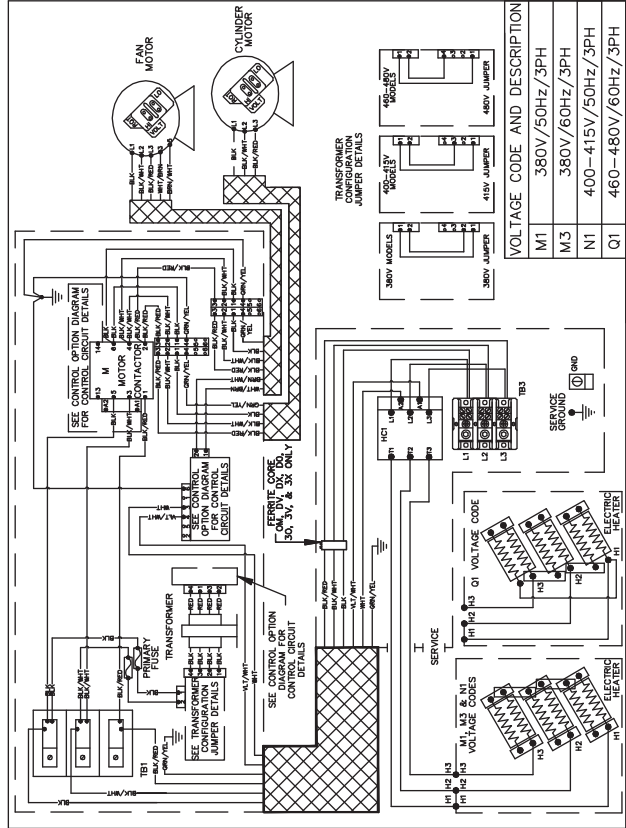
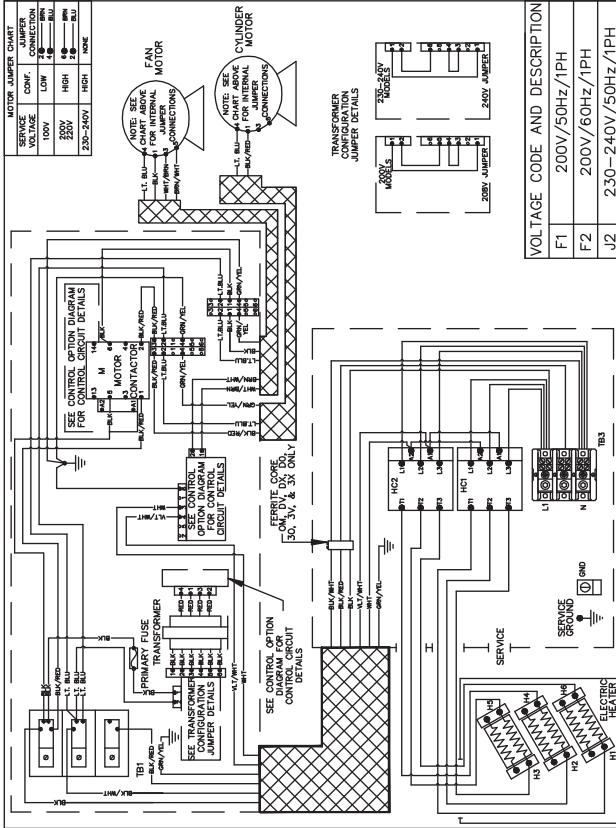
Gas and Steam Models Control Box Schematic

TMB2027S







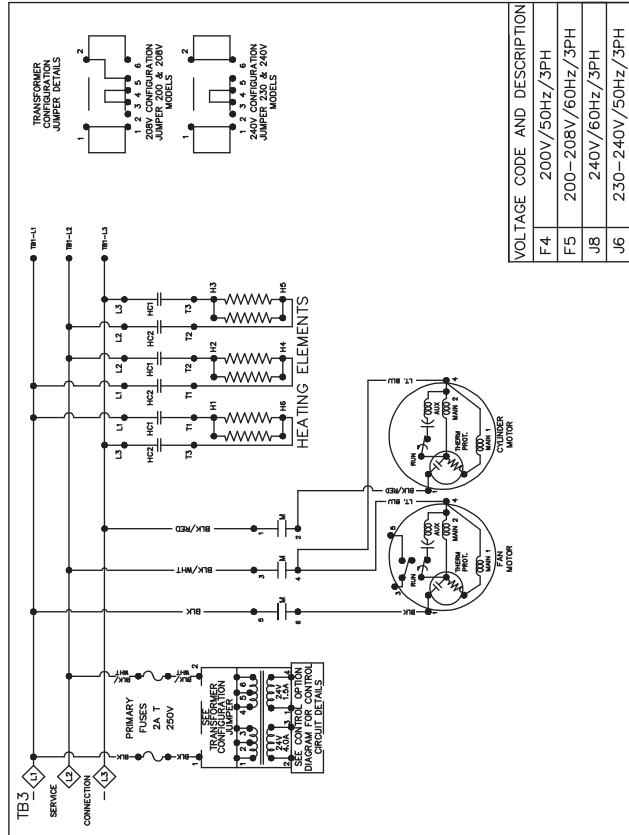
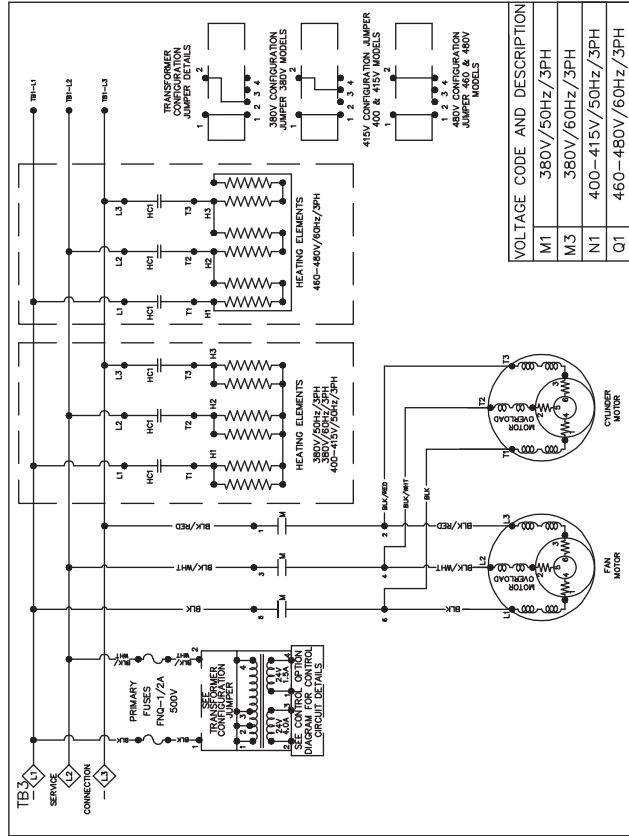
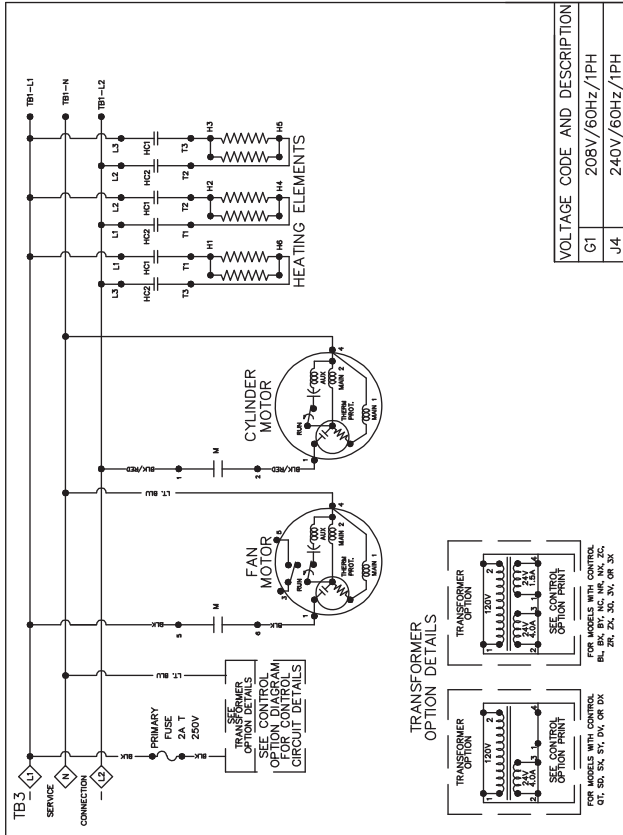
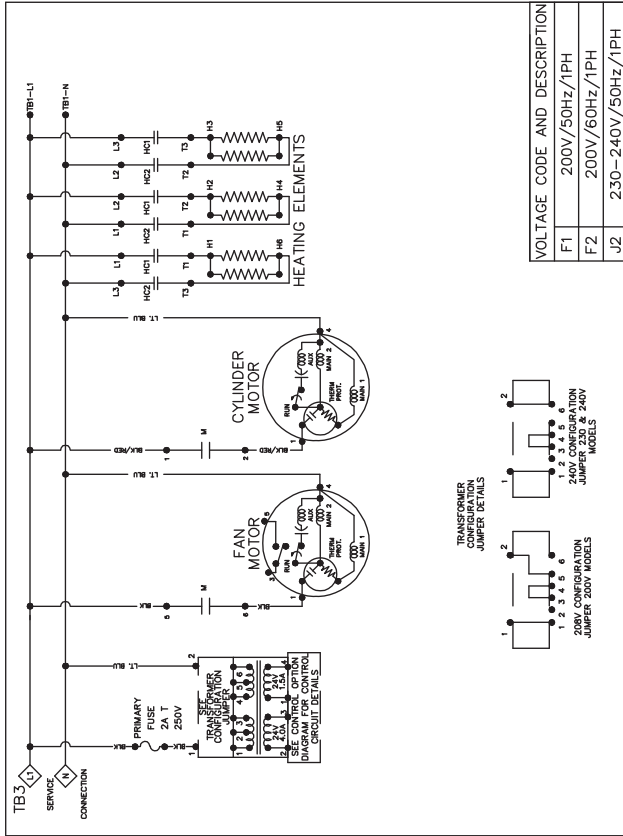


Electric Models  
Control Box Connection

TMB2030S

# Micro Display Control (MDC) Troubleshooting

TMB2031S



## Electric Models Control Box Schematic

# Section 6 NetMaster Troubleshooting

## Models with NC, NR, NX, NY, ZC, ZR, ZX and ZY Control Suffixes



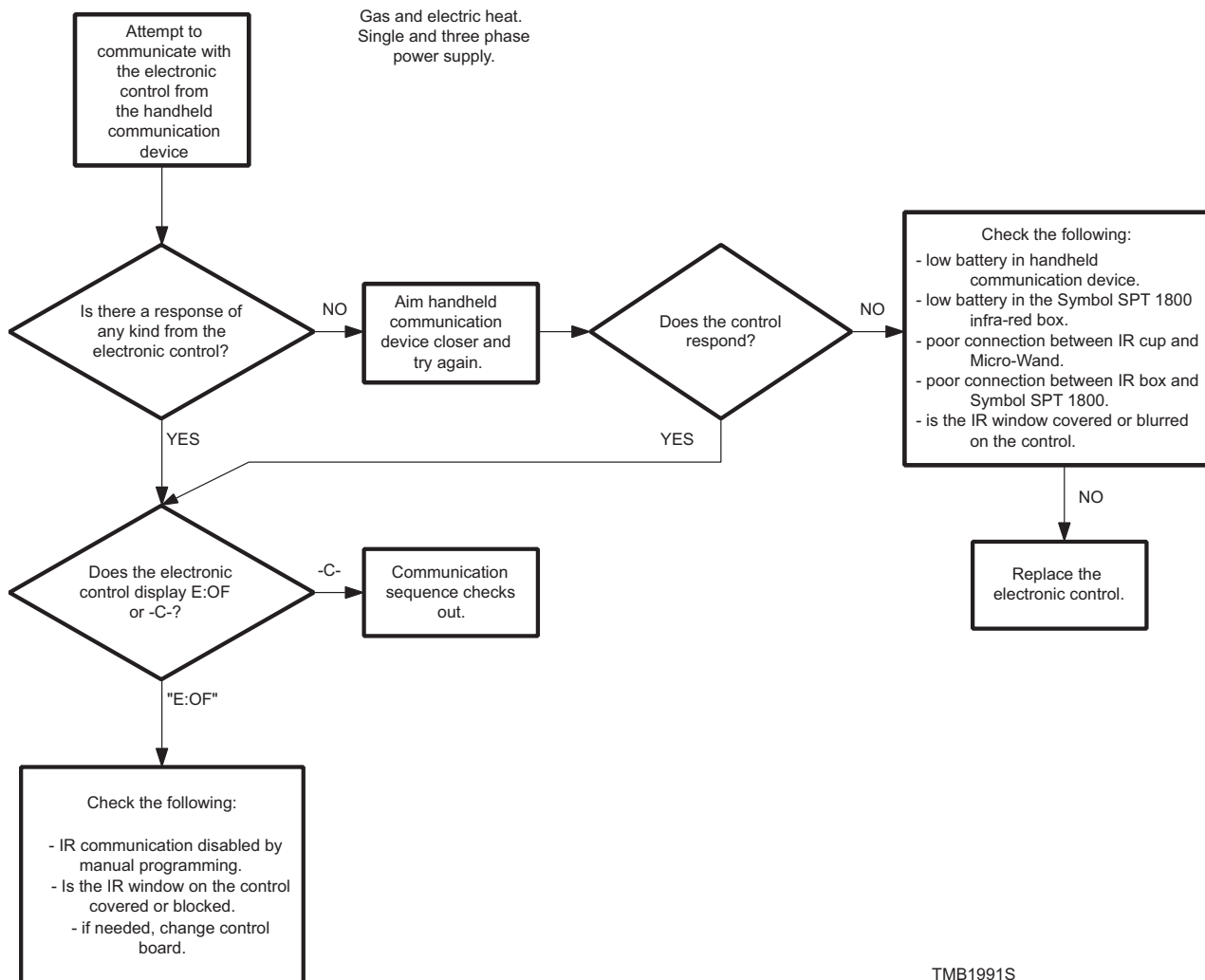
### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

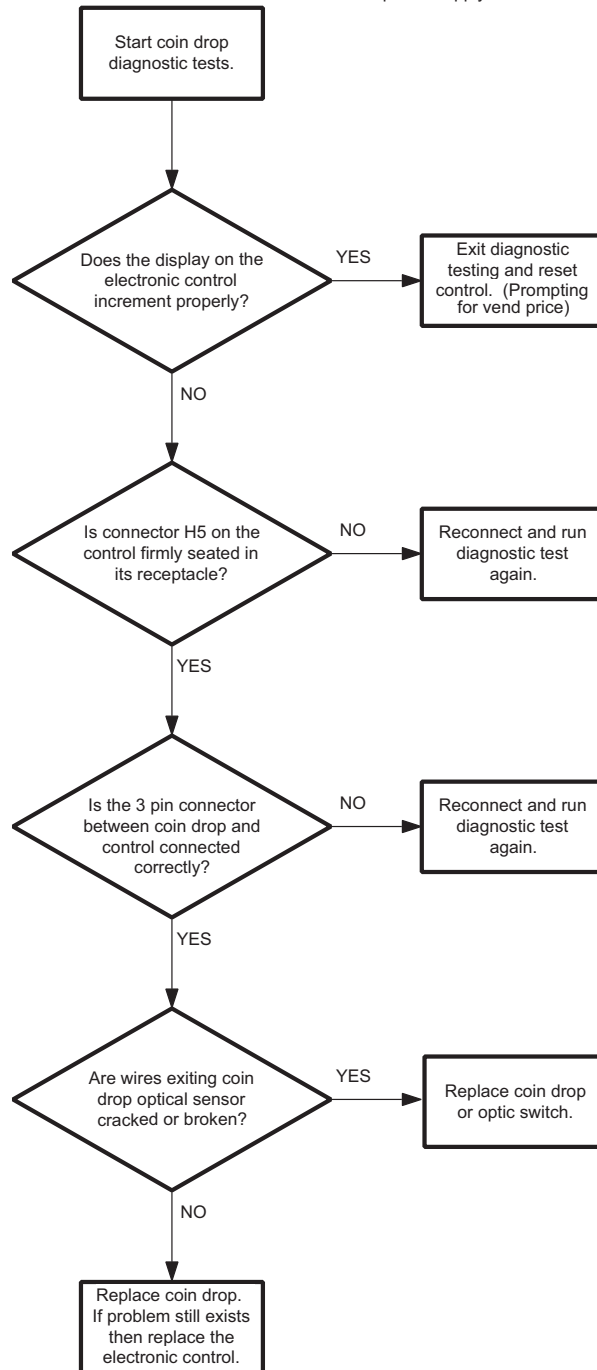
### 25. No Infra-red (IR) Communication



TMB1991S

## 26. Coins Ignored When Entered

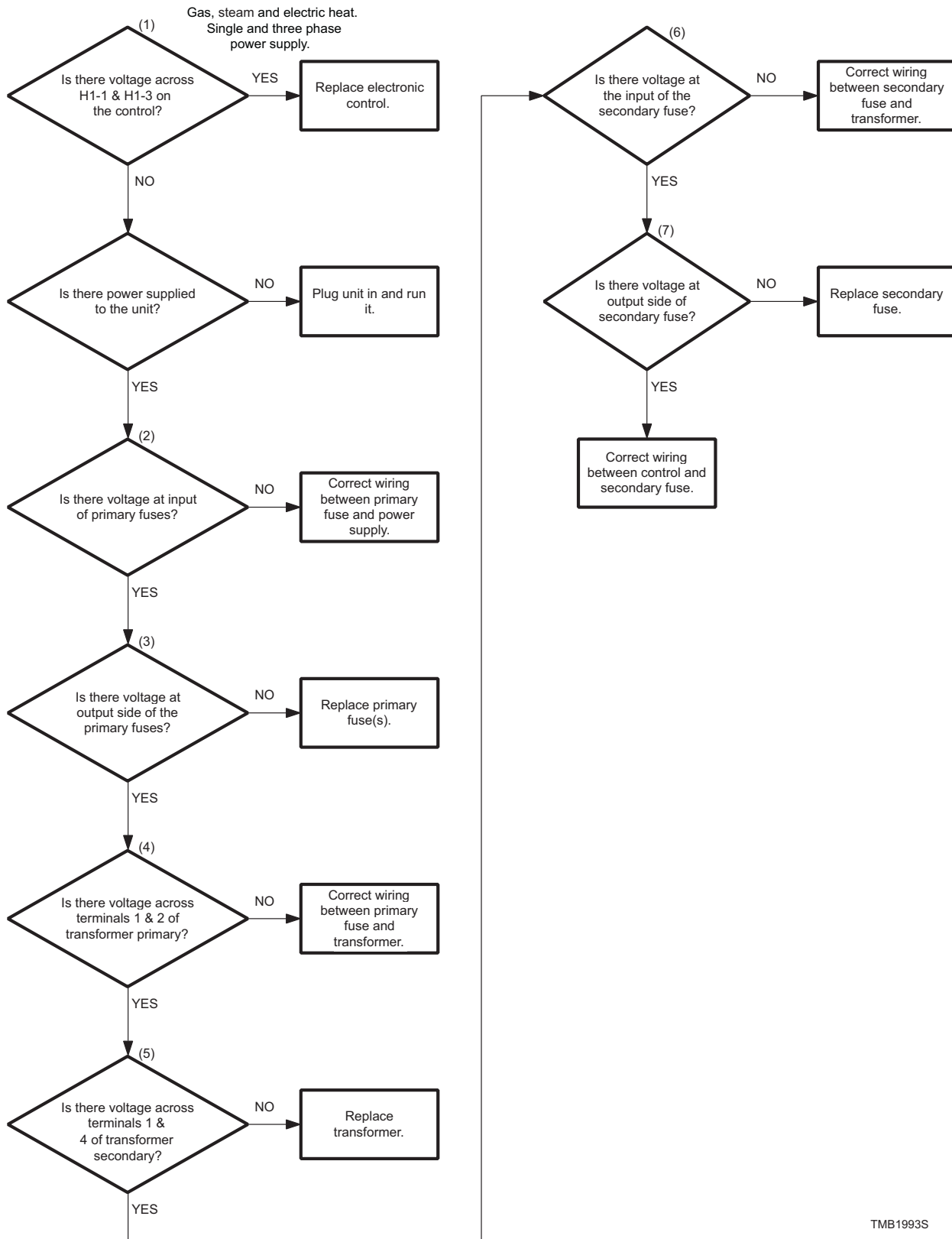
Gas and electric heat.  
Single and three phase  
power supply.



TMB1992S

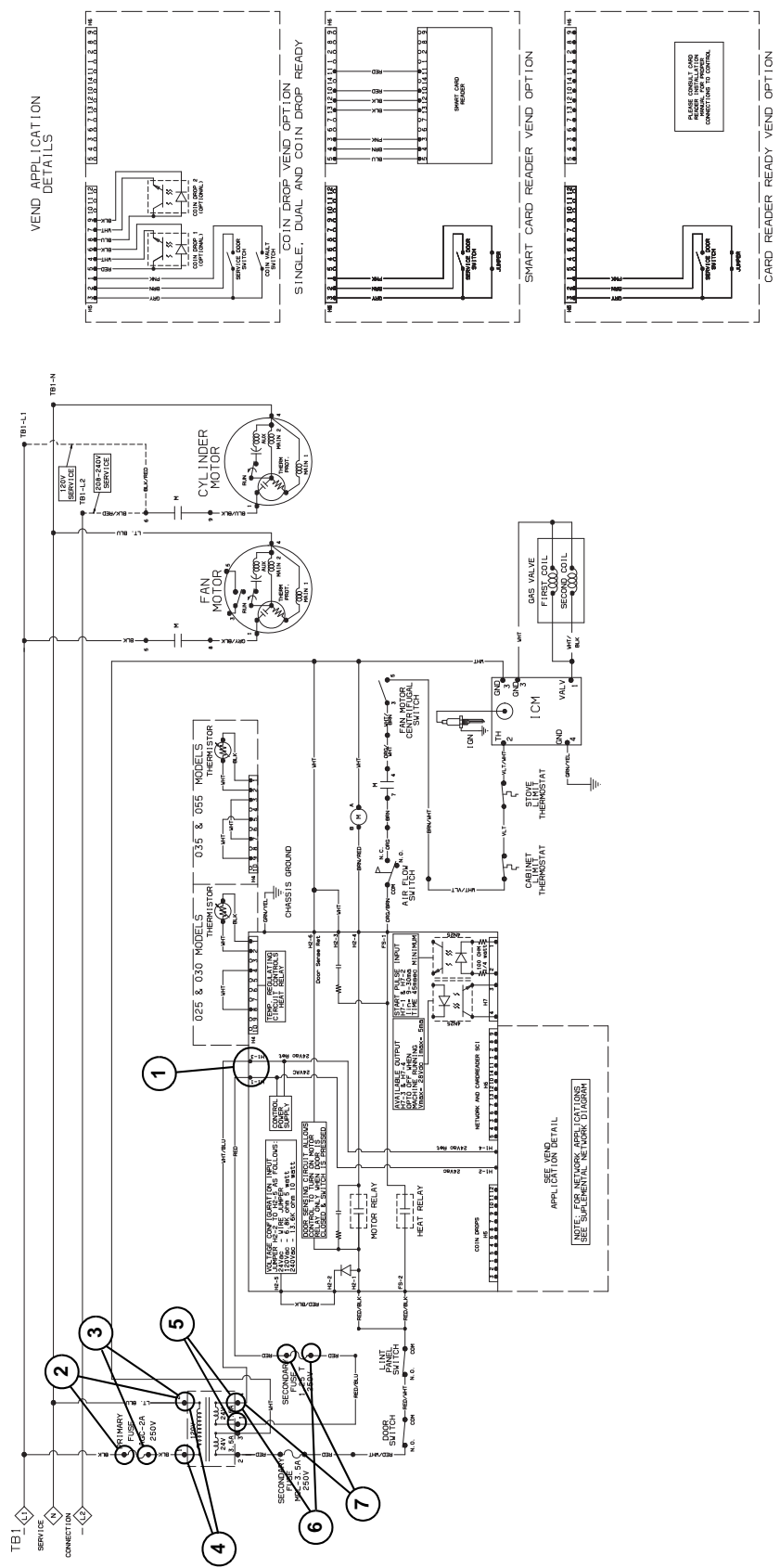


## 27. Control Has No Display

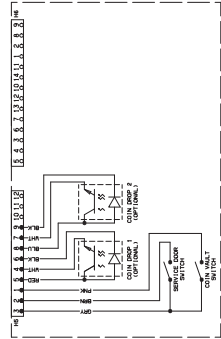


TMB1993S

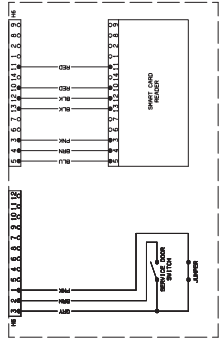
# Control Has No Display



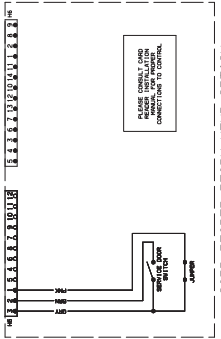
VEND APPLICATION DETAILS



SINGLE, DUAL AND COIN DROP READY



SMART CARD READER VEND OPTION



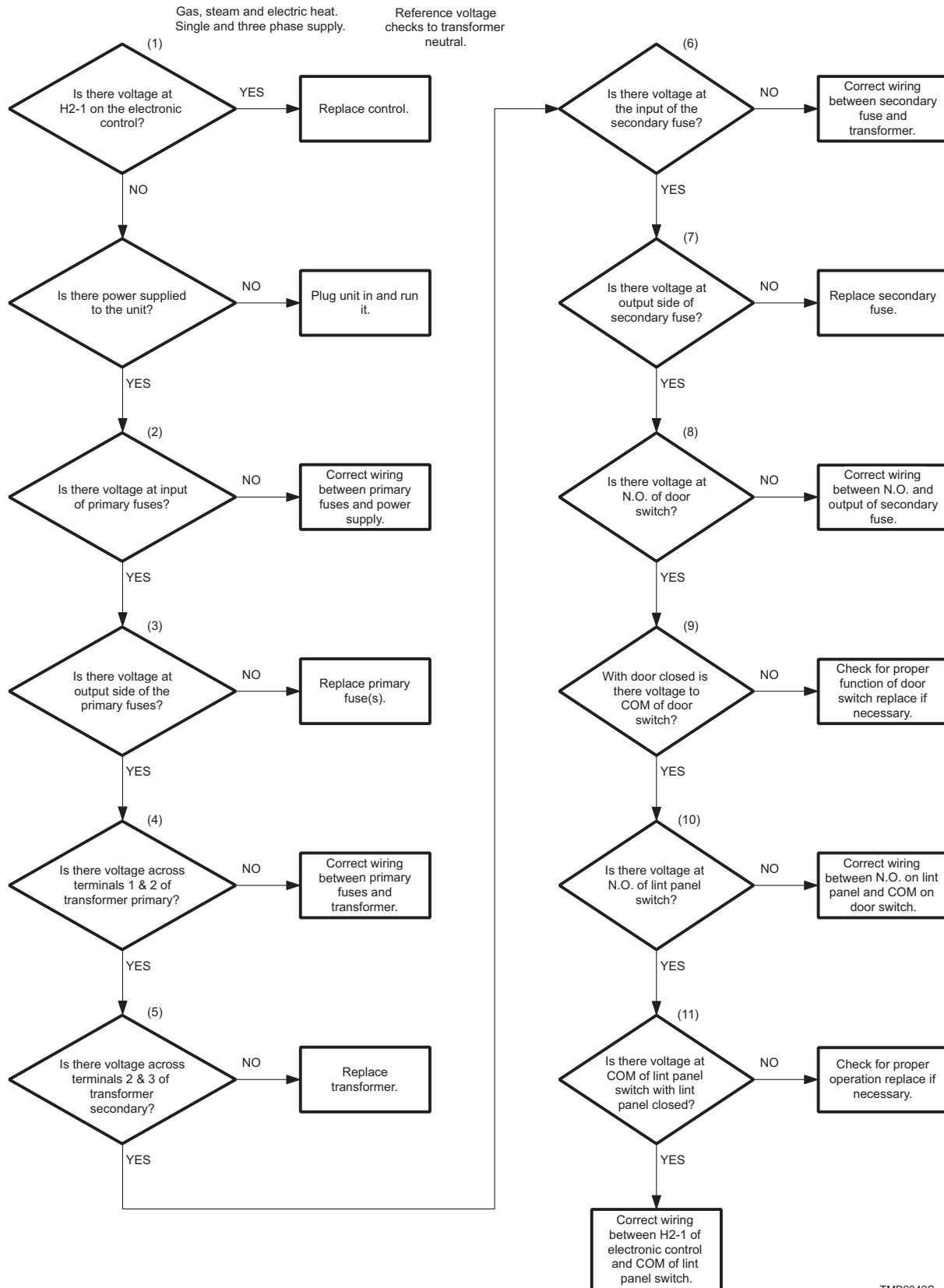
CARD READER READY VEND OPTION

NOTES:

1. DOOR SWITCH - CONTACTS CLOSED WHEN DOOR CLOSED.
2. MOTOR IS PROTECTED BY INTERNAL THERMAL PROTECTOR.
3. HEATER RELAY OPENS WHEN TEMPERATURE IS REACHED.
4. IGNITER GROUNDED INTERNALLY TO BRACKET.

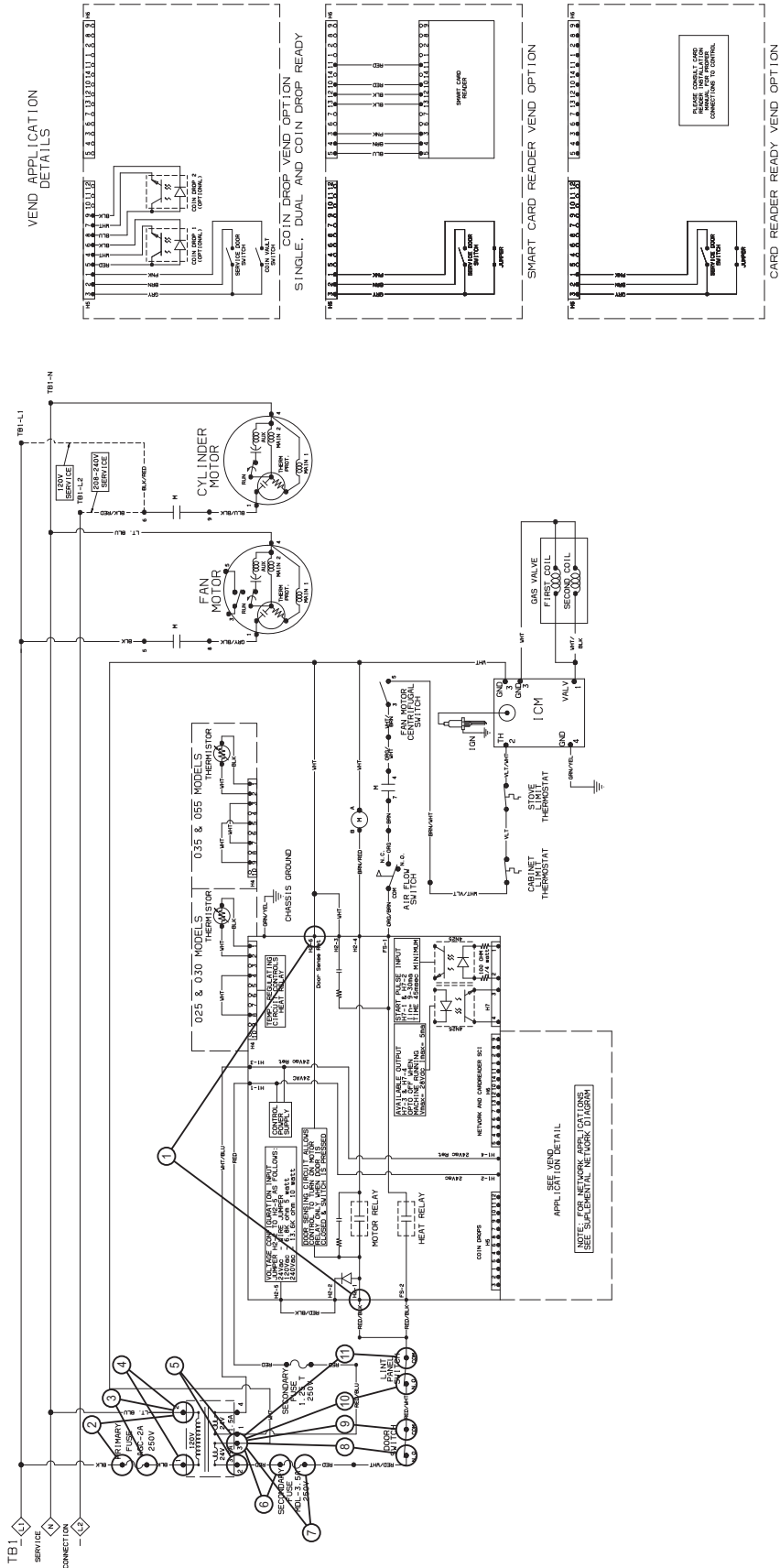
TMB2225S

## 28. Door Open Indicator

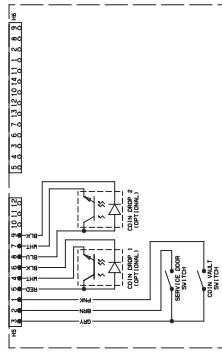


TMB2042S

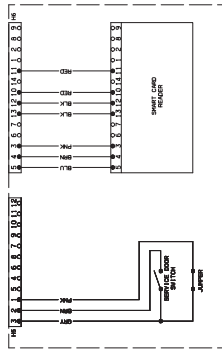
# Door Open Indicator



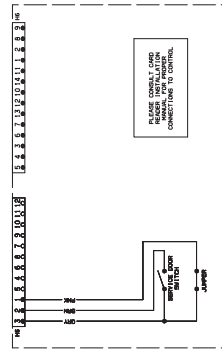
VEND APPLICATION DETAILS



COIN DROP VEND OPTION SINGLE, DUAL AND COIN DROP READY



SMART CARD READER VEND OPTION



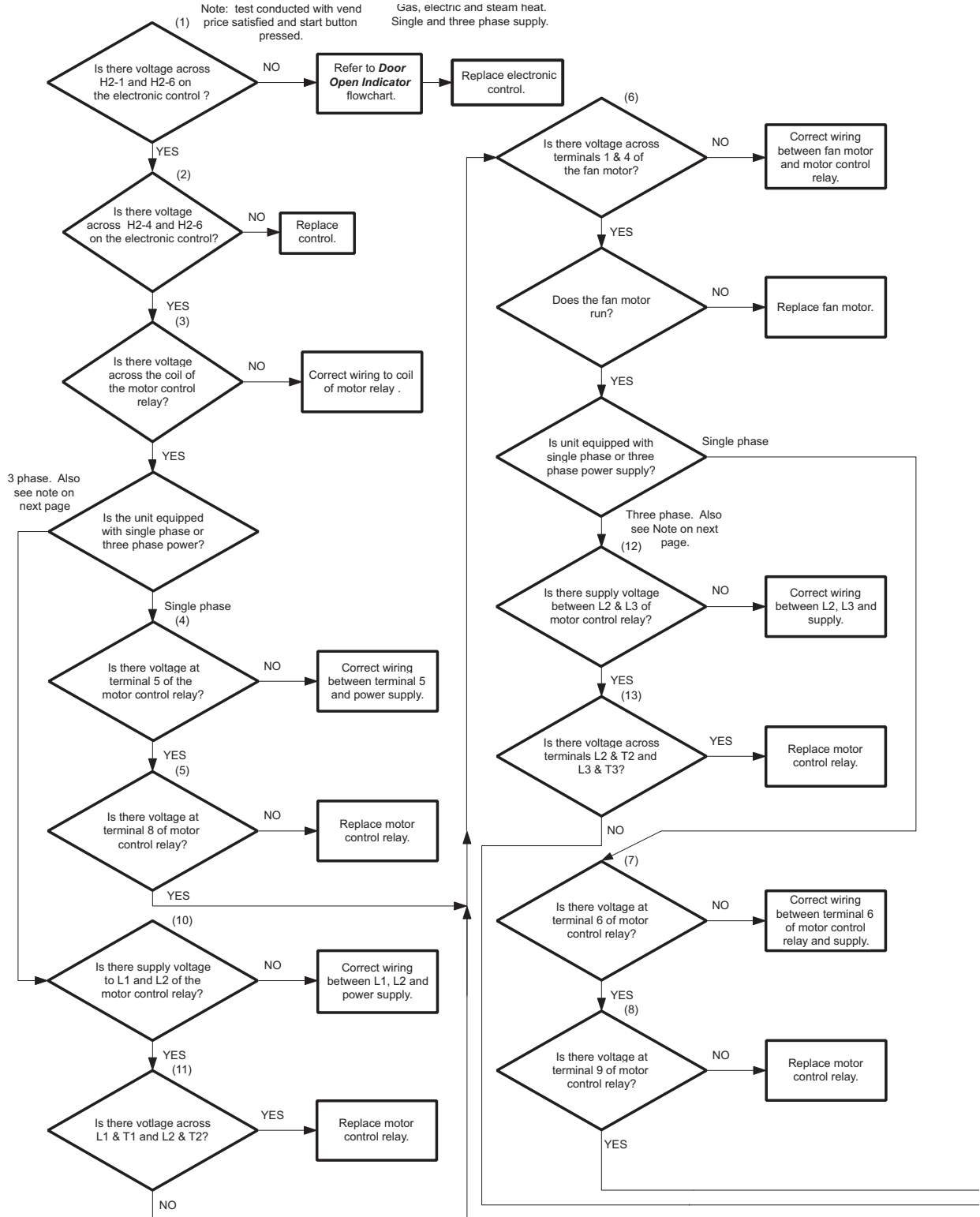
CARD READER READY VEND OPTION

NOTES:

1. DOOR SWITCH - CONTACTS CLOSED WHEN DOOR CLOSED.
2. MOTOR IS PROTECTED BY INTERNAL THERMAL PROTECTOR.
3. HEATER RELAY OPENS WHEN TEMPERATURE IS REACHED.
4. IONITER GROUNDED INTERNALLY TO BRACKET.

TMB2226S

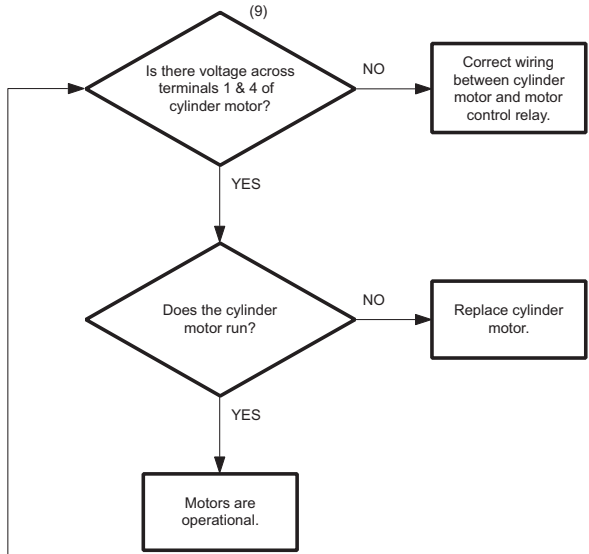
## 29. Motor Will Not Start/Run



Note: tests conducted with vend price satisfied and start button pressed.

TMB20435

### 29. Motor Will Not Start/Run (continued)



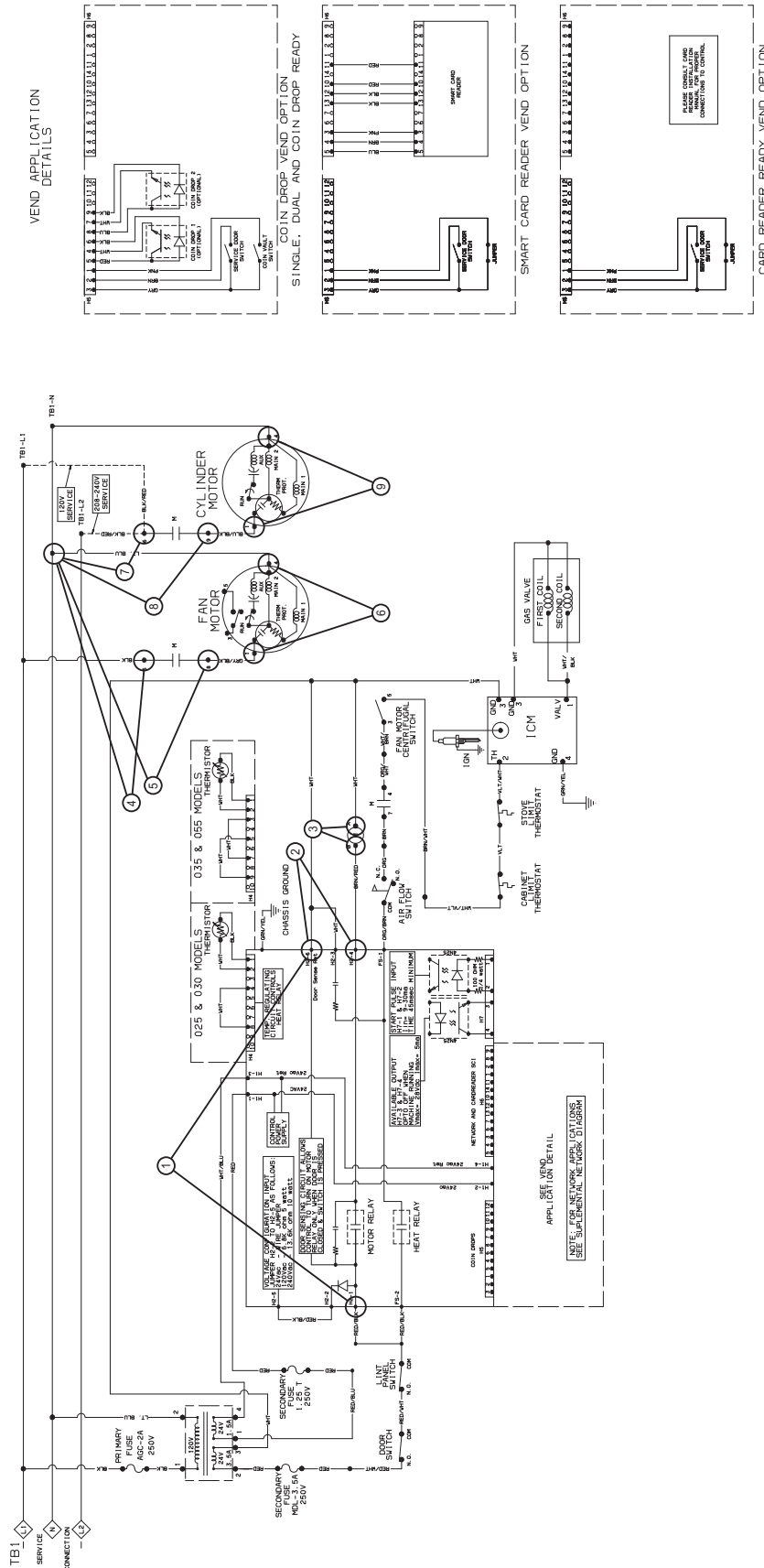
Note: For high voltage three phase supply (380 volts or higher), the cylinder and fan motors are supplied by L1, L2, L3 through the motor relay terminals T1, T2, T3. Make the appropriate adjustments when doing voltage checks.



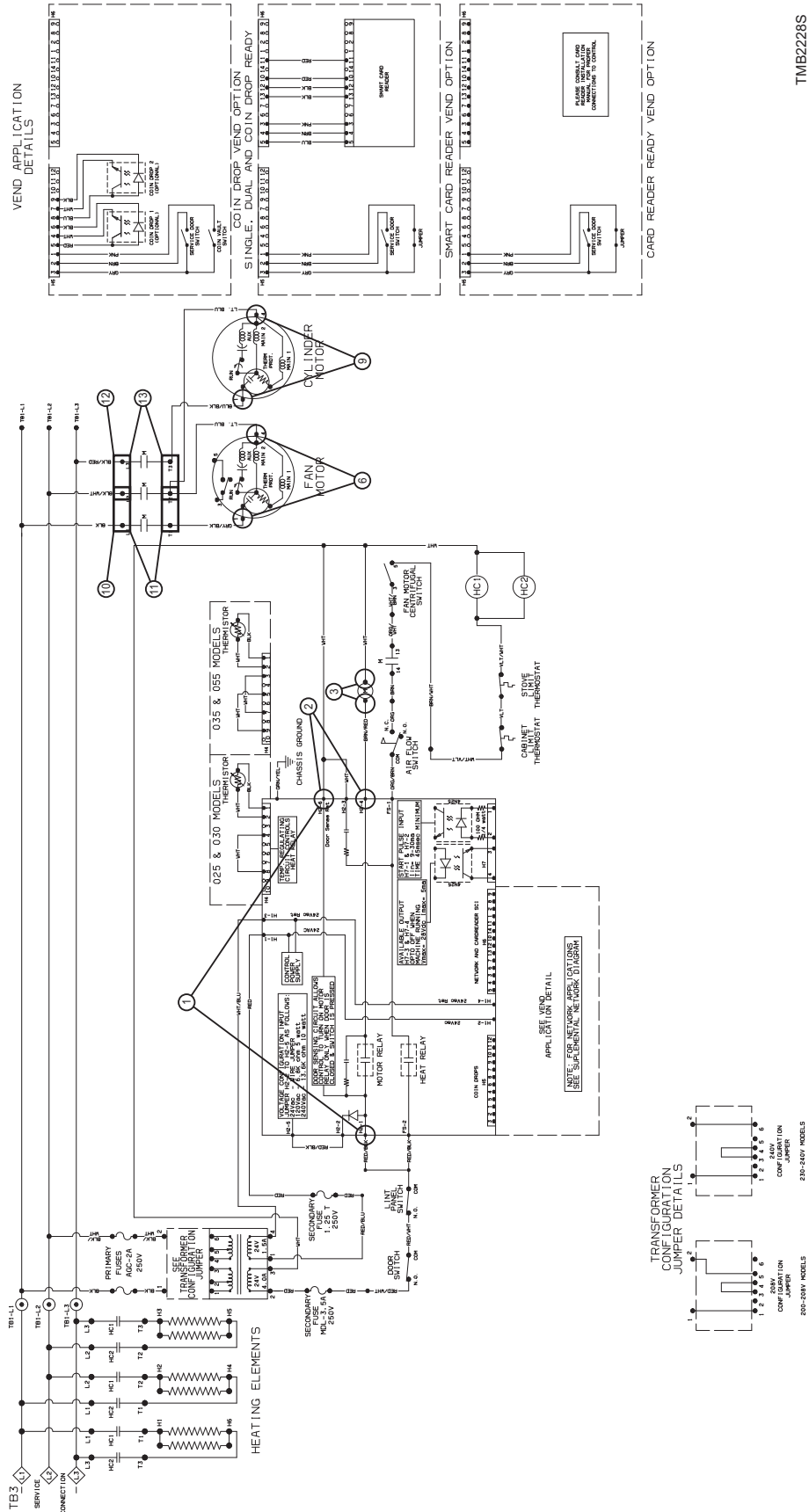
TMB2043S

Please see following 2 pages for wiring diagram information.

# Motor Will Not Start/Run 1 Phase Models



### Motor Will Not Start 3 Phase Models



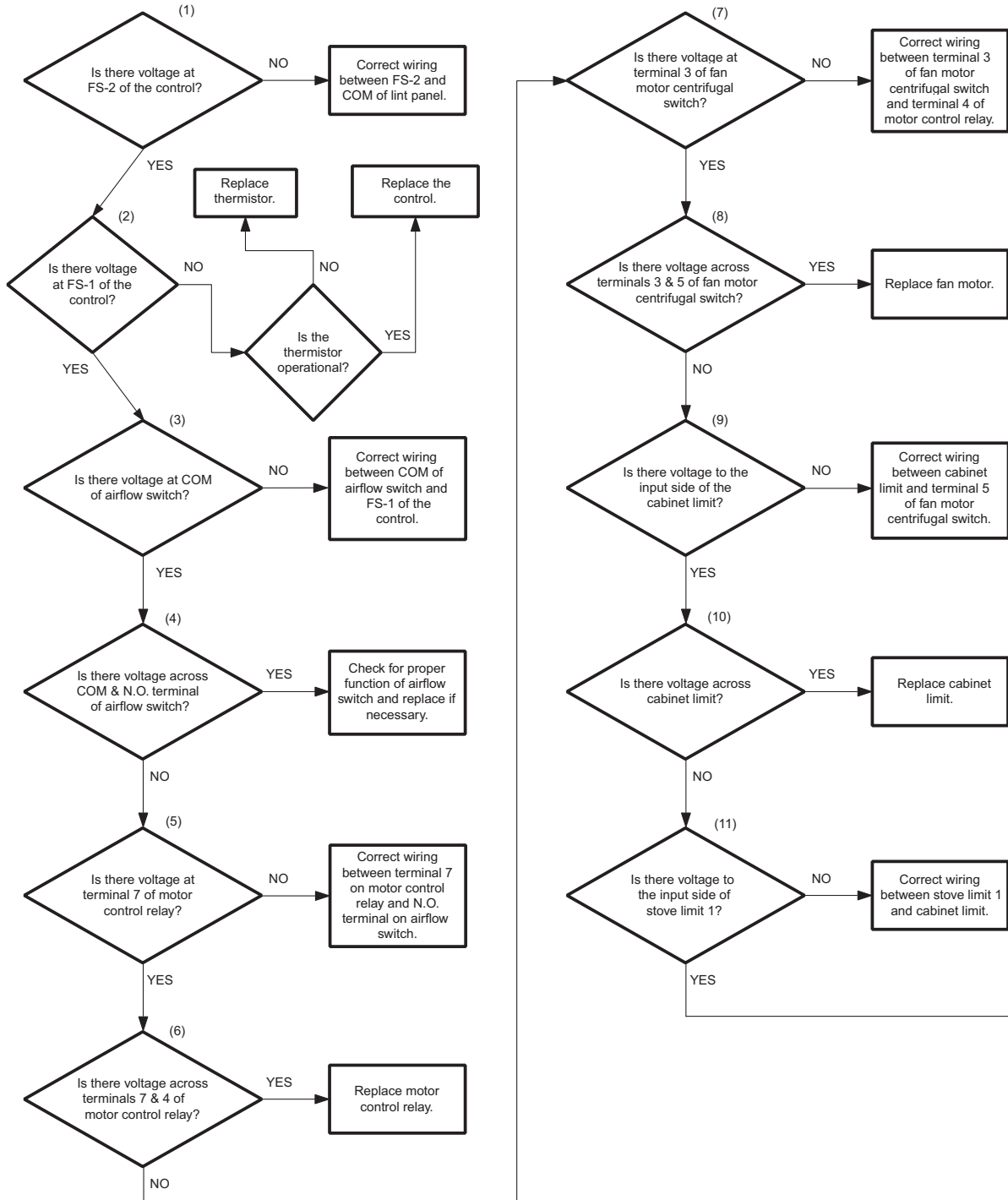
TMB2228S



### 30. Unit Will Not Heat – Gas

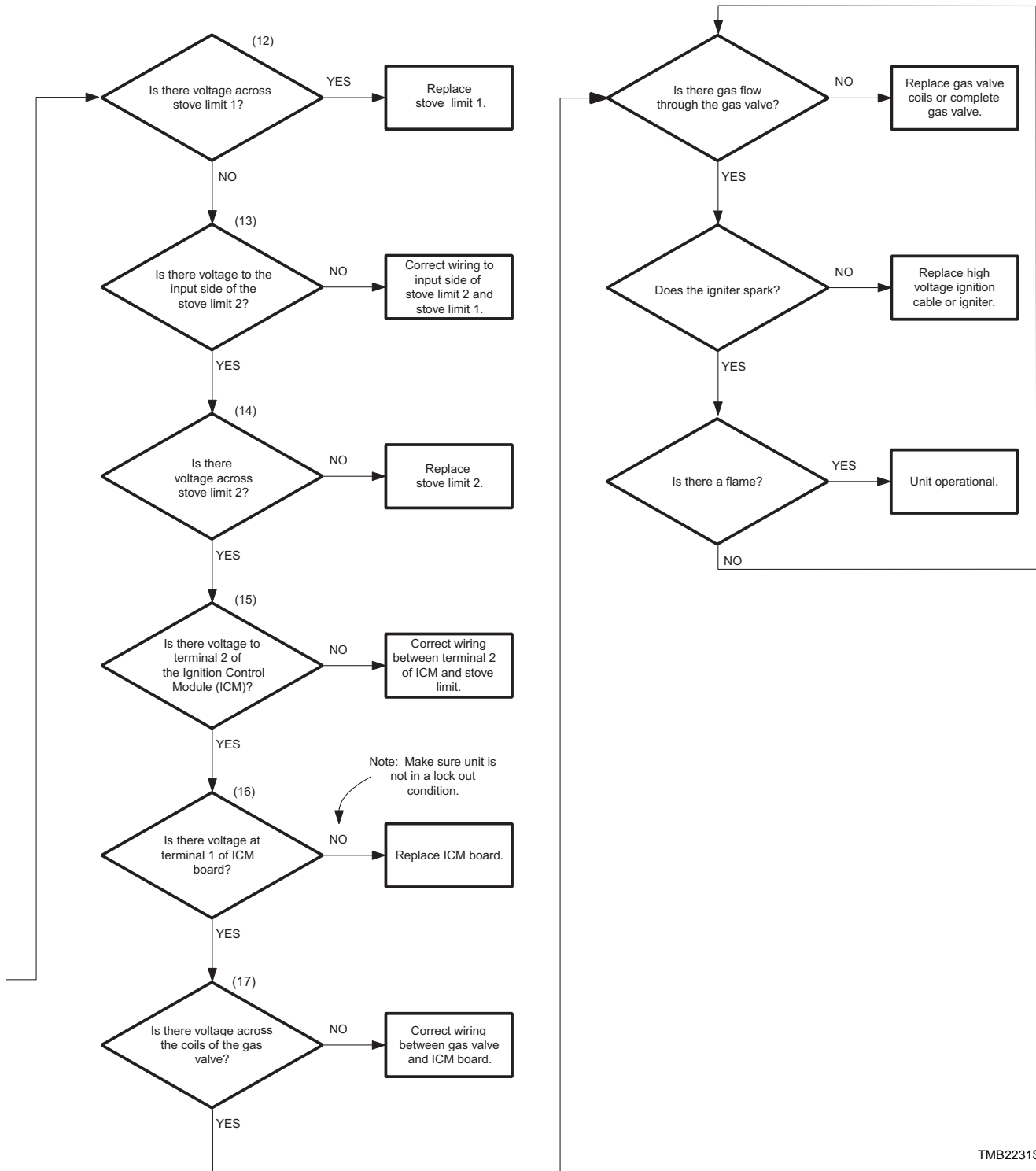
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2231

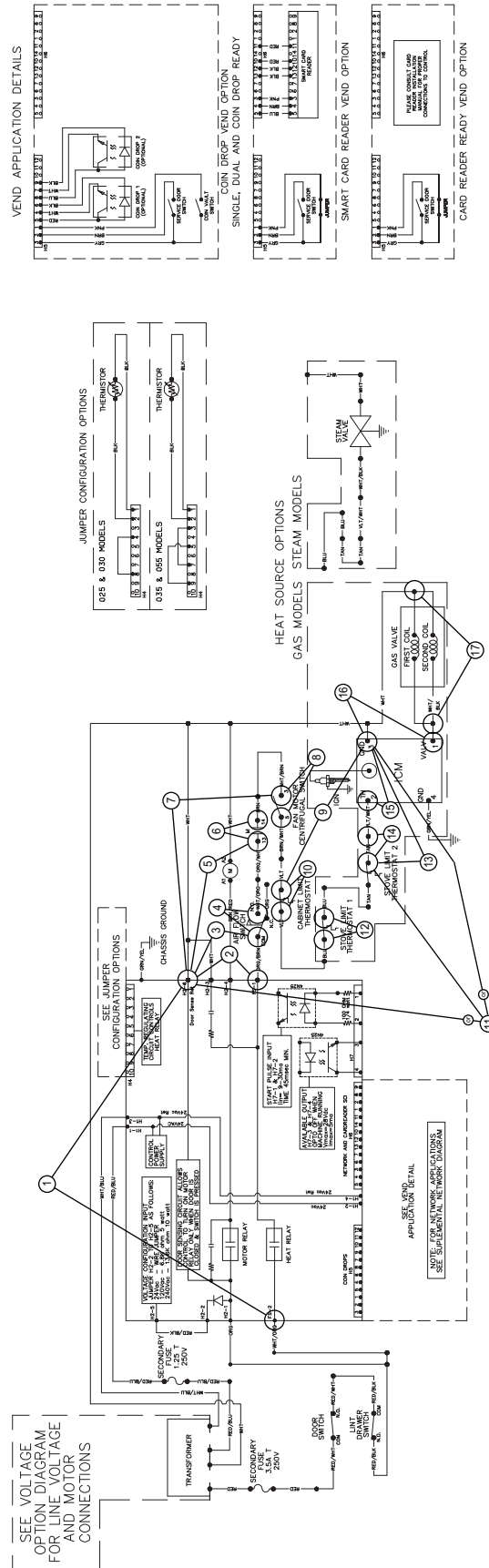
### 30. Unit Will Not Heat – Gas (continued)



TMB2231S

Please see following page for wiring diagram information.

# Unit Will Not Heat – Gas

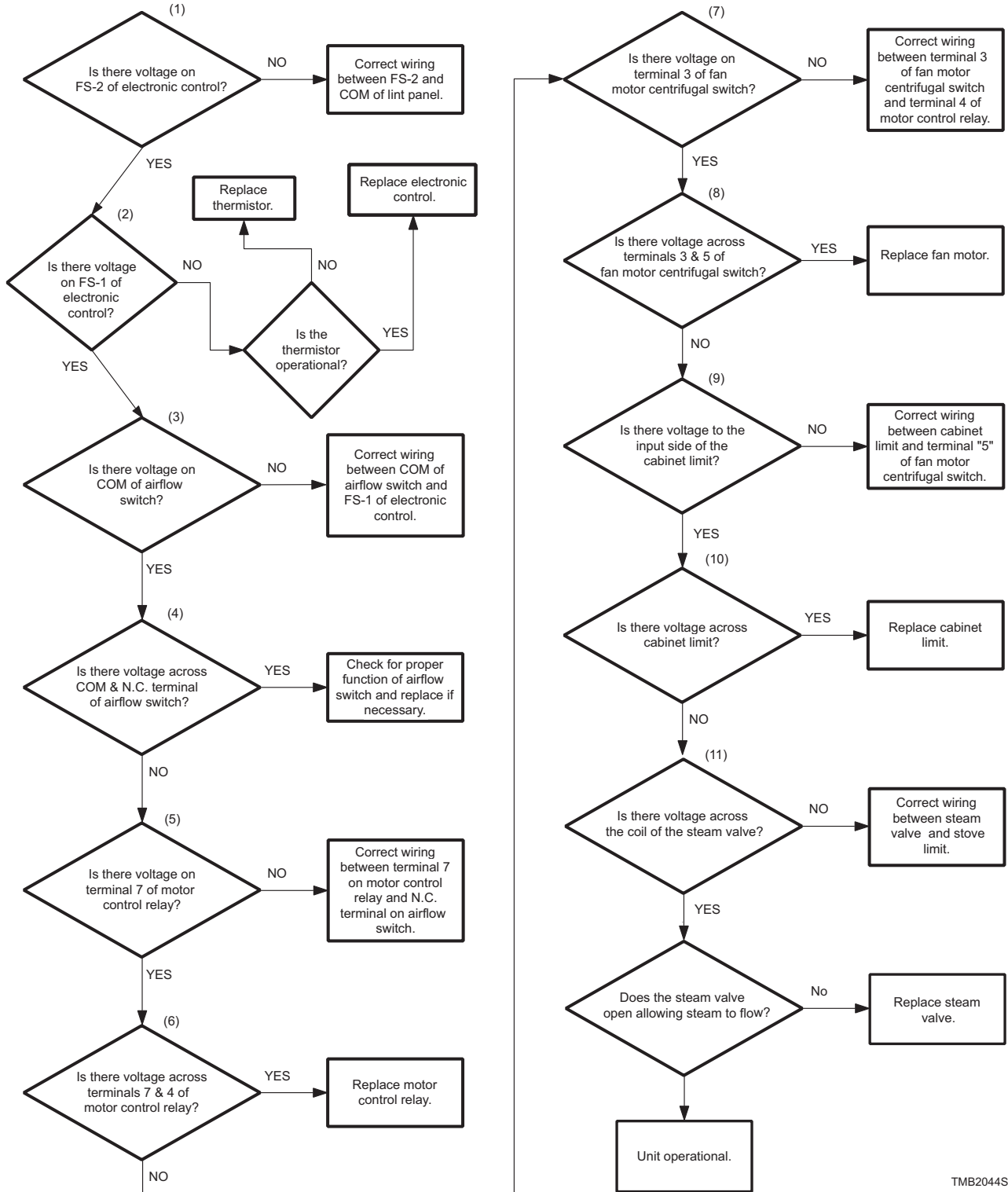


TMB2229S

### 31. Unit Will Not Heat – Steam

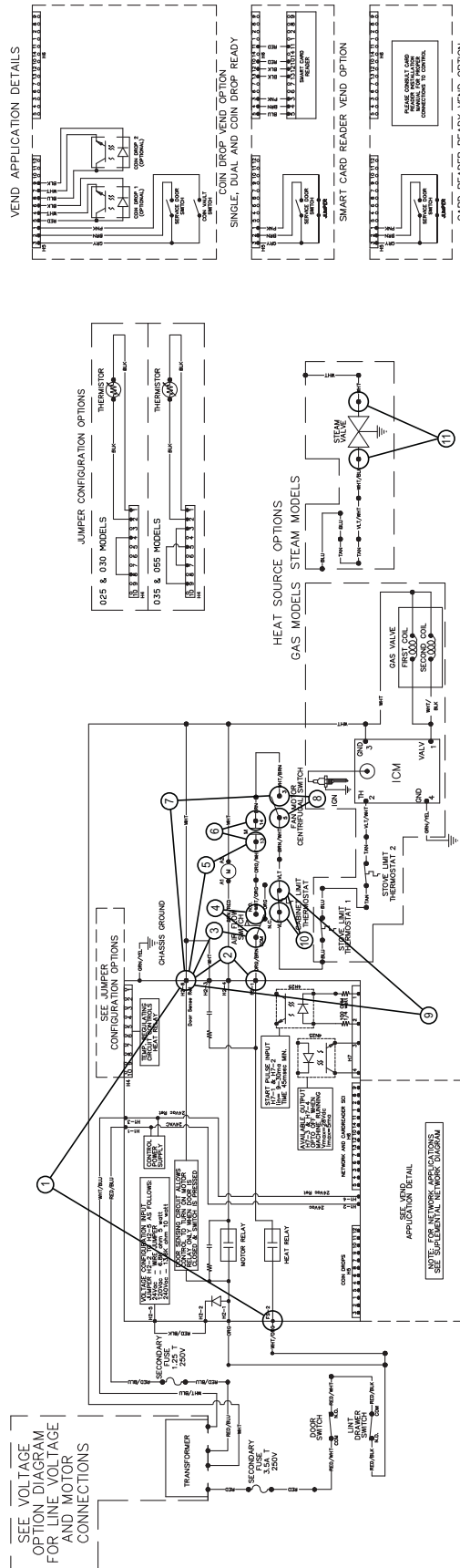
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2044S

# Unit Will Not Heat – Steam



TMB2230S

# Section 7

## Hybrid Timer Control Troubleshooting

### Models with QT, SD and SX Control Suffixes



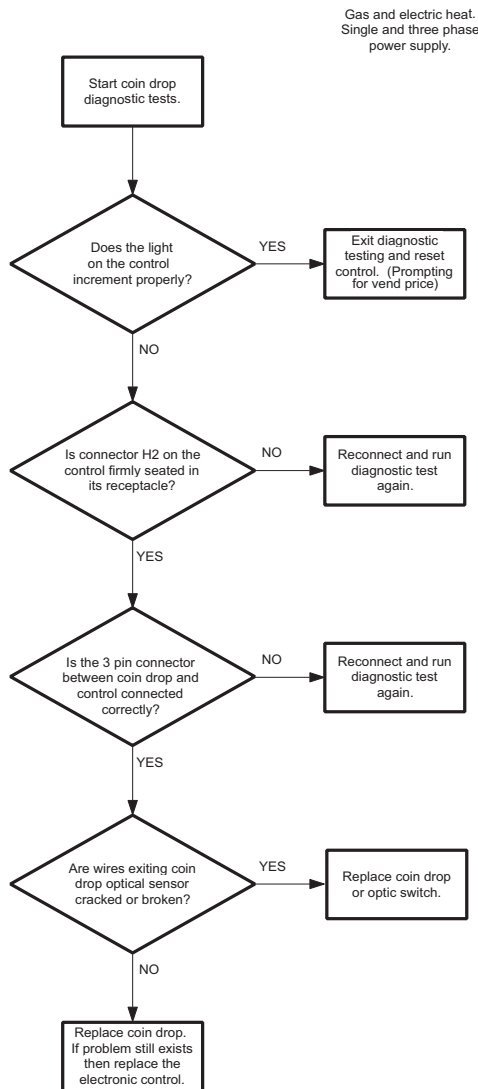
### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002

## 32. Coins Ignored When Entered



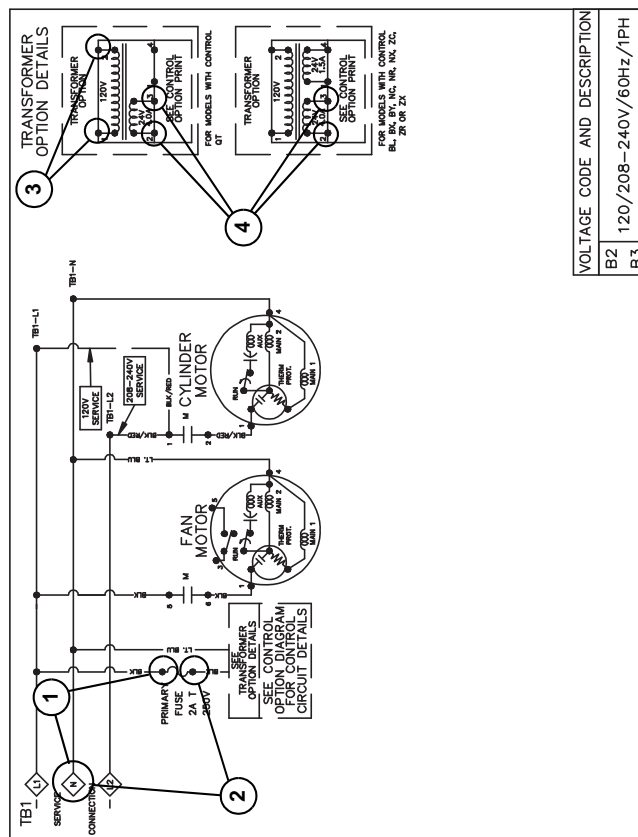
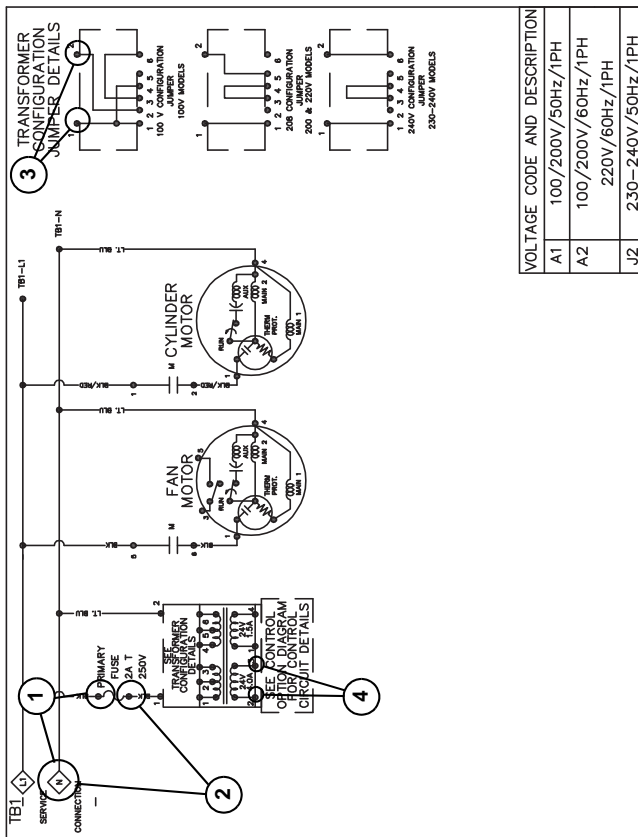
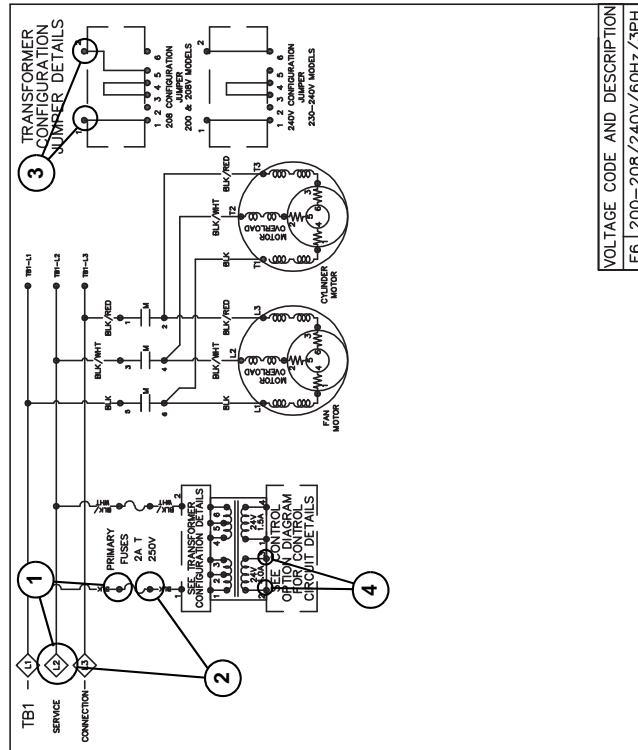
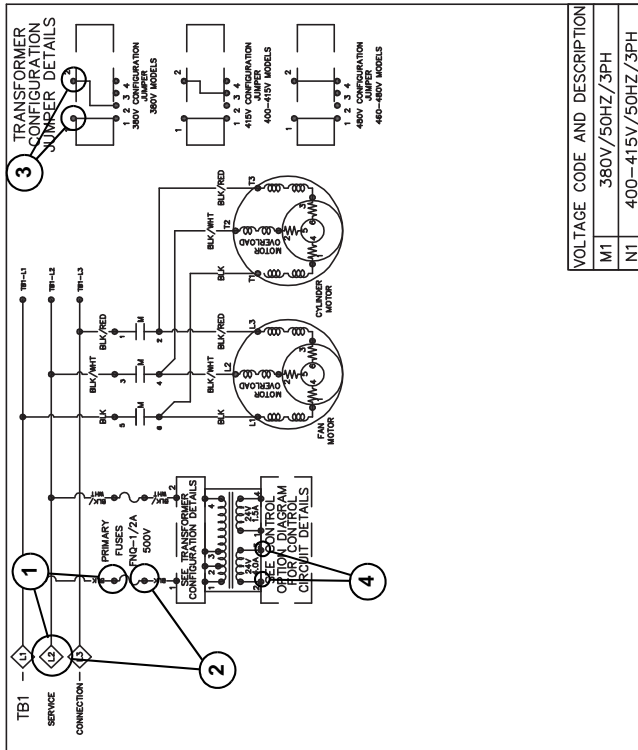
TMR2051S  
TMB2051S

### 33. Control Has No Display – OPL Models



TMB2000S

Control Has No Display – OPL Models (Sheet 1 of 2)



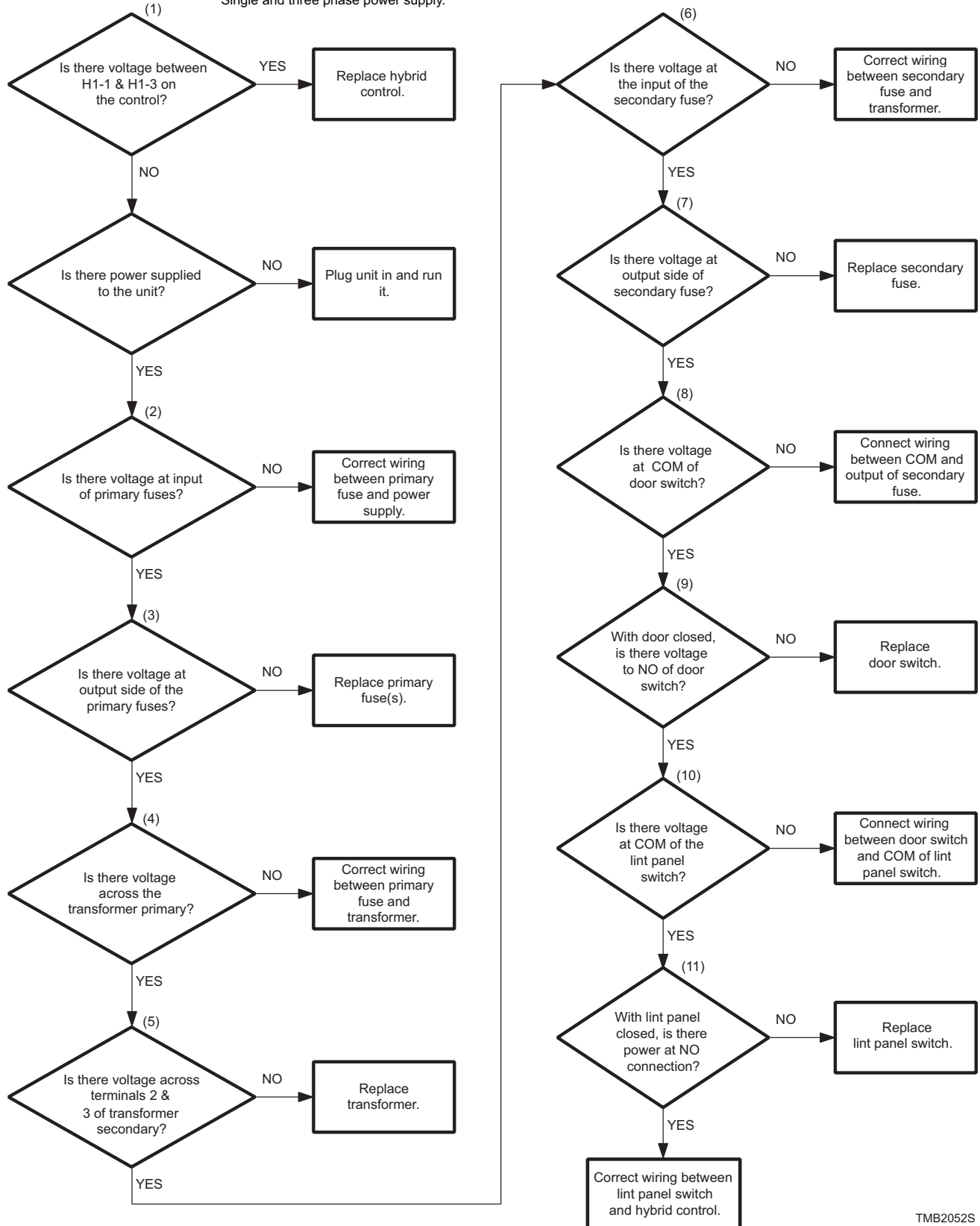
TMB2106S





### 34. Display Flashes “dr” With Door Closed – OPL Models

Gas, steam and electric heat.  
Single and three phase power supply.

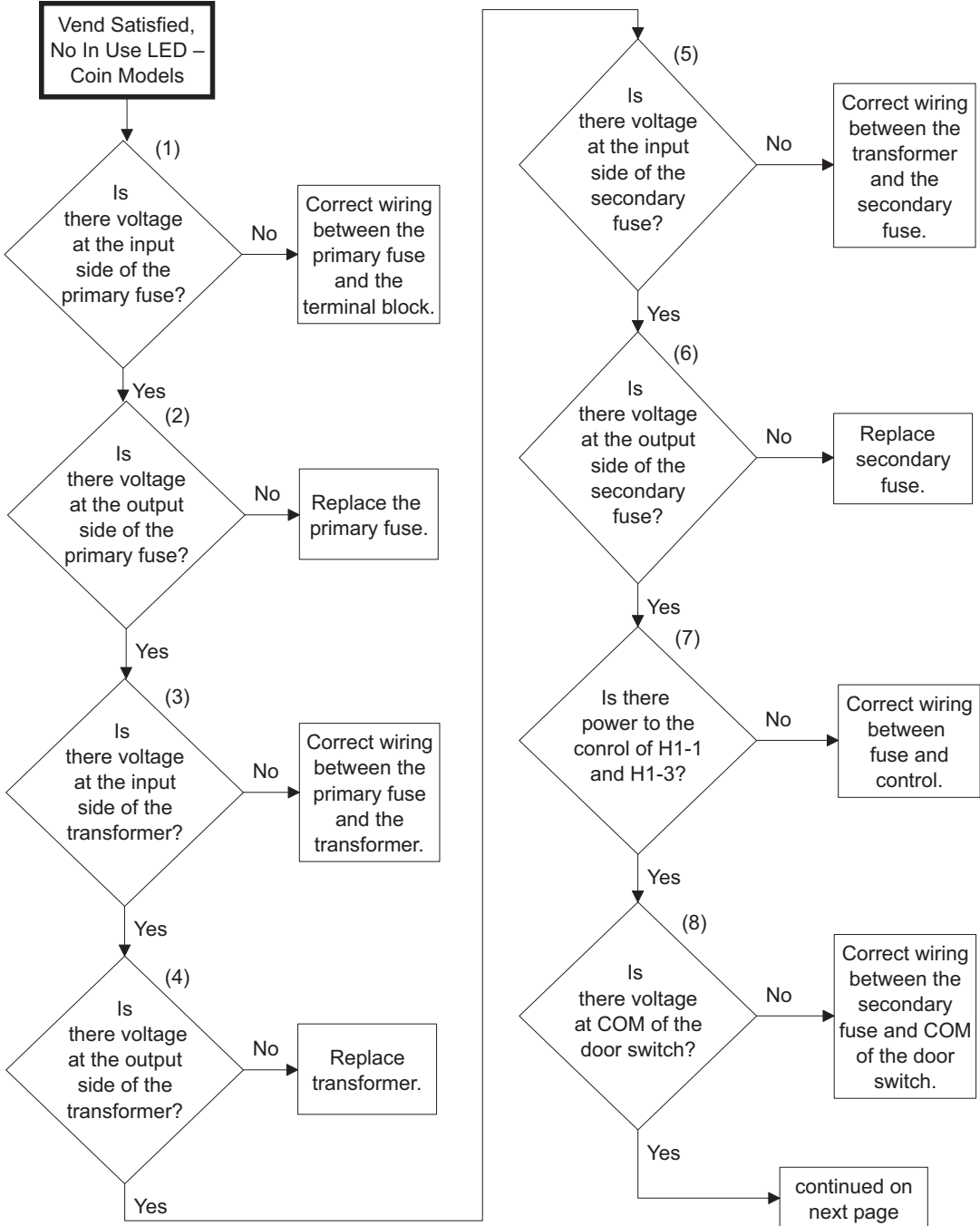


TMB2052S



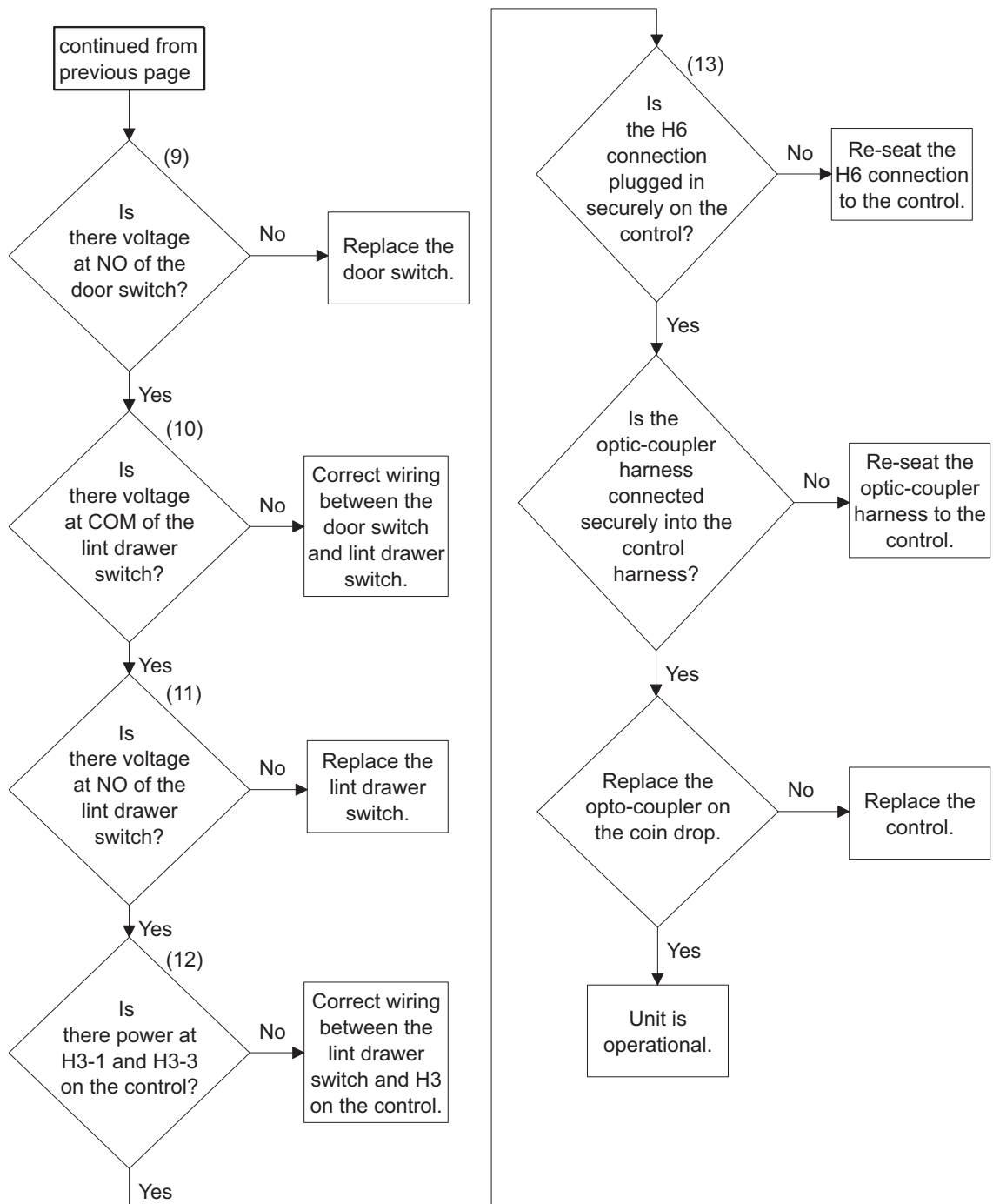


### 35. Vend Satisfied, No In Use LED – Coin Models



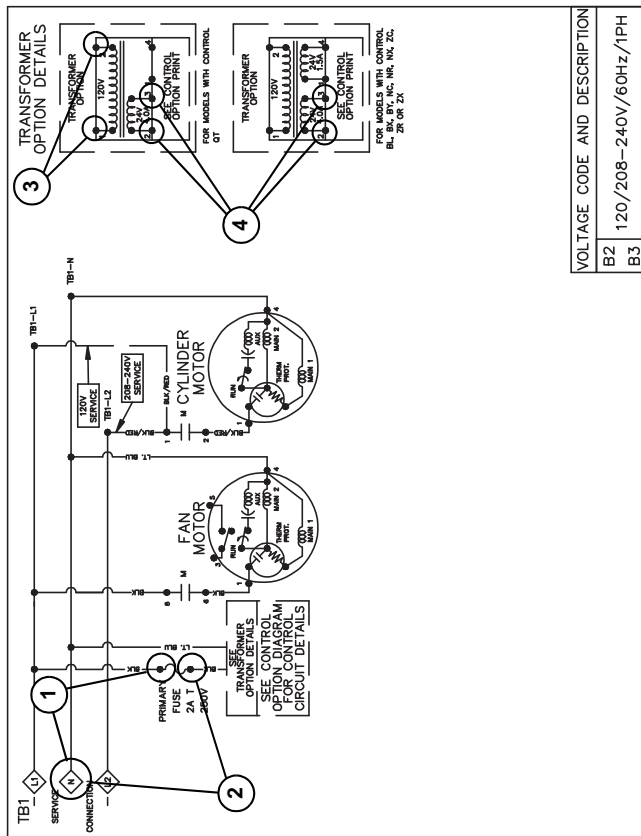
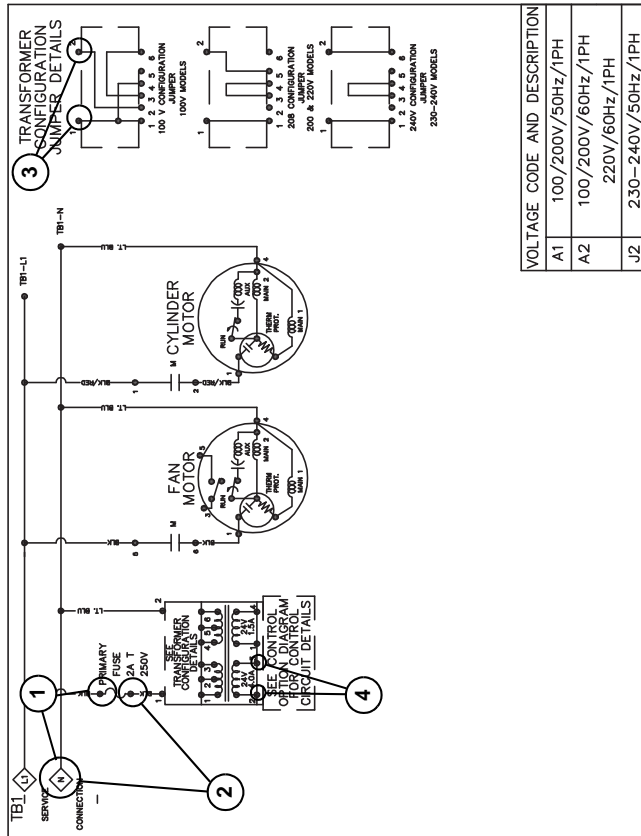
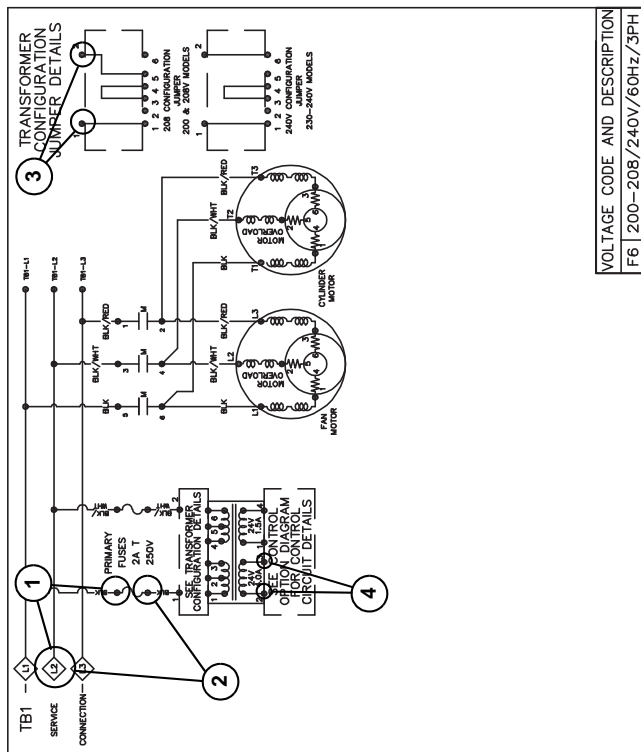
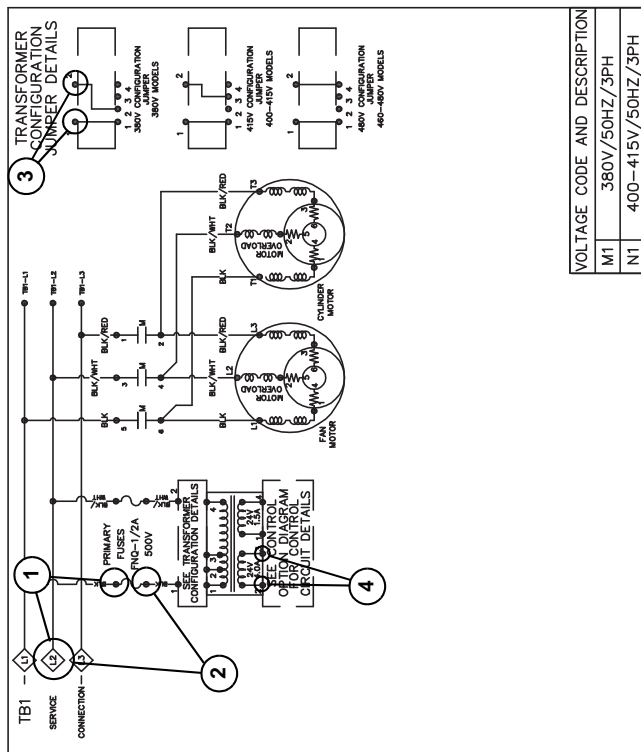
TMB2022S-a

35. Vend Satisfied, No In Use LED – Coin Models (continued)

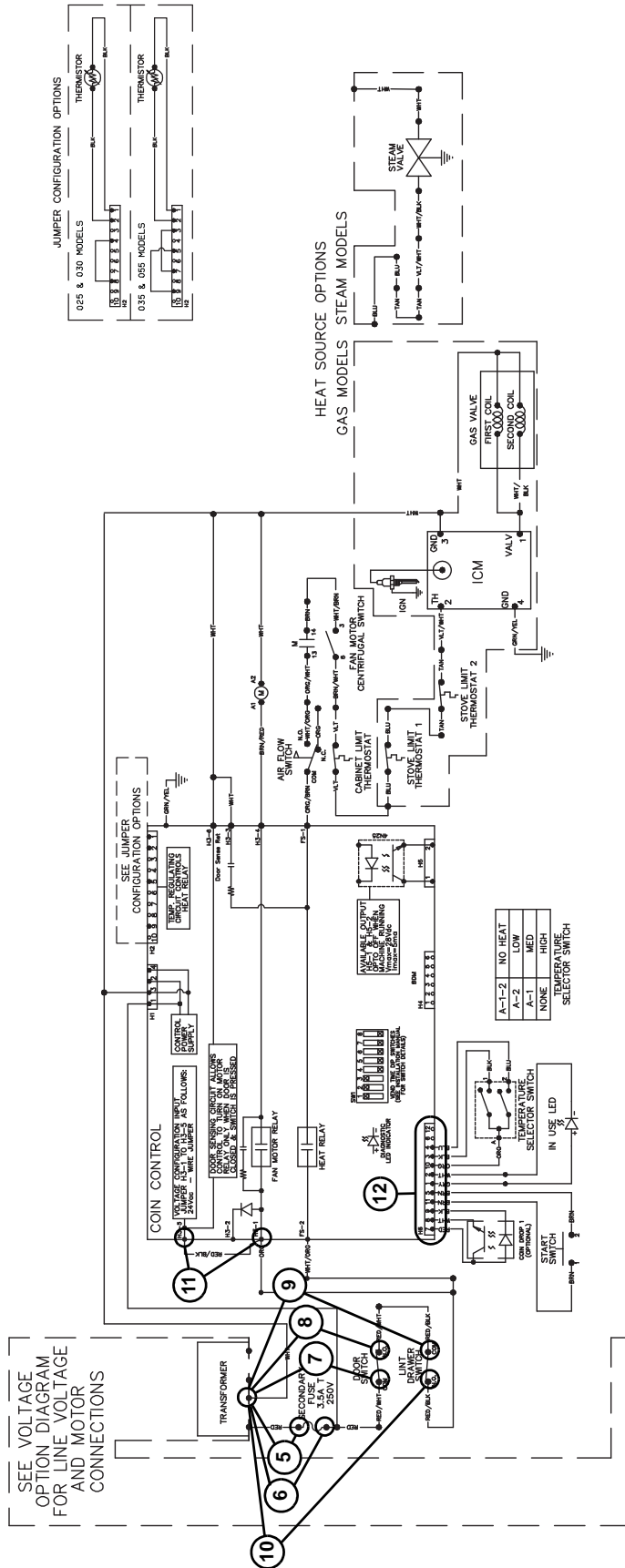


TMB2022S-b

## Vend Satisfied, No In Use LED – Coin Models (Sheet 1 of 2)



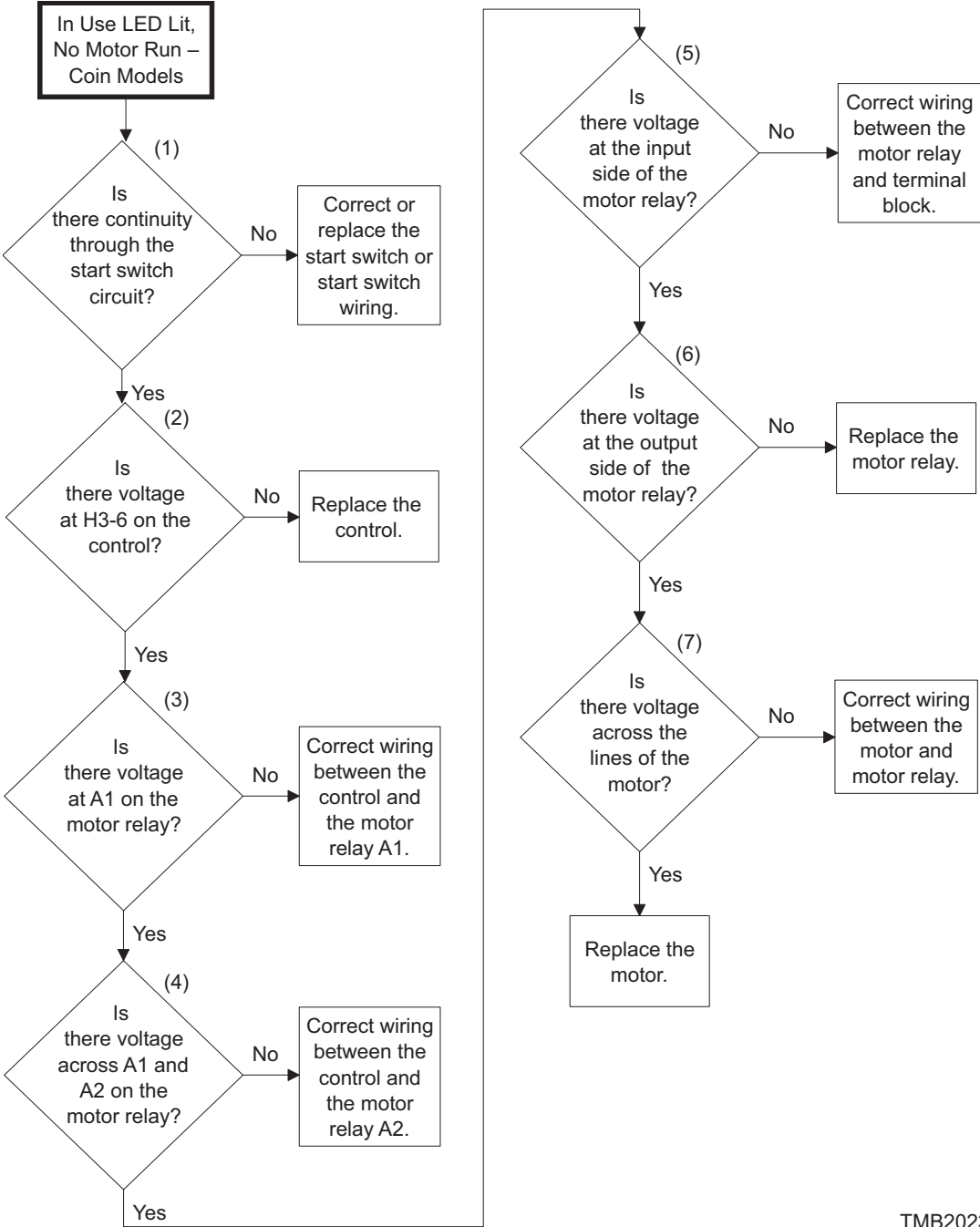
Vend Satisfied, No In Use LED – Coin Models (Sheet 2 of 2)



TMB2232S



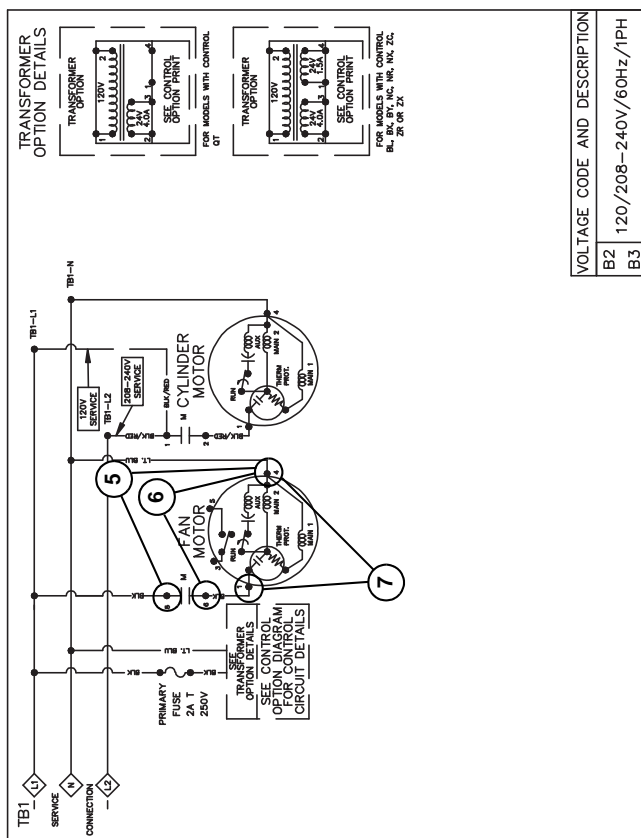
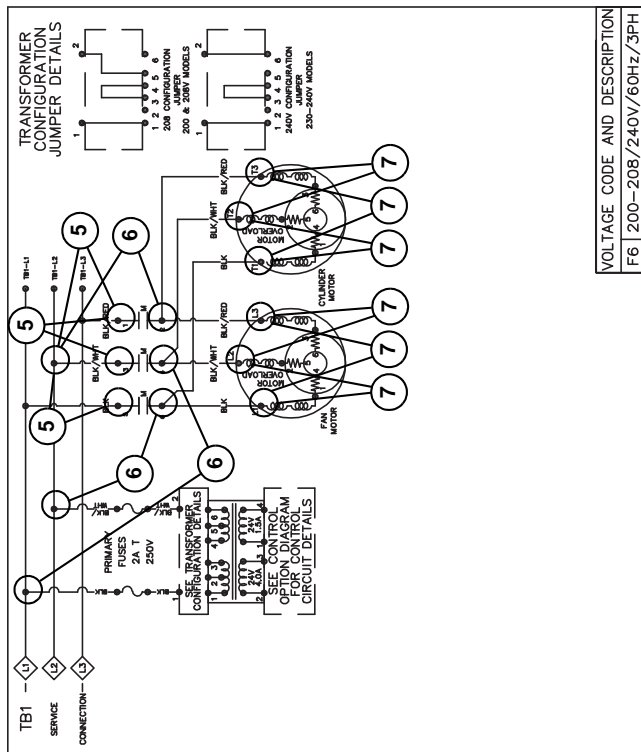
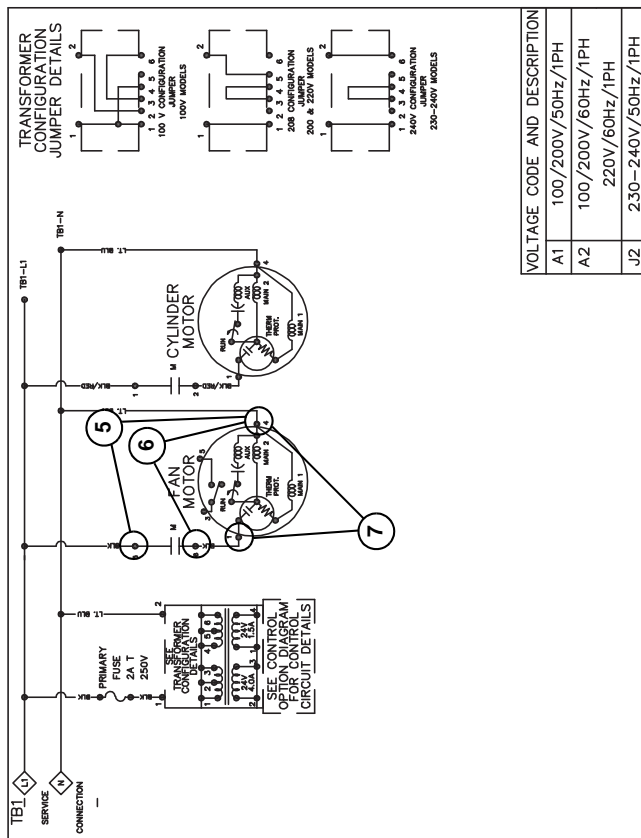
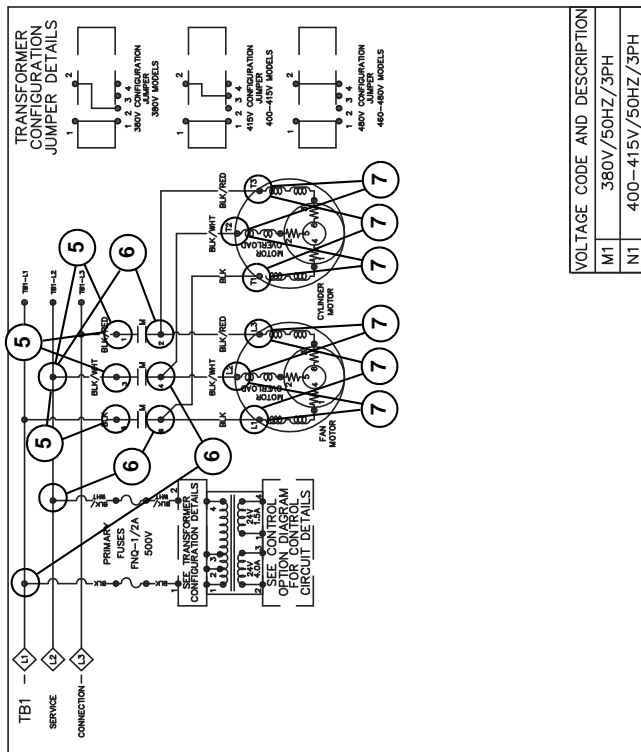
36. In Use LED Lit, No Motor Run – Coin Models



TMB2023S



In Use LED Lit, No Motor Run – Coin Models (Sheet 2 of 2)



### 37. Motor Will Not Start/Run – Coin Models

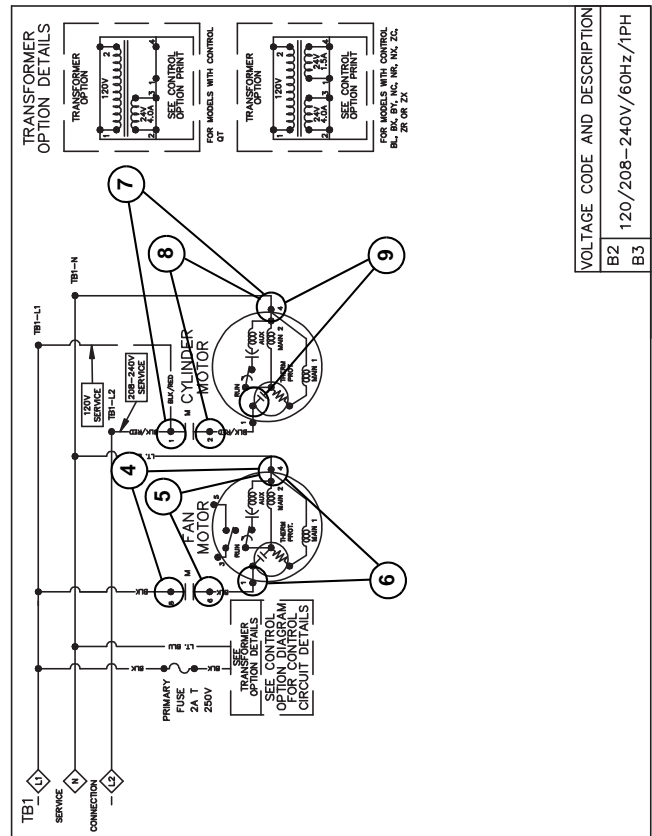
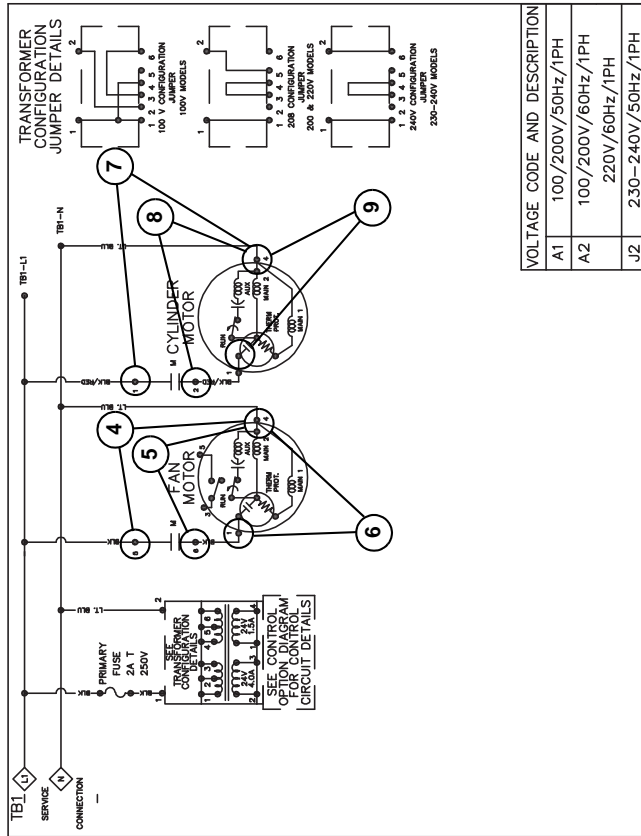
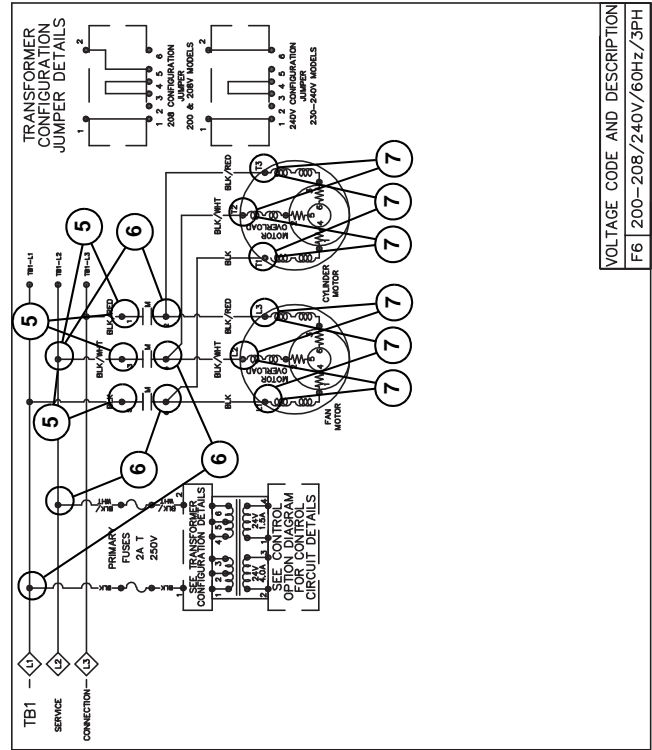
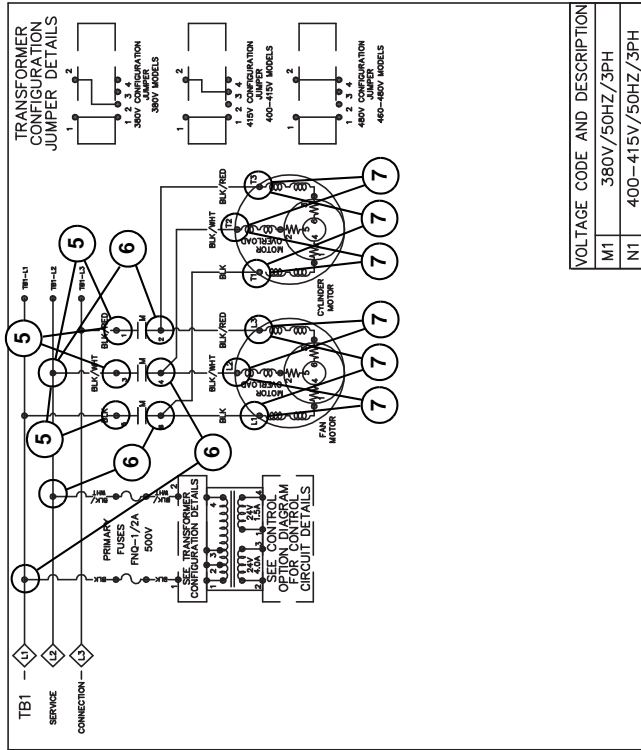


TMB2047S

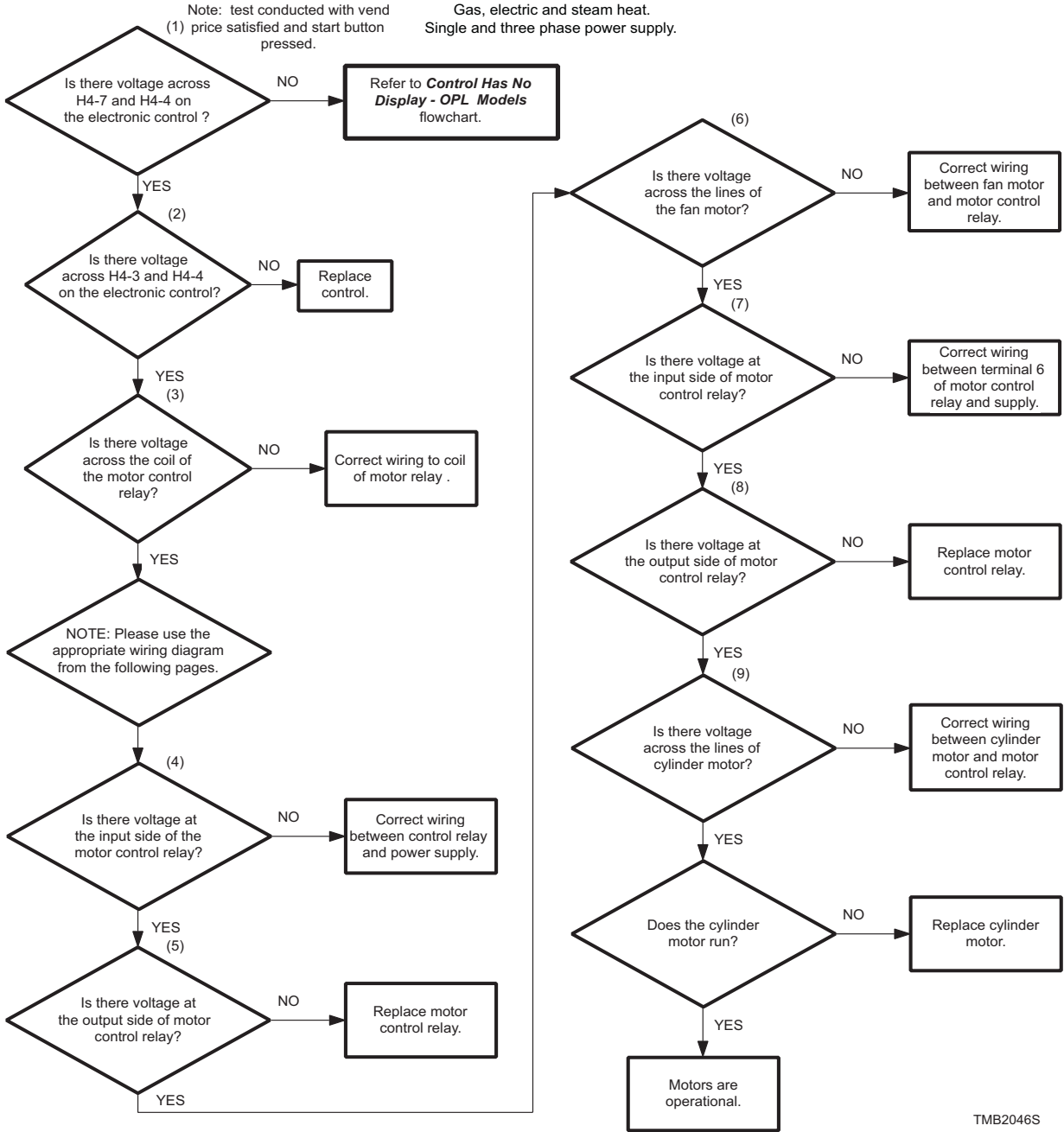
Please see following 2 pages for wiring diagram information.



Motor Will Not Start/Run – Coin Models (Sheet 2 of 2)



### 38. Motor Will Not Start/Run – OPL Models



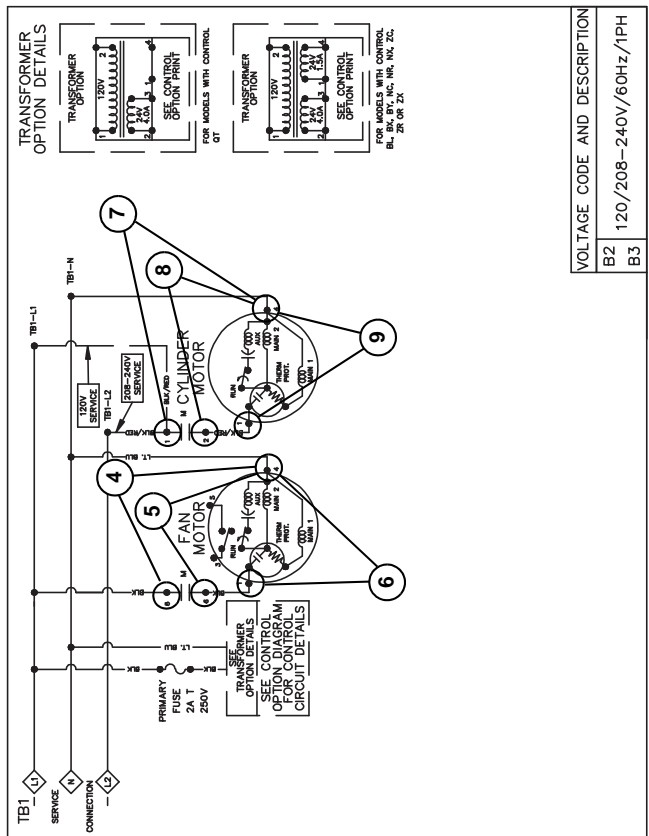
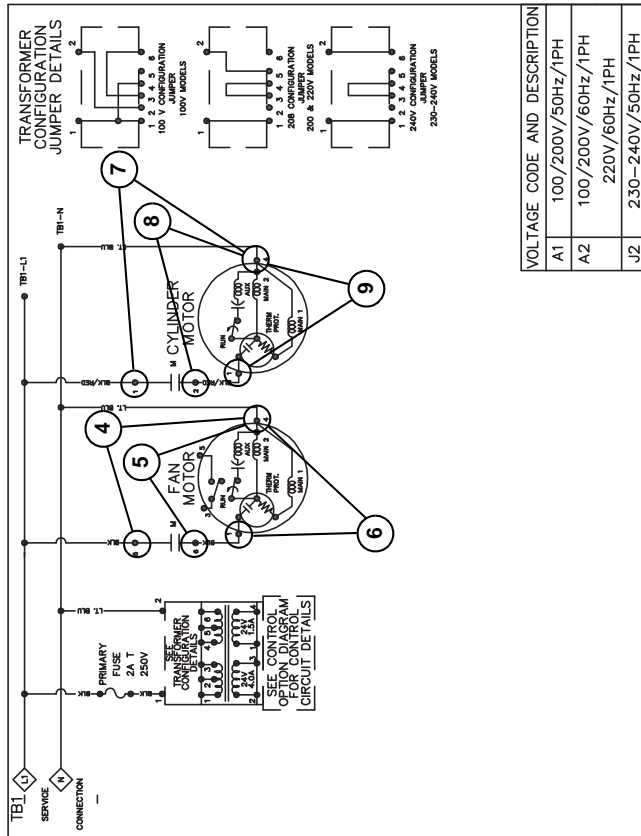
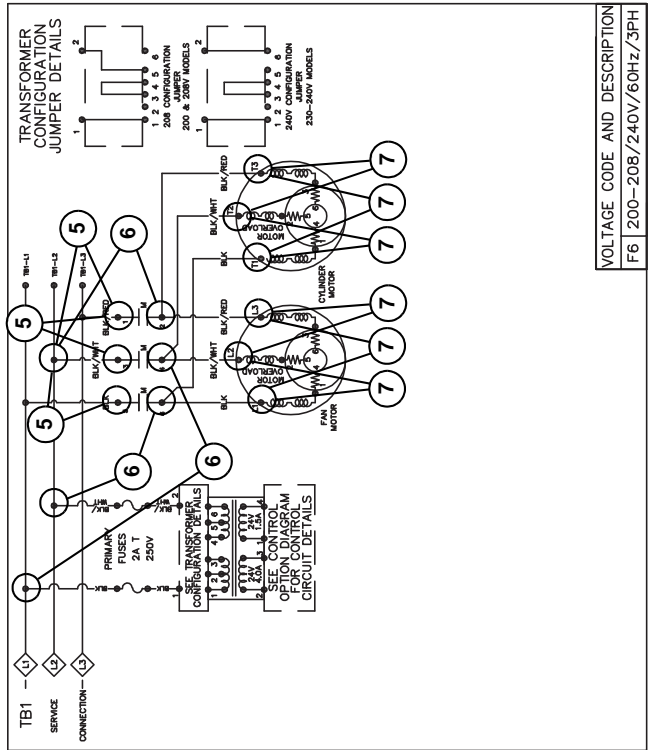
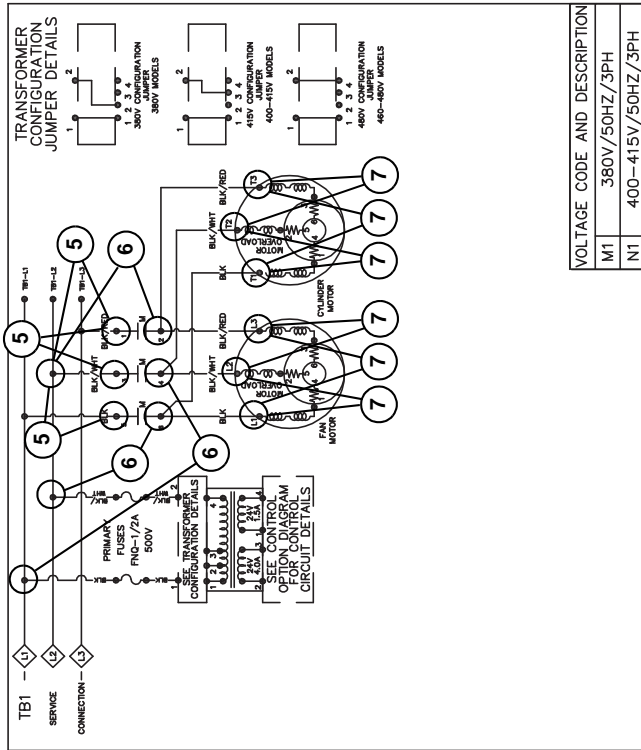
TMB2046S

Please see following 2 pages for wiring diagram information.





Motor Will Not Start/Run – OPL Models (Sheet 2 of 2)

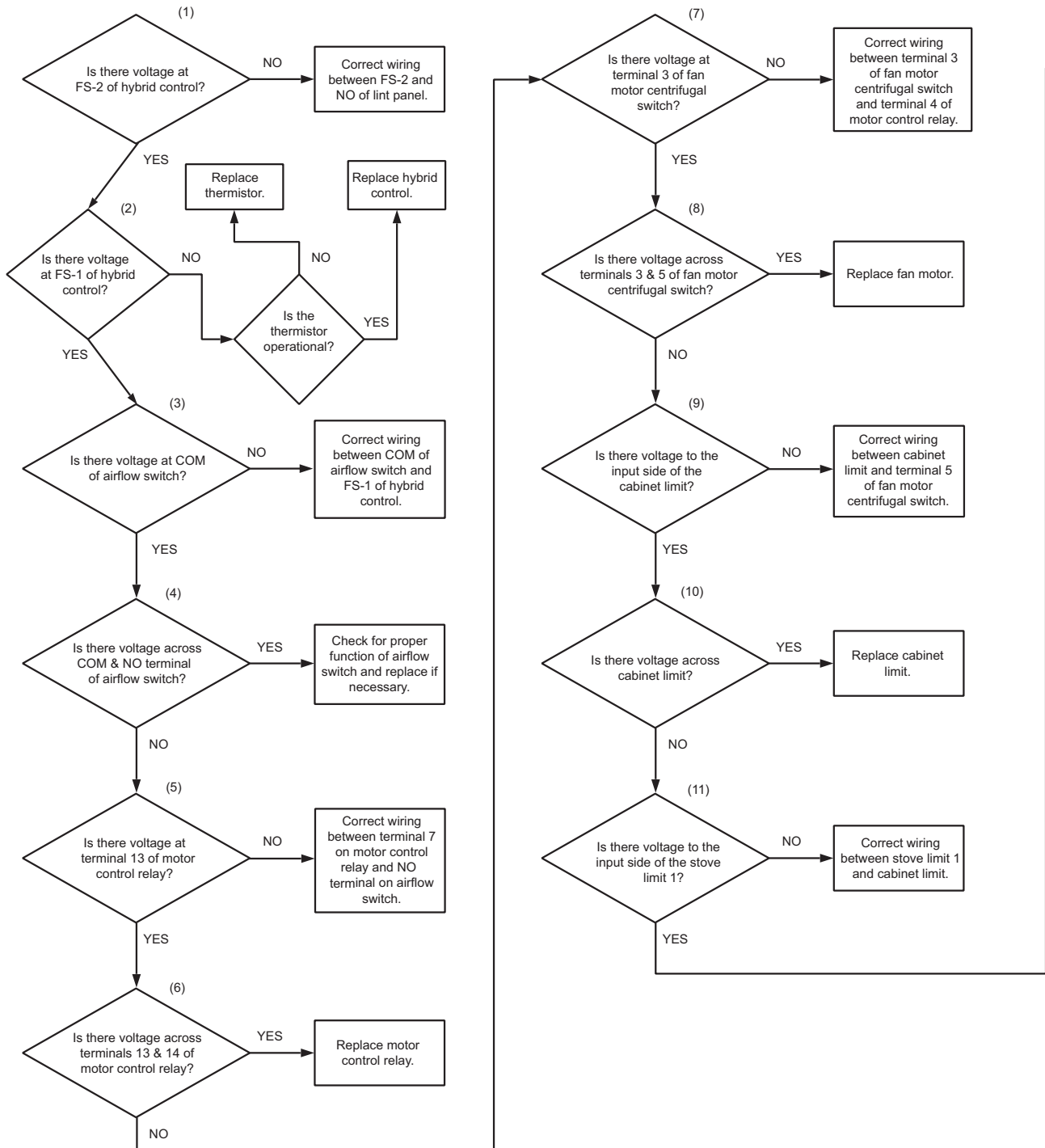


# Hybrid Timer Control Troubleshooting

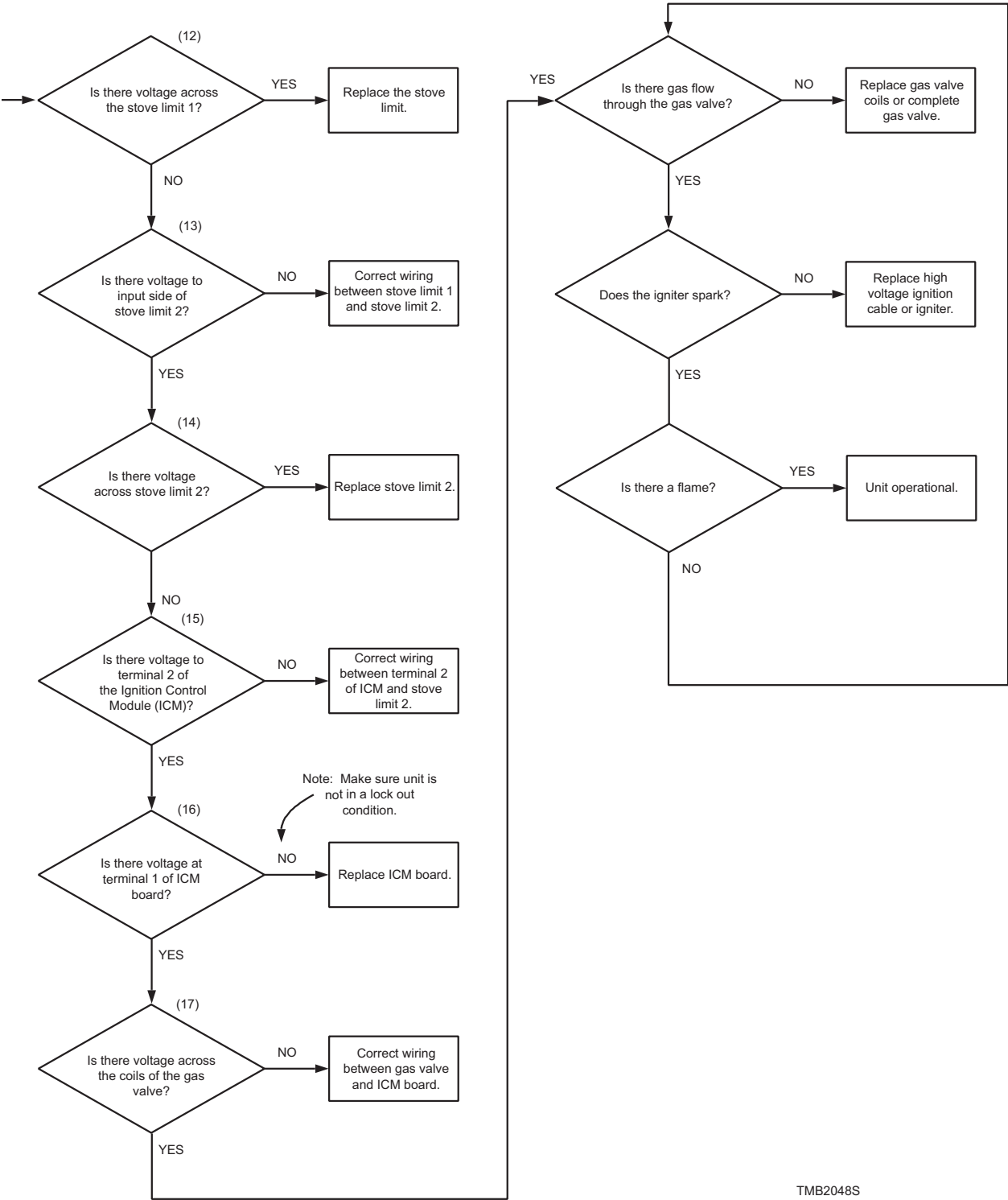
## 39. Unit Will Not Heat – Gas – Coin Models

Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



39. Unit Will Not Heat – Gas – Coin Models (continued)



TMB2048S

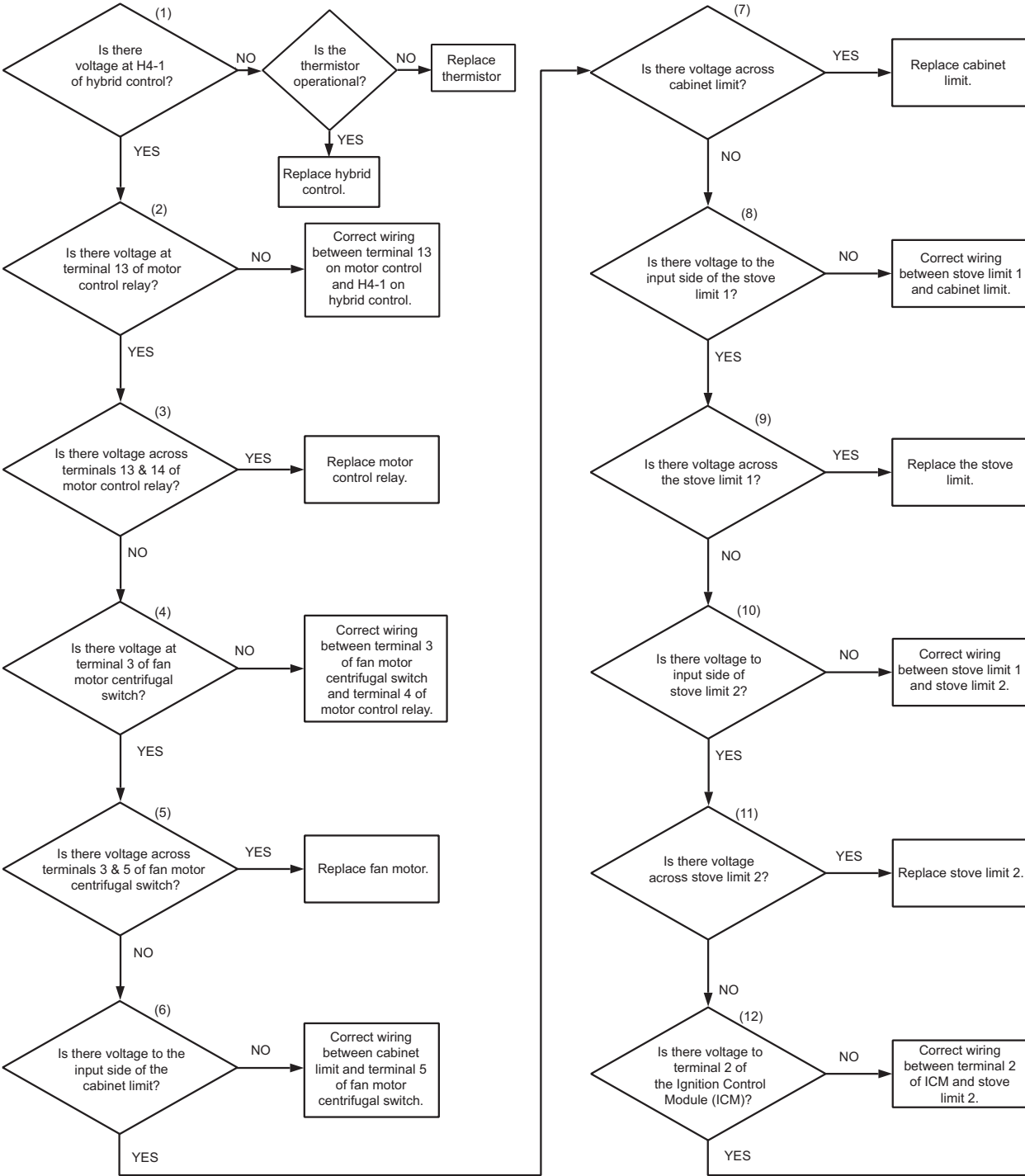
Please see following page for wiring diagram information.



### 40. Unit Will Not Heat – Gas – OPL Models

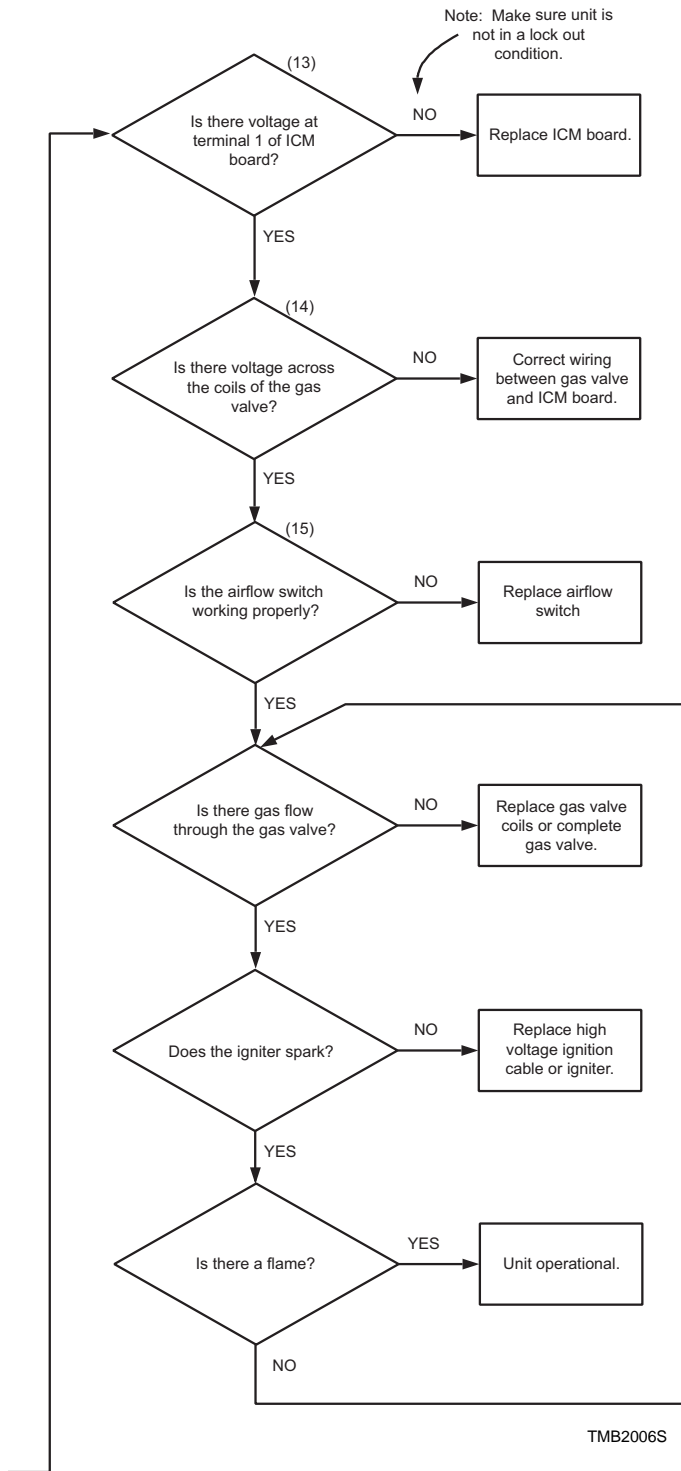
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



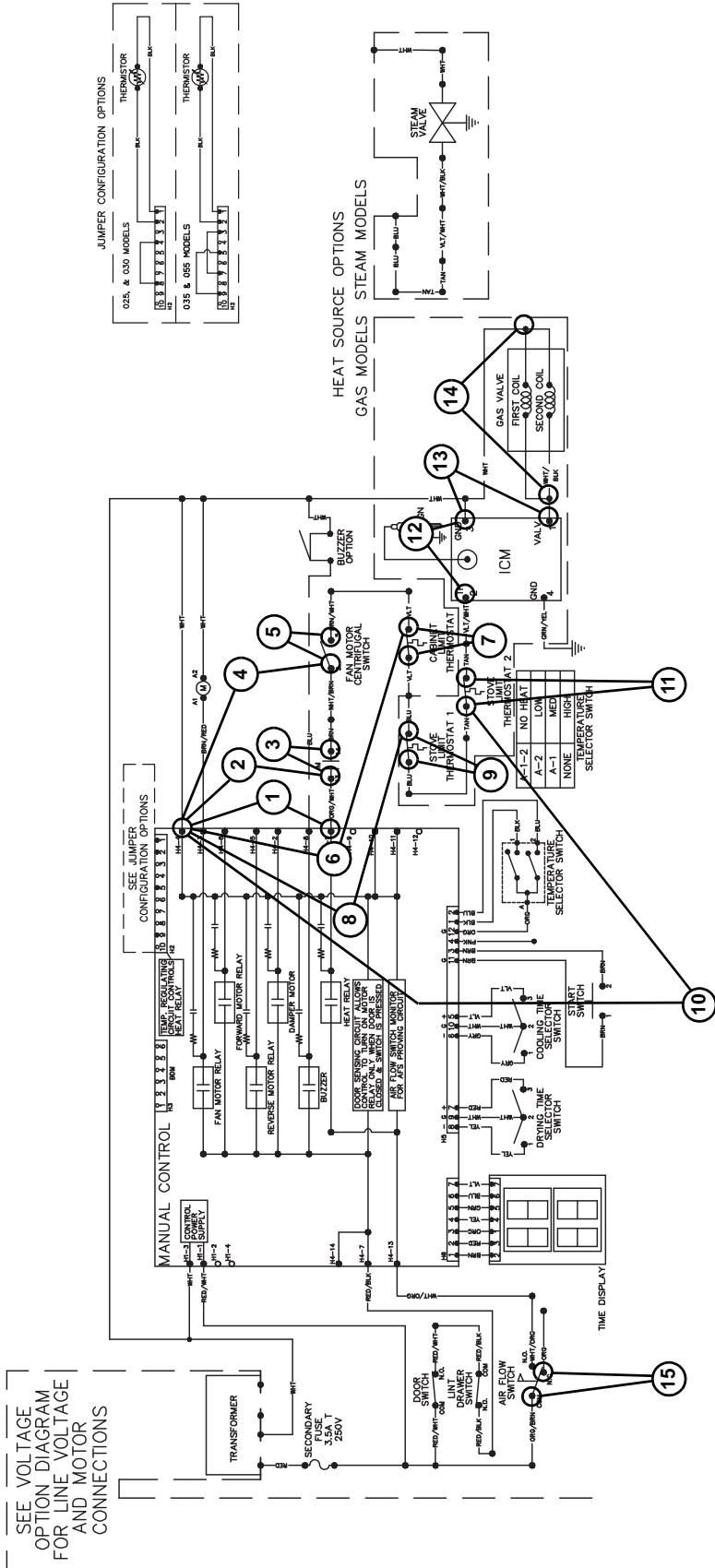
TMB2006S

### 40. Unit Will Not Heat – Gas – OPL Models (continued)



Please see following page for wiring diagram information.

Unit Will Not Heat – Gas – OPL Models



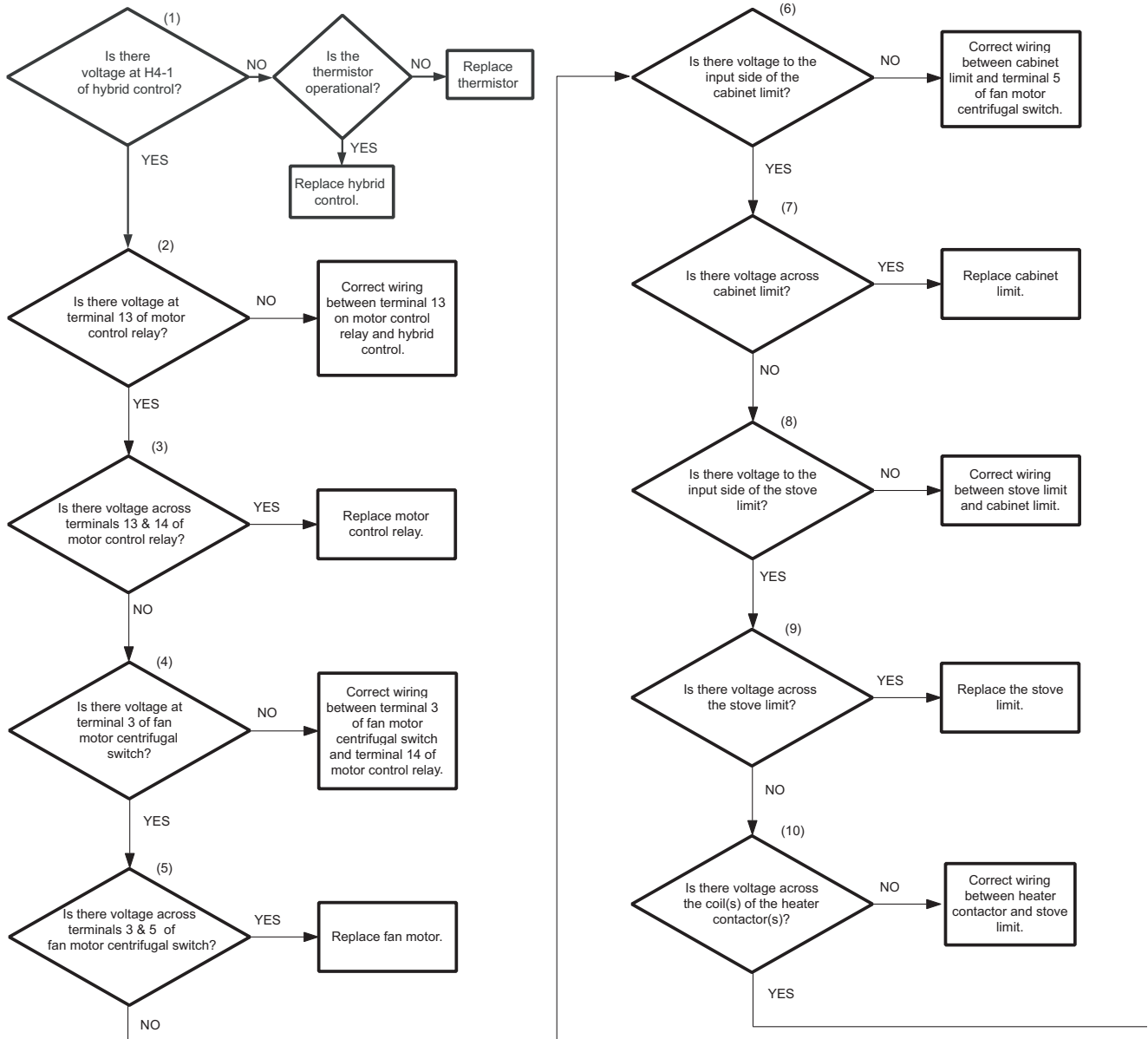
TMB2233S

# Hybrid Timer Control Troubleshooting

## 41. Unit Will Not Heat – Electric OPL

Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.

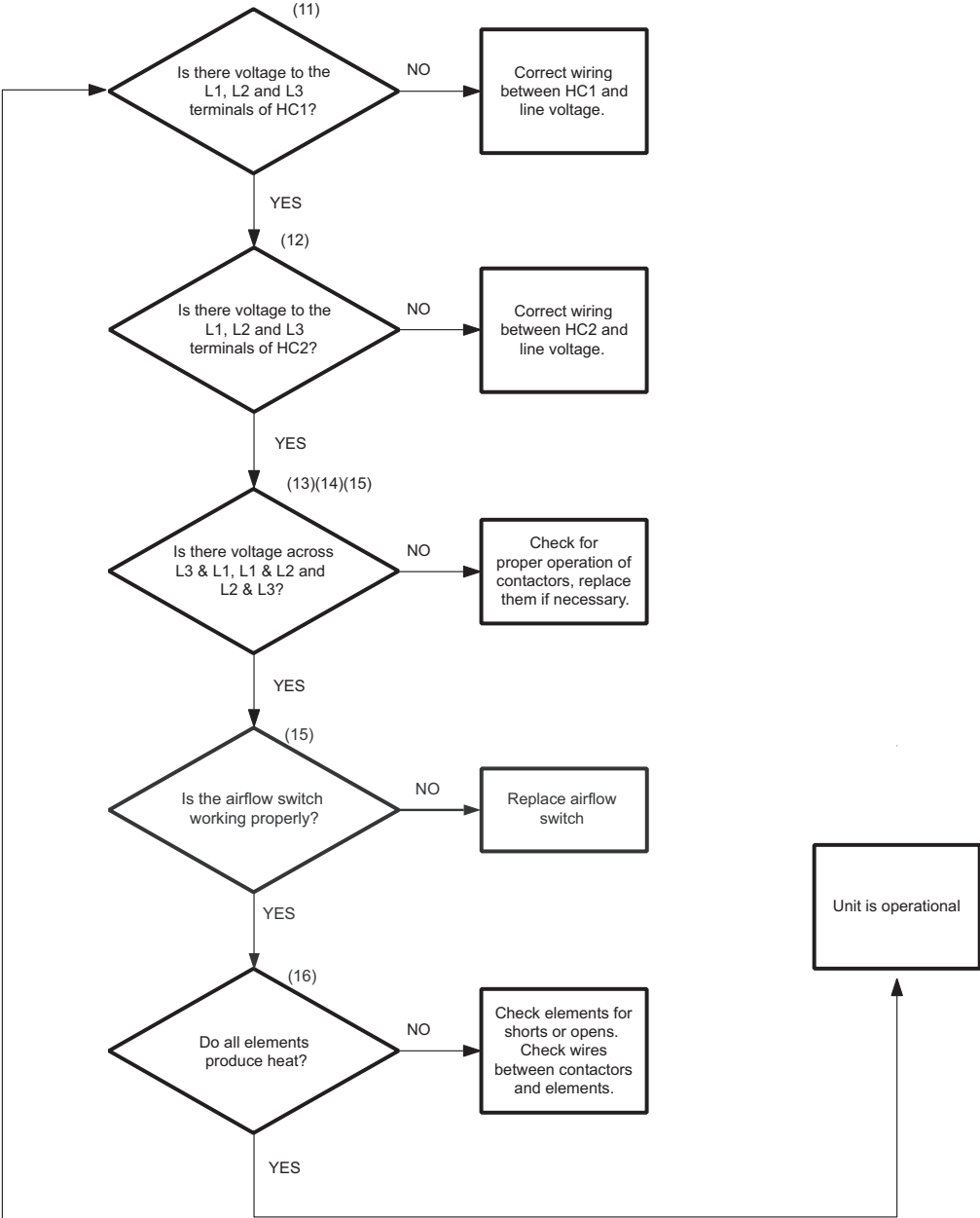


TMB2006S



41. Unit Will Not Heat – Electric OPL (continued)

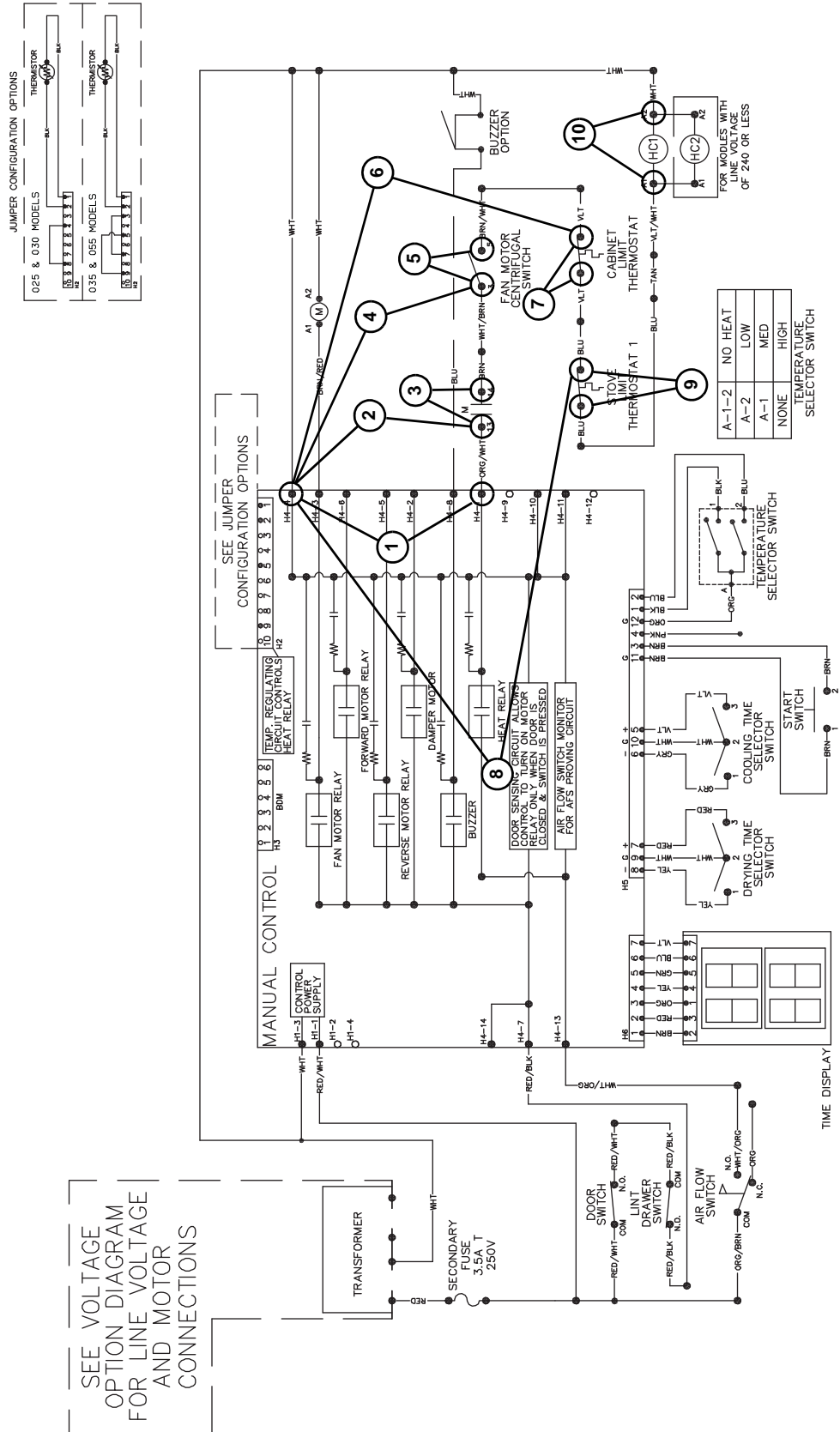
Note: Please make the appropriate adjustments if your unit is single phase.



TMB2053S

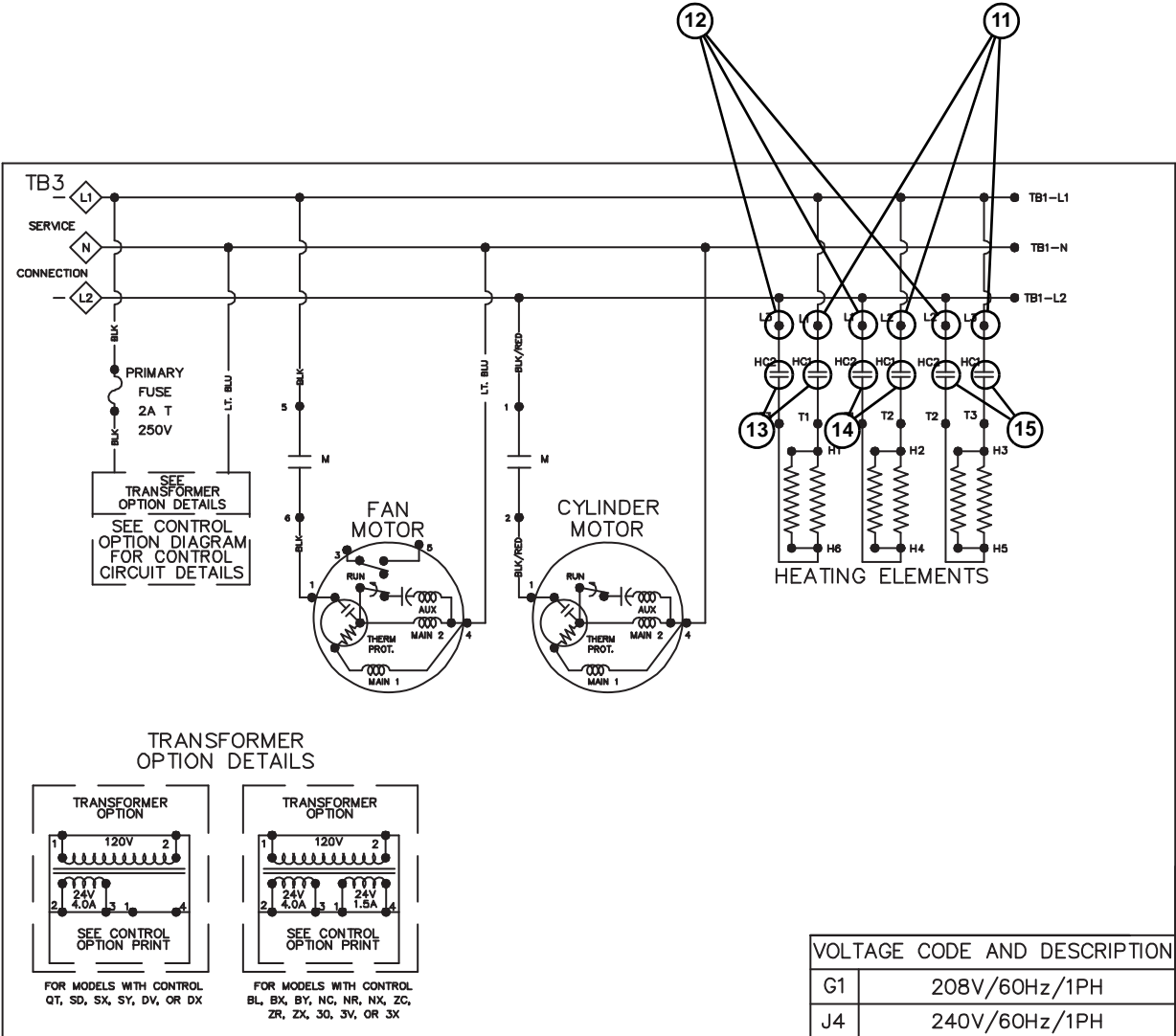
Please see following 2 pages for wiring diagram information.

Unit Will Not Heat – Electric OPL (Sheet 1 of 2)



TMB2234S

Unit Will Not Heat – Electric OPL (Sheet 2 of 2)



VOLTAGE CODE AND DESCRIPTION	
G1	208V/60Hz/1PH
J4	240V/60Hz/1PH

TMB2050S



## WARNING

**To reduce the risk of electric shock, fire, explosion, serious injury or death:**

- **Disconnect electric power to the tumbler before servicing.**
- **Close gas shut-off valve to gas tumbler before servicing.**
- **Close steam valve to steam tumbler before servicing.**
- **Never start the tumbler with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.**

W002

## 42. Error Codes

Display	Definition	Corrective Action
OP	Open thermistor error.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>
SH	Shorted thermistor error.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>
AF-1	Airflow switch closed when cycle started.	<ul style="list-style-type: none"> <li>• Check airflow switch. Replace if inoperative.</li> </ul>
AF-2	Airflow switch failed to closed after cycle started.	<ul style="list-style-type: none"> <li>• Check airflow switch. Replace if inoperative.</li> </ul>
AF (flashing)	Airflow switch opened/closed 5 or more times in a running cycle.	<ul style="list-style-type: none"> <li>• Check airflow switch. Replace if inoperative.</li> </ul>

# Section 8

## On Premise Micro Control Troubleshooting

### Models with OM Control Suffix



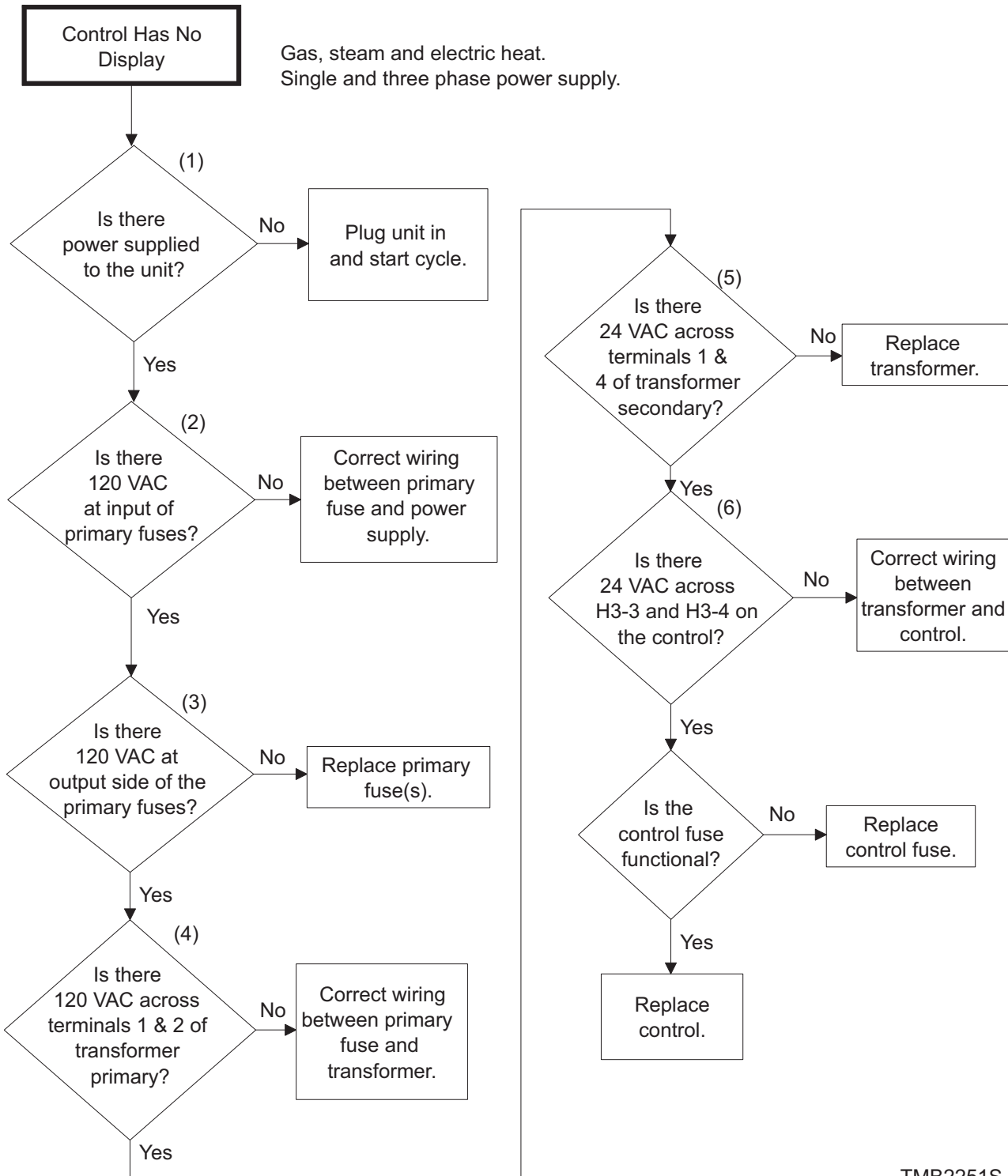
#### WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

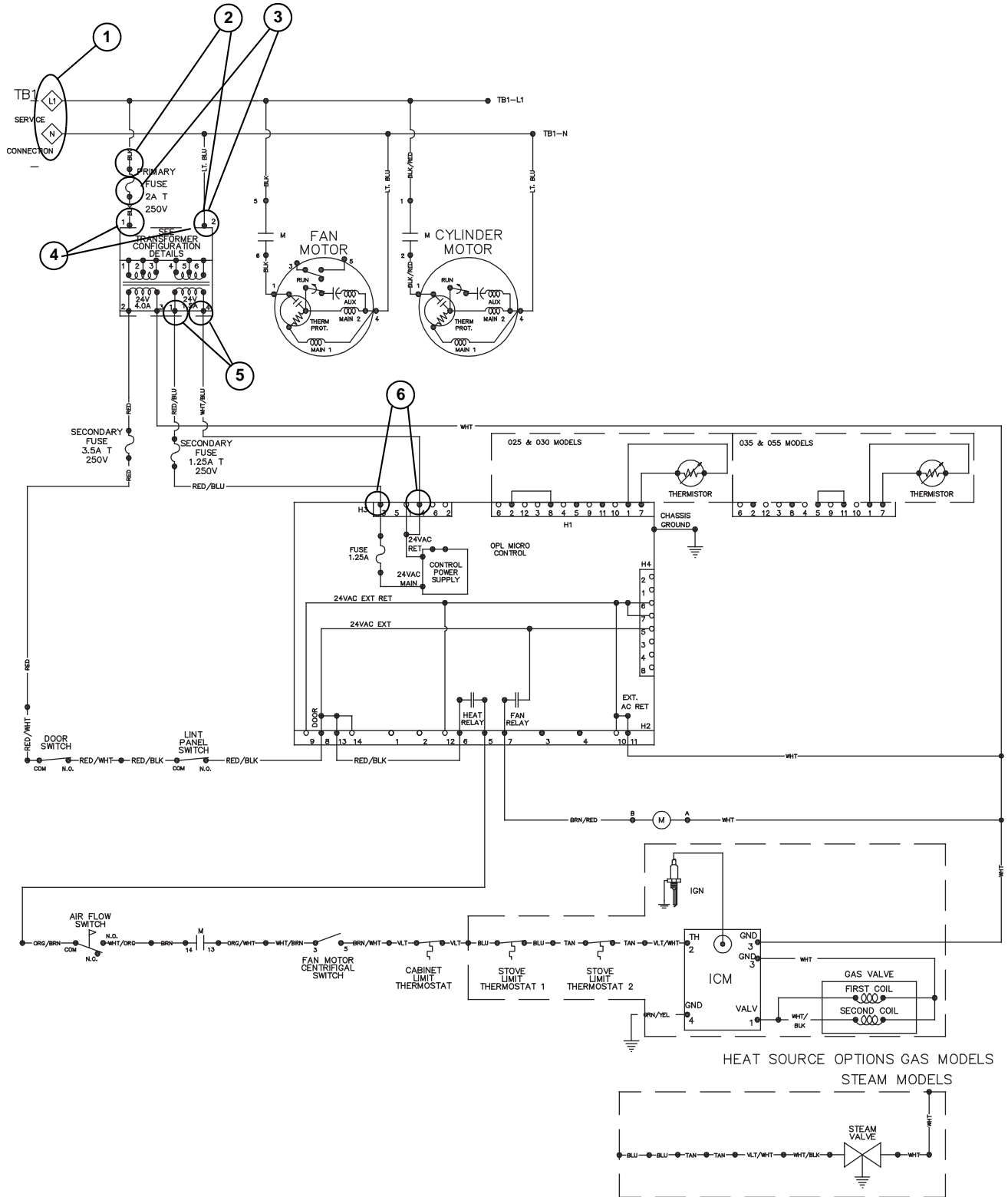
W002

### 43. Control Has No Display



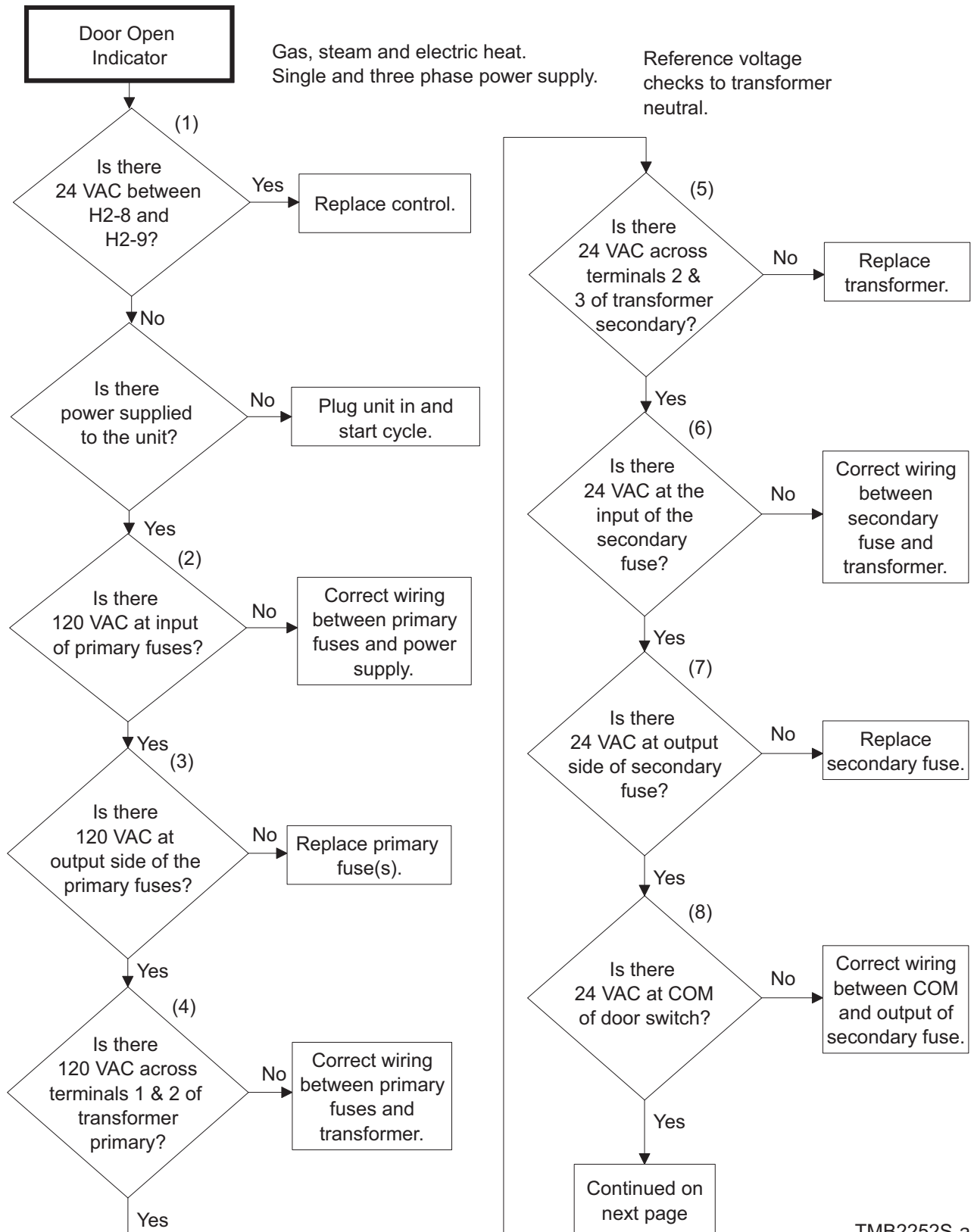
TMB2251S

Control Has No Display



TMB2280S

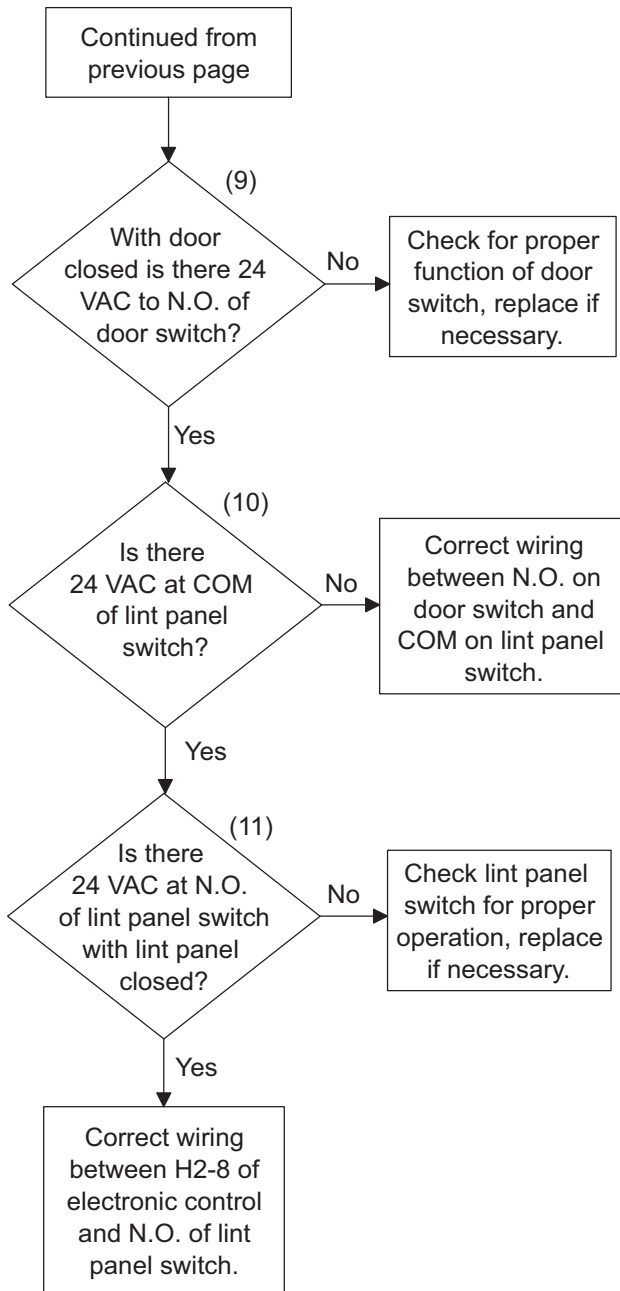
### 44. Door Open Indicator



TMB2252S-a



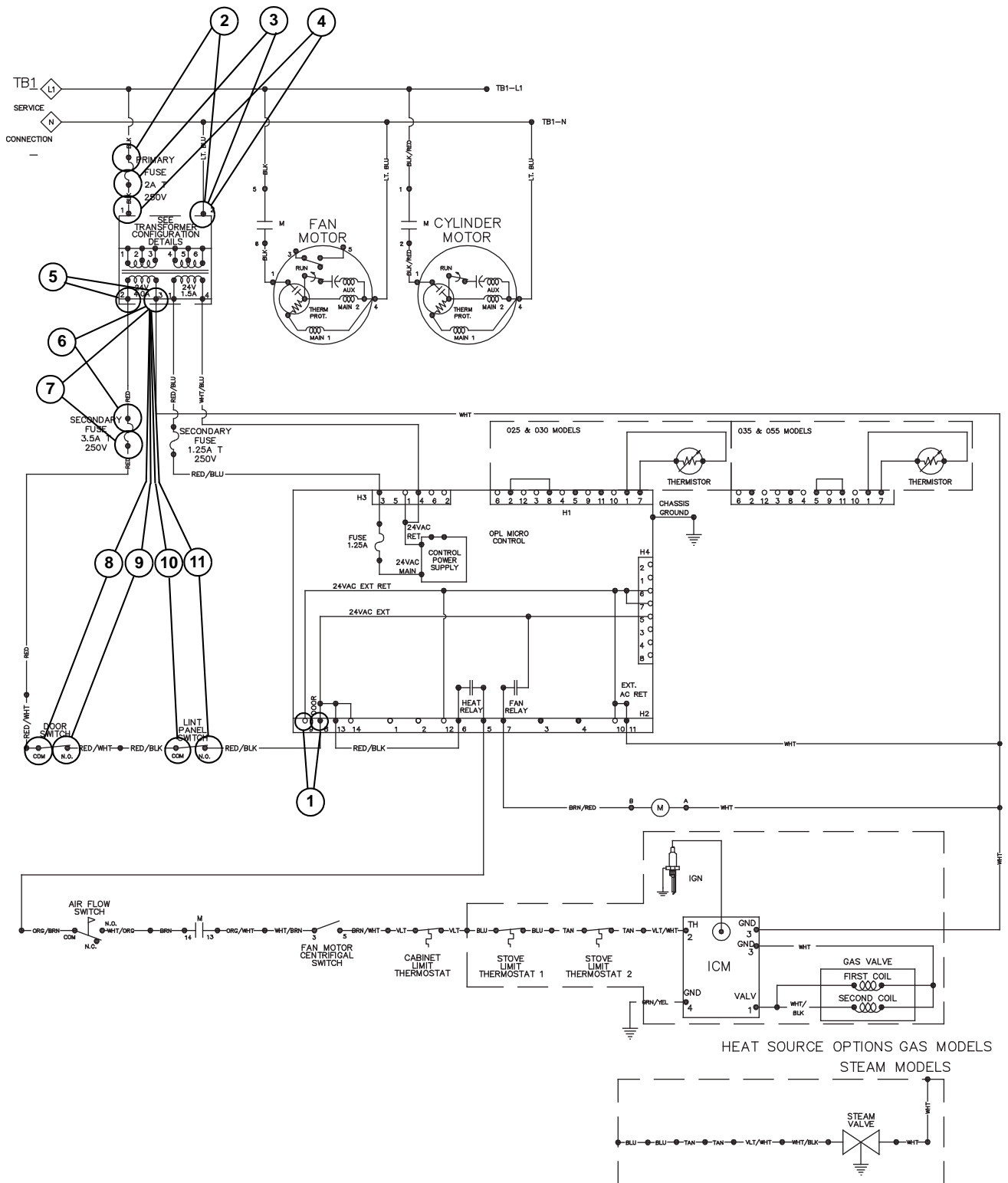
### 44. Door Open Indicator (continued)



TMB2252S-b

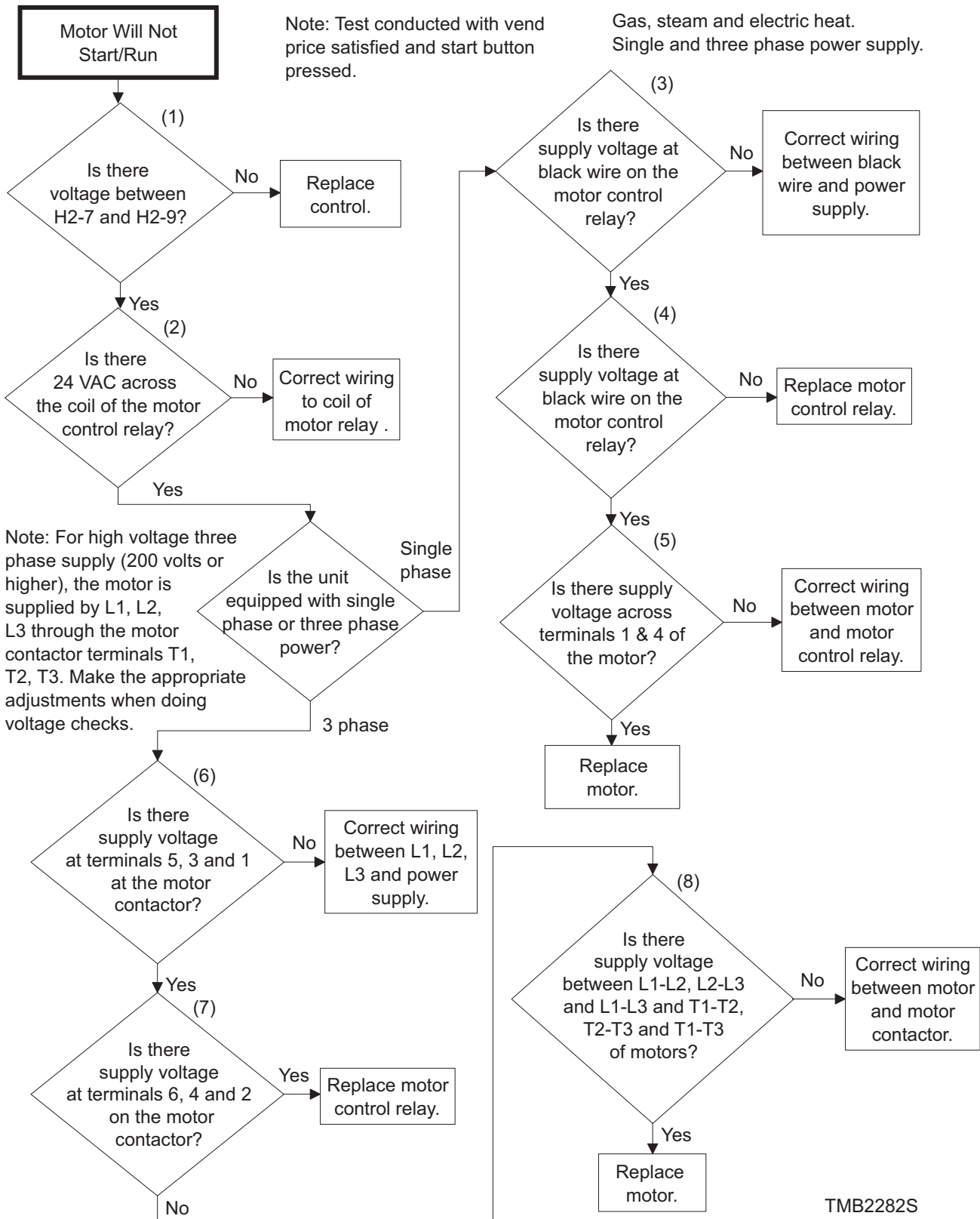
**Please see following page for wiring diagram information.**

# Door Open Indicator

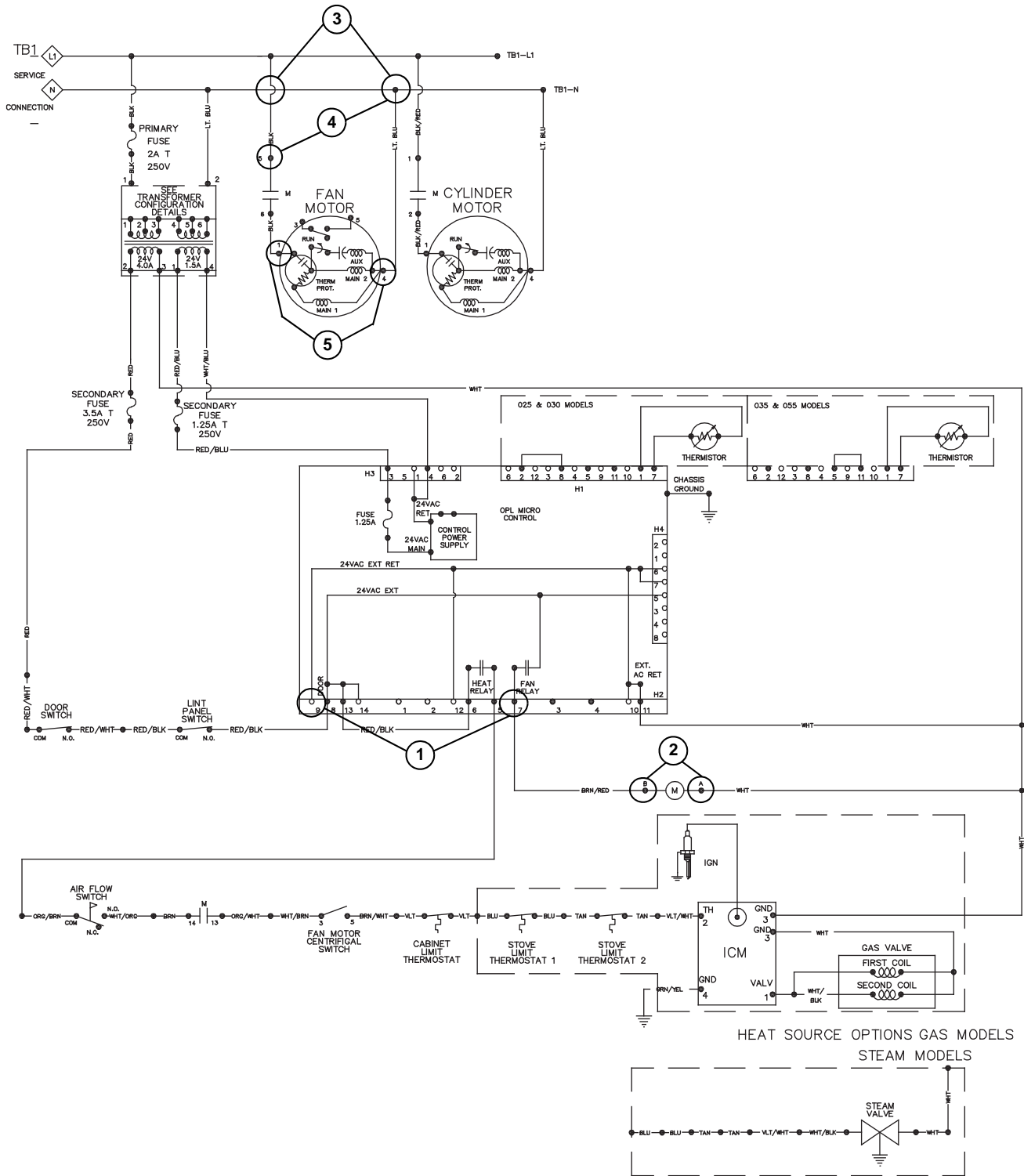


TMB2280S

### 45. Motor Will Not Start/Run

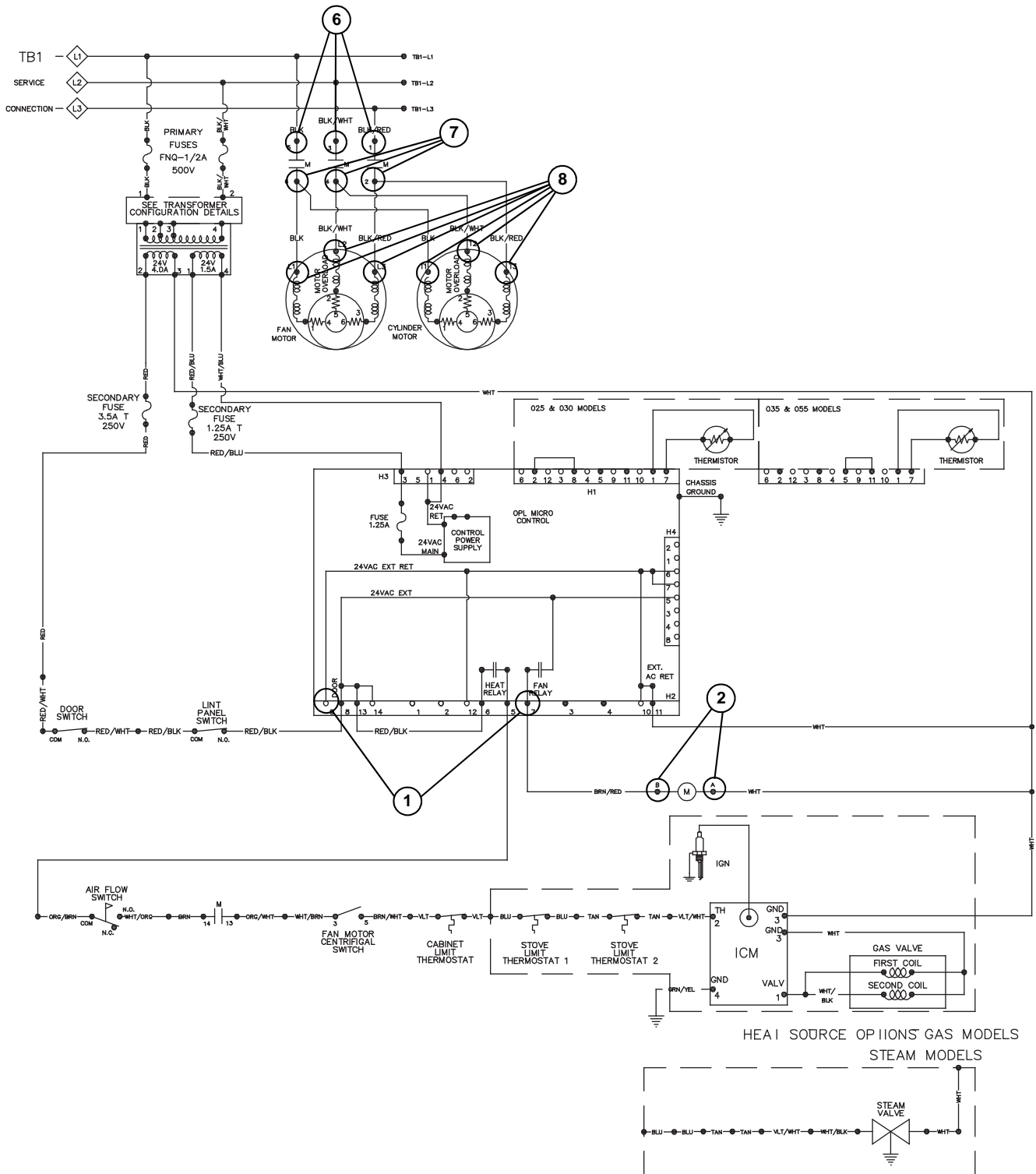


### Motor Will Not Start/Run – Single Phase



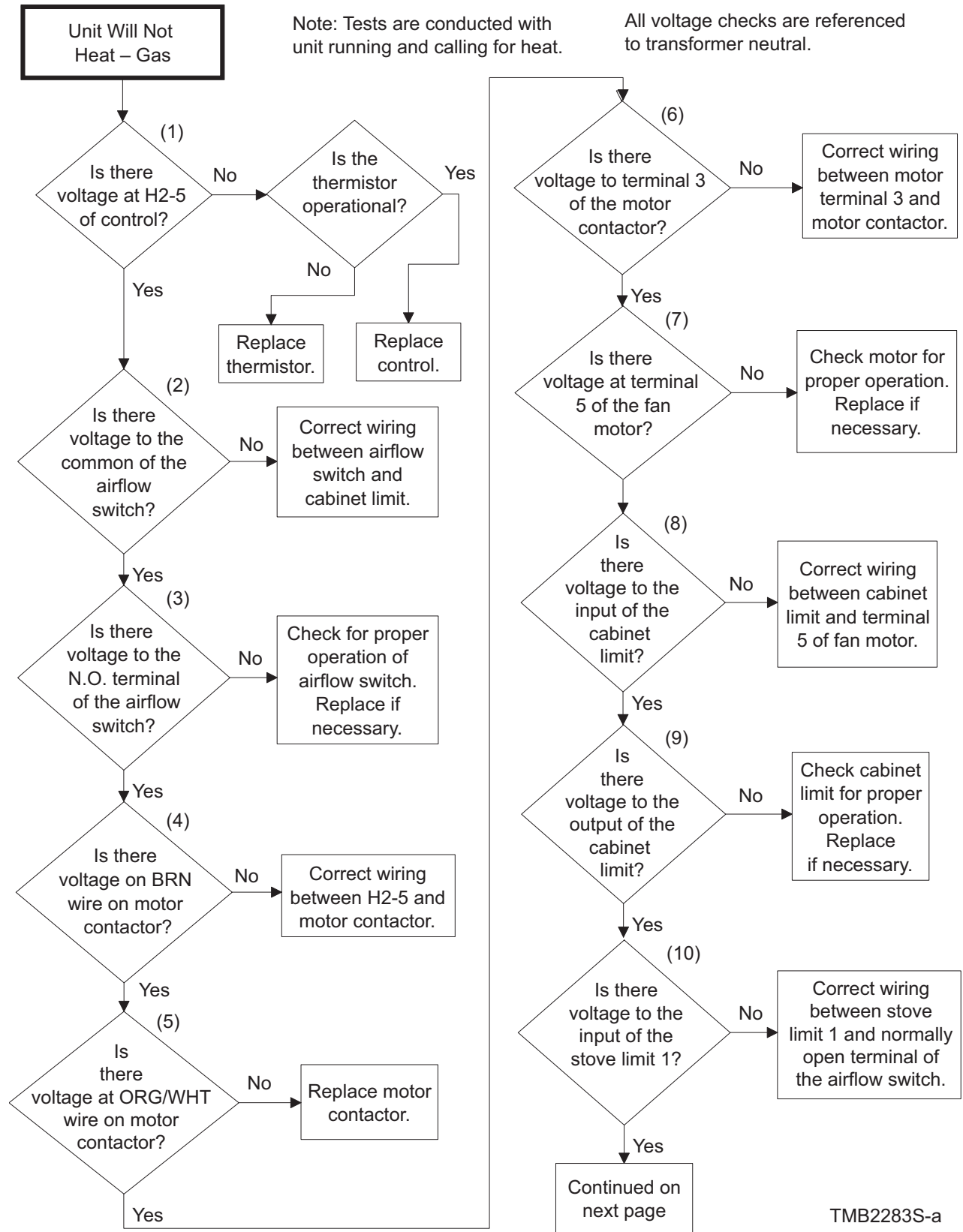
TMB2280S

Motor Will Not Start/Run – 3 Phase



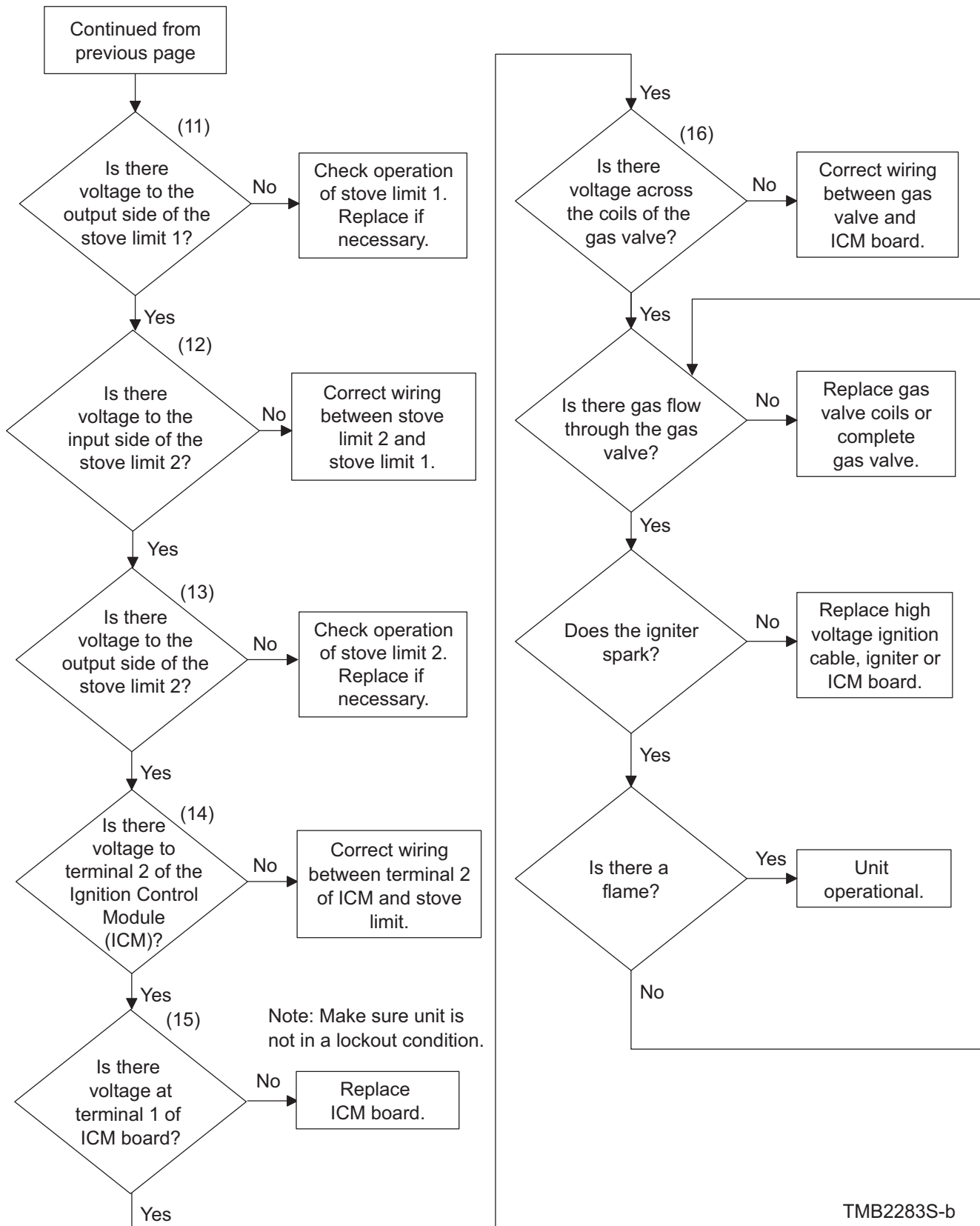
TMB2281S

### 46. Unit Will Not Heat – Gas



TMB2283S-a

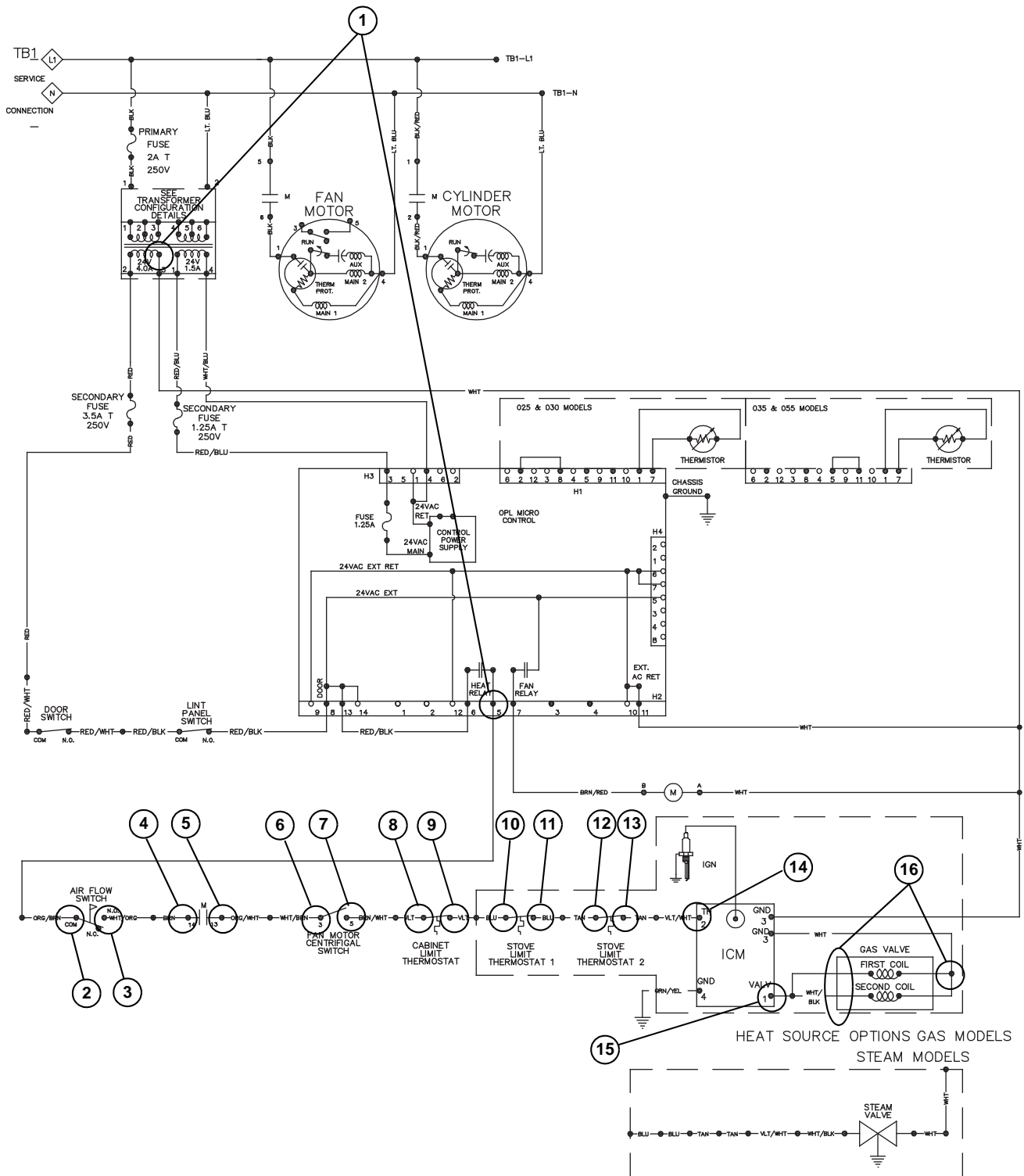
### 46. Unit Will Not Heat – Gas (continued)



TMB2283S-b

Please see following page for wiring diagram information.

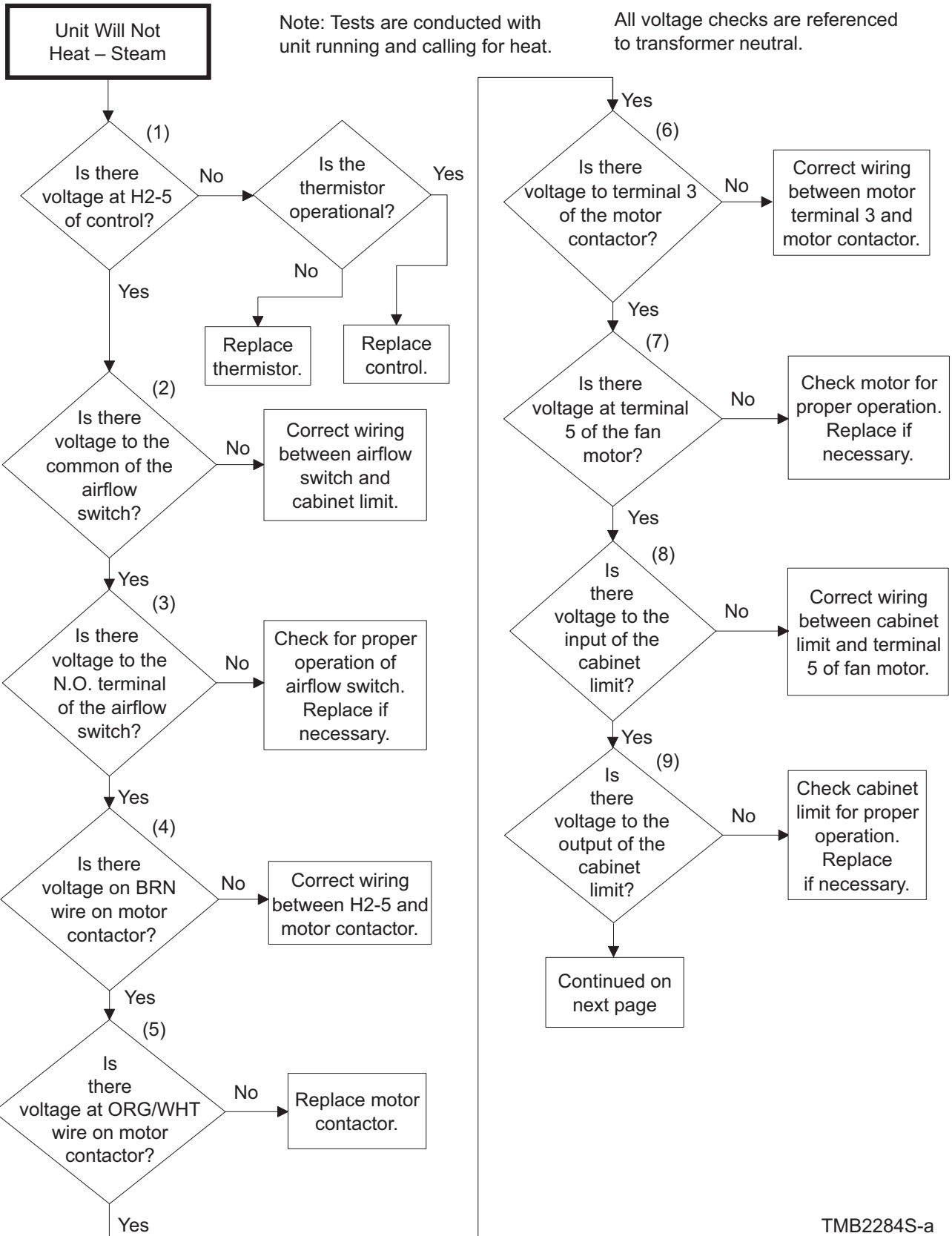
Unit Will Not Heat – Gas



TMB2280S

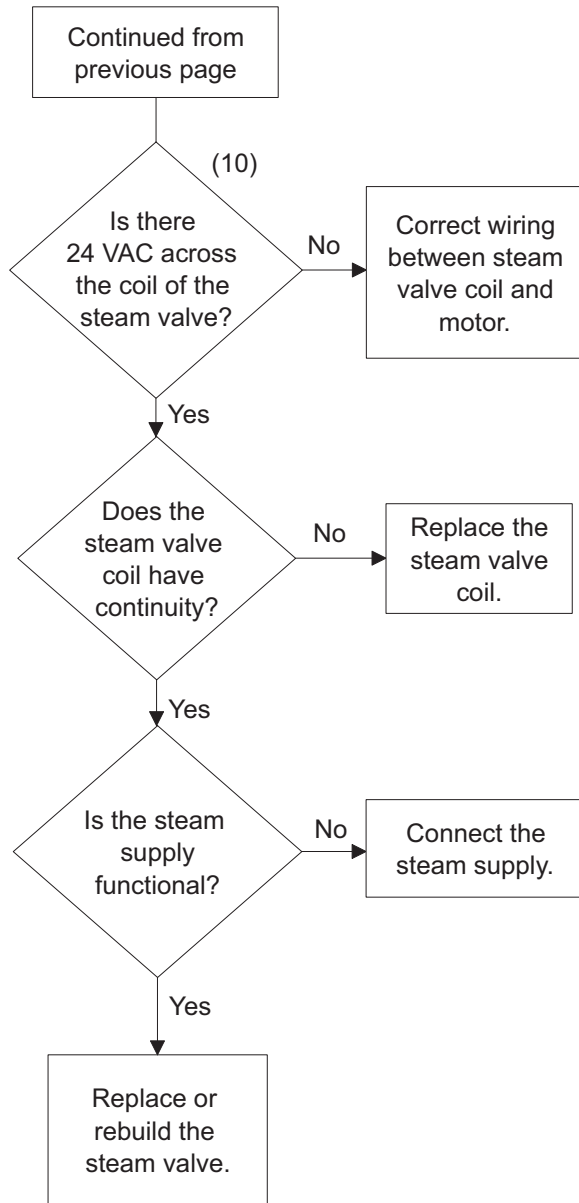


### 47. Unit Will Not Heat – Steam



TMB2284S-a

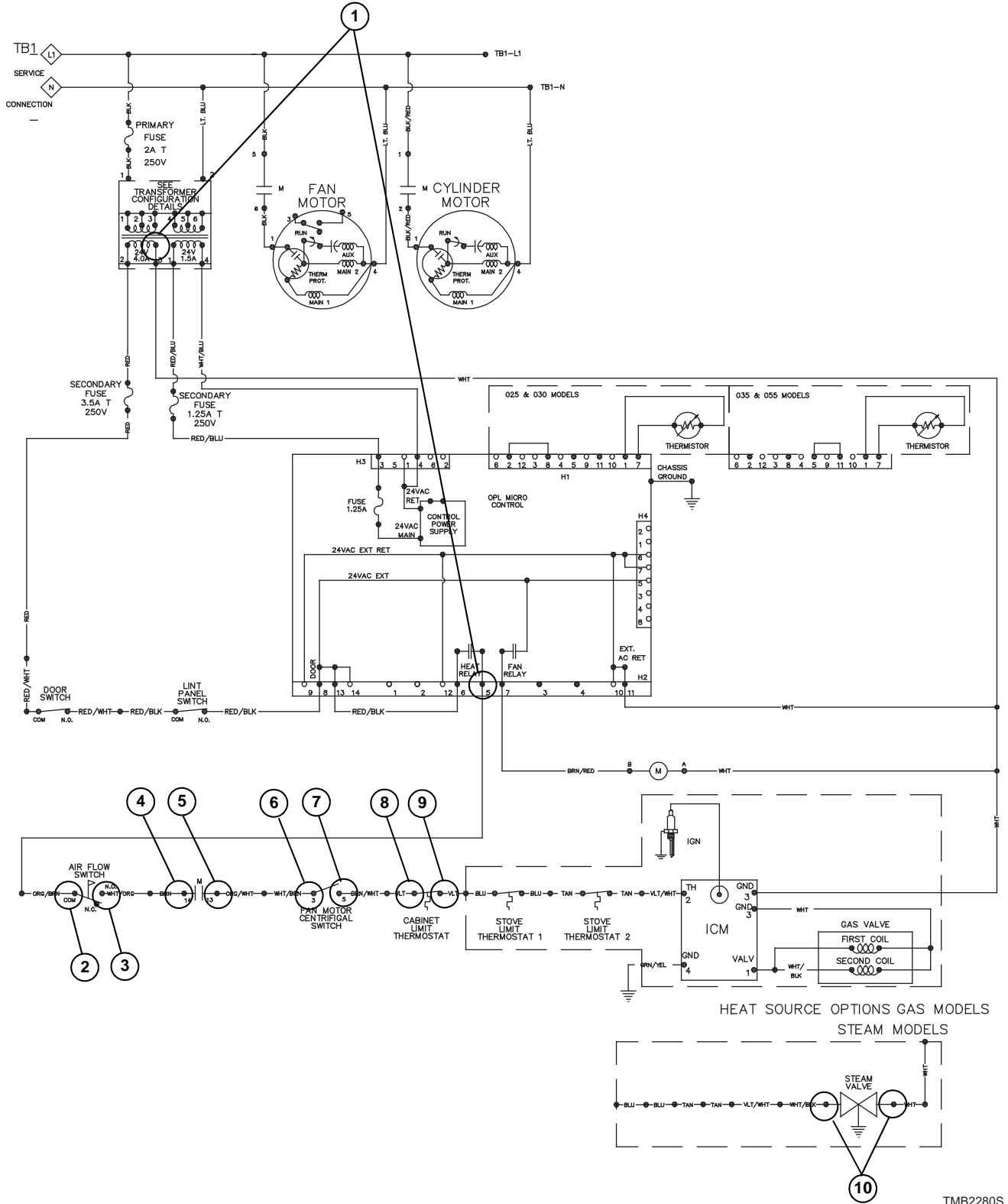
### 47. Unit Will Not Heat – Steam (continued)



TMB2284S-b

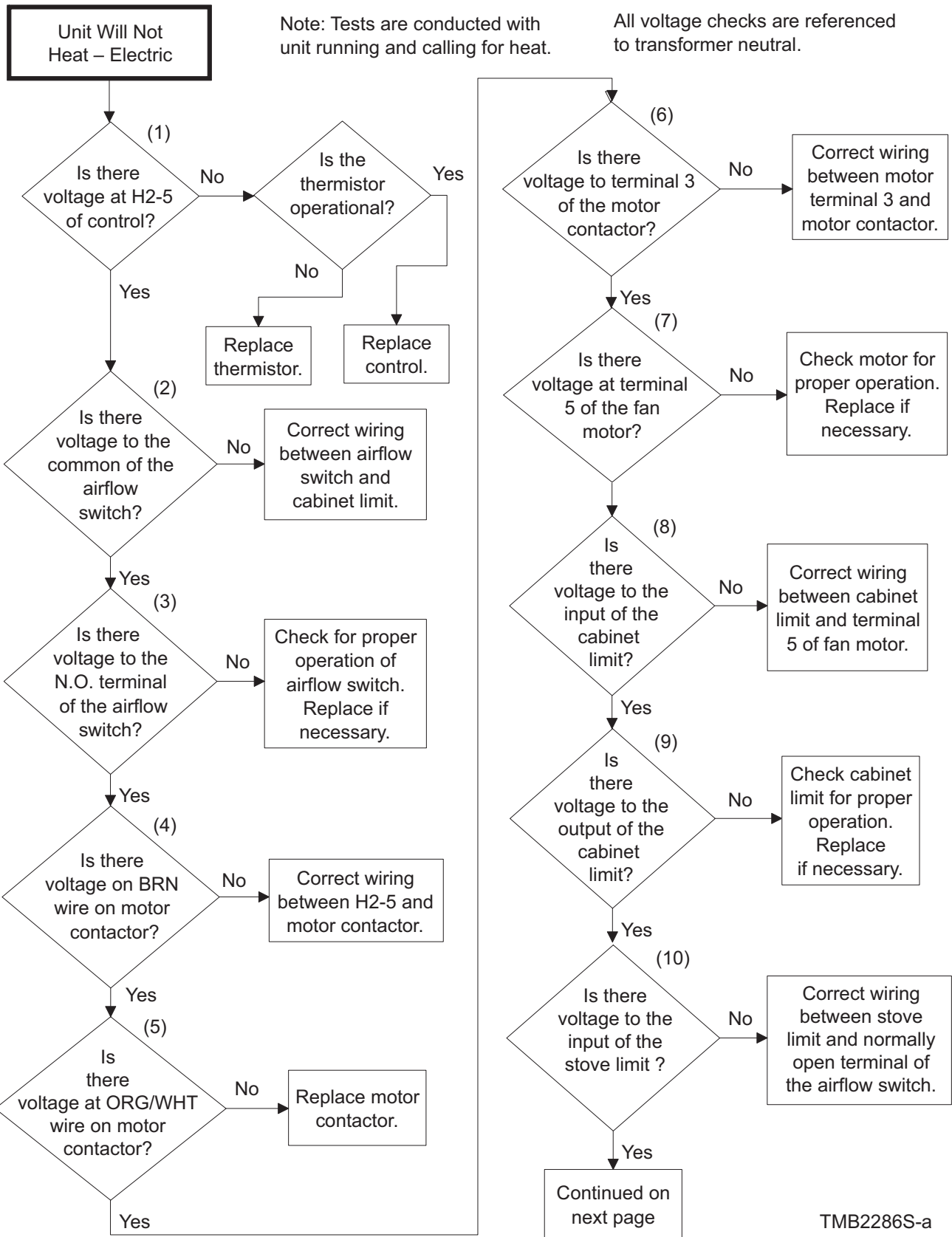
**Please see following page for wiring diagram information.**

Unit Will Not Heat – Steam



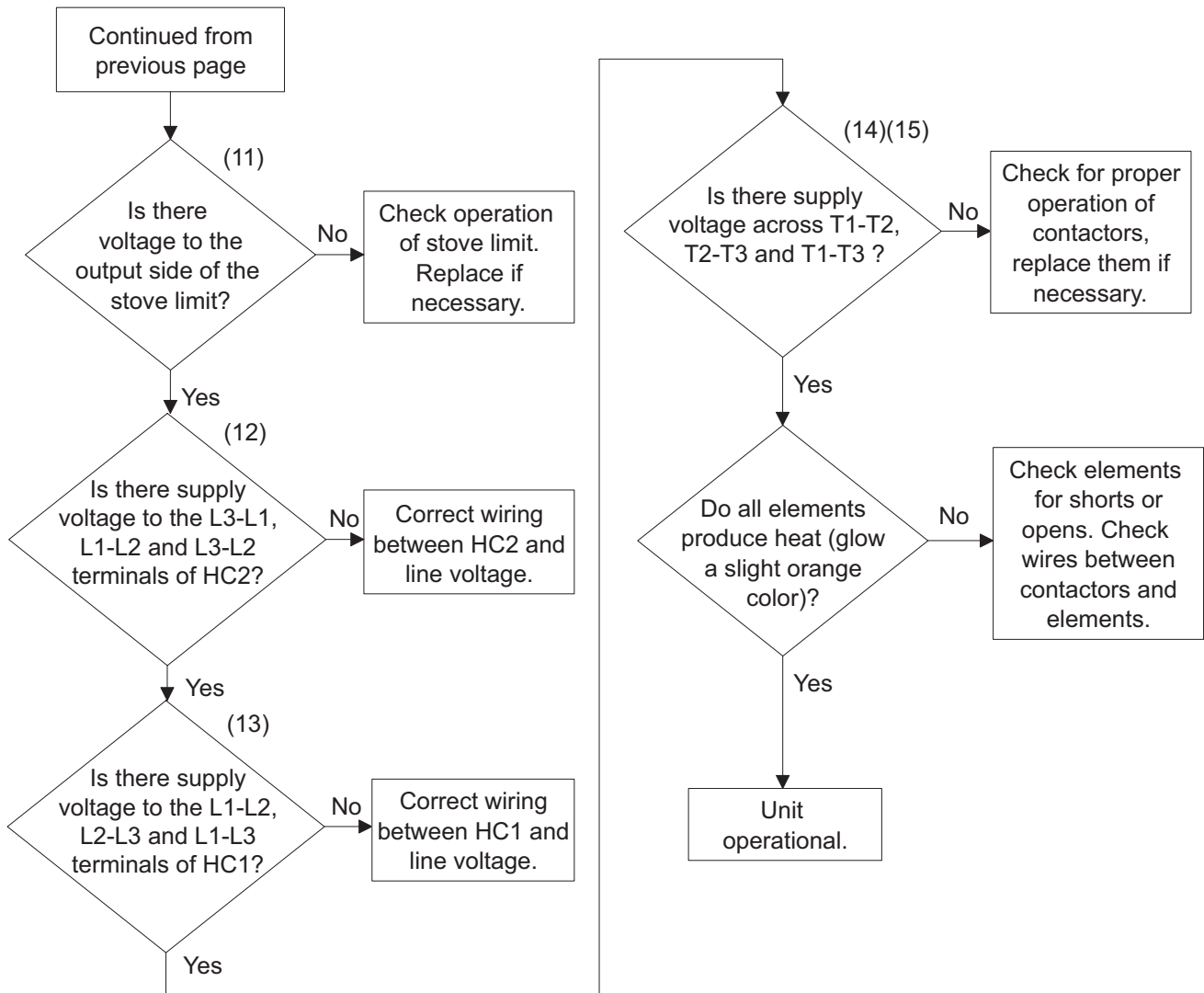
TMB2280S

### 48. Unit Will Not Heat – Electric



TMB2286S-a

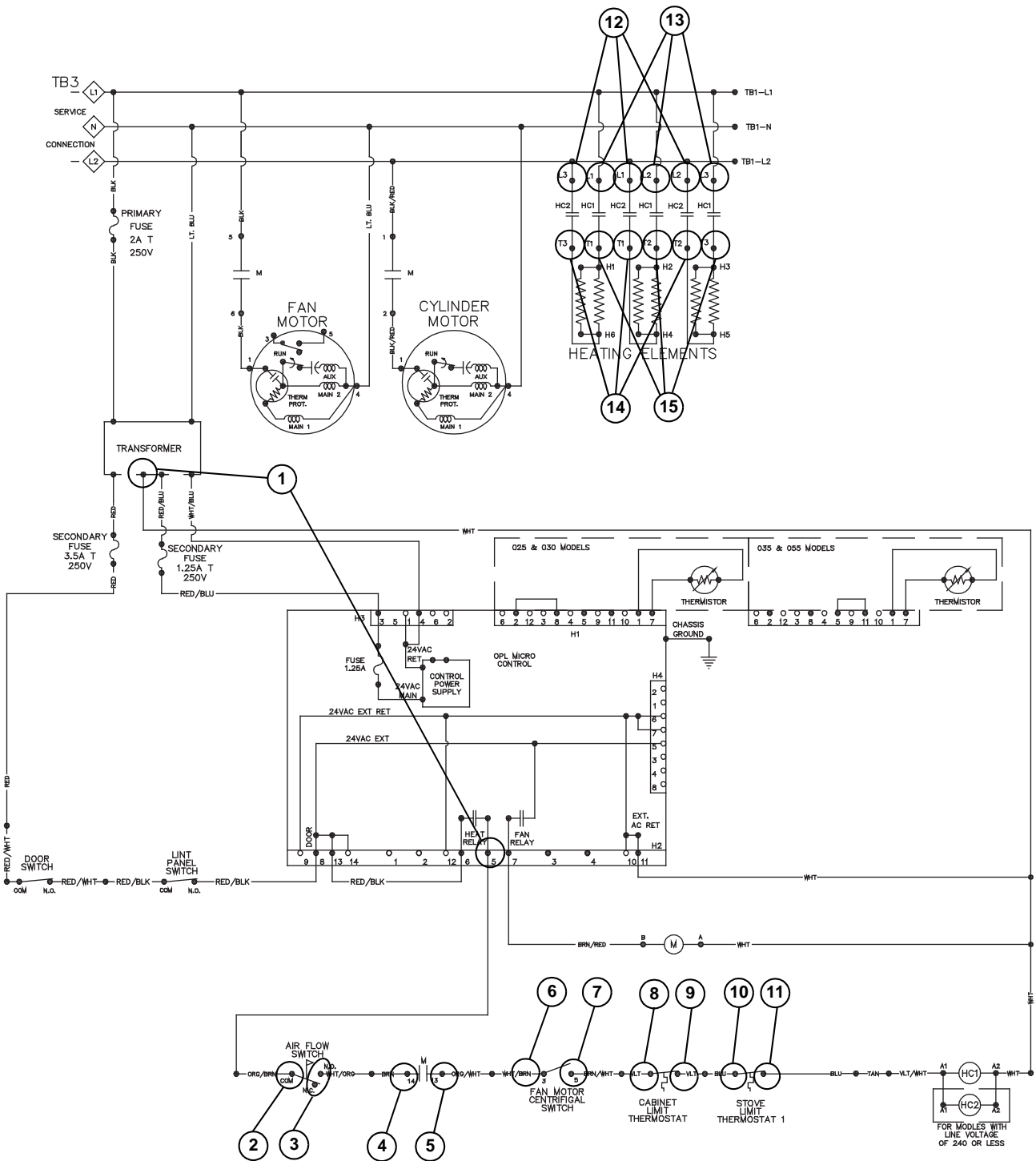
48. Unit Will Not Heat – Electric (continued)




TMB2286S-b

Please see following page for wiring diagram information.

Unit Will Not Heat – Electric



TMB2285S

	WARNING
<p><b>To reduce the risk of electric shock, fire, explosion, serious injury or death:</b></p> <ul style="list-style-type: none"> <li>• <b>Disconnect electric power to the dryer(s) before servicing.</b></li> <li>• <b>Close gas shut-off valve to gas dryer(s) before servicing.</b></li> <li>• <b>Never start the dryer(s) with any guards/panels removed.</b></li> <li>• <b>Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the dryer is properly grounded.</b></li> </ul>	
W001R1	

## 49. Error Codes

**OP** - Indicates physical “open” in the thermistor circuit. Possible causes are: 1) thermistor, 2) wiring between control and thermistor, 3) control.

**SH** - Indicates a “short” in the thermistor circuit. Possible causes are: 1) shorted thermistor, 2) a short in the wiring between control and thermistor, 3) control.

Display	Definition	Corrective Action
OP	Indicates an open circuit in the thermistor.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>
SH	Indicates a short circuit in the thermistor.	<ul style="list-style-type: none"> <li>• Check thermistor. Replace if inoperative.</li> <li>• Check wiring between control and thermistor. Refer to wiring diagram for proper wiring.</li> <li>• Check control. Replace if inoperative.</li> </ul>

# Section 9

## Quantum Control Troubleshooting

Models with LC, LX, LY, WC, WX and WY Control Suffixes



### WARNING

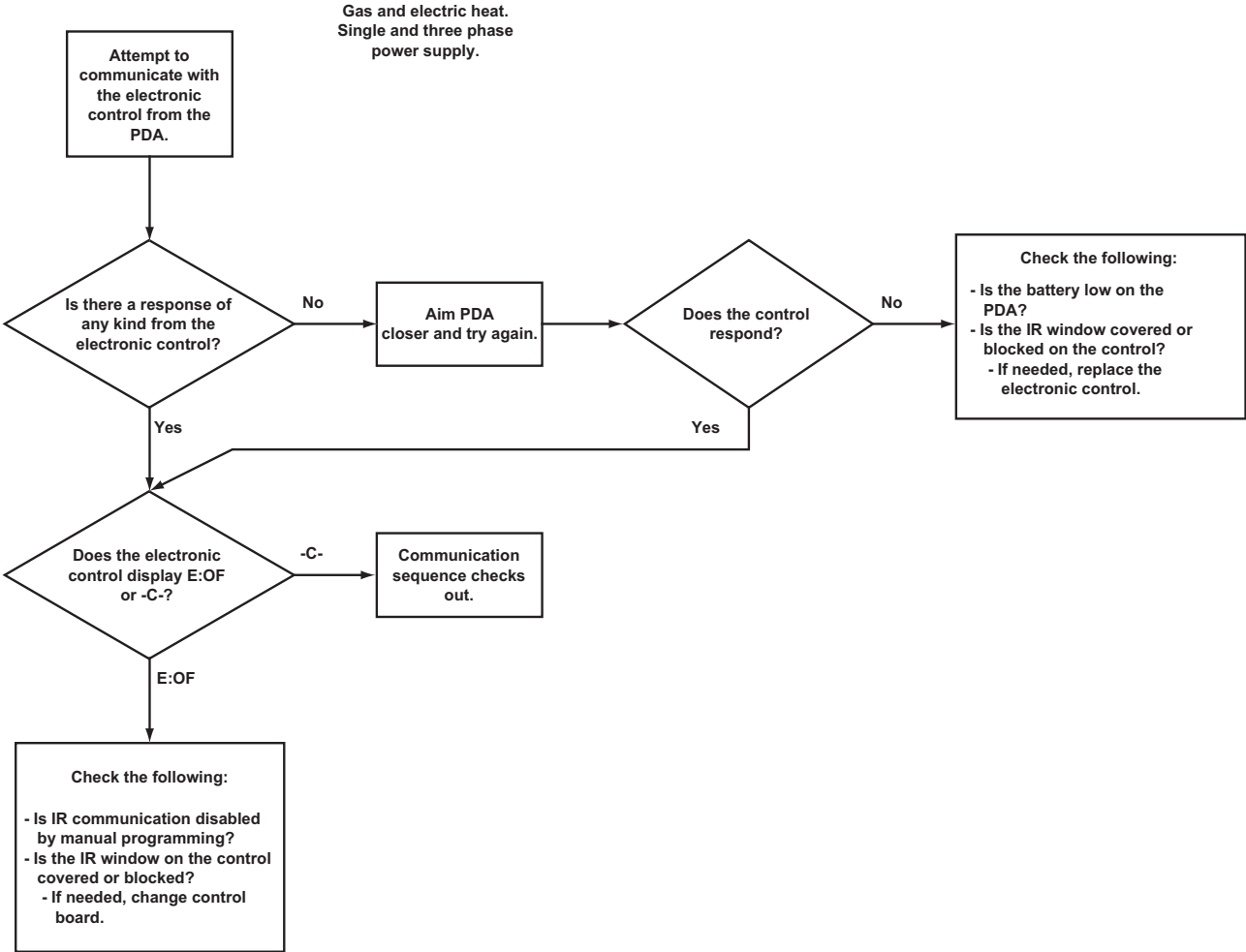
To reduce the risk of electric shock, fire, explosion, serious injury or death:

- Disconnect electric power to the tumbler before servicing.
- Close gas shut-off valve to gas tumbler before servicing.
- Close steam valve to steam tumbler before servicing.
- Never start the tumbler with any guards/panels removed.
- Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the tumbler is properly grounded.

W002



# 50. No Infrared Communication

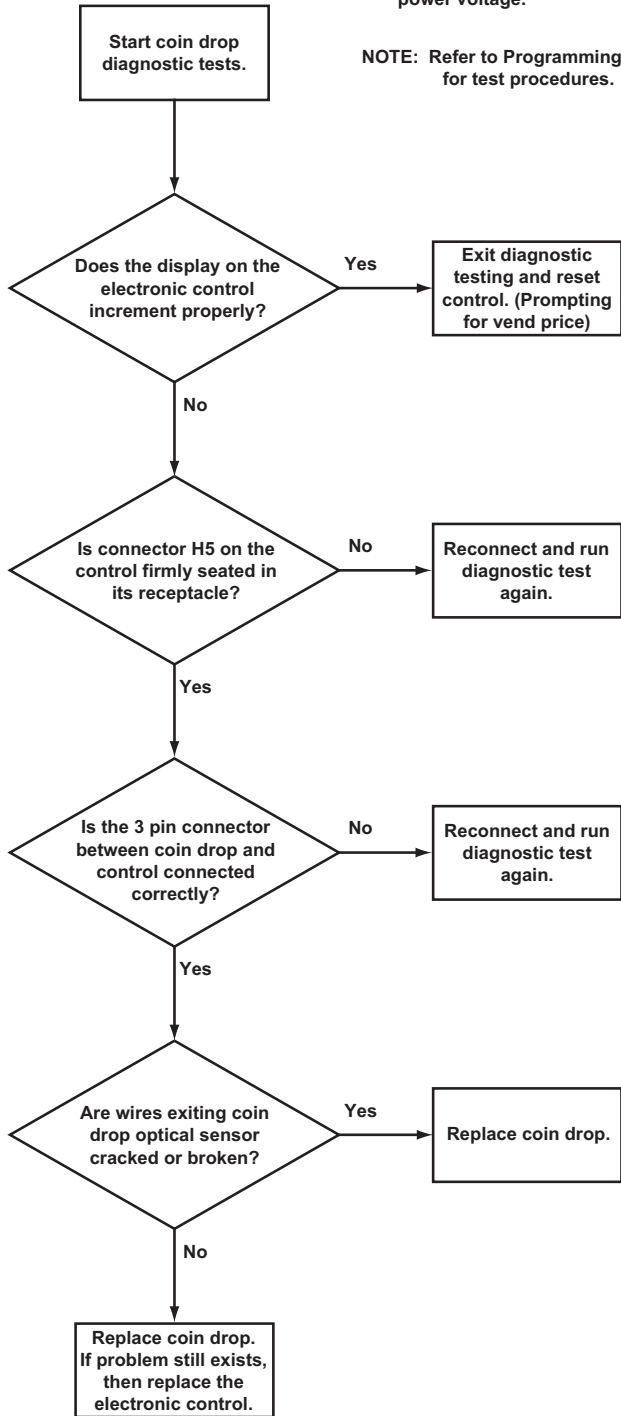


TMB2269S

# 51. Coins Ignored When Entered

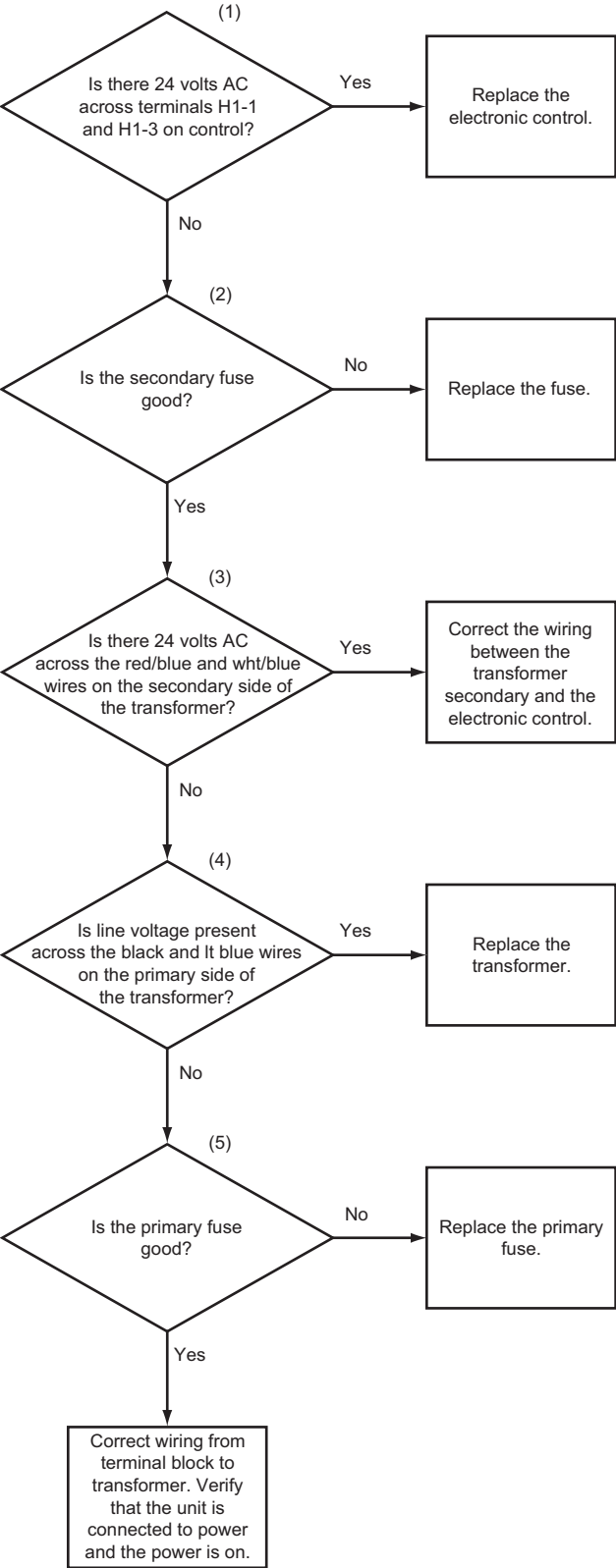
Gas and electric heat.  
Single and three phase  
power voltage.

NOTE: Refer to Programming Manual  
for test procedures.



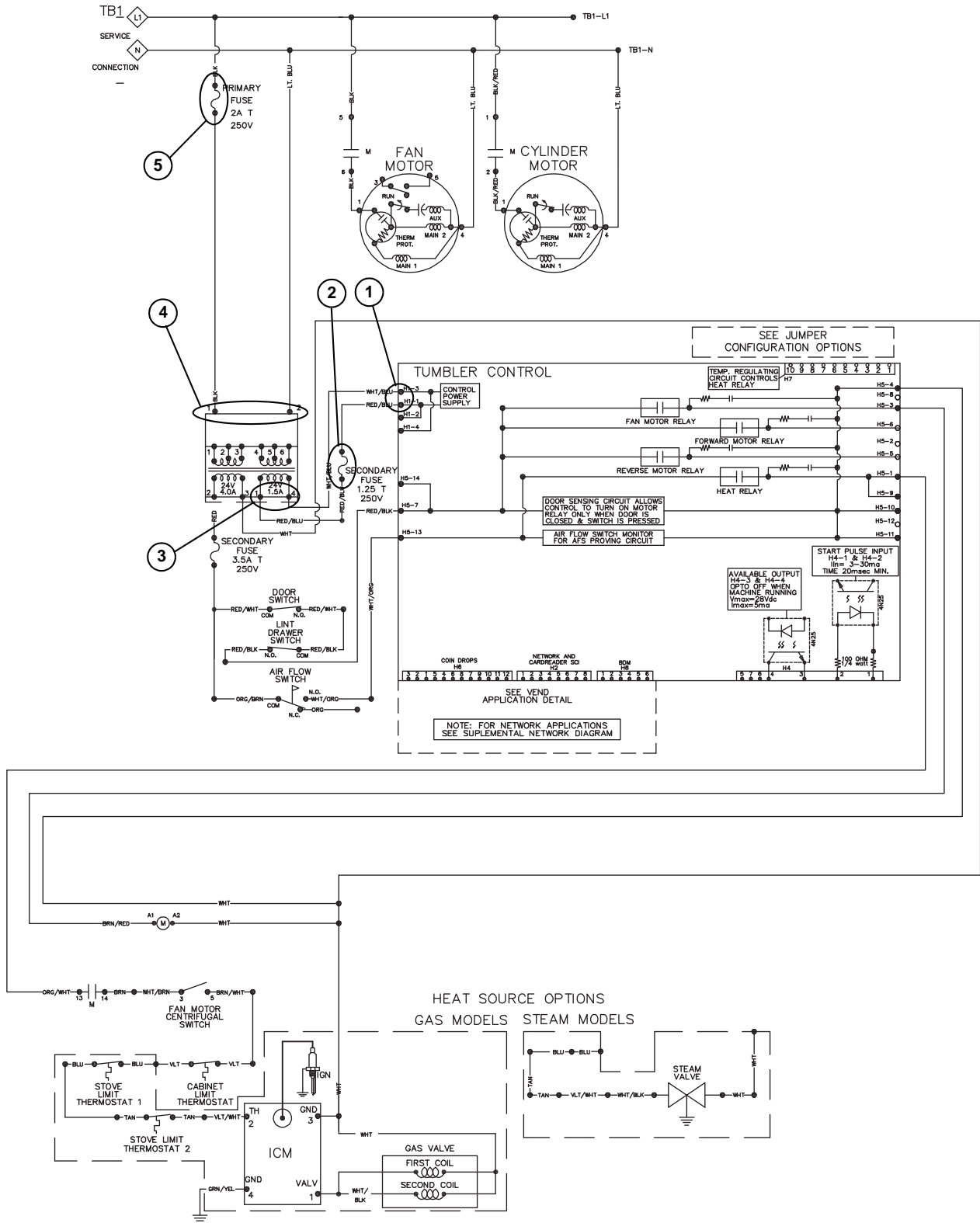
TMB1794S

52. No Display



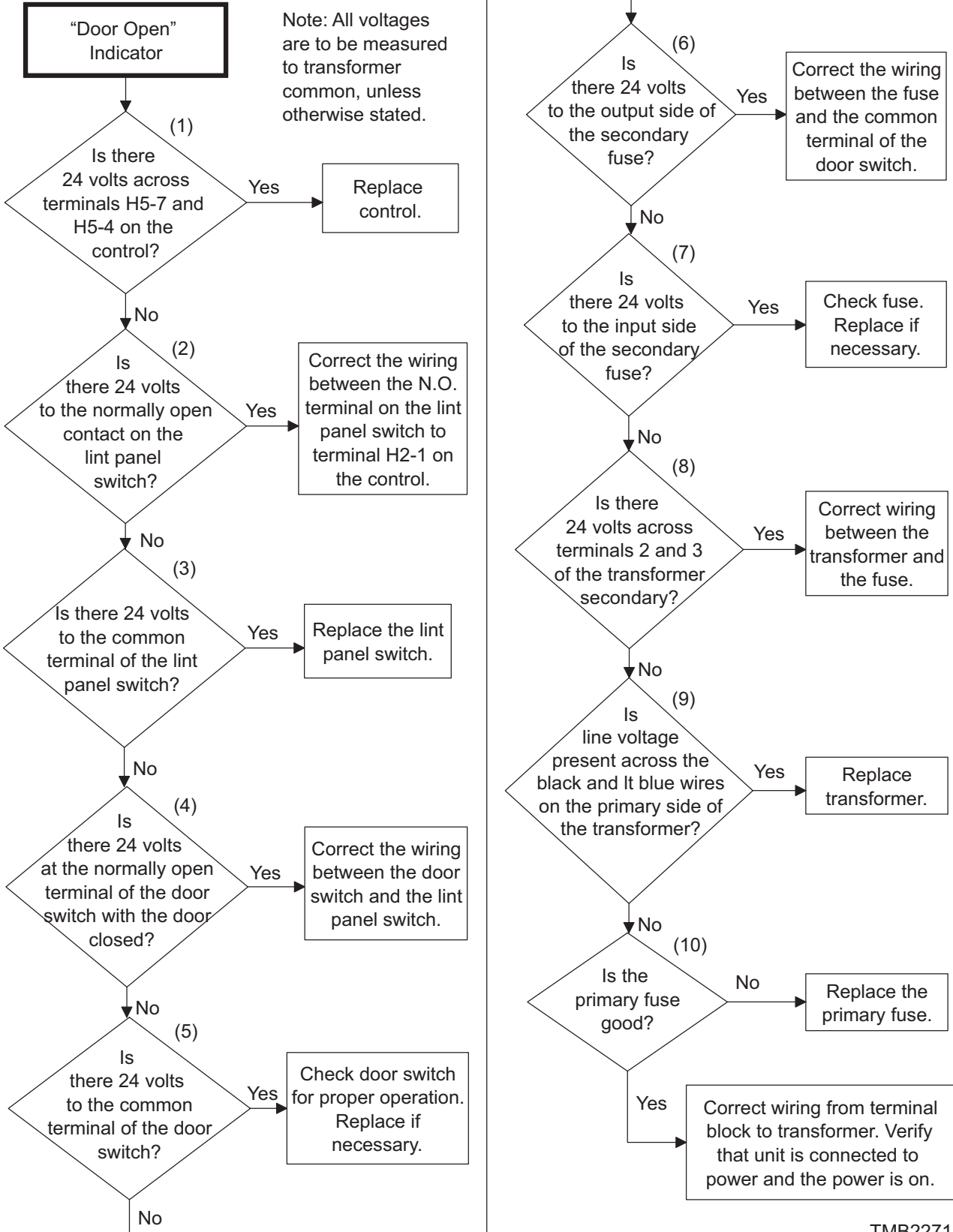
TMB2299S

## No Display



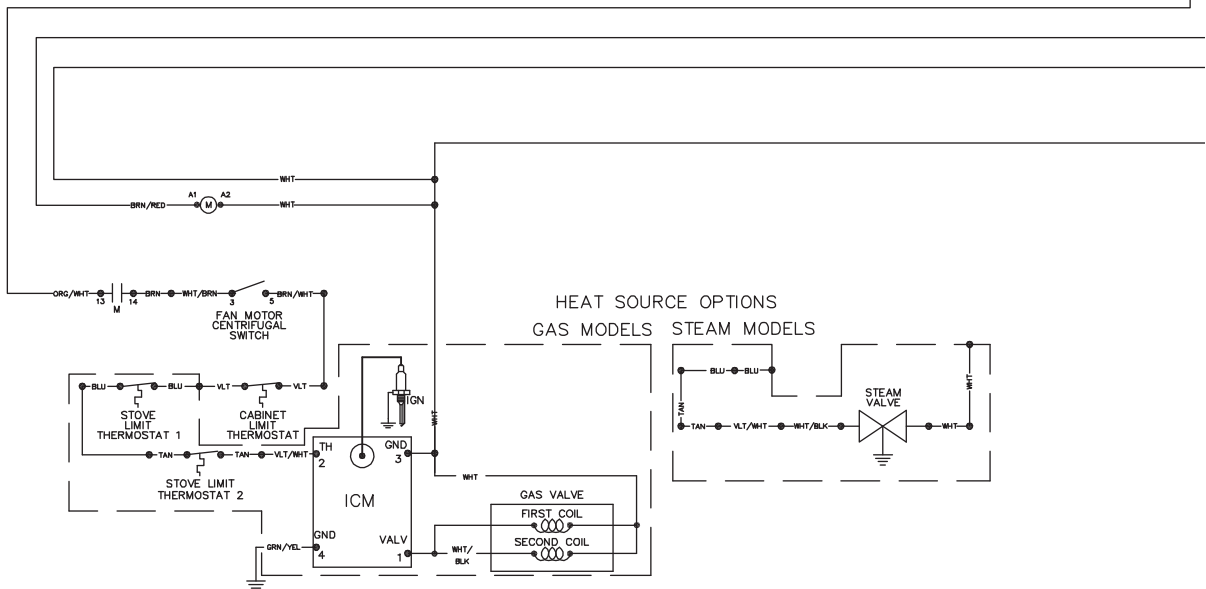
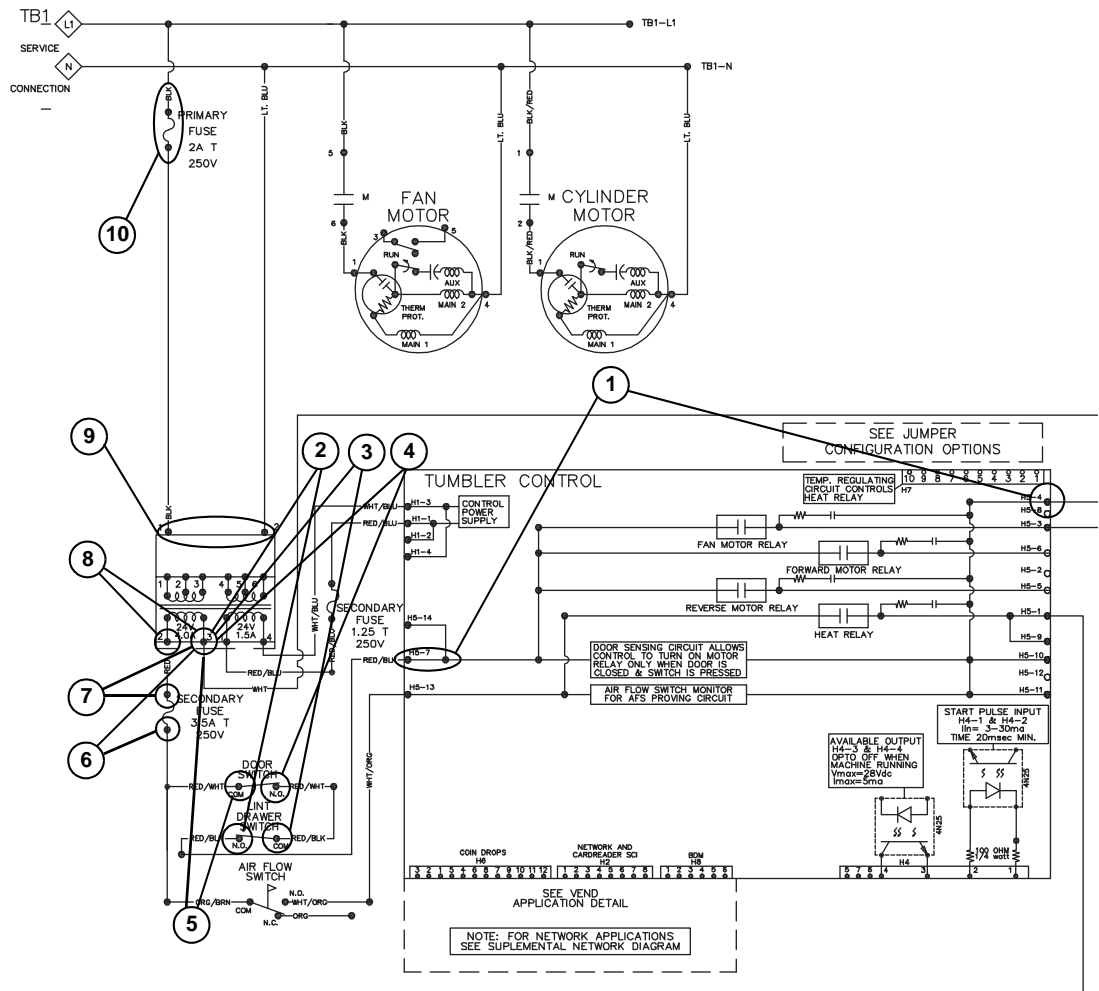
TMB2295S

### 53. "Door Open" Indicator



TMB2271S

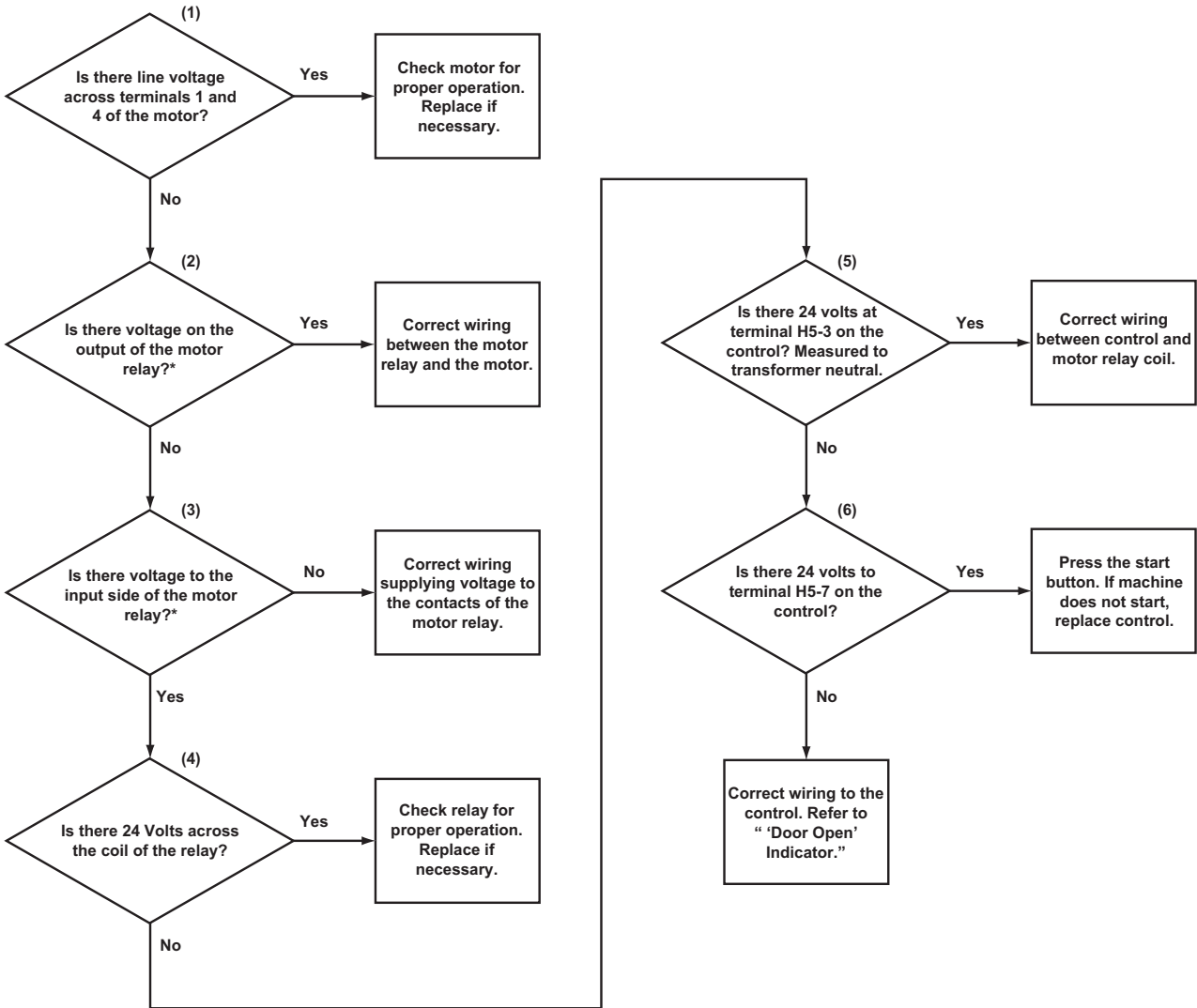
### “Door Open” Indicator



TMB2295S

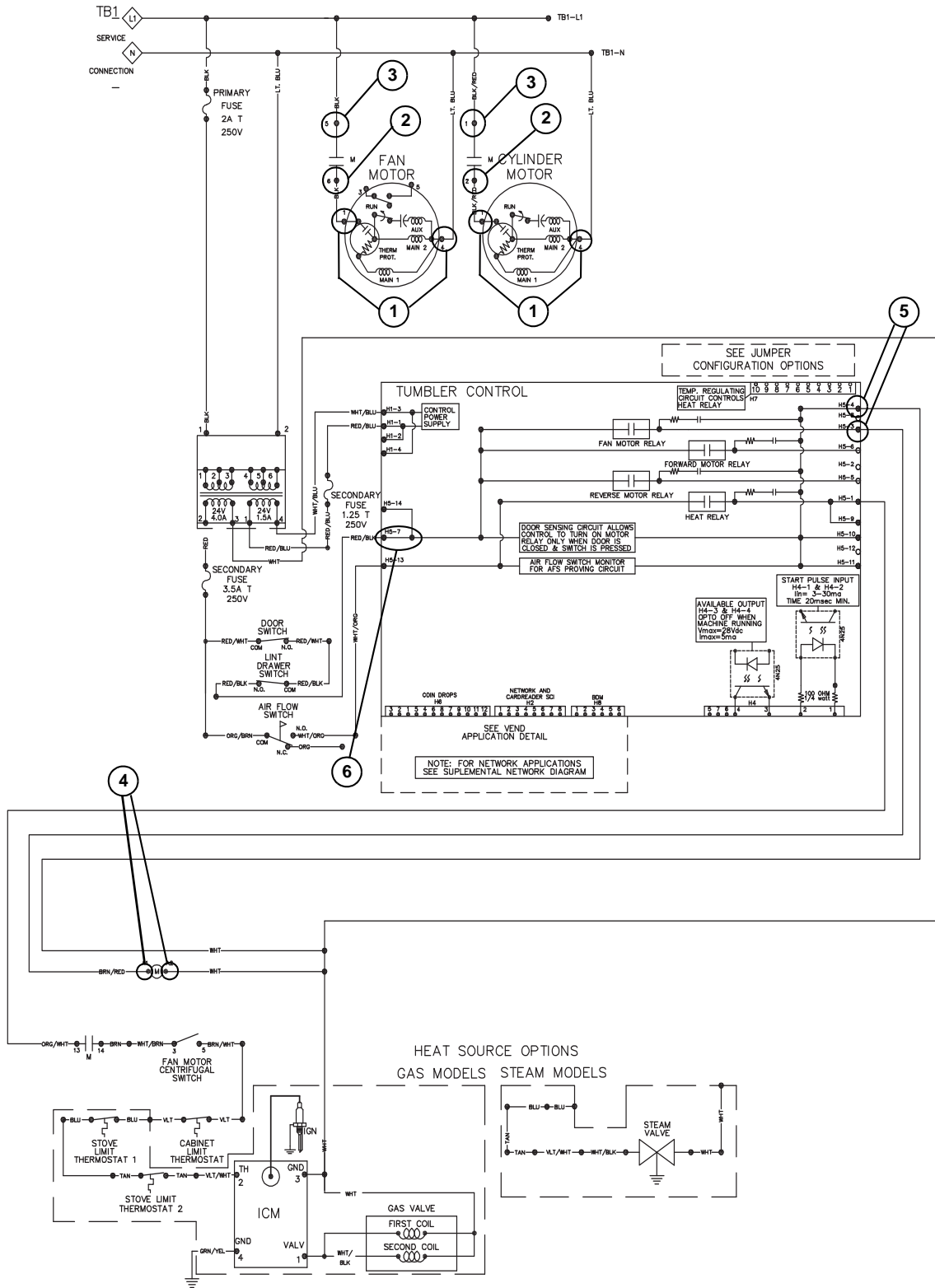
# 54. No Start/Run

\*Note: For steps 2 and 3. For 208/240 1 phase, both lines to the motor are controlled by contacts. Please check second set of contacts. For 3 phase units, the three legs supplied to the motor will be controlled by N.O. contacts. Please check all three legs.



TMB2272S

## No Start/Run



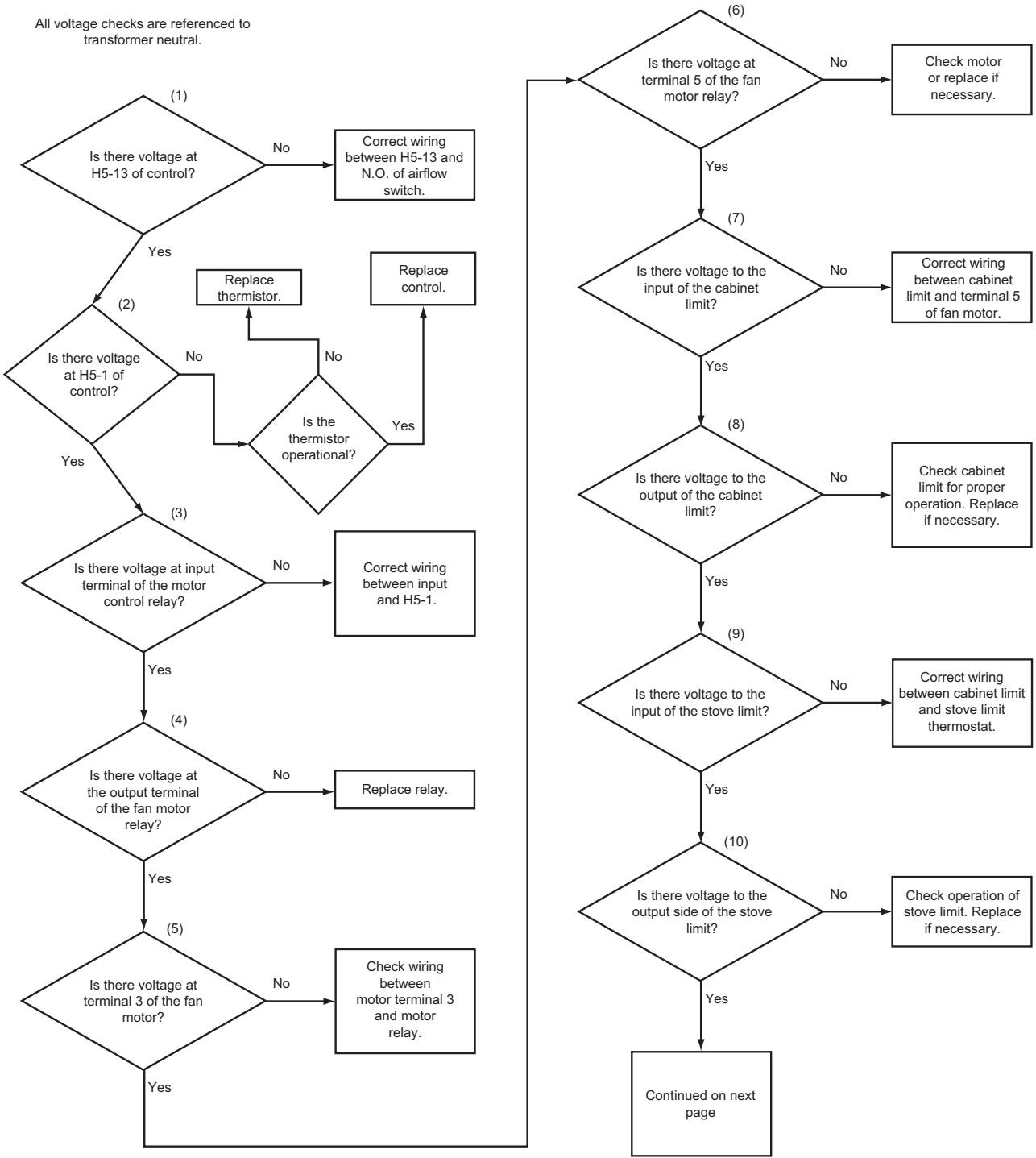
TMB2295S



# 55. Unit Will Not Heat – Gas

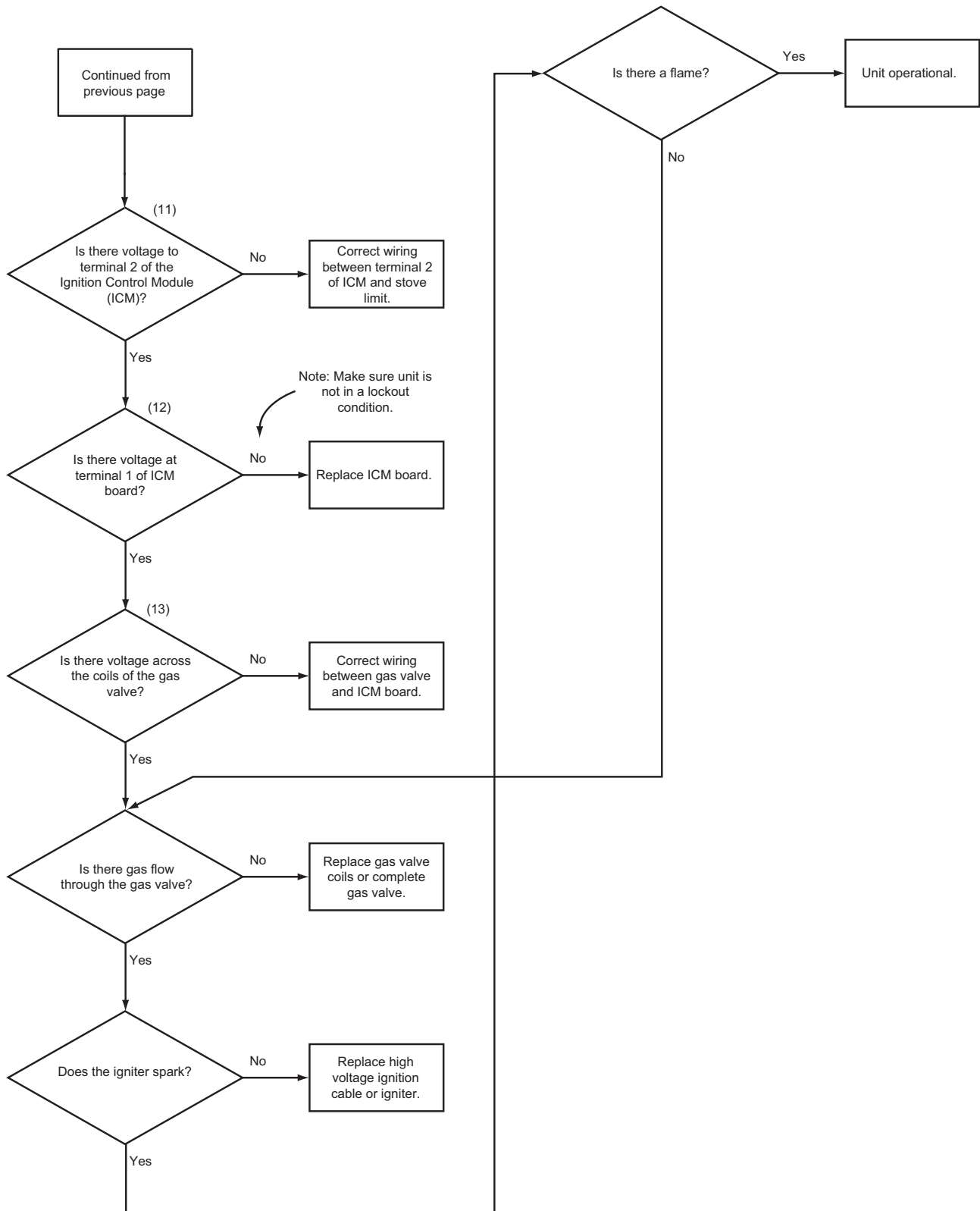
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2275S-a

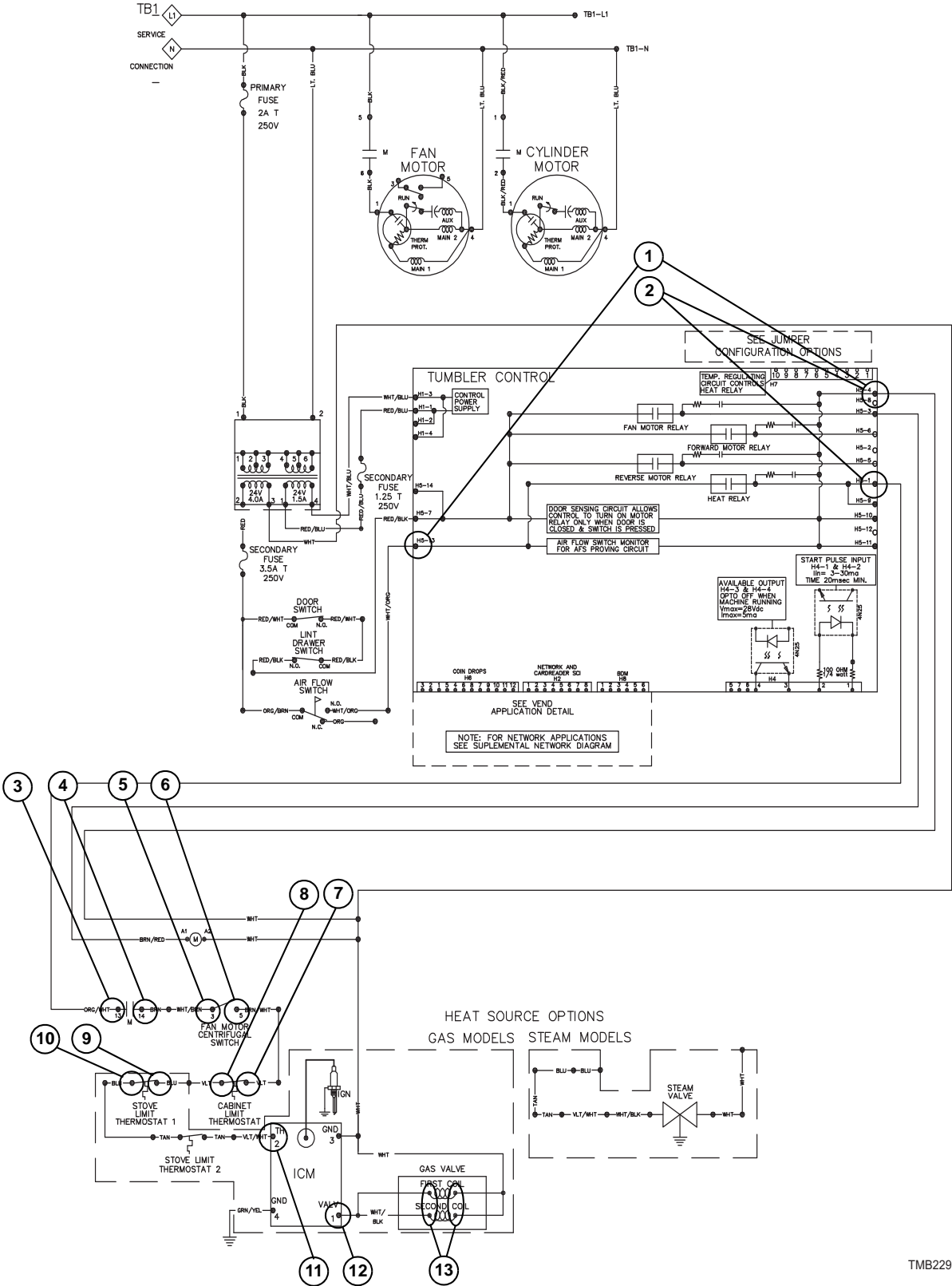
### 55. Unit Will Not Heat – Gas (continued)



TMB2275S-b

**Please see following page for wiring diagram information.**

### Unit Will Not Heat – Gas



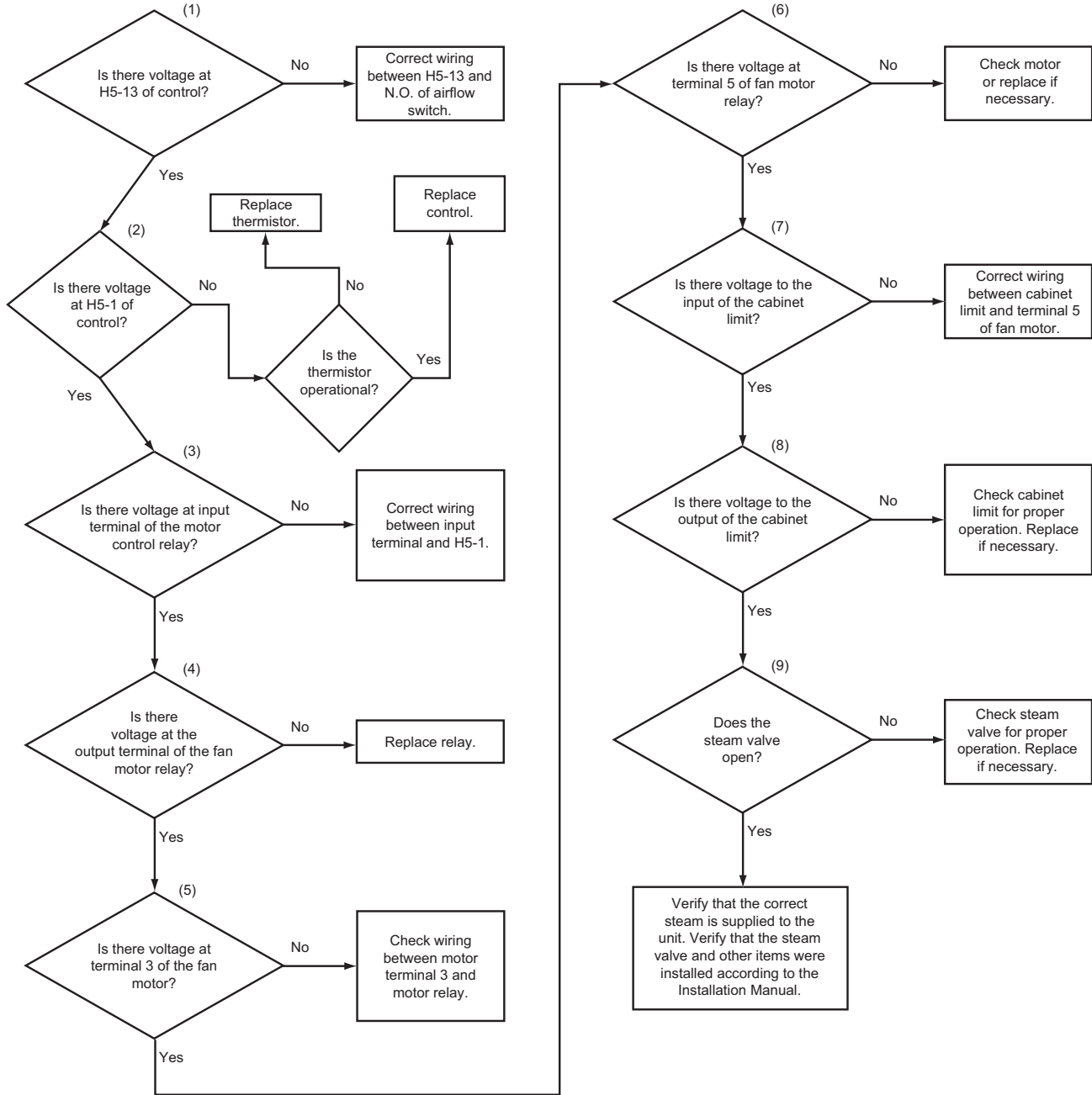
TMB2295S

# Quantum Control Troubleshooting

## 56. Unit Will Not Heat – Steam

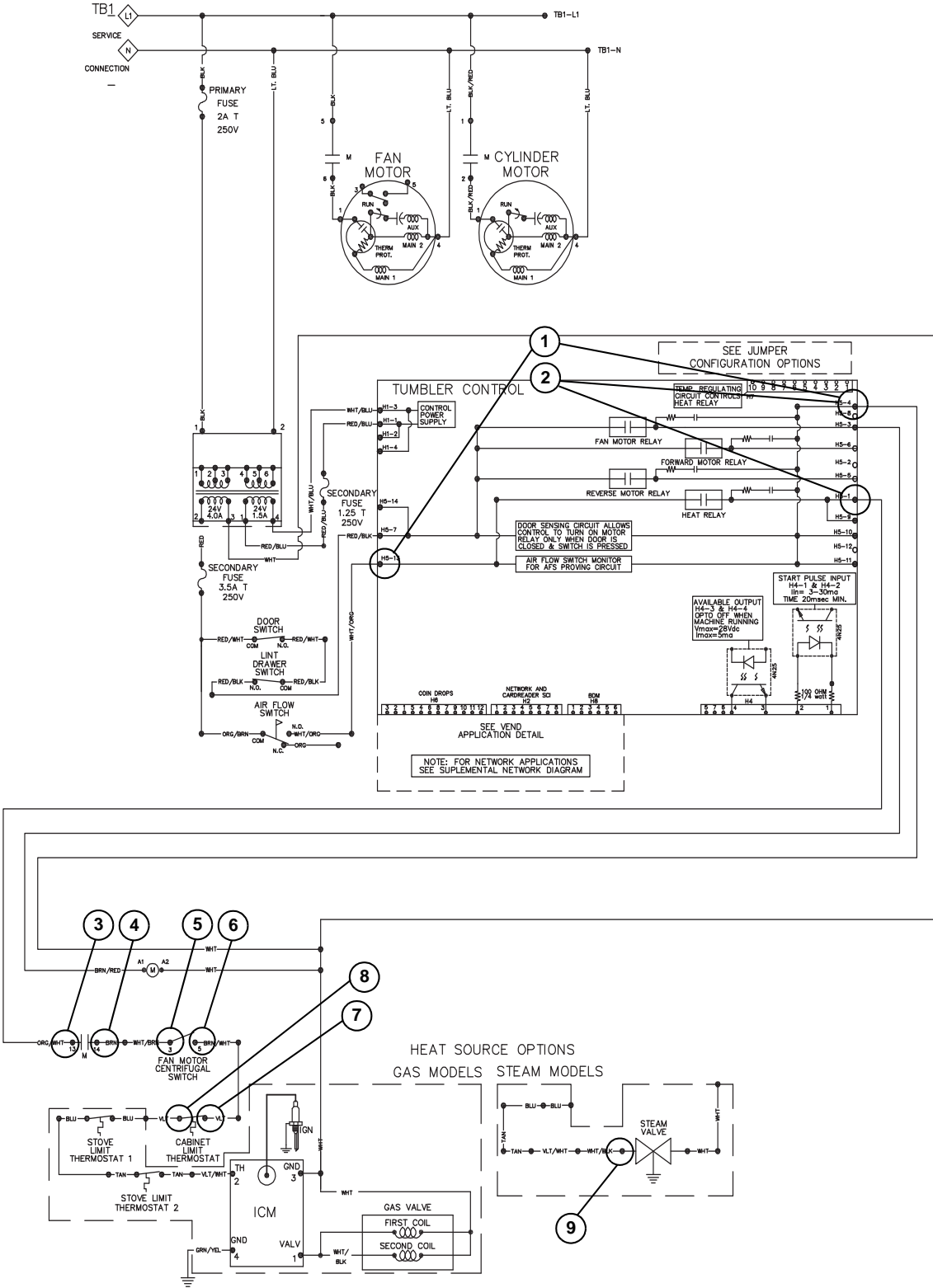
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2276S

Unit Will Not Heat – Steam

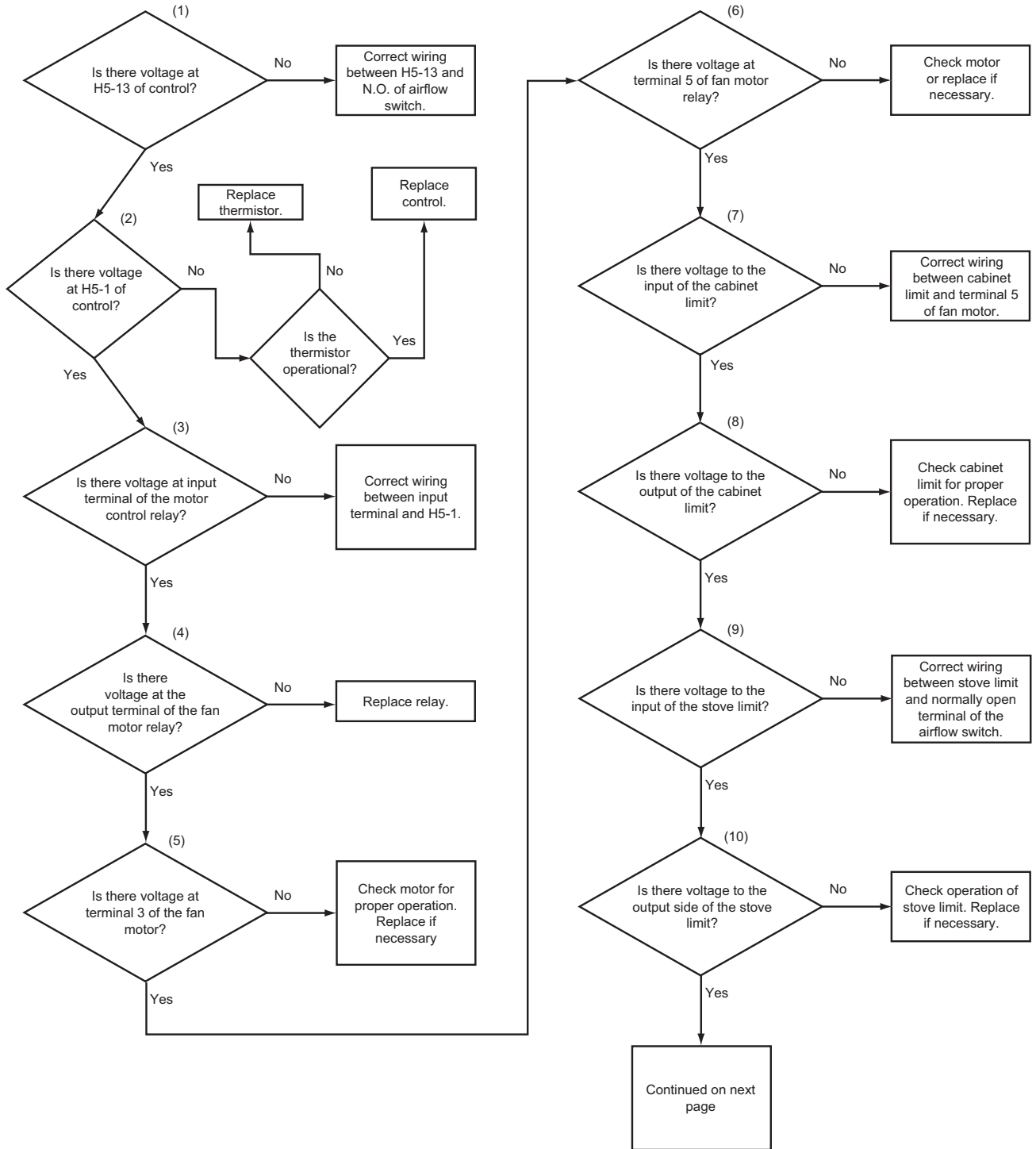


TMB2295S

# 57. Unit Will Not Heat – Electric

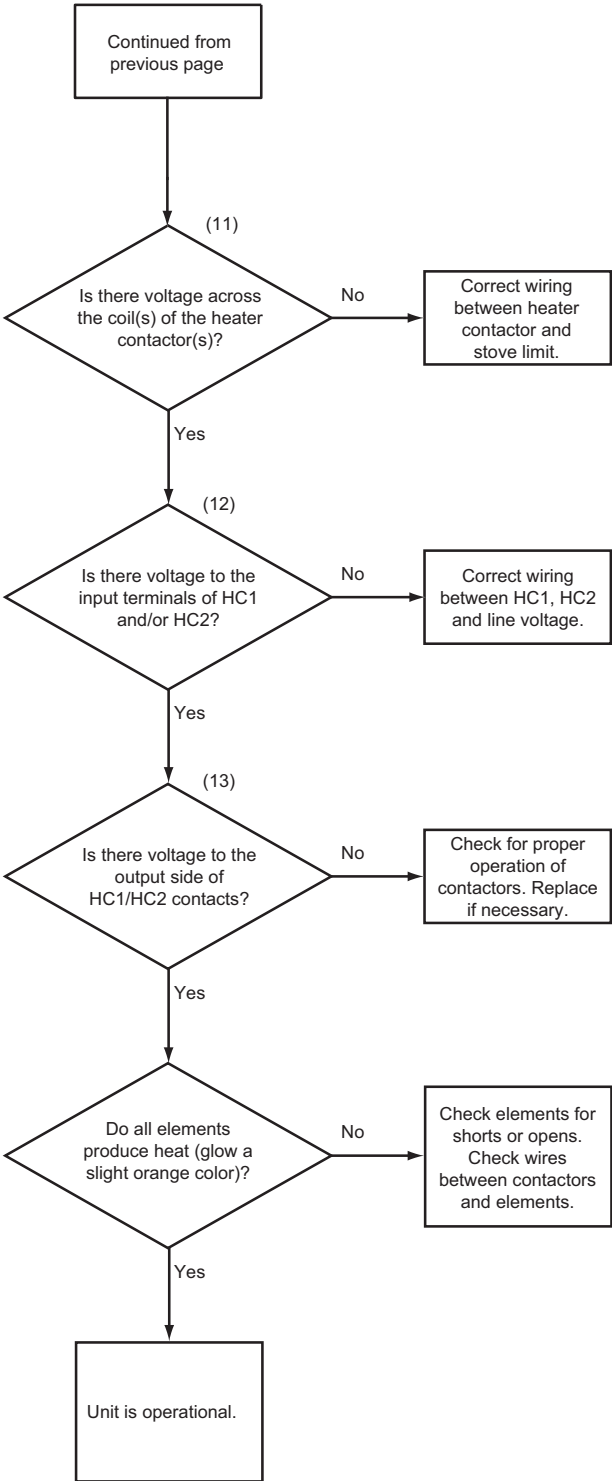
Note: Tests are conducted with unit running and calling for heat.

All voltage checks are referenced to transformer neutral.



TMB2277S-a

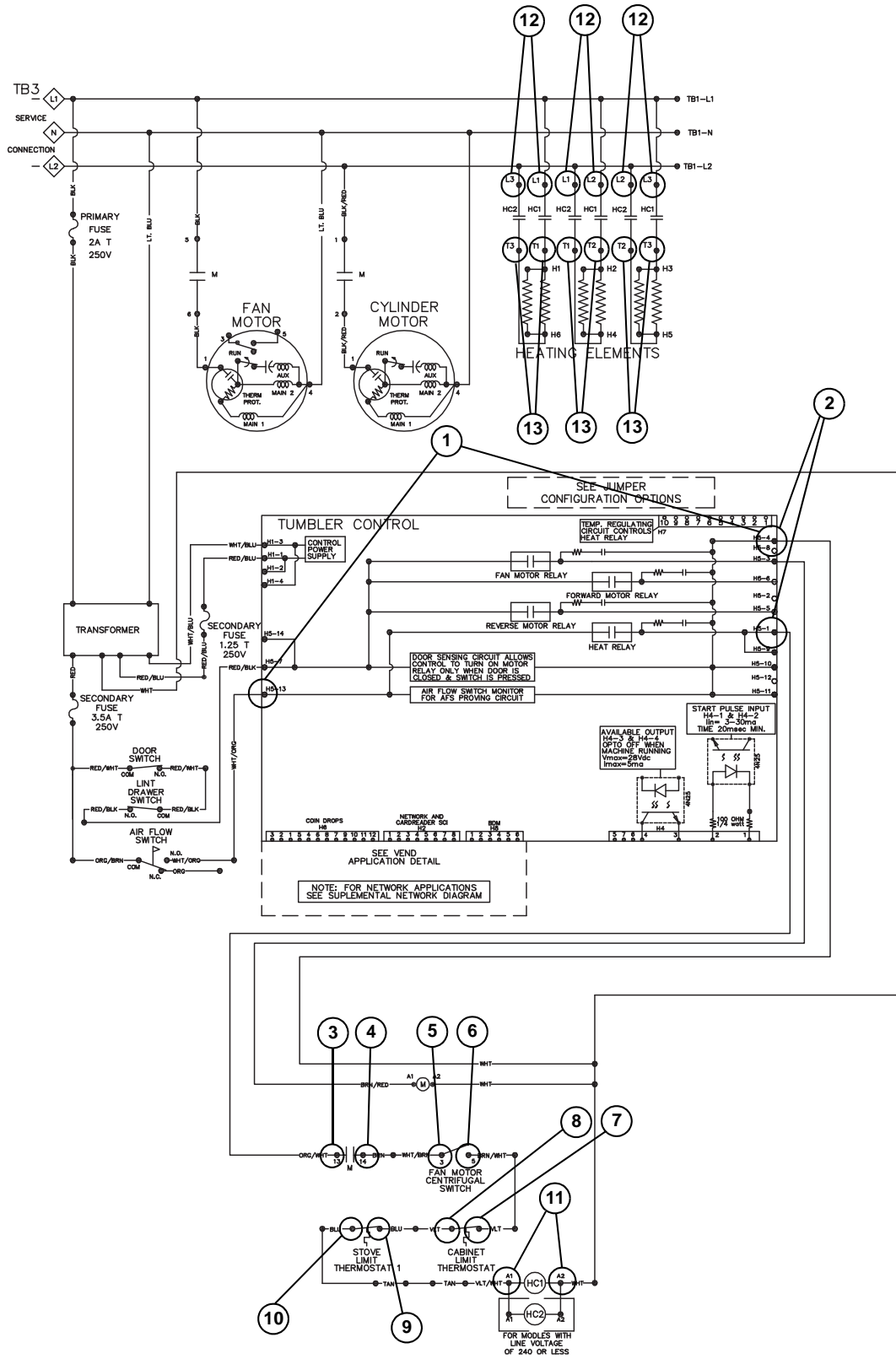
57. Unit Will Not Heat – Electric (continued)



TMB2277S-b

Please see following page for wiring diagram information.

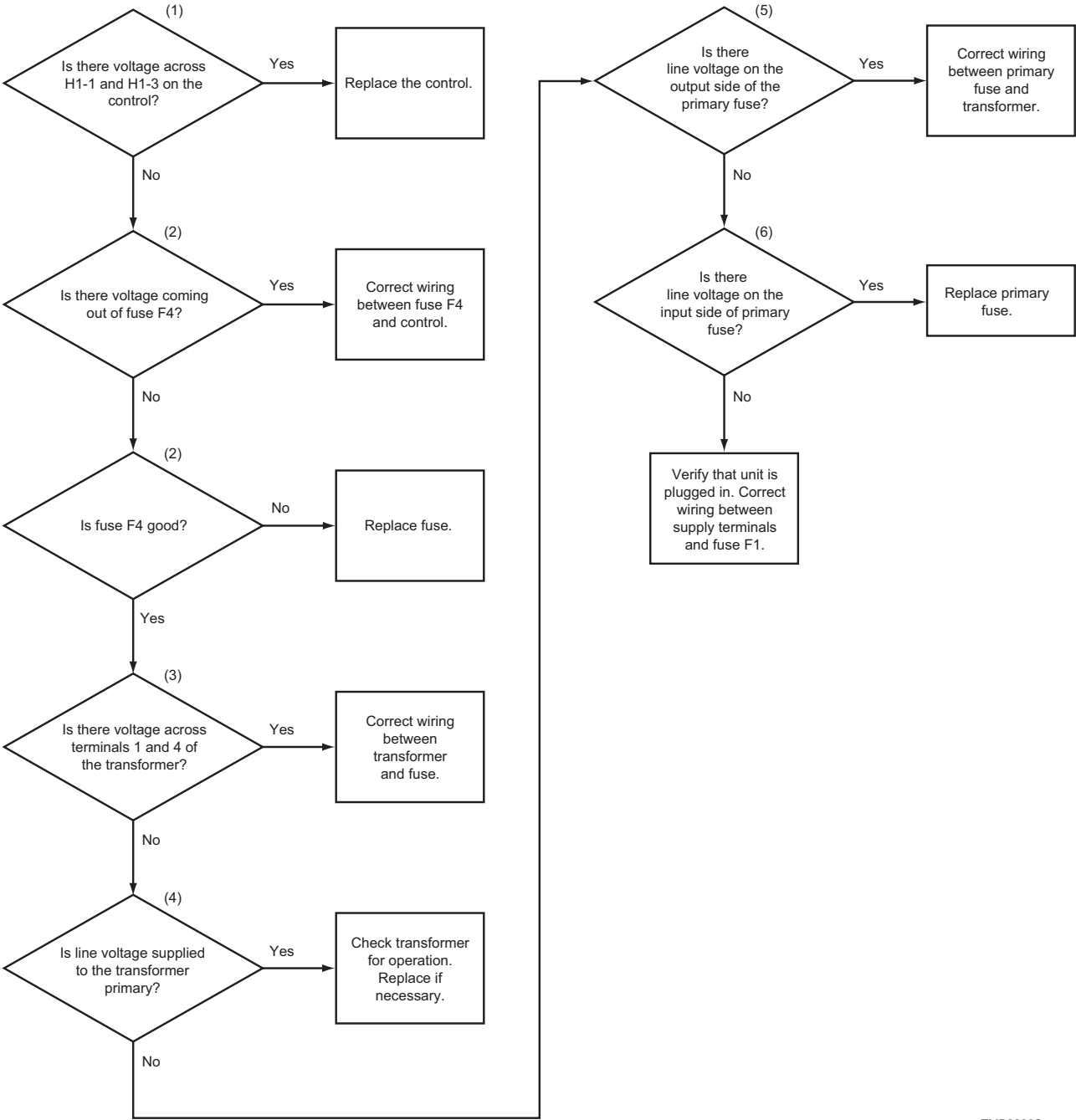
Unit Will Not Heat – Electric



TMB2296S

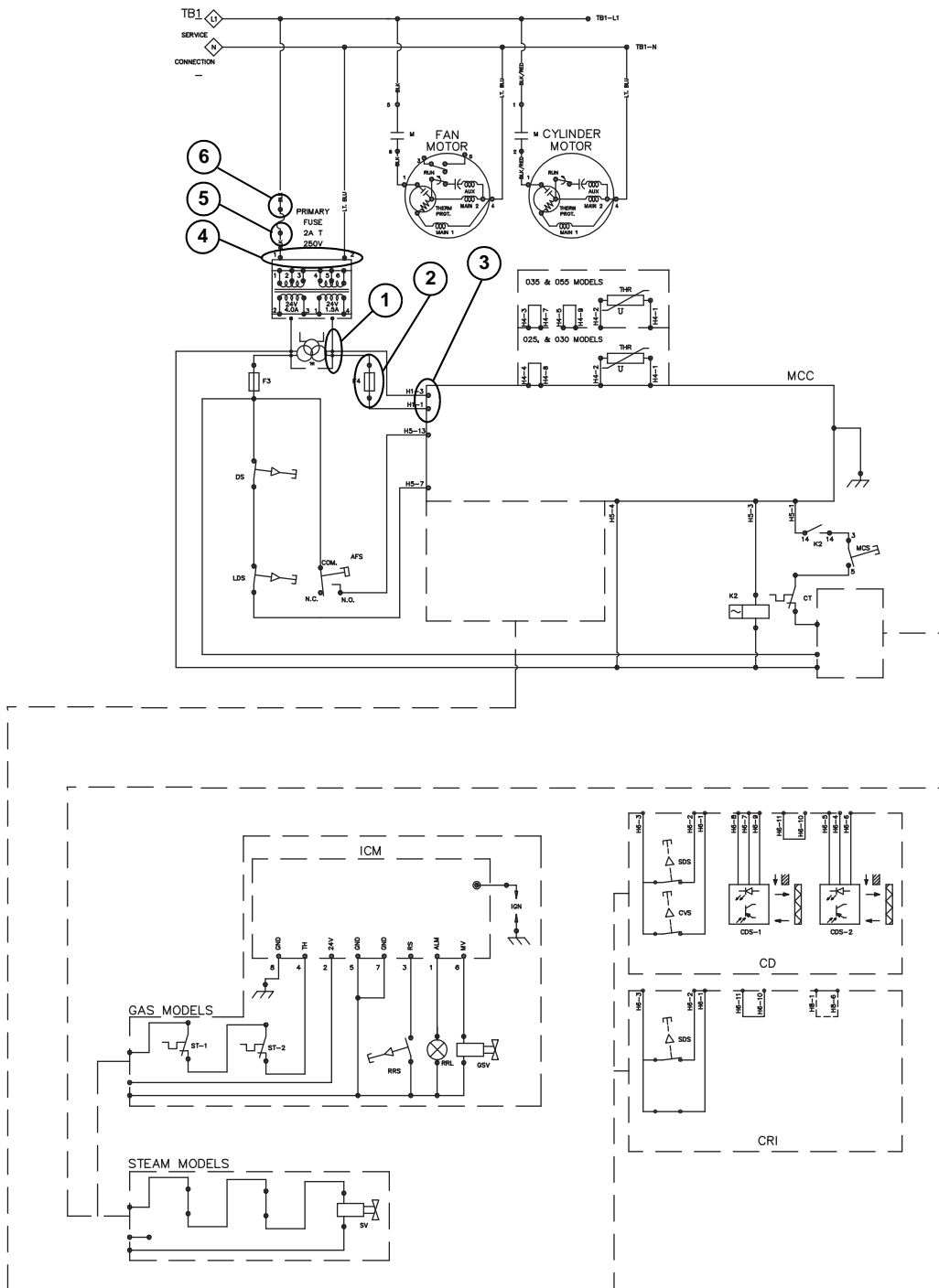


### 58. CE Models No Display



TMB2288S

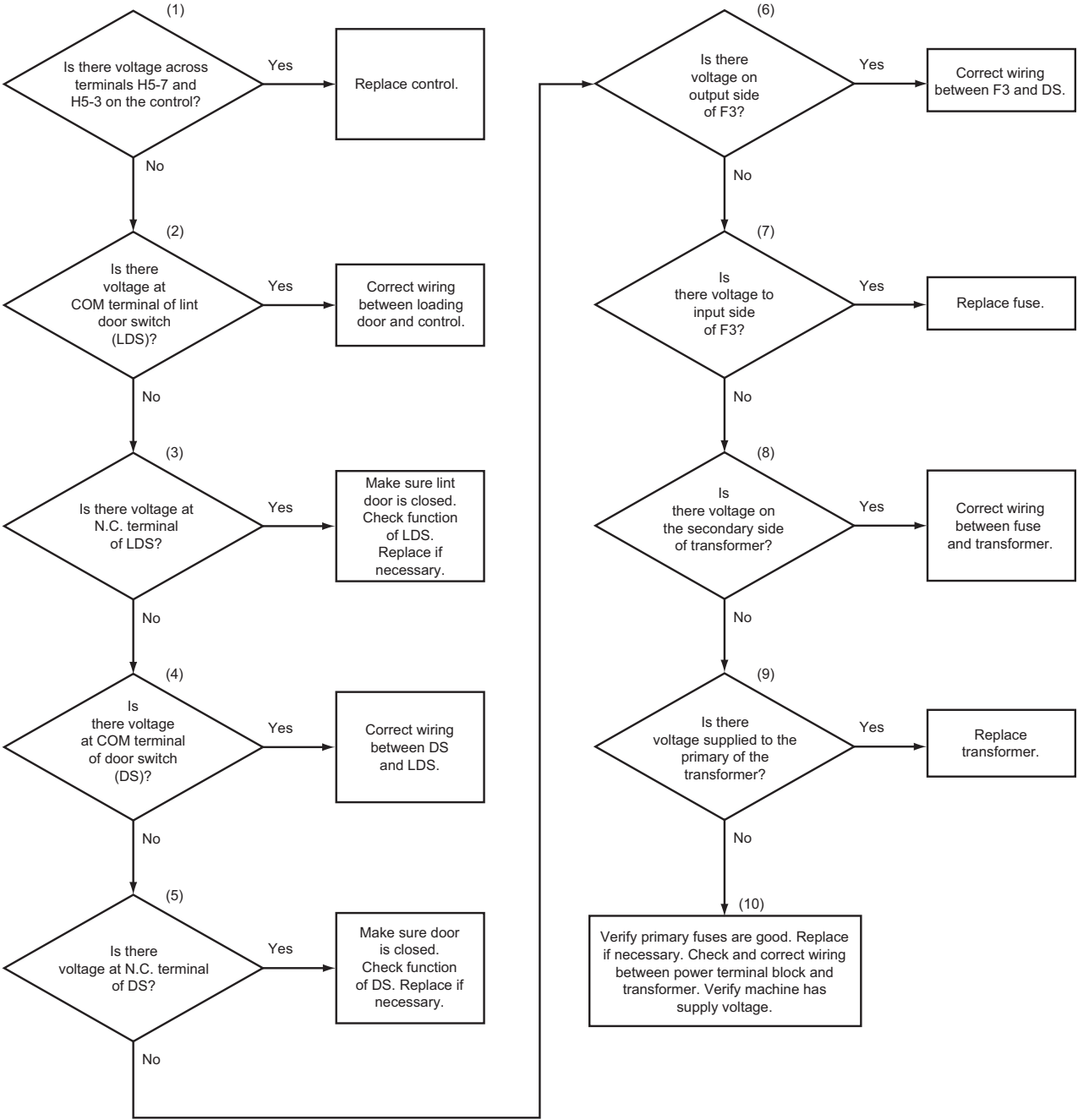
### CE Models No Display



TMB2297S

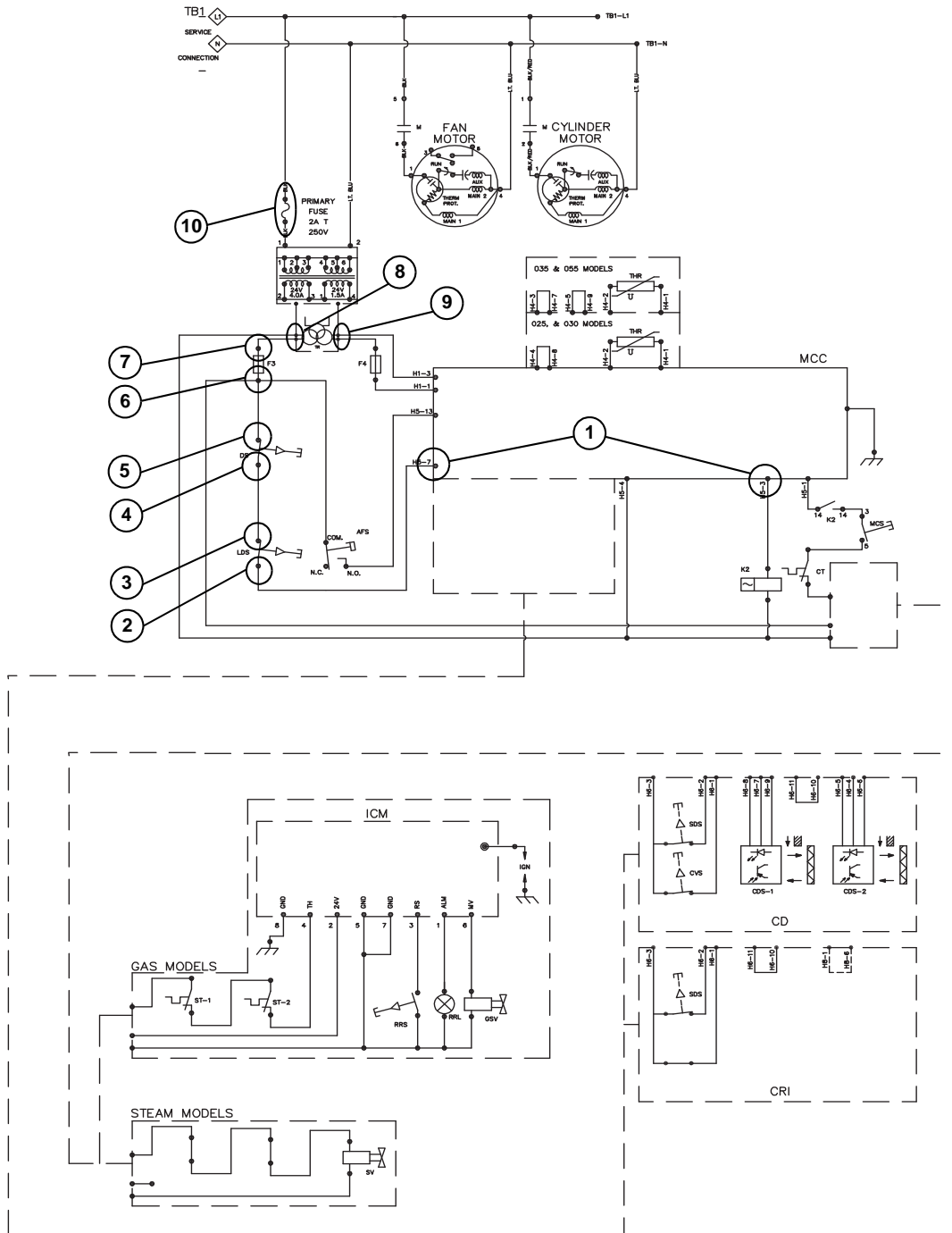
### 59. CE Models "Door Open" Indicator

Note: All voltage checks are referenced to the transformer common unless otherwise stated.



TMB2289S

### CE Models "Door Open" Indicator

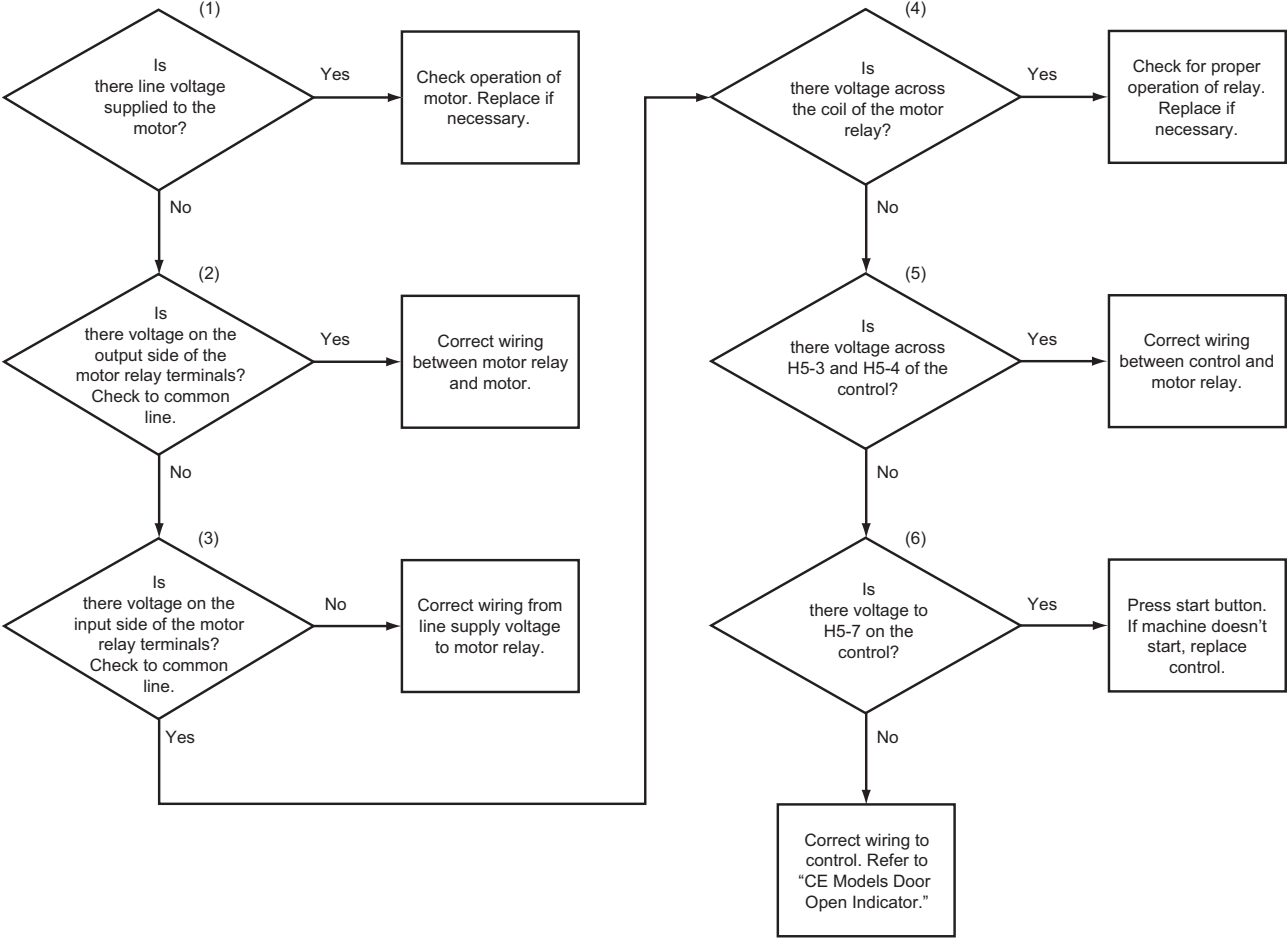


TMB2297S

### 60. CE Models No Start/Run

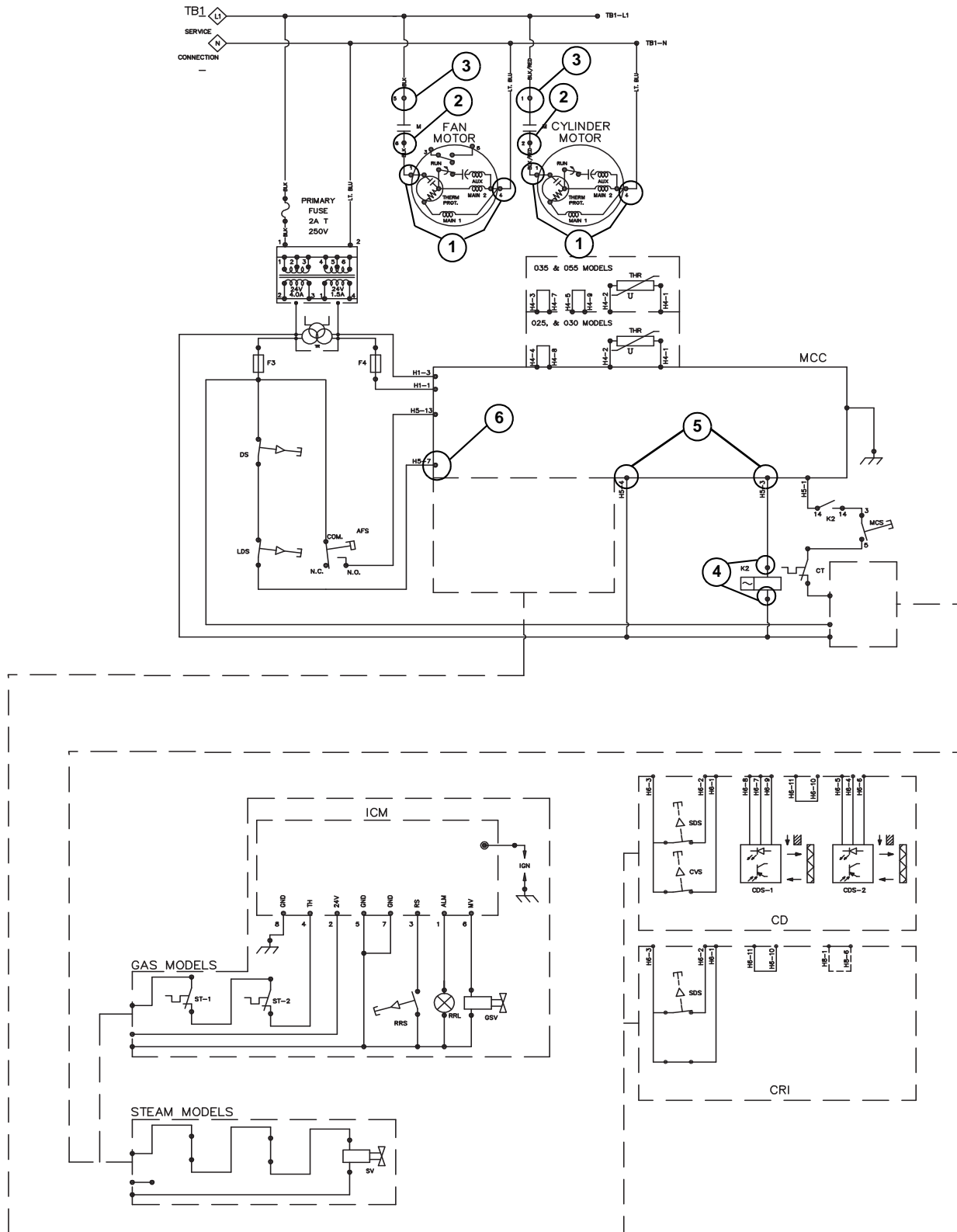
Note: Voltage checks referenced to transformer neutral unless otherwise stated.

Note: Common can be neutral or live wire depending on voltage and phase.



TMB2291S

### CE Models No Start/Run

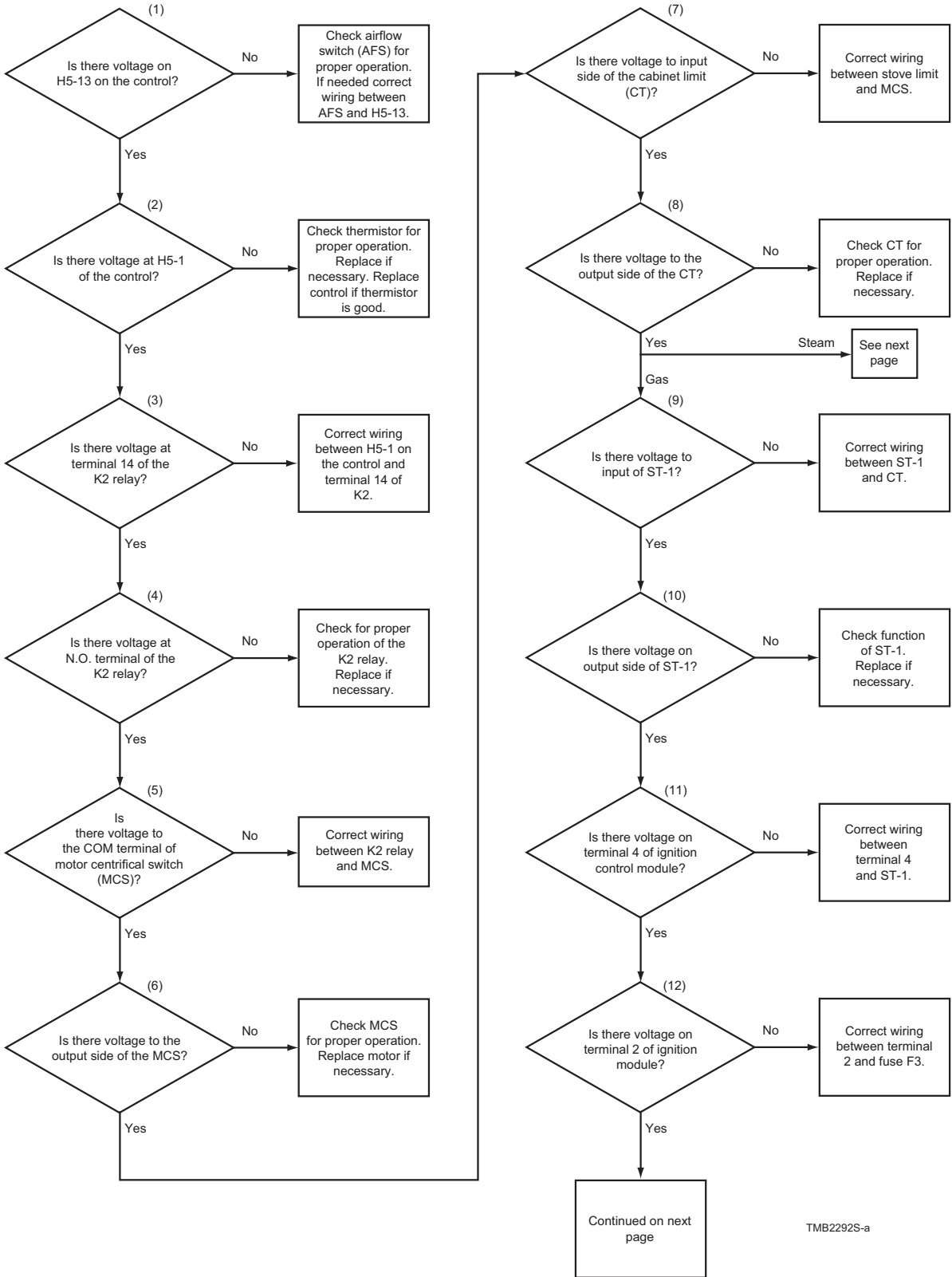


TMB2297S

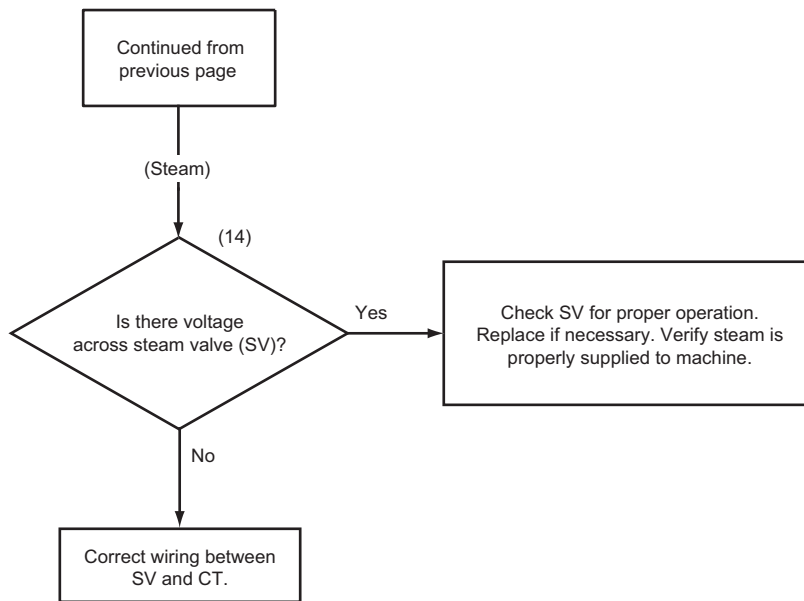
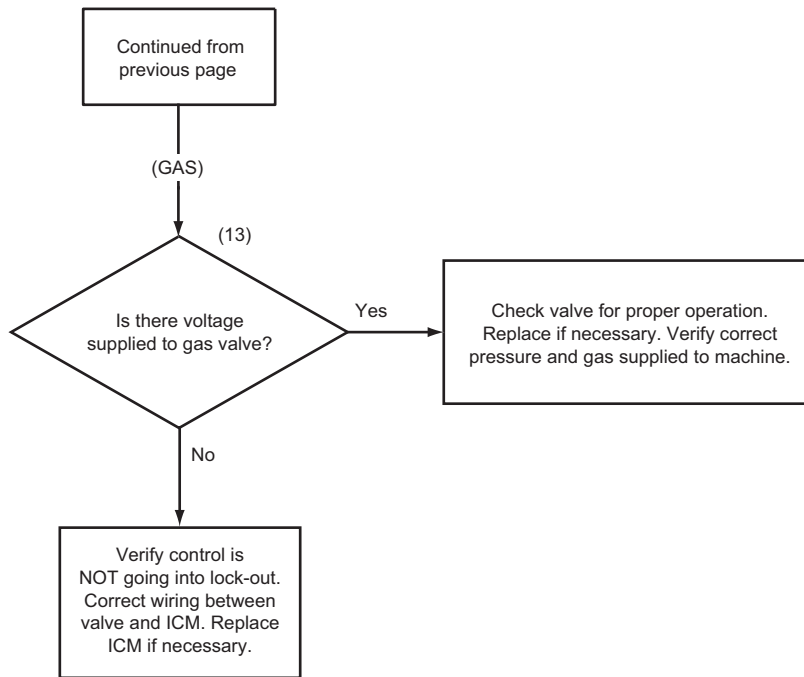
# 61. CE Models Will Not Heat – Gas/Steam

Note: Test conducted with unit running and calling for heat.

Note: Voltage checks referenced to neutral unless otherwise stated.



### 61. CE Models Will Not Heat – Gas/Steam (continued)

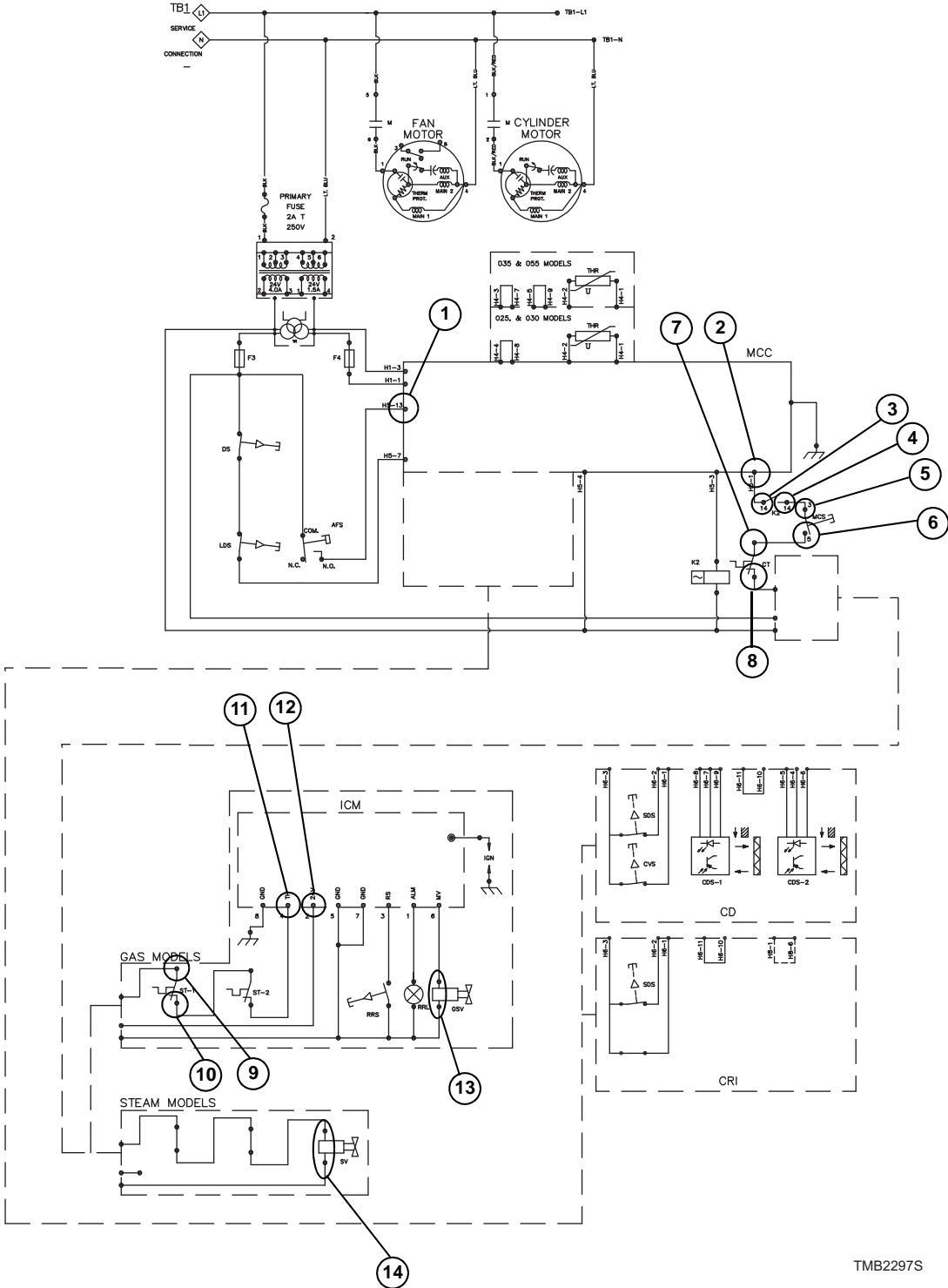


TMB2292S-b

**Please see following page for wiring diagram information.**



### CE Models Will Not Heat – Gas/Steam

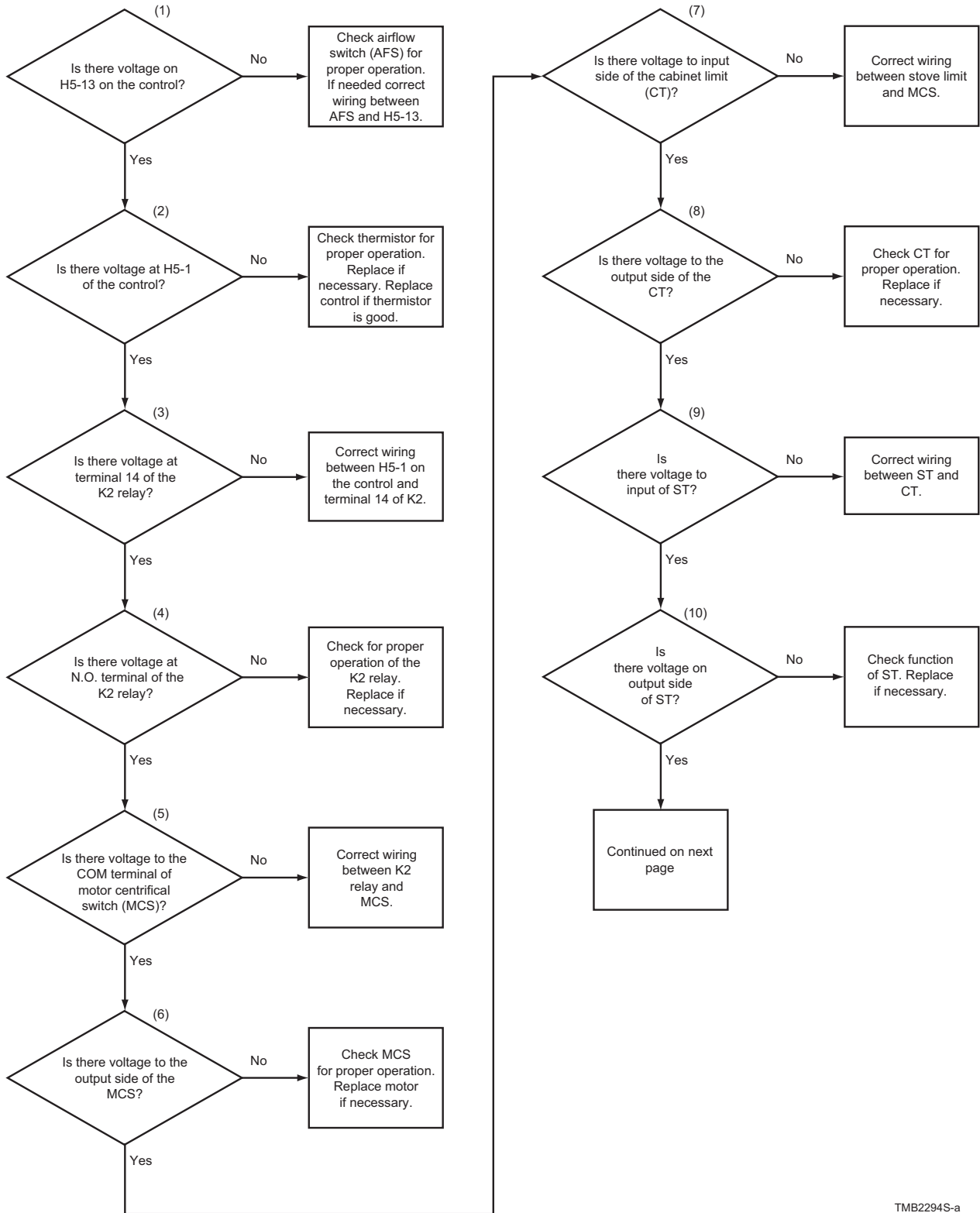


TMB2297S

## 62. CE Models Will Not Heat – Electric

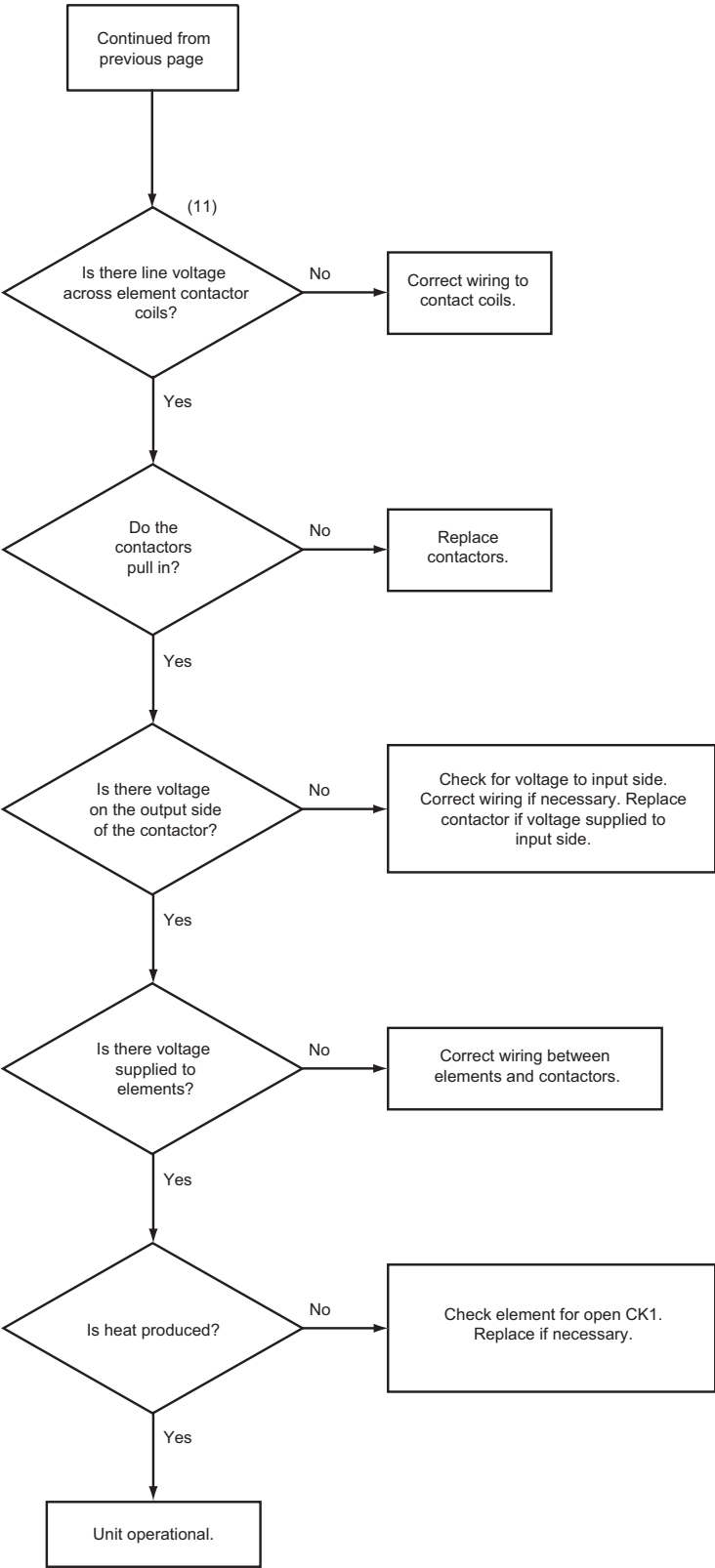
Note: Test conducted with unit running and calling for heat.

Note: Voltage checks referenced to neutral unless otherwise stated.



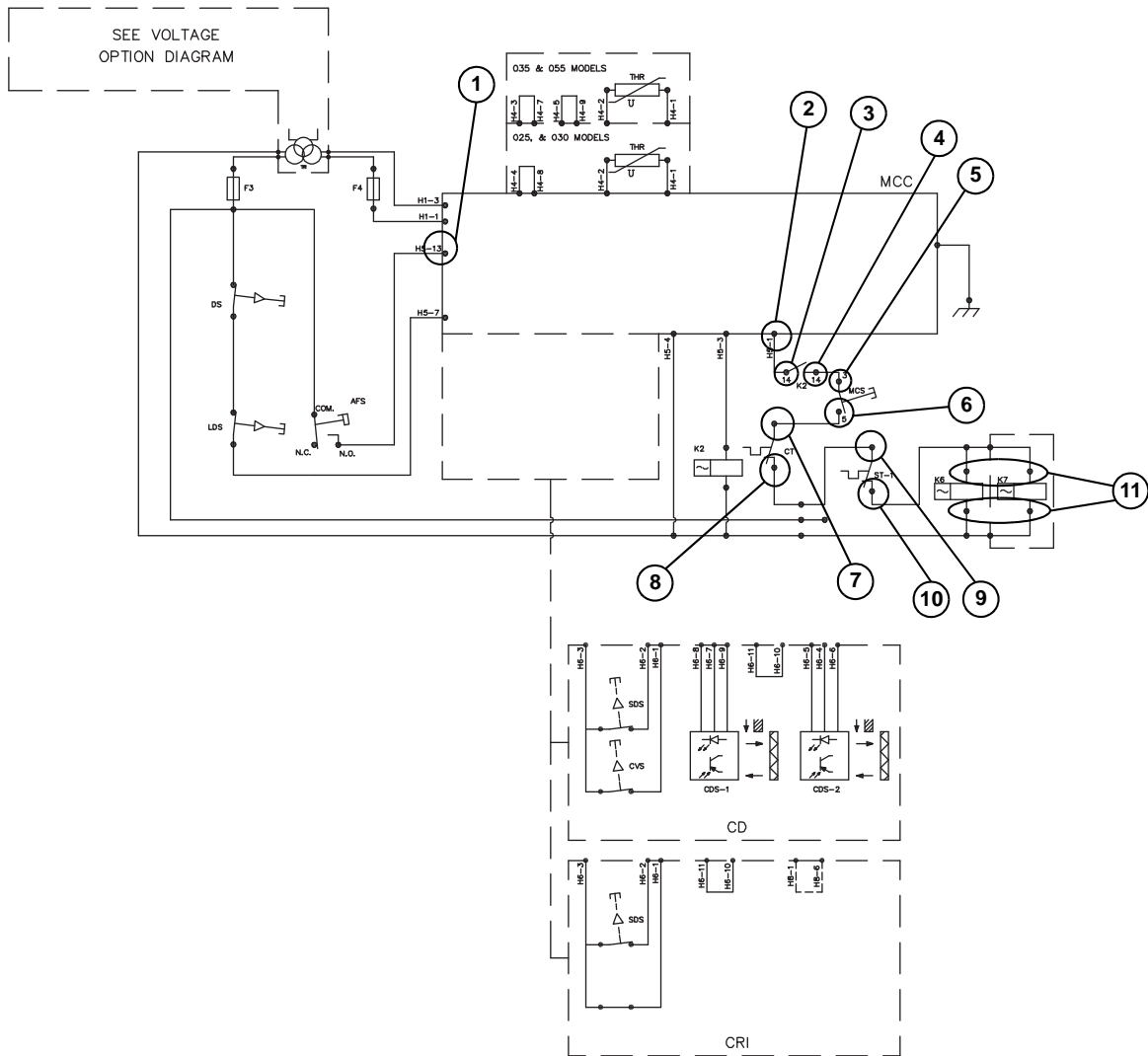
TMB2294S-a

### 62. CE Models Will Not Heat – Electric (continued)



TMB2294S-b

CE Models Will Not Heat – Electric



TMB2298S