Tumble Dryers

50 Pound Capacity
75 Pound Capacity

Refer to Page 7 for Model Numbers
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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.

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

**DANGER**

DANGER indicates the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the danger is ignored.

**WARNING**

WARNING indicates the presence of a hazard that can cause severe personal injury, death, or substantial property damage if the warning is ignored.

**CAUTION**

CAUTION indicates the presence of a hazard that will or can cause minor personal injury or property damage if the caution is ignored.

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.

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**WARNING**

- 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.
- 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.
- 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.

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IMPORTANT INFORMATION: During the lifetime of a tumble dryer, 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 tumble dryer, and who are equipped with the proper tools and testing equipment.

**WARNING**

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- Disconnect electric power to the 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.

**WARNING**

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.

**CAUTION**

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.

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 tumble dryer. These factors MUST BE supplied by the person(s) installing, maintaining or operating the tumble dryer.

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

**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.
### Section 2
### Introduction

#### Model Identification

Information in this manual is applicable to these models:

<table>
<thead>
<tr>
<th>Gas</th>
<th>Steam/Thermal Oil</th>
<th>Electric</th>
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<tbody>
<tr>
<td><strong>50 Pound</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATB50CG</td>
<td>JT50EGI</td>
<td>ATB50CSE</td>
</tr>
<tr>
<td>DCB50CG</td>
<td>JTB50CG</td>
<td>DCC50CSE</td>
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<tr>
<td>DCB50EG</td>
<td>JTB50EG</td>
<td>DCC50CSE</td>
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<td>DTB50CG</td>
<td>SC50CG</td>
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<td>DTB50EG</td>
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<td>JC50EG</td>
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<td>JCB50CG</td>
<td>ST37CG</td>
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<td>JCB50EG</td>
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<tr>
<td>JT50EG</td>
<td>TKD50CGMT</td>
<td>JT50CSE</td>
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</tbody>
</table>

| **75 Pound** | | |
| ATB75CG | JT75CG | ATB75CSE | DCC75CE |
| DCB75CG | JT75EG | DCC75CSE | DCB75CSE |
| DCB75FG | JTB75CG | DCC75CSE | DCB75CSE |
| DTB634 | JTB75EG | DCC75CSE | DCC75CSE |
| DCC75C | SCB75C | DCC75CSE | SCB75CSE |
| DTB75CG | SCB75C | DCC75CSE | SCB75CSE |
| DTB75EG | ST75C | DCC75CSE | ST75CSE | DCC75CSE |
| DTB75FG | ST634 | JCC75CSE | ST75CSE | DCC75CSE |
| JCB75CG | STB75C | JCC75CSE | ST75CSE | DCC75CSE |
| JCC75C | STB75C | JCC75CSE | ST75CSE | DCC75CSE |
| JCC75C | STB75EG | JCC75CSE | ST75CSE | DCC75CSE |
Introduction

Customer Service

If literature or replacement parts are required, contact the source from whom 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.

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(s) as shown.
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 tumble dryer. 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. Refer to Parts Manual for ordering replacement decals.

Safety Precautions for Servicing Tumble Dryers

• Disconnect electrical service.
• Shut off supply gas valve before servicing gas components.
• Control panel and access panel MUST be reinstalled after inspection or servicing of tumble dryer is completed.
• Use a non-corrosive leak detection fluid to check all pipe connections for gas leaks. DO NOT USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!
• Chain/drive guard MUST be reinstalled after inspection or servicing of tumble dryer is completed.
• Belt guard MUST be reinstalled after inspection or servicing of tumble dryer is completed.
• Contactor box cover MUST be reinstalled after inspection or servicing of electric and/or reversing tumble dryer is completed.
• Loading door switch MUST be operational before putting tumble dryer into service.
• Junction box cover MUST be reinstalled after inspection or servicing of tumble dryer is completed.
Introduction

How A Tumble Dryer Works

The tumble dryer uses heat, air and movement to dry loads of laundry.

When the motor is started, the exhaust fan pulls fresh air in through the air intake and over the heat source (burner flame for gas, heating element for electric, and coil for steam).

The heated air moves into the cylinder, where it is circulated through the laundry by the tumbling action of the cylinder.

The air then passes through the lint filter, exhaust fan, and is vented to the outdoors.

NOTE: In Energy Saver Models, some of the exhaust air is recirculated. Refer to illustration on next page.
Introduction

Energy Saver Models

- Fresh Air
- Combustion Air
- Mixed Air
- Recirculating Air
- Exhaust Air
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.

IMPORTANT: Refer to wiring diagram for aid in testing tumble dryer components.
Troubleshooting

1. Motor Does Not Start

Motor does not start

Is the electrical power off or circuit breaker fuse blown?
Yes: Check power supply or replace fuses.
No

Is the loading door not closed or switch inoperative?
Yes: Close door or test switch and replace if inoperative.
No

Is the door switch improperly adjusted?
Yes: Refer to Installation Manual for door switch adjustment.
No

Is the start circuit not complete?
Yes: Press start switch or test switch and replace if inoperative.
No

Is the motor inoperative?
Yes: Have motor tested and replace if inoperative.
No

Yes: Refer to wiring diagram.
No

Is there broken, loose, or incorrect wiring?
Yes: Check that proper coins are inserted.
No

Are improper coins inserted in accumulator?
Yes: Turn knob clockwise to its full limit of travel.
No

Is the accumulator knob improperly set after coins were inserted?
Yes: Test run switch and replace if inoperative.
No

Is the run switch accumulator inoperative?
Yes: Test relay and replace if inoperative.
No

Is the motor relay inoperative?
Yes: Test relay and replace if inoperative.
No

continued on next page
1. Motor Does Not Start (continued)

- Are trunnion bearings binding?
  - Yes: Replace trunnion bearings.
  - No:
    - Are idler bearings binding?
      - Yes: Replace bearings.
      - No:
        - Is timer improperly set?
          - Yes: Turn drying timer clockwise to desired setting.
          - No:
            - Is timer inoperative?
              - Yes: Test timer and replace if inoperative.
2. Motor Overload Protector Cycles Repeatedly

Is voltage correct?
- Yes
  - Refer to Installation Manual for electrical requirements.
- No
  - Is clothes load too large?
    - Yes
      - Remove part of load.
    - No
      - Is clothes cylinder binding?
        - Yes
          - Check cylinder for binding.
        - No
          - Check with local power company to ensure that wiring is adequate.
  - Is wiring adequate?
    - Yes
      - Refer to Installation Manual for make-up air requirements.
    - No
      - Is make-up air adequate?
        - Yes
          - Clean lint accumulation on and around the motors.
        - No
          - Is there lint buildup around tumbler or poor maintenance?
            - Yes
              - Refer to wiring diagram.
            - No
              - Is there broken, loose or incorrect wiring?
                - Yes
                  - Refer to wiring diagram.
3. Motor Runs But Cylinder Does Not Turn

Motor runs but cylinder does not turn

- Is cylinder belt broken or loose?
  - Yes: Replace or adjust cylinder belt.
  - No: Is drive belt broken or loose?
    - Yes: Replace or adjust drive belt.
    - No: Is cylinder binding?
      - Yes: Check cylinder for binding.
      - No: Is motor drive pulley loose?
        - Yes: Tighten drive pulley bushing screws.
        - No: Is drive chain or sprocket broken or loose?
          - Yes: Replace or adjust chain or sprocket.
          - No: Is sheave loose?
            - Yes: Tighten setscrews.
            - No: Is drive belt broken or loose?
              - Yes: Replace or adjust drive belt.
              - No: Is cylinder binding?
                - Yes: Check cylinder for binding.
                - No: Is motor drive pulley loose?
                  - Yes: Tighten drive pulley bushing screws.
                  - No: Is cylinder belt broken or loose?
                    - Yes: Replace or adjust cylinder belt.
                    - No: Is drive belt broken or loose?
                      - Yes: Replace or adjust drive belt.
4. Motor Does Not Stop

- Motor does not stop

**Is the door switch not working properly?**
- Yes: Test switch and replace if inoperative. Refer to *Installation Manual* for proper switch adjustment.
- No

**Is wiring incorrect?**
- Yes: Refer to wiring diagram.
- No

**Is timer or relay inoperative?**
- Yes: Test timer and relay and replace if inoperative.
- No

**Is accumulator inoperative?**
- Yes: Test accumulator and replace if inoperative.

Heating element does not heat or burner does not ignite

- Is there an improper or inadequate exhaust system?
  - Yes: Refer to Installation Manual for exhaust system requirements.
  - No

- Are there blown fuses or tripped circuit breakers in external electric supply line?
  - Yes: Check fuses or circuit breaker.
  - No

- Is drying timer not selected or inoperative?
  - Yes: Set drying timer or replace if inoperative.
  - No

- Is thermostat inoperative?
  - Yes: Test thermostat and replace if inoperative.
  - No

- Is there lint buildup?
  - Yes: Clean lint compartment. Check damper for lint accumulation. Check ductwork for lint buildup.
  - No

- Is there inadequate ductwork and make-up air?
  - Yes: Refer to Installation Manual to ensure that ductwork and make-up air openings are sized accurately.
  - No

- Is airflow switch out of adjustment?
  - Yes: Refer to Installation Manual for airflow switch adjustment.
  - No

- Is the airflow switch inoperative?
  - Yes: Test switch and replace if inoperative.
  - No

- Is airflow switch out of adjustment?
  - Yes: Refer to Installation Manual for airflow switch adjustment.
  - No

- Is the lint door panel not closed properly?
  - Yes: Open lint door panel, place lint door and panel back on tumbler (ensuring a tight fit).
  - No

- Is there broken, loose or incorrect wiring?
  - Yes: Refer to wiring diagram.
  - No

- Test switch and replace if inoperative.
- Check back draft damper for foreign objects, lint accumulation or other causes that may prevent damper from opening.
- Check exhaust outlet. If a screen has been improperly installed on the outlet, it may be clogged with lint or frozen over in winter. NEVER install a screen over the exhaust outlet.

Continued on next page

Electric Models: Are heating elements or contactors inoperative?
- Yes: Check heat contactors and elements. Replace if necessary.
- No: Gas Models: Is there an insufficient gas supply?
  - Yes: Open partially closed gas shut-off valve or correct low gas pressure. Check manifold pressure and adjust to pressure specified on serial plate. If pressure cannot be obtained, have your local gas company check main gas pressure.
  - No: Gas Models: Are the orifices incorrect?
    - Yes: Tumbler is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices.
    - No: Gas Models: Is there an inoperative igniter?
      - Yes: Test igniter and replace if inoperative.
      - No: Gas Models: Is the igniter control inoperative?
        - Yes: Test igniter control and replace if inoperative.
        - No: Gas Models: Are heating elements or contactors inoperative?
          - Yes: Check heat contactors and elements. Replace if necessary.
          - No: Gas Models: Are gas valve coils inoperative?
            - Yes: Test coils and replace if necessary.
            - No: Gas Models: Is main coil inoperative?
              - Yes: Test main coil and replace if inoperative.
              - No: Gas Models: Is redundant coil inoperative?
                - Yes: Test redundant coil and replace complete gas valve if inoperative.
                - No: Standing Pilot Ignition Gas Models: Is gas valve reset assembly or thermocouple inoperative?
                  - Yes: Check and replace thermocouple or reset assembly if necessary.
                  - No: Standing Pilot Ignition Gas Models: Is gas valve reset assembly or thermocouple inoperative?
                    - Yes: Check and replace thermocouple or reset assembly if necessary.
                    - No: Glow Bar Ignition Gas Models: Is sensor inoperative?
                      - Yes: Test sensor and replace if inoperative.
                      - No: Standing Pilot Ignition Gas Models: Is pilot not lit?
                        - Yes: Refer to Installation Manual or instruction plate on back of tumbler for lighting and shutting down standing pilot.
6. Pilot Does Not Ignite – Standing Pilot Ignition Gas Models

Pilot does not ignite - Standing Pilot Ignition Gas Models

Is gas shut-off valve to tumbler closed?
- Yes: Open valve.
- No: Is air present in gas line?
  - Yes: Purge air from gas line.
  - No: Is pilot orifice incorrect?
    - Yes: Tumbler is equipped for type of gas specified on serial plate. If pilot orifice is different from that specified on serial plate, obtain and install correct orifice.
    - No: Is pilot gas filter clogged?
      - Yes: Replace reset assembly.
      - No: Is pilot gas tube or pilot orifice clogged?
        - Yes: Clean or replace tube or orifice.
        - No: No

Is thermocouple inoperative?
- Yes: Replace thermocouple.
- No: Is pilot assembly inoperative?
  - Yes: Replace pilot assembly.
  - No: Yes

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7. Pilot Goes Out – Standing Pilot Ignition Gas Models

- **Pilot goes out - Standing Pilot Ignition Gas Models**
  - **Is exhaust system improper or inadequate?**
    - Yes: Refer to *Installation Manual* for exhaust system requirements.
    - No: **Is lint screen clogged?**
      - Yes: Remove and clean lint screen.
      - No: **Is burner flame improperly adjusted?**
        - Yes: Close air shutter slightly - A harsh roaring flame will draw pilot flame out.
        - No: **Is there carbon accumulation on heated end of pilot thermocouple?**
          - Yes: Wipe carbon off end of thermocouple.
          - No: **Is pilot orifice incorrect?**
            - Yes: Tumbler is equipped for type of gas specified on serial plate. If pilot orifice is different from that specified on serial plate, obtain and install correct orifice.
            - No: **Is gas valve reset assembly or thermocouple inoperative?**
              - Yes: Check and replace reset assembly or thermocouple if necessary.
              - No:
8. Igniter Does Not Shut Off After Gas Ignition – Automatic Pilot Ignition Gas Models

Igniter does not shut off after gas ignition - Automatic Pilot Ignition Gas Models

Is tumbler not properly equipped for type of gas being used? Yes

Tumbler is equipped for type of gas specified on serial plate. If tumbler is equipped for gas different from that specified on serial plate, obtain the necessary components to correct the problem.

No

Is gas supply insufficient? Yes

Open partially closed gas shut-off valve or correct low gas pressure.

No

Is burner flame improperly adjusted? Yes

Refer to Installation Manual for recommended burner flame adjustment.

No

Is pilot and electrode assembly incorrectly installed? Yes

Check assembly for correct alignment.

No

Gas supply sufficient but igniter does not glow - Glow-Bar Ignition Gas Models

- Has sensor failed with contacts open? Yes → Replace sensor.
  - No
    - Is igniter broken or open? Yes → Replace glow bar igniter.
      - No
        - Is there no circuit for burner operation? Yes → Tumbler is not calling for heat, check the heat circuit to the ignition system.
10. Igniter Glows, Sensor Opens But No Ignition – Johnson Controls System Gas Models

NOTE: To check the primary and secondary valve coil and plunger operation, place fingers on top of coils, cycle the machine and restart ignition circuit, you should feel the primary valve coil plunger open first, followed by glow bar heat up, followed by the sensor opening, and the secondary valve coil plunger opening. If plungers do not open, electrically check the coils. Check gas pressure to tumble dryer. Line pressure should be 7 ± 1/2 inches (Natural Gas) or 11 inches (L.P. Gas) water column pressure. Manifold pressure should be 3.5 inches (Natural Gas) or 11 inches (L.P. Gas) water column pressure.

Is gas supply insufficient? Yes

Check gas supply and pressure.

No

Is there gas flow but no ignition? Yes

Remove igniter and bracket and bend "L" shaped bracket (located on left side of stove) up or down. Reinstall igniter and bracket and check for 1/8 to 1/4 inch gap between bottom of igniter and top of main burner.

No

Is there no gas flow through gas valve? Yes

Check primary valve coil and plunger. Replace coil if inoperative, or check for 120 Volts to control relay (PR1) coil contacts (A) and 120 Volts to control relay (PR1) contact number 7. If no voltage, replace control relay (PR1) or check secondary valve coil and plunger operation. Replace coil if inoperative.

- Check for 80 – 120 volts between red and white wire on gas valve.
- If correct voltage is present and redundant coil does not click open, replace complete gas valve.
- If correct voltage is not present, replace diode logic board.
- If correct voltage is present and redundant coil clicks open, check for 40 – 60 volts across the purple wires on the main coil after the igniter cycles off.
- If voltage is present and main coil does not stay open, replace main coil.
- If no voltage is present, replace diode logic board.

Burner ignites and goes out repeatedly - Glow-Bar Ignition Gas Models

Is there insufficient gas pressure?
Yes: Check gas supply and pressure. Low flame will not maintain sensor conductivity.
No:

Are the burner ports plugged?
Yes: Check burner tubes for build-up.
No:

Is high limit thermostat inoperative?
Yes: Refer to Heating Element or Burner Repeatedly Cycles Off On High Limit Thermostat flowchart.
No:

Is the exhaust system improper or inadequate?
Yes: Refer to Installation Manual for exhaust system requirements.
No:

Does tumbler have improper orifices?
Yes: Tumbler is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices.
No:

Is there inadequate make-up air?
Yes: Refer to Installation Manual for make-up air requirements.
No:

Is burner heat not holding sensor contacts open?
Yes: Replace sensor.
No:
13. Heating Element or Burner Shuts-Off Prematurely

- Is there improper or inadequate exhaust and/or make-up air?
  - Yes: Refer to Installation Manual for exhaust and make-up air requirements.
  - No: Next step.

- Gas Models: Is there insufficient gas supply?
  - Yes: Open partially closed gas shut-off valve or correct low pressure.
  - No: Next step.

- Gas Models: Is tumbler not properly equipped for type of gas used?
  - Yes: Tumbler is equipped for type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install proper orifices.
  - No: Next step.

- Gas Models: Is burner flame improperly adjusted?
  - Yes: Refer to Installation Manual for burner flame adjustment.
  - No: Next step.

- Glow-Bar Ignition Gas Models: Is sensor contact closing?
  - Yes: Replace sensor.
  - No: Next step.

- Is high limit thermostat cycling off?
  - Yes: Refer to Heating Element or Burner Repeatedly Cycles Off On High Limit Thermostat flowchart.
  - No: Next step.

- Is there broken, loose or incorrect wiring?
  - Yes: Refer to wiring diagram located inside contactor box.
  - No: Next step.
14. Heating Element or Burner Repeatedly Cycles Off On High Limit Thermostat

- Heating element or burner repeatedly cycles off on high limit thermostat

Is external exhaust system longer than recommended or is there inadequate make-up air?

- Yes
  - Refer to Installation Manual for exhaust and make-up air requirements.
- No

- Is lint screen clogged?

- Yes
  - Remove screen and clean. Lint screen and compartment should be cleaned after every eight hour shift.
- No

Is there lint in tumbler ducts?

- Yes
  - Clean tumbler ducts.
- No

Is there lint in external exhaust system?

- Yes
  - Disassemble exhaust system and clean.
- No
15. Heating Element or Burner Does Not Shut-Off

Heating element or burner does not shut off

Are there impurities on gas valve seat, preventing valve from closing?

Yes
Replace gas valve.

No

Is wiring correct?

Yes
Refer to wiring diagram.

No

Is drying timer, relay or contactor inoperative?

Yes
Replace timer, relay or contactor.
16. Clothes Do Not Dry

Clothes do not dry

Is the heat source inoperative?
Yes
- Refer to Heating Element Does Not Heat or Burner Does Not Ignite - Gas and Electric Models flowchart
No

Is the clothes load too large?
Yes
- Remove part of load.
No

Is there too much water in articles being dried?
Yes
- Remove excess water.
No

Is the exhaust system improper or inadequate?
Yes
- Refer to Installation Manual for exhaust system requirements.
No

Does heat source shut off prematurely?
Yes
- Refer to Heating Element or Burner Shuts-Off Prematurely flowchart.
No

Is the drying timer improperly set?
Yes
- Set selector for higher setting.
No

Is the voltage incorrect?
Yes
- Refer to Installation Manual for electrical requirements.
No

Is there inadequate make-up air?
Yes
- Refer to Installation Manual for make-up air requirements.
Troubleshooting

17. Tumble Dryer Overheating

- Tumbler overheating

  - Gas Models: Does tumbler have incorrect main burner orifices?
    - Yes: Obtain and install correct orifices.
    - No

  - Gas Models: Is gas pressure too high or low?
    - Yes: Adjust gas pressure as specified on serial plate.
    - No

  - Is the make-up air inadequate?
    - Yes: Refer to Installation Manual for make-up air requirements.
    - No

  - Is there lint buildup?
    - Yes: Clean lint compartment. Check damper for lint accumulation. Check ductwork for lint buildup.
    - No

- Is the exhaust system restricted or inadequate?
  - Yes: Remove obstruction or lint buildup from exhaust ductwork. Refer to Installation Manual for exhaust system requirements.
  - No

- Is the thermostat inoperative?
  - Yes: Replace thermostat.
  - No
18. Burners Not Burning Properly – Gas Models

Burner not burning properly

Are burner air shutters incorrectly adjusted? Yes

Refer to Installation Manual for proper flame adjustment.

No

Is there lint/dirt in burner tube? Yes

Disassemble burner and blow out the dirt.

No

Is the gas pressure too high or low? Yes

Check serial plate on back of tumbler for correct gas pressure.

No

Does the tumbler have incorrect orifices? Yes

Tumbler is equipped for the type of gas specified on serial plate. If orifices are different from that specified on serial plate, obtain and install correct orifices.

No

Is the exhaust duct restricted or blocked? Yes

Disassemble and clean exhaust system.

No

Is the airflow switch not functioning properly? Yes

Replace airflow switch.

TMB2147S
19. Loading Door Opens During Operation

- Is tumbler improperly leveled? 
  - Yes: Refer to Installation Manual for leveling leg adjustment.
  - No: Is clothes load too large?
    - Yes: Remove part of load and restart tumbler.
    - No: Is door strike adjusted incorrectly?
      - Yes: Refer to Installation Manual for strike adjustment.

TMB2126S
20. Tumble Dryer Runs But No Steam To Coils – Steam Models

Tumble runs but no steam to coils - Steam Models

- Are valves closed?
  - Yes: Check all valves in supply and return lines, make sure they are open.
  - No: Is steam trap blocked?
    - Yes: Remove trap and clean. Replace if inoperative.
    - No: Is solenoid valve inoperative?
      - Yes: Check operation of solenoid valve.
      - No: Is check valve incorrectly installed?
        - Yes: Check for inlet and outlet markings on check valve and invert if necessary.
        - No: Is strainer clogged?
          - Yes: Remove strainer and clean.
          - No: Is timer or thermostat inoperative?
            - Yes: Test timer or thermostat. Replace if inoperative.
21. Water In Steam Line – Steam Models

- Is steam piping installed incorrectly?
  - Yes: Refer to Installation Manual for steam requirements.
  - No:
    - Is trap functioning improperly?
      - Yes: Check trap for size and capacity. If trap is dirty or sluggish, clean thoroughly or replace. Check return line for high back pressure.
      - No: Continue troubleshooting.
22. Troubleshooting Electronic Control Models

Troubleshooting electronic control models

Display shows “PF” (MM models) – Has tumbler not been run in last six days?

Yes

Power tumbler for at least two continuous days to recharge battery.

No

Display shows “PF” (MM models) – Has a custom cycle not been programmed into memory?

Yes

Enter a custom cycle into memory.

No

Display shows “PF” (MM models) – Is battery discharged?

Yes

If tumbler has been powered for at least two continuous days, replace battery.

No

Door open light and display flash with door closed – Does door switch need adjustment?

Yes

Adjust and test door switch.

No

Door open light and display flash with door closed – Is door switch faulty?

Yes

Replace door switch.

No

Door open light and display flash with door closed – Is electrical service connected incorrectly?

Yes

Check service connections to terminal block in junction box. For 120 or 240 volt tumblers, neutral wire must be connected to terminal marked “NEUT”. On single phase tumblers, hot wire must be connected to terminal marked “L1”. A ground wire must be secured to the ground screw in the junction box.

No

continued on next page
22. Troubleshooting Electronic Control Models (continued)

**Troubleshooting**

- **Display shows “SH” and signal sounds – Is temperature at sensor over 191˚F (88.3˚C)?**
  - Yes: Allow tumbler to cool and press ON/SELECT pad. If display still shows “SH”, replace sensor.
  - No: If the temperature of the tumbler is above 24˚F (-4.4˚C), replace temperature sensor.

- **Display shows “OP” and signal sounds three minutes after tumbler is started – Is temperature sensor under 24˚F (-4.4˚C)?**
  - Yes: Replace temperature sensor.
  - No: Is temperature sensor shorted?
    - Yes: Replace temperature sensor.
    - No: Display shows “OP” and signal sounds three minutes after tumbler is started – Is temperature sensor open?
      - Yes: Replace temperature sensor.
23. Replacing Inoperative Electronic Control

On models with an electronic control, when replacing an inoperative electronic control due to burnt pin(s) on the 6-pin wire harness connector block, it may be due to damaged terminals in the harness connector. Damaged terminals in the harness connector will appear burnt or show signs of heat discoloration on the connector block. Refer to Figure 1.

When replacing the electronic control, also replace the control wire harness on washers and tumble dryers, or the main wire harness on dryers to avoid repeated damage.

Figure 1

- Tumbler will not start, time on drying timer, door closed – manual timer models

  - Is there line voltage into door switch?
    - Yes: Check electrical service to tumbler (fuses/circuit breaker).
    - No: Adjust door switch rod.

  - Is there line voltage out of door switch?
    - Yes: Replace door switch.
    - No: Has switch rod mechanically actuated door switch?
      - Yes: Replace door switch.
      - No: Check for broken wire or poor connection at harness plug.

  - Is there line voltage at terminal 3 of control relay?
    - Yes: Replace timer.
    - No: Is there line voltage to motor?
      - Yes: Replace motor.
      - No: Is there line voltage across coil terminals of control relay?
        - Yes: Replace relay.
        - No: Check for broken wire from control relay terminal 1.

  - Is there line voltage on terminal 1 of control relay?
    - Yes: Press push-to-start switch. Is there line voltage out of push-to-start switch?
      - Yes: Replace push-to-start switch.
      - No: Check for broken wire or poor connection at harness plug.
    - No: Is there line voltage on terminal B of drying timer?
      - Yes: Replace motor.
      - No: Replace push-to-start switch.
25. Motor Runs, Time on Drying Timer But No Heat

Motor runs, time on drying timer but no heat

- Is there power out of main control thermostat?
  - Yes: Check the ignition circuit.
  - No: Is there power into main control thermostat?
    - Yes: Replace main control thermostat.
    - No: Is there power on terminal 6 of control relay?
      - Yes: Loose or broken wire to main control thermostat.
      - No: Replace control relay.

- Is there power into airflow switch?
  - Yes: Replace main control thermostat.
  - No: Is there power on terminal 4 of control relay?
    - Yes: Is there power across coil terminals of control relay?
      - Yes: Continued on next page
      - No: Adjust airflow switch.
    - No: Replace airflow switch.

- Is there power on red wire from motor?
  - Yes: Check for loose or broken wire from motor.
  - No: Replace motor.

- Is there a broken or loose wire at harness plug?
  - Yes: Repair wire.
  - No: Yes
Troubleshooting

25. Motor Runs, Time on Drying Timer But No Heat (continued)

Is there power into cabinet high limit thermostat?

No → Check for broken wire from airflow switch.

Yes → Is there power out of cabinet high limit thermostat?

No → Replace thermostat.

Yes → Is there power into burner high limit thermostat?

No → Check for broken wire from cabinet high limit.

Yes → Is there power out of burner high limit thermostat?

No → Replace burner high limit thermostat.

Yes → Check for loose or burned connection at harness plug.

- **Is there 24 volts between terminal 2 and ground on electronic package?**
  - **No** → Check tumbler heat circuit.
  - **Yes**

- **Is there arcing to left burner?**
  - **Yes** → Shift left burner further to left.
  - **No**

- **Are there cracks in ceramic insulator encasing ignitor probe?**
  - **Yes** → Replace pilot and electrode assembly.
  - **No**

- **Is there a 7/64 inch gap between electrode and left diverter of pilot burner?**
  - **Yes** → Replace electronic package.
  - **No** → Replace pilot and electrode assembly.

- **Is ceramic insulator securely bonded to pilot burner assembly (cannot swivel)?**
  - **No** → Replace pilot and electrode assembly.
  - **Yes**

**TMB2152S**
27. Spark to Pilot Burner, No Pilot Flame – Electronic Pilot Ignition Models

Is there 24 volts between terminal 1 and ground on electronic package?

Yes

Replace electronic package.

No

Is there gas present at pilot burner (disconnect white wire from terminal 3 and light manually)?

Yes

Is pilot filter, tube or orifice obstructed?

Yes

Clear obstruction.

No

Refer to No Spark to Pilot Burner-Electric Pilot Ignition Models flowchart.

No

Remove black wire from terminal 1. Momentarily touch to terminal 2; is “click” heard?

Yes

Replace right coil (pilot operator).

No

No

- Spark to pilot burner, pilot lights, no main burner – Electronic Pilot Ignition Models
  - Are there 24 volts between terminal 3 and ground on electronic package?
    - Yes: Replace left coil (main operator).
    - No:
      - Is wire between sensor and terminal 4 of electronic package connected securely?
        - Yes: Correct.
        - No: Replace sensor.

- Is there a crack in sensor ceramic insulator?
  - Yes: Check gas pressure.
  - No:
    - Is sensor securely seated in pilot burner?
      - Yes: Clear pilot orifice or use larger pilot orifice.
      - No: Correct.

- Is pilot filter, tube or orifice obstructed?
  - Yes: Correct.
  - No
29. Igniter Does Not Glow – Johnson Controls Glow-Bar System

Is 120 volts present between black wire and ground on main thermostat?

No
- Check heat circuit.

Yes

Is 120 volts present between red and white wires of igniter bracket?

No
- Replace igniter.

Yes

Is 120 volts present between each of the purple wires of sensor and ground?

No
- Replace sensor.

Igniter glows constantly – Johnson Controls and White Rodgers Glow-Bar System

Replace sensor.
Troubleshooting


Is 120 volts present across the two wires of the primary coil? No

Check for a broken wire between the terminal block and primary coil.

Yes

Can you feel or hear the primary coil open? No

Replace primary coil.

Yes

Is 120 volts present across the two wires to the secondary coil? No

Is 120 volts present on terminals A and 7 of ignition relay? No

Replace relay.

Yes

Replace secondary coil.

Is gap between igniter and burner 1/8 to 1/4 inch? No

Adjust igniter gap to 1/8 to 1/4 inch.
32. Igniter Does Not Glow – White Rodgers Glow-Bar System

Igniter does not glow – White Rodgers Glow-Bar System

Is 80 - 120 volts present between black wire and ground on main thermostat?

No → Check heat circuit.
Yes →

Is 80 - 120 volts present between red and white wires of igniter bracket?

Yes → Replace igniter.
No →

Is 80 - 120 volts present between each of the purple wires of sensor and ground?

No → Replace diode logic board.
Yes →

- **Igniter glows, cycles off but burner does not ignite – White Rodgers Glow-Bar System**

  - Is 80 - 120 volts present across the red and white wires of the redundant coil?
    - Yes
    - Can you hear the redundant coil open?
      - Yes
      - Is the gap between igniter and burner 1/8 to 1/4 inch?
        - Yes
        - Replace complete gas valve.
        - No
        - Replace diode logic board.
      - No
      - Replace complete gas valve.
    - No
    - Replace diode logic board.
  - No
    - Replace diode logic board.

- **Can you hear the main coil click open?**
  - Yes
  - Replace main coil.
  - No
  - Can you hear the redundant coil open?
    - Yes
    - Replace diode logic board.
    - No
    - Can you hear the main coil click open?
      - Yes
      - Adjust igniter gap to 1/8 to 1/4 inch.
      - No
      - Replace complete gas valve.
    - No
    - Replace diode logic board.

TMB2159S
34. Igniter Sparks, No Main Burner Ignition – Instant Electronic Ignition

Igniter sparks, no main burner ignition – Instant Electronic Ignition

Is igniter sparking?

No

Is IEI control in safety lockout reset by opening and closing door?

Yes

Open and close door.

Is green wire from IEI control connected to ground terminal?

No

Connect green wire to ground terminal.

Yes

Open gas shut-off valve.

Is gas shut-off valve turned on?

No

Is 120 volts present on black wire from IEI control?

No

Replace IEI control.

Yes

Check gas valve coils and replace as required.

Yes

Is resistance of high voltage lead greater than 25,0000 ohms or less than 5,000 ohms?

No

Is igniter gap not 5/32 inch (.397 cm) or is ceramic cracked?

Yes

Re-gap or replace igniter.

No

Replace IEI control.

Replace IEI control.
35. CSH OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat

**120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Nonreversing**

**208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing**

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**CSH OM Models:**
No heat with cycle selected, unit running and calling for heat

- **Is there voltage at H2-13?**
  - Yes: Is there voltage at H2-6?
  - No: Replace micro control.

- **Is there voltage at H2-6?**
  - Yes: Is there voltage at H2-5?
  - No: Correct wiring between H2-6 and H2-13.

- **Is there voltage at H2-5?**
  - Yes: Is there voltage to the input of the motor relay?
  - No: Check for proper thermistor operation. Replace micro control if necessary.

- **Is there voltage to the input of the motor relay?**
  - Yes: Correct wiring between motor relay and micro control.
  - No: Is there voltage at H2-5?

- **Is there voltage at terminal 3 of CR1?**
  - Yes: Correct wiring between CR1 and motor relay.
  - No: Replace motor relay.

- **1 Phase Only: Is there voltage to terminal 3 of CR1?**
  - Yes: Is there voltage across the coil of CR1?
  - No: Does CR1 operate?

- **Is there voltage across the coil of CR1?**
  - Yes: Correct wiring to CR1.
  - No: Replace CR1.

- **3 Phase Only: Is there voltage to the input of the motor switch?**
  - Yes: Is there voltage to the output of the motor switch?
  - No: Replace motor.

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Continued on next page.
35. CSH OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat (continued)

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Nonreversing
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing

Is there voltage across the steam valve coil?

- No: Correct wiring to steam valve coil.
- Yes: Unit operational. If unit still doesn’t heat, check steam supply.

Continued from previous page
36. OM Models: No Start With Cycle Selected, Start Button Pressed and Door Closed

120 Volt/60 Hertz/1 Phase CG & CSH Nonreversing; 208-240 Volt/60 Hertz/1 or 3 Phase CSH Nonreversing; 208-240 Volt/60 Hertz/3 Phase CE Nonreversing; 460-480 Volt/60 Hertz/3 Phase CG, CE and CSH Nonreversing

OM Models: No Start with cycle selected, start button pressed and door closed

- Is there voltage to the primary of the transformer? 
  - Yes: Correct wiring to transformer primary. Check fuses.
  - No: Replace transformer.

- Is there 24 VAC across terminals 2 & 3 of transformer secondary? 
  - Yes: Correct wiring to transformer primary. Check fuses.
  - No: Replace transformer.

- Is there voltage to the COM terminal of the door switch? 
  - Yes: Correct wiring between door switch and transformer. Check fuses.
  - No: Correct wiring between door switch and transformer. Check fuses.

- Is there voltage to the N.O. terminal of the door switch? 
  - Yes: Check door switch for proper operation. Replace if necessary.
  - No: Correct wiring between motor relay and micro control.

- Is there voltage across the coil of the motor relay? 
  - Yes: Correct wiring between motor relay and micro control.
  - No: Correct wiring between motor relay and supply voltage.

- Is there voltage to the input of the motor relay? 
  - Yes: Correct wiring between motor relay and supply voltage.
  - No: Correct wiring between motor relay and micro control.

Continued on next page
36. OM Models: No Start With Cycle Selected, Start Button Pressed and Door Closed (continued)

120 Volt/60 Hertz/1 Phase CG & CSH Nonreversing; 208-240 Volt/60 Hertz/1 or 3 Phase CSH Nonreversing; 208-240 Volt/60 Hertz/3 Phase CE Nonreversing; 460-480 Volt/60 Hertz/3 Phase CG, CE and CSH Nonreversing

Is there voltage to the output of the motor relay? 

No  Replace motor relay.

Yes

Is there voltage across terminals 1 and 4 of the motor for single phase units or L1, L2 and L3 of three phase units?

No  Correct wiring between motor and motor relay.

Yes

Does the motor operate?

No  Replace motor.

Yes

Unit operational.
Troubleshooting

37. OM Models: No Display After Selecting One Of The ON/SELECT Keys

120 Volt/60 Hertz/1 Phase CG and CSH Nonreversing; 208-240 Volt/60 Hertz/1 Phase CG and CSH Nonreversing; 208-240 Volt/60 Hertz/3 Phase CG and CSH Reversing/Nonreversing; 208-240 Volt/60 Hertz/3 Phase CE Reversing/Nonreversing; 460-480 Volt/60 Hertz/3 Phase CG, CE and CSH Reversing/Nonreversing

OM Models: No display after selecting one of the ON/SELECT keys

- Is there voltage across the primary of the transformer?
  - Yes
  - No
    - Correct wiring between transformer and supply voltage. Check fuses.

- Is there 24 VAC across terminals 1 & 4 of transformers secondary?
  - Yes
  - No
    - Replace transformer.

- Is there 24 VAC across terminals H3-3 and H3-4 on the micro control?
  - Yes
  - No
    - Correct wiring between H3 and transformer. Check fuses.

- Is there voltage to the input of the fuse on the micro control?
  - Yes
  - No
    - Replace micro control.

- Is there voltage to the opposite side of the fuse on the micro control?
  - Yes
  - No
    - Check fuse making sure it is not blown. Replace if necessary.

TMB2163S
Troubleshooting

38. CE OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing

CE OM Models: No heat with cycle selected, unit running and calling for heat

Is there voltage at H2-13? No → Replace micro control.
Yes →

Is there voltage at H2-6? No → Correct wiring between H2-6 and H2-13.
Yes →

Is there voltage at H2-5? No → Check for proper thermistor operation. Replace micro if necessary.
Yes →

Is there voltage to terminal 14 of the motor relay? No → Correct wiring between motor relay and micro.
Yes →

Is there voltage to terminal 13 of the motor relay? No → Replace motor relay.
Yes →

Is there voltage to the fan motor switch? No → Replace fan motor.
Yes →

Is there voltage at the output of the fan motor switch? No → Replace cabinet limit and fan motor.
Yes →

Is there voltage to the input of the cabinet limit? No →
Yes → Continued on next page

TMB2164S-a
Troubleshooting

38. CE OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat (continued)
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing

Continued from previous page

- Is there voltage to the output of the cabinet limit?
  - Yes
    - Is there voltage to the COM terminal of the airflow switch?
      - Yes
        - Correct wiring between airflow switch and cabinet limit.
      - No
        - Check for proper airflow. Replace cabinet limit.
  - No
    - Check for proper airflow. Replace cabinet limit.

- Is there voltage to the output of the stove limit?
  - Yes
    - Check for proper airflow. Replace stove limit if necessary.
  - No
    - Check for proper airflow. Replace airflow switch.

- Is there voltage to the N.O. terminal of the airflow switch?
  - Yes
    - Check for proper airflow. Replace airflow switch.
  - No
    - Correct wiring between stove limit and airflow switch.

- Is there voltage to terminals L1, L2 and L3 of HC1?
  - Yes
    - Correct wiring to HC1.
  - No
    - Replace HC1.

- Is there voltage to the input of the stove limit?
  - Yes
    - Correct wiring between HC1 and supply.
  - No
    - Correct wiring to the elements.

- Do the elements produce heat? NOTE: If elements are glowing a bright red/orange, there is not enough airflow.
  - Yes
    - Unit operational.
  - No
    - Check for opens or shorts in the elements.
39. CG OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Nonreversing
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing
Troubleshooting

39. CG OM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat (continued)

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Nonreversing
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase Reversing and Nonreversing

Continued from previous page

Is there voltage to the input of the cabinet limit? Yes

No

Correct wiring between cabinet limit and CR1.

Is there voltage to the output of the cabinet limit? Yes

No

Replace cabinet limit.

Is there voltage to the COM terminal of the airflow switch? Yes

No

Correct wiring between airflow switch and cabinet limit.

Is there voltage to the N.O. terminal of the airflow switch? Yes

No

Check for proper operation and airflow. Replace airflow switch if necessary.

Is there voltage to the input of the stove limit? Yes

No

Correct wiring between stove limit and airflow switch.

Is there voltage to the output of the stove limit? Yes

No

Check for proper airflow. Replace stove limit if necessary.

Is there voltage to terminal 2 of the ignition control? Yes

No

Correct wiring between ignition control and stove limit.

Does the igniter spark? Yes

No

Check for proper gap on igniter and check for proper resistance of ignition cable. Replace if necessary.

Is there voltage at terminal 1 of the ignition control? Yes

No

Replace ignition control.

Is there voltage across the gas valve? Yes

No

Correct wiring to gas valve.

Is there a flame? Yes

No

Check for gas flow and proper gas pressure. Replace gas valve or coils of gas valve.

Unit operational.

TMB2165S-b
Troubleshooting

40. OM Models: No Fan Motor Rotation With Cycle Selected and Start Pressed
208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase CE Reversing Models; 208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase CG Reversing and CSH Models

OM Models: No fan motor rotation with cycle selected and start pressed

Is there voltage across the primary of the transformer?

Yes

Is there voltage to the COM of the door switch?

Yes

Check door switch and switch rod for proper operation. Replace if necessary.

Yes

Is there voltage to H2-8 of micro control?

Yes

Correct wiring between micro control and door switch.

No

Correct wiring to transformer. Check fuses.

No

Replace transformer.

Yes

Is there voltage across the coil of the M contactor?

Yes

Correct the wiring to the M contactor.

No

Correct the wiring between M contactor and supply voltage.

Is there voltage across terminals 2 & 3 of the transformer secondary?

Yes

Is there voltage to L1, L2 and L3 of the M contactor?

Yes

Correct wiring between micro control and door switch.

No

Correct wiring to door switch. Check fuse.

Is there voltage to L1, L2 and L3 of the motor?

Yes

Correct wiring between motor and M contactor.

No

Correct wiring between micro control and door switch.

Is there voltage to L1, L2 and L3 of the M contactor?

Yes

Replace M contactor.

No

Replace toT1, T2 and T3 of the M contactor.

Is there voltage to H2-7 of micro control?

Yes

Replace micro control.

No

Unit operational.

TMB2166S
41. MM Models: Fan Motor Does Not Run With Door Closed, Cycle Selected and Start Button Pressed

208-240 Volt/60 Hertz/3 Phase Gas and Steam Reversing and Nonreversing; 480 Volt/60 Hertz/3 Phase Gas Nonreversing; 480 Volt/60 Hertz/3 Phase Steam Reversing

NOTE: Make sure fuse on x1 of transformer is operational (240 Volt and 480 Volt/60 Hertz/3 Phase units).
42. MM Models: Cylinder Motor Does Not Run or Reverse With Door Closed, Cycle Selected and Start Button Pressed In Reversing Mode or Nonreversing Mode

480 Volt/60 Hertz/3 Phase Steam Reversing and 208-240 Volt/60 Hertz/3 Phase Gas and Steam Reversing Models

NOTE: If the unit will not reverse when reversing is selected, check for proper operation and wiring of reversing switch. Replace if necessary.
Troubleshooting

42. MM Models: Cylinder Motor Does Not Run or Reverse With Door Closed, Cycle Selected and Start Button Pressed In Reversing Mode or Nonreversing Mode (continued)

480 Volt/60 Hertz/3 Phase Steam Reversing and 208-240 Volt/60 Hertz/3 Phase Gas and Steam Reversing Models

NOTE: If the unit will not reverse when reversing is selected, check for proper operation and wiring of reversing switch. Replace if necessary.

TMB2168S-b
43. MM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Gas and Steam Nonreversing
208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase Steam Reversing and Nonreversing

MM Models: No Heat with cycle selected, unit running and calling for heat

- Is there voltage to COM terminal of the micro control?
  - Yes
  - No
    - Correct wiring between door switch and micro control.

- Is there voltage to the N.O. terminal of the micro control?
  - Yes
  - No
    - Replace micro control.

- Yes - Gas Models
  - Is there voltage to the input of the stove high limit?
    - Yes
    - No
      - Correct wiring between stove high limit and micro control.

- Yes - Steam Models
  - Is there voltage to the output of the stove high limit?
    - Yes
    - No
      - Check for proper airflow. If airflow is good, replace stove high limit.

- Is there voltage to the N.O. terminal of the airflow switch?
  - Yes
  - No
    - Correct wiring between airflow switch and stove high limit.

- Is there voltage at COM of the airflow switch?
  - Yes
  - No
    - Check for proper airflow and function of airflow switch. Replace airflow switch if necessary.

- Is there voltage to the output of the cabinet limit?
  - Yes
  - No
    - Correct wiring to between cabinet limit and airflow switch.

- Is there voltage to the input of the cabinet limit?
  - Yes
  - No
    - Replace cabinet limit.

Continued on next page
Troubleshooting

43. MM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat (continued)

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Gas and Steam Nonreversing
208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase Steam Reversing and Nonreversing

- Continued from previous page
  - Is there voltage to terminal 3 of CR2?
    - Yes
    - Is there voltage to L1 of IEI board?
      - Yes
      - Is there voltage across gas valve coils?
        - Yes
        - Check wiring between IEI board and CR2.
        - Is the igniter sparking?
          - Yes
          - Does the unit heat?
            - Yes
            - Unit operational.
            - No
            - No
          - No
        - No
      - No
      - Check for proper gas pressure. Replace gas valve if necessary.
    - No
    - Correct wiring between CR2 and motor.
  - No
  - Correct wiring between CR2 and motor.
- Is there voltage across the coil of CR2?
  - Yes
  - Is there 120 VAC on terminal 3 of motor?
    - Yes
    - Correct wiring to steam valve.
    - No
    - Correct wiring to steam valve.
  - No
  - Replace CR2.
- Is there voltage across gas valve coils?
  - Yes
  - Check resistance of high voltage lead (5k and 20k). Replace if necessary.
  - No
  - Replace IEI board if necessary.
- Is there voltage across the coil of CR2?
  - No
  - Replace motor.
- Is there voltage to L1 of IEI board?
  - Yes
  - Correct wiring between IEI board and CR2.
  - No
  - Replace motor.
44. MM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat
208-240 Volt/60 Hertz/3 Phase Gas Reversing

Is there voltage to the COM terminal of the micro control? No
Correct wiring between door switch and micro control.
Yes

Is there voltage to the N.O. terminal of the micro control? No
Replace the micro control.
Yes

Is there voltage to the COM terminal of the airflow switch? No
Correct wiring between airflow switch and micro control.
Yes

Is there voltage to the N.O. contact of the airflow switch? No
Check for proper operation of airflow switch and airflow. Replace airflow switch if necessary.
Yes

Is there voltage to the input of the stove limit? No
Correct wiring between stove limit and airflow switch.
Yes

Check for proper airflow and flame pattern. Replace stove high limit if necessary.

Is there voltage to the output of the stove limit? No
Correct wiring between cabinet high limit and stove high limit.
Yes

Is there voltage to the input of the cabinet high limit? No
Check for proper airflow. Replace cabinet limit if necessary.
Yes

Is there voltage to the output side of the cabinet high limit? No
Correct wiring between IEI board and cabinet high limit.
Yes

Is there voltage to L1 of the IEI board? No
Check for proper wiring between IEI board and cabinet high limit.
Yes

Continued on next page

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44. MM Models: No Heat With Cycle Selected, Unit Running and Calling For Heat (continued)
208-240 Volt/60 Hertz/3 Phase Gas Reversing

Continued from previous page

Is there voltage across V1 and V2 of the IEI board?

Yes

Is there voltage across the coils of the gas valve?

Yes

Make sure unit is not in flame lockout. Replace IEI board if necessary.

No

Correct wiring between gas valves and IEI board.

Is there a spark?

Yes

Check for proper igniter gap. Check for proper resistance of high voltage lead, 5 k to 25 k ohms.

No

Continue to next step.

Is there a gas flow through the valve?

Yes

Unit operational.

No

Check to see if gas line is on and that the gas line was bled of air. Also, check for proper gas pressure.

Does the unit ignite?

Yes

No

No

Yes

Yes

No

Yes

No
45. OM Reversing Models: No Cylinder Rotation or Reversing Capabilities
208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase CE Models
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase CG and CSH Models

OM Reversing Models: No cylinder rotation or reversing capabilities

- Is there voltage across the primary of the transformer?
  - Yes → Correct wiring between transformer and supply voltage. Check fuses.
  - No → Replace transformer.

- Is there voltage across terminals 2 & 3 of the transformer secondary?
  - Yes → Correct wiring and check fuses.
  - No → Make sure unit is in the forward portion of rotation. Replace micro control.

- Is there voltage to the COM of the door switch?
  - Yes → Correct wiring to door switch. Check fuses.
  - No → Correct the wiring to the relay.

- Is there voltage to the N.O. terminal of the door switch?
  - Yes → Correct wiring and check fuses.
  - No → Replace forward relay.

Is there voltage to H2-8 terminal of micro control?

- Yes → Correct wiring between micro control and door switch.
- No → Make sure unit is in the forward portion of rotation. Replace micro control.

Forward Rotation: Is there voltage to H2-3 of micro control?

- Yes → Correct wiring to the relay.
- No → Correct wiring between relay and supply voltage.

Forward Rotation: Is there voltage across the coil of the forward relay?

- Yes → Correct wiring between relay and supply voltage.
- No → Replace forward relay.

Forward Rotation: Is there voltage to terminals L1, L2 and L3 of the forward relay?

- Yes → Correct wiring to the relay.
- No → Replace forward relay.

Forward Rotation: Is there voltage to terminals T1, T2 and T3 of the forward relay?

- Yes → Continued on next page
Troubleshooting

45. OM Reversing Models: No Cylinder Rotation or Reversing Capabilities (continued)

208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase CE Models
208-240 Volt/60 Hertz/3 Phase and 460-480 Volt/60 Hertz/3 Phase CG and CSH Models

[Flowchart diagram with decision points and paths, including:
- Forward Rotation: Is there voltage across L1, L2, and L3 of the motor?
- Reverse Rotation: Is there voltage to terminals X, Y, and Z of the reversing relay?
- Check drive components between motor and cylinder.
- Replace micro control.
- Replace reversing relay.
- Replace motor.
- Unit operational.]

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46. MM Models: No Display After Pressing the ON/SELECT Keys

120 Volt/60 Hertz/1 Phase and 208-240 Volt/60 Hertz/1 Phase Gas and Steam Nonreversing
208-240 Volt/60 Hertz/3 Phase and 480 Volt/60 Hertz/3 Phase Gas and Steam Reversing/Nonreversing

NOTE: Make sure fuse on x1 line of transformer is operational. Used for 480 Volt/60 Hertz/3 Phase voltage.

NOTE: If unable to change settings, the keyboard has been manually locked out. To lock or unlock, press and hold the START pad and press TIME.
Troubleshooting

47. MM Models: Motor Does Not Run With Door Closed, Cycle Selected and Start Button Pressed
208-240 Volt/60 Hertz/3 Phase Gas and Steam Reversing and Nonreversing; 480 Volt/60 Hertz/3 Phase Gas Nonreversing; 480 Volt/60 Hertz/3 Phase Steam Reversing

NOTE: Make sure fuse on x1 of transformer is operational (480 Volt/60 Hertz/3 Phase units).

MM Models: Motor does not run with door closed, cycle selected and start button pressed

Is there voltage to the COM of the door switch?

No

Correct wiring between door switch and L1 supply for 208-240 Volt units. Check between door switch and X1 of transformer for 480 Volt/3 Phase units.

Yes

Is there 120 VAC to the N.O. terminal of the door switch?

No

Check for proper operation of door switch arm and/or replace door switch.

Yes

Is there 120 VAC to terminal P2 of the micro control?

No

Correct wiring between door switch and micro control.

Yes

Is there 120 VAC to terminal P1 of the micro control?

No

Replace micro control.

Yes

Is there 120 VAC across the coil of the motor contactor?

No

Correct wiring to the coil of motor contactor.

Yes

Is there voltage to terminals L1, L2 and L3 of motor contactor?

No

Correct wiring between motor contactor and terminals L1, L2, L3 and TB1.

Yes

Is there voltage at terminals T1, T2 and T3 of the M contactor?

No

Replace motor contactor.

Yes

Is there voltage to L1, L2 and L3 at motor?

No

Correct wiring between motor and motor contactor.

Yes

Replace motor.
48. MM Models: Cylinder Motor Does Not Run or Reverse With Door Closed, Cycle Selected and Start Button Pressed In Reversing Mode or Nonreversing Mode

208-240 Volt/60 Hertz/3 Phase Gas and Steam Reversing and 480 Volt/60 Hertz/3 Phase Steam Reversing Models

**MM Models: Cylinder motor does not run or reverse with door closed, cycle selected and start button pressed in reversing mode or nonreversing mode**

- **Is there 120 VAC to the COM terminal of the door switch?**
  - Yes
  - No

  **Is there 120 VAC to the N.O. terminal of the door switch?**
  - Yes
  - No

  **Is there 120 VAC to terminal P2 of the micro control?**
  - Yes
  - No

  **Is there 120 VAC to terminal P1 of the micro control?**
  - Yes
  - No

- **Correct wiring between door switch and L1 supply for 208-240 units. Check transformer on 480 Volt machines.**

- **Check for proper operation of door switch arm and/or replace door switch.**

- **Correct wiring between door switch and micro control.**

- **Replace micro control.**

- **Correct wiring to the coil of the motor contactor.**

- **Is there voltage to terminals L1, L2 and L3 of motor contactor?**
  - Yes
  - No

  **Correct wiring between motor contactor terminals and L1, L2, L3 of TB1.**

- **Replace motor contactor.**

- **Correct wiring between forward contactor and motor contactor and/or correct wiring between reverse contactor and motor contactor.**

- **Continue on next page**

**NOTE:** If unit will not reverse when reversing is selected, check for proper operation and wiring of reversing switch. Replace if necessary.
Note: If unit will not reverse when reversing is selected, check for proper operation and wiring of reversing switch. Replace if necessary.
49. MM Nonreversing Models: Motor Does Not Run With Door Closed, Cycle Selected and Start Button Pressed

120 Volt/60 Hertz/1 Phase Gas and Steam; 208-240 Volt/60 Hertz/3 Phase Gas; 480 Volt/60 Hertz/3 Phase Steam

NOTE: Voltage checks referenced to are for neutral unless stated otherwise.

**MM Nonreversing Models:** Motor does not run with door closed, cycle selected and start button pressed

- **Is there 120 VAC to the COM of the door switch?**
  - Yes
  - No

  **Is there 120 VAC to the N.O. terminal of the door switch?**
  - Yes
  - No

  **Is there 120 VAC to terminal P2 of the micro control?**
  - Yes
  - No

  **Is there 120 VAC to terminal P1 of the micro control?**
  - Yes
  - No

  **Gas Models:**
  - Is there 120 VAC across the coils of the CR1?
    - Yes
    - No

  **Gas Models:**
  - Is there 120 VAC to terminal 1 on CR1?
    - Yes
    - No

  **Gas Models, 120 VAC units:**
  - Is there 120 VAC across the terminals 1 and 4 of the motor?
    - Yes
    - No

  **Steam Models:**
  - Is there 120 VAC across M coil?
    - Yes
    - No

  **Correct wiring between door switch and L1 supply for low voltage units. Check between door switch and x1 of transformer for high voltage units.**

  **Check for proper operation of door switch arm and/or replace door switch.**

  **Correct wiring between door switch and micro control.**

  **Correct the wiring to M coil.**

  **Replace micro control.**

  **Replace CR1.**

  **Correct wiring between terminal 1 and door switch.**

  **Correct wiring to the coil of CR1.**

  **Correct wiring to motor.**

  **Replace motor.**

  **Continued on next page**

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49. MM Nonreversing Models: Motor Does Not Run With Door Closed, Cycle Selected and Start Button Pressed (continued)

120 Volt/60 Hertz/1 Phase Gas and Steam; 208-240 Volt/60 Hertz/3 Phase Gas; 480 Volt/60 Hertz/3 Phase Steam

NOTE: Voltage checks referenced to are for neutral unless stated otherwise.

Diagram:

- **Is there 120 VAC on terminal T1 of the motor relay for single phase units, or across T1, T2 and T3 for three phase units?**
  - No: Correct wiring between motor and motor relay and the terminal block.
  - Yes:
    - **Is there 120 VAC to terminal 1 of the motor?**
      - Yes: Replace motor.
      - No:
        - **Is there 120 VAC across terminals 1 and 4 of the motor?**
          - Yes: Replace motor.
          - No: Correct wiring to motor.
    - **240 VAC units: Is there 120 VAC to terminal 1 of the motor?**
      - Yes: Correct wiring to motor.
      - No: Correct wiring between motor CR1.

- **Is there 240 VAC across terminals 1 and 4 of the motor?**
  - No:
    - **Is there 120 VAC across terminals 1 and 4 of CR1?**
      - No: Correct wiring between CR1-8 and L2.
      - Yes: Replace CR1.
    - **Is there 120 VAC to terminal 7 of CR1?**
      - No: Replace CR1.
      - Yes: Correct wiring between CR1-7 and terminal 4 of the motor.

- **Is there 120 VAC to terminal 8 of CR1?**
  - Correct wiring between CR1-8 and L2.

- **Is there 120 VAC to terminal 1 of the motor?**
  - Yes: Replace motor.
50. CD Models: No Start With Vend Satisfied and Start Button Pushed
208-240 Volt/60 Hertz/3 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

CD Models: No start with vend satisfied and start button pressed in

- Is there voltage to the COM terminal of switch A? 
  - Yes
  - Is there voltage to the NC terminal of switch A?
    - Yes
      - Is there voltage to the common terminal of the door switch?
        - Yes
          - With the door closed, is there voltage to the N.O. terminal of the door switch?
            - Yes
              - Is there voltage to the input side of the Push-To-Start button?
                - Yes
                  - Correct wiring between L1 and switch A.
                  - Continued on next page
                - No
                  - Correct wiring between motor contactor and door switch.
                  - Correct wiring between L1 and switch A.
                
              - No
                - Correct wiring between door switch and switch A.
                - Is there voltage across the coil of the motor control contactor?
                  - Yes
                    - If the start button is released, does the motor contactor stay in the made position?
                      - Yes
                        - Check for proper operation of motor contactor, replace if necessary.
                      - No
                        - Correct wiring between motor contactor and L1, L2 and L3 supply.
                    
                  - No
                    - Check for proper operation of motor control contactor, replace if necessary.
                    - Correct wiring between motor contactor and L1, L2 and L3 supply.

- No
  - Is there voltage to the input side of the auxiliary contacts on the motor contactor?
    - Yes
      - Correct wiring between motor contactor and Push-To-Start button.
    - No
      - Correct wiring between motor contactor and Push-To-Start button.
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50. CD Models: No Start With Vend Satisfied and Start Button Pushed
(continued)
208-240 Volt/60 Hertz/3 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

Is there voltage to T1, T2 and T3 of the motor contactor?

Yes

Is there voltage to L1, L2 and L3 of the motor?

Yes

Is the internal wiring of the motor correct for the supply voltage?

Yes

Has the thermal overload cycled? Allow motor to cool and recheck.

No

Replace motor.

Yes

Unit operational.

Correct wiring between motor contactor and motor.

No

Change the wiring accordingly.

No

Check for proper operation. Replace motor contactor if necessary.

No

continued from previous page
51. CD Models: No Heat With Vend Satisfied and Unit Running

208-240 Volt/60 Hertz/3 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

- **CD Models: No heat with vend satisfied and unit running**

  - Is there voltage to the input of the motor switch? **No**
    - Correct wiring to the input of motor switch.
  
  - Yes

  - Is there voltage to the output of the motor switch? **No**
    - Replace motor.
  
  - Yes

  - Is there voltage to the input of the cabinet limit? **No**
    - Correct wiring between cabinet limit and motor switch.
  
  - Yes

  - Is there voltage to the output of the cabinet limit? **No**
    - Check for proper operation, replace if necessary.
  
  - Yes

  - Is there voltage to the COM terminal of the airflow switch? **No**
    - Correct wiring between airflow switch and cabinet limit.
  
  - Yes

  - Is there voltage to the N.O. terminal of the airflow switch? **No**
    - Check for proper airflow and function of the airflow switch. Replace airflow switch if necessary.
  
  - Yes

  - Is there voltage to the input of the stove limit? **No**
    - Correct wiring between stove limit and airflow switch.
  
  - Yes

  - Is there voltage to the output of the stove limit? **No**
    - Check for blockage and proper airflow. Replace stove limit if necessary.
  
  - Yes

  - Is there voltage to the N.C. terminal of switch B? **No**
    - Correct wiring between switch B and stove limit.
  
  - Yes

  - Is there voltage to the COM terminal of switch B? **No**
    - Check for proper operation, replace switch B if necessary.
  
  - Yes

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51. CD Models: No Heat With Vend Satisfied and Unit Running (continued)
208-240 Volt/60 Hertz/3 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

Is there voltage to the input of the adjustable bulb thermostat?  

Yes  

Is there voltage to the output of the adjustable bulb thermostat?  

No  

Replace adjustable bulb thermostat.  

Yes  

Is there voltage to the ignition control board?  

No  

Correct wiring between IEI board and thermostat.  

Yes  

Check for proper igniter gaps and resistance for high voltage lead. (Proper gaps for igniter are 5/16 above burner and 5/32 between electrode and grounding tab. The proper resistance of the high voltage lead is between 5,000 Ohms and 25,000 Ohms.)

Does the igniter spark?  

Yes  

Is there voltage across the coils of the gas valve?  

No  

Correct wiring between gas valve and IEI board.  

Yes  

Is there a flame?  

No  

Replace gas valve.  

Yes  

Unit is operational.

Is there gas pressure on the output side of the gas valve?  

No  

Replace IEI board.  

Yes  

Is there voltage across V1 and V2 of the IEI board?  

No  

Replace IEI board.  

Yes  

Correct wiring between ignition control board and thermostat.

Is there voltage to the ignition control board?  

No  

Correct wiring between IEI board and thermostat.  

Yes  

Is there gas pressure on the output side of the gas valve?  

Check for proper gas pressure. 3.5 water column inches for Natural Gas, 10.5 water column inches for L.P. Gas.
52. CD Models: No Heat With Vend Satisfied and Unit Running
120 Volt/60 Hertz/1 Phase and 240 Volt/60 Hertz/1 Phase Gas Nonreversing Models

CD Models: No Heat with vend satisfied and unit running

- Is there voltage on red wire of the motor?
  - No: Replace motor.
  - Yes:
    - Is there voltage to the input of the cabinet high limit?
      - No: Correct wiring between cabinet high limit and motor.
      - Yes:
        - Is there voltage to the output of the cabinet high limit?
          - No: Check for proper operation. Replace if necessary.
          - Yes:
            - Is there voltage to the COM terminal of the airflow switch?
              - No: Correct wiring between airflow switch and cabinet high limit.
              - Yes:
                - Is there voltage to the N.O. terminal of the airflow switch?
                  - No: Check for proper operation and airflow. Replace switch if necessary.
                  - Yes:
                    - Is there voltage to the N.C. terminal of switch B on the coin drop?
                      - No: Correct wiring between switch B and stove high limit.
                      - Yes:
                        - Is there voltage to the COM terminal of switch B?
                          - No: Check for proper operation of coin drop. Replace switch B if necessary.
                          - Yes:
                            - Is there voltage to the input side of the adjustable thermostat?
                              - No: Correct wiring between switch B and thermostat.
                              - Yes: Continued on next page

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52. CD Models: No Heat With Vend Satisfied and Unit Running (continued)
120 Volt/60 Hertz/1 Phase and 240 Volt/60 Hertz/1 Phase Gas Nonreversing Models

Continued from previous page

Is there voltage to the output side of the adjustable thermostat?

Yes

Is there voltage to L1 of the ignition control board (IEI board)?

Yes

Correct wiring between ignition control board and thermostat.

No

Check for proper gap on igniter and check for proper resistance of high voltage lead. Replace lead if necessary. (Proper gaps for igniter are 5/16 above burner and 5/32 between electrode and grounding tab. The proper resistance of the high voltage lead is between 5,000 Ohms and 25,000 Ohms.)

Does the igniter spark?

Yes

Is there voltage across V1 and V2 of the IEI board?

No

Replace thermostat.

Yes

Correct wiring between gas valve and IEI board.

No

Is there voltage across V1 and V2 of the IEI board?

Yes

Check for proper gas pressure. 3.5 water column inches for Natural Gas, 10.5 water column inches for L.P. Gas.

Is there voltage across the coils of the gas valve?

Yes

Unit is operational.

No

Is there gas pressure on the output side of the gas valve?

Yes

Replace gas valve.

No

Replace IEI board.
53. CD Models: No Start With Vend Satisfied and Start Button Pushed
240 Volt/60 Hertz/1 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

CD Models: No start with vend satisfied and start button pushed

Is there voltage to the N.C. terminal of switch A?

Yes

Is there voltage to the COM terminal of switch A?

Yes

Is there voltage to COM terminal of the door switch?

Yes

With the door closed, is there voltage to the N.O. terminal of the door switch?

Yes

Is there voltage across the coil of the control relay (CR)?

No

Correct wiring to the control relay.

Yes

Is there voltage to terminal 5 of the motor?

No

Correct wiring between motor and door switch.

Yes

Is there voltage to the input side of the start switch?

No

Correct wiring between start switch and door switch.

Yes

With the start button pressed in, is there voltage to the output side of the start button?

No

Replace start switch.

Yes

Check door switch for proper operation, replace if necessary.

Correct wiring between door switch and switch A of the rotary coin drop.

Yes

Is there voltage to the N.O. terminal of switch A?

No

Check for proper operation of switch A. Replace switch A if necessary.

Yes

Correct wiring between L1 on TBI and switch A.

NOTE: If motor only runs with start switch pressed in, that means centrifugal switch in motor is bad. Replace motor.
53. CD Models: No Start With Vend Satisfied and Start Button Pushed (continued)
240 Volt/60 Hertz/1 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

Is there voltage to terminal 1 of the control relay?

Correct wiring to terminal 1 of the control relay.

Is there voltage to terminal 3 of the control relay?

Check for proper operation. Replace control relay if necessary.

Is there voltage to terminal 1 of the motor?

Correct wiring between motor and start switch.

Does the motor run?

Replace the motor.

Unit operational.

NOTE: If motor only runs with start switch pressed in, that means centrifugal switch in motor is bad. Replace motor.
54. CD Models: No Start With Vend Satisfied and Start Button Pushed
120 Volt/60 Hertz/1 Phase Gas Nonreversing

NOTE: All voltage checks are referenced to neutral unless stated otherwise.

CD Models: No start with vend satisfied and start button pushed

Is there voltage to the N.C. terminal of switch A?
- Yes
- No Correct wiring between L1 on TBI and switch A.

Is there voltage to COM terminal of switch A?
- Yes
- No Check for proper operation of switch A. Replace switch A if necessary.

Is there voltage to COM terminal of the door switch?
- Yes
- No Correct wiring between door switch and switch A of the rotary coin drop.

With the door closed, is there voltage to the N.O. terminal of the door switch?
- Yes
- No Check door switch for proper operation, replace if necessary.

Is there voltage to terminal 5 of the motor?
- Yes
- No Correct wiring between motor and door switch.

Is there voltage to the input side of the start switch?
- Yes
- No Correct wiring between start switch and door switch.

With the start button pressed in, is there voltage to the output side of the start button?
- Yes
- No Replace start switch.

Is there voltage to terminal 1 of the motor?
- Yes
- No Correct wiring between motor and start switch.

Does the motor run?
- Yes
- No Replace the motor.

NOTE: If motor only runs with start switch pressed in, that means centrifugal switch in motor is bad. Replace motor.
55. Cylinder Clearance

The clearance between the cylinder rim and front panel must be adjusted so the cylinder is centered within the front panel opening when the cylinder is fully loaded and is turning. However, the adjustment should be made when the cylinder is empty.

NOTE: If the cylinder is not properly adjusted, the cylinder rim will rub against the front panel.

a. Open loading door and check the gap between the center of the front panel top flange and the cylinder rim. Proper adjustment is when the gap is 7/16 inch (11 mm). Refer to Figure 2.
b. Remove chain guard.
c. Loosen the four trunnion housing bolts. Refer to Figure 3.
d. Loosen the locknuts on the trunnion housing adjusting bolts. Refer to Figure 3.
e. Turn the adjusting bolts in or out as necessary to obtain proper clearance between cylinder rim and front panel.

NOTE: Turning the adjusting bolts clockwise will raise the cylinder and turning them counterclockwise will lower the cylinder. Turn both bolts evenly to adjust top and bottom clearance. Turn one or the other adjusting bolt in or out to adjust side clearance.

f. After the cylinder is properly adjusted, tighten the adjusting bolt locknuts and the four trunnion housing bolts.
g. Install the chain guard removed in step “b”.

NOTE: If adjusting the trunnion housing fails to correct the clearance, the problem is probably due to a worn trunnion shaft or defective bearings.