WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

- In the United States, installation must conform with local codes or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-latest edition available from American National Standard Institute. Further reference should be made to the recommendation of your fuel supplier.

- **WARNING:** Additions, changes, conversions and service must be performed by an authorized Midco representative, service agency or the fuel supplier. Use only MIDCO specified and approved parts.

- INSTALLER: Inform and demonstrate to the user the correct operation and maintenance of the gas utilization equipment. Inform the user of the hazards of storing flammable liquids and vapors in the vicinity of this gas utilization equipment and remove such hazards. Affix this manual and associated literature to the burner or equipment.

- CODE COMPLIANCE IS THE SOLE RESPONSIBILITY OF THE INSTALLER.

- USER: Retain this manual for future reference. If other than routine service or maintenance as described in this manual and associated literature is required, contact a qualified service agency. DO NOT ATTEMPT REPAIRS. An inadvertent service error could result in a dangerous condition.

AVOID ERROR IN PARTS SELECTION. When ordering use complete MIDCO Part Number and Description. Furnish Burner Model Number, Bill of Material Number and Date Code (if available) from the specification plate found on the product. IMPORTANT: Availability of parts as well as specifications are subject to change without notice. Please consult factory for item availability.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately phone your gas supplier from another building. Follow the gas supplier’s instructions. If you cannot reach your gas supplier call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

| BURNER MODEL: | ________________ |
| BILL OF MATERIAL NUMBER: | ________________ |
| SERIAL NUMBER #: | ________________ |
| WIRING DIAGRAM: | ________________ |

FOR SERVICE CONTACT

Name: ________________
Address: ________________
Phone: ________________
Date of Installation: ________________

SAFETY INFORMATION TERMS: The following terms are used to identify hazards, safety precaution of special notations and have standard meanings throughout this manual. They are printed in all capital letters using a bold type face as shown below, and preceded by the exclamation mark symbol. When you see the safety alert symbol and one of the safety information terms as shown below, be aware of the hazard potential.

**DANGER:** Identifies the most serious hazards which will result in severe personal injury or death.

**WARNING:** Signifies a hazard that could result in personal injury or death.

**CAUTION:** Identifies unsafe practices which would result in minor personal injury or product and property damage.
Part 1 - Installation

Specifications

The LNB Series burners are adaptable to most makeup air units, ovens and after burners. The Midco LNB Series LOW NOx Series gas burner was developed to meet the changing emission requirements required today.

<table>
<thead>
<tr>
<th>LNB With Chamber</th>
<th>LNB 500</th>
<th>LNB 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN VELOCITY</td>
<td>1000 FPM</td>
<td>1000 FPM</td>
</tr>
<tr>
<td>MAX VELOCITY</td>
<td>3500 FPM</td>
<td>3500 FPM</td>
</tr>
<tr>
<td>COMBUSTION AIR</td>
<td>125 CFM</td>
<td>250 CFM</td>
</tr>
</tbody>
</table>

* MIN CHAMBER INSERTION DEPTH ...... 4.5" 4.5"
* MAX CHAMBER INSERTION DEPTH ...... 25.0" 25.0"

<table>
<thead>
<tr>
<th>FIRING RATE (NATURAL)</th>
<th>LNB 500</th>
<th>LNB 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Push Through</td>
<td>Pull Through</td>
</tr>
<tr>
<td>MIN MBH 3</td>
<td>100</td>
<td>125</td>
</tr>
<tr>
<td>MAX MBH 3</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GAS SUPPLY PRESSURE REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATURAL</td>
</tr>
<tr>
<td>PROPANE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LNB 500</th>
<th>LNB 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTOR HP</td>
<td>0.32 HP</td>
</tr>
<tr>
<td>BLOWER FLOW RATE</td>
<td>125 SCFM</td>
</tr>
<tr>
<td>ELECTRICAL SUPPLY</td>
<td>120 VAC / 60 Hz / 10 AMPs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IGNITION CONTROL MODULE VOLTAGE</th>
<th>24 VAC - Standard (120V optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGNITION TRANSFORMER</td>
<td>120 VAC</td>
</tr>
<tr>
<td>FLAME SAFETY</td>
<td>Electronic flame Safety with Direct Spark Ignition and 100% Shut-Off 4</td>
</tr>
</tbody>
</table>

* Consult factory for optional insertion depth
1 Standard burners are shipped as NATURAL gas models. Consult Midco for propane applications.
2 All Ratings Based on 1000 BTU/Cu. Ft. NATURAL gas, at sea level.
3 $1 \text{ MBH} = 1,000 \text{ BTU/hr.}$, Min MBH depends on system velocity.
4 See Section VI Burner Ignition Sequence.

Table 1. Burner Specifications

Part 1 - Installation

When installing the Midco LNB burner the following instructions must be followed.

The Midco LNB Burner must be installed per the equipment manufacturer’s instructions. If not available take the following steps. To install the burner an opening on the side or top of the heater must be provided. See Figure 1 for opening size and mounting information. The Midco LNB burner should be centrally located on a pull through make up air unit to promote even heat distribution. For a push through unit the Midco LNB burner should be located in the center of the blower discharge. For other applications contact our sales engineering team. The opening of the combustion chamber should be 90 degrees to the blower. See Figure 2 for proper chamber orientation. Clearance around combustion chamber must be a minimum of 6" on all sides.
The Midco LNB wiring is included with the burner. Follow wiring diagram included with the burner for proper wiring connections. When installing the Midco LNB burner all safety and operating controls must be included and connected so if any safety fails the LNB burner will not operate. Do not bypass any safety or operating control or equipment might be damaged.

**Figure 2 - LNB Burner Installation Guide - Typical Installation**

---

**Figure 3 - Wiring Diagram - 24 Volts**
Figure 2 - Wiring Diagram Siemens
### Part 1 - Installation

#### II - Wiring

**Continued**

**Siemens, Control**

**Lock Codes**

<table>
<thead>
<tr>
<th>Error code</th>
<th>Clear text</th>
<th>Possible cause</th>
</tr>
</thead>
</table>
| Loc: 2     | No establishment of flame at the end of safety time | - Faulty or soiled fuel valves  
- Faulty or soiled flame detector  
- Poor adjustment of burner, no fuel  
- Faulty ignition equipment |
| Loc: 3     | Air pressure faulty (air pressure switch welded in no-load position, decrease to specified time (air pressure switch flame-on response time) | Air pressure switch faulty  
- Loss of air pressure signal after specified timer  
- Air pressure switch has welded in no-load position |
| Loc: 4     | Extraneous light | Extraneous light during burner startup |
| Loc: 5     | Air pressure faulty, air pressure switch welded in working position | Time supervision air pressure switch  
- Air pressure switch has welded in working position |
| Loc: 7     | Loss of flame | Too many losses of flame during operation (limitation of repetitions)  
- Faulty or soiled fuel valves  
- Faulty or soiled flame detector  
- Poor adjustment of burner |
| Loc: 10    | Error not relatble (application), internal error | Wiring error or internal error, output contacts, other faults |
| Loc: 12    | Valve proving | Fuel valve 1 leak |
| Loc: 13    | Valve proving | Fuel valve 2 leak |
| Loc: 14    | POC error | Error valve closure control POC |
| Loc: 22    | Safety loop open | - Gas pressure switch-max open  
- Safety limit thermostat cut out |
| Loc: 60    | Analog power source 4...20 mA, I <4 mA | Wire breakage |
| Loc: 83    | Faulty PWM fan | - PWM fan does not reach the target speed within the preset period of time, or  
- After reaching the target speed, the PWM fan leaves the tolerance band again (parameter 650) for a time exceeding the tolerance time speed deviation (parameter 860) |
| Loc: 138   | Restore process successful | Restore process successful |
| Loc: 139   | No program module detected | No program module plugged in |
| Loc: 206   | AZL2... incompatible | Use the latest version |
| Loc: 225   | Faulty PWM fan | - Fan speed dropped below the minimum pre purge PWM (parameter 675.00) after reaching the pre purge speed, or  
- After reaching the ignition load speed, the maximum ignition load PWM (parameter 675.01) was exceeded |
| Loc: 226   | Faulty PWM fan | Parameterization error:  
- Speed low-fire > speed high-fire, or  
- Low-fire = 0 rpm, or  
- Maximum speed = 0 rpm |
| Loc: 227   | Faulty PWM fan | One or several parameters violate the minimum/maximum limit |

*Chart 1 - Siemens Control - Lock Codes - Error Code List*
Part 1 - Installation

II Wiring
Continued

Siemens, Control
Display of Flame Current

Note:
This display is only possible in operating mode or standby.

<table>
<thead>
<tr>
<th>+</th>
<th>Press ( \text{ON} ) for display of the flame signal amplifier. Signal lamp blinks green. Display shows FL.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>When pressing ( \text{ON} ) (1...3 seconds), the flame signal current is displayed. Signal lamp blinks green. Example: 11.</td>
</tr>
<tr>
<td>1...3 s</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>When pressing ( \text{ON} ) (&gt;3 seconds), the point after the number begins to blink. When the button is released, the value is displayed for 2 minutes. Signal lamp blinks green. Then, the normal display appears. Display: Point , blinks, value 11 does not.</td>
</tr>
<tr>
<td>&gt;3 s</td>
<td></td>
</tr>
</tbody>
</table>

14.4.3 Reset

<table>
<thead>
<tr>
<th>( \text{Info} )</th>
<th>For reset the unit, press ( \text{ON} ) for 1...3 seconds. When the button is released, OFF is displayed. The basic unit is reset.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;1 s</td>
<td></td>
</tr>
</tbody>
</table>

Note:
For meaning of the error and diagnostic codes, see chapter Error code list...

Chart 2 - Siemens Control - Display of Flame Current
Part 1 - Installation

II Wiring

Continued

Siemens, Control
Sequence of Operation

Chart 3 - Siemens Control - Sequence of Operation

DISPLAY

1. OFF - Standby, waiting for call for heat
2. P21 - Test; combustion air switch open, POC closed
3. P22 - Combustion air blower on, Test; combustion air switch closed
4. P30 - Purge (parameter 225), Test; gas pressure switches closed
5. P40 - Trial for ignition (parameter 257)
6. P42 - Flame detection (spark off, pilot stands alone)
7. P44 - Pilot stabilize time (parameter 230)
8. P50 - Main and pilot overlap time (parameter 231)
9. OP1 - Operate, main on, pilot off

Chart 3 - Siemens Control - Sequence of Operation
The Midco LNB is provided with all required gas train assembly components. Refer to piping diagram Figure 4A and 4B for a typical installation. Modifications can be made to the piping layout if required. The Ratio Regulator Zero Governor valve position CAN NOT be changed as this is critical in burner performance. The orifice located downstream from the Ratio Regulator Zero Governor valve must not be modified. When the gas train assembly installation is complete turn on gas to the unit and check for any gas leaks. Repair any leaks that are found at this time. The minimum required gas pressure at the inlet of the valve train is 5" W.C. and maximum gas pressure is 14" W.C.. The outlet gas pressure should be set at 6" W.C. when burner is at high fire. Turn off main manual gas valve before starting the unit. Consult the Midco technical support team if there are any piping questions. See Burner Startup, section V, for operating instructions.

**Figure 4A - Piping - LNB 500 - Standard**

LNB 1000 FIRING RATE vs PRESSURE DIFFERENCE ACROSS TWO SOLENOID VALVES

**Chart 1 - Gas Pressure - LNB 1000**
Part 1 - Installation

III Piping

Continued

Figure 4B - Piping - LNB 1000 - Standard

Chart 2 - Gas Pressure - LNB 500

LNB 500 FIRING RATE vs PRESSURE DIFFERENCE ACROSS TWO SOLENOID VALVE

<table>
<thead>
<tr>
<th>PRESSURE DIFFERENCE ACROSS TWO SOLENOIDS, &quot; W.C.</th>
<th>FIRING RATE, MBTU/HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>0.1</td>
<td>200</td>
</tr>
<tr>
<td>0.2</td>
<td>300</td>
</tr>
<tr>
<td>0.3</td>
<td>400</td>
</tr>
<tr>
<td>0.4</td>
<td>500</td>
</tr>
<tr>
<td>0.5</td>
<td>600</td>
</tr>
<tr>
<td>0.6</td>
<td>700</td>
</tr>
<tr>
<td>0.7</td>
<td>800</td>
</tr>
<tr>
<td>0.8</td>
<td>900</td>
</tr>
<tr>
<td>0.9</td>
<td>1000</td>
</tr>
<tr>
<td>1.0</td>
<td>1100</td>
</tr>
<tr>
<td>1.1</td>
<td>1200</td>
</tr>
<tr>
<td>1.2</td>
<td>1300</td>
</tr>
</tbody>
</table>

Mideo International Inc.

★ MADE in the USA ★
**Part 1 - Installation, Service**

**IV Burner Startup**

The LNB Series of burners need to be set correctly to maintain Low NOx emissions.

**LNB with Siemens Control**

1. Burner should be prewired and installed on MUA unit.
2. To begin burner setup, remove 2-10V DC signal to Siemens control board.
3. Turn on MUA power.
4. Do not turn on gas at this time.
5. Burner blower motor will ramp up to high fire purge.
6. Burner blower motor will ramp down to low fire.
7. Burner will lockout with no gas flow.
8. Reset Siemens control by pressing info button for 3 seconds.
9. Install a differential manometer.
10. Attach one barb fitting on side pressure tap of first solenoid gas valve.
11. Attach one barb fitting on bottom pressure tap of second solenoid gas valve.
12. Turn on gas.
13. Check gas pressure on side inlet of first solenoid gas valve.
14. Gas pressure should be 7" WC. Adjust main gas pressure if required.
15. Turn on MUA power.
16. Burner will go through sequencing and light.
17. Burner low fire flame should be mostly blue with slight orange tips.
18. Adjust low fire as required by turning Dungs valve top screw CW for more gas, CCW for less gas.
19. Differential pressure should be approximately 0.05-0.09" WC for Low fire.
20. Document minimum temperature rise at low fire.
21. Turn off power to MUA.
22. Reinstall DC Volt signal to Siemens control board.
23. Turn on power to MUA.
24. Set temperature control 70 degrees over booth temperature.
25. Burner lights and ramps up to high fire.
26. Check gas pressure on side inlet of first solenoid gas valve.
27. Inlet pressure to side inlet of first solenoid gas valve at high fire should be 5" WC.
28. Readjust main gas pressure regulator if required.
29. Check differential gas pressure at barb fittings.
30. Differential gas pressure should be 1.8" WC for high fire.
31. To adjust high fire final setting the manual valve downstream of Dungs valve can be closed slightly.

**LNB with Fenwal Control**

1. Burner should be prewired and installed on MUA unit.
2. To begin burner setup, remove 2-10V DC signal to SCEBM-1 control board.
3. Turn on MUA power.
4. Do not turn on gas at this time.
5. Burner blower motor will ramp up to high fire purge.
6. Burner blower motor will ramp down to low fire.
7. Burner will lockout with no gas flow.
8. Turn MUA power off, control will rest after 10-15 seconds.
9. Install a differential manometer.
10. Attach one barb fitting on side pressure tap of first solenoid gas valve.
11. Attach one barb fitting on bottom pressure tap of second solenoid gas valve.
12. Turn on gas.
13. Check gas pressure on side inlet of first solenoid gas valve.
14. Gas pressure should be 7" WC. Adjust main gas pressure if required.
15. Turn on MUA power.
16. Burner will go through sequencing and light.
17. Burner low fire flame should be mostly blue with slight orange tips.
18. Adjust low fire as required by turning Dungs valve top screw CW for more gas, CCW for less gas.
19. Differential pressure should be approximately 0.09" WC for Low fire.
20. Document minimum temperature rise at low fire.
21. Turn off power to MUA.
22. Reinstall DC Volt signal to SCEBM-1 control board.
23. Turn on power to MUA.
24. Set temperature control 70 degrees over booth temperature.
25. Burner lights and ramps up to high fire.
26. Check gas pressure on side inlet of first solenoid gas valve.
27. Inlet pressure to side inlet of first solenoid gas valve at high fire should be 5" WC.
28. Readjust main gas pressure regulator if required.
29. Check differential gas pressure at barb fittings.
30. Differential gas pressure should be 1.8" WC for high fire.
31. To adjust high fire final setting the manual valve downstream of Dungs valve can be closed slightly.

Power up unit and the starting sequence begins. The EBM blower motor is energized and will run up to high blower speed for 20 seconds. After initial prepurge the EBM blower motor will modulate down to low speed. Once EBM blower motor reaches low speed the main gas valve and ignition control will be energized. If the burner lights and the temperature control is calling for heat the burner will be modulated depending on the DC Volt signal being generated from the temperature control.

The Midco LNB burner comes with a limiting gas orifice which is required to maintain the Low NOx readings and firing rate. The orifice is located between the Ratio Regulator Zero Governor valve and EBM blower inlet. Do not attempt to modify the location or orifice size. Attach a differential gas pressure manometer to check gas flow. The locations for attaching the gas pressure manometer are located on the main valves. See page 4. Of the two taps that should be used, one is located on the upstream tap on first main gas valve and the other on the downstream bottom tap on the 2nd main gas valve for LNB 1000. Refer to piping diagram, Figure # 4A, for proper location. For LNB 500 attach a differential gas pressure manometer to check for gas flow to outlet pressure tap on main gas valve, and the other on the 1/8" tap on gas pipe downstream of main gas valve. Remove the plug on both fittings. Attach a barb fitting in order to hook up the required tubing to the differential gas pressure manometer. Set temperature control below booth temperature so burner will light and stay lit at low fire (or remove DCV wiring from RTC board). Energize burner power switch.

The burner blower will be energized and start sequence will begin. Once the main flame is established the burner will start at low fire. The gas pressure at the two gas pressure taps will be approximately 0.11" W.C. to .25" WC. This is the minimum firing rate for the Midco LNB burner.

Adjusting low fire: If the flame stays on and low fire setting is too high, adjust low fire on the Ratio Regulator Zero Governor. The LNB burner is shipped with the adjustment screw located on the top of the Ratio Regulator Zero Governor at 4-5 turns counterclockwise. To decrease low fire turn the screw counterclockwise. To increase low fire turn the screw clockwise. If the low fire is adjusted properly the flame will be mostly blue with a slight orange glow, visually inspect the flame through burner peep sight. Check the differential gas pressure and flame signal and adjust the Ratio Regulator Zero Governor valve as required.

Adjusting high fire: Turn temperature control above set point to provide 10 DCV to RTC board to set high fire. Minimal adjustments can be made. Check inlet pressure to first gas valve it should be 5" W.C. maximum. Adjust main gas pressure regulator if required. Flame signal should be steady and above 2 UA DC. For gas pressure settings see Charts 1 & 2 on page 5.

---

Burner Ignition Sequence with Fenwal control.

1. Call for heat
   a. LNB Burner blower will go to maximum speed
   b. SCEBM-1 control LED will flash red
2. After 20 seconds delay
   a. LNB burner will go to minimum speed
   b. Ignition control will be energized
   c. Ignition control will send 120V to the spark generator
   d. SCEBM-1 control LED will remain solid red
   e. Main gas valves will be energized
   f. SCEBM-1 control LED will flash red (DC signal below 2 DCV) or green (DC signal above 2 DCV), depending on DCV signal

---

V Burner Setup

VI Burner Ignition Sequence
Part 1 - Installation, Service & Part 2 - Maintenance

VI Burner Ignition Sequence Continued

If Burner ignites

A. Ignitor will be de-energized
B. Check DC micro amps signal at ignition control sense terminal which needs to be above 1.5 micro amps
C. LNB Burner will modulate based on 2-10 VDC signal from the temperature control
D. SCEBM-1 control LED will remain solid green if temperature control is calling for 2 DCV or higher

If Burner does not ignite

A. Igniter will be de-energized
B. LNB burner blower will go to maximum speed
C. SCEBM-1 control LED will slowly flash red.
D. Red light on ignition control will be flashing.
E. Power will need to be de-energized and reset.

For additional trouble shooting information contact Midco International as shown on front page.

Part 2 - Maintenance

VII Maintenance

The LNB burner will require maintenance every 12-18 months depending on usage. There are four components that should be inspected. The EBM blower, ignition and flame sensing assembly, burner chamber and burner head should be inspected. Turn off the main gas manual valve and main panel disconnect to insure unit will not start. Remove the flame sensor wire, spark cable and wiring harness attached to the EBM blower. To inspect the blower inlet loosen the union between the Ratio Regulator Zero Governor valve and blower. Loosen the four (4) ½” bolts attaching the burner to the heater. This will allow removal of the Midco LNB burner. Inspect the heat chamber. To inspect the burner head look into the heat chamber if any issue are found contact Midco for replacement. The flame sensor and spark rod can be removed by loosening two nuts holding the ignition and flame sensing assembly. To clean the sensor and spark rod use steel wool or sand paper. If the porcelain is cracked then the sensor or igniter needs replacing. Reinstall the LNB burner and make sure gas union and wiring were reinstalled. Open manual gas valve and reenergize heater and cycle as shown in section IV - Burner Startup.
The Midco LNB burner uses a direct spark ignition. The LNB direct spark ignition is factory set. The spark gap should be set at 5/32" from center ground rod. Inspect porcelain on the flame rod and spark rod. Any signs of a crack the rods should be replaced. For proper parts selection contact Midco International as shown on the front page. When re-installing a direct spark ignition the flame rod should be installed on the right side of the unit.

### VIII Direct Spark Ignitor Assembly

**Figure 5 - Direct Spark Ignitor Assembly**

<table>
<thead>
<tr>
<th>Item</th>
<th>Part #</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>#8-32 X 5/16 Socket Head Cap Screw</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5246-45</td>
<td>Ignition Assembly Weldment Spk</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>8432-21</td>
<td>O-Ring 1/2&quot; X 11/16&quot; X 3/32&quot;</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>5246-22</td>
<td>Ignition &amp; Flame Assembly Plate</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>5246-48</td>
<td>Igniter Flange Gasket Spk</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>5246-17</td>
<td>Flame Rod LNB Assembly</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1/4-20 Hex Nut</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>1/4&quot; Split Lock Washer</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1/4&quot; Star Lock Washer</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>8432-20</td>
<td>O-Ring 5/32&quot; X 11/32&quot; X 3/32&quot;</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>8432-22</td>
<td>O-Ring 7/16&quot; X 5/8&quot; X 3/32&quot;</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>5246-43</td>
<td>Spark Rod Assembly LNB</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>8451-06</td>
<td>9/16&quot; I.D. Electrode Bushing (Inside Collar)</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>8451-05</td>
<td>1/2&quot; OD</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>8471-92</td>
<td>Service Bulletin for Kit # 5246-42R</td>
<td></td>
</tr>
</tbody>
</table>
Warranty

Keep for your records

Model Number

Purchased from - Name:

Serial Number

Address

Installation Date

City, State, Zip

Call the factory for Instructions on returned goods. No equipment may be returned without written authorization from MIDCO. Returned goods must be shipped prepaid to the factory.

⚠️ WARNING: Improper installation and use of this product could result in personal or property injury.

TO VALIDATE WARRANTY:

FILL OUT THE FORM ON THE LAST PAGES AND RETURN TO MIDCO INTERNATIONAL

Warranty

Midco® International Inc Limited Warranty Policy

Exclusions Terms, Customer Requirements and Instructions

Products manufactured by Midco International Inc. (hereinafter Midco) are guaranteed to be free from defects in workmanship and materials, under normal use and service, for a period of twelve (12) months from the date of installation, or 18 months from date of manufacture or whichever occurs first.

If a part is defective due to workmanship or materials and the part is removed from the product within the applicable warranty period and returned to Midco in accordance with the procedure described below, Midco will at its option either repair or replace the part. This warranty extends only to persons or organizations who purchase products for resale. The warranty does not cover labor and/or freight.

The expressed warranty above constitutes the entire warranty of Midco with respect to the products in its publications and is IN LIEU OF ALL OTHER WARRANTIES, EXRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL MIDCO BE RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.

Instructions for returned goods are as follows:

The following will apply to the return of any products to Midco International Inc. under this warranty:

Parts must be:

a. Identified with Midco’s *Return Authorization Number -(RAN) *(Available only directly from Midco. Contact Customer Service to obtain a tag.)

b. Protected from shipping damage.

c. Received transportation pre-paid at:

Midco International Inc.
Return Goods Dept.
4140 West Victoria Street
Chicago, Illinois 60646-6727

d. Found by Midco’s inspection to be defective in workmanship or materials under normal use and service.

e. Handled in accordance with one of the two following procedures, as specified by the customer making the return:

1. **Credit Procedure.** If replacement part was purchased from Midco, credit will be issued at the net price in effect at the time of purchase with presentation of Midco’s invoice number and date.

2. **Repair or Replacement Procedure.** Midco will, at its option, either repair or replace the part free of charge and return it or its replacement lowest cost transportation pre-paid. The replacement will be, at Midco’s option, either a functionally equivalent new or replacement product. Premium transportation will be used at customer’s request and expense.

Note: All Midco burners have a specification plate showing Model, Bill of Material and Serial No./Date Code numbers. All three (3) numbers must be shown on your Midco Return Goods Tag. The Serial No./Date Code is necessary to determine Warranty coverage. For example: 2898 indicates that the unit was manufactured in the 28th week of 1998. If the Date Code is beyond the Warranty period, a receipt or invoice showing purchase, delivery or installation date is required.

Final disposition of any warranty claim will be determined solely by Midco. If an inspection by Midco does not disclose any defect covered by this warranty, the product will be returned, scrapped, repaired, or replaced as instructed by the customer. Products returned to the customer will be sent shipping charges collect.

If you have any questions relative to product returns to Midco, call, write or e-mail:

Midco International Inc.
Warranty Returns/Customer Service Manager
4140 West Victoria Street
Chicago, Illinois 60646-6727
tel 773.604.8700
fax 773.604.4070
email returns@midcointernational.com
web www.midcointernational.com

As an ISO 9001:2015 certified company, we proudly design, manufacture and assemble our products in Chicago, Illinois, USA.

Midco® International Inc. - 4140 West Victoria Street - Chicago, Illinois 60646 - toll free: 866 705 05148478
tel: 773.604.8700 - fax: 866.580.8700 - web: www.midcointernational.com - e-mail: sales@midcointernational.com

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Call factory for information (866 705 0514)
Fill out form and fax to 866 580 8700 or copy and mail to: Midco International Inc
4140 West Victoria Street
Chicago, Illinois 60646

Date of Purchase
End User Name
Company Name
Street & Apt. No.
City, State, Zip
E-mail Address
Web Address
Telephone
Fax
Burner □ HMA □ Low NOx □
Model Number
Serial Number
Installation Date

Purchased from - Name:
Address
City, State, Zip