



**A850-2G
INCINERATOR
Installation and Operators Manual**



720 Industrial Park Road
Anderson, MO 64831
Ph: 800-704-7356
Fax. 417-845-6069
www.shenmfg.com
www.agilemfg.net

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WARRANTY WARNING

- 1. Tampering with orifices in the burner will void warranty.**
- 2. Failure to cure refractory before using will void warranty.**

LIMITED WARRANTY

WARRANTY

Agile Manufacturing, a division of CTB, Inc., WARRANTOR, warrants to the original purchaser for a period of one (1) year from date of purchase or delivery to original purchase, products manufactured by it which are installed and operated according to WARRANTS'S instructions that are furnished and/or are available to Purchaser upon request, and installed according to other applicable Federal, State, and local codes or regulations and upon substantiation that said products were installed correctly, were not abused, and or defective. The exact nature of said warranty and exclusive remedy for breach of warrantor is as follows:

WARRANTOR will refund or credit to purchaser's account an amount equal to the original purchase price or at WARRANTOR'S option repair or replace at WARRANTOR'S expense products found to be defective in workmanship or material. If a problem occurs which the purchaser believes is covered by this warranty, then purchaser shall contact the seller giving the seller sufficient information to enable a resolution to the problem. If the seller is unable or unwilling to resolve the problem and purchaser is still convinced that it is covered by the warranty the purchaser should contact the manufacturer at the address listed in the following paragraph and provide a description in writing of the problem and the attempts made to resolve it. "Seller" as used herein shall mean the dealer or distributor from whom the product was purchased.

No product or part thereof may be returned pursuant to this warranty without first receiving specific written permission to do so. All requests should be addressed to Agile Manufacturing at 720 Industrial Park Road Anderson, MO 64831, requesting specific authority for returning merchandise pursuant to this warranty with reasons for the request.

LIMITATIONS

Products which are abused or neglected are not covered under this Warranty. WARRANTOR shall not be responsible for the costs of removal or reinstallation of its products and shall not be liable for transportation costs to and from it factory. Further, WARRANTOR shall not be liable for replacement, repair, or refund for component parts not manufactured by it.

Use of parts for modification or repair of the unit or any component not authorized or manufactured by Agile Manufacturing, specifically for this product shall void this warranty.

IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE SAME PERIOD OF TIME AS THIS EXPRESS LIMITED ONE (1) YEAR WARRANTY AND ARE SPECIFICALLY DISCLAIMED THEREAFTER.

AGILE MANUFACTURING, SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, OR CONTINGENT DAMAGES OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM ANY DEFECT IN THE PRODUCT HEREBY WARRANTED.

THIS WARRANTY SHALL BE VOID IF SOLVENTS OR OTHER HIGHLY INFLAMMABLE FLUIDS, SUCH AS BUT NOT LIMITED TO, BENZENE, METHYLETHYL, KETONES, TOLUENE, XYLENE, OR NAPHTHA ARE BURNED IN OR MIXED WITH OIL FOR BURNING IN USED OIL-FIRED BURNING HEATERS OR FURNACES.

For those states that do not allow limitations on how long an implied warranty lasts, this limitation may not apply. Similarly, for those states that do not allow the exclusion on limitations of incidental or consequential damages, the above exclusions of indirect, incidental, or consequential damages may not apply.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Agile Manufacturing, is not responsible for any undertaking, representation, or warranty made by dealer, distributor, or other persons, beyond those expressly set forth in this warranty.

A850-2G INCINERATOR SPECIFICATIONS

Table 1: WASTE CHAMBER

CHAMBLER CAPACITY:	850 lbs. Type IV waste (animals)
CHAMBER VOLUME:	26.6 cubic feet (not including door opening)
DOOR DIMENSION:	21" X 27.5"
HEIGHT TO DOOR:	36"
REFRATORY:	3", 2800°f, 126 lbs/cubic feet
JACKET MATERIAL:	12 gauge aluminized steel

Table 2: STACK

DIMINENSIONS:	(1) 14" Dia., 25" L., 12 gauge aluminized steel (1) 12" Dia., 96" L., 16 gauge stainless steel (1) 12" Dia., 36" L., 16 gauge stainless steel
STACK CAP:	Stainless steel screened

Table 3: BURNER

MODEL: NAT GAS and LP	One (1) Midco J83-DS Direct Main Flame Spark Ignition Electronic Flame Safety, 100% Shut-offs, 800,000 BTUH (maximum) One (1) Midco J121-DS Direct Main Flame Spark Ignition Electronic Flame Safety, 100% Shut-offs, 1200,000 BTUH (maximum)
OPERATION:	One (1) 12 Hour Manual Timer

Table 4: GENERAL

OVERALL DIMENSIONS (APPROX.)	62" W x 14'6" H x 72" L (less burner and weights)
ELECTRICAL SERVICE:	Standard-110 volt, 60hz, 20 amp, Also available -- 220 volts, 50hz, 10 amp
GAS SERVICE:	607,000 BTUH (piping sized accordingly) Natural Gas: 7" W.C. (with burner operating) Liquid Propane: 11" W.C. (with burner operating)
GAS/FUEL CONSUMPTION:	Natural Gas = 607 CFH Liquid Propane = 6.62 GPH
TOTAL WEIGHT:	4,000 lbs (approx)
PAD REQUIREMENTS:	12' W x 14' L x 4" D (if sheltered) 6' W x 10' L x 4" D (if not sheltered)
PAINT:	1200 degree primer 1200 degree paint

Table 5: CHARGING RATE

PATHOLOGICAL:	Up to 850 lbs. per charge of typical pathological waste with a BTU/lb rating of 1000. Batch loaded allowing complete burn-out approx. 10 hours, cool down and ash removal before reloading
BURN RATE:	Approx. 80lb./hr. Burn rate may vary depending on bird size, size of load and type of bird

Must be installed in accordance with local codes and ordinances, subject to regulatory agencies. Stack test data is available from the distributor for permit application. If on-site testing is required, it is the responsibility of the purchaser and can be arranged through the distributor. Outside installation is recommended with a simple metal roof or three-sided metal shelter, provided a **minimum** of four (4) foot clearance from any combustible material. Inside installations may have special insurance requirements. Factory must be advised.

A850-2G PACKING LIST

Package 1: Primary Chamber

1	Primary Chamber w/ top & door assembly
1	Latch
2	Counter Weight Arms
4	Counter Weights

Package 2: Bolt Package for Primary Chamber

4	3/8 - 16 x 3/4 bolts
6	3/8 - 16 nuts
2	5/16 -18 nuts
2	5/16 - 18 x 7-1/2 bolts
3	#10 x 1/2 TEK Screw

Package 3: Stack Components

1	5' Stack section
1	3' Stack section
1	Transition stack
1	Secondary chamber
1	Stack cap

Package 4: Bolt Package for Stack

16	3/8 - 16 X 1" bolt
16	3/8 - 16 nuts

Package 5: Burner Carton Upper

1	Burner Midco J83-DS
1	Burner cover
1	Gas cut off valve

Package 6: Burner Carton Lower

1	Burner Midco J121-DS
1	Burner cover
1	Gas cut off valve
1	Pressure gauge

SITE INFORMATION

PLACEMENT AND CONSTRUCTION RECOMMENDATIONS

- The A850 incinerator is designed for outdoor installation on a concrete slab 6' x 8' x 4" thick. (12' x 14' x 4" if sheltered)
- The A850 may be installed in a three sided shelter, but must comply with local building and fire codes for clearances from combustible walls and materials. A minimum clearance of 4' around the incinerator is recommended for service and maintenance.
- For recommended construction of a metal chimney through a combustible roof, **See Figure 3: "Combustible Roof Construction Diagram" on page 11**

ELECTRICAL SERVICE

115 volts, 60hz, 20 amp for NAT Gas & LP

- Electrical service can be supplied by plugging into the cord set.

NOTE: Polarity must be maintained or the burners will not operate. If burners "lock out" after approximately 5 seconds and the blower continues to operate, then the polarity is incorrect. It should be corrected at the power source, not in the incinerator control.

220 volts, 50hz, 10 amp for NAT Gas & LP

- Electrical service can be supplied through the electrical cord at the burner by adding the type of plug that will fit your application.

FUEL SUPPLY

NAT Gas and LP

PIPING:

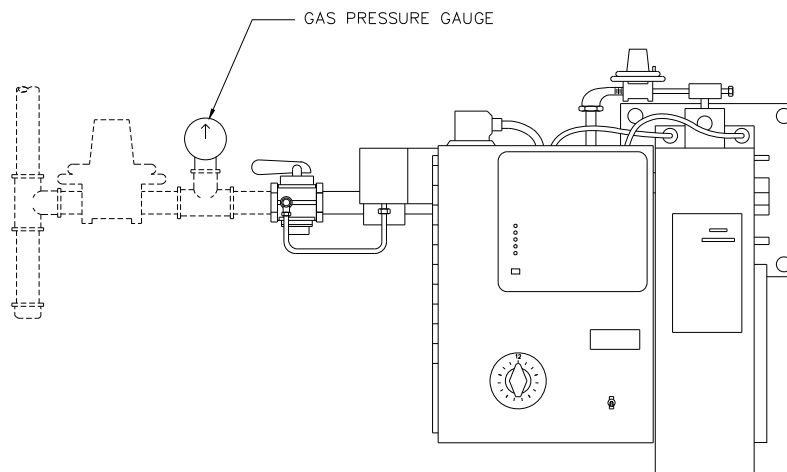
1. Install gas train with 1" minimum dia. pipe or tubing. Larger pipe may be needed depending on the gas supply and regulator location. The A850-2G requires 607,000 BTUH for operation.
2. Using soap solution, leak test all gas connections.

REGULATOR:

1. Use a properly sized regulator which maintains reduced pressure under static conditions when no gas is flowing. (Dead end lock up).
2. For best results install regulator as near as possible to the incinerator.
3. Regulate LP gas to 11" W.C., NAT gas to 7" W.C. (while burner is burning).
4. Do not exceed 14" W.C. under static conditions when there is no gas flow.

PRESSURE GAUGE:

- A gas pressure gauge is supplied with each incinerator and should be located between the regulator and gas shut off valve, as close to the burner as possible. See below.



COMBUSTIBLE ROOF CONSTRUCTION

RECOMMENDED CONSTRUCTION FOR METAL CHIMNEY THROUGH COMBUSTIBLE ROOF

1. DIMENSIONS ARE MINIMUM DISTANCES
2. BASED ON NFPA 82
3. CONSULT LOCAL BUILDING CODES
4. STOCK SHOULD EXTEND NOT LESS THAN 10 FT. HIGHER THAN ANY BUILDING WITHIN 25 FT.

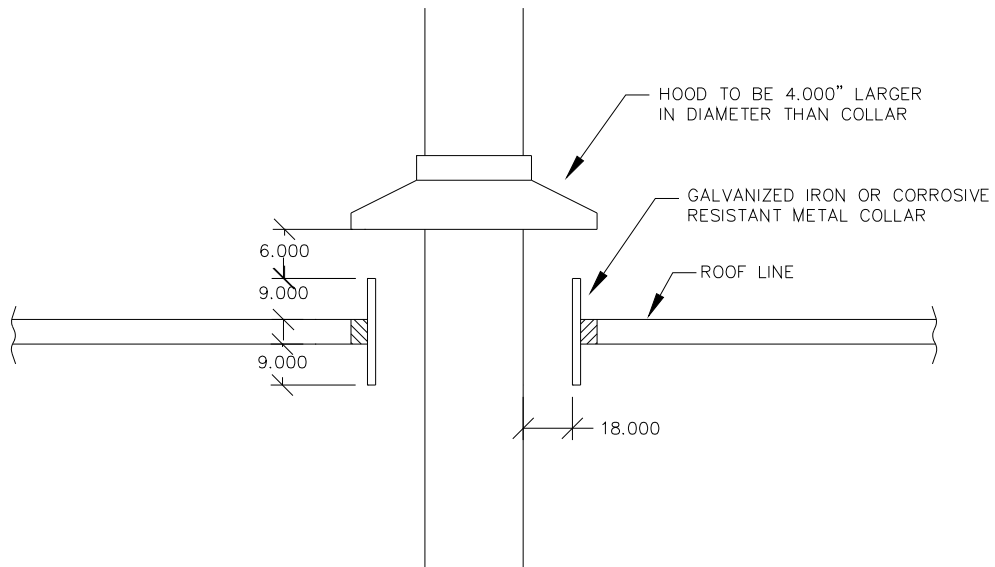
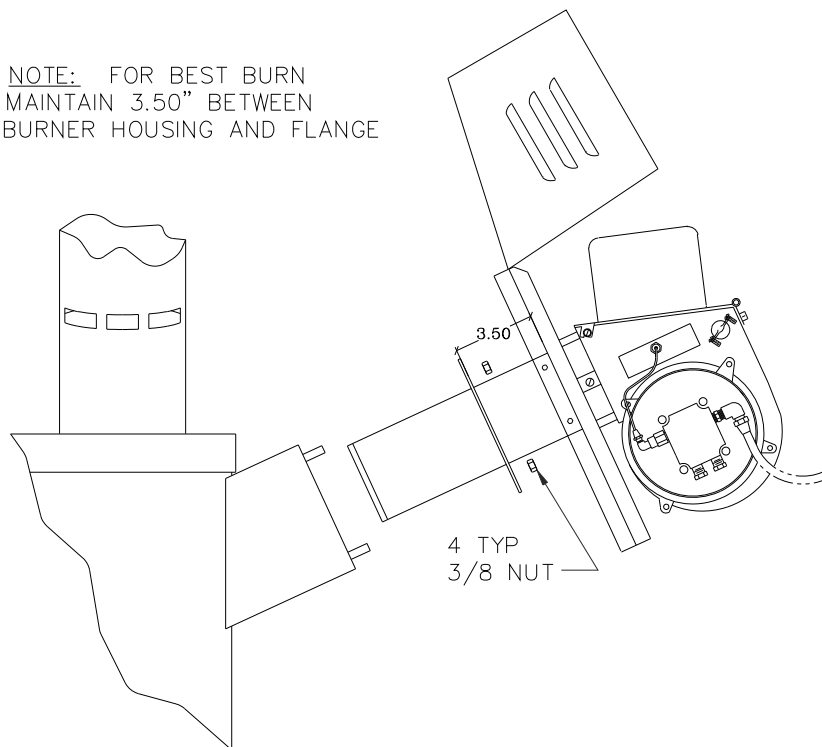


Figure 3: Combustible Roof Construction Diagram

ASSEMBLY INSTRUCTIONS

1. Position the incinerator on the concrete slab as needed for fuel and electrical hook up.
2. Bolt the 2' refractory lined stack to the primary chamber using (8) 3/8 -16 X 1 bolts and nuts.
3. Bolt the transition stack to the 2' refractory lined stack using (8) 3/8 -16 X 1 bolts and nuts.
4. Bolt the secondary chamber to the transition stack using (8) 3/8 -16 X 1 bolts and nuts. Be sure the secondary chamber is turned so that the burners are aligned.
5. Assemble the 5' SS stack, 3' SS stack and stack cap. Slide the whole assembly over the collar on the secondary chamber.
6. Bolt the toggle clamp to its mount with (4) 3/8 -16 X 1 bolts and nuts.
7. Attach the burners to the primary and secondary chambers.
 - a. For Nat Gas & LP burners - Attach the burner cover and burner to the primary chamber with (4) 3/8-16 flange nuts.
 - b. For Fuel Oil Burners -
 1. Make sure that the flange on the burner tube is about 3 1/2" from the burner housing.
 2. Attach the burner cover to the bracket on the burner with (4) 1/4 - 20 X 1/2 bolts and nuts.
 3. Attach the burner to the primary chamber with (4) 3/8-16 flange nuts.

NOTE: FOR BEST BURN
MAINTAIN 3.50" BETWEEN
BURNER HOUSING AND FLANGE



BURNER SETTINGS & AIR ADJUSTMENTS

Table 1: Midco J83-DS Burner (upper)

FUEL	AIR SHUTTER	PILOT ORIFICE	ORIFICE	BTUH
LP	Open*	#58	7/64	77,000
NAT.	Open*	#55	5/32	77,000

Midco J121-DS Burner (lower)

FUEL	AIR SHUTTER	PILOT ORIFICE	ORIFICE	BTUH
LP	Open*	#52	9/32	530,000
NAT.	Open*	#50	25/64	530,000

*The air shutter is adjusted to the FULL OPEN position from the factory and should never be moved.

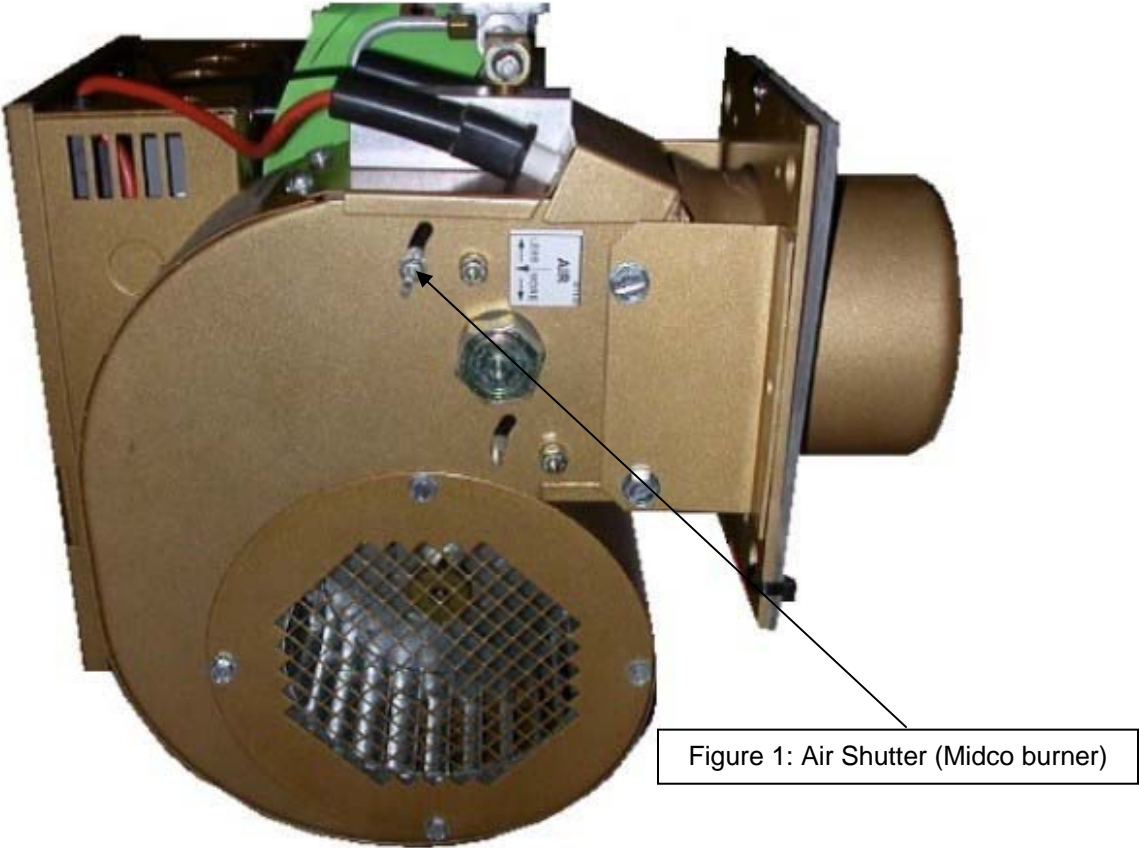


Figure 1: Air Shutter (Midco burner)

ELECTRICAL CONNECTIONS

1. Run the electrical cord from the upper burner to the lower burner through the cord connector at the lower burner plug cord.
2. Connect the black wire from the upper burner to L1 on the lower burner terminal strip.
3. Connect the White wire to the L2 Terminal on the lower terminal strip.
4. Connect the green wire to the ground lug.

GAS PRESSURE ADJUSTMENTS (FOR NAT GAS AND LP ONLY)

***PROPER GAS PRESSURE IS CRITICAL TO THE OPERATION OF THE INCINERATOR**

Gas pressure must be adjusted when the burner is operating and set as follows:

Note: A gas pressure gauge is supplied with each incinerator (NAT Gas and LP only).

Nat Gas = 7" W.C.

L.P. Gas = 11" W.C.

OPERATING INSTRUCTIONS

Curing of the refractory is essential prior to burning the first load of waste. See "REFRACTORY CURING PROCEDURE" below.

1. Remove ashes before loading the incinerator.
2. Load incinerator. Keep the waste 6"-8" away from the burner port.
3. Start burner by setting the timer for the desired burn time. A full load will normally burn out in approx. 10 hours.
4. The incinerator will automatically shut off when the burn is completed.
5. For best results, burn daily to a white ash.

REFRACTORY CURING PROCEDURE

Table 1: REFRACTORY CURING PROCEDURE

Procedure	Time
Start burner and burn for	5 minutes
Allow to cool for	15 minutes
burn	5 minutes
cool	15 minutes
burn	15 minutes
cool	15 minutes
burn	15 minutes
cool	15 minutes
burn	30 minutes
cool	15 minutes
burn	30 minutes
cool	15 minutes
burn	1 hour
cool	15 minutes
burn	1 hour
cool	15 minutes
burn	1 hour
cool	15 minutes
burn	2 hour
cool	15 minutes
burn	3 hours
Total Time	12 hours(approximate)

There will be hairline cracks and minor scaling of the refractory when curing is complete. This is a normal result of the curing process.

TROUBLE SHOOTING

NAT GAS & LP MODELS

No spark at electrodes

1. Is burner blower operating? Possible defective blower motor.
2. Clean electrodes and pilot igniter assembly. Apply heat if moisture is present.
3. Check electrode position. See drawing in Midco manual for proper adjustment.
4. Defective Honeywell Control Board. Check voltage to 25V terminal on board.
5. Check service breaker, timer, electrical connections, and polarity.

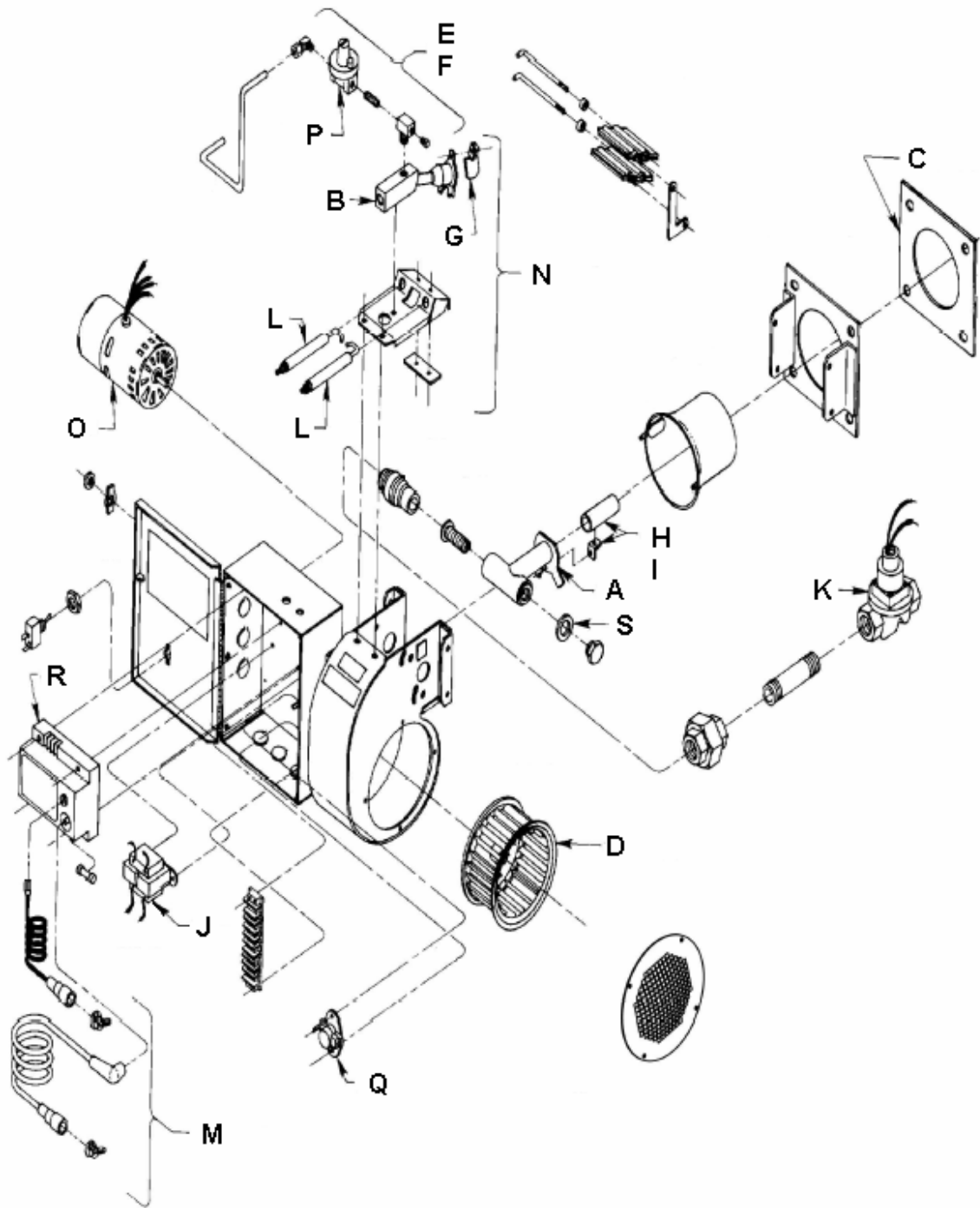
Spark but no ignition

1. Confirm gas pressure. LP gas @ 11" WC or NAT gas @ 7" WC.
2. Clean electrodes and pilot igniter assembly. Apply heat if moisture is present.
3. Check electrode position. See drawing in Midco manual for proper adjustment.
4. Listen to confirm that solenoid gas valve is opening. Possible defective gas valve.
5. Check for dirt in brass pilot orifice tee.

If incinerator does not burn properly

1. Have the ashes been removed at the beginning of the day?
2. Be sure there is no obstruction blocking the burner tube.
3. Is the air shutter in the full open position? See diagram in "BURNER SETTINGS" section of this manual.
4. Check gas pressure while the burner is burning. LP gas @ 11" WC or NAT gas @ 7" WC.

MIDCO BURNER (J83-DS) EXPLODED VIEW



See parts list on following page.

PARTS LIST: MIDCO BURNER (J83-DS)

Key	Part Number	Description
A	33116	Manifold
B	33117	Ignitor Gas Inlet Block, Tube and Ignitor Tip Assembly
C	31603	Flange Gasket
D	33125	Blower Wheel
E	101211	Ignitor Control Piping NATURAL -- #55 Drill (.052)
F	34290	Ignitor Control Piping PROPANE -- #58 Drill (.042)
G	33140	Ground Barrier Kit
H	33113	Main Gas Port and Tube Kit – PROPANE
I	31581	Main Gas Port and Tube Kit – NATURAL
J	33129	Transformer 115/1/50-60 Primary, 24V-30VA
	101420	Or Transformer 220/24V 50/60 Hz, 35VA
K	33109	3/4" NPT Gas Valve -- 24 Volt
L	33121	Electrode (spark or flame) - 2 required
M	33138	Electrode Wires, Boots and Strain Reliefs
N	33131	Ignitor Assembly
O	33126	Motor, 115/1/50-60 Hz
	101426	Or Motor, 220/1/60 Hz
P	33112	Ignitor Regulator 1/8 NPT
Q	33120	Thermal Switch
R	33151	DSI Electronic Control Board
S	33118	Input Adjuster Sealing Gasket
Not Shown	33136	PROPANE Conversion Kit
Not Shown	33135	NATURAL Conversion Kit