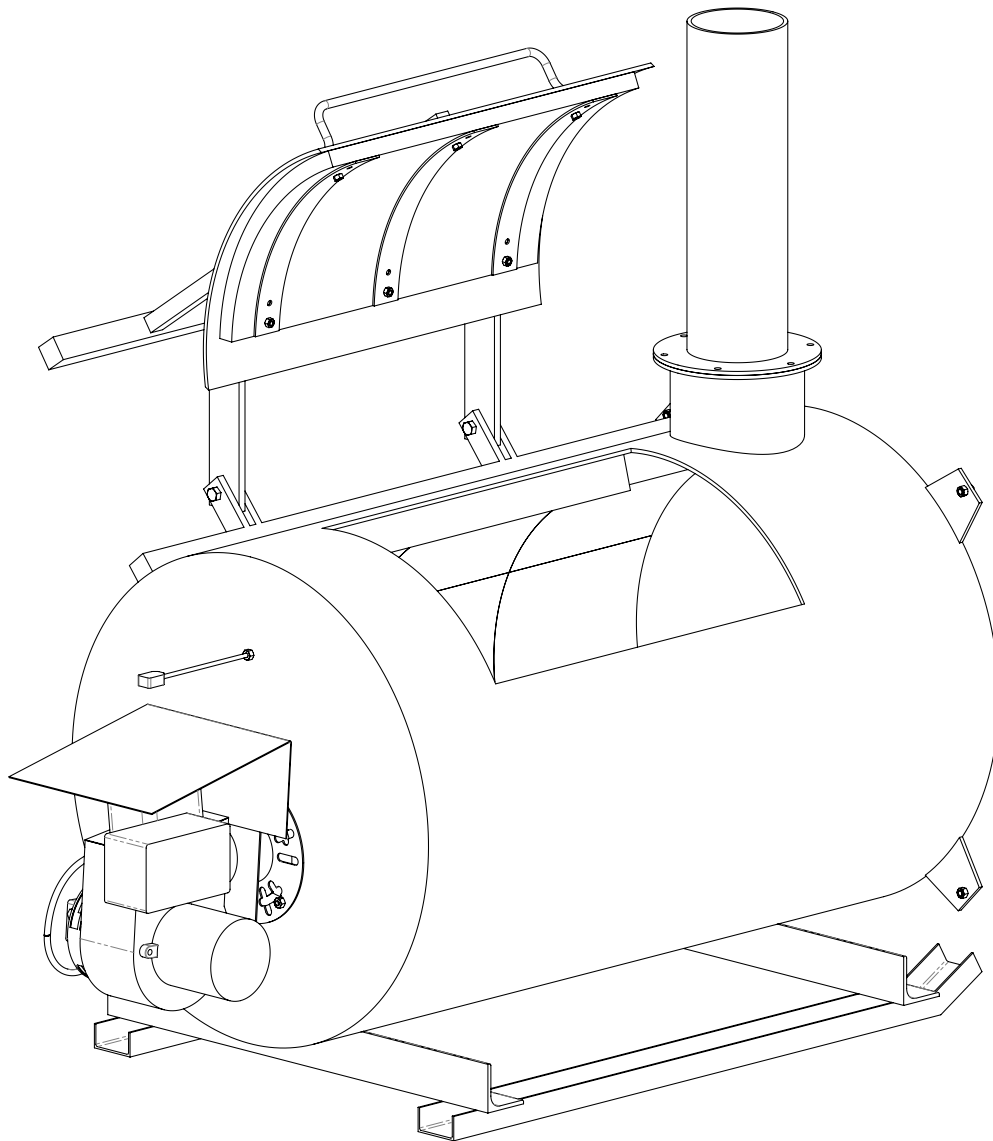




BURN MIZER™ CREMATOR

OIL & GAS Fired

Installation and Operation Manual



Contents

| | |
|---|----|
| Table of Contents | 2 |
| Warranty | 4 |
| Symbols | 4 |
| General Information | 5 |
| Cremator Setup | 6 |
| Cremator Set-Up for either Oil or Gas Burner | 6 |
| Exhaust Stack or Secondary Assembly | 7 |
| Exhaust Stack or Secondary Burner Assembly - (Oil or Gas Burners) | 7 |
| Cremator & Afterburner Sizes | 8 |
| Cremator & Afterburner Sizes - continued | 9 |
| Mounting Burners | 10 |
| Mounting Burners - (Oil or Gas Burners) | 10 |
| Sensor Installation | 11 |
| Sensor - Heat Probe - (Oil or Gas Burner) | 11 |
| Oil Burner Installation (Specific to Oil Burner ONLY) | 12 |
| Oil Burner - Fuel Line Set-Up | 12 |
| Oil Burner - Plumbing | 13 |
| Oil Burner - Plumbing - continued | 14 |
| Oil Burner - Digital Control with Terminal Strip Wiring Diagram | 15 |
| Oil Burner - Electronic Control Wiring Diagram | 16 |
| Oil Burner - Power and Rain Shield Installation | 17 |
| Operation | 18 |
| Operation of Burn Mizer™ Cremator Digital Control (For Oil or Gas Burner Units) | 18 |
| Operation of Burn Mizer™ Cremator Electronic Control (For Oil or Gas Burner Units) .. | 19 |
| Oil Burner - Exploded Drawing and Parts List | 20 |
| Oil Burner - Replacement Parts List | 21 |
| Oil Burner - Gun Assembly (751213) Replacement Parts List | 22 |
| Oil Burner - Maintenance and Troubleshooting | 23 |
| Oil Burner - Maintenance and Troubleshooting - continued | 24 |
| Digital Control Exploded & Replacement Parts List - (Oil or Gas Burner) | 25 |
| Electronic Control Exploded & Replacement Parts List - (Oil or Gas Burner) | 26 |
| Cremator - Exploded & Replacement Parts List | 27 |
| Burn Mizer™ Cremator Replacement Parts List - continued | 28 |
| Burn Mizer™ Cremator Replacement Parts List - continued | 29 |



| | |
|--|-----------|
| Gas Burner Installation (Specific to Gas Burner ONLY) | 30 |
| Gas Burner - Gas Line Set-up | 30 |
| Gas Burner - Primary Chamber Fuel Input | 31 |
| Gas Burner - Location | 31 |
| Gas Burner - Wiring | 31 |
| Gas Burner - Plumbing | 32 |
| Gas Burner - Plumbing - continued | 33 |
| Gas Burner - Gas Pressure | 34 |
| Gas Burner - Digital Control with Terminal Strip Wiring Diagram | 35 |
| Gas Burner - Electronic Control Wiring Diagram | 36 |
| Gas Burner - Power and Rain Shield Installation | 37 |
| Testing the Burner | 37 |
| Gas Burner - Exploded Drawing and Parts List | 38 |
| Gas Burner - Parts List continued with Replacement Parts | 39 |
| Gas Burner - Exploded Ignitor Regulator | 40 |
| Exploded Ignitor Control Piping - Replacement Parts | 40 |
| Gas Burner - Maintenance and Troubleshooting | 41 |
| Gas Burner - Maintenance & Troubleshooting - continued | 42 |
| Customer Service | 43 |

VAL PRODUCTS, INC. WARRANTIES

For Warranty claims information, please see the “Manufactured Products Standard Warranty” form QMS101 available from Val Products, Inc. by:

- Phone: 1-800-998-2526
- Email: marcom@val-co.com
- Online: <https://www.val-co.com/doc/382/warranty/16368/qms101-warranty.pdf>

Conditions and Limitations:

- Products and Systems involved in a warranty claim under the “Manufactured Products Standard Warranty” shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Val Products, Inc.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

Symbols



= IMPORTANT INFORMATION - Be sure to read!



= NOTE! This may help you.



= CHECK DETAILS OF ALL REQUIREMENTS OR PROCEDURES BEFORE PROCEEDING.



= PROHIBITED - Do NOT do!



= CAUTION OR WARNING



= WARNING WITH RELATED GRAPHIC



General Information

This manual covers the setup, installation, troubleshooting, maintenance and parts lists of the cremator. It does not cover the installation, requirements, warnings, testing, and general use of the Burner. You will need to refer to the Burner manual, which is included with the Burner Unit, for details on the Burner.

Costs less to operate:

Independent major university studies show the unique design of the Burn Mizer™ Cremator consumes less fuel than other national brands.*

- The Burn Mizer™ saves up to 65% on fuel consumption, utilizing a patented solid-state heat control to cycle.
- Burner on and off while maintaining optimum burn temperature.
- The heat control timer function can be set for up to 12 hours of operation using a digital control with a terminal strip, or 24 hours of operation using an electronic control.
- The patented liner uses a special insulating refractory block to reflect rather than absorb heat. The liner works like an additional burner, operating at hotter and more uniform temperatures.
- Burn Mizer™ liners can be replaced or repaired at a fraction of the cost of a new unit.
- The burner's auto ignition makes start-up quick and easy.
- The spiral flame travels the full length of the burning chamber, resulting in a cleaner, more thorough burn.

Built Tough To Last Longer:

Get twice the use of conventional units with Burn Mizer™.

- Shells constructed with heavy-duty 3/8" to 1/2" heat-tempered steel.
- Welds continuous (not "skip welded") for maximum strength.
- Two heavy reinforcement bars run the full length of the chamber ensuring the highest structural integrity.
- The patented liner is pre-cured for extended life and with-stands temperatures up to 3000° F.
- Rugged steel skids are standard on all models for ease of handling and installation.

Bio-security Protects Your Farm:

- Burning destroys the spread of diseases.
- Burning keeps rendering trucks off your property.
- Burn Mizer™ meets or exceeds EPA guidelines.

Burn Mizer™ Is Simple and Clean To Use:

- Unit is completely automatic— load, set timer, leave.
- Burning is the fastest and easiest way to dispose of carcasses.
- 100 lbs. of carcass reduces to approximately 1 gallon of ash for easy clean-up.
- Burn Mizer™ has no unpleasant odors or smoke when operated properly.

Burn Mizer™ Burning Recommendations:

- A complete burn should consist of loading material into tank, programming control time based on 1 hour per 100lbs, plus an extra ½ hour. If using an afterburner, it must be running ½ longer than main cremator. After cycle is complete, 20%-30% of material should remain in tank, which should be left in to be used during next burn cycle. This utilizes the best efficiency of the cremator. Clean ashes out between each use.
- If grates are used, be sure to periodically change their location, rotating position to extend the life of each one. If one grate is always at the burner, it will deteriorate quicker than the others, and can deform.
- Normal wear items: grates, oil nozzles.
- Hatchery waste cremator has a special refractory liner. This unit features the burner mounted at a higher location and does not include an ash door. It is exclusively a 8430 model, with a 230 VAC 50HZ gas burner.

Cremator Setup

Whether you are installing an OIL BURNER or a GAS BURNER, the cremator set up, stack assemblies and burner mounting are the same. Therefore these setups and assemblies will be handled in this manual first then you will be given specific installation instruction for each burner type, OIL BURNER or GAS BURNER. The instructions for the OIL and GAS burner hookups will be separated along with their parts lists and troubleshooting information to avoid any confusion.

VAL-CO® recommends that cremators are installed in accordance with local codes and ordinances. If on-site testing is required, it is the responsibility of the purchaser and can be arranged through VAL-CO®.



OUTSIDE INSTALLATION IS HIGHLY RECOMMENDED.

VAL-CO® must be advised before an inside installation is performed.

Should you decide to install the cremator inside, there are special requirements that **MUST** be maintained. One being that the cremator room has sufficient ventilation to provide the necessary combustion air for the burner fuel, the waste material and any other appliance that would draw its air from the same enclosed area. Room size, chimney height, placement, and possibly special insurance are additional requirements.

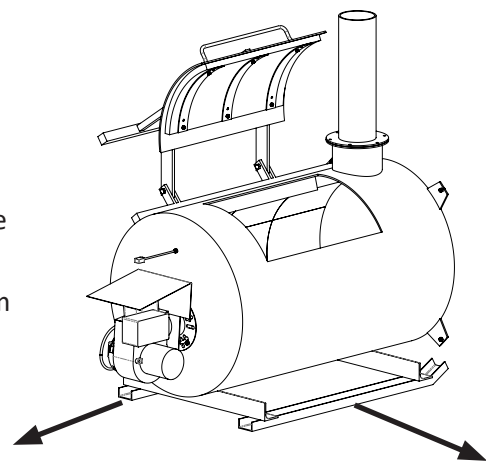
VAL-CO® is not liable for injury or damage to person(s), property or any incidental or consequential damages.



WARNING: Under no condition should the access to outside air be so restricted that the maximum possible use of combustion air is inhibited. Pay particular attention to exhaust fans that could draw air from the area and create a negative pressure in the room.

Cremator Set-Up for either Oil or Gas Burner

1. Place cremator on a solid base, concrete or gravel.
2. Keep this site free of all vegetation.
3. Consult fuel section for recommendations of fuel supply distance.
4. Combustibles should not be closer than 6 feet (1.83 meters) to the main chamber at any time.
5. All components are shipped inside the unit. Remove contents from inside the cremator.
6. All cremators use an electronic control and all secondary burners use a mechanical timer/control.
7. An extra piece of insulation is shipped with every cremator and is to be placed in the open area between the end plate and exhaust stack inside of the top of the cremator.



6 Ft CLEARANCE



It is imperative that you place the Cremator on SOLID AND LEVEL CONCRETE OR GRAVEL!

Exhaust Stack or Secondary Assembly

Exhaust Stack or Secondary Burner Assembly - (Oil or Gas Burners)

1. Mount the exhaust stack and/or secondary burner, to the main chamber with 1-1/4" Bolts and Nuts to secure flanges (as shown in stages with Figures 1, 2, 3, & 4 below).

Figure 1

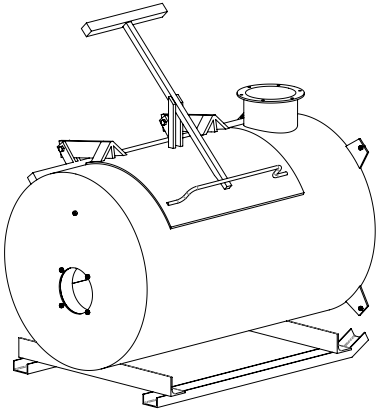


Figure 2

1-1/4" BOLTS & NUTS TO
SECURE BOLT FLANGES

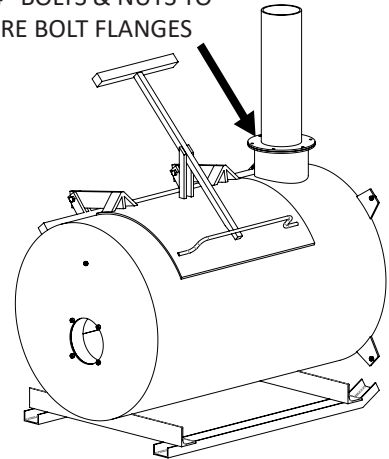


Figure 3 – MODEL 12

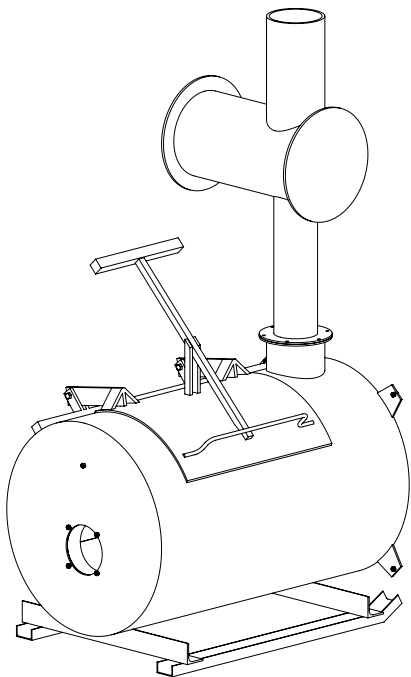
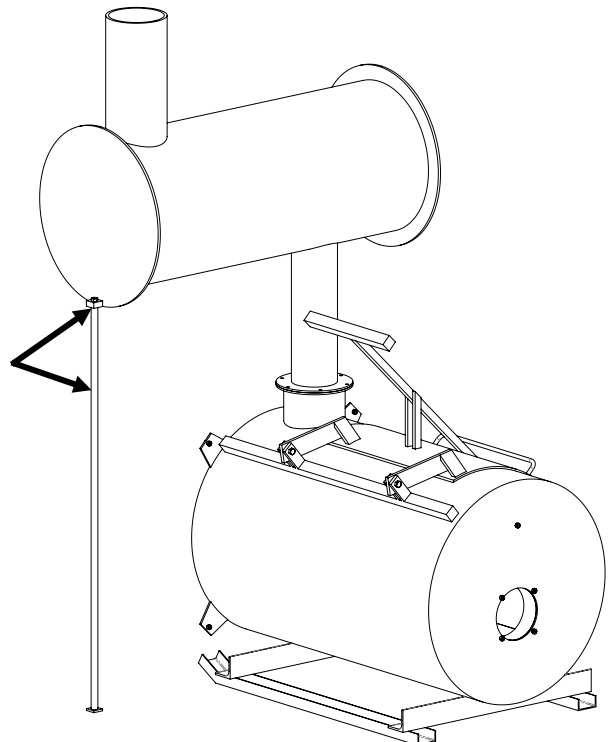


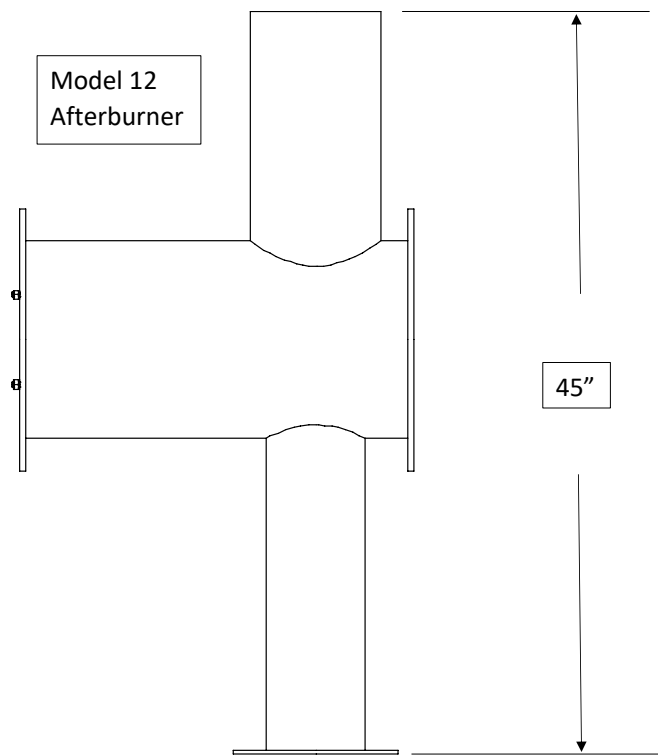
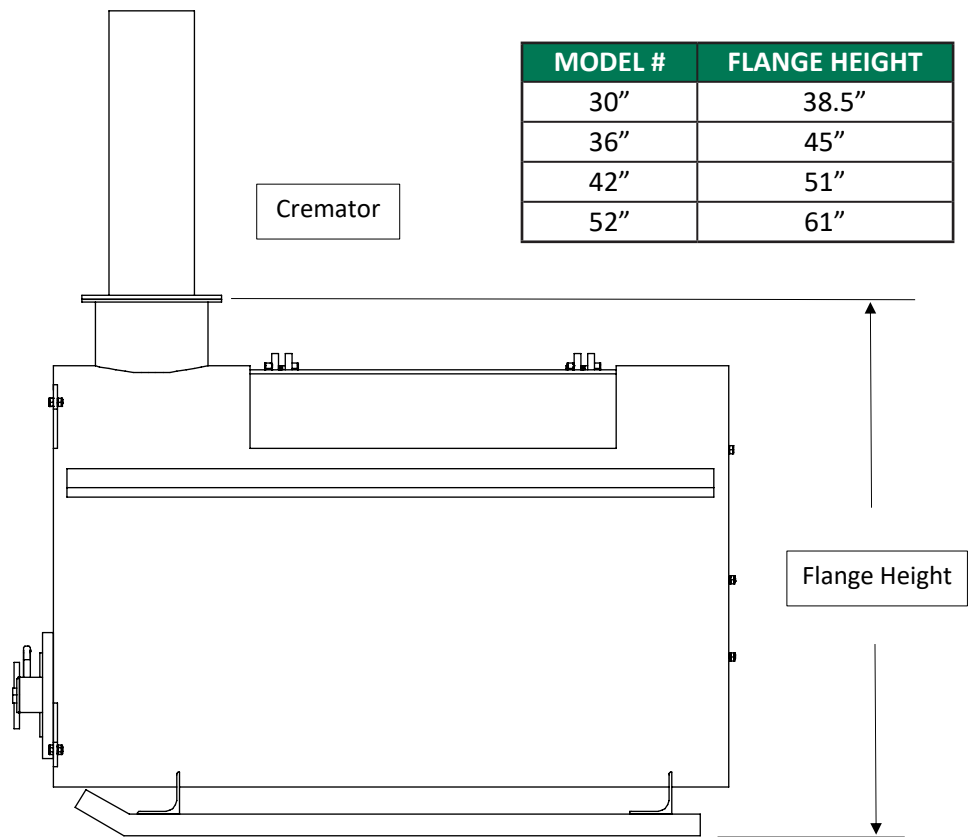
Figure 4 – MODEL 20

BRACKET AND
SUPPORT ROD

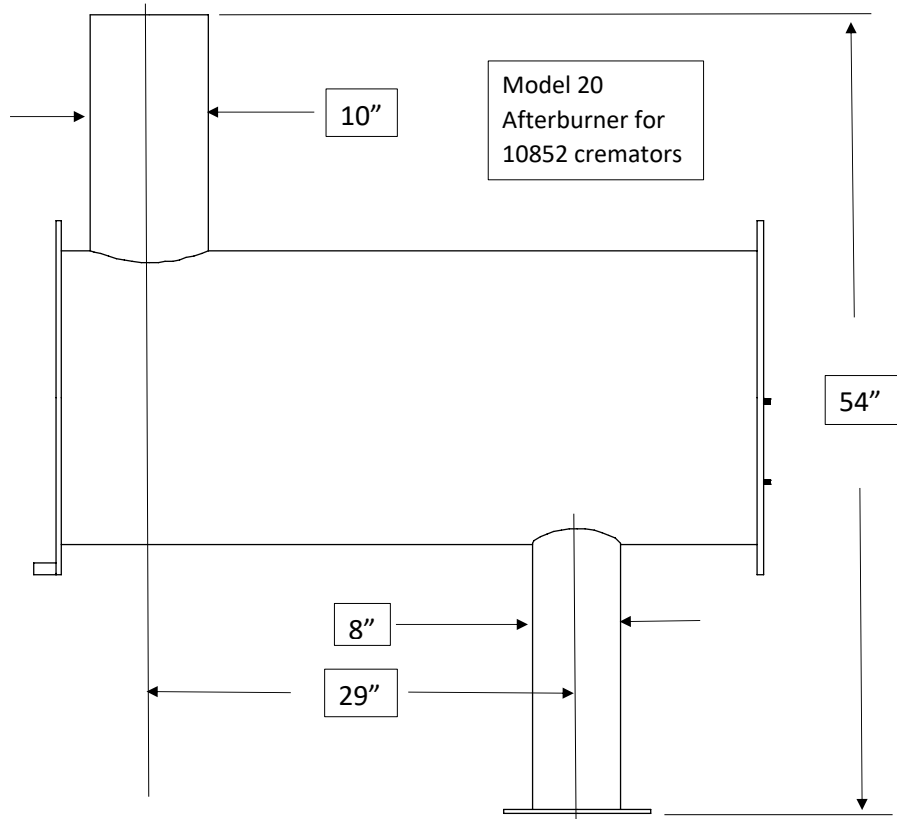
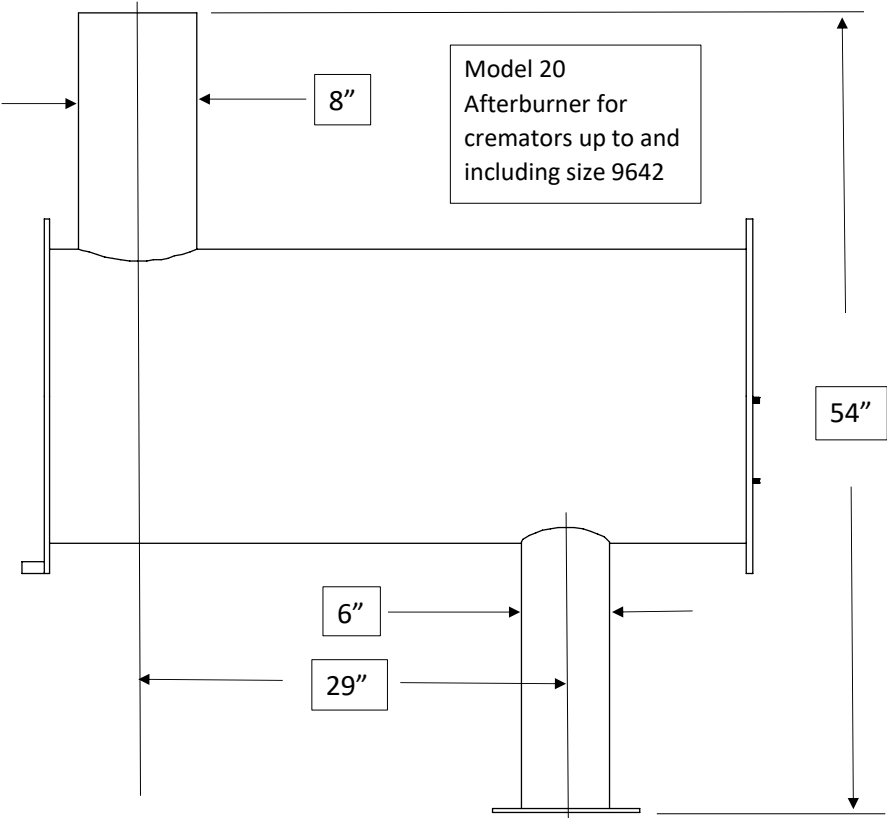


2. If a model 20 secondary burner unit is being installed, place the support rod into the bracket (as shown in Figure 4 above) before mounting secondary burner on the main chamber.
3. Secondary burner placement must be set at a right angle to the main chamber.
4. Mount the secondary burner unit by securing the bolt flanges with 1-1/4" bolts & nuts.
5. Adjust the support rod so that the secondary burner is level (model 20 secondary burner only), tighten all bolts securely.

Cremator & Afterburner Sizes



Cremator & Afterburner Sizes - continued



Mounting Burners

Mounting Burners - (Oil or Gas Burners)

The Oil and Gas burners mount the same way. Each has a flange with holes (slots) which will align with the studs on the cremator end and also on both the Afterburner units, model 12 and 20 (follow the steps below).

1. Locate the main burner unit (with digital controller & yellow probe wire) and if applicable, the secondary burner unit (with turn knob timer).
2. Remove the four 3/8" nuts & washers from the studs on the burner end plates of the cremator and secondary burner.
3. Mount the main and secondary burner units onto the four studs that protrude from each unit using the slotted holes on the burner flanges (as shown in Figures 7 & 8). Please note that the flanges are welded at an angle so that the flame points downward slightly.
4. Tighten all bolts securely

Figure 5 – OIL BURNER

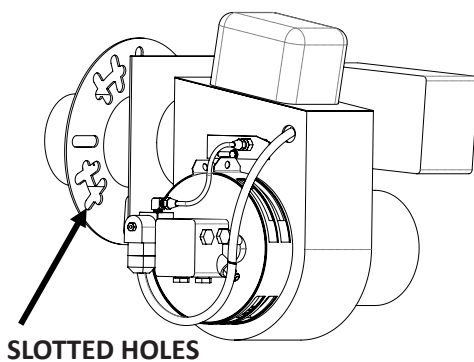


Figure 6 – GAS BURNER

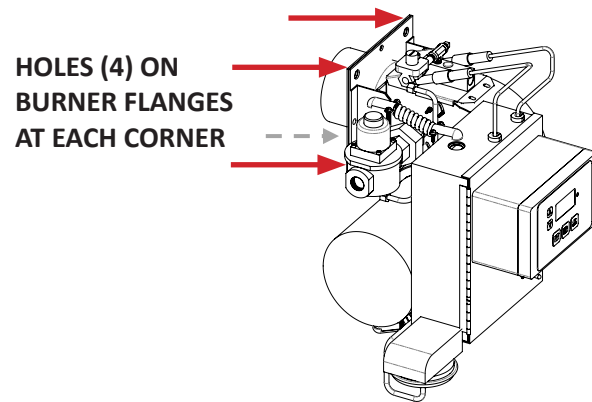


Figure 7 – MODEL 12 BEFORE Burners are attached

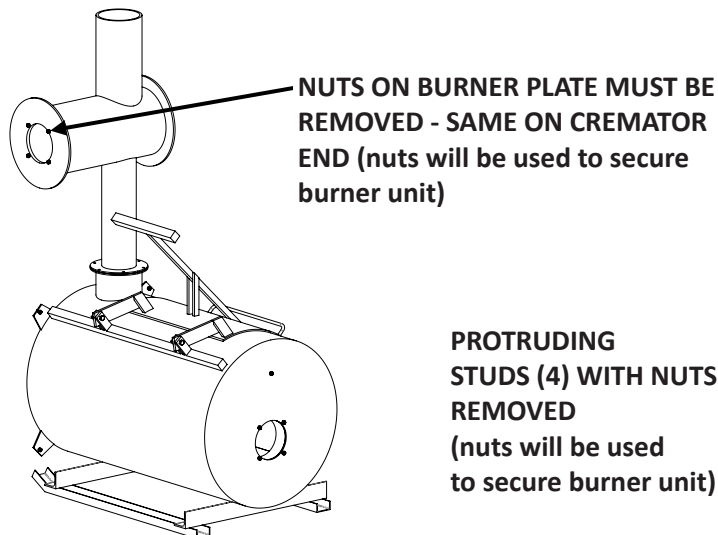
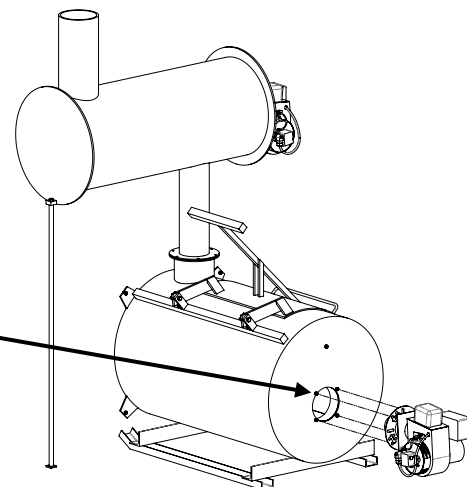


Figure 8 – MODEL 20 WITH Burner as exemplified:



MOUNTING BURNERS



Note when you are mounting the burner units (as explained on the next page) that the flanges on the burner units are welded at an angle so the flame points downward.

The main burner will have a digital controller – the secondary burner will use a turn knob timer.

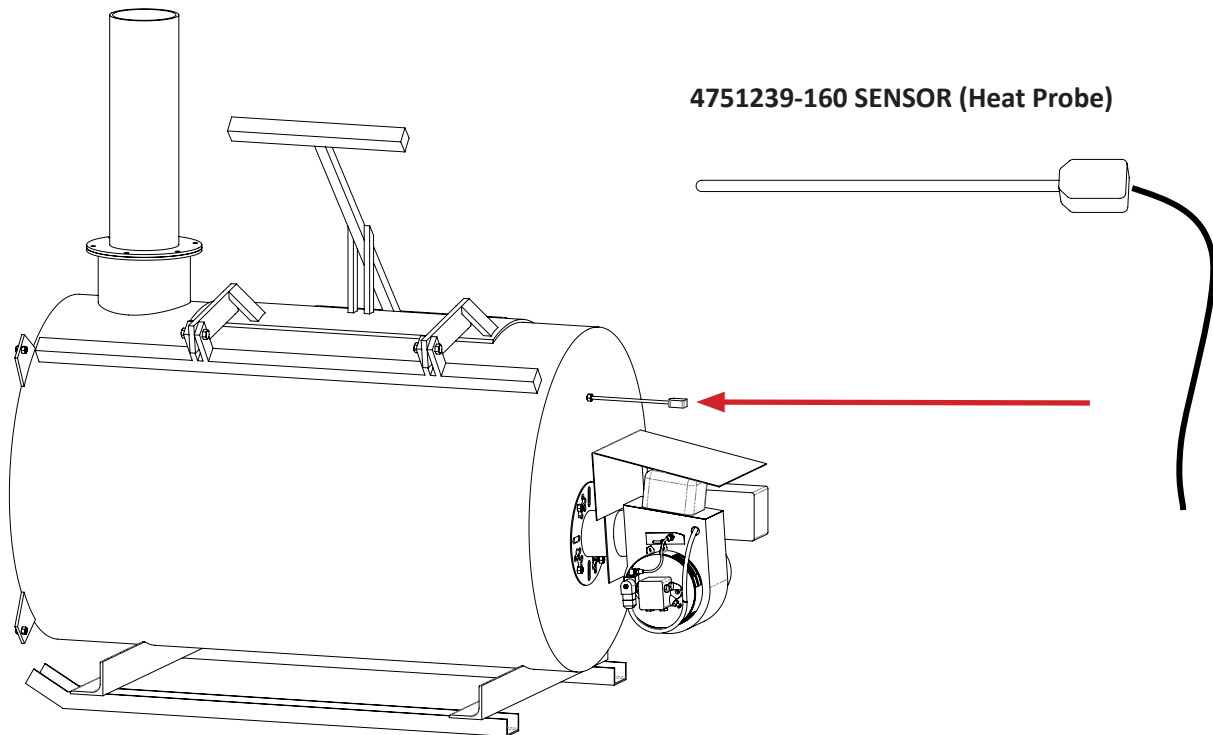
Sensor Installation

Sensor - Heat Probe - (Oil or Gas Burner)

Installing the Sensor or Heat Probe is the same for either the OIL BURNER OR GAS BURNER.

1. Remove the “O” ring on the heat probe. The “O” ring is used for shipping purposes only to keep the fitting on the probe during shipment.
2. Then place the heat probe into the pipe fitting (above the burner). Insert probe into the burning chamber 2-3 inches (look inside burning chamber).
3. Tighten compression fitting using only your fingers, but do not over-tighten.
4. Attach the cable connected to the Sensor or (Heat Probe) to the yellow probe wire from the control. (This is a male/female connection.)

Figure 9



Oil Burner Installation (Specific to Oil Burner ONLY)

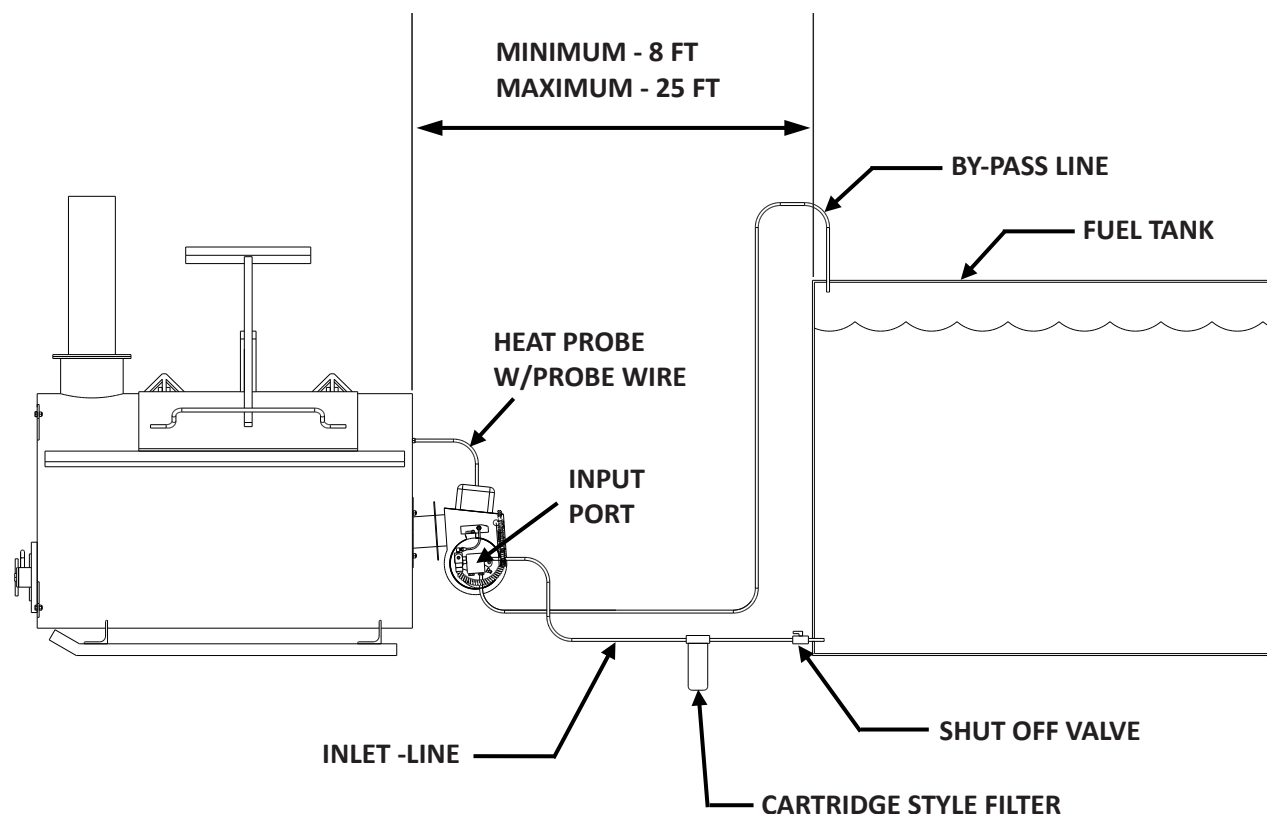
This section of the manual will give direction to OIL BURNER installation only!

Now that you have the oil burner(s) attached to the cremator, you are ready to set the fuel tank in place and hook up the fuel line. **Your local area dealer can help you with the fuel line installation. Oil burners operate on #2 diesel fuel or #2 heating oil.**

Oil Burner - Fuel Line Set-Up

1. Set the fuel tank a minimum of 8 feet away from unit. The maximum distance is 25 feet.
2. Check your area for your local code.
3. If your application calls for a distance farther than 25 feet, call the factory. It is recommended to install an oil filter (owner must supply).

Figure 10 – OVERVIEW OF BURN MIZER™ CREMATOR & FUEL TANK WITH OIL BURNER.



IMPORTANT!

Consult your local area for code on distance to place fuel tank.

Oil Burner - Plumbing

If you are **not** installing an OIL BURNER and are installing a Gas Burner GO TO GAS BURNER (SPECIFIC) INSTALLATION (See page 26 for Gas Burner Installation)

This section of the manual will give direction to OIL BURNER installation only!

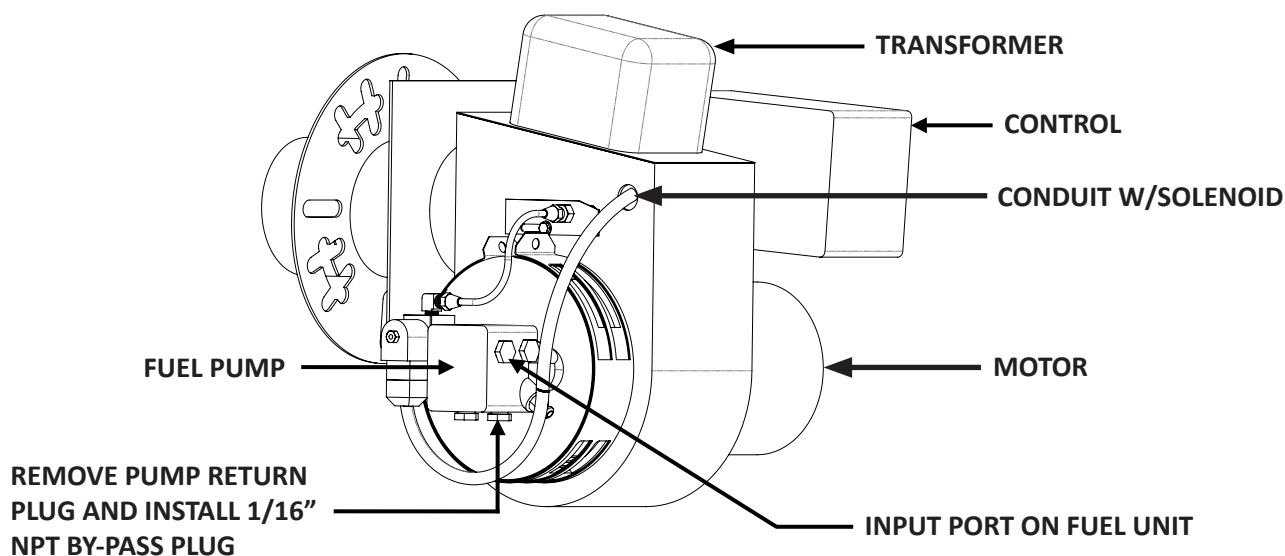


Failure to follow instructions exactly may result in causing property damage, personal injury or death.

**Local area fuel dealer can assist with the fuel line installation.
REFER TO THE OIL BURNER MANUAL FOR MORE DETAIL.**

1. When installing plumbing for OIL Burners, only use 3/8" ID copper lines.
2. The fuel pump comes with a plastic bag on it. Remove this bag.
3. The fuel can be directed either of two ways. We recommend that you do the following: Inside the plastic bag you will find a 1/16" (threaded) plug which is the By-Pass Plug. You will need to remove and discard the "Return" Port Plug (which causes the excess fuel to be directed back into the burner), from the By-Pass Port of the fuel pump, (as pictured below). Now insert the smaller 1/16" By-Pass Plug inside of the By-Pass-Port (which prevents the fuel from being directed back to the burner and allows the fuel to be directed out through the By-pass port).

Figure 11 – OIL BURNER



4. Using a 5/32" Allen wrench, place the Allen head screw into the return port.
5. Plumb the return line (3/8" ID copper) from this port back to the top of the fuel tank (as shown on next page Figure 12).
6. Do not block or restrict the port once the Allen head screw is inserted.
7. We are using a 2-pipe system (see the blue sheet included with the Allen head screw).

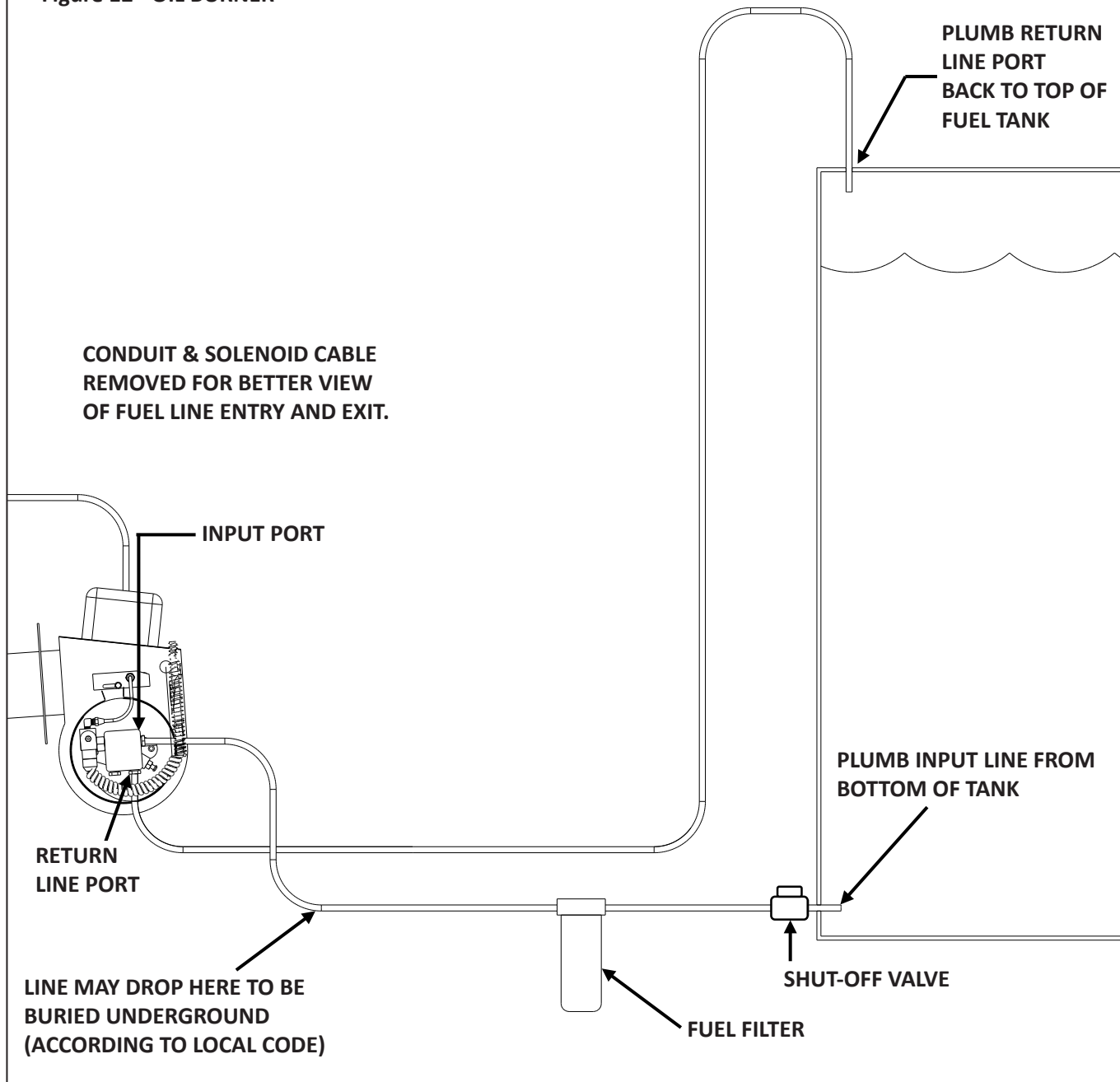
Oil Burner - Plumbing - continued



IMPORTANT!
If port is restricted, the pump will fail.

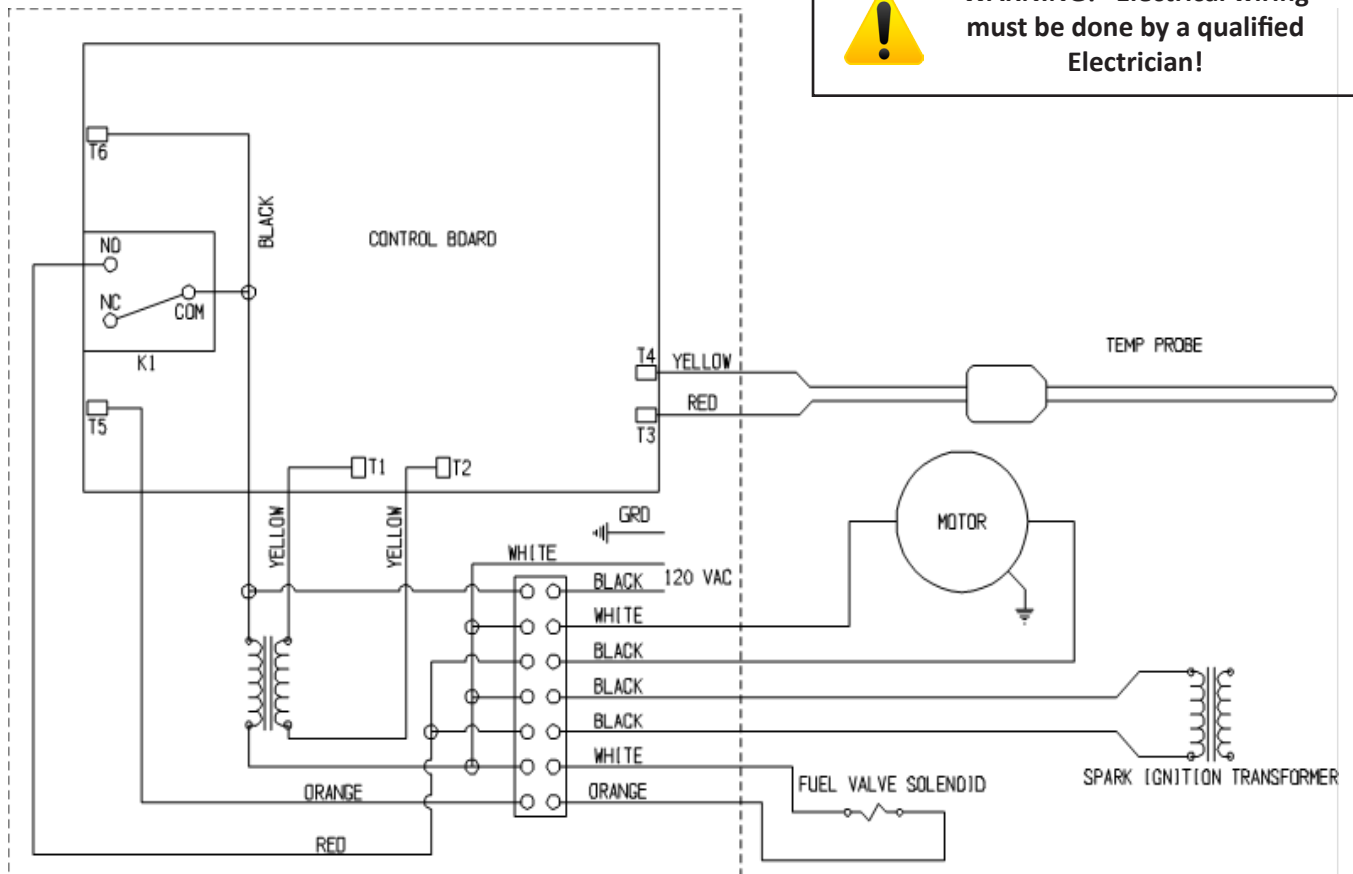
8. Plumb a fuel feed line (input) from the bottom of the fuel tank to the “input” port on the fuel unit.
9. Place the line into the inlet port of the pump.

Figure 12 - OIL BURNER

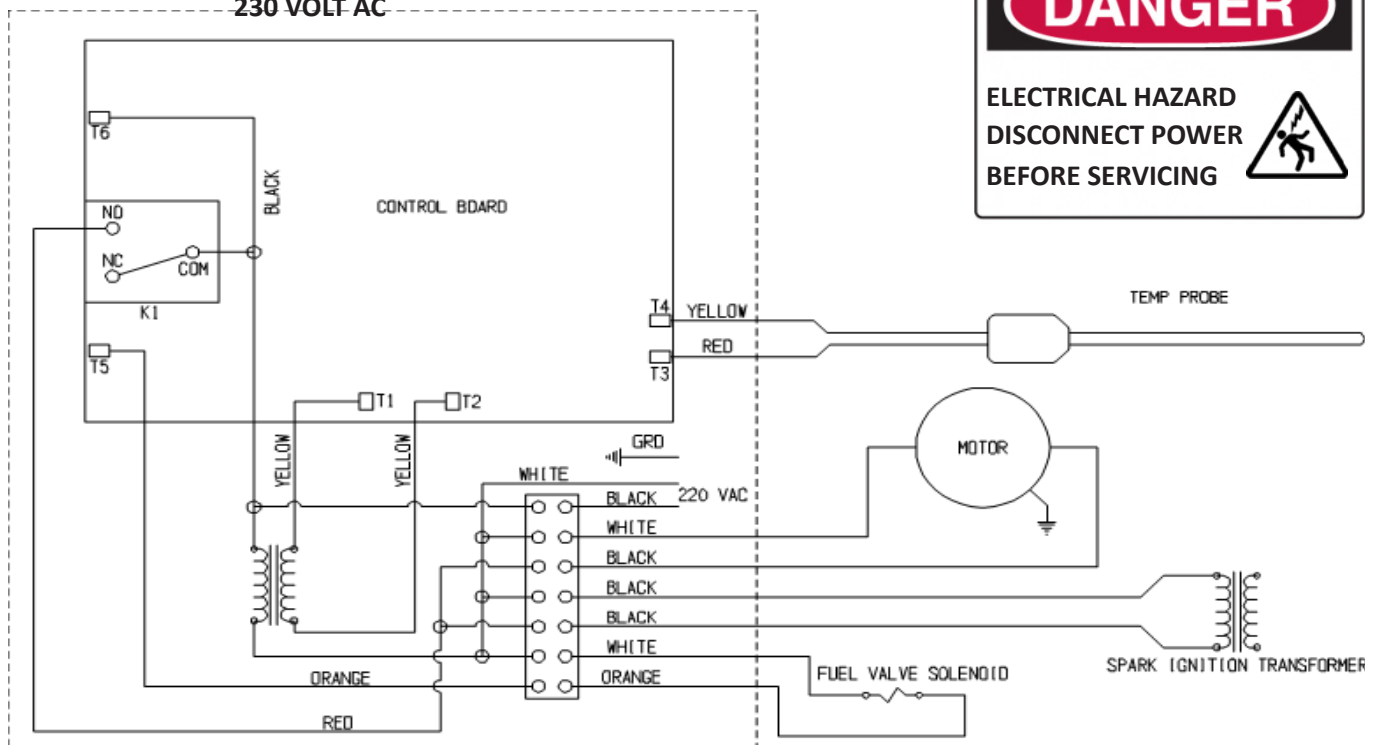


Oil Burner - Digital Control with Terminal Strip Wiring Diagram

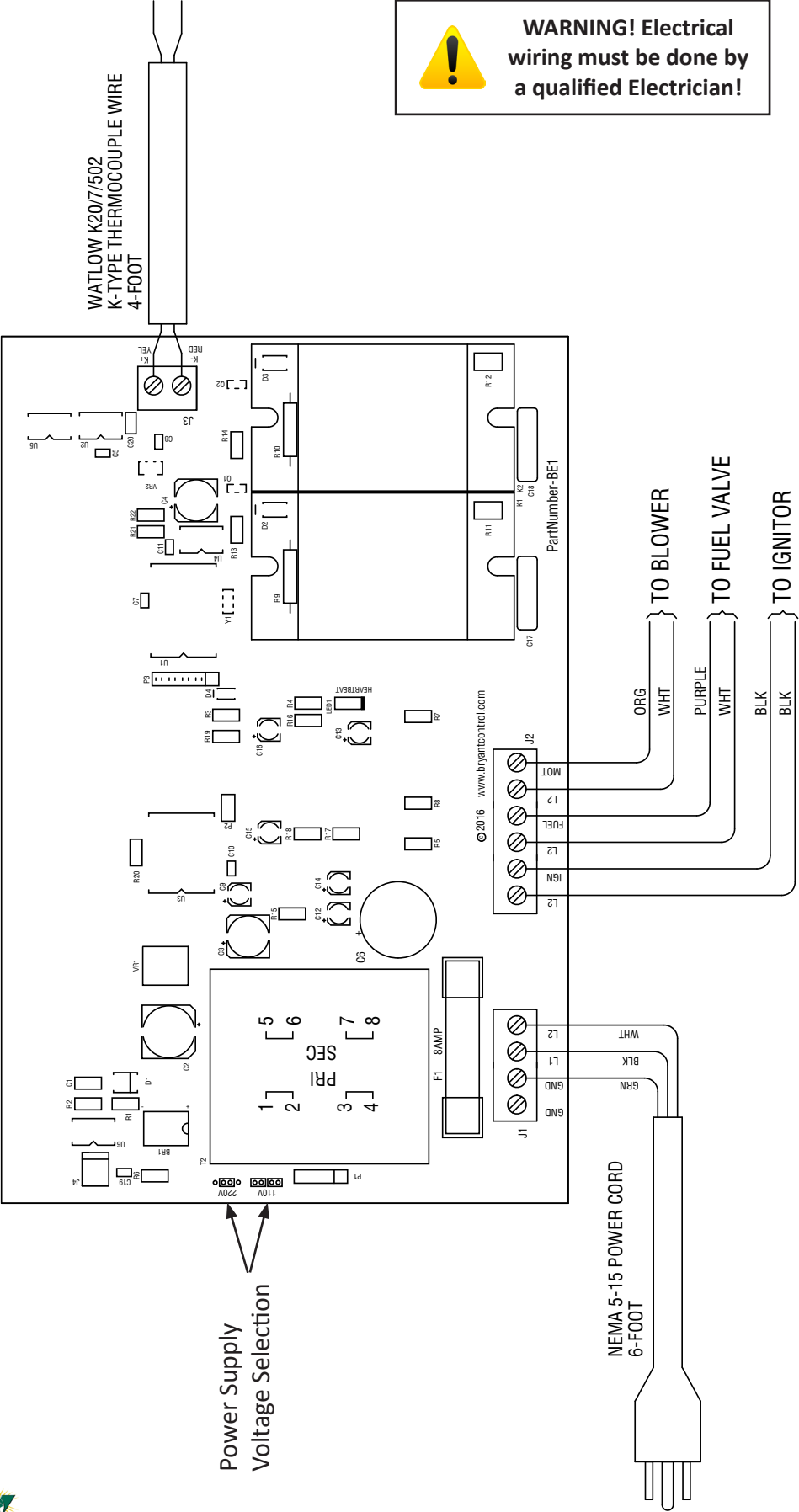
115 VOLT AC



~~230 VOLT AC~~



Oil Burner - Electronic Control Wiring Diagram



WARNING! Electrical wiring must be done by a qualified Electrician!

DANGER

**ELECTRICAL HAZARD
DISCONNECT POWER
BEFORE SERVICING**



Power Supply Voltage Selection:

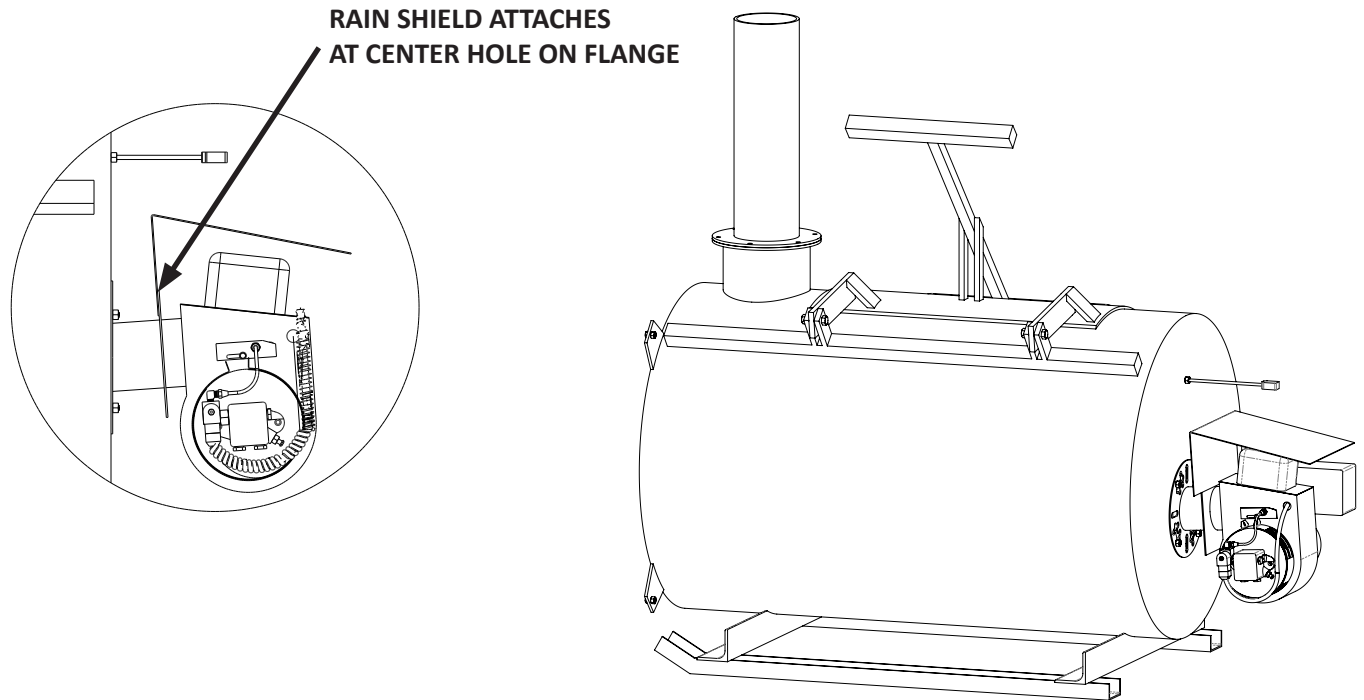
For 110 VAC place jumpers on all 4 pins.

For 220 VAC place 1 jumper on 2 center pins.

Oil Burner - Power and Rain Shield Installation

1. Plug in the attached power cord into the proper voltage outlet.
2. A 20-amp service is recommended. (12 gauge wire)
3. Install the rain shield by bolting the shield to the square flange between the chamber and burner transformer as shown in figure 13 below. (Rain Shield is provided with the bolt and nut attached.)

Figure 13 - OIL BURNER



Testing the Burner

Run a burner test before loading the cremator with a carcass.



*The Unit will SELF PRIME if the return line is installed on an Oil Burner.
(REFER TO BURNER MANUAL INCLUDED WITH YOUR BURNER.)*

Operation of Burn Mizer™ Cremator Digital Control (For Oil or Gas Burner Units)

Operation



**Load crematory with carcass
ONLY AFTER THE BURNER UNIT HAS PASSED TESTING!**

1. Do not over load (no more than $\frac{3}{4}$ full).
2. Do not place carcass within 12 inches of the burner head.

Set auto timer for 1 hour per 100 pounds plus an extra $\frac{1}{2}$ hour.


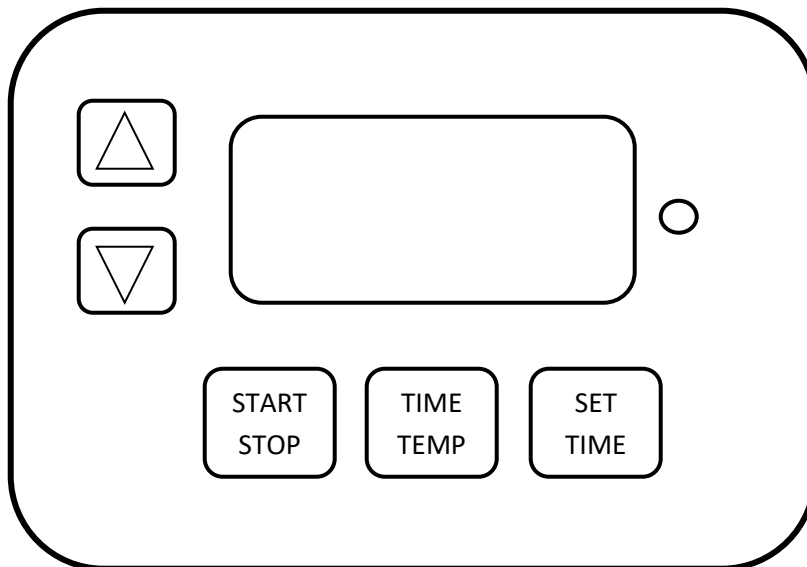
1. Press Start button once.
2. Press and hold the Set Time button and the  button to increase time or the  button to decrease time.

Figure 14



3. Start burner units.
4. After unit starts, close the charge door.
5. Make sure burner is firing before leaving unit.
6. NEVER OPEN CHARGE DOOR WITH UNIT BURNING.
7. NEVER CHARGE A HOT UNIT.
8. Clean out ash after burning or before reloading unit. Too much ash will affect the performance of the unit. A high ash level can result in main burner damage.
9. If using secondary burner unit, always start secondary burner before starting main burner unit (some states require 20 minutes). Secondary burner unit must run when main chamber is running. Always run secondary burner unit for an additional 30 minutes.
10. For example, run-time of 2 hours for main burner = 2 hours 30 minutes run time for secondary burner.



***The Unit will SELF PRIME if the return line is installed on an Oil Burner.
(Refer to Trouble shooting on page 23 & 24 if you are experiencing problems.)***

Operation of Burn Mizer™ Cremator Electronic Control (For Oil or Gas Burner Units)

Operation



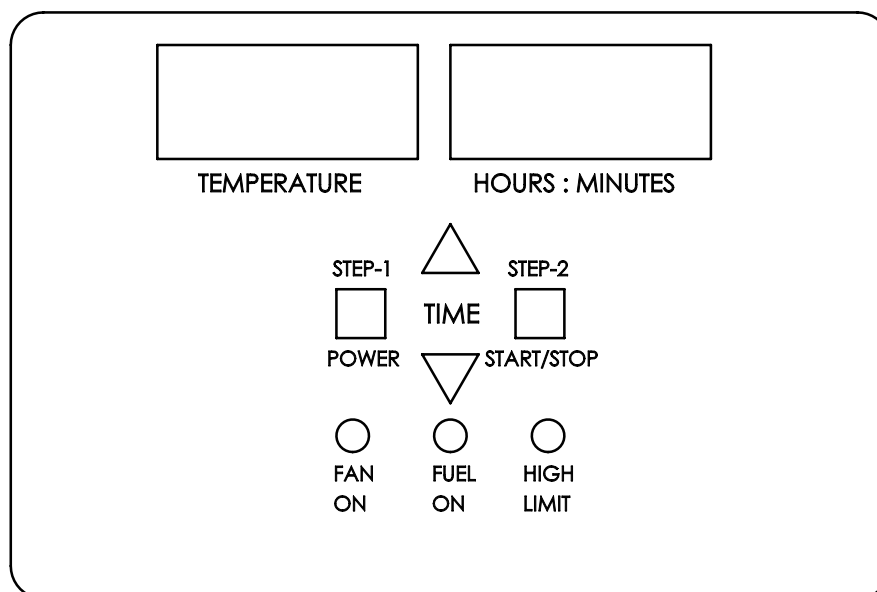
**Load crematory with carcass
ONLY AFTER THE BURNER UNIT HAS PASSED TESTING!**



1. Do not over load (no more than $\frac{3}{4}$ full).
2. Do not place carcass within 12 inches of the burner head.

Set auto timer for 1 hour per 100 pounds plus an extra $\frac{1}{2}$ hour.

1. Press Power Button once to power up control.
2. Press Power Button a second time to set the burn time.

Figure 14



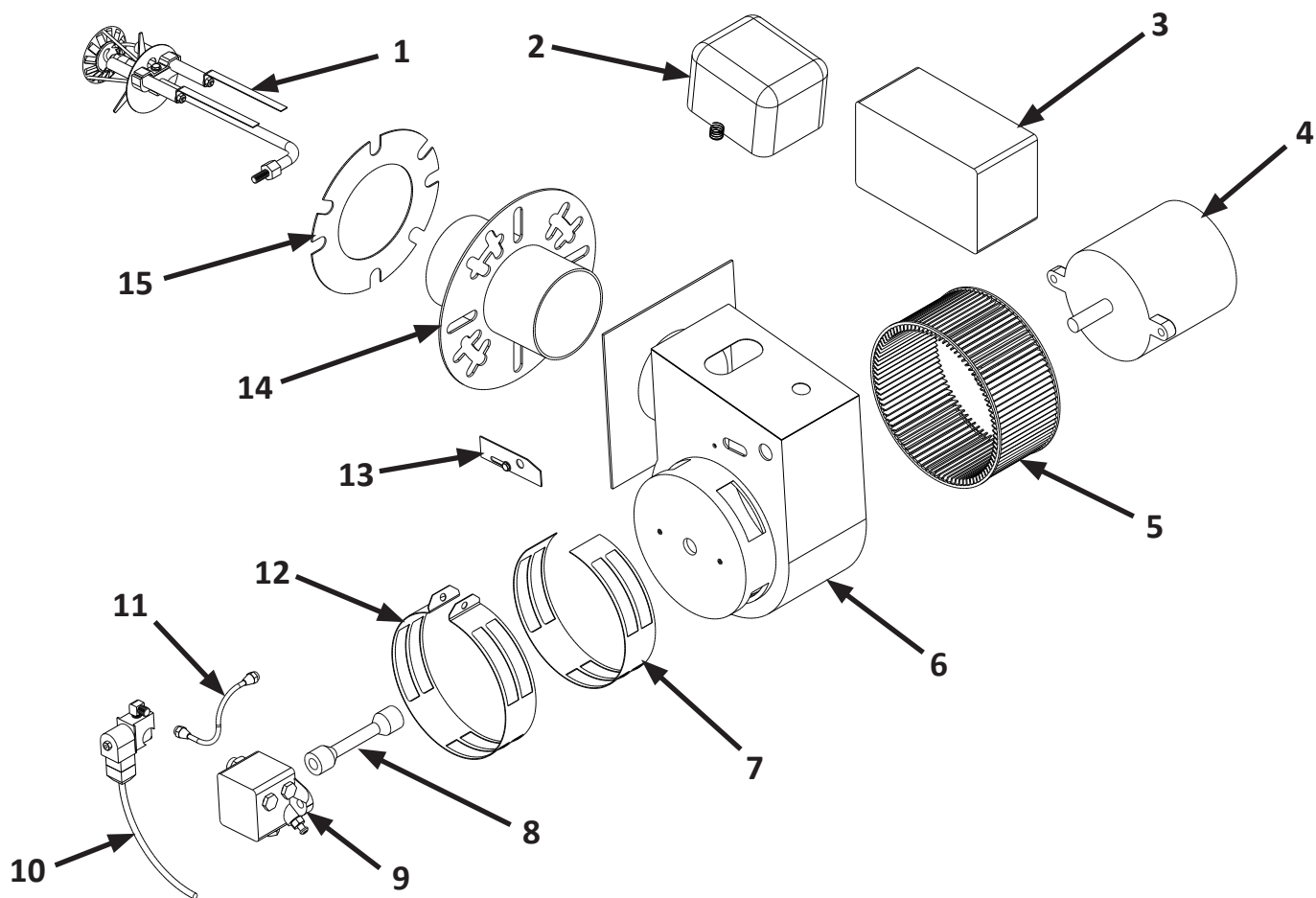
3. Press Up  or Down  Buttons to select the burn time.
4. Press Start/Stop Button once to start the burn operation.
5. Press Start/Stop Button a second time to stop the burn operation
6. Press Start/Stop Button a third time to turn control off.
7. After unit starts, close the charge door.
8. Make sure burner is firing before leaving unit.
9. NEVER OPEN CHARGE DOOR WITH UNIT BURNING.
10. NEVER CHARGE A HOT UNIT.
11. Clean out ash after burning or before reloading unit. Too much ash will affect the performance of the unit. A high ash level can result in main burner damage.
12. If using secondary burner unit, always start secondary burner before starting main burner unit (some states require 20 minutes). Secondary burner unit must run when main chamber is running. Always run secondary burner unit for an additional 30 minutes.
13. For example, run-time of 2 hours for main burner = 2 hours 30 minutes run time for secondary burner.



***The Unit will SELF PRIME if the return line is installed on an Oil Burner.
(Refer to Trouble shooting on page 23 & 24 if you are experiencing problems.)***



Oil Burner - Exploded Drawing and Parts List

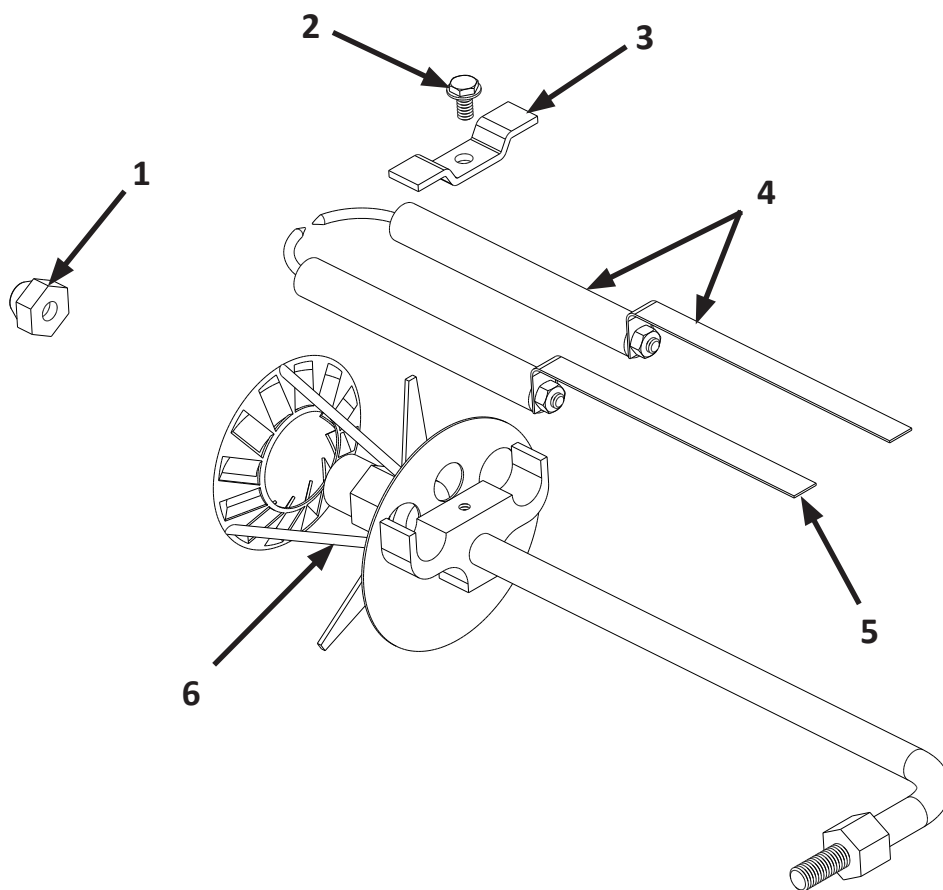


| KEY # | PART # | DESCRIPTION | QTY |
|-------|------------|-------------------------------------|-----|
| 1 | 4751213 | Gun Assembly | 1 |
| 2 | 4751205 | 120 VAC 60 HZ Transformer | 1 |
| 2 | 4751252 | 230 VAC 50 HZ Transformer | 1 |
| 2 | 4751252-60 | 230 VAC 60 HZ Transformer | 1 |
| 3 | 4751243 | Digital Control With Terminal Strip | 1 |
| 3 | 475339 | Electronic Control | 1 |
| 4 | 4751201 | 120 VAC 60 HZ Motor | 1 |
| 4 | 4751251 | 230 VAC 50 HZ or 60 HZ Motor | 1 |
| 5 | 4751203 | Fan | 1 |
| 6 | 4751204 | Housing | 1 |
| 7 | 4751207 | Inner Air Band | 1 |
| 8 | 4751209 | Drive Coupler | 1 |
| 9 | 4751211 | Fuel Pump 60 HZ | 1 |
| 9 | 4751253 | Fuel Pump 50 HZ | 1 |
| 10 | 4751237 | Fuel Valve 120 VAC | 1 |
| 10 | 4751254 | Fuel Valve 230VAC | 1 |
| 11 | 4751210 | Oil Line Assembly | 1 |
| 12 | 4751208 | Outer Air Band | 1 |
| 13 | 4751235 | Slot Cover Plate | 1 |
| 14 | 4751230 | Air Tube Assembly | 1 |
| 15 | 4751216 | Gasket | 1 |

Oil Burner - Replacement Parts List

| PART # | DESCRIPTION | | QTY |
|--------|-----------------------------|----------------------------------|-----|
| 475300 | BURNER, CREMATOR, MECH CTRL | OIL, 120V, 60HZ, MODEL 12 | 1 |
| 475301 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 50HZ, MODEL 12 | 1 |
| 475302 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 60HZ, MODEL 12 | 1 |
| 475303 | BURNER, CREMATOR, MECH CTRL | OIL, 120V, 60HZ, MODEL 20 | 1 |
| 475304 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 50HZ, MODEL 20 | 1 |
| 475305 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 60HZ, MODEL 20 | 1 |
| 475306 | BURNER, CREMATOR, MECH CTRL | OIL, 120V, 60HZ, MODEL 4820 | 1 |
| 475307 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 50HZ, MODEL 4820 | 1 |
| 475308 | BURNER, CREMATOR, MECH CTRL | OIL, 220V, 60HZ, MODEL 4820 | 1 |
| 475309 | BURNER, CREMATOR, ELEC CTRL | OIL, 120V, 60HZ, MODEL 4830 | 1 |
| 475310 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 50HZ, MODEL 4830 | 1 |
| 475311 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 60HZ, MODEL 4830 | 1 |
| 475312 | BURNER, CREMATOR, NO CTRL | OIL, 120V, 60HZ, MODEL 4830 | 1 |
| 475313 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 50HZ, MODEL 4830 | 1 |
| 475314 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 60HZ, MODEL 4830 | 1 |
| 475315 | BURNER, CREMATOR, ELEC CTRL | OIL, 120V, 60HZ, MDL 7230/8430 | 1 |
| 475316 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 50HZ, MDL 7230/8430 | 1 |
| 475317 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 60HZ, MDL 7230/8430 | 1 |
| 475318 | BURNER, CREMATOR, NO CTRL | OIL, 120V, 60HZ, MODEL 7230/8430 | 1 |
| 475319 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 50HZ, MODEL 7230/8430 | 1 |
| 475320 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 60HZ, MODEL 7230/8430 | 1 |
| 475321 | BURNER, CREMATOR, ELEC CTRL | OIL, 120V, 60HZ, MODEL 8436 | 1 |
| 475322 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 50HZ, MODEL 8436 | 1 |
| 475323 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 60HZ, MODEL 8436 | 1 |
| 475324 | BURNER, CREMATOR, NO CTRL | OIL, 120V, 60HZ, MODEL 8436 | 1 |
| 475325 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 50HZ, MODEL 8436 | 1 |
| 475326 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 60HZ, MODEL 8436 | 1 |
| 475327 | BURNER, CREMATOR, ELEC CTRL | OIL, 120V, 60HZ, MODEL 9642 | 1 |
| 475328 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 50HZ, MODEL 9642 | 1 |
| 475329 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 60HZ, MODEL 9642 | 1 |
| 475330 | BURNER, CREMATOR, NO CTRL | OIL, 120V, 60HZ, MODEL 9642 | 1 |
| 475331 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 50HZ, MODEL 9642 | 1 |
| 475332 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 60HZ, MODEL 9642 | 1 |
| 475333 | BURNER, CREMATOR, ELEC CTRL | OIL, 120V, 60HZ, MODEL 10852 | 1 |
| 475334 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 50HZ, MODEL 10852 | 1 |
| 475335 | BURNER, CREMATOR, ELEC CTRL | OIL, 220V, 60HZ, MODEL 10852 | 1 |
| 475336 | BURNER, CREMATOR, NO CTRL | OIL, 120V, 60HZ, MODEL 10852 | 1 |
| 475337 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 50HZ, MODEL 10852 | 1 |
| 475338 | BURNER, CREMATOR, NO CTRL | OIL, 220V, 60HZ, MODEL 10852 | 1 |

Oil Burner - Gun Assembly (4751213) Replacement Parts List



| KEY # | PART # | DESCRIPTION | QTY |
|-------|-----------|--|-----|
| 1 | 4751001 | 1.20 GPH Nozzle, Model 20 | 1 |
| 1 | 4751002 | 1.35 GPH Nozzle, Model 4820/4830 | 1 |
| 1 | 4751003 | 2.50 GPH Nozzle, Model 10852 | 1 |
| 1 | 4751005 | 1.10 GPH Nozzle, Model 12 | 1 |
| 1 | 4751006 | 2.25 GPH Nozzle, Model 9642 | 1 |
| 1 | 4751007 | 2.00 GPH Nozzle, Model 8436 | 1 |
| 1 | 4751009 | 1.50 GPH Nozzle, Model 7230/8430 | 1 |
| 2 | NO NUMBER | #10-24 x 5/16" Slotted Hex Head bolt <i>(not sold as repair part)</i> | 0 |
| 3 | 4751224 | Hold Down | 1 |
| 4 | 4751226 | Electrode and Buss Bar Assembly | 1 |
| 5 | 4751227 | Buss Bar ONLY | 1 |
| 6 | NO NUMBER | Flame Lock Assembly <i>(not sold as repair part)</i> | 0 |

Oil Burner - Maintenance and Troubleshooting



IMPORTANT!
NEVER TOUCH ANY PART OF THIS UNIT WHILE IN OPERATION! SOME METAL PARTS CAN HAVE TEMPERATURES EXCEEDING 1500 DEGREES F. SERIOUS BURNS CAN RESULT IF UNPROTECTED SKIN COMES IN CONTACT WITH THESE PARTS. PLEASE BE SAFE.

| Symptom | Diagnosis | Solution |
|--------------------------------------|--|---|
| OIL BURNER Motor won't run | Unit is unplugged | Plug into proper power source. |
| | Inadequate circuit breaker | 20 Amp |
| | Reset is kicked | Push in red reset button on the outside of motor. |
| | Fuse on control board blown (electronic version) | Replace with 5 amp slow blow fuse. |
| | Controller board is not working properly | Consult dealer. |
| Poor or no fuel spray | Fuel level in tank | Check fuel supply. |
| | Dirty or worn nozzle | Replace nozzle after every 500 gallons of fuel. |
| | Air leaks in fuel lines or fittings | Repair cracked fittings or fuel lines. |
| | Air needs "bled" from lines | Use 3/8" wrench to loosen bleeder valve on pump. Burner must be running. Not required for burners using a return line. |
| | Improper or clogged fuel filter | Use canister type filter. Clean accordingly. |
| | Drive coupler is loose or broken | Tighten motor and fuel pump ends of drive coupler with 5/32" allen wrench. |
| | Failed fuel pump | Check all above areas first. Remove fuel valve using 9/16" wrench. Start unit. Watch for fuel where valve was removed. If fuel flows through the valve then the valve needs replaced. If no fuel flows through the valve then check your fuel tank. |
| | Failed valve | Be sure wiring harness is plugged into solenoid. If pump works and click can be heard but no fuel is seen, valve is bad. |

Oil Burner - Maintenance and Troubleshooting - continued

| | | |
|---|---|---|
| No spark | Worn contact springs | Replace |
| | Transformer has failed or is weak | Replace |
| | Electrodes are dirty, cracked, or need adjusted | Clean brass buss bars with sand paper and grease remover. Replace any cracked electrodes. Adjust for 1/8" gap at tips above nozzle. |
| Cremator smokes | Improper air adjustment | Adjust air band for minimum air and no black smoke. (Adjust the air band while the unit is firing). |
| | Unit is overloaded | Air circulation inside unit is important. <i>See page 19.</i> |
| Control board reads "probe fail" message | Heat probe sensor is bad | Replace |
| | Yellow probe wire cracked | Replace |
| | Heat probe plug needs cleaned or replaced. | Replace |
| Burner Unit Vibrates | Fan is unbalanced | Check for ice or snow on fan. |
| | | Check for rodents in fan. |
| | | Check for bent fan. |

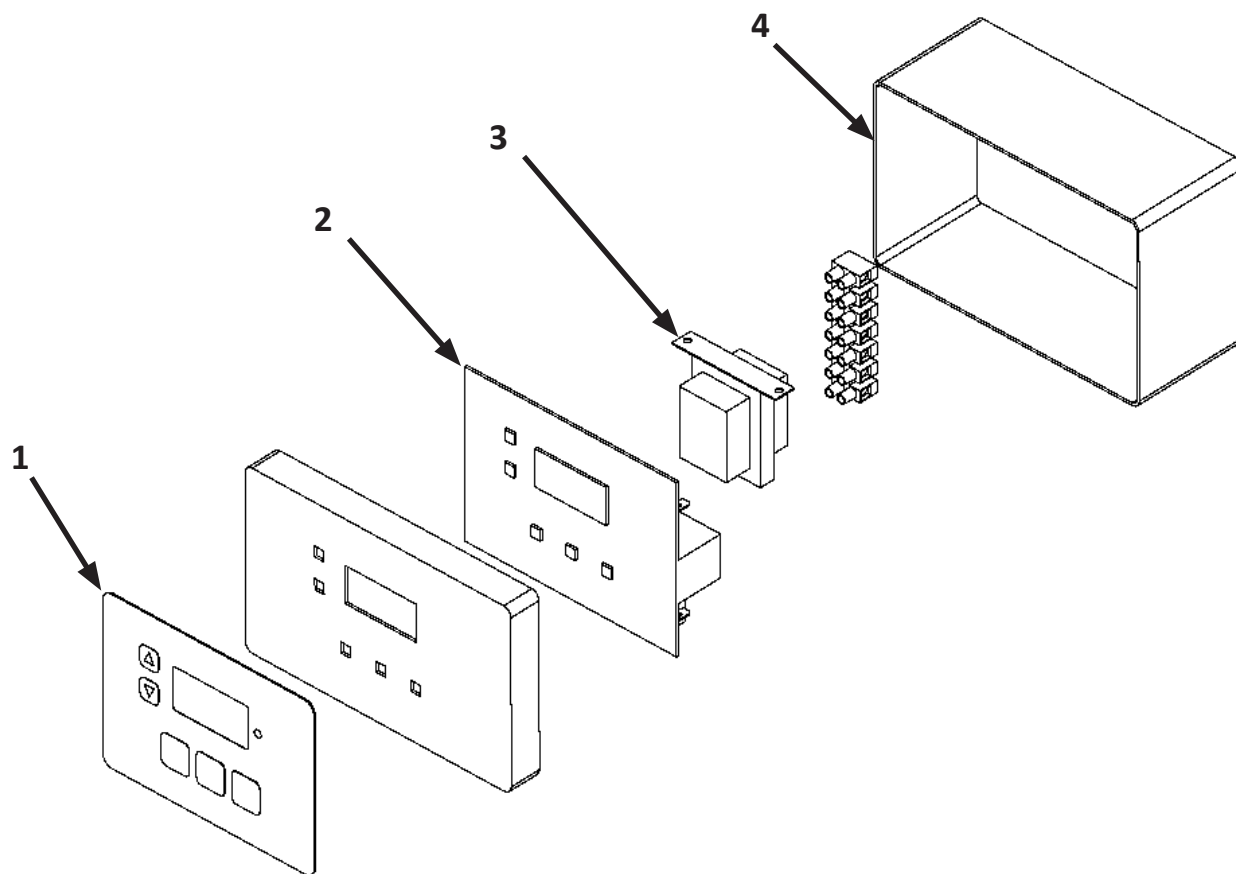
The Burn Mizer cremator is a very durable and dependable unit. It does require some general maintenance to keep the unit running properly.

1. Keep fan intake screen clean at all times.
2. Any missing tile should be replaced immediately. Replacements can be shipped UPS and are relatively easy to repair. This would also include the blanket that is on the inside of the door.
3. Keep unit cleaned out. We recommend cleaning after each burn.



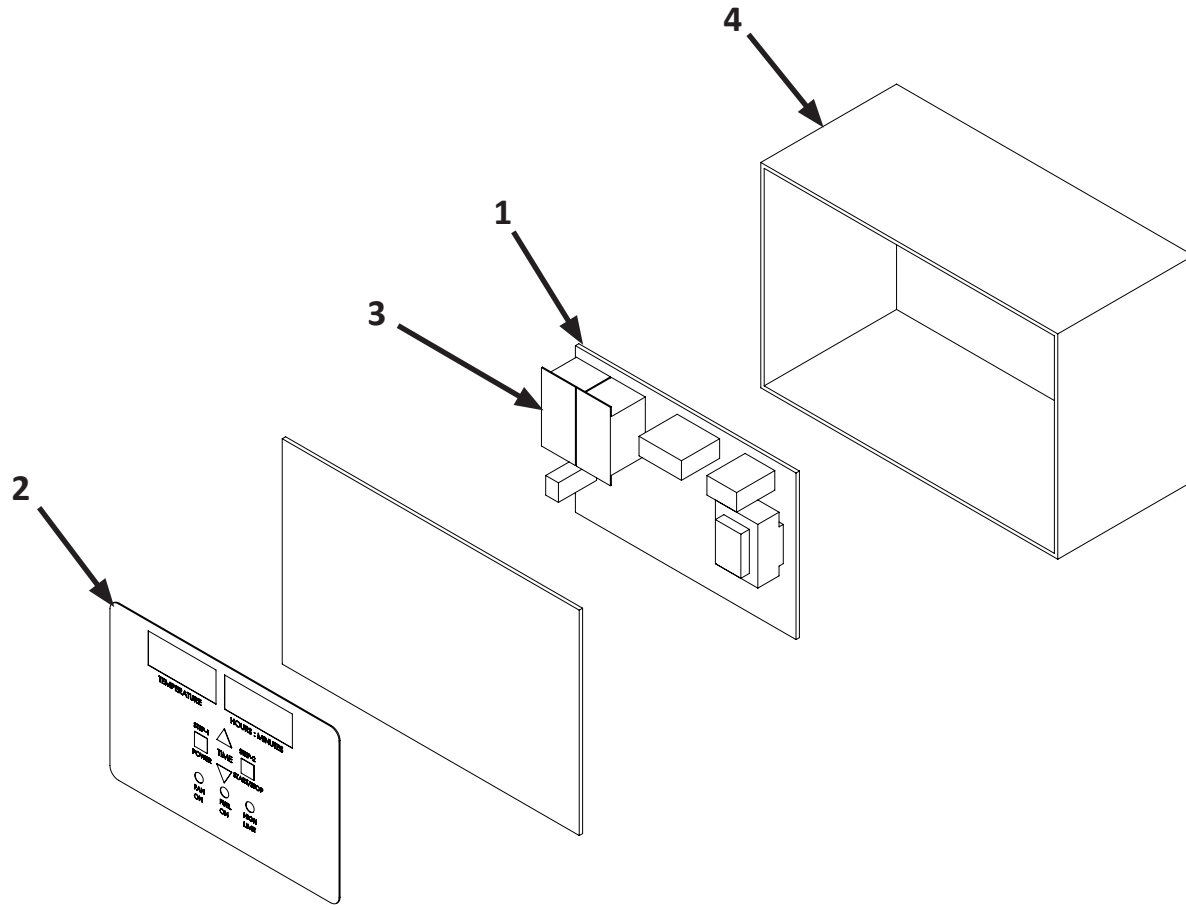
FOR MORE DETAIL ON TESTING SEE THE BURNER MANUAL INCLUDED WITH YOUR BURNER.

Digital Control Exploded & Replacement Parts List - (Oil or Gas Burner)



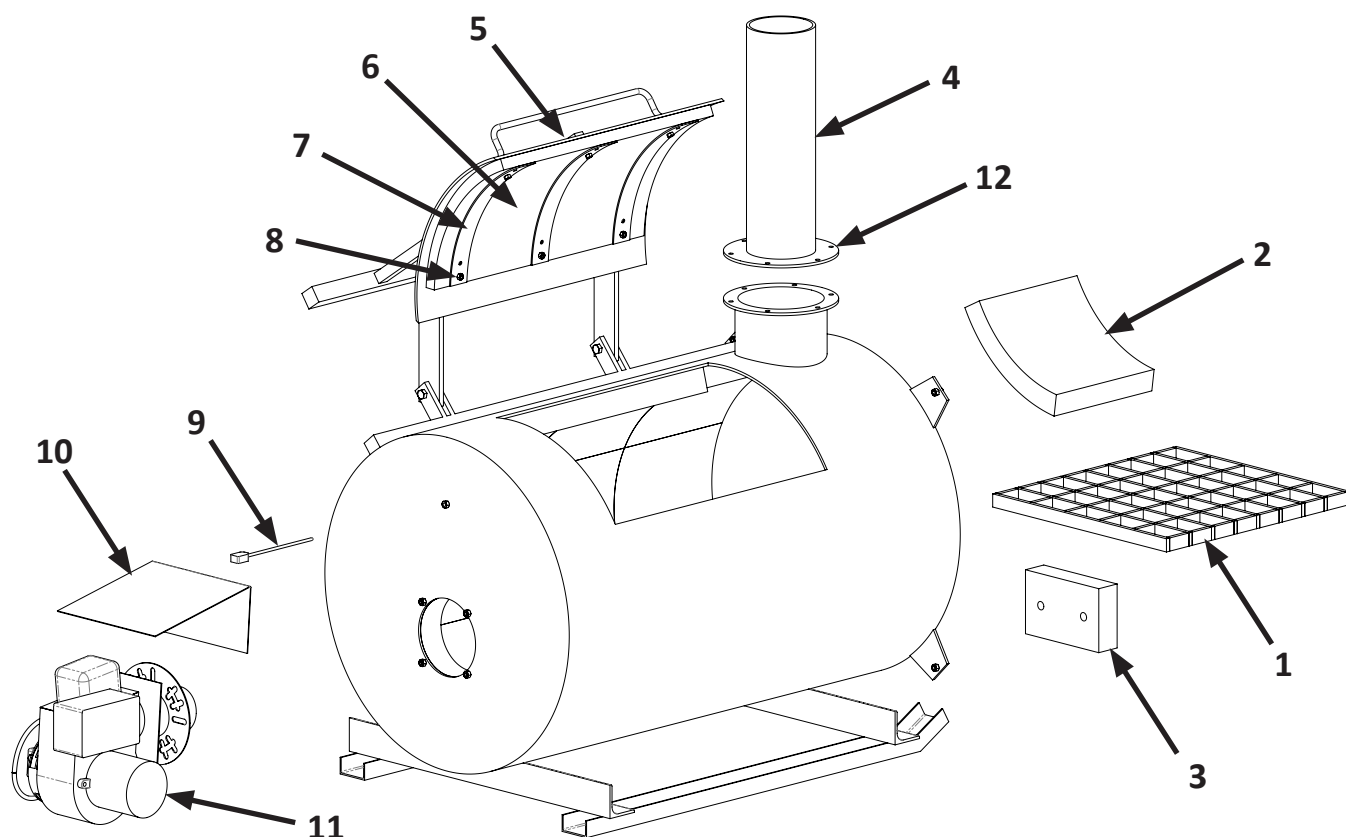
| KEY # | PART # | DESCRIPTION | QTY |
|-------|------------|--------------------------------------|-----|
| 1 | 4751248 | Cremator Control Decal | 1 |
| 2 | 4751243B | Cremator Controller Board | 1 |
| 3 | 4751246 | Cremator Control Transformer | 1 |
| 3 | 4751246-50 | Cremator Control Transformer - 50 HZ | 1 |
| 4 | 4751245 | Cremator Control Box | 1 |

Electronic Control Exploded & Replacement Parts List - (Oil or Gas Burner)



| KEY # | PART # | DESCRIPTION | QTY |
|-------|--------|---|-----|
| 1 | 475516 | Electronic Cremator Control Board, 120/230V, 50/60 HZ | 1 |
| 2 | 475517 | Electronic Cremator Control Decal | 1 |
| 3 | 475518 | Electronic Cremator Control Relay | 2 |
| 4 | 475519 | Electronic Cremator Control Enclosure | 1 |

Cremator - Exploded & Replacement Parts List



| KEY # | PART # | DESCRIPTION | QTY |
|----------|-------------------------------------|---|-----|
| 1 | GRATE KITS | | |
| | 475090 | Grate Kit for Model 4830 | 1 |
| | 475091 | Grate Kit for Model 7230/8430 | 1 |
| | 475092 | Grate Kit for Model 8436 | 1 |
| | 475093 | Grate Kit for Model 9642 | 1 |
| | 475095 | Grate Kit for Model 10852 | 1 |
| 2 | REPAIR LINER BLOCKS ONLY | | |
| | 475180 | Repair Liner Block Only for Models 4830-7230-8430 | - |
| | 475181 | Repair Liner Block Only for Model 8436 | - |
| | 475182 | Repair Liner Block Only for Model 9642 | - |
| | 475183 | Repair Liner Block Only for Model 10852 | - |
| | 4753510 | Mortar - 15 lb Pail | - |
| | 4753511 | Mortar - 55 lb Bag | - |
| - | BLOCK LINER REPLACEMENT KITS | | |
| | 475173 | Replacement Block Liner Kit - Model 8430 (Hatchery Waste Model) | - |
| | 475174 | Replacement Block Liner Kit - Model 10852 | - |
| | 475175 | Replacement Block Liner Kit - Model 4830 | - |
| | 475176 | Replacement Block Liner Kit - Model 7230 | - |
| | 475177 | Replacement Block Liner Kit - Model 8436 | - |
| | 475178 | Replacement Block Liner Kit - Model 9642 | - |
| | 4753110 | Replacement Block Liner Kit - Model 20 | - |
| | 4753710 | Replacement Block Liner Kit - Model 8430 (Standard Model) | - |

Burn Mizer™ Cremator Replacement Parts List - continued

| KEY # | PART # | DESCRIPTION | QTY |
|----------|--|---|-----|
| 3 | CLEAN OUT DOOR REFRACTORY | | |
| | 475340 | 30" & 36" CREMATOR DIAMETER CLEAN OUT DOOR REFRACTORY | 1 |
| | 475341 | 42" CREMATOR DIAMETER CLEAN OUT DOOR REFRACTORY | 1 |
| | 475342 | 52" CREMATOR DIAMETER CLEAN OUT DOOR REFRACTORY | 1 |
| 4 | 6" STACK PIPE WITHOUT FLANGE RING | | |
| | 475065-01 | 6" X 1' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-02 | 6" X 2' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-03 | 6" X 3' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-04 | 6" X 4' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-05 | 6" X 5' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-06 | 6" X 6' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-07 | 6" X 7' STACK PIPE - NO FLANGE RING | 1 |
| | 475065-08 | 6" X 8' STACK PIPE - NO FLANGE RING | 1 |
| 4 | 6" STACK PIPE WITH WELDED FLANGE RING | | |
| | 475065F-01 | 6" X 1' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-02 | 6" X 2' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-03 | 6" X 3' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-04 | 6" X 4' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-05 | 6" X 5' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-06 | 6" X 6' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-07 | 6" X 7' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475065F-08 | 6" X 8' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| 4 | 8" STACK PIPE WITHOUT FLANGE RING | | |
| | 475066-01 | 8" X 1' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-02 | 8" X 2' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-03 | 8" X 3' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-04 | 8" X 4' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-05 | 8" X 5' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-06 | 8" X 6' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-07 | 8" X 7' STACK PIPE - NO FLANGE RING | 1 |
| | 475066-08 | 8" X 8' STACK PIPE - NO FLANGE RING | 1 |
| 4 | 8" STACK PIPE WITH WELDED FLANGE RING | | |
| | 475066F-01 | 8" X 1' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-02 | 8" X 2' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-03 | 8" X 3' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-04 | 8" X 4' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-05 | 8" X 5' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-06 | 8" X 6' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-07 | 8" X 7' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475066F-08 | 8" X 8' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| 4 | 10" STACK PIPE WITHOUT FLANGE RING | | |
| | 475068-01 | 10" X 1' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-02 | 10" X 2' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-03 | 10" X 3' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-04 | 10" X 4' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-05 | 10" X 5' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-06 | 10" X 6' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-07 | 10" X 7' STACK PIPE - NO FLANGE RING | 1 |
| | 475068-08 | 10" X 8' STACK PIPE - NO FLANGE RING | 1 |



Burn Mizer™ Cremator Replacement Parts List - continued

| KEY # | PART # | DESCRIPTION | QTY |
|-----------|--|---|-----|
| 4 | 10" STACK PIPE WITH WELDED FLANGE RING | | |
| | 475068F-01 | 10" X 1' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-02 | 10" X 2' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-03 | 10" X 3' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-04 | 10" X 4' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-05 | 10" X 5' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-06 | 10" X 6' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-07 | 10" X 7' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| | 475068F-08 | 10" X 8' STACK PIPE - WITH WELDED FLANGE RING | 1 |
| 5 | REPAIR DOORS ONLY | | |
| | 475220 | REPAIR DOOR ONLY - 1 DOOR - 28" x 18" | 1 |
| | 475221 | REPAIR DOOR ONLY - 1 DOOR - 36" x 18" | 1 |
| | 475222 | REPAIR DOOR ONLY - 1 DOOR - 42" x 18" | 1 |
| | 475223 | REPAIR DOOR ONLY - 1 DOOR - 48" x 22" | 1 |
| | 475225 | REPAIR DOOR ONLY - 1 DOOR - 54" x 23" | 1 |
| | 475227 | REPAIR DOOR ONLY - 1 DOOR - 66" X 31" | 1 |
| | 475228 | REPAIR DOOR ONLY - 1 DOOR - 77" X 45" | 1 |
| 6 | REPAIR INSULATION ONLY | | |
| | 475161 | FOR 1 DOOR 36" X 18" | 1 |
| | 475162 | FOR 1 DOOR 42" X 18" | 1 |
| | 475163 | FOR 1 DOOR 48" X 22" | 1 |
| | 475165 | FOR 1 DOOR 54" X 23" | 1 |
| | 475166 | FOR 1 DOOR 66" X 31" | 1 |
| | 475167 | FOR 1 DOOR 77" X 45" | 1 |
| - | DOOR REPAIR INSULATION KITS | | |
| | 475150 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 28" X 18" | 1 |
| | 475151 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 36" X 18" | 1 |
| | 475152 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 42" X 18" | 1 |
| | 475153 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 48" X 22" | 1 |
| | 475155 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 54" X 23" | 1 |
| | 475156 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 66" X 31" | 1 |
| | 475157 | REPAIR INSULATION KIT W/HDWE FOR 1 DOOR - 72" X 51" | 1 |
| | 475170 | REPAIR INSULATION - FULL ROLL 34" W X 25' L 70.8SQFT/6.58SQM | 1 |
| | 475171 | REPAIR INSULATION - FULL ROLL 36" W X 25' L - 75SQFT/6.97SQM | 1 |
| | 475172 | REPAIR INSULATION - FULL ROLL 46" W X 25' L 100SQFT/9.29SQM | 1 |
| 7 | DOOR STRAP / INSULATOR PLATE / OTHER MISC. REPAIR PARTS | | |
| | 475145 | 5" X 16" STRAP FOR 28" X 18", 36" X 18", 42" X 18" & 48" X 22" DOOR | - |
| | 475146 | 5" X 10" STRAP FOR 48" X 22", 54" X 23", 66" X 31" & 77" X 45" DOOR | - |
| 8 | 475147 | 3/8" SS NUT & BOLT | - |
| 9 | 4751239-160 | HEAT PROBE | 1 |
| | 4751238 | HEAT PROBE FEMALE PLUG (Not Shown) | 1 |
| | 4751241 | THERMO COUPLE WIRE (Per Foot) | - |
| 10 | 4753902 | RAIN SHIELD | 1 |
| 11 | | REPAIR BURNERS (Refer to the OIL or GAS BURNER parts lists) | 1 |
| 12 | FLANGE RINGS | | |
| | 4751530 | 6" CREMATOR STACK FLANGE | 1 |
| | 4751531 | 7" CREMATOR STACK FLANGE | 1 |
| | 4751532 | 8" CREMATOR STACK FLANGE | 1 |
| | 475069 | 10" CREMATOR FLANGE RING | 1 |



Gas Burner Installation (Specific to Gas Burner ONLY)

If you are installing an OIL burner unit DO NOT USE THIS SECTION; instead refer to the OIL BURNER section starting on page 14.

Gas Burner – Gas Line Set-up

Figure 14

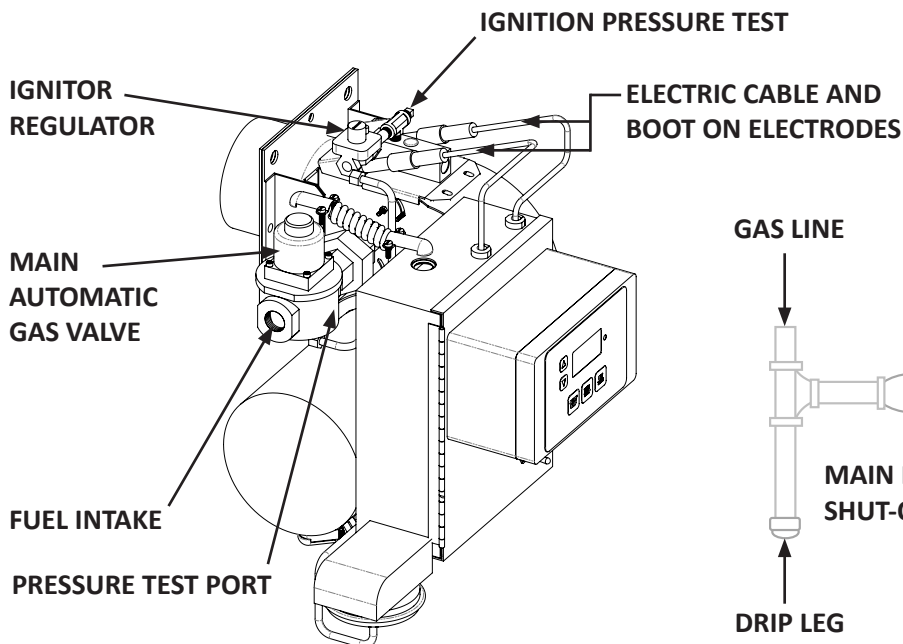
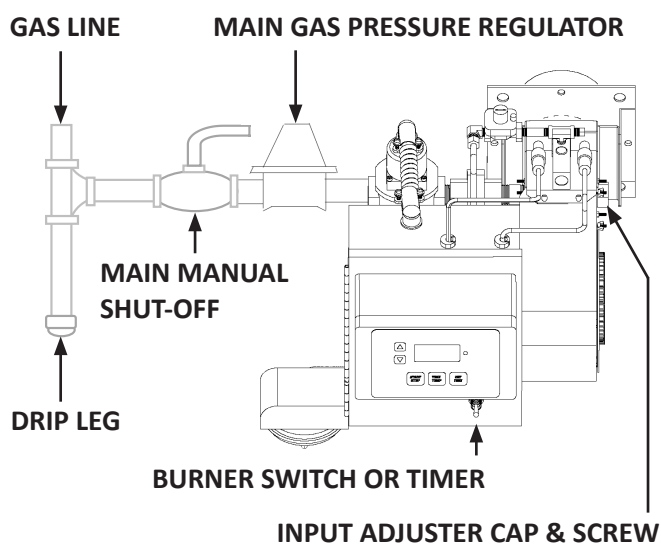
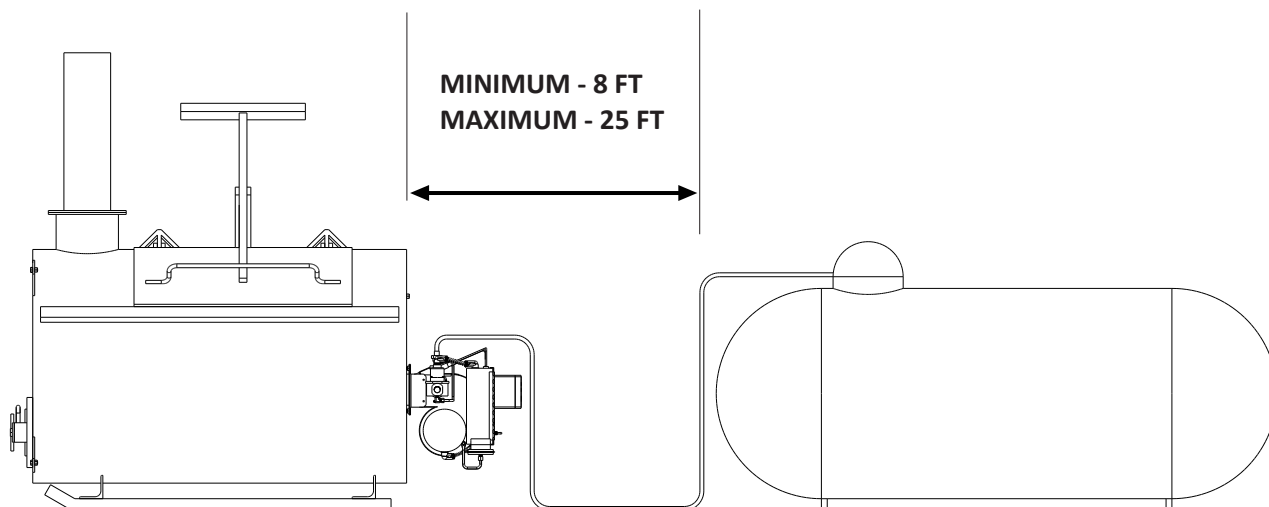


Figure 15



Main Gas Pressure Regulator, Shut-off Valve and plumbing supplies will be provided and installed by your local area fuel supplier. SEE GAS BURNER MANUAL FOR DETAILS.

Figure 16 – Overview of Propane Tank Plumbing



Gas Burner - Primary Chamber Fuel Input



REFER TO THE BURNER MANUAL INCLUDED WITH THE BURNER FOR MORE DETAILS!

Gas Burner - Initial Start Up / Adjustment



THE MAIN GAS INPUT ADJUSTER ARRIVES FROM THE FACTORY PRE-SET. GAS PRESSURE ADJUSTMENTS FOR START-UP AND OPERATION MUST BE FOLLOWED ACCORDING TO THE INSTRUCTIONS IN THE BURNER MANUFACTURER MANUAL, OR THE CREMATOR WARRANTY WILL BE VOIDED, AS DAMAGE CAN OCCUR TO THE UNIT. REFER TO THE INSTALLATION SECTION OF THE BURNER MANUAL INCLUDED WITH THE BURNER FOR MORE DETAILS.

Gas Burner - Location



REFER TO THE BURNER MANUAL INCLUDED WITH THE BURNER FOR MORE DETAILS!

Gas Burner - Wiring

Refer to Gas Burner wiring diagram*** on pages 37 & 38.



WARNING:

Electrical wiring must be done
by a qualified Electrician!



Gas Burner - Plumbing



WARNING!



Failure to follow instructions exactly may result in causing property damage, personal injury or death. Installation must conform to local codes, in the absence of local codes, the latest edition of National Fuel Gas Code is available from the American National Standard Institute. (Refer to the manual included with your Burner for more detail on conversions or changes, which must be made by the Burner manufacturer.)

CODE COMPLIANCE IS THE SOLE RESPONSIBILITY OF THE INSTALLER.

1. When installing plumbing for burners, 3/4" pipe or larger should be used. The supply piping to the burner should branch off from the main line as close to the source as possible (NATURAL gas meter or PROPANE tank regulator). When branching off from an existing gas line, do not tap off the bottom of a horizontal section. Use new black pipe and malleable fittings free from cutting and threading burrs or defects.
2. When selecting the burner supply piping size use Table 1 below. The permissible pressure drop must be based on the pressure available at the inlet to the supply pipe branch line when all other gas equipment fed by the same source (NATURAL gas meter or PROPANE tank regulator) is firing at full rate. You also need to take into account any other INCINOMITE burners to be attached to the same branch line.
3. Use pipe joint compound resistant to liquid petroleum gases when using either NATURAL or PROPANE gas.

Table 1 (Capacities shown are for total pressure drop of 0.3"W.C. For higher permissible pressure drops, consult your fuel supplier. SOURCE: Gas Engineers Handbook – 1974 Industrial Press Inc. NY, NY

| NPT PIPE SIZE | TYPE OF GAS | APPROXIMATE CAPACITY - MBH LENGTH OF PIPE / FEET | | | | |
|---------------------|----------------|---|-----|-----|-----|-----|
| | | 10 | 20 | 40 | 60 | 100 |
| 3/4" | Natural | 275 | 200 | 130 | 100 | --- |
| | Propane | 450 | 300 | 200 | 165 | 125 |
| 1" | Natural | 520 | 350 | 245 | 195 | 150 |
| | Propane | 800 | 550 | 385 | 300 | 235 |
| 1 1/4" | Natural | 800 | 730 | 500 | 400 | 300 |
| | Propane | --- | 800 | 790 | 630 | 480 |
| 1 1/2" | Natural | --- | 800 | 760 | 610 | 460 |
| | Propane | --- | --- | 800 | 800 | 725 |
| 2" | Natural | --- | --- | 800 | 800 | 800 |
| | Propane | --- | --- | --- | --- | 800 |

Gas Burner - Plumbing - continued

4. A suitable Main Gas Pressure Regulator should be installed.

(Local area fuel supplier will provide and install the regulator and gas line hook-ups.)



CAUTION!

If gas supply pressure is below its specified range during adjustment, an over-fire condition could result when pressure returns to normal, particularly if the regulator adjustment screw is bottomed out. **ALWAYS** confirm that at least the minimum rated pressure is being supplied during regulator adjustments, and **NEVER BOTTOM OUT** regulator screw.

5. When pressure testing the supply piping, the burner valve train must be protected. If the test pressure is 0.5 PSIG or less, closing the Main Manual Shut-Off Valve will suffice.



If the test pressure is over 0.5 PSIG, the test must be made without any burner components connected, including Main Manual Shut-Off Valves.



WARNING: EXPLOSION HAZARD. DO NOT USE OXYGEN FOR PRESSURE TESTING. AN EXPLOSION COULD OCCUR DURING INITIAL START-UP.



REFER TO THE MANUAL INCLUDED WITH YOUR BURNER FOR MORE DETAILS!



CAUTION: Regulated gas pressures must not exceed 14" W.C. or Main Automatic Gas Valve and Ignitor Regulator will be damaged. If excessive gas pressure is prevalent, the regulator must be a tight shut-off type to prevent high pressures from developing during stand-by.

REFER TO THE MANUAL INCLUDED WITH YOUR BURNER FOR MORE DETAIL!

6. Set the input BTU's based on the cremator model:

Model 4830 = 185,000 BTU

Model 7230 & 8430 = 210,000 BTU

Model 8436 = 280,000 BTU

Model 9642 = 315,000 BTU

Model 10852 = 350,000 BTU

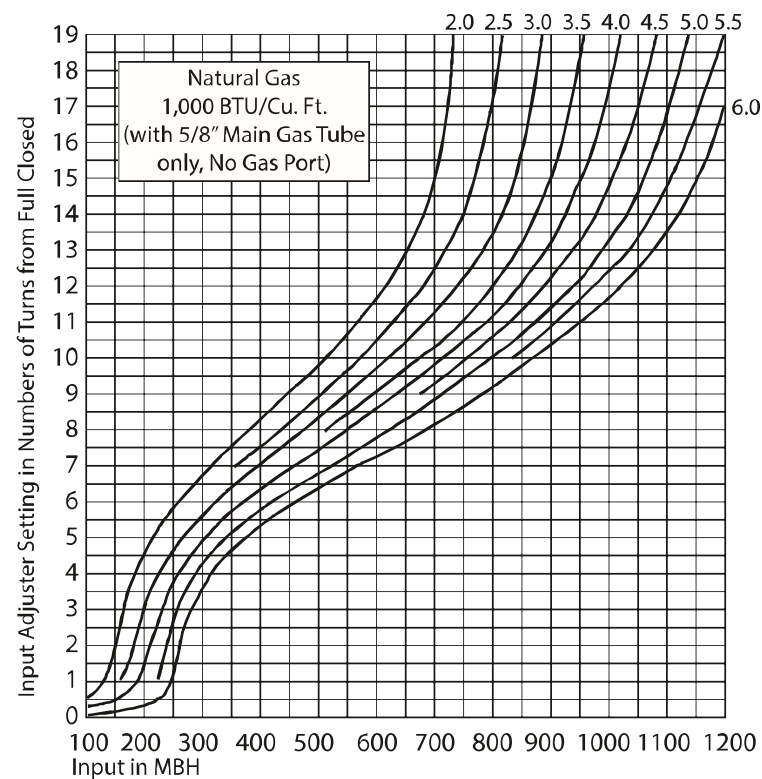
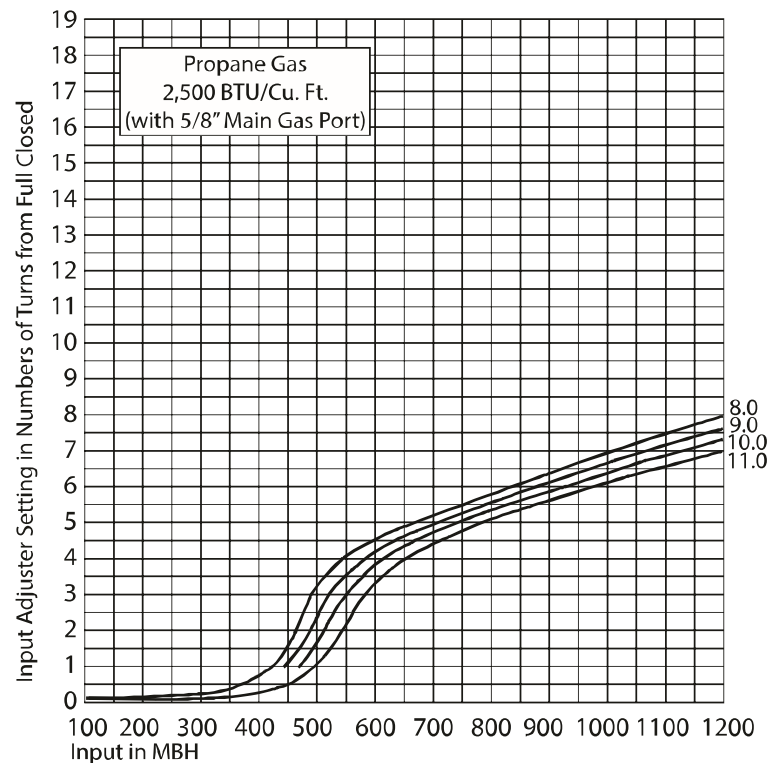
20" Secondary Afterburner = 168,000 BTU

12" Secondary Afterburner = 154,000 BTU

Follow the chart on the following page.

Gas Burner - Gas Pressure

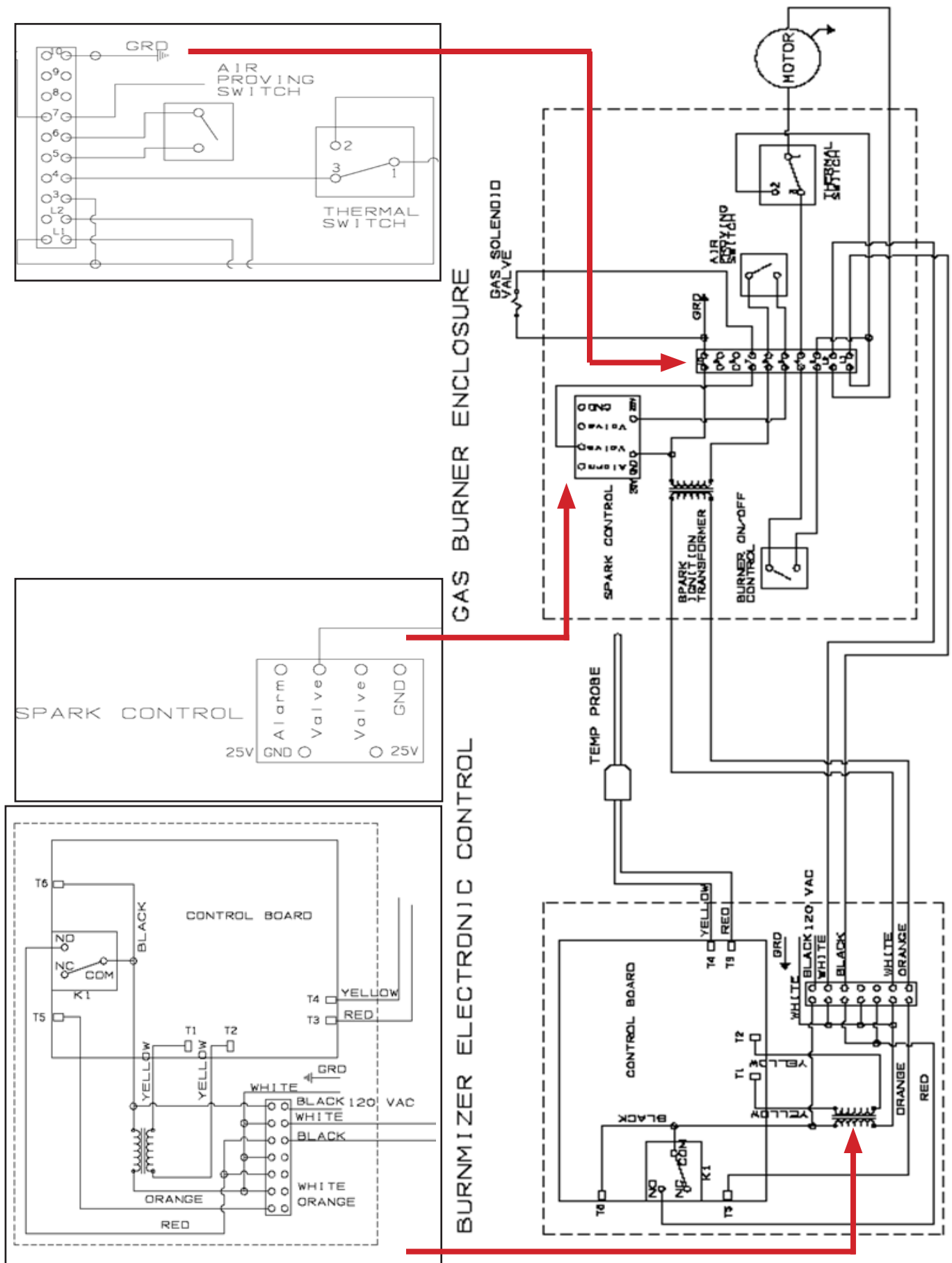
Gas Pressure at Main Automatic Valve (Inches Water Column)



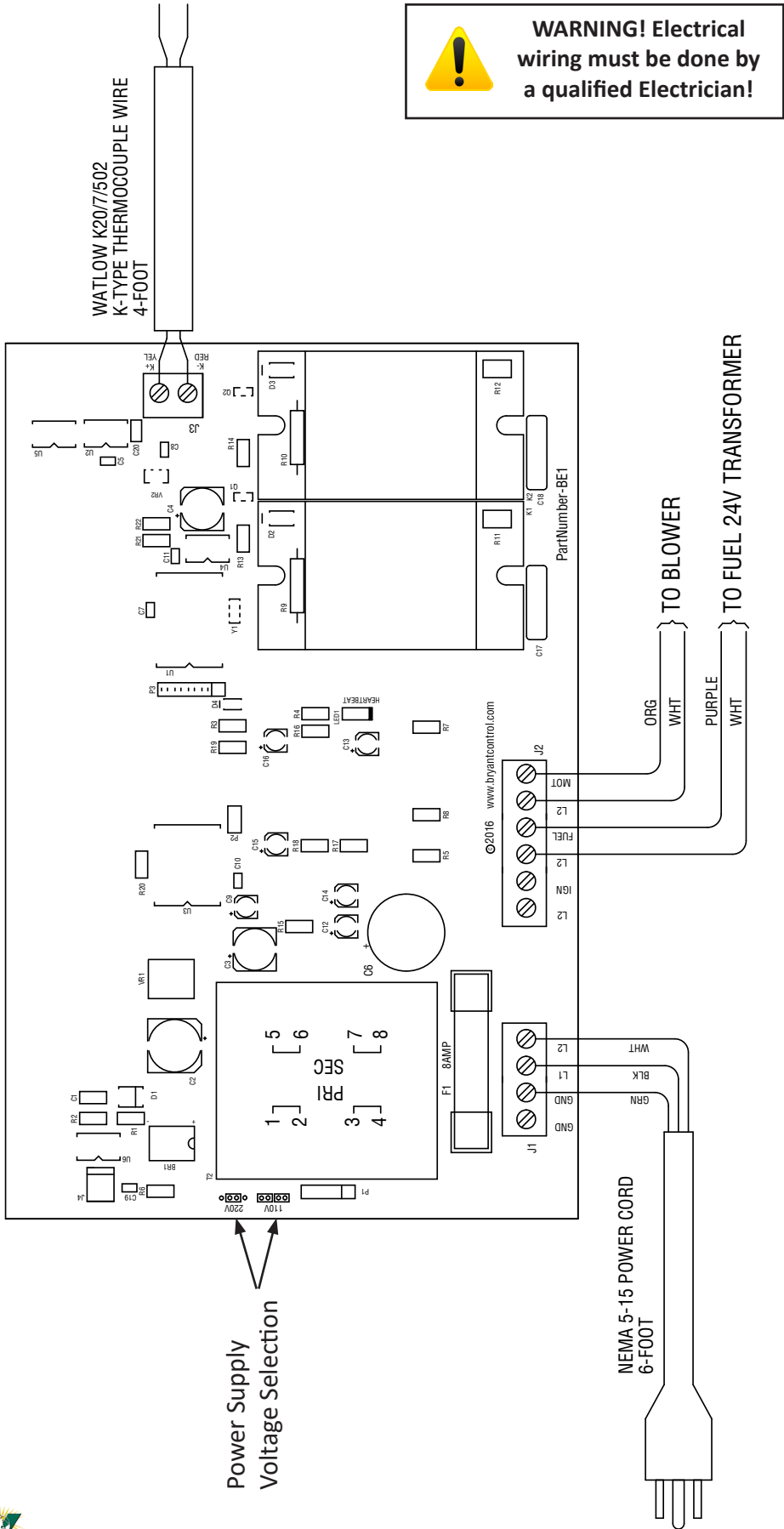
Firing Rate in MBH (1200 MBH = 1,200,000 BTU/Hr.)



Gas Burner - Digital Control with Terminal Strip Wiring Diagram



Gas Burner - Electronic Control Wiring Diagram



Power Supply Voltage Selection:

- For 110 VAC place jumpers on all 4 pins.
- For 220 VAC place 1 jumper on 2 center pins.

Gas Burner - Power and Rain Shield Installation

1. Plug in the attached power cord to the proper voltage outlet.
2. A 20-amp service is recommended. (12 gauge wire)

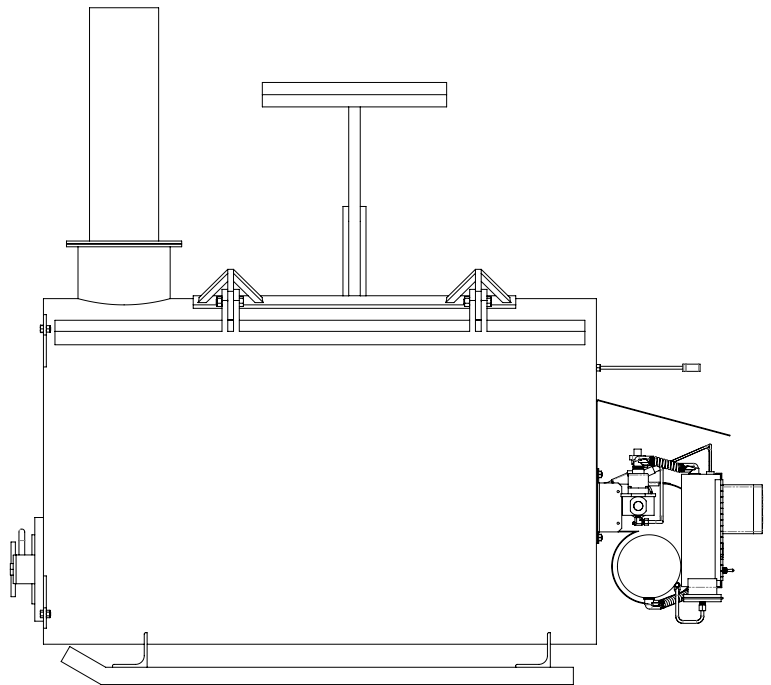
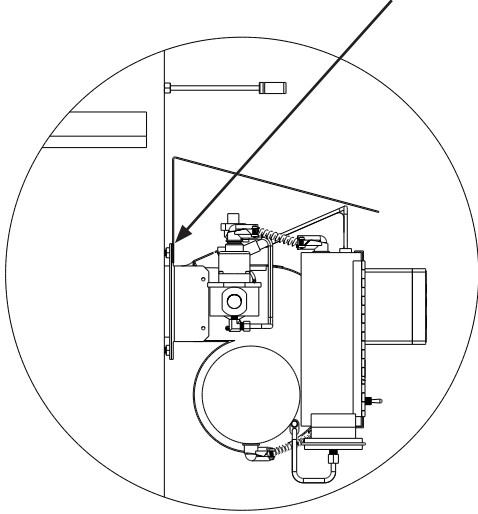


Before proceeding!
Be sure that you have checked for leaks and that you have followed the recommendation for connecting the power cord to a 20 amp service and used a 12 gauge wire.

3. Install the rain shield by bolting the shield to the square flange between the chamber and burner transformer.

Figure 17

Bolt in center hole with bolt and nut attached.
Bolt with top (2) bolts on burner flange.



Testing the Burner

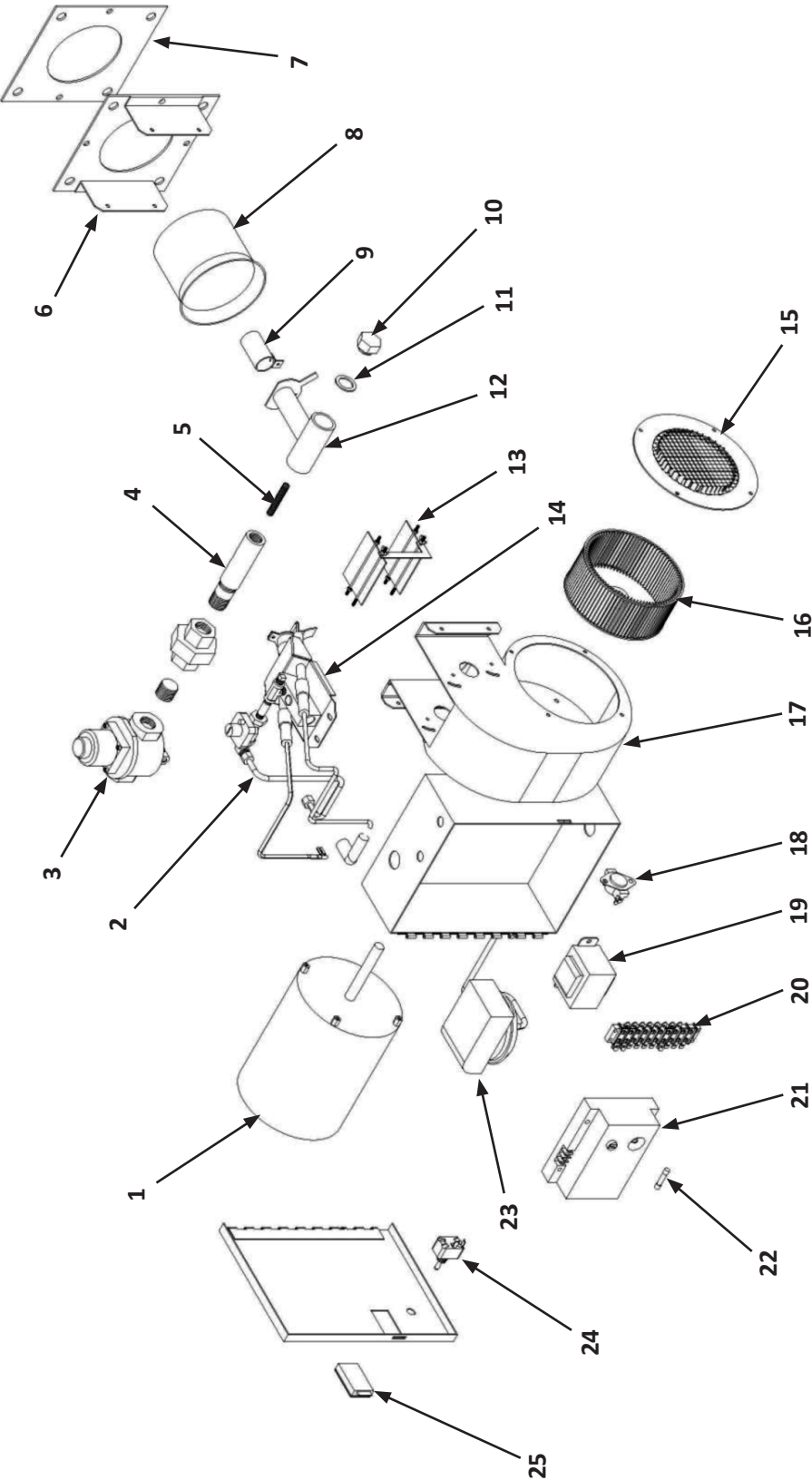
Run a burner test before loading the cremator with a carcass.



The Unit will fire after the fuel line is PURGED on a Gas Burner.

(REFER TO BURNER MANUAL INCLUDED WITH YOUR BURNER.)

Gas Burner - Exploded Drawing and Parts List

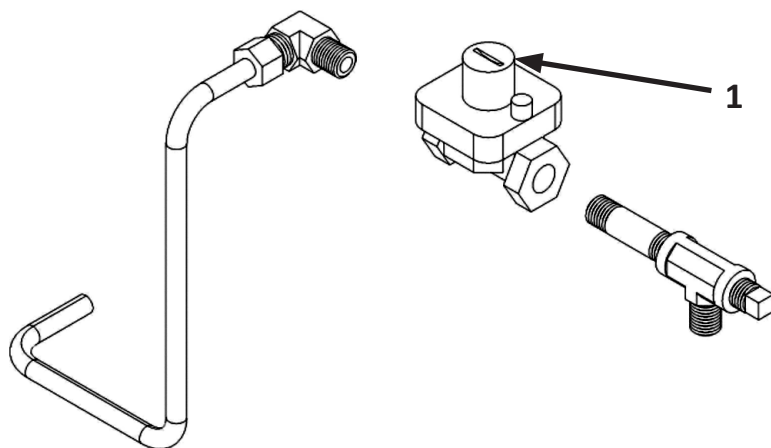


Gas Burner - Parts List continued with Replacement Parts

| KEY # | PART # | DESCRIPTION | QTY |
|---------------------------|------------|---|-----|
| 1 | 4756443-50 | 1/6 HP Motor | 1 |
| 2 | 4756412-96 | J121-DS Natural Ignitor Control Piping | 1 |
| 2 | 4756412-98 | J121-DS Propane Ignitor Control Piping | 1 |
| 3 | 475645250 | Gas Valve, Burner, 3/4" Port | 1 |
| 4 | 4756447-00 | Input Stop Nipple | 1 |
| 5 | 4756404-90 | Input Adjuster Screw Assembly | 1 |
| 6 | 4706407-90 | Mounting Flange Replacement Kit | 1 |
| 7 | 4756407-30 | Flange Gasket | 1 |
| 8 | 4756406-00 | Blast Tube – J121 - DS | 1 |
| 9 | 4756417-52 | Main Gas Port and Tube Kit – J121 – DS Propane | 1 |
| 9 | 4756417-54 | Main Gas Port and Tube Kit – J121 – DS Natural | 1 |
| 10 | 4756622-40 | Input Adjuster Cap | 1 |
| 11 | 4758450-59 | Input Adjuster Sealing Gasket | 1 |
| 12 | 4756403-00 | Manifold | 1 |
| 13 | 4756401-90 | Shutter Replacement Kit | 1 |
| 14 | 4756481-90 | Ignitor Assembly – J121 – DS | 1 |
| 15 | 475641690 | Inlet Ring | 1 |
| 16 | 4756415-00 | Blower Wheel – J121 – DS | 1 |
| 17 | 4756400-80 | Blower Housing | 1 |
| 18 | 4758425-18 | Thermal Switch | 1 |
| 19 | 4756447-50 | Transformer | 1 |
| 20 | 4758408-42 | 10 Position Terminal Strip | 1 |
| 21 | 4758429-03 | DSI Electronic Control Board | 1 |
| 22 | 4758408-76 | 3 Amp Type 3AG Glass Fuse | 1 |
| 23 | 4758425-19 | Blower Switch – J121 – DS | 1 |
| 24 | 4758423-05 | On-Off Toggle Switch | 1 |
| 25 | 4758445-25 | Latch Body | 1 |
| REPAIR GAS BURNERS | | | |
| | 475229 | BURNER, CREMATOR, BLANK, LP, 120/230V, 50/60HZ | 1 |
| | 475230 | BURNER, CREMATOR, BLANK, NG, 120/230V, 50/60HZ | 1 |
| | 475510 | BURNER, CREMATOR, LP, 120V, 50/60HZ, ELEC CNTRL | 1 |
| | 475511 | BURNER, CREMATOR, NG, 120V, 50/60HZ, ELEC CNTRL | 1 |
| | 475512 | BURNER, CREMATOR, LP, 230V, 50/60HZ, ELEC CNTRL | 1 |
| | 475513 | BURNER, CREMATOR, NG, 230V, 50/60HZ, ELEC CNTRL | 1 |
| | 475514 | BURNER, CREMATOR, LP, MECH CNTRL, 120/230V, 50/60HZ | 1 |
| | 475515 | BURNER, CREMATOR, NG, MECH CNTRL, 120/230V, 50/60HZ | 1 |

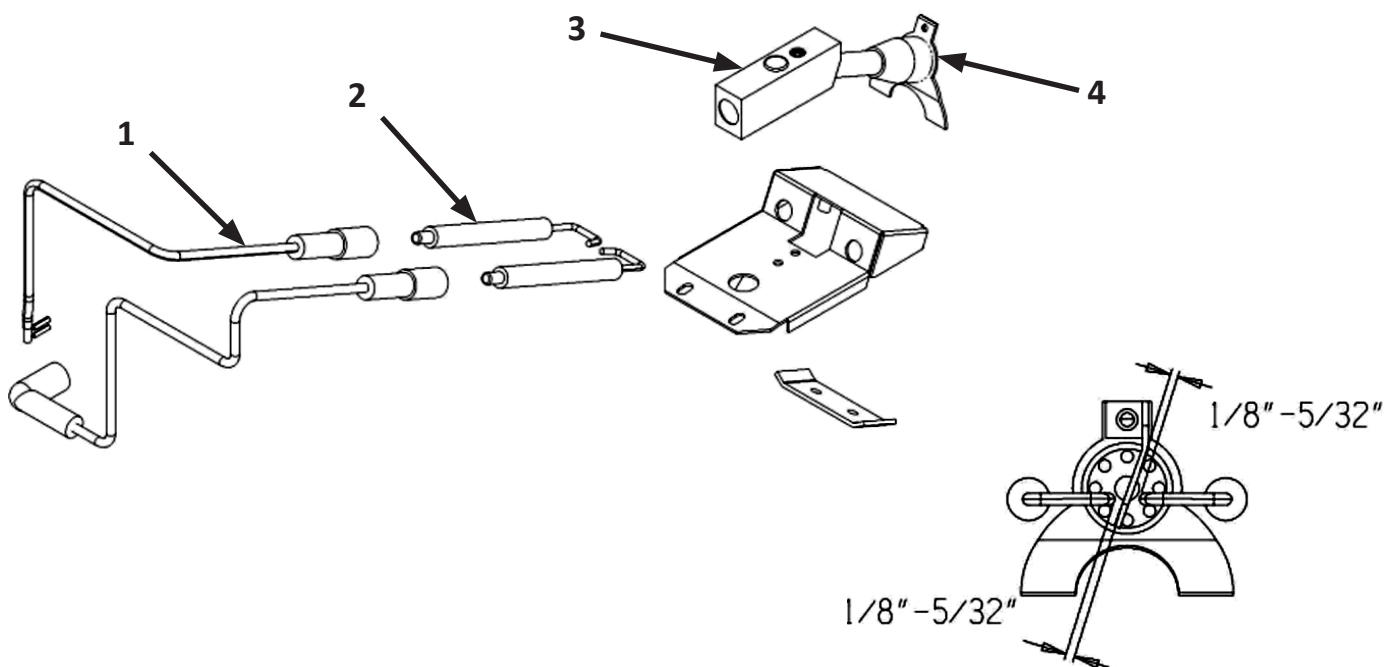
For CONTROL Exploded & Replacement Parts List – (Oil or Gas Burner), see pages 27 & 28.

Gas Burner - Exploded Ignitor Regulator



| KEY # | PART # | DESCRIPTION | QTY |
|-------|------------|---------------------------|-----|
| 1 | 4758400-00 | Ignitor Regulator 1/8 NPT | 1 |

Exploded Ignitor Control Piping – Replacement Parts



| KEY # | PART # | DESCRIPTION | QTY |
|-------|------------|-------------------------|-----|
| 1 | 4756458-51 | Electric Cable & Boot | 2 |
| 2 | 4756418-00 | Electrode | 2 |
| 3 | 4756481-70 | Ignitor Gas Inlet Block | 1 |
| 4 | 4756413-09 | Ground Barrier Kit | 1 |

Gas Burner - Maintenance and Troubleshooting



IMPORTANT!

NEVER TOUCH ANY PART OF THIS UNIT WHILE IN OPERATION! SOME METAL PARTS CAN HAVE TEMPERATURES EXCEEDING 1500 DEGREES F. SERIOUS BURNS CAN RESULT IF UNPROTECTED SKIN COMES IN CONTACT WITH THESE PARTS. PLEASE BE SAFE.

| Symptom | Diagnosis | Solution |
|---|--|---|
| GAS BURNER Motor won't run | Unit is unplugged | Plug into proper power source. |
| | Inadequate circuit breaker | 20 Amp |
| | Reset is kicked | Push in red reset button on the outside of motor. |
| | Fuse on control board blown (electronic version) | Replace with 5 amp slow blow fuse. |
| | Controller board is not working properly | Consult dealer. |
| | Thermal Switch is bad | Verify 120 VAC between terminal L2 and terminal 1 on Thermal Switch. |
| No Gas | Fuel level in tank | Check fuel supply. |
| | Check low pressure regulator | Gas inlet pressure to valve is 14" W.C. for LP, 3.5" wc for NG. |
| | Gas valve not opening | Check for 24 VAC on gas valve leads. |
| No Spark | Flashing fuel light is not on | Consult dealer. |
| | 24 volt transformer is bad | Test for 24 VAC with fuel light on. Test on blue and yellow leads. |
| | DSI board | Check for 24 VAC at DSI board. Check on yellow and blue leads. Check fuse. |
| | Bad Electrode | Examine for cracks and adjustment. |
| | Air proving switch | Verify switch works properly. Be sure foreign objects are not blocking air tubes. |
| | Electrode spark gap | Adjust electrode so it is 1/8" – 5/32" to ground plate. <i>Shown on page 36.</i> |
| Burner only burns for 6 seconds. | Sense side electrode | Clean and adjust for proper setting. Adjust so it is 1/8" – 5/32" to ground plate. Replace if cracked. <i>Shown on page 36.</i> |
| | Low gas pressure. | Test "T" block orifice for 3.5" W.C. Adjust pilot regulator. |
| | "T" block orifice is obstructed | Remove and clean "T" block orifice. |

Gas Burner - Maintenance and Troubleshooting - continued

| | | |
|---|--|---|
| Cremator smokes | Improper air adjustment | Adjust air band for maximum air and no black smoke. (Adjust the air band while the unit is firing). |
| | Unit is overloaded | Air circulation inside unit is important. <i>See page 19.</i> |
| Control board reads “probe fail” message | Heat probe sensor is bad | Replace |
| | Yellow probe wire cracked | Replace |
| | Heat probe plug needs cleaned or replaced. | Replace |
| Burner Unit Vibrates | Fan is unbalanced | Check for ice or snow on fan. |
| | | Check for rodents in fan. |
| | | Check for bent fan. |

The Burn Mizer cremator is a very durable and dependable unit. It does require some general maintenance to keep the unit running properly.

1. Keep fan intake screen clean at all times.
2. Any missing tile should be replaced immediately. Replacements can be shipped UPS and are relatively easy to repair. This would also include the blanket that is on the inside of the door.
3. Keep unit cleaned out. We recommend cleaning after each burn.



FOR MORE DETAIL ON TESTING SEE THE BURNER MANUAL INCLUDED WITH YOUR BURNER.

Customer Service

Dealer Name: _____

Street / PO Box _____

City _____

State / Province _____

Zip / Postal _____

Phone _____

Fax _____

E-mail _____

Web site _____

Customer Service
210 E. Main Street
Coldwater, OH 45828
800.998.2526



North America:

Phone: 800.99VALCO (800.998.2526)
Fax: 419.678.2200
Email: sales@val-co.com

International:

Phone: (+1) 419.678.8731
Fax: (+1) 419.678.2200
Email: intl.sales@val-co.com

