



**LOOP FILL-150  
SEALANT MELTER**

**PART MANUAL - 26359**

**Rev. B**

Revised: 11/07

# **LOOP FILL-150 SEALANT MELTER**

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# LOOP FILL-150 SEALANT MELTER

## (06/98 AND NEWER)

### PART #55000

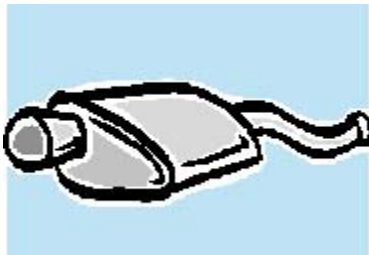
This manual is furnished with each new **CRAFCO LOOP FILL-150 MELTER** manufactured after June, 1998. This manual will help your machine operators learn to run the melter applicator properly and understand its mechanical functions for trouble-free operation.

Your **CRAFCO LF-150 MELTER** is designed to give excellent service and save maintenance expense. However, as with all specially engineered equipment, you can get best results at minimum costs if:

1. You operate your machine as instructed in this manual.
2. Maintain your machine regularly as stated in this manual.



**WARNING:** The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Operate in well ventilated area only. Engine exhaust is deadly.



## SAFETY PRECAUTIONS

- High operating temperatures of sealant and machine require protective clothing, hard-soled shoes and heat resistant gloves to be worn by operator.

- Always wear eye protection.



- Observe all **CAUTION AND WARNING** signs posted on machine.



- Avoid the entrance of water into any part of the machine. Water will displace sealant, which could be hazardous to personnel surrounding machine when it reaches the operating temperature.

- Avoid bodily contact with hot sealant material or hot surfaces of the melter: serious burns may result.

- Read operation and safety manuals thoroughly before operating machine.

- Make sure operator is familiar with machine operation.

- Shut-down burner and engine prior to refilling LPG tanks.

- Exercise extreme caution when adding solid material to sealant tank. Hot material could splash and cause serious burns.

- Keep hands, feet, and clothing away from all moving parts.

- Always keep a fire extinguisher near the unit. Maintain extinguisher properly and be familiar with its use.

- Follow operating instructions for starting and shut-down of burner.



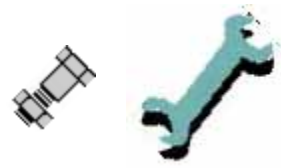
- Check calibration of temperature control before the initial operation and each 50 hours of operation.

- Replace any hoses which show signs of wear, fraying, or splitting. Be sure all fittings and joints are tight and do not leak.

- The melter is operated with 120 volt AC. Exercise extreme caution when maintaining equipment electrical systems. Immediately replace or repair defective electrical components. Service of electrical systems should be performed by qualified personnel only.

## SAFETY PRECAUTIONS

- Precaution is the best insurance against accidents.
- The melter should not be left unattended while running.
- Tighten all bolts and screws after every 100 hours of operation.
- Crafco, Inc. assumes no liability for an accident or injury incurred through improper use of the machine.



## LIMITED WARRANTY

Crafco, Inc., through its authorized distributor, will replace for the original purchaser free of charge any parts found upon examination by the factory at Mesa, Arizona, to be defective in material or workmanship. This warranty is for a period within 60 days of purchase date, but excludes engine or components, tires, and battery as these items are subject to warranties issued by their manufacturers.

After 60 days, Crafco, Inc., warrants structural parts, excluding heating system, hydraulic components, material pump and hoses, hot oil pump, applicator valves, and electrical components for a period of (1) one year from date of delivery. Crafco, Inc., shall not be liable for parts that have been damaged by accident, alteration, abuse, improper lubrication/maintenance, normal wear, or other cause beyond our control.

The warranty provided herein extends only to the repair and/or replacement of those components on the equipment covered above and does not cover **labor** costs. The warranty does not extend to incidental or consequential damages incurred as a result of any defect covered by this warranty.

All transportation and labor costs incurred by the purchaser in submitting or repairing covered components must be borne by the purchaser.

Crafco, Inc. specifically disavows any other representation, warranty, or liability related to the condition or use of the product.



**WARNING:** Use of replacement parts other than genuine Crafco parts may impair the safety or reliability of your equipment and nullifies any warranty.

## **WARRANTY CLAIM INSTRUCTIONS**

Please follow the instructions stated below when calling in a Warranty Claim. Failure to follow these procedures may be cause to void the warranty.

1. Call your local CrafcO Distributor. If you do not know who your local distributor is, call a CrafcO Customer Service Representative, (Toll Free 1-800-528-8242) for name, location, and telephone number.
2. On contacting the distributor, be prepared to identify the machine type, model number, and serial number, also, the date of purchase if available.
3. Should the cause of the malfunction be a defective part, the distributor will advise you of the procedure to follow for a replacement.
4. The warranty is valid only for parts, which have been supplied or recommended by CrafcO, Inc.

If you have any additional questions regarding warranty repairs and parts, please do not hesitate to call toll free 1-800-528-8242.

CRAFCO, INCORPORATED  
235 SOUTH HIBBERT DRIVE  
MESA, AZ. 85210  
480-655-8333  
Toll Free 1-800-528-8242



## SPECIFICATIONS

|                                      |   |
|--------------------------------------|---|
| Capacity.....                        | 150 lbs. (with specific gravity 1.)   |
| Pump Output.....                     | 0 to 0.56 gallon/min.   |
| Material Pump.....                   | Positive displacement gear pump. Hardened case steel, no seals construction.  |
| Pump Drives and Controls.....        | 90 volt DC gear motor with electronic speed control, current limiting adjustment, and pumping direction switch.                                       |
| Agitator.....                        | New high speed, two pitched blade agitator. Fully welded construction.  |
| Agitator Drives and Controls.....    | 90 volt DC gear motor with electronic speed control, current limiting adjustment, and indicator light.  |
| Melting Tank.....                    | 19" ID x 25" OD x 16" Depth. Welded 12 ga. steel construction with flame deflection.  |
| Burner.....                          | 10" Dia. ring propane burner, 75,000 BTU/hour output.   |
| Ignition.....                        | Direct spark electronic ignition system with flame sensor, automatic safety shut down, and system lock out warning light.                             |
| Material Temperature Controls..      | Electronic temperature control module with variable settings, LCD readout, and RTD temperature sensor submersed in the material tank.                 |
| Material Output/Applicator.....      | Electrically heated 15' stainless steel hose and rigid 36" application wand with pistol grip handle trigger activation, and auxiliary handle.         |
| Inlet Filter/Material Strainer.....  | Located on material pump intake port, keeps rocks and other foreign materials from entering the pump and damaging the pump gear.                      |
| Heated Hose Temperature.....         | Electronic temperature control module with Control variable settings, LCD readout and RTD temperature sensor located in the heated hose.              |
| Anti-Drip Output Valve.....          | Disposable, high temperature (425° F) valve, mounted on the end of the wand, the valve is pressure activated and opens when material is being pumped. |
| Electrical System.....               | 120 volt AC/4500 Watt electric start generator supplies power to the melter electrical systems and auxiliary 20 Amp. GFI protected outlet.            |
| Heated Hose and Wand.....<br>Storage | Hose hanger and drip pan provide fast and convenient way to store and secure heated hose and wand for transportation.                                 |
| Skid Mount.....                      | Fully welded tube/channel frame construction with two 8" x 3" slots for easy forklift loading and unloading.  |
| Dimensions.....                      | 66"L x 40" W x 52" H.   |
| Approximate Empty Weight.....        | 900 lbs.  |

# LOOP FILL 150 MELTER

## INTRODUCTION



### NOTE:

Operating instructions and temperature settings in this manual are given for CRAFCO Loop Sealant # 34271. The use of this sealant is strongly recommended for the proper operation of the melter. However, the melter should work equally with other brands of sealant. Contact your CRAFCO distributor for information on the material compatibility.

## POST-DELIVERY CHECK-OUT

Inspect the melter for obvious shipping damage after removing from the shipping crate. If such damage has occurred, fill out provided shipping damage form and send it to CRAFCO Inc. at once for shipping damage claims.

CRAFCO, Inc. recommends that the melter should be mounted and secured on the flat bed or pick up truck of at least 1/2 ton load capacity. Remove shipping wraps and plastic ties. Insert drip pan into the fork lift slot and secure with a lock pin. Insert the wand end in the drip pan tube for storage.

Fill the propane bottle according to the instructions on the bottle and connect it to the hose. Open the valves and check for any gas leakage with soap water.



**CAUTION! DO NOT USE OPEN FLAME TO CHECK FOR GAS LEAKS!**

## MACHINE START UP

Verify that all control switches are in the OFF positions and control knobs are at the lowest settings (turned fully counter-clockwise).

Check oil level in the generator engine. Add if necessary. Refer to the generator manual for information on appropriate grade of oil.

Prime the engine with the FUEL PRIMER button for a few seconds and start the engine by pressing and holding START button until the engine starts.

Allow engine to run for a few minutes to warm up. Turn ON both circuit breakers on the front panel of the generator.

Set MATERIAL TEMPERATURE and HEATED HOSE TEMPERATURE control knobs to 380° F. Turn ON the BURNER switch in the control box. The BURNER pilot light will come on and LCD read-out will indicate the present material temperature.

**NOTE:** The solid material in the tank melts first around the walls and the bottom of the material tank. Material temperature sensor is located by the wall; therefore, it is possible that at the beginning of the melting process the indicated temperature reaches operating value, but the material closer to the center of the tank is still solid and cold. This is normal and by that time, when the heated hose is ready for operation, most material in the tank will be melted and heated to application temperature.

Allow the indicated material temperature to reach 300° F.

Turn ON the HEATED HOSE switch. The HEATED HOSE pilot light will come on and LCD read-out will indicate the present hose temperature.

Set AGITATOR SPEED control knob to “5”. Turn ON the AGITATOR switch. The agitator will not turn with noticeable speed at first, but as material melts, the agitator will be turning faster. The gearmotor speed control modules have overload protection; and if the gearmotor is overloaded, it will start surging. Turn the AGITATOR switch OFF for a few minutes to allow the material to melt more around the walls. Adjust AGITATOR SPEED knob to “10” when approximately one-half of the material in the tank becomes liquid.

The melter is ready for work when the heated hose reaches its operating temperature. Estimated time of start-up is approximately one hour. However, this number may slightly change with your climate conditions.



### **CAUTION:**

Extreme care must be used when operating this equipment. Safety is the result of being careful and paying attention to details. Remember that the propane flame is about 2,200° F. Certain exposed parts of this machine, when operating, reach 500° F and the sealant as high as 400° F. Always wear protective clothing, hard-soled shoes, and eye protection. Be sure that all joints and fillings are tight. Tighten all bolts, nuts, and screws every 100 hours.

## DISPENSING THE MATERIAL

Now you are ready to dispense the material. Unreel the hose from the hose hanger while turning the wand as the hose end turns to prevent the wires from being wrapped around the hose and damaged. Insert the wand end into the material tank. Do not dip the wand in the material! Set the PUMP switch to FWD (forward) position. Set PUMP SPEED control knob to "10". Squeeze the trigger on the wand and pump the material into the tank for a few minutes to rejuvenate the material left in the hose. Set the desired feed rate by adjusting the PUMP SPEED control knob. When ready, begin applying material to the job.



**CAUTION:**

**NEVER POINT THE WAND AT ANY PART OF THE BODY OR AT ANY OTHER PERSON.**

## ADDING MATERIAL TO THE MELTER



**CAUTION:**

**HOT MATERIALS CAN CAUSE SEVERE BURNS. PROTECTIVE CLOTHING AND EYE PROTECTION SHOULD BE WORN AT ALL TIMES WHEN ADDING MATERIAL OR OPERATING THIS EQUIPMENT. DO NOT OVERFILL THE TANK. TURN THE AGITATOR OFF WHEN ADDING THE MATERIAL. AVOID GETTING ANY FOREIGN PARTICLES, SUCH AS ROAD GRAVEL, DIRT, PACKAGING CARDBOARD, AND DEBRIS INTO THE MATERIAL TANK - SUCH PARTICLES CAN CLOG THE OUTPUT LINES AND/OR SERIOUSLY DAMAGE THE PUMPING SYSTEM.**

The material may be added to the tank whether the melter is hot or cold. The best melting and agitating performance is noticed when the tank is 1/2 to 3/4 full. Temporary jamming of the solid blocks is not harmful to the equipment. However, do not add more than four blocks at once. Instead, adding material on the continuous basis in small quantities is recommended.

Use sealant or adhesive packaged to fit into the lid opening. Contact CRAFCO, Inc. or your distributor if you have any questions regarding this matter.

Turn the AGITATOR switch OFF, raise the lid, and slowly add material as recommended above. Close the lid and turn the AGITATOR switch ON. Should the agitator gearmotor start to surge, turn the agitator speed down or turn the agitator off for a few minutes.



## **SHUTDOWN PROCEDURE**

There are several schools of thought about how much material should be left in the tank when shutting down the melter at the end of the shift. Crafc0, Inc. recommends leaving the melter about 1/2 full. This will give a fairly rapid heat up rate at the beginning of the next shift and will provide enough material to start dispensing before newly added material will melt. Also, if your material contains fillers which tend to settle, it is advisable to allow the material to cool off while agitating it until the material thickens to prevent the fillers from settling down on the bottom of the tank. The following procedure is recommended.

Turn the PUMP SPEED control knob to "10". Turn the PUMP switch to REV. Activate the trigger on the wand for a few minutes to pump the material out of the hose back to the tank. Turn the PUMP SPEED control knob to "0".

Turn the HEATED HOSE switch OFF. Turn HEATED HOSE TEMPERATURE control knob to the lowest setting.

Turn MATERIAL TEMPERATURE control knob to the lowest setting.

Wind the heated hose around the hose hanger allowing loops to be not less than 10" radius. Do not kink or sharply bend the hose. Rotate the wand as you wind the hose to prevent the wires from wrapping around the hose end and damaging the wires. Insert the wand end into the drip pan tube. Secure the hose on the hose hanger with the chain.

Allow the material to cool down while agitating it until the material thickens. Turn the AGITATOR switch OFF. Turn the AGITATOR SPEED control knob to "0".

Close the control box door. Shut down the generator by pressing STOP button momentarily. Close the propane ball valve and the valve on the propane bottle.

## **STORING AND TRANSPORTATION**

The melter should be stored in a dry area, preferably indoors, where the moisture cannot enter the melter systems, such as the material tank, the generator, and electrical components. The heated hose must be stored on the hose hanger and secured with the chain before traveling. Do not travel with the melter running.

## **MAINTENANCE GENERAL SERVICE INSTRUCTIONS**

\*Conduct a general inspection of your melter at least once a week. Replace all worn or damaged parts, make any necessary adjustments, and tighten all loose nuts or bolts.

\*Keep the most often used replacement items in stock for emergency repairs, to avoid costly “down” time.

\*Clean the melter externally and internally periodically. Contact the sealant manufacturer for recommendation on the proper type of cleaning solvents.

\*Follow recommended maintenance procedures.

## **GENERATOR**

Check oil level daily. Refer to the Generator Owner’s Manual for instructions on the generator maintenance.

## **HEATED HOSE AND WAND**

The heated hose is a Teflon lined hose with a stainless steel overbraid. The heating element is wrapped around the hose to heat the material inside the hose. The hose is insulated with fiberglass tape and is covered with a durable rubber covering that contains a steel wire inside for rigidity. The wand has an aluminum tube to protect both the wand and the operator. The pistol grip actuator is equipped with an electric switch which when depressed sends a signal to actuate the material pump. At the end of the wand, a high temperature elastomeric output valve is attached. The valve is pressure actuated and opens automatically when fluid pressure is applied. The wand is equipped with a trigger lock to prevent accidental pump activation. The trigger should be in the LOCKED position at all times except when intentionally pumping material.

Twisting and kinking of the heated hose is the number one cause of the hose failures. When this type of abuse happens, the electric heating wires are shorted out to the metal hose cover and the hose stops heating.

**NOTE: THIS TYPE OF FAILURE IS NOT COVERED UNDER THE CRAFTCO WARRANTY.**

To prevent twisting, kinking, and the resulting hose damage, the operator should:

\*not move or use the heated hose until the hose temperature has reached at least 300° F,

\*make sure that the hose swivel between the hose and the wand moves freely,

\*limit the hose bending to a radius of 10”,

\*avoid bending the hose over sharp edges such as the edge of the frame or the tank, twisting, or exceeding 400° F on the heated hose or material temperature,

\*follow all instructions posted on the melter as well as those in the instruction manual,

\*avoid pulling the heated hose beyond its limits.

CRAFCO, Inc. strongly recommends that the heated hose should be stored on the hose hanger when not in use or when in transit. This will help to prevent accidental twisting or kinking.

## CONTROL BOX

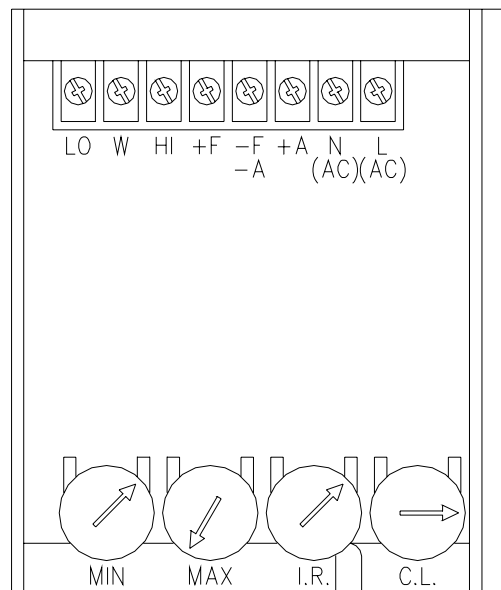
Remove the front panel and blow dry compressed air to remove dirt and dust as needed. See Speed Control Modules section for information on the speed control module adjustments.

## GEARMOTORS

Refer to the Gearmotor Maintenance Manual for instructions on the gearmotor maintenance.

## SPEED CONTROL MODULES

Figure 1



| Module        | Minimum Voltage, VDC | Maximum Voltage, VDC | I.R. Comp. | Current Limiter, Amp. DC |
|---------------|----------------------|----------------------|------------|--------------------------|
| Agitator      | 0.0                  | 90.0                 | N/A        | 1.2                      |
| Material Pump | 0.0                  | 90.0                 | N/A        | 1.2                      |

LF-150 melter is equipped with electronic speed control modules (part # 50234). These modules allow the operator to control the speed of the agitator and the material pump gearmotors. They also protect the gearmotors from being overloaded by limiting the maximum current through the motors. The modules are located inside the control box. If there is a necessity to replace one of the modules, the following installation procedure must be followed. The service of the modules should be performed by qualified personnel only, and appropriate safety precautions must be observed.

Melter power must be shut off and propane valves must be closed. Open the control box door and remove the front panel. Secure the front panel outside of the enclosure with plastic ties. Take a good look inside the box and make yourself familiar with the arrangement of components. The agitator control module is the one on the front. The material pump module is located behind the agitator module. Record the wire arrangement on the modules, disconnect the wires, and remove the module that is to be replaced.

On the new module, adjust the thumbwheel dials to the following positions (see Figure 1):

MIN 2:00 o'clock position  
MAX 7:00 o'clock position  
I.R. 2:00 o'clock position  
C.L. 3:00 o'clock position

Install the new module in place and attach the wires.

Remove chain guards from the gearmotor bracket. Disconnect the chain if you are replacing the agitator module or pump gearmotor spider coupling if you are replacing the material pump module to unload the gearmotor.

Remove the junction box cover on the top of the required gearmotor and attach DC voltmeter leads to the wire nut connections. Set the voltmeter to measure at least 130 volt DC.

Start up the generator as described in the Machine Start Up section of this manual. Set all temperature controls and speed controls to the lowest settings. Then do one of the following:

\*If you are replacing the agitator module, turn ON the BURNER switch, then turn ON the AGITATOR switch.

\*If you are replacing the material pump module, turn ON the HEATED HOSE switch, set the PUMP switch to FWD, then squeeze the trigger on the wand and secure it with a plastic tie in the activated position.

Slowly turn MIN. thumbwheel dial in the clockwise direction on the replaced module until the gearmotor starts to rotate, then turn the thumbwheel dial in the counter-clockwise direction until the rotation stops.



Adjust the AGITATOR SPEED or PUMP SPEED control knob, whichever is applicable, to “10”. Adjust the MAX. thumbwheel dial until the voltmeter reads 90 volt DC.

Check the rotation direction. The agitator motor must rotate in the clockwise direction, as looked at from the top of the motor, and the material pump must rotate in the counter-clockwise direction in the FWD mode. If needed, turn the power off and reverse the red and black gearmotor lead wires to reverse the direction of the rotation.

Set all speed control knobs to zero positions, turn all switches off, and shut down the generator. Remove the voltmeter leads and install the junction box cover into place.

Jam the gearmotor shaft with a small pipe wrench so the motor will not turn when the power is applied.

Attach a clamp-on AC ammeter around the wire that leads to the “L (AC)” terminal on the speed control module (white-green wire for agitator and red wire for material pump module). Set ammeter to measure at least five amps AC.

Start up the generator as described in the Machine Start Up section of this manual. Set all temperature controls and speed controls to the lowest settings. Then do one of the following:

\*If you are replacing the agitator module, turn ON the BURNER switch, then turn ON the AGITATOR switch.

\*If you are placing the material pump module, turn ON the HEATED HOSE switch, set the PUMP switch to FWD, then squeeze the trigger on the wand and secure it with a plastic tie in the activated position.

Slowly turn the desired gearmotor speed control knob to “10”. Turn the C.L. thumbwheel dial on the replaced module to adjust the current to 1.2 amps. This is the maximum allowable gearmotor current.

Set all speed control knobs to zero positions, turn all switches off, release the trigger, and shut down the generator. Unlock the jammed gearmotor. Install chain and/or coupling. Install chain guards. Remove the ammeter from the control box and install the front panel in place.

## **BATTERY**

Check acid level weekly. Keep battery and terminals clean.

## **AGITATOR BEARINGS AND HOSE SWIVEL**

Grease monthly.

## **DRIP PAN**

To clean up the drip pan melt the material in the pan with a propane torch.

## INSTRUCTIONS FOR ORDERING PARTS

Parts may be ordered from your local CRAFCO distributor or directly from CRAFCO, Inc. if a distributor is not available in your area. When ordering parts, give the following information:

1. Part Number.
2. Machine Model.
3. Serial Number.

**Write, telephone, or fax:**

CRAFCO, INCORPORATED  
235 SOUTH HIBBERT DRIVE  
MESA, AZ. 85210  
Phone: 480-655-8333  
Fax: 480-655-1712  
Toll Free: 1-800-528-8242

# TROUBLE SHOOTING GUIDE

## BURNER

**The following applies when the BURNER switch is turned ON.**

| Problem Indication   | Cause  | Correction   |
|--|--|--|
| BURNER light does not come on.<br>Valve light does not come on.<br>LCD read-out does not come on.<br>No ignition occurs.<br>Burner does not ignite.                  | 1. 20-amp circuit breaker is off.<br>2. Defective or disconnected power wires.<br>3. Defective ignition control module.                            | 1. Turn circuit breaker on.<br>2. Repair the wiring.<br>3. Replace ignition control module.  |
| BURNER light does not come on.<br>Valve light does not come on.<br>LCD read-out works properly.<br>No ignition occurs.<br>Burner does not ignite.                    | 1. Defective ignition control module.  | 1. Replace ignition control module.  |
| Both BURNER light and valve light come on, ignition occurs for five seconds, then LOCK OUT light comes on.<br>LCD read-out works properly<br>Burner does not ignite. | 1. Defective gas valve.<br>2. Defective or disconnected ignition wire.<br>3. Defective or disconnected flame sensor wire.<br>4. Defective ignitor. | 1. Replace gas valve.<br>2. Repair or replace ignition cable assy.<br>3. Repair or replace ignition cable assy.<br>4. Replace ignitor. |

## TEMPERATURE CONTROL AND INDICATION

**The following applies to both MATERIAL and HEATED HOSE temperature controls.**

|  |  |   |
|--|--|---|
| No temperature indication on LCD read-out.   | 1. Poor connection between LCD read-out and temperature control module.<br>2. Defective LCD read-out.      | 1. Clean the connections and reconnect 4-wire gray cable.<br>2. Replace LCD read-out.   |
| LCD read-out indicates anomalous and fluctuating temperature.  | 1. Moisture is present in the sensor circuit.  | 1. Dry or blow the moisture out of the sensor and sensor wires.   |
| LCD read-out indicates "1".  | 1. Sensor circuit is disconnected.   | 1. Locate and fix the problem.  |
| LCD read-out steadily indicates high negative number.  | 1. Sensor circuit is shorted.  | 1. Locate and fix the problem.  |
| Burner/heated hose heating shuts off at the temperature different from indicated.                      | 1. Control knob is out of calibration.   | 1. Recalibrate the knob by aligning the mark on the knob with the 7:00 o'clock mark on the dial when the stem is fully rotated CCW. |
| Burner/heated hose heating does not start when the indicated temperature is below the set temperature. | 1. Poor connection in the temperature control module circuits.<br>2. Defective temperature control module. | 1. Clean the connections and reconnect the wires.<br>2. Replace temperature control module.   |

# TROUBLE SHOOTING GUIDE

## AGITATION

|   |   |  |
|---|---|--|
| <p>Agitator will not turn when activated.</p>                                       | <ol style="list-style-type: none"> <li>1. The BURNER switch is OFF.</li> <li>2. Material is not melted enough.</li> <li>3. The agitator is jammed by a solid block of material.</li> <li>4. The drive chain is loose or fell off.</li> <li>5. Chain sprocket on the agitator shaft is loose.</li> <li>6. Defective bearing.</li> <li>7. Defective gearmotor.</li> <li>8. Defective speed control module.</li> </ol> | <ol style="list-style-type: none"> <li>1. Turn the BURNER switch ON.</li> <li>2. Turn the agitator off for a few minutes to allow material to melt.</li> <li>3. Turn the agitator off for a few minutes to allow material to melt.</li> <li>4. Tighten or reinstall the chain.</li> <li>5. Tighten the sprocket set screws.</li> <li>6. Replace the bearing.</li> <li>7. Refer to Gearmotor Maintenance Manual for maintenance instructions or replace the gearmotor.</li> <li>8. Replace speed control module.</li> </ol> |
| <p>Agitator speed is not controllable.</p>  | <ol style="list-style-type: none"> <li>1. Defective speed control module.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Replace speed control module.</li> </ol>   |
| <p>Agitator rotates in the counter-clockwise direction (must rotate clockwise.)</p> | <ol style="list-style-type: none"> <li>1. Reversed gearmotor wires.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Reverse red and black wire leads on the gearmotor.</li> </ol>  |

# TROUBLE SHOOTING GUIDE

## PUMPING SYSTEM

|  |  |  |
|--|--|--|
| <p>Pump will not turn when activated.</p>  | <ol style="list-style-type: none"> <li>1. The HEATED HOSE switch is OFF.</li> <li>2. Material is not melted enough.</li> <li>3. The heated hose is not up to temperature.</li> <li>4. The gearmotor/pump shaft coupling is loose.</li> <li>5. Defective trigger switch.</li> <li>6. Poor electrical connection between the wand and the heated hose.</li> <li>7. Defective gearmotor.</li> <li>8. Defective speed control module.</li> </ol> | <ol style="list-style-type: none"> <li>1. Turn the HEATED HOSE switch ON.</li> <li>2. Allow material to melt.</li> <li>3. Allow the heated hose to heat up.</li> <li>4. Tighten the coupling set screws.</li> <li>5. Replace the switch/wand.</li> <li>6. Provide good connection.</li> <li>7. Refer to Gearmotor Maintenance Manual for maintenance instructions or replace the gearmotor.</li> <li>8. Replace speed control module.</li> </ol> |
| <p>Pump rotates but no material is discharged.</p>   | <ol style="list-style-type: none"> <li>1. Material is not melted enough.</li> <li>2. The heated hose is not up to temperature.</li> <li>3. Not enough material in the tank.</li> <li>4. The PUMP switch is in the REV position.</li> <li>5. The material discharge lines are obstructed.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Allow material to melt.</li> <li>2. Allow the heated hose to heat up.</li> <li>3. Add material.</li> <li>4. Turn the PUMP switch in the FWD position.</li> <li>5. Examine and clean up the material outlet pipe, the swivel, the heated hose, and the wand to eliminate the obstruction.</li> </ol>  |
| <p>Material dispensing rate is too slow.</p>   | <ol style="list-style-type: none"> <li>1. Material is not melted enough.</li> <li>2. The heated hose is not up to temperature.</li> <li>3. Not enough material in the tank.</li> <li>4. The material discharge lines are obstructed.</li> <li>5. The pump is worn out.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Allow material to melt.</li> <li>2. Allow the heated hose to heat up.</li> <li>3. Add material.</li> <li>4. Examine and clean up the material outlet pipe, the swivel, the heated hose, and the wand to eliminate the obstruction.</li> <li>5. Replace the pump.</li> </ol>  |
| <p>Pump speed is not controllable.</p>   | <ol style="list-style-type: none"> <li>1. Defective speed control module.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Replace speed control module.</li> </ol>   |
| <p>Pump rotates in the clockwise direction in FWD mode (must rotate counterclockwise).</p> | <ol style="list-style-type: none"> <li>1. Reversed gearmotor wires.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Reverse red and black wire leads on the gearmotor.</li> </ol>  |

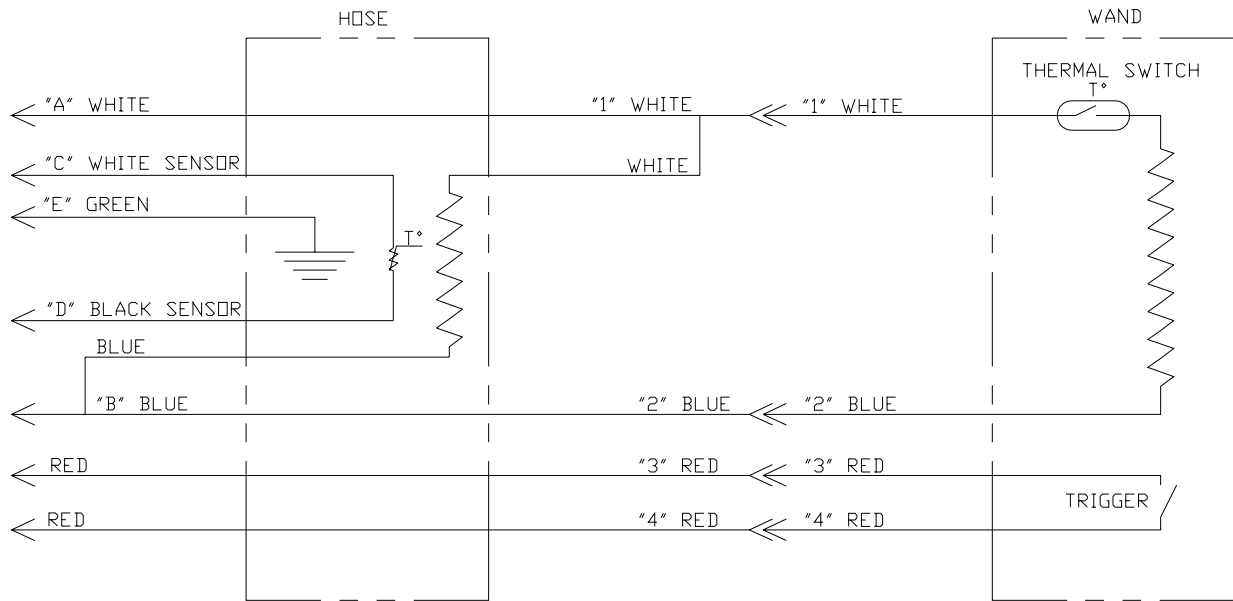
# TROUBLE SHOOTING GUIDE

## HEATED HOSE AND WAND

The following applies when the HEATED HOSE switch is turned ON and the HEATED HOSE light stays lit. If the light does not come on, see Temperature Control and Indication section.

|  |   |   |
|--|---|---|
| The heated hose and/or wand do not heat up at all. | <ol style="list-style-type: none"><li>1. Poor electrical connection between the hose cable and the control box.</li><li>2. Defective wiring in the heated hose and/or wand.</li></ol> | <ol style="list-style-type: none"><li>1. Provide good connection.</li><li>2. Replace heated hose and/or wand. See Heated Hose and Wand Testing Chart.</li></ol> |
|--|---|---|

# HEATED HOSE AND WAND TESTING CHART



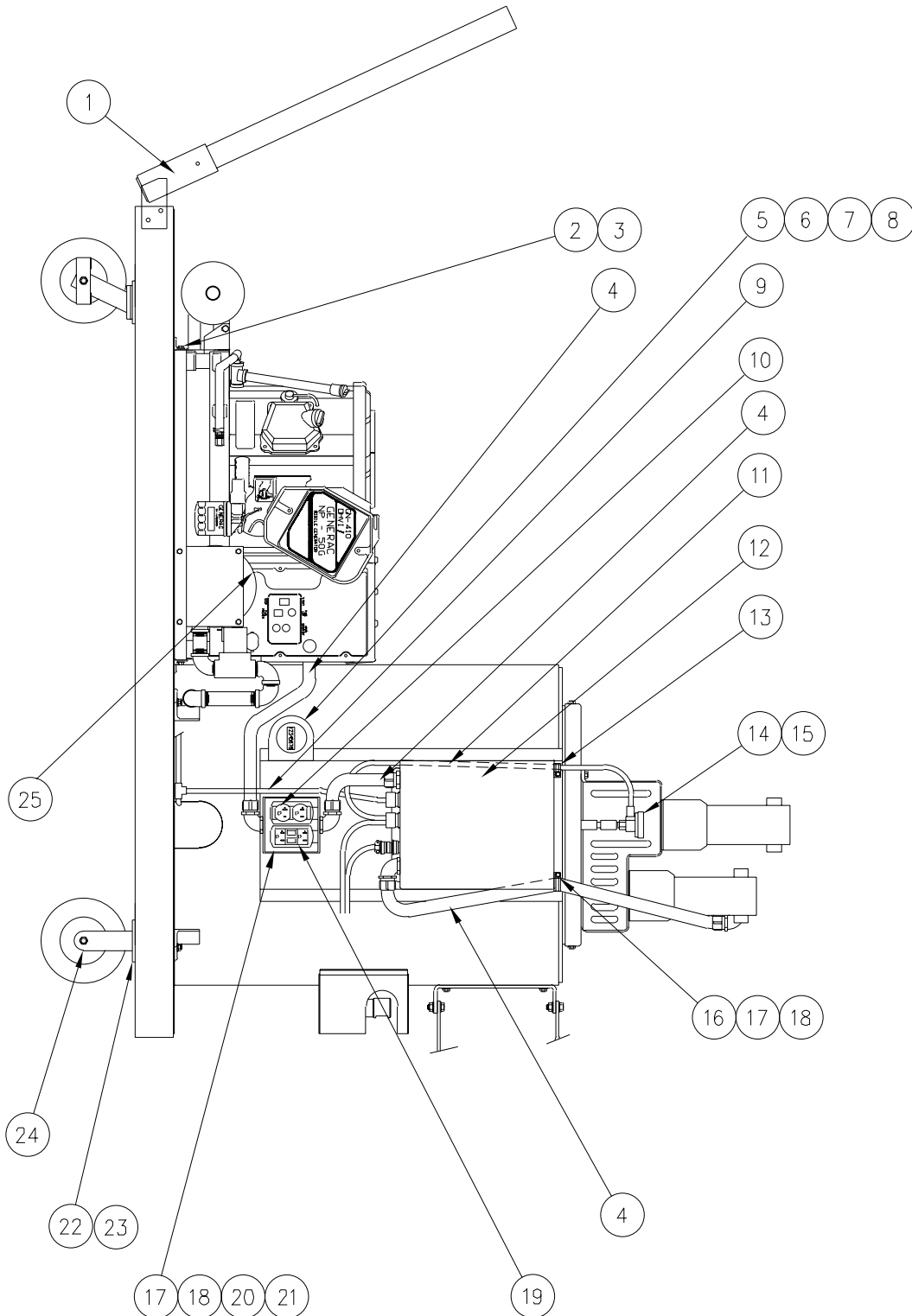
## 15' Heated Hose Resistance and Continuity

| Check Points     | Resistance/Continuity | Note   |
|------------------|-----------------------|--------|
| A to #1          | Continuity            |        |
| B to #2          | Continuity            |        |
| C to D           | 1.08 KOhms            | @ 70°F |
| E to ground      | Continuity            |        |
| B to #1          | 15-17 Ohms            |        |
| Red to #3        | Continuity            |        |
| Red to #4        | Continuity            |        |
| A or B to ground | No Continuity         |        |

## 36" Wand Resistance and Continuity

| Check Points       | Resistance/Continuity | Note             |
|--------------------|-----------------------|------------------|
| #1 to #2           | 69 Ohms               |                  |
| #3 to #4           | No Continuity         | Trigger released |
| #3 to #4           | Continuity            | Trigger squeezed |
| #1 or #2 to ground | No Continuity         |                  |

# LOOP-FILL 150 PARTS

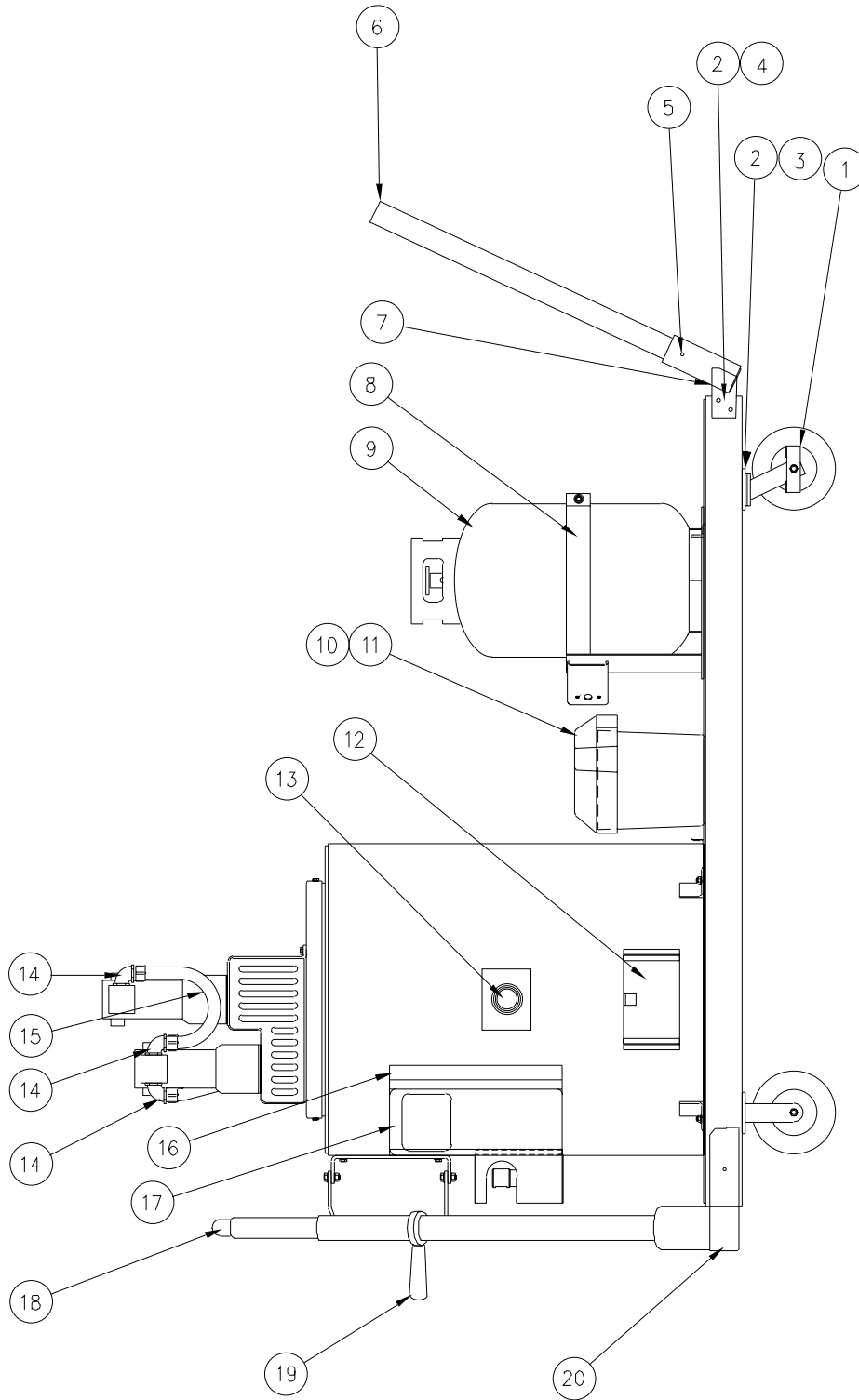




## PARTS LIST FOR LOOP-FILL150 SEALANT MELTER

| NUMBER | PART NUMBER | QTY. | DESCRIPTION              |
|--------|-------------|------|--------------------------|
| 1      | 55053       | 1    | LEFT SIDE HANDLE BRACKET |
| 2      | 28960       | 4    | M6-1 X 20MM BOLT         |
| 3      | 28961       | 4    | M6 LOCK WASHER           |
| 4      | 40433       | 7'   | 1/2" FLEX CONDUIT        |
| 5      | 24076       | 1    | HOURLMETER W/ LEADS      |
| 6      | 24077       | 1    | HOURLMETER BRACKET       |
| 7      | 28844       | 2    | #10-32 X 3/4 SCREW       |
| 8      | 28554       | 2    | #10-32 HEX NUT           |
| 9      | 55048       | 1    | IGNITION CABLE ASSEMBLY  |
| 10     | 44242       | 1    | 20 AMP RECEPTACLE        |
| 11     | 55046       | 1    | SENSOR CABLE ASSEMBLY    |
| 12     | 55020       | 1    | CONTROL BOX ASSEMBLY     |
| 13     | 32017       | 1    | 5/8" COVERED CLAMP       |
| 14     | 43465       | 1    | RTD SENSOR               |
| 15     | 51065       | 1    | CORD GRIP                |
| 16     | 32018       | 1    | 1" COVERED CLAMP         |
| 17     | 28701       | 6    | 1/4-20 X 3/4 BOLT        |
| 18     | 28645       | 6    | 1/4 LOCK WASHER          |
| 19     | 55045       | 1    | 20 AMP GFI RECEPTACLE    |
| 20     | 40444       | 1    | 2 GANG BELL BOX          |
| 21     | 55044       | 1    | BELL BOX COVER           |
| 22     | 28526       | 16   | 3/8-16 ESNA LOCK NUT     |
| 23     | 28672       | 16   | 3/8 FLAT WASHER          |
| 24     | 50872       | 2    | FIXED CASTER             |
| 25     | 55010       | 1    | 110VAC PROPANE GENERATOR |

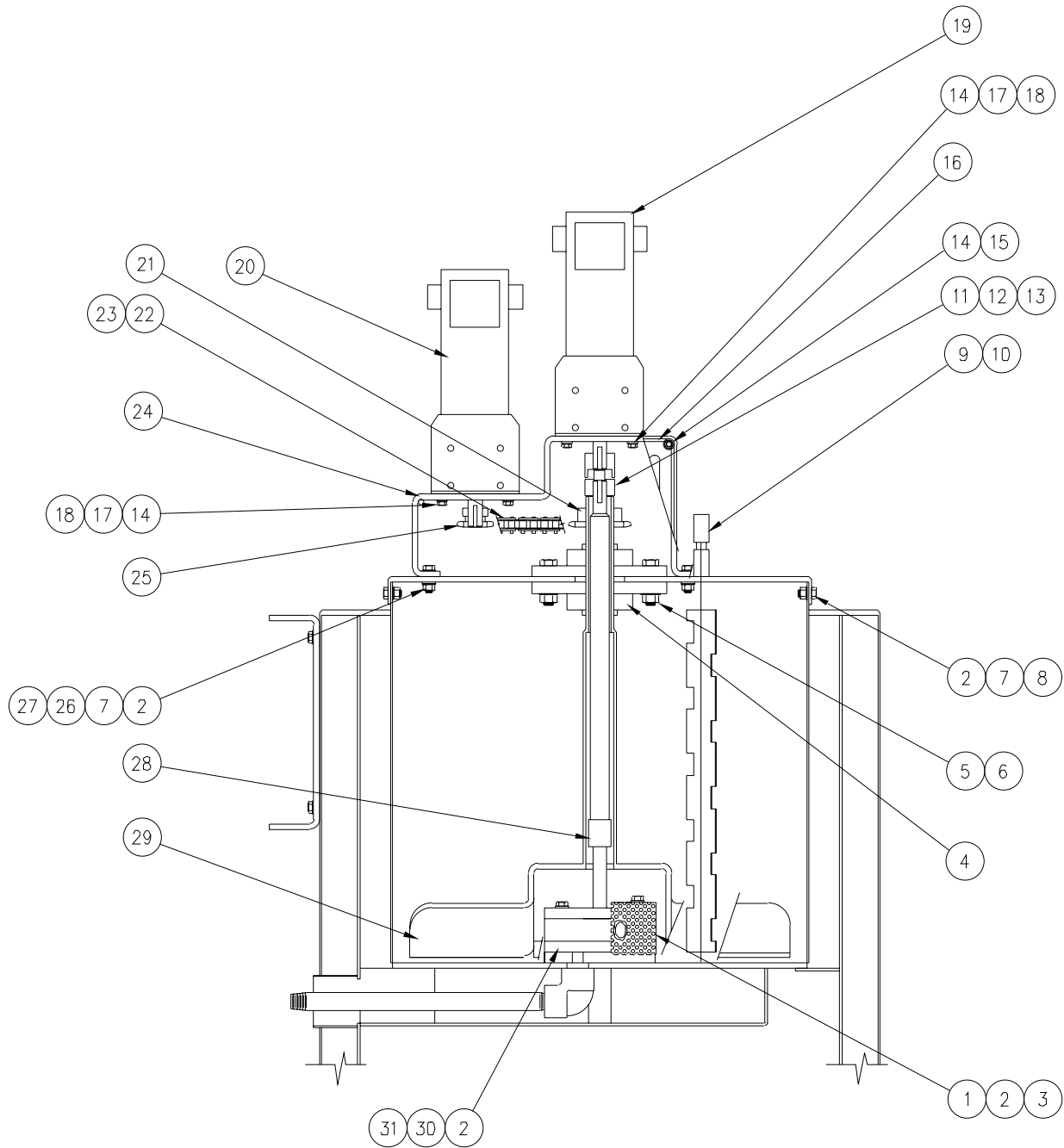
# LOOP-FILL 150 PARTS



## PARTS LIST FOR LOOP-FILL 150 SEALANT MELTER

| NUMBER | PART NUMBER | QTY. | DESCRIPTION                          |
|--------|-------------|------|--------------------------------------|
| 1      | 50844       | 2    | SWIVEL CASTER W/BRAKE                |
| 2      | 28526       | 13   | 3/8-16 ESNA LOCK NUT                 |
| 3      | 28672       | 8    | 3/8 FLAT WASHER                      |
| 4      | 28731       | 4    | 3/8-16 X 1 BOLT                      |
| 5      | 28979       | 4    | 5/16-18 X 3/8 SET SCREW              |
| 6      | 55050       | 1    | HANDLE                               |
| 7      | 55054       | 1    | RIGHT SIDE HANDLE BRACKET            |
| 8      | 50095       | 1    | LP TANK BRACKET                      |
| 9      | 42964       | 1    | LP TANK                              |
| 10     | 24000       | 1    | 12V BATTERY                          |
| 11     | 24002       | 1    | BATTERY BOX                          |
| 12     | 50119       | 1    | DOOR                                 |
| 13     | 21099       | 1    | 1-1/2 PIPE PLUG                      |
| 14     | 40445       | 3    | ELBOW CONDUIT CONNECTOR              |
| 15     | 40433       | 17"  | 1/2 FLEX CONDUIT                     |
| 16     | 25290       | 1    | RECORD BOX BRACKET                   |
| 17     | 25289       | 1    | RECORD BOX                           |
| 18     | 50801       | 1    | 36" SELF-REGULATED WAND ASSEMBLY     |
| 19     | 50811       | 1    | WAND HANDLE ASSEMBLY                 |
| 20     | 55040       | 1    | DRIP PAN ASSEMBLY                    |
| 21     | 51778       | 1    | 15' HEATED HOSE ASSEMBLY (NOT SHOWN) |
| 22     | 55030       | 1    | HOSE HANGER ASSEMBLY (NOT SHOWN)     |

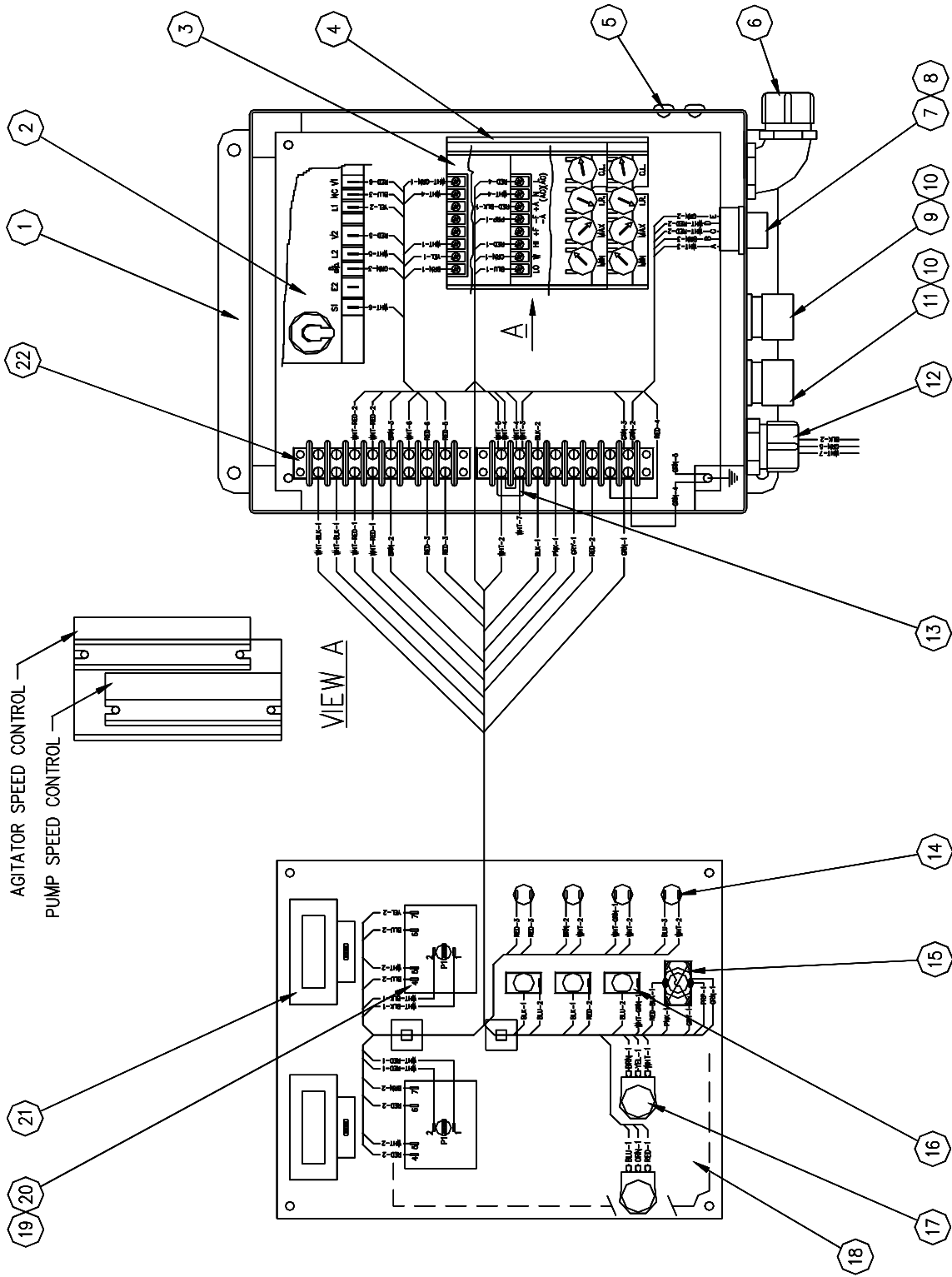
# MATERIAL TANK ASSEMBLY



## PARTS LIST FOR MATERIAL TANK ASSEMBLY

| NUMBER | PART NUMBER | QTY. | DESCRIPTION            |
|--------|-------------|------|------------------------|
| 1      | 50882       | 1    | INLET STRAINER         |
| 2      | 28646       | 16   | 5/16 LOCK WASHER       |
| 3      | 28722       | 3    | 5/16-18 X 2 3/4 BOLT   |
| 4      | 50827       | 2    | 1 1/4 BORE BEARING     |
| 5      | 28755       | 2    | 7/16-14 X 2 1/4 BOLT   |
| 6      | 28527       | 2    | 7/16-14 ESNA LOCK NUT  |
| 7      | 28501       | 12   | 5/16-18 HEX NUT        |
| 8      | 28716       | 8    | 5/16-18 X 1 BOLT       |
| 9      | 28001       | 1    | 1/4 CLOSE NIPPLE       |
| 10     | 28176       | 1    | 1/4 PIPE COUPLING      |
| 11     | 40084       | 1    | 3/16 X 7/8 SHAFT KEY   |
| 12     | 41695       | 2    | 5/8 BORE COUPLING HALF |
| 13     | 41182       | 1    | COUPLING SPIDER        |
| 14     | 28645       | 20   | 1/4 LOCK WASHER        |
| 15     | 28500       | 4    | 1/4-20 HEX NUT         |
| 16     | 55032       | 2    | CHAIN GUARD            |
| 17     | 28670       | 6    | 1/4 FLAT WASHER        |
| 18     | 28701       | 16   | 1/4-20 X 3/4 BOLT      |
| 19     | 50839       | 1    | 167 RPM GEARMOTOR      |
| 20     | 55039       | 1    | 61 RPM GEARMOTOR       |
| 21     | 50829       | 1    | 16 TOOTH SPROCKET      |
| 22     | 55033       | 1    | DRIVE CHAIN            |
| 23     | 50436       | 1    | CHAIN CONNECTING LINK  |
| 24     | 55031       | 1    | MOTOR MOUNTING BRACKET |
| 25     | 50830       | 1    | 9 TOOTH SPROCKET       |
| 26     | 28717       | 6    | 5/16-18 1 1/4 BOLT     |
| 27     | 28671       | 8    | 5/16 FLAT WASHER       |
| 28     | 50835       | 1    | PUMP SHAFT             |
| 29     | 55017       | 1    | AGITATOR ASSEMBLY      |
| 30     | 50842       | 1    | MATERIAL PUMP          |
| 31     | 28721       | 3    | 5/16-18 X 2 1/2 BOLT   |

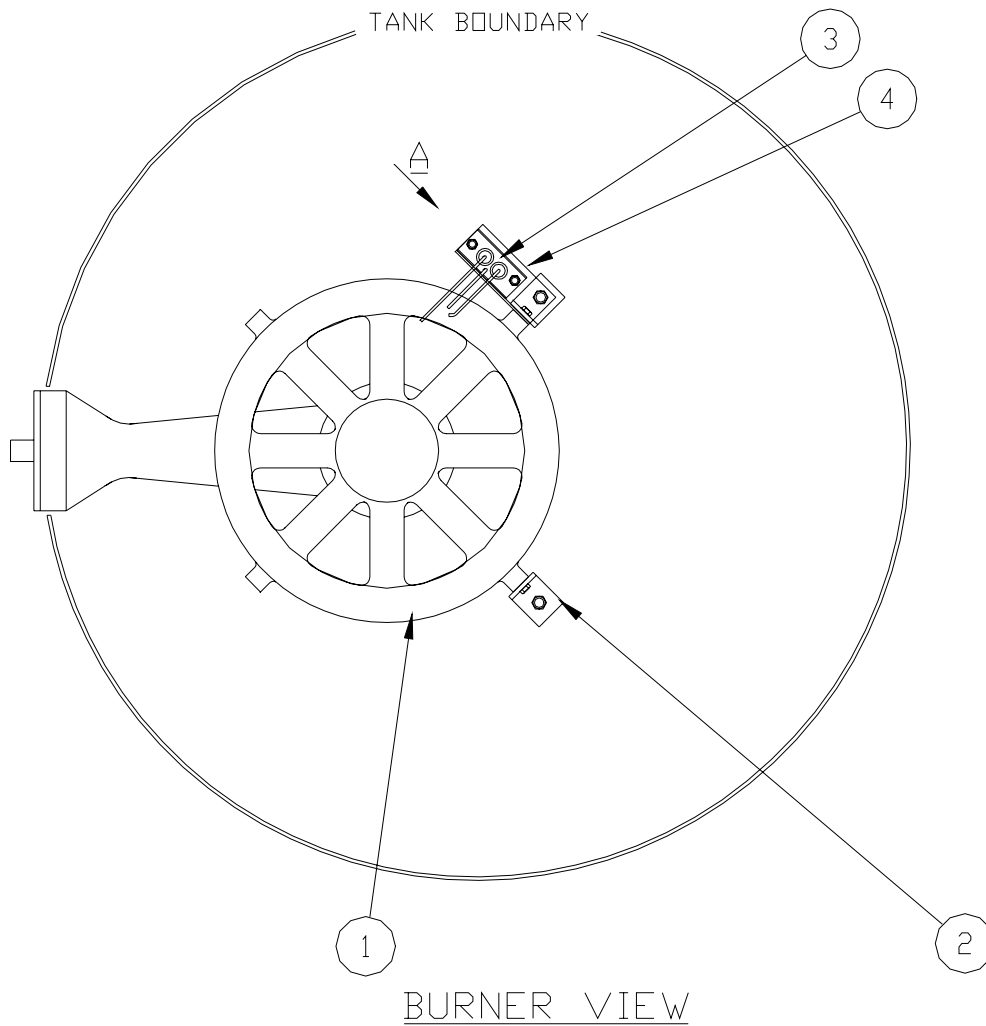
# CONTROL BOX ASSEMBLY



## PARTS LIST FOR CONTROL BOX ASSEMBLY

| NUMBER | PART NUMBER | QTY. | DESCRIPTION                                      |
|--------|-------------|------|--|
| 1      | 43665       | 1    | ENCLOSURE  |
| 2      | 55015       | 1    | GAS IGNITION MODULE                              |
| 3      | 50234       | 2    | SPEED CONTROL MODULE                             |
| 4      | 55021       | 1    | MOUNTING BRACKET                                 |
| 5      | 24268       | 2    | 1/4" PLUG  |
| 6      | 40445       | 1    | ELBOW CONDUIT CONNECTOR                          |
| 7      | 50215       | 1    | 5 PIN RECEPTACLE                                 |
| 8      | 50344       | 1    | GASKET   |
| 9      | 51064       | 1    | 1/4-3/8 CORD CONNECTOR                           |
| 10     | 50280       | 2    | 1/2 CONDUIT NUT                                  |
| 11     | 24021       | 1    | 3/8-1/2 CORD CONNECTOR                           |
| 12     | 40449       | 1    | CONDUIT CONNECTOR                                |
| 13     | 50238       | 1    | JUMPER   |
| 14     | 51658       | 4    | 120 VAC PILOT LIGHT                              |
| 15     | 51659       | 1    | DPDT TOGGLE SWITCH                               |
| 16     | 50719       | 3    | SPST TOGGLE SWITCH                               |
| 17     | N/A         | 2    | POTENTIOMETER SUPPLIED WITH SPEED CONTROL MODULE |
| 18     | 25401       | 1    | CONTROL BOX DECAL                                |
| 19     | 50253       | 2    | TEMPERATURE CONTROL MODULE (P64A0318904)         |
| 20     | 50593       | 2    | CONTROL KNOB                                     |
| 21     | 50251       | 2    | LCD READ-OUT WITH CABLE                          |
| 22     | 50250       | 2    | TERMINAL STRIP                                   |

# BURNER ASSEMBLY



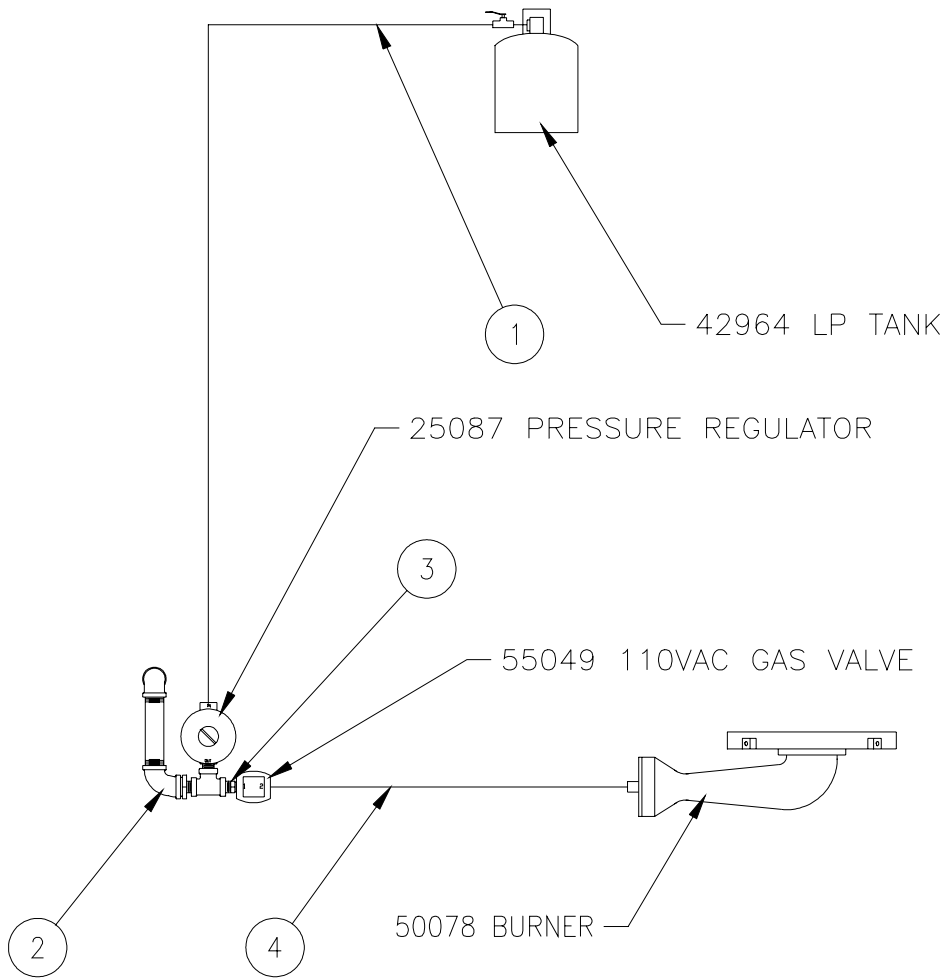
## PARTS LIST FOR BURNER ASSEMBLY

| NUMBER | PART NUMBER | QTY. | DESCRIPTION             |
|--------|-------------|------|-------------------------|
| 1      | 50078       | 1    | BURNER ASSEMBLY         |
| 2      | 50079       | 2    | BURNER MOUNTING BRACKET |
| 3      | 50070       | 1    | IGNITOR                 |
| 4      | 50071       | 1    | IGNITOR BRACKET         |





# PROPANE SCHEMATIC



| NUMBER                             | PART NUMBER | QTY | DESCRIPTION                                   |
|------------------------------------|-------------|-----|---|
| 1: LP Tank to Pressure Regulator   | 25123       | 1   | Tank Spud                                     |
|                                    | 29195       | 1   | 1/4 Ball Valve                                |
|                                    | 29839       | 1   | 1/4 NPT x 3/8 Tube Adaptor                    |
|                                    | 25131       | 1   | LP Hose Assy., 3/8 x 60"                      |
|                                    | 29871       | 1   | 3/8 Tube x 1/4 NPT Elbow                      |
| 2: Pressure Regulator to Generator | 28002       | 1   | 3/8 Close                                     |
|                                    | 28252       | 1   | 3/8 Tee                                       |
|                                    | 28002       | 1   | 3/8 Close                                     |
|                                    | 28347       | 1   | 3/8 x 3/4 Bushing                             |
|                                    | N/A         |     | 3/4 Street Elbow (part of generator assembly) |
| 3: 3/8 Tee to Gas Valve            | 51402       | 1   | 1/4 x 3/8 NPT Hex Nipple                      |
| 4: Gas Valve to Burner             | 29839       | 1   | 1/4 NPT x 3/8 Tube Adaptor                    |
|                                    | 25147       | 1   | LP Hose Assy., 3/8 x 18"                      |
|                                    | 29839       | 1   | 1/4 NPT x 3/8 Tube Adaptor                    |



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