

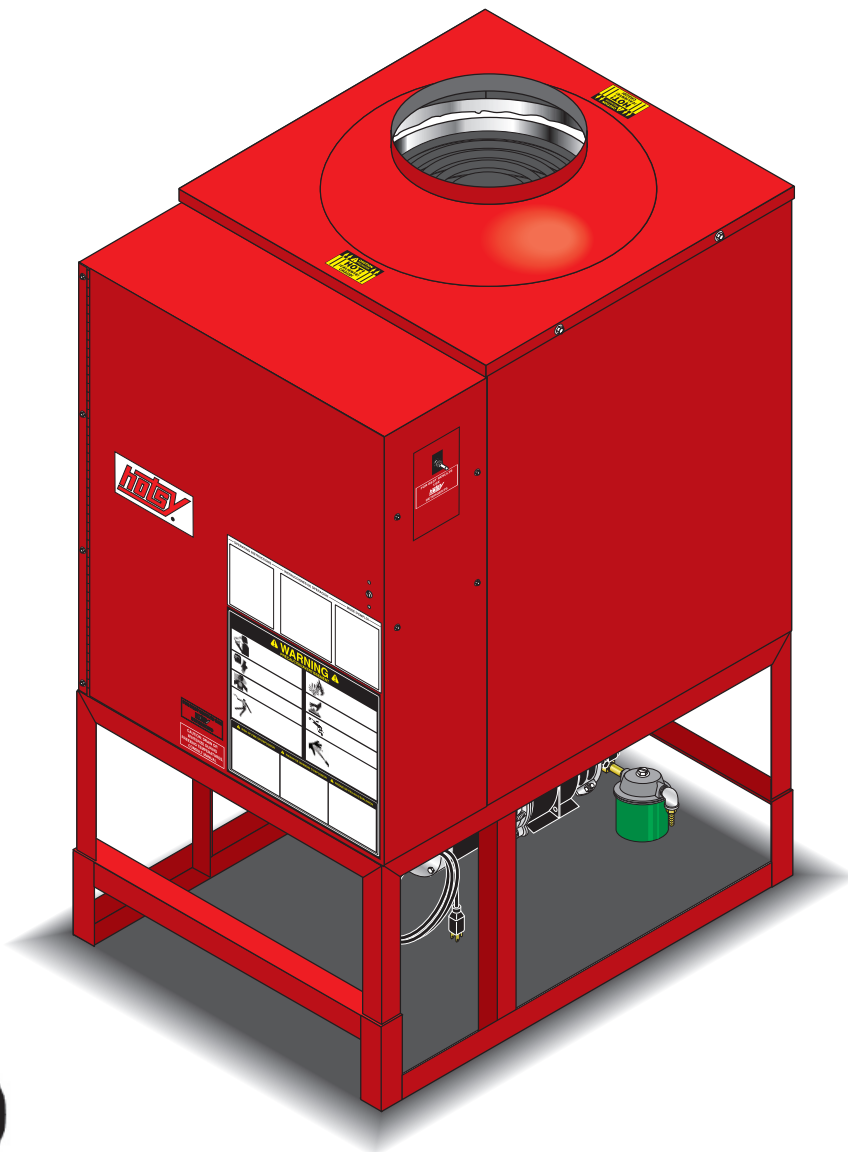


9450

9460

OPERATOR'S MANUAL

OIL FIRED BURNER MODULES



For technical assistance or the dealer nearest you,
consult our web page at www.hotsy.com or call 1-800-525-1976

#89143640 / 97-6263

9450 SPECIFICATIONS

- Maximum Inlet Pressure: 3200 PSI
- Burner Type: Oil Fired 700,00 BTU/Hr.
- Burner Fuel Pressure: 130 PSI
- Machine Voltage: 120V
- Total Machine Amperage: 8
- Machine Weight: 9450, 495 lbs.
- Shipping Weight: 9450, 525 lbs.
- Exhaust Stack Size: 10"
- Machine Dimensions: Length = 32.5", Width = 25", Height = 50.5"

9460 SPECIFICATIONS

- Maximum Inlet Pressure: 3200 PSI
- Burner Type: Oil Fired 920,000 BTU/Hr.
- Burner Fuel Pressure: 130 PSI
- Machine Voltage: 120V
- Total Machine Amperage: 8
- Machine Weight: 9460, 865 lbs.
- Shipping Weight: 9460, 920 lbs.
- Exhaust Stack Size: 12"
- Machine Dimensions: Length = 40.5", Width = 32", Height = 65"

CONTENTS

Introduction & General Safety Information	4-5
Component Identification	6
Installation	7
Operating Instructions	8
Detergents & General Cleaning Techniques	9
Shutting Down & Clean-Up	10
Troubleshooting	11-12
Preventative Maintenance	13-15
Exploded View & Parts List - 9450	16-19
Exploded View & Parts List - 9460	20-23
Exploded Burner Assembly & Parts List	24
Control Panel Exploded View & Parts List	25
Electrical Wiring Diagrams	26
Warranty	27

Model Number _____

Serial Number _____

Date of Purchase _____

The model and serial numbers will be found on a decal attached to the machine. You should record both serial number and date of purchase and keep in a safe place for future reference.

INTRODUCTION & SAFETY INFORMATION

Thank you for purchasing a Hotsy heating module. This manual covers the operation and maintenance of the 9450 and the 9460 oil fired heater modules. All information in this manual is based on the latest product information available at the time of printing. Hotsy, Inc. reserves the right to make changes at any time without incurring any obligation.

Owner/User Responsibility:

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this Hotsy heating module. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

This manual should be considered a permanent part of the machine and should remain with it if machine is resold.

When ordering parts, please specify model and serial number.

3. This oil burning machine shall be installed only in locations where combustible dusts and flammable gases or vapors are not present.
4. In these oil burning models, use only kerosene, No. 1 home heating fuel, or diesel.
5. Risk of explosion - do not spray flammable liquids. Operate only where open flame or torch is permitted.



WARNING: Keep water spray, wand and high pressure hose away from electric wiring or fatal electric shock may result. Read warning tag on electrical cord.

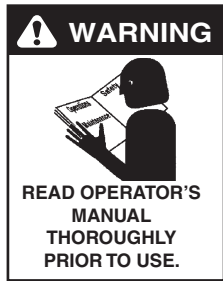
6. To protect the operator from electrical shock, the machine must be electrically grounded.

It is the responsibility of the owner to connect this machine to a UL grounded receptacle of proper voltage and amperage ratings. Do not spray water on or near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.

7. Grip cleaning wand of the attached pressure washer securely with both hands before starting the cleaner. Failure to do this could result in injury from a whipping wand.

WARNING: Spray gun kicks back — hold with both hands.

MACHINE SAFETY



CAUTION: To reduce the risk of injury, read operating instructions carefully before using.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage. Read owner's manual of attached pressure washer before operating.
2. All installations must comply with local codes. Contact your electrician, plumber, utility company or the selling distributor for specific details.



WARNING: High pressure stream of fluid from the pressure washer attached to this equipment can produce can pierce the skin and its underlying tissues, leading to serious injury and possible amputation.

8. High pressure developed by the attached pressure washer can cause bodily injury or damage. Use caution when operating. Do not point the spray gun at anyone or at any part of the body. This machine is to be used only by qualified operators.

9. Never make adjustments on machine while it is in operation.



WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.

WARNING: Do not use gasoline, crankcase drainings or oil containing gasoline, solvents or alcohol. Doing so will result in fire and/or explosion.

WARNING: Do not spray flammable liquids. Operate only where an open torch is permitted.



WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds.

10. Eye, hand and foot safety devices must be worn when using this equipment.

INTRODUCTION & SAFETY INFORMATION



WARNING: Risk of asphyxiation. Use this product only in a well ventilated area.

11. When the machine is working, do not cover or place in a closed space where ventilation is insufficient.



WARNING: Risk of fire. Do not add fuel when the machine is operating or still hot.

12. Attached pressure washer with a spray gun should not be operated with the spray gun in the off position for extended periods of time as this may cause damage to the pump. Check to make sure

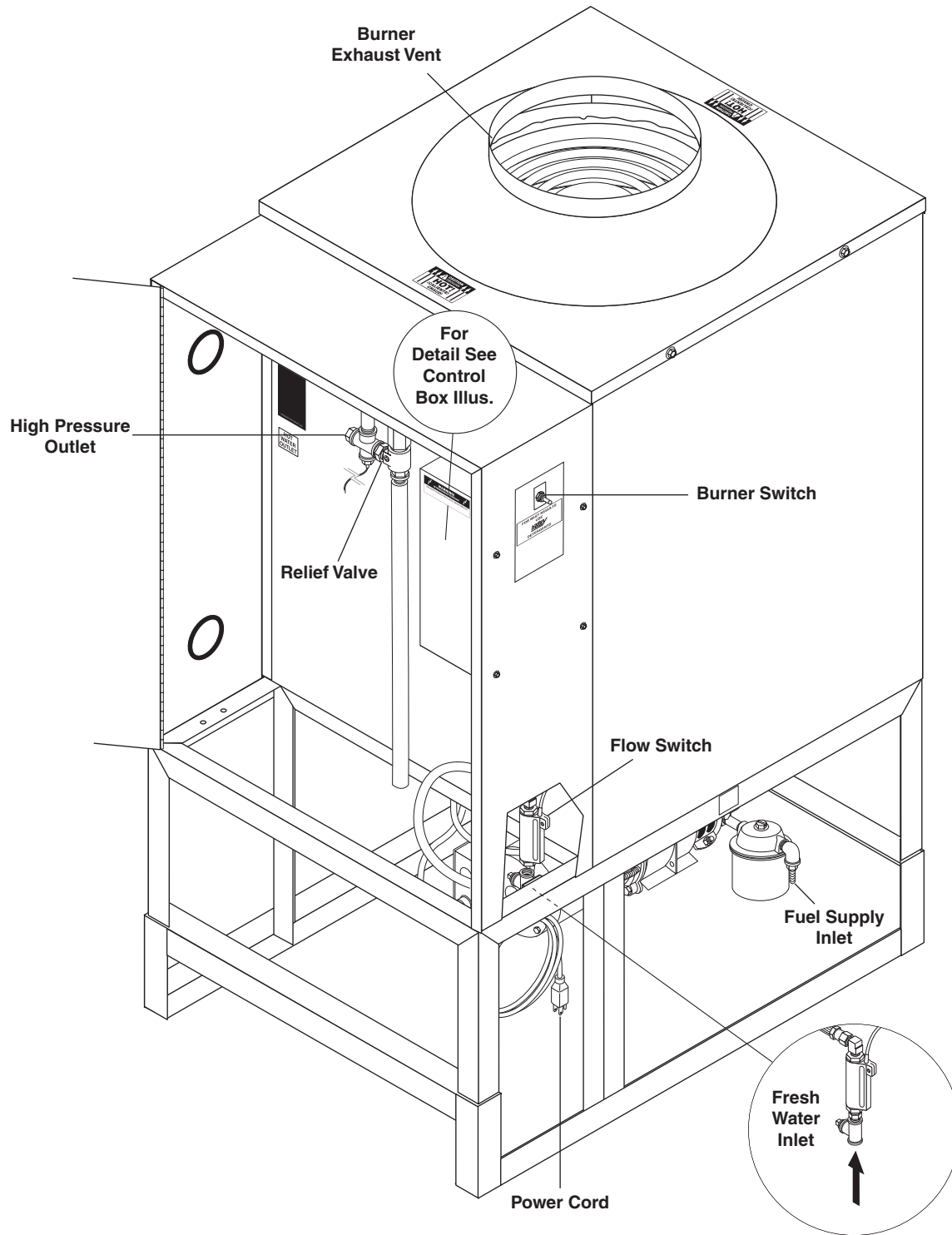
burner shuts off when spray gun trigger is closed.

13. Protect from freezing.
14. To prevent a serious injury, make certain quick coupler on discharge hose has locked before using pressure washer.
15. Do not allow acids, caustic or abrasive fluids to pass through the pump.
16. Inlet water must be from a cold, fresh, city water supply.

17. Do not allow CHILDREN to operate the pressure washer at any time. THIS MACHINE MUST BE ATTENDED DURING OPERATION.
18. The best insurance against an accident is precaution, and knowledge of the machine.
19. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.
20. Hotsy will not be liable for any changes made to our standard machines, or any components not purchased from Hotsy.
21. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
22. Follow the maintenance instructions specified in the manual.
23. When making repairs disconnect from electrical source.
24. Turn burner off and open spray gun to allow water to flow and cool coil to 100° before turning machine off.
25. Before disconnecting high pressure hose from 9450 or 9460 water outlet, open spray gun to relieve back pressure in hose.

Caution: This machine produces hot water and must have insulated components attached to protect the operator.

COMPONENT IDENTIFICATION



INSTALLATION

Place machine in a convenient location providing ample support, draining and room for maintenance.

Location:

The location should protect the machine from damaging environmental conditions such as wind, rain, and freezing temperatures.

These machines are designed for indoor use. They must be stored indoors when not in use.

1. The machine should be run on a level surface where it is not readily influenced by outside sources such as strong winds, freezing temperatures, rain, etc. The unit should be located to allow accessibility for refilling of fuel, adjustments and maintenance. Normal precautions should be taken by the operator of the unit to prevent excess moisture from reaching the power unit or electrical controls.
2. It is recommended that a partition be made between the wash area and the machine to prevent direct water spray from coming in contact with the machine. Excess moisture reaching any electric components or electrical controls will reduce machine life and may cause electrical shorts.
3. During installation of the machine, beware of poorly ventilated locations or areas where exhaust fans may cause an insufficient supply of oxygen. Sufficient combustion can only be obtained when there is a sufficient supply of oxygen available for the amount of fuel being burned.

Electrical:

This machine, when installed, must be electrically grounded in accordance to local codes. Check for proper power supply using a volt meter.

Placement:

Do not locate near any combustible material. Keep all flammable material at least 20 feet away.

Allow enough space for servicing the machine.

Local code will require certain distances from floor and walls. (Two feet away should be adequate.)

Water Source:

The water source for the machine should be supplied by a 5/8" I.D. garden hose with a city water pressure of not less than 30 psi. If the water supply is inadequate, or if the garden hose is kinked, the attached pressure washer will run very rough and the burner will not fire.

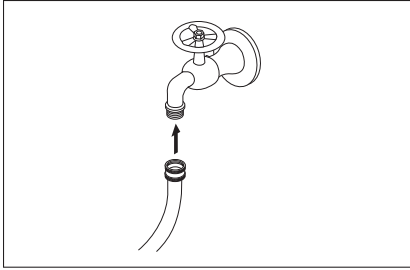
Connection:

Connect the wand, nozzle, hose and spray gun (where applicable). On pipe thread connections, use teflon tape to avoid water leaks. (See Component Identification.)

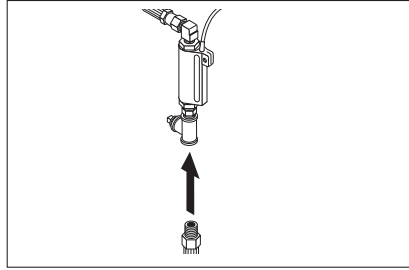
Venting:

Adding exhaust vent pipe to your oil fired burner is not recommended. It restricts air flow, causing carbon build-up, which affects the operation, and increases maintenance on the coil. If a stack must be used, refrain from using 90° bends. If the pipe can not go straight up then use only 45° bends and go to the next size pipe. The overall pipe length must not exceed 6 feet in length.

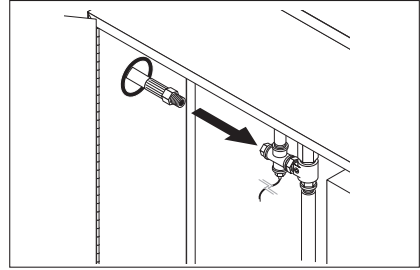
OPERATION INSTRUCTIONS



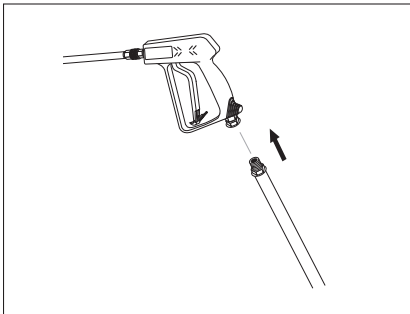
STEP 1: Review installation instructions prior to connecting water supply and checking fuel tank and pump oil level on both machines.



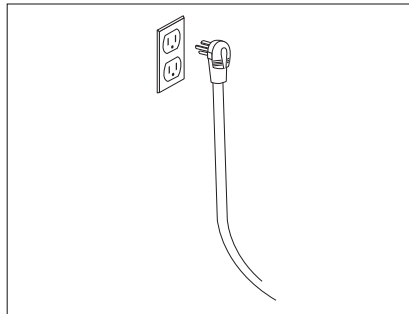
STEP 2: Connect high pressure hose from pressure washer (not included) to burner module.



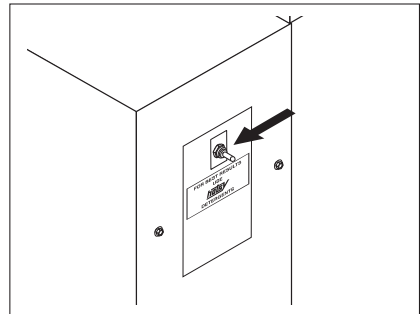
STEP 3: Connect high pressure hose from pressure washer when connecting to burner module outlet.



STEP 4: Attach high pressure wand to spray gun of connected pressure washer (Not Included).



STEP 5: Connect the power cords into proper electrical outlet (See Serial Port).



STEP 6: Turn on burner switch. Pilot ignition will begin to spark. Confirm pilot light ignition, if unsuccessful, turn off switch and turn on again. If pilot continues to spark, but not light, consult troubleshooting guide.

DETERGENTS & GENERAL CLEANING TECHNIQUES

Refer to operation manual of machine that is to be connected to the oil fired heating module for instructions on applying detergent. Follow instructions when using detergent injectors from the supplier of the injector.

Pre-rinse cleaning surface with fresh water. Place detergent suction tube directly into cleaning solution and apply to surface at low pressure (for best results, limit your work area to sections approximately 6 feet square and always apply detergent from bottom to top). Allow detergent to remain on surface 1-3 minutes. Do not allow detergent to dry on surface. If surface appears to be drying, simply wet down surface with fresh water. If needed, use brush to remove stubborn dirt. Rinse at high pressure from top to bottom in an even sweeping motion, keeping the spray nozzle approximately 1 foot from cleaning surface. Use overlapping strokes as you clean and rinse any surface. For best surface cleaning action spray at a slight angle.

Recommendations:

- Before cleaning any surface, an inconspicuous area should be cleaned to test spray pattern and distance for maximum cleaning results.
- If painted surfaces are peeling or chipping, use extreme caution as pressure washer may remove the loose paint from the surface.
- Keep the spray nozzle a safe distance from the surface you plan to clean. High pressure wash a small area, then check the surface for damage. If no damage is found, continue to pressure washing.



CAUTION - Never use:

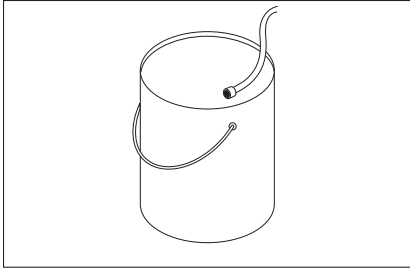
- Bleach, chlorine products and other corrosive chemicals
- Liquids containing solvents (i.e., paint thinner, gasoline, oils, etc.)
- Tri-sodium phosphate products
- Ammonia or Acid-based products

These chemicals will harm the machine and will damage the surface being cleaned.

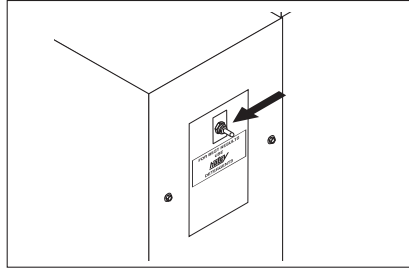
RINSING

It will take a few seconds for the detergent to clear. Apply safety latch to spray gun. Select and install desired high pressure nozzle. **NOTE:** You can also stop detergent from flowing by removing detergent siphon tube from bottle.

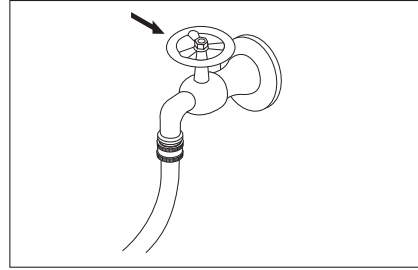
SHUTTING DOWN & CLEAN-UP



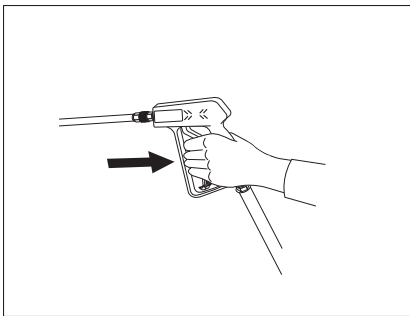
STEP 1: To clean detergent from hose and wand, insert end of detergent hose in clean bucket of water and run for a few minutes until steady stream of clean water is evident.



STEP 2: Turn Burner Switch "Off" and continue spraying water until temperature reaches 100°.



STEP 3: Turn water off.



STEP 4: Open spray gun to relieve remaining pressure.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
BURNER WILL NOT LIGHT	Disconnected or short in electrical wiring	All wire contacts should be clean and tight. No breaks in wire.
	Burner motor thermal protector tripped	If tripped, check voltage, connections and extensions for cause. Check fuel pump shaft rotation for binding, causing motor to overheat.
	Flex-coupling slipping on fuel pump shaft or burner motor shaft	Replace if needed.
	On-off switch defective	Check continuity through burner switch.
	Heavy sooting on coil and burner, can cause interruption of air flow and shorting of electrodes	Clean as required.
	Improper electrode setting	Clean and test according to diagram in operator's manual.
	Fuel not reaching combustion chamber	Check fuel pump for proper flow. Check solenoid flow switch on units with spray gun control for proper on-off flow switch.
	Fuel solenoid malfunction	Check by placing screwdriver inside coil then turn machine on, open spray gun and check for magnetic pull.
	Clogged burner nozzle	Replace.
	Water not turned on	Turn on water to activate burner flow switch.
	Flow switch malfunction	Remove, test for continuity and replace as needed.
MACHINE SMOKES	Improper fuel or water in fuel	Drain tank and replace contaminated fuel.
	Improper air adjustment	Readjust air bands on burner assembly.
	Low fuel pressure	Adjust fuel pump pressure to specifications.
	Air leaks in fuel lines	Check fuel lines for leaks or air bubbles. Tighten or replace as needed.
	Plugged or dirty burner nozzle	Replace.
	Faulty burner nozzle spray pattern	Replace nozzle.
	Heavy accumulation of soot on coils and burner assembly	Remove coils and burner assembly. Clean thoroughly.
	Misaligned electrode	Realign electrodes to specifications.
	Fuel filter partially clogged	Replace as needed.
	Obstruction in smoke stack	Check for insulation blockage or other foreign objects.
	Soot build up on coils	Clean coils with soot remover.
	Lime build up in coils	Clean inside of coils using coil cleaner.
	Improper burner nozzle	See exploded view parts list.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
LOW WATER TEMPERATURE	Improper fuel or water in fuel	Drain fuel tank and replace with proper fuel.
	Low fuel pressure	Increase fuel pressure.
	Weak fuel pump	Check fuel pump temperature. Replace pump if needed.
	Fuel filter partially clogged	Replace as needed.
	Soot build up on coils	Clean coils with soot remover.
	Lime build up on coils	Clean inside of coils using coil cleaner.
	Improper burner nozzle	See exploded view parts list.
WATER TEMPERATURE TOO HOT	Incoming water to machine warm or hot	Lower incoming water temperature.
	Fuel pump pressure too high	Lower fuel pressure.
	Fuel pump defective	Replace fuel pump.
	Chemical line sucking air	Tighten all clamps. Check chemical line for holes.
	Defective high limit switch	Replace.
	Incorrect fuel nozzle size	See exploded view parts list.
	Insufficient water supplied	Check GPM to machine.
	Restricted water flow	Check nozzle for obstruction, proper size.

PREVENTATIVE MAINTENANCE

1. Use clean fuel - kerosene, No. 1 home heating fuel or diesel. Clean or replace fuel filter every 100 hours of operation. Avoid water contaminated fuel as it will seize up the fuel pump. De-soot coils monthly. Use an additive if diesel is being used.
2. Check to see that the attached pressure washer water pump is properly lubricated.
3. Follow **Winterizing Procedures** to prevent freeze damage to pump and coils.
4. Always neutralize and flush chemical from system after use.
5. If water is known to be high in mineral content, use a water softener on your water system, or de-scale as needed.
6. Do not allow acidic, caustic or abrasive fluids to be pumped through system.
7. Always use high grade quality Hotsy cleaning products.
8. Never run attached pressure washer pump dry for extended periods of time.
9. If machine is operated with smoky or eye burning exhaust, coils will soot up, not letting water reach maximum operating temperature. (See section on Air Adjustments).
10. Never allow water to be sprayed on or near the motor or burner assembly or any electrical component.
11. Delime coils per instructions.

It is advisable, periodically, to visually inspect the burner. Check air inlet to make sure it is not clogged or blocked. Wipe off any oil spills and keep this equipment clean and dry.

The areas around the Landa washer should be kept clean and free of combustible materials, gasoline and other flammable vapors and liquids.

The flow of combustion and ventilating air to the burner must not be blocked or obstructed in any manner.

MAINTENANCE AND SERVICE

Winterizing Procedure:

Damage due to freezing is not covered by warranty. Adhere to the following cold weather procedures whenever the washer must be stored or operated outdoors under freezing conditions.

During winter months, when temperatures drop below 32°F, protecting your machine against freezing is necessary. Store the machine in a heated room. If this is not possible, use compressed air to blow all water out of the system.

High Limit Thermostat:

For safety, each machine is equipped with a high limit control switch. In the event the temperature of the water should exceed its operating temperature the high limit control will turn the burner off until the water cools.

Cleaning of Coils:

In alkaline water areas, lime deposits can accumulate rapidly inside the coil pipes. This growth is increased by the extreme heat build up in the coil. The best prevention for liming conditions is to use high quality cleaning chemicals. In areas where alkaline water is an extreme problem, periodic use of Deliming Powder will remove lime and other deposits before coil becomes plugged.

Deliming Coils:

Periodic flushing of coils or optional float tank is recommended.

Step 1 Fill a container or float tank with 4 gallons of water, then add 1 lb. of deliming powder. Mix thoroughly. Verify mixing ratio on deliming powder package.

Step 2 Remove nozzle from wand assembly and put spray gun and wand assembly into float tank. Attach a nylon stocking to the end of the wand to collect debris.

Step 3 Attach a short section (3-5 ft.) of garden hose to the attached pressure washer to siphon solution from an elevated container. Turn attached pressure washer switch on, allowing solution to be pumped through coils back into the container. Solution should be allowed to circulate 2-4 hours.

Step 4 After circulating solution flush entire system with fresh water. Reinstall high pressure nozzle into wand.

Removal of Soot and Heating Coil:

In the heating process, fuel residue in the form of soot deposits may develop between the heating coil pipe and block air flow which will affect burner combustion. When soot has been detected on visual observation, the soot on the coil must be washed off after following the coil removal steps.

Relief Valve

WARNING: The relief valve on this pressure washer has been factory set and sealed and is a field non-adjustable part. Tampering with the factory setting may cause personal injury and/or property damage and will void the manufacturer warranty. For replacement parts refer to exploded views.

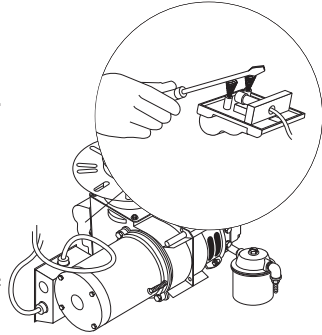
PREVENTATIVE MAINTENANCE

Fuel:

Use clean fuel oil that is not contaminated with water and debris. Replace fuel filter and drain tank every 100 hours of operation. Use No. 1 or No. 2 Heating Oil (ASTM D306) only. **NEVER** use gasoline in your burner tank. Gasoline is more combustible than fuel oil and could result in a serious explosion. **NEVER** use crankcase or waste oil in your burner. Fuel unit malfunction could result from contamination.

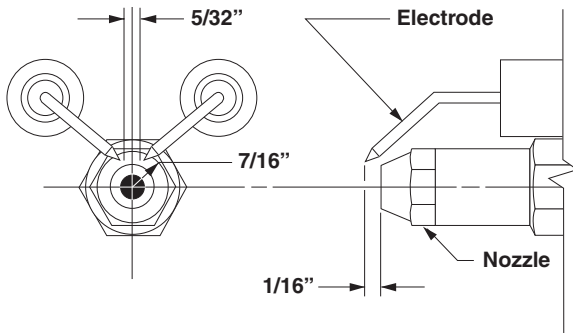
Ignition Circuit:

Periodically inspect wires, spring contact and electrodes for condition, security and proper spacing. Transformer test: (**CAUTION 10,000 VOLTS**) use defect free insulated screwdriver and keep fingers off blade! Lay blade across one contact: OK if arc will span 1/2" between end of blade and other contact.



Electrode Setting:

(See illustration below)



Electrodes Check : Periodically check wiring connections. If necessary to adjust electrodes, use diagram.

Burner Nozzle:

Keep the tip free of surface deposits by wiping it with a clean, solvent-saturated cloth, being careful not to plug or enlarge the nozzle. For maximum efficiency, replace the nozzle each season.

Fuel Control System:

The 9450 and 9460 both utilize a fuel solenoid valve located on the fuel pump to control the flow of fuel to the combustion chamber. This solenoid, which is normally closed, is activated by a flow switch when water is flowing through it. When an operator releases the trigger on the spray gun, the flow of water through the flow switch stops, turning off the current to the fuel solenoid. The solenoid then closes, shutting off the

supply of fuel to the combustion chamber. Controlling the flow of fuel in this way gives an instantaneous burn or no burn situation, thereby eliminating high and low water temperatures, and combustion smoke normally associated with machines incorporating a spray gun. Periodic inspection is recommended to insure that the fuel solenoid valve functions properly. This can be done by operating the machine and checking to see that when the trigger on the spray gun is in the off position, the burner is not firing.

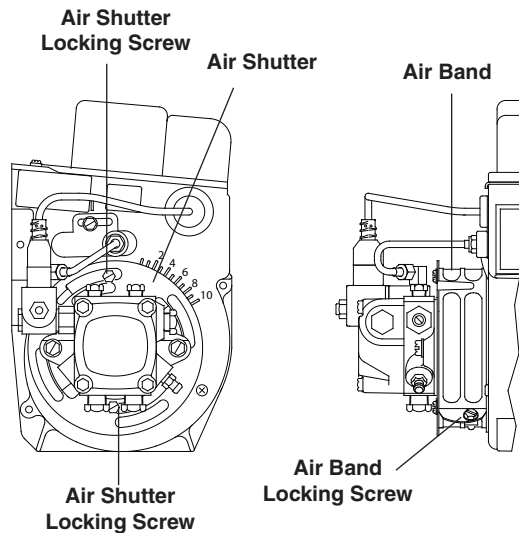
AIR ADJUSTMENT

Fuel Pressure Adjustment:

To adjust fuel pressure, turn the adjusting screw (located at the regulator pressure port) clockwise to increase, counterclockwise to decrease. Do not exceed 250 psi. **NOTE:** When changing fuel pump, a by-pass plug must be installed in return line port or fuel pump will not prime.

Burner Air Adjustment: The oil burner is preset for operation at altitudes below 3000 feet. If operated at higher altitudes, it may be necessary to adjust the air band setting. Adjust the air band for a #1 or #2 smoke spot on the Bacharach scale.

To adjust, start machine and turn burner ON (refer to **Operation** for details). Loosen two locking screws found in the air shutter openings (refer to figure below) and close air shutter until black smoke appears from burner exhaust vent. Note air band position. Next, slowly open the air shutter until white smoke just starts to appear. Turn air shutter halfway back to the black smoke position previously noted. Tighten locking screws.



If the desired position cannot be obtained using only the air shutter, lock the air shutter in as close a position as can be obtained, then repeat the above procedure on the air band setting.

PREVENTATIVE MAINTENANCE

CAUTION: *If white smoke appears from burner exhaust vent during start-up or operation, discontinue use and readjust air bands.*

For additional burner component information, see **burner exploded view**. It is recommended that the oil burner be serviced yearly or as needed. Contact your local service center.

NOTE: *If a flue is installed, have a professional serviceman adjust your burner for a #1 or #2 smoke spot on the Bacharach scale.*

MAINTENANCE SCHEDULE

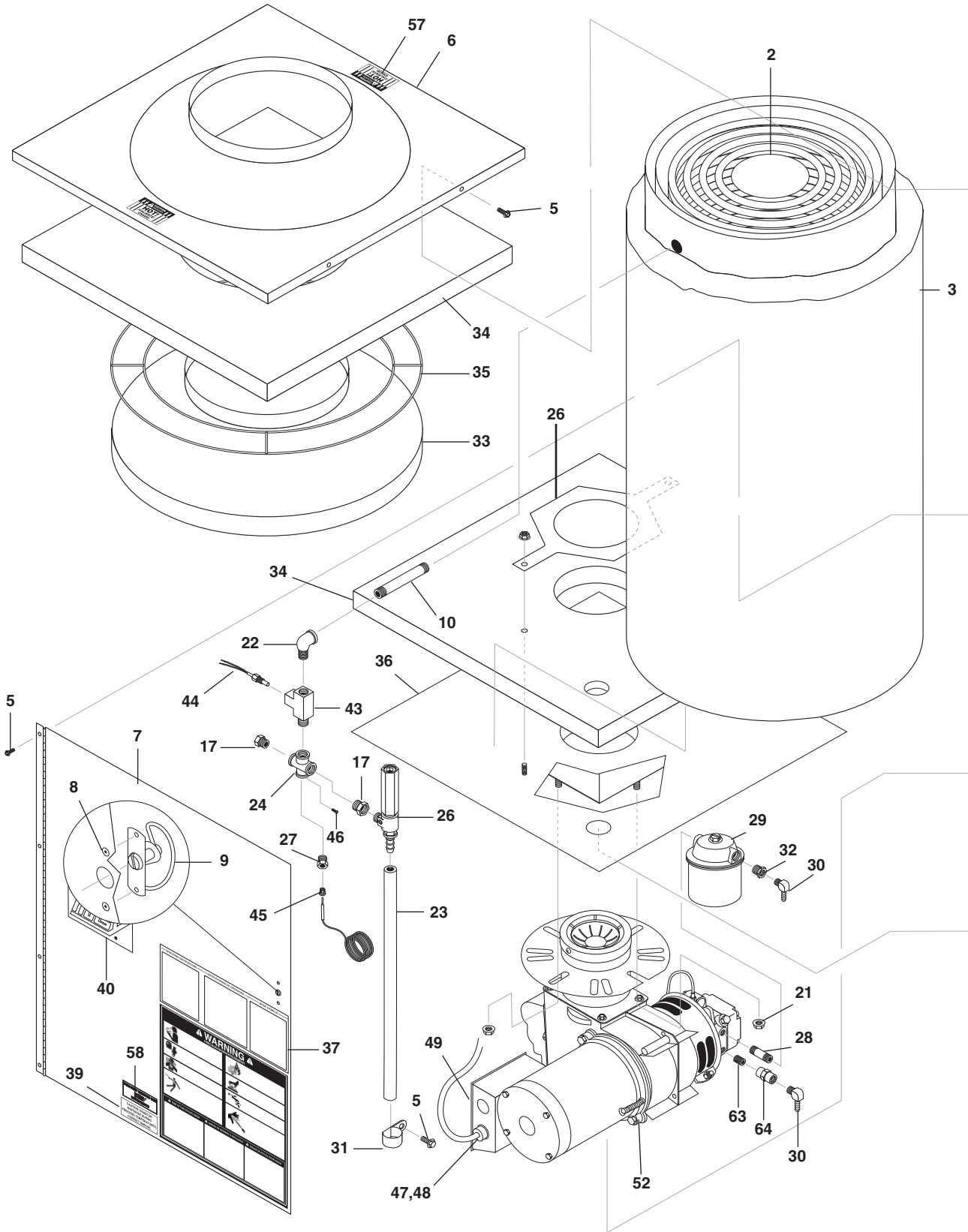
This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Hotsy, Inc. dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

MAINTENANCE SCHEDULE	
Remove Burner Soot From Heating Coil	Annually
Descale Coil	Annually - (more often if required)
Replace Quick Connects	Annually
Clean Water and Detergent Screen/Filter	Weekly
Clean Float/Supply Tank	Every 6 months
Replace HP Hose	If there is any sign of wear
Grease Motor	Every 10,000 hours
Check Burner Pilot Jets	Annually
Pressure Relief Valve	Annually

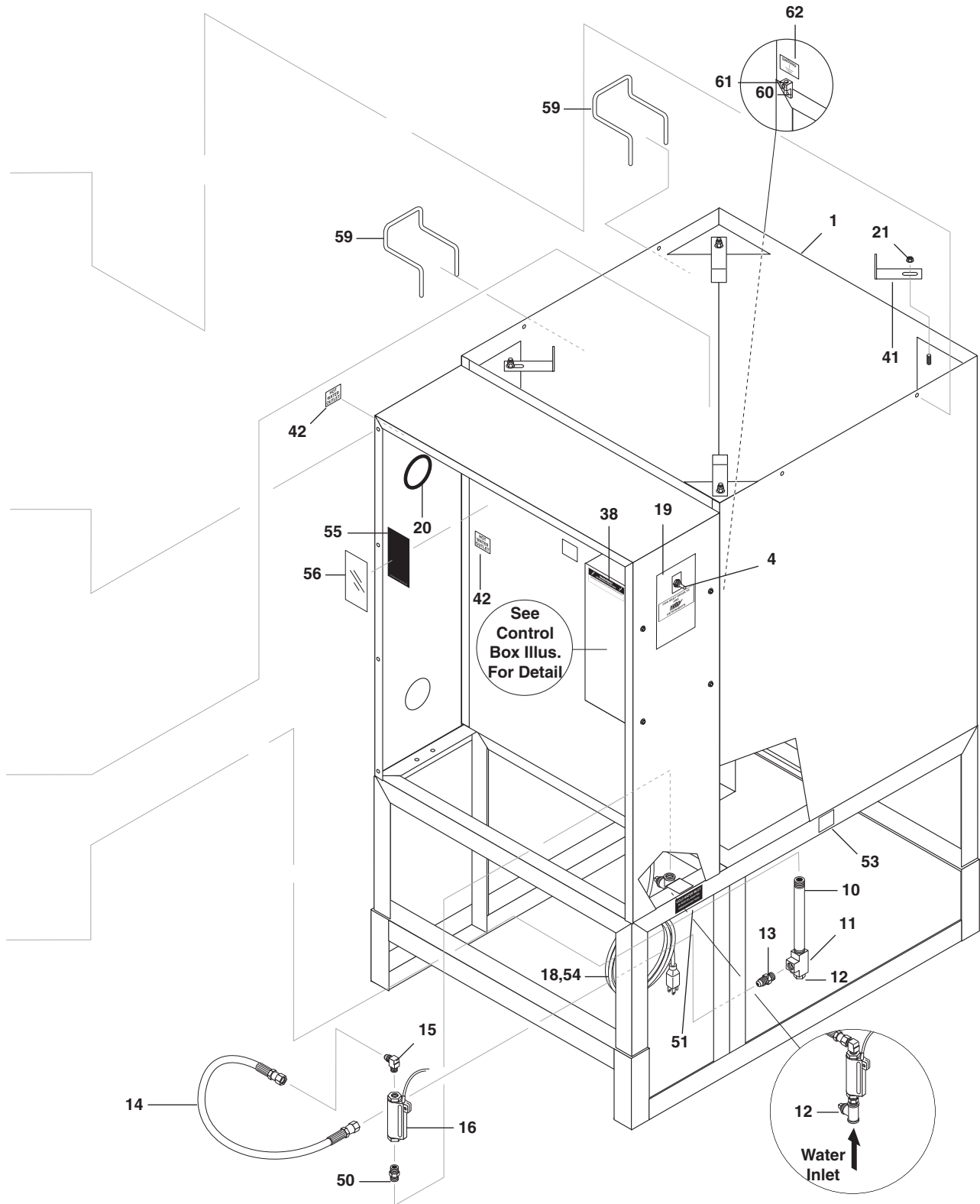
OIL CHANGE RECORD

Date Oil Changed Month/Day/Year	Estimated Operating Hours Since Last Oil Change

EXPLODED VIEW - 9450



EXPLODED VIEW - 9450



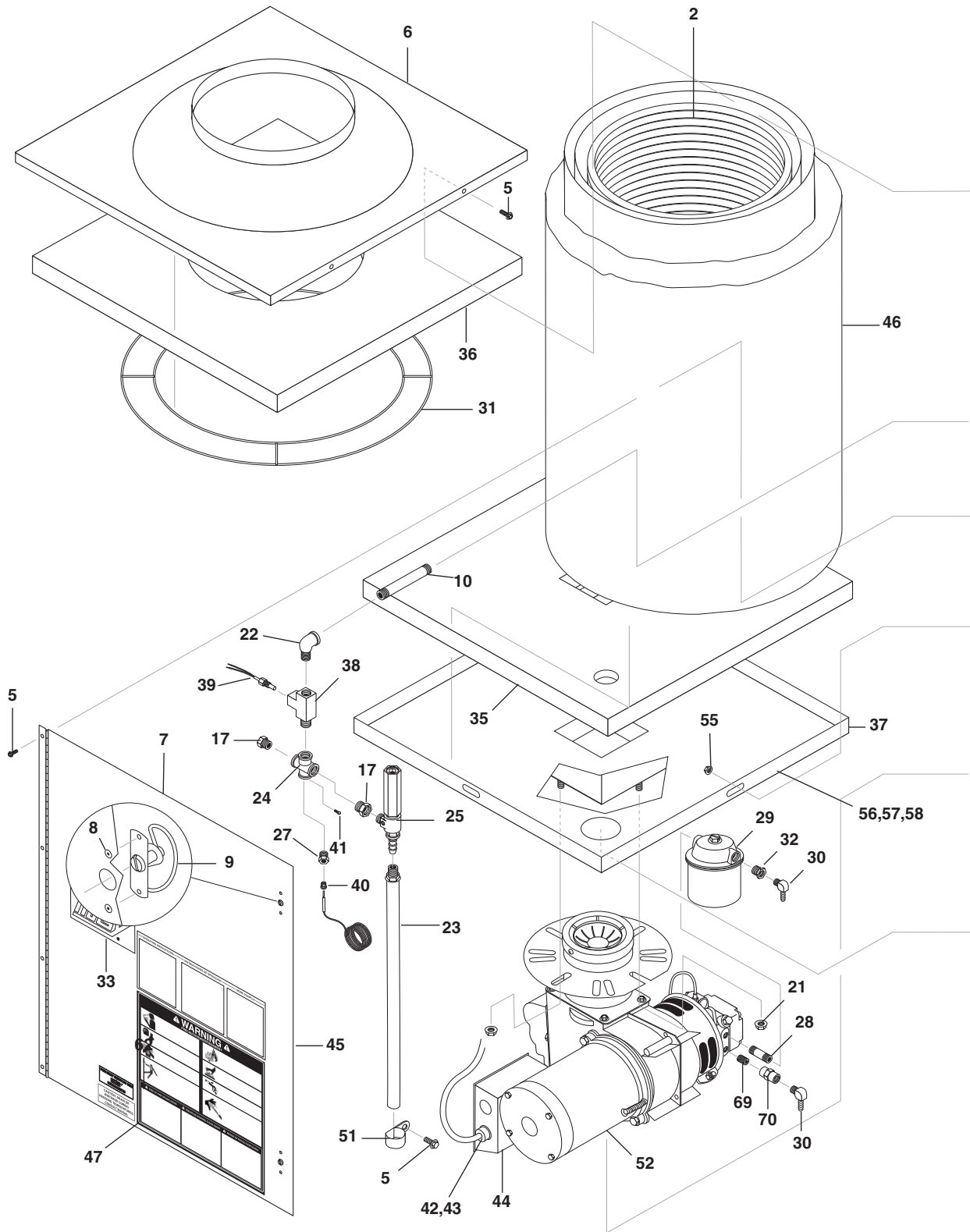
EXPLODED VIEW PARTS LIST - 9450

ITEM	PART NO.		DESCRIPTION	QTY
1	236393	8.911-482.0	Chassis Paint	1
2	240860	8.911-494.0	Coil, Oil 22", Weldment	1
3	7-014874	8.717-452.0	Insulation, Cerafelt	6 ft.
4	950519	8.716-112.0	Switch, Toggle, 10A/250V	1
5	935250	8.718-942.0	Screw, #12 x 3/4", Tex	8
6	296391	8.911-600.0	Lid, 24" Painted	1
7	254421	8.911-552.0	Door Heater Paint	1
8	926598	9.804-301.0	Rivet, 1/8" x 1/4", POP	2
9	878961	8.719-081.0	Latch, Spring Flush Head	1
10	2-00101	9.802-015.0	Nipple, 1/2" x 4" Galvanized	2
11	754717	8.706-216.0	Tee, 1/2", Female, Steel Pipe	1
12	715755	8.706-243.0	Plug, 1/2", Square Head, Galvanized	2
13	2-0052	9.802-038.0	Nipple, 1/2" JIC, 1/2" Pipe	1
14	4-02067728	8.711-702.0	Hose, 1/2" x 28", 2 Wire, Pressure	1
15	661357	9.802-039.0	Elbow, 1/2" JIC, 3/8", 90°	1
16	6-021730	8.933-006.0	Switch, 6- Flow MV60, Yellow	1
17	815220	8.706-294.0	Bushing, 1/2" x 3/8", Steel	2
18	826000	8.717-010.0	Cordset, 115V/15A 5-15PX60	1
19	11-0333	8.900-898.0	Label, Control Panel	1
20	859805	8.706-548.0	Grommet, 2-1/8" x 2-7/8" x 7/16"	1
21	703107	9.802-778.0	Nut, Whiz Loc 5/16" Flange	10
22	2-0032	8.706-172.0	Elbow, 1/2", 90° Female Pipe	1
23	898035	4-0211000	Hose, 1/2", Push-On	36"
24	2-0039	8.706-226.0	Cross, 1/2" Forged	1
25		9.802-433.0	Valve, Safety Relief, VSP	1
26	95-07104826	8.912-016.0	Bracket, Insulation Retainer	1
27	2-00742	9.802-047.0	Adapter, 1/2" Hex	1
28	799422	9.803-043.0	Nipple, 1/4" x 2"	1
29	851140	8.709-160.0	Filter, Fuel	1
30	799502	8.706-958.0	Elbow, 1/4" Hose Barb	2
31	824095	8.709-090.0	Clamp, Round, .75 ID	1
32	615279	8.706-297.0	Bushing, 3/8" x 1/4"	1
33	296382	8.911-598.0	Lid, 22-1/2" (9450 Oil Fired Only)	1
34	873757	8.717-451.0	Insulation, 24" x 24" x 1/2"	2
35	104928	8.719-940.0	Insulation, Retainer Ring	1
36	304310	8.911-630.0	Burner Mount	1
37	11-0326	8.900-894.0	Decal, Operating Instruction	1
38	10-08021	9.800-016.0	Label, Warning Disconnect	1
39	834154	8.901-135.0	Label, Winterize	1
40	914903	8.901-215.0	Label, Lexan, Hotsy, 5.6" x 3.25"	1
41	227828	8.911-438.0	Bracket, Coil	4
42	646673	9.800-021.0	Label, Hot Water Outlet	2
43	890849	8.706-236.0	Tee, 1/2" Street	1
44	4-0509	8.712-185.0	Switch, Snap	1
45	389522	8.707-286.0	Well, Thermostat	1

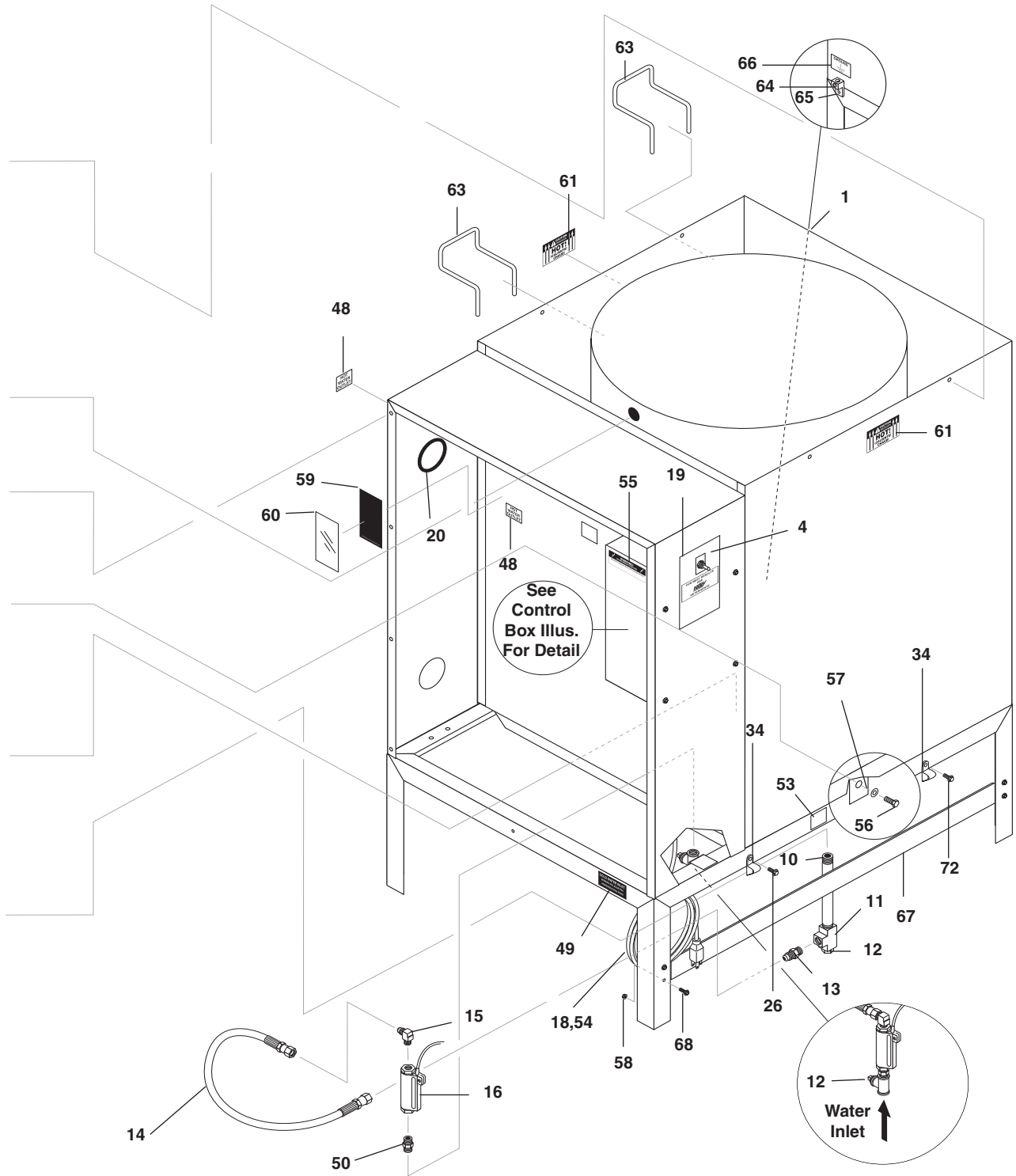
EXPLODED VIEW PARTS LIST - 9450

ITEM	PART NO.		DESCRIPTION	QTY
46	90-141	9.804-568.0	Screw, 6/32" x 3/8"	1
47	6-05153	9.802-515.0	Strain Relief	1
48	703127	9.802-525.0	Locknut, 1/2"	1
49	6-04112	8.716-342.0	Cover, Blank	1
50	2-0019	8.706-122.0	Nipple, 3/8" x 1/2" Hex	1
51	646666	9.800-020.0	Label, Cold Water Inlet	1
52	7-00002	8.717-024.0	Burner Assembly	1
53	11-3212	8.901-134.0	Label, Fuel	1
54	10-08018	8.932-969.0	Label, Warning Service Cord	1
55	10-08017	8.932-968.0	Label, Outdoor Use	1
56	10-9999	9.800-034.0	Label, Clear Lexan	1
57	10-02025A	9.800-006.0	Label, Caution Hot	2
58	11-3215	8.901-136.0	Label, Hotsy Detergent	1
59	95-0710861644	8.719-946.0	Hanger, Hose	2
60	90-30021	8.718-945.0	Screw, #14 Tek	1
61	6-0507	8.716-460.0	Lug, Grounding	1
62	11-3479	8.901-191.0	Label, Warning Disconnect	1
63	2-1002	8.706-777.0	Nipple, 1/4" Close	1
64	722731	8.706-812.0	Coupling, 1/4" Hex	1

EXPLODED VIEW - 9460



EXPLODED VIEW - 9460



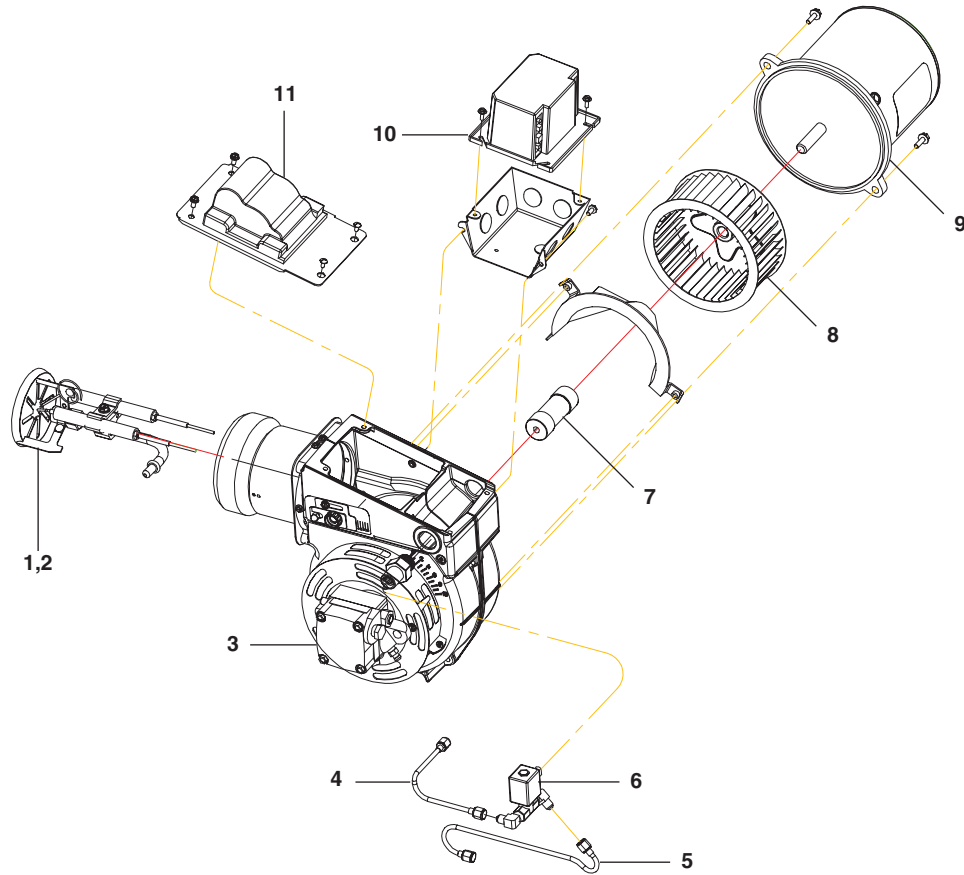
EXPLODED VIEW PARTS LIST - 9460

ITEM	PART NO.		DESCRIPTION	QTY
1	236368	8.911-481.0	Chassis Paint	1
2	240870	8.911-496.0	Coil, Gas/Oil 28", Weldment	1
3	873757	8.717-451.0	Insulation, Cerfelt, 1/2" x 24 x 4.166SF	1
4	950519	8.716-112.0	Switch, Toggle, 10A/250V	1
5	876053	9.802-798.0	Screw, #10 x 1/2" Tek	10
6	296405	8.911-601.0	Lid 30" Painted, 9460	1
7	254418	8.911-551.0	Door Heater Paint, 9460	1
8	926598	9.804-301.0	Rivet, 1/8" x 1/4", POP	4
9	878961	8.719-081.0	Latch, Spring Flush Head	2
10	2-00101	9.802-015.0	Nipple, 1/2" x 4" Pipe	2
11	754717	8.706-216.0	Tee, 1/2", Female, Steel Pipe	1
12	715755	8.706-243.0	Plug, 1/2", Square Head, Galvanized	2
13	2-0052	9.802-038.0	Nipple, 1/2" JIC, 1/2" Pipe	1
14	4-02067770	8.711-707.0	Hose, 1/2" x 70", 2 Wire, Pressure	1
15	661357	9.802-039.0	Elbow, 1/2" JIC, 3/8", 90°	1
16	6-021730	8.933-006.0	Switch, Flow MV60, Yellow	1
17	815220	8.706-294.0	Bushing, 1/2" x 3/8", Steel	2
18	826000	8.717-010.0	Cordset, 115V/15A 5-15PX60	1
19	11-0333	8.900-898.0	Label, Control Panel	1
20	859805	8.706-548.0	Grommet, 2-1/8" x 2-7/8" x 7/16"	1
21	703107	9.802-778.0	Nut, Whiz Loc 5/16" Flange	4
22	2-0032	8.706-208.0	Elbow, 1/2"	1
23	867395	8.711-785.0	Hose, 3/8", Push-On	36"
24	2-0039	8.706-226.0	Cross, 1/2" Female	1
25		9.802-433.0	Valve, Safety Relief, VSP	1
26	90-30021	8.718-945.0	Screw, #14 x 3/4" Tek	2
27	2-00742	9.802-047.0	Adaptor, 1/2" Hex	1
28	799422	9.803-264.0	Nipple, 1/4" x 3"	1
29	851140	8.709-160.0	Filter, Fuel	1
30	799502	8.706-941.0	Elbow, 1/4" Hose Barb	2
31	95-07104933	8.719-941.0	Insulation Retainer Ring	1
32	615279	8.706-297.0	Bushing, 3/8" x 1/4"	1
33	914904	8.704-659.0	Label, Hotsy, Logo, 5" x 11"	1
34	824096	8.709-091.0	Clip, 1.25 ID Round	2
35	873757	8.717-451.0	Insulation, 24" x 24"	1
36	873757	8.717-451.0	Insulation, 30" x 30"	1
37	304074	8.911-608.0	Mount, Burner	1
38	890849	8.706-236.0	Tee, 1/2" Street	1
39	4-0509	8.712-185.0	Switch, Snap	1
40	389522	8.707-286.0	Well, Thermostat	1
41	90-141	9.804-568.0	Screw, 6/32" x 3/8"	1
42	876029	9.802-515.0	Strain Relief	1
43	703127	9.802-525.0	Locknut, 1/2"	1
44	6-04112	8.716-342.0	Cover, Blank	1
45	11-0326	8.900-894.0	Decal, Operating Instruction	1

EXPLODED VIEW PARTS LIST - 9460

ITEM	PART NO.		DESCRIPTION	QTY
46	7-014873	8.717-451.0	Insulation, Cerfelt, 1/2" x 24"	8 ft.
47	834154	8.901-135.0	Label, Winterize	1
48	646673	9.800-021.0	Label, Hot Water Outlet	2
49	646666	9.800-020.0	Label, Cold Water Inlet	1
50	2-0019	8.706-122.0	Nipple, 3/8" x 1/2" Hex	1
51	824106	9.802-207.0	Clamp, Round, .56 ID	1
52	7-00001	8.717-013.0	Burner Assembly	1
53	11-3212	8.901-134.0	Label, Fuel	1
54	10-08018	8.932-969.0	Label, Warning, Service Cord	1
55	10-08021	9.800-016.0	Label, Warning Electrical	1
56	90-1006	8.718-618.0	Bolt, 5/16" x 3/4"	3
57	90-4001	8.718-980.0	Washer, 5/16" Flat	3
58	90-20012	9.802-778.0	Nut, 5/16" Whiz Loc	11
59	10-08017	8.932-968.0	Label, Outdoor Use Only	1
60	10-9999	9.800-034.0	Label, Lexan	1
61	10-02025A	9.800-006.0	Label, Caution Hot	2
62	11-3215	8.901-136.0	Label, Hotsy Detergent	1
63	95-0710861644	8.719-946.0	Hanger, Hose	2
64	90-30021	8.718-945.0	Screw, #14 x 3/4" Tek	1
65	6-0507	8.716-460.0	Lug, Grounding	1
66	11-3479	8.901-191.0	Label, Caution, Grounding	1
67	95-0710304200	8.911-626.0	Bracket, Lift	2
68	90-19713	9.803-551.0	Screw, 5/16" x 3/4" Whiz	1
69	2-1002	8.706-777.0	Nipple, 1/4" Close	1
70	722731	8.706-812.0	Coupling, 1/4" Hex	1

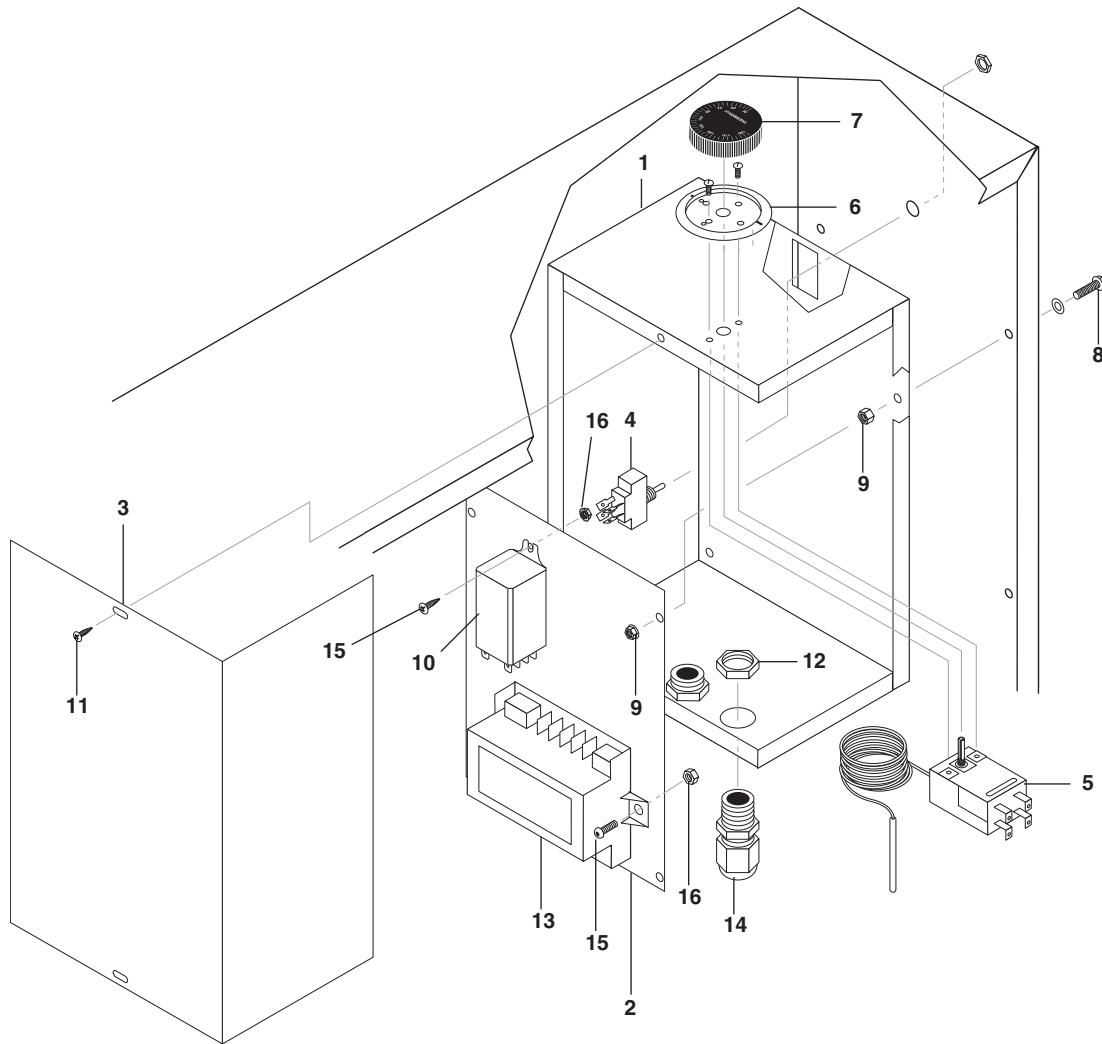
EXPLODED VIEW BURNER ASSEMBLY



BURNER ASSEMBLY PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	7-CF60KHS 8.718-216.0	Nozzle Line Assembly	1
2	900779 8.717-356.0	Nozzle, 3.5 80B (9450)	1
	799481 8.717-367.0	Nozzle, 4.5 80B (9460)	1
3	7-21188 8.717-832.0	Fuel Pump (9450)	1
	7-21313 8.717-834.0	Fuel Pump (9460)	1
4	600144 9.802-667.0	Fuel Line	8"
5	7-51127 8.717-119.0	Fuel Line	11"
6	7-21789 8.717-844.0	Valve, Fuel	1
7	848609 9.803-058.0	Coupling	1
8	7-21339 8.717-835.0	Blower Wheel	1
9	7-21341 8.717-836.0	Motor	1
10	7-07023 8.717-719.0	Control, Primary	1
11	7-51845 9.803-060.0	Ignitor	1

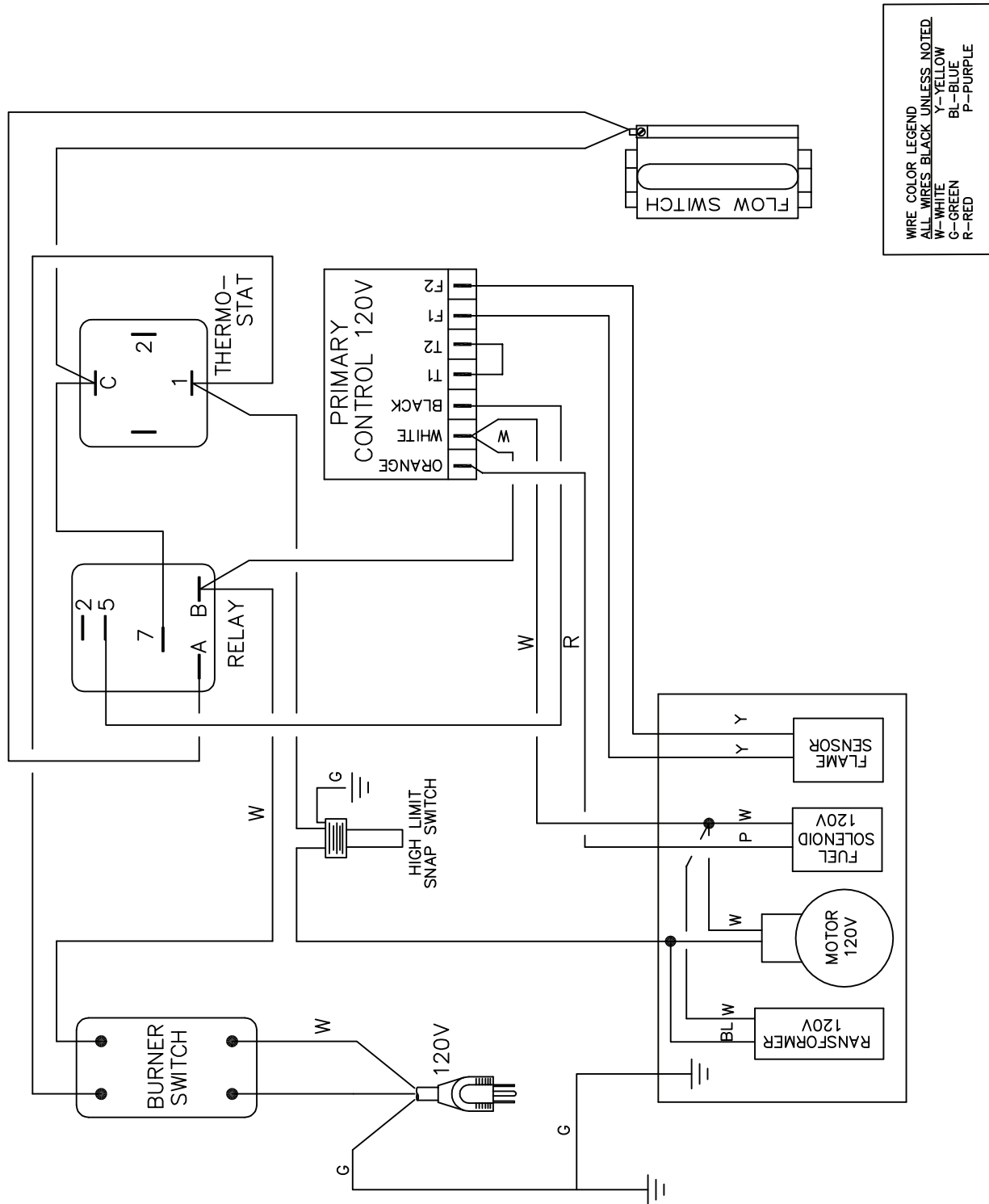
EXPLODED VIEW - CONTROL PANEL



CONTROL PANEL PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	95-07103700 8.911-773.0	Box, Electrical	1
2	95-07103701 8.911-774.0	Plate, Stand-Off	1
3	95-07103702 8.911-775.0	Cover, Elec, Box	1
4	950519 8.716-112.0	Switch, Toggle, 10A/250V	1
5	955930 8.712-191.0	Thermostat, w/One Meter Capillary	1
6	915390 8.712-190.0	Plate,Thermostat Plastic Cover	1
7	835150 8.712-189.0	Knob,Thermostat 32-248°	1
8	612937 9.802-700.0	Bolt, 1/4" x 3/4", NC HH	4
9	703107 9.802-778.0	Nut, 1/4" Flange, ZN	8
10	924994 8.716-088.0	Relay	1
11	876053 9.802-798.0	Screw, #10 x 1/2", Phillips, Zinc	2
12	703127 9.802-525.0	Locknut, 1/2"	4
13	7-07023 8.717-719.0	Control, Primary	1
14	876032 9.802-514.0	Strain Relief, Strt, LQ Tite	4
15	90-1999 9.802-771.0	Screw, 10-32 x 3/4"	6
16	90-020 9.802-696.0	Nut, 10/32"	6

WIRING DIAGRAM





**HOTSY LIMITED NEW PRODUCT WARRANTY
PRESSURE WASHERS
WHAT THIS WARRANTY COVERS**

All Hotsy pressure washers are warranted by Hotsy to the original purchaser to be free from defects in materials and workmanship under normal use, for the periods specified below. This Limited Warranty is subject to the exclusions shown below, is calculated from the date of the original purchase, and applies to the original components only. Any parts replaced under this warranty will assume the remainder of the part's warranty period.

SEVEN YEAR PARTS AND ONE YEAR LABOR WARRANTY:

Components manufactured by Hotsy, such as frames, handles, top and bottom wraps, float tanks, fuel tanks, belt guards, and internal components on the oil-end of HOTSY manufactured pumps. General, AR, Liberty, Comet and swash and wobble plate pumps have a one year warranty. Heating coils have a five year warranty from date of original machine purchase.

ONE YEAR PARTS AND ONE YEAR LABOR WARRANTY:

All other components, excluding normal wear items as described below, will be warranted for one year on parts and labor. Parts and labor warranty on these parts will be for one year regardless of the duration of the original component manufacturer's part warranty.

WARRANTY PROVIDED BY OTHER MANUFACTURERS:

Motors, generators, and engines, which are warranted by their respective manufacturers, are serviced through these manufacturers' local authorized service centers. Hotsy is not authorized and has no responsibility to provide warranty service for such components.

WHAT THIS WARRANTY DOES NOT COVER

This warranty does not cover the following items:

1. Normal wear items, such as nozzles, spray guns, discharge hoses, wands, quick couplers, seals, filters, gaskets, O-rings, packings, pistons, pump valve assemblies, strainers, belts, brushes, rupture disks, fuses, pump protectors.
2. Damage or malfunctions resulting from accidents, abuse, modifications, alterations, incorrect installation, improper servicing, failure to follow manufacturer's maintenance instructions, or use of the equipment beyond its stated usage specifications as contained in the operator's manual.
3. Damage due to freezing, chemical deterioration, scale build up, rust, corrosion, or thermal expansion.
4. Damage to components from fluctuations in electrical or water supply.
5. Normal maintenance service, including adjustments, fuel system cleaning, and clearing of obstructions.
6. Transportation to service center, field labor charges, or freight damage.

WHAT YOU MUST DO TO OBTAIN WARRANTY SERVICE

In order to obtain warranty service on items warranted by Hotsy, you must return the product to your Authorized Hotsy Distributor, freight prepaid, with proof of purchase, within the applicable warranty period. If the product is permanently installed, you must notify your Authorized Hotsy Distributor of the defect. Your Authorized Hotsy Distributor will file a claim with Hotsy, who must subsequently verify the defect. In most cases, the part must be returned to Hotsy freight prepaid with the claim. For warranty service on components warranted by other manufacturer's, your Authorized Hotsy Distributor can help you obtain warranty service through these manufacturers' local authorized service centers.

LIMITATION OF LIABILITY

Hotsy's liability for special, incidental, or consequential damages is expressly disclaimed. In no event shall Hotsy's liability exceed the purchase price of the product in question. Hotsy makes every effort to ensure that all illustrations and specifications are correct, however, these do not imply a warranty that the product is merchantable or fit for a particular purpose, or that the product will actually conform to the illustrations and specifications. Our obligation under this warranty is expressly limited at our option to the replacement or repair at a service facility or factory designated by us, of such part or parts as inspection shall disclose to have been defective. **THE WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THE DURATION OF THIS WRITTEN WARRANTY.** Hotsy does not authorize any other party, including authorized Hotsy Distributors, to make any representation or promise on behalf of Hotsy, or to modify the terms, conditions, or limitations in any way. It is the buyer's responsibility to ensure that the installation and use of Hotsy products conforms to local codes. While Hotsy attempts to assure that its products meet national codes, it cannot be responsible for how the customer chooses to use or install the product. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

HOTSY

www.hotsy.com

