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PRODUCTS, INC.

ELECTRIC/LIQUID STOVES

# OWNER'S MANUAL

FOR PRESSURIZED LIQUID FUEL AND ELECTRIC STOVES

MODELS: 2202, 2212

2242

2252, 2262

## INSTALLATION INSTRUCTIONS

MODELS: 2202, 2212, 2242, 2252, 2262

Install in accordance with NFPA 302 and ABYC standards.

1. Cut out counter top according to dimensions shown on diagram.

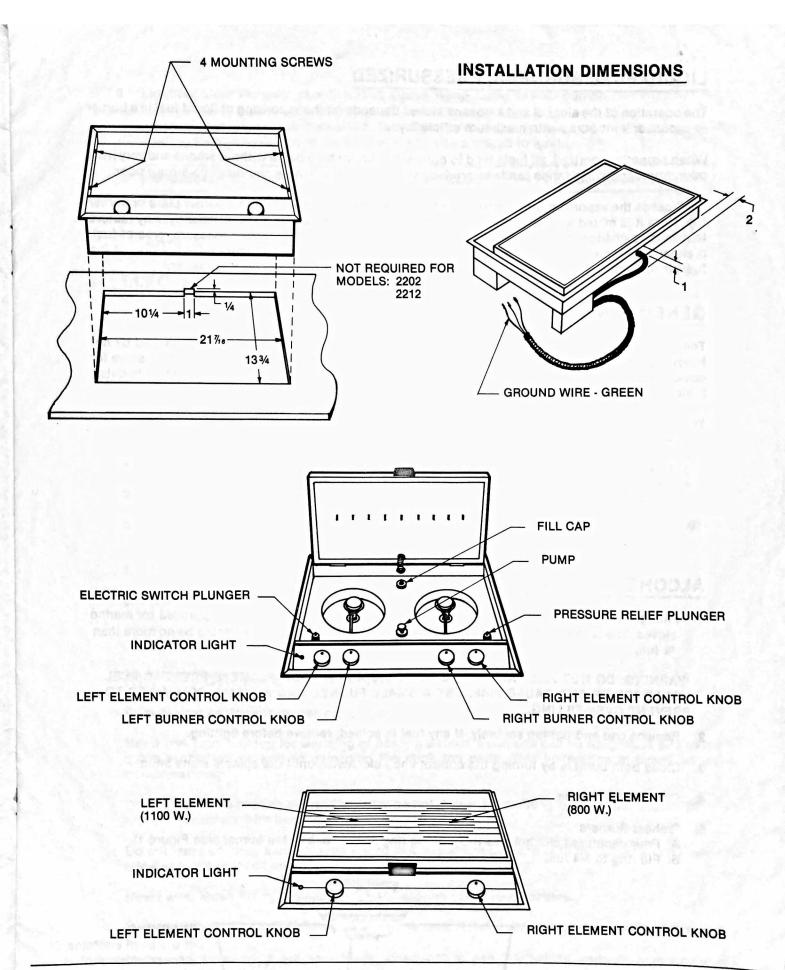
NOTE: 2" clearance required behind stove for flexible wire protector, Figure B.

CAUTION: ASSURE THAT NO CURTAINS OR FLAMMABLE OBJECTS ARE ADJACENT TO STOVE.

- 2. Connect ground wire in flexible conduit to grounded junction box.
- 3. Connect supply leads to 120 VAC 60 HZ. Electric service should be protected by 20 AMP circuit breaker. Three foot length of conduit is provided. Connect only to approved junction box supplied by minimum 12 gauge wire. 240 VAC models to have a 15 AMP circuit breaker per leg, 14 gauge wire.
- 4. Insert 4 flathead screws shown in diagram A.

NOTE: Allow 30 inches minimum clearance between top of ceramic glass cooking surface and bottom of unprotected wood or metal cabinet; or 24 inches minimum when bottom of wood or metal cabinet is protected by not less than 1/4" flame retardant millboard covered with not less than No. 28 MSG sheet steel, .024 inch aluminum or .020 inch copper.

CAUTION: TO ELIMINATE THE HAZARD OF REACHING OVERHEATED SURFACE UNITS, CABINET STORAGE SPACE LOCATED ABOVE THE SURFACE UNITS SHOULD BE AVOIDED. IF CABINET SPACE IS PROVIDED THE HAZARD CAN BE REDUCED BY INSTALLING A RANGE HOOD THAT PROJECTS HORIZONTALLY A MINIMUM OF 5" BEYOND THE BOTTOM OF CABINET.



NOTE: THE FEATURES COVERED IN THIS MANUAL ARE FOR VARIOUS MODEL STOVES. PLEASE DIS-REGARD PORTIONS PERTAINING TO FEATURES THAT ARE NOT ON YOUR PARTICULAR STOVES.

## LIQUID FUEL BURNERS, PRESSURIZED

The operation of the alcohol and kerosene stoves depends on the vaporizing of liquid fuel in a burner or vaporizer so it burns with maximum efficiency.

When properly vaporized, all fuels tend to burn with a bright blue flame without smoke and very little odor. Improper vaporization tends to produce yellow, smokey flames and produce strong odor.

In all cases the vaporized fuel is sprayed into an open space before striking a burner plate or burner top. Here it is mixed with air to become a combustible mixture which burns efficiently. Any factors that tend to change this mixture will produce abnormal operation. Incorrect pressure, type of fuel, preheating, nipple or fuel flow will cause this. In addition, changes, disturbances in the flow of the fuel/air mixture due to damaged tubes, dirt or clogging can disrupt the burning pattern.

## **GENERAL MAINTENANCE PROCEDURES**

The real problem of a very high percentage of stoves returned for repair have been caused by not following operating instructions. As a general rule, after making a visual inspection of the stove for obvious defects, light it according to the instructions and check all phases of its operation to determine the exact trouble.

The visual inspection should include the following:

- 1. Assure that no parts are missing.
- 2. Assure that proper fuel is being used.
- 3. Check nipple, packing nut, etc. for tightness.
- 4. Check for deteriorated cap seal.

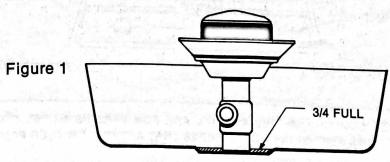
BE SURE TO READ SAFETY INSTRUCTIONS
BEFORE USING STOVE.

## **ALCOHOL OR KEROSENE STOVE, OPERATION.**

1. Filling: Remove cap and fill with proper fuel. The fuel should be the type approved for marine stoves. The tank has the capacity of approximately 1½ pints. The tank should be no more than ¾ full.

WARNING: DO NOT FILL TANK WHILE BURNERS ARE HOT OR FLAME IS PRESENT. FUEL COULD IGNITE AND CAUSE FIRE. USE A SMALL FUNNEL AND A SMALL CONTAINER TO PREVENT OVER-FILLING.

- 2. Replace cap and tighten securely. If any fuel is spilled, remove before lighting.
- 3. Close both burners by turning the control knob clockwise until the spindle seats snug.
- 4. Pump 20-25 strokes.
- 5. Preheat Burners
  - A. Pour denatured alcohol into the priming ring at the base of the burner (see Figure 1).
  - B. Fill ring to 3/4 full.



WARNING:
If the bowl contains
excessive alcohol
flare-up will occur.

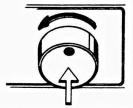
- 6. Lighting: Light the alcohol with a long match. Allow flame to heat burner.
- 7. When alcohol is almost consumed, turn the control valve to open (counter clockwise). Preheating flame should ignite the burner, if not, use a match to ignite.

## IF BURNER BEGINS FLARING UP, TURN TO "CLOSE" AND PREHEAT ADDITIONALLY.

8. To shut off: turn to "Off" position.

NOTE: Release pressure by loosening fill cap.

## **ELECTRIC STOVE OPERATION**



- 1. Stove top must be down.
- 2. The knob has to be pushed-in to clear the safety lock before the switch can be turned.
- 3. Left electric control knob operates the high speed left burner and the right control knob operates the right low speed burner.
- 4. Indicator light will indicate when either or both burner controls are "On."
- 5. Set the knob for the heat desired. Infinite controls provide any desired heat.
- 6. Use flat bottomed approximately 7" diameter pans, preferably enamel to get the maximum energy efficiency from the glass ceramic top stove.
- 7. The burners will cycle on and off during operation.
- 8. When finished cooking, be sure both knobs are 'Off' and indicator light is out.

## RULES FOR SAFE OPERATION

Be sure your cooktop is properly installed.

Never use your cooktop for warming or heating a room. Such use can be dangerous due to inadequate ventilation as well as damaging the cook top parts. This instruction is based on safety considerations.

Do not touch the heating areas. They may be hot. Never let clothing or other flammable materials come into contact with heating areas.

Do not leave children alone or unattended in areas where cooktop is in use. They should never be allowed to sit or stand on any part of the cooktop.

Never wear loose fitting or hanging garments while using your cooktop.

Never use the top of your cooktop as a storage area. A flammable material can easily catch on fire.

Never use water on a grease fire. Smother with a pan lid, baking soda or a recommended extinguisher.

Always use dry potholders when removing pans from the surface units. Wet potholders can cause steam burns. Dish towels can cause severe burns when they are thin or become entangled.

Select utensils with flat bottoms large enough to cover entire heating area.

Never leave cooktop unattended at high heat setting. Boilover causes smoking and greasy spillovers may ignite.

Only certain types of glass, glass/ceramic, ceramic, earthware, or other glazed utensils are suitable for cooktop service without breaking due to the sudden change in temperature.

Do not use aluminum foil on the cooktop. It will damage the cooktop.

Always turn utensil handles inwards so that they do not extend out over the front of your cooktop or over adjacent heating areas to prevent accidental spillage or burns.

Do not heat unopened food containers. Build up of pressure may cause containers to burst and result in injury.

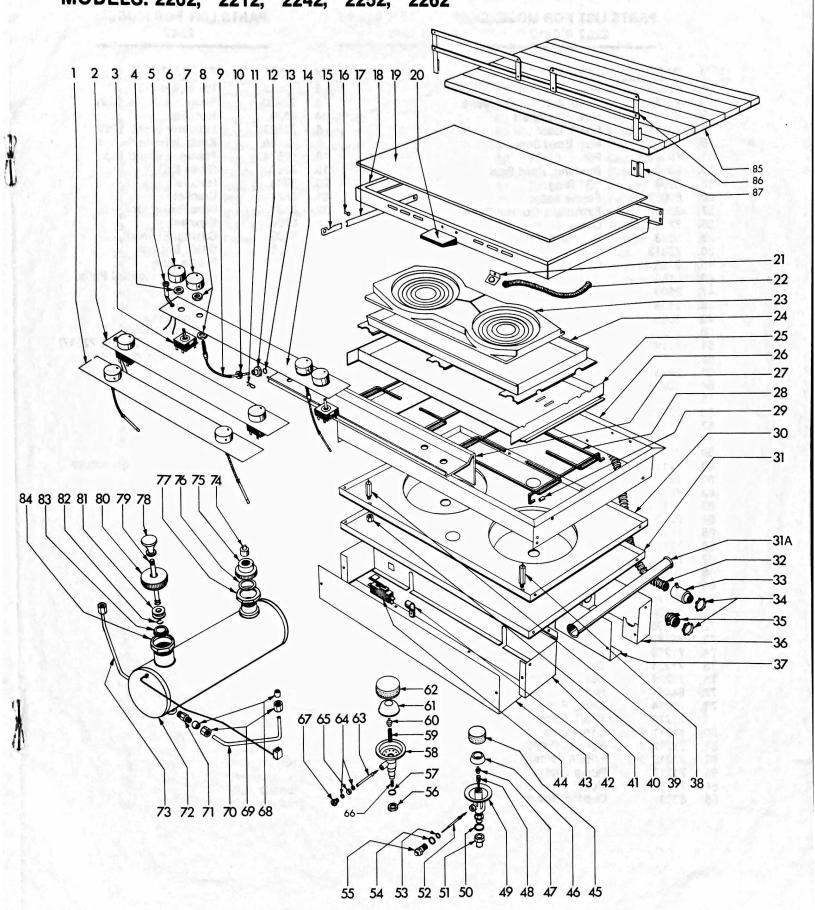
Do not use any type of spray cleaner on your cooktop or any type of spray can products around the area of your cooktop. The chemicals that produce the spraying action may, in the presence of heat, cause metal parts to corrode and could be flammable.

Do not use a broken cooktop since cleaning solutions and spillovers may penetrate the broken cooktop and create a shock hazard.

Clean ventilation hood and filter to prevent grease accumulation.

**CAUTION:** Do not store items of interest to children in cabinets above your cooktop or on the backguard of your cooktop. Children climbing on the cooktop to reach items could be seriously injured.

PARTS LIST MODELS: 2202, 2212, 2242, 2252, 2262



#### **PARTS LIST FOR MODELS** 2202 & 2212

**Cutting Board** 

82. 83. 84. 85.

### PARTS LIST FOR MODEL: 2242

ITEM	PART NO.	DESCRIPTION	ITEN	PART NO.	DESCRIPTION
1.	72809	Panel, Control		72808	Panel, Control
7.	72124	Knob, Alcohol/Kerosene		3. 72520	Switch, Infinite, 120V
8.	8329	Nut, Flex Shaft		. 8329	Nut, Panel
9.	72191	Shaft, Flex		72523	Indicator Light, 120V
10.	8960	Nut, Bowl Seal		5. <b>72185</b>	Knob, Infinite Switch
11.	70321	Pin	18		Frame, Electric Top
12.	8953	Bushing, Bowl Seal	19		Glass (5514)
13.	8204	"O" Ring	20		Handle
26.	80050	Frame Assy.	2		Bracket
27.	72812	Extrusion, Control Panel	22		Wire Protector
28.	72183	Grate	23		Element
29.	8693	Rubber Foot	24		Casing, Element
30.	72813	Top	25		Shell, Bottom
45.	2183	Cap, Outer	26		Frame Assy.
46.	2180	Cap, Inner	27		
47.	2509	Nipple			Extrusion, Control Panel
48.	2455	Cleaning Needle	31		Top Base Way
49.	207B	Burner, Kerosene, Complete	31.		Race Way
50.	2221	Washer	32		Conduit
51.	71120	Adaptor	33		Connector, Conduit
52.	2191	Spindle	34		Nut (Part of 72515 & 72517
53.	2193	Ring, Metal	35		Connector, Conduit
54.	2094	Packing	36		J - Box
55.	2194	Nut, Gland	37		Cover, J - Box
56.	72121	Nut, Locking	38		Stand Off
57.	71118	Washer	39		Stand Off
58.	71116	Burner, Alcohol, Complete	40		Nut
59.	72117	Rack	41		Enclosure, Electric
60.	72119	Nipple	42		Clamp
61.	72214	Cap, Inner	43		Cover, Electric Enclosure
62.	72113	Cap, Outer	44		Switch
63.	72118	Spindle	86 87		Sea Rail
64.	72120	Spacer	01	'. 72830	Bracket, Sea Rail
65.	72128	Packing			
66.	72129	Screen, Filter			
67.	72122	Nut, Gland			
68.	70622	Sleeve			
69.	70621	Nut			
70.	72170	Fuel Line, RT			
71.	70196	Connector, Fitting			
72.	80095	Fuel Tank			
73.	72169	Fuel Line, LT			
74.	71225	Relief Cap			레이에 가 되었다.
75.	71224	Cap, Fill			
76.	71221	Seal, Fill Cap			
77.	8443	Nut			
78.	71214	Knob, Pump			
79.	71213	Shaft, Pump		ALTER STORY	
80.	71213	Cap, Pump			
81.	71211	Bobbin, Pump			
82.	71212	Clip, Retainer			
		Pump Seal			
83.	71217 71219	rullip Seal			

# PARTS LIST FOR MODELS: 2252 & 2262

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
3.	72520	Switch, Infinite, 120V	57.	71118	Washer
4.	8329	Nut, Panel	58.		Burner, Alcohol, Complete
5.	72523	Indicator Light, 120V	59.		Rack
6.	72185	Knob, Infinite Switch	60.		Nipple
7.	72124	Knob, Alcohol/Kerosene	61.		Cap, Inner
8.	8329		62.		Cap, Outer
		Nut, Flex Shaft			Spindle
9.	72191	Shaft, Flex	63.		
10.	8960	Nut, Bowl Seal	64.		Spacer
11.	70321	Pin	65.		Packing Filter
12.	8953	Bushing, Bowl Seal	66.		Screen, Filter
13.	8204	"O" Ring	67.		Nut, Gland
14.	72807	Panel, Control	68.		Sleeve
15.	5556	Latch	69.		Nut
16.	7012	Screw, Flat Head	70.	72170	Fuel Line, RT.
17.	5525	Strap, Latch	71.	70196	Connector, Fitting
18.	72574	Frame, Electric Top	72.	80110	Fuel Tank
19.	72820	Glass (5514)	73.		Fuel Line, LT.
20.	8774	Handle	74.		Relief Cap.
21.	5521	Bracket	75.		Cap. Fill
22.	8781	Wire Protector	76.		Seal, Fill Cap
23.	8796	Element	77.		Nut
	5105	Casing, Element	78.		Knob, Pump
24.		Shell, Bottom	79.		Shaft, Pump
25.	5106		80.		Cap, Pump
26.	80050	Frame Assy.	81.		Bobbin, Pump
27.	72812	Extrusion, Control Panel	82.		Clip, Retainer
28.	72183	Grate	83.		Pump Seal
29.	8693	Rubber Foot			Nut
30.	72813	Тор	84.		Sea Rail
31A.		Race Way	86.		
32.	72516	Conduit	87.	. 72830	Bracket, Sea Rail
33.	72515	Connector, Conduit			
34.		Nut (Part of 72515 & 72517)			
35.	72517	Connector, Conduit			
36.	72824	J - Box			
37.	72825	Cover, J - Box			
38.	81010	Stand Off			
39.		Stand Off			
40.	72827	Nut			
41.		Enclosure, Electric			
42.		Clamp			
42.	72823	Cover, Electrici Enclosure			的 医克勒氏管 化二甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基
		Switch			
44.		Cap, Outer			
45.		Cap, Inner			
46.					
47.		Nipple			CE
48.		Cleaning Needle			Ox . X
49.		Burner, Kerosene, Complete			1 1.9"
50.		Washer			Lan. xc
51.		Adaptor		62	57 11 40
52.		Spindle		, 223	al Sinca
53.		Ring, Metal		0 210	221 Ind
54.		Packing	Mod	y'	28.73
55.		Nut, Gland		39	Stand off light 28213 Indicator 128213
56.		Nut, Locking			
50.	1-1-1			4-1	

## LIQUID STOVE TROUBLE SHOOTING GUIDE

A. Symptom: Leakage around tank, fuel lines, burner.

#### **PROBLEM**

- 1. Loose connection
- 2. Damaged fitting
- 3. Holes in tank or solder joints
- 4. Leakage around spindle
- B. Symptom: Burner will not shut off.

#### **PROBLEM**

- 1. Foreign material in evaporator
- 2. Bad Spindle
- 3. Bad burner or evaporator
- C. Symptom: Weak flame

#### **PROBLEM**

- 1. Clogged nipple
- 2. Low pressure
- 3. Wrong nipple
- D. Symptom: Unbalanced flame

#### **PROBLEM**

- 1. Dirty nipple
- 2. Bad nipple
- 3. Bent burner cap
- E. Symptom: Low pressure in tank.

#### **PROBLEM**

- 1. Bad seal in tank cap.
- 2. Cap relief valve leaks
- 3. Tank cap not tight
- 4. Pump provides no resistance
- F. Symptom: Erratic flame

#### PROBLEM

- 1. Debris in Burner
- G. Symptom: Pressure drops off too fast

#### PROBLEM

- 1. Tank too full of fuel (must be less than 3/4 full)
- 2. Leak

### **CORRECTIVE ACTION**

- 1. Tighten
- 2. Replace fitting
- 3. Replace
- 4. Tighten packing nut Replace packing Replace spindle

#### **CORRECTIVE ACTION**

- 1. Remove nipple, open spindle, pressurize tank and flush evaporator.
- 2. Replace
- 3. Replace

#### **CORRECTIVE ACTION**

- 1. Clean or replace
- 2. See low pressure symptom
- 3. Replace nipple

#### **CORRECTIVE ACTION**

- 1. Clean or replace
- 2. Replace
- 3. Replace

#### CORRECTIVE ACTION

- 1. Replace seal or cap
- 2. Replace cap
- 3. Tighten
- 4. a. Spread leather cup on pump piston. Soak in light oil.
  - b. Change pump leather or "O" ring.
  - c. Change pump check valve.

#### CORRECTIVE ACTION

1. Remove nipple, open spindle, pressurize tank and flush evaporator.

#### **CORRECTIVE ACTION**

- 1. Remove some fuel
- 2. See symptom "E"

H. Symptom: Burner will not light

#### **PROBLEM**

- 1. No Fuel
- 2. No air pressure
- 3. Incorrect fuel
- 4. Bad burner
- 5. Plugged nipple
- 6. Broken control spindle

## **CORRECTIVE ACTION**

- 1. Refuel
- 2. Pump up
- 3. Replace with correct fuel
- 4. Change burner
- 5. Clean or replace
- 6. Replace spindle. Replace burner.

I. Symptom: Flame blows too far away from burner head

#### **PROBLEM**

- 1. Too high pressure
- 2. Incorrect fuel

#### **CORRECTIVE ACTION**

- 1. Release partial pressure
- 2. Replace with correct fuel

## **ELECTRIC STOVE TROUBLE-SHOOTING**

A. Symptom: Nothing Electrical on Stove Operates, Including Lights. Problem can either be in stove or power source. First isolate which is the cause.

#### **PROBLEM**

- 1. Power interrupted to stove
- 2. Open circuit in stove or connecting wiring.
- 3. Wires disconnected or corroded
- 4. Too heavy load on circuit breaker, causing it to trip
- Electric top safety switch defective or maladjusted

#### **CORRECTIVE ACTION**

- 1. a. Reset circuit breaker
  - b. Check other equipment on same power source to isolate problem.
- 2. a. Check for power at common junction inside stove. Repair wiring or connectors.
  - b. Check and replace loose connectors.
- 3. Check and repair wire and connections.
- 4. Isolate trouble by turning off other equipment.
- a. Check that the safety control switch clicks when the switch plunger is pressed. Replace or bend arm so it does click when pressed.
  - b. Check for continuity at both sides of switch when depressed. If none, replace switch.
- B. Symptom: Burner Heats, But Indicator Light Does Not Glow

#### **PROBLEM**

- 1. Defective light assembly
- 2. Defective wiring to light
- 3. Defective switch
- C. Symptom: Burners Do Not Heat

#### **PROBLEM**

- 1. Defective switch
- 2. Open circuit between burners and power source

#### **CORRECTIVE ACTION**

- 1. Replace light assembly.
- 2. Replace light assembly or repair lead.
- 3. Replace switch

#### **CORRECTIVE ACTION**

- 1. Replace switch
- 2. Repair wiring and/or connectors

## **CARE AND CLEANING**

- 1. STAINLESS STEEL The frame and the top of the stove are stainless steel and any non-abrasive cleaner may be used.
- 2. ALUMINUM The part holding the dial panel is aluminum. No corrosive cleaners should be used.
- 3. GLASS CERAMIC TOP Use household detergent or cleaners on the ceramic top. The cleaners must be completely removed before using top. Any residue within the heated zone would cause chemical effects on the glass ceramic.

## REPAIR PARTS

Repair parts listed herein may be ordered through Seaward Products, Inc., Seaward distributors and dealer or dealers authorized service centers.

All parts will be shipped at prevailing prices.

When ordering repair parts, please give the following information:

- 1. The Part Number
- 2. The Part Description
- 3. The Model Number of the Stove
- 4. The Serial Number of the Stove

The Model Number and the Serial Number of the stove will be found on the rating plate located on the burner box.

For the nearest authorized Service Center to you, please contact Seaward Products, Inc.

CUSTOMER SERVICE

SeaWard PRODUCTS, INC.

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