

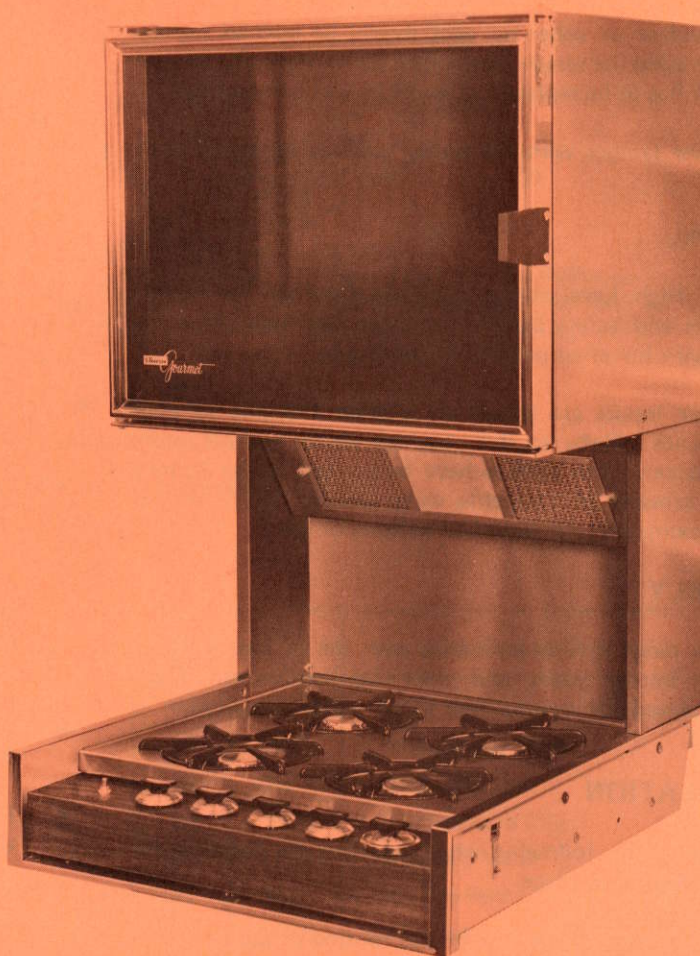
# owners manual

FILE FOR  
FUTURE  
REFERENCE

## HIGH LEVEL RANGE WITH OVEN FOR RECREATIONAL VEHICLES MODEL 810-487

**CAUTION:**  
Read Rules for  
Safe Operation  
and instructions  
Carefully

- Assembly
- Installation
- Repair Parts
- Operation



**WARD & SON, INC.**  
15343 PROCTOR AVENUE  
CITY OF INDUSTRY, CALIFORNIA 91744

# instructions

## RULES FOR SAFE OPERATION

1. Read the Owners Manual and these Rules for Safe Operation carefully.
2. Check that all applicable state and local codes regarding installation have been followed. In the absence of local codes, the installation must conform with American National Standard Installation of Gas Appliances and Gas Piping, Z21.30-1964. The supplier of the propane gas is usually an expert in this regard.
3. Check that minimum clearances to combustible materials have been maintained.
4. Never light matches in the vicinity if the odor of gas is noted.
5. A window or other air vent should be opened slightly while using the range. Gas burner flames consume oxygen which has to be replaced to assure proper combustion.
6. Do not tamper with the burner orifices or change their size.

## GENERAL

1. Your High Level Range has been Certified for Performance and Safety by The American Gas Association for use with liquefied petroleum gases only.
2. Burner inputs are shown on a plate attached to each appliance. Refer to this plate for ratings and minimum clearances. The orifices have been sized at the factory at a pressure of 11 inches water column (6-1/2 ounces approximately) for liquefied petroleum gases.

## ASSEMBLY

Your new range is fully assembled with the exception of the main top, burner grates, and grate clip holddowns. These will be placed in or on unit after range installation is completed.

## INSTALLATION

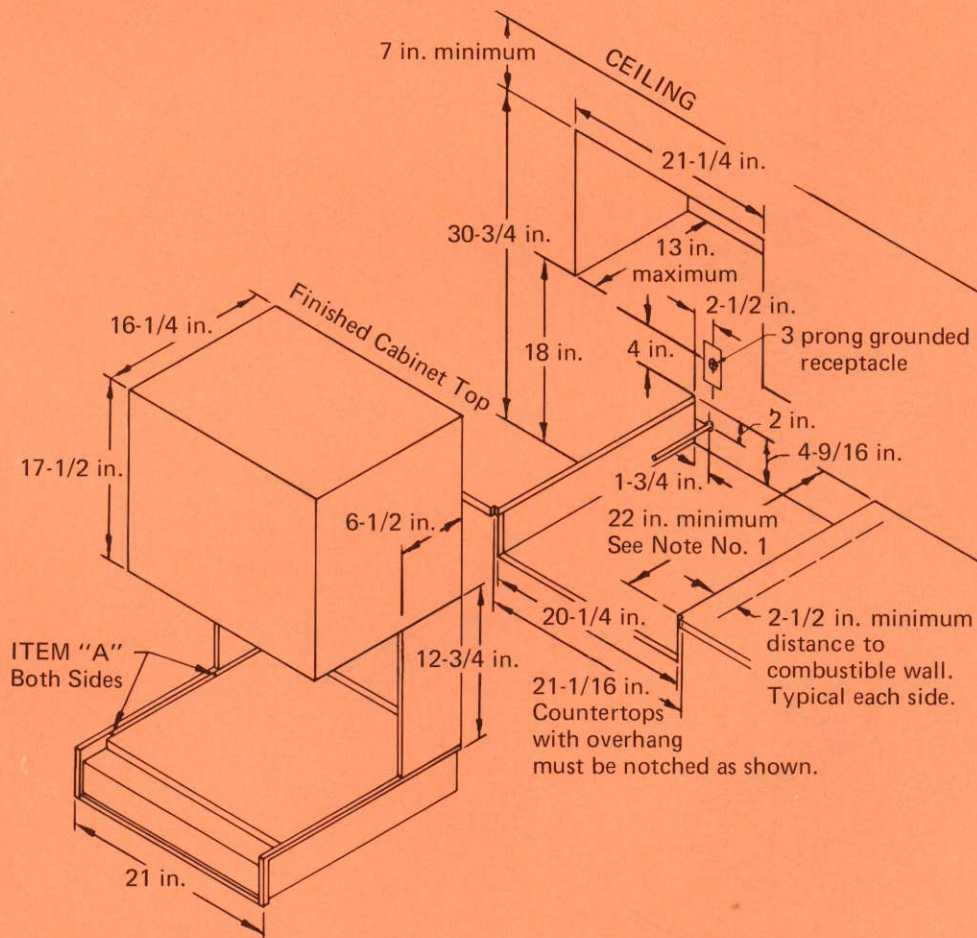
1. Consider the following when selecting the location for your high level range:
  - A. Location of gas supply and routing of gas line.
  - B. Minimum clearances of unit from combustible materials. These clearances are:
    - Sides — 2 inches minimum as measured from edge of burner box trim.
    - Rear — Zero inches.

Top — 7 inches minimum as measured from top of unit to ceiling.

2. After selecting the best location, cut opening in countertop and overhanging cabinet as shown.
3. Install gas supply and route gas line (not furnished) to range. Here you should seek the assistance of a qualified service man. Usually the supplier of the gas will be able to provide expert help in this respect. Too, he will be able to provide the necessary parts, including the copper gas line. The following should be carefully considered:
  - A. The gas tank must be located in a protected place and cannot UNDER ANY CIRCUMSTANCES be located within the confines of the trailer or camper. The supplier of the gas will be acquainted with the applicable codes with respect to the location of the gas supply tank.
  - B. Gas supply line should be copper and should be routed in protected locations so as not to be damaged. A single, continuous line is recommended.
  - C. No connections should be made in the gas line where the connections would be concealed after completion of the installation. All parts used in making connections must be of type acceptable for this purpose. Gas line should not make any sharp bends nor have any kinks. The line should not be under strain.
  - D. Install a manual shutoff valve in an accessible location in the gas supply line external to the range for the purpose of turning the gas on and off during servicing.
4. Install electrical wiring in accordance with applicable state and local codes for 110 volts A.C., if your unit is equipped with electrical equipment. See cabinet cutout for outlet location.
5. Place unit partially in installation area. Do not push all the way into the cutout.
6. Reach behind the oven and plug in the service cord if equipped with electrical equipment.
7. Slide unit into position.
8. Secure in place with 4 No. 8 wood screws indicated as item "A" in cabinet cutout drawing.
9. Make gas connection.

10. After installing the gas supply and making all connections, check thoroughly for possible gas leaks. Turn the valves on your unit to their "off" positions. Open valve on gas supply tank. Using a soap and water solution, check each gas connection one-at-a-time by brushing the soap and water solution over the connection. Presence of bubbles will indicate a leak. Tighten fitting and recheck for leaks. If impossible to correct leak, replace fitting. **UNDER NO CIRCUMSTANCES USE MATCHES OR FLAME FOR CHECKING LEAKS.**

11. Light both pilots (one in oven and one in range unit). See adjustment instructions.
12. Place main top on unit. Place burner grates in place with the clips provided. Instructions are provided on the envelope in which the clips are shipped. These grate clips will hold the grates in place while traveling.
13. Your High Level Range with oven is now ready for use. Sometimes the burners will not ignite immediately and seem to "blow" slightly when they do ignite. This is usually due to the presence of air in the gas lines which will clear itself within seconds.

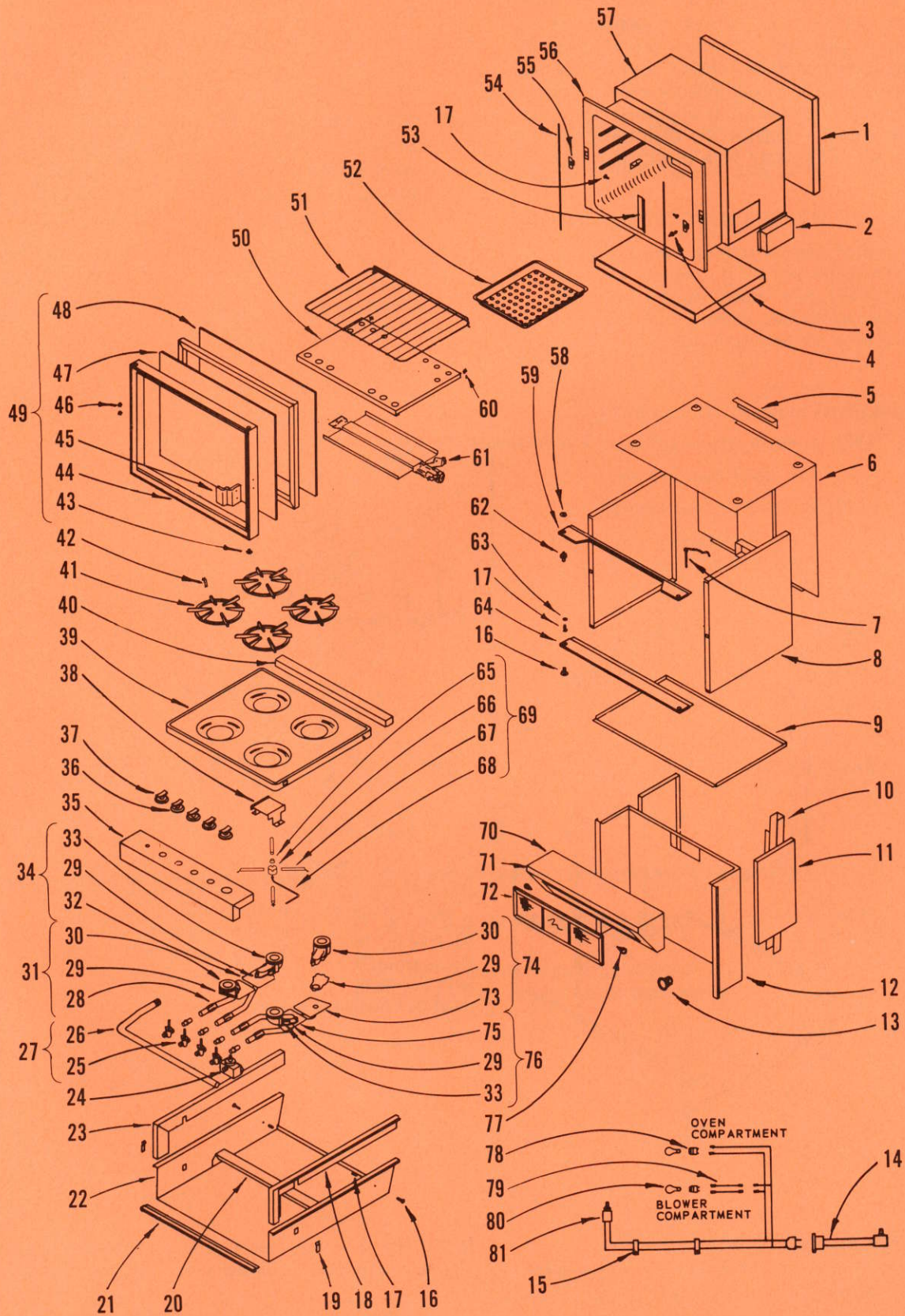


**NOTE NO. 1** – This dimension is given from front face of cabinet. Anything over this dimension will leave a space between oven and rear wall.

**NOTE NO. 2** – Any openings around the gas and electrical service outlets shall be closed at the time of installation.

# repair parts

## HIGH LEVEL RANGE WITH OVEN MODEL NUMBER 810-487



Key No.	Part No.	Description	Key No.	Part No.	Description
1	1000	Insulation, Oven Back	43	1224	Nylon Bumper
2	0071	Control Housing	44	1355	Oven Door Frame
3	0999	Insulation, Oven Bottom	45	1366A	Door Handle
4	1348	Door Strike	46	1223	Plug Button
5	0078	Blower Duct Cover, Top	47	0091	Outside Glass
6	0062	Oven Exterior Top and Back Assembly	48	7212	Inside Glass
7	0092	Locking Pin and Chain	49	7218	Oven Door Assembly, Complete (43, 44, 45, 46, 47, 48)
8	0082	Oven Exterior Side	50	0069	Oven Bottom
9	0079	Oven Exterior Bottom	51	1145A	Oven Rack
10	0084	Wire Guard	52	7177	Broiler Pan and Insert Assembly
11	0081	Oven Support Side	53	0083	Capillary Guard
12	0070A	Oven Support	54	7210	Oven Door Seal
13	1352	Heyco Electrical Bushing	55	1349	Door Catch
14	1149	Service Cord	56	7216	Oven Body Assembly
15	1344	Nylon Clamp	57	0998	Insulation, Oven Top and Sides
16	2302	10-24 x 1/2 Screw	58	2318	Kep Nut
17	1343	Tee Nut	59	1142	Oven Top Trim
18	1140	Burner Box Trim (Right)	60	1350A	Oven Bottom Spring
19	1269	Main Top Hold-down	61	7217	Oven Burner Assembly
20	0072	Top Burner Support	62	0089	Top Pivot Pin
21	1144	Manifold Panel Trim (Lower)	63	1346	Nylon Washer
22	0074	Burner Box	64	1143	Oven Bottom Trim
23	1141	Burner Box Trim (Left)	65	0972	Cone
24	1270	Thermostat	66	0971	Lighter Cup
25	1131	Top Burner Valve	67	0973	Flash Tube
26	1130	Manifold Pipe	68	0974	Pilot Tube
27	0978	Manifold Assembly Complete (25, 26)	69	1132	Top Pilot Assembly Complete (65, 66, 67, 68)
28	0111	Burner Venturi (Left Front)	70	0087	Light and Filter Support
29	0109	Burner Gasket	71	0085	Blower Cover
30	0108	Burner Head (Left Front, Right Rear)	72	1353	Blower Filter
31	1134	Top Burner Complete (Left Front) (28, 29, 30)	73	0112	Burner Venturi (Right Rear)
32	0113	Burner Venturi (Left Rear)	74	1135	Top Burner Complete (Right Rear) (29, 30, 73)
33	0107	Burner Head (Right Front, Left Rear)	75	0110	Burner Venturi (Right Front)
34	1136	Top Burner Complete (Left Rear) (29, 32, 33)	76	1133	Top Burner Complete (Right Front) (29, 33, 75)
35	0067	Manifold Panel	77	0102	Filter Retainer
36	1139	Top Burner Knob, Rear	78	1148	Light Socket
37	1138	Top Burner Knob, Front	79	0088	Light Wires
38	0066	Top Pilot Shield	80	1146	Light Bulb 12 Volt
39	0053-1	Main Top (White)	81	1150	Wire Harness with Switch
40	0075	Main Top Extension			
41	0003	Top Burner Grate			
42	2002A	Grate Hold-down Clip			

# operating instructions

## OPERATING INSTRUCTIONS

To operate the oven in your Trav'ler range, please do as follows:

Turn the temperature control knob from the "PILOTS OFF" position to the "OFF" position. After this has been done, light the pilot in the oven (constant pilot). If the range is equipped with a top lighting pilot, light it at the same time.

After the oven pilot is lit, turn the oven temperature control knob to the desired temperature (example, 350 degrees).

You will notice the heater pilot being lit by the constant pilot. The heater pilot will heat the sensing bulb from the mercury control valve located in the rear of the range (back side). Once this sensing bulb has reached a sufficient temperature, it will open the mercury valve permitting it to release gas to the main burner.

When the oven has reached the desired temperature, the thermostat will stop the supply of gas to the heater pilot, thus causing the sensing bulb from the mercury control valve to cool. The mercury valve will close and stop the gas supply to the main burner.

When the oven requires more heat, the same cycle will again repeat itself. The only time the oven will operate differently is when the thermostat is in the broil position. The main burner flame will then decrease in size and not shut off until the thermostat is turned down or to the "OFF" position.

## ADJUSTMENT INSTRUCTIONS

The Harper-Wyman "Debbie" control has no by-pass setting. It will cycle off and on at all temperature settings except broil. No by-pass adjustment is necessary.

Because gas conditions vary in different localities, two basic

pilot adjustments should be made to insure proper operation when the range is installed. These adjustments are:

### IMPORTANT

The Oven Thermostat on this range is designed to enable you to turn off the Oven Constant Pilot and the Top Burner Pilot by simply turning the Thermostat Dial to the "PILOTS OFF" position. When the Dial is in this position you cannot light the Top Pilot or Oven Constant Pilot. When the Dial is in the "OFF" position both of the Pilots are on.

### AUTOMATIC OVEN BURNER PILOT

A cycling type automatic oven burner pilot is used with the "Debbie" system. It has two separate pilots, a small Constant Pilot and a larger Heater Pilot (Refer to Parts Layout). The Constant Pilot, which should be burning all of the time, ignites the Heater Pilot and the oven burner. To adjust these pilots:

#### CONSTANT PILOT (Refer to Parts Layout)

1. Turn Thermostat Knob to "OFF" position.
2. Light Constant Pilot.
3. Remove Control knob and Bezel.
4. Using screwdriver, turn slotted Constant Pilot Adjusting Cartridge in either direction until a flame with no more than 1/32 inch of yellow tipping is secured. (When the slot of the Constant Pilot Adjusting Cartridge is in the vertical Position, it should be at the full on setting.)

#### HEATER PILOT (Refer to Parts Layout)

1. Remove Control Knob and Bezel.
2. Using screwdriver, turn slotted Heater Pilot Adjusting Cartridge in either direction until pilot flame just envelops the mercury valve sensing bulb.
3. Replace Bezel and Control Knob.

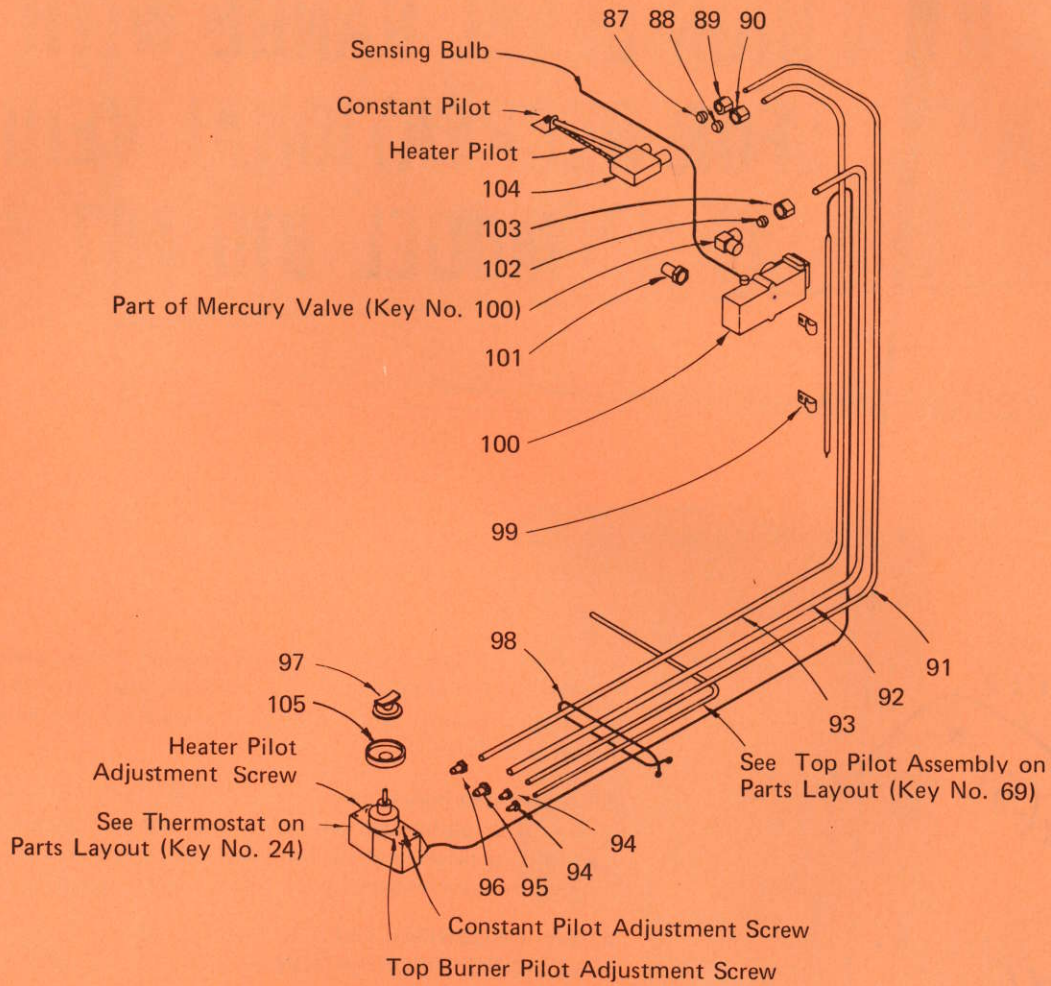
## 3 YEAR WARRANTY

### TRAV'LER IS THE ONLY RECREATIONAL VEHICLE RANGE OR COOKTOP TO CARRY A FULL 3-YEAR WARRANTY ON PARTS

1. This unit is manufactured and tested under our most exacting conditions to promote long life and trouble-free use.
2. Ward & Son warrants to the original owner, any part of this unit which proves defective in workmanship or material, will be replaced or repaired without charge for a period of 3 years from original date of purchase (not including labor charges after 90 days).
3. Our obligation is limited to exchange at our plant or nearest office any part or parts within the warranty period.
4. This warranty does not cover the porcelain enamel, or any damage to the unit resulting from misuse, abuse or accidents.
5. This warranty is conclusive and supercedes any other warranties expressed or implied.

WARD & SON, INC.

# repair parts



Key No.	Part No.	Description	Key No.	Part No.	Description
87	1315	1/8 Inch Compression Ferrule	96	1331	3/16 Inch Loxit Fitting
88	1306	3/16 Inch Compression Ferrule	97	1137	Thermostat Knob
89	1314	1/8 Inch Compression Nut	98	0101	Tubing Clamp
90	1305	3/16 Inch Compression Nut	99	0099	Thermobulb Clip
91	1006	1/8 Inch Aluminum Tubing (To Constant Pilot)	100	1322	Mercury Valve
92	0997	1/4 Inch Aluminum Tubing (To Mercury Valve)	101	0115	Orifice Hood
93	1008	3/16 Inch Aluminum Tubing (To Heater Pilot)	102	1086	1/4 Inch Compression Ferrule
94	1330	1/8 Inch Loxit Fitting	103	1085	1/4 Inch Compression Nut
95	1303	1/4 Inch Loxit Fitting	104	1323	Oven Pilot
			105	1266	Thermostat Bezel

# owners manual

## HIGH LEVEL RANGE WITH OVEN FOR RECREATIONAL VEHICLES MODEL 810-487

**MODEL NO.**  
**810-487**

### HOW TO ORDER REPAIR PARTS

*2190 294-1651 #*  
*Jerry*  
*Elmer's Ind.*

The Model Number will be found stamped on the rating plate located inside the burner box on the back side. Always mention the Model Number when requesting service for your High Level Range with Oven.

All parts listed herein may be ordered through Ward & Son, Inc., or any of its authorized service centers. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices and you will be billed accordingly.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION AS SHOWN IN THIS LIST.

1. The PART NUMBER
2. The PART DESCRIPTION
3. The MODEL NUMBER 810-487
4. The SERIAL NUMBER
5. The NAME of UNIT – High Level Range with Oven

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