

Range & Oven

RANGE AND OVEN ASSEMBLIES

21 Ft. — Model No. BT16 GS-3 12-2

23 & 25 Ft. — Model No. BT22 GS-4T-MZ

27-31 Ft. — Model No. BT22 GS-4TVX-M3 12-3

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**Combination Range and Oven Assembly (21 Ft.)
Model No. BT16GS-3**

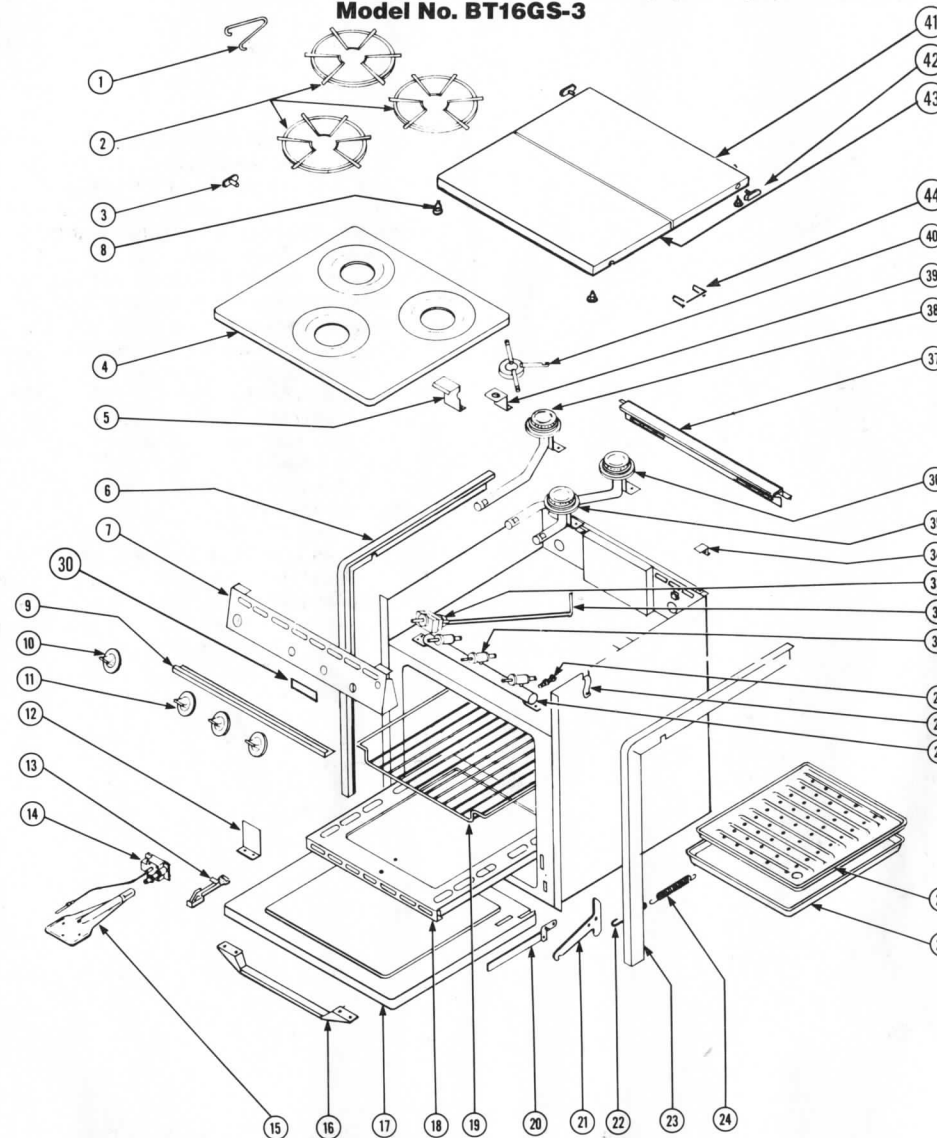


Fig. 1

No.	Description
1	Grate clip
2	Round grates
3	Tee nut
4	Main top (specify color) 3-burner model
5	Top pilot shield
6	Left side trim
7	Manifold panel
8	Rubber bumper (4)
9	Manifold lower trim
10	Thermostat dial
11	Top burner knobs (indicate front or rear burners)
12	Broiler pan stop
13	Oven pilot
14	Automatic oven shut-off valve
15	Oven burner
16	Oven door handle
17	Oven door panel (specify color)
18	Oven bottom
19	Oven rack
20	Door hinge assembly
21	Spring hinge arm
22	Oven door spring hook
23	Right side trim
24	Door spring
25	Broiler pan
26	Broiler pan insert
27	Manifold pipe
28	Main top hold-down clip
29	Half union nut
30	Nameplate
31	Top burner valve
32	Pilot tube
33	Thermostat
34	Main top rear spring
35	Front top burner assembly
36	Right rear burner assembly
37	Flue deflector
38	Left rear burner assembly
39	Top pilot support
40	Flash tube
41	Lift cover: rear
42	Tee-nut
43	Lift cover: front
44	Flash tube hold down clip

When ordering replacement parts, please specify model number and code number. These numbers are located on a plate in the burner box area below the main top, item #4.

**Combination Range and Oven Assembly, 23 Ft. & 25 Ft. Model
No. BT22GS-4T-M2/ 27- 31 Ft. Model No. BT22GS-4TVX-M3**

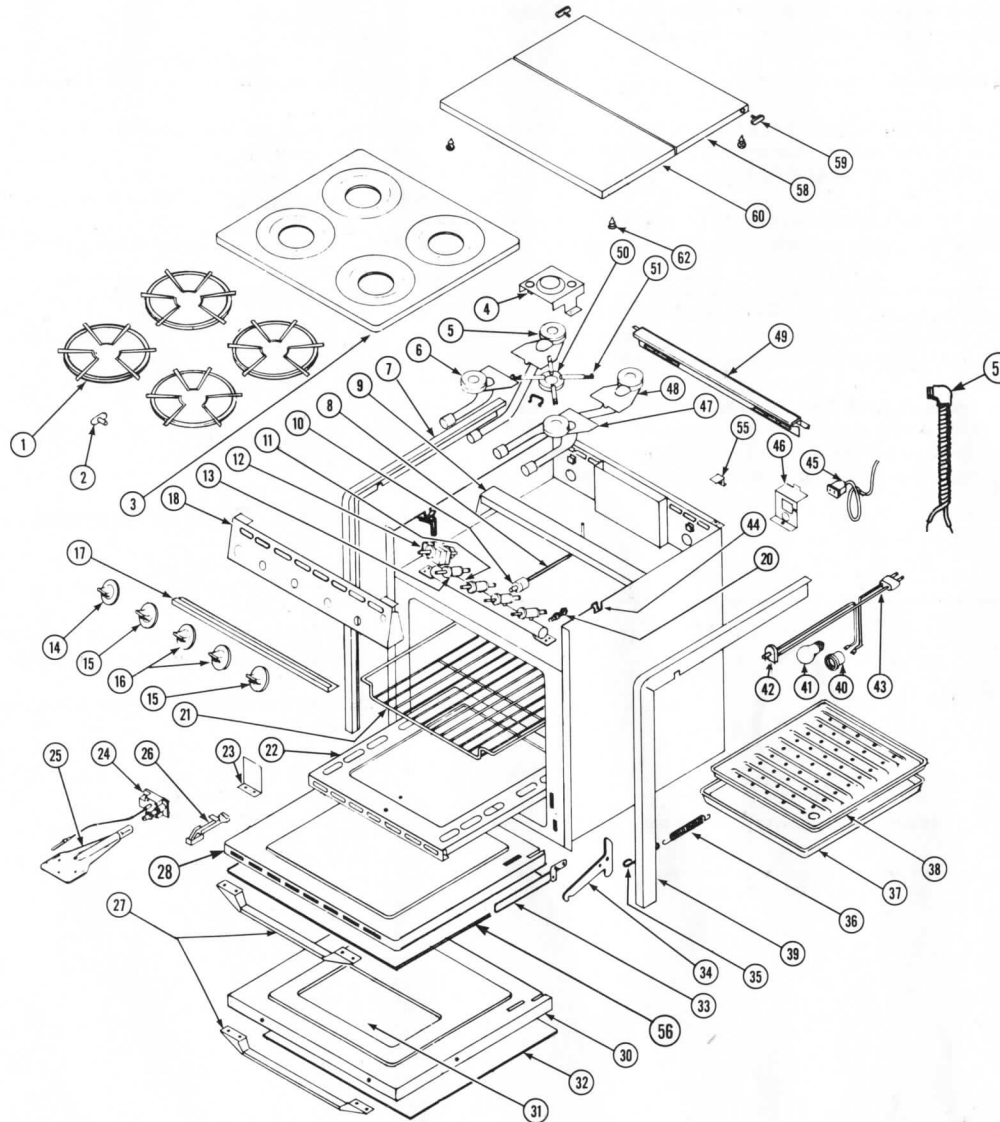


Fig. 2

No.	Description		
1	Top burner grate	33	Oven door hinge assembly
2	Tee-nut		(specify right or left)
3	Main top (specify color)	34	Spring hinge arm
	Main top – chrome	35	Spring hook
4	Top pilot shield	36	Oven door spring
5	Left rear burner	37	Broiler pan
6	Left front burner	38	Broiler pan insert
7	Manifold panel	39	Side trim – right
8	Rubber bumper (4)	40	Oven light receptacle
9	Manifold lower trim	41	Oven light bulb
10	Top pilot filter	42	Oven light switch
11	Manifold pipe	43	Oven light wire harness
12	Oven thermostat	44	Main top hold down clip
13	Top burner valve	45	Service cord
14	Thermostat dial	46	Receptacle support
15	Top burner knob – front	47	Right front burner
16	Top burner knob – rear	48	Right rear burner
17	Manifold trim – lower	49	Flue deflector
18	Manifold panel	50	Top pilot lighter cup ass'y
		51	Flash tube ext.
20	Half union	*52	Thermostat fitting
21	Oven rack	*53	Oven rack clip
22	Oven bottom	*54	Grate clip package
23	Broiler pan stop	55	Spring, main top rear
24	Automatic oven shut-off valve	56	Door insert - chrome
25	Oven burner	57	Conduit assembly
26	Oven pilot	58	Lift cover: rear
27	Oven door handle	59	Tee-nut
28	Door panel (specify color)	60	Lift cover, front
	Door panel – chrome	62	Rubber bumper (4)
29	Door liner		
	Door liner		
30	Glass door frame		
31	Inside glass		
31 A	Window ass'y		
32	Outside glass		

*Not shown

When ordering replacement parts, please specify model number and code number. These numbers are located on a plate in the burner box area below the main top, item #3.

Checking, Replacement & Maintenance

Combination Range & Oven Removal and Replacement

1. Shut off gas supply at gas bottles.
2. Disconnect gas supply line at range and oven unit.
3. Remove 2 screws located in bottom end of side trim and 4 screws under burner top attaching unit to galley.
4. Remove range and oven unit.
5. Replace by reversing above procedure.

Caution: Check for gas leaks with soap solution.

Instructions for Proper Burner Adjustment and Cleaning

1. Oven Section -

Important: There is no By-Pass adjustment for oven burner on this control. Below 550° the oven burner will turn on and off automatically to maintain proper temperature. At the Broil position, a constant modulated burner flame is maintained.

The oven thermostat on this range will enable you to turn off the Oven Constant Pilot and top burner pilot by simply turning the thermostat to the "PILOT OFF" position. When the dial is in this position, you cannot light the oven or top burner pilots. When the dial is in the "OFF" position, the pilots are on.

When turning from "PILOT OFF" position to "OFF" position, pilots must be relighted.

There are no pilot adjustments on the thermostat. Control has been factory pre-set for use on L.P. gas. No field adjustments necessary.

a. Oven Air Shutter Adjustment

To adjust main oven burner air shutter: The air shutter has been adjusted at the factory, however, it may require some additional adjustment when used at high altitude.

To adjust, open the air shutter to the full open position where you will have a blowing condition. Begin closing the shutter slowly. When you reach the correct adjustment point, the blowing will stop and the burner should have a sharp blue flame approximately 3 inches long.

2. Top Pilot Adjustment

Adjust top pilot so that the tip of the flame is just over the edge of the inner core and the lighting of the burner is within 4 seconds. Adjusting screw is located at bottom right corner of thermostat.

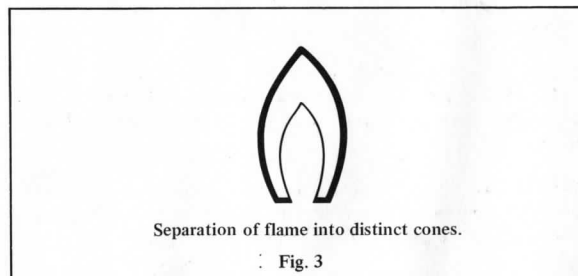
3. Cleaning Instructions after Oven is in Use.

Spill-overs or spotting in oven or broiler are more easily removed if done promptly after they occur. Never wash porcelain while warm. Never use cleaning power containing grit or acid.

NOTE: If oven bottom is removed for cleaning or servicing, be sure that oven bottom is locked in place when it is put back into the range.

4. Cleaning Instructions after top burners are in use.

- a. To assist in cleaning the area under the top burners, the main top has been hinged so it can be raised. Care should be taken during the cleaning operation that you do not touch the hot pilot shield.
- b. If top burner heads are cleaned with any cleaning compound, care should be taken to see that all ports are opened up with a metal pin to insure proper operation. It is especially important that the lighter ports and slots on the side of the burner heads be kept clean.



Removal of Range Top Burner Valve

1. Shut off gas supply at bottles.
2. Remove knobs.
3. Remove burner grates, main top, and top burners.
4. Remove two bolts from thermostat and raise slightly to permit removal of manifold.
5. Remove gas inlet tube from half union and move tube out of way.
6. Remove two screws, one from each end of manifold assembly.
7. Remove manifold assembly from range.
8. Remove defective valve (screw counter clockwise).
9. To install, reverse above procedure.
10. Check for gas leaks at all connections with soap solution before lighting burners.

Range Top Pilot Light Adjustment

1. Remove thermostat knob to provide access to adjusting screw. Adjusting screw is located at bottom right corner of thermostat.
2. Adjust so that the tip of the flame is just over the edge of the inner cone and the top burners light within four seconds.

CAUTION: To turn pilot off, turn screw until flame goes out.

Oven Thermostat Removal and Replacement

1. Shut off gas at L.P.G. tanks.
2. Remove main top and grates.
3. Disconnect pilot fuel lines and 1/4 main fuel line at thermostat.
4. Remove two screws mounting thermostat to manifold pipe.
5. Open oven door and remove capillary bulb clips in top of oven.
6. Pull capillary bulb up through top of stove and remove thermostat.
7. To install, reverse above procedure.
8. Check for gas leaks at all connections with soap solution.

Oven Automatic Shut-Off Valve Removal and Replacement

1. Shut off gas.
2. Remove oven racks and bottom.
3. Remove mounting screw from oven burner and remove burner.
4. Disconnect 1/4 supply tube from shut-off valve.
5. Loosen screw holding sensing bulb to pilot light assembly.
6. Remove sensing bulb.
7. Remove 2 screws attaching automatic oven shut-off valve support and remove automatic oven shut-off valve.
8. To install, reverse above procedure.
9. Check for gas leaks at all connections with soap solution.

Oven Burner Removal and Replacement

1. Shut off gas.
2. Remove oven racks and bottom.
3. Remove mounting screw from oven burner and remove burner.
4. To install, reverse above procedure.

Oven Pilot Light Assembly Removal and Replacement

1. Shut off gas.
2. Remove oven racks and bottom.
3. Remove screw holding sensing bulb to pilot assembly.
4. Remove sensing bulb from pilot assembly.
5. Remove pilot fuel tube.
6. Remove nut and bolt attaching pilot assembly to support.
7. Remove pilot assembly.
8. To install, reverse above assembly.
9. Check for gas leaks at oil connections with soap solution.

Oven Thermostat Calibration

Before having oven calibration changed, be sure that utensil problems and/or user misunderstanding of oven operation are not the real cause of the service complaint. Here are several possible factors to check:

Setting the Dial. Oven temperatures will be most accurate when you set the dial by turning just TO the temperature — not to a higher temperature and then back.

Aluminum Foil. Foil should never be used to cover oven racks or so that it blocks off any of the oven openings provided for air circulation. If you use foil, cut a piece just a little larger than the pan and place on the oven bottom.

Oven Cleaners. Oven cleaners, particularly the spray type, can coat the thermostat temperature bulb so that it does not sense oven temperatures accurately. Carefully clean any residue off the sensing bulb.

Pan too large for Oven. The most common offender is a cookie sheet which is too big — a special problem with RV range ovens because of their small size. There should be at least 1 to 2 inches between the edge of a utensil and any oven surface.

If none of these factors apply and if cooking results have been consistently poor, recalibration is necessary. It is recommended that the calibration is done by qualified service personnel.

1. With an accurate thermometer placed in the oven, light the oven burner.

2. Place reliable mercury thermometer (or other suitable instrument) in center of oven.
3. Set knob to 350° setting.
4. Allow oven to operate at least 20 minutes with 3 readings every 5 minutes. Thermostat calibration is necessary only if temperature is not within 20° of setting.

Trouble Shooting Range Top

1. Gas Odor

TURN OFF GAS SUPPLY at tanks; then open door and windows to evacuate gas from trailer before re-lighting pilots or checking for leaks.

Probable Cause

Remedy

- | | |
|--------------------------|--|
| a. Pilot light out | Light and adjust if required. |
| b. Leaky fittings | Soap test all fittings. Tighten or replace |
| c. Pilot won't stay lit. | Check for defective pressure regulator |

2. One or more burners won't ignite or improper flame.

Probable Cause

Remedy

- | | |
|----------------------------------|--|
| a. Flash tube out of position | Position burner or flash tube. |
| b. Pilot flame out of adjustment | (See p.12-4 for proper adjustment) |
| c. Clogged burner ports. | Clean with small steel pin. (Do not damage ports.) |
| d. Low gas pressure. | See Gas System section. |

3. Porcelain Breaking off Grates.

Probable Cause

Remedy

- | | |
|---|--|
| Operating burners without pan on grate. | Always have pan on grate when burners are ignited. |
|---|--|

4. Scorching of Main Top

Probable Cause

- | | |
|---------------------|---|
| Pans are too large. | Use pans that do not exceed grate by more than 1" |
|---------------------|---|

Trouble Shooting — Oven

1. Gas Odor

TURN OFF GAS SUPPLY at tanks; then open door and windows to evacuate gas from trailer before re-lighting pilots or checking for leaks.

Probable Cause	Remedy
a. Pilot light out	Relight pilot.
	Low gas pressure (See gas sytem section.)
	Faulty thermostat. Replace thermostat if gas is not sufficient to maintain constant pilot.
	Check air shutter adjustment on main burner. See page 12-4, Oven Section for proper adjustment; poor etting will blow out pilot.

2. Run away oven — overcooking — temperature too hot.

Probable Cause	Remedy
a. Thermostat out of calibration.	Recalibrate. See left hand column of this page.
b. Heater pilot flame not cycling off.	High pressure could cause the constant or standing pilot flame to act as a heater pilot flame. Check pressure and proceed as follows: (A) Pressure regulated appliance. Check pressure regulator for proper pressure on L.P. gas (11" water column. (B) Replace thermostat if problem is not due to Step A.
c. Faulty safety valve. Safety valve will not turn off main oven burner when heater pilot is turned off.	Replace safety valve. (See p. 12-5)
d. Aluminum foil covering racks and/or bottom.	Use aluminum foil only to wrap food.
e. Broken capillary tube.	Replace thermostat.
f. Pilot not positioned properly.	Relocate pilot (See p. 12-5)

3. Oven Undercooking — Temperature not hot enough — Oven slow heating up

Probable Cause	Remedy
a. Thermostat out of calibration.	Recalibrate. (See pg. 12-5)
b. Low gas pressure	(See Gas System section)

4. Oven Burner will not go on.

Probable Cause	Remedy
a. Constant pilot not lit.	Check to see that constant pilot is lit (See Fig. 4 and Section 1. Trouble Shooting — Oven.
b. Pilot assembly out of position.	Position pilot assembly (See Fig. 4 for pilot location in wall oven.)
c. Safety valve sensing element not positioned.	Loosen screw and position as shown in Fig. 4.
d. Heater pilot flame not heating sensing bulb.	Low gas pressure. (See gas system section.)
e. Heater pilot flame too low.	Gas line pinched or dirty. Faulty thermost — replace (see P. 12-5).
f. Safety valve will not open with proper heater pilot setting.	Check position of sensing bulb. (See Fig. 4)
	Replace safety valve. (See p. 12-5)

Oven Pilot Location

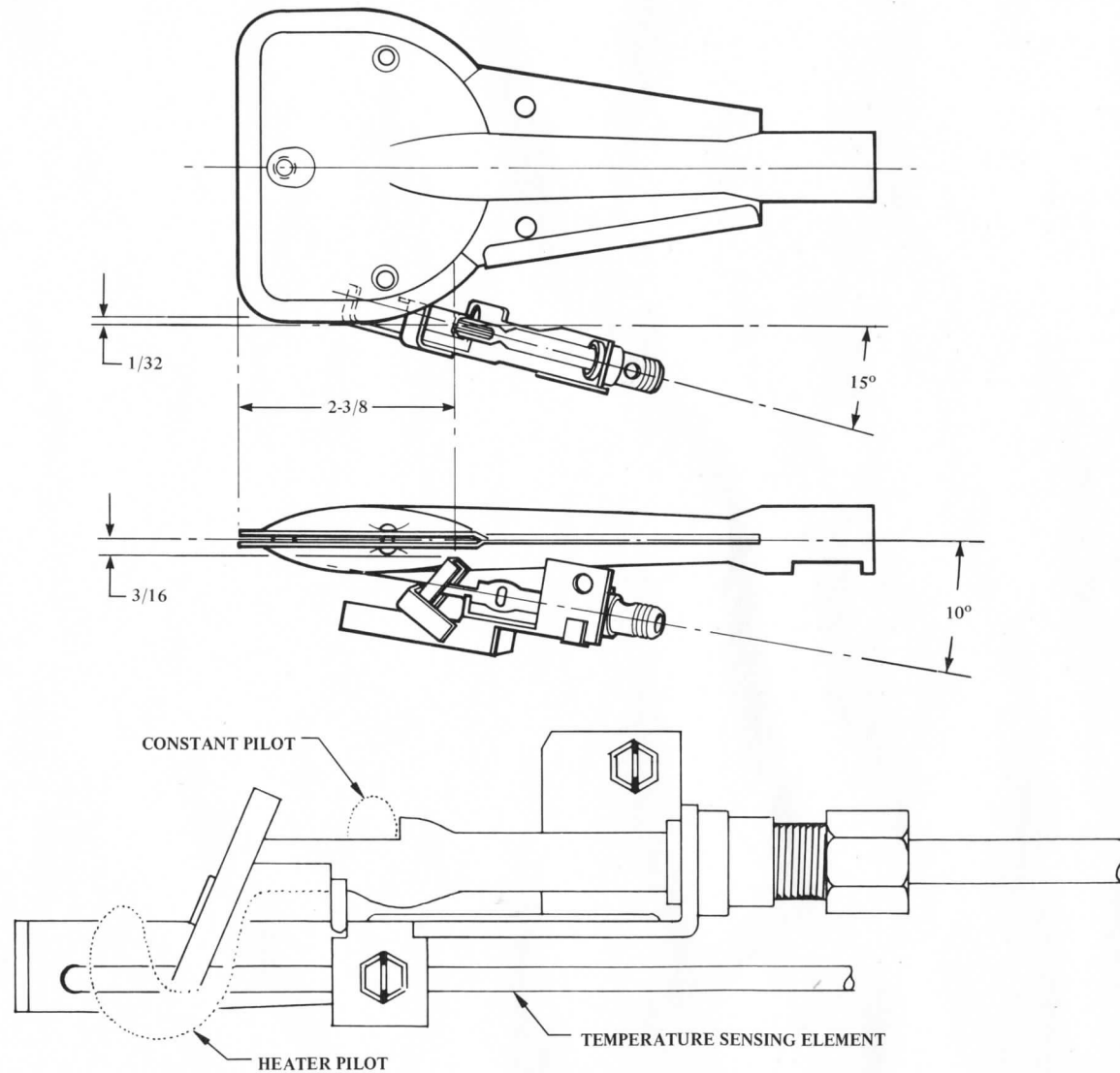


Fig. 4

Micro Wave Oven

The Litton Industries, Atherton Division portable Micro Wave Oven is available as an option. Airstream dealers cannot service or make adjustments to the oven. This must be done by an authorized Litton Industries dealer. If you ever have problems with the oven check the local telephone directory for the nearest dealer.