

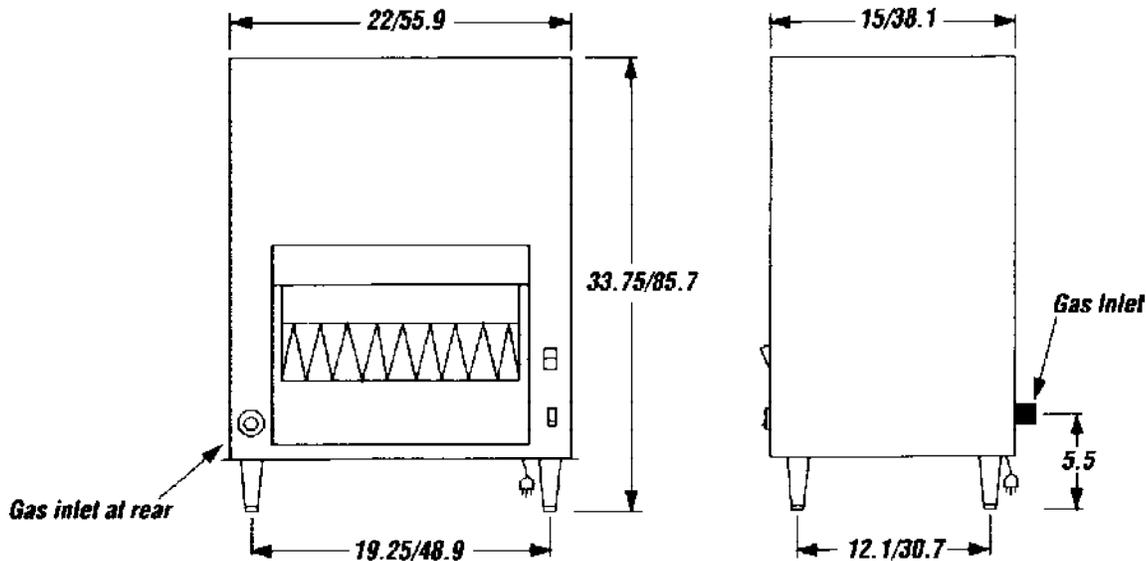
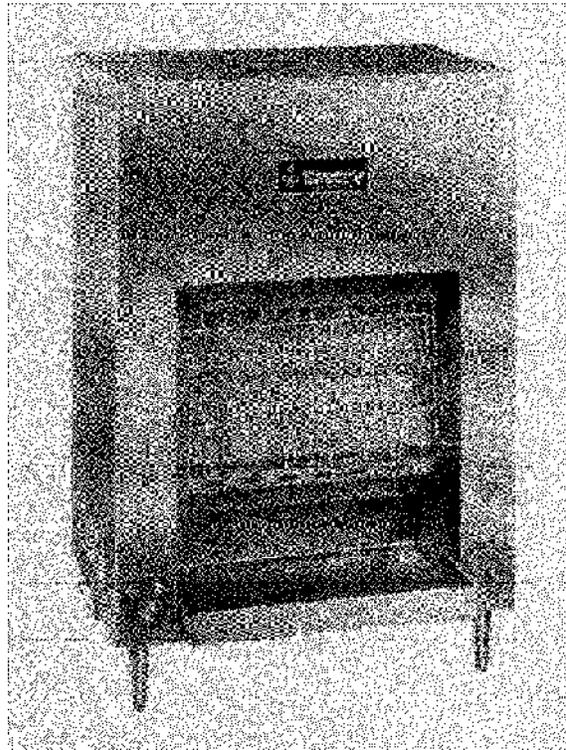


Enosis

## PARTS & SERVICE Manual for CG-30 Gas Conveyor Toaster

The CG-30 Gas Toaster brings to commercial toasting all the advancements and versatility usually associated only with electric toasters. Speed is combined with the known economy of operation and service free characteristics in this new approach to the oldest way of toasting.

The CG-30 is engineered for efficient, dependable service throughout the years. Like any other piece of fine equipment with moving parts and broad temperature ranges, physical wear and tear takes its toll. When this happens, the following information will prove most helpful. Although the instructions are easy to follow, the work should be done by a qualified Savory Certified Service Representative.



**THIS MANUAL SHOULD BE RETAINED FOR FUTURE REFERENCE**

# WARNING

**REMOVE PLUG FROM WALL RECEPTACLE AND SHUT OFF GAS SUPPLY BEFORE ATTEMPTING ANY SERVICE ON THIS UNIT.**

**Servicing:** To gain access to the drive components, switches and wire guard plate, remove the right side panel. To gain access to the gas burners, associated components and burner controls remove the left side panel. Each side panel is easily removed by removing the two screws located on the underside of the unit.

## A On/Off Switch Replacement

1. Remove right side panel.
2. Remove two retaining screws from front panel.
3. Disconnect wiring harness from switch terminals.
4. Connect wiring harness to new switch and install switch in panel. (Refer to wiring diagram)

## B Bun/Toast Switch Replacement

1. Remove right panel.
2. Disconnect wiring harness from switch terminals.
3. Depress two spring clips on top of switch and tilt switch forward.
4. Insert the new switch into the panel opening, snapping snugly into place.
5. Reconnect the wiring harness to the terminals. (Refer to wiring diagram)

## C Gearmotor Replacement

(Refer to illustrations 3 & 5)

1. Remove right side panel.
2. Disconnect motor lead wires from the terminal block and on/off switch.

3. Remove the two nuts at the bottom of the motor mounting plate and slide plate to the left. Disengage drive chain from sprocket and remove from weld bolts.
4. From the back of the plate, remove the four screws holding the gearmotor.
5. Using a 1/16" Allen wrench, loosen sprocket locking Allen screws and remove sprocket from shaft.
6. Fasten new gearmotor to motor mounting plate.
7. Place motor mounting plate on weld bolts, replace nuts. Do **NOT** tighten.
8. Slip sprocket on gearmotor shaft with hub facing outward, mesh with drive chain, align with sprocket clutch and tighten Allen screws.
9. Remove drive chain slack by sliding the mounting plate to the right. Tighten nuts on motor mounting plate.
10. Connect motor leads to terminal block and on/off switch.
11. Replace side panel.

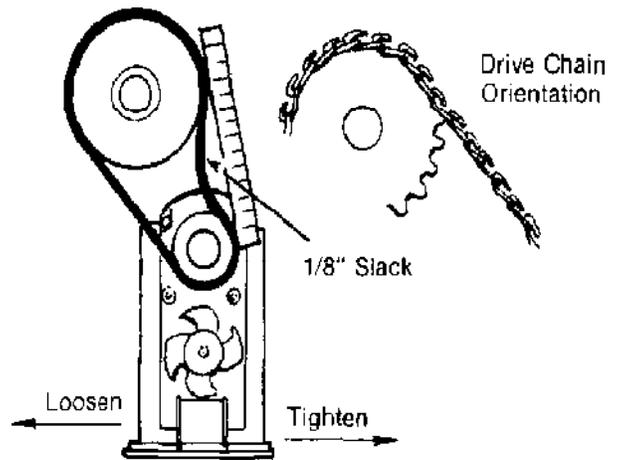
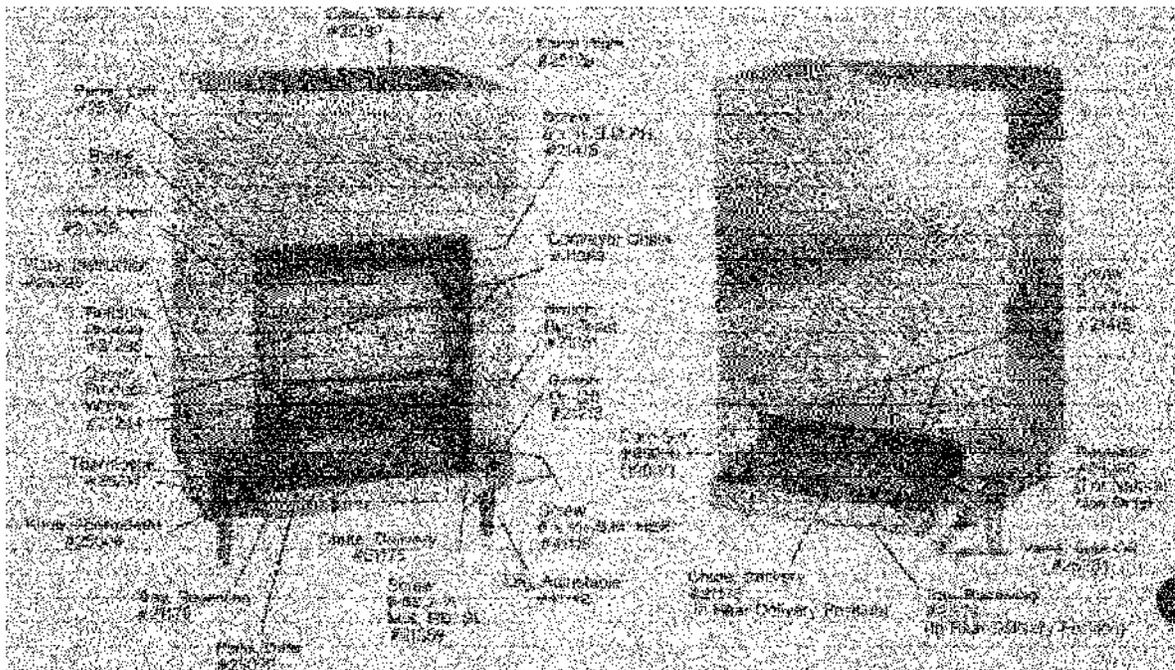


Illustration #3



## D Drive Chain Adjustment

1. Tension is correct when chain can be depressed about 1/8" on each side with slight pressure. Shifting the motor mounting plate to the right will tighten the drive chain tension. Sliding it to the left will loosen the tension (Illustration 3).
2. An overtight chain tension will result in premature wear of the chain and sprocket and may cause a bind. Too loose pressure will create excessive noise, with the possibility of jumping off the sprocket teeth.

## E Drive Chain Replacement

(Refer to illustration 3 & 5)

1. Remove right side panel.
2. Loosen motor mounting bolts and slide motor to left to loosen chain.
3. Lift off old chain and position new chain over sprockets. Check orientation. (Illustration 4)
4. Slide motor to right to remove chain slack and tighten motor mounting bolts.
5. Check chain tension. (Illustration 3) Too tight will result in premature wear of chain, sprocket and bearing and may bind drive components. Too loose will result in chain slipping or falling off sprockets.

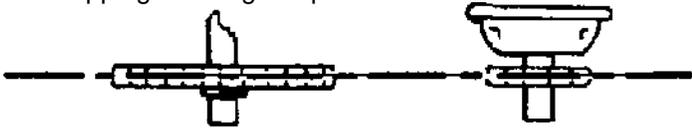


Illustration #4

## F Clutch Replacement

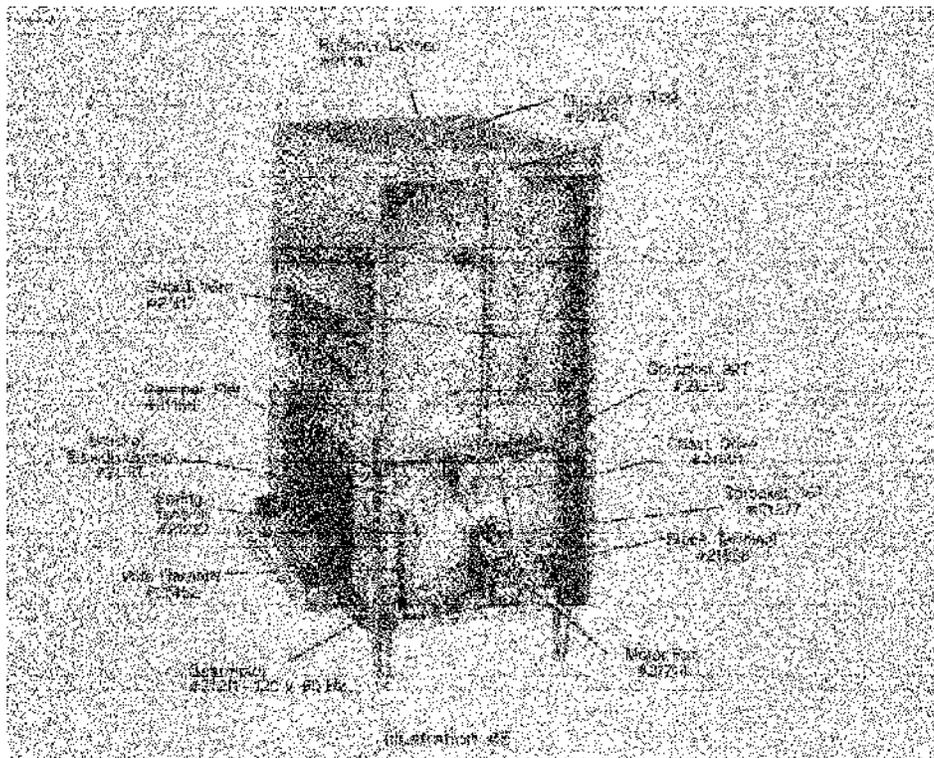
(Refer to illustration 4 & 5)

1. Remove right side panel.
2. Loosen motor mounting bolts and slide motor to left and remove drive chain.
3. Loosen Allen screws on clutch sprocket and remove sprocket from motor shaft.
4. Install new sprocket on motor shaft and tighten screws. Check sprocket alignment. (Illustration 4)
5. Position chain on sprocket and slide motor to right to remove slack. Tighten mounting bolts. Check chain orientation.
6. Check chain tension (Illustration 3) and adjust if necessary. (See Section D)
7. Replace side panel.

## G Hubbed Sprocket Replacement

(Refer to illustration 4 & 5)

1. Remove right side panel.
2. Loosen motor mounting bolts and slide motor left.
3. Remove drive chain and loosen Allen screws on hub of sprocket and slide off shaft.
4. Install new sprocket and align set screws with indents in transmission shaft.
5. Replace drive chain and slide motor to right to tighten. (Illustration 3)
6. Replace side panel.



## H Bearing Replacement

### Coupling Bearing (Right Side)

1. Remove right side panel and insulation.
2. Remove the two lock nuts holding bearing retainer and remove retainer.
3. Remove old bearing.
4. Install new bearing and seat in opening.
5. Replace retainer, nuts, insulation and side panel.

### Coupling Bearing (Left Side)

1. Remove left side panel and insulation.
2. Remove the two lock nuts holding bearing retainer and remove retainer.
3. Remove old bearing.
4. Install new bearing and seat in opening.
5. Replace retainer, lock nuts, insulation and side panel.

### Tension Assembly Bearing (Right or Left Side)

1. Remove side panel.
2. Remove one end of tension spring from tension bracket.
3. Remove the two lock nuts holding bearing retainer and remove retainer.
4. Remove tension bracket and old bearing.
5. Install new bearing and seat in opening. (Refer to illustration 6)
6. Replace tension bracket, retainer, lock nuts and spring. **NOTE: If tension bracket has two anchor holes for spring, use hole closest to the front of machine.**

### Transmission Bearing (Right Side)

1. See Section G; follow steps 1, 2 and 3.
2. Remove the two lock nuts holding bearing retainer and remove retainer.
3. Remove old bearing.
4. Install new bearing and seat in opening.
5. Replace retainer and lock nuts.
6. See Section G; follow steps 4, 5 and 6.

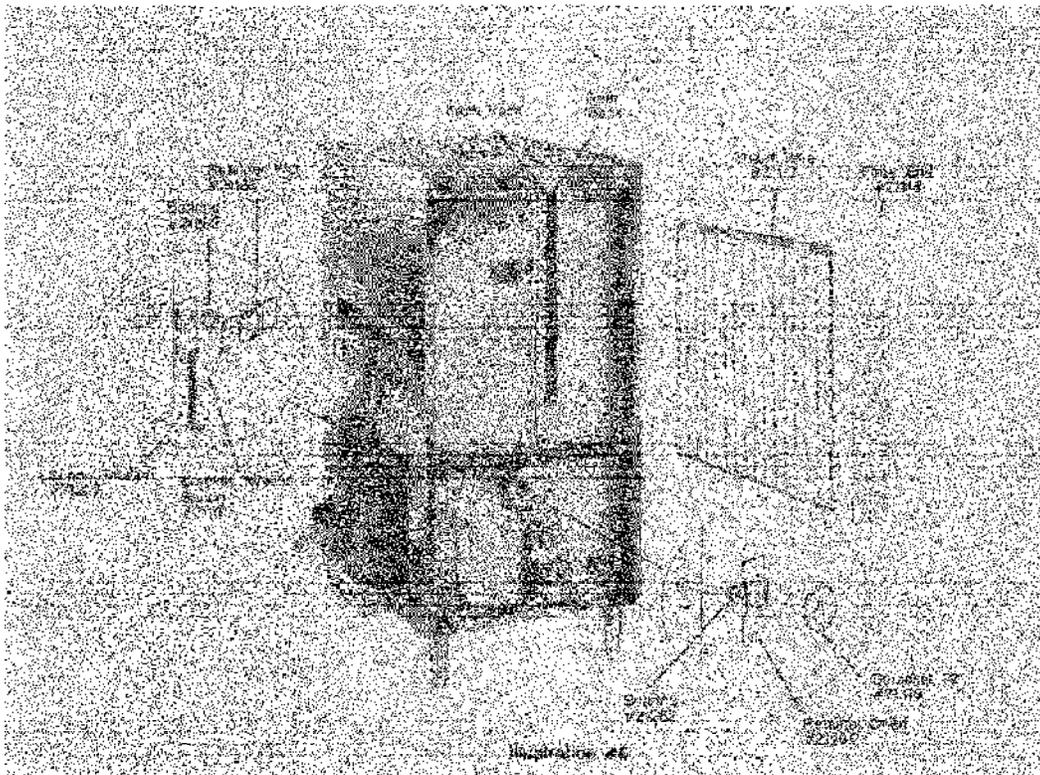
### Transmission Bearing (Left Side)

1. Remove left side panel.
2. Remove the two lock nuts holding bearing retainer and remove retainer.
3. Remove old bearing.
4. Install new bearing and seat in opening.
5. Replace retainer, nuts and side panel.

## I Conveyor Chain Replacement

### (Refer to illustration 11)

1. Remove toast receiving tray, delivery chute, left and right side panels.
2. Remove the two screws in upper edge of front opening that holds the front baffle. Slide baffle toward back of machine to remove. (Illustration 7)



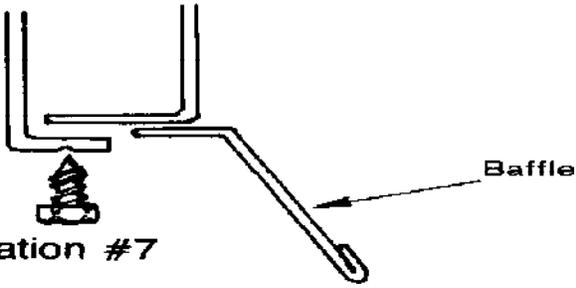


Illustration #7

3. Remove baskets by slightly spreading chains, sliding basket to one side and lifting out.
4. Release the tension spring from spring bracket on both sides of tension bracket on both sides of tension assembly.
5. Locate the master link (link without extended pins-illustration 8). Remove clip on master link (Illustration 9) and remove. Pull chain out from bottom.

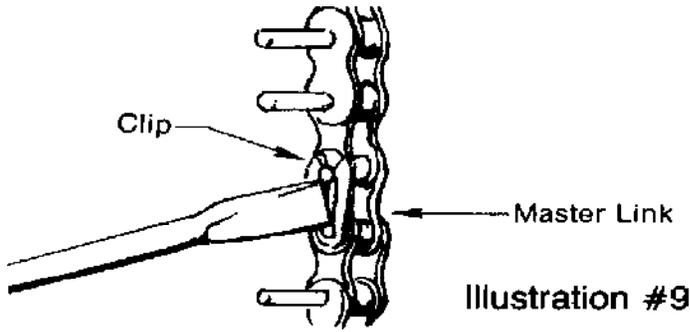


Illustration #9

6. With extended pins facing inward, drape new chain over the top of the coupling assembly. Make certain links of chain are meshed over sprocket teeth. Drop remainder of chain behind sprocket and from bottom opening, lift it across transmission assembly and tension assembly sprockets. Visually check for fit over sprocket teeth and bring two ends of chain together. Install master link and clip. Repeat procedure for other chain. **IMPORTANT! Align right and left side master links to insure proper alignment of baskets.** (Illustration 10)

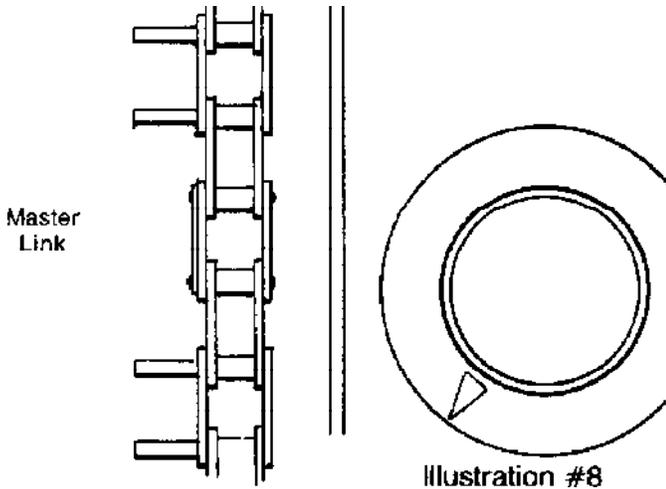


Illustration #8

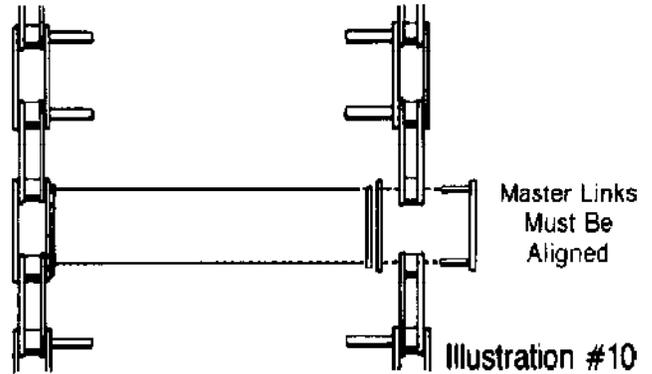
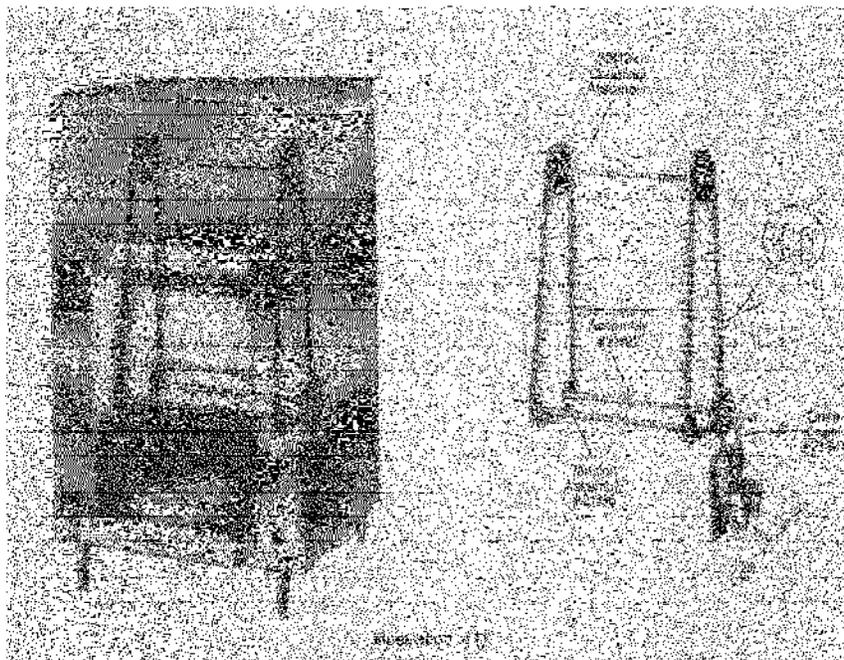


Illustration #10

7. Replace baskets, spring on tension brackets, front baffle, receiving tray, delivery chute and left and right side panels.



## J Transmission Assembly Replacement

(Refer to illustration 11)

1. Follow steps 1 thru 5 in Section I.
2. Remove drive chain, hubbed sprocket, bearing retainers and bearings. (Refer to Sections G & H)
3. Slide assembly shaft to right side and lift left end of shaft out of bearing hole and remove shaft.
4. Inspect shaft bearing for wear or binding. Replace with new if necessary.
5. Replace new assembly in reverse order.
6. Check conveyor chain line-up. (Refer to Section I Step 6)
7. Check drive chain tension. (Refer to Section E Step 5)

## K Tension Assembly Replacement

(Refer to illustration 11)

1. Remove receiving tray, delivery chute, left and right side panels.
2. Remove all baskets and both conveyor chains. (Refer to Section I steps 2 thru 5)
3. Unhook tension springs from brackets. (Illustration 6)
4. Remove bearing retainers and bearings.
5. Lift one end of assembly shaft and remove carrier chain from sprocket. Move chain to one side; repeat for opposite end of shaft.
6. Slide shaft to one side and lift opposite end out of bearing hole. Lift assembly out and under to clear carrier chains.
7. Reverse above procedure to install new assembly.
8. Inspect bearing for wear or binding. Replace with new if necessary.
9. Install bearing, spring brackets and retainers. Attach springs to bracket.
10. Check conveyor chain line up. (Illustration 10)
11. Install baskets, left and right side panels.

## L Coupling Assembly Replacement

(Refer to illustration 11)

1. Follow steps 1 thru 5, Section I)
2. Remove insulation.
3. Remove wire guard. (Refer to Section M)
4. Locate the four screws on the upper inside corners of the toaster that hold case top in place. Loosen screws and lift off top. A rubber mallet or similar "soft" tool maybe helpful in lifting a tight fitting top. (Illustration 12)
5. Remove insulation.
6. Remove the twelve screws holding the inner top panel assembly in place and lift it off.
7. Remove coupling assembly bearing from both sides. (Refer to Section H)
8. Remove the three screws from the left inside panel that attach to front reflector.
9. Standing at right side of machine gently push on left inner wall to expand toasting chamber. (Illustration 13) This will allow enough clearance for coupling assembly to be lifted from toaster.

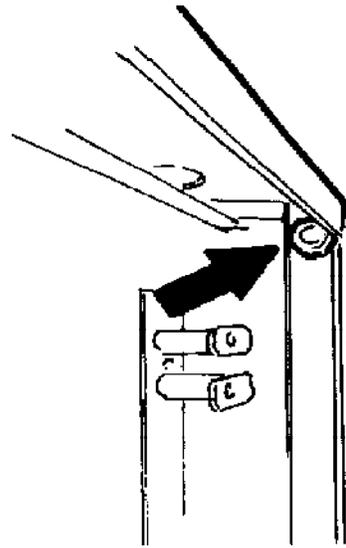


Illustration #12

10. To install new assembly spread inner walls as in Step 9 for clearance.
11. Check bearing for wear or binding. Replace with new if necessary.
12. Install bearings, retainers and lock nuts.
13. Replace three screws into front reflector.
14. Replace conveyor chains, springs to tension brackets, front baffle, inner top assembly, insulation and case top. Be certain case top is seated properly in retaining channels.
15. Replace side insulation, wiring, side panels and baskets.

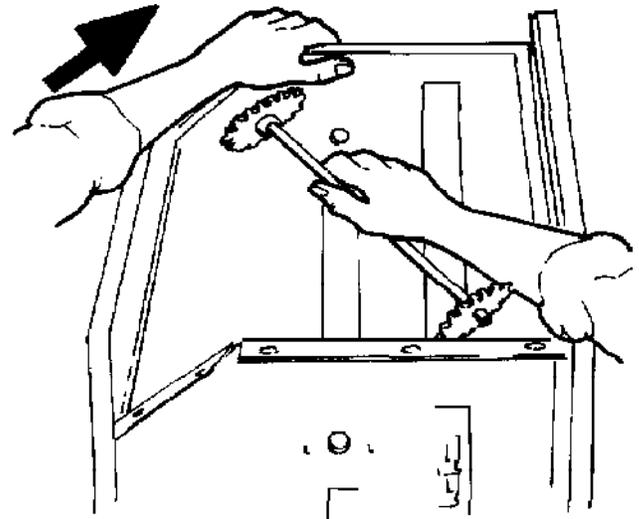


Illustration #13

## M Wire Guard Replacement

(Refer to illustration 6)

1. Remove left side panel and insulation.
2. Remove the three nuts holding end plate and remove plate.
3. Slide out wire guard
4. Insert new wire guard into track. **NOTE: Use rear track for toasting buns or bread. Use forward track for toasting bread only.**
5. Replace end plate, nuts, insulation and side panel.

## N Burner Component Adjustments

1. **Air Shutter Adjustments** - May be required due to local gas supply conditions. Loosen air shutter locking screw on burner. Move shutter until burner flame is without yellow.
2. **Pilot Flame Adjustment** - Remove thermostat knob. With a thin bladed screwdriver, reach through bottom of opening and turn pilot adjustor screw clockwise until pilot flame starts to reduce. Then, turn pilot adjuster screw clockwise until pilot flame starts to reduce. Then, turn pilot adjustor screw counterclockwise until pilot flame envelopes and is just above flame switch sensing tube. Replace thermostat knob. **NOTE: Changing to propane gas will require reducing the pilot flame to the above condition.**
3. **Thermostat By-Pass Adjustment** - Allow toaster to reach normal toasting heat. Place bun-toast switch to the Toast position. Turn thermostat to #1 position (set on Low with knobs so marked). Carefully remove thermostat knob without disturbing setting. With a thin-bladed screwdriver, reach through upper right of opening and turn by-pass adjustment screw until burner flame is steady across length of burner. Replace knob and reset thermostat and bun-toast switch to original position.

## O Control Functions

**Safety Solenoid Valve** - Operates when both flame switches close, to complete electrical circuit to coil, which pulls plunger to open gas flow path to front burner and control solenoid valve.

**Pilot Flame Switches** - Bulbs, positioned over the pilots, are heated. Heat is transferred through sensing tubes to close the series wired switches to complete circuit and energize the safety solenoid valve coil.

**Control Solenoid Valve** - Coil is energized by bun-toast switch placed in TOAST position which pulls plunger to open gas flow path to the rear burner. In BUN position coil is not energized, plunger shuts off gas flow.

**On/Off Switch** - The "ON" position closes the circuit to the gearmotor, flame switches and bun-toast switch.

**Bun-Toast Switch** - Completes the electrical circuit to the control solenoid valve coil when placed in the TOAST position.

**Shut-Off Valve** - Manually opens or shuts off gas supply line. When open, the gas flows through the pilot tubes.

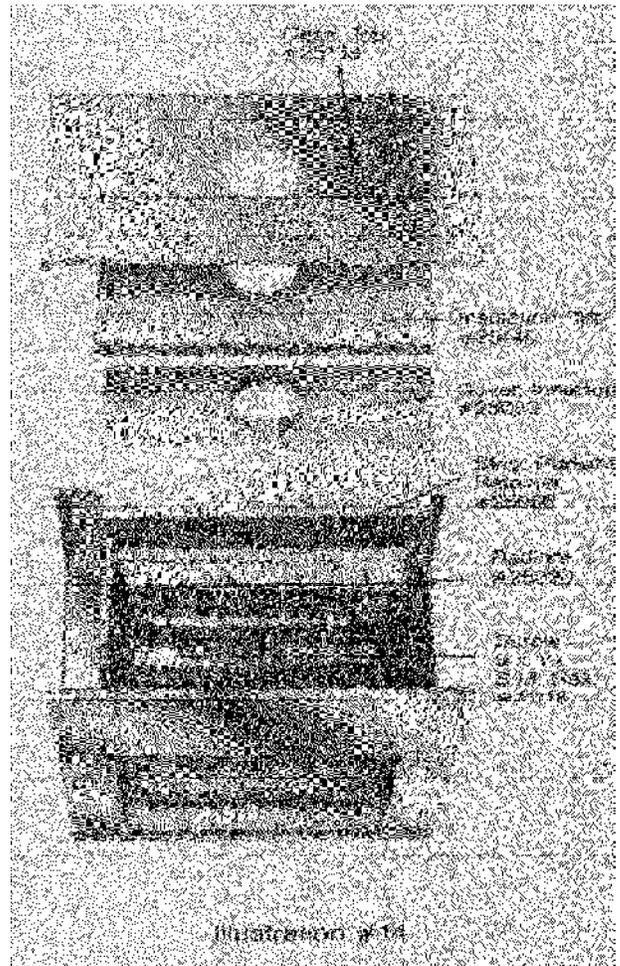
**Pressure Regulator** - Maintains a 4" water column pressure when natural gas supply exceeds that pressure.

**Thermostat** - Regulates the gas flow to the burners. Gas flow through the thermostat is controlled by the temperature at the bulb. "Off" position shuts off all gas flow except through the pilot tubes.

## P Radiant Replacement

(Refer to illustration 14)

1. Remove both sides panels.
2. Loosen the inside screws on each corner holding the case top to the front and rear panels.
3. Lift off top and remove insulation.
4. Remove the three screws from top rear, three screws from top front, and five screws from each side and remove inner top cover.
5. Reach through top opening, remove the three screws holding the radiant retainer strip.
6. Radiants lean inward and can be removed.
7. Place new radiants into the channel retainer with bosses toward the top and cones facing inward.
8. Place radiant retainer strip over bosses, push retainer into position and fasten with the three screws.
9. Place inner top corner in position, fasten with the five screws from under side of each side, and the three screws at top rear and top front.
10. Place insulation over inner top cover.
11. Position case top over the four screws and push to fit toaster.
12. Tighten the four screws to fasten case top of front and rear panels.
13. Replace side panels.



## Q Burner Replacement

(Refer to illustration 15 & 17)

1. Loosen nut holding burner lock plate.
2. Remove wires from underside of pilot flame switch.
3. Using a screwdriver, press spring catch on side of flame switch, snap ceramic base up and out of bracket.
4. Using a 7/16" open end wrench, loosen pilot tube compression nut at the burner. **CAUTION: Pilot orifice is loose in end of pilot.**
5. Move pilot tube to the side and out of the way.
6. Lift burner to clear orifice and slide burner out.
7. Remove pilot bracket, containing pilot flame switch assembly by removing screws fastening pilot bracket to burner.
8. To install new burner, first place pilot bracket, containing pilot flame switch assembly, on burner and fasten with retaining screw.
9. Check that pilot flame switch assembly is parallel to the burner in both the horizontal and vertical plane and that sensing tube is locked even with the end of pilot. (Illustration 15)
10. Insert burner into opening, slide along channel until flat end of burner is fully seated in slot of right interior wall.
11. Seat burner over orifice.
12. Drop burner lock plate to seat firmly over burner, tighten nut to secure in place.
13. Place pilot tube in pilot and join by tightening compression nut. **CAUTION: Be sure pilot orifice is positioned in end of pilot.**
14. Snap flame switch ceramic into bracket and place wires on terminals.

## R Burner Replacement

(Follow procedures in Section Q)

### Sub Assembly Components

(Refer to illustrations 15, 16 & 17)

**NOTE:** The sub assembly contains the components that direct and control gas flow to the burners. All threaded fittings, with the exception of compression fittings and orifices, should be coated with rectorseal #5 thread sealing compound during installation.

Flame Switch/Pilot & Burner Assembly

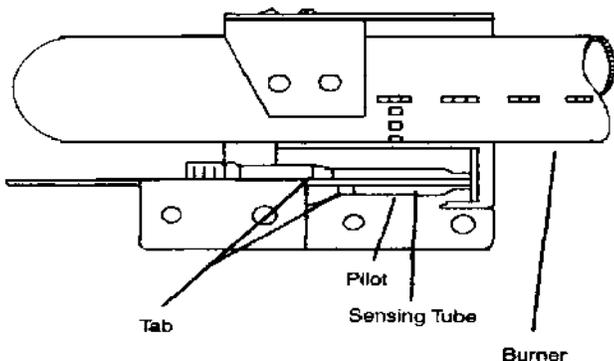


Illustration #15

## S Sub Assembly Removal

(Refer to illustration 17)

1. Remove thermostat knob.
2. Remove union on intake pipe.
3. Remove pilot tube compression fittings at pilot flame filter assembly.
4. Loosen burner lock plate nuts.
5. Bend capillary retainer clamp to achieve clearance and slip tube from under clamp.
6. Remove wire connections from flame switches and solenoid valves.
7. Carefully slide thermostat bulb from holder. **CAUTION: Avoid sharp bends or kinks in the capillary tube and bulb that will create restriction, preventing proper thermostat operation.**
8. Remove the two nuts holding intake pipe to base plate.
9. Remove two nuts from each solenoid bracket, making sure spacers remain in place. (Illustration 16)
10. Raise burners to clear orifices, tilt top of the sub assembly to clear solenoid brackets from weld bolts, then move sub assembly to rear until thermostat shaft clears front of toaster.
11. Angle front of sub assembly outward and slide out of toaster.

## T Sub Assembly Installation

(Refer to illustration 17)

1. Slip intake pipe through rear opening far enough to allow thermostat shaft to clear front of toaster and into front opening.
2. Simultaneously, position solenoid brackets and intake pipe over weld bolts. (Make sure spacers are in place on the solenoid brackets). (Illustration 16) Install nuts and tighten.
3. Carefully insert thermostat bulb into holder, dress capillary tube and place under clamp. Bend clamp to secure tube.
4. Align burners over orifices, position burner lock plates and tighten nuts.
5. Attach pilot tubes with compression fittings at pilot flame filter assembly.
6. Slip wire connections on pilot flame switches and solenoid valves. (Refer to wiring diagram)
7. Install union between intake pipe and pressure regulator.
8. Replace thermostat knob.
9. Turn on shut-off valve, light pilots and operate toaster.

**CHECK ALL CONNECTIONS FOR LEAKS USING SOAP SOLUTION.**

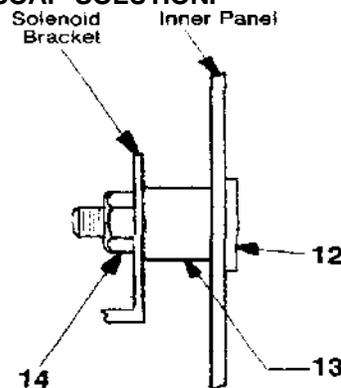
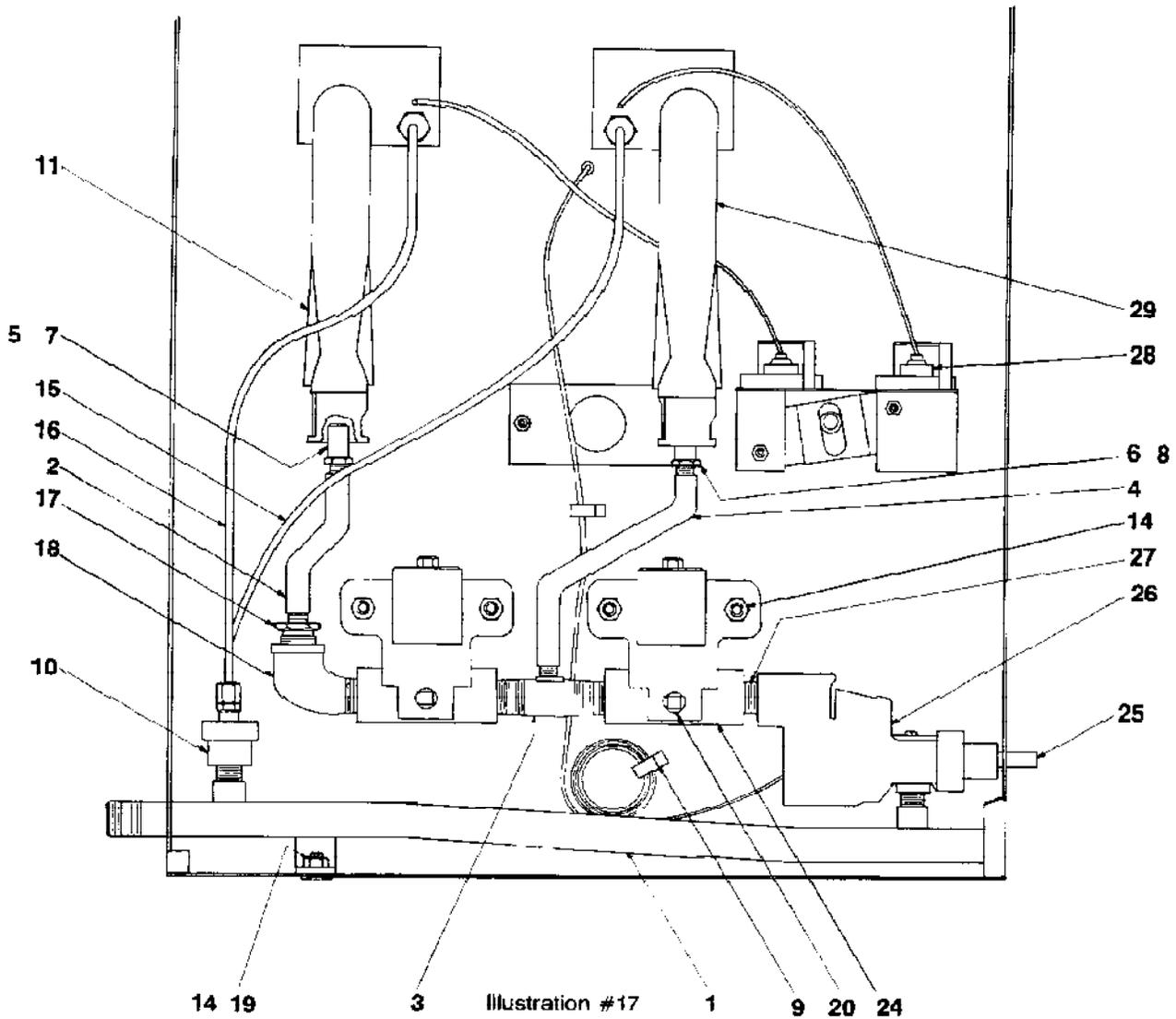


Illustration #16

For Description and Part Number, See Plumbing Parts List on Page 9

# Manifold Assembly



## Plumbing Parts List

Item #	Description	Qty.	Savory Part #	Item #	Description	Qty.	Savory Part #
1	Intake Pipe	1	25217	14	Whiz Nut 10-32	6	21228
2	Shallow Offset Pipe	1	25216	15	17" Tubing, .187 Diameter	1	25255
3	T-Fitting	1	25211	16	13" Tubing, .187 Diameter	1	25256
4	Deep Offset Pipe	1	25213	17	Bushing, 3/8" x 1/8"	1	25028
5	#51 Orifice Cap: Natural, rear	1	25223	18	Street Elbow	1	25215
6	#45 Orifice Cap: Natural, front	1	25222	19	Weld Bolt, 10-32x.50	2	12371
7	#61 Orifice Cap: Propane, rear	1	25241	20	Solenoid Plug	2	25234
8	#58 Orifice Cap: Propane, front	1	25240	24	Solenoid Valve	2	25008
9	Capillary Tube Retainer	2	25237	25	Adapter, Knob	1	25232
10	Pilot Flame Filter Assembly	1	25242	26	Thermostat	1	25214
11	Rear Burner	1	25121	27	Nipple, 3/8" x 1.00"	1	25220
12	Weld Bolt, 10-32x.875	4	25221	28	Flame Switch	2	25017
13	Solenoid Spacer	4	25212	29	Front Burner	1	25120

## U Thermostat Replacement

(Refer to illustration 17)

1. Remove sub assembly. (Refer to Section S)
2. Remove the two screws at the top of the thermostat that go through to hold the intake pipe mounting flange and remove the intake pipe.
3. Carefully coil the thermostat tube close to the thermostat and safety solenoid.
4. Holding the body of the safety solenoid with a wrench or vise, unthread thermostat from nipple.
5. To install new thermostat, thread thermostat onto nipple and tighten. **NOTE: If nipple has been removed with the old thermostat, replace nipple into safety solenoid. Make sure intake pipe mounting flange holes are aligned from top to bottom.**
6. Place intake pipe/mounting flange on bottom of thermostat. Insert the two screws through the top and secure.
7. Install sub assembly. (Refer to Section T)

## V Control Solenoid Valve Replacement

(Refer to illustration 17)

1. Remove sub assembly (Section S), and intake pipe (Section U Step #2).
2. Remove solenoid plug and retain for new installation.
3. Unthread street elbow assembly.
4. Unthread control solenoid valve from T-fitting, and remove.
5. Thread new valve onto T-fitting, making sure the valve is in vertical alignment with the safety solenoid valve.
6. Thread street elbow assembly to control valve, making sure street elbow assembly is in vertical alignment with the other offset pipe.
7. Replace solenoid plug.
8. Replace intake pipe/mounting flange. (Refer to Section U Step #6)
9. Replace sub assembly. (Refer to Section T)

## W Safety Solenoid Valve Replacement

(Refer to illustration 17)

1. Remove sub assembly (Section S), and thermostat (Section U).
2. Remove solenoid plug and retain for new installation.
3. Unthread safety solenoid valve from T-fitting and remove.
4. To replace, thread safety solenoid valve onto T-fitting making sure valve is in vertical alignment with control solenoid valve.
5. Replace solenoid plug.
6. Replace thermostat (Section U), and sub assembly (Section T).

## X Intake Pipe Replacement

(Refer to illustration 17)

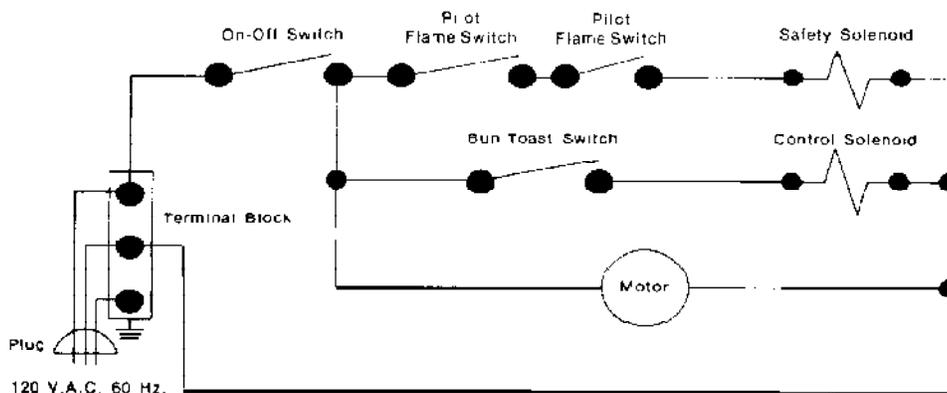
1. Remove sub assembly. (Refer to Section S)
2. Remove intake pipe from thermostat. (Refer to Section U Step #2)
3. Unthreaded intake pipe mounting flange and remove.
4. Remove pilot flame filter assembly.
5. To install new pipe, replace pilot flame filter assembly checking for proper alignment.
6. Thread intake pipe mounting flange to intake pipe, checking for proper orientation.
7. Attach pipe to thermostat. (Refer to Section U Step #6)
8. Replace sub assembly. (Refer to Section T)

## Y Pilot Flame Filter Assembly Replacement

(Refer to illustration 17)

1. Using a 7/16" wrench, remove both compression sleeves.
2. Unthread pilot flame filter assembly from intake pipe.
3. Reverse this procedure to install new pilot flame filter assembly.

### Electrical Schematic







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