



TOWN

FOOD SERVICE EQUIPMENT CO., INC.



(SM) SMOKEHOUSE WITH FRONT PANEL REMOVED
GREEN BOXES - PART NUMBERS
RED BOXES - SUGGESTED THINGS TO CHECK

THERMOCOUPLE CONNECTION. MAKE SURE THIS IS TIGHT AND CORROSION FREE. "TIGHT" MEANS THAT THE NUT SHOULD BE TIGHTENED BY HAND, THEN AN ADDITIONAL 1/4" TURN USING AN OPEN ENDED WRENCH

THERMOCOUPLE LINE. FOLLOW THIS INSIDE THE UNIT TO THE THERMOCOUPLE (249006) AND PILOT BURNER (249012 FOR NATURAL GAS AND 249009 FOR LP GAS)

THERMOSTAT WITH SENSING PROBE (249007)

GAS VALVE (226102F)

TS11 SAFETY VALVE (249011 - ENTIRE VALVE) (249011H - REPAIR KIT)

PILOT BURNER GAS HOSE (226224)

TEST TAP. SHOULD MEASURE 6" W.C. FOR NATURAL GAS UNITS OR 10" W.C. FOR PROPANE GAS UNITS

IF THINGS ARE PARTICULARLY MESSY, THE PILOT (SHOWN ON NEXT PAGE) MIGHT BE CLOGGED. CLEAN ORIFICE OR REPLACE WITH NEW PILOT BURNER (249012 FOR NATURAL GAS AND 249009 FOR LP GAS)

PILOT FLAME ADJUSTMENT SCREW. CAP MUST BE REMOVED TO REVEAL ADJ. SCREW. YOU MUST REINSTALL THE CAP TO PREVENT GAS LEAKS. PILOT FLAME MUST FULLY ENVELOP THE THERMOCOUPLE. VERIFY PROPER FLAME HEIGHT AND THERMOCOUPLE PLACEMENT.

GAS PRESSURE REGULATOR (249047)

GAS INLET. PRESSURE CAN'T EXCEED 15" WATER COLUMN. IF CONNECTED TO A PROPANE TANK OR A 1-2 PSI GAS SYSTEM, A FIRST STAGE REGULATOR IS REQUIRED. TO BE SUPPLIED BY OTHERS.



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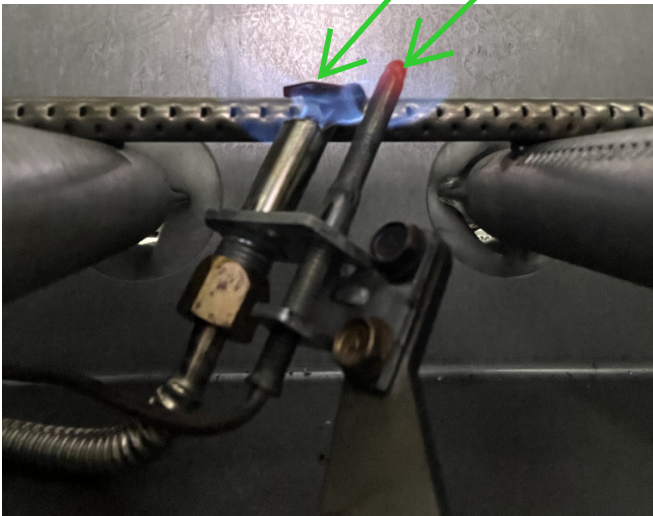
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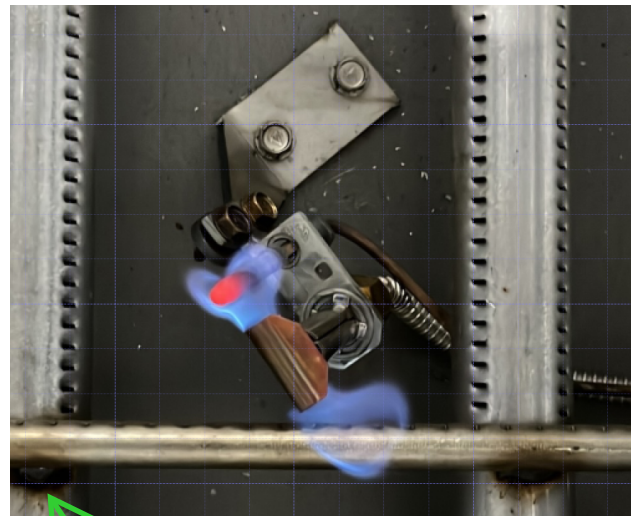
(SM) SMOKEHOUSE PILOT & THERMOCOUPLE PLACEMENT

PILOT BURNER
(249012 FOR NATURAL GAS AND 249009 FOR LP GAS)

THERMOCOUPLE
(249006)



View from rear, looking forwards



View from above

BURNER & RUNNER ASSEMBLY
(245220 FOR SM-24, 3 TUBES)
(245225 FOR SM-30, 4 TUBES)
(245230 FOR SM-36, 5 TUBES)

Adjust placement, clean, or replace parts as necessary such that:

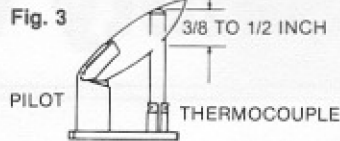
1. One leg of the pilot flame fully envelops the thermocouple.
2. Other leg of the pilot flame hits the horizontal burner runner.
3. Thermocouple tip is red hot when in operation.
4. Tip of the thermocouple is not being hit by the chip box when it's being inserted.

If the pilot is constantly clogging or the thermocouple is being hit by the chip box, contact Town for information on a pilot shield.

Procedure for Lighting

1. Wait five minutes to allow gas which may have accumulated in the burner compartment to escape.
2. Depress red button and light pilot (Fig. 1, A).
3. Hold red button approximately one-half minute then release. If pilot does not remain lit, repeat operation allowing longer period before releasing reset button. (Adjust pilot if necessary as noted under "Pilot Burner Adjustment.")

Pilot Burner Adjustment
(On models equipped with pilot adjustment key)
NOTE: If cap is sealed adjustment has been made at the factory.



1. Remove Pilot Adjustment Cap (Fig. 1, B).
2. Turn Pilot Key to provide properly sized flame (Fig. 3).
3. Replace Pilot Adjustment Cap.

Replacing Magnet Housing Assembly See Fig. 4.

1. Close gas supply at line valve or meter.
2. Disconnect thermocouple.
3. Disconnect pilot tubing.
4. Remove four Phillips screws.
5. Remove: A. Magnet Housing Assembly (note thermocouple position).
B. Gasket
C. Valve spring
D. Valve assembly

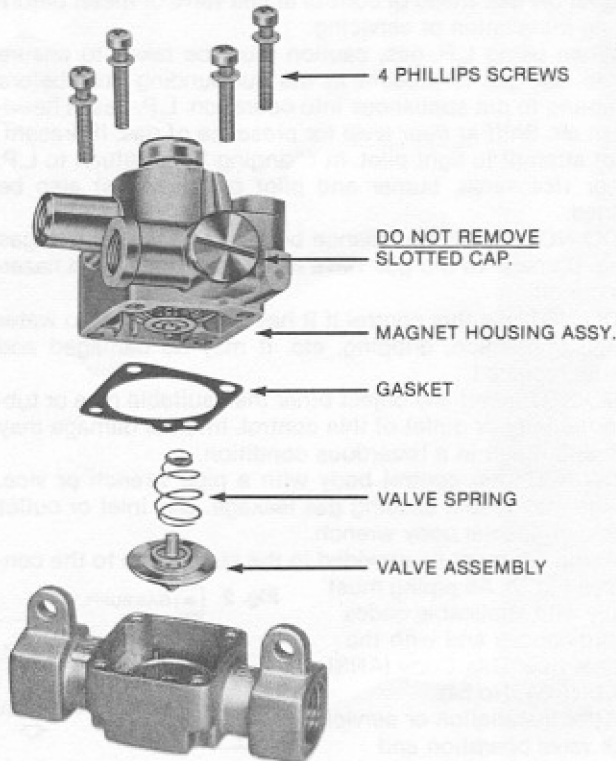
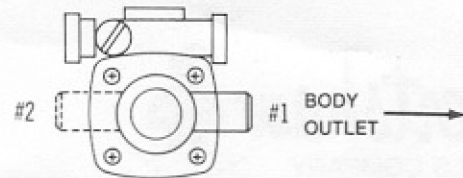


Fig. 4

6. Clean valve seat with soft, lint-free cloth.
7. Install new valve assembly, valve spring, gasket and magnet housing assembly. Make sure valve spring engages magnet stem.
8. Reconnect pilot tubing and thermocouple.
9. Follow Leak Test procedure on page 1, item 10.



Thermocouple connections available on TS-11J & K in positions shown above.

Body Sizes		Capacities (BTU/HR @ 1" W.C.P.D.)	
Inlet	Outlet	Natural Gas	L.P. Gas
1/4" P	1/4" P	102,000	165,000
7/16" C.C.	7/16" C.C.	106,000	171,000
3/8" P	7/16" C.C.	128,660	208,400
3/8" P	3/8" P	138,000	223,000
1/2" P	1/2" P	210,000	340,000

P = Pipe, C.C. = Compression Coupling

Pilot Connections		
Model	Inlet	Outlet
J	1/8" P	1/8" P
J	1/4" C.C.	1/4" C.C.
J	3/16" C.C.	3/16" C.C.
K		1/8" P
K		1/4" C.C.
K		3/16" C.C.

Above available with or without pilot adjustment.

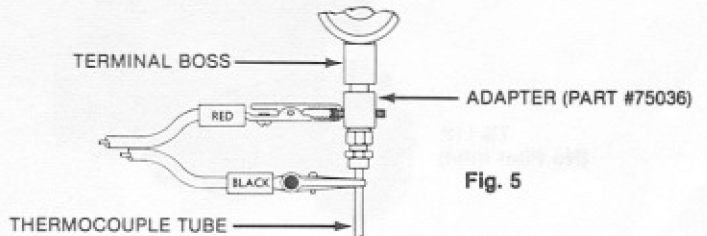


Fig. 5

Troubleshooting

Problem: Pilot will not stay lit.

1. Check for drafts.
2. Check if pilot has sharp blue flame. If not, clean pilot orifice.
3. Pilot flame should heat 3/8" of tip of thermocouple (See Fig. 3). If not, adjust pilot flame (See Pilot Burner Adjustment).
4. Make sure thermocouple is tightened snugly into safety valve. (Finger tight plus 1/4 turn with wrench).
5. Make sure main burner flame is not heating thermocouple.
6. (See Fig. 5). Test magnet and thermocouple as follows:
 - A. Unscrew thermocouple nut from safety valve. Screw adapter (Robertshaw part #75036) into thermocouple opening.
 - B. Screw thermocouple nut into adapter. Connect millivolt meter leads to adapter and thermocouple as shown. Light the pilot. Allow pilot flame to heat thermocouple three minutes. If meter then reads below five millivolts, replace thermocouple. If pilot will not stay lit, hold red button down during this test.
 - C. If pilot remains lit, blow it out and watch millivolt meter. The magnet should continue to hold for a drop of five millivolts or more. A "snap" can be heard when magnet releases. If magnet does not hold for a drop of at least five millivolts, replace entire valve, or magnet housing assembly (Fig. 4). Also, with main burner flame "ON", check to see if millivolt output is affected.