INSTRUCTIONS

Carrier
A United Technologies Company

XX99TA509539C

Instruction Sheet Number:
99TA509539C

XX99TA509539C (for RCD use only)

Description: 48H/L 3 - 8-1/2 R'FTOPS TO CONV. PRE-NOV.'86 UNIT TO FLAME RECTFICAT.

Author: T.J. Kelly Date: February 26, 1991

Part Number: 48CH660001, 48CH660002

Part Description

This kit is to convert pre-November 1986 gas units with the mercury flame sensor to flame rectification. This kit is for natural gas only.

For LP, apply kit with the appropriate LP kit used with flame rectification.

For 3,4,5, and 6 ton units, use LP kit 48HDT900121
For 7-1/2 ton low heat units, use LP kit 48LD900061
For 7-1/2 and 8 ton units, use LP kit 48HD900131

Kit 48CH660001 is for use on models:

48LDT004/005/006, 48HDT005/006, 48HD007, 48LH006/008, 48HH006/007, 48LD008, 48LH008, 48HV006, 48HZ006, 48LV008, 48LZ008

Kit 48CH660002 is for use on models:

48HD008/009, 48HH008/009, 48HDD008, 48HHD008, 48HV008, 48HZ008

Kit consist of (See Fig. 2):

		48CH660001 Qty	48CH660002 Qty
1.	3 Tube Burner Support Plate	(1)	NONE
2.	4 Tube Burner Support Plate	(1)	(1)
3.	Ignition Module Bracket	(1)	(1)
4.	Ignitor/Sensor Bracket	(2)	(2)
5.	Ignitor/Sensor with Clips	(2)	(2)
6.	Ignition Module	(1)	(1)
7.	Gas Valve	(1)	(1)
8.	Pilot Tube 006 size	(1)	NONE
	008 size	(1)	(1)
9.	Pop Rivets	(4)	(4)
10.	#10 Screws	(4)	(4)
11.	#6 Screws	(4)	(4)
12.	Terminal Adaptor	(1)	(1)

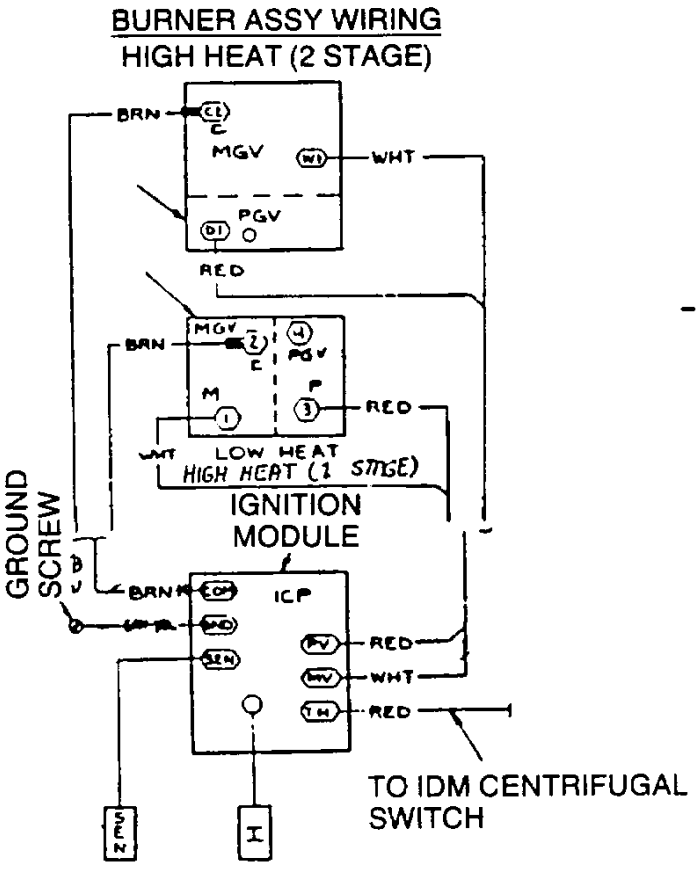
13.	WIRES	COMMON TO BOTH White,21” x 18 ga.(1) Red,21” x 18 ga.(1) Green or Yellow,12” x 16 ga.(1) Brown,21” x 18 ga.(1)

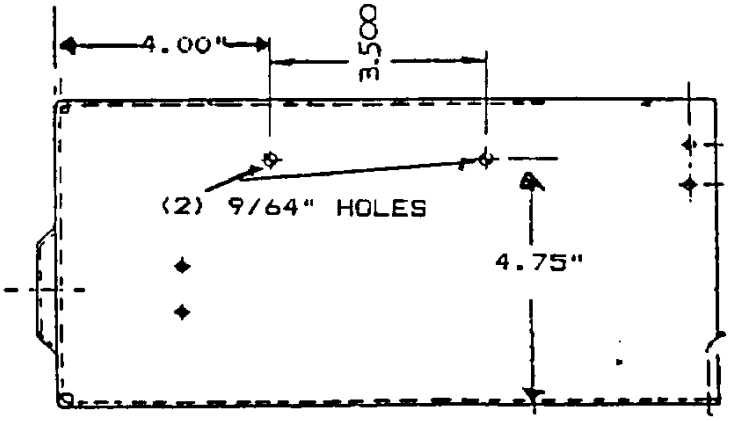
CAUTION: Only trained and qualified personnel should perform this installation.

1. Shut off gas to unit with the unit manual shut off valve located outside the unit.
2. Disconnect and tag the power supply to prevent electrical shock or component damage.
3. Disconnect the red wire from the inducer motor centrifugal switch to ignition pack terminal (T1), both black wires from the roll out switch, and the brown wire from the ignition pack terminal (T2) to the control box.
   A. On 008 and 009 Units: Remove the red wire from the ignitor pack terminal (T1) to gas valve terminal (3) single stage or terminal (D2) on 2 stage. Disconnect ignitor lead from ignition module and remove brown wire from ignition module terminal (T2) to gas valve terminal (2) single stage or terminal (C2) on 2 stage.
   B. On 2 Stage Units: Disconnect violet wire from gas valve terminal (W2) to control box.
4. Disconnect the piping to the gas valve. Remove the burner hold down screws from the burner base pan and remove the burner assembly.
5. Disassemble the burner assembly. Remove and discard the gas valve, ignitor pack, mercury bulb sensor, pilot tube from gas valve to crossover, burner support plate, and remove all burner assembly wires.
   A. On 008 and 009 Units: Remove the ignition module from the unite side panel. Replace the screws to prevent water leaks.
6. Attach the (2) ignitor and sensor mounting brackets to the burner support plate with the (4) pop rivets provided.
7. Install the old crossover on the new burner support plate using the nuts and lock washer from the old burner.
8. Install the (2) ignitor and sensor electrodes in the mounting brackets using the clips provided. Be sure that both have the 1/8” gap from the electrode to the crossover tube and that a greater gap exists to the lower flange of the burner support plate. Both ignitor and sensor use the same part. The ignitor must be on the closest to the point of gas entry. Cut the quick end off the ignitor lead.
9. Drill two 9/64” holes in the support bracket to old the ignitor mounting bracket. See Figure 1 for the location.
10. Reassemble the burner assembly. Install burners and manifold and attach the rollout switch.
11. Mount the new sparker module to the ignitor mounting bracket using (2) 3/4” #l screws. Then attach the bracket and module to the support plate in the new 9/64” holes using the (2) #10 screws provided.
12. Thread the new gas valve on the manifold using a gas approved pipe dope. Connect the pilot tube from the gas valve to the crossover tube using the appropriate size pilot tube provided.
13. Attach wires as follows:
   A. White wire from ignitor module terminal (MV) to gas valve terminal (1) single stage or W1) 2 stage units.
   B. Red wire from ignitor terminal (PV) to gas valve terminal (3) single stage or (D1) 2 stage units.
   C. Brown wire from ignitor terminal (COM) to gas valve terminal (2) single stage or (C2) 2 stage units. Use terminal adaptor provided.
   D. Sensor lead to the (SEN) terminal of the ignitor pack.
   E. Ignitor lead to the nail terminal of the ignitor pack. Cut off end of lead fit assembly.
   F. Connect green/yellow ground wire from the ignitor control pack terminal (GND) to mounting plate using (1) #10 screw provided.

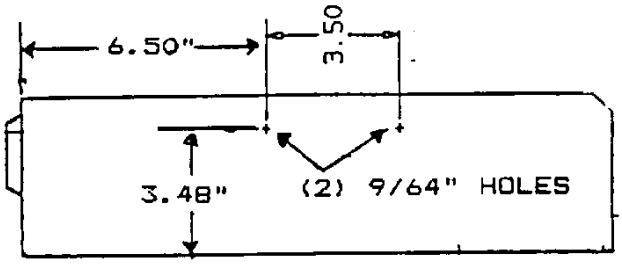
14. Put burner section back in unit making sure that support assembly nests into heat exchange tubes. Secure with hold down screws to the unit base pan.
15. Connect gas pipe to gas valve. Use a gas approved pipe dope. Check all joints for leaks using a rich water/soap solution. If bubbles are evident, tighten all joints.
16. Connect unit wires as follows:
    A. Red wire from centrifugal switch to ignitor pack terminal (TH).
    B. Black wires on rollout switch to red wire from centrifugal switch and white wire from limit switch.
    C. Brown wire from unit control box to (COM) terminal on the ignitor pack.
    D. On 2 stage unit connect the violet wire from control box to gas valve terminal (W2).
17. Turn power back on. Open manual gas valve. Follow normal light off procedure to start unit. Run unit through at least 3 ignition cycles to verify correct operation. Be sure to check gas valve and crossover tube for leaks. Remove tags from disconnect switch.

FIGURE 1





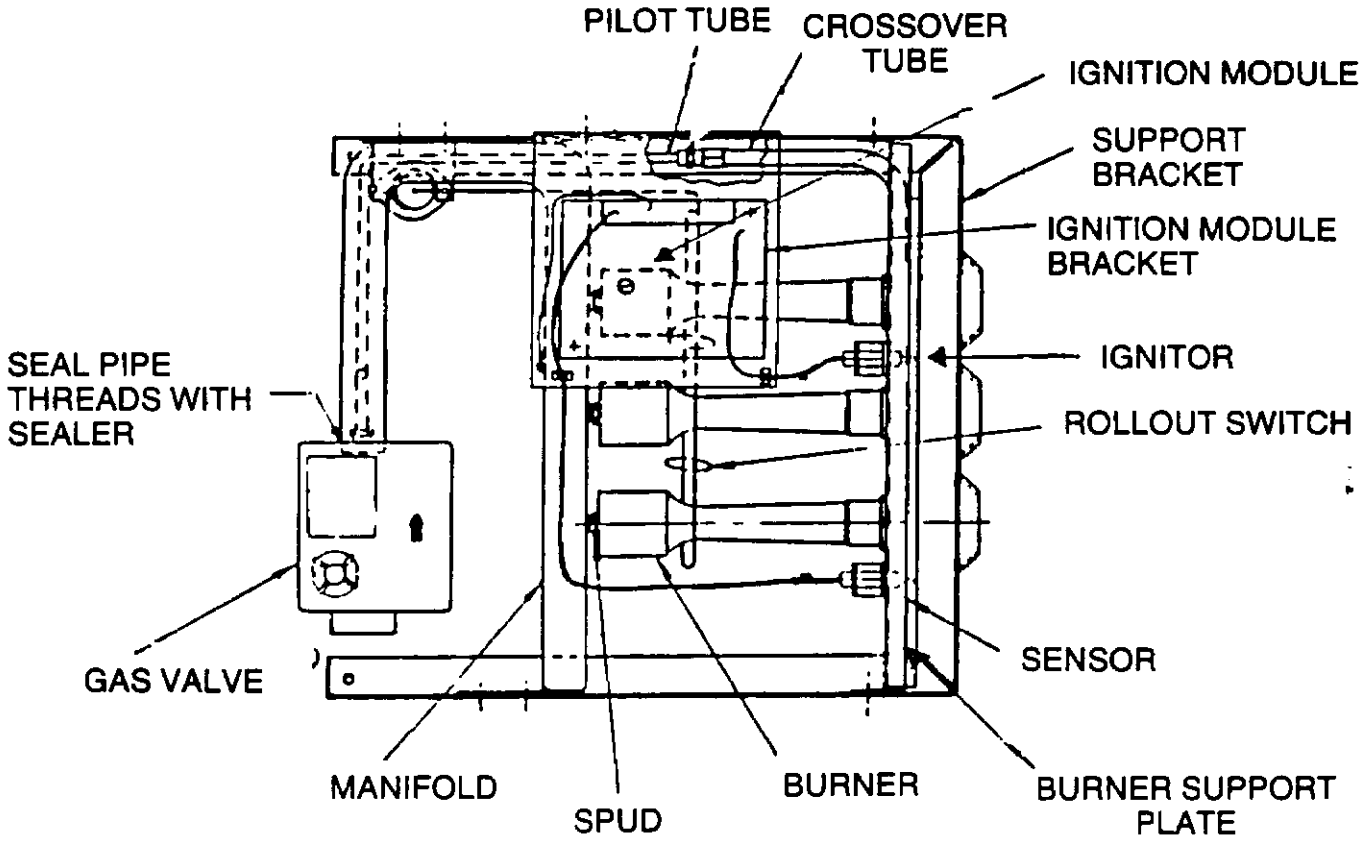
3 - 4 - 5 & 6 TON UNITS

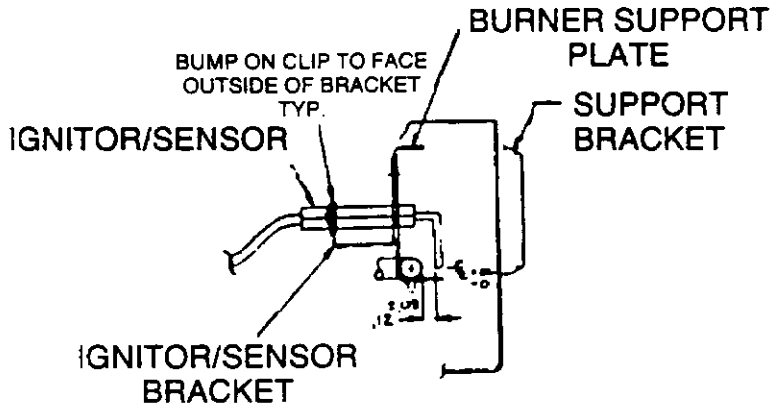


7½ & 8 TON UNITS

6 TON HIGH EFFICIENCY

FIGURE 2


PILOT TUBE
CROSSOVER TUBE
IGNITION MODULE
SUPPORT BRACKET
IGNITION MODULE BRACKET
IGNITOR
ROLLOUT SWITCH
SEAL PIPE THREADS WITH SEALER
GAS VALVE
SENSOR
MANIFOLD
SPUD
BURNER
BURNER SUPPORT PLATE


BURNER SUPPORT PLATE
BUMP ON CLIP TO FACE OUTSIDE OF BRACKET TYP.
SUPPORT BRACKET
IGNITOR/SENSOR
IGNITOR/SENSOR BRACKET