

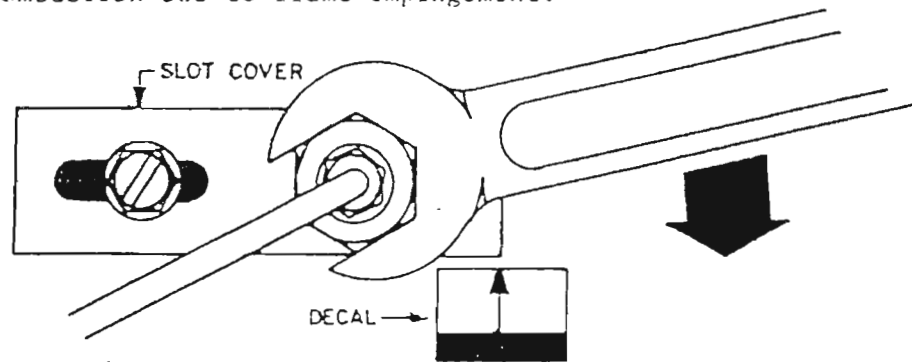
INSTALLATION MANUAL

**FOR MODEL
M
OIL
BURNER**

CAUTION

It is important, when servicing Wayne Oil Burners, that the gun (drawer) assembly locknut be securely wrench tightened. Wrench tightening will assure proper nozzle centering. The two upper Electrode Support legs must contact the inner surface of the Air Tube firmly. This can be confirmed visually, by viewing the Electrode Support through transformer opening while tightening locknut. The spring located on the lower Electrode Support leg is designed to force the upper locating legs against the Air Tube. Wrench tightening will insure proper positioning.

Improper nozzle centering in relation to Air Cone can result in poor combustion due to flame impingement.



CAUTION

When burner is equipped with a relight type control it shall not be used on appliances having brick, ceramic, or castable refractory liner for combustion chamber. Hazard may occur on flame failure because the flame detector may see the hot refractory liner, and not respond to flame outage. This will permit prolonged delivery of oil before ignition is returned for an attempt to relight the burner.

4/5/79

BURNER ADJUSTMENT

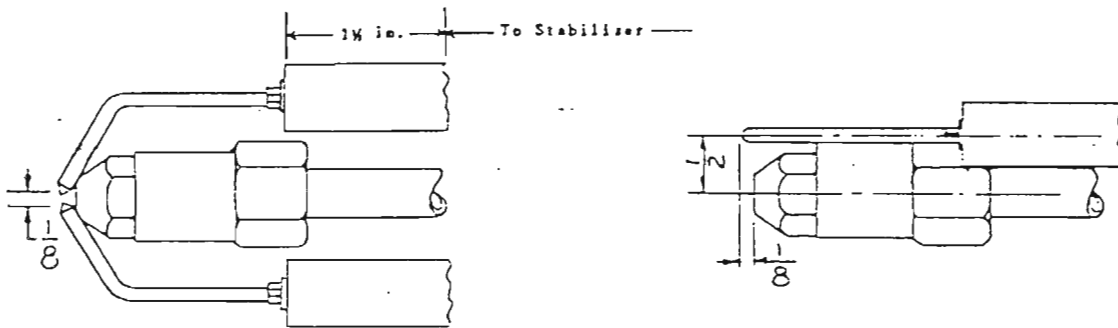
Removing Gun Assembly—Disconnect the oil line at the fan housing and remove lock nut on copper tube fitting. Remove transformer hold-down screw in upper corner and swing transformer on hinges. Gun assembly can now be removed through this opening.

BURNER NOZZLE

Nozzle Input Rating/Configuration should conform to installation requirements. Screw nozzle into brass adapter.

Nozzle Adapter: This burner is equipped with a dribble-proof nozzle adapter which will accomplish intended results only when installed with the stamped word "TOP" in the correct position. If dribble continues, check for air or excessive nozzle temperatures.

Spacing of Electrodes: The electrodes should be spaced $\frac{1}{8}$ inch apart. They should extend $\frac{1}{8}$ inch beyond the end and $\frac{1}{2}$ inch above the center of the nozzle tip as shown in the drawing below.



Gun Assembly Adjustment. The gun assembly can be adjusted in the slot in side of fan housing by loosening screw holding slot cover in position. Nozzle tip should ordinarily be located $\frac{5}{8}$ inch behind the front face of the cone.

Air Adjustment. The air intake is located on the left side of the blower housing and consists of two interlocking bands. To adjust, loosen screw in outer band and position band by rotating to the desired opening. Retighten screw after adjustment to assure permanent adjustment. Sufficient air should be introduced into the fire until a Number 1 or trace of smoke is obtained. (Check with smoke tester). The screws should then be locked in position.

FUEL UNIT: See separate instruction sheet packed with burner.

OIL BURNER CERTIFICATE

AS REQUIRED BY COMMERCIAL STANDARD CS75-56

The _____ Oil Burner Model No. _____ Serial No. _____ installed at _____
(Make) (Address of Installation)

bears a label evidencing compliance with commercial Standard CS75-56, and has been installed in accordance with the instructions in the manufacturer's installation manual and in conformity with local regulations, codes, and ordinances.

The boiler (), furnace (), is a _____ No. _____, and the heating load consists of:
(Make)

1. _____ Btu, or _____ square feet steam (), hot water () radiation; and
2. _____ Btu, or _____ square feet of equivalent steam (), hot water () radiation in domestic hot water load; or
3. _____ Btu, or _____ square inches of cross-sectional area of warm air supply pipes measured at the furnace take off; or
4. _____ Btu, or _____ square feet of equivalent steam (), hot water () radiation in the following special load:

All necessary permits have been secured, and the installation has been tested in accordance with the test procedure of Commercial Standard CS75-56 and the following readings taken:

CO	Over Fire _____	Stack Temperatures at breeching _____ °F	
	At Breeching _____		
Draft	Over Fire _____	Firing Rate _____ Gals/hr.	
	At Breeching _____		_____ inches H ₂ O.

All controls and limiting devices have been checked for proper operation _____

Fuels used, Grade No. _____ of Commercial Standard CS12-48. Field service equipment smoke scale reading _____

The above test results are certified to be true: _____
(Name of Company making installation)

For service call:

	Per _____
_____ (Name)	_____ (Signature)
_____ (Address)	_____ (Address)
_____ (Telephone)	_____ (Telephone)

Date _____

DIRECTIONS FOR THE OPERATION AND CARE OF OIL BURNER

Read Instructions Carefully and Hang This Card Near Burner for Future Reference

(A) TO START BURNER:

1. Check for oil in the storage tank.
2. Fuses in the main switch must be good.
3. Have oil burner switch open.
4. Set room thermostat about 10 degrees higher than room temperature to make sure the thermostat contacts are made. Limit control must be set high enough to make contact also.
5. Oil valve at the tank should be open and the check valve in return line properly installed so oil can return to tank.
6. Be sure nozzle of proper size for heater is in the adapter and tightly screwed down, and that the electrodes are properly spaced (See Manual). With heating plant door open, close the burner switch; and if wiring is properly done and all controls properly installed and adjusted, the burner should start. If not, check primary relay first to be sure it is properly set; and if burner does not start, recheck wiring and all controls thoroughly.
7. If burner is installed with a single oil line, the fuel unit will have to be purged of the entrapped air in the oil lines and fuel unit before the oil will flow to the nozzle (See fuel unit instruction sheet for this operation) If a return line is used, purging will not be necessary, although this will speed the starting of the burner if done. If this is done, the pump should pick up its oil in less than a minute (which is the setting for the lockout switch in the primary control) If ignition does not take place during this time, check the nozzle and electrodes.

STARTING BURNER AFTER IGNITION FAILURE:

1. Do not attempt to restart burner when excess oil has accumulated, when heating unit is full of vapors, or when the combustion chamber is very hot.
2. Press reset button on primary control and burner should start. Do not attempt this more than twice. If burner fails to operate call serviceman.

(B) FUEL OIL SPECIFICATIONS:

1. This burner is approved for oil not heavier than No. 2. The Commercial standards for this oil are: Flash 110° minimum or legal; Maximum 230° F. Pour point 20° F. Water and sediment not more than 0.1%; Distillation temperature 600° F minimum and 675° F maximum at 90% of recovery; Viscosity at 100° F Saybolt Universal of 40 seconds maximum.

CAUTION

1. Check the gauge in oil storage tank periodically. Keep tank filled.
2. Don't attempt to burn garbage or refuse in your heating unit.
3. Don't fill storage tank while burner is operating.
4. Don't start burner if there is oil or vapor in the heating unit.
5. Don't attempt to burn crankcase drainings or crude oil.
6. **DON'T TAMPER WITH BURNER OR CONTROLS — CALL YOUR SERVICEMAN.**

DO NOT USE GASOLINE, CRANKCASE OIL OR ANY OIL CONTAINING GASOLINE.

(C) LUBRICATION:

1. The two oil cups on the oil burner motor should be lubricated every three months with a few drops of good grade light motor oil, No. 10 or 20 S.A.E.

(D) AT THE END OF THE HEATING SEASON:

1. Shut off electric current to burner at oil burner switch.
2. If oil strainer has not been cleaned recently, it should be removed and cleaned (consult instructions card furnished with fuel unit).
3. Oil storage tank should be kept filled to prevent water vapor from collecting. It is suggested the valve in the suction line be closed and oil burner switch opened. Oil storage tank should be cleaned every 2 or 3 years to remove any sediment or water that has collected in the tank. Your Fuel Oil Dealer has the equipment to do this.

(E) AT THE START OF THE HEATING SEASON:

1. It is advisable to have the Dealer inspect and service your burner for the coming heating season.
2. Heating plant, smoke pipe and chimney should be cleaned and checked for repairs.
3. Lubricate burner as directed under "C" above.
4. It is advisable to have the entire electrical system inspected before putting the burner into operation after it has been standing idle for the summer months. This should include primary relay, limit control, thermostat (clean dust from contact points) and check the electrodes for carbon and cracks in insulators, and corrosion on all terminals of the electrodes and transformer.

(F) EMERGENCY STOPS:

1. **CUT OFF ALL CURRENT TO THE BURNER BY MOVING LEVER ON THE OIL BURNER ELECTRIC SWITCH TO THE "OFF" POSITION.**

DEALER

Burner Serial No. _____
 Day Phone _____
 Night Phone _____
 Date Installed _____

BE SURE TO GIVE US SERIAL NUMBER OF BURNER WHEN ORDERING REPAIR PARTS