



## DIRECT SPARK IGNITION ON HAUCK PROPORTIONING OIL BURNERS

(Drawing Y21)

### CAUTION

Hauck Manufacturing Company does not recommend the use of direct spark ignition systems. Whenever possible, manual or spark ignited gas pilots should be used.

A direct spark ignition system can be mounted on a Pyramid Type Burner Mounting Bracket for use with 780 Series Proportioning Oil Burners. A direct spark ignition system can be used only if ALL of the following conditions have been met:

- A. Light grades of oil (not requiring heating) are to be used.
- B. The atomizing air pressure does not exceed 16 psig.
- C. The combustion chamber temperature is less than 2000°F.
- D. There is a suction draft or a slight back pressure.

For applications where the use of a direct spark ignition system is not feasible, contact the factory or your local Hauck representative for recommendations on the selection of an appropriate gas or spark-gas type pilot.

### INSTALLATION

1. Use an electric eye flame failure device and an oil shutoff solenoid valve in conjunction with the direct spark ignition system. These units help protect against equipment damage which could be caused by an ignition failure.
2. Provide a micro switch on the burner so that the ignition system will only operate when the burner is at its low fire position (below position 2-1/2 to 3 on the burner oil valve). This micro switch should be connected in the circuit in series with the ignition transformer, pilot start pushbutton, oil shutoff solenoid valve, and electric flame failure device.
3. Bend the spark plug electrodes in accordance with the dimensions given in Figure 1. Ensure that dimension "C", the length before bending, is correct prior to any attempt to bend the electrode.

Burner No.	A	B	C
779	2-1/8"	7/8"	4"
780	2-1/4"	1"	4"
781	2"	1-1/2"	4-1/2"
782	1-5/16"	2-1/8"	5"
783	2-1/4"	2-1/2"	6"
784	1-5/8"	2-1/2"	6"
785	1-5/8"	2-1/2"	6"

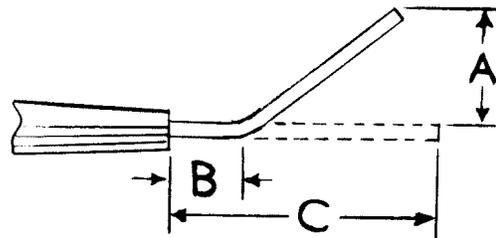


Figure 1.

These instructions are intended to serve as guidelines covering the installation, operation, and maintenance of Hauck equipment. While every attempt has been made to ensure completeness, unforeseen or unspecified applications, details, and variations may preclude covering every possible contingency. **WARNING: TO PREVENT THE POSSIBILITY OF SERIOUS BODILY INJURY, DO NOT USE OR OPERATE ANY EQUIPMENT OR COMPONENT WITH ANY PARTS REMOVED OR ANY PARTS NOT APPROVED BY THE MANUFACTURER.** Should further information be required or desired or should particular problems arise which are not covered sufficiently for the purchaser's purpose, contact Hauck Mfg. Co.

4. Install the spark plugs in the Pyramid Bracket cover, rotate the plugs until the tips of the electrodes are centered and  $7/16$ " apart (see Figure 2), and then tighten the holding nuts securely.

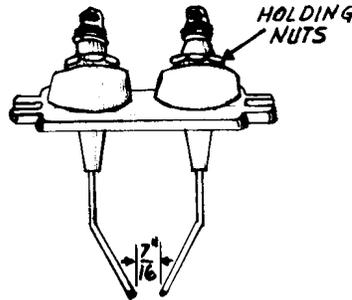


Figure 2.

5. Place the plug cover on the Pyramid Bracket. The ends of the electrodes should be approximately distance "D" above the center of the burner nozzle. If "D" is not correct, remove the spark plug cover and adjust the electrodes as required. When "D" is correct the electrode tips are just within the edge of the air and oil stream when the burner is in the low fire position.

Burner No.	D	E
779	5/16"	2-3/4"
780	1/2"	2-3/8"
781	11/16"	2-1/2"
782	7/8"	2-1/2"
783	1-1/16"	2-5/8"
784	1-1/2"	2-5/8"
785	1-1/2"	2-5/8"

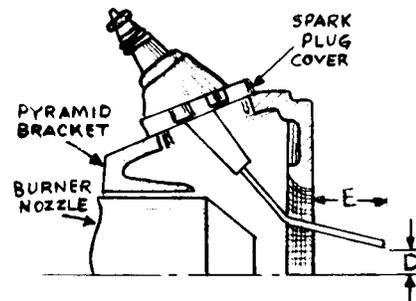


Figure 3.