

TABLE I
RECOMMENDED WIRE SIZES FOR 110-VOLT LIGHTING SYSTEM

Load in watts at end of circuit	Wire size versus circuit length in ft. *															
	100	200	300	400	500	600	700	800	900	1000	1200	1500	2000	2500	3000	4000
100	16	10	16	10	10	10	10	10	10	10	10	10	10	10	10	8
250	20	10	10	10	10	10	10	10	10	10	10	10	10	10	8	6
500	10	10	10	10	10	10	10	8	8	8	8	8	6	4	4	2
750	10	10	10	10	8	8	8	8	6	6	6	6	4	2	2	1
1000	10	10	10	8	8	6	6	6	6	4	4	4	2	2	1	1-0
1500	10	8	6	6	6	4	4	4	4	2	2	1	1-0	2-0	2-0	4-0
2000	10	8	8	4	4	2	2	2	2	1	1-0	2-0	2-0	3-0	4-0	4-0
3000	8	6	6	4	4	2	2	1	1-0	1-0	2-0	2-0	3-0	4-0	4-0	4-0
4000	8	4	2	2	1	1-0	2-0	2-0	3-0	3-0	4-0	4-0	4-0	4-0	4-0	4-0
5000	8	4	2	1	1-0	2-0	2-0	3-0	3-0	3-0	4-0	4-0	4-0	4-0	4-0	4-0
6000	6	4	2	1	1-0	2-0	2-0	3-0	3-0	3-0	4-0	4-0	4-0	4-0	4-0	4-0
8000	4	2	1	1-0	2-0	2-0	3-0	3-0	3-0	3-0	4-0	4-0	4-0	4-0	4-0	4-0
10000	4	2	1-0	2-0	2-0	3-0	3-0	3-0	3-0	3-0	4-0	4-0	4-0	4-0	4-0	4-0

* Distance between generator and lead is 1/2 of circuit length.

NOTE: No. 4-0 wire is the largest size commercially practicable. Above wire sizes are based on maximum voltage drop of 5 percent. Wire smaller than No. 10, supported every 75 feet, should not be used for outside leads, as it does not have sufficient strength to withstand bad weather conditions although it may be large enough to carry the electrical load. The table above is based on commercial copper wire commonly used for lighting circuits. If hard drawn wire is used, a larger voltage drop may be encountered. For best results use the next larger size of wire.

PART THREE OPERATION

8. PREPARATION FOR USE.

Do the following before attempting to put this unit into operation:

1. *Fill the Crankcase.* The crankcase holds seven quarts of oil, and is filled through an opening in the cylinder head cover, after removing the plug marked FILL OIL HERE. Use only the grade of oil shown in table below for temperature indicated. The oil level can be checked with the bayonet gauge (fig. 6). *Oil level should not be above the "H" mark on the gauge.*

TABLE II
PROPER OIL GRADES

Lowest expected temperature	Oil
+ 32° F.	SAE No. 30.
+ 10° F.	SAE No. 10.
- 10° F.	SAE No. 10, with 20 % gasoline.
- 30° F.	SAE No. 10, with 20 % gasoline.
Below - 30° F.	SAE No. 10, with 20 % gasoline.

b. Fill Air Cleaner. For temperatures above -10° F. fill air cleaner with oil of same SAE grade as that used in crankcase. For temperatures of -10° F. or below, do not use any oil in the air cleaner.

c. Fill Radiator. Use only pure soft water. If power unit is operated in cold climate, anti-freeze solution must be used. The solution recommended is compound, anti-freeze (ethylene glycol), Orthane Spec. AXS-864. The table below shows correct percentage of solution to add according to the temperature. The cooling system holds 8 1/4 quarts.

TABLE III
ANTI-FREEZE SOLUTIONS

Ethylene glycol	Type of anti freeze		Percent by volume to add, at temperatures shown
	Alcohol	Glycerine	
16° F.	27° F.	29° F.	10%
3° F.	19° F.	21° F.	20%
- 11° F.	10° F.	12° F.	30%
- 31° F.	- 2° F.	0° F.	40%
	- 18° F.	- 1° F.	50%

NOTE: Check anti-freeze with a hydrometer daily. Add anti-freeze as needed.