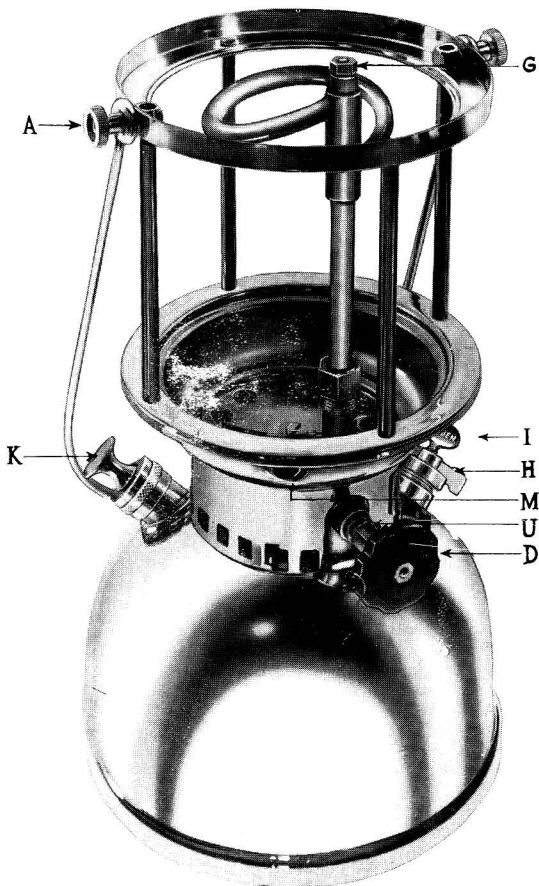
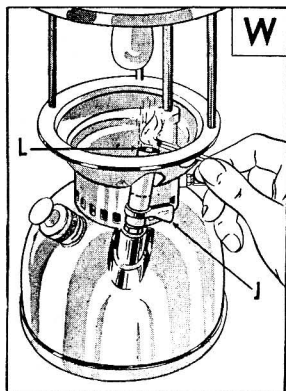
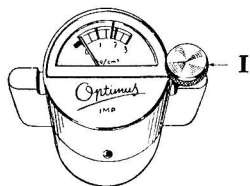
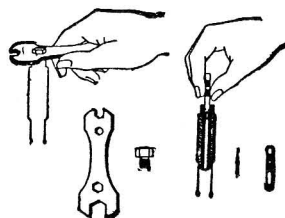
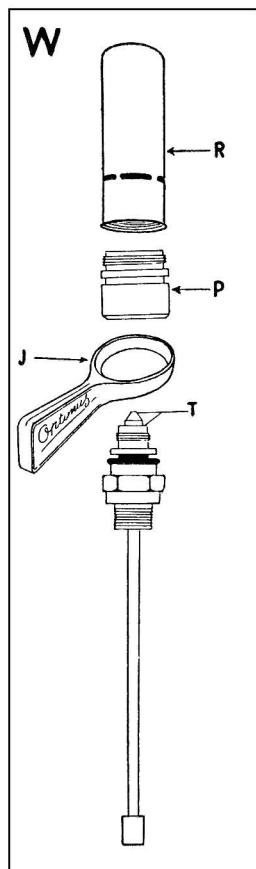
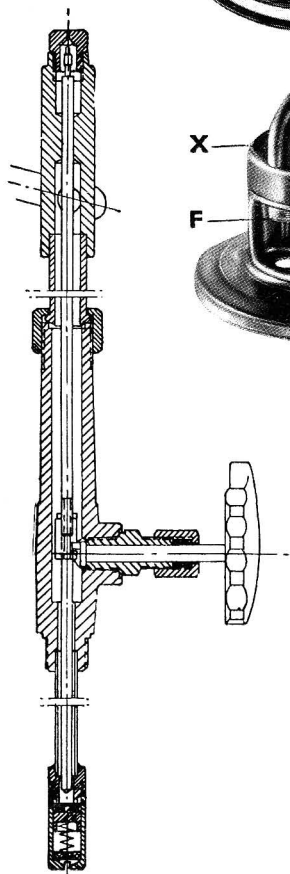
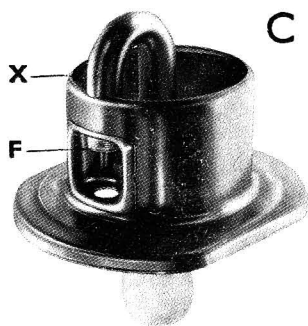
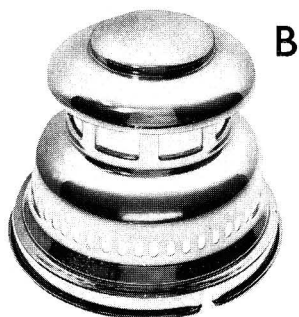


# Optimus

MADE IN  
SWEDEN



UPPLANDS VÄSBY • SWEDEN



## I. How to put on the mantle.

Loosen the two screws A, remove the top part B and the inner chimney C. Tie the silk mantle right over the lower end of the nozzle (flame spreader E). Spread the folds of the silk mantle evenly round the nozzle and cut off the ends of the string. Replace the inner

chimney C again, ensuring that the opening of the mixing tube F comes exactly above the nipple G. Replace the top part B and fix the two screws A.

## II. Filling.

Unscrew filling lid H. Do not fill the tank more than  $\frac{3}{4}$  with pure kerosene, preferably filtered. Screw lid on airtight.

## III. Heating and lighting.

### A) with methylated spirit for lanterns without quicklighter.

See that the arrow of the wheel D points upwards and that the air screw I is screwed tight. Fill the spirit cup with methylated spirit through the hole M in the glass stand, using the automatic can, and light the spirit. Make 30 to 40 full strokes with the pump K. As soon as the spirit is almost burnt out — but not before — turn the wheel D so that the arrow points downwards, when the vapourized kerosene in the silk mantle will light. Should the lantern blaze up and burn with a yellow, smoking flame, the vapourizer is not sufficiently preheated. Extinguish the lantern by turning the wheel so that the arrow points upwards, and repeat the preheating in order to make the vapourizer hot enough. When the lantern has lit, pump in more air until a sufficiently bright light is obtained and pump from time to time in order to maintain the desired light.

### B) with quicklighter W.

See that the arrow of the wheel D points upwards and that the air screw I is screwed tight. See also that the quicklighter is closed, i. e. the handle J fully turned to the left. Make 70 to 80 full strokes with the pump K (or more if there is a small quantity of kerosene in the tank). If the lantern is fitted with a pressure gauge, it should indicate a pressure of 2,5 kg/cm<sup>2</sup>. Ignite the quicklighter by inserting a burning match into the glass stand through the hole M and by holding the burning match to the hole of the flame tube L for a few seconds, and simultaneously turning the handle J to the right. (Do not hold the burning match above the opening of the flame tube.) The preheating should be allowed to go on for 40 to 50 seconds. At the first lighting the silk mantle will be burned through automatically.

Then turn the wheel D so that the arrow points downwards. If the lantern is burning with a steady light, extinguish the quicklighter by turning the handle J fully to the left. Should the lantern by chance blaze up and burn with a yellow, smoking flame, the vapourizer is not sufficiently preheated. Extinguish the lantern by turning the wheel so that the arrow points upwards and continue preheating for a while in order to heat the vapourizer enough. When the lantern has lit, pump in more air till sufficient bright light is obtained and pump from time to time in order to maintain the desired light power.



#### IV. Extinguishing.

This can be done either by opening the air screw I or by turning the wheel D to the right so that the arrow points upwards.

#### V. To clean nipple.

Turn the wheel D quickly to the left and right while the lantern is burning. After cleaning see that the arrow of the wheel D points downwards.

### Hints and Suggestions.

#### To change nipple.

Loosen the two screws A and remove the top part B and the inner chimney C and change the old nipple for a new one using the key provided.

#### To change cleaning needle.

After taking off the nipple G as described above, screw out the cleaning needle and replace it with a new one using the special key for the cleaning needle.

#### To replace mixing tube.

Loosen the set screw, holding the mixing tube, so that it can be pulled out. Insert the new tube and check the distance between nipple and mixing tube by means of the small end of the spanner, which shows the right distance between nipple and mixing tube. Fasten set screw so that mixing tube is held tightly in position.

#### Causes of insufficient light:

- a) nipple is clogged—clean as described under point V.
- b) broken cleaning needle — exchange cleaning needle as described above and, if necessary, nipple, too.
- c) too little pressure in container—pump in more air.
- d) lid packing is defective—change the packing.

#### VI. Cleaning of quicklighter.

Should fuel not issue in spite of pumping, unscrew the burner tube R from the quicklighter and clean the nipple P with the cleaning needle provided. Should this operation not help, unscrew nipple P by means of the handle J and then clean the two channels T of the burner head.

- e) vapour leaking from the spindle U—screw the nut a little tighter—or if this operation is to no help—change the packing.
- f) loss of pressure caused by leak in pump valve (at bottom of pump tube). To change pump valve withdraw pump piston from tube and with special Key No. 364 unscrew and remove pump valve. When inserting pump piston take care that cup of leather washer faces downwards into pump tube.
- g) nipple G, nozzle E or gas chamber S have become loose—tighten the respective part.

With different fuels, light output may be different. The intensity of light can be regulated by the screw X bedded in the mixing tube. If the light output is deficient, turn that screw either to the right or the left (no more than half a revolution) till maximum brightness has been obtained. This operation should be effected with the top part in position.

If the pump does not work satisfactorily, the leather packing has probably become dry. Unscrew the pump lid and take out the pump rod, oil or soak with paraffin the leather cup and replace the pump rod.

The lantern can, with filled tank and under pressure, be carried or handled in any position without any leaking of oil on the assumption that the air screw I and the handle J are closed and that the arrow of the wheel D points upwards.