



ORIGINAL

Petromax
GERMANY

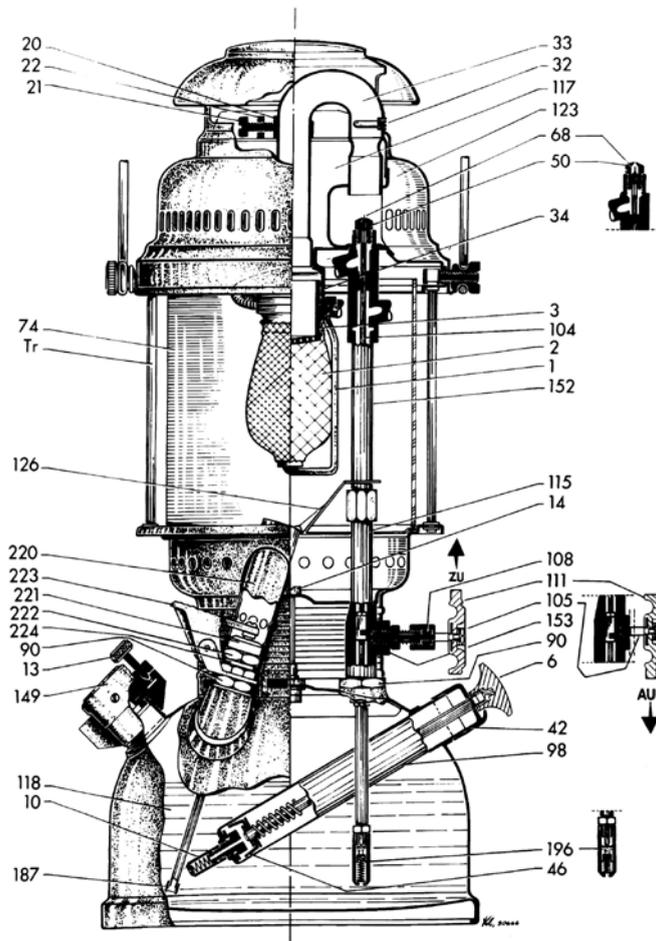
Petromax HK 150 - HK 250 - HK 350 - HK 500

GB Instructions

Please read these instructions carefully in order to ensure the correct set up of your Petromax High-Pressure Kerosene-Light. Please keep these instructions as you may want to refer to them for further assistance.

GB Congratulations

for purchasing your Petromax High-Pressure Kerosene-Light which is a product with a long tradition and of the highest quality. Please read these instructions and especially the safety advice thoroughly so that you can enjoy your light for a long time.



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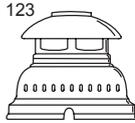
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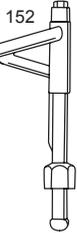
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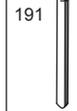
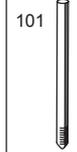
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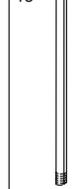


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1 Safety and Precautions



Before using a new light for the first time, please make sure that you remove the plastic packaging rings around the glass!

1. Petromax is designed for being used outdoors. Therefore, please do not use the light indoors.
2. Please bear in mind that for safety reasons, the light should not be used close to objects that are flammable or sensitive to heat.
3. Please do not place the light on delicate surfaces.
4. Never leave the light unattended while in use.
5. Please do only use pure paraffin oil or kerosene. Do not use scented or coloured oils. (We recommend Petromax kerosene or paraffin oil.)
6. This light is not a toy and it should not be used by children.
7. Please release pressure after each use.
8. Please do not refill kerosene while the light is in use.
9. Please do only use original Petromax replacement parts. The warranty expires should other replacement parts be used.
10. In case of improper use or misappropriation, we assume no liability.

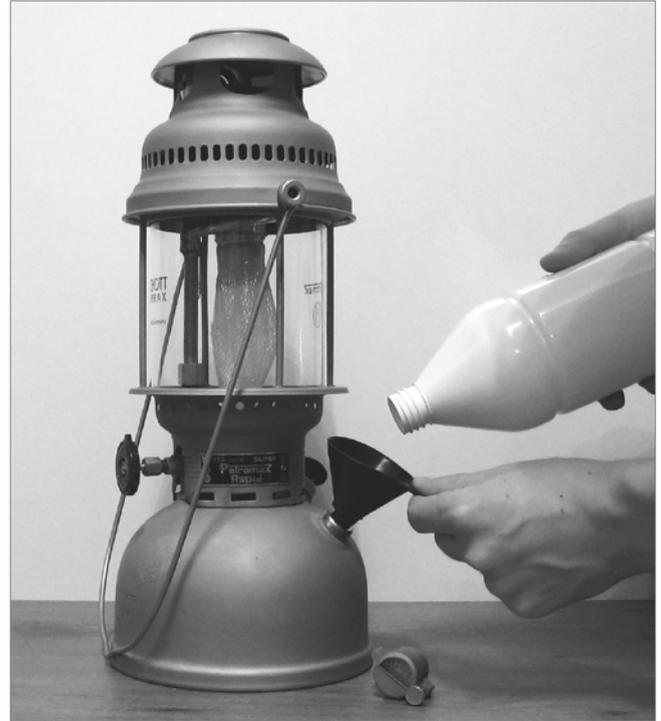
Before initial operation

1. Please ensure that the spray nozzle (#50*), the emulsion compartment (#34*) and the burner (#3*) are securely adjusted.
2. Faulty gas hoods have to be replaced before using the light.

* Please refer to construction plan.

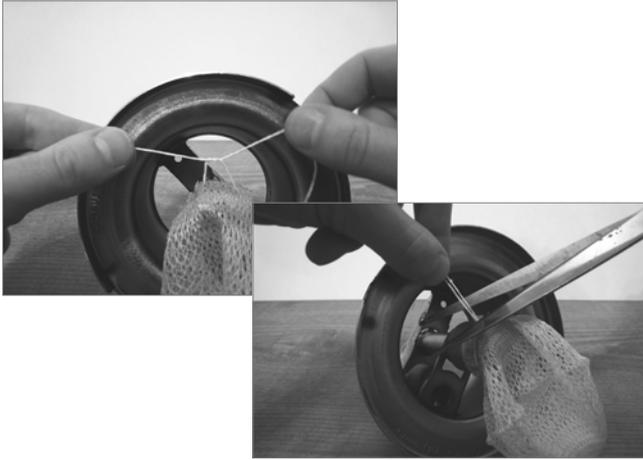
2 Instructions for use

2.1 Filling of the tank



Unscrew manometer (#149). Insert funnel (#65) into the nozzle and pour in pure kerosene (up to 15 mm underneath the nozzle). Readjust manometer tightly. Turn the nose of the grip wheel (#111) upwards.

2.2 Adjusting of the incandescent mantle



Loosen the screw joints on the cap. Remove the cap (#123) and inner cover (#117). Tie the incandescent mantle (#4) over the small bulge on the clay burner (#3), distributing the creases evenly as you do so, and fasten with a double knot. Trim overhanging threads closely! Check to make certain the mixing chamber (#34) and clay burner are tightly seated. Reinsert the cap with inner cover and screw in place.

Important advice!

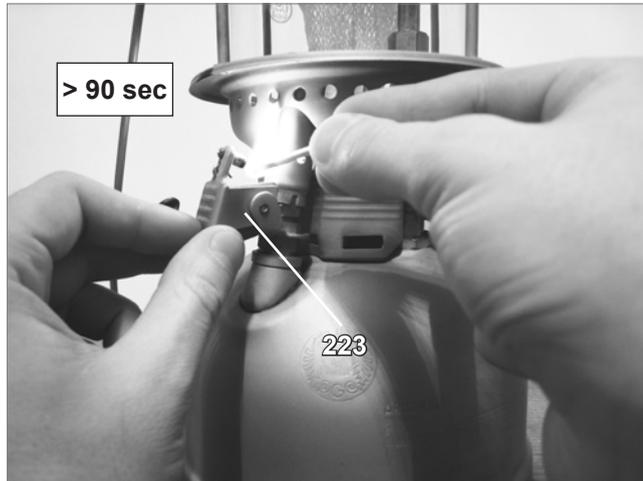
Due to the kerosene consumption, pressure and light intensity may be reduced. Reinflate after 1.5 hours of use at the latest (20-30 strokes). For cleaning of the spray nozzle (#50), quickly turn the nose of the grip wheel (#111) up and down by means of the needle (#68).

2.3 Inflating



Nose of the grip wheel (#111) has to face upwards. Rocker arm (#223) of the pre heater and ventilating screw (#13) at the manometer have to be closed. Inflate until manometer needle exceeds the red mark.

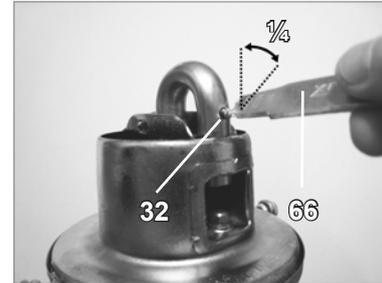
2.4 Lighting



Strike a match. Push rocker arm (#223) down and hold the flame horizontally towards the mouth of the pipe until the pre heater is burning. Should match or heat-up flame extinguish, close rocker arm immediately and repeat pre-heating. (Should pre-heater not spark, Pre-heater nozzle (#221) with needle for manual cleaning (#180). Pre-heating flame should be burning at least 90 seconds while air is being pumped up to the red mark. Afterwards, turn nose of the grip wheel (#111) down slowly.

When using a incandescent mantle for the first time, close rocker arm immediately as soon as the fabric glows. Do not start pre-heating until it is completely extinguished at the connection. After pre-heating and opening of the valve (#111), the gas hood will light up.

2.5 Adjusting screw for emulsion tube



Should you wish to increase brightness when first using the light, the screwdriver at the end of the universal key (#66) can be used to adjust the Regulating screw (#32). When turning one quarter at the most, the highest level of brightness can be achieved. The universal key can also be used for the nut

(#112) at the grip wheel (#111). The regulating screw can be found on all versions (HK250, HK 350 and HK 500) apart from Petromax HK150.

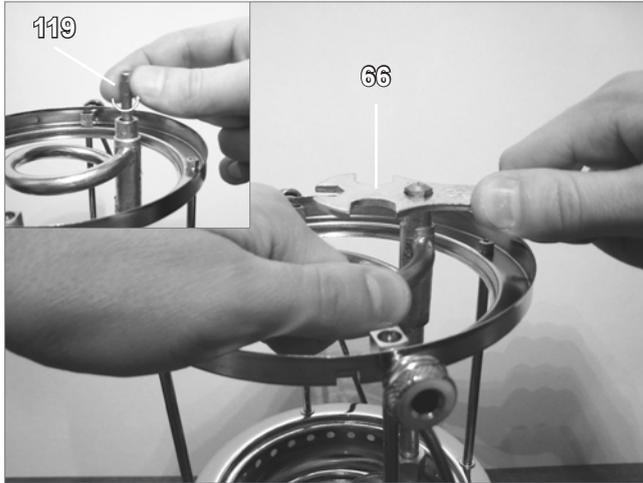
Performance of the light when under low pressure

When under low pressure or when the grip wheel is being opened too slowly, the flame may flash back into the emulsion tube (#33) which will cause a loud, gargling noise and a faint shine. Turn the grip wheel quickly into both directions until the light performs normally. Otherwise, extinguish the light altogether and light it from start immediately. Air needs to be filled up.

Extinguishment

Open the ventilation screw (#13) at the manometer (#149). After escaping of the air, turn the nose on the grip wheel (#111) upwards so that no kerosene can flow out. Should the light stay ready to use and under pressure, do not open ventilation screw and only turn the nose of the grip wheel upwards. Should grip wheel (#111) and ventilation screw (#13) be closed, the light can be transported in any position while not in use.

2.6 Exchanging of the nozzle / cleaning needle



Take off parts as in chapter 2.2 and unscrew spray nozzle with universal key (#66). Hold down the exuberator ring at the same time. Use the needle key (#119) for exchanging the cleansing needle. Readjust nozzle tightly when assembling.

2.7 Regulating distance of the emulsion tube



Open ventilation screw (#13). Turn nose of the grip wheel (#111) downwards. Readjust screw (#21) of the inner cover (#117) until you can pull out the emulsion tube (#33). The distance gage which is located at the bottom of the universal key (#66) should be held upright between exuberator nozzle and emulsion tube. Adjust screw (#21) until the emulsion tube (#33) is held by the pressure piece (#20). You can find distances of the Petromax versions HK 250, HK350 and HK 500 on the distance gage. The emulsion tube of the Petromax HK150 ist adjusted with two nuts and the ideal distance between emulsion tube and nozzle is 7 millimeters.

3 Lighting with spiritus

All recent Petromax versions do not only have a quick start appliance but also a pre-heating basin. The pre-heating basin is adjusted to the tank with the centering base. The basin is kidney-shaped and is located at the lower part of the exuberator. In order to pre-heat the coil of the exuberator more effectively, the basin is equipped with a small tube which faces upwards. Petromax HK 150's pre-heating basin is stamped into the center base. Pour methylated spirit into the basin by means of the spiritus jug which is delivered with the light. Lighten the spiritus in the basin. Wait until the basin is almost empty. Now turn up the grip wheel (nose facing downwards but watch out when using Petromax 523/821/250 HK of the Swiss army as the grip wheel is adjusted the other way round). The lamp should now be shining. If the lamp does not light, close the grip wheel and refill the basin. One of the most common mistakes when lighting the Petromax lamp is a pre-heating time, which is too short.

4 Maintenance advice

- a) Faulty incandescent mantles have to be replaced immediately. Even small breakages of the fabric can lead to darting flames which cause damage to the lamp. Do only use original Petromax gas hoods.
- b) Should the pump not be working properly, pull out pump piston. Oil the leather sleeve (#46) or the O-Ring attachment (according to version) and gently move (renew if necessary). Then reinsert into the piston cylinder while turning the piston bar.
- c) Should the piston bar be pressed out, the pump valve (#10) in the pump tube leaks. Unscrew with a long screwdriver and either clean the inserted part in the valve with rubber (#17) or renew it. Before this, open ventilation screw (#13).
- d) Gasket (#11) of the manometer (#149) needs to be in good condition as otherwise pressurized air might escape the container.
- e) When exchanging the lower part of the exuberator (#153), always use a new lead gasket (#90).

Please note:

In order to find leaks, put the container of the inflated lamp into a container filled with water. Small bubbles that rise to the surface will indicate a leak. Please do only use original Petromax replacement parts. Should replacement parts of other companies be used, it can not be guaranteed that your lamp will work properly.

5 Frequently Asked Questions

1. Is it possible to regulate brightness of the light?

In general, you can not regulate the brightness of the light by turning the grip wheel. You can regulate brightness of the light by using matt glass or by applying less pressure.

2. How long can I use a gas hood?

This can not be answered universally. There are different points that have to be taken into consideration: particles in the air, storage (as dry as possible and protected from light), transportation of the lamp. A damaged gas hood needs to be replaced immediately.

3. Only the upper part of my lamp shines?

Before every use, check if spray nozzle (#50), clay burner (#3) and emulsion compartment (#34) are adjusted securely. Please also make sure to preheat the lamp for at least 90 seconds.

4. What do the names "HK" and "CP" mean?

"HK" means "Hefner Kerzen" (Hefner candles) and CP means "Candle Power" (1 Watt = 1.25 CP/HK approx.)

5. Why did my glass break?

Petromax glass is made of heat-resistant borosilicate glass made by the Duran Group (formerly Schott). As it is similar to the glass used for halogen lamps, it should not get in contact with grease or water while the lamp is in use. Moisture and impureness on the glass can lead to breakage.

6. Why can I not light the rapid?

The most common cause is too much or not enough pressure in the tank. The pressure gauge should be just behind the red line! Another reason may be the pre-heater nozzle (#221). If this is blocked, the rapid can not function. Therefore, clean the nozzle with the needle for manual cleaning (#180).

Forum

Should you require further assistance, please refer to the Petromax forum. The forum is free of charged and can be accessed by anybody. Please log on to our website (www.petromax.de) or go directly to www.petromax.de/petromaxforum.

6 Construction Plan

- | | | |
|---------------------------------|--|-------------------------------------|
| 1. Support bracket | 66. Universal key | 152. Upper part of carburettor |
| 2. Two hole incandescent mantle | 67. Filling can | 153. Lower part of carburettor |
| 3. Clay burner | 68. Needle | 180. Needle for manual cleaning |
| 4. Incandescent mantle | 74. Glass cylinder | 187. Screen for rapid pre-heater |
| 6. Whole Pump plunger | 83. Valve gasket | 191. Valve rod |
| 10. Whole Pump valve | 90. Gasket, carburettor and pre-heater | 193. Carburettor valve gasket |
| 11. Manometer gasket | 98. Pump cylinder | 194. Carburettor valve spring |
| 13. Vent screw | 100. Whole pump | 195. Carburettor valve jacket |
| 14. Centring screw | 101. Guide rod | 196. Whole carburettor valve |
| 17. Valve insert | 102. Counternut | 220. Flame protection tube |
| 18. Valve spring | 103. Guide piece | 221. Pre-heater nozzle |
| 19. Valve jacket | 104. Whole guide rod | 222. Nozzle nut |
| 20. Pressure piece | 105. Eccentric shaft | 223. Whole tilt lever |
| 21. Screw | 107. Eccentric fitting | 224. Connector for rapid pre-heater |
| 22. Piling | 108. Graphite pack | 225. Whole connector |
| 32. Regulating screw | 111. Grip wheel | 226. Whole pre-heater |
| 33. Mixing shaft | 112. Nut for grip wheel | 227. Grommet for grip wheel |
| 34. Mixing chamber | 113. Cap nut | 229. Socket with gasket and screw |
| 35. Pre heating basin | 114. Whole eccentric | |
| 40. Nub of pump plunger | 115. Whole carburettor | |
| 41. Locking screw | 117. Inner cleading | |
| 42. Pump cap | 118. Tank | |
| 43. Pump plunger rod | 119. Needle key | |
| 44. Spring for pump | 121. Supporting frame | |
| 45. Pump plunger plate | 122. Centring bottom | |
| 46. Leather collar | 123. Hood with cap | |
| 47. Pump plunger nut | 125. Whole inner cleading | |
| 48. Valve screwing | 126. Protection plate | |
| 50. Spray nozzle | 148. Whole upper part | |
| 65. Filling hopper | 149. Manometer | |



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