

Aladdin

TROPIC MODEL S181 PORTABLE KEROSENE HEATER

INSTRUCTION MANUAL



from
Aladdin

ALH, Inc.

A subsidiary of Aladdin Industries, Inc.

P.O. Box 100255

Nashville, Tenn. 37210

WARNING:

Use only in a well-ventilated area. Use pure kerosene only. Other fuels might cause severe damage.

Due to high surface temperatures, keep children, clothing, and furniture away from heater.

TROPIC MODEL 5181 HEATER SPECIFICATIONS

SPACE HEATED	: Approx. 14' x 20' area
HEAT OUTPUT	: 7,800 B.T.U. per hour
SYSTEM	: Kerosene wick system
TYPE	: Reflection/radiant
TANK CAPACITY	: Approx. 0.85 gallons
WICK	: Glass fibre (Pat. No. SW1120)
FUEL	: Best quality kerosene
FUEL CONSUMPTION	: 0.5 pint per hour
DURATION	: Over 17-22 hours per gallon of kerosene
IGNITION SOURCE	: Dry batteries (1.5V x 2)
TANK	: Leak-free dual tank for extra safety
EMERGENCY SHUT-OFF DEVICE	: Wick-drop system
DIMENSIONS	: 15 1/2" x 18 1/2"
WEIGHT	: 15 lbs

WARNING: PREVENT ACCIDENTS. OBSERVE THE FOLLOWING, IMPORTANT AN POINTS TO REMEMBER.

1. Heater is hot while in operation. Due to high surface temperatures, keep children, pets, clothing and furniture away.
2. **WARNING**
Hazard of asphyxiation. Use this heater only in a well-ventilated area. A door or window open to an adjacent room should provide adequate ventilation. Periodically (1 ~ 2 every an hour) open an outside window or door briefly to "air" the room.
3. Be sure to place this heater at least 3 feet away from the wall.
4. **USE ONLY KEROSENE IN THE HEATER.**
Do not attempt to use gasoline, white gas, paint thinner, or any other highly volatile liquid. To prevent improper fuels from being used by mistake, always confirm that what is about to be used is kerosene by smell.
5. Be sure to take all necessary precautions when handling kerosene. Do not smoke when filling the heater or expose fuel to open flame/high temperature. If any kerosene is spilled, be sure to wipe it up immediately. Store kerosene in a cool, well ventilated location, and only in a labelled, tightly-sealed container.
6. Unsupervised operation of heater is not recommended. Always extinguish heater before sleeping or leaving unattended for an extended period of time.
7. Use heater on in upright position on level surface only.

8. Never use heater near other flammable liquids or near readily combustible materials such as curtains, newspapers, etc. Do not use heater in a windy location such as a major entrance or hallway. Do not use heater in narrow or tightly closed rooms or areas.
9. Never place a pan or cooking utensil which is likely to tip or boil over on top of the heater.
10. Exercise care not to bump or upset the heater unnecessarily. If it is accidentally overturned, simply set it upright again.
11. Do not move or carry the heater while it is operating.
12. Do not use unit for drying clothes by hanging clothes near or directly over the unit.
13. If you suspect that the heater is not working properly, extinguish it immediately.
14. A disassembled and reassembled heater should be restarted only after it is tested in a safe place.
15. **WARNING**
Risk of Explosion:
Never use any fuel other than pure kerosene. Never fill oil reservoir when heater is operating or still hot. Never use heater in area where flammable vapors or gases may be present. Never fill oil reservoir in living space. Fill oil reservoir outdoors. Never store kerosene in any container other than an approved safety can or store kerosene in the living space.

GENERAL INFORMATION

1. If bad kerosene is used, carbon will accumulate on the upper part of the wick to the extent that the wick does not move up and down easily. Therefore, care should be taken to use good, clean kerosene only.
2. Adjustment of room temperature when the room becomes too hot should be done by ventilation such as opening a window rather than by turning the heater back. Operating the heater at too low setting will cause imperfect combustion resulting in the accumulation of carbon on the wick. Always make sure that the wire coil on top of the burner glows red.
3. Be sure to clean the heater and wick after extended use. At least once every 120 operating hours is recommended. A heater that is not regularly cleaned to remove kerosene spillage, carbon specks, and dust will give off undesirable odors.
4. The tail of the wick should always be completely immersed in the tank at all points. If it is not, irregular burning and shorter wick life will result.
5. Use only genuine ALADDIN wicks and parts.

PREPARATION FOR USE:

READ INSTRUCTION MANUAL THOROUGHLY BEFORE USING HEATER

UNPACKING

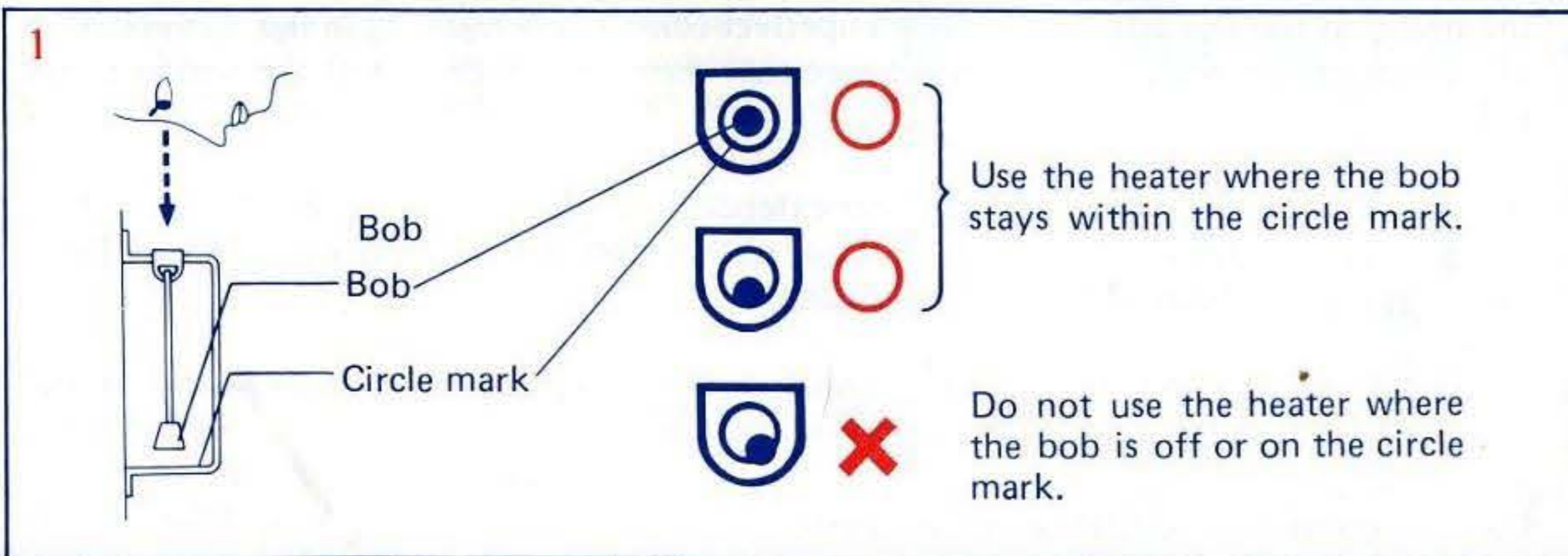
- Take up two (2) batteries from box after unpacking.
- Carefully remove heater from carton and packing materials.
- Open grill after removing adhesive tape seal.
- Remove protective padding from burner assembly.
- Keep carton for storing your heater. Also save instruction manual.

FUELING/REFUELING

1. Remove the tank cap and fill fuel until the fuel gauge points to "F".
2. After filling kerosene, replace and tighten the tank cap.
3. Before you fill oil reservoir of the heater, extinguish the heater.

CHECKING HORIZONTAL LEVEL

Check the horizontal level by the level indicator located on the left side of the unit (picture 1). The emergency shut-off device will not work properly and you will cannot turn wick control knob unless heater is on a level surface.



INSTALLING BATTERIES

Install batteries in the battery case on the right side of the heater. Be sure to observe correct positioning of batteries as marked in battery case.

WARNING FOR DRY BATTERY USAGE

- (1) Do not use a new dry battery with a used one.
- (2) Do not charge a dry battery.
- (3) Do not break open or incinerate dry batteries.
- (4) Do not expose dry batteries to extreme temperatures.
- (5) Dispose of dry batteries when they are exhausted.

EMERGENCY SHUT-OFF DEVICE

This heater has a emergency shut-off device in the event of heater tip over or violent shock. To make this system workable, raise the emergency shut-off lever gently.

LIGHTING

1. When you use this heater for the first time, fill with kerosene and wait about 30 minutes until the wick is soaked with kerosene.
2. This heater is equipped for emergency shut-off in the event of tip over on violent shock. You must set this system before lighting. See previous section for instruction.
3. Screw up the wick by turning the wick control knob clockwise.
4. After igniting the wick, slide the burner grip the right and left a few times to ensure burner is resting properly on outer wick guide.

LIGHTING WITH AUTO IGNITER

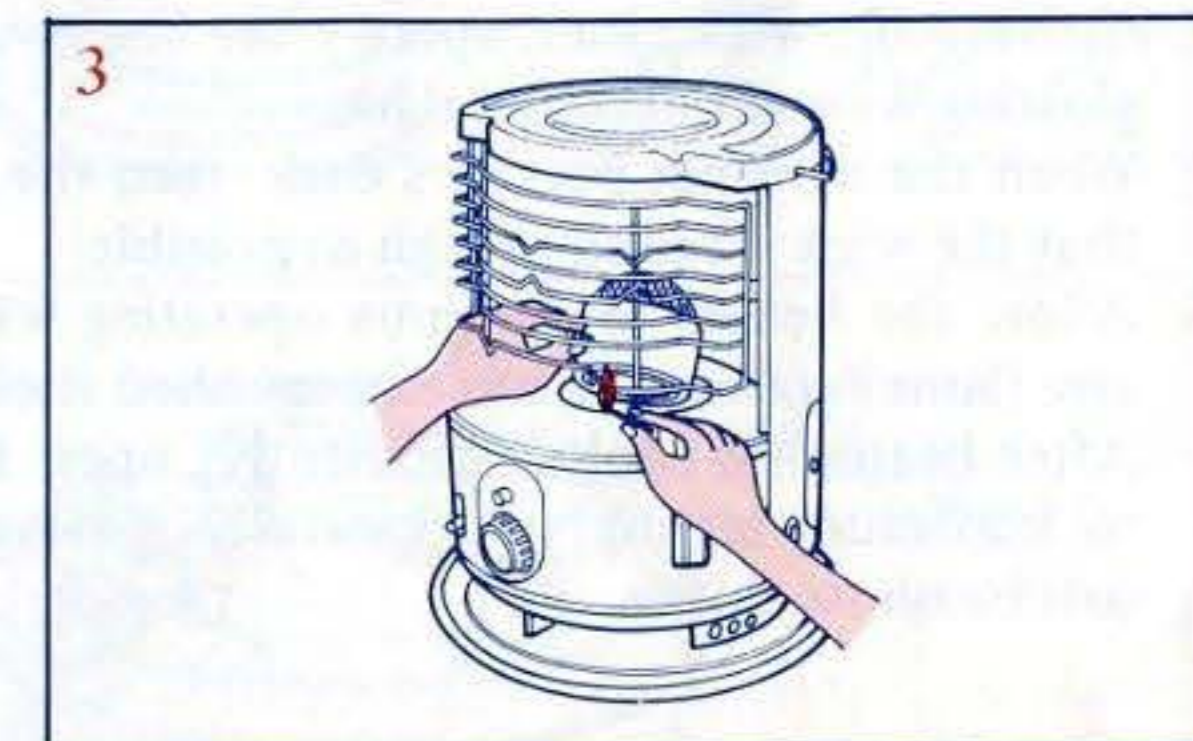
Push igniter button and the burner will lift, igniter touch, and when wick is burning, slowly release the igniter button. (See picture 2)

NOTE: Wick should ignite within 5 seconds.



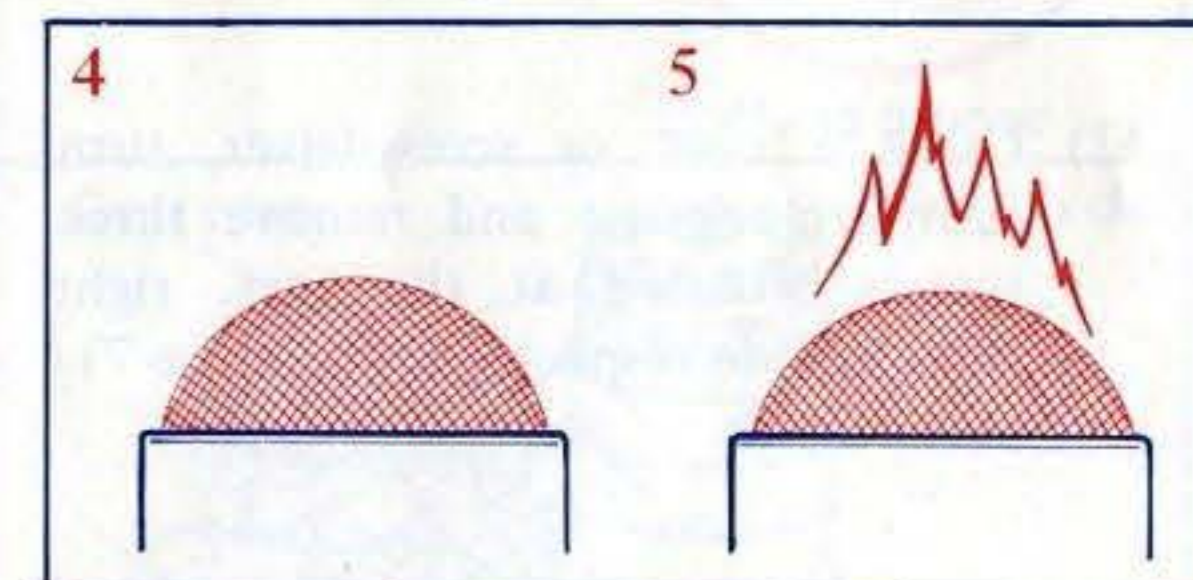
LIGHTING MANUALLY

Lift up the burner by holding burner grip, and then ignite with a match. (See picture 3).



ADJUSTING THE FLAME

1. 5 to 10 minutes after lighting, adjust the flame to proper intensity. (picture 4)
2. If flame still appears above wire net (picture 5), check to verify that chimney is seated properly.



EXTINGUISHING

1. Turn the wick control knob counter-clockwise slowly until it stops.
2. The wick will be lowered to the bottom and the fire will be out in 3-5 minutes.
3. Make sure that the flame has been extinguished.
4. In case of emergency, push emergency shut-off lever down to extinguish the heater.

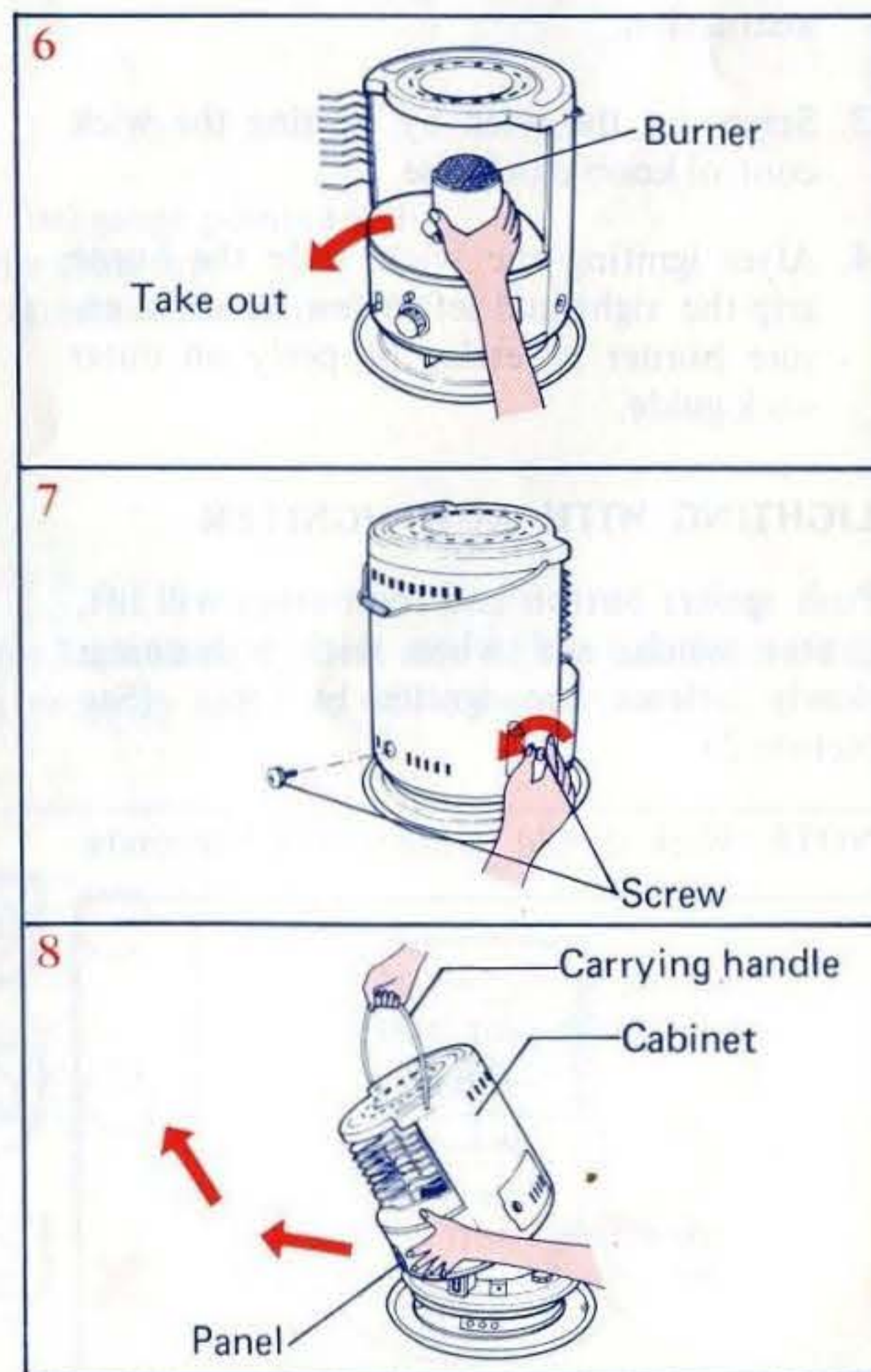
CARE OF THE WICK

1. The wick used in this heater is made of heat resisting fibre glass which does not burn and should last for a long time.
2. To keep the wick in good working condition, you should burn the wick off at least once a month in order to destroy a tar-like substance accumulated on the wick.
3. To burn the wick clean, operate the heater without refueling until it begins to go out and the glowing wire net becomes dark.
4. When the wire net becomes dark, turn the wick control knob clockwise as far as it goes so that the wick is raised as high as possible.
5. Allow the heater to continue operating without refueling until it goes out completely and any flame on the wick has extinguished itself.
6. After heater has cooled sufficiently, open the grill, remove the burner chimney, raise wick to maximum setting, and carefully remove loosened tar and carbon from the wick with a soft brush or cloth.

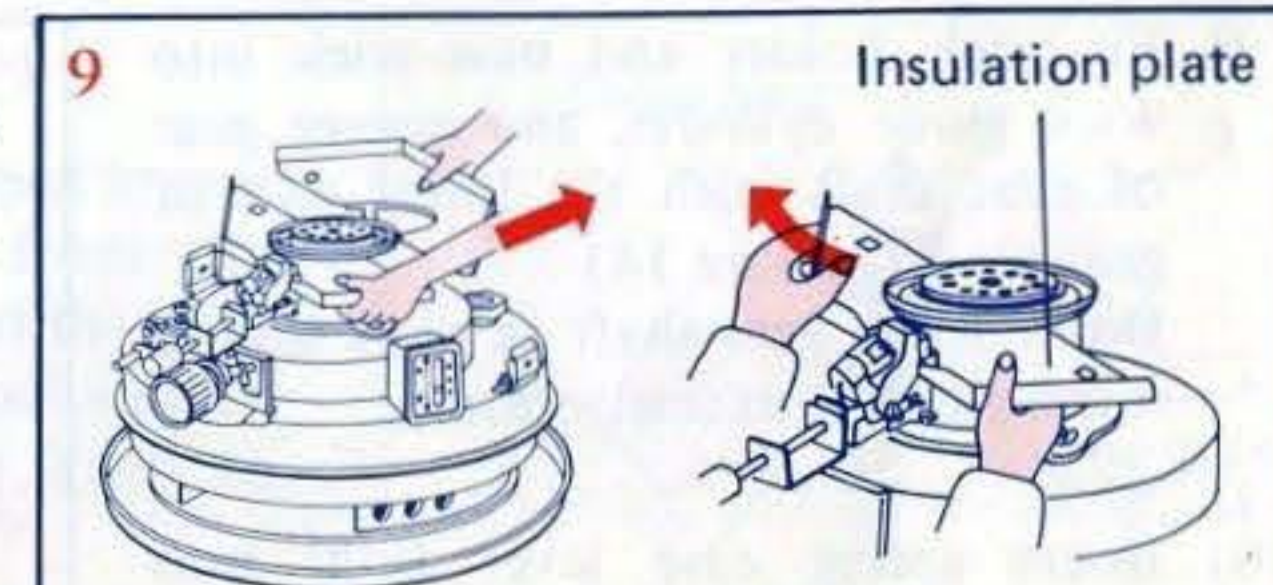
REPLACING PARTS

1. REPLACEMENT OF WICK

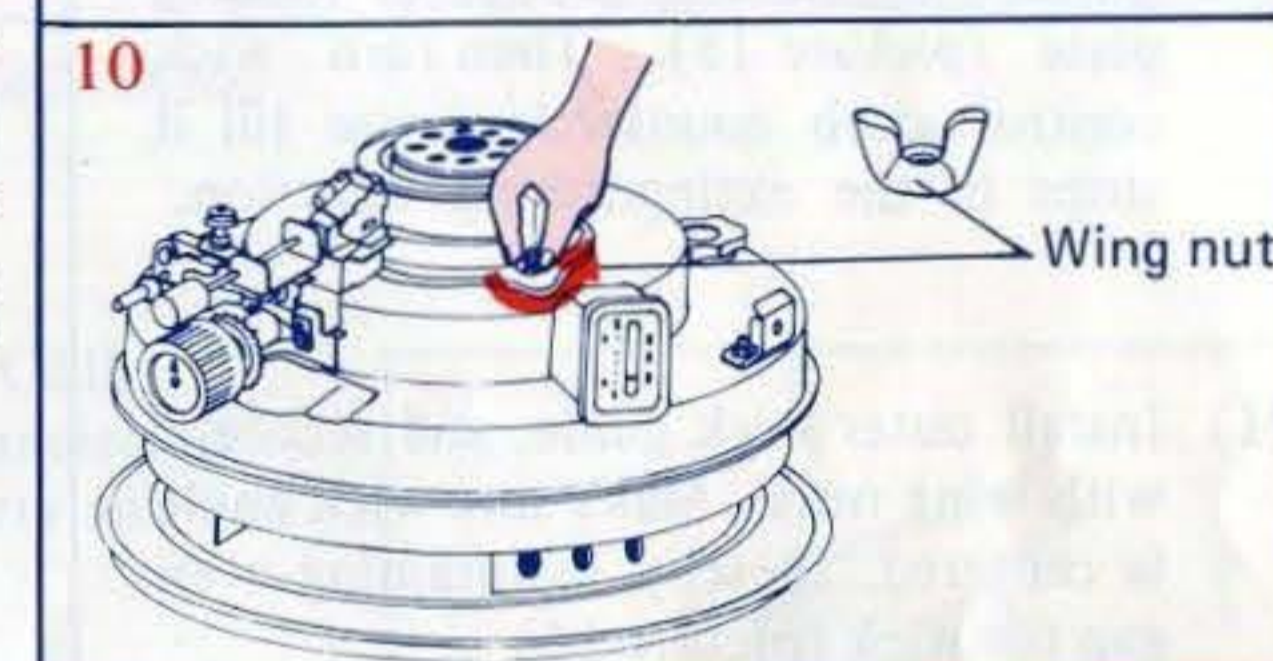
- (1) Open the grill, take out the burner, and close the grill. (picture 6)
- (2) Using a coin or screwdriver, turn counterclockwise and remove three screws situated at the rear, right and left side respectively. (picture 7)
- (3) Hold front panel with one hand and handle with the other, incline the cabinet forward and pull it off in the forward direction. (picture 8)



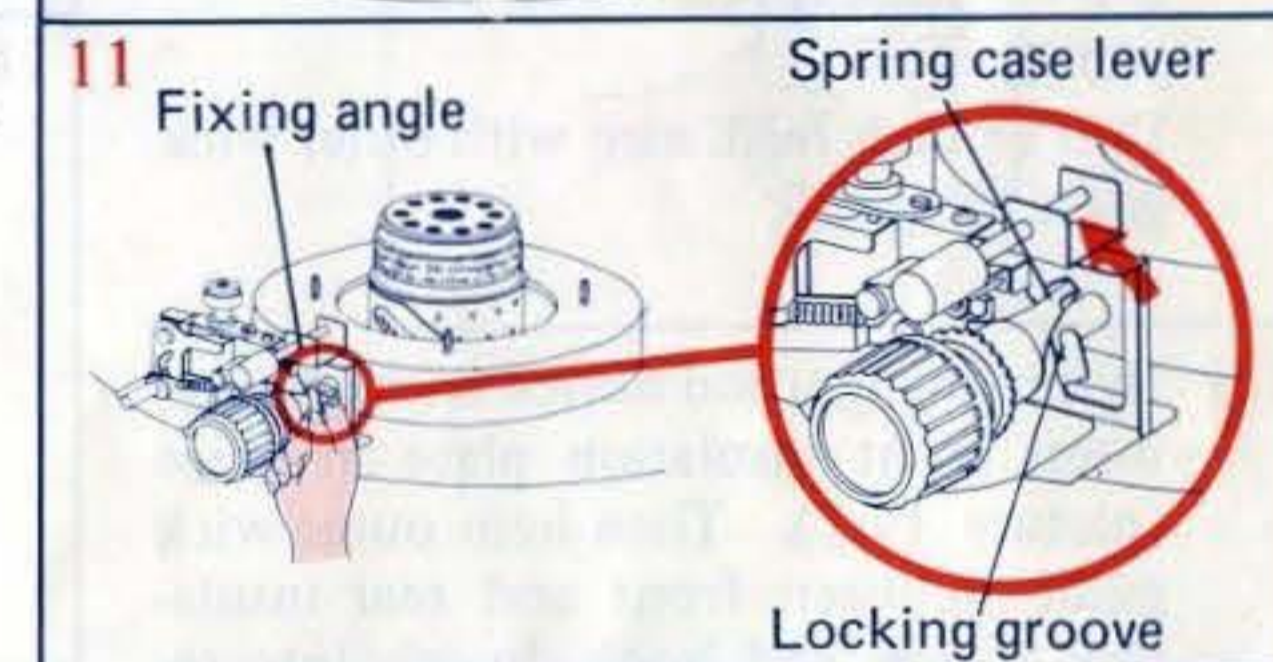
- (4) After actuating shut-off device, remove rear insulation plate by disengaging dowels from rectangular holes as shown in the figure below. (picture 9) After removing rear insulation plate, detach the front one. (They will detach easily if detached one at a time.)



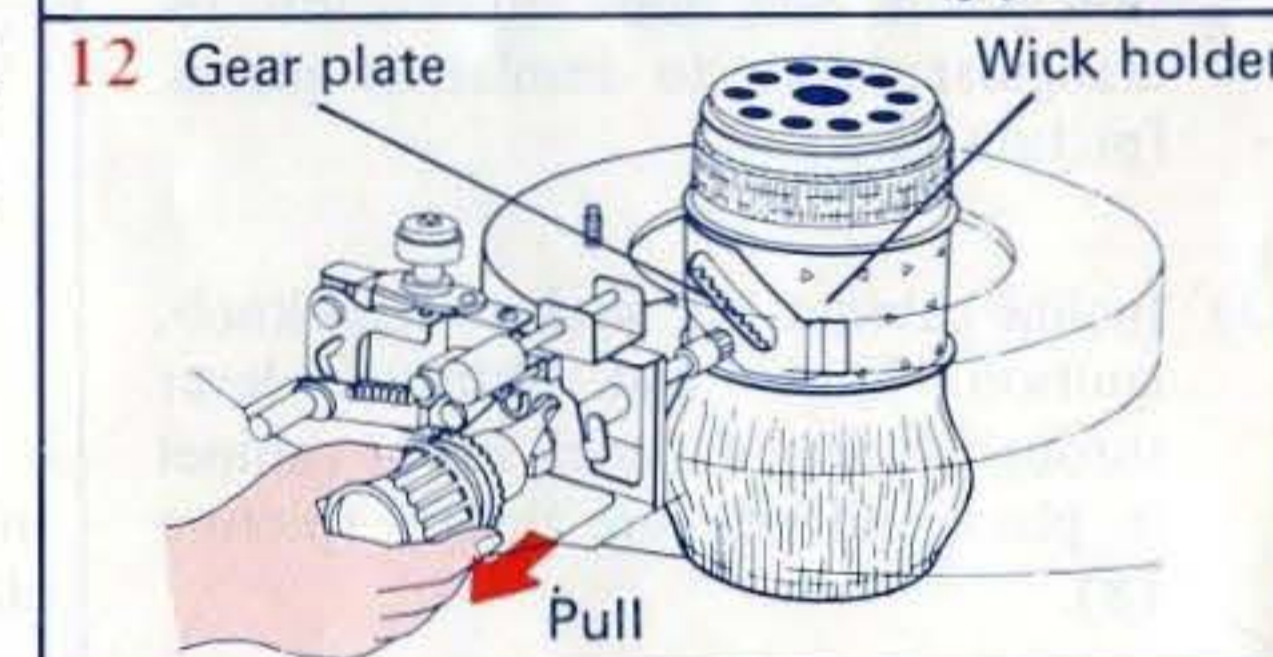
- (5) Remove 4 wing nuts securing outer wick guide to detach it. Be careful not to break lead wire of lighting device. If wing nuts are too tight, remove by using small pliers. (picture 10).



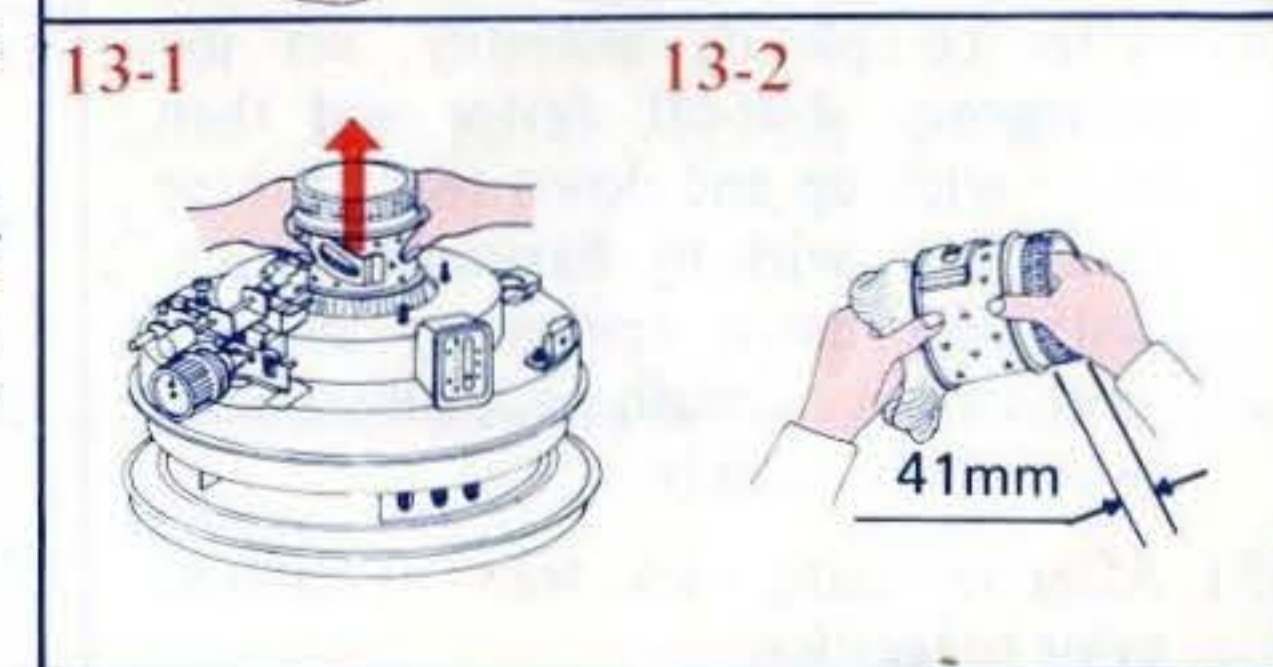
- (6) Push spring case lever upward to detach it from locking groove of locking plate (picture 11).



- (7) Pull wick control knob forward together with gear and then, gear plate of wick holder will disengage from gear at the end of gear shaft. (picture 12)



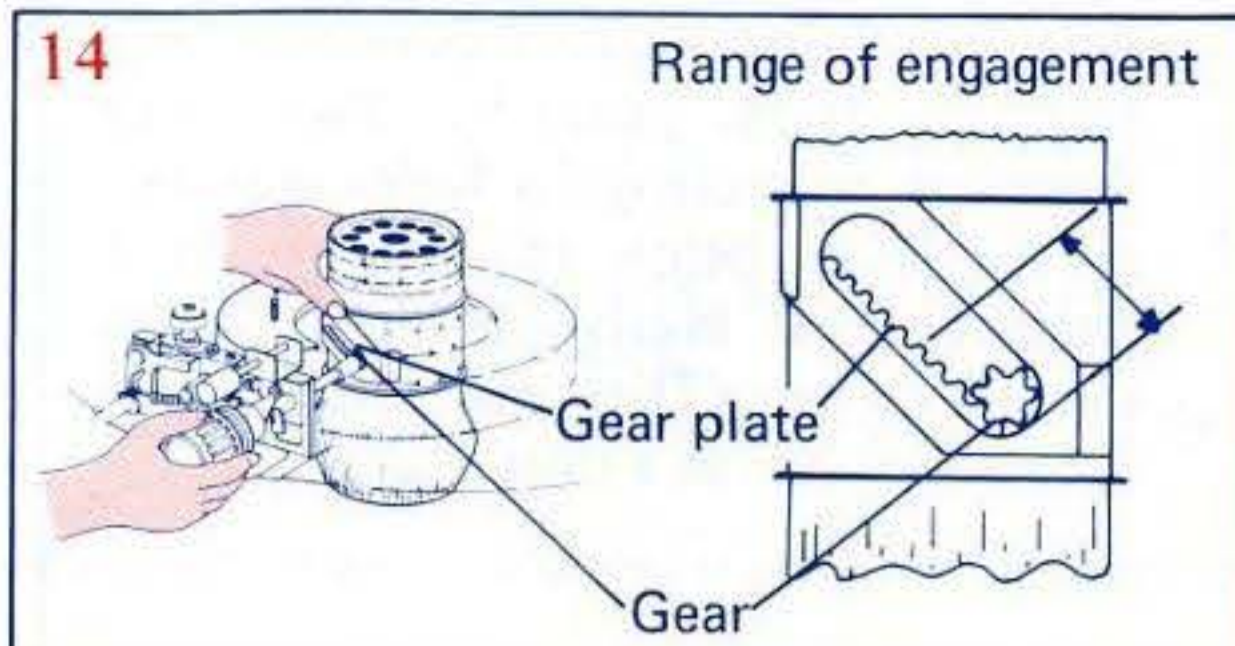
- (8) Pull wick holder upward, and remove used wick from it. (See picture 13-1) Next, insert new wick (SW1120) into wick holder, making sure the top of wick holder is aligned with line of new wick, and force teeth of wick holder into wick. (See picture 13-2).



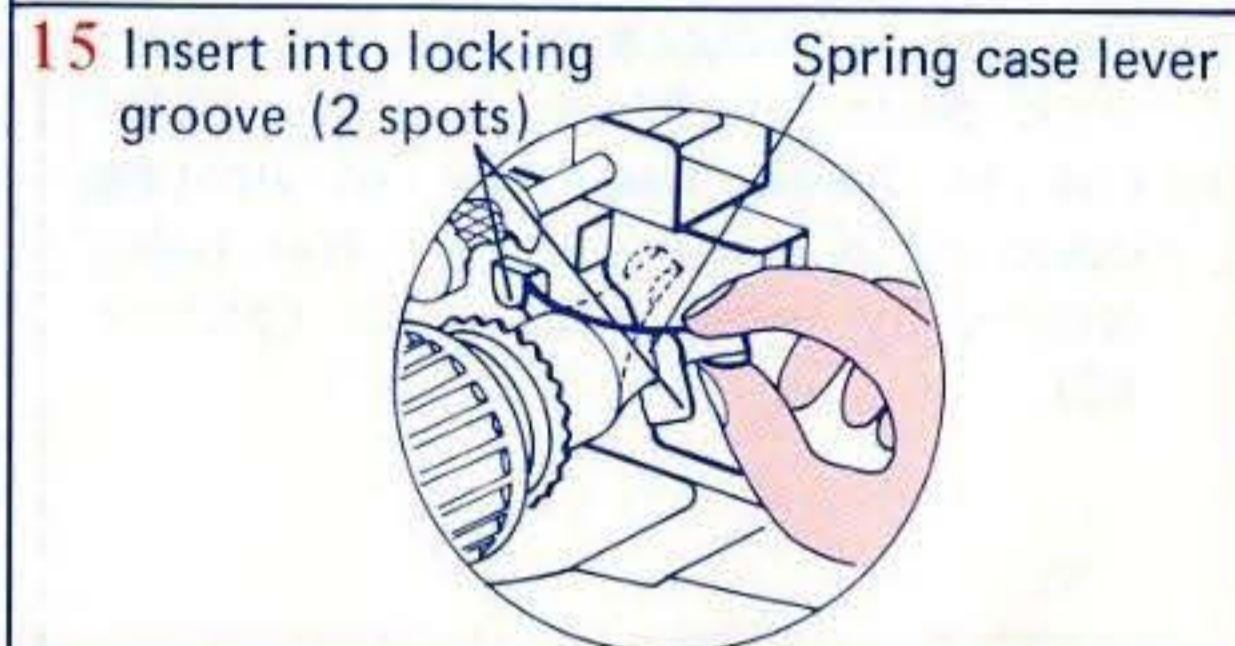
NOTE:

Make certain tail of wick is on bottom.

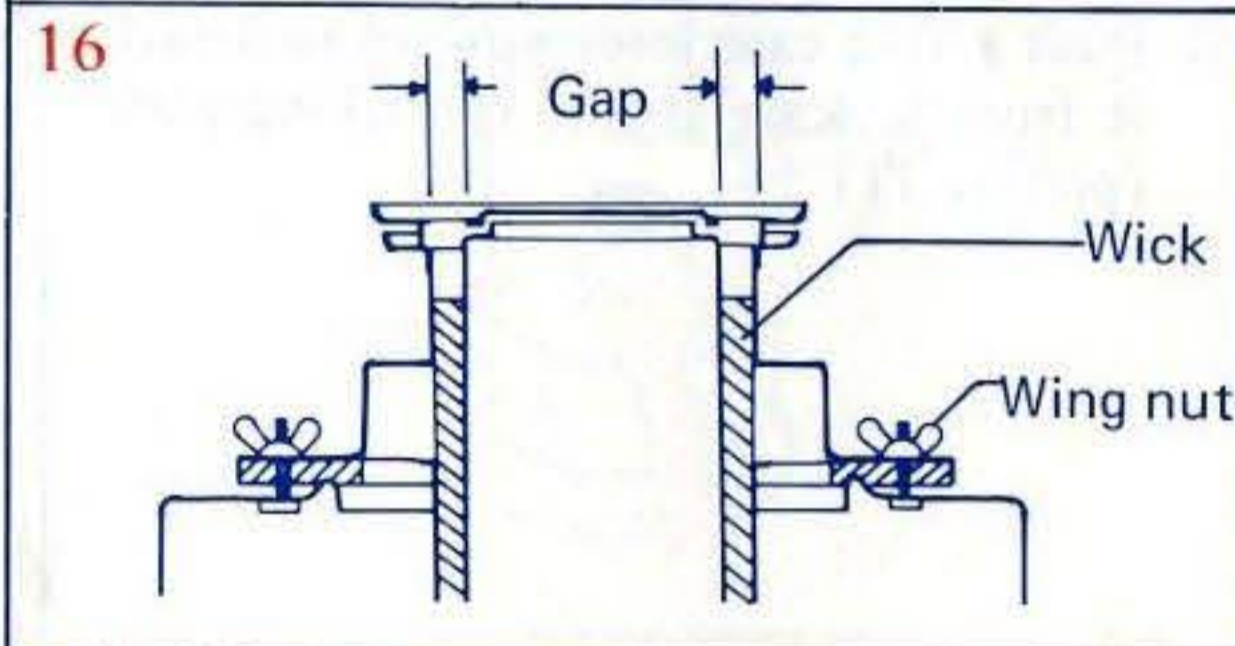
(9) Fit wick holder and new wick into wick guide cylinder, and engage gear of gear shaft with the lower part of gear plate (picture 14)
Don't force gear shaft as gears should move without excessive force.



(10) Insert spring case lever fully into bottom of locking groove of locking plate (picture 15). Then turn wick control knob counterclockwise till it stops in the extinguishing direction.

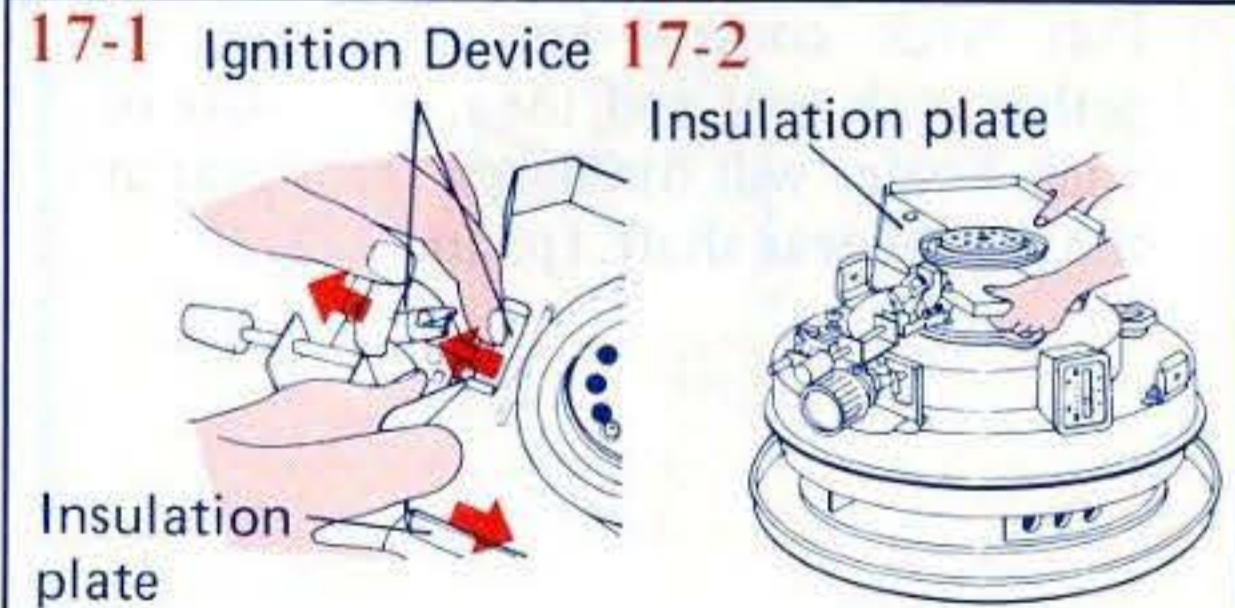


(11) Install outer wick guide, and secure it with wing nuts. Make sure wick guide is centered, thereby maintaining even gap for wick (picture 16)



NOTE:
Don't pinch lead wire with outer wick guide.

(12) By pulling ignition device with finger, insert front insulation plate in place (picture 17-1). Then hem outer wick guide between front and rear insulation plates, and hook dowels into rectangular holes to insulation plates. (picture 17-2).



(13) Incline cabinet, put wick control knob, ignition knob and shut-off lever through holes of panel, lower cabinet in place and resecure tightly (picture 18).

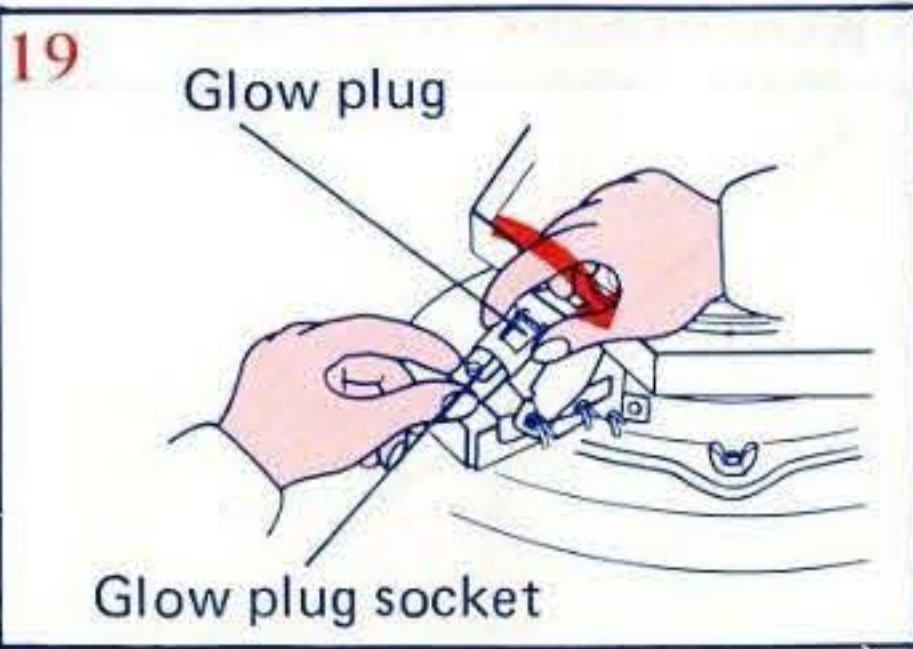


(14) After completing assembly, set the emergency shut-off device and then move wick up and down two or three times, raise wick to maximum setting, and push down emergency shut-off lever to make certain wick subsequently descends quickly.

(15) After replacing wick, wait 30 minutes prior to ignition.

2 REPLACING IGNITION ASSEMBLY:

Remove cabinet (This procedure is described in previous section), and remove batteries from the battery case. Place thumb of one hand at the glow plug socket, and turn glow plug counterclockwise exerting slight pressure with the other hand to detach it. (picture 19).



NOTE:
Be careful not to damage filament on igniter. After replacing assembly, remount heater body.

3 REPLACING WIRE NET AND WIRE COIL:

Exerting slight pressure, turn wire net counterclockwise and detach. Replace with new parts and re-secure (See picture 20).



STORING HEATER BETWEEN SEASONS

1. Remove kerosene completely.
2. Ignite heater and allow to burn dry.
3. Actuate shut-off device to lower the wick.
4. Remove batteries and store heater in polyethylene bag, place in a box, and store in a well ventilated place.
5. Keep instruction manual in handy location.

TROUBLESHOOTING

○ COLUMNS APPLICABLE

⊙ : COLUMNS HAVE AN IMPORTANT EFFECT

Possible cause	Problem										Possible solution
	Heater lights but goes out after short time.	Smoke and soot are produced with long flame appearing above wire net.	Wick can not be lowered. Heater cannot be extinguished.	Strong odor.	Wire net does not appear uniform red.	Wick is not lowered by emergency shut-off device.	Wire net does not become red at all.	Difficult to raise and lower wick.	Heater slow to warm up.	Can't ignite or hard to ignite heater.	
Batteries are exhausted.										⊙	Replace the batteries with new ones.
Damaged ignition glow plug.										⊙	Replace the ignition glow plug.
Lack or shortage of kerosene in oil reservoir.	⊙			○	○		○	○	○	○	Refuel heater.
Water in oil reservoir.	⊙			○	○	⊙	⊙	⊙	○	○	Completely empty oil reservoir. Replace wick.
Inferior kerosene.	⊙	○		⊙		⊙	⊙	⊙	○	⊙	Change the bad kerosene in oil reservoir with pure kerosene and change wick with a new one.
Exposure of heater to strong draft/wind current.		○		○	⊙		○				Move heater to location where there is not draft/wind current.
Use of heater in a tightly closed room for extend period without ventilation.				⊙							Ventilate the area adequately.
Wick needs cleaning.				○		⊙	○	○	⊙	○	Follow wick cleaning procedure in instruction manual.
Wick is worn such that it can not be raised high enough.				○	○		○		○		Reinstall wick at a higher position or replace wick with a new one.
Wick raised too high.		⊙	○	○							Adjust wick down. If necessary reinstall wick at a lower position.
The upper edge of wick is uneven.				○	⊙		○				Refit wick correctly to the wick holder per wick replacement procedure in manual.
The upper edge of wick is slanted.		○	○		⊙	○					Refit wick correctly to the wick holder per wick replacement procedure in manual.
Tip of wick is stiff and black with carbon build up.						⊙	⊙		⊙	⊙	Follow wick cleaning procedure in instruction manual.
Wick has not absorbed enough kerosene.	○			○	○				○	⊙	Wait in 30 minutes after refueling before lighting heater.
Outer wick guide is pinching wick on one side.			○	○	⊙	⊙			⊙		Reinstall outer wick guide so that space between outer wick guide and wick guide cylinder is uniform at all points.
Wick raising and lowering mechanism is defective.			○			⊙			○		Repair/replace mechanism.
The bottom of burner chimney is not correctly seated.		⊙		⊙	○						Move burner chimney grip right and left to make sure burner chimney is correctly seated. Check for and remove resin build up on outer wick guide below burner chimney.
Wire coil is deformed.		⊙		○			○				Reform by hand.

PARTS LIST/TROPIC

