

User Manual



AF-2200-NK AUTO 2 IN 1 Fogger



BEFORE OPERATING THIS MACHINE,
PLEASE READ THESE INSTRUCTIONS CAREFULLY

DISCLAIMER: DUE TO CONSTANT UPGRADATION, FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

MACHINE FEATURES

1. Simplicity of Operation

Air and fuel is automatically mixed in the 12V air pump. So it starts with the simply with the push button.

2. Durability of the Machine

This machine is made almost entirely of Stainless Steel or polyethylene (chemical tank, fuel tank, etc), which prevents corrosion due to chemicals, and fuels

3. Re-chargeable Battery

It is a non-liquid, 12V DC, rechargeable Battery, which does not degrade and also avoids the user the hassle of constant battery changes.

4. Little Heat Generation

The Machine has been designed so it is cooled by two air-intake valves that are connected to the fuel ignition part of the machine. This allows the machine to remain cool during use.

5. Strong Igniter

The igniter uses a 12V DC, battery so that starting the machine is quick and easy.

6. Easily Repaired

All components are designed for easy assembly/disassembly, the fuel line is made of a transparent material, and the spark plug is easily seen, so it is easy to spot problems when they happen.

HOW TO USE

1. Items to be checked before use

- Add the fuel and chemicals and then check that the spark plug is installed tightly, this guarantees that there will be no air leakage, which would cause the machine not to work.
- Battery Charge: if you are not using the machine in the semi-automatic mode then you should check the 110V and 220V input power switch on the back of the machine. It should be in the middle position and then attach it to the power outlet.

Set the charger at 'automatic', but if charging is not performing well at 'automatic', set it to 'manual'.

To charge the machine, connect the charger jack to the charging outlet of the machine's main unit. The red light will go on during charging and then a green light will go on when the process is complete. The entire process takes between 10~12 hours.

2. Starting

a. Automatic

Make sure the automatic/manual switch is in the automatic position.

Open the fuel nozzle in a counter clockwise direction, then squeeze the nozzle at the same time as you press the start button. If the machine fails to start then you should close the fuel nozzle by turning it in a clockwise direction and pressing the start button until you hear a 'cough' like sound. This makes sure that any excess fuel in the carburetor is gone.

Then repeat the steps to operate the machine.

b. Manual

Put the automatic/manual switch in manual position. Open the fuel nozzle in a counter clockwise direction and operate the machine by rapidly pressing the start button, which is

located beside the automatic/manual switch. If the machine fails to start then you first should close the fuel nozzle and then continually press the start button until you hear a 'cough' like sound, which tells you that the carburetor has been cleared of any excess fuel.

Then repeat the steps to operate the machine.

3. How to Spray the Chemicals

- a. Open the chemical valve while the machine is running
- b. Regulate the desired quantity of chemicals by adjusting the chemical control valve and then begin spraying.

4. How to Stop the Machine

- a. Close the chemical valve
- b. You should wait for 5 or 6 seconds.
- c. Close the fuel nozzle by turning it in a clockwise direction.
- d. Remove any air by turning the chemical cap. (Caution: the machine has the potential of causing a fire if the above steps are not conducted after every use.)

5. What to do when use is complete

- a. Clean the thermal pipe with the cleaning rod. Insert the rod then turn it in a clockwise motion, in order to prevent damage to the machine.
- b. Charge the battery.
- c. If carbon has collected in the spark plug, take out the plug and remove the carbon. (when replacing the plug make sure it maintains a 2-3mm gap)

STORAGE

1. Completely empty the chemical and fuel tanks then clean them thoroughly by the following method. Fill with acetone liquid, screw the caps completely shut and leave for one hour. Put light oil, or water in the chemical tank then operate it by spraying. Then clean any remaining sediment in the chemical tank.
2. Clean the residue from the chemicals by using an acetone liquid. Clean the residue due to oil by using gasoline.
3. Charge the Battery. When the battery has not been used over an extended time it should be recharged every 2 or 3 months.
4. Set it in an upright position (with the start button pointing towards the ceiling) and cover it with vinyl to protect it from dirt and other foreign materials.

CAUTION

1. Do not add gasoline or chemicals into the machine while it is hot.
2. When spraying poisonous chemicals, wear a mask. If you are going to reuse the mask make sure it is thoroughly cleaned after every use.
3. When the machine is not running, turn the chemical valve and fuel nozzle to the close positions because there is possibility of fire.
4. Charge the battery after use.

HOW TO CHECK/REPAIR MACHINE IN CASE OF PROBLEMS

A. If there is a banging or coughing sound before machine it shuts itself off.

Cause	How to Check	Solution
1. Gasoline doesn't flow freely due to a blocked fuel nozzle.	It is normal when the gasoline flows evenly when the start button is pressed or pumped	Clean the fuel nozzle opening with a thin metal wire. Replace the o-ring of the fuel nozzle clean the fuel nozzle completely.
2. When gasoline does not go through the fuel filter.	Normally gasoline goes through the fuel filter right away when the start button is pressed or pumped.	Replace and clean the fuel filter if it does not.
3. Defective rubber liner of the fuel tank check valve.	<ul style="list-style-type: none"> It is normal. If air goes in one direction but cannot go out the way it came in, does not leak from the check valve of the main body of the machine causing blowing or a sucking sound. It is defective if the side of the liner is torn or swollen. 	Replacement should be performed carefully to guarantee that the air only exits the machine in one direction. To check the liner put your tongue in the middle of it and when blow, air should move freely through the liner. If you try to suck air through the liner using the same method as above no air should move through the liner.
4. The air pump is not working well when you don't have enough air exiting the machine.	<ul style="list-style-type: none"> The machine is normal when strong wind exits the machine, when the start button is pressed. Check if air pump hose is properly inserted. 	<ul style="list-style-type: none"> Check to see if the air pump hose is securely attached. Replace air pump.
5. Insufficient battery charge is happening when the battery does not operate the motor and ignition after being changed.	<ul style="list-style-type: none"> The charge is normal when a strong spark occurs when touching +and-terminals of the battery to each other. Check to see if the voltage falls in the following range: 9V+for manual and 12V+for automatic. 	<ul style="list-style-type: none"> Replace or recharge the battery. Charge the battery until the red signal light flickers in the automatic mode. If the signal light doesn't flicker then check the charger and connections.
6. Damaged rubber packing on the fuel cap or the cap doesn't screw closed tightly.	<ul style="list-style-type: none"> The cap is defective when the user must hold the cap with his/her hand to start the machine. Rubber packing is swollen. 	<ul style="list-style-type: none"> Replace packing Make sure the cap is closed completely.

7. Leaking air from the nipple.	To check use soap and water to find where the air is leaking from then replace the nipple from which the air is leaking.	Replace the nipple
8. Insufficient gasoline or chemical/foreign materials in the fuel tank.	Check out fuel tank	<ul style="list-style-type: none"> • Clean the fuel tank completely • Change the gasoline
9. Carbon build up in the thermal pipe.	Check to see if this is the problems by using a flashlight. If this is the problem then clean the thermal pipe completely with the cleaning rod.	Check the spark plug and if there is a carbon build-up remove it with a screwdriver.

B. When air leaks and makes a puck or when sound and the machine won't start.

Possible damage to the thermal pipe. Check to see what the damage is by using a flashlight. To correct this problem replace the thermal pipe.

C. Chemical spraying won't work after the machine is started.

Cause	How to Check	Solution
1. Defective rubber liner in the chemical check valve	Normally air enters the machine in only one direction, without any leaks. It is defective if the side of the packing is torn or swollen. You should then replace the packing in the chemical check valve. To check the liner, put your tongue in the middle of it and when you blow, air should move freely through the liner. If you try to suck air through the liner using the same method as above no air should move through the liner.	
2. Blockage of the chemical spray pipe	If you separate the chemical spray pipe from the chemical nozzle and the chemicals do not come out of the chemical tank then the chemical spray pipe could be blocked.	Using an air compressor, blow the obstruction out of the pipe.
3. Blockage of the chemical nozzle	If you separate the chemical spray pipe from the chemical nozzle and then chemicals do not come out of the chemical tank then the chemical nozzle could be blocked.	<ul style="list-style-type: none"> • Replace chemical nozzle. • Clean chemical nozzle with a thin metal wire.
4. Blockage of the chemical valve.	If you separate the chemical spray pipe from the chemical valve and then the chemicals do not come out of the chemical tank then the chemical valve could be blocked.	<ul style="list-style-type: none"> • Replace chemical valve. • Clean the chemical valve by using air compressor to force air through the blockage.
5. Chemical cap refuses to close tightly	<ul style="list-style-type: none"> • The cap is defective when the user must hold the cap with his/her hand to start the machine. • Rubber packing is swollen. 	<ul style="list-style-type: none"> • Replace packing • Make sure the cap is closed completely.

D. You can hear the air pump operating but the machine will not work.

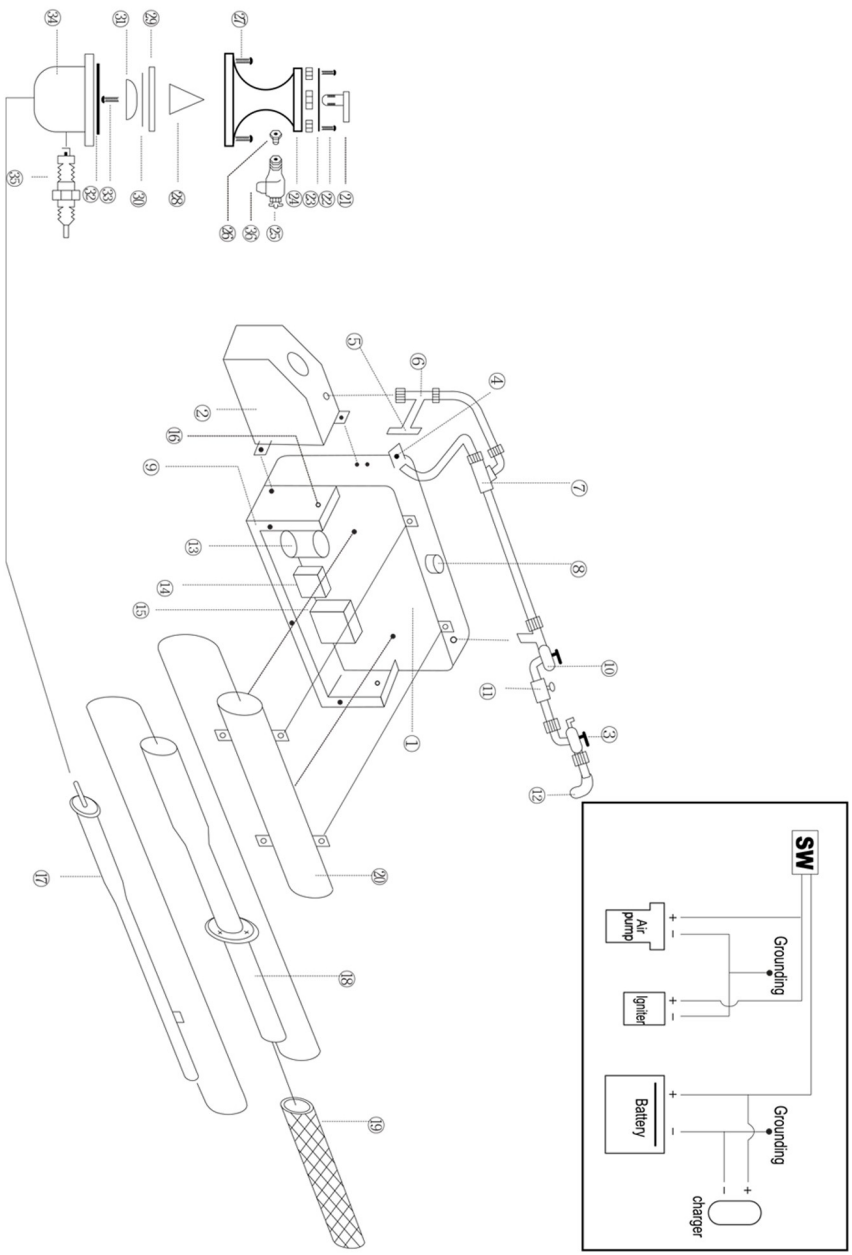
(That means the ignition is not working)

Cause	How to Check	Solution
1. Defective igniter or defective terminal wires.	It's normal if a spark occurs when you hold the spark plug 3-4min from the ignition terminal. Make sure the + terminal has firm contact with the ground wire.	<ul style="list-style-type: none"> • Replace the igniter • Make sure terminal contact is firm.
2. Defective spark plug. Insufficient spark to start the machine	Normal when spark occurs when start button is pushed. The gap of the spark plug is normal when it is 3-4mm. Check to see if carbon has built up on the spark plug.	<ul style="list-style-type: none"> • Replace the spark plug • Maintain 3mm gap. • Remove carbon from the spark plug
3. Too much gas in the carburetor has occurred when there is a knocking sound is coming from the carburetor.	Machine isn't working correctly if when you take the carburetor cover off and cover is very wet.	<ul style="list-style-type: none"> • Wipe the gasoline off the carburetor completely. • Shut the fuel nozzle and wait until you hear a cough sound while operating the machine, then press the start button.
4. Thermal pipe coil damage	Check damage with a strong flashlight.	Have the thermal pipe coil repaired.
5. Insufficient battery charge.	Insufficient charge if the sound of the machine is weak.	Replace recharge the battery.

E. When you can see large sparks in the carburetor then the machine is not working properly.

Cause	How to Check	Solution
1. Damaged Petal valve	To check the petal valve you must take a apart the carburetor, then replace the petal valve.	Make sure petal plate is not moved when removing the valve.
2. Uneven gap between the petal valve and the petal valve plate.	Check the gap by taking apart the carburetor.	Replace the petal valve or adjust the gap so it is even.

DIAGRAM OF AF-2200-NK-AUTO-2-IN-1 FOGGER



AF 2200NK AUTO 2 IN 1 FOGGER - SPARE PARTS

Part No.	Description
AF-2200-NK-01	Chemical Tank
AF-2200-NK-02	Fuel tank
AF-2200-NK-03	Chemical tank elbow nipple
AF-2200-NK-04	Start button
AF-2200-NK-05	Fuel check valve
AF-2200-NK-06	Fuel T nipple
AF-2200-NK-07	Chemical check valve
AF-2200-NK-08	Chemical tank cap
AF-2200-NK-09	Battery case
AF-2200-NK-10	Chemical valve
AF-2200-NK-11	Chemical control valve
AF-2200-NK-12	Chemical nozzle
AF-2200-NK-13	Air pump
AF-2200-NK-14	Igniter
AF-2200-NK-15	Battery
AF-2200-NK-16	Battery charger jack
AF-2200-NK-17	Thermal pipe
AF-2200-NK-18	Air cooling pipe # 1
AF-2200-NK-19	Air cooling pipe case
AF-2200-NK-20	Air cooling pipe #2
AF-2200-NK-21	Air nozzle
AF-2200-NK-22	Air nozzle bolt
AF-2200-NK-23	Air nozzle board
AF-2200-NK-24	Carburetor(above)
AF-2200-NK-25	Fuel valve

AF 2200NK AUTO 2 IN 1 FOGGER - SPARE PARTS

Part No.	Description
AF-2200-NK-26	Fuel nozzle
AF-2200-NK-27	Carburetor Bolt
AF-2200-NK-28	Petal plate
AF-2200-NK-29	Petal
AF-2200-NK-30	Petal cone
AF-2200-NK-31	Fuel T nipple
AF-2200-NK-32	Carburetor Gasket
AF-2200-NK-33	Petal bolt
AF-2200-NK-34	Carburetor (below)
AF-2200-NK-35	Spark plug
AF-2200-NK-36	Charger

INSPECTION & MAINTENANCE

For safety use, make sure the machine is cleaned every three-months. Before working, make sure to inspect the filter and the nozzle, and ensure there is no impurity. After working, make sure there is no water in the pump and the hose.

If the machine needs to be repaired in the guarantee period, please return the machine to the shop. You need to provide the certificate of purchase in order to repair or get the substitute.

Before Packing, the machine should be cleaned, then use closed packaging, packaging should be firm. Store the machine in dry place.

For transportation safety. The machine should comply with ISTA.



Meaning of crossed - out wheeled dustbin:

Do not dispose of electrical machines as unsorted municipal waste, use separate collection facilities.

If electrical machines are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old machines with new ones, the retailer is legally obligated to take back your old machine for disposals at least free of charge.

Warranty Card

CUSTOMER COPY



Purchaser's Name & Address

Product Name

AF-2200-NK Auto 2 in 1 Fogger

Product Serial No.

Invoice / DN No.

Date of Delivery

Dealer's Office Seal

Dealer Sign _____

Customer Sign. _____

I/We accept the terms and conditions of Warranty as in the Warranty Card.

Warranty Card

DEALER'S COPY



Purchaser's Name & Address

Product Name

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Date of Delivery

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Customer Sign. _____

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Warranty Card

COMPANY COPY



Purchaser's Name & Address

Product Name

AF-2200-NK Auto 2 in 1 Fogger

Product Serial No.

Invoice / DN No.

Date of Delivery

Dealer's Office Seal

Dealer Sign _____

Customer Sign. _____

I/We accept the terms and conditions of Warranty as in the Warranty Card.

1. **LIMITED WARRANTY PERIOD** : For a period of six months from the date of Sale / delivery of the product which ever is earlier. 2. **LIMITED WARRANTY OBLIGATION** : Replacement of defective part(s) by authorized dealer are free of charges. If found defective by reasons of defective material / poor workmanship, parts will be replaced and there will be no value re-imbursment. 3. **TERMS & CONDITIONS** : a. Claims under warranty will be accepted on submission of Warranty Card duly filled and stamped by authorized dealer together with the original purchase document .: b. Shipping / transportation / Incidental charges incurred in replacing defective parts under warranty shall be borne by the purchaser.

WARRANTY null & void if

- (i) Lack of maintenance, (ii) Incorrect use of the machine or tampering, (iii) Use of non-genuine spare parts, (iv) Usage of acids, solvents, or any flammable materials, (v) Non-usage of filter water / clear water / soft water & using water above 40°C temperature, (vi) While using the pressure washers to draw water which is contaminated with dust & solvents (eg. paint thinners, gasoline, oil, etc.), (vii) Repair done by unauthorized service people, (viii) Those parts subject to wear & tear due to normal operations and plastic parts, rubber items etc, (ix) Loose connections, faulty electrical fixtures & fluctuations in power supply.
4. Should any failure occur during or after the warranty period, customer does not have the right to interrupt payment / price discount.
5. Incidental or consequential damages like inconvenience commercial loss, loss of tie, mental agony etc.
6. Loss of any nature due to operation or non-operation is not covered under warranty.
7. All free service are at Dealer's service point only.
8. Warranty ceases if service is not done periodically.
9. The attached card should be completed and returned to Ratnagiri Impex Pvt. Ltd. for registration immediately after sale / delivery.
10. The warranty is void unless you register the warranty card with Ratnagiri Impex Pvt. Ltd.
11. The decision of Ratnagiri Impex Pvt. Ltd., in settling the warranty is final in all respects.
12. All disputes are subject to Bangalore Courts Jurisdiction

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1st Free Service Coupon

ISO 9001-2015
CERTIFIED COMPANY

FREE SERVICE COUPON (30 Days / 30 hrs (Which ever is earlier))

Model
AF-2200-NK Auto 2 in 1 Fogger

Serial Number

PDI Date

Purchase bill no. Date

Service No.

- Operations:
- Check and Test the Fuel Mixture.
 - Check and Clean the Air Filter
 - Check, Clean and Adjust the Spark plug
 - Check and Adjust the Carburetor Tuning
 - Check and Sharpen the cutting Tools
 - Start and Check the Noise, Vibration, Loosen / Fasteners etc.
 - Product familiarization on Usage
 - Routine maintenance and Storage

Dealer's Office Seal

Dealer Signature.....

Customer Signature.....

Conditions: Operations listed have been performed to my entire satisfaction without any labour charges. Only consumables were



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WARRANTY AND FREE SERVICE COUPON



2nd Free Service Coupon

ISO 9001-2015
CERTIFIED COMPANY

FREE SERVICE COUPON (60Days / 60hrs (Which ever is earlier))

Model
AF-2200-NK Auto 2 in 1 Fogger

Serial Number

PDI Date

Purchase bill no. Date

Service No.

- Operations:
- Check and Test the Fuel Mixture.
 - Check and Clean the Air Filter
 - Check, Clean and Adjust the Spark plug
 - Check and Adjust the Carburetor Tuning
 - Check and Sharpen the cutting Tools
 - Start and Check the Noise, Vibration, Loosen / Fasteners etc.
 - Product familiarization on Usage
 - Routine maintenance and Storage

Dealer's Office Seal

Dealer Signature.....

Customer Signature.....

Conditions: Operations listed have been performed to my entire satisfaction without any labour charges. Only consumables were Charged



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WARRANTY AND FREE SERVICE COUPON



3rd Free Service Coupon

ISO 9001-2015
CERTIFIED COMPANY

FREE SERVICE COUPON (90Days / 120hrs (Which ever is earlier))

Model
AF-2200-NK Auto 2 in 1 Fogger

Serial Number

PDI Date

Purchase bill no. Date

Service No.

- Operations:
- Check and Test the Fuel Mixture.
 - Check and Clean the Air Filter
 - Check, Clean and Adjust the Spark plug
 - Check and Adjust the Carburetor Tuning
 - Check and Sharpen the cutting Tools
 - Start and Check the Noise, Vibration, Loosen / Fasteners etc.
 - Product familiarization on Usage
 - Routine maintenance and Storage

Dealer's Office Seal

Dealer Signature.....

Customer Signature.....

Conditions: Operations listed have been performed to my entire satisfaction without any labour charges. Only consumables were Charged



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WARRANTY AND FREE SERVICE COUPON



Small Maintenance. Big Savings.



Small Maintenance. Big Savings.



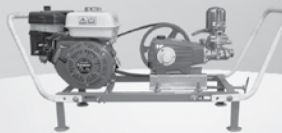
Small Maintenance. Big Savings.

Do's & Don'ts

- Always read the instruction manual supplied along with the equipments and understand the correct installation and operating procedures before attempting to use the equipments.
- It is important to use the personal protection equipments such as head helmet with visor, ear defenders, goggles, safety gloves, cut resistant shoes, trousers and jackets while operating potentially dangerous machines.
- Avoid untrained persons using the equipments. Children must not be allowed to handle these equipments.
- Always use genuine spares and accessories in repairs and usage to derive maximum life of the equipments.
- Always keep the equipments in good working condition to minimize loss of output as well as to reduce the pollution and save the environment.
- Do not use the machine within range of persons unless they wear protective clothing.
- Do not operate the machine when fatigued or under the influence of alcohol or drugs.
- For more query kindly contact for our Service Center/Dealer/ franchise

Agrimate Army For Pest Control

ANY WHERE - ANY TIME - ANY CROP




AGRIMATE[®]
Maximum Power - Super Economy

Imported & Marketed by:
RATNAGIRI IMPEX PVT LTD
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Mysore Road, Bangalore-560 026
Customer Care: 1800-425-3036
email: info@ratnagiriimpex.com



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