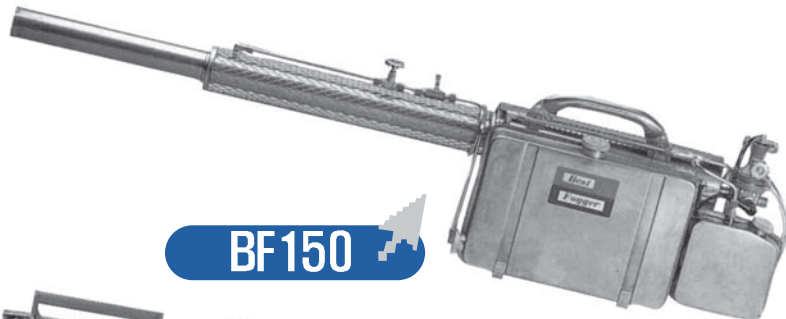


CE

Best Fogger

User's Operating Manual



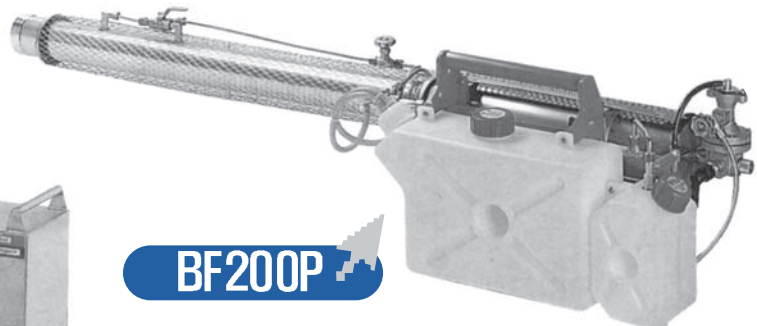
BF150



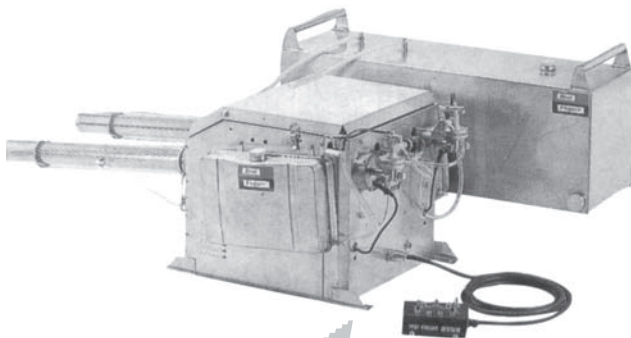
BF150P



BF200



BF200P

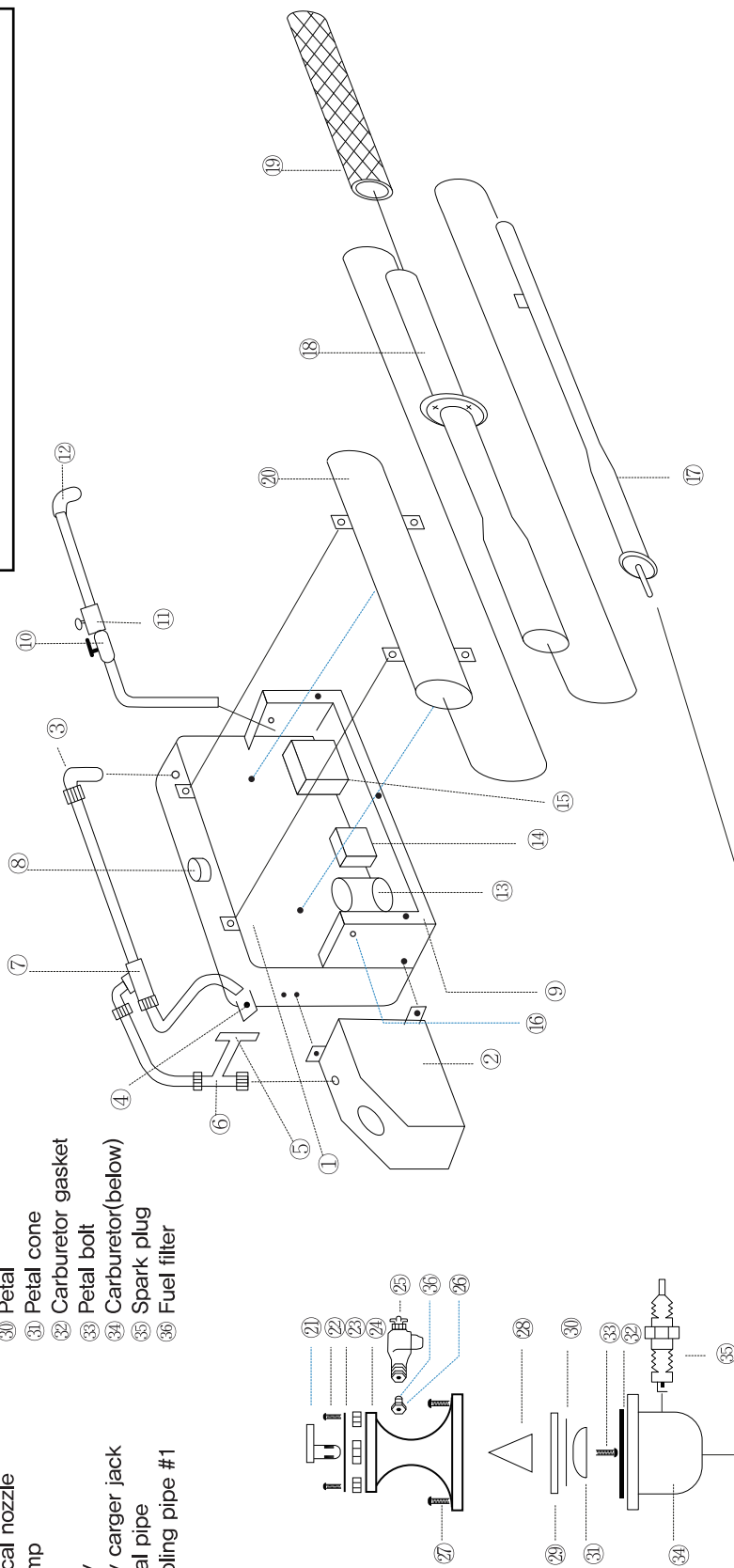
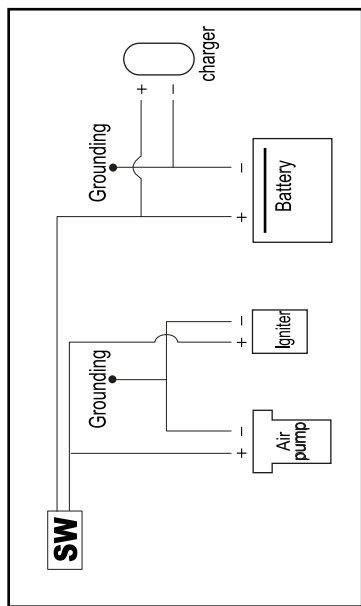


BF400

Best Fogger

Description of fogging machine - portable

- ① Chemical tank
- ② Fuel tank
- ③ Chemical tank elbow nipple
- ④ Start button
- ⑤ Fuel check valve
- ⑥ Fuel T nipple
- ⑦ Chemical check valve
- ⑧ Chemical tank cap
- ⑨ Battery case
- ⑩ Chemical valve
- ⑪ Chemical control valve
- ⑫ Chemical nozzle
- ⑬ Air pump
- ⑭ Igniter
- ⑮ Battery
- ⑯ Battery charger jack
- ⑰ Thermal pipe
- ⑱ Air cooling pipe #1
- ⑲ Air cooling pipe case
- ⑳ Air cooling pipe #2
- ㉑ Air nozzle for carburetor
- ㉒ Air nozzle bolt
- ㉓ Air nozzle board
- ㉔ Carburetor(above)
- ㉕ Fuel valve
- ㉖ Fuel nozzle
- ㉗ Carburetor bolt
- ㉘ Petal bullet
- ㉙ Petal plate
- ㉚ Petal
- ㉛ Petal cone
- ㉜ Carburetor gasket
- ㉝ Petal bolt
- ㉞ Carburetor(below)
- ㉟ Spark plug
- ㊱ Fuel filter



Portable Fogging machine

1. Part Names and Functions

Name of part	Function
① Chemical tank	Holds and stores chemicals.
② Fuel tank	Holds and stores fuel.
④ Start button	Button used to start-up the machine.
⑤ Fuel check valve	keeps air flowing in one direction within the fuel tank.
⑦ Chemical Check valve	Keeps the air flowing in one direction within the chemical tank.
⑩ Chemical valve	Controls the flow of chemicals.
⑪ Chemical control valve	Contorls chemical quantity.
⑫ Chemical nozzle	Injects chemicals into the thermal pipe.
⑬ Air pump	Pumps air into the carburetor and feul tank when startion in Automatic mode.
⑭ Igniter	Changes low voltage into high voltage during when start button is pushed.
⑮ Battery	Runs the air pupm and igniter
⑯ Battery charger jack	Outlet for charger insertion.
⑰ Thermal Pipe	Where fuel is burned.
⑱ Air cooling Pipe#1	Bring in air to cool machine during operation.
⑳ Air cooling Pipe#2	Bring in air to cool machine during operation.
㉔ ~ ㉓ Carburetor	Mixes fuel and air for ignition purposes.
㉕ ~ ㉖ Fuel valve and Fuel nozzle	Controls the amount of fuel into the carburetor.
㉗ Spark plug	Creates a spark which ignites the fuel.
㉘ Fuel filter	Removes impurities in the fuel.





2. Machine Features

1 Simplicity of Operation

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

2 Durability of the machine

This machine is made almoste entirely of Staninless 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 Stornng 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 fuelline is made of a transparent material, and the spark plug is easily seen, so it is easy to spot problems when they happen.

Portable Fogging machine

3. How to use

1 Items to be checked before use

a. Add the fuel and chemicals and then check that the tank cap is closed tightly, this guarantees that there will be not air leakage, which would cause the machine not to work.

b. Battery charge

If the charger has 110V and 220V selector switch on the back, check the input voltages 110V and 220V and connect the charger to the power outlet.

If the charger does not have the 110V and 220V selector switch on the back, connect the charger to the power outlet.

To charge the machine, connect charger jack to the charging outlet of the machine's main unit.

The red light is on during charging.

The charger with 110V and 220V selector switch will blink green light when charging is complete. The charger without the 110V and 220V selector switch lights up green when charging is complete.

The entire process takes between 4–5 hours.

2 Starting

a. Automatic

Open the fuel valve in a counter clockwise direction, and push the start button once 3 seconds. If the machine fails to start then you should close the fuel valve 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

Open the fuel valve in a counter clockwise direction and operate the machine by rapidly pushing the pressure pump 10~15 times while pressing its button. If the machine fails to start then you first should close the fuel valve and then continually push the pressure pump several times repeatedly while pressing its 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 valve 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 2-3mm gap.)

Portable Fogging machine

4. 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.

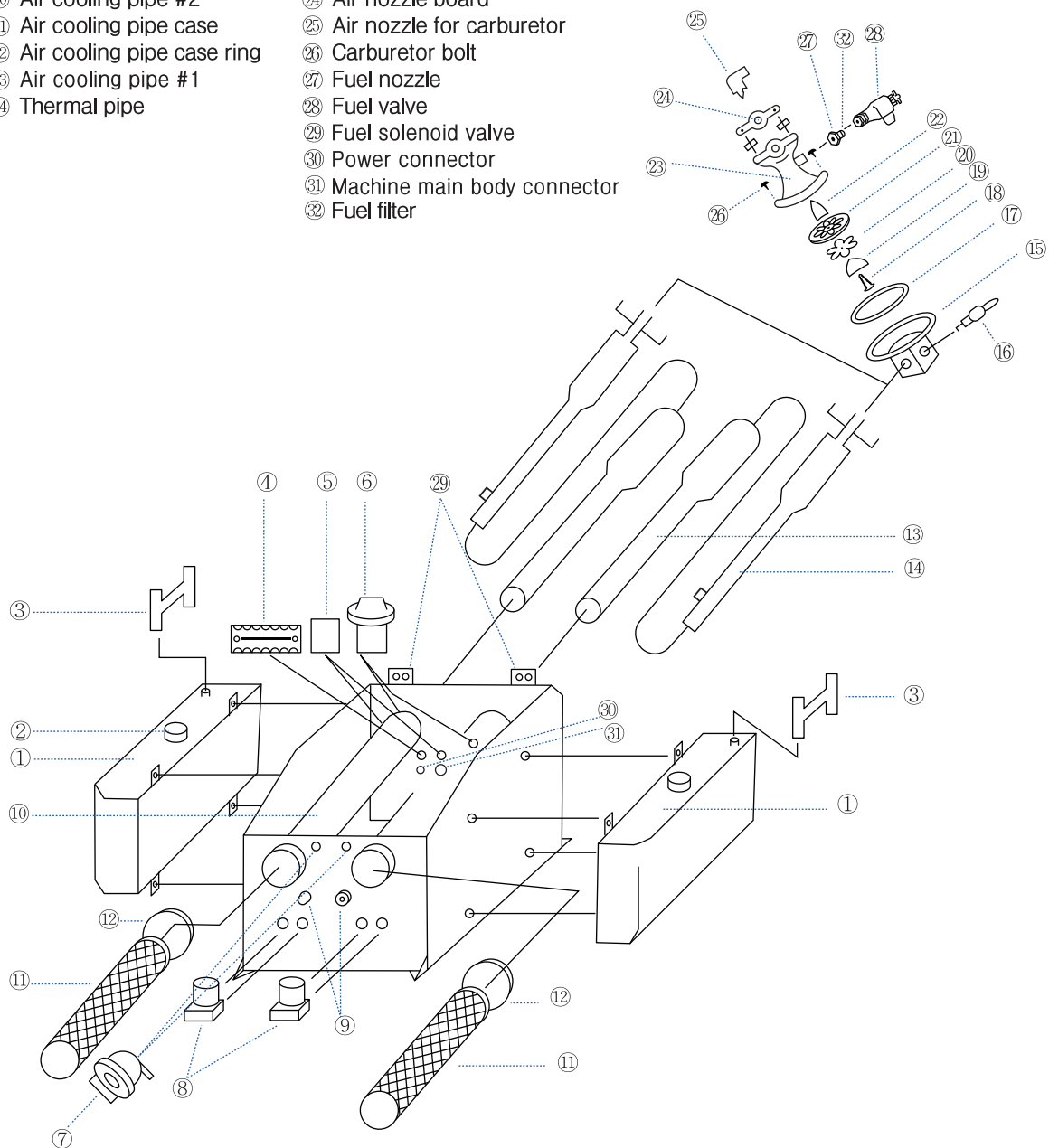
5. Caution

- 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 valve to the close positions because there is possibility of fire.
- 4 Charge the battery after use.

Fogging machine for vehicle

Description of machine - mounted on vehicle

- | | |
|------------------------------|-------------------------------|
| ① Fuel tank | ⑮ Carburetor(below) |
| ② Fuel tank cap | ⑯ Spark plug |
| ③ Fuel check valve | ⑰ Carburetor gasket |
| ④ Terminal board | ⑱ Petal bolt |
| ⑤ Igniter | ⑲ Petal cone |
| ⑥ Air pump | ⑳ Petal |
| ⑦ Pressure switch | ㉑ Petal plate |
| ⑧ Chemical solenoid valve | ㉒ Petal bullet |
| ⑨ Chemical coupler | ㉓ Carburetor(above) |
| ⑩ Air cooling pipe #2 | ㉔ Air nozzle board |
| ⑪ Air cooling pipe case | ㉕ Air nozzle for carburetor |
| ⑫ Air cooling pipe case ring | ㉖ Carburetor bolt |
| ⑬ Air cooling pipe #1 | ㉗ Fuel nozzle |
| ⑭ Thermal pipe | ㉘ Fuel valve |
| | ㉙ Fuel solenoid valve |
| | ㉚ Power connector |
| | ㉛ Machine main body connector |
| | ㉜ Fuel filter |



Fogging machine - BF400

MOUNTED ON VEHICLE

1. Part Names and Functions

Name of Part	Function
① Fuel Tank	Keeps and stores gasoline.
③ Fuel check valve	Keeps air flowing in one direction within the fuel tank.
④ Terminal Board	Connects the electric wires to the main body of the machine.
⑤ Igniter	Ignition is cranging by changing the low voltage into high voltage.
⑥ Air pump	Generates air during the operation of machine.
⑦ Pressure Switch	Continuously supplies gas by turning the solenoid valve while the machine is running.
⑧ Chemical solenoid valve	Opens and closes the chemical aperture.
⑨ Chemical coupler	Connects the machine's main body to the chemical tank.
⑩ Air Cooling Pipe #2	Bring in air to cool machine during operation.
⑬ Air Cooling Pipe #1	Bring in air to cool machine during operation.
⑭ Thermal pipe	Where fuel is burned.
⑮ ~ ⑳ Carburetor	Mixes fuel with air and ignites it.
㉗ ~ ㉘ Fuel Nozzle and fuel valve	Adjusts quantity of fuel used by opening and closing the aperture.
㉙ Fuel solenoid valve	Opens and closes fuel aperture.
㉚ Power connector	Connects the battery to the machine's main body.
㉛ Machine main body connector	Connects the control box to the machine's main body





2. Machine Features

1 This machine has a control box, so the machine can be placed in the back of an open bed truck and operated by a passenger in the vehicle.

2 Start-up is simple

The 12V DC battery of the truck is used by connecting it to the control box. Then you simply press the start and fuel buttons at the same time, and the machine will start.

3 Durability of the Machine.

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

4 It is not necessary to use an additional battery because you can use the battery of the vehicle.

5 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.

6 Strong Igniter

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

7 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.

Fogging Machine - BF400

MOUNTED ON VEHICLE

3. How to use

1 Items to checked before using

- a. Make sure fuel and chemical caps are tightly closed. (The machine will not operate if they are not.)
- b. Make sure the connecting wires are tightly connected to the main body. (main body connector, power connector, chemical coupler etc.)
- c. Open fuel valve and chemical adjustment valve on the machine.

2 How to start-up

- a. Turn on power by flipping power switch up, red light is on the power lamp should come on.
- b. To start the machine hold the start button down while continuously pressing the fuel button. It is operating when the green light appears on the control box.
- c. If it does not operate, press the stat button repeatedly until it in makes a 'vroom' sound which means combustion is occurring in the carburetor.
- d. Repeat steps a to c, until it starts.

3 How to spray chemical

- a. Flip chemical spray switch up after the machine is started.
- b. Adjust the spray to the right amount of the chemical by using the chemical adjustment valve.

4 When you are finished using the machine

- a. Flip the chemical spray switch down.
- b. You should wait for about 10 seconds.
- c. And filp the power switch down.
- d. Open the chemical tank cap.



5 What to do when use is complete

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

4. Storage

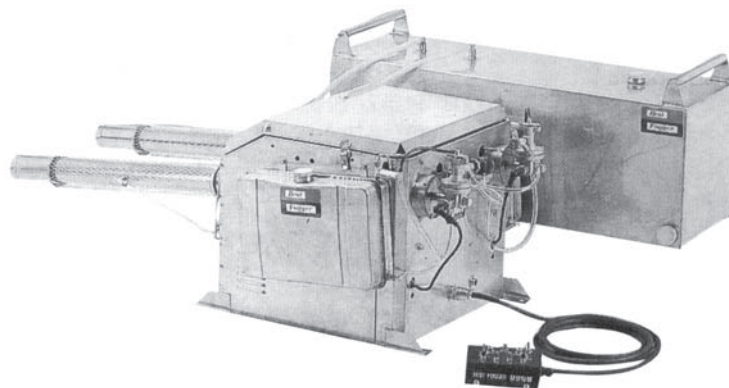
- 1 Completely empty the chemical and fuel tanks, then clean them thoroughly by the following method. Fill with acetone liquid, screw the caps completely shut and leave for one hour. Put light oil, or water in the chemical tank then operate it by spraying. Then clean any remaining sediment in the chemical tank.
- 2 Clean the residue from the chemicals by using an acetone liquid. Clean the residue due to oil by using gasoline.
- 3 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.

Fogging Machine - BF400

MOUNTED ON VEHICLE

5. 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 make sure the chemical valve and the fuel valve are closed on the control box because there is possibility of fire.



6. 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 gasoling 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.	① 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. ② 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.	① The machine is normal when a strong wind exits the machine, when the start button is pressed. ② Check if air pump hose is properly inserted.	① Check to see if the air pump hose is securely attached. ② Replace air pump.
5. Insufficient battery charge is happening when the battery does not operate the motor and ignition after being charged.	① The charge is normal when a strong spark occurs when touching + and - terminals of the battery to each other. ② Check to see if the voltage falls in the following range : 6V + for manual and 12V + for automatic.	① Replace or recharge the battery ② 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.	① The cap is defective when the user must hold the cap with his/her hand to start the machine. ② Rubber packing is swollen.	① Replace packing. ② 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 leaking.	Replace the nipple.
8. Insufficient gasoline or chemicals/foreign materials in the fuel tank.	Check out fuel tank.	① Clean the fuel tank completely. ② Change the gasoline.
9. Carbon build up in the thermal pipe.	Check to see if this is the problem 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 screw driver.

B. When air leaks and makes a “puck” or “whew” sound the machine won’t start.

Possible damage 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 then 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 fo 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.	① Replace chemical nozzle. ② 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 chemicals do not come out of the chemical tank then the chemical valve could be blocked.	① Replace chemical valve. ② Clean the chemical valve by using air compressor to force air through the blockage.
5. Chemical cap refuses to close tightly.	① The cap is defective when the user must hold the cap with his/her hand to start the machine. ② Rubber packing is swollen.	① Replace packing. ② 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 2–3mm from the ignition terminal. Make sure the + terminal has firm contact with the ground wire.	① Replace the igniter. ② 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 2–3mm. Check to see if carbon has built up on the spark plug.	① Replace the spark plug. ② Maintain 2–3mm gap. ③ Remove carbon from the spark plug.
3. Too much gasoline 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.	① Wipe the gasoline off the carburetor completely. ② 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.	Replace the thermal pipe.
5. Insufficient battery charge.	Insufficient charge if the sound of the machine is weak.	Replace or 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 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.

7. Product specification

Division \ Type	BF150 Automatic	BF150 Manual	BF150P	BF200	BF200P	BF400	Main body
							Chemical tank
TYPE	Smokescreen disinfection	Smokescreen disinfection	Smokescreen disinfection	Smokescreen disinfection Thermal fogging disinfection		Smokescreen disinfection	
Starting Method	Push start button	Press the Pressure Pump	Push start button	Push start button	Push start button	Fully Automatic Complete Remote Control	
Power Supply	DC 12V Rechargeable Battery	DC 12V Rechargeable Battery	DC 12V Rechargeable Battery	DC 12V Rechargeable Battery	DC 12V Rechargeable Battery	DC 12V User's Vehicle Battery	
Dimensions (L x W x H)mm	1,350 x 220 x 340	1,350 x 220 x 350	1,350 x 270 x 320	1,350 x 220 x 340	1,350 x 270 x 320	1,350 x 710 x 490 1,000 x 430 x 390	
Weight (empty)	8.8kg	8.5kg	8.6kg	9.4kg	9kg	57kg	35kg 22kg
Gasoline Tank Capacity	1.8 l	1.8 l	1.5 l	1.8 l	1.5 l	8 l x 2 PCs = 16 l	
Gasoline Consumption	1.5 l / h	1.5 l / h	1.5 l / h	1.8 l / h	1.8 l / h	1.5 l / h x 2 PCs = 3 l / h	
Chemical Tank Capacity	8 l	8 l	6 l	8 l	6 l	100 l	
Chemical Output	40 l / h	40 l / h	40 l / h	50 l / h	50 l / h	85 l / h	
Chemical Tank Material	Stainless Steel	Stainless Steel	Plastic (Polyethylene)	Stainless Steel	Plastic (Polyethylene)	Stainless Steel	
Shipping Data (L x W x H)mm	1,370 x 250 x 360	1,370 x 250 x 360	1,370 x 310 x 360	1,370 x 250 x 360	1,370 x 310 x 360	1,400 x 760 x 620 1,030 x 460 x 420	
Shipping Data Weight(empty)	13kg	13kg	13kg	14kg	14kg	80kg	50kg 30kg

Made in Korea