

User Manual



AMH-16 HI-TECH MANUAL SPRAYER



IS: 3906



CM/L 8548088

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



**BEFORE OPERATING THIS MACHINE,
PLEASE READ THESE INSTRUCTIONS CAREFULLY**

OPERATION & MAINTENANCE

Hi-tech Sprayer is a continuous type of sprayer. Tank has been blow molded from High Density polyethylene with carrying Handle as an integral part of the tank. The pump has been provided in the center. Outside of the tank. It pumps the liquid from the tank with the help of suction strainer provided in the tank and discharges the liquid through the outlet provided on the pump barrel assembly sprayer Tank has been assembled with a pipe frame which works as a stand, centrally mounted pump on the outside of the tank balance the operation which in turn result in less efforts. The sprayer is suitable for mounted pump on the outside of the tank balance the operation which in turn results in fewer efforts. The sprayer is suitable for operation with right or left hand. A bigger filler hole (with a plastic cap and strainer) is situated on the top of the tank. Which enabled filling the tank without spilling out and the tank can be cleared within after use by inserting the hand with easy.

ASSEMBLY

Please study the detailed drawing and then assemble the sprayer in the following order

Couple the operating handle and axle with the help of Cotter Pin

Couple the delivery hose to the discharge outlet on valve box of the pump keeping a gasket on Nipple within wing nut.

Couple the extension rod to trigger cut, off cock, keeping a gasket on the joint.

Tight the nozzle on the top of the lance with Gasket

Operation: Piston assembly should be lubricated (no.40) before putting the sprayer to use, by operating the handle for few times. This will help the smooth working of the sprayer.

Remove the cap of the filler Hole and charge the tank through the strainer with well strained spraying material and replace the cap. Charge the tank with maximum 16Litrer of liquid as per the capacity.

Carry the tank on the back by throwing 2 straps over shoulder one each on either and hook them with frame. Carry the tank as high as possible on the back. If the tank is hanging loose on the back or reaching as low as waist the operation shall be difficult. Operated the handle with right or left hand holding the spray lance by the other hand for spraying.

Initially about 10-11 strokes are required to develop 40PSI pressure. 7-8 stroke/Min shall create sufficient pressure to spray at 30/40PSI (Nozzle discharge rate is 450ml with 600 angle) in one min.

SPECIAL FEATURES

- ❖ Develops Sufficient & continuous Pressure
- ❖ Adjustable Shoulder Straps
- ❖ Designed to rest comfortably on operator's
- ❖ Right or Left hand Operation
- ❖ Tank Capacity 16Ltrs
- ❖ Centrally Placed Pressure Chamber
- ❖ Discharge Line 110cm, long delivery Hose, Trigger cut-off Valve
- ❖ Extension rod 60cm, Long one end bent as goose-neck, fine mist spray nozzle.

MAINTENANCE: The mechanism is so simple that it does not need special skill to service it. Always charge the tank with well strained spraying material when spraying is over charge the tank with clean water and operate the sprayer until the tank is empty. Sometimes remove the pressure vessel (HFS/12) from the valve box and clean it inside.

Disconnect the delivery house extension rod & nozzle, rinse them in clean water and then store after of sprayer it.

INSTRUCTION FOR SERVICING AND REPAIRS

How to replace piston ring (HFS/20)

The piston ring is molded from PVC material. The PVC material reacts to weather conditions. It contracts in cold weather and gets soft in hot weather. Please ascertain weather the piston is working easy in the pump Barrel. If it is too hard loose the lock nut. If to loose tight the nut.

Sometimes leaking also occurs due to the loose piston ring (HFS/20) or if little worn out, leakage can be stopped by tighten the piston ring with lock nut (HFS/22) which expands the diameter of the piston ring (HFS/20). If the piston ring (HFS/20) is found damaged or more worn out is should be replaced as under.

- (a) Make the crank lever (HTS/16) free from Axle. By removing the Nut, bolts & spring washer (BPK/B) & in the time of fitting the nut bolt & spring washer it must be fully tight.
- (b) Pull out the piston assembly (HTS/17) from the barrel assembly. (HFS/14) piston can be replaces by taking out the piston lock nut (HFS/22) and lower plate (HFS/21) from the piston assembly.(HTS/17)

How to remove the pump barrel assemble code no. (HFS/14) for replacement of Cylinder Barrel:

After long use or due to chemical reaction the barrel may have scratches or pits and will therefore start leaking during operation. It will not be able to create the desired pressure. In such cases replacement can be made as under

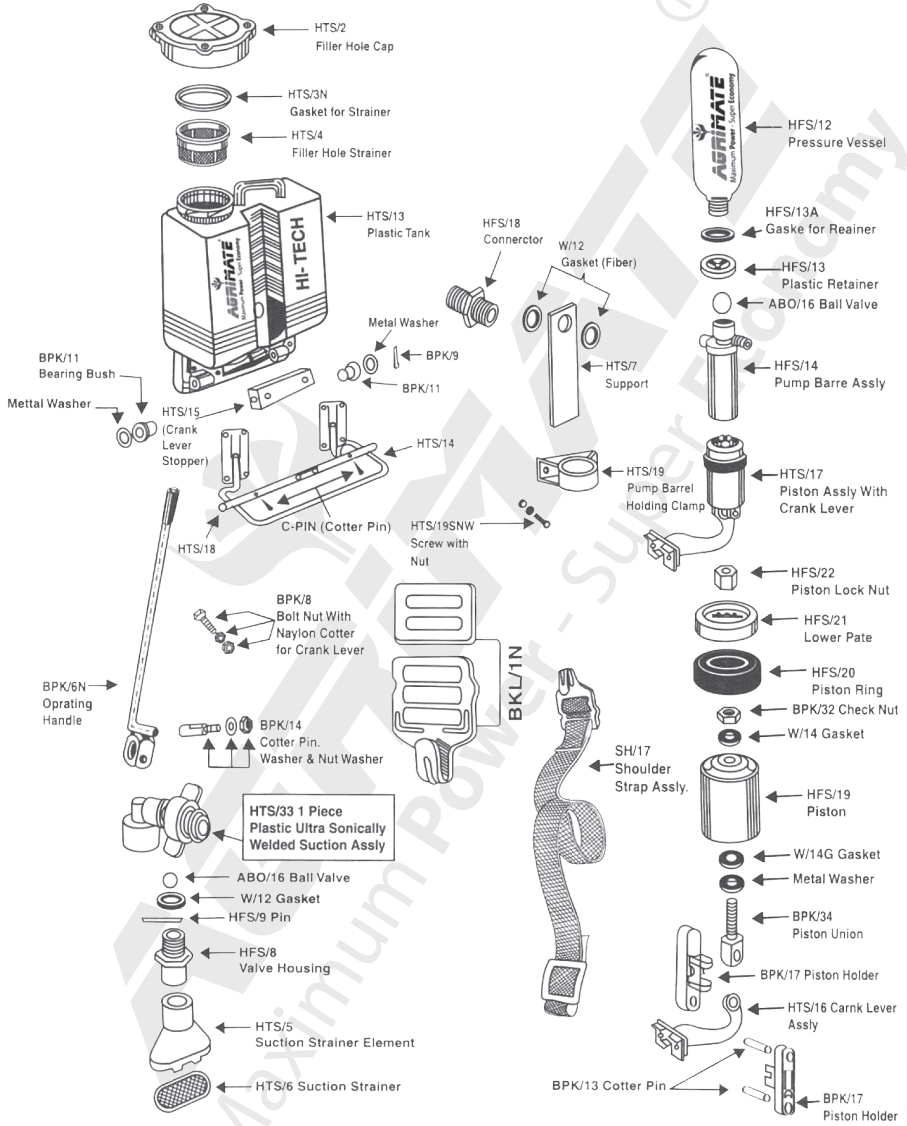
- (a) Follow similar procedure as in (a) & (b)
- (b) To remove suction assemble insert hand into filler hole and unlock wing Nut(CPL/7)
- (c) To remove connector (HFS/18) use wrench by turning connector anticlockwise. Pump barrel assemble (HFS /14) (W/12) gasket and support plate (HTS/7) will then come out.

To charge the suction valve and delivery Valve

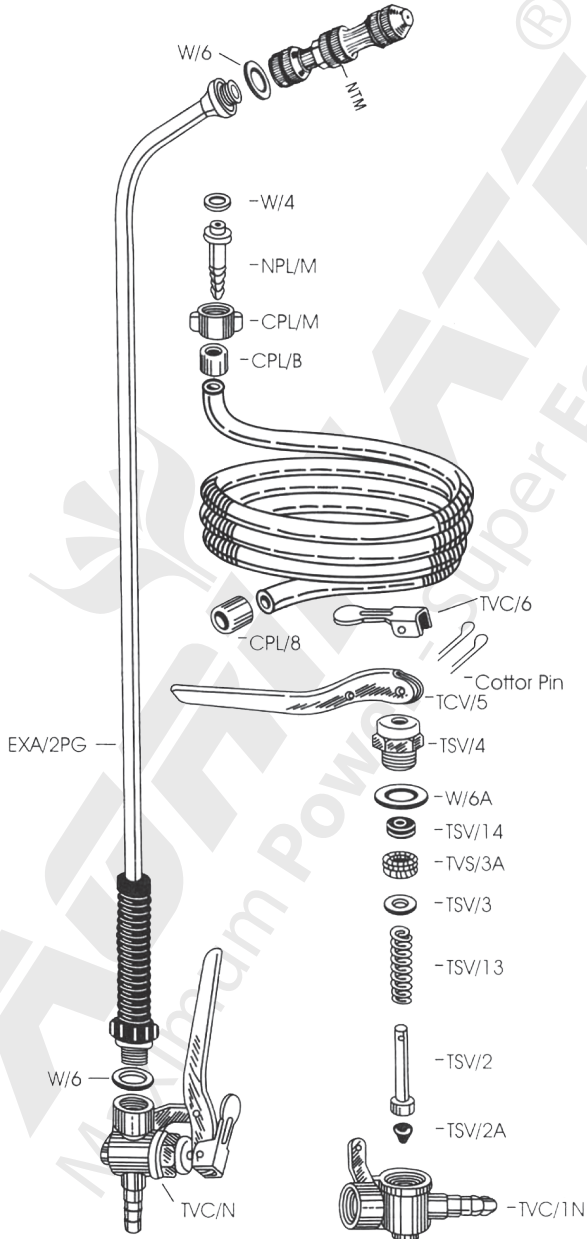
After Long use or due to chemical reaction. Suction valve, Delivery valve, delivery valve may be worn out to replace the same do as directed.

- (a) Remove valve housing (HFS/8) from elbow (HFS/10), then out pin (HFS/9) replace suction ball valve (ABO/16) & re assemble it.
- (b) Unscrew pressure vessel (HFS/12) from pump barrel assemble (HFS/14) Take out washer and ball valve (ABO/16) replace delivery valve or gasket(HFS/13) if damaged gas.

SPARE PARTS DIAGRAM OF HI-TECH MANUAL SPRAYER AMH16



SPARE PARTS DIAGRAM OF HI-TECH MANUAL SPRAYER AMH16



SPARE PARTS OF HI-TECH MANUAL SPRAYER AMH16

| Ref No | Part No | Part Name | MOQ |
|-----------|------------|-------------------------------|-----|
| AMH-16-1 | HTS / 2 | Filler Hole Cap | 5 |
| AMH-16-2 | HTS / 3N | Gasket For Stainer | 5 |
| AMH-16-3 | HTS/4 | Filler Hole Stainer | 5 |
| AMH-16-4 | HTS/5+6 | Suction Stainer + Element | 5 |
| AMH-16-5 | HTS/7 | Support | 5 |
| AMH-16-6 | HTS/13 | Plastic Tank 16 Ltrs. | 1 |
| AMH-16-7 | HTS/14 | Frame Assly | 1 |
| AMH-16-8 | HTS/15 | Crank Lever Stopper | 2 |
| AMH-16-9 | HTS/16 | Crank Lever Assly | 2 |
| AMH-16-10 | HTS/17 | Piston Assly With Crank Lever | 1 |
| AMH-16-11 | HTS/18 | Axle | 1 |
| AMH-16-12 | HTS/19 | Pump Barrel Holding Clamp | 5 |
| AMH-16-13 | HTS/33 | Suction Assly | 2 |
| AMH-16-14 | HFS/8+9 | Valve Housing+Pin+Ball | 2 |
| AMH-16-15 | HFS/12 | Pressure Vessel | 1 |
| AMH-16-16 | HFS/13+13A | Plastic Retainer+Gasket | 5 |
| AMH-16-17 | HFS/14 | Pump Barrel Assly | 1 |
| AMH-16-18 | HFS/18 | Connector | 1 |
| AMH-16-19 | HFS/19 | Piston | 5 |
| AMH-16-20 | HFS/20 | Piston Ring | 5 |

| Ref No | Part No | Part Name | MOQ |
|-----------|---------|---------------------------------|-----|
| AMH-16-21 | HFS/21 | Piston Lower Plate(Brass) | 2 |
| AMH-16-22 | HFS/22 | Piston Lock Nut | 5 |
| AMH-16-23 | BPK/6N | Operating Handle Assly | 2 |
| AMH-16-24 | BPK/8 | Nut,Bolt Washer For Crank Lever | 5 |
| AMH-16-25 | BPK/9 | Split Pin | 5 |
| AMH-16-26 | BPK/11 | Bearing Bush For Axle | 5 |
| AMH-16-27 | BPK/13 | Cotter Pin For Crank Lever | 5 |
| AMH-16-28 | BPK/14 | Cotter Pin With Nut & Washer | 5 |
| AMH-16-29 | BPK/17 | Piston Holder | 5 |
| AMH-16-30 | BPK/32 | Piston Check Nut | 5 |
| AMH-16-31 | BPK/34 | Piston Union | 2 |
| AMH-16-32 | ABO/16 | Ball Valve | 5 |
| AMH-16-33 | SH/7 | Shoulder Strap Assly | 2 |
| AMH-16-34 | BLK/1N | Buckle With Hook | 6 |
| AMH-16-35 | NPL/M | Delivery Hose Nipple | 6 |
| AMH-16-36 | CPL/M | Delivery Hose Wing Nut | 6 |
| AMH-16-37 | W/4 | Gasket | 5 |
| AMH-16-38 | W/12 | Fibre Gasket | 5 |
| AMH-16-39 | W/14G | Gasket | 5 |
| AMH-16-40 | W/6 | Gasket | 5 |
| AMH-16-41 | W/6A | Gasket | 5 |

| Ref No | Part No | Part Name | MOQ |
|-----------|---------|--------------------------------|-----|
| AMH-16-42 | TVC/N | Trigger Cut Off With Lock | 2 |
| AMH-16-43 | TSV/2A | Plug For Valve Pin | 5 |
| AMH-16-44 | TSV/2 | Valve Pin | 5 |
| AMH-16-45 | TSV/13 | Spring For Valve Pin | 5 |
| AMH-16-46 | TSV/3 | Packing Retainer Collar | 5 |
| AMH-16-47 | TSV/14 | Gland Washer | 5 |
| AMH-16-48 | TSV/3A | Packing Twin | 5 |
| AMH-16-49 | W/6A | Gasket | 5 |
| AMH-16-50 | TSV/4 | Gland Nut | 2 |
| AMH-16-51 | TCV/5 | Operating Lever | 5 |
| AMH-16-52 | EXA/2PG | Extension Rod With Grip(Brass) | 1 |
| AMH-16-53 | NTM | Adjustable Nozzle | 1 |
| AMH-16-54 | NT/1 | Adjustable Nozzle Cap | 2 |
| AMH-16-55 | NMD/S | Duromist Nozzle | 2 |
| AMH-16-56 | NMD/C | Nozzle Cap | 5 |
| AMH-16-57 | NMD/D | Nozzle Disk | 5 |
| AMH-16-58 | NMD/P | Nozzle Gasket | 5 |
| AMH-16-59 | W/61 | Gasket | 5 |

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

AMH-16 HI-Tech Manual Sprayer

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

AMH-16 HI-Tech Manual Sprayer

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

COMPANY COPY



Purchaser's Name & Address

Product Name

AMH-16 HI-Tech Manual Sprayer

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-imbursalment. 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

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-imbursalment. 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

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-imbursalment. 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



1st Free Service Coupon

ISO 9001-2008
CERTIFIED COMPANY

FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))

Model
AMH-16 HI-Tech Manual Sprayer

Serial Number

PDI Date

Purchase bill no.

Date

Service No.

Dealer's Office Seal

- 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 Signature.....

Customer Signature.....

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



agriculture | horticulture | sericulture | plantations | forestry | garden | health care

WARRANTY AND FREE SERVICE COUPON



2nd Free Service Coupon

ISO 9001-2008
CERTIFIED COMPANY

FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))

Model
AMH-16 HI-Tech Manual Sprayer

Serial Number

PDI Date

Purchase bill no.

Date

Service No.

Dealer's Office Seal

- 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 Signature.....

Customer Signature.....

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



agriculture | horticulture | sericulture | plantations | forestry | garden | health care

WARRANTY AND FREE SERVICE COUPON



3rd Free Service Coupon

ISO 9001-2008
CERTIFIED COMPANY

FREE SERVICE COUPON (30 Days / 20 hrs (Which ever is earlier))

Model
AMH-16 HI-Tech Manual Sprayer

Serial Number

PDI Date

Purchase bill no.

Date

Service No.

Dealer's Office Seal

- 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 Signature.....

Customer Signature.....

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



agriculture | horticulture | sericulture | plantations | forestry | garden | health care

WARRANTY AND FREE SERVICE COUPON



Small Maintenance. Big Savings.



Small Maintenance. Big Savings.



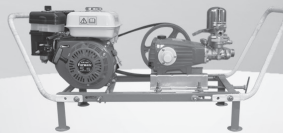
Small Maintenance. Big Savings.

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 minimise 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.
- When the machine is running, please maintain a constant water supply. Without water circulation will damage the sealing rings of the machine.
- 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

RATNAGIRI IMPEX PVT LTD
Annapurna House, #1/1G, 7th Cross, New Guddadahalli
Mysore Road, Bangalore-560 026
Customer Care: 1800-425-7475
email: customercare@ratnagiriimpex.com



Marketed by:

ratnagiri[®]
impex
BRINGING YOU THE FUTURE... NOW

www.ratnagiriimpex.com

AN ISO 9001:2008 CERTIFIED COMPANY