

# Squirt

## Operator's & Parts Manual



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#### Disclaimer

Any advice or recommendations given by Goldacres, Goldacres' dealers, or employees is given in good faith and provided based on the best information available to us. No liability or responsibility is accepted or implied as a result of any information or advice tendered in this operating manual or by Goldacres its agents or employees. The end user accepts all responsibility arising from that advice. No part of this manual may be reproduced without written permission from Goldacres. All photographs and technical information remain the property of Goldacres.

# Introduction

Congratulations on your purchase of a Goldacres sprayer. For more than a quarter of a century Goldacres has supplied Australian farmers with quality, innovative and technologically advanced spraying solutions - equipment designed in Australia for Australian conditions.

Goldacres not only produce Australia's finest range of spraying equipment - we also keenly value the unique relationship we enjoy with owners of our equipment. We are pleased to welcome you as a Goldacres owner and look forward to making your spray applications as efficient as possible.

Please use this comprehensive resource to gain a full understanding of your equipment, and don't hesitate to contact your Goldacres Dealer or Goldacres for further information.

A handwritten signature in black ink, appearing to read 'Roger Richards', written in a cursive style.

Roger Richards  
General Manager

# Safety

## General

The following pages outline important safety information. At Goldacres safety is a high priority. These safety and warning instructions **MUST** be followed to ensure the safe operation of your Goldacres equipment.

Explanation of key terms used in this operator's manual are:

**DANGER** - You will be killed or seriously hurt if you don't follow instructions

**WARNING** - You can be seriously hurt if you don't follow instructions

**CAUTION** - You can be hurt if you don't follow instructions

**NOTE** - Is used to notify people of installation, operation or maintenance information that is important but not hazard related.

## The Operator

All operators of this equipment should be adequately trained in the safe operation of this equipment. It is important that all operator's have read and fully understand the operators manual prior to using this equipment.

All new operators should be trained in an area without bystanders or obstructions and become familiar with the sprayer prior to operation.

## Safety Precautions

### WARNINGS

- Keep clear of overhead obstructions.
- Any unauthorised modifications to this equipment may affect its function and create a serious safety risk.
- Never attempt to clean parts or nozzles, by blowing with mouth.
- Never attempt to siphon chemicals, or substances, by sucking.

**NOTE:** 1 LITRE WATER = 1KG.

- Water weighs 1kg per litre, however conversion factors must be used when spraying liquids that are heavier or lighter than water. Example: liquid urea has a density of 1.28 kg/L and will therefore be

significantly heavier than water if the tank is filled completely.

- Regularly check the pump mounting bolts. The pump will always vibrate to some degree when operating, and this may work the bolts loose.

### CAUTIONS

- A supply of fresh water should be with the equipment at all times.
- Standard polyethylene tanks are not designed for use with diesel fuel or any flammable liquid.
- Do not use this machine in ambient temperatures exceeding 40 degrees Celsius.
- Ensure that all bolts are tightened and secured before operation.
- Area surrounding equipment may become slippery when wet.

### NOTES

- Always read and understand the operator's manual prior to operation of this equipment.
- It is the responsibility of the operator to ensure that there are no decals missing from the equipment and that any damaged or missing decals are replaced prior to operation.
- Goldacres equipment ordered or operated, outside the guideline limitations may not be warranted by Goldacres for successful performance. Operators working outside these limitations do so at their own risk, unless specific advice has been sought from and provided by Goldacres in writing.
- Always read and follow the chemical manufacturer's guidelines for safe application as per the chemical label. Particular attention should be given to the recommended target application rate of the chemical being applied as per the chemical label.
- Inspect the equipment thoroughly for damage and wear before operation.
- Flush chemicals from equipment immediately after use.

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- Certain chemicals may be unsuitable for use with Goldacres standard plumbing designs. Consult your Goldacres dealer if in doubt.
- Do not operate the equipment while under the influence of any drugs, alcohol or if excessively tired.
- Make sure that the equipment complies with all relevant road regulations when transporting.
- When draining fluids from the equipment use appropriate, leak proof containers. Do not use food or beverage containers as someone may consume the contents by mistake.
- After reading the operator's manual if there is any thing that you do not understand please contact your Goldacres dealer.

### **Safe Chemical Use**

The safe use of Ag chemicals with this equipment is the responsibility of the owner/operators. All operators should be trained in the safe use of Ag chemicals. Goldacres suggest that a relevant course is completed by owners/operators prior to operation of this equipment as a spray unit.

### **Personal Protective Equipment (PPE)**

Always wear close fitting clothing and safety equipment designed for the job.

Chemicals can be harmful to humans, appropriate PPE should be used when handling chemicals.

Always refer to the chemical manufacturers label for guidelines on the appropriate PPE to use with the chemicals you are using.

Goldacres also suggest that you read and understand the following Australian standards:

- Australian Standard for Chemical protective clothing AS3765
- Australian Standard for Respiratory protection devices AS1715

### **Airborne particles**

Always stand well clear of equipment during operation. Any spray drift is dangerous and may be hazardous to humans and animals.

### **Fluids under pressure**

Do not disconnect any hoses, nozzles or filters while equipment is operating. Disconnecting these components while under pressure may result in uncontrolled fluid discharge which may be hazardous.

When the repair is complete ensure that all fittings and lines are secured before re-applying pressure.

### **Cuts, Stabs & Punctures**

When Servicing machine, be mindful of sharp edges on parts such as trimmed cable ties, hose clamps, cut reinforced hose and the edges of plates and brackets as they could cause cut, stab or puncture injuries.

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## Safety Decals

Understanding safety decals and their purpose assists in the safe operation of your sprayer. Safety decals are there for your protection and it is the responsibility of the owner operator to replace damaged and/or missing safety decals.

Regularly review safety decals with operators. It is very important to ensure that all new machine components and replacement parts include current hazard identification decals.

Replacement safety decals can be ordered from all Goldacres dealers.

### Squirt Decal GA5064855



### Safety Warnings GA5064860

 **SAFETY WARNINGS**

**Failure to observe the various warnings may result in serious injury or death and/or reduced sprayer performance.**

- Ensure all users read and understand the operator's manual before spraying.
- This sprayer is designed and manufactured for the purpose of applying agricultural chemicals to plants only. It should not be used for any other purpose.
- Before using any chemical product, read and heed the instructions on the chemical label, and be sure that the instructions are fully understood. If confusion still arises, contact your local chemical supplier or chemical company. Refer to the chemical label for correct disposal of chemical residue.
- Do not operate the sprayer while under the influence of any drugs or if excessively tired.
- All spray equipment should be cleaned after each spray application. Refer to the chemical label or contact your chemical supplier for specific cleaning instructions and decontaminating agents.
- Do not let children use the sprayer.
- Always point the lance away from people.
- Flammable liquids should not be pumped, and the pump should not be operated in an explosive environment.

**Power cord inlet**      **Meter**      **ON/OFF**

GOLDACRES

# Warranty

## How to make a warranty claim

In the event of a fault or breakdown with your product, that you believe to be a warranty issue, the following steps must be taken.

1. Ensure that you have read the Operator's Manual and gone through the troubleshooting procedure.
2. If you continue to experience problems then please contact your local authorised Goldacres dealer. They will advise the method of warranty service for your product.

Sales documentation and information on delivery and installation must have been submitted before a claim can be requested.

## Warranty Duration

Goldacres' standard warranty is 12 months from date of purchase.

## Warranty Inclusions

- Chassis
- Steel Boom Components
- Tanks
- Electrical wire and connectors, (non-contaminated)
- Consoles and controllers
- Electrical motors and drivers
- Wheels, tyres and rims
- Pins and bushes\*
- Pump housing
- Hydraulics
- Axle frame only
- Shockers and dampeners
- Wire cables
- Springs
- Drive chains\*
- Wheel bearings\*

\*Failure caused by lack of lubrication not covered.

## Warranty Exclusions

- Pump diaphragms
- Pump Seals
- Pump check valves

- Pump O-rings
- Filters and filter screens
- Filter O-rings
- Chemical Hoses
- Solenoid Diaphragms
- Hand Gun, lance or wand seals and O-rings
- Consumables, chemicals, fuels
- Items controlled by or fitted to Non Genuine parts or devices
- Contamination or corrosion of components
- Hose reel seal and O-rings
- Pressurised sprayer seals and O-rings
- Belts, couplings
- Adjustment of components
- Brake pads and components
- Globes / Bulbs
- Fuses
- Oil / fluids / filters (Unless contaminated or lost due to a warrantable failure)
- Boom break away tips
- Boom break away hinges
- Boom protectors
- Nozzles
- Nozzle Bodies
- Nozzle Body Brackets
- Nozzle Diaphragms and seals
- Wiper Blades
- Skid plates
- Wear plates
- Damaged items
- Worn or wearing items

# Goldacres Warranty Statement

This warranty is the only warranty applicable to Goldacres new products (Products) and to the maximum extent as permitted by law, is expressly in lieu of any other conditions or warranties expressed or implied in relation to the Product.

In Australia, Goldacres Products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This Warranty gives you additional protection for your Goldacres product and identifies a preferred approach to resolving warranty claims which will be the quickest and simplest for all parties subject to the exclusions, terms and conditions below.

Goldacres warrants its authorized Dealers who in turn warrants the original purchaser (Owner) that each new Goldacres Product will be free from proven defect in materials and workmanship for twelve (12) months from the date of delivery to the first owner according to conditions outlined herein.

Subject only to legislative obligations to the contrary, Goldacres shall not be liable for incidental or consequential damage resulting from ownership or use of a Product.

Goldacres does not authorize any person to create for it any other obligation or liability in connection with these products.

The repair of the defective Product qualifying under this warranty will be performed without charge for labour and parts by any authorized Goldacres service outlet within a reasonable time following the delivery of the Product, at the cost of the owner, to the service outlet / place of business advised

Goldacres in its absolute discretion may choose to pay the cost of replacement or repair of the product.

If the Product will be repaired or replaced, using parts as supplied by Goldacres, repair may include, at Goldacres discretion, the replacement of parts with functionally equivalent remanufactured, reconditioned or new parts.

Goldacres may request failed parts to be returned to the factory.

## Conditions of Warranty Coverage

The warranty covers only conditions resulting directly from defects in workmanship or materials used under normal use and service conditions.

The Warranty is not transferable.

The owner is responsible for the performance of regular maintenance and service as specified in the owner's / operators manual applicable to the product. Failure to follow regular maintenance as

advised may invalidate the warranty.

The owner must provide the Goldacres Dealer with prompt written notice of the defect (within 14 days of it occurring) and allow reasonable time for repair and/or replacement.

## Goldacres warranty cover excludes:

- Claims resulting from misuse, use of incompatible chemical or fluids, exceeding the Product's specifications including overloading, impact damage, negligence, accidental damage or failure to perform recommended service or service intervals or use the Product with good care.
- Failure due to faulty or inadequate electrical sources of power. 12 volt power sources must be checked for suitability to operate the product.
- The time taken to remove and re-install warranted parts, products or components fitted to other than Goldacres brand products will not be covered by Goldacres Warranty. Only labour and parts directly attributable to the repair of the Goldacres unit is covered.
- The cleaning of parts or products before or after the warranty repair. Cleaning time is considered a customer expense.
- Any Goldacres Product which has been repaired by other than an authorized Goldacres dealer in a way which, in the sole and absolute judgment of Goldacres, adversely affects its performance or reliability.
- The replacement of maintenance items such as diaphragms, batteries, belts, etc.
- Loss of time, inconvenience, loss of use of the product, liability to third parties or any other consequential damages including damage to crops, profits or revenue, other commercial losses inconvenience or cost of rental or replacement equipment.
- Incidental costs associated with a warranty repair including any travel costs, out of hours labour charges, transportation costs, freight costs or any communications costs.
- Goldacres products purchased at auction or in used condition.

Procedure for claiming:

Claims must be made through a Goldacres Dealer. To make a claim under this Warranty, you should

- Contact your local Goldacres Dealer,
- Phone 1300 301 853 to locate a Goldacres Dealer.

Owners returning products to a Goldacres Dealer will require the original Dealer tax invoice, a copy of the tax invoice or delivery docket and any instruction manuals, information booklets or guides that were shipped with the Product.

# Goldacres Terms & Conditions

1. These terms and conditions apply to all goods and/or services supplied by us to you. You are agreeing to them by placing an order with us.

2. Unless you have a previously approved account with us you must pay us the purchase price for the goods and/or services we supply to you, together with any other applicable fees or charges immediately on delivery or collection of the goods, or if ordered online or by phone on the placement of your order. All repairs or servicing must be paid for before we will release the goods to you. If you do have an account with us the separate terms of that account apply.

3. Time is of the essence for all payments required under these conditions.

4. Unless specifically stated otherwise, all prices which we quote or estimate to you are inclusive of GST for goods supplied within Australia and exclusive of GST for goods exported outside of Australia. If GST is payable on a Taxable Supply made by us to you, then you must also pay the amount of GST payable in respect of that Taxable Supply as an additional payment.

5. You must pay interest on any amounts not paid by the due date at a rate 2% higher than the rate for the time being fixed under section 2 of the Penalty Interest Rates Act 1983 (Victoria) as at the date the amount became due.

6. Property in goods supplied (and in any goods which we may have previously supplied to you) remains with us until we have been paid in full for all amounts you owe us including payment for the goods and any applicable interest, fees and charges, and until then:

(a) you hold the goods only as a bailee and have no right to claim any other interest in the goods, including any security for any liquidated or unliquidated debt or obligation that we owe you, or any lien over the goods;

(b) we may enter and recover possession of the goods from any site owned, possessed or controlled by you and you grant us an irrevocable licence to do so;

(c) you must not deliver or on-supply any of the goods (nor any document of title to them) to any person, but if you do then you hold the proceeds of the on-supply of the goods on trust for us and must pay the amount to us immediately when received;

(d) you must not allow any person to have or acquire any security interest in the goods nor create any absolute or defeasible interest in the goods in relation to any third party except as we may authorise;

(e) you must insure the goods for their full insurable or replaceable value (whichever is higher) and provide us with details of the insurance if we request it;

(f) you must not remove, deface or obliterate any identifying mark or number on any of the goods;

(g) your right to possession of the goods ceases if we recall or recover the goods, or if you become insolvent, you enter into voluntary or involuntary administration or receivership, or a petition is filed for your bankruptcy or winding up.

You further agree:

(h) that the retention of title under this clause is a security interest within the meaning of the Personal Property Securities Act 2009 (Cth) ("PPSA");

(i) to grant us a purchase money security interest (as that term is defined in the PPSA) in relation to the goods;

(j) to contract out of all of your existing and future rights under the provisions referred to in paragraphs (a) through to (r) of section 115(1) of the PPSA, to the full extent permitted;

(k) to sign any documents or do any things which we may reasonably require to enable us to register a financing statement or financing change statement on the register (as defined in the PPSA);

(l) to pay any costs we incur in registering and maintaining a financing statement (including registering a financing change statement) and enforcing the security interest created under these terms and conditions.

7. Risk in the goods passes to you upon their delivery to or collection by you.

8. You hereby indemnify us and our employees, directors, contractors and agents against, and release us and them from, any loss (including reasonable legal costs and expenses) or liability incurred by us and/or them arising from any claim, demand, suit, action or proceeding by any person against us and/or them where such loss or liability arose directly or indirectly from or in connection with any breach of these terms and conditions or from use of the goods and/or services unless such liability is directly caused by the negligence or default of the person indemnified.

9. You, or anyone on your behalf must not, and you must take steps to ensure that your employees, agents and contractors do not, nor assist anyone else to:

(a) copy, memorise, reproduce, misappropriate or reverse engineer the whole or any part of the goods

(b) challenge, contest or oppose any of our intellectual property rights

(c) use any name or logo associated with the goods other than as we authorise you

(d) divulge our confidential information to any person or use it for your own benefit except as we have expressly authorised or as required by law.

10. Any specifications, drawings, details, statistics or performance figures we may have given you about the goods and/or services are only estimates and any deviation does not entitle you to make any claim against us. Any sample is provided only to indicate the general nature of the product, and we do not warrant that goods supplied will exactly correspond with any sample or with any previous or future goods supplied.

11. Except as stated in any separate written warranty we may provide you with the goods or a quote, under no circumstances will we have any liability to replace or repair defects in the goods where:

(a) the defects have not arisen solely from faulty materials supplied by us or faulty workmanship by us;

(b) the goods have received maltreatment, inattention or interference or have been used, applied, packaged or stored other than in accordance with our instructions and recommendations;

(c) products not manufactured by or approved by us have been used with the goods.

12. Except as provided in these conditions, all express and implied warranties guarantees and conditions under statute or general law as to merchantability, description, quality, suitability or fitness of the goods for any purpose or as to design, assembly, installation, materials or workmanship or otherwise are expressly excluded. We are not liable for physical or financial injury, loss or damage or for consequential loss or damage of any kind arising out of the application, supply, layout, assembly, installation or operation of the goods or arising out of our negligence or in any way whatsoever. The exceptions in clause (12) extend to any Third Party Accessories installed in the goods.

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13. If any condition or warranty is implied into this agreement under the Competition and Consumer Act (2010) (Cth) or any equivalent State or Territory legislation and cannot be excluded, then our liability is limited to one or more of the following:

(a) in the case of goods, the replacement of the goods or the supply of equivalent goods, the repair of the goods, the payment of the cost of replacing the goods or of acquiring equivalent goods, or the payment of the cost of having the goods repaired;

(b) in the case of services, the supplying of the services again, or the payment of the cost of having the services supplied again.

14. Nothing in these conditions is to be read or applied so as to exclude, restrict or modify or have the effect of excluding, restricting or modifying any condition, warranty, guarantee, right or remedy implied by law and which by law cannot be excluded, restricted or modified.

15. Any quotes on pricing provided by us are consistent with the prevailing market at the time of quotation, including considerations as to rates of freight, insurance, customs, duties, exchange, shipping expenses, sorting and stacking charges, cartage, cost of materials and other charges affecting the cost of production prevailing at that date.

16. Any increases in the quote price occurring either before or during the agreement, shall be to your account.

17. Our quotations are open for acceptance within the period stated therein. If no period is stated, our quotations are open for acceptance for (14) fourteen days from the date the quote was given.

18. All prices listed in our quotations and product catalogue are subject to change or alteration without notice.

19. Unless we otherwise agree in writing we accept credit card or eftpos payments only...

20. We do not accept payment by cheque unless we have previously agreed in writing to do so.

21. Any goods you deliver to us must be free of any chemicals. If you deliver goods that are not free of chemicals, you must pay any costs incurred by us including the cost of our own staff in removing and disposing of the chemicals and cleaning the goods.

22. If after 28 days of notifying you that your goods are ready for delivery we have received no communication from you, we retain any rights under the Australian Consumer Law and Fair Trading Act 2012 (Vic) to sell the goods to recover the value of any outstanding debt you may owe us.

23. You are responsible for backing up any Data that you, or your agent, may install on the goods. If the Data is wiped, corrupted, or lost, we are not liable (whether we are negligent or otherwise) for any damage that may result from that Data being wiped, corrupted or lost.

24. Before you use any of our goods you must check, and if necessary adjust, all settings to ensure the goods are properly calibrated.

25. We are not liable to you for any failure by us to perform any of our obligations under this agreement caused by an impediment or circumstance beyond our control.

26. In these terms and conditions,

(a) "we", "us" or "our" means the entity within the Goldacres Group from which you purchase goods and/or services, including, but not limited to:

i. Goldacres Trading Pty Ltd ACN 061 306 732; and

ii. Goldacres Sprayer Centre Pty Ltd ACN 639 231 520

(b) "you" or "your" means the individual or company that purchases goods and/or services from us.

(c) "our confidential information" includes all of our secrets, ideas, know how, concepts, information, copyright, computer programs, manuals, precedents whether in writing or in any other form and all other information relating to us or our affairs, businesses, sales, marketing or promotional information, and any information about the ingredients, mix, make-up or manufacturing process of the goods

(d) "goods" includes any associated services except where the context does not permit.

(e) "Third Party Accessories" includes anything incorporated in the goods that is manufactured and supplied to us by a third party.

(f) "Data" includes any information capable of being installed and/or stored on an electronic device.

\_\_\_\_\_ End \_\_\_\_\_

# General Information & Specifications

The Squirt is a compact portable sprayer designed for spot spraying with a 30L tank and adjustable spray lance. The tank, pump and lance are corrosion resistant and are suitable for the application of a wide range of pesticides.

## Know Your Sprayer

Getting to know your sprayer prior to operation is crucial in the safe and efficient operation of this equipment. Take the time to familiarise yourself with the components fitted to your sprayer. You need to know where key components are located on your machine and become competent in the correct operation of these components prior to spraying operation.

It is also important to become familiar with common spraying methods and common spraying terms prior to using this sprayer for the first time.

## Tank

All tanks are constructed from UV resistant polyethylene. Polyethylene tanks have a very high chemical resistance.

Due to the moulding process, there can be a variance in the overall dimensions of the tank which in turn results in variations to the tank capacity. For this reason, calibration markings should be used as a guide only.

## Pump

The pump runs on a rechargeable 12 volt battery pack.

The pump is critical to any sprayer performance. Correct operation and maintenance of the pump will ensure the sprayer is able to perform to its capabilities.

Make sure the pump wires are connected up to the correct terminals (red to positive, black to negative) if replacing battery.

Always flush pump with clean water after every use. Prolonged chemical contact can severely damage valves, diaphragms and seals.

Do not leave water in pump if sprayer is to be left in a cold environment. The water may freeze and cause damage to pump. Empty pump of all water and cover the pump to ensure this situation does not arise. If this has

not been done, and there is a possibility there may be frozen water in the pump, wait until any ice has thawed before using the pump.

The 12 volt pumps are positive displacement diaphragm pumps which provide delivery upon demand.

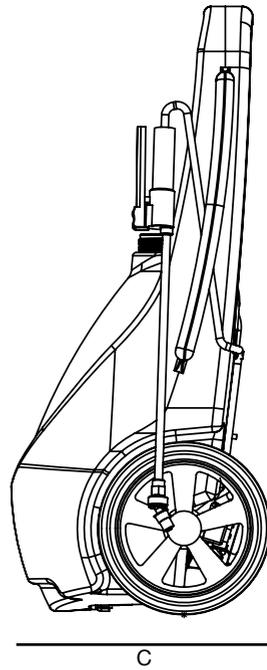
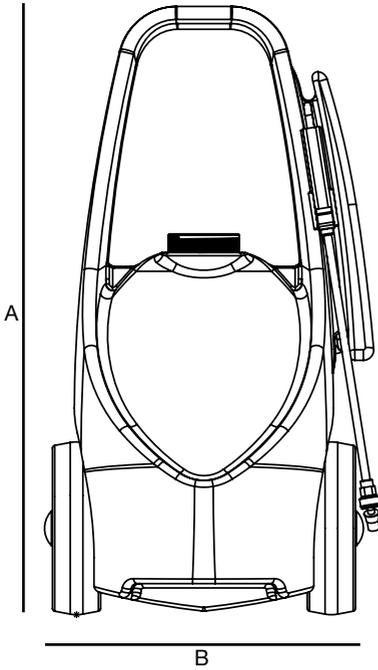
They are self-priming and some models are fitted with a pressure switch which senses the outlet pressure of the pump. The pressure switch turns the electrical power off to the pump at a pre-determined high pressure point.

As the outlet side of the pump is opened, the pressure starts to drop and at a pre-determined point contacts in the switch will close causing the pump to start automatically. The pump will then pump until the pressure reaches the shut-off pressure point.

## Machine limitations

All Goldacres equipment is subject to operating limitations, it is the operator's responsibility to ensure that this equipment is being operated within these limitations and appropriately to the operating conditions at hand.

# Dimensions



## Squirt

Model	A	B	C	Net Weight
30L	880	470	380	14 kg

**NOTE:** Dimensions are in millimeters and are approximate only. They may be subject to change without notice.

# Battery

**IMPORTANT:** Just like a mobile phone, this unit requires frequent charging and should not be allowed to get too flat. **Failure to charge the battery will result in early failure.** Allow 12 hours charging following a day's use.

**IMPORTANT:** The battery charger will not recognise that there is a battery to charge if the battery is allowed to get too flat.

## Battery Charging

The following steps should be followed:

1. Switch the 'On/Off' switch to OFF.
2. Empty contents of tank and ensure that the exterior is dry.
3. Connect the battery charger to any AC 240V/50Hz power point.
4. Connect the male plug of the charger to the female recharge socket on rear panel.
5. See the key to understand the LED light conditions on the charger.
6. Once fully charged, it is possible to confirm the battery condition by switching the power switch ON and OFF again and checking that the volt meter needle moves to the red or green zone. Charge for longer if the meter stays in the yellow zone when doing this test.
7. Make sure the power switch is set to OFF and disconnect the charger.
8. Follow the 'Spray Application' instructions to begin spraying.

## Battery Replacement

The following steps should be followed:

1. Ensure that the battery is 12V DC and matches the original size and rating (GA5004493).
2. Connect the red connector to the positive (+) terminal and the black connector to the negative (-) terminal.



**GREEN:** Battery charger is powered but no battery detected.

**RED:** Battery is detected and charging.

**GREEN:** Battery is detected and fully charged.



Volt meter



Power switch

## Filling

When filling the sprayer it is necessary to use an external water source and wear the appropriate PPE.

The following steps should be followed when filling the tank:

1. Turn the pump off.
2. Remove the tank lid.
3. Add chemical as required. Some agitation will take place during the water filling process after adding the chemical.
4. Use external water source to fill main tank (Do not exceed the tank capacity).
5. Replace the tank lid and ensure that it is secure prior to switching on pump. You are now ready to use the sprayer.

## Agitation

Agitation should take place when filling or through another method as deemed suitable by the operator.

## Spray Application

**NOTE:** It is the responsibility of the operator to ensure that the chemical mix is sufficiently agitated and that the conditions are right to start spraying. Operators must wear the appropriate PPE.

1. Remove re-charging plug from the control panel
2. Check unit for damage and to ensure that there are no leaks.
3. Remove suction strainer and clean.
4. Replace suction strainer.
5. Follow the filling steps from previous section.
6. Switch pump ON using 'On/Off' switch. The pump will run until sufficient pressure is achieved and then the pump will stop.
7. Use the lance by depressing the trigger. The pump will then automatically maintain the correct pressure and flow depending on nozzle adjustment.
8. Adjust the nozzle pattern as required by rotating the nozzle in the appropriate direction as required.

9. Use a consistent speed or swath pattern to ensure even coverage of the target, or adjust the method of application according to your target.

**NOTE:** Ensure that the pump is switched to OFF when no longer required.

## Calibration

All sprayers need to be calibrated and kept in good condition. This will ensure that the correct rate of chemical is applied to the target.

Follow these steps to calibrate the sprayer:

1. Measure the spray width of the nozzle on a dry surface (in metres).
2. Spray a test area at the intended pressure and speed. Record distance (in metres) covered in one minute (minute).
3. Measure the nozzle output in litres over one minute in a measuring jug (l/min).

The spray volume can be calculated by the following formula:

$$\text{Application rate (L/Ha)} = \frac{\text{Nozzle output (l/min)} \times 10,000}{\text{Spray width (m)} \times \text{speed (m/min)}}$$

## Flushing

Always flush pump with clean water after every use. Prolonged chemical contact can severely damage valves, diaphragms and seals.

For more specific information regarding flushing, and decontamination, specific to the products that you are applying, it is recommended that you consult the chemical label or your chemical supplier.

1. Turn pump off
2. Disconnect fitting in base of unit that runs to the pump and drain main tank.
3. Add a quantity of fresh water to main tank and allow to drain through the bottom.
4. Replace pump line fitting and add quantity of fresh water and also decontaminating agents if required to tank.
5. Turn on pump, and spray liquid through the lance to ensure circulation through all components.
6. Drain remaining contents of liquid, rinse with fresh water and replace tank drain plug. The sprayer is now ready for storage.

## Storage

If the sprayer is to be stored for a long period of time without use, there are several tasks that need to be performed.

1. Clean the sprayer thoroughly as described under “flushing”
2. Store the sprayer out of direct sunlight and where it will not be affected by frosts
3. Ensure that the main tank is empty
4. Protect hoses and electrical connections

## Pump Operation

The 12 volt pumps are positive displacement diaphragm pumps which provide delivery upon demand. They are self-priming and are fitted with a pressure switch which senses the outlet pressure of the pump. The pressure switch turns the electrical power off to the pump at a pre-determined high pressure point. As the outlet side of the pump is opened, the pressure starts to drop and at a pre-determined point contacts in the switch will close causing the pump to start automatically. The pump will then pump until the pressure reaches the shut-off pressure point.

**CAUTION:** Do not adjust the pressure switch such that the pumping pressure exceeds the maximum pressure for the pump.

**NOTE:** If the flow demand is very low, the pump may reach this high pressure point and cause “cycling” (pump turns on and off rapidly). This is not a problem unless the pump is subject to continuous cycling within two second intervals for long periods of time.

# Maintenance & Troubleshooting

The troubleshooting information is provided as a reference when your sprayer is not functioning correctly.

To ensure that you receive the best possible service, it is recommended that you exhaust all applicable troubleshooting solutions shown prior to calling your dealer, or Goldacres, for service advice.

<b>Problem</b>	<b>Possible Cause</b>	<b>Possible Remedy</b>
Pump not priming	Valves damaged Restriction in suction line Restriction in delivery line Diaphragm damaged	Check, clean and/ or replace valve kit Check suction line Check delivery line Replace diaphragm
Pulsating liquid flow	Pump switching on and off due to pressure switch Pump sucking air	Alter settings of the pressure switch Alter the adjustable conejet nozzle Restricted pump delivery Check suction line
Pump pressure lower than expected	Suction filter screen blocked Restriction in suction line Valves damaged Diaphragm damaged Pump sucking air Insufficient voltage	Clean screen Check hoses, fittings and tank outlet Check/or replace valve kit Check/or replace diaphragm Check suction line Check power supply
Pump stopping and starting when not in use	Valves damaged Insufficient voltage Damaged diaphragm	Check valves Check power supply Check/or replace diaphragm

# Pump Troubleshooting

## Pump Will Not Start Check:

- Fuse or breaker
- For correct voltage ( $\pm 10\%$ ) and electrical connections
- Pressure switch operation and correct voltage at switch or motor wires (as equipped).
- Rectifier or motor for open or grounded circuit

Drive assembly locked

## Will Not Prime Check:

(No discharge/motor runs)

- Out of product
- Strainer for debris
- Inlet tubing/plumbing; severe vacuum leak
- Inlet/Outlet tube severely restricted (kinked)
- Debris in pump inlet/outlet valves
- Proper voltage with the pump operating ( $\pm 10\%$ )
- Pump housing for cracks

## Leaks From Pump Head Or Switch:

- For loose screws at switch or pump head.

- Switch diaphragm ruptured or pinched
- For punctured diaphragm if fluid is present at bottom drain holes.

## Pump Will Not Shut-Off Check:

(Pressure switch equip.)

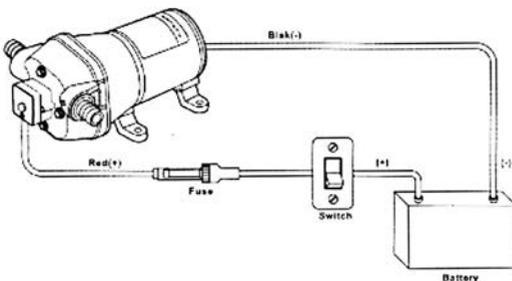
- Output line closed and no leaks
- For air trapped in outlet line or pump head
- For correct voltage to pump ( $\pm 10\%$ )
- Inlet/Outlet valves for debris or swelling
- For loose drive assembly or pump head screws
- Pressure switch operation/adjustment incorrect. Refer to relevant pump manual for differential and pressure adjustment procedure.

## Noisy / Rough Operation Check:

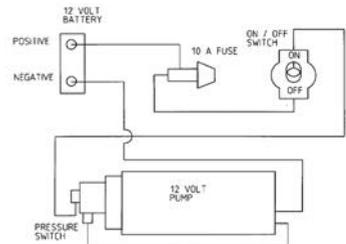
- Mounting feet that are compressed to tight
- For loose pump head or drive screws
- Does the mounting surface multiply noise (flexible)
- Is the pump plumbed with rigid pipe causing noise to transmit

# Pump Wiring

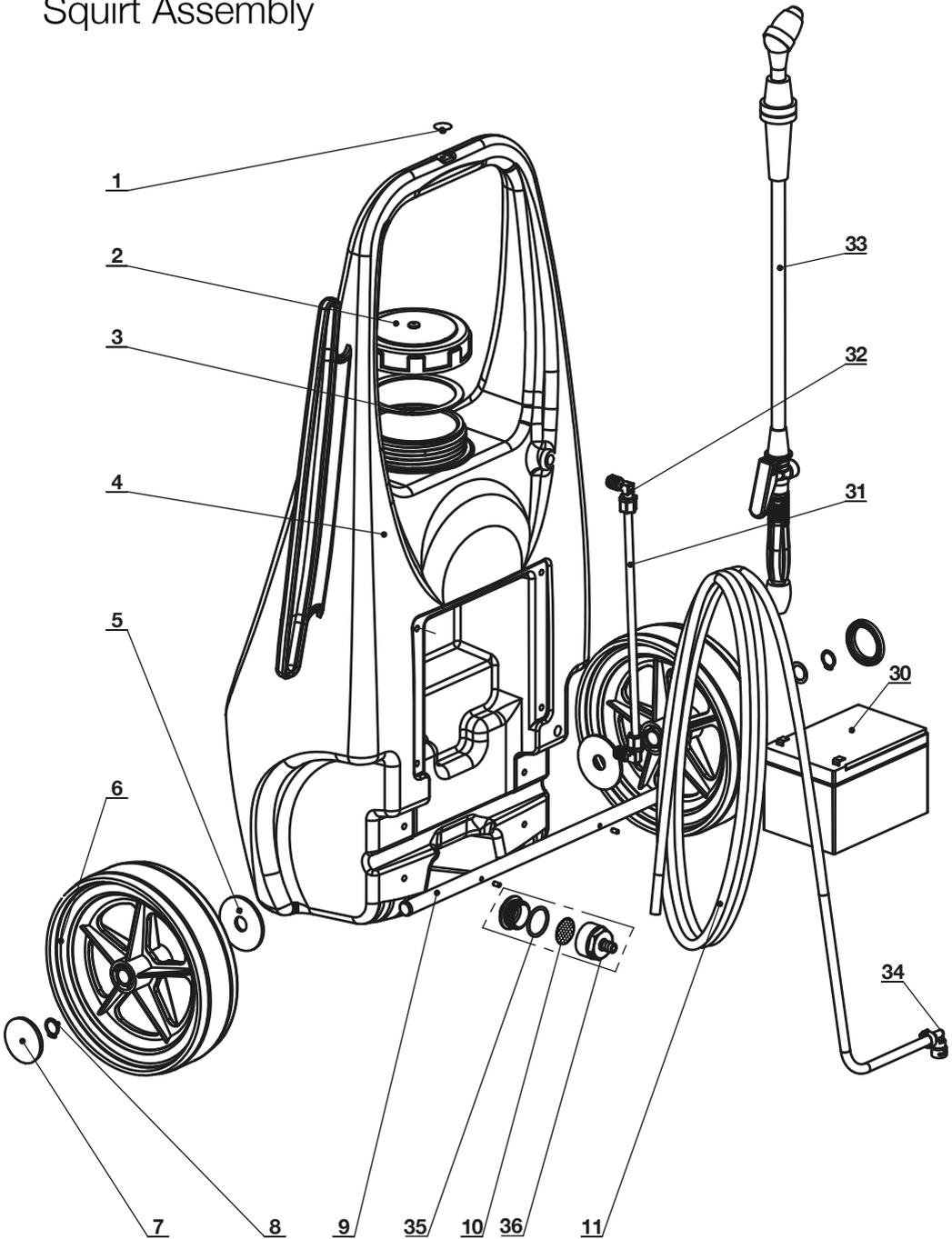
**Important:** Connect Red to Positive (+) terminal and Black to Negative (-) terminal.



12v Pump wiring diagrams

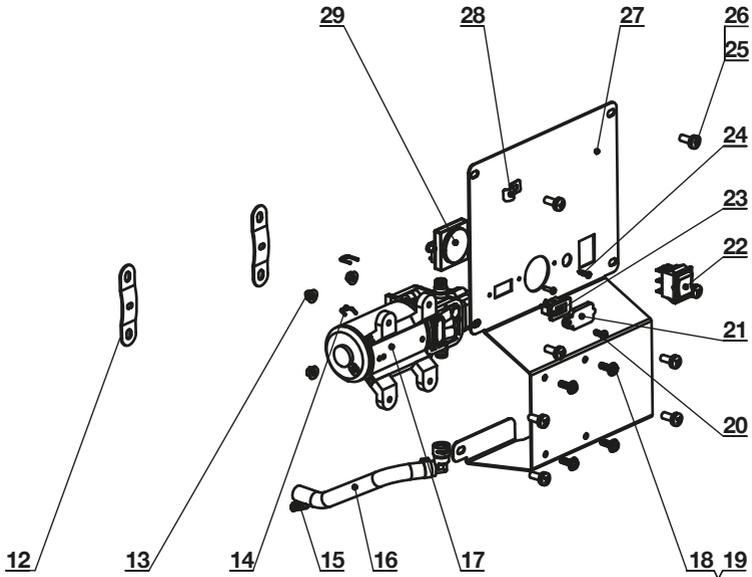


# Squirt Assembly



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# Squirt Assembly



**NOTE:** Not all parts are available as spares.

Pos.	Part No.	Description	Qty.
-	GA5025120	Wiring harness complete, inc. power switch, charge inlet, volt meter & fuse holder, suit 2012+	1
-	GA5020455	Battery charger, suit Pre-2012	1
-	GA5023055	Battery charger, suit 2012+	1
1	-	Vent	1
2	GA5076885	Lid, Diameter 113 mm, with Breather & seal	1
3	-	Comes with lid GA5076885 above	-
4	GA5018521	Tank, 30 Litre Squirt	1
5	-	Rotating shaft gasket	2
6	-	Wheel	2
7	-	Cover for wheel	2
8	GA5007132	Circlip Ext 15mm	2
9	-	Wheel axle	1
10	GA5008755	Filter screen, in line 3/4" OD, suit Pre-2012	1
	GA5072550	Filter screen, 40 Mesh, Outlet fitting, suit 2012+	1
11	GA2000200	Hose, Pressure, 7mm, Black (250psi)	1
12	-	Fixed gasket	2
13	-	M5 screw	4
14	-	U type latch	2
15	-	Adjustable clamp	1
16	GA2000207	Hose, Sight tube, 10mm clear, Wire reinforced	1
17	GA5023730	Pump	1

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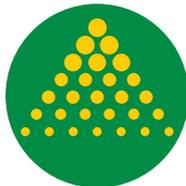
# Squirt Assembly

Pos.	Part No.	Description	Qty.
18	-	M5x13 cross screw	4
19	-	D5 gasket	8
20	-	M4x10 cross screw	1
21	See GA5025120	Waterproof gasket - Supplied as part of GA5025120	1
22	See GA5025120	Power switch - Supplied as part of GA5025120	1
23	See GA5025120	Power cord inlet - Supplied as part of GA5025120	1
24	-	PA3 12 screw	2
25	-	M6x7 screw	8
26	-	D6 gasket	8
27	-	Panel	1
28	-	Fixed buckle	1
29	See GA5025120	Volt Meter - Supplied as part of GA5025120	1
30	GA5004493	Battery, Rechargeable, Sealed lead acid, 12V 7.2AH, W 62 x H 95 x L 151mm, Blade terminals	1
31	GA5004363	Plastic tube 4mm clear - Cut to 280 mm	1
32	GA5045145	Elbow, swivel, push in 6mm, Brass 1/8" BSPT	2
33	GA5023885-SK	Replacement lance & accessories	1
34	-	Drain Elbow	1
35	GA5053510	O ring, 25 x 2.5 mm, suit 2012+	1
36	GA5012387	Hose barb & nut, Straight, 3/4" hose, Suit 1/2" filter, with O-ring, suit Pre-2012	1
	GA5071420	Hose barb, Straight, White, Female thread x 3/8" barb, suit 2012+	1

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