

THE
*Impact*TM



Linemarking system



US Patent: US D665,822
EU Design Reg: 001897943-0001-0005
Canada Registered Design No: 142088

Index of Contents



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See the next page for your IGO 12 month warranty

Checking and initial setting up of your new IGO machine 1 - 3

Getting Started specifics:

Nozzle selection	2
Setting the line width.....	3
Setting the spray head height.....	3
Handle bar adjustment.....	3
How to extend the front of the IGO.....	3
Directions for using Impact XP.....	4
Priming the IGO.....	5
Marking with the IGO.....	5

Regular maintenance:

Cleaning the machine.....	5
Charging the battery.....	6

Parts List..... 7

Trouble shooting..... 8 - 9



Check out the handy tips throughout the manual. They are there to help, and make your marking easier, safer, and more cost effective.

Warranty

Article 1

The guarantee for this machine covers 12 (twelve) months from the date the machine was purchased.

The manufacturer guarantees that the machine will function properly with proper usage and maintenance in accordance with the instructions of the manufacturer. The guarantee covers all machine faults that are the result of eventual faults in the material and/or manufacturing of the machine.

Article 2

The guarantee does not cover:

Faults arising from unauthorised modifications or additions to the machine

Faults arising from being used with products from another manufacturer that are not suitable or authorised to be used with the machine (check with your supplier first)

Damage caused by circumstances beyond the control of the manufacturer or supplier including: Flood, fire, earthquake, humidity, accidents, vandalism or other damage caused by actions of others not associated with the manufacturer or supplier.

Consumable parts: Nozzles, filters, washers etc, unless subject to faults or damages during manufacture or delivery of the machine. Such faults should be reported to the supplier as soon as possible after receipt of the machine.

Article 3

The manufacturer / supplier is obliged to replace or repair those faulty parts subject to the guarantee, that have come to be faulty with the proper use of the machine according to the manufacturer's instructions.

The guarantee does not affect the legal rights of the purchaser.

Please record the relevant details of the warranty certificate on this page for possible future use:

Complete the warranty form in full and return to your supplier within 14 Days of receipt.

Please affix the correct postage fee to the envelope before posting

Your name / company

Machine serial number

Date of purchase

Date warranty completed and returned to supplier

Supplier address

IMPORTANT

Checking and setting up of your new IGO machine

- **Check the contents of the carton carefully. Each machine will be supplied with the following:**

(We reserve the right to amend specifications in line with our policy of continuous improvement)

1 x 12v Dry cell battery

1 x Pair Black plastic hand wheels

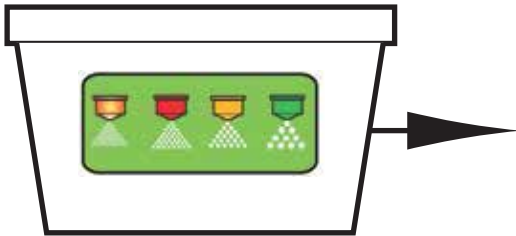
1 x Battery charger complete with mains plug

1 x 1ltr (0.264 US galls) Flush Thru

1 x 2ltr (0.528 US galls) Plastic bottle with lid

PLUS

1 x small plastic tub containing



2 x RED Cone nozzles

2 x YELLOW flat fan nozzles
(for synthetics / dilutables)

2 x AMBER Cone nozzles

2 x EPDM sealing washers

2 x GOLD Cone nozzles

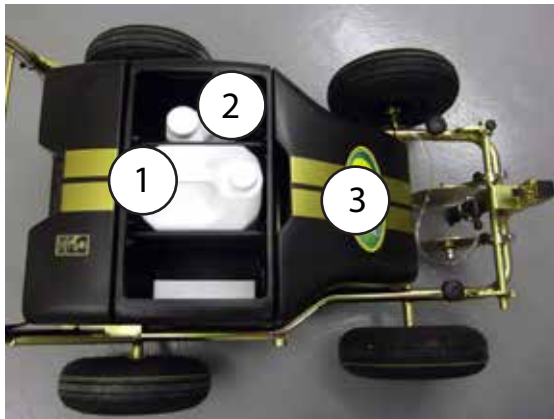
1 x Plastic pipe release aid

2 x GREEN Cone nozzles

1 x Flat Fan, bayonet cap, nozzle holder

For full details of coverage rate by nozzle type
see page 2 'Selecting nozzles'

Identifying the contents



1. 5ltr (1.32 US galls) plastic bottle

2. Flush Thru sample

3. Front cover
(part number: 1part115)

4. Battery charger
(part number: 1part004)

5. Pump
(part number: 1part138)

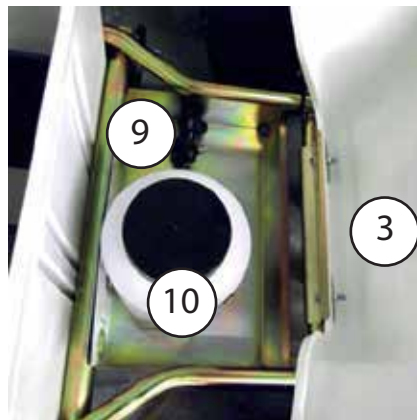
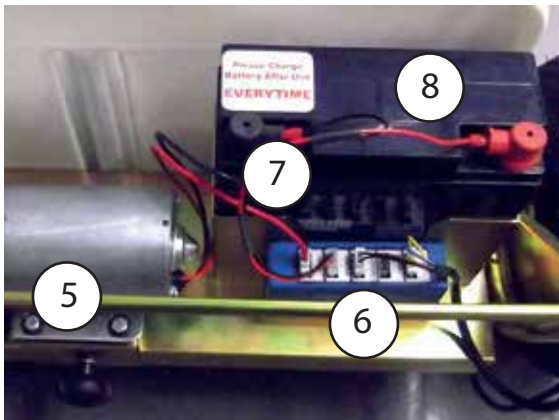
6. Connection box
(part number: 1part124)

7. Battery cable
(part number: 1part035)

8. 12volt Battery
(part number: 1part001)

9. Handle bar screws
(part number: 1part109)

10. 2ltr Bottle
(part number: 1part142)



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If there is anything missing

Report it straight away. **DO NOT** attempt to use the IGO if there is anything missing or damaged.

Contact your supplier with details quoting the serial number.



Checking and setting up of your new IGO machine continued



- Check that all electrical connections are secure in the connection box located under the rear battery / pump cover.
- To prevent accidental switching on of the machine during transit, it is supplied with the battery cable disconnected; **this will need connecting before use.** Simply connect the plug on the battery cable (9) into the battery socket (10) in the connection box (6).

The 'D and Square' shaped connection plugs are designed to fit one way only as shown.



- DO NOT force the connectors into the sockets on the connection box. This may damage the connectors or the main circuit board, and may cause the connection box to fail. To check the function of the connection box, press the on /off button on the handle bar and confirm that the pump is running by listening, or placing your hand at the rear of the chassis to feel the vibration of the pump. Turn off the on / off button as soon as possible after checking.






a 'really useful' tip

If your machine was transported by AIR FREIGHT it is possible that, for air safety reasons, the tyres have been deflated. Before use re-inflate to recommended pressures: 30psi / 2 bar

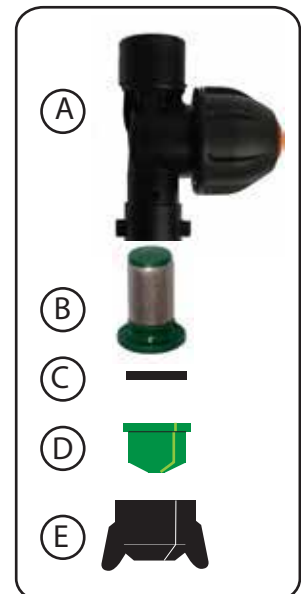


Selecting Nozzles:

- Before starting any marking operation, it is important to ensure that the correct nozzle type is fitted for the task in hand. The chart below will help you to select the most appropriate nozzle.
- Note:
The usage rates below are based on marking a standard size, grass soccer pitch of 650 linear metres (711yards / 0.4miles) at an average walking speed of 2.5mph (65metres per minute).

IMPACT CONE NOZZLES	
	GOLD 1.1 ltrs (0.29 US galls)
	RED 1.5 ltrs (0.40 US galls)
	AMBER 1.9 ltrs (0.50 US galls)
	GREEN 3 ltrs (0.79 US galls)
FLAT FAN NOZZLE	
	YELLOW 0.80 ltrs (0.211 US galls) per minute

For synthetic grass paint, hard surface paint and dilutable concentrates



- To change a nozzle, remove the bayonet cap nozzle holder (E) by twisting it anti-clockwise. Remove the black sealing washer (C) and nozzle, and insert the selected nozzle (D) into the nozzle holder. Replace the seal and, making sure that the small 'top hat' filter (B) is in the correct position inside the spray head (A), replace the nozzle holder by twisting it clockwise.

a 'really useful' economy tip

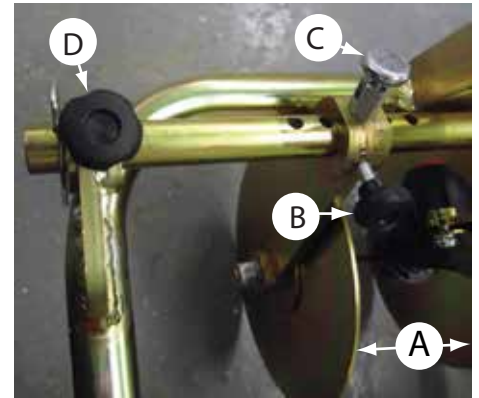
Always select the right nozzle for the job, and store in a solution of equal parts of Flush Thru and water at the end of the day. A container suitable for storing the nozzles in is supplied with your machine.



Checking and setting up of your new IGO machine continued

Setting the line width

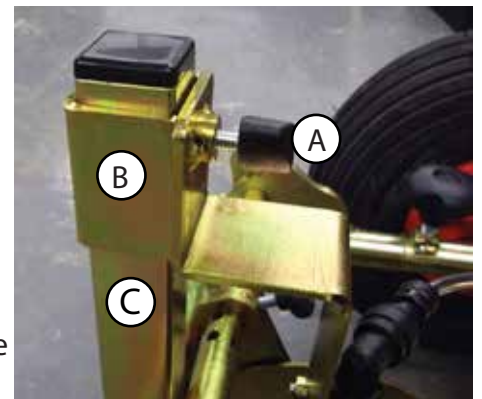
The spacer bar at the front of the machine is pre drilled to 2", 3", 4", 5", & 6" (50.8mm, 76.2mm, 101.6mm, 127mm, 152.4mm) centres to give accurate line width every time. To adjust the width of the disc spacing (A) loosen the hand wheel (B) by turning anti-clockwise. Lift the top of the location plunger (C) and slide the disc arm to the required position. Reset the plunger and re-tighten the hand wheel. The hand wheel (D) allows the disc height to be set at a prescribed height from the ground, or loosened to allow the discs to ride freely. Loosen by turning the hand wheel in an anti-clockwise direction.



Setting the spray head height

It is important to optimise paint usage and avoid paint build up on the discs, by ensuring that the spray from the nozzle just hits the inside of the discs at the bottom.

The variable spray head height adjustment allows you to select the optimum height for each application. To adjust the height, loosen the spray head bracket by turning the plastic wing nut (A) in an anti-clockwise direction, and slide the complete bracket (B) up or down the supporting tube (C). When the correct height is achieved, tighten the wing nut.



Extending the front of the machine

To extend the spray head and disc attachments you must first loosen the securing hand wheels (A) by turning in an anti-clockwise direction.

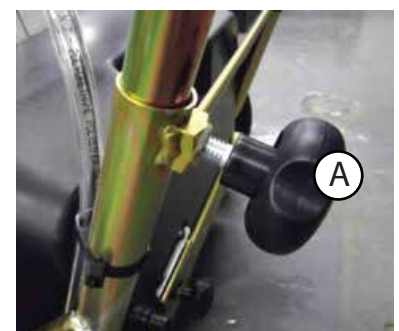
Hold the front part of the chassis (as close to the central point as is practical) and pull forward as shown.

If you have the disc lifter as an optional extra, this will give the extra space to lift the discs above the chassis base.



Setting the handle bar height

Handle bars should be set to the most comfortable position for each individual user. To adjust the height, simply loosen the hand wheels (A) by turning anti-clockwise, and raise or lower the handle bars to the required height. Retighten the hand wheels before using.



Keep your IGO running

Like all machinery that is subject to the weather and, possibly dirty working conditions, your IGO will benefit from a regular maintenance schedule. A small amount of light oil or grease will help keep 'metal to metal' parts in good condition and easier to use.



Directions for use

ImpactTM XP

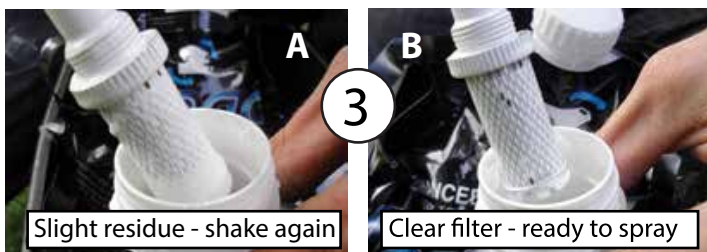
Impact XP line marking paint is a revolutionary paint that requires slightly different handling to ensure optimum results. A natural and accepted feature of the paint is the settling of the liquid over time, causing a thicker mix at the bottom of the container. This has no detrimental effect on the paint or its performance, if the user instructions below are followed. In field trials, Impact XP gave optimum spraying results between 2° and 35° C.

Before application the bag or bottle should be shaken to ensure complete and even dispersal.

To complete this simple operation:

Although a non-hazardous product, do not shake the container in an area where paint spillage could cause damage to property or animal habitats, including ponds.

1. Shake the bag or bottle **thoroughly** with a side to side and **circular** motion for a short period (**at least 20 seconds**)
2. Check the dispersion of the paint by securing the bag or bottle in an upright position and remove the plastic sealing cap. Place the plastic probe with the attached filter into the container (bag or bottle) making sure that the filter reaches the bottom. Move the probe round the base to try and pick up any unmixed product.
3. If the filter shows no signs of residual deposits as in picture 3B below, proceed with spraying as normal. If there are any residual deposits (3A) repeat the shaking operation until dispersion is complete.



Containers such as the plastic bottle shown at the bottom of this page can be used as an alternative to the bag. Some may find that the mixing process is more effective due to the rigidity of the plastic that the bottle is produced from. If choosing this alternative, use a funnel to lessen the risk of spillage when transferring the paint from one container to the other.

At the end of the days operations, wash the bottle with clean water ready for the next marking operation.

An alternative to the bag using a plastic drum or bottle - decant the paint from the bag into the drum - shake and start to spray



Please dispose of any used containers following local regulations

Paint should be used within 12 months from the date of manufacture

1 Priming the machine

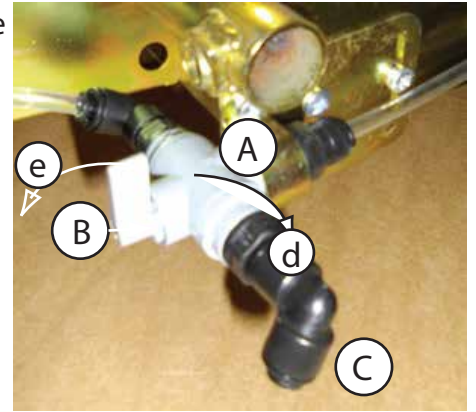
Before attempting to spray paint through the machine, it is essential that all air is expelled from the system by priming the pump. This is a very simple operation, taking a short amount of time. First fill the water bottle supplied with the machine, with clean water and insert the paint probe (the rigid plastic tube) into the water bottle. Open the grey prime valve (A) by moving the lever (B) to the 'FORWARD' position (d).

Using the start button on the handle bar, turn on the machine, (place a small container under the prime valve (C) if working in an area where liquid on the floor could cause a problem).

As soon as the water flows freely from the valve exit, move the lever to face the REAR position (e). This will direct the water to the spray head.

The OFF position is when the lever is in the upright position.

After each priming operation using water, the water in the system will be expelled first. As soon as paint is flowing from the nozzle, the marking can take place.



2 Marking with the IGO

Having primed the system and selected the correct nozzle and line width, it is now time to get started with the paint.

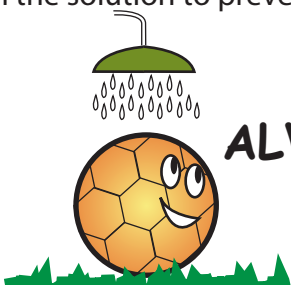
Shake the bottle or bag of paint thoroughly until any signs of settlement are cleared. This needs to be done each time a new application is started. Please refer to page 4 for full details. (Step 2)

1. Place the plastic probe into the paint container and secure with the cap.
2. Line the machine up and press the start button on the handle bars.
3. Any water in the system will be expelled first, before the paint.
4. At the first signs of paint from the nozzle, you can start your marking.
5. Approximately 50 mtrs (Approx 165 ft) from completion of the marking or striping operation/s, remove the probe from the paint and put the probe into the water bottle supplied. Continue the spraying operation as normal. The paint left in the system should be sufficient to complete the marking (depending on the nozzle used and the walking pace of the operator)

Any water left in the system should be left until the next task. This will help to keep the pump, pipe work, filters and nozzles clean and effective.

3 Cleaning the IGO

The method for cleaning the machine is the same as priming the machine, but it is important to ensure that as much residual paint in the pipe work is cleared. At the end of each day's work, the system should be flushed through completely and the water left in the system until the machine is to be used again. Depending on the usage of the machine, a cleaning agent (Flush Thru) should be used periodically to clean the machine thoroughly, but should not be used daily. After cleaning with water, place the probe into the flush Thru and run the pump for approx' 10seconds. Stop the pump and allow the Flush Thru to stay in the system for 10 minutes. Remove the probe from the Flush Thru container and place in a water container, turn on the pump and flush the system with approx 2 ltrs of water. At the end of the cleaning process do not drain all of the water from the system; this should remain in the machine until the next marking. The small nozzle container should be filled with a solution of equal parts Flush Thru and water, used nozzles and filters can be soaked in the solution to prevent paint drying on the nozzle tips.



Yet another 'really useful' tip
ALWAYS start the marking with WATER
and
Finish the marking with WATER



Charging the battery

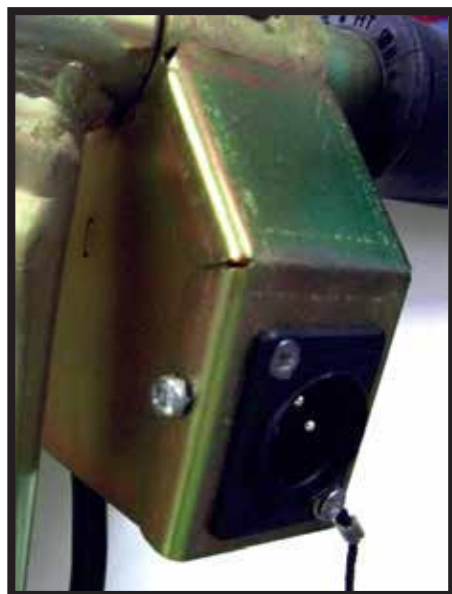
The battery should be put on charge at the end of each day that the machine has been in use. Your battery charger, included with the machine, is connected to the machine by simply inserting the 3 pin male plug supplied with the charger into the 3 pin female socket set in the rear of the switch box on the handle bars. Remove the protective rubber cover and push the plug in securely.

The charger mains lead must be plugged into the mains outlet using the lead supplied.

*******The design of the charger prevents over charging of your battery*******

After charging, turn off the power at the mains outlet **before** removing the plug from the socket on the handle bars.

To remove, simply pull the plug from the socket. Some models may have been supplied with a locking catch on the plug. In those cases, the small metal spring device needs to be depressed to allow removal.



Cover removed



Connecting the plug



Connected ready to charge



'Always remember to replace the protective cover on the socket to prevent moisture and dirt getting in'

Using the battery charger

The charging system allows for the use of 'crocodile' or 'alligator' clip attachment if the battery needs to be charged away from the machine. Simply disengage the battery from the connection box, remove to the charging site and attach the crocodile clips to the battery ensuring that the red clip is attached to the positive (+) terminal of the battery and black to the negative (-). When the charger is turned on the 1# light will show GREEN (very briefly) to indicate that the power is on. This light will turn to RED when the charger is bulk charging, and will show GREEN when the charger is float charging and ready for use. If 2# Light shows GREEN, it indicates that the charger has been connected to the battery **incorrectly**. In this case turn the main power OFF and re-connect to the battery checking that positive and negative connections are in the correct position.

As with all electrical equipment, it is important that normal safety precautions are observed. The unit is designed to be operated indoors. It should not be subject to water penetration or extremely damp conditions.




'ALWAYS WORK SAFE'


Wiring should be checked at regular intervals, and units showing signs of damage to either the plastic case or wiring, should be taken out of service and replaced or repaired by a competent electrical engineer.



Parts List

	Battery 1part001
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	Pump 1part138
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	Charger 1part004
---	----------------------------

	Connection Box 1part124
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	Switch Complete 1assy001
--	------------------------------------

In Line Filter  1part048	Nozzle Filters Green  1part043 Blue  1part044
--	--



	Disc & Arm Assembly 1part094 1part093
---	--


	Prime Valve Assembly ① 1part029 ② 1part037 ③ 1part033
--	---



Reducer  1part023	Index Plunger  1part058
--	---


Probe Elbow  1part031	Pump & Spray Head Elbow  1part036
--	---

DCV Body  1part055	Bayonet cap nozzle holders Cone  1part007 Flat fan  1part054
--	---

Adapter  1part033	Pump Check Valve  1part011
--	--

Paint Probe & Filter  1assy002	Clear Pipe 6mm 1part076 10mm 1part077
---	--

 1part109  1part111	Hand Wheels 1part109 1part111
---	--

	Wheel 1part068
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Nozzles Part Numbers			
Cone Nozzles Gold 1part066 Red 1part067 Amber 1part065 Green 1part064	Flat Fan Nozzles White 1part042 Yellow 1part045 Blue 1part039		

To order any other ancillary parts not shown, please contact your local dealer, giving a brief description of the part required.

Trouble Shooting

The IGO machine is manufactured to exacting standards, to give trouble free operations each time, providing that basic maintenance is carried out in accordance with the instructions on pages 5 / 6. Any 'Trouble Shooting' that might need attention, is as simple as A B E.

AIR BLOCKAGES ELECTRICAL

AIR

A Machine starts but struggles to draw paint from the container or spray 'splutters' at the nozzle. Bubbles may be noticed in the pipe work.

BLOCKAGE

B Machine doesn't spray, or the spray pattern is 'weak' and does not achieve the width of line intended.

ELECTRICAL

E Machine is switched on but there is no power or the pump does not operate effectively due to low power.

★ The blue connection box for the IGO incorporates a fuse-less safety cut out. If the power should trip out during use, determine the cause; serious blockage, frozen pump, pipe work or other, and rectify the problem. The power will be restored when the problem is corrected.



- First, remove the probe from the container, shaking any excess paint off. Then tap the filter end of the probe against one of the tyres (to avoid damage) to ensure that the ball bearing valve at the end of the probe is not stuck. Check for any other signs of damage to the probe at the same time.
- If that does not resolve the problem, check all pipe work is pushed into the 'push fit' fittings as far as possible. Push until resistance is felt and then another 6mm (1/4")
- Check that the black in-line filter bowl is tight and that the washer is in place. **See Photo 1 Page 9**
- If that fails to draw the paint, please refer to the on-line tutorial to change the diaphragm / check valve in the pump (1part011)

- Replace nozzle.
- Clean or replace spray head (1part055)
- Clean filters including filter on the end of paint probe and in-line filter (1part048)
- Check that the battery is fully charged
- Change the pump diaphragm. Part number (1part011) **See Photo 2 Page 9**

- Check that the pump plug and the plug from the switch are fully inserted into the control box sockets.
- Check that the battery is fully charged. A multi - meter reading should show between 12 - 13v when fully charged.
- To check the battery is charging, connect the charger. If the charger light starts at GREEN and very quickly turns to RED, the battery is charging. Wait until the light changes to GREEN again before attempting to start.
- Check that the switch is working properly. The easiest way to do this is to check that the switch is in the ON position before removing the rear cover from the switch housing. Using a small, flat blade insulated screwdriver, bridge the two terminals at the back of the switch by ensuring that the blade of the screwdriver connects the metal contacts, not the insulation. If the pump starts to operate the switch is
- faulty and should be replaced. **See Photo 3 Page 9**
Change the connection box part number (1part124) ★

It's easy!

With basic tools and regular maintenance your IGO should give you simple, trouble free, marking time after time. Prevention is better than cure.

1



In-Line Filter. Part number (1part011)

Unscrew the base of the filter by turning in an anti-clockwise direction, check that the washer is in place, clean, and re-tighten

2

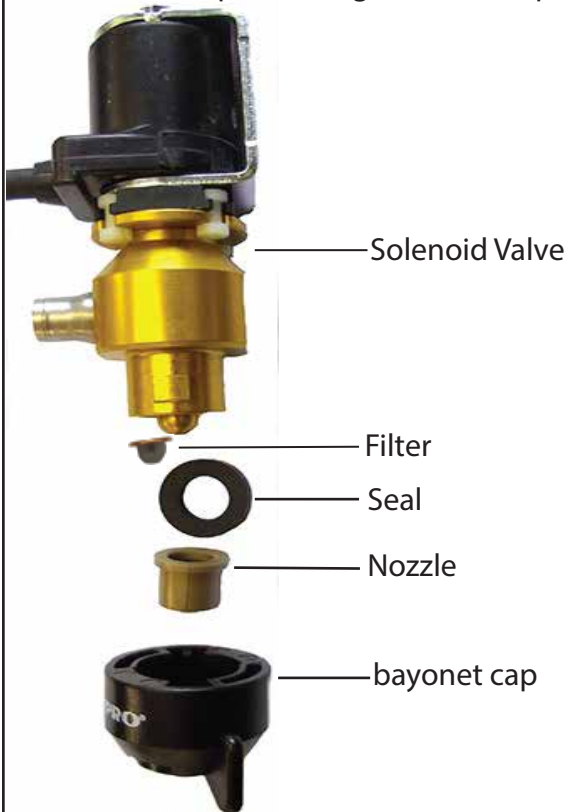


Check Valve / Diaphragm
Pert number (1part011)

Remove the front of the pump following the on-line Impact XP tutorial and change the check valve as required.

Solenoid information for IGO De Luxe

Correct positioning of Solenoid parts



Connection box layout for Solenoid use

