

DRAPER®

INSTRUCTIONS FOR Submersible Water Pump with Integral Float Switch

Stock Nos.87961, 87962

Part Nos.SWP125IFS, SWP195IFS

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.



06/2005

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GENERAL INFORMATION

This manual has been compiled by Draper Tools and is an integrated part of the product with which it is enclosed and should be kept with it for future references.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.



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DECLARATION OF CONFORMITY

We :
 Draper Tools Ltd.,
 Hursley Road,
 Chandler's Ford,
 Eastleigh, Hampshire.
 SO53 1YF
 England.

Declare under our sole responsibility that the product:

Stock Nos:- **87961, 87962.**

Part Nos:- **SWP125IFS, SWP195IFS**

Description:- **Submersible Pumps with Integral Float Switch.**

To which this declaration relates is in conformity with the following directive(s)

98/37/EC, 89/336/EEC, 73/23/EEC, 00/14/EC

With reference to

EN60335-1:2001, EN60335-2-41:1996, EN292-1, EN292-2, EN50081-1, EN55014-1, EN61000-3-2, EN61000-3-3.

J.N. Draper
 Managing Director



SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Stock No.	87961	87962
Part No.	SWP125IFS	SWP195IFS
Voltage	230V	230V
Motor	300W	600W
Max. Output	120L/min.	195L/min.
Max. Head Height	6.5M	9.0M
Max. Particle Size	5mm	5mm
Max. Water Temp.	35°C	35°C
Output Diameter	32mm(1¼"BSP).....	32mm(1¼"BSP).....

THIS PRODUCT MUST BE USED IN-CONJUNCTION WITH A RESIDUAL CURRENT DEVICE (RCD).



GUARANTEE

Draper Tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for a period of 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

Should the machine develop any fault, please return the complete tool to your nearest authorized warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone: (023) 8026 6355.

If upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agent.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the 12 month period.








Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.



POWER SUPPLY

- Connecting to the Power Supply:

To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewirable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. If the plug is marked with the  symbol and the fuse needs replacing, an  approved BS1362 fuse must be used of the same amp rating. If the plug is not  marked, a fuse with the  symbol,  BS Kitemark, or both  and  BS Kitemark, of the same amp rating should be used.

- The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is the same colour as that visible on the pin face of the plug (i.e. red). Fuse covers are available from your Draper Tools stockist.

If the fitted plug is not suitable, it should be cut off and destroyed. *The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.


- *WARNING:

- A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

- WARNING: THIS APPLIANCE MUST BE EARTHED.

- The mains lead is coloured Green and Yellow - Earth, Blue – Neutral and Brown – Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal in your plug marked with the letter 'E' or by the earth symbol  or coloured green or green and yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black or blue.

The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.

- EXTENSION LEAD CHART:

Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length (Meters)	Wire Size mm ²			
7.5	0.75	0.75	1.0	1.25
15	0.75	0.75	1.0	1.5
22.5	0.75	0.75	1.0	1.5
30	0.75	0.75	1.25	1.5
45	0.75	0.75	1.5	2.5

IMPORTANT: A residual current circuit breaker (RCD) must be used when pumping from ponds or swimming pools and is recommended for all applications.

Draper Stock No.69307.

WARNING:

Please read the following instructions carefully, failure to do so could lead to serious personal injury. When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before operating this product and save these instructions.

IMPORTANT:

Draper Tools Limited recommends that this machine should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us in writing and we will advise you.

1. KNOW YOUR POWER TOOL:

Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

2. KEEP WORK AREA CLEAN:

Cluttered areas and benches invite accidents. Floors must not be slippery due to oil or sawdust.

3. AVOID DANGEROUS ENVIRONMENTS:

Do not use power tools in damp or wet locations, or expose them to rain. Keep work area well lit. Provide adequate space surrounding the work area. Do not use in environments with a potentially explosive atmosphere.

4. KEEP CHILDREN AWAY:

All visitors should be kept a safe distance from work area.

5. STORED TOOLS:

When not being used, all tools should be stored in a dry, locked cupboard and out of the reach of children.

6. WEAR PROPER CLOTHING:

Do not wear loose clothing, neckties or jewellery (rings, wristwatches) to catch in moving parts. NONSLIP footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves above the elbow.

7. USE SAFETY GOGGLES (Head Protection):

Wear CE approved safety goggles at all times. Normal spectacles only have impact resistant lenses, they are NOT safety glasses. Also, use face or dust mask if application is dusty and ear protectors (plugs or muffs) during extended periods of operation.

8. NOISE LEVELS:

Some types of machines may have high noise levels when working. In such cases ear protection must be worn.

9. VIBRATION LEVELS:

Hand held power tools produce different vibration levels. You should always refer to the specifications and relevant Health and Safety guide.

10. DUST EXTRACTION:

If your tool is fitted with a dust extraction fitting, always ensure that it is connected and being used with a dust extractor. Vacuum cleaners can be used if suitable for the material being extracted.

11. PROTECT YOURSELF FROM ELECTRIC SHOCK:

When working with power tools, avoid contact with any earthed items [e.g. pipes, radiators, hobs and refrigerators, etc.]. If you are using a power tool in extreme conditions (e.g. high humidity or generating metal dust), always use an RCD (residual current device) at the power socket.

12. STAY ALERT:

Always watch what you are doing and use common sense. Do not operate a power tool when you are tired or under the influence of alcohol or drugs.

13. WHEN WORKING OUT OF DOORS:

Only use extension leads designed for that purpose.

14. ACCESS TO MAINS SOCKET:

If a stationary machine is fitted with a moulded plug and cable, the machine should not be positioned so that access to the mains socket is restricted.

15. DISCONNECT POWER TO THE TOOL:

When not in use, before servicing and when changing accessories such as cutters, etc.

16. AVOID ACCIDENTAL STARTING:

Make sure the switch is in the OFF position before plugging the machine into the power supply.

17. NEVER LEAVE MACHINE RUNNING UNATTENDED:

Turn power off. Do not leave machine until it comes to a complete stop.

18. DO NOT ABUSE THE CORD:

Never carry the tool by the power cable or pull it from the socket. Keep the power cable away from heat, oil and sharp edges. If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid hazard.

19. NEVER STAND ON TOOL:

Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted. Do not store materials above or near the tool, so that it is necessary to stand on the tool to reach them.

20. CHECK DAMAGED PARTS:

Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be repaired properly or replaced by an authorized service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.

21. KEEP GUARDS IN PLACE:

And in working order.

22. MAINTAIN TOOLS WITH CARE:

Keep tools sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories. All extension cables must be checked at regular intervals and replaced if damaged. Always keep the hand grips on the tool clean, dry and free of oil and grease.

23. USE RECOMMENDED ACCESSORIES:

Consult the owners manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

24. REMOVE ADJUSTING KEYS AND WRENCHES:

Form a habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.

25. SECURE WORK:

Use clamps or a vice to hold work. This frees both hands to operate the tool.

26. DO NOT OVERREACH:

Keep proper footing and balance at all times.

27. USE RIGHT TOOL:

Do not force the tool or attachment to do a job for which it was not designed.

28. DO NOT FORCE TOOL:

It will do the job better and safer at the rate for which it was designed.

29. DIRECTION OF FEED:

Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

30. WHEN DRILLING OR SCREWING INTO WALLS:

Always make sure there is no danger of hitting any hidden power cables, water or gas pipes in the wall.

31. HAVE YOUR TOOL REPAIRED BY A QUALIFIED PERSON:

This electric tool is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

IMPORTANT NOTE:

Residual Risk. Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

ADDITIONAL SAFETY RULES FOR SUBMERSIBLE PUMPS

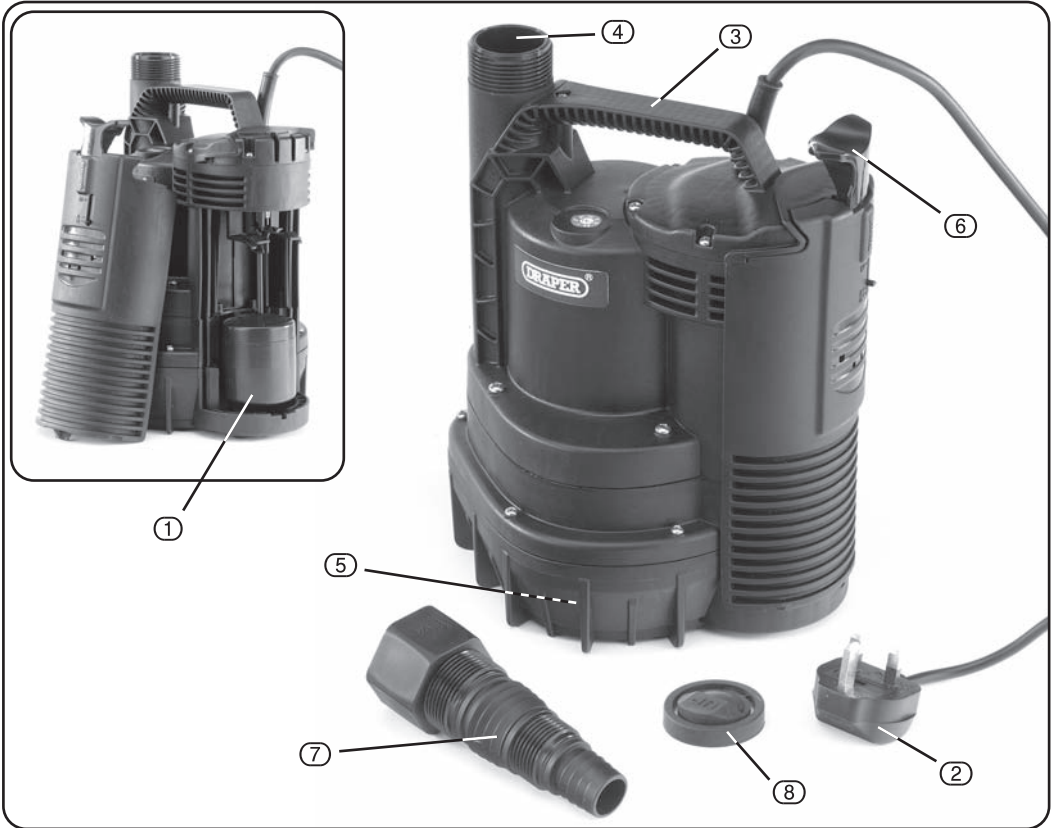
- When carrying or lifting the water pump always use the transport handle, **DO NOT** carry or lift using the power cable.
- Before connecting to the power supply:
 1. A residual current circuit breaker (RCD) must be used for all applications (Draper Stock No.69307).
 2. The electrical supply should be the same as that stated on the rating plate.
- Submersible water pumps should always be transported, stored, and submersed vertically.
- **Always** ensure that hands are dry when connecting and disconnecting the power supply.
- The area being pumped should be kept clear, and nobody should enter area while pump is operating.

IMPORTANT: PLEASE READ BEFORE USE

The following additional instructions must be followed at all times. Failure to do so could invalidate the guarantee of this submersible pump.

- The pump must never be allowed to run dry.
- Clean water pumps are **NOT** suitable for use in dirty water.
- **NOTE:** The pump, should be suspended using a rope or chain or stood on a brick to prevent any gravel etc. being sucked into the pump.
- If pump fails to operate, disconnect from mains supply. Remove the base (see page 9) and turn the impeller using a screwdriver. Check for obstruction in the impeller, i.e. stones/gravel etc.
- Never leave the pump in operation when the delivery pipe is clogged.
- In the event of freezing temperatures, remove the pump from the liquid, empty it and store in a dry location.
- This pump must not be used to pump salt water, sewage, flammable, corrosive or explosive liquids.

IMPORTANT: Any pump returned to Draper Tools under warranty must be clean. If a pump is received that is **NOT**, or has **NOT** been cleaned, it will be returned to you at your cost.



① Automatic Cut Off Float Switch (Integral).

② BS Moulded Plug and Cable.

③ Transport Handle.

④ Outlet.

⑤ Inlet Grill.

⑥ Mode Selection Switch.

⑦ Hose Adaptor.

⑧ One Way Valve.

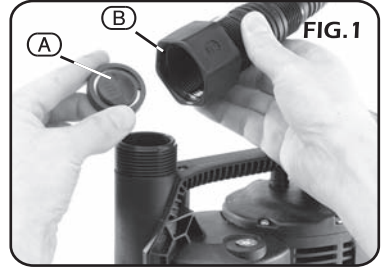
- **UNPACKING:** After removing the packing material, make sure the product is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the submersible pump and contact the dealer from whom it was purchased.

The packaging materials (plastic bags, polystyrene, etc..) must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

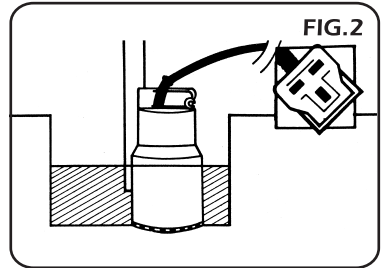
Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

Flow Direction Valve (Fig 1).

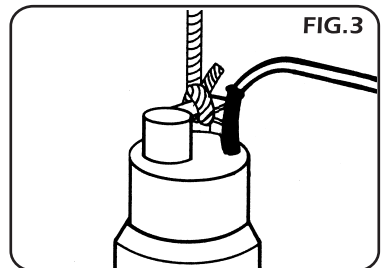
Insert the valve (A) onto the outlet before screwing down the hose adaptor (B). Ensure the valve is inserted to allow flow from the pump. If the valve is inserted backwards there will be little or no flow of liquid.



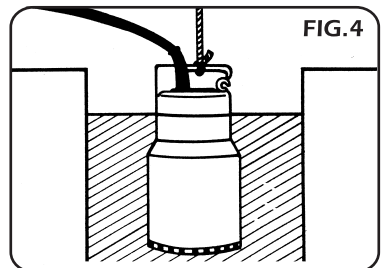
- The pump must be fully submersed before the power is switched on. **DO NOT** turn on when dry (Fig.2).



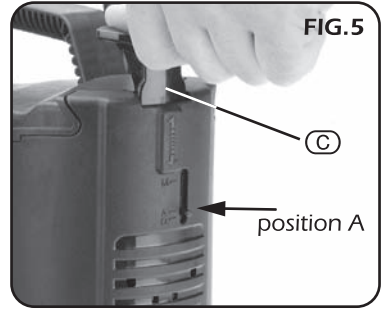
- When submersing or lifting the pump it will be necessary to use a rope or chain, this must be attached to the transport handle (Fig.3).



- If pumping water from a sandy or muddy floor bed, the pump can be suspended using a rope or chain (not supplied) fixed to the handle. **DO NOT** use any of the electrical cables for this purpose (Fig.4).



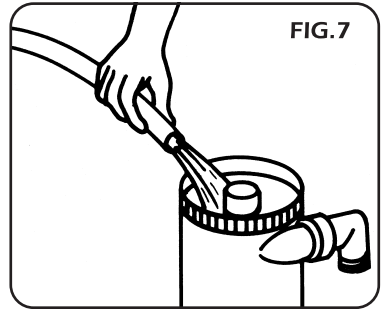
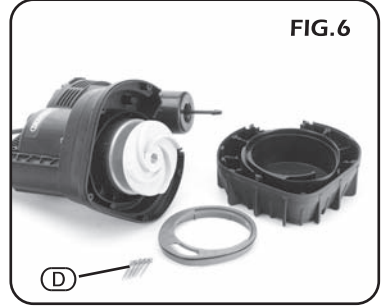
- An integral float switch is fitted to the pump, this enables the pump to switch off automatically when the water has reached the minimum level. To enable the float switch ensure the mode selection lever (C) is pushed down. On the side of the pump the indicator will show position (A).
- As the water level drops the float switch will fall with the water level.
- When the float switch reaches the minimum level it will automatically switch the pump off.
- This pump can also be run in a continuous mode by pulling the mode selection lever up so it indicates on the side of the pump (m) for manual. The pump should not be left unattended at any time, to ensure the pump does not run dry.



WARNING: For your own safety, remove plug from power supply before maintaining your submersible pump.

- If the impeller becomes blocked or obstructed, remove base plate by removing the five screws (D).
- **DO NOT** lever the impeller as this will cause damage due to its brittle construction.
- Take note of the orientation and order with which the components were removed to ensure the correct re-assembly.
- Rinse the contents with clean water to flush (Fig.7).
- You may need to open the float compartment to remove blocked material. To do this push the mode selection lever (E) down to the bottom position. The side panel will lift off.

NOTE: This pump is fitted with an overload safety device. In the event of the motor overheating, the device will automatically switch off. Allow to cool for 20 minutes before attempting to restart.





OPTIONAL ACCESSORIES

Layflat Hoses:

- Hobby/DIY Hose

- Stock No.36919
- Part No.ASWP1
- Size. 25mm. I.D.
- Length. 5m.

- Heavy Duty Hose

- Stock No.36946
- Part No.ASWP3
- Size. 25mm. I.D.
- Length 10m.

- Heavy Duty Hose

- Stock No.36947
- Part No.ASWP4
- Size. 32mm. I.D.
- Length. 10m.

WARNING:

For your own safety, always turn the main switch on the machine "Off" and remove the plug from the power supply before carrying out any servicing or maintenance.

Fault	Possible Causes	Solutions
Motor does not start or makes no sound.	Make sure the motor is powered The pump is disabled by the float.	Service agent. A) Make sure the float can move freely. B) Increase depth of the water.
The pump delivers no water.	The suction grid or piping are clogged. The impeller is worn or stuck. The head height exceeds the pump specification. Water level under the suction minimum.	Remove the obstruction. Replace the impeller or remove the obstruction. Reduce head height. Insert into water or dig well to move pump lower.
The pump does not stop.	The pump is not disabled by the float.	A) Make sure the float can move easily. B) Float disabled (locked).
The flow rate is too low.	Make sure the suction grid is not partially clogged. Make sure the impeller or delivery pipe are not partially clogged or fouled. Flow direction control valve orientation incorrect.	Remove any obstructions. Remove any obstructions. Check and replace if necessary.
The pump stops running.	Intervention of the thermal overload switch.	<ul style="list-style-type: none"> - Make sure the fluid being pumped is not too dense, causing the motor to overheat. - Make sure the temperature of the water is not too high. - Make sure there is no solid body obstructing the impeller. - Power supply doesn't comply with the nameplate's data.

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YOUR DRAPER STOCKIST

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