

Flotec®

For the installation, operation and service of

AUTOJET & MULTIMAX

STAINLESS STEEL JET PUMPS

• Autojet60 • Autojet80 • Multimax120



We recommend, for additional protection, the pump to be supplied from socket outlet protected by a residual current device – RCD (also known as an Earth Leakage Circuit Breaker – ELCB) with a maximum rated residual current of 30mA.

Should you the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacturer for the correct advice before proceeding with the installation or operation of this product.

Table of Contents

Page

Model Data	3
Application	4
Installation	5
Operation	10
Service and Maintenance	11
Trouble Shooting	12
Warranty	13

Model Data

Model	Motor
	(W)
AJP60	600
AJP80	1100
MMP1200	1100

Technical Information

Inlet (Suction):	1" BSPF
Outlet (Discharge):	1" BSPF
Water Temperature Range:	1° - 40°C
IP Rating:	IPX4/F
Electrical Supply:	230V, 50Hz single phase
Maximum Ambient temperature:	40 °C

Application

Flotec AJ & MM Series pumps are suitable for pumping clean water in a domestic water system, small irrigation applications, and as pressure booster pumps. The strength of the stainless steel pump casing coupled with the impervious nature of the technopolymer impeller and diffuser make it ideally suited for most potable water pumping applications.



Installation



We strongly recommend this product be installed by a suitably qualified person.



The electrical installation shall be in accordance with the national wiring rules (AS/NZS 3000) for class 1, IPX4 rated products.



These instructions are a guide only. Users not familiar with pumping equipment should seek advice from people experienced in pump equipment and installation.



Freezing conditions will damage the unit, because when water freezes it expands. Ensure that the pump is located so that it is not prone to freezing, or ensure that the product is disconnected and dried of water during cold conditions.



AJ & MM pumps are electrically connected. Ensure that they are switched off and unplugged from socket outlet during installation and any subsequent service work.



The pump is designed to be used with clean water in a residential application. Do not use it with alternative fluids, abrasive, corrosive or explosive fluids. Do not install or operate your pump in an explosive environment or near combustible matter.



Incorrectly installed or tested equipment may fail, causing severe injury or property damage.



Fire and burn hazard. Modern motors run at high temperatures. To reduce risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, let it cool for at least 20 minutes before trying to work on it. Automatic thermal overload cut-out protects the motor for heat damage during operation and it will restart without notice when the motor cools down.



The pump is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the pump.

Read the following instructions in this owner's manual when installing and operating equipment.

1. Preparation for Installation

Inspect your pump for shipping damage. Report any damage to place of purchase.

We strongly recommend this product be installed by a suitably qualified person.

Make sure the suction piping is free of air leaks and is laid so that there can be no airlocks.

Warranty of these pumps is void unless they are operated in accordance with this owner's manual.

2. Pump Protection

The pump should be protected from the weather, floods, chemicals, dust, vermin, insects etc. It is highly recommended that the pump be housed in a weather proof, well vented enclosure. If the pump is not adequately housed the warranty may be deemed void.

3. Pipe Installation

Pumps can be damaged if care is not taken when connecting pipes. Pipes should be supported so that the pump casing is not strained by the weight or misalignment.

We recommend the pump and pipe are coupled using flexible type polythene pipe, rubber hose or a multi-directional barrel union. This union coupling can also be used to remove the pump for service should it be necessary without having to cut pipes.

Pipe fittings should be carefully screwed onto the pump making sure not to cross-thread or overtighten. We recommend the use of a moulded pipe fitting to connect to the pump as this avoids possible damage to the pump threads and unnecessary replacement of parts.

For best results use teflon tape to seal the joint. Satisfactory sealing can be achieved by hand tightening fittings ensuring that no leaks are evident once under pumping pressure.

4. Locating the Pump

Find a location for your pump as close to your water source as possible. Ensure that this location is on a separate footing from your home. To do this you can mount the pump on a concrete tile or concrete base.

5. Power Source

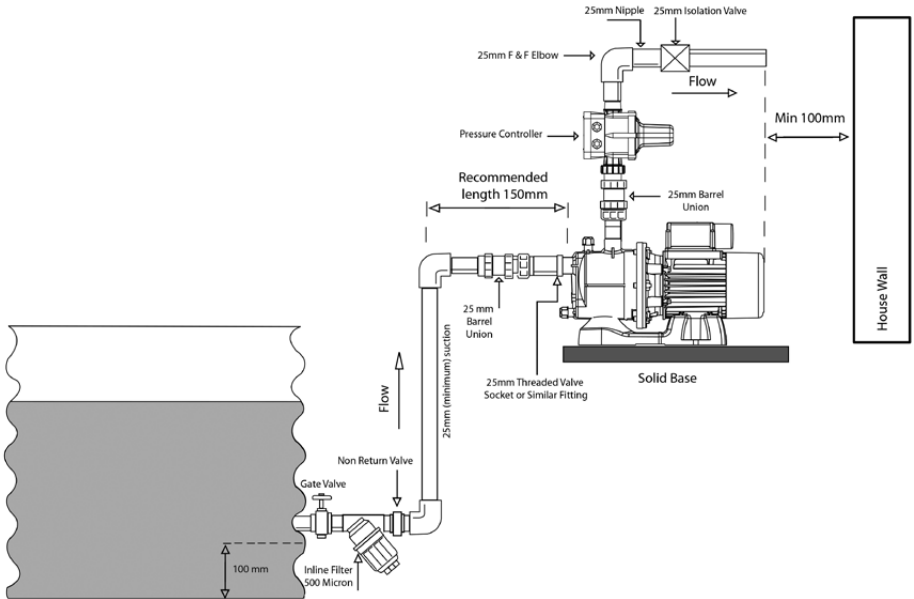
Arrange for an electrician to install an outdoor 10A GPO electrical outlet near the pump if there is not one there already.

6. Suction

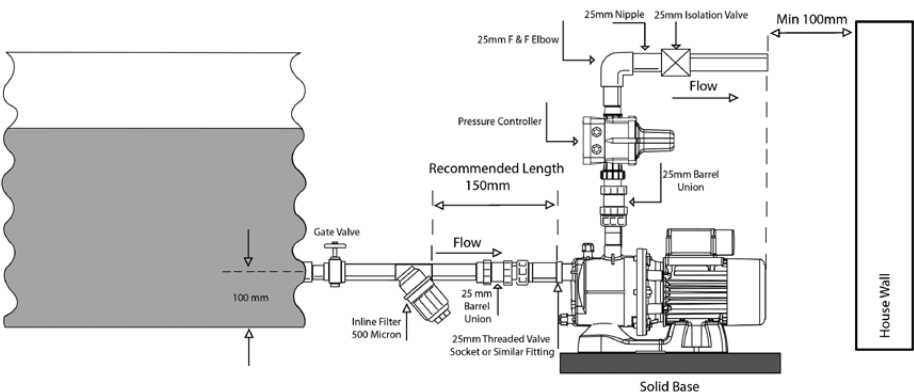
This is the most important part of the installation as errors will cause significant problems for the system in performance and longevity.

IMPORTANT: A gate valve must be installed at the tank outlets.

Installations where the tank base is below the pump



Installations where the tank base is level with the pump



To maintain optimum performance from your pump, the suction pipe should be:

- Kept to the shortest distance practical, but not shorter than the recommended length.
- Re-enforced crush resistant (non-collapsible) hose or pipe.
- All fittings should be air tight.
- Pipes should be equal to or larger than the diameter of the suction/inlet port.
- Ensure that the suction is completely submerged.

In-line strainers/filters are recommended and regular maintenance is required to keep them clean and provide maximum pump pressure.

7. Discharge

The length and diameter of the discharge hoses/pipes will affect the pressure and flow rate at which your pump operates. Pressure ratings of all components must exceed the maximum pressure of the pump by an appropriate safety factor. All pipework should be supported independently of the pump.

8. Pump Priming

Ensure that there is at least 200mm of water in your tank, (i.e. that the tank outlet is covered, and the pump will not draw any air into the system). Open the gate valve on the tank. Check for any leaks, and repair these if necessary.

If no leaks are present, remove the priming plug (fig.1) to open the priming port on the top of the pump case.

If the tank is above the level of the pump, water will start to run out of this port. Replace the priming plug (fig.1) carefully. Your pump is now ready to run.

(Note: If a check valve is installed in the suction line, water may not fill the pump. If this occurs, follow the instructions below).

If the tank water level is below the level of the pump, you will need to fill the pump body and suction line. Remove the priming plug (fig.1) and fill the pump body and suction line using a funnel. It may take several attempts to prime the pump.



Failure to correctly prime the pump may result in damage to the mechanical seal and cause the pump to leak water. This damage is not covered by warranty so care must be taken to properly fill the pump with water prior to first operation.

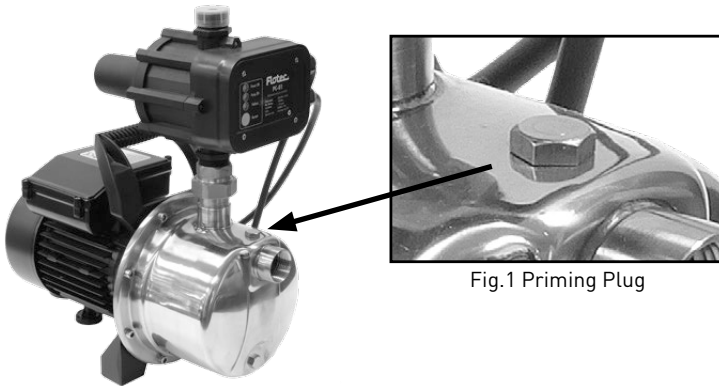


Fig.1 Priming Plug

9. Electrical

The pump is supplied with a interconnection appliance coupler and standard Australian 10 Ampere plug and cord. Connection to the power supply is a matter of inserting the plug into the suitable socket outlet. Before plugging the power supply cord into the socket outlet, connect the pump to it using the provided IEC appliance connectors on the end of the interconnection cords. Ensuring there are no water traces on the connectors push them firmly into each other to ensure intended splash (water) proof protection. This connection shall be separated again only for service purpose and only after the power supply is removed by unplugging the cord from the socket outlet.

The socket outlet shall be in a dry and flood free location; preferably do not use extension cords for this very reason and because they can cause voltage drop.



Supply voltage outside limits specified in Model Data can cause motor to overheat leading to overload tripping, reduced component life or seriously damage pump and voids warranty.

We recommend, for additional protection, the pump to be supplied from socket outlet protected by a residual current device – RCD (also known as an Earth Leakage Circuit breaker – ELCB) with a maximum rated residual current of 30mA.

Operation

1. Start-up / Operation

Ensure you have primed the pump correctly. (Instructions on priming the pump can be found in the installation section under Point 8. Priming Pump).

The MM Series pump is not self-priming and must be primed prior to use.

The AJ Series pumps are self priming therefore it is possible to start them without filling the suction pipe with water. However it is still necessary to fill the pump body. The priming operation requires a few minutes and it may also be necessary to fill the pump body with water several times (accordingly to length and diameter of the suction pipe).

Note: If the pump is not used for a long period of time, repeat the priming procedure before start up.

Start the pump and check rotation of the motor. It rotates in a clockwise direction when viewing the fan through the cowl behind the motor.

2. Protection switch

The AJ & MM Series of pumps have a built in thermal protection switch. The pumps stops if an overload condition occurs. The motor restarts automatically after it has cooled down (see point 3 on trouble shooting section for information on causes and corrective actions).

Service and Maintenance



Pump should only be serviced only by qualified personel. For best results, use only genuine service parts. Be sure to prime pump before starting.



To avoid dangerous or fatal electrical shock, turn OFF power to pump and remove plug from outlet before attending the pump.



RCD tripping indicates an electrical problem. If RCD trips and will not reset have a qualified electrician inspect and repair electrical system and/or pump.



If service is required to the power supply cord and/or appliance connectors, they must be replaced with the specialised cord assemblies by Pentair Water service agent or similarly qualified personnel in order to avoid a hazard.



Water may be HOT, release pressure with care before servicing.

1. General Care and Maintenance

Under normal conditions the Flotec AJ & MM series of pumps requires only minimal attention.

In order to prevent possible failures, it is advisable to periodically check the pressure supplied and power absorption. A decrease in pressure is a symptom of wear. An increase current absorption is a sign of abnormal mechanical function in the pump and/or motor.

Troubleshooting

Symptom	Cause	Remedy
Pump does not operate and motor does not run.	No Electricity.	Verify presence of electricity.
	Not Plugged in correctly.	Ensure pump is connected properly.
	Circuit breaker activated.	Reset circuit breaker.
Pump hums and the thermal relays cut in and out	Pump is clogged by debris.	Clean suction pipe and foot valve/strainer. Clean the pump by flushing with water. Remove the priming and drain plugs. If the pump cannot start after several flushings, it must be dismantled and cleaned.
	Capacitor is defective.	Replace Capacitor.
Pump operates but delivers no water.	Pump is not filled with water.	Fill the pump with water (see installation section - Priming Pump).
	Suction head is too high.	Reduce the suction head.
	Foot valve/strainer is not submerged enough.	Make the suction pipe longer (max 8 metres).
	Suction pipe is taking in air.	Check the suction pipe and joints for air leaks.
	Suction pipe/strainer or non-return valves are clogged with debris.	Clean the suction pipe/strainer or non-return valve.
	Pump is clogged with debris.	Clean the pump of debris.
Reduced performance	Suction head is too high.	Reduce suction head.
	Foot valve/strainer only partially submerged.	Lengthen suction pipe.
	Pump shaft seal is worn or damaged.	Replace defective parts.
	Pump is partially blocked with debris.	Remove debris and flush pump with clean water.
Pump stops after running for a short period of time because one of the thermal motor circuit breaker trips	The power supply does not comply with the data on the name plate.	Check the voltage on the power supply cable leads.
	A solid object is blocking the impellers.	Contact the customer assistance service.
	The liquid is too thick.	Dilute the pumped fluid.

Should problems persist, contact your place of purchase

WARRANTY

Pentair Australia Pty Ltd ACN 004 856 204 and its related entities ("Pentair") warrants that, subject to the terms and conditions below, when its products are used for the purpose for which they were designed, they will be free of material and manufacturing defects at the time of the original purchase. Any defects found in the products should be reported as soon as the fault is discovered.

In Australia:

Our goods 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 for 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.

TERMS AND CONDITIONS APPLICABLE IN AUSTRALIA AND NEW ZEALAND YOU MUST CAREFULLY READ THE INSTRUCTIONS SUPPLIED PRIOR TO USING ANY PENTAIR PRODUCT.

All products are to be installed and operated in accordance with the instructions provided. This warranty will not apply if any product is used in a manner other than in accordance with the instructions.

1. What does the warranty cover

Pentair warrants its products to be free of defects in material and workmanship during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, then Pentair will, at its sole discretion repair or replace the product with a like product. Replacement products or parts may include re-manufactured or refurbished parts or components.

2. How long the warranty is effective internationally

This Pentair product is warranted for 24 months for all parts from the date of the first consumer purchase. Should any parts fail as a result of a defect in material or workmanship within the specified period, the part will be replaced free of charge. [This does not include travel charges, removal and reinstallation charges.]

3. How long the warranty is effective locally

i) Please refer to the Warranty Schedule detailing the warranty period and coverage.

ii) All Pentair products warranties commence from the date of first consumer purchase.

iii) Where this Pentair product is sold for business purposes as defined in the relevant consumer protection law the warranty shall be for a period of six months from the date of purchase by the consumer.

4. Who the warranty protects

This warranty is valid only for the consumer purchaser.

5. How to claim the warranty

To claim under this warranty the consumer should immediately cease using the goods when an alleged product issue arises. For infield service, the consumer should promptly notify a Pentair local dealer, within thirty (30) days after discovery of an alleged product issue. Detailed warranty claim information will be requested at this time and must be supplied by the consumer. For a workshop warranty, the consumer should promptly return the product to a Pentair local dealer, within thirty (30) days after discovery of an alleged product issue. Detailed warranty claim information will be requested at this time and must be supplied by the consumer. Your Pentair Service Agent may be found here: <http://www.onga.com.au/dealerlocator>

6. What the warranty does not cover

- i. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, negligence, fire, water, lightning, or other acts of nature, modification or failure to follow instructions supplied with the product;
 - b. Repair or attempted repair by anyone not authorized by Pentair;
 - c. Any damage to the product due to shipment;
 - d. Removal or installation of the product;
 - e. Causes external to the product such as electric power fluctuations or failure;
 - f. Use of supplies or parts not meeting Pentair specifications;
 - g. Normal wear and tear,
 - h. Product consumables. i.e. mechanical seals, impellers, bearings, rings gaskets and electrical cables.
- i. Any unauthorized changes or tampering or partial disassembly of the product;
- j. Water ingress or exposure to abnormal corrosive conditions, abrasive chemicals or "run dry" condition
- k. Any other cause which does not relate to a product defect.
- ii. Damage caused to the products arising from the use of another manufacturer's product.
- iii. Ingress of insects or invertebrates into the unit causing electrical malfunction. Care should be taken to avoid this occurrence.
- iv. Products other than products supplied by Pentair.
- v. Products that are not installed in accordance with the owner's manual.
- vi. Products that are not installed by a suitably qualified person trained in the installation and operation of such products.
- vii. General Service and Maintenance

7. Limitation of Liability

To the extent permitted by law, Pentair's liability for breach of a guarantee implied by any law in relation to goods Pentair supplies that are not of a kind ordinarily acquired for personal, domestic or household use or consumption, except for implied guarantees as to title to goods supplied, a purchaser's right to undisturbed possession of goods supplied and undisclosed securities over goods supplied, is limited to the replacement of the goods, the payment of the cost of replacing the goods or the payment of the cost of acquiring equivalent goods.

WARRANTY

8. Exclusion of damages

To the extent permitted by law, Pentair liability is limited to the cost of the repair or replacement of the product.

Pentair will not be liable for:

- i. Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference of business relationships, or other commercial loss, even if advised of the possibility of such damage.
- ii. Any other damage arising as a result of weather or natural disaster.
- iii. Any claim against the customer by any other party.

9. Proof of purchase

Pentair reserves the right to reject any warranty if no proof of purchase is provided. A valid proof of purchase will be requested by the Service Agent prior to any works being carried out by the Pentair Service Agent.

A valid proof of purchase includes the following:

- i. Tax Invoice from place of purchase.
- ii. Tax Receipt from place of purchase.
- iii. Certificate of Occupancy.

10. Service Calls

- i. All in-field service calls will require the consumer to provide the service agent with either a deposit which is fully refundable upon acceptance of the warranty claim or credit card details as a form of security.
- ii. The consumer will only be charged for services where the Pentair Service Agent determines the product failure is a result of, or directly relating to, any of the items listed in section 5 of these terms & conditions.
- iii. Refusal to provide either a deposit that is fully refundable upon assessment or Credit Card details for security may result in the Pentair Service Agent refusing to attend the Service Call.
- iv. Any warranty application submitted that does not contain the consumers details may result in the Pentair Service Agent refusing to attend the Service Call.
- v. Any product warranty application that involves mains or gas lines the Service Agent will require a Certificate of Compliance for the original installation.
- vi. In-field service will not be provided to consumers who purchased their product via the internet. The consumer shall return the product to the place of purchase, a Pentair Service Agent or shall accept the charges related to in-field service in order to receive warranty service on the product.

11. Spare Parts

Spare parts are stocked for a reasonable period of time following last production.

Pentair does not warrant that spare parts will be made available for the whole of the reasonable period and reserves its right to cease supplying spare parts, or providing facilities for repair of spare parts in circumstances which are beyond its control including the requirement to remove spare parts from sales as a consequence of changes in the law or otherwise at its absolute discretion.

12. General Maintenance

It is the responsibility of the consumer to ensure the product is free: from general debris; any foreign matter; and weather exposure. For general service & maintenance please refer to your nearest Dealer and or Service Agent.

13. Definitions

13.1 Infield warranty

- i. As per the attached warranty schedule any Pentair product that carries an in-field warranty means that the service agent is required to attend the site of the faulty product, subject to clause 13.1(iii).
- ii. Any in-field issues determined not to be covered by this warranty will result in all associated costs for the in-field service provided to be invoiced to the consumer and those costs will not be covered by the Pentair product warranty.
- iii. Any travel associated to the Pentair Warranty Claim will be covered up to 100km round-trip from place of purchase. Any kilometres outside this range will be payable by the consumer.

13.2 Workshop warranty

As per the attached warranty schedule any Pentair product that carries a work shop only warranty means; the faulty product must be taken or freighted at consumer cost; to the nearest Pentair Service Agent. The consumer is able to request an in-field service / repair; however this would be at the consumer's own cost.

Any workshop issues determined to be no fault / cause of the Pentair product; will result in all associated costs to the service provided; being invoiced to the consumer and will not be covered under the Pentair product warranty.

13.3 Replacement warranty

As per the attached warranty schedule any Pentair product that carries a replacement warranty means; that the service agent will fully replace the faulty Pentair product at no cost to the consumer if determined warrantable.

The faulty product must be taken to the closest Pentair Service Agent for replacement warranty otherwise all costs associated will be at the consumers cost and is not covered under the Pentair product warranty.

14. Effective law

This warranty gives you specific legal rights, and you may also have other rights which vary depending on where the product was purchased and the consumer protection or other law that applies in that place. Nothing in this warranty limits or restricts, or is intended to derogate from, any right or remedy which the purchaser or ultimate user of the product may have pursuant to Australian federal or Consumer Guarantees Act, Fair Trading Act or any other relevant and applicable New Zealand legislation or authority and where necessary shall so be read and construed in light of the applicable legislation. The terms of this warranty policy may be inconsistent with the warranty statement in the products owner's manual. To the extent of any inconsistency the terms of this warranty shall prevail.

These terms and conditions must be read in conjunction with the relevant product identified in the Warranty Schedule. A copy of the warranty schedule is available online at : <http://www.onga.com.au/terms-of-use/>

How to get service:

In Australia please call **1800 664 266**

Notes

A series of horizontal dotted lines for taking notes.

AUTOJET & MULTIMAX

STAINLESS STEEL JET PUMPS

IMPORTANT

Please attach your sales invoice/docket here as proof of purchase should warranty service be required.
Please do not return warranty form to Pentair Australia - Retain for your records.

Purchased from :

Purchase date : Serial No : Model No :



Head Office

Pentair AU/NZ: 1-21 Monash Drive,
Dandenong South, VIC 3175

Australia

National customer service: Phone :1300 137 344
Fax :1800 006 688
National dealer locator: Phone :1800 664 266

Email: au.sales@pentair.com
Web: www.pentair.com.au

New Zealand

National customer service: Phone :0800 654 112
Fax :0800 806 642
National dealer locator: Phone :0800 664 269

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