

General Purpose Pump FIP F2 / F3 / F4 12V / 24V

- Bilge pumping, Livewell circulation, Washdown, General pumping requirements
- For intermittent duty
- Flexible impeller pumps must not be permitted to run dry for more than 30 seconds
- Reversible flow for – for example – emptying bait tank
- Thermo polymer or brass bodies; stainless steel shafts and Premium oil-resistant impeller
- Self-priming dry up to suction lift of 3 m (9.8 feet) **Make sure the suction lines are airtight**
- Meets ISO 8846, 10133, 9097 and CE Conforms with EN 55014 for suppression of Electro-magnetic interference

part no. 04-01-001	F2	30 L/min (8 GPM)	12V 8 A	19 mm (¾") hose
part no. 04-01-002	F2	30 L/min (8 GPM)	24V 4 A	19 mm (¾") hose
part no. 04-01-003	F3	35 L/min (9.3 GPM)	12V 8 A	19 mm (¾") hose, ½" BSP
part no. 04-01-004	F3	35 L/min (9.3 GPM)	24V 4 A	19 mm (¾") hose, ½" BSP
part no. 04-01-005	F4	45 L/min (12 GPM)	12V 12.5 A	19 mm (¾") hose, ½" BSP
part no. 04-01-006	F4	45 L/min (12 GPM)	24V 6 A	19 mm (¾") hose, ½" BSP

Installation:

The pump must be mounted in a dry location – even if the motor is waterproof – and must not be submerged. *Selection of a cool ventilated location will generally extend pump motor life.* The unit can be mounted in any desired position. It is best to mount so that any leakage from a loose port connection will drip on the motor. Flow may be reversed by reversing the polarity of the electric leads.

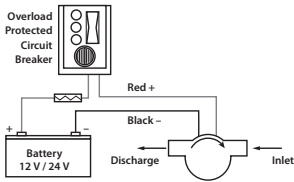
Plumbing connection:

Pump ports have external ¾" hose connections and, for F3 & F4, also internal ½" pipe threads. Use hoses that do not kink when bent and with sufficient wall thickness to prevent collapse when used on suction side of pump. Hoses should be routed so that some water will be retained in pump body to wet the impeller. Wetting the impeller aids in priming and extends impeller life. Use a strainer on the intake hose to stop trash and large solids from damaging the pump. All hoses must have airtight connections to enable optimal priming.

Electrical connections:

Connect black wire to negative (–) terminal of battery. The red wire should run to a properly sized (see electrical specifications) overload protected switch or circuit breaker, with a wire from switch or breaker to positive (+) terminal of battery. Electrical circuit must be independent of all other accessories.

Preferred motor rotation is clockwise looking at shaft end of motor. Use proper wire size as determined by wire table below.



Wire size	Max wire length (total distance from the battery to the pump and back to the battery)					
	F2		F3		F4	
	12V	24V	12V	24V	12V	24V
1.5 mm² (15 ga)	3.7 m (12')	14.6 m (48')	3.7 m (12')	14.6 m (48')		
2.5 mm² (13 ga)	6.1 m (20')	24.4 m (80')	6.1 m (20')	24.4 m (80')	2.7 m (9')	11.0 m (36')
4 mm² (11 ga)	9.8 m (32')		9.8 m (32')		4.4 m (14')	17.6 m (58')
6 mm² (9 ga)	14.6 m (48')		14.6 m (48')		6.6 m (22')	26.3 m (86')
10 mm² (7 ga)	24.4 m (80')		24.4 m (80')		17.6 m (58')	
25 mm² (3 ga)					27.4 m (90')	

Operation:

- Flexible impeller pumps must NOT be run dry, as the pumped liquid is the lubricant for the impeller. Observe the outlet and shut off pump as soon as liquid stops flowing. An automatic level switch or vacuum switch is convenient to control the pump in some applications.
- The pump cannot run against a closed outlet such as encountered when using a garden hose type shut-off nozzle. Pressure for continuous operation should not exceed 6 m (20') of head (0.6 bar / 8.7psi).
- Temperature of pumped liquid may be in the range of 7° – 82°C (45° – 180°F).

Maintenance:

Check wires and connections to be sure corrosion is not adding additional resistance to the motor circuit and causing a low voltage condition at the motor. Low voltage can inhibit motor from starting and cause fuse to blow. Full voltage should be available to prevent motor damage.
NOTICE: If pump is idle for extended periods, the impeller may stick to the pump body, preventing motor rotation and causing blown fuses. To correct, remove end cover and impeller, clean body and impeller, then lubricate with water or small amounts of grease before reassembly.

If the pump is to be stored in freezing temperatures, drain by loosening end cover screws. A Service Kit, or at least spare impellers, should be carried aboard to be assured of pumping capability.

Disassembly

1. Remove end cover screws, end cover and O-ring.
2. Withdraw impeller.
3. Loosen and remove two screws, which attach body to motor.
4. Tap body lightly between ports and remove body from motor.
5. With a ½" diameter dowel, push against the shaft seal from back (motor) side of the body to dislodge it from the seal bore. **NOTE:** Do not tamper with or disassemble the motor



Keep all wire connections above the highest water level. Wires must be joined with butt connectors and a marine grade sealant to prevent wire corrosion.



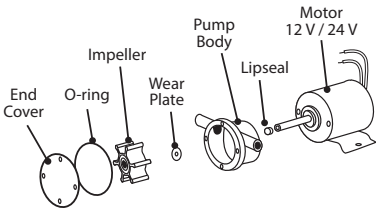
Disconnect power from the system before working on the unit to avoid personal injury, damage to the surrounding environment and/or damage to the unit.



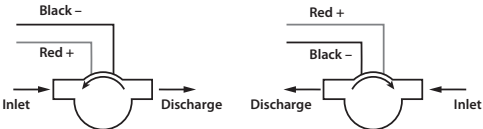
Always install proper fuse size to prevent damage to product should a short occur. Failure to install proper fuse could increase risk of pump malfunction potentially resulting in personal injury and/or fire hazard.



This pump is designed for use with fresh water, salt water, oils and chemicals. Do not pump gasoline, solvents, thinners, highly concentrated or organic acids. Use with any other hazardous, caustic, or corrosive material could result in damage to the pump and the surrounding environment, possible exposure to hazardous substances and injury. Flush the pump with water after use with corrosive fluids.



Reverse flow direction by reversing the polarity



Waste handling & material recycling

At the product's end of life, please dispose of the product according to applicable law. Where applicable, please disassemble the product and recycle the parts according to material.

WARRANTY

Two year limited warranty