

## Ballast Pump FIP F4 12V / 24V

- FIP F4-size ballast pump ideal for fast ballast pumping for wake boarding and other water sports. Small debris present no problems for albinus FIP DC Pumps.
- For fresh or sea water ONLY! DO NOT pump gasoline, oil or diesel!**
- Reversible flow by changing the polarity for quickly emptying and filling of tanks, for example water between ballast tanks for wake boarding
- Pump Body in Brass, stainless steel shaft, Stainless steel endcover, ballast pump impeller in MC19 material and sea water resistant shaft seal
- Self-priming dry up to suction lift of 9.8 feet (3 m) **Make sure the suction lines are airtight**
- For intermittent duty
- Flexible impeller pumps must not be permitted to run dry for more than 30 seconds
- Keep your ballast pumps running optimally by inspection of the MC 19 ballast pump impeller before each season. Replace impeller with Albin Pump Marine Premium Replacement Impeller part number 06-04-036
- Meets ISO 8846, 10133, 9097 and CE Conforms with EN 55014 for suppression of Electro-magnetic interference

part no. 04-04-013  
Ballast Pump F4 14 GPM (55 L/min) 12V 16 A 19mm (3/4") hose, 1/2" BSP  
25 A with reversing switch

part no. 04-04-014  
Ballast Pump F4 14 GPM (55 L/min) 24V 7 A 19mm (3/4") hose, 1/2" BSP  
15 A with reversing switch

### Installation:

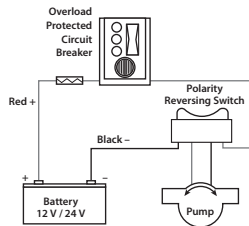
The pump must be mounted in a dry location – even if the motor is waterproof – and must not be submerged. *Selection of a cool ventilated location will generally extend pump motor life.* The unit can be mounted in any desired position. It is best to mount so that any leakage from a loose port connection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

### Plumbing connection:

Pump ports have external 3/4" hose connections and also internal 1/2" 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 debris and large solids from damaging the pump. All hoses must have airtight connections to enable optimal priming.

### Electrical connections:

Connect the red and black wires to a polarity reversing switch. Connect the black wire from the polarity reversing switch to the negative (-) terminal of battery. The red wire from the polarity reversing switch 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. Use proper wire size as determined by wire table below.



Wire size Based on 3% voltage drop	Max wire length (total distance from the battery to the pump and back to the battery)	
	Ballast pump F4	
	12V	24V
2.5 mm <sup>2</sup> (14 ga)	2.7 m (9')	11.0 m (36')
4 mm <sup>2</sup> (12 ga)	4.4 m (14')	17.6 m (58')
6 mm <sup>2</sup> (10 ga)	6.6 m (22')	26.3 m (86')
10 mm <sup>2</sup> (6 ga)	11 m (36')	
16 mm <sup>2</sup> (4 ga)	17.6 m (58')	
25 mm <sup>2</sup> (2 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 tank level indicator and shut off pump as soon as tank being transferred from registers as empty. An automatic level switch or vacuum switch is convenient to control the pump in some applications.
- The pump cannot run against a closed outlet. 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 (Albin Pump Marine replacement Impeller part number 06-04-036), should be carried aboard to be assured of pumping capability.

### Disassembly

- Remove end cover screws, end cover and O-ring.
- Withdraw impeller.
- Loosen and remove two screws, which attach body to motor.
- Tap body lightly between ports and remove body from motor.
- With a 1/2" 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.



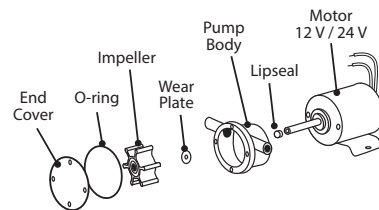
Disconnect power from the system before working on the unit to avoid personal injury, damage to the surrounding environment and/or damage to the unit.



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 Fresh and Seawater. **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.



### Capacity

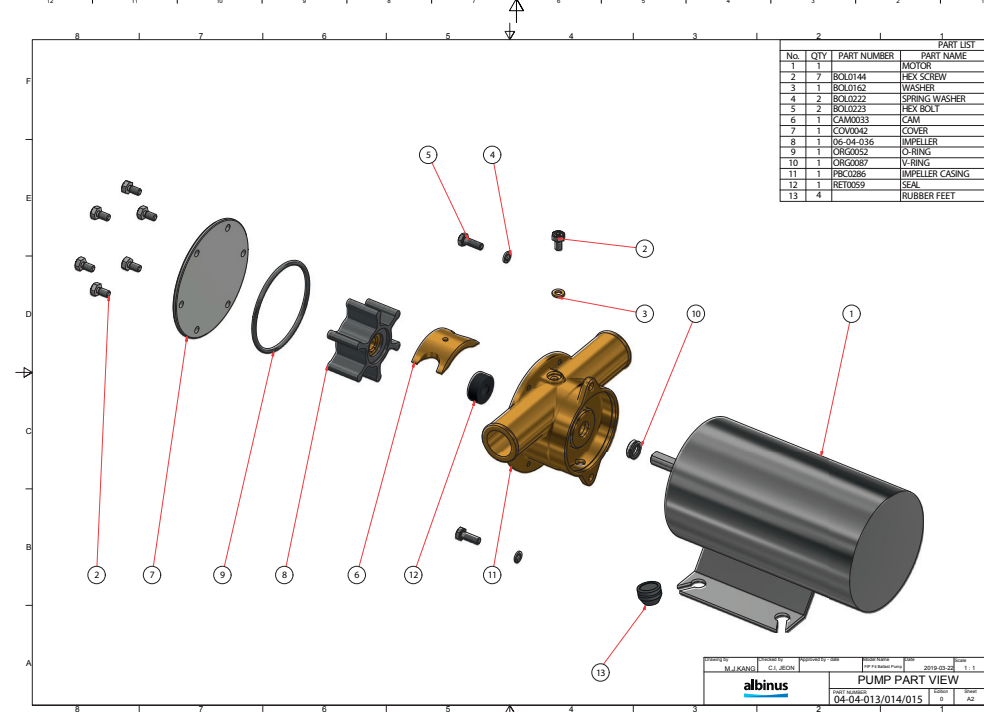
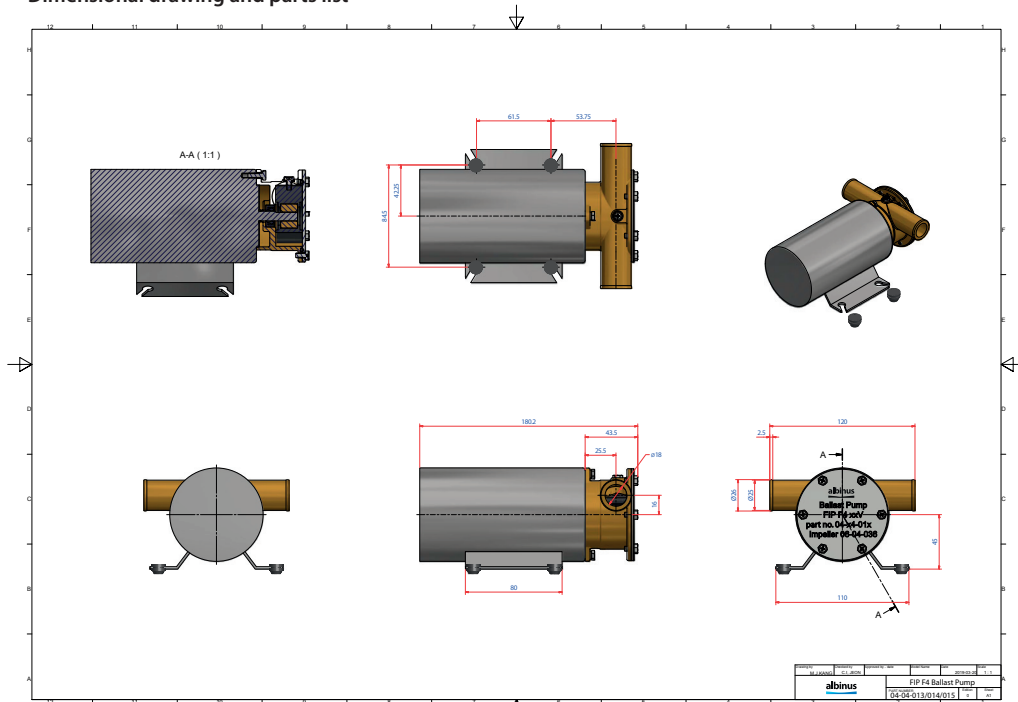
**NB! Albinus strongly recommends that the Ballast Pump FIP F4 be operated by a polarity reversing switch over an overload protected switch or circuit breaker, fitted with a 25 amp/12V or 16 amp/24V breaker or fuse.**

Bar	psi	l/min	USGPM	Amp. Draw	
				12V	24V
0	0	55.0	14.3	14.5	8.0
0.1	1.5	54.0	14.0	15.0	8.2
0.3	4.4	49.0	12.8	15.5	8.5
0.6	8.7	40.0	10.5	16.5	9.0
Fuse required				18 A	12

### Intermittent Duty

Bar	psi	l/min	USGPM	Amp. Draw	
				12V	24V
0.9	13.1	29.0	7.5	17.5	10.0
1.2	17.4	12.0	3.9	19.0	11.0

Dimensional drawing and parts list



**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.

EN 55014-1  
 ISO 8846  
 ISO 8849  
 ISO 9097  
 ISO 10133

**WARRANTY**

Two year limited warranty



**Albin Group AB**  
 Kämpevägen 17  
 55302 Jönköping, Sweden

info@albin.group  
 www.albin.group