

INSTRUCTION MANUAL

# Ultima Combo

L450 UC, L550 UC, L650 UC, L750 UC

#### IB-120 R03 (09/2012)

ORIGINAL INSTRUCTIONS/TRANSLATION OF ORIGINAL INSTRUCTIONS READ AND UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR SERVICING THIS PRODUCT



## >Johnson Pump<sup>•</sup>

### Submersible bilge pump with Ultima switch

Submersible bilge pump for pumping bilge water in marine environment. To be installed in the keelson.

#### Security

- The pump may not be used for other liquid than water/bilge water.
- Always install the pump according to wiring diagram, page 16.
- Always use the fuse required, see Design features below.
- The wire connections must be sealed with a marine sealant, eg vaseline, silicone or grease.
- Insulation or cable sheathings must be placed above the highest bilge water level.
- Do not run dry.

#### Operation

See illustration page 15.

- When the bilge water rises and reaches the second detector cell at 50 mm (2") the switch starts the pump, with a 3 second delay.
- 2. When the water level has sunk to a level of 20 mm (¾"), and the first detector cell is above the water level, the pump is stopped.

#### Type designation

Pumptype	EU	L450 UC	L550 UC	L650 UC	L750 UC
Pumptype	US	500 GPH	750 GPH	1000 GPH	1250 GPH
Part No EU	12V	32-1450UC-01	32-1550UC-01	32-1650UC-01	32-1750UC-01
Part No US	12V	07503-00	07703-00	07903-00	08203-00
Part No EU	24V	-	-	32-1650UC-01-24	32-1750UC-01-24
Part No US	24V	-	-	07903-24	08203-24

#### **Design features**

EU US	L450 UC 500 GPH	L550 UC 750 GPH	L650 UC 1000 GPH	L750 UC 1250 GPH
Hose size	3/4"	3/4"	3/4"	1.1/8"
Capacity, straight	40 l/min/	50 l/min/	63 l/min/	73 l/min/
(13.6 V)	630 GPH	800 GPH	1000 GPH	1150 GPH
Capacity, 1 m head	33 l/min/	44 l/min/	50 l/min/	60 l/min/
(13.6 V)	525 GPH	700 GPH	800 GPH	952 GPH
Voltage	12 V DC	12 V DC	12 V/24 V DC	12 V/24 V DC
Amperage	2,5 A	3 A	3,2 A / 2 A	3 A / 2 A
FUSE SIZE	5 A	5 A	5 A / 3 A	5 A / 3 A
HEIGHT	112 MM	112 MM	112 MM	112 MM
Max dimension	75x100 mm	75x100 mm	75x100 mm	75x100 mm
Weight	0.40 kg	0.40 kg	0.40 kg	0.45 kg
Body	Thermoplastic	Thermoplastic	Thermoplastic	Thermoplastic
Shaft	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Shaft seal	Lip seal	Lip seal	Lip seal	Lip seal
Wire size	0.75 mm <sup>2</sup>	0.75 mm <sup>2</sup>	0.75 mm <sup>2</sup>	0.75 mm <sup>2</sup>

#### Installation

Please follow the installation instructions carefully to assure maximum efficiency in your

bilge pump operation.

- 1. Mount the pump in the lowest point of the bilge.
- Select a point where the bilge water is to be pumped overboard as high as possible above the water line and at the shortest distance from the pump. Install a 3/4" thru-hull fitting (L750 UC - 1.1/8").
- 3. Fasten a 3/4<sup>tr</sup> (L750 UC 1.1/8<sup>tr</sup>) fuel resistant hose from the pump outlet to the thru-hull fitting. Avoid sharp bends or loops. Support the hose if necessary. Note: In order to prevent air locks it is important that the hose not be allowed to dip below the pump outlet. The hose should be constantly rising.

#### To remove or replace the power cartridge

See page 18

- 1. Lift tab and rotate the two fins in a counter clockwise direction and lift out.
- 2. To reinstall, first make sure that the seal is properly located. Coat the seal with a light film of vegetable oil or mineral oil, then align the two cams on either side of the power cartridge with the two slots in the outer housing. Press down and twist in a clockwise rotation. To ensure that the power cartridge is properly located, twist fins in a counter clock-wise direction without lifting tab.

Cartridge should stay in place.

#### Accessories

#### Panel 12 or 24 V

	12 V (EU)	24 V (EU)	12V (US)	24V (US)
Part No	34-1224	34-1225	82004	82004-24

The SPX Johnson Pump panel combined with the Ultima Switch gives you an excellent installation for your boat. The panel switch has 3 positions: OFF, MAN (on manual), and AUTO (on automatic). It also includes a fuse holder and a pilot lamp. Fuses are included. The panel is delivered in matt black finish. Size: 73 x 60 mm



#### Electrical installation with the SPX Johnson Pump panel

- 1. Always install according to the wiring diagram on page 16.
- 2. With the switch in AUTO-position, the pump will now start when the bilge water reaches 50 mm and stops when it comes down to 20 mm. You can also run the pump "manually". Note: When running the pump in "Manual"- position, it must not run dry. When the pump is running, the pilot lamp will be lit.
- The size of the fuse should be chosen according to the specifications of each pump size.
- 4. Important: All electrical wiring must be clamped with the connections well above the bilge water level. Do not remove the insulation more than necessarily. All wiring connections should be sealed with a marine sealant to avoid oxidation.

Learn more about boat plumbing on our website.