Cartridge Combo Bilge Pump 500 / 750 / 1100 GPH
Cartridge Combo Bilge Pump Low 750 / 1100 GPH

The Cartridge Combo Bilge Pumps are Albinus' series of submersible Cartridge Bilge Pumps with a pre-installed Digital Bilge Switch for fully automatic operation. The Digital Bilge Switch employs no moving parts. Safely remove bilge water, even when no one is onboard. Disruption of the produced electric field by the bilge water activates your bilge pump automatically and shuts down the pump when the water level sinks to acceptable level. Designed with the latest technology in order to meet the requirements and standards for the marine industry. Sport fishing, water sports, cruising as well as commercial duties.

The series is based on the well-proven Albinus 12/24 V motors for capacities 500 GPH, 750 GPH & 1100 GPH

- Easy to install
- Detachable-port connections
- Straight and 90 deg elbow hose connections
- Easy to clean
- Replaceable Cartridge Motor
- Stainless steel shaft
- Tough Thermoplastic Housing
- Seawater resistant shaft seal
- No moving parts in the Digital Bilge Switch, fully sealed
- Field sensing technology
- Non-corroding polymer housing
- Unaffected by oil or floating debris in the bilge
- Delayed activation / deactivation to avoid false starts / stops due to sloshing in the bilge
- 30 second pump shut-down cycle to ensure water evacuation

Cartridge Combo Bilge Pump 500 / 750 / 1100 GPH (32 / 50 / 75 L / min)
Cartridge Combo Bilge Pump Low 750 / 1100 GPH (50 / 75 L / min)

Submersible Cartridge Bilge Pump, compact and easy to install. Tough thermoplastic ABS housing with detachable universal base plate with strainer and attached, pre-wired Digital Bilge Switch for automatic operation. Replaceable cartridge motor. Easy maintenance and low power consumption. "Low" configuration available in 750 and 1100 GPM capacities for low height installations.

Installation
Please follow the installation instructions carefully to ensure maximum efficiency in your bilge pump operation.

1. Position the pump in the lowest part of the bilge on a flat, level surface so that the pump nozzle is oriented in the proper position to connect to the discharge hose.
2. Make sure the hull thickness is at least ½" thick. If not, place a block of ½" marine plywood (slightly larger than pump base) under the pump. Glue the plywood to the hull with a waterproof adhesive (epoxy, silicone adhesive, or fiberglass resin). See Figure 1. Mount the pump. If attaching the pump to wood, fasten with stainless steel screws. If attaching the strainer to metal or fiberglass, first mount a wooden block and then fasten the strainer to the wooden block.
3. 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 ¾"(19 mm) OR 1⅛"(28 mm)(1100 GPH) thru-hull fitting.
4. Fasten a ¾"(19 mm) OR 1⅛"(28 mm) 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 is not allowed to dip below the pump outlet. The hose should be constantly rising.

Wiring

1. Connect the brown wire of the pump and the red wire of the Digital switch to the positive (+) terminal of the battery,
2. Connect the the black wire of the pump to the brown wire of the Digital Switch
3. Connect the black wire of the Digital switch to the negative (–) terminal of the battery.
4. Install the proper size fuse; 500 : 3 A; 750 and 1100 GPH : 5 A fuse between the positive (+) terminal of the battery and the pump.
5. For longer pump life, do not run dry
6. Wiring diagrams for automatic operation in figure 2.
7. For connecting to remote panel for automatic and manual override see figure 3. **NB! The Digital Bilge Switch switches only in Negative (–).**

Important: all electrical wiring must be clamped with the connections well above the bilge water level.

Do not remove the insulation more than necessary. All wiring connections should be sealed with a marine sealant to avoid oxidation.

Operation instructions for the Digital Switch

1. After mounting and wiring of the Cartridge Combo is completed, hold two fingers over the raised circle areas of the switch for approximately 10 seconds. If the wiring is correct the bilge pump will activate. If you remove a finger from the top circle, the pump should continue to be on. After removal of both fingers, the bilge pump will shut off after a 30 second pump down cycle.
2. Make sure to test the Albinus Digital Bilge Switch with water in the bilge of the vessel to re-affirm that the pump will turn on and off properly. If the bilge pump does not activate as required, a repositioning of the switch may be necessary.

Replacement of Motor Cartridge

With Albinus' self-contained cartridge motors it is simplicity itself to replace a motor and / or upgrade to a higher capacity motor. (See table for part numbers)

1. ***Make sure to close ball valve before removing the motor cartridge!***
2. Disconnect all wiring
3. The cartridge motor is held in place with a bayonnet fastening. Grasp the pump body with one hand, rotate the cover clockwise with the other hand while pressing down slightly so that the "U" shape on the cover is to the left of the vertical bar shape on the pump body. Lift out the cartridge.
4. To reinstall make sure the O-ring is properly seated. Lightly coat the O-ring with vegetable oil or mineral oil.
5. Insert the cartridge into the pump body, engaging the tabs on the bottom of the cover with the slots in the pump body.
6. While pressing downward rotate the the cartridge counterclockwise so that the "U" shape on the cover is to the right of the vertical bar shape on the pump body.
7. Reconnect the wiring and open the ball valve / sea cock before use.

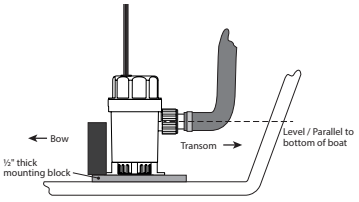


Fig. 1

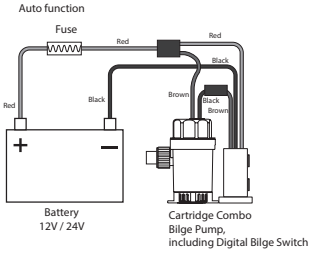


Fig. 2

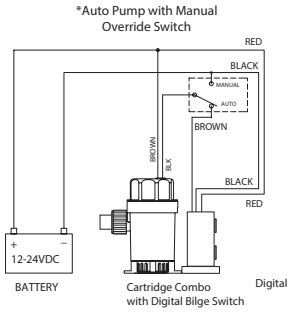
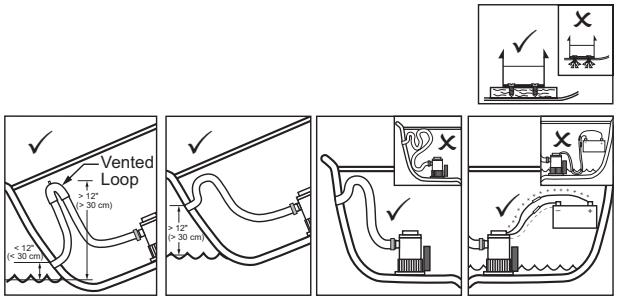


Fig. 3



PN	Description	Capacity straight	Capacity 3 ft - 0.9 m	Amps	Fuse size	Connection	Dimensions W x L x H	Replacement Motor Cartridge
01-43-088	Cartridge Combo Bilge Pump 500GPH Digital 12V	500 GPH - 32 l/min	400 GPH - 25 l/min	1.8 A	3 A	¾" straight and 90° elbow	120 x 130 x 116.5 mm (4.7 x 5.1 x 4.6 in)	500 GPH 12V 01-92-083
01-43-089	Cartridge Combo Bilge Pump 750GPH Digital 12V	750 GPH - 50 l/min	660 GPH - 42 l/min	2.7 A	5 A	¾" straight and 90° elbow		750 GPH 12V 01-92-084
01-43-090	Cartridge Combo Bilge Pump 750GPH Digital 24V	750 GPH - 50 l/min	660 GPH - 42 l/min	1.5 A	5 A	¾" straight and 90° elbow		750 GPH 24V 01-92-085
01-43-091	Cartridge Combo Bilge Pump 1100GPH Digital 12V	1100 GPH - 75 l/min	1000 GPH - 65 l/min	4 A	5 A	1 ⅛" fixed	120 x 102 x 116.5 mm (4.7 x 4.0 x 4.6 in)	1100 GPH 12V 01-92-086
01-43-092	Cartridge Combo Bilge Pump 1100GPH Digital 24V	1100 GPH - 75 l/min	1000 GPH - 65 l/min	2.5 A	5 A	1 ⅛" fixed		1100 GPH 24V 01-92-087
01-43-093	Cartridge Combo Bilge Pump Low 750GPH 12V	750 GPH - 50 l/min	660 GPH - 42 l/min	2.7 A	5 A	¾" straight and 90° elbow	115 x 150 x 100 mm (4.5 x 5.1 x 3.9 in)	750 GPH 12V 01-92-084
01-43-094	Cartridge Combo Bilge Pump Low 1100GPH 12V	1100 GPH - 75 l/min	1000 GPH - 65 l/min	4 A	5 A	1 ⅛" fixed	115 x 150 x 90 mm (4.5 x 5.1 x 3.5 in)	1100 GPH 12V 01-92-086

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

Caution! 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.

Warning! This pump is designed for use with freshwater and saltwater only. **DO NOT** use pump to remove gasoline, oil or other flammable liquids. 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.

Caution! Do not allow to run dry

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 10133

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