



Plumbworld Hydrolux Ultraflow Macerator Instruction Manual

Please keep this instruction manual for future reference

ULTRAFLOW MACERATOR

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1. DECLARATION OF CONFORMITY

We Plumbworld declare that the Plumbworld Hydrolux Ultraflow Macerator product is in conformity with the following directives to the specification under which conformity is declared.

The Low Voltage Directive (Directive 2006/95/EC)

EMC Directive (Directive 89/336/EEC)

CE Marking Directive (Directive 98/37/EC)

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2. WARNINGS & CAUTIONS

- Carefully read through this entire instruction manual before using your product.
- A qualified person should only carry out electrical installation of this product.
- Always disconnect the electrical supply before servicing this product.
- This product is for indoor use only.
- Do not attempt troubleshooting, maintenance or servicing of this appliance unless you are competent to do so.
- It is recommended that rubber gloves are worn when servicing these machines.
- This product is designed for domestic home use only.
- We recommend the machine is regularly serviced/cleaned every 6 months to ensure no build up of waste and to keep it in full working order.
- This machine is designed for the discharge of domestic faecal matter, water and toilet paper **ONLY**. Discharge of any other materials other than those mentioned will lead to blockage / damage and invalidate the warranty.
- Some examples of products **NOT** to be discharged through the macerator include wet wipes, kitchen towels, sanitary towels, condoms and cotton wool.
- Once the unit has been installed for the first time we recommend flushing clean water through it several times before proper use to ensure correct installation.
- The non-return valves are stored inside the rubber chamber of the macerator - ensure all parts are removed before installation.
- This product must be installed according to all the specifications in this manual to ensure correct function.

IMPORTANT

Only use 32 or 40mm waste pipe from the outlet to the soil stack NEVER use 22 or 25mm pipe work, as the macerator output is too high and may cause the unit to leak under the discharge pressure.

Always ensure the mains power is connected prior to ANY water entering the unit.

PLEASE NOTE - The following situations will invalidate the product warranty: -

- Installation not in accordance with the installation guidelines.
- Installation by an unqualified person
- Foreign materials other than human waste & toilet tissue discharged through the Macerator
- Inadequate regular maintenance & upkeep

3. PRODUCT DESCRIPTION

The Hydrolux Macerator is for processing normal domestic WC waste, toilet paper and waste water in accordance with the relevant regulations.

It is designed to be used with up to 3 bathroom items such as basin / shower / toilet or any **ONE** of the following: -

- 1 bath
- 1 kitchen sink
- 1 washing machine
- 1 dishwasher

The macerator comprises a tank that receives the waste to be discharged and an electric pump that is automatically controlled by a pressure switch. The discharge action is triggered when the flushing system is actuated, as with a conventional toilet.

4. PRINCIPLES OF OPERATION

The products to be collected in tank A

Air chamber B records the air pressure flowing through pipe C to pressure switch D

The pressure switch trips the motor E that drives the turbine F

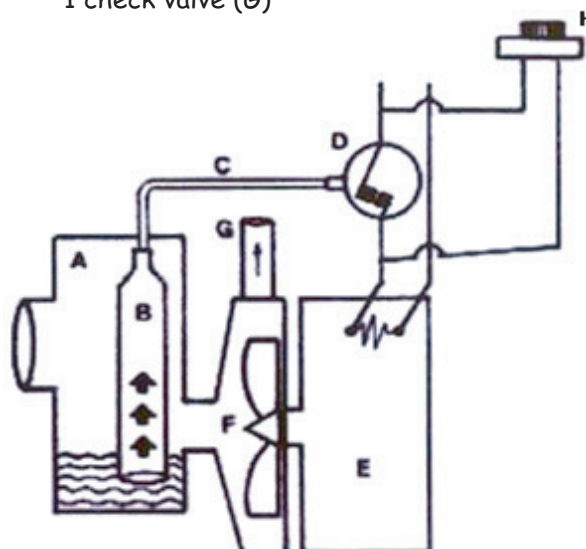
The waste is discharged through outlet G

The mechanism is simple and manufactured from top quality components. The operating principle is based on a proven design

Control Component: 1 pressure switch (D)

Mechanism Components: 1 electric motor (E)
1 turbine (F)

Control Components and Safety Device: 1 manual override switch (H)
1 check valve (G)



5. SPECIFICATION

Water temperature.....	: 1°C minimum / 90°C maximum
Voltage.....	: 230V 50Hz
Amperage.....	: 3A
Motor power.....	: 600 W
Thermal safety device.....	: 135°C
Discharge head.....	: 6mws
Capacitor.....	: 10uF/450V
Water Ingress Protection.....	: IP54
Flow rate at pump output.....	: 270 litres / minute
Maximum discharge height.....	: 5.5 metres
Maximum horizontal length.....	: 60 metres
Product complaint with standard EN 12050-3	

6. INSTALLATION

Electrics: The Ultraflow Macerator must be wired to a fused connection unit and not to a plug and socket. The fused connection unit should be unswitched and should be mounted on the wall close to the unit.

The cable is connected to the load terminals of the fused connection unit as follows:-

- Brown wire to the L terminal
- Blue wire to the N terminal
- Green/yellow earth wire to the E terminal
- Fit a 5A fuse to the fused connection unit

Hydraulics: the Macerator can only be used with a toilet with a horizontal outlet and equipped with a tank or flushing tap.

The centre of the horizontal outlet must be 18cm above the floor in accordance with European standards.



TOILET ONLY CONFIGURATION

Introduce the horizontal bowl outlet into the rubber sleeve of the Macerator and clamp with the pipe ring supplied, see figure 1 a).

Introduce the discharge pipe into the rubber outlet. This shall be 40mm or 32mm in diameter. Clamp with pipe ring, see figure 1 b).

Figure 1



CHECK VALVE

The check valve should be fitted in all situations and be as close to the macerator as possible (no further than 30 cms from the macerator).

Ensure the check valve is fitted the correct way round. There is an arrow on the side of it and indicates the direction of fitment.

If fitted vertically the arrow should be pointing upwards away from the machine.

If fitted horizontally the arrow should be pointing away from the macerator.

DISCHARGING WASTE FROM TOILET AND OTHER APPLIANCES

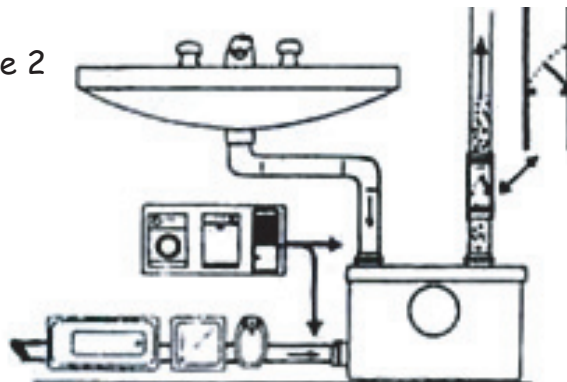
Connect the discharge pipes of the other appliances to the rubber connectors provided and clamp with the pipe ring, see figure 2.

If connecting the macerator to a bath or shower it is essential that there is sufficient slope from the bottom of the shower tray / bath outlet to the macerator (we recommend at least 1 cm per metre drop). If this slope is not sufficient, then the water will not drain from the shower tray / bath into the macerator and in turn will not be pumped away.

Your macerator comes supplied with a second non-return valve, which we recommend for use in a shower application to ensure water does not flow back into the shower tray. This valve must be fitted between the shower tray and macerator with the "arrow" pointing towards the macerator and away from the shower tray.

If other appliances are connected along the discharge line near to the macerator, install check valves on their discharge pipes in order to prevent waste return. The slope of the horizontal parts of the discharge line must have a gradient of at least 1cm per metre.

Figure 2



7. TROUBLESHOOTING

The macerator is designed to discharge faecal matter and toilet paper **only**. If anything else is discharged through the macerator then it will potentially block the pump. This is the main cause of breakdowns, recorded by our Customer Service Department. A troubleshooting guide is provided below.

WARNING: Do not attempt to carry out any servicing or maintenance on the product unless you are competent to do so. If you are in any doubt seek professional assistance.

TROUBLESHOOTING GUIDE

Description of problem experienced . . .	Causes	Remedies
The unit has switched itself off.	The motor has overheated and the thermal cut out switch has kicked in. The electrical supply has been interrupted.	Leave the unit for at least half an hour to let it cool down then switch back on. Hold the override switch down for at least 30 seconds to reset the machine. Check for any blockages inside the machine. Check the fuses and electrical supply.
Water backflows into the shower / bath.	Insufficient drop between the shower tray / bath and the macerator.	Ensure a drop of at least 1cm per metre between tray and macerator.
The unit is leaking.	Check valve not fitted Jubilee clips or blanking caps not fitted correctly.	Fit check valve. Check all jubilee clips and blanking caps.
Macerator won't work at all and never has.	Incorrect size waste pipe used. Incorrect electrical installation. Check valve fitted wrong way round	Ensure either 32 or 40mm pipe used. Ensure qualified person connects unit. Fit valve with arrow pointing in correct direction
Toilet water rises to the top of the bowl before macerator starts working.	Partial blockage of pressure valve switch. Faulty pressure switch.	Hold the override switch down for at least 30 seconds to clear the machine / reset. Check for any blockages inside the machine. Check pressure switch and replace if necessary.
Runs continually.	Vertical discharge fitted without check valve. Check valve fitted too far away from macerator. Check valve defect. Pressure switch defect. Pressure switch pipe blocked.	Install check valve. Ensure valve is no further than 30cms from macerator. Check inside of valve that "floppy paddle" is connected and moving freely. Replace valve if necessary. Check pressure switch & replace if necessary. Check vertical tube inside sealed rubber chamber for blockage.

Description of problem experienced . . .	Causes	Remedies
Is not powerful enough or too slow to discharge the waste.	Discharge pipes are too long or too high. Discharge pipe diameter too small. Partial blockage.	Check and if necessary refit the pipes. Check and if necessary refit the pipes. Actuate the pump with the manual override switch. If the problem persists, the pump must be blocked. Check the pump.
Emits a humming noise but does not discharge the waste.	Pump blocked. Check valve installed wrong way round.	Check the pump. Reinstall it the right way round.
Starts running and discharging accidentally.	Check valve defect. Leak in the flushing tank that causes water to flow into the macerator and sets it running intermittently. Partial blockage in pressure valve tube making macerator think there is water inside the machine. Pressure switch defect.	Check the valve and replace if necessary. Repair the leak. Clear the blockage. Check the pressure switch and replace if necessary.
No humming noise.	Electrical connection defect. Pressure switch. Motor not working	Check the connection. Press the manual override switch several times, if the appliance starts running, check the electrical connection of the pressure switch and the pressure switch line (see method). Pressing the manual override switch has no effect. Check the motor and replace if necessary.

PRESSURE SWITCH INSPECTION

Plug the pressure tap chamber located in the rubber tank, press it down to create pressure and listen to hear if there is a click, indicating that the motor has switched on. If there is no click, also check that the air chamber of the pressure switch pipe nozzle does not leak.

If the appliance is switched on, the motor should start running.

Before performing this operation, check that the opening or inside of the pressure tap chamber are not blocked.

8. CLEARING BLOCKAGES

WARNING: Before attempting to clear a blockage ensure that the ELECTRICAL SUPPLY IS DISCONNECTED.

CAUTION: This operation should only be performed by a competent person. Seek professional advice.

Tools that are required to perform this operation

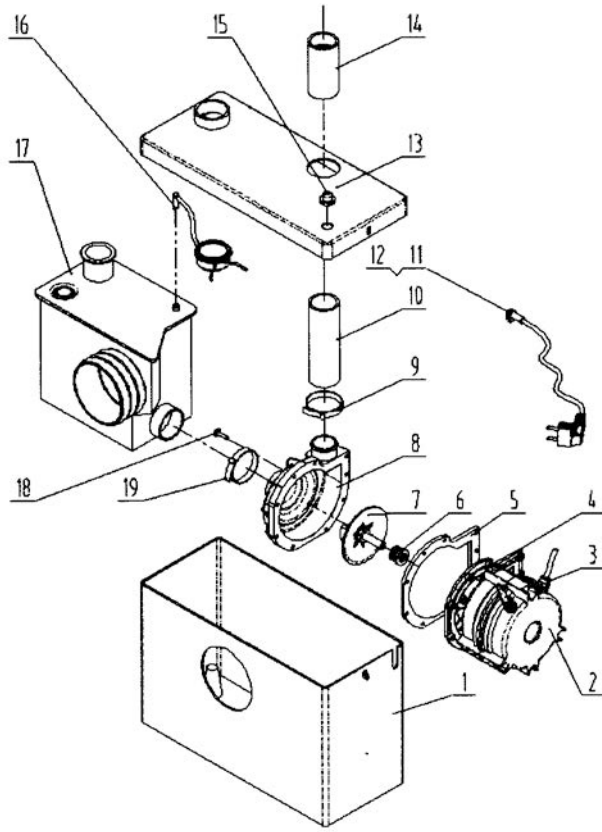
- Pair of pliers
- Flat blade screwdriver
- Cross head screwdriver
- Rubber gloves
- siphon or "water-capable" vacuum cleaner
- A bucket

Clearing a Blockage

Follow the sequence below to successfully clear a blockage without damaging your product:-

- A. Ensure the unit is disconnected from the electricity supply
- B. Using the siphon or vacuum cleaner drain the unit.
- C. Loosen the hose clips and disconnect the inlet and outlet connections.
- D. Loosen the large hose clip securing the unit to the pan and detach the appliance.
- E. Remove the lid by undoing the fixing screws.
- F. Remove the black rubber tank and motor in one piece.
- G. Separate the black tank and motor.
- H. Clean out the tank.
- I. Remove the turbine casing.
- J. Remove all debris from around and behind the turbine.
- K. Turn the turbine to ensure that it is free (expect some resistance from the electric motor).
- L. Reassemble the unit.
- M. Temporarily reconnect to the electricity and check that the motor runs by pressing the manual override button on the lid.
- N. Reassemble the unit and reinstall it.

9. PARTS LISTING



No	Description
1	Case
2	Motor assembled part
3	Locknut
4	Flange
5	Gasket
6	Mechanical seal
7	Open impeller
8	Injector
9	Clamping ring
10	Outlet pipe
11	Cable and plug
12	Cable gland
13	Cover of the case
14	Unilateralism valve
15	Air switch
16	Tank
17	Bolt
18	Clamping ring
19	Push switch

The spare parts supplied with this appliance are:-

- 3 x clamping ring
- 3 x cap
- 2 x Non Return Valve
- Instruction manual

10. DISPOSAL OF THE APPLIANCE

When the appliance has reached the end of its service life, it cannot be treated as ordinary household waste. It must be taken to a waste recovery centre or returned to the distributor when purchasing a new replacement appliance.



The symbol on the appliance indicates that it meets the new directive 2002/95/EC 2002/96/EC 2003/108/EC and must be handled in accordance with these standards at the end of its service life.

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