

SHADES
TECHNICS

HYDROFLUSH BOWL KIT MANUAL


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Cubicle Operating Instructions

To Flush The Toilet:

Push the flush button  once to flush the toilet with a set quantity of water. Should a further flush be required, wait for the flush cycle to complete then press the button again. NOTE:

(When the soil tank is full, the dashboard LED  will illuminate and the “Occupied” lamp will signal. The toilet is now out of use until the soil tank is emptied.

(When the clean water tank is empty the dashboard LED  will illuminate and the “Occupied” lamp will signal. The toilet is now out of use until the water tank is re-filled.)

Cubicle Water Systems

HYDROFLUSH

The Shades Hydroflush bowl kit uses a “pump on demand” system where the user controls the length of the flush cycle via a high pressure pump, solenoid valve and slide valve fitted to the bottom of the bowl. A small quantity of clean water should remain in the bowl to seal the slide valve and prevent odour returning into the cubicle. For consistent operation of this valve the maintenance guidelines must be followed, using the correct toilet paper and chemical will prolong the life of the system.

Cleaning & Hygiene

Toilet Bowl Cleaning

To protect the finish of the ABS toilet bowl do not use abrasives of any kind. To clean the bowl, use a mild anti-bacterial detergent and suitable brush.

Some units will have a Stainless Steel bowl installed but the same rules apply.

Toilet Roll

It is recommended that a high biodegradable paper is used at all times.

Cat No. = 800103 Pack of 36. (Available from Shades Technics)

Domestic grade toilet paper is not recommended as this can block the system.

Maintenance

Daily Routine

- Prior to the vehicle entering service the holding tank should be charged with an additive to sanitise the effluent.
- The recommended product is **Shades Super Sani ECO or Sani RC**, formulated from natural essential oils, this formaldehyde-free formula is contained within a water soluble membrane. A single 16 gram sachet contains the recommended dosage for 110 litre capacity holding tank and will function for a maximum of three days.

To apply:

1. Ensure the soil tank is empty.
2. Check the tank evacuation valve is closed
3. Check the WC clean water tank is full.
4. Press the flush button and drop the complete sachet into the bowl.

Cat No. 800025 (Box 100) or Cat No. 800026 (Carton 1000)

Caution

Do not open the sachet .

- It is recommended that the WC supply tank is drained and the soil tank is emptied at the end of every day.

Weekly Routine

- Check the bowl function and slider valve seal. Check flush operation, bowl coverage and slide action. Fast opening and slow closing with a layer of water remaining in the bowl after closing.
- Flush out soil tank with clean water.

Quartely Routine

- Flush out soil tank with clean water. (the soil tank must be empty and the vehicle positioned so that the soil tank evacuation valve is over a sewage drainage point)

To flush out:

1. Connect a hose pipe to a mains water supply.
 2. Push a hose pipe through the flap in the bottom of the bowl and into the tank.
 3. Turn on the water to the hose pipe and fill the holding tank, being careful not to overfill. .
 4. Switch off the water to the hose and open the evacuation valve to empty the tank.
 5. Press the flush button to open the valve and remove the hosepipe.
- Periodic lubrication of the pneumatic slide valve is recommended using lithium grease or similar so the open/close operation is smooth.

Winterization

If the vehicle is to be parked in zero or sub-zero temperatures, it is imperative that all water containers are completely drained.

Note

No warranty claims will be accepted on any winter damaged parts.

Jump Starting

When jump starting the vehicle, please ensure that the dashboard master Switch for the WC is off!

Fault Reporting Procedure

1. In the unlikely event of a fault occurring please refer to the comprehensive fault analysis flow chart.
2. To order a replacement part contact the dealer or Shades Technics Ltd directly, quoting the cubicle serial number. The serial number is located on the pump plate.
4. In order for replacement goods to be dispatched a simple warranty procedure must be followed.

Notes:

- **Tampering, unauthorised involvement or preventable damage will result in a charge being levied**

Warranty Claim Procedure

Shades Technics offer a comprehensive warranty cover for all products, valid for 12 months from the vehicle's date in service.

Contact the dealer or supplier from where the vehicle was purchased.

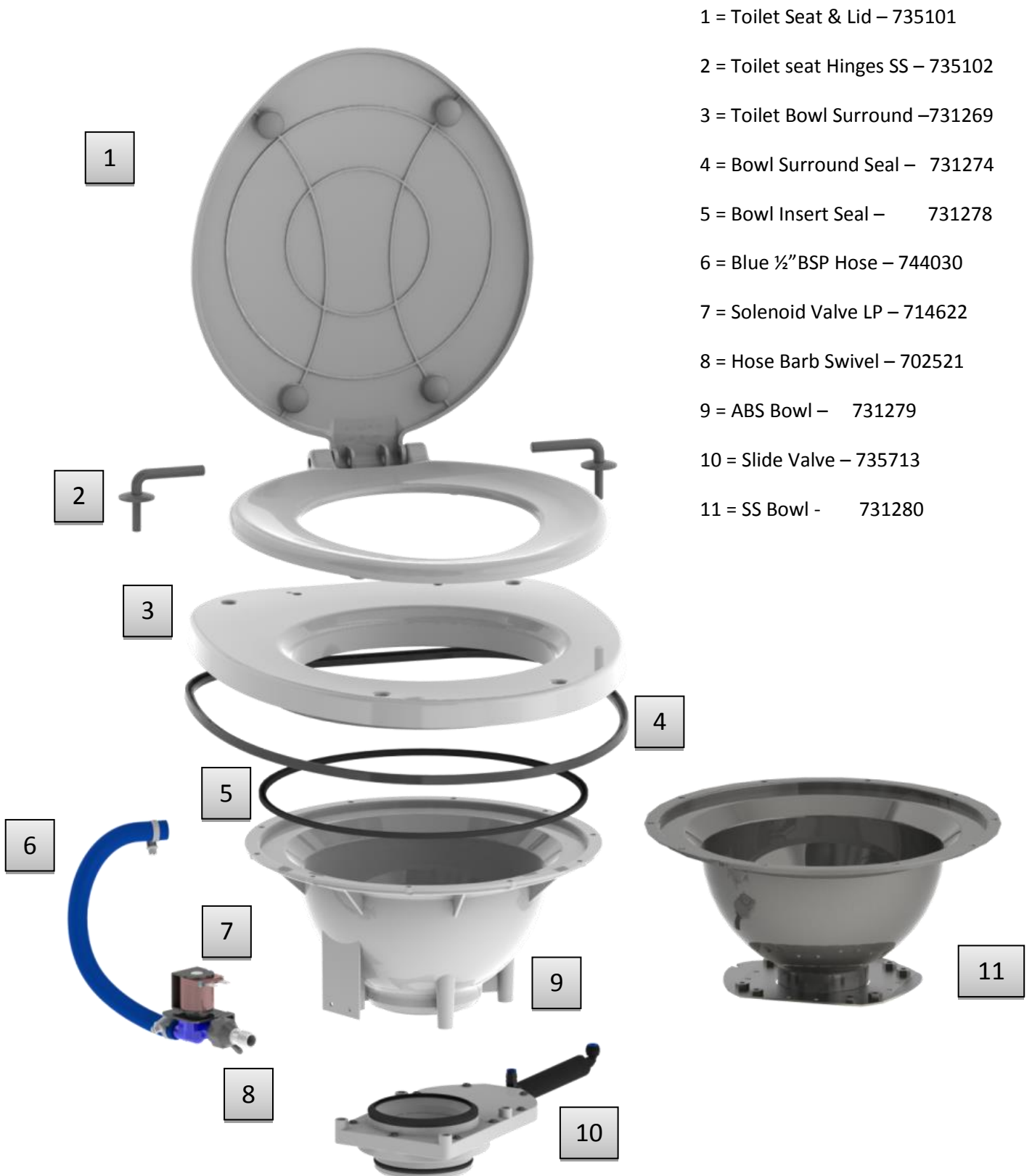
The dealer/supplier will then contact Shades Technics who will fax a warranty claim form to the customer.

Complete the warranty claim form, ensuring all details are filled in and fax back to Shades Technics on +44 (0)1992 476831

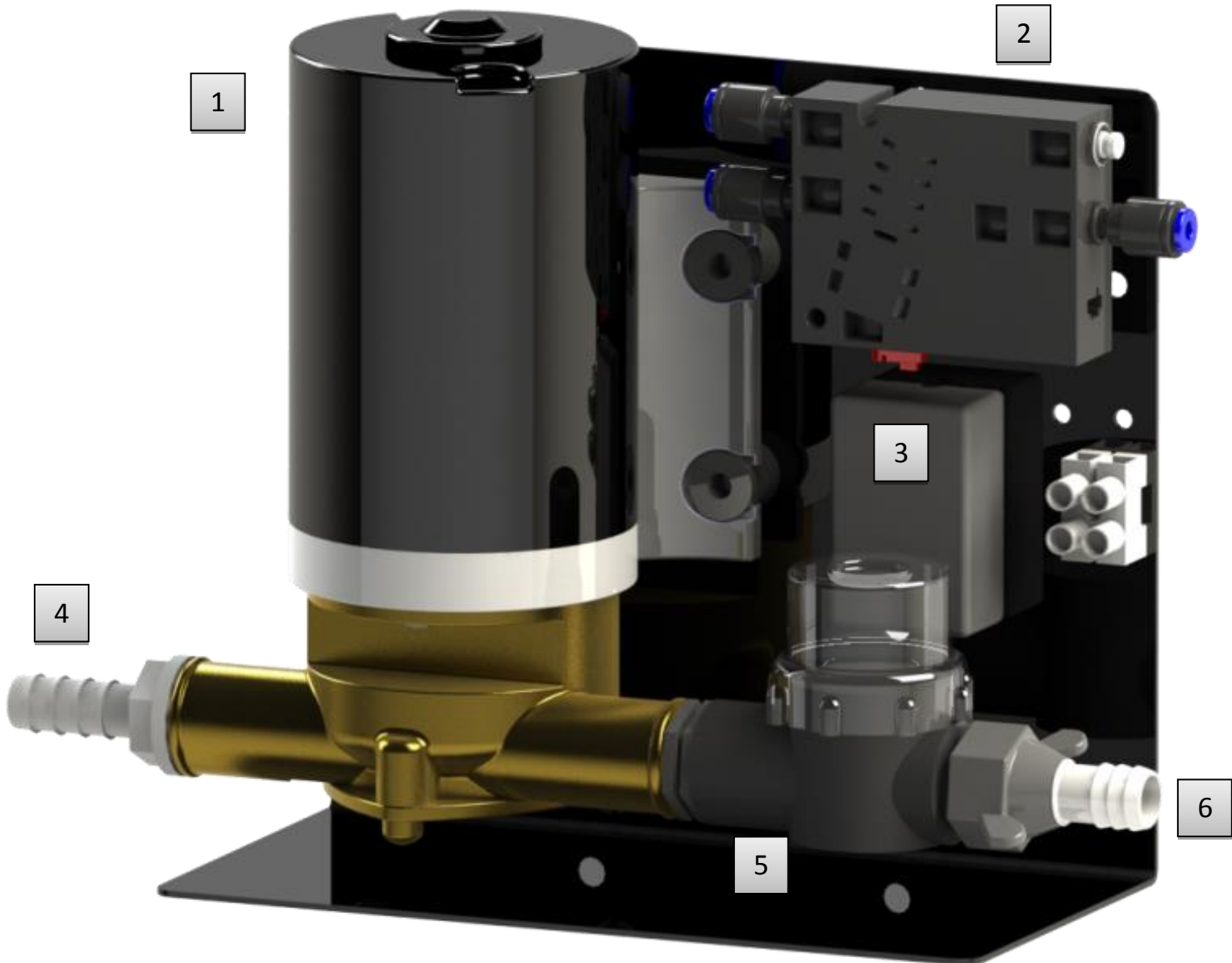
Shades Technics will dispatch any parts required or organise rectification via one of its service points.

Please return any faulty parts that have been replaced under warranty within 14 days or a charge may be applied

Toilet Bowl Spares



Pump Assembly Spares



1 = Hydroflush Pump - 702140

2 = Air Control Box - 735714

3 = Flush Delay Unit - 731215

4 = ½" Hose Connector - 744013

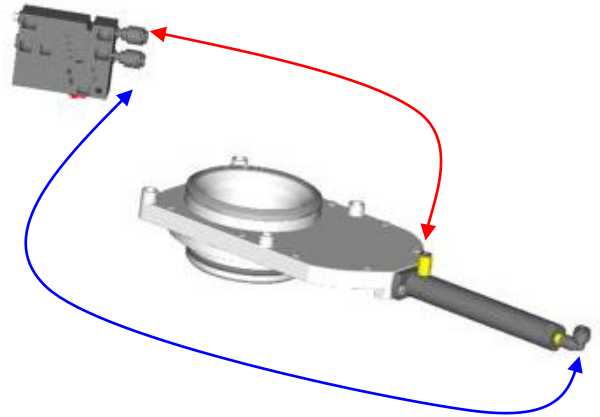
5 = In-Line Filter - 722102

6 = Hose Barb Swivel - 702521

Fault Finding Check List

Symptoms →	Toilet Not Flushing	Toilet Valve Does Not Open	Poor Flush	Bad Odour
Check ↓				
Power	✓	✓		
Fuses	✓	✓		
Relays	✓	✓		
Soil Tank FULL	✓			
WC Tank LOW	✓			
Check In-Line Filter	✓		✓	
Check Impeller	✓		✓	
Check Air Supply		✓		
Valve Seal		✓		✓
Correct Chemical				✓
Clean & Disinfect				✓

Replacing the *HYDROFLUSH* Pneumatic Control Valve



Removing The Pneumatic Valve

- i) Ensure the vehicle engine is off and switch off the WC Master Switch **WC** on the dashboard
- ii) Lift the toilet seat and rim and unscrew the four fixing bolts holding the bowl to the cowling
- iii) Pull the bowl assembly upwards (twisting slightly from side to side) until the bowl is free from the soil tank and the plumbing connector to the flush nozzle is exposed.
- iv) Remove the connector to the nozzle and lift the bowl clear of the cowling.
- v) Disconnect the two air pipes to the pneumatic valve cylinder to the bottom of the bowl –

CAUTION – Take care when disconnecting the air pipes and where possible reduce the air pressure in the system by depressing the brake pedal several times.

- vi) Undo and remove the four fixing bolts holding the pneumatic valve to the bottom of the bowl and remove the valve assembly, **Note the exact position of the valve.**

Replacing The Pneumatic Valve

- i) Position the valve assembly on the bottom of the toilet bowl and secure in place with the bolts. **Tighten bolts to 6kgf.cm using a torque wrench.**
- ii) Smear Vaseline or rubber lubricant around the black 'O' ring on the pneumatic valve and introduce the bowl and valve assembly back into the aperture on the cowling
- iii) Reconnect the air pipes to the pneumatic valve cylinder and the plumbing pipe to the flush nozzle.
- iv) Push the bowl assembly back into the fitting on the soil tank and push down carefully but firmly until the bowl edge rests on the cowling top surface. Secure with the four bolts
- v) Start the vehicle engine and switch on the WC Master Switch. **Wait until the vehicle air pressure is at the maximum before attempting to flush the toilet**