Phantom S

CISTERN INSTALLATION INSTRUCTIONS

Dudley cisterns are designed to be fixed flat to the wall with suitable rust resistant screws (not supplied) using the holes provided. Cisterns can be fitted for right or left hand operation.

WARNING

No sealing compound, paste, flux, silicone or solvent to be used in contact with plastic or rubber surfaces, to avoid damage to plastic components. Rubber washers should provide adequate seal. PTFE tape may be used on threads. Do not overtighten plastic nuts. No chemical block/additive to be used in this cistern.

Before fixing the cistern to the wall, it is advisable to fit the cisterns internal components...

1 INSTALLATION INSTRUCTIONS

The cistern is factory set to give a full flush of 6 litres (4, 4.5, 5 or 7 litres in some specifications). The cistern is capable of being set to deliver various full flush volumes from the two marked water lines (**Fig. 1**) and by the positioning of the air break plug, see table and diagram (**Fig. 2**).

Syphon Installation

Install the syphon with it's rubber sealing washer inside cistern. Secure with 1½" BSP back nut. Before fixing the cistern to the wall, it is advisable to fit the remainder of all internal components. Insert flush bend into tail of syphon with the cap nut & rubber compression ring in place. Hand tighten the cap nut. Depending on the height of the cistern from the floor, it may be necessary to cut the flush pipe. Remove traces of burr. No more than 50mm (2") of flush pipe to be inserted into the syphon down leg. (**Fig. 3**).

Overflow

Note: - The cistern is supplied with an internal overflow that discharges directly into the WC pan. (**Fig. 3**).

Important: 6 litre flushing is the maximum permissible flush for new WC installations. 4 litre flushing should only be used for WC pans specifically designed for that purpose. To convert syphons from a dual flush to a single mono flush please see separate instructions (11359 - Conversion to Single Flush for Dudley WC Syphons). Flush volumes above 6L should only be used when retrofitting to older WC installations.

Ball Float Valves

Bottom and side entry types are fitted with 3mm (1/8") bore high pressure seats (white) to suite mains water supply. A low pressure 6mm (1/4") bore seat (red) is also provided for use only when the cistern is fed from a low pressure supply i.e. a storage tank. Screw ball float onto the end of the arm before fitting valve. Set float position after fitting in to cistern if it is fitted with a swivel arm. (**Fig. 4**).

Important: Make certain that the float arm moves freely in a vertical path and does not contact other internal components. Position the overhead discharge elbow (**Fig. 4**) so that it is not directed into the reserver of the syphon. (**Fig. 4**).

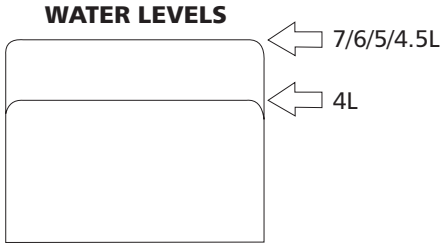
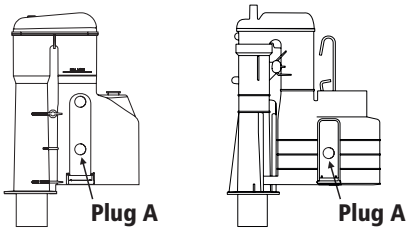


Fig 1



Flush	Water Line	Plug A
4L	4L	OUT
6L	7/6/5/4.5L	OUT
7L	7/6/5/4.5L	IN

Fig 2

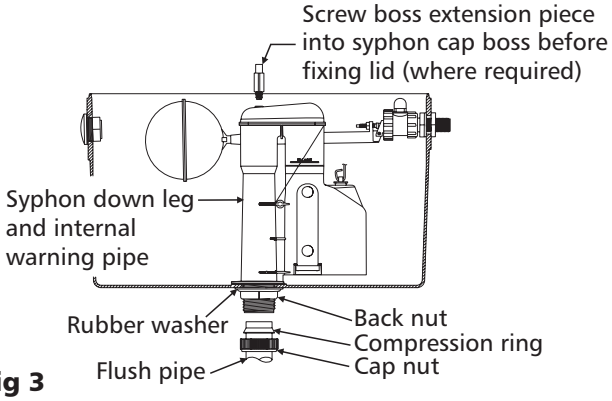


Fig 3

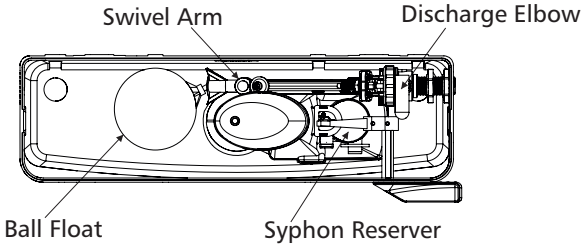


Fig 4

1 INSTALLATION INSTRUCTIONS - CONTINUED

Equilibrium Inlet Valves
Follow the instructions supplied with the inlet valve.

Side Entry
Screw a spigot nut onto the tail with spigot side facing inwards. Locate the valve tail through the cistern wall. Tighten the second spigot nut with spigot facing towards the cistern to centralise valve in hole. (**Fig. 5**).

Pedestal Bottom Entry
Locate the pedestal float valve tail through the base of the cistern with rubber sealing washer on the inside. Secure using spigot nut facing inwards to locate the pedestal centrally in the cistern hole. Position pedestal to ensure free movement of the float arm. Adjust the bracing stay so that it touches the cistern wall and tighten spigot nut. (**Fig. 5**).

Water Level
Adjust the inlet valve float arm with the adjusting screw and lock nut or the float on the equilibrium inlet valves. So that the valve shuts off at the required marked water line. Re-check and adjust if necessary. (**Fig. 5**).

Blanking Plugs
Fit a blanking plug to seal off the unused cistern inlet hole. Press badge or plug into unused lever holes. (**Fig. 6**).

Lever Assembly
Install the operating lever through the cistern lever hole. Secure the lever with back nut. Connect 'C' link to the lift arm, then slide the lift arm onto the square lever shaft and tighten the securing screw. Ensure that the lift arm is in line with the 'C' link and syphon piston rod. Check for correct operation of the lever assembly. (**Fig. 7**).

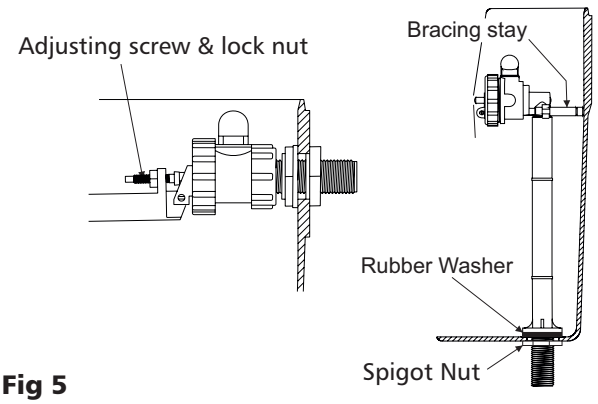


Fig 5

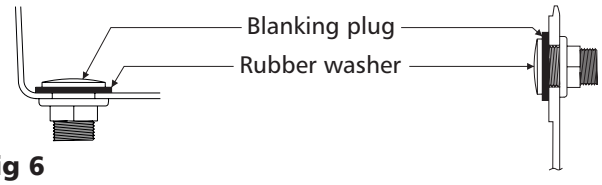


Fig 6

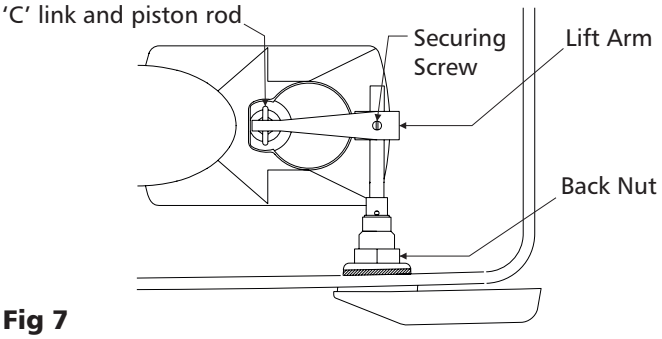


Fig 7

2a SINGLE FLUSH CONVERSION: TURBO 88

The syphon is factory set to dual flush. To convert the syphon to single flush follow the steps below.

1. Remove splash cover, C-link, blue washer and rubber washer from the piston rod and remove the piston assembly.
2. Fit the rubber conversion washer (supplied) onto the diaphragm retainer.
3. Reassemble the piston assembly and refit to the syphon.

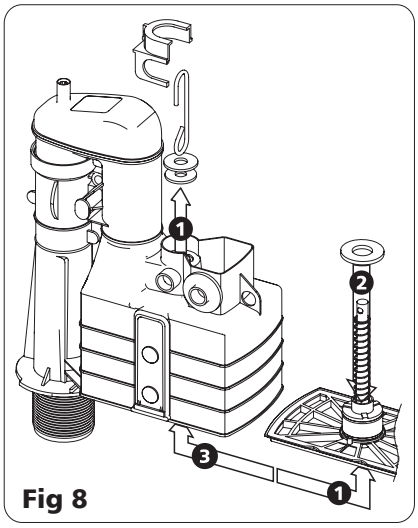


Fig 8

2b SINGLE FLUSH CONVERSION: CASCADE+

The syphon is factory set to dual flush. To convert the syphon to single flush follow the steps below.

1. Remove C-link, washer and O-ring from the piston rod and remove the piston assembly.
2. Fit the mono washer (supplied) onto the diaphragm retainer.
3. Reassemble the piston assembly and refit to the syphon.

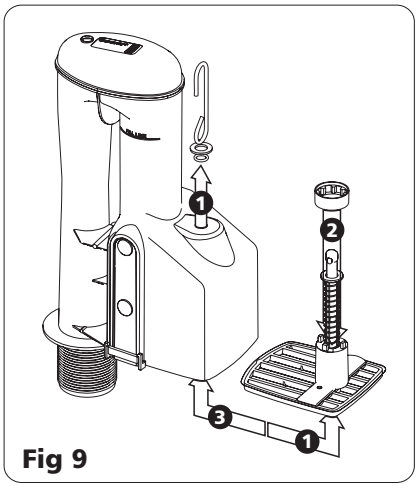


Fig 9

3 FINAL CHECK LIST

Before turning on water supply check the following:
① CISTERN IS SECURE
② ALL MOVING COMPONENTS OPERATE FREELY
③ ALL JOINTS ARE TIGHTENED CORRECTLY

Now fill the cistern, set the water level and check the following:
④ CHECK CAREFULLY FOR LEAKS
⑤ ENSURE ALL MOVING COMPONENTS OPERATE FREELY
⑥ CHECK FLOAT ARM MOVES FREELY UP & DOWN AND CLOSES OFF CORRECTLY
⑦ TEST THE SYPHON OPERATION AND THAT THE CISTERN FLUSHES CORRECTLY

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Phantom V

CISTERN INSTALLATION INSTRUCTIONS

Dudley cisterns are designed to be fixed flat to the wall with suitable rust resistant screws (not supplied) using the holes provided. Cisterns can be fitted for right or left hand operation.

WARNING

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Before fixing the cistern to the wall, it is advisable to fit the cisterns internal components...

1 INSTALLATION INSTRUCTIONS

The cistern is factory set to give a full flush of 6 litres (4, 4.5, 5 or 7 litres in some specifications). The cistern is capable of being set to deliver various full flush volumes from the two marked water lines (**Fig. 1**) and by the positioning of the air break plug, see table and diagram (**Fig. 2**).

Outlet Valve Installation

Fit the Niagara outlet valve into the cistern positioning the overflow towards the front of the cistern. (**Fig. 3**). Use the rubber sealing washer on the inside the cistern securing the valve on the outside of the cistern using either the back nut. (**Fig. 2**) or the flush pipe adapter. (**Fig. 3**). Connect the air tubes to the spigots on the flush valve as shown in (**Fig. 4**).

Overflow

Note: - The cistern is supplied with an internal overflow that discharges directly into the WC pan. (**Fig. 3**).

Important: 6 litre flushing is the maximum permissible flush for new WC installations. 4 litre flushing should only be used for WC pans specifically designed for that purpose. Flush volumes above 6L should only be used when retrofitting to older WC installations.

Pedestal Bottom Entry Inlet Valve Installation

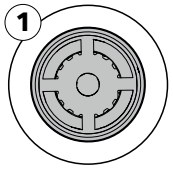
Locate the pedestal float valve tail through the base of the cistern with rubber sealing washer on the inside. Secure using spigot back nut pointing inwards to locate the pedestal centrally in the cistern hole. Posiiton pedestal to ensure free movement of the ball arm for Part 3 inlet valves and free movement of float for Part 4 equilibrium valves.

Side Entry Inlet Valve Installation

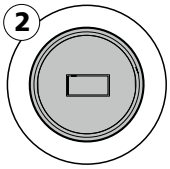
Screw a spigot nut onto the tail with spigot side facing inwards. Locate the valve tail through the cistern wall. Tighten the second spigot nut with spigot towards the cistern to centralise valve in hole.

FLOW CONTROL

There are 2 possible types of flow control installed into the tail of the inlet valve.



DO NOT REMOVE



Removable if pressure <1.5Bar

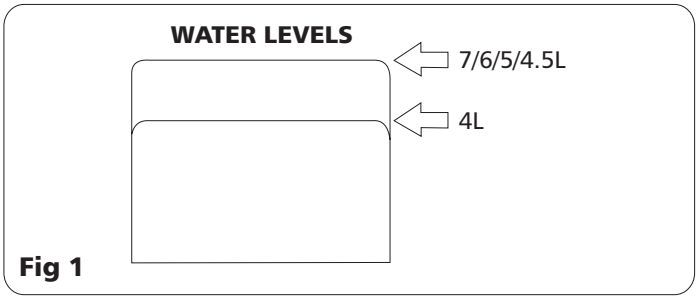


Fig 1

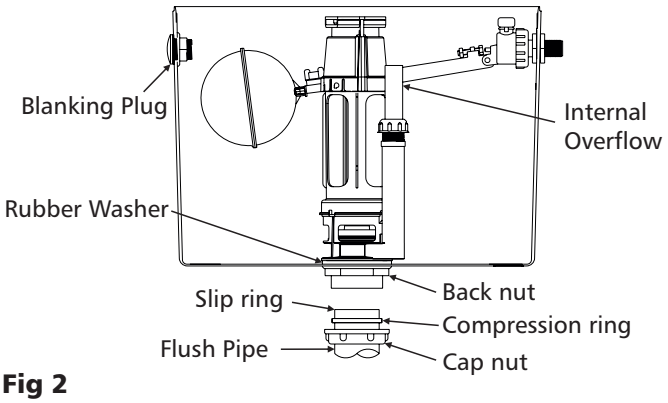


Fig 2

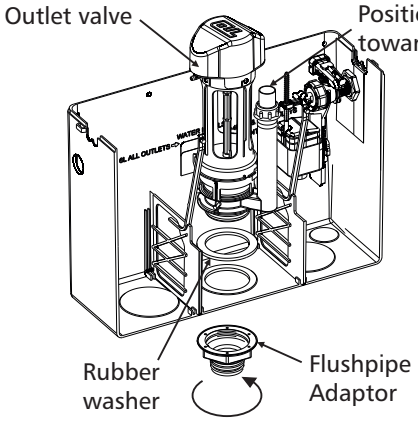


Fig 3

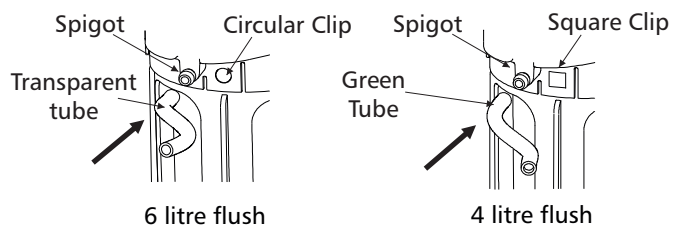


Fig 4

1 INSTALLATION INSTRUCTIONS - CONTINUED

Fitting the Partitions
Along with the two water lines, partitions are fitted to adjust the flush volume, see (**Fig. 5, 6 & 7**) to select the correct configuration. Please note that the partition stay support should be fitted to the front of the cistern as depicted in (**Fig. 6**).

Blanking Plugs
Fit a blanking plug to seal off the unused cistern inlet hole. Press badge or plug into unused lever holes. (**Fig. 8**).

Water Level
Adjust the inlet valve float arm with the adjusting screw and lock nut or the float or equilibrium inlet valves so that the valve shuts off at the required marked water line, re-check and adjust if necessary.

Flush	Water Line	Partitions
7 Litre	Higher	None
6 Litre	Higher	One fitted to the outer slot at the opposite side to the inlet valve
5 Litre	Higher	Two fitted to outer slots
4.5 Litre	Higher	Two fitted to inner slots
4 Litre	Lower	Two fitted to inner slots

Fig 5

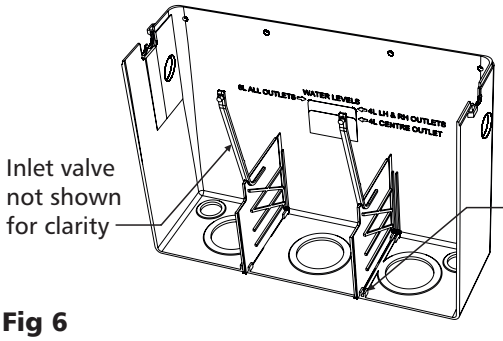


Fig 6

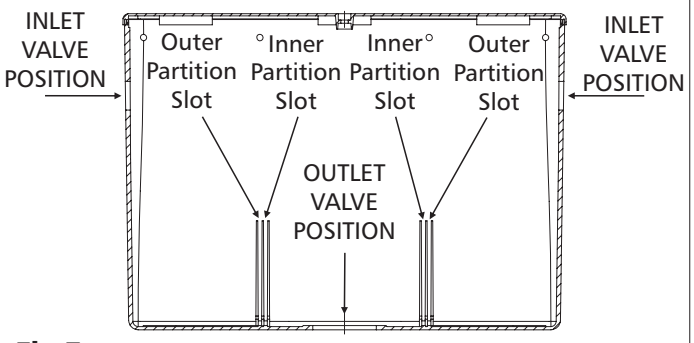


Fig 7 **PHANTOM CISTERN ONLY**

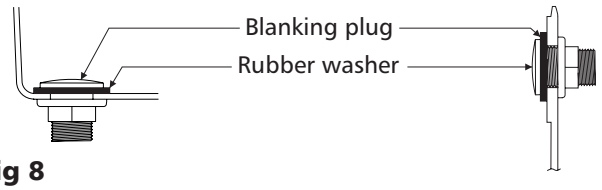


Fig 8

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⑤ ENSURE ALL MOVING COMPONENTS OPERATE FREELY
⑥ CHECK FLOAT ARM MOVES FREELY UP & DOWN AND CLOSES OFF CORRECTLY
⑦ TEST THE VALVE OPERATION AND THAT THE CISTERN FLUSHES CORRECTLY

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