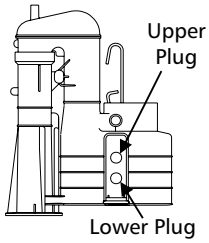
CISTERN INSTALLATION INSTRUCTIONS

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 either left or right handed.

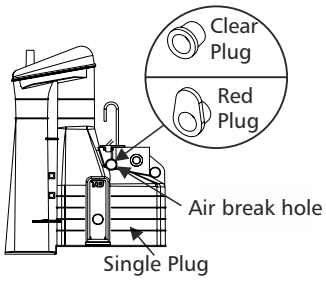
WARNING
No sealing compound, paste, flux or solvent to be used in contact with plastic or rubber surfaces, to avoid damage to plastic components. Rubber washers should provide adequate seal. PTFE tape may be used on threads. Do not over tighten plastic nuts.

This cistern is factory set to full flush 6 litres (4 litres in some specifications) with either an outlet valve or syphon.
The syphons are capable of being set to deliver 6, 7 or 9 litre flush (4 litres in some specifications) except in the Phantom cistern where only 6 and 7 litre flush is available (4 litres in some installations).
Conversions are as the table below:

Turbo 88 and S7 Low level and High level			
Flush	All except Phantom		Phantom only
	Upper plug	Lower plug	Single plug
6 litre	OUT	IN	OUT
7 litre	IN	OUT	IN
9 litre	IN	IN	N/A



Turbo 88 and S7 High level 'Diplomat' only		
Flush	Air break hole	Single plug
6 litre	Red plug in	In
7 litre	Clear plug in	Out
9 litre	Clear plug in	In



WARNING
After January 1st 2001- 6 litre flushing should only be used with WC pans specifically designed for a 6 litre flush volume. To convert syphon to single flush please see separate instructions. 4 litre flushing should only be used for pans specifically designed for that purpose.

Syphons
Fit syphon with rubber washer inside cistern. Secure with 1.1/2" BSP back nut (1A). Before fixing the cistern to the wall, it is advisable to fit remainder of internal components. Insert flush bend into tail of syphon with thin cone (compression) ring in place. Hand tighten cap nut. Depending on the height of cistern from floor, it may be necessary to cut flush bend. Remove traces of burr. No more than 50mm (2") to be inserted into syphon down leg (Fig. 1).

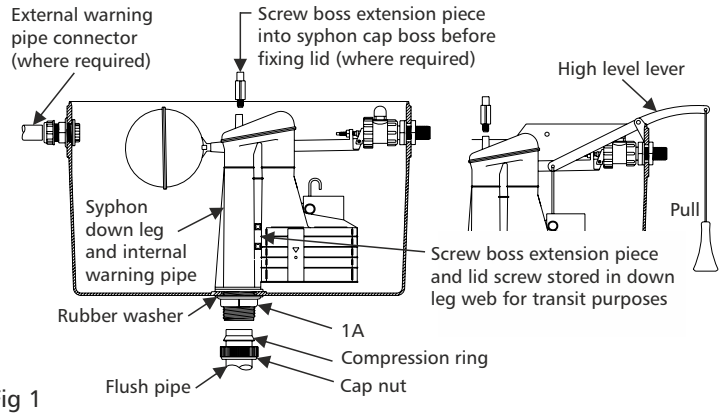


Fig 1

Outlet Valves
Fit the outlet valve as per the instructions supplied with the outlet valve with the addition of the bowl which is located between the valve and the cistern with a rubber washer for sealing against leakage (The Niagara is supplied with a blue bowl and 2 rubber washers to fit either side of the bowl) (Fig. 2). The height of the bowl is predetermined to suit the amount of water your cistern will deliver to the pan to give the required flush volume.

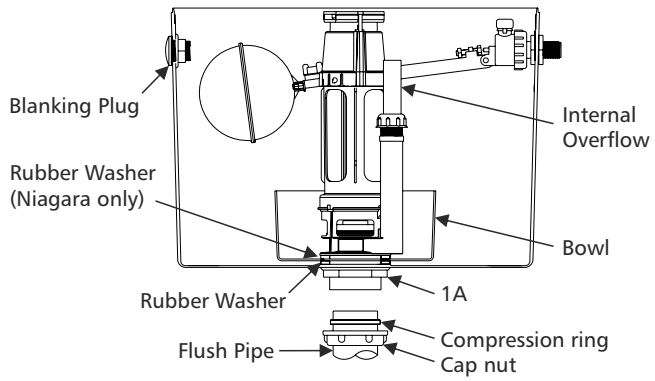
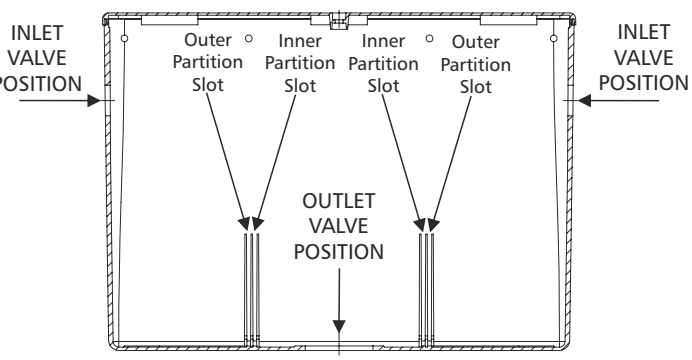


Fig 2

Phantom Cistern Only
Partitions are fitted in place of the bowl. The chart opposite is to be used with (Fig 3) to determine which partition(s) is to be fitted and in which slots they are to be placed.

Inlet Valve	Flush Volume	Partitions	Partition Stay Support Position
Hydroflo Standard Fill	6 Litre	One fitted to the outer slot at the opposite side to the inlet valve	Rear of cistern
	4 Litre	Two fitted to both inner slots	Front of cistern
Hydroflo Delay Fill	6 Litre	One fitted to the outer slot at the opposite side to the inlet valve	Rear of cistern
	4 Litre	Two fitted to both inner slots	Rear of cistern
Beta Valve	6 Litre	One fitted to the outer slot at the same side to the inlet valve	Front of cistern
	4 Litre	Two fitted to both inner slots	Front of cistern



PHANTOM CISTERN ONLY
Fig 3

Ball float valves

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

Side entry

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

Important: Make certain float arm moves freely in a vertical path. Push overhead discharge elbow (6C Fig. 4) onto top outlet and turn inwards. In the case where the valve is used with a syphon, make sure the water from the overhead discharge elbow is not directed into the reservoir on the syphon.(6A Fig. 4)

Pedestal bottom entry

Fit pedestal float valve through base of cistern with rubber sealing washer inside. Secure using spigot back nut pointing inwards to locate the pedestal centrally in the cistern hole. Position pedestal to ensure free movement of the ball arm. Adjust the bracing stay so that it touches wall of cistern and tighten locknut (Fig. 5)

Equilibrium Valves

Follow the instructions supplied with the valve.

Internal Overflow Warning

If internal warning is required, seal external warning pipe holes in side or bottom of cistern with plug and sealing washer. (Fig. 6).
Discard external warning pipe connectors.

External Overflow Warning Pipe:

Side entry

TD straight warning pipe connector is fitted from inside the cistern and secured with flange nut (Fig. 6). Elbow version is fitted from outside and secured with flange nut.

Bottom entry

Fix angled warning pipe through base of cistern with rubber sealing washer inside. Turn angle of pipe to corner of cistern to allow clearance for ball float arm movement, if fitted. Tighten back nut (Fig. 6)

Lever Assembly

Secure lever shaft with plastic back nut (5C Fig. 7), Connect 'C' link (2B Fig. 7) to lift arm (3C Fig. 7), then slide arm onto lever shaft and tighten screw. Ensure lift arm is in line with 'C' link and piston rod. Ensure free movement of cistern lever.

High Level Cisterns Only

To accommodate lever arm, cut slot in thin section at the end of lid. If required fix fulcrum bracket into dovetail slot, secure with screw and nut (if supplied), then attach lever and pull. (Fig. 1)

Water level

Set the float arm adjusting screw (or the float on an equilibrium valve) so that the water level is initially 13mm (1/2") below level marked on inside of cistern to allow for variations in mains water pressure particularly during the night. Tighten locknut to secure adjusting screw in the case of a ball float valve. If overflowing or poor flushing subsequently occurs, first check that the float arm moves freely up and down and then reset the float position. If overflowing continues, check internal assembly and remove any foreign matter or clean equilibrium valve filter.

Fitting Cistern Lid

For syphon operated cisterns it is essential that the lid is securely fitted to the cistern with the screw provided.

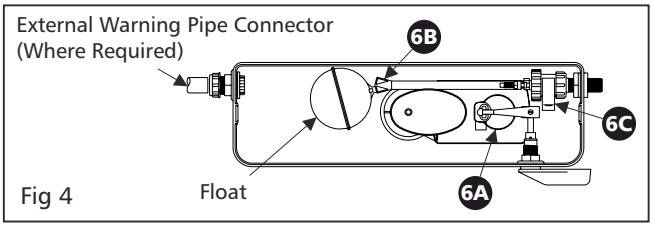


Fig 4

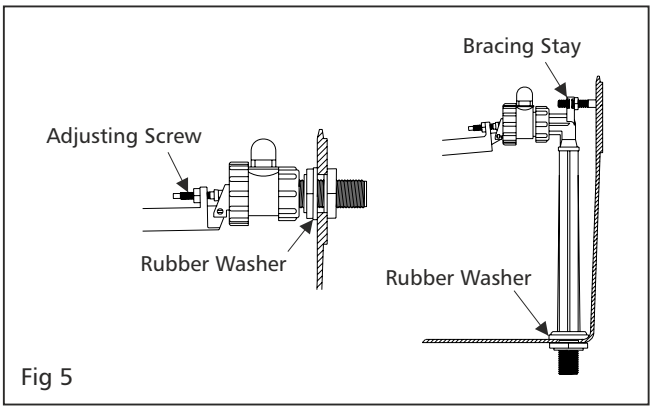


Fig 5

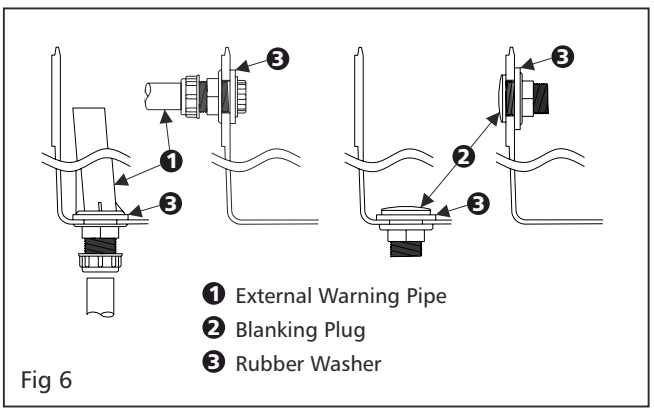


Fig 6

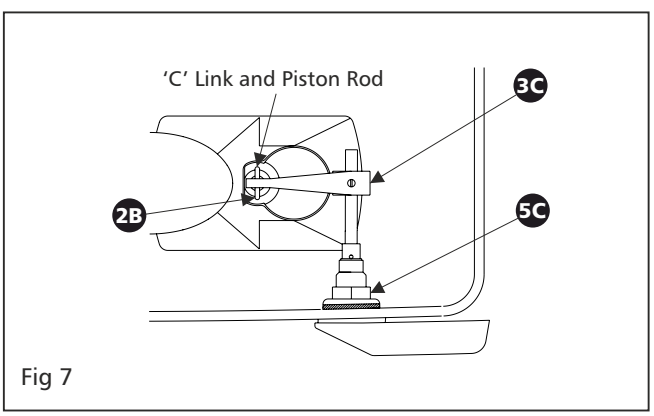


Fig 7

FINAL CHECK LIST

Before turning on water supply check:

1. Cistern is secure
2. All moving components operate freely
3. All joints are tightened correctly

Now fill cistern and set water level:

4. Check carefully for leaks
6. Check float arm is free and closes the inlet valve correctly
7. Test the syphon operation and theat the cistern flushes

Dudley
Water saving solutions

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