

**Glasswasher  
Installation & User Guide**

Thank you for your purchase of this DC Products professional glasswasher.

Please read this document carefully before installing and using your new product.

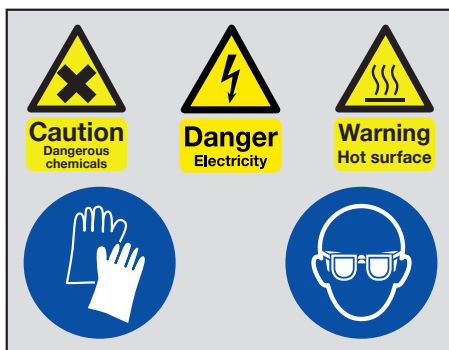
Please ensure all users of this machine understand the controls and safety instructions before using this glasswasher.

Please keep these instructions in a safe place for future reference.

Please record the Model number and Serial number of your glasswasher. They will be required if you need support or to make a claim under the warranty. The numbers can be found on the data plate.

Model number: \_\_\_\_\_

Serial number: \_\_\_\_\_



*Welcome to a Cleaner World*

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## General warnings

### Intended use

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The machine is intended for use as a commercial glasswasher, for washing and rinsing liquids from glasses.

The machine must not be used for washing items for preparation, storage or transportation of raw meat products.

Do not wash electrical equipment or fabric items inside the machine.

The machine is not designed or manufactured to be a steriliser.

### Installation

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- The machine must be installed by an approved catering engineer.
- The installer should also be experienced and trained to undertake electrical work on site connections.
- The installer should be trained in the use of electrical testing and diagnostics equipment for final commissioning of the machine before use.
- The installer should be an approved catering engineer able to deliver on site staff demonstration and equipment training, in accordance with the guidelines and policies for the location of the installed machine.
- Low temperatures during storage or transport may freeze any residual water inside the machine. Before installation the machine should be exposed to normal room temperatures (min. 16°C) for 12 hours. The machine should not be installed in locations that can experience temperatures below freezing or inside forced chilled environments.

### Documents

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The user of the machine must thoroughly read the user guide and safety warnings contained in the installation guide before operating the machine. Retain all documents in a safe place for future reference.

### Unpacking the machine

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Retain all packaging and pallets until the machine has been fully installed and tested.

- Dispose of the cardboard, plastic and wood responsibly to recycling locations in your area.
- Take care when removing wooden pallets from under the machine as they may have splintered edges, nails or screws.
- Take care when removing pallet banding or plastic stretch wrapping as they may be under tension.
- After confirming the machine is the correct model and will fit in the location intended, remove all stainless steel protective film from outer panels and inside the door surface.

## Repairs and servicing

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The machine must only be serviced and repaired by an approved catering engineer. Only genuine spare parts should be used. Failure to use genuine spare parts could invalidate the manufacturer's warranty and any additional warranties for the machine.

## External connected equipment

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DC Products accepts no responsibility for damage or loss to the machine due to equipment connected to, or indirectly connected to the machine.

The improper use or failure of external softeners, chemical dosing units, water pressure booster pumps and external valves could invalidate the manufacturer's warranty and any additional warranties for the machine.

## Liability

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DC Products accepts no responsibility for damage or injury carried out by unauthorised installation, modification, servicing or repairs to the machine.

DC Products accepts no responsibility for damage or injury in relation to chemicals used for cleaning or chemicals connected to the machine with the supplied chemical supply tubes.

## Symbols used in this guide

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Personal protective equipment (PPE)  
should be worn



Warning



Authorised and approved engineer



Caution dangerous chemicals



Warning electric shock risk

## Warranty

It is the responsibility of the Customer purchasing for resale to confirm the relevant warranty arrangement on the appliance at the time of purchase. When ordering, the Customer accepts that the transaction is not a consumer sale as covered by statute. All Goods purchased are supplied with either:

- A parts only warranty, whereby in consideration of the discount allowed to the customer, the Seller will warrant most goods against defective parts for 12 months (excluding the cost of installation of such parts) from the date of the Seller's invoice (unless otherwise agreed in writing) providing the item has been installed, used, serviced and maintained in accordance with the manufacturer's specifications. The cost of the labour element of any warranty work being undertaken will be borne by the Customer in recognition of the discount allowed.
- A parts and labour warranty, whereby the Seller will be liable to replace defective parts plus supply labour to repair the defective part within 12 months from the date of invoice of the Goods. Where a "parts and labour" warranty is given, the Goods are repaired by a qualified person appointed by the Seller and the cost of such repair is agreed beforehand by the Seller in writing. We aim to attend all warranty calls within 72 work hours of the fault being reported to the service department at Direct Catering Products Ltd. Warranty work is carried out during normal working hours only, Monday to Friday 08:00hrs to 17:00hrs, unless otherwise agreed in writing.

Warranty work covers equipment component failure and manufacturing defects in materials only and therefore excludes: accessories, tools, removable panels, glass, fuses, plugs, sockets, links, rubber seals, connecting cables, consumable items such as calibration, cleaning, blockages and customer/operator misuse, poor washing results due to incorrectly commissioned chemical dosing quantities (where commissioning was not carried out by the Seller) and/or poor quality chemical product. In addition Direct Catering Products Ltd will not bear the costs for repairs where appliance breakdown is due to the following: Non-compliance with safety regulations and warnings given in the operating instructions, faults caused by the user through operating errors and a lack of care and or maintenance, intentional damage by the owner or third parties, incorrect installation when carried out by any party other than Direct Catering Products Ltd or an authorised agent, faulty repairs or repairs carried out by parties other than Direct Catering Products Ltd or an authorised agent, external influences (e.g. weather, transit damage), replacement parts subject to wear and tear (e.g. peristaltic pipes, filters), visual blemishes, marks and dents, the use of non-approved accessories, care products or chemicals and accidental damage.

The warranty period starts at the date of invoice or date of delivery, whichever is the earlier. The manufacturer's standard warranty period is 12 months parts only, unless otherwise agreed in writing. No repair work will be undertaken without evidence that the equipment was purchased from Direct Catering Products Ltd or its distributor network.

Satisfactory evidence will normally be confirmation of all of the following:

- 1 Site trading name and address
- 2 Manufacturer, model number, serial number
- 3 Fault Description
- 4 Invoice/delivery documentation

All warranty calls from the Customer are accepted on the basis that they are valid and covered by the manufacturer warranty. Any charges levied in respect of abortive visits, or for work deemed by the manufacturers or their agents not to be valid under the terms of the manufacturer's warranty, shall be recharged, including all charges resulting from incorrect installation (where installation was not provided by the Seller), inadequate or incorrect maintenance of machinery, inadequate usage of machinery and/or inadequate cleaning maintenance of machinery, including de-scaling where applicable.

Such charges will be invoiced to the Customer, who will in turn invoice the end user (at their discretion); recovery of such charges from any third party being the responsibility of the Customer. Warranty claims only cover defects caused by faulty manufacture, materials or workmanship. It does not cover defects caused by unsuitable storage conditions or processing, abnormal use, misuse or neglect or installation by unauthorised or unqualified personnel.

The Seller shall be under no liability whatsoever to the Customer for any indirect loss and/or expense (including loss of profit, revenue, business, goodwill) suffered by the customer howsoever arising, whether by act or default of the Seller or otherwise. Loan machines are not made available. All warranties and conditions, whether implied by statute or otherwise, are excluded from this Contract to the extent permitted by law provided that nothing in this Contract shall restrict or exclude liability for death or personal injury caused by the negligence of the Seller. No liability of any kind is accepted for oral representation of any kind by the Seller or its personnel. All equipment must be installed by a qualified engineer and proof of invoice may be required to validate any warranty claims.

Direct Catering Products Ltd retains the right to request any part replaced under warranty to be returned to Direct Catering Products Ltd for inspection and development purposes. If a requested warranty item is not returned within 10 days then Direct Catering Products Ltd retains the right to charge for the part.

If the part is returned and is found not to be covered under warranty due to any of the conditions regarding warranty mentioned above not being met, Direct Catering Products Ltd retains the right to charge at the full rate of the item and packaging.

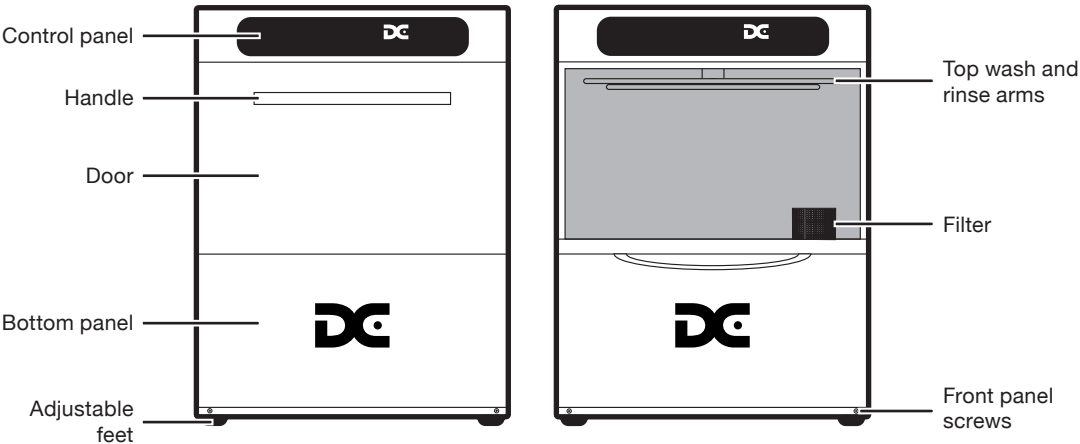
# Overview

## Control panel

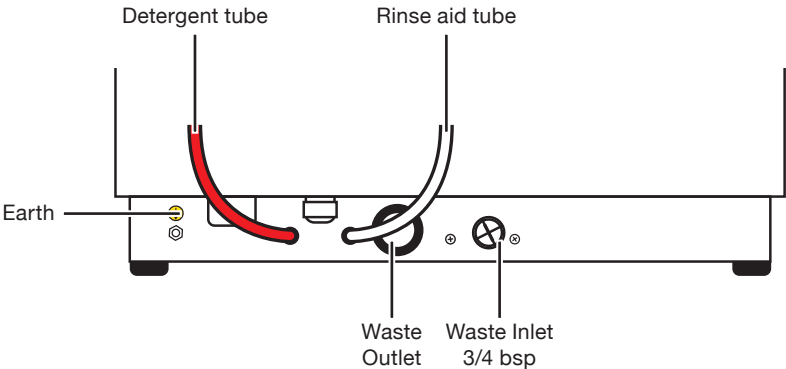


## Key components

Front View

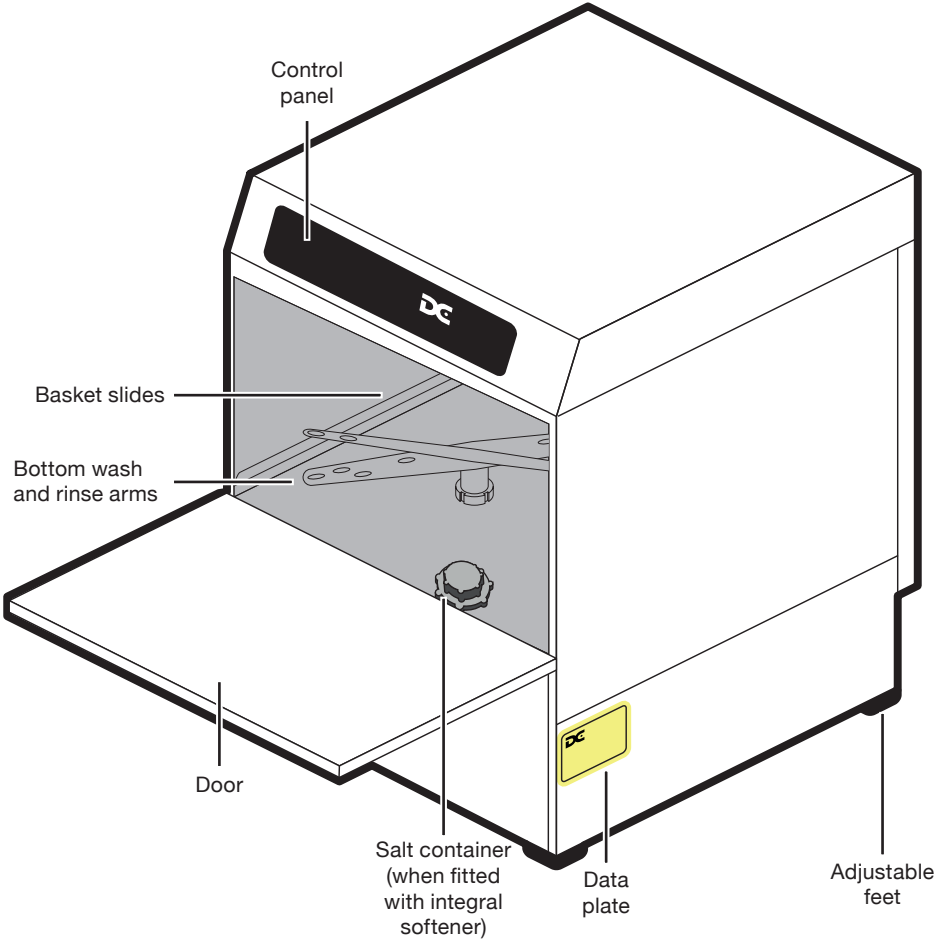


Rear View





Control panel - softener models (IS)



## Location

The machine must be in a location that has a stable, solid flat floor that is able to support the weight of the machine plus the items to be washed and the water used for washing.

Services should be within one metre of services, such as water supply, drain and an electrical outlet.

Do not use a wooden box or other temporary structure to raise the machine's height.

If using a machine stand or water protected plinth to raise the machine, check that it is able to withstand the additional weight of the machine plus the items to be washed and the water used for washing.

There should be no easy access for staff or users to the rear of the machine.

Allow adequate room next to the machine for the detergent and rinse aid chemical containers.

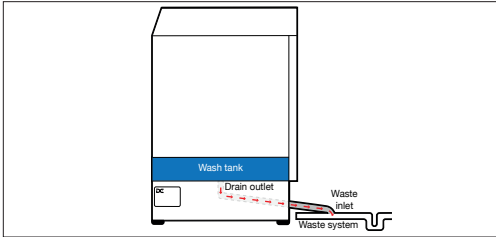
Feed the red tube and the clear (or blue) tube used for chemical intake to the back of the machine, ensure that both tubes are not kinked, stretched or crushed.

Adjust the four levelling feet at the bottom of the machine with a spirit level until the machine is level, check front-rear and left-right levels.

Do not position the machine under a counter or sink or table where water is liable to flood over the machine. **There should be no risk of water leaking onto the machine from any external source.**

# Connecting services - Waste Connection

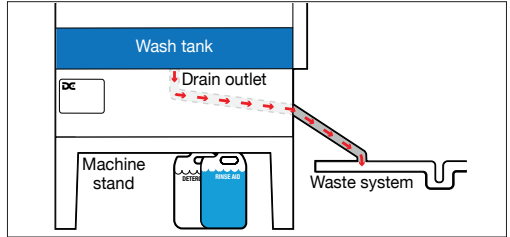
## Waste connection (gravity drain)



Machines with gravity waste must be higher than the on-site waste system level.

- The drain hose from the rear of the machine should run down into the waste system.
- The on-site waste system should have a water trap or U-bend fitted to prevent smells returning back into the machine.

To help waste flow easily away under



gravity, the machine can be placed on a machine stand or table (top right image). The machine's wash tank base level must always be higher than the on-site waste system.

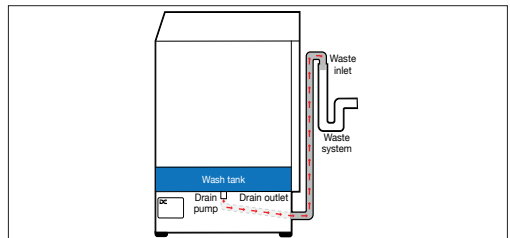
It is not recommended to seal the drain hose into the drainage pipe without using a water trap or U-bend. Smells from the on-site waste system can return back into the machine.

## Waste connection (pumped waste machines)

Machines filled with an automatic drain pump can lift the waste water up to a higher level waste system.

- The drain hose should be connected to an open-to-air upstand and U-bend. The open upstand should be approximately halfway up the machine's height.
- Feed the drain hose into the upstand by only 50 mm. The connection should be open to air.
- Do not seal the drain hose to the upstand.
- The drain hose should run straight from the rear of the machine and into the upstand without any kinks or loops. Cut off any excess from the end of the drain hose.

It is not recommended to seal the drain hose

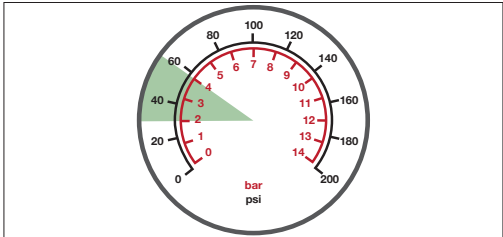


into a spigot intended for domestic washing machines and dishwashers.

- The sink above the spigot can return water and smells back into the machine and prevent the machine draining.
- The reduced size of the spigot can also prevent the water draining quickly from the machine.

# Connecting services - Water supply

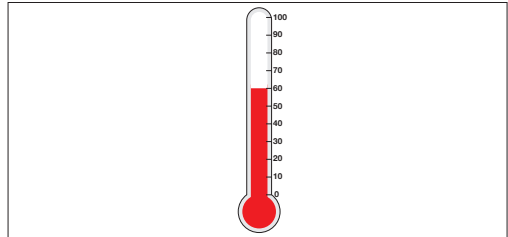
## Water Pressure



**Minimum:** 2 bar (28 psi)

**Maximum:** 4 bar (56psi)

## Hot Water Supply



Machines without integral softener not to exceed 60°C.

Machines with integral softener not to exceed 30°C.

Machines with external softener refer to softener rating.

## Water flow rate

Recommended water flow (constant) minimum 10 litres per minute, maximum 12 litres per minute.

**Wash and rinse results may be adversely affected if settings do not fall within the above recommended ranges.**

If you have low water pressure consider an internal or external rinse booster pump or an expansion vessel.

If you have high water pressure consider a restrictor valve.

**Water pressure and flow rate should be measured at the peak time of day when water usage on site is highest.**

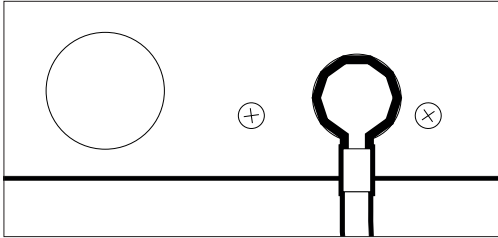
Low water pressure and flow rate can result in the wash tank not filling fully in time, poor rinse and prevent integral softeners from regenerating properly.

If required fit a hot-cold mixer valve to reduce the water temperature. Check the hot water supply has enough capacity to supply the hot water to the machine at busy times.

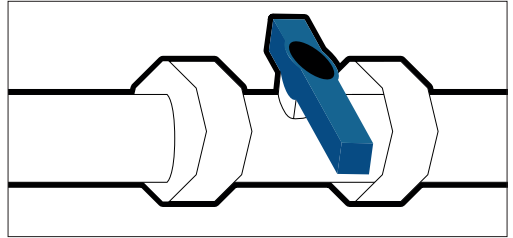
Warmer water will improve start-up time and cycle recovery if there is adequate water pressure and flow rate.

## Connecting services - Water connection

**1** Connect supplied **Mains Water Hose** to **3/4 Male Fitting** at rear of machine.

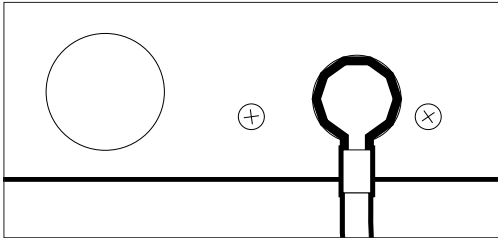


**2** Connect **Hose** to **Water Shut Off** (isolator) valve fitted to mains pipe.

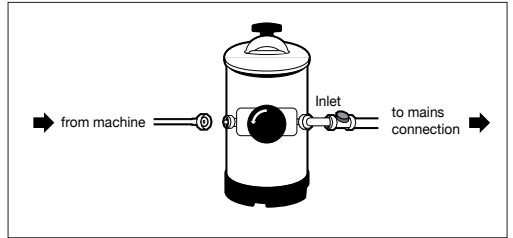


### Water connections with external softener

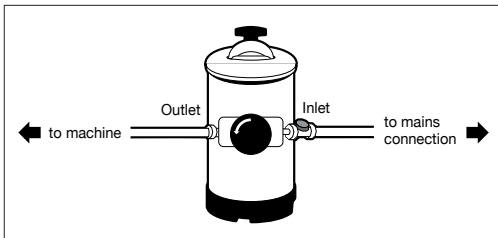
**1** Connect supplied **Mains Water Hose** to **3/4 Male Fitting** at rear of machine.



**2** Connect the same **Hose** to **Water Softener Outlet**.

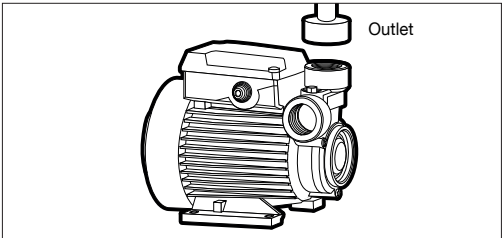
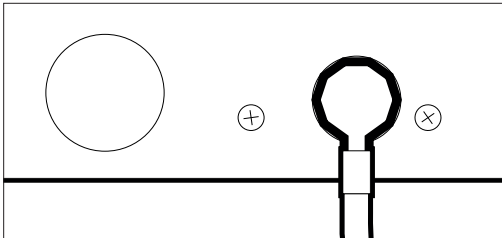


**3** Connect **Water Softener Inlet** with additional **Water Mains Hose** to **Water Shut Off Valve** fitted to mains pipe.

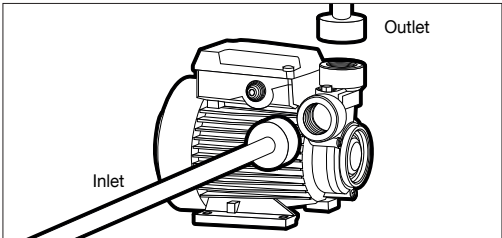


Water connections with external pressure booster pump

- 1 Connect supplied **Mains Water Hose** to **3/4 Male Fitting** at rear of machine.
- 2 Connect **Hose to Pressure Booster Outlet**.



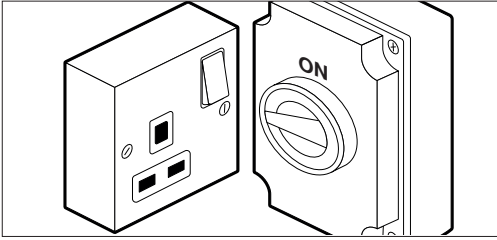
- 3 Connect **Pressure Booster Inlet** with additional **Water Mains Hose** to **Water Shut Off Valve** fitted to mains pipe.



Recommended Water Pressure and flow rate*	
Minimum	2 bar (28 psi)
Maximum	4 bar (56 psi)

\* Water temperature  
Machines without integral softener not to exceed 60°C.  
Machines with integral softener not to exceed 30°C.  
Machines with external softener refer to softener rating.

## Connecting services - Power connection

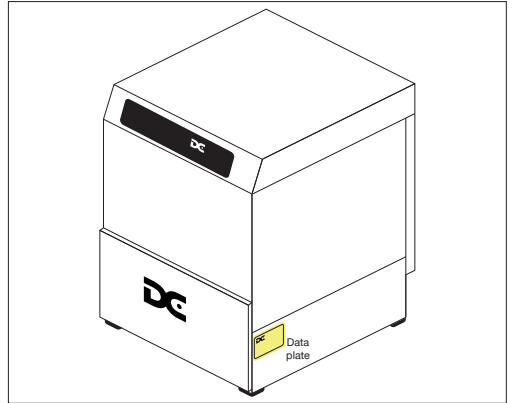


The machine must only be installed, serviced and repaired by an authorised and approved catering engineer with relevant electrical experience and qualifications.

Always isolate machine before carrying out any electrical work.

### Total power loading

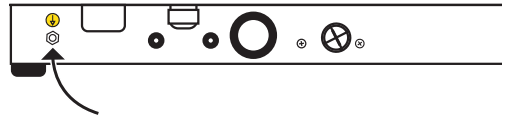
The total electrical loading is shown on the data plate.



### Earth bonding (equipotential)

To ensure electrical safety the machine must be earth bonded to ensure electrical safety to any table or metalwork adjacent or above the machine.

The earth bonding bolt can be located at the lower rear of the machine.



### Power connection (single phase) 13A

For machines supplied with a 230V - 240V 13A plug with fuse.

- Do not use a socket that is positioned under the machine.
- Do not use an extension cable to power the machine.

- Do not use a 13A gang or multiplugs to power the machine.

Check the 13A ring main for possible overloading if other equipment is using the same circuit.

### Power connection (single phase) 30A

For machines supplied with a 230V - 240V 30A plug with fuse.

- Do not use a socket that is positioned under the machine.
- Do not use an extension cable to power the machine.

- Do not use a 30A gang or multiplugs to power the machine.

Check the 30A ring main for possible overloading if other equipment is using the same circuit.

### Power connection (three phase)



#### **Warning high voltage risk**

Only a DC Products authorised and approved catering engineer, or qualified electrician should connect the machine to the electrical supply.

**DC Products does not accept any liability for damage or loss for improper electrical installation**

The machine is supplied with an electrical cable already connected that is appropriate for its rating.

The electrical cable must be connected to a lockable mains isolator switch. This should be positioned on a wall, well protected from water and any steam which may escape when the machine door is opened.

**Do not use an old cable from previously installed equipment.**

**Always use the correctly rated MCB or fused breaker for the total loading of the machine.**



# Connecting services - Chemical connection

## Chemical warnings



**Follow the advice, warnings and PPE guidelines provided by the manufacturer of your supplied liquid detergent and rinse aid.**



**WARNING: You must wear appropriate PPE when working with chemicals.**



- Do not use domestic dishwasher tablets in wash water, they are not suitable for use in the quick wash cycles of commercial machines.
- Do not pour neat detergent or rinse aid into wash water. This will overdose the wash water and cause severe foaming and excessive residual chemical to remain on washed items.
- Do not allow washing up liquid to enter the wash tank water. The items being washed will not be clean and the wash water will foam excessively.
- Check chemical levels in both detergent and rinse aid containers before the start of the washing session.
- Do not operate the machine without chemicals for an extended period, this will cause the chemical inside the intake tubes to dry out, solidify and crystallise.
- Do not connect substitute products like descaler, renovate or sanitiser to dosing equipment. This will damage the internal chemical pumps and intake tubes.
- Remember if you change the brand of your chemical detergent or rinse aid you may have to adjust the dosing volume. Information on adjusting chemical dosing can be found on page 19.

## External dosing equipment (third party installation)

DC Products accepts no responsibility for damage, injury or loss due to third party external dosing equipment electrically connected to the machine. This includes component failure due to internal chemical leaks from non-OEM connectors, elbows and fittings.

**Failures caused or related to third party dosing equipment will invalidate the manufacturer's and any additional warranties for the machine.**

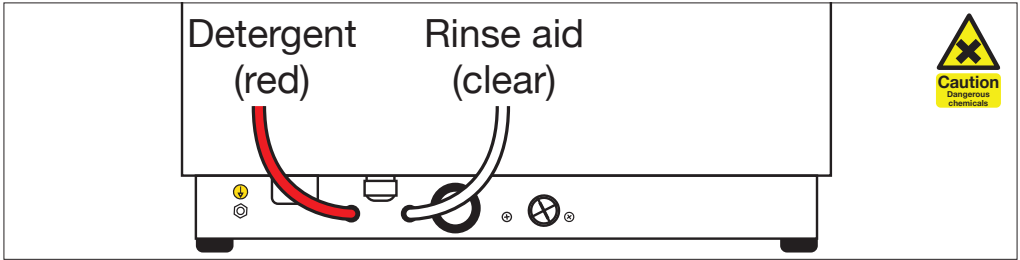
## Chemical intake tubes

The machine is fitted with a red detergent tube and a clear rinse aid tube (this may turn blue over time). The tubes are located at the lower rear of the machine.

The tubes can be cut to reduce their length depending on the distance between the chemicals and the machine.

**The tubes must be kept long enough to touch the bottom of the chemical container.**

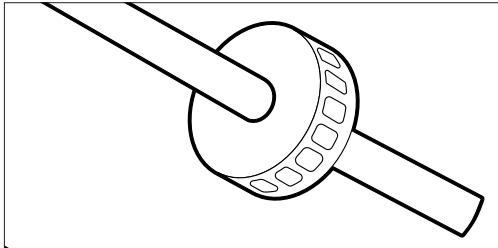
# Chemical Connection



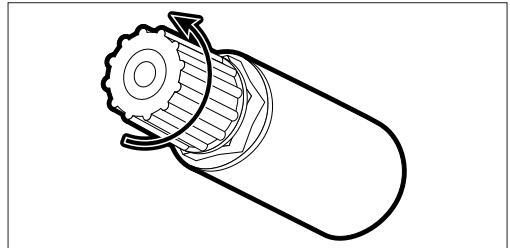
## Weighted chemical filter

The machine is supplied with two weighted chemical filters. These need to be fitted to the ends of the chemical intake tubes to keep them submerged in the chemicals.

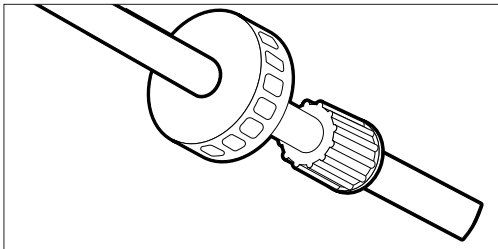
**1 Insert Intake Tube** through hole in **Chemical Container Cap**.



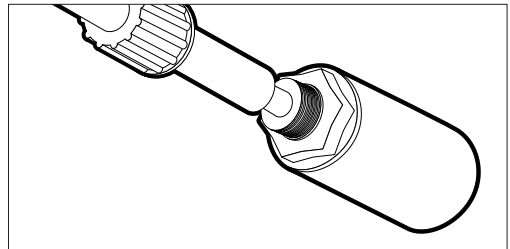
**2 Unscrew Filter Cap** from **Weighted Filter**.



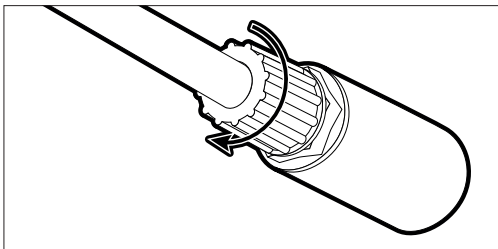
**3 Insert Intake Tube** through hole in **Filter Cap**.



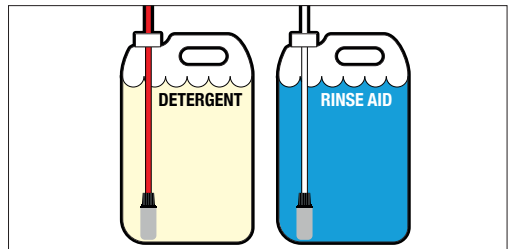
**4 Attach end of Tube** to **Weighted Filter**.



**5 Slide Filter Cap** down and screw tight on to **Weighted Filter**.



**6 Place Weighted Filter** into **Chemical Container** and tighten cap.



## Preparing for first use

### Chemical dosing

The amount of chemical required depends on the quality and strength of the chemical used. Refer to the dilution specifications from your chemical supplier.

If you change chemical supplier, you may need to adjust the dosing quantity. **Always read the label on the chemical container.**

Please see the following dosing guides for more information.

**Incorrect dosing quantities will always give poor washing results.**



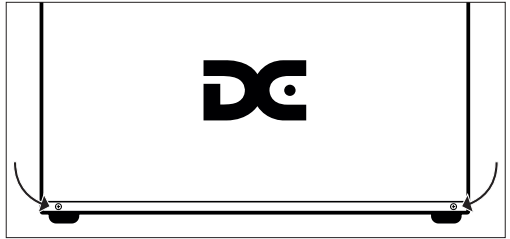
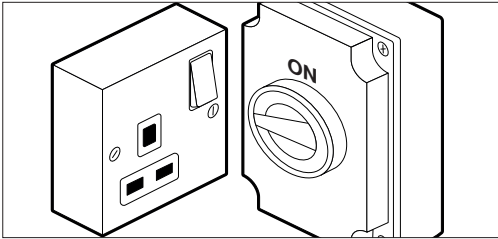
**WARNING:** You must wear appropriate PPE when working with chemicals.



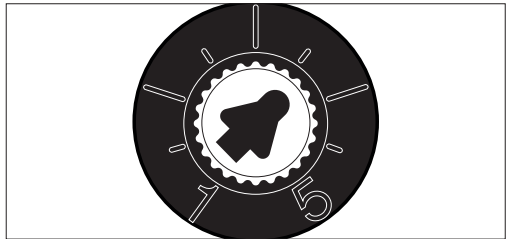
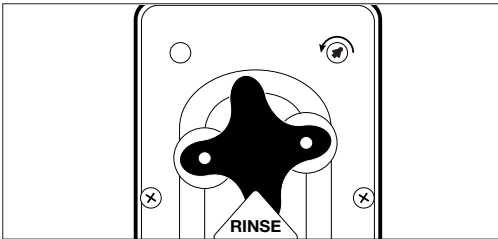
### Adjusting the rinse aid pump

Before using the machine or when using a new make of rinse aid, the rinse aid pump will need to be adjusted to the correct settings for the chemicals used.

- 1** Isolate the machine from the mains supply by turning **Off** at the **Plug** or **Isolator Switch**.
- 2** Remove the two **Screws** from the **Lower Front Panel**.



- 3** Using a small flat-head screwdriver, gently rotate the **Dial** on the top right of the **Rinse Aid Pump** anti-clockwise as far as possible.
- 4** Now rotate the **Dial** clockwise to the appropriate setting determined in the rinse aid chemical dosing chart (page 22) or as recommended by the chemical supplier.



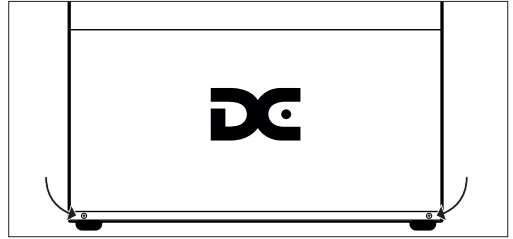
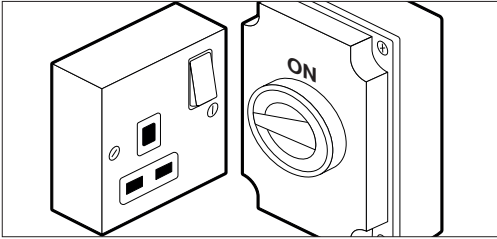
**NB** There should only be a thin (2-3 mm) layer of foam on the wash water surface after each wash. Excessive foam at the end of the wash indicates the dosing volumes are not adjusted correctly.

## Adjusting the detergent chemical pump - fill setting

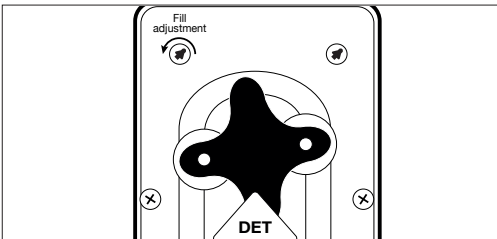
Before using the machine or when using a new make of detergent chemical, the **Detergent Fill Setting** will need to be adjusted to the correct settings for the chemical used.

This setting ensures the correct amount of detergent chemical is added when the wash tank fills (see page 37 for further information).

- 1 Isolate the machine from the mains supply by turning **Off** at the **Plug** or **Isolator Switch**.
- 2 Remove the two **Screws** from the **Lower Front Panel**.



- 3 Using a small flat-head screwdriver, gently rotate the **Dial** on the top left of the **Detergent Chemical Pump** anti-clockwise as far as possible.
- 4 Rotate the **Dial** clockwise to the appropriate setting indicated in the detergent chemical dosing chart (page 22) or as recommended by the chemical supplier. As an approximation, the dial ranges from 0mm at position 1 to 8mm at position 5.

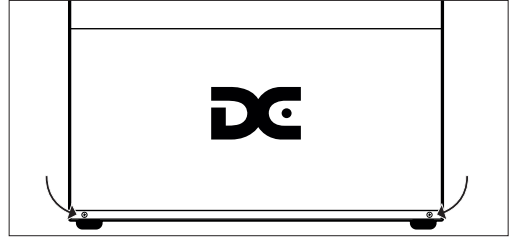
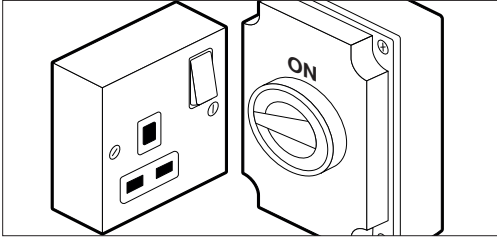


**NB** There should only be a thin (2-3 mm) layer of foam on the wash water surface after each wash. Excessive foam at the end of the wash indicates the dosing volumes are not adjusted correctly.

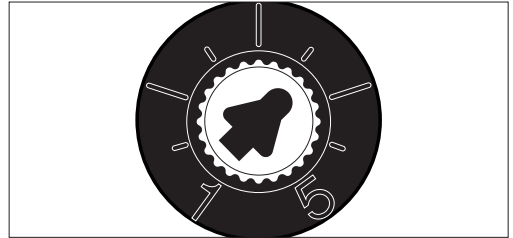
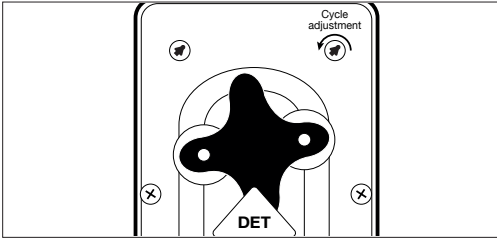
## Adjusting the detergent chemical pump - cycle setting

Before using the machine or when using a new make of detergent chemical, the detergent cycle setting will need to be adjusted to the correct settings for the chemical used.

- 1 Isolate the machine from the mains supply by turning **Off** at the **Plug** or **Isolator Switch**.
- 2 Remove the two **Screws** from the **Lower Front Panel**.



- 3 Using a small flat-head screwdriver, gently rotate the **Dial** on the top right of the **Detergent Chemical Pump** anti-clockwise as far as possible.
- 4 Now rotate the **Dial** clockwise to the appropriate setting indicated in the detergent chemical dosing chart (page 22) or as recommended by the chemical supplier.  
As an approximation the dial ranges from 0mm at position 1 to 140mm at position 5.



**NB** There should only be a thin (2-3 mm) layer of foam on the wash water surface after each wash. Excessive foam at the end of the wash indicates the dosing volumes are not adjusted correctly.

### Rinse aid chemical dosing

The amount of rinse aid required per cycle depends on the quality and dilution information provided by the chemical manufacturer.

Example dilution rate	Setting
<b>Dilution 1:1000</b> (1 ml per litre)	2.5 ml
<b>Dilution 1:2000</b> (0.5 ml per litre)	1.2 ml
<b>Dilution 2:5000</b> (0.4 ml per litre)	1 ml

### Detergent chemical fill setting

The amount of detergent dosed depends on the quality and dilution information provided on the detergent chemical container.

Wash tank size	Dilution 1:200	Dilution 1:300	Dilution 1:400	Dilution 1:500
11	55 ml	37 ml	28 ml	22 ml
14	70 ml	47 ml	35 ml	28 ml
18	90 ml	59 ml	45 ml	36 ml
20	100 ml	66 ml	50 ml	40 ml

### Detergent chemical per cycle setting

The amount of detergent dosed depends on the quality and dilution information provided on the detergent chemical container.

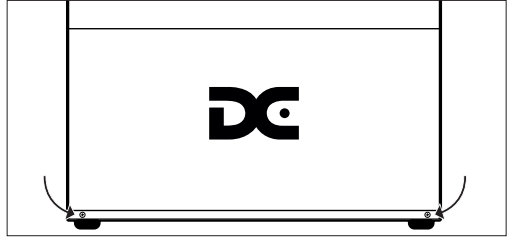
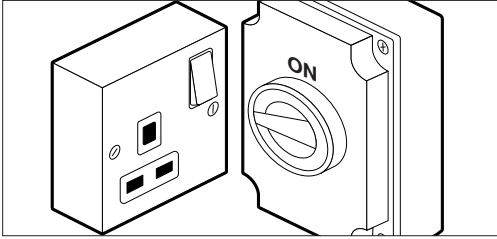
Example dilution rate	Setting
<b>Dilution 1:2000</b>	12 ml
<b>Dilution 1:3000</b>	8 ml
<b>Dilution 1:4000</b>	6 ml
<b>Dilution 1:5000</b>	5 ml

The above calculations are to be used as a guide only - please refer to chemical manufacturer's instructions.

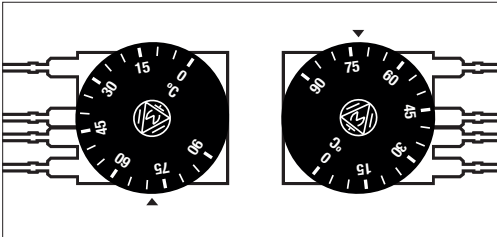
## Boiler thermostat adjustment

Setting the **Boiler Thermostat** correctly will ensure water reaches the correct temperature for rinsing.

- 1 Isolate the machine from the mains supply by turning **Off** at the **Plug** or **Isolator Switch**.
- 2 Remove the two **Screws** from the **Lower Front Panel**.



- 3 Locate **Thermostat** and rotate the **Dial** to the appropriate setting at the top of the **Dial** – we recommend 70 - 75°C.  
**Please note: dials with wires attached on the left are situated upside down, therefore will need to be aligned at the bottom of the dial.**



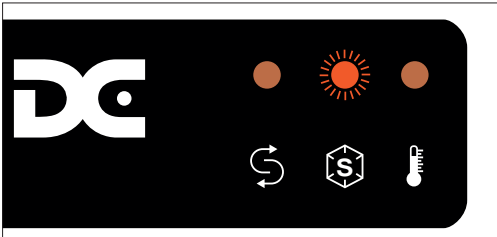
**NB** Rinse water continues heating after the thermostat turns off. Setting the boiler at a temperature over 85°C can cause the water to overheat and the machine to cease functioning.

## Machines fitted with integral water softener (IS)

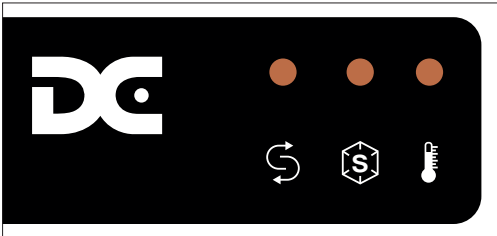
The integral softener automatically maintains soft water to ensure best results and prevent component damage.

To enable regeneration, salt must be periodically added.

- 1** The **Low Salt** light turns on when salt is low or empty.
- 2** To top up salt ensure the wash tank is empty of water, open the door and unscrew the **Salt Container Lid** then fill with catering grade granular salt only. For best results ensure a 20mm gap is left at the top of the **Salt Container**.

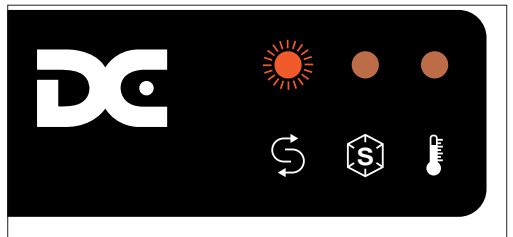


- 3** Screw the **Lid** back on the **Salt Container** and close the door. The **Low Salt Light** will extinguish after a few minutes..



## Regeneration

The integral water softener needs to regenerate periodically to allow it to maintain soft water. Regeneration will occur after the machine has filled up with water and is heating ready for first use. The **Regeneration Light** will come on during the process and extinguish when it's finished (approx. 20 minutes). While regeneration is being carried out you will not be able to operate a wash cycle.



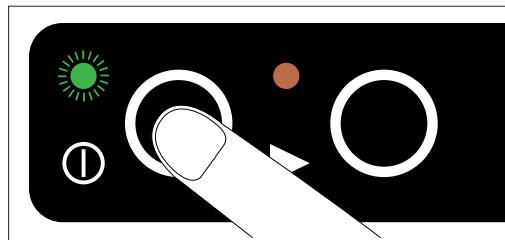


## Programming the integral softener (IS)

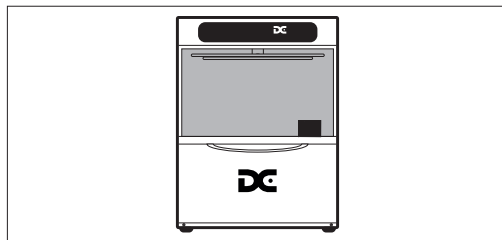
To ensure perfect cleaning results and to protect components the dishwasher needs soft water.

Mains water with a hardness level higher than 40ppm 0.7mmol/l (4°dh) must be softened. Setting the softener hardness level in the machine is vital to ensure good results.

**1** Before programming the softener, the machine needs to be turned **On** and **must have finished filling**.



**2** Open the **Door** or **Hood** and keep open.



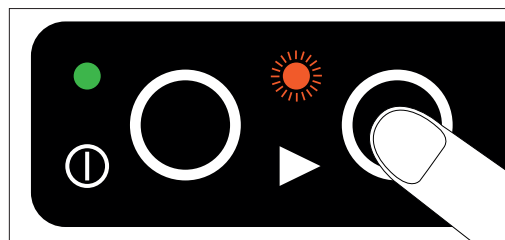
**3** Press and hold **Cycle Start Button** for eight seconds until wash cycle lamp flashes rapidly and a noise is played.



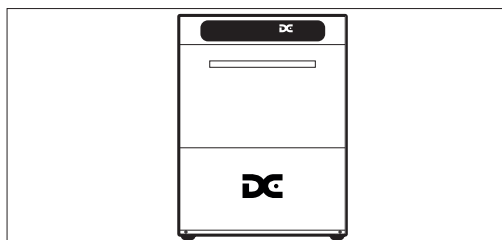
**4** To display current softener setting, press the **Cycle Button** once. The light will flash to indicate the current setting, e.g. 5 flashes = setting No.5. The default setting is 4.



**5** Change the setting by pressing the cycle start button the corresponding number of times as indicated on the table below. E.g. for softener setting 5, press the cycle button 5 times.



**6** To exit programming mode, close **Door** or **Hood**.



User settings				
Softener setting	Under counter cycles	Passthrough cycles	Hardness level	ppm
1	Shows the saved value of the water softener			
2	50	90	Moderately hard	120
3	40	75	Hard	250
4*	30*	55*	Very Hard	425*
5	20	45	Extremely hard	500+
6	20	45	Extremely hard + extra flushing	500+

\* Default setting

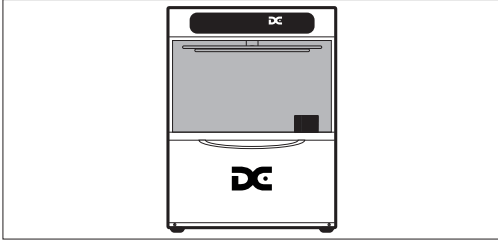
**NB** Ensure catering grade salt is in salt container before first use. Please see PX for further information on using your integral softener.

# User guide

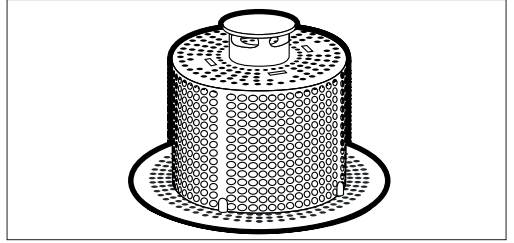
## Getting ready

### Before switching the machine on – check:

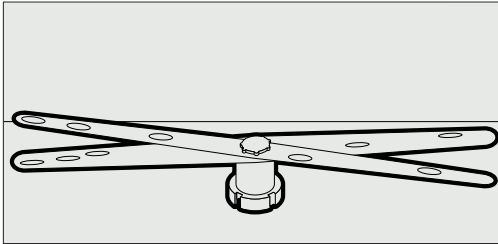
**1** Machine is empty and clean.



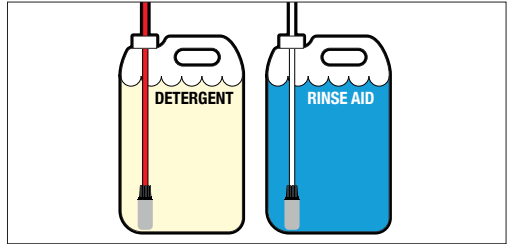
**2** **Filters** and **Drain Plug** are in position.



**3** **Wash and Rinse Arms** are in position.

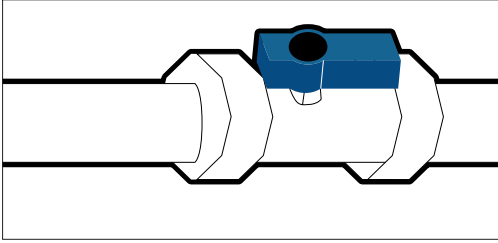


**4** **Detergent** and **Rinse Aid** containers contain sufficient chemicals. Further details on connecting chemical containers can be found on page 17.

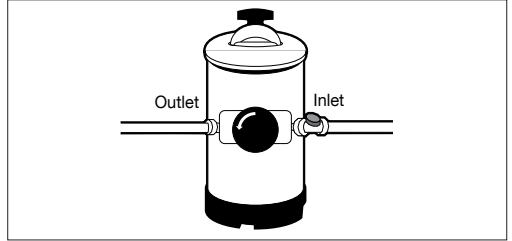


## Filling the machine

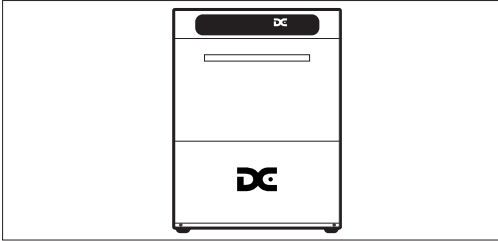
1 Make sure water supply is open.



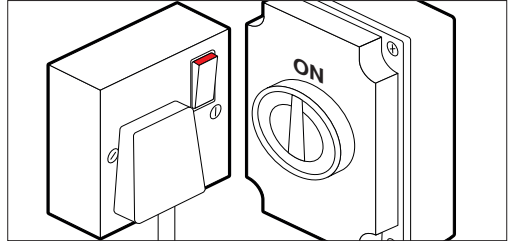
2 If machine has an **External Softener** fitted, check dial or taps are in working position



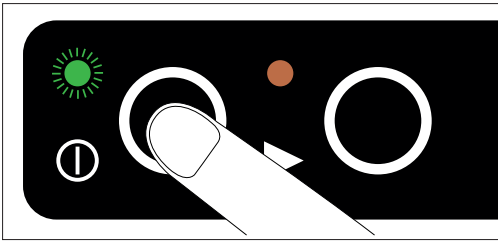
3 Close **Door**.



4 Turn mains supply **On**.



5 Press **On/Off** button to turn machine on. Machine automatically fills with water and chemicals.



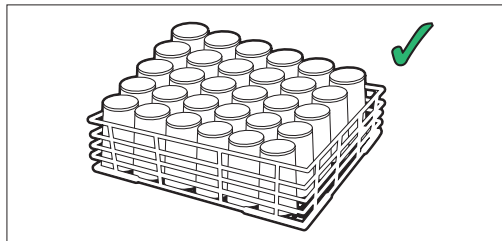
6 Wait for machine to reach operating temperature - this can take up to 45 minutes.



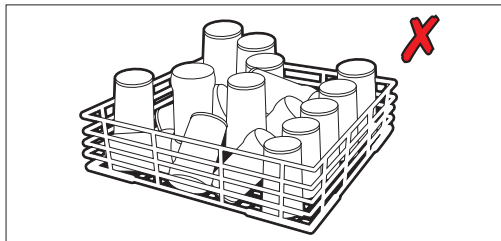
## Operating the machine

**1** Anything remaining in glasses must be removed before washing. Glasses should be placed in basket **upside down**. Load **Basket** correctly.

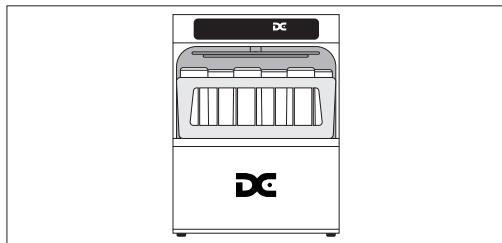
Correct:



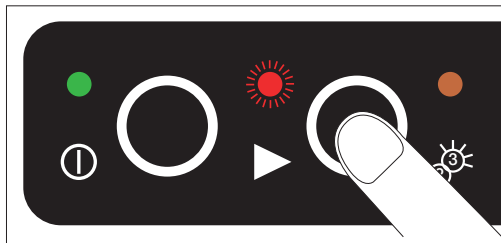
Incorrect:



**2** Slide **Basket** into machine and close **Door**.



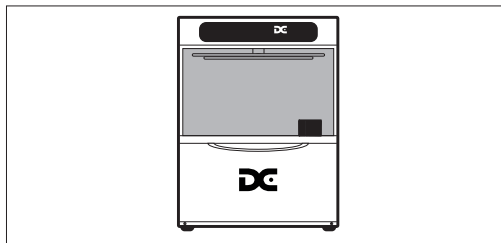
**3** Press **Cycle Start** button. The **Cycle Start** light will turn on.



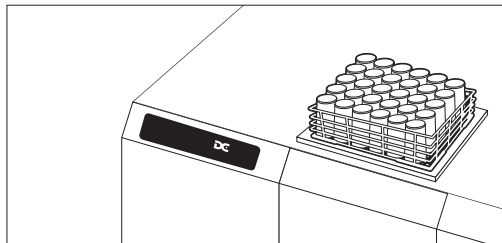
**4** At end of cycle the **Wash Cycle** the light turns off.



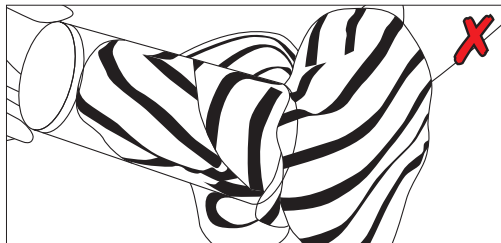
**5** Open **Door** and remove **Basket**.



**6** Do not place **Basket** directly on top of machine. Allow glasses to air dry.



**7** Do not use a towel to dry glasses.



### Service

Tel: 01749 870055

E-mail: [service@dcproducts.co.uk](mailto:service@dcproducts.co.uk)

*Welcome to a Cleaner World*

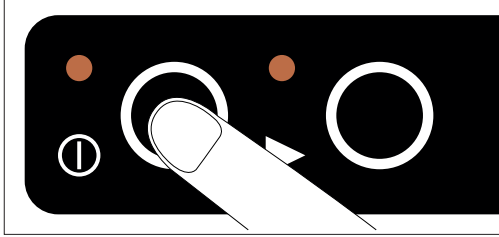
# Machine shut down

Do not leave water in the machine if not being used for extended periods.

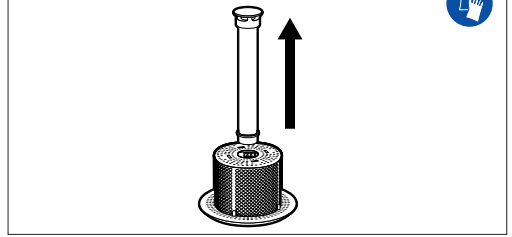


## Draining without drain pump

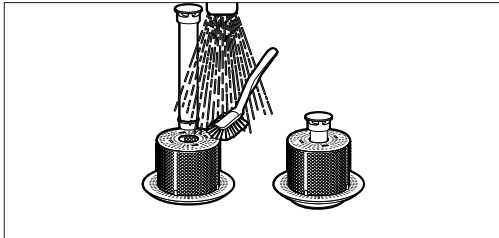
1 Press **On/Off** button to turn machine off.



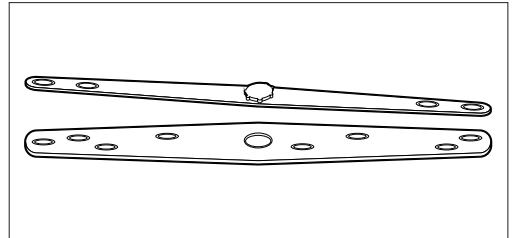
2 Open door, remove **Drain Plug** and leave **Filter** in place.



3 Once machine has drained, remove **Filters**, clean thoroughly and return along with **Drain Plug** to glasswasher.

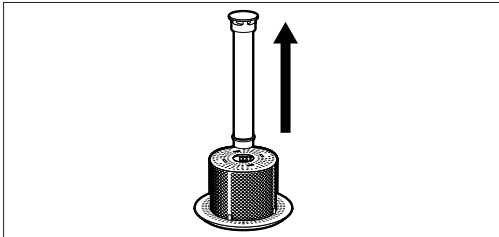


4 Check **Wash Tank** and **Wash and Rinse Arms** for debris and clean.

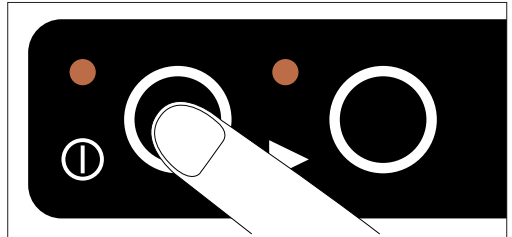


## Draining with drain pump

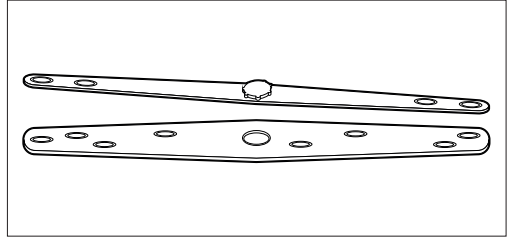
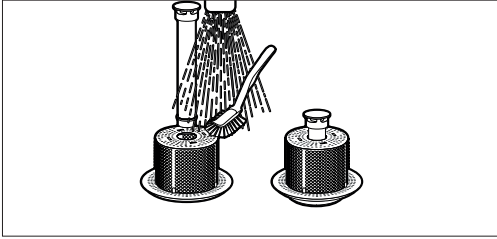
1 Open door, remove **Drain Plug**, leave **Filter** in place and then close door.



2 Press **On/Off** button to turn machine **Off**. The **Drain Pump** will run until machine is empty.

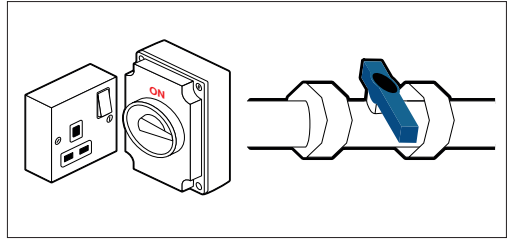
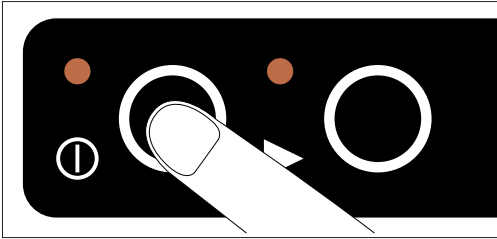


- 3** Once machine has drained, remove **Filters**, clean thoroughly and return along with **Drain Plug** to glasswasher.
- 4** Check **Wash Tank** and **Wash and Rinse Arms** for debris and clean.



## Shut down

- 1** Switch **Power Button** off.
- 2** Switch off **Water Supply** and **Mains Electrics**.



## Daily cleaning

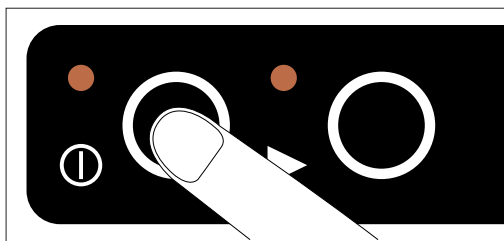
### Good washing guide

Anything remaining in glasses must be removed before washing.

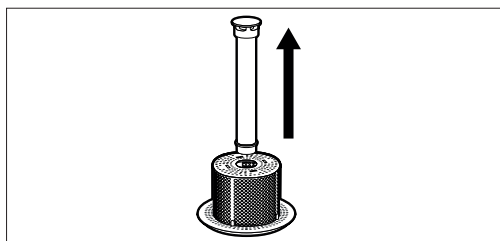
If glasses have been prewashed with soaps or washing up liquids, they must be rinsed thoroughly before placing inside machine. Washing up liquids should not enter the machine as they can cause excessive foaming, reduce washing performance, prevents draining, cause flooding and damage the machine.

### Cleaning

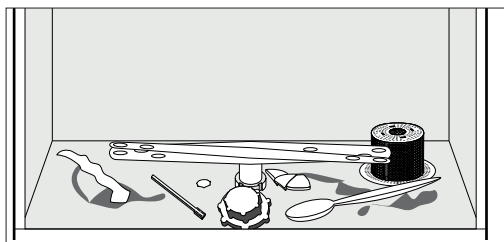
- 1** At end of service, turn off **Power Button**.  
Do not remove the **Filters** yet.



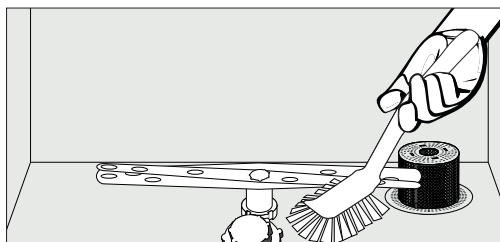
- 2** Remove **Drain Plug**. **Wash Tank** will empty (machines with **Drain Pump** will automatically pump water out).



- 3** Remove debris, such as cutlery and plastic, from machine.



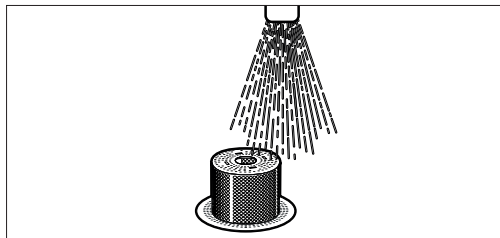
- 4** Clean **Wash Tank**, door surrounds and hinges with an **Addis** type brush, cleaning cloth and mild soap solution.



### Cleaning filters

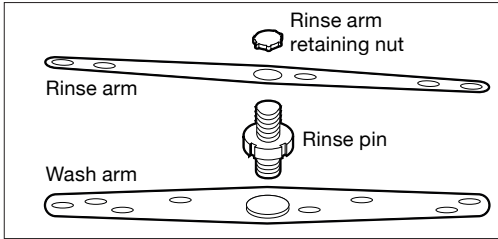
Separate the **Filters** and clean under running water with an **Addis** type brush.

**Do not bang Filters** against anything - this could damage or distort them.





## Wash and rinse arm cleaning



Regularly check **Rinse** and **Wash Jets** are clear of debris or limescale - remove if necessary by unscrewing the **Rinse Arm** retaining nut that holds the **Rinse Arm** in place.

Remove the **Rinse Pin** that holds the **Rinse Arm** in place. Clean both arms thoroughly and reassemble.

Any items left in the machine should be removed as part of a daily cleaning routine.

## Cleaning chemicals

### Warning

**Do not use** any chemical compounds in or around the machine containing chlorine ions (**bleach, chlorine, salt** etc) either undiluted or in diluted solutions such as **destain, detan, brine, Milton bleach** etc. They are incredibly corrosive to stainless steel A304 and can quickly cause the appearance of rust stains and pin holes in the stainless steel.



If chemicals containing chlorine ions are put into the machine, ensure that all debris is removed and the machine thoroughly rinsed to ensure no corrosive chemicals remain.

Do not use steel wool scouring pads to clean the inside or outside of the machine.

### Please note

Any corrosion of this sort that occurs is due to misuse and it is not covered under warranty. Correct PPE should be worn at all times when operating.

## Descaling the machine

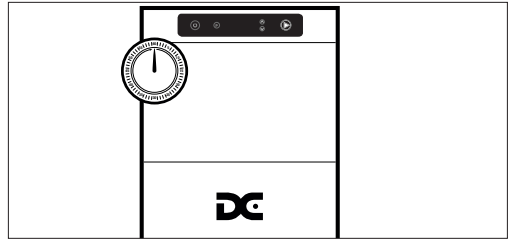
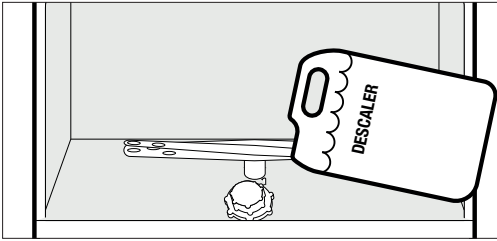
Should softener settings be set incorrectly, over time, machine function may reduce due to build up of limescale deposits, requiring the machine to be descaled. To avoid scale build up and to prevent component failure, we strongly advise fitting a water softener



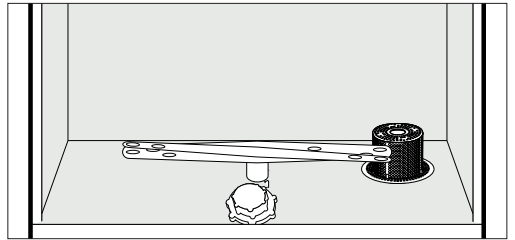
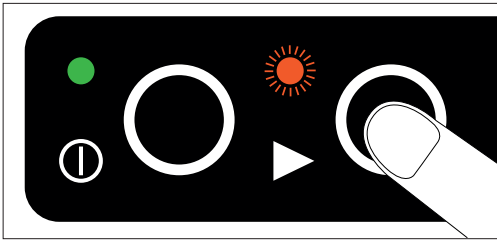
**WARNING:** You must wear appropriate PPE when working with chemicals.



- 1 Fill machine with water and add the correct quantity of **Descaler** as advised by the chemical manufacturer.  
The machine should not be powered up when filled with **Descaler**.
- 2 Follow the chemical manufacturer's instructions for information regarding the length of time **Descaler** should sit in the machine.



- 3 Run a full **Wash Cycle** or as advised by the chemical manufacturer.
- 4 Inspect the **Dishwasher** to see if it has been properly descaled.



## Replacing chemical pump peristaltic tubes

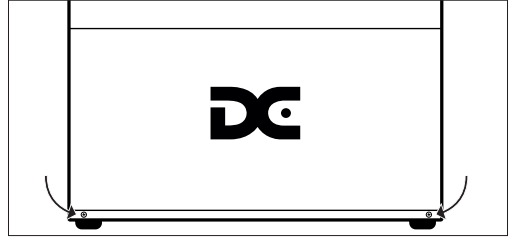
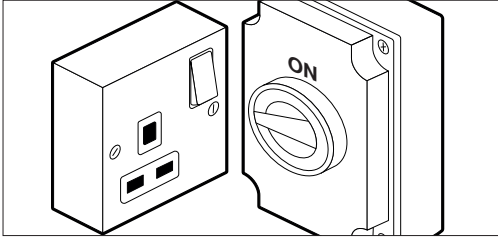


**Warning:** this operation can involve contact with chemicals, ensure correct PPE is worn.

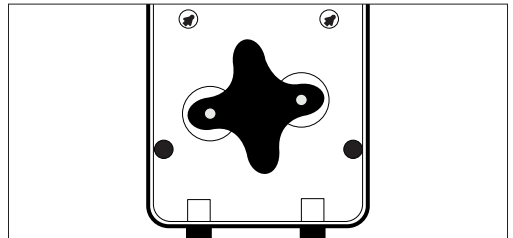
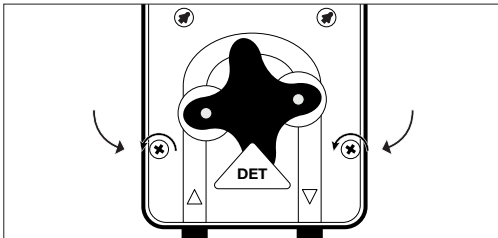


**DC recommend peristaltic tubes are replaced annually.**

- 1** Isolate the machine from the mains supply by turning **Off** at the **Plug** or **Isolator Switch**.
- 2** Remove the two **Screws** from the **Lower Front Panel**.



- 3** Remove the two **Screws** from the **Chemical Pump Cover** and remove **Cover**.
- 4** Release cable ties securing **Peristaltic Tube** from **Pump**, while manually turning rotor. Replace with new **Peristaltic Tube** and cable ties. Replace **Chemical Pump Cover** and replace **Lower Front Panel** with **Screws**.












User feature programming

Button presses			Featured
1	Thermostop	On	All models
2	Thermostop	Off	All models
3	Cycle finished sound	Off	All models
4	Cycle finished sound	Quiet	All models
5	Cycle finished sound	Loud	All models
6	Door/Hood starts the washing cycle	Off	All models
7	Door/Hood starts the washing cycle	On	All models
8	Cold rinse	Off	Selected models only
9	Cold rinse	Four seconds	Selected models only
10	Cold rinse	Six seconds	Selected models only



**Thermostop** This function means the **Dishwasher** does not start the washing or rinsing phases until the minimum set temperature is reached. This guarantees control over the temperatures and greater safety.







**Cold rinse** This cycle runs after the hot rinse cycle, allowing immedaite usage of the glasses.

Machine Sounds

Sound	Lamp flashes	Reason
Startup		
	—	<b>Machine on</b>
Operation		
		<b>Door open</b>  Close the door and the machine will continue to fill.
	—	<b>Alarm</b>
		<b>Wash tank fill timeout</b>  Wash tank has failed to fill after five minutes <ul style="list-style-type: none"><li>• Check drain plug is pushed firmly into place.</li><li>• Check water supply shut off valves are turned on.</li><li>• If external softener fitted, check all valves are open.</li><li>• Check the mains water hose is not kinked or crushed.</li><li>• Low water pressure or poor water flow rate can result in the wash tank not filling in five minutes.</li></ul>
	—	Cycle finished
User settings		
	—	Menu entry and exit confirmation
Finish		
	—	Machine off

Problem solving

Problem	Solution
<b>Chemicals need adjusting</b>	<p>For information on adjusting the chemical levels, please see page 19.</p> <p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels</b></p> <div></div>

Problem	Solution
Peristaltic tubes need adjusting	<p>For information on replacing the peristaltic tubes, please see page 38.</p> <p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels</b></p>  
Coffee or tea marks on plates and crockery	<p>This is due to tannins (high staining chemical found in plants, such as coffee, tea and grapes).</p> <p>Use a detergent that contains tannin removing agents. DC produce a range of high quality chemicals, for further information visit: <a href="http://bit.ly/DCchemicals">http://bit.ly/DCchemicals</a></p>
Machine not cleaning correctly	<p>There could be inadequate quantities of detergent going into the machine.</p> <p>For information on adjusting the chemical levels, please see page 19.</p> <p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels.</b></p>   <p>The quality of the detergent being used may be poor. Higher quality chemicals will produce the best results at a lower dosage. DC produce a range of high quality chemicals, for further information visit: <a href="http://bit.ly/DCchemicals">http://bit.ly/DCchemicals</a></p>
Burning smell	<p>Isolate the machine immediately and call a qualified catering engineer.</p>
<b>Leaking</b>	
Check there are not any wet items left on or around the machine which could cause puddles.	<p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels</b></p>  
<b>Exterior leaking</b>	
Check chemical containers	<p>If containers are damaged, replace immediately.</p>

Problem	Solution
<b>Check tubes from chemical containers</b>	<p>If tubes are damaged, replace.</p> <p>If chemical tubes appear undamaged, but chemical is leaking, remove bottom panel and check peristaltic tubes in chemical pumps.</p>
<b>Interior leaking</b>	
<b>Remove bottom panel and check bottom of machine</b>	If wet, check boiler. If there are noticeable leaks from the boiler, call an engineer immediately.
<b>Check chemical pump tubes</b>	If tubes are disconnected, reconnect with cable ties.
<b>Check chemical pump peristaltic tubes</b>	If tubes are split, replace.
<b>Not taking chemicals in</b>	
<b>Check chemical containers contain chemicals and levels are reducing during machine operation</b>	<p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels.</b></p> <p>If unsure whether chemicals are entering the machine, mark current chemical level on containers and check a few days later to see if chemical quantity has changed.</p>
<b>Check weighted filters are correctly connected to chemical tubes and are submerged in sufficient chemical product</b>	If filters are correctly connected and submerged, unscrew the filters and check for blockages.
<b>Check chemicals are adjusted to the correct dosing rates</b>	For information on adjusting the chemical levels, please see page 17.
<b>Excessive chemical use</b>	
<b>Check chemicals are adjusted to the correct dosing rates</b>	<p>For information on adjusting the chemical levels, please see page 17.</p> <p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels</b></p>



Problem	Solution
Check quality of chemicals being used	Higher quality chemicals will produce the best results at a lower dosage. DC produce a range of high quality chemicals, for further information visit: <a href="http://bit.ly/DCchemicals">http://bit.ly/DCchemicals</a>
Flat beer, no head retention	<p>There could be too much rinse aid going into the machine.</p> <p>For information on adjusting the rinse aid levels, please see page 22.</p> <p><b>WARNING: You must wear appropriate PPE when working with chemicals and isolate the machine before removing panels.</b></p> <p>The water pressure could be low, preventing the machine from rinsing the glasses adequately. For information on correct water pressure, please see page 12.</p>
<b>Foaming</b>	
Has detergent or rinse aid been added to the wash water?	Run machine until wash water has been cleared of excessive chemical.
Has washing up liquid entered the wash tank?	Run machine until wash water has been cleared of excessive chemical.
Is there excessive foam at the end of the wash?	This indicates there is too much chemical being dosed - instructions for how to adjust dosing volumes can be found on page 19.
<b>Internal softener</b>	
Salt light won't go out on new machine	<p>Gently run a knife or the end of a spoon around the inside edge of the salt container to loosen the mixture.</p> <p>If the salt inside the salt container looks dry pour in a little water and mix until the salt looks slushy. There must be a mixture of salt and water inside the salt container for the sensor to register.</p>
White film on glasses	<p><b>Water is not being adequately softened.</b></p> <p>Check salt container is full - the container holds 500g of salt, enough for five regeneration cycles.</p>



