



**DR30 MAX
Warewash Chemical
Dispenser**

Dispensing technology by Seko UK



A total commitment to guaranteed reliability and optimal performance has led to Seko being utilised in many types of industry. Including food and beverage, agriculture, dairy and water treatment.

We operate to the highest quality standards of (ISO 9001) In manufacturing, R&D and product testing.

We have experienced staff and a network of specially appointed distributors around the world to provide local support.

Dispensing Technology for your Industry

Please visit our web site or contact us for details on our Laundry Dispensing Products, Drain Enzyme Pumps, Blending Stations, Sprayers and Foamers.

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SAFETY INFORMATION

Any maintenance or servicing of Seko equipment should only be carried out by a competent professional and any electrical work by a qualified electrical engineer.

Always isolate Seko equipment from any electrical supply or external machine which supplies electrical signals. This must be done prior to carrying out any mechanical or electrical installation, repair or maintenance. FAILURE TO DO SO MAY RESULT IN SPILLAGE OF CHEMICAL, DAMAGE TO EQUIPMENT OR PERSONAL INJURY

All Seko equipment should be wired to a mains supply via a two pole isolating switch, in accordance with the relevant electrical standards.

Seko equipment fitted with an on/off switch may be wired to a 13Amp mains plug fused at 3 Amps, for connection to a 13 Amp socket

Always observe appropriate precautions against chemical contact. Refer to the chemical providers COSHH data sheets prior to changing chemical containers or peristaltic tubes

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TECHNICAL SPECIFICATION

Voltage	210-230vac 50-60Hz
Signal Inputs	24v AC/DC to 230v AC/DC Opto Isolated
Tubing	STD EPDM (SILICONE on Request)
Flow Rate	Detergent 200ml/Min Rinse 70ml/Min
Rollers	Acetal
Enclosure	IP65 260mm x 180mm x 90mm
Motors	12v dc
Approvals	EMC89/336/EEC EN50081-1 LVD 72/23EEC
Weight	2.3Kg

PART 1

MECHANICAL INSTALLATION

Locate the DR30 unit as close to the Dishwasher and chemical containers as possible, whilst taking care to avoid direct heat, moisture or steam.

The PVC tubes from the chemical containers should ideally be no longer than 3 Metres.

The fixing holes in each corner of the dispenser (with the lid open) should be used to fix the enclosure to the wall in order to maintain the waterproof sealing.

Connect the tubing from the chemical container to the inlet connector of the relevant pump. Warming the pvc will assist when fitting

Site the detergent tank connector above the water line of the dish-washer away from the drain point. Drill a 6mm hole if using the M6 stainless steel connector, or a 13mm hole if using 1/4 inch BSP.

Connect the pvc tubing from the outlet of the Detergent Pump to the tank fitting. Again warming the tube will assist with fitting

Connect the 1/8 BSP Rinse non return valve outlet into the boiler. If a hose connection is required for the non return valve these can be ordered from Seko uk

Due to the pressure in the Rinse delivery line 4x6 Nylon or PE(dependant on chemical compatibility) tubing is recommended
This can be supplied on request

Ensure suction and delivery tubes are not kinked or resting on hot pipework

PART 1

ELECTRICAL INSTALLATION

Operation from single solenoid machines. Common rinse valve.

Always ensure the supply to the DR30 is switched off before opening

The DR30 supply must be wired via a local isolator switch

ALL ELECTRICAL WORK SHOULD ONLY BE CARRIED OUT BY A

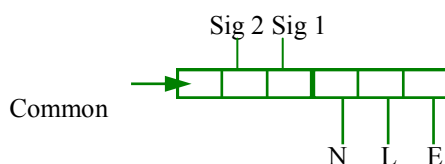
QUALIFIED ELECTRICAL ENGINEER

Connect the mains supply to the 6-way NLE terminal block. If the power supply is the same as the dishwasher, so that the unit powers up with the machine. It is possible to select the POWER UP option in the set up menu for the initial fill.

Connect Sig 2 to the switched side of the solenoid).

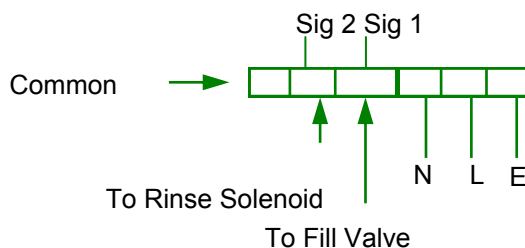
For 230v Solenoids only one wire is needed from the switched side of the solenoid, and the remaining connection can be connected to the mains neutral (or to Live if the solenoids are Neutrally switched)

SIG 1 can also be used for initial fill (if selected in the menu) as it has a 30 second delay enabling it to be used from a common rinse/fill valve.



Operation from Dual Solenoid machines. Separate Fill and Rinse Valve.

Sig 1 to the Fill valve and Sig 2 to the Rinse valve.



In this variation the Detergent initial fill is dosed by Sig 1

There is a 30 second qualification time on sig 1, so it will only operate if the signal is present for 30 seconds. This is to allow for partial fill of the tank prior to chemical dosing

PART 1 PROBE INSTALLATION

Mechanical

The probe should be sited in the wash tank away from the heating element and water supply.

Drill a 21mm hole approx 75mm above the bottom of the wash tank.

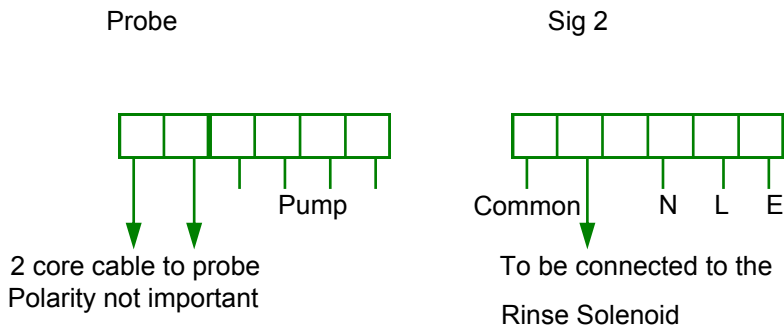
It is very important that the probe is completely below the water line, particularly when the main wash pump is operating and causing turbulence

The probe should be sited just below the detergent injection point.

Electrical

Connect 2-core cable onto the probe by crimping each cable onto the push-on bullet crimp tags provided.

Connect the other end of the 2-core cable to the probe terminals of the grey terminal block. The polarity is not important.



Note

Sig 1 terminal is not used in probe mode unless sig 1 control is selected. If you select YES to sig 1 control the probe will only become active when sig 1 is present. Signal 1 control overrides the no water inhibit.

PART 2 ROUTINE MAINTENANCE

Always isolate Seko equipment from any electrical supply or external machine which supplies electrical signals. This must be done prior to carrying out any mechanical or electrical installation, repair or maintenance. FAILURE TO DO SO MAY RESULT IN SPILLAGE OF CHEMICAL, DAMAGE TO EQUIPMENT OR PERSONAL INJURY
WHEN HANDLING CHEMICAL APPROPRIATE PPE MUST BE WORN AND MANUFACTURERS HANDLING PROCEDURES FOLLOWED

Tube Changing

The peristaltic tubing will require replacing periodically, dependant on use. To replace the pump tube first ensure the roller assembly is in the vertical position. This can be adjusted using the relevant prime button. Once the roller assembly is in the correct position the suction and discharge lines can be disconnected from the pump tube.

NB Care should be taken to avoid chemical spillage.

Remove the two screws at the top of the pump face, to release the top part of the pump head

The tubing can now be accessed and removed from the bottom part of the pump head.

Only Seko specified tubing should be used. Failure to do so may invalidate the warranty.

Replace the pump face cover by pressing down the top of the pump face on to the pump tube, securing the pump tube between the roller edges. The bottom part of the pump face can then be clipped in to place on the bottom to the bottom part of the pump head.

NB Ensure the clip on the bottom bracket is located inside the top half before clipping in to place

Please ensure the tubing is during this operation. This can be tested by using the relevant prime button.

Probe Cleaning

If you are using the DR.30 in probe mode it is important to clean the probe electrodes and remove any scaling on a weekly basis.

The DR.30 will inform you if the probe does not work due to the electrodes not being cleaned.

PART 3 DR30 MAX SET UP GUIDE

Under counter and hood type machine



Home display screen

With this screen displayed the user can prime either pump by pressing & holding the - or + buttons.



To enter programming mode and to progress through the menu press the centre arrowed button . The unit is password protected, so the first screen will ask for a Pin Code. The standard number is 11, which can be entered by using the up + button. If overshooting reduce by using the - button. Press the arrow button to continue



Press the - button to enter the set up menu & again to program the settings



The next screen is used to select the Initial fill dosage of detergent. The options are, when the unit is powered up, receives a signal from a fill solenoid, or by probe (if fitted). Use the + button to cycle through the options.



If Power up is selected the next screen will move straight to the D Fill time screen. If sig 1 is selected the next screen will give either a Timed or Speed option. When the selection is made you can then enter the run time or ml/min .Enter the value by using the + or - buttons. Once again advance by pressing the arrow button and the display will now show the detergent top up options. SIG 2 or cyclic (for cyclic options see flight /conveyor machine set up)



Pressing the arrow button the display will then show the top up time. adjust by using the + or - buttons & press the arrow to progress



The Rinse control options are Sig 2 ,or Cyclic. (Cyclic is a specialist option and rarely used)Press the arrow button and the the Rinse dose options will be displayed. Either Timed or Speed. For Speed options see flight /conveyor machines)



Adjust the Rinse dose time by using the + or - buttons and the arrow to move to the next screen.

You are now given the option to Quit by pressing the - Button. The programming is now complete and the display will return to the OK Prime screen

FLIGHT OR CONVEYOR TYPE MACHINE SET UP



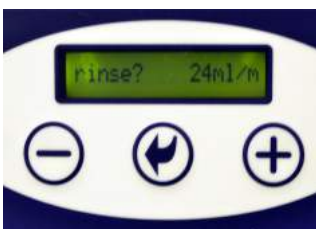
For flight or conveyor machines the programming is similar to the previous set up procedure. The initial fill of Detergent can still be dosed via Power up or Timed (for probe option, see Probe set up). However for the Top up dose the Cyclic option should be selected.



Pressing the arrow button the following display will be shown. This gives the option of dosing up to a maximum of 60ml every 180secs by use of the + & - buttons



The Rinse control options are Sig 2 ,or Cyclic. (Cyclic is a specialist option and rarely used)Press the arrow button and the the Rinse dose options will be displayed. Either Timed or Speed. For flight or conveyor machines the Speed option should be selected



The amount of Rinse aid per minute can be selected by use of the + & - buttons

NB As long as Sig 2 is present the Rinse pump will pulse and the Detergent pump will run on a cyclic basis.

During this operation the Rinse dosage is given priority



Pressing the arrow button You are now given the option to Quit by pressing the - Button. The programming is now complete and the display will return to the OK Prime screen

PROBE SET UP PROCEDURE

Probe Mode can be used to dose Detergent on any type of machine



To Dose using probe mode first scroll through the menu screens as before and select the Probe option on the D Fill display



The next screen allows the input of a set point value. This is the conductivity value you would like to maintain



The following display shows Sig 1 control and gives the option Yes or No by use of the + button . With Sig 1 control Yes selected the probe will only control the dosing whilst Sig 1 is present. With the No option selected the Probe will be in constant control and will dose accordingly



Moving on you can also select the size of tank to be dosed. This will affect the reaction time of the alarms if no changes to conductivity levels are seen

The following screens will display the Rinse options as before and the appropriate selctions can be made

In Probe mode there are 2 alarm displays.

NO WATER . When this screen is displayed the probe has been unable to read a conductivity reading as if there was no water present

CLEAN PROBE. When this screen is displayed the probe has detected no change to the conductivity reading despite receiving a number of Sig 2 (Top up) signals

STATISTICS MENU



The DR30 Unit has a number of useful staistical menus available. To view these menus press the + button (Data) when the following screen is displayed. To scroll through the displays press the arrow button. If you wish to reset these figures at any time press and hold the + & - buttons when the RESET DATA LOG display is shown.





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