

SELECT Dosing System

Select-640 Timed SSDIP



Instructions for Use

Ref: 28.1 640 SSDIP 020413
640-86

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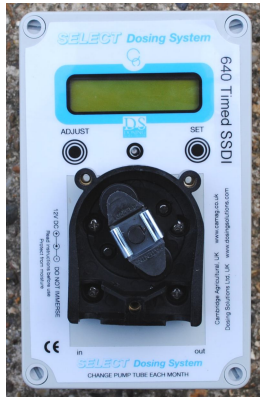


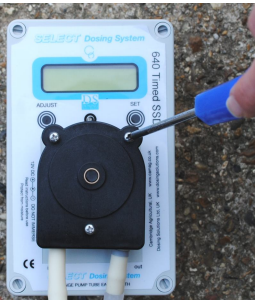
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 <p>Remove the cover from the pump head (3 thumb screws).</p>	 <p>The pump is supplied (normally) with a beige coloured pump tube with a grey band, and also a spare pump tube for replacement.</p> <p>3m of PVC delivery tubing are also supplied with the pump.</p> <p>Cut the delivery tube to the desired lengths for inlet and outlet.</p> <p>Connect the delivery tube to the pump tube using the tube connectors provided.</p>	 <p>Place the tube clip in the pump head as shown. This is important. The clip should be in the housing above a mounting screw as shown.</p> <p>Turn the rotor by hand to load the tube – ensure the tube is fully inserted.</p> <p>CARE – MIND YOUR FINGERS</p>	 <p>Replace the pump cover (3 thumb screws).</p> <p>Connect the pump to the 12V DC 5A transformer (supplied).</p> <p>The doser is ready to operate.</p> <p>See operation details below.</p>
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Description

The Select-640 Timed SSDIP is a dosing pump designed to give an initial dose of product, and then give subsequent doses of either the same or a different dosed at timed intervals. The size of the initial dose, the size of the timed dosages and the timed interval (in minutes) are all selected from the on-screen controls. The components are; the main pump unit, delivery tube, and power supply (12V DC, 5A). There are no user serviceable parts inside the Select-640 SSDIP doser.

The doser will also give the initial dose on power-up.

Changing Pump Tubes

ENSURE THE POWER SUPPLY IS DISCONNECTED BEFORE CHANGING THE PUMP TUBE. OTHERWISE ROTOR TURNING IS POSSIBLE

Removal of pump tube – Remove the black pump cover (3 screws). Unclip the pump tube at the inlet. Lift out the pump tube whilst rotating the pump rotor by hand in a clockwise direction. When the pump tube is clear of the rotors, completely remove the tube. Pull the old (soft) pump tube from the tube connectors.

Push the new pump tube onto the tube connectors WITH THE TUBE RESTRAINT (ZIP TIE) ON THE INLET SIDE. See instructions (above) to install new tube in the pump-head.

Ensure that all connectors between the pump tube and delivery tubes are securely fitted. If necessary warm the delivery tube with warm air or water to soften it to make fitting more easy.

Pump Tube Life

The life of the pump tube will depend on many factors including the product being dosed, the back pressures under which the pump is working, and the amount of time the pump needs to run to perform correctly. It is suggested that, in order to maintain dosing accuracy, the pump tube is replaced on a BI-MONTHLY BASIS or sooner if wear or disfiguration of the tube is apparent. Spare tubes are available

from your pump supplier. Note: Only tubes supplied by Dosing Solutions Ltd are recommended for use in the Select-640 SSDIP dosing system to ensure accuracy of operation.

Safety

The Select-640 SSDIP Doser is an extremely safe unit. However, the following points should be observed:

Normal electrical safety precautions apply. Avoid water contact with any pump parts apart from the pump tube in normal working. Do not immerse the Select-640 SSDIP Doser.

Take precautions to ensure the Select-640 SSDIP doser can not fall into the stock solution. Consider extra tethering if necessary. Cover stock solution at all times. If immersion does happen accidentally, isolate the Select-640 SSDIP Doser from the electrical supply immediately.

The use of safety circuit breakers is recommended. If in doubt seek advice from a qualified electrician.

Accuracy

The Select-640 SSDIP doser is factory set to give accurate dosing. If, during normal operation, the output needs to be increased or decreased slightly, this can be achieved via the screen command "Adjust %".

Electrical Supply

The Select-640 SSDIP doser uses a 12V DC power supply. This can either be supplied from a 12V battery or via a transformer power supply from the mains electricity supply. A 5A maximum current power supply is recommended. The Select-640 SSDIP doser normally runs below 2A although starting currents are larger and dependant on the pumping conditions encountered.

Operation

When the electric supply is first connected, the version of the programming will be shown.

<p>This is the Welcome Screen Press Adjust to start the set-up procedure.</p>	<p>Timed SSDIP Mins. Press Adjust</p>
<p>If an Initial dose is required to be given immediately the doser is started in operation press Yes (Set), otherwise press No.</p>	<p>Initial dose? No Yes</p>
<p>To select the Initial Dose that will be given immediately the doser starts operation, press adjust repeatedly until the desired Initial Dose is shown. Then press Set. The dosed amount is normally shown in ml. If you require a dose amount that is not listed, please contact your Supplier.</p>	<p>Initial amount? 12000</p>
<p>On this screen you can select (by pressing Adjust repeatedly) the dose (ml) that will be produced at the chosen time intervals.</p>	<p>Dose amount? 1000</p>
<p>With the cursor under each digit in turn, press Adjust until the correct time is shown. Then press Set for each digit. Ensure all leading zeros are in place. The time shown on the example (right) is 25 minutes. 25000 would be 25,000 minutes (17.36 days). The first timed dose will occur at the timed interval (25 mins in this example) starting at the end on the Initial Dose.</p>	<p>Time in Minutes? 000<u>2</u>5</p>

Press Set to get to the next screen.	
This screen shows that the Timed dose is 1000ml, and the Grey pump tube should be used. Press set.	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>1000</p> <p>Use Grey tube</p> </div>
A Tube Adjust % figure will be shown on the packet that the pump tube was supplied in. Use the Adjust button to scroll through (-20% to +20%) until the correct figure is shown This feature can also be used to trim the output of the pump. Then press set.	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Adjust %</p> <p>+6</p> </div>
The Select-640 SSDIP SSDIP will display the number of timed doses that have been produced. This figure can be reduced to zero on this screen. Then press Set.	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Zero dose count?</p> <p>No Yes</p> </div>
If you need to fill up the delivery tube with product, press Yes, the pump will turn continuously and show Priming... on the screen. Press Stop when required.	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Prime pump?</p> <p>No Yes</p> </div>
As soon as the priming phase is ended, the initial dose is made showing the screen on the right. Once this dose is completed, the following screen is shown:	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Dosing...</p> <p>Int dose 12000</p> </div>
This is the normal dosing screen. The timed dose is 1000ml, the Grey tube should be installed, a Tube adjust of +6% has been entered, there no timed doses recorded yet, and the timer has 25 minutes remaining until the next timed dose. The timer will run down to 00000 at which point the next timed dose will be given.	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>1000Gry+6</p> <p>0N 00025</p> </div>

To make any adjustments to settings, return to the Welcome Screen and progress through the options. To return to the Welcome Screen, press and hold **Adjust** from the Operational Screen.

On the Operational Screen, the following colour abbreviations are used for pump tubes:

Grey	Gry
Purple	Ppl
Brown	Brn

Constant Pumping

If the priming option is selected from the menu on the control screen (see above) the pump rotor will turn continuously regardless of the flow in the drinking line. This can be useful for filling the suction and delivery lines prior to proportional dosing. It can also be used if a particular product needs to be dosed quickly within a given period. The following pumping rates will be achieved when the Select-640 SSDIP doser is set to "prime":

Pump Tube Colour	Priming pump rate
Grey	72 litres / hour
Purple	36 litres / hour
Brown	4.92 litres / hour

It is not recommended to use the Select-640 SSDIP doser for more than 2 hours at a time in the priming mode, as tube and motor life will be reduced.

Rotor Adjustment

The rotors in the Select-640 SSDIP pump-head are not adjustable.

Encoding

Under the rotor assembly, there is a magnet holder plate that turns with the rotor on the drive shaft. This plate should be fitted so that the magnets are uppermost. The translucent washer should be under the magnet holder plate.

Installation

The Select-640 SSDIP doser can be powered from a 12V DC battery or via a transformer from the mains electricity supply. Position the dosing point so as to be convenient for a power source if power is to be taken via a transformer from the mains. Ensure that the Select-640 SSDIP doser is properly secured to prevent it becoming immersed in water or stock solution.

Connect the Select-640 SSDIP doser to either battery or transformer. Choose program options from the control screen. Ensure pump tube fitted and connected to inlet and outlet delivery tubes. Place inlet tube weight into additive liquid. Position the outlet tube to dose in the desired location.

Note: The pump will self prime. The pump can also be run dry without damaging any parts although it is not recommended to run the pump dry for extended periods.

Power Resumption

On resuming power connection, the doser will continue at the point where electrical power was lost. The timer will continue as from the point where power was lost.

Pumping Problems / Errors

If the Select-640 SSDIP doser fails to operate correctly, check the following: (If the problem can not be resolved – contact your Distributor)

Problem	Solution
Incorrect dosing.	<ol style="list-style-type: none"> 1. Check for low battery power (If external battery is in use) 2. Pump tube should be replaced regularly. Replace if necessary 3. Is correct dosing amount selected? 4. Water pressure in the drinking water line should not exceed 2 bar. Fit pressure reduction device if necessary. 5. Incorrect Tube Adjust Factor entered on the control screen. Check and re-enter. 6. Incorrect pump tube fitted. Are screen details correct?
Product not being pumped from stock container.	<ol style="list-style-type: none"> 1. Check all tube connections are firmly in place. 2. Inlet tube could be blocked. Clear as necessary. 3. If a knife has been used to free a tube connector on the inlet side of the pump, the connector could be damaged and letting air into the suction line.
Sudden loss of pumping pressure (with possible return of fluid into stock container)	<ol style="list-style-type: none"> 1. Check if there is any lateral movement in the rotor. It is possible the rotor shaft bearings may have worn. Consult Distributor. 2. Check for physical damage to pump head fixing screws.

Maintenance

Weekly

Inspect the pump tube for signs of wear.
Check doser output. Adjust as necessary via the control screen.

Monthly

Replace pump tube monthly or sooner if any of the following occur:

- Sharply increased rate of dosing
- Split tube

Each 6 Months

After disconnecting from electric supply, remove cover from Select-640 SSDIP doser and inspect interior of pump enclosure. Ensure no ingress of moisture or other contaminant. In case of difficulty, contact your supplier.

Spare Parts and Accessories

Item		Code
Select-640 SSDIP Single Shot doser	Unit	010CA92
Replacement pump tube pack – 5 tubes	Grey	011CA63/REP
Replacement pump tube pack – 5 tubes	Purple	011CA48/REP
Replacement pump tube pack – 5 tubes	Brown	011CA16/REP
Delivery tube (low pressure) 6.0mm i.d.	30m	155CA60
Delivery tube (low pressure) 4.8mm i.d.	30m	155CA48
Delivery tube (3m) plus end weight	unit	152CA05
Quick-fit male/female connector	unit	153CA02
Power supply 12V-DC 5A UK style	unit	019CA00
Power supply 12V-DC 5A EU style	unit	019CA10