



CP-200 - Warewash Pump
Instruction & Operation Manual
Speed & Time

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A - Description

The CP-200 S/T dispenses liquid chemicals with a high degree of accuracy and repeatability. Simple mounting, setup and low cost make it ideal for under-counter dishwashers, glass washers or hood vent systems. Set pump to either Speed or Time operation, then control the dose amount via pump adjustment potentiometers, located under the front cover. Use CP-200 S/T for liquid detergents, drying agents, de-greasers or sanitizers.

B - Site Survey and Installation Requirements

Before an installation takes place it is advisable to complete a site survey to ensure the CP-200 can be installed in a position that meets all of the requirements listed below.

- Unit must not be installed near areas that suffer excess temperature changes, direct sunlight, frost or precipitation of any kind
- Ensure the unit can be mounted in an accessible position above the height of the required discharge location.
- Unit must be mounted on a suitable wall, that is flat and perpendicular to the floor
- Area unit works in must be well lit for maintenance
- Install the CP-200 S/T close to product containers 2 m (6.5 ft.) and away from direct sources of steam, water spray, and high temperatures.
- The CP-200 S/T should be installed by a qualified technician only, in accordance with all applicable electrical and plumbing codes.
- Tube life will vary depending on the type of treatment product used.
 - Advise scheduled maintenance and tube replacement at least once per year.

C - Package Contents

- CP-200 S/T Pump
- Wall Mount Kit
- Accessory Kit
- Bulkhead Fitting Kit
- 7/8" x 1/4" Tube
- Ceramic Weight and Strainer
- Rinse Injection Fitting Kit, 1/8" NPT x 1/4" Tube
- Tie Wraps (x6)
- 1/4" Poly Tubing 4.6 m. (15 ft.)

D - Installation

Step 1 - Set Operating Mode BEFORE Mounting

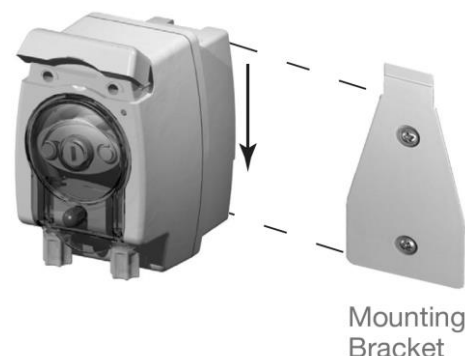
With a small, flat-blade screwdriver, turn setting (on back of unit) counter clockwise to Speed (1) or clockwise to Time (2) operation.

See Step 3 for more information about each mode. To switch operating modes after initial power-up: Turn off power, change mode, then restore power to unit.



Step 2 - Wall Mount Dispenser

- Attach mounting bracket to solid surface with provided screws.
- Slide CP-200 S/T down onto bracket and press firmly to lock in place.



Step 3 - Install Rinse Injection Fitting or Detergent Bulkhead Fitting

Rinse Injection Fitting Installation

The rinse injection fitting threads into a 1/8" NPT female thread. If the machine rinse plumbing is thin-wall pipe, use a saddle clamp with a 1/8" NPT threaded hole.

1. Use a previously drilled hole in the dish machine or drill a 7/32" hole in the rinse plumbing location and tap hole with a 1/8" NPT tap.

2. Install injection fitting; use thread sealant to ensure a leak-free assembly.

Detergent Bulkhead Fitting Installation

1. Punch a 7/8" hole above water line in wash tank.

2. Install fitting, as per diagram at right.

NOTE: Do not over-tighten retaining nut.

Step 4 - Install Supply and Discharge Tubing

Supply Tubing

1. Cut tubing and route from product container to intake (left) pump tube. Slip tubing through compression nut into fitting and tighten.

2. Slip ceramic weight and strainer onto other end of tubing and place in product container.

Discharge Tubing

1. Cut tubing and route from rinse or detergent fitting to outflow (right) pump tube. Slip tubing through compression nut into fitting & tighten.

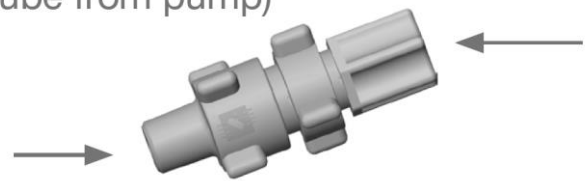
2. Route other end to rinse injection fitting or detergent bulkhead fitting. Slip end of tubing through compression nut into fitting and tighten.

Step 5 - Electrical Installation

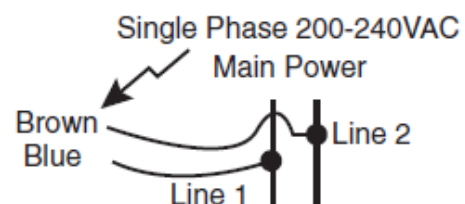
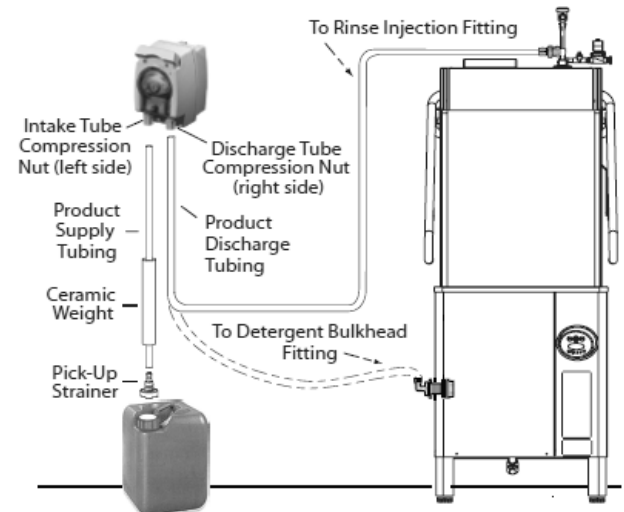
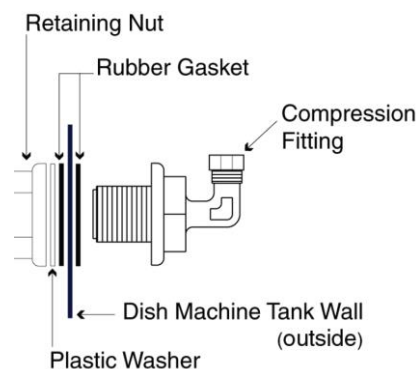
Connect 2-conductor power cable only to a properly fused power source that matches the voltage on the dispenser and on the power cable label (see wiring chart & diagram).

The CP-200 S/T should be installed by a qualified technician only, in accordance with all applicable electrical codes.

Compression Fitting
(tube from pump)



Threads into rinse plumbing



Step 6 – Dose Adjustments

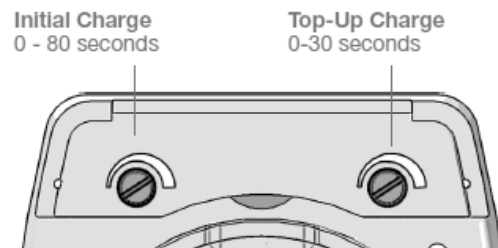
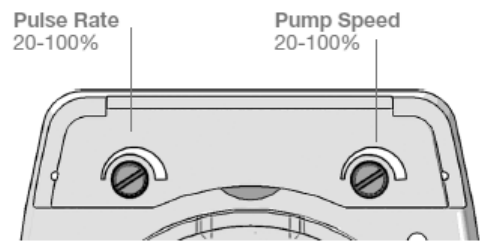
Use a small, flat-blade screwdriver to adjust dose settings (under front cover). Turn clockwise to increase or counter-clockwise to decrease the dose.

Speed Mode

In Speed Mode, the pump runs at the set Speed and Pulse Rate when AC power is applied. A Pulse Rate of 100% dispenses chemical continuously. A Pulse Rate below 100% causes pulsed operation of the motor and yields the lowest chemical dose.

Time Mode

In Time Mode, the pump dispenses the Top-Up Charge at power-up. If power remains on for 15 seconds after the Topup Charge ends, the pump then dispenses the Initial Charge.



E - Maintenance:

BEFORE ANY MAINTENANCE, ISOLATE THE UNIT !

Clean and dry the outside of the unit pre maintenance, all maintenance must be carried out by a trained technician. Allow for motor to cool after isolation

Changing the Pump Tubing

NOTE: You may want to work over a mat to protect floors or other areas from the possibility of spilled treatments.

Remove the Old Tubing

- Loosen and remove tubing from compression fittings.
- Loosen screw on pump cover and remove.
- Remove the old squeeze tube assembly from pump housing and discard it.

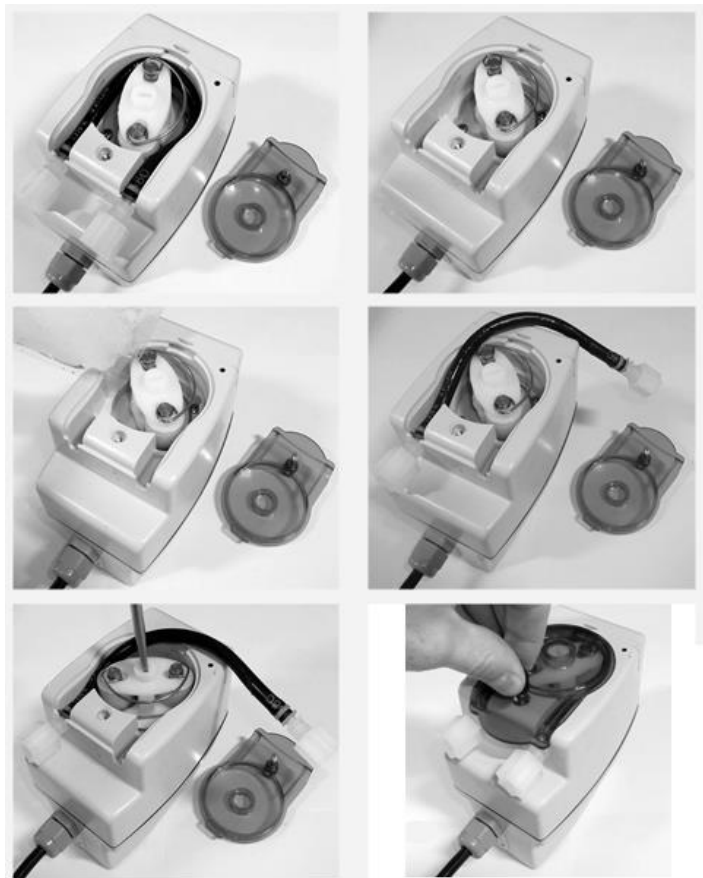
Inspect the Pump

- While the pump is disassembled, inspect all parts for foreign matter.
- Clean the parts as necessary.
- Check the rollers to ensure they turn freely.
- Inspect the rotor.

⚠ CAUTION - If the rotor needs service, replace the entire rotor.

Install the New Tubing

- Replace the rotor and put a small amount of tube lubricant on each end of the rotor assembly shaft (bearings).
- Position the pump inlet port as shown.
- Bend the new tube in half and insert without twisting the tube and place the outlet port fitting in as shown.
- Replace the rotor over the motor (blade) shaft and use a screwdriver to twist the rotor as it is inserted.
- Replace cover and tighten screw.
- Reattach the inlet and exit port tubing.
- Prime the product to ensure the fittings are tight and unit is ready for operation.



NOTE: A small amount of tube lubricant in will aid this process.

⚠ CAUTION - Be sure the tube is not twisted during installation. Twisting the tube will greatly reduce tube life.

F - Specification

Pump	
Flow Rate	Adjustable, 2 - 50 ml (0.07 - 1.7 oz) / minute (with Rinse tube) Adjustable, 7 - 180 ml (0.24 - 6.1 oz) / minute (with Detergent tube)
Tube Material	EPDM (Other options available by contacting Hydro Systems Europe)
Power Rating	200-240VAC nominal (+/- 10%), 50/60 Hz, 0.1 amp.
Duty Cycle	50%, four minute maximum run time, in Speed Mode
Environmental and Install Properties	
IP	IP Rating : 44
Size (mm)	76W x 114H x 114D
Temperature	10° to 49° C (50° to 120° F) maximum
Humidity	95% relative humidity, maximum
Installation Location	Approved for indoor use only. Must not be installed outdoors.



Unit is not to be used in an ATEX environment, or with ATEX chemicals.

G - Troubleshooting

Issue	If the motor is turning	If the motor won't turn
Unit is not pumping fluid:	Check level of chemical	Ensure programmer is functioning: Try to run pump manually
	Check for air leaks in the supply tubing connection to pump tube.	Check settings: ensure conditions for dispense are correct.
	Check for clogs in inlet and outlet tubes.	Check power supply.
	Ensure pump tube is not twisted.	Check light tube for glowing light
	Check pump tube (as it wears out, the amount of fluid pumped decreases); change if necessary. Are springs broken on rotor?	Replace tube binding rotor.
Unit is pumping improperly:	Check the dispense amount and adjust as necessary.	
	Ensure unit is turning on and off at set times. Check for improper tube installation. Replace tubing with proper size.	

H - Replacement Parts



Item	Part Number	Part Description
1	13-06395-10	EPDM Pump Tube, 1/4" Rinse 10-pk.
	13-06399-10	EPDM Pump Tube, 1/4" Detergent 10-pk.
2	13-08706-06	Pump Cover, Teal (screw included)
3	13-06396-00	Pump Spinner
4	13-08596-0203	Adjustment Cover, 3-pk.
Not Shown	13-08721-01	Pump Motor Kit (Det)

I - Safety 

- Please use this equipment carefully and observe all warnings and cautions.
- Wear PPE when dispensing chemicals or other materials or when working in the vicinity of all chemicals, filling or emptying equipment.



- Always observe safety and handling instructions of the chemical manufacturers.
- Always direct discharge away from you or other persons or into approved containers.
- Always dispense cleaners and chemicals in accordance with manufacturer's instructions.
- Always exercise caution when maintaining your equipment.
- Always re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position.
- Keep equipment clean to maintain proper operation.
- You must follow all precautions as advised on the product safety data sheet
- Before any maintenance, isolate the unit
- Do not operate the unit without Pump Cover and Captive Screw secured in place

J - WEEE - Waste Electrical and Electronic Equipment

WEEE Regulations apply to companies who Manufacture & Distribute electrical or electronic equipment

WEEE Classification – 10. Automatic dispensers.

The WEEE Regulations apply to importers, producers, retailers and users of EEE, and to businesses that treat or recover WEEE. The CP-200 unit is a product placed onto market POST 13.08.05, therefore called 'future WEEE'.

As a producer Hydro Systems Europe have the option to take responsibility for the EEE placed on the market. If Hydro Systems Europe chooses to receive WEEE they must make sure that it is disposed of in an environmentally sound way, including the treatment, reuse, recovery and recycling of the components where appropriate.

Responsibility as a producer of EEE

Hydro Systems Europe as a producer of EEE are registered with a producer compliance scheme who register them with the relevant environmental regulator. Through the regulator they become part of an approved producer compliance scheme (PCS). The PCS supply a unique and permanent producer registration number.

If disposal is outsourced it (the product) must be taken to an appropriately licensed site (approved authorised treatment facility - AATF) where it can be treated safely.

The environmental impacts of the substances in EEE and waste electrical and electronic equipment (WEEE)

The main environmental concerns in the EEE sector stem from soil and water contamination, resource depletion, energy use and waste.

At the production stage, obtaining raw material for EEE production consumes a large amount of energy, especially the process of extracting resources, which can also lead to degradation of the surrounding environment. For instance, when raw material is shipped to a plant, it goes through a complex, high energy-consuming process as it is converted into a finished product. Moreover, as demand for fuel and raw materials increases with the increase in exports, the environmental impact of these factors is also likely to increase.

The reasons for separating WEEE from other waste

Failing to separate waste properly can be very expensive as the majority of discarded products are shredded into small pieces of material and re-sold as raw material – much of which ends up in the Far East and goes back into manufacturing. If the hazardous components were not separated first the entire batch could be contaminated. This significantly increases the risk of environmental damage and could lead to legal action under hazardous waste regulations.

The meaning of the crossed out wheeled bin symbol

The crossed out wheeled bin symbol is not intended to indicate to you that WEEE is banned from being disposed of as general waste.

Moreover, the intention behind the symbol is that, when coupled with information supplied by distributors as to the availability of recycling facilities, you will be reminded that these facilities exist.

How they can safely dispose of WEEE for proper treatment

When the product is at its end of life, either contact the Local Authority in charge of electrical disposal, or contact Hydro Systems Europe who will either take the item back from yourself or supply you with relevant information for a local WEEE treatment facility. If asked, Hydro Systems Europe must provide yourself business with:

- Contact information for the EEE producer within Hydro Systems Europe. The producer's compliance scheme is responsible for the end-of-life handling of EEE.
- Records that will help producers to supply their producer compliance scheme with accurate information, for example numbers of sales of EEE to non-household users.

As a distributor Hydro Systems Europe have no legal obligation to take back WEEE from business users

K - EC Declaration of Conformity

This unit complies with the following directives;

Electromagnetic Compatibility (EMC) Directive (2004/108/EC)
Machinery Directive - (2006/42/EC)

And has been designed and manufactured to the following specifications

EN ISO 12100, EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3



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