

SECTION 3: OPERATING INSTRUCTIONS

GENERAL

The DCS Manufacturing Pty Ltd has a range of industrial drain cleaning systems are designed for simplicity of operation with maximum cleaning efficiency.

1. System will not engage if any of the Emergency stops are buttons are activated.
2. System will not engage if the water pump switch is ON.
3. System will not engage if the auxiliary engine compartment door is fully open
4. Never turn system power OFF while auxiliary engine is running/water pump engaged
5. If any electrical work is carried out, always conduct testing in a controlled environment
6. If the pump shuts down due to low water, fill the tank. To restart the pump, you must turn the pump switch OFF and then ON again, the Remote resets automatically.
7. Emergency Stop on rear control panel and hose reel:
If emergency stop is activated to restart system water pump
 - a. Reset emergency stop button
 - b. Turn the Pump switch OFF
 - c. Wait for 10 seconds then turn the Pump Switch ON

DAILY MAINTENANCE

- Check Engine Oil – Fill as required
- Check Engine Coolant – Fill as Required
- Check Hydraulic oil – Fill as required
- Check Sewer Hose – Inspect, Adjust & Replace if required

WEEKLY MAINTENANCE

- WATER Pump Filter – Clean
- Hose Reel Rotary Unions - Grease

In addition to the above, a general inspection of the machine should be carried out, i.e., water leaks, air leaks, oil leaks and loose wiring.

ON SITE SET UP

1. Locate a pit or manhole downstream of the blockage, this will allow the natural flow of the water to help move the debris to the point of hose entry.
2. Position the truck directly opposite the drain to be cleaned, this allows the best angle for the hose to enter the drain to be cleaned. Apply the park brake. Turn on Beacons (optional), Arrow Bar (optional), erect witches' hats, appropriate signs, and traffic management.
3. Check the Hose Reel/Bin Lifter and radio remote **Emergency Stop buttons** are not activated, check the **Remote switch is in local**.
4. Check the Hose Reel control box and ensure water pump switch is "OFF".
5. Connect hydrant to main, run hydrant until water is clean.
Connect hose from hydrant to tank fill connection, (hydrant not supplied) and fill tank.
6. Turn accessory switch "ON" - Green light will illuminate.



7. Return to truck and lift the auxiliary engine compartment door and Start engine ensuring the main and motor isolation switches are turned on.



8. Select the appropriate jetting nozzle and secure to hose end. (Refer to nozzle chart for best selection for job at hand)
9. Reel additional hose to allow insertion of nozzle and hose of 600-800mm into pipe. Slide tiger tail into position of drain opening and secure retaining rope to rear of truck.

SETTING TO WORK

1. Decide which control station is preferred either the manual controls or remote.

It is extremely important to familiarise yourself with locations of all system control functions.

A)	<u>MANUAL CONTROL</u>	<u>LOCATION</u>
	EMERGENCY STOP (1)	Hose Reel Control Panel
	EMERGENCY STOP (2)	Bin Lifter Control Panel
	WATER PUMP ON/OFF	Hose Reel Control Panel/Remote
	HOSE REEL IN/OUT	Hose Reel Control Panel/Remote
	LAYERING ARM LEFT/RIGHT	Hose Reel Control Panel/Remote
	HOSE REEL FREE WHEEL	Hose Reel Control Panel

- B) REMOTE CONTROL
Refer attached sheet in this section for log on procedure.

Prior to turning the Pump ON check, the local switch is selected for manual operation or remote for using the handheld remote unit

1. Turn the "WATER PUMP" switch on. To minimise the danger of the nozzle coming out of the pipe, make sure the hose and nozzle are at least 600mm to 800mm inside the pipe.
2. Care should be taken when the hose is feeding out, as the nozzle proceeds up the pipe it may hit a blockage, roots, dropped collars etc, if you continue to feed the hose out it will spew off the reel possibly causing damage to the hose and injury to the operator.
3. On heavily silted or blocked pipes the best result is achieved by feeding the hose out 10 to 20 metres and then winding the hose in approximately half the payout distance to assist in pulling back of debris.
4. If using "Hose Freewheel" facility to pay out hose, you must physically stop hose movement prior to turning "Freewheel" off.
Failure to do so can result in reel motor damage and will void warranty
5. The unit is fitted with 180 metres of hose. You should never pay out all the hose always leaving 2 to 3 turns as a minimum left on the drum, this prevents putting excessive tension on the hose fitting upon rewinding.

6. During cleaning if the hose becomes caught, stuck, or will not proceed you may try the following:
 - a) Send the hose back and forth up the pipe.
 - b) Turn the water OFF and ON again
 - c) Give yourself 1 to 1½ metres of slack hose and pull it back by hand and let it go. This allows the nozzle to ram into the blockage and help penetrate it.
7. Upon hose withdrawal turn water pump OFF when sighting water spray from jetting nozzle at point of hose pipe entry.

NEVER WITHDRAW NOZZLE FROM PIPE WHILE PUMP IS RUNNING.
8. Use reverse procedure to pack up. Make sure the work site is left clean.

DISENGAUGE SYSTEM

- a) Ensure pump is turned "OFF"
- b) Stow hose on Reel and put away nozzles.
- c) Turn off auxiliary engine and close all doors. (Truck will no start if all doors are not closed) as the vehicle is fitted with door interlocks.
- d) Check Work lights and Bacons are OFF.

MANUAL OPERATION/CONTROL

1. Make sure switch is on "Local" for Manual Control.

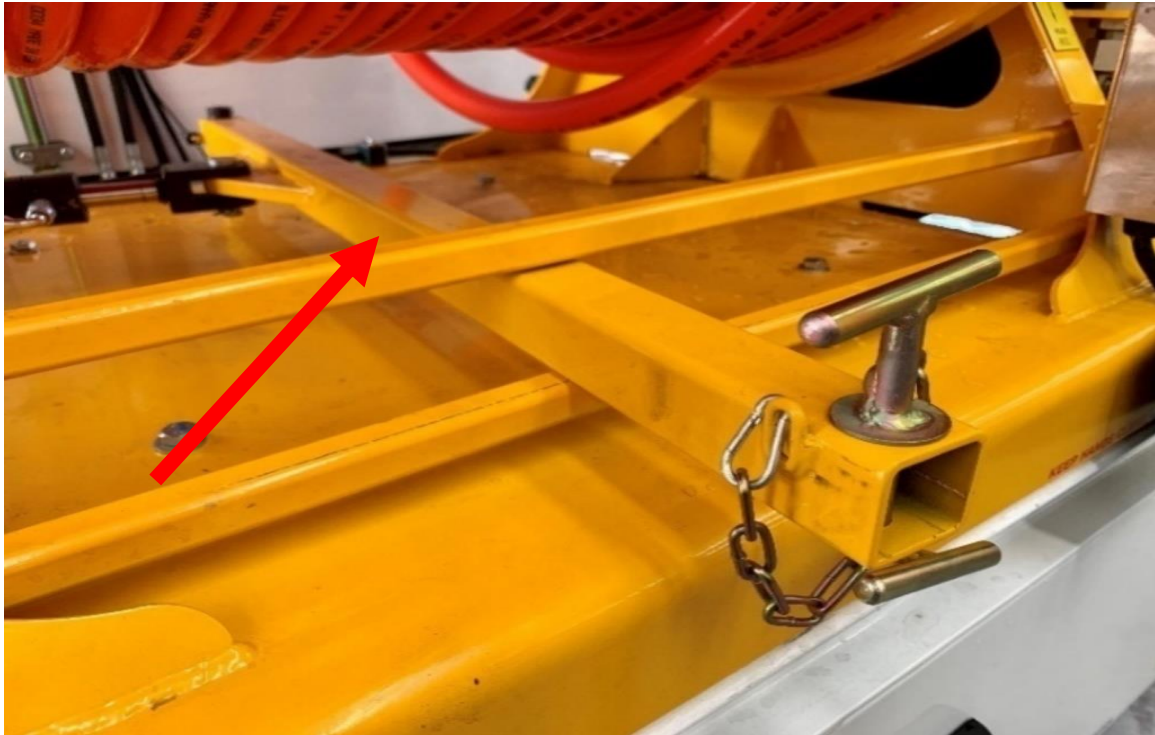


2. Switch water pump switch on. The system will default to jetting level 1. From here jetting level 2 can be selected if higher flow rate is required.



3. Layer Left / Layer Right – Used to operate Layering Arm





4. Main Hose Reel Speed Control – Hose IN - Bottom Dial



Main Hose Reel Speed Control – Hose OUT - Top Dial



5. Select HOSE IN / HOSE OUT to control hose reel



REMOTE CONTROL

1. Twist Emergency Stop switch to release





2. To sink remote to system, in sequence, perform the following steps:

- Turn E – STOP OFF
- **1** - Press ENG START
- **2** - Press LAY LEFT
- **3** - Press Top Right-Hand ENG STOP
- **4** - Press LAY RIGHT

3. Then turn the switch on the side of control panel to “REMOTE”.



