



Doing Good From The Ground Up



When Gravity Just Won't Work.



Keeping Back The Flood.

# WasteWorx® & StormWorx® Pump Station Homeowner's Guide

WasteWorx® & StormWorx® Pump Station Homeowner's Guide February 2024  
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# Safety First

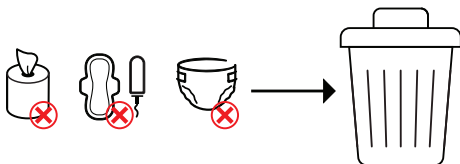
Only qualified personnel should install, operate and repair the pump. Any wiring of pumps should be performed by a qualified electrician.

Do not remove the pump from the chamber, this should only be done by an authorised service agent.

Keep the control panel locked or confined to prevent unauthorised access to it. If the pump is idle for long periods of time, it is advisable to start the pump occasionally by adding water to the chamber.

Prevent large articles of clothing, large amounts of chemicals and other materials or substances usually uncommon in domestic sewage from entering the system. During power black-outs, minimise water consumption at the home(s) to prevent sewage from backing up into the house.

## Do Not Flush These:



Remember - only human waste and toilet paper should be flushed down the toilet. Everything else, including things such as wipes, sanitary products, dental floss and nappies, and fat, oil and grease from cooking, should be put in the bin.

Electrical cable should be protected at all times to avoid punctures, cuts, bruises and abrasions.

Know where it is in your garden and avoid deep digging that may impact the cable conduit.

DO NOT leave pump cover off the pump chamber, except while servicing, to prevent entrance of foreign materials such as rocks, metal, soil, animals or humans. Prevent infiltration or direct flow of rain or run-off water into the pump chamber to minimise pump cycling. This will prevent overloading the treatment facility, and will facilitate swift transportation of sewage.

**WARNING!** Do not pump hazardous materials (flammable, caustic, etc.)

Never handle connected power cords with wet hands.



# User Guide

Congratulations on your purchase of an APD pump station. With proper care, and by following a few simple guidelines, your pump will give you many years of dependable service.

## Use and Care

The pump station is designed to handle either domestic sewage or stormwater. Solid waste materials should be thrown in the trash. While your station is capable of accepting and pumping a wide range of materials, regulatory agencies advise that the following items should not be introduced into any sewer or stormwater either directly or through a kitchen waste disposal:

- Glass
- Metal
- Wet wipes
- Nappies
- Socks, rags or cloth
- Plastic objects (e.g toys, utensils, etc.)
- Sanitary napkins or tampons

**In addition you must NEVER introduce into any sewer**

- Explosives
- Flammable material
- Lubricating oil and/or grease
- Strong chemicals
- Gasoline

## Power Failure

Your pump cannot dispose its contents or provide an alarm signal without electrical power. If electrical power service is interrupted, keep wastewater usage to a minimum. When power is restored, the alarm may sound.

If the alarm light does not turn off within 1 hour of power being restored, something may be wrong with the pump. Contact APD to arrange a visit to site. You should limit usage of your sewer (i.e. no clothes washing or automatic dishwashing, and have short showers) until your service person has given the all clear.

# Warranty

APD warrants that each pump chamber will be free from defects in material or workmanship for the following time periods:

WasteWorx® and StormWorx®	
Chamber	10 Years
Pump	Manufacturer
Controller	Manufacturer
Pipework etc	2 Years

## Voiding of Warranty

The warranty on the pump is void if:

- The pump is not installed in accordance with the installation instructions;
- Flooding occurs;
- There is material non-compliant with the Homeowner’s Operation and Maintenance Manual preventing the pump from working.
- Manufacturer expressly disclaims liability for special, consequential or incidental damages or breach of expressed or implied warranty; and any implied warranty of fitness for a particular purpose and of merchantability shall be limited to the duration of the expressed warranty.

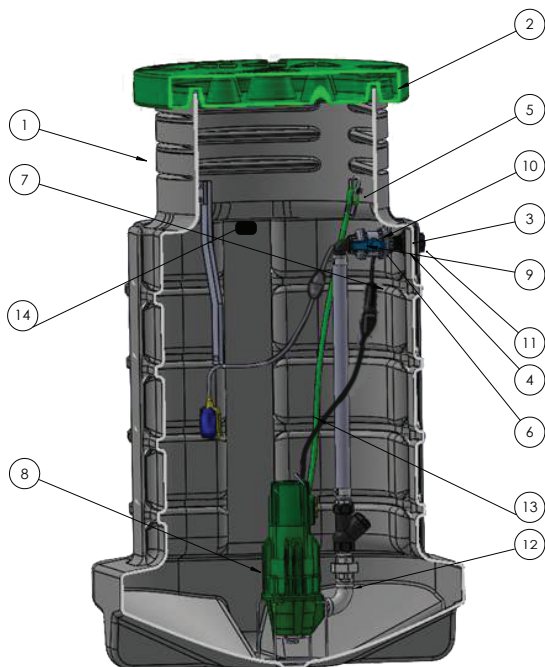
## Warranty Claims

APD will fulfil this warranty by repairing or exchanging the pump (or any component part), that is found to be defective in material or workmanship, provided the pump has been paid for.

If you have a claim under the provisions of the warranty, contact APD or the agent who supplied the pump. There is no informal dispute settlement available under this warranty.

When contacting your representative for service, please include your pump station number which is under the lid.

# Typical Station Design



ITEM NO.	DESCRIPTION
1	CHAMBER
2	CHAMBER GARDEN LID
3	CABLE BOX
4	CABLE GLAND
5	ROPE CLIP
6	HIGH LEVEL FLOAT CABLE
7	POWER CABLE
8	PUMP
9	BALL VALVE
10	BULKHEAD FITTING
11	ELBOW FITTING
12	NON-RETURN VALVE
13	ROPE
14	CHAMBER SERIAL NUMBER

# Emergency Service

## Alarms

### High Level Alarm

If the high-level input is activated for 2 seconds, the High-Level alarm is active. In this state the high-level alarm LED is turn on, the buzzer sounds, and alarm light is activated.

### Pump Overload Alarm

If the current transducer (CT) recognises an overload current for 3 seconds or greater the Pump Overload alarm is activated. The pump output is deactivated, the pump overload LED is illuminated, the buzzer sounds, and alarm light activated. This alarm is automatically reset after 10 minutes, and the pump will operate again.

If the Pump Overload alarm is activated 3 times consecutively (within 60 minutes of the first overload alarm), it stays on until reset. The Pump Overload alarm and the overload alarm count is reset by holding down the mute button for 3 seconds.

### Pump – Max Run Time

The pump can only run a maximum time of 60 minutes. If this occurs, a max run time event is activated. During a max run time event, the pump will not activate.

The max run time event is deactivated after 15 minutes. During a max run time event the Power LED flashes at 1 second intervals.

If the max run time event occurs 4 consecutive times, a max run shut down event is activated. In a max run shutdown event, the pump will not activate, the buzzer will sound, the alarm light activates, and the pump overload LED will flash at 1 second intervals.

The max run shut down event is only deactivated by holding the mute button down for 5 seconds or when the controller is powered down.

### Alarm Light

The alarm light is activated on any fault condition. It flashes at 1 second intervals.

### Buzzer

Any time the buzzer is activated, if the mute button is pushed, the buzzer is muted until another fault condition is recognised. There are two mute functions.

## Power Cuts

The pump station has a large collection tank and will be able to store sewerage until power returns.

In extended power cuts, minimise water usage (short showers, bucket water out of baths etc).

Once power is restored, clear the audible alarm if it activates, and make sure the alarm light goes out within 1 hour.

## Floods

Your control unit should be located above flood level which should allow the pump to run, provided the pump station lid isn't submerged.

It is recommended you disable your pump if your house sewer drainage is submerged. Re-activate the pump once the flood has receded. This will prevent the pump running continuously pumping floodwater.

## Burst Pressure Service Lines

If you notice wet ground or water escaping from your plumbing, it is possible a burst or leak may have occurred. Such breaks are rare and more likely to occur due to work being carried out near the pipes. You should minimise water usage and contact your local council.



# The Pump Station

## Operation

The house sewer or stormwater drainage discharges via gravity into the pump station. The pump station fills with wastewater or stormwater up to a factory set level. At this point the pump automatically starts and pumps until the liquid level falls to a defined level and the pump automatically switches off.

The pump will typically run anywhere between one to three minutes per cycle and the pump will approximately operate several times a day.

## Alarm Activation

If the pump fails to operate, the depth of wastewater or stormwater will continue to increase until it reaches the high-level alarm where an audible and visual alarm will automatically be activated.

In all cases the alarm will automatically shut off when the storage level drops below the designated alarm level. The alarm is situated in the control panel, which should be remotely mounted on the side of the dwelling or on a pedestal frame located at the pump station, in most cases within 10 metres of the pump station.

## Owner's Responsibilities

As the owner, you are responsible for:

- Maintaining the house sewer drainage or stormwater to local standards.
- Making sure that no damage occurs to the pressure service line between the pump well and the boundary.
- Making sure the system isn't abused by discharging substances that damage the pump or are unsuitable for sewer or stormwater.
- Keeping the top of the pump well clear.
- Ensuring that the pump well is accessible in case future maintenance is needed.
- Ensuring that no one attempts to access the pump well or control unit.
- Providing electricity to operate the onsite pump.

# Pump System

## If the Alarm Sounds

The pump in the pump chamber turns on and off based on the liquid level in the tank. If the liquid level in the tank gets too high, the alarm on the control panel is activated.

There can be a few reasons why the alarm activates:

- The pump has malfunctioned and isn't emptying the pump chamber.
- There has been a power failure and the liquid level rose higher than the alarm level during the power failure.
- Water is entering the tank faster than it can be pumped out.
- Excessive pressure in discharge pipework may cause the pump to switch off and restart when pressure subsides.

**If the alarm light does not turn off after 1 hour, something may be wrong with the pump, high-level alarm, or control panel.**

- High-level control failure
- Pump station failure
- Pump jammed or blocked
- Control circuit breaker tripped
- Thermal overload
- Close valve protection

Please contact APD to arrange a visit and limit the usage of sewer system by discontinuance of washing machines, dishwashers and baths etc.

## Holiday Periods (WasteWorx® Only)

If no one will be in the house for more than 3 days, it's a good idea for residents to flush out the pump well. This will prevent the possibility of odours forming and reduce the risk of blockages. Run clean water into the pumping unit until the pump activates and runs for about 30 seconds. After that time, turn off the water and allow the pump to run until it shuts off automatically.

If you have a bath, the easiest way to flush the system is to fill the bath and then drain it just before leaving.

**Do not turn off the power to the pumping unit while you are on holiday.**

If the power is off, there is a risk that dripping taps etc could fill the tank and cause an overflow.

## Control Panel

The APD control panel is specifically designed for outdoor applications and is corrosion and weatherproof.

The APD control panel is complete with all operation, protection equipment and an audible and visual alarm. This controls the operation of the pump station via a factory preset level control mounted within the pump station chamber.

The control panel is connected to the power board of the property, with its own dedicated circuit.

# The Boundary Kit

## Pressure Sewer Only

Pump Up WasteWorx® and StormWorx® usually discharge into a chamber as per local authority specification.

The 'boundary kit' is located approximately 1m within the front boundary of your property and marks out the boundary between the house service and the council pressure sewer main network.

The boundary kit is mounted in ground in a box with a red lid marked 'SEWER BOUNDARY KIT'. This is the point of connection to the public sewer system. The lid to this box must not be buried or hidden.

If it is located in a pavement, it will have a Ductile Iron lid with 'S-V' marked on it.

The boundary kit has three main parts:

- An isolation valve, used to isolate your property service from the mains system. This is used to prevent your sewer pump from discharging into the sewer main if there is a problem in the system (e.g. a burst main).
- A one-way valve, used to prevent wastewater from the pressure main from discharging back into the house pressure line.
- An inspection/flushing point, used to inspect and clear the system if necessary.

# WasteWorx®/StormWorx® Inspection Record

Date of Installation\_\_\_\_\_ Serial Number\_\_\_\_\_

Installer Name and Contact\_\_\_\_\_

Type of Inspection	Date	Inspected by	Notes



# Definition of Terms

<b>Control Box</b>	The box used to control the operation of the pressure pump. It also includes an alarm light, alarm siren and a silencing switch.
<b>Maintenance/Commissioning Contractor</b>	The company engaged by APD to commission and maintain the privately owned on-site components of the Pump Station. In order to comply with the pump warranty conditions, this company needs to be accredited by the pump supplier.
<b>Stormwater Drainage</b>	The gravity drained part of the private stormwater service lines, upstream of the pump well.
<b>Sewer Drainage</b>	The gravity drained part of the private sewer service lines, upstream of the pump well.
<b>Owner</b>	The legal owner of the property.
<b>Pressure Service Line</b>	The part of the property service line connecting the pump well to the boundary kit. This is owned by the property owner.
<b>Pressure Main</b>	The pressure sewer pipe work downstream of the boundary box and in the streets.
<b>Pump Chamber</b>	The storage tank which houses the pump and stores wastewater for pumping.

# Frequently Asked Questions

## How can I tell if my Pump Station is working properly?

A: All WasteWorx® and StormWorx® Pump Stations come with a control panel. If your pump station is working properly you shouldn't notice anything. The pump is activated automatically once the chamber has been filled to a certain level. If there is a problem the red light on top of the control panel will go on and you will hear the audible buzzer as well. If the alarm doesn't turn off after several minutes please phone your service agent.

## What happens during a power outage?

A: During a power outage the pump will not be able to operate and the chamber will continue to fill without being emptied by the pump. You may notice the high-level alarm being triggered when the system turns back on, this should turn off once the pump has emptied the chamber.

## What does Pump Overload signal mean on the control panel?

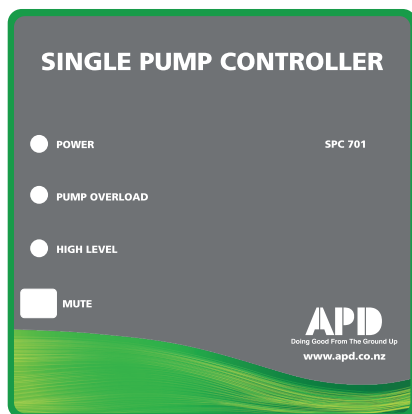
A: This can sometimes mean there is a blockage, if the alarm doesn't turn off after several minutes please phone your service agent.

## How loud is the pump?

A: The pump is about as loud as a dishwasher when it is running, normally you would only hear it if you are within a couple of metres or standing on top of it.

## What does the pump station cost to run?

A: Our standard range of pumps will use approximately \$2.00 - \$3.00 worth of electricity per month or \$24.00 - \$36.00 per year based on an average household water usage.



For more information contact  
your APD account manager  
or call (09) 263 7741 or 0800 263 774

**[www.apd.co.nz](http://www.apd.co.nz)**

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